The Institutional Survival Path

A Case Study on Mechanical Cockle Fishery and Gas Extraction in the Dutch Wadden Sea

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Disclaimer
Mechanical cockle fishery and gas extraction in the Dutch Wadden Sea have been highly controversial issues for many years, taking into account their ecological, cultural, political, social and economical aspects. This research has never had the intention to take a position in these debates. The cases have been selected, based on criteria which are dealt with in the book, to test the proposed theoretical model. Despite the efforts to take into account as many of the various perspectives involved when carrying out the research, the eventual result as it is presented here will by definition be vulnerable to the criticism of practitioners holding specific views and having had particular experiences. Therefore, the author is fully responsible for the text, the interpretations, the analyses and possible mistakes. However, comments are much appreciated. Please visit: www.institutionalsurvivalpath.com
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Fisherman Bakker had come to the cold and misty harbor of Den Oever that Autumn morning in 2005 to inspect his cockle ship. The WR 82 was still one of the biggest and most sophisticated ships of the fleet. Bakker was almost 65 now and had already started to leave Gerdia Ltd to his two sons. The three of them had appeared on national TV about a year earlier. They were being interviewed for a documentary called ‘The Wadden Sea conspiracy’. The mechanical cockle fishery had been sacrificed by the politicians for the big money involved in gas extraction in the Wadden Sea, it was stated by the filmmakers. The sector was about to be expelled from the wetlands, whereas mining company NAM was given prospects for future gas extraction at that very same nature reserve. The Bakkers were still convinced of the fact that they had earned their rightful place in the Wadden Sea. They did no harm to it, they lived with it. Took care of it. In front of the camera, they stood there as sturdy fishermen in the cabin of the their ship, the WR 82, the flagship of the cockle fleet in the Wadden Sea. Deep within their hearts they knew that it was over. The year 2004 had started positively with the high hopes of the EVA II report, which - they believed - proved the possibility of a sustainable mechanical cockle fishery. However, later that year the Meijer report was published, opening up possibilities for gas extraction, and, in addition, the European Court decided that permits for mechanical cockle fishery on the Wadden Sea should not be automatically renewed each year. The Government then decided to expel the fishermen from the Wadden Sea but to allow gas extraction. The Bakkers were devastated. They had to get themselves together and move on, but not with cockles. Bakker senior made plans to sell his ship. In addition, he would gradually finish off the things he had been doing as the fleet coordinator for his long-time buddy Lenger, who once helped him to set up his own enterprise, and would then retire. His sons bought a shrimp vessel. ‘Look’, he said, gazing through his binoculars from the cabin of the WR 82, on that misty morning a year and a half after the Meijer report, ‘there they go. It looks as if they are on to some shrimps there. They are really getting the hang of it. They will be all right, my sons…’
Chapter 1

Intervention in
Government Sensitive Markets

Firm versus government
Every firm has to deal with government interference. Firms and government are bound to one another in modern capitalist societies. Government sets the rules for market agents to carry out their competitive actions. It has the ability to intervene in the market mechanism. So it might thus seem that, as a firm, the government can ‘make you or break you’. However, reality shows a much more complex relationship between the two. For instance, the mechanical cockle sector in the Wadden Sea was given the knock-out blow by a Parliamentary decision in 2004, but it was not primarily government that the fishermen held responsible for that. It was the environmentalists, the media and the scientists who were to blame, they still believe.

The complexity of the relationship between firm and government is also illustrated by the case of the Wadden gas. Mining company NAM was allowed by Parliament to resume its activities in the Wadden Sea, at the very same time that the mechanical cockle fishermen were expelled from these wetlands. Traditionally, the plans of NAM in the Wadden Sea have always been endorsed by the Ministry of Economic Affairs, yet Parliament has often had its reservations regarding Wadden gas. This scrutiny had even led to a cessation of mining activities five years earlier, in 1999. Apparently, the relationship between firm and government does not adhere to the simplicity of an unambiguous one-to-one contact.

These two examples are unique and they will be dealt with in greater detail later, but they both illustrate the idea that government intervention takes place within a context of a complex firm-government interaction.

1 In this research, government will be understood as the total of political and bureaucratic bodies making and carrying out national and local public policy. A profound discussion on the definition of government goes beyond the scope of this research.
process. That government encompasses both executive bureaucratic organizations as well as political bodies is only a partial explanation. The complexity lies in the coming together of two very distinct worlds, in which government intervention plays a crucial role: the public and the private.

Firms and government constitute a state-market dichotomy, each having their own logics underlying their strategies and policies. Both worlds, the one serving private interest and the other serving public interest, meet in the case of a market intervention. Or should we say ‘clash’? The private side supplies the competitors needed for the actual trading, whereas the public side supplies the institutional rules and enforcement to prevent negative externalities. Government intervention in private industries is when market forces and institutional powers most obviously clash. By drawing up laws and regulation, government has the ability to alter the institutional context to influence the actual behavior of market parties. Intervention will take place when, in the eyes of the policymakers, market mechanisms do not lead to desired outcomes. But what effects does government intervention have on the strategy of the firm? Does a firm’s strategy, for instance, just conform to new laws and legislation, or is there more at stake in the interaction process between the public and the private sphere? The latter will be argued here.

This research opens up the black box of business strategizing with respect to the firm-government interaction. Government might ‘drop’ an intervention in the firm’s black box of strategizing every now and then, but what comes out of it remains to be seen. Effects could, for instance, vary over time. Notwithstanding the usefulness of knowing what comes out of the black box at a certain moment in time, for instance in order to evaluate the effectiveness of the intervention, it is even more interesting to know how these effects come about. Therefore, the central question to this research is:

“How does government intervention affect the strategy of the firm?”

When formulated this way, the central research question encompasses the more specific, and less transcending, question of to what effects the intervention leads. The effects regard the more evaluative part of the analysis, in terms of outcomes, whereas the ‘how-question’ is aimed at ‘verstehen’. As a

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2 Jacobs (1992) speaks of the ‘guardian moral syndrome’ and the ‘commercial moral syndrome’, each consisting of a set of coherent, yet mutually exclusive, values underlying respectively public and private organizations.

3 The German word ‘verstehen’ is in social sciences often used to refer to the understanding or interpretation of social phenomena, in the tradition of Max Weber’s antipositivism.
consequence, in the remainder of this study, the emphasis might sometimes lie on one of the two. Eventually, however, the ‘what’ and the ‘how’ question cannot be seen separately from each other. In addition, it will appear that the intervention cannot be seen separately from the firm-government interaction process. It is in fact this process, which will be explained in much more detail later, which is the answer to the central research question and which contains the effects of the intervention as well. A new theoretical framework, the model of the institutional survival path (ISP), which has been developed for this particular study in order to systematically analyze the mentioned interaction process, will be presented and applied to the case of cockle fishery and gas extraction in the Dutch Wadden Sea.

Relevance of the research
The firm-government interaction is not new to organization research and the study of public administration. Institutional theory, for instance, has a tradition of accommodating the role of government in the institutional context of the firm (e.g. Scott, 1995). More specifically, adopting the perspective of the firm, a body of literature has emerged that focuses on corporate political strategizing (e.g. Pittman, 1976; Weidenbaum, 1980; Baysinger, 1984; Zardkoohi; Keim & Baysinger, 1988; Shaffer, 1995; Schuler, 1996; Hillman & Hitt, 1999; Wilts, 2006). Generally speaking, within the literature on corporate political strategizing, political strategies are distinguished from market strategies. This research refrains from that distinction. It is being argued that no a priori demarcations within the strategic toolkit of the firm should be made when dealing with government intervention. Hillman et al. (2004) have conducted a review of literature on corporate political activity. Reasoning in line with Baysinger (1984) that firms attempt to shape government policy in ways favorable to the firm itself, the authors have categorized antecedents of corporate political activity that lead to certain outcomes in terms of public policy and firm performance, considering a taxonomy of types of corporate political strategizing. Yet, despite the profound review and insightful categorization, the aspect of process remains rudimentary, also in the author’s suggestions for further research.

Government and firm are entangled in an interaction process that stretches out beyond these two players themselves, incorporating agents ranging from consumers to environmental agencies and from research

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4 Hillman et al. (2004) distinguish four levels of antecedents (i.e. firm, industry, issue and institutional) and four categories of types (i.e. proactive/reactive, approach, participation level and strategy types) of corporate political activity.
institutes to competitors. As a consequence, the strategic tools will not be restricted to those that elaborate solely on the firm-government network ties, such as lobbying techniques. The proposed model is an integrative model, from the perspective of the firm, that puts government intervention in the context of a broader social interaction process. An assumption when starting the research project was the idea that the social sciences in general have delivered scattered insights that could, nonetheless, be reconciled into one coherent model, specifically suited for the analysis of the firm-government interaction. The aim of this research is thus to present and test this particular model in order to answer the central research question.

Answering the central research question of how government intervention affects the strategy of the firm could lead eventually to the subsequent answer of the 'how to-question'. How can governments intervene? How can firms deal with government intervention? As a consequence, both parties are expected to benefit from the insights delivered by the proposed model. For governments it is not only valuable to evaluate if the desired effects of the intervention have been achieved: it is even more worthwhile to know why and how these effects have occurred. In other words, knowing what comes out of the black box is only part of the story. What comes out of it depends on what has happened within that box. From that angle, the effects of the intervention are not just the static outcomes at a certain moment in time, but also – or rather – the effects are locked within the process itself. In addition, it is not only the desired effects that will be examined in this research, by means of the model.

During the course of the firm-government interaction process, unintended effects of the intervention can also occur. Ackerman and Hassler (1981), for instance, have pointed at perverse and unexpected consequences of regulatory policies. In addition to that, Guasch and Hahn (1999) have argued that regulation often has undesirable economic consequences. Moreover, Gunningham & Kagan (2005) have argued that legal coercion involved in regulation is expensive and difficult. Insights with regard to the processes contributing to the intervention effects will produce anticipating skills for policymakers to enable them to draft better, more tailor-made interventions and to play the interaction game more effectively. The ISP model supplies the tools to capture the firm-government interaction process in a systematic fashion.

5 From the perspective of the firm, these players could be designated as 'stakeholders' (e.g. Freeman, 1984; Mitchell, Agle & Wood, 1997).
As the ISP model has been designed from the perspective of the firm, it will also deliver useful insights to managers. Understanding the interaction process in which they logically play a crucial part themselves will contribute to their competitive advantage. Part of the model is the notion of mobilization, through which the controversies - that interventions will stir up – can be settled to one’s own advantage. It thus reveals the intervention in particular, and the firm-government interaction process in general, as an opportunity for the firm to distinguish itself from its competitors. The ISP model will indicate how firms can make the best of their entanglement with government and the interventions which are imposed upon them. For that purpose, the interaction as a process must be studied as a continuous process, rather than focusing on separate or successive intervention acts.

The aim of this research and the ISP model is, as Pettigrew (2003) states, to ‘catch reality in flight’. In order to carry out such research on organizational change, the researcher should go beyond the ahistorical, aprocessual and acontextual approaches which are commonly found in organizational research but offer limited explanatory power (Pettigrew, 1990). The central research question of this particular study is exactly one that does ask for explanation. The object of study requires an analysis of both the inner context of the organization (i.e. features of the firm itself) as well as the outer context of the organization (i.e. the socio-economic environment) (Pettigrew, 1985b). Pettigrew (1990) argues that both contexts constitute the embeddedness of the organization in which the continuous interplay of ideas about context, process and content take place. At the same time, it should be noted that causations are neither linear nor singular. Sources of change are found in the asymmetries between levels of context and reveal revolving loops of interconnected histories and temporalities. According to Pettigrew, longitudinal process research offers the appropriate tools to try and capture the dynamics of organizational change. The objective then is to search for patterns, for which the alternation of induction and deduction is required (Pettigrew, 1997). Qualitative data sources, both real time and retrospective (Pettigrew, 1990) are needed to disclose processes of constancy and variability (Pettigrew, 1985b). Comparative case studies provide opportunities to compare differences and similarities with regard to patterns and underlying research (Pettigrew, 1990). Pettigrew’s line of reasoning and subsequent oeuvre thus offers the appropriate argumentation and toolkit to tackle the issue posed in the central research question of this study by means of that particular approach to process research.
A process approach
Social reality is a complex matter, and hard to unravel. The firm-government interaction is no exception to that rule. On the contrary, it is a labyrinthine object of study due to its temporality, the wide variety of agents and stakes involved and its political, historical, economic and cultural aspects. The public-private distinction is an omnipresent conceptual framework in both the academic world and day-to-day life. Nonetheless, despite its overall significance, the concatenation of business strategy and policy process has remained a relatively poorly studied phenomenon, especially from a process perspective. The ISP model is a theoretical framework that has been developed to dissect the firm-government interaction as a process and to outline its essential characteristics. Market intervention goes way beyond a specific policy measure at a certain moment in time. The actual measure cannot be separated from the ensuing process, which stretches out over time and which is not restricted to one or few events. Thus, a central assumption for this research project is that the effects of an intervention can only be studied by taking into account the interaction process, using a process research methodology suited for that purpose, in line with Pettigrew (1990). Structuration theory has been chosen as the process theory with which to answer the ‘how’ question of this research.

Sminia (2009) has argued that structuration provides a useful theoretical basis for strategy formation research. From that angle, strategy formation should be seen as a process of change and stability (Mintzberg et al., 1990; Chia, 1994; Langley et al., 1995; Laroche, 1995; Hendry, 2000). There has been an increasing recognition of the use of structuration theory for process research (e.g. Pettigrew, 1985a; 1985b; Van de Ven, 1992; Van de Ven & Poole, 1995; Pozzebon, 2004; Sminia, 2009). The richness of the structuration approach lies in the acknowledgement of duality of structure and the distinction between various dimensions within that social structure. By duality of structure it is meant that social structures are not only directing human behavior, but that they are also being shaped by human agency at the same time (cf. Giddens, 1979; 1984). By the various dimensions of social structure is meant the idea that different meanings and consequences can be derived from a single event or situation, depending on the angle from which it is being approached (cf. Sztompka, 1991). These two notions play a crucial role in the remainder of this research, when elaborating on the structuration insights in order to compose and test the ISP model.

The ISP model acknowledges the richness of the abundant and overflowing empirical world. At the same time, however, the main objective of the model is to provide a synoptic, yet comprehensive, approach. In order
to appreciate research outcomes, one needs to be aware of how the research object is being approached. This research positions itself between an idealistic approach on the ontological level (Weltanschauung) and a more nominal approach on the epistemological level. Balancing this fine line has led to the ISP model that will be presented here. Sztompka’s theory of social becoming (1991) supplies the necessary vocabulary for that.

The theory of social becoming is a structuration-like approach (e.g. Giddens, 1979, 1984) that deals with social reality in terms of the duality of structure. Structuration theory expects the behavior of people to be dependent on social structures and vice versa. In other words, social structures, which could be elaborated on in terms of institutions for instance, steer actual behavior, yet at the same time they themselves can only exist because they are sustained by actual agency. Conflict is a necessary condition for social change. Only when current social structures are contested by means of defying agency can change potentially eventuate. In this research, such occasions will be labeled as controversies. A controversy is the manifestation of a contradiction. The course of a controversy indicates whether or not change has taken place. Structuration theory can be regarded as a dialectical process approach (Van de Ven & Poole, 1995) which is well suited for process research (Pettigrew, 1997), leaving room for the voluntary potential of the agents involved in the firm-government interaction on the one hand, and for the surrounding determining social structures on the other. Structuration theory fits the goal of this research to attribute to both firm and government a potential to shape and reshape social structures that are not heading for a predestined direction.7

Essence of the institutional survival path
The ISP is the aggregate of the bandwidths that define the boundaries of institutional compatible strategizing, the so-called institutional bandwidths. These institutional bandwidths are the room for strategic maneuver. They are the range within which a firm’s strategy complies with institutional patterns. Acting out of bounds endangers the survival of the firm, facing, for instance,

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6 In this research, Giddens’ work will be used as the main reference for structuration theory, whereas other authors could also be put in this tradition of theorizing the agent-structure relationship, be it more broadly then Giddens does (e.g. Thrift, 1983; Bourdieu, 1995; Bhaskar 1989 & Layder, 1981). For a discussion of Giddens’ approach, also in the light of his critics, Stones’ (2005) recent overview of structuration theory is worth mentioning here.

7 If a planned and fixed state would be expected as an outcome, which is something not very feasible in this context, as it is argued here, other process approaches such as a teleological model would be more suitable. This issue will be dealt with in more depth in chapter 3.
the threat of governmental or judicial measures, such as withdrawal of licenses or severe fines, not to mention a decreasing consumer demand for products. Boundaries of the ISP become ‘visible’ when they are being crossed through strategic agency. In practice, it will be the tightest institutional bandwidths of the ISP that define the actual boundaries, namely those that will be met first.

Every firm has its own unique ISP. It can, however, have much in common with those of competitors. Business sectors are, by definition, characterized by a specific institutional setting. Each firm, nonetheless, has its own aggregate of institutional circumstances to which it has to adhere. These circumstances span the institutional bandwidths, comprising, for instance, laws, social conventions, established networks and perceptions. No matter how closely it resembles competitors or how strongly it is tied to a supply chain, each firm is unique in this respect. This uniqueness is reflected by its ISP.8

The ISP stretches out over time, carrying a past and projecting into the future; sometimes widening out and sometimes closing up. An ISP widening out is an indication of more room for pursuing strategic opportunities while still being institutionally compatible. The opposite, an ISP closing up, indicates less room for maneuver. It has to be stressed that the extent of ‘more’ or ‘less’ institutional headroom for maneuver does not imply a measurable interval scale in any sense. Double the size is not double the room for maneuver, so to speak. It is not size that matters in this respect, but it is rather a matter of what can be done with it, and what not. The question is how these institutional bandwidths can, and are being used, for competitive advantage. Moreover, it will be argued that an ultimate resource for a firm is the capability to steer alterations of the institutional bandwidths. In other words, the institutional context should not only be used, but also be developed. The ISP model is thus above all a model of potentiality. Actively exercising the capability to have a say in the fluctuations of institutional bandwidths is of crucial importance when strategizing in markets with a significant degree of actual, or potential, market intervention.

Government intervenes in the market by altering the institutional context of the firm or a collective of firms. Laws, rules and regulations are undeniably part of the ISP. Government thus intervenes in the market via the ISP of the firm. Policymakers, for instance, do not intervene directly in the

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8 Taking into account what has been said in the above about the possible overlap of bandwidths, a ‘collective ISP’, covering a field of firms, would also be thinkable, encompassing an aggregate of several ISPs. The structuration approach which underlies the ISP model leaves room for such a multilevel analysis.
actual strategic decisions of a firm, but they affect managerial choices via the institutional bandwiths. They set institutional patterns. For the most part, government interventions will narrow down the ISP of the firm, as policies must be generally applicable. General rules thus have a homogenizing effect on those subordinated, because everybody has to adhere to similar contextual agents. In other words, if other firms have to comply with these same institutional circumstances, the room for maneuver to distinguish itself from competitors is then diminished. An ISP which is narrowing is potentially a threat to the survival of the firm. The ultimate narrowing down would be, of course, the dissolving of the ISP, hence the room for maneuver. This explains the natural aversion of commercial organizations to government intervention.

The ISP, however, is not a unilaterally imposed framework of ‘do’s and don’t’s’ upon the firm. It is being shaped and re-shaped through a process of structuration, during which the various agents concerned have their own share in negotiating and renegotiating the institutional boundaries. A government intervention is an attempt to shape emerging institutions or to transform existing ones, but it is not the only form of agency to do so, nor should it be considered as the most stringent one. Central in the ISP model is the recognition that firms play a part in shaping their own institutional context.

It will be argued that maintaining the ISP goes beyond the taking for granted of the institutional environment and the strategic opportunities which can derive from it (cf. Oliver, 1997). Maintaining the ISP is also, or particularly, mobilizing social structures to reshape the institutional bandwiths. In other words, it is not only the potential to use the institutional context that matters, but particularly the ability to shape it. For the latter, mobilization is needed, it will be argued. Mobilization is an attempt to settle the disputed part of the social structure by leveraging it with those parts of the social structure which are vested and undisputed. What the various agents are capable of mobilizing indicates their ability to affect the outcome. For the firm, mobilization is crucial to the search for heterogeneity, hence competitive advantage, in a dynamic institutional context.

The extent to which a firm knows how to exploit its distinctiveness from its competitors, in terms of the possession of scarce resources, defines its competitive advantage. Institutions, though, tend to homogenize the involved entities. Firms become alike because they have to conform to a similar

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1 Interventions that widen up the ISP are also thinkable, but that issue will be discussed in the second chapter.

2 DiMaggio & Powell (1983) would label to this phenomenon ‘isomorphism’.

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in institutional context. The ‘clash’ of intervention in the market is thus the collision of homogenizing powers and aspirations to heterogeneity. This is the ‘motor’ of the intervention process. In the tradition of dialectical process theories, it is stated that change occurs through the duality of structure (cf. Giddens, 1984). If it were not for factual agency challenging existing social structures, these structures would remain intact.

The question of how and to what extent social structures change does not solely depend on the unintentional or deliberate attempts to do so. The outcome depends on the social interaction as a process itself. The initial attempt to challenge existing social structures is the trigger event for a controversy. This controversy entails the dispute over a current social status, represented by at least two agents differing in view. A controversy thus manifests a contradiction. Only after the controversy has been settled, new social structures might have changed. Stakeholders all have their specific needs and desired goals regarding the changing of social structures. Anything that will contribute to the realization of these goals will be brought into play. In practice, mobilization will consist of the anchoring of vested interests to steer the controversy in a desired direction, aiming at a specific outcome. For firms, this specific outcome will be directly related to maintenance of the ISP. Mobilization is thus needed, so it is argued, to acquire competitive advantage.

Theoretical pillars of the ISP model
The ISP model has been developed in order to analyze how government intervention affects the strategy of the firm. The theory of social becoming (Sztompka, 1991) has been used as the meta-theoretical framework in which the interaction will be positioned. This dialectical approach is well suited for incorporating the resource-based view and institutional theory in the model (Oliver, 1997). The resource-based view (e.g. Barney, 1991; Nelson & Winter, 1982; Penrose, 1959; Peteraf, 1993; Prahalad & Hamel, 1990; Schumpeter, 1934; Teece, Pisano & Shuen, 1997; Wernerfelt, 1984) is “one of the most widely accepted theories of strategic management” (Newbert, 2006: 121). It seeks the explanation of competitive advantage in the heterogeneity of the firm. It is an inside-out approach, in contrast to for instance Porter (1980, 1985) and other representatives of industrial organization (e.g. Henderson & Cockburn, 1994) who assume the strategy of

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11 Child (1997), for instance, discusses the integrative potential of strategic choice theory and subsequently points at the contribution to an evolutionary perspective by heavily referring to Giddens to such an extent that his elaboration of structures could be interpreted as institutions.
the firm as dependent upon industry structure. Institutional theory (e.g. Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Scott, 1995) contends that firms’ behavior is dependent more on institutional than competitive pressure. This explains why firms tend to look so much alike.

The resource-based view represents the perspective of the firm, whereas institutional theory is compatible with the perspective of government as an institutional agent. The theoretical model of this research thus incorporates the questions of ‘why do firms differ?’ and ‘why do firms tend to look alike?’ The ISP will be instrumental in opening up the ‘black box’ of corporate strategizing with regard to the interaction with government. The effects of the intervention in the market will appear to come about in a process of social becoming that stretches out through time and over different dimensions which can be distinguished in the social structure.

Summing up, firms should be aware of their ISP and the need to maintain it by putting into practice their potential to shape and reshape the institutional bandwidths to fully exploit the institutional environment. This is particularly the case in the so-called ‘government-sensitive markets’.

**Government sensitive markets**

There are several ways in which the firm can be defined. The firm can be the product, the brand, the office or plant, the employees, the stock market value, etcetera. The ISP model proposed in this research is a new way of looking at the firm. The firm will in fact be defined in terms of its ISP. It is particularly suited for looking at the firm in relation to its institutional context. Within the scope of this research, it is specifically being used to investigate the interaction process between the firm and government. However, the model leaves room for the broader institutional setting, which will also be taken into account in this study. It would not do justice to the complexity of the social reality to distil the interplay between firm and government from the general interaction process as it unfolds in the case of markets with a high government-sensitivity. These are by definition the areas where a wide range of stakeholders each have their share in the mentioned

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11 Colin Scott, in his inaugural lecture ‘Regulating Everything’ at UCD School of Law on February 26th 2008, for instance, argues that regulation is more than agencies and rules and that it should be reconceptualized to include a wider variety of agents and modes of governing.

12 Freeman (1984: 46), for instance, broadly defines a stakeholder as “any group or individual who can affect or is affected by achievement of the organization’s objectives”. Mitchell, Agle and Wood (1997: 855) sum up some examples; “Persons, groups, neighborhoods,
complexity. The ISP model includes more agents, apart from firm and
government, which also have the potential to shape the institutional context.

By government-sensitivity we mean markets in which government
explicitly intervenes or is expected to intervene. Government regulation is
omnipresent in modern market systems. No single firm can neglect the
influence of government policy on its strategy. Laws, regulations, directives
and the like, shape the structures needed for safeguarding efficient economic
traffic as well as the prevention of certain externalities. These long term goals
are not merely affected by an incremental policy process. Interventions in the
market sometimes cause radical changes to the strategy of the firm or even a
whole sector. This is what we will call the government-sensitivity of a
market.14

In the case of government-sensitivity, the likelihood of an actual or
future intervention causes severe anxiety for the firm, because the
continuation of one or more core activities may be in jeopardy. In extreme
cases, the survival of the entire firm might even be at stake. Government
intervention will then not just be regarded as another move of bureaucracy,
ever muddling through, but rather as a severe and immediate threat to
existing corporate activities.

‘Government-sensitivity’ can be a temporary qualification. Industries
sometimes become government-sensitive. The tobacco industry for instance
has encountered the increasing intervention of government, cigarettes having
become a merit good (cf. Musgrave, 1959).15 Recent interventions such as the
prohibition of advertising in specific contexts or the radical tax increase have
touched the heart of the sector. Government intervention was also backed up
by monstrous lawsuits in the U.S., putting the tobacco producers under even
greater pressure (e.g. Givel & Glantz, 2004).16 In general, intervention in
government-sensitive markets is not restricted to the firm-government
interaction. Judicial spin-offs are likely to occur, often bringing parties to
court, but an even broader context has to be taken into account.

organizations, institutions, societies, and even the natural environment are generally thought
to qualify as actual or potential stakeholders.”

14 The development of a scale of government-sensitivity goes beyond the scope of this
research. It would be well worth investigating as future research, but at this stage it is not
necessary for the development and appliance of the ISP model.

15 Wakefield and Chaloupka (2000) for instance have investigated the extent to which
comprehensive statewide tobacco control programs in the USA have made progress toward
reducing teenage smoking.

16 As of July 2008, smoking in bars and restaurant in the Netherlands is prohibited, following
other countries. This is an example of how an intervention directly aimed at the hotel and
catering industry is also very likely to have its effects on the tobacco industry itself.
Administrators do not come up with policy measures out of the blue. Intervention is therefore not only the cause of something, but also the result. Democratic systems force the legislative, executive, and perhaps even judicial powers, to take into account social dynamics. Consumers, producers, voters, competitors, professionals, interest groups, academics; policymakers face the input of society from an indefinite number of perspectives. Over and above this, globalization has spread the concept of society way beyond the domestic sphere. In the case of the stringent tobacco legislation, the role of the U.S. as a forerunner cannot be neglected when looking at European developments. In the digital era, governments are even forced to look beyond their own borders. Whilst internet gambling, for instance, is perhaps very restricted under Dutch legislation, this virtual industry is rather flourishing on the Dutch Antilles, which is in fact part of the same Kingdom. Nonetheless, gambling, be it via the internet or in brick and mortar venues, is another example of a market with a high government-sensitivity.18

Not every intervention in the market necessarily restricts the firm in carrying out its strategy. Opposite effects are thinkable as well. The granting of permits for medical cannabis production in the Netherlands was the foundation of a new, yet very small, sector. However, in this case we would also speak of a government-sensitive market, despite the fact that the intervention of granting the mentioned permits has no direct restrictive effects on the new firms. On the contrary, it even enables new activities. The predicate 'government-sensitive' is justified in this particular case anyway, as it is very likely that this unconventional sector will remain under continuous scrutiny of the policymakers, which is a continuous threat to its existence.19

Actual interventions are not sufficient conditions for government-sensitivity, particularly when they are incidental, minor or incremental and do not affect the core activities of businesses. Markets are government-sensitive in the case of an actual or likely potential intervention touching the heart of the firm, with possible repercussions for its core activities or, ultimately, even the survival of the firm. Often, such businesses not only face the ‘threat’ of government intervention, they are embedded in a field with more influential stakeholders. As has been stated earlier, interventions by the government do

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17 Hajer & Wagenaar (2004), for instance, argue that recent developments indicate a move away from the self-centered locus of policymaking, towards an orientation on a more loosely organized societal network of public authorities, citizen associations and private enterprises.
18 e.g. TK 2006-2007, Handelingen, 30 583, nr. 83, p. 4543-4553.
19 In this particular case, there is one authorized grower supplying to the Bureau for Medical Cannabis (BMC), which resides directly under the auspices of the Ministry, and according to the standards of the European Medicines Evaluation Agency (EMEA) (Hazekamp, 2006).
not come out of the blue. They are part of broader social dynamics in which a wide variety of agents have their share, ranging from consumers to global interest groups. From any one of the stakeholders’ perspectives, current practices can be regarded as being controversial, illegal, unjust, or, in short, unwanted. Government has the potential to translate these social movements into policy. From that point of view, government has a crucial and intermediary role in a complex social interaction process, which is inherent to government-sensitive markets.

**Government-sensitivity of the Wadden Sea**

This research aims to analyze the firm-government interaction in such complex social settings as markets with a high government-sensitivity. Both parties are only two of the many relevant players in this respect. The interaction spreads out way beyond the bilateral network ties. The issues at stake usually concern interests not restricted to those of firm and government. Markets with a high government-sensitivity concern ‘big issues’, affecting many people, many interests and often a lot of money. The Wadden Sea is home to some of these markets. It is the empirical arena for this research. It is mechanical cockle fishing and gas extraction in these wetlands that will be focused on.

Both sectors meet the requirements for government-sensitivity. The Wadden Sea and the use of it, or not, have been subjected to a heavily controversial political and social debate for more than three decades. NAM had already easily obtained ownership in 1965 of one of the most valuable gas fields in Western Europe, hidden under the Wadden Sea, but had hardly seen a pennyworth of their 500 million euro investments to exploit it, until recently. The mining company complied, under political pressure, to a moratorium from 1984 to 1994, patiently waiting and preparing for the extraction afterwards, but was halted again by Parliament in 1999. Five years later, in early 2004, political windows of opportunity for the exploration process opened up again. Amidst the political turbulence that year, another industry in these very same wetlands got the knock-out blow; the mechanical cockle industry. Its existence on the Wadden Sea had become more and more questioned by an increasing number of stakeholders.

Over the last few decades, the Wadden Sea had transformed from a mere waterworks to a subject of one of the most controversial issues in Dutch politics and society. The political debate concerning the use of the wetlands was a lingering one most of the time. However, it was clear that radical decisions were due and unavoidable. The die was cast in 2004. The cockle fishermen were expelled from their profitable fishing grounds, whereas the
NAM could finally start to profit from the long anticipated gas extraction (Runhaar & Van Nieuwaal, 2010). The two sectors feature examples of government-sensitive markets by the book. The case study presented here shows two separate ISPs that were eventually connected with each other with a dramatic outcome; one ISP fully collapsed, the other opened up again. In this study, it will be revealed how that came about.

**One case study, two ISPs: the gas-cockle connection**

For this study, the model of the institutional survival path has been applied to the case of cockle fishery and gas extraction in the Dutch Wadden Sea. The two have long been two quite distinct activities. Although both sectors extracted their resources from the same wetlands, they never really encountered one another until 2004. The Meijer report then implicated both activities and their alleged effects on the ecology of the Wadden Sea in an overall advice on the use of the Wadden Sea, handed to government on April 1st that year. The advice was based on a ranking of the various activities in and around the Wadden Sea according to the estimated extent of actual and potential damage involved. Mechanical cockle fishery topped the chart, while gas extraction ended up in the lower regions of the list.

Now, a definite connection had been made between gas and cockles; not the least because this report played a crucial role in the political decision-making process which, that very same year, would lead to expulsion of the mechanical cockle fishery from the wetlands and the permission for gas exploration activities at that place. This dramatic outcome seemed rather radical at first sight. The fishermen had good hopes that a recent report on shellfish fishing in the Wadden Sea, EVA II, would safeguard their future sustainable existence. NAM, on the other hand, after a ten year moratorium on gas extraction in the Wadden Sea till 1994 and the trauma of an additional parliamentary ‘no’ to Wadden gas in 1999, had been facing intense public scrutiny with regard to its being in the wetlands.

Nonetheless, this climax in political decision-making did not fully come out of the blue. The course of the ISP of the cockle sector had been heading for collapse for quite some time already, whereas NAM was

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determined to learn from its previous mistakes in order to widen out its collapsed ISP. Particularly in retrospect, the two ISPs were destined to collide, given the specific mobilization, and also the lack thereof, of the two firms. The context of the Wadden Sea thus entails two ISPs worth investigating separately, but also in conjunction with each other. The case study of this research entails the coming together of two ISPs, that of the mechanical cockle sector, of which fisherman Bakker in particular will be followed, and that of mining company NAM.

The case study carried out confirms the analytical and practical relevance of the ISP model. Looking at the firm-government interaction through the process perspective of the ISP model reveals the role of controversies as the motor for social dynamics, and the importance of mobilization to settle them for the sake of competitive advantage. It can be argued that fisherman Bakker and his colleagues became aware too late of such a thing as an ISP which was, initially, slowly but surely, narrowing down. Their mobilization was, partly as a result thereof, insufficient to maintain their ISP, which would eventually fully collapse. NAM, on the other hand, had already seen some threats to its ISP in the recent past, which, among other factors, explained the lesson it had learnt, just in time, to mobilize effectively. Its ISP opened up again and new opportunities arose. It has also learnt not to sit back, knowing that maintaining the ISP is a continuous task, operating in such a complex context as the government-sensitive Wadden Sea. So, for NAM, the story is not over yet and time will tell how its ISP will further develop.

The conclusion of this research is that the ISP model has been an effective tool to unravel the firm-government interaction process of the two cases in the Wadden Sea. In addition, it indicates a promising potential for applying the model to other empirical cases. Not only are industries in the Wadden Sea or, more generally speaking, those exploiting exhaustive resources, expected to benefit from the insights of the model and the mistakes and successes of NAM and the cockle fishermen, it is also argued here that any firm in a government-sensitive market could shed some new light on their strategic positioning by taking the perspective of the ISP. Once aware of the fact that a business finds itself under institutional pressure, for instance manifested by a government intervention, the ISP perspective will urge managers to investigate actual and potential controversies affecting their strategic agency and subsequently consider possibilities for mobilization in order to maintain or acquire competitive advantage.
Outline of the book
Chapter 2 will set out the complete theoretical framework of the ISP model. Its five components will be dealt with successively: the intervention act, institutional bandwidths, the strategy path of the firm, controversies and mobilization. Chapter 3 will discuss the process research methods used. Firstly, the epistemological accountability of the research will be dealt with. Secondly, the ISP model will be operationalized by means of indicators of its five components. Thirdly, the actual research design which has been put into practice will be reported on. In chapter 4 the Wadden Sea will be introduced as the context of the case study. The first part of the chapter describes the regulatory framework of the Wadden Sea, while the second part gives an overview of the most relevant agents in that respect. Together, they will reveal the first glimpses of institutional bandwidths which are inherent to the Wadden Sea. In chapter 5 the ISP of the fisherman Bakker and, consequently, the mechanical cockle sector will analyzed. Chapter 6 will analyze the ISP of NAM with regard to its intended gas extraction in the Wadden Sea. The research results will be discussed and concluded in chapter 7.
Chapter 2

The Model of the Institutional Survival Path

This chapter presents the model of the institutional survival path (ISP). The ISP model entails the theoretical answer to the question of how the intervention affects the strategy of the firm, which is the central research question of this study. The intervention effects come about in a process of social becoming (Sztompka, 1991), which is the overarching sociological approach of the model, fitting the assumptions and goals as presented in the first chapter. Central to the ISP model are the notions of ‘intervention act’, ‘institutional bandwidth’, ‘strategy path of the firm’, ‘controversy’ and ‘mobilization’. These are the cornerstones of the model presented here and they contain the effects of the intervention. In this chapter, they will each be defined and brought together in a structuration-like fashion. Processual analysis requires active language. But, as Pettigrew (1997: 338) states, “an active language has to be grounded in action and this is where that awkward sociological term agency is at the heart of any processual analysis. Actions drive processes but processes cannot be explained just by reference to individual or collective agency.” The components of the model, as defined in this chapter, are based on that line of reasoning and will be operationalized accordingly in the third chapter.

The notion of the intervention act will be defined as the deliberate and explicit attempt of government to affect the behavior of individuals or organizations in the public interest. The intervention act is ‘only’ one of the components of the intervention process (see figure 1). As we have seen in the introductory chapter, the central assumption of the model is that the effects of the intervention act come about in the process as such. Each and every one of the five components carries the effects through time. Intervention can thus lead to a wide array of effects, of which some were perhaps intended, but others were not. Understanding this process is understanding how government intervention affects the strategy of the firm. Plus, understanding
this process is understanding how the effects of the intervention occur. The effects will be tracked down in institutional bandwidths, the strategy path of the firm, controversies and mobilization.

It will be argued that government intervention in businesses narrows or broadens institutional bandwidths. Institutional theory will be used to argue the definitions of institutions and institutional bandwidth, and the conclusion that intervention affects these institutional bandwidths. Institutional bandwidths are the standards defining the strategic institutional boundaries of the firm. They are the range within which a firm’s strategy complies with institutional patterns. The room for maneuver will be stretched by those standards which are the tightest. It will appear that institutional bandwidths can be interpreted in terms of a social structure as defined by structuration theory (e.g. Giddens, 1984; Sztompka, 1991). They can feature cognitive schemes, rules, networks and distribution of power. Regularities in these dimensions of social structure are norm setting for future agency. Institutional bandwidths thus steer the strategic behavior of firms; particularly when these bandwidths change, or potentially change, as management does not want to step out of the bandwidth. However, firms do, it will be argued, want to push the boundaries in their quest for competitive advantage. Institutional bandwidths might be norm-setting, or guiding agency; its boundaries are by definition permeable. Above all, they are constantly challenging strategic agency.

The strategic behavior of the firm will be captured by its strategy path. It is the deployment of resources over time in terms of routines. Resource-based logics will be used to argue the definitions of strategy and strategy path and the conclusion that the government intervention affects the strategy path of the firm. It will be argued that intervention is an intermingling with the firm’s resources, via the institutional bandwidths, causing ‘natural’ resistance or, to be more specific, a controversy. In accordance with structuration theory, it will appear that resources constitute social structure.
The confrontation of the strategy path of the firm with a changing institutional bandwidth, as a consequence of government intervention, is the clash of private interest on the one hand and the public interest on the other. The coming together of the policy process and the strategy process in the intervention model is represented by the policy loop colliding with the strategy loop in figure 1. The clash occurs in the notion that the strategy process, as defined in terms of resource-based view, is driven by heterogeneity, whereas institutional bandwidths, according to institutional logic, tend to homogenize. The impetus of the firm to acquire competitive advantage through unique resources and capabilities then clashes with the ambition of government to distribute resources or take them away via interference with institutional bandwidths.

Government intervention is thus expected to eventually fuel one or more controversies. A controversy arises when existing social structures, such as institutional bandwidths or the strategy path, are being challenged by non-conforming behavior, such as the intervention act. These controversies are the opportunity of the firm to influence the course and the outcomes of the interaction, hence the intervention. The collision of the policy loop and the strategy loop, due to the intervention act, is an indication of institutional pressure on the course of the strategy path of the firm. Yet, at the same time it marks potential ability to settle the outcome of the controversy to its own - competitive - advantage.

It will be argued that mobilization in order to settle the controversies are those activities through which the effects of the intervention can
potentially be guided in a desired direction. Mobilization is an attempt to settle the disputed part of the social structure by leveraging it with those parts of the social structure which are vested and undisputed. What the various agents are capable of mobilizing will indicate their ability to affect the outcome.

Finally, the five basic ingredients will be brought together to constitute the model, which will be labeled the model of the institutional survival path. The institutional survival path is the set of institutional bandwidths unique to the firm, defining the room for institutional compatible strategizing, which can at the same time be challenged by the strategy path of the firm. The ability to mobilize resources to settle controversies through mobilization is vital to firms in government-sensitive markets. Acquiring and safeguarding competitive advantage requires ongoing maintenance of the institutional survival path. The institutional survival path used as a model to analyze the effects of government intervention in businesses implies the focus on the interaction process itself. The effects will appear to come about in the interaction process as a whole.

The chapter will be concluded with some propositions that ‘summarize’ the ISP and enable empirical testing of the model. The next chapter, on process research methods, will outline how to prepare the ISP model in general, and the propositions in particular, for confrontation with the empirical reality.

**INTERVENTION ACT**

Government intervention in businesses is a complex empirical phenomenon to analyze. A distinction needs to be made between government intervention as a process on the one hand and government intervention as an act on the other. The intervention act is one of the components of the model, which, in turn, encompasses the intervention as a whole i.e. the intervention process. The intervention process is defined as the coming together of the policy process and the strategy process (cf. the two loops in figure 1) in the case of an intervention act. The intervention act is defined as the actual measure issued at a certain moment in time to affect the behavior of individuals or organizations for the public good. This deliberate and explicit attempt of government to do so will generally be laid down in a concrete and specific measure such as a law. The intervention act is often part of a larger political policy or - in terms of this research - a policy process. In other words, the interaction process is the ‘big picture’ that this research is trying to unravel; acknowledging that it is a moving picture, always in motion, with no clear beginning and no real end.
The intervention act, however, is only one of the ingredients of that ‘big picture’. We will now first look a bit closer at the intervention act. It will be argued that the intervention act is a necessary condition for the intervention process. It will serve as a stepping stone to the other components of the model.

For this research, the intervention act is regarded as the nucleus of the larger interaction process under study. It also defines the field-level context of the firm in question. A field comprises the firm’s external social, political and economic environments (Powell & DiMaggio, 1991; Scott, 1995). “But more than just a collection of influential organizations, the field should be thought of as the center of common channels of dialogue and discussion.” (Hoffman, 2001: 135) The field centers around an issue subjected to competing interests negotiating over its presentation (Hoffman, 1999). There is thus a clear connection between the intervention act, the organizational field and the issue, for instance of natural environmental concern.

In contrast to the other components of the ISP model, the interaction act can be narrowed down to a single and static fact. It is what it is, so to speak. At a certain moment in time, government declares its intention formally and explicitly to intervene in a business, or businesses. The reasons for government intervention will generally be found in the discrepancy between public values and private practice. More concretely, external effects like pollution or traffic congestion could be an immediate reason for government to intervene. This can result in a concrete and specific intervention act. For instance, tax rates can change, shopping hours can be adjusted, radio frequencies can be auctioned, permits can be supplied, state ownership can diminish, and so on and so forth. Many things will have taken place to give such acts impetus and many things will happen after that, but they do not have to be taken into consideration when defining the intervention as an act. Neither are its intentions relevant in this respect, nor possible classifications.

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23 This research does not encompass a normative positioning in the political philosophical debate of whether or not, or to what extent, a government, generally speaking, should intervene in the market. For instance, Austrian School thinkers like Von Hayek (1945) strongly oppose government intervention. Any active steering of market processes is regarded as potentially leading to totalitarian systems. Interestingly enough though, Von Hayek admits that slight interventions might be unavoidable when full competition does not work out in practice. In addition, government does have to safeguard a legal framework needed for the market mechanisms to fully function. In other words, even from the perspective of the die-hard economists, opposing Keynes’ plea for active and stimulating government in the economic process, the empirical existence of government intervention in the market will generally not be questioned.
Conte and Karr (2001), for instance, in their edited volume for the U.S. Department of State on the U.S. economy, distinguish between economic regulation and social regulation: "Economic regulation seeks, primarily, to control prices. [...] Social regulation, on the other hand, promotes objectives that are not economic - such as safer workplaces or a cleaner environment." It remains to be seen to what extent social objectives can indeed be separated from economic ones. In addition, if meaning could be given to the intervention act, such interpretations will vary per agent and change over time. This line of reasoning is consistent with the idea that the effects of the intervention come about in the process, ex-ante and ex-post to the intervention act.

Public policy theory supplies several approaches that point at the time factor involved in policymaking (e.g. Bachrach & Baratz 1970; Kingdon, 1995). It has thus been recognized that policies do not come out of the blue. Policymaking could therefore be referred to as a policy process. However, the analysis is often restricted to the phases of agenda setting, leading up to a certain policy measure. The phase of evaluation is generally speaking given relatively little attention to (cf. Parsons, 1995), at least as being part of a continuous interaction process. Pierson (2004) argues that social sciences in general, and political science in particular, have become increasingly decontextualized. Pollitt (2008: 15) gives two basic arguments as to why time should be of importance to policymakers and managers. Firstly, something which has happened in the past can impose significant constraints or costs on present choices. Secondly, Pollitt contends, planning for the future implies actions that are bound to take a long time.

The policy process, or even the policymaking process, should not be temporarily restricted, if the process approach is taken seriously. The policy process does not stop when a policy measure has been implemented. However, from that moment on, the focus should not only be on what contributes to turning an issue into a policy; its effects must also be taken into account. In other words, the policy process should not be confined to the antecedents of a policy measure, but also include its outcomes; not the least because certain outcomes, in turn, are likely to serve as potential input for future policymaking. Only then can we speak of a firm-government interaction. From that perspective, the policymaking is not a linear process, but rather an iterative process, full of feedback loops. Systems theory (Easton, 1953) has provided political science with the notion of a repetitive sequence of events. However, the system remains rather isolated from its environment, whereas a basic assumption of this research is that government interacts with its environment. From our dialectical perspective, the system should at least be
considered as permeable and open to conflicting input, challenging the stability that characterizes structural functionalism.\footnote{In addition, Easton seems to privilege stability and rejects multiple levels of analysis, which is contrary to what the ISP model assumes.}

Taking into account the above - acknowledging the interaction process as the context for policymaking - the difficulty then is to trace and designate its effects. Antecedents, or input, convert into the designated policy measure. They ‘come together’, so to speak, and are relatively easily identifiable, particularly retrospectively. The policy effects, on the contrary, diverge, like a bunch of marbles falling out of a net. This is exactly why a process approach to the firm-government interaction is not only necessary to understand the effects of the intervention, it is also one of the biggest challenges it faces. A policy measure can undoubtedly be designated, at a certain moment in time, and be put in its context. But where should we look for the effects and what meaning can be given to the findings?

As we will see for instance, what might eventually appear to be a restricting intervention to a firm, can very well turn out to be an enabling one, leaving room for its quest for heterogeneity, yet at the same time concerning only one specific intervention act. The interesting thing about the intervention act is that it represents the collision of the public and the private sphere. In terms of the vocabulary of figure 1, it is the collision of the policy loop and the strategy loop. The former represents the policy process, the latter the strategy process. The two are connected in an interaction process, i.e. the intervention process, that will be further explained in this chapter. The role of the intervention act is that it puts the whole process in motion. The intervention act is a necessary condition for the intervention process.

It is thus tempting to regard the intervention act as the independent variable in the model. However, from a process perspective, it has to be acknowledged that the intervention act is both an independent as well as a dependent variable in the overall interaction process. The possibility of the firm anticipating intervention acts, for instance by means of lobbying, is a sufficient condition for that assumption. Nonetheless, it will be marked as the ‘starting point’ for our analysis.\footnote{Consequently, the model, as presented by figure 1, does not contain a feedback loop which includes the government intervention act. The interaction as a process exists in the coming together of the policy loop and the strategy loop. Multiple interventions are very well thinkable, and so is the role of various other participants such as environmental agencies, but the model has been deliberately restricted to its essential components.} The intervention act itself might be relatively easily designated; its effects, as we have just concluded, are not.
They can be found in institutional bandwidths, the strategy path, controversies and mobilization. They will be dealt with successively.

**INSTITUTIONAL BANDWIDTHS**

Institutional bandwidths are a specification of the institutional context\(^{26}\) - or institutional environment (e.g. Meyer & Scott, 1983; Scott et al., 1994) - of the firm. They are the standards that define the strategic institutional boundaries of the firm, stretching out over time. Institutional bandwidths can be unique to the firm or they can be shared with others, but the aggregate – which will, at the end of this chapter, be designated as the institutional survival path – is unique to each firm.

It will be argued that government intervention is an attempt to change existing institutions. With the use of new institutionalism, institutions can be explained as frameworks of legitimacy. In addition, it will be argued that the process of institutionalization is a process of routinization. By that time, we can interpret institutionalization as a structuration process. The theory of social becoming can thus be applied. It can then be concluded that government intervention is an interference with the institutional bandwidths. However, policymakers do not have a monopoly in that. Other stakeholders also have a potential share in the development of institutional bandwidths of a particular firm. Above all, it has to be noticed that it is the firm itself which has the potential to influence the fluctuations of the institutional bandwidths. It is a matter of routinization of acquiring and creating legitimacy as the basis for its own survival. And *that* is exactly what government intervention is interfering with.

**Government and institutions: isomorphism**

Government intervention in businesses takes place *via* the institutional bandwidths. Government creates, adjusts, sustains, terminates and enforces institutional bandwidths. Laws, rules and regulations are perhaps the most obvious examples of institutional bandwidths in modern societies by means of which government intervenes in day-to-day life. Together with all kinds of other norms, such as courtesy and social conventions, they expand the room for maneuver applicable to those within that particular institutional context.

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\(^{26}\) With institutional context we here mean the institutions that surround the firm. North (1990) gives a commonly applied and broad definition of institutions, stating that they encompass formal and informal rules of society, including their enforcement arrangements.
Government thus wants to influence social behavior, for instance the strategic activities of firms, by means of alterations of the institutional context. In general, government interventions will be laid down in policy documents. The idea of such policy frameworks is that they are commonly applicable. Similar circumstances require similar policy measures. As a consequence, interventions can be expected to have an homogenizing effect on those subjected to the institutional bandwidths at stake. In other words, government interventions make firms more look alike in their strategic behavior.

New institutionalism (e.g. Meyer & Rowan, 1977; DiMaggio & Powell, 1991) wonders why organizations look alike. The answer is found in the institutional environment. Institutions have a homogenizing effect on the involved entities. DiMaggio & Powell (1991) have labeled this phenomenon isomorphism. They describe three modes of isomorphism. Coercive isomorphism occurs when pressure towards institutional conformance is exercised. This will mostly involve issues of legitimacy. In modern societies, it is politics that is primarily concerned with the authoritative allocation of values (Easton, 1965). Various kinds of power can be put in action to back up the enforcement of institutional adaptation. Mimetic isomorphism takes place when uncertainty leads to imitating behavior. Management is expected to copy strategies from its competitors when a better and unique alternative is lacking. Normative isomorphism is the case when the urge for professionalization leads to education and recruitment from within an institutional framework to enlarge and sustain the contingent of like-mindedness. Coercive isomorphism is the most obvious mode of institutionalization that connects with the role of government in society. It highlights the role of legitimacy, which is crucial in understanding institutionalization processes. We will therefore go a bit deeper into that concept now.

Legitimacy
Institutional theory focuses on rules and regularities in society. It has a strong tradition within the social sciences. Weber’s ideal type of bureaucracy can be regarded as one of the first theoretical elaborations of institutions. Parsons (1937, 1952 & 1960), in turn, elaborated on the work of Weber and that of Pareto and Durkheim, trying to find a grand theory for society as a whole. Proposing an integrative sociological framework, this so-called structural functionalism emphasized the norm setting and regulative effects of institutions. Social functions follow social structures, in this view. However, according to Parsons, individuals act to conform to institutions out of a sense of duty or, at least, on the basis of a certain awareness of what is socially desirable and what is not. This idea had quite some impact on the development of economics and
organization studies from the mid-seventies of the previous century onwards. It has eventually led to what would be called new institutionalism and added a cognitive element to institutional thinking. People were expected to reflect on their institutional environment and on the consequences of obeying them, or not. In addition, new institutionalists state, alternatives to conforming to institutions are often simply not perceivable. In other words, new institutionalism has come close to putting agents and agency more centrally, rather than reducing them to Pavlov’s dogs, subdued to imposing institutions.

New institutionalism is an open system theory (Scott, 1987: 78-92). Organizational boundaries are assumed to be permeable, which is exactly what is being problematized. Influences from the dynamic environment, such as culturally determined norms, convictions, beliefs, rituals and symbols, can easily cross these demarcating boundaries (DiMaggio & Powell, 1991). This goes right against the idea of rational systems theory, a prevailing approach in the early days of strategic management (Scott, 1987: 31-50). Rational systems theory regarded organizations as sovereign entities, separate from their environment, and having a rational input-output function. Institutional theorists have increasingly become aware of the interplay between organizations and their environments. Suchman (1995: 571) concludes that it is the notion of legitimacy which has been crucial for the intellectual development leading to new institutionalism:

Drawing from the foundational work of Weber (1978) and Parsons (1960), researchers have made legitimacy into an anchor-point of a vastly expanded theoretical apparatus addressing the normative and cognitive forces that constrain, construct and empower organizational agents. (Suchman, 1995: 571)

Legitimacy thus reveals that institutions not only tell people what to do – the normative aspect –, but that they also mean something to people – the cognitive aspect.27 These two angles, from which legitimacy can be considered, are distinguishable in institutional theory. While defining legitimacy, psychologically oriented authors tend to emphasize the cognitive aspect (e.g. Meyer & Scott, 1983), whereas more sociologically oriented

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27 Zelditch (2001), for instance, states that people can be willing to obey when they believe that rules enacted by another are ‘right’ or ‘proper’ and ought to be followed. Or, as Beetham (1991: 27) argues, people can be “cooperative and obedient on grounds of legitimacy as well as reasons of prudence and advantage.”
Institutions and routines

By looking somewhat closer at new institutionalism, we can now elaborate on the arguments to interpret institutionalization in terms of routinization, as a final step to conceptualize it in terms of structuration vocabulary. DiMaggio & Powell (1983), prominent representatives of the new institutionalism as we have just seen, seek the explanation for homogeneity among organizations in isomorphism. This is the phenomenon that organizations tend to look like each other, concerning structural and behavioral features, because they conform to shared environmental conditions. With this collective of organizations the authors mean “Organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and produce consumers, regulatory agencies, and other organizations that produce similar services and products.” (1983: 143). From that perspective, institutions are also about competition. Organizations are not isolated from other organizations. On the contrary, they find themselves in a competitive environment. Again, we see that new institutionalism leaves room for the voluntary potential of agents, although it is not elaborated on in depth. Agents are still left relatively passive and obedient to surrounding institutions. However, surviving in a competitive

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31 Scott (1994), for instance, calls these aggregates organizational fields.
environment requires action. And more specifically, as it will be argued here; routines.

New institutionalism distinguishes between two levels of analysis; the macro and the micro level. On both levels, routinization concerning adjustment to institutions occurs. It will be argued that on either level institutionalization processes can be interpreted as processes of routinization. At the macro level, new institutionalism attributes the potential for the shaping of patterns to organizations as a whole. At this level, organizations are expected not to just match their formal structure to technical criteria, but also to general patterns of expectations. It could thus happen that it is best practices which is strived for, rather than being solely led by rational choice (cf. Meyer & Rowan, 1977; Scott, 1987, 1995; Zucker, 1991). We here recognize mimetic isomorphism. Best practices is the adjustment of the organization to the environment that is regarded as relevant. Pure rational decision-making, on the other hand, is based on deliberations on the fundamentals of the internal logics of management itself. It could thus lead to decisions being radically different from those of its peers. It is however a fine line between these two forms of decision-making. What, for instance, if management decides to follow the market leader, because history has shown that this has always appeared to be the best thing to do in their branch? Elements of both rational decision-making and best practice might very well be at stake here. However, important to notice at this stage is that two contesting possibilities are being distinguished; to either go with the flow or to withstand institutional pressure and break with tradition.

At the micro level of analysis, new institutionalism also expects organization members to internalize norms and values. Individuals are willing to undergo this cognitive development as personal benefits are expected (Zucker, 1991). Few would like to be considered an institutional pariah. This leads us to the conclusion that routines also have a foundation in new institutionalism, not only concerning people’s behavior (the micro level), but also with regard to strategic maneuvering of the organization as such (the macro level). Institutions enhance constancy of, and within, organizations: "Institutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behaviour." (Scott, 1995: 33) The institutional environment is attributed with a sheer all-encompassing pressure for conformative behavior by all entities involved. And again, we recognize various dimensions of social reality: the cognitive, the normative and the regulative.

What we have seen is that new institutionalism emphasizes repetitive actions as a stabilizing factor for organizations, and people, in relationship to
their institutional context. We have thus seen the first glimpses of the routinization, which is involved in institutionalization. Apparently, institutions persist over time. Some sort of repetition must be at stake, logically, when people and organizations act in conformance with these homogenizing institutions. Indeed, routinization is something that takes place through agency: it is daily action that sustains routines. However, new institutionalism remains a one-way approach to that routinization, from this theoretical angle, stating that agency follows institutions. There is little room for voluntary behavior, as we have seen. However, this is not a shocking conclusion, as a commonly heard critique of new institutionalism is that it neglects the role of agency (e.g. Reay et al., 2006). Nonetheless, we do have reason to interpret institutionalization in terms of routinization, taking into account the above.

In the first place, new institutionalism does recognize the possibility of rational decision-making and radical change, despite the fact that it remains rudimentary in its elaboration. Secondly, the notion of legitimacy has shown us that it is not only something that can be ‘used’, but also something that can be created. In other words, legitimacy is subjected to a process of structuration (DiMaggio & Powell, 1991; Scott, 1994; Barley & Tolbert, 1997). So, however slightly, the origins of institutions are given some attention: apparently, institutions can also follow agency. Lastly, the focus on the institutional context is in the case of firms a focus on a context of competition. It is a context where rival firms struggle to survive. Surviving is a constant concern. Previous achievements must be built on – and exploited - and new routes must be explored. This is exactly why new institutionalism needs additional theoretical vocabulary: the perspective of those interacting with institutions needs further elaboration.

As with legitimacy, it is not only being obtained, but also being created. It works both ways. The same goes for routinization. It is the background against which agency takes place, but at the same time, routinization exists because of repetitive agency. This is why we have reason to assume that institutional bandwidths come about in a process of routinization. The wheel is not being reinvented the whole time, either by firms, or by government. Incorporation of the duality of structure is possible by means of a structuration approach. New institutional theory might not supply the optimal vocabulary for routinization, but it does supply solid ground and, above all, it is well suited for explanation in terms of structuration. In addition, it is also the background against which resource-based insights - later on in this chapter - can complement new institutionalism by embodying the perspective of the firm – the so-called strategy path of the firm -, actively interacting with its institutional context.
Institutionalization in terms of structuration

The emphasis on legitimacy and routines when defining institutionalization processes has directed us towards a structuration approach. It is therefore now time to define the institutional bandwidths in terms of structuration theory. Structuration theory (e.g., Giddens, 1984; Sztompka, 1991) is based on the idea that social reality is constructed through the interplay between agency and structure; social structure guides human behavior, but is at the same time dependent upon its confirmation through daily actions. Changes in the social structure occur when agents do not act in conformance with the existing structures.

The dialectics of the structuration approach can in fact also be found in the development that institutional theory has itself undergone. The ‘old’ institutionalists (e.g., Selznick, 1957) were not particularly interested in the effects of institutions, but - above all - in how these institutions come about (Stinchcombe, 1997). Influence, coalitions, competition, informal relationships and conflicting stakes are examples of driving forces behind the creation of institutions (Clark, 1960, 1972; Selznick, 1949, 1957). Scott (1987, 1994) argues that these insights can be merged with those of the ‘new’ institutionalism, which focuses on the effects of institutions. Greenwood and Hinings (1996) label the convergence of the old and the new institutional theory as neo-institutionalism. However, this neo-institutionalism does not suffice when explaining organizational change, the authors believe. The dynamics of institutionalization are restricted to incremental change, aimed at maintenance and sustainability of the status quo. Change is thus converging change: “Convergent change is fine-tuning the existing orientation. It is radical, not convergent change in which we are interested.” (Greenwood & Hinings, 1996: 1024) In order to explain radical organizational change, Greenwood and Hinings argue, processes of de-institutionalization at the collective level (Oliver, 1992) must be understood in conjunction with the internal dynamics of interpretation and adjustment and defiance of institutions within the organization. The authors in fact define institutionalization in terms of a structuration process. Radical actions are needed to change social structures beyond the incremental.

The potential for radical agency can be applied to the distinction that Tolbert & Zucker (1996) make between the rational agent model and the institutional model. The first model assumes rational agents, aiming to

Not surprisingly, structuration theorist Giddens is also a critic of the structural functionalist approach which, as we have seen in the above, emphasizes the determining role of social structures.
maximize their benefit through a continuous cost-and-benefit analysis. The institutional model, on the other hand, assumes agents who conform to institutions if they please, or if in their own interest. The process of institutionalization drives on those who follow and those willing to take action. Tolbert and Zucker argue that both cannot be seen separately from each other within institutional analyses. Every agent involved is at the same time determined by its institutional environment and has the voluntary potential to try and defy existing structures.

Taking into account the development of institutional thinking, described from a bird’s eye point of view in the above, we can distinguish between two different approaches: the one that emphasizes the role of structures and the other that stresses the importance of agency. We have also seen that, although they seem mutually exclusive, they have productively been merged into recent institutional thinking. In particular, the structuration approach has appeared to be a fruitful meta-theoretical soil for that. The notions of legitimacy and routines have been designated as the vehicles that carry the duality of structure on our way to defining institutional bandwidths.

### Institutional bandwidths and social becoming

In the above, an important part of the vocabulary has been presented to flesh out the notion of institutional bandwidths, by elaborating on the notions of legitimacy and routines in terms of structuration. We are getting close to wrapping up the definitions of the institutional bandwidth. It will now be argued that institutional bandwidths can be categorized according to the levels of social structure. It will be a last and crucial step in conceptualizing the institutional bandwidths.

We have seen that institutional bandwidths comprise the range of all kinds of institutions relevant to the firm. Some institutions are rather concrete, such as rules, laws and regulations, others are less so, such as ethical norms or social conventions. Government interventions will generally be restricted to these concrete institutional bandwidths. Some institutions apply to everybody, for instance the International Convention on Human Rights, whereas others are applicable to a selected group, such as codes of conduct for certain professions. Government interventions can be aimed at either of the two. No matter which category of institutional bandwidths the intervention primarily concerns, it will not be completely isolated from the others. The intervention is part of an institutionalization process, which stretches out over time and overlaps with other institutionalization processes concerning different constellations of agents and with various features and outcomes in terms of ‘tangibility’. In order to orientate on its institutional bandwidths, for
instance with regard to a government intervention, a firm must know ‘where to look’. Sztompka’s theory of social becoming (1991) supplies the framework for such an analysis. Notwithstanding the fact that we now know that, eventually, all institutional bandwidths are related and even collide in the institutional survival path, it is of analytical use to apply further specification of the bandwidths.

The institutional bandwidths have been designated as a specification of the institutional context of the firm. The specification lies in the idea that the bandwidths imply boundaries to strategizing and in the dimensions of social structure that can be distinguished. Structuration theory (e.g. Giddens, 1984; Sztompka, 1991) is based on the idea that social reality is constructed through the interplay between agency and structure; social structure guides human behavior, but is at the same time dependent upon its confirmation through daily actions. Changes in the social structure occur when agents do not act in conformance with the existing structures. Four dimensions of the social structure can be distinguished on the basis of structuration-like theories: the ideal level, the normative level, the interactional level and the opportunity level.30 We have seen these levels - some more obvious than others - appearing in the above, discussing institutional theory. On any of these levels, routines compete with the potential to cause radical change when it comes to derivation and construction of legitimacy. Suchman (1995), for instance, recognizes three of the four levels, leaving out the interactional level, which is given particular attention by Granovetter (1985) and Uzzi (1996). Greenwood and Hinings (1986) focus on the opportunity level in that respect. Scott (1995), on the other hand, pays attention to both the opportunity level and the normative level.

The interplay between action and structure occurs on these so-called levels of social structure. The ideal level is the cognitive side of social reality. How is this reality perceived? Firms carry with them a certain estimation of their role in society, in the economy or in a certain branch. These perceptions can – by definition – be highly subjective. However, there is such a thing as a common factor31 in that respect. Goodwill is a clear example. Through time, apparently, organizations can build up something intangible, yet often very valuable. How has the organization been treating its employees? On what basis does it communicate with its customers? Is management trustworthy? What is

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30 Giddens (1984) mentions the first three levels, whereas Sztompka (1991) includes the latter as a fourth level.
31 We could even speak of a common divisor. The consequence though is that it emphasizes more strongly the ‘average’, whereas the institutional bandwidths are particularly about the ‘boundaries’.
the value of their products to society? Does the production do harm to somebody, or something? One could ask all kinds of questions, and even try to measure. In the end, however, it is particularly something that plays on people’s minds. It is of great importance that the firm tries to influence – positively – the image it has in society. It is all about reputation. However, as a Dutch saying states, trust comes on foot, but leaves on horseback. The same is true for institutional bandwidths at this very level. The institutional room for maneuver at the ideal level is something that must be built up with care and patience, yet at the same time it can be damaged in the blink of an eye. Once there is a discretionary room for maneuver at this level, the firm can derive legitimacy from it. In order to be able to do so, however, it must work on it on a routine basis. Later on, we will see how this maintenance of the institutional bandwidths at the ideal level should be put into practice. In addition, we will also see how the room for maneuver can be lost at this level.

The normative level deals with legitimacy in terms of norm setting. What are the relevant rules? This level of social becoming is perhaps the most obvious when explaining institutional bandwidths. In fact, rules are usually created in order to explicitly demarcate the room for maneuver. They are therefore often rather ‘visible’; not in the least when they are being crossed, as most rules are commonly accompanied by enforcement arrangements. Most rules will develop over time incrementally. Radical regime changes are not very common – or not commonly accepted - in Western societies, either at the macro level, or at the micro level. Rules are path-dependent. Nonetheless, government interventions, for instance, can have quite an impact on the institutional bandwidths, generally being part of a bigger policy shift. We will find out more about the impact of government intervention on the institutional bandwidth in the remainder of this chapter.

Despite the fact that government is the norm setting agent par excellence, it is not the only one to do so. Firms themselves, for instance, might very well impose particular codes of conduct on their own employees. The reason to do so will probably have a lot to do with what has been said about the level mentioned previously. Sticking to rules - or not – will have an obvious effect on the firm’s reputation. One’s reputation is partly determined by the legitimacy which is derived from the relationship of the firm with the set of rules it finds itself in. In addition, there is also a strong connection between the normative level of social becoming and the next one, the interactional level.

The interactional level looks at network relations. Who is connected to whom? Firms carry with them a network of agents (cf. Davis & Marquis, 2005). Consumers, trade unions, government, suppliers, pressure groups;
they are examples of network ties familiar to all firms. Most of these relationships will have an enduring character. Network ties are like bridges; once they are there, they will generally be used frequently. Nonetheless, some bridges can become obsolete at a certain moment, whilst new ones can be built. The network can be a source of legitimacy to the firm. Consumers, for instance, sustain the firm’s position in society; apparently, there is a need for its products. The connection with the ideal level is obvious here. The network that the firm is in will also be characterized by shared laws, rules, codes of conduct, and the like. Those who misbehave endanger their position in the network. In other words, the interactional level is also connected to the normative level. The interactional level is something that needs to be worked on continuously. Maintaining network ties is a matter of routines. They can be an important strategic asset to the firm. Network ties are of particular use when they can and will be used. They are the access to the world outside. Relationships can be an indication of power. This is when we reach the fourth level of social becoming; the opportunity level.

The opportunity level is the political approach to social reality. Who has the power over what? Power is instrumental in making somebody do things at your will, regardless of what the costs for that person are. We have already seen three categories of ‘opportunity’ appearing in the above, discussing the institutional bandwidths at the first three levels of social structure, respectively the ideal level, the normative level and the interactional level. Firstly, power lies in the extent to which the other can be convinced to another point of view. In day-to-day life, a commonly accepted means for that purpose is argumentation. Secondly, standing up for one’s own rights is a powerful position. Not surprisingly, the phrase “see you in court” is often used to scare somebody off. Thirdly, the people you are connected with can be of great use to impress others. People are often also judged by those they are acquainted with. Not surprisingly, these three examples also have a lot to do with legitimacy. However, when explained in terms of money, power is perhaps not particularly what people would call a matter of legitimacy.

Among states, the inequality of distribution of money is to a certain extent not rarely reflected by differences in military power. Issues of international public relations seem a bit far-fetched, with regard to the focus of this research, but it does remind us of the particular ‘power’ that government has. Lukes (1974) for instance attributes three categories of power to governments. In the first place, the decision-making power concerns the possibility of – after the democratic consultation process –imposing new policies. Secondly, the non-decision-making power is the ability to keep issues off the policy-making agenda. Thirdly, according to Lukes, government has an
Another point of view. In day-to-day life, a commonly accepted means for that power lies in the extent to which the other can be convinced to respect your will, regardless of what the costs for that person are. We have already seen three categories of power. Power is instrumental in making somebody do things at the institutional level of social becoming; the opportunity level. Relationships can be an indication of power. This is when we reach the fourth level of social structure, the interactional level. The interactional level is something that needs to be worked on continuously. Maintaining network ties is a matter of routines. They can be refrained from going into the power of the state in more detail.

Like some states, firms also fight battles - of competition - but their arms do not include military weapons. The inequality among firms is explained in the variety in the use of their resources. Resource-based theory will be used to explain this in more detail. For now, it is sufficient to realize that each firm carries a bundle of resources with it, of which money and knowledge are the most crucial. These resources can be exploited to ‘overwhelm’ its competitors, and not forgetting, its customers. Money buys machines, advertisement campaigns, employees, technology, etcetera. On the other hand, knowledge can sometimes be free. Think of a creative idea. Discovering a hole in the market through an innovative idea does not always have to be a matter of money. We will see that the competitive power of a firm largely lies in the extent to which its resources can be exploited on a routine basis.

With respect to the opportunity level, it has to be noted that it is of particular importance in the case of the interaction with government. Concerning institutional bandwidths, it is the level that defines the distribution of power. With respect to the interaction between government and firm, it is then the level which discloses the balance between the political power of the former and the economic power of the latter. Not surprisingly, as we will see in the remainder of this chapter, taking the perspective of the firm, the opportunity level will be of significant relevance with regard to the model as a whole and the strategy path in particular.

**Institutional bandwidths concluded**

We have seen that firms find themselves surrounded by institutional bandwidths. Firms actually carry these bandwidths with them through time. The interesting thing about institutional bandwidths is that they are on the one hand ‘out there’ in the sense that they cannot be physically locked in the organization itself, but on the other hand, they touch the heart of the firm. Institutional bandwidths are ‘part of the firm’, simply because they are...
relevant to the firm. And just because they are relevant, they must be taken into account when developing and carrying corporate strategy. In addition, strategic agency can have its effects on these bandwidths, unintended or intended. The levels of social structure have supplied the analytical tool to untangle this complexity that characterizes the dynamics of institutional bandwidths. Four levels imply four categories of institutional bandwidths. They are a *sine qua non* for each firm and it is argued here that the four of them are important to management. A vacuum on any of these four levels would imply an absence of institutional room for maneuver. This is not surprising, because institutional bandwidths indicate legitimacy. The existence of any organization must have some sort of legitimacy. Deriving or creating legitimacy, which appear to be a matter of routines, takes place at all levels - simultaneously - because they are all linked. Firms cannot function properly if they are not perceived as functional to anybody, if they do not adhere to any norm, if they are not linked to anyone or if they do not even have the slightest impact on anybody.

Some of the firm’s bandwidths might be shared with others, such as competitors. All European organizations must comply with national and international legislation, for instance with regard to competition. When looking at a lower level of analysis by taking branches of businesses, we will generally find more specific institutional bandwidths, shared by a smaller group of agents. Attorneys, for instance, have their own codes of conduct. Taking that argument further and focusing on one specific firm, we can even state that institutional bandwidths can be unique to the firm. A cosmetic company could for instance impose upon itself specific production standards with regard to the exclusion of animals for testing its cosmetics. Such a standard might indeed be on the firm’s own initiative, but it will become an institutional bandwidth in practice as soon as the public bases its expectations and demands on these standards. It exactly shows the duality of structure, central to structuration theory. It emphasizes the notion that institutional bandwidths are always ‘in the making’. They are not only ‘out there’, they are carried by routines of organizations and people.

Pinpointing the institutional bandwidths can be a delicate exercise for the firm, particularly when trying to discover its *unique* bandwidths. How far can the firm go, staying within legitimate boundaries? It has to be acknowledged that such bandwidths might only reveal themselves in the heat of the moment. Deductive means might thus not suffice, as certain boundaries only become apparent once they are being crossed. We will therefore need a theory of the firm, to be able to analyze the strategic maneuvering in relation to institutional bandwidths; not in the least because of the perspective of this
research, which is that of the firm. From that angle, using a process approach to the firm-government interaction requires more than the contextual explanations supplied by institutional theory. The institutional bandwidths will therefore be confronted with the strategy path of the firm, which is the notion intrinsically embodying its perspective. The strategy path of the firm will also be defined in terms of a structuration process. The institutional bandwidths and the strategy path of the firm can then be merged into the model of the institutional survival path as a serious basis for the perception that the effects of government intervention on the strategy process of the firm are not a matter of one-way traffic. The idea that management has an active share in shaping and reshaping institutional bandwidths is essential to understanding how the effects come about, hence essential to understanding and enhancing the success of the firm.

THE STRATEGY PATH OF THE FIRM

Government intervention in businesses has its effects on the strategy of the firm. Logically, because it is exactly the strategy of the firm that government wants to steer through such interventions. It is argued here that the intervention is an intermingling with corporate strategy as a process, which takes place via the institutional bandwidths of the firm. These institutional bandwidths, being one side of the interaction coin, have been dealt with in the above, so it is now time to introduce the notion of the strategy path in order to capture the strategy process of the firm, in relationship to the intervention. The strategy path is the actual deployment of resources over time (cf. Minzberg & Waters, 1985; Vrieling, 1998) in terms of routines. The strategy path is unique to the firm. The question now arises as to what this strategic course ‘looks like’.

There are several ways of how to define strategic agency. For this research, the strategy of the firm will be defined in terms of resources by applying resource-based theory. The strategy path thus tells the story of the deployment of resources through time. It will be explained that it is the quest for heterogeneity that drives the firm in its struggle for survival. Firm heterogeneity and resource heterogeneity is accommodated by market

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32 In terms of the model, as visualized by figure 1, the institutional bandwidths are part of the policy loop.
33 In terms of the model, as visualized by figure 1, the strategy path is part of the strategy loop.
imperfections. The market imperfections, it will be argued, cause the imperfect mobility of resources through which firms can distinguish themselves from competitors. In order to acquire or sustain competitive advantage, organizational routines are necessary, it will be proposed. Resource allocation is a continuous process, as resources carry a past, a present and a history, constantly being in motion. On the basis of this insight, it will be argued that resource development can be interpreted as a social structuration process.

With regard to the focus of this research, by looking at the temporality of resources, the possibility now opens up to make them part of a true interaction process. Policymakers intermingling with business strategy might have their effect on the constellation of the resources of the firm; the effects of intervention will not be restricted to the altered state of resources at that specific moment. Resources - individually, but particularly collectively - play their unique role in the strategizing process at each moment in time under specific circumstances, and depending on what is being done with them. Effects of interventions thus stretch out over time as the development of resources, both directly and indirectly affected, unfolds. The levels of social structure will serve as the analytical tool to group the resources, hence organizational routines. The fact that these four categories match those applied to the institutional bandwidths is not a coincidence. After having explained the strategy path of the firm, the notion of controversy and that of mobilization, i.e. the mechanism through which these controversies can be settled, will be dealt with to explain how the intervention leads to effects on the strategy path of the firm.

Heterogeneity and imperfect mobility of resources
Within strategic management the resource-based view has become an influential theoretical approach (Eisenhardt & Martin, 2000). Strategic management primarily concerns the question of why one firm performs better than another (Rumelt, Schendel & Teece, 1991). In contrast to, for instance, Porter (1980, 1985) and other representatives of 'industrial organization', who regard strategy as dependent upon the industry (e.g. Henderson & Cockburn, 1993), the resource-based view has been seeking the sources for competitive advantage within the firm itself (Barney, 1991; Penrose, 1959; Peteraf, 1993; Prahalad & Hamel, 1990; Schumpeter, 1934; Teece, Pisano & Shuen, 1997; Wernerfelt, 1984). Answers have been found in the heterogeneity of the firm and the imperfect mobility of resources on factor markets (Peteraf, 1993). Firms differ because they bring into play a unique set of resources.
Initially, it was the resources being regarded as changeless entities that explained competitive advantage, according to resource-based theorists. From that perspective, resources are what they are, including a specific potential contribution to competitive advantage. Resource-based logic was thus restricted to a static analysis. However, it was increasingly realized that a resource is characterized by a specific origin and finiteness. In other words, resources come and go. They have their own dynamics. Now, what do resources look like, according to the resource-based view?

Resources are those properties essential to the survival of the firm. Some of these resources are a potential source for competitive advantage. It is the quest of management and of resource-based theory to define these. It boils down to the question of which resources contribute to the uniqueness - or heterogeneity - of the firm and how these can be exploited for the sake of competitive advantage.

Resources can be tangible, such as buildings and machines, but also intangible, like the knowledge and skills of the personnel. Four categories of resources can be distinguished (Barney, 1991; Barney & Hesterly, 1999): financial resources (e.g. stakes or funds), physical resources (e.g. machines and plants), human resources (e.g. individual expertise and education) and organizational resources (e.g. teamwork, trust and reputation). Firm performance depends on the quality of these resources. Resource-based view defines the quality of resources in terms of heterogeneity. Barney (1991) argues that resources that are valuable, rare, inimitable and irreplaceable can contribute to competitive advantage of the firm (cf. Newbert, 2007). The more exclusive, the more valuable the resource will be to the firm. Exclusiveness of resources defines the uniqueness of the firm in comparison to its competitors. This uniqueness will be exploited, seeking marginal benefits. It is the premise for competitive advantage, as a minimum requirement.

However, a unique resource is not a sufficient condition for competitive advantage, nor does a unique enterprise necessarily have to be a successful one. Uniqueness as such is not a prerequisite for competitive advantage, but rather for potential durability. The ultimate question is what must be done with these unique resources in order to benefit from them competitively. But first, though, one must know where to ‘find’ them. Why and when are resources unique? The resource-based view acknowledges, in contrast to classic economic thinking, market imperfections. Mobility of resources is restricted by market intransparency. For instance, asymmetrical information on markets with products that vary in quality, will lead to an
It is not only the imperfect market which is the cause for restricted mobility of resources. It is also – or particularly - the qualifications of the resources themselves. According to the resource-based view, it is the inimitability of intangible resources which hampers the exchange in the original form (Barney, 1986a). Knowledge and expertise, for instance, cannot just be taken from one organization to the other while retaining its exact contribution to competitive advantage. In addition, transferring resources involves transaction costs (North, 1990). Moving an asset from one place to the other just costs money.

Acquiring perfectly mobile resources would not even contribute to competitive advantage (Lippman & Rumelt, 1982). Any other firm would then be able to possess that exact same, hence homogeneous, resource. It is thus the imperfect resource mobility by which firms distinguish themselves from each other. It also comprises the answer of the resource-based view to the question as to why one firm performs better than the other. Barney has contested that it is not just the questions of to what extent resources are rare, valuable and imitable; it is of particular importance that the management is capable of exploiting the resources in order to acquire actual competitive advantage (Barney & Wright, 1998). This recognition has led to a renewed attention to process within resource-based view (Newbert, 2007: 124). Another exponent of that development that has acquired critical acclaim is the dynamic capabilities framework (Teece, Pisano & Shuen, 1997). Teece et al. argue that competitive advantage lies in “the firm’s ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments.” (1997: 516) Stalks, Evans and Schulman (1992) have also argued that it is not products and markets that constitute corporate strategy, but rather the underlying processes.

Newbert (2007: 124) has argued that this recognition of process breathes the essence of Nelson’s organizational routines. Indeed, as we will see, Nelson has pointed at the fact that resources themselves are not sufficient conditions for competitive advantage (Nelson & Winter, 1982; Winter, 1995). Also Porter (1991: 108) has argued that business processes are the source of competitive advantage, whereas resources themselves are not valuable in themselves, but only because they enable management to perform

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34 Akerlof (1970) has used the example of a lemons market to describe the process in which buyers assume that there is an average price to pay for the lemons, not knowing which quality they will eventually get and taking for granted the risk of eventually obtaining a better quality or a worse quality. The high-quality lemons will thus be driven out of the market, because they will never achieve the right price. Ultimately, this could make the market disappear totally.
their strategic activities. The question now arises as to which resources and processes make the difference. Which contribute most to firm heterogeneity, hence competitive advantage? Various answers have been found by various authors, but for this research we will focus on ‘organizational routines’ and ‘strategic assets’ as the crucial determinants of firm heterogeneity, because they dovetail with the structuration approach underlying the ISP model. It will be argued that the firm can be regarded as a set of resources being employed in terms of routines. Antecedents of strategic behavior have shaped patterns of resource appliance. These patterns are the foundations for future resource appliance. Resource development is thus a matter of path dependency. Change occurs when paths are deviated from. This often easier said than done. For instance, the essence of a routine is that things go rather ‘automatically’. Moving away from a traditional pattern of behavior can be achieved by radical or incremental strategy (cf. Lindblom, 1959). In the first case we would see a revolutionary change and in the second a deviation of the current strategy, step by step. This is how new paths, or strategic patterns, arise.

**Resources and organizational routines**

One of the distinctions that resource-based vocabulary makes is that between resources and capabilities. Amit and Schoemaker (1993: 35) define capabilities as “a firm’s capacity to deploy Resources, usually in combination, using organizational processes, to effect a desired end.” From that angle, capabilities can be regarded as ‘lubricants’, enhancing resource potential. It is not just the resource in itself, but rather the ability to do something with it that contributes to competitive advantage.

A significant capability of management is the ability to identify the strategic industry agents. These are the resources and capabilities defining business opportunities at the industry level. At the same time, Amit and Schoemaker admit that the strategic industry agents are barely apparent, if not completely unrecognizable, beforehand. Only with hindsight will it be clear which agents have proven to be strategically significant. However, ex-post evaluations will not suffice when it comes to instant or future success. Managers are expected to estimate success agents at the industry level ex-ante. Those resources and capabilities needed to exploit these opportunities are called strategic assets. The extent to which strategic assets meet the strategic industry agents delineates the organizational rents, being the extra revenues. Amit and Schoemaker have hereby made an important connection between the capabilities of management on the one hand and crucial industry agents on the other. Strategic assets are those resources and capabilities optimally exploiting the match between the two.
Capabilities have also been interpreted in terms of organizational routines (Nelson & Winter, 1982; Grant, 1991). Grant (1991: 122) makes a distinction between routines and capabilities as follows:

Organizational routines are regular and predictable patterns of activity which are made up of a sequence of coordinated actions by individuals. A capability is, in essence, a routine, or a number of interacting routines. The organization itself is a huge network of routines.

From this perspective, both individual capabilities and the organization are interpreted as routines. It can thus be concluded, that the resource-based view supplies a solid vocabulary for a process approach, and more particularly, suit a structuration perspective. In addition, it delivers the insight that ex-ante evaluation needs to be a sustainable exercise in order to acquire competitive advantage. From this perspective, resources are not confined to those available at a certain moment, but also incorporated are the skills as they unfold through time by repetitive behavior or sustainable appliance of procedures. Grant (1991) recognizes this temporal dimension of resources and capabilities and attributes four characteristics to determine their contribution to competitive advantage: durability, transparency, transferability and replicability.

Grant’s characteristics say something about the extent to which resources and capabilities, in their heterogeneous form, adhere to the firm through time. Generally speaking, most of the resources and capabilities which are put into action will build on what has already been available to management for a while. The wheel is not being invented over and over again, so to speak. Market imperfections make it unlikely that all resources and capabilities can be replaced overnight without additional costs. Resources and capabilities will therefore not leave the firm that easily. Production agents can be replaced, and perhaps even employees, on the basis of a transaction costs calculus, but the knowledge remains a complete different story.

Each firm possesses a potential of collective knowledge (e.g. Daniels, Johnson & Chernatony, 1994; Ireland, Hitt, Bettis & De Porras, 1987). This is the sum of the knowledge in the heads of all individuals working at the firm. A unique constellation of this collective of people can lead to a knowledge potential which is greater than the sum of the parts. Huff (1982) speaks of strategic frames in this respect. These are the shared beliefs and knowledge of managers with similar backgrounds. These commonalities can create an environment in which knowledge and skills flourish and mutually enforce one
another. These frameworks of knowledge and skills can even stretch out beyond the boundaries of the firm (e.g. Spender, 1989; Hodgkinson & Johnson, 1994; Bowman & Daniels, 1995). Strategic frames give structure to the cognitive aspect of the strategy process.

The firm carries its history with it, for instance by means of the strategic frames. These centripetal forces will only self-reinforce with the course of time. The phenomenon is often referred to as the *stickiness* of resources. The stickiness can be instrumental in optimizing opportunities deriving from market imperfections. The more the resources are glued to the firm, the more costly it will be to transfer them. Leonard-Barton (1992, 1995) speaks of *core-rigidities* pointing at those resources that have an enduring contribution to the heterogeneity of the firm. Vrieling (1998), however, suspects a dark side to this approach. The threshold might become big enough to hamper necessary processes of institutionalization. For instance, there might be a need for radical strategic changes due to endogenous factors, which do not allow an incremental elaboration on the existing constellation of the sticky resources. The stickiness of resources and capabilities become apparent in the organization culture. It is a broad concept, that of organization culture, but with reference to what has been set out above, one interpretation could be to see it in terms of routines. Organization culture then exists of patterns of behavior through time.

Barney (1986b) argues that organization culture can be a valuable resource itself. "Firms with valuable, rare and imperfectly imitable cultures should nurture these cultures." (1986b: 663) Culture contributes to firm heterogeneity if it is a distinguishing feature compared to competitors. As cultures are so complex and unique, particularly when the three characteristics are present, it might very well be one of the least mobile resources.

Summing up, we can say that a firm’s distinctiveness can be expressed in terms of routines. Routines unite resources and capabilities from a temporal perspective. They unfold over time and carry with them a sustainable possibly self-reinforcing mechanism. However, it is not a sufficient condition for inertia of resources. It is particularly the ability to *change* resources, or as we have concluded in the above, the capability to *do* something with them, in which competitive advantage lies. In other words, it is both continuity and change that matter. That insight directs us to structuration theory in order to capture the *dynamics* of resource allocation.
Resource-based view in terms of structuration

Within resource-based view, two approaches can be distinguished, as we have seen in the above. This distinction deserves some further emphasis in order to elaborate on the resource-based view in terms of structuration. The static school puts an emphasis on market stability and the role of the firm to sustain its heterogeneity. The dynamic school, on the other hand, wonders how management can change things by putting resources into action. It is this dynamic school of thought in which the potential lies for elaborating resource-based view in terms of structuration. A short introduction to both schools reveals a development from an emphasis on the existence of resources to the awareness of the coming into being of resources (Vrieling, 1998).

"Those resources which are valuable, rare and imperfectly imitable" (Barney, 1986b) are regarded as crucial to competitive advantage by the static school. Management has the task to explore, exploit and protect these resources (Schulze, 1994). It is particularly the protection of these resources that contributes to an inertia with regard to competitive positioning. Markets will tend to stability if all firms guard their sources for heterogeneity.

Barney, a representative of the static school, might argue that his notion of organizational culture concerns a ‘process variable’ (1986b). Vrieling (1998: 20) observes that it is still restricted to a causal relationship at only one moment in time. Organizational culture remains an independent variable within the proposed static causal model to explain firm performance. This deterministic approach of the static school fits the tradition of what strategic literature calls a variance approach (e.g. Poole, Van de Ven, Dooley & Holmes, 2000; Aldrich, 2001; Van de Ven & Engleman, 2004: 347). "The variance approach seeks explanations of continuous change driven by deterministic causation, with independent variables acting upon and causing independent variables." (Van de Ven et al., 2004)

The dynamic school actually begins where the static school stops. It is not the existence of resources being put as central, but rather their origins and perpetuation. The stability assumed by the static school is only a temporary situation from the dynamic perspective. The objective of management remains the same, being competitive advantage through heterogeneity, but it is argued that the protection of valuable resources can be counterproductive. If resources are only explored, exploited and protected, what about those which have become less or not useful? The dynamic school argues that resources must be replaced, if needed. It hereby emphasizes the role of change in the resource development, whereas the static school restricts itself to resource accumulation heading for stability. The dynamic school, on the other hand, argues that managers should be able to accommodate the change processes.
Organization theorists like Pettigrew and Aldrich are the ones who have pointed at the historical dimension of resources. They have both a past and consequences for the future at the same time. In other words, the question of what a resource is should not be restricted to an analysis of the present moment. Or, as De Gregori (1994) states: "Resources are not, they become." The insight that resources develop through time requires specific management skills. While making strategic decisions, both the history and future of the resources at stake must be taken into account.

Within the dynamic school, many authors elaborate on the resource-based view by applying an evolutionary process approach (e.g. Nelson & Winter, 1982; Teece, Pisano & Shuen, 1994, 1997; Levinthal, 1995). Resource variation and mutual competition are the basis of a selection mechanism in the tradition of the Darwinistic approach to the biological world. This mechanism sustains the tendency towards a certain point in the future and resembles the idea behind path dependency (Teece, Rumelt, Dosi & Winter, 1994). History matters because it steers future decision-making, or as Vrieling (1998: 23) puts it: "If history matters, the activities and strategies of yesterday become the context of today and tomorrow, influencing the activities of today and tomorrow." As we have seen earlier, however, path dependency incorporates a deterministic component which is worth noting, defining the strategy path. It has to be noted that, in addition to this deterministic component, path dependency also incorporates studies which try to take a less deterministic - though still self-reinforcing - perspective on institutional and organizational paths (cf. David, 1985; Arthur, 1989; Schreyögg & Sydow, 2011).

The rigidity involved in path dependency regarding the creation and development of resources has directed Leonard-Barton (1992) to structuration theory (Giddens, 1984). This dialectical conflict approach appeared to be well suited to resource-based vocabulary (Vrieling, 1998). Resources are not only being created, they also shape and restrict future decision-making moments. Leonard-Barton speaks of core rigidities as "the flip side of core capabilities. They are not neutral; these deeply embedded knowledge sets actively create problems." As we have seen earlier, Vrieling (1998) also pointed at drawbacks of sticky resources. Perpetual behavior can lead to a sustainability and inertia of patterns which can be restricting in obtaining or renewing resources. Interestingly enough, an important resource could also be the capability to change strategic patterns. The status quo sometimes needs to be challenged. Structuration theory attributes this role to conflict, as we will see. But not after having explained how the four levels of
social structure, according to the structuration approach, can be applied to the strategy path.

**The strategy path and the levels of social structure**

Now that we have argued that employing resources is a process of routinization and structuration, we can apply the levels of social structure to make the strategy path ‘visible’. The strategy path has been defined as the actual course of strategic actions through time. It has been argued that it is a course of resources, which is a course of routines. It appeared that routines are not restricted to tangible resources. Sources of heterogeneity, hence competitive advantage, can also lie in rather unapparent routines. Sztompka (1991), in his theory of social becoming, distinguishes four dimensions of the social structure, which will be of analytical use to pinpoint all routines. Routines, that make up the strategy path, can thus be found at the ideal level, the normative level, the interactional level and the opportunity level.

To begin with the latter, the **opportunity level**, seems the most obvious when defining the strategy path. It is the level of power. This can be political power, but in this particular case, we should broaden this dimension to competitive power. Power is then ‘having the opportunity’. An extent of imposition is involved here, as it is with political power. For the firm, its power largely lies in financial resources. It is a matter of size. The more financial resources, the more powerful the firm usually is. It might be a disillusion to some, but size matters in this respect. Consumers, politicians, competitors, scientists; they can all be impressed by the size of a firm. A multinational will generally be regarded as more powerful than single shop owner. The firm carries with it a past that - if things go well - shows in the building up of financial resources. They - of course - can also be reflected by property, workforce, machines, technology and other sources that management could invest in. Money buys many things, so there seems to be a connection with the other three levels of social structure. The more money, the more means to influence peoples’ ideas through advertisement or research reports. The more money, the more expensive attorneys can be hired. And, the more money, the more people willing to be your friend. Nonetheless, defining the strategy path is not a matter of a conceptual convergence to the opportunity level, which – according to our definition – boils down to financial resources and technology.

Notwithstanding the great significance of the opportunity level, the other three levels of social structure are expected to have an explanatory power in itself. In addition, the definition of institutional bandwidths was not restricted to the normative level either, despite the fact that this level seemed
the most appealing in terms of legitimacy. So, also with regard to the ambition to accommodate the coming together of institutional bandwidths and the strategy path, all four levels of social structure will be applied to the strategy path. Not surprisingly, as we will see, the resources at the three remaining levels are not those that are easily allocated, or at least, not in the sense that they can just be bought.

The strategy path at the *ideal level* of social becoming concerns the perceptions of personnel and management. How do they perceive their individual role with regard to the firm and how do they regard the role of the firm in society? A firm that wants to be the market leader, needs people with the appropriate mind set in order to reach that goal, like a soccer team, that will never win the championship if it does not *want* to become a champ. Those people who endorse the goal will contribute best to achieving it, in contrast to those who are uninspired and do not feel any commitment. Managers who realize that those resources are in the minds of people, will also realize that it needs to be worked on - on a routine basis - in order not to let ideas diverge counter-productively. On the other hand, radical strategy changes might require radical changes at the ideal level. Privatized organizations, for instance, often struggle with a change of organizational culture that needs to be effectuated. In such cases, a shift needs to be made from a strategic orientation on the principal agent – often a governmental body –, to a focus on the market as a guiding mechanism.

The *normative level* of social becoming also applies to the strategy path. Norms and values are not just something exogenous, as featured in the definition of institutional bandwidths, with its focus on rules and regulations. They can also be found within the organization, or even within certain divisions of the organization. Norms and values are not just imposed from the outside. Firms can also put their own standards into practice. Those standards can be even ‘tighter’, than those that count for everybody. Consumers can be willing to reward such practices, particularly when it comes to health and environmental issues. Some cosmetic brands, for instance, explicitly declare that their products have not been tested on animals. Codes of conduct, however, will only have an effect when they are of a sustainable quality. It has a lot to do with the reputation of the firm. In other words, they need to be put in practice on a routine basis.

The *interactional level* of social becoming is another essential dimension of the strategy path of the firm. It concerns all the relationships that exist with and within the firm. Various contacts have been established through the years. Some of them remain weak ties (Granovetter, 1973), whereas others are maintained on a routine basis. Network ties can be of significant use, for
various – and often obvious – reasons. Consumers are needed to buy the product and provide market feedback on these products. Good relationships with suppliers are usually the result of experiences of getting the right materials for the right price. Contacts with the media can be of use to get a message across on a short-term basis, for instance in the case of damage control when things have got out of hand with regard to the public opinion of the firm or its products. Ties with research institutes – such as universities – can be the basis for potentially fruitful contract research. Contacts with politicians are needed to carry out the appropriate lobbying strategies. These are just some examples of the relationships which are part of a vast network that any firm finds itself in. And again, these assets are not something that can just be bought. They need to be established and they need to be maintained. Trust plays a crucial role in that respect. It takes quite some time to obtain confidence, but it can be lost instantly as well.

**The strategy path concluded**

What we have just seen is that the levels of social structure prove to be an insightful analytical approach to the strategy path. It is not surprising then to see that resources are not restricted to tangible means such as machines and technology. These are covered by the opportunity level. In addition, the remaining three levels disclose routines that are less easy to get hold of. Employees’ mindsets, internal codes of conduct or relationships; they are all examples of strategic assets that cannot be bought just anywhere. However, they can make a big difference. Particularly, when they are complementary. It connects with the idea of strategic frames, which has been discussed earlier. Interestingly enough, commercial enterprises are very keen on showing the world that it all fits together. That shows on promotional campaigns. A leading company consists of people with one goal, one mission. It sticks to the rules, preferably more than necessary. It knows the right people, if you look at the billboards and see which celebrities love to be associated with its products. And – of course – the best techniques are being used, they make the best quality for the best price… All these aspects are part of the strategy path of the firm.

As we have seen in the above, the resource-based view explains firms’ performance through the existence of market imperfections and the possibilities for resource-heterogeneity to which it leads. A whole range of tangible and intangible resources can be designated, but the real debate concerns the question of which of those really make a difference in the quest for competitive advantage. It has been illustrated how, within the resource-based view, insights have emerged that stress the relevance of the unique
history that resources carry with them. Understanding the role of resources in the strategy process therefore starts with analyzing the development of resources. Resource development can best be described in terms of routines when opting for a process approach. From that perspective, firm heterogeneity is the result of the alternation between repetitive actions on the one hand and the potential to change the consequential social structures through alternative strategies on the other hand. It has been argued that this connects with the duality of structure in structuration theory. Resources both sustain strategic behavior through time, creating social structures, and are the means by which these structures can be defied at times. Both are needed for competitive advantage. The strategy path of the firm entails the actual deployment of resources over time, in terms of actual routines, in the search for competitive advantage. It is this strategy path which is deliberately affected by government intervention, through changes in the institutional bandwidths that firms are expected to act in accordance with. The understandable opposition of management to adhere to exogenous attempts to steer the strategy path can be put in practice through these very same routines. Regarding government intervention, the ultimate resource is the dynamic capability to steer the controversies - that arise because of the clash between the quest for heterogeneity on the one hand and the homogenizing forces of government intervention the other - in the desired direction. Not surprisingly, the course of the strategy path and the course of the institutional bandwidths can cause conflicts. They will now be explained as controversies.

CONTROVERSIES

Government intervention in businesses is expected to give rise to at least one or more controversies. Policymakers interfere with the strategy process of the firm via the institutional context. The notions of the strategy path of the firm and its institutional bandwidths have been defined in the above. It has been argued that the coming together of the two is a clash between a search for heterogeneity by the firm on the one hand and the homogenizing forces involved in government intervention in conjunction with institutional bandwidths on the other. It appears that both the strategy path and the institutional bandwidths can be elaborated on in terms of structuration. It will now be argued that the interaction of the two, which is the firm-government interaction in which the effects of government intervention are expected to

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35 In terms of figure 1, respectively the strategy loop and the policy loop.
come about, can also be interpreted as a structuration process. Sztompka’s theory of social becoming (1991) will be elaborated on in more detail to define the notion of controversy in terms of a manifestation of contradiction involving one or more levels of social structure (cf. Gaud et al., 2002; Sminia, 2003). The four levels of social structure have already been dealt with in the above. We will now see what the implications of the approach are with respect to continuity and change in this social interaction process. It will be argued that the intervention act is an event meant to cause changes in the social structure, with its supposed effects on the strategy path and institutional bandwidths of the firm. Yet, it is just part of a complex interaction process in which other stakeholders have their share, each trying to direct the institutional bandwidths in their own desired direction. Controversies are the opportunities to do so. After having discussed the role of the controversies in the interaction process, it will then be argued - in the next section - that mobilization is needed to take competitive advantage of these controversies.

**The theory of social becoming: continuity and change**

Sztompka’s theory of social becoming is a dialectical process approach in the tradition of structuration theory (e.g. Giddens, 1984). Central to the model is the underlying question of why change occurs, rather than continuity. Four dimensions are distinguished, from which angle the social structure can be viewed. They have been dealt with in the above, when applied to the notions of institutional bandwidth and that of strategy path. It is not only this distinction between the dimensions in the social structure which makes it useful for our process approach to the firm-government interaction. It is also the duality of structure itself, inherent to structuration theory, which enables a well-suited process approach to the firm-government interaction. This duality of structure, together with the dimensions in the social structure that are being distinguished, allows an approach in which all of the parties involved in the firm-government interaction have a share in the potential change of existing social structures. It puts the government intervention into a perspective in which the outcomes do not, by definition, match with the objective of that particular measure. Nor is it, *per se*, the policy makers who will leave the biggest mark on the effects.

Any moment in time, and each situation, is characterized by a particular conjunction of features of the four levels of social structure. It is the background against which agency can take place. Sztompka labels this as
Various scenarios for behavior are possible, but only one will be effected in practice. This is the manifested action. It is what is actually happening. Manifested action either conforms to existing social structures or questions them. It is in the latter case when change could occur. The social structure needs to be defied on at least one of the four levels to potentially cause structural changes in society. Non-conformist behavior gives rise to a controversy: the current social structure, or parts thereof, are then debated. “As a result, the definition of the situation could have become ambiguous. The existing norms and values might have become subject to debate. Interaction could have taken place in such a way that it circumvents the current interactional network. Opportunities might have been opened or closed up for certain agents. Or any combination of these four possibilities could have taken place. The moment that such a controversy is resolved, either change has occurred or the old situation has been re-established.” (Sminia, 2003: 1625) The outcome of the settlement of the controversy thus determines whether social structure has been subjected to change or not. Regardless of the outcome, the existing social structures in combination with the available agents will supply another situation of potential ability. The story continues as the process of social becoming unfolds.

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36 Sztompka (1991: 98), in fact, speaks of a ‘triad of ‘A’s’. With an agent is meant the physical individual person. An agent can also be a collective. Agency refers to the capacity to produce social events. In all three cases, however, it is being referred to with the mode of potentiality.
Government intervention is, as we have seen, an attempt to change the institutional bandwidths of one or more firms. In terms of social becoming, it is the manifested agency of government trying to cause changes in the social structure. The main reason why an intervention causes a controversy has been discussed in the above as well: homogenization and heterogenization clash. An intervening government generally has a homogenizing effect on the strategy of businesses, whereas firms want to acquire competitive advantage to distinguish themselves from their competitors. Or to put it more boldly, management does not want policymakers to interfere with its strategic decision-making, particularly not through homogenization pressures via its institutional bandwidths.

The question as to what extent changes of social structure, if any at all, match the intentions behind the intervention, remains to be seen. Not surprisingly, this exactly touches upon the central question to this research. For instance, if not a single firm adheres to a new law, what is its relevance - and that of the intervention - in practice? Have the institutional bandwidths really changed then? And one step further, has the strategy path of the firm taken a different course because of that? It all depends on the outcome of the controversy. If a controversy is only restricted to the one effect that has triggered it, and nobody does anything differently, or does not even notice it, nothing will change. The controversy consists in the clash of the policy loop and the strategy loop, as visualized by figure 1, which is in fact a clash of – respectively – the institutional bandwidths and the strategy path of the firm.

![Diagram](image.png)

*Figure 3: The clash of an institutional bandwidth and the strategy path of the firm*
A controversy occurs when the strategy path of the firm indeed crosses – or is about to cross - the boundaries of an institutional bandwidth. Figure 3 shows two scenarios. An intersection can take place because of changes of the institutional bandwidths itself, which is the case at T1 in figure 3, or because of a shift in the course of the strategy path of the firm, which is the case at T2. Given our central research question, the first scenario is the one that needs to be taken into account anyway. It fits with the idea that government intervention is an attempt to direct the strategy path of the firm in a certain direction. At T1 the latest, we would thus expect a centripetal shift of the strategy path, in accordance with the changes of the institutional bandwidth. However, the second scenario is compatible with the idea that management does not necessarily have to comply with the imposition of institutional changes. In this example, at T2, the firm deliberately challenges the current patterns. However, the firm could also challenge the institutional bandwidth at T1, if it were – deliberately or not – to persist in its current strategic course. In the deliberate scenario, management could for instance be aiming at a reconstruction of the institutional bandwidth to its initial state.

The question of if, and how, social structures change, as reflected in institutional bandwidth and strategy path, depends on the outcome of the controversy. The clash at T1 might lead (a.) to an adjustment of the strategy path, or (b.) to the adjustment of the institutional bandwidths, or (c.) to a combination of the two, or (d.) to a maintenance of the status quo. A consequence of the latter scenario would then of course be that the particular firm acts unlawfully. Depending on which level of social structure we are talking about, various consequences are thinkable. For instance, this scenario at the normative level could lead to a legal punishment. At the interactional level, the firm could lose some of its allies. All kinds of outcomes are possible.

In order to sort out the effects of the intervention, the controversies must first be detected, as they are a necessary - though not a sufficient - condition for effects. Controversies, hence intervention effects, arise at either one or more of the levels of social structure. We will therefore now wrap up what has been said before about institutional bandwidths and the strategy path with regard to government intervention by bringing it together per separate level of social becoming. It will be argued that the effects of the intervention in terms of controversies are not restricted to the normative level and the opportunity level, which appeared to be dominant in our definitions of respectively the institutional bandwidths and the strategy path, but can also

\[37\] A third scenario would of course be a combination of the two other possibilities, but going much deeper into this possibility would not add much to the essence of the discussion here.
affect the interactional level and ideal level. In other words, all four levels of structure are relevant with regard to controversies.

**The normative level**

A fair defense can be put forward for the view that government intervention, first and foremost, takes place at the *normative level*. Issues at this level boil down to legitimacy. Government intervention is, as we have concluded in the above, generally expressed by rules, laws and regulations. Institutional insights have proven to provide solid theoretical grounds to define the notion of institutional bandwidths. Given that definition, a strong link with the normative level is evident. Institutional bandwidths must be taken into account if firms want to legitimize their strategic actions. A firm continuing its strategic course as portrayed in figure 3 will eventually end up having legitimacy problems, in either of the two scenarios, assuming stability of the institutional bandwidth at the normative level after T2.

We have seen that the normative level entails various possibilities of legitimacy frameworks. The legal framework constitutes an important dimension of the institutional bandwidths. Legitimacy, however, cannot only be *derived* from this legal framework as a part of the institutional bandwidths; it can also be shaped *and* reshaped, as government is trying to do with its interventions. Nonetheless, there is no guarantee for success in attempts to constitute legitimacy frameworks, nor is government intervention restricted to the normative level of social becoming. Laws, rules and legislation in general, and interventions in particular, will usually be generally applicable. In practice, they will concern a more specified group of agents which faces the institutional bandwidths. In other words, the intervention entails interactional aspects as well. In addition, if seen as a political, judicial or financial tool, be it in terms of structuring it or using it, interventions can also affect the opportunity level. And lastly, the ideal level is at stake if the cognitive aspects of such legal frameworks are taken into account. In short, the effects of government intervention must not only be sought at the institutional level. We will therefore look into the other levels of social structure more deeply.

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38 Early thinkers Plato (1941) and Aristotle (1999) already recognized that seeking to gain influence over others by means of legitimacy can prevail over more coercive modes of governance from an efficiency and cost-benefit perspective. Coercion can be costly compared to gaining legitimacy. In addition, both philosophers also expected modes of enhancing legitimacy to have more durable effects.
The opportunity level
From the perspective of the firm and in terms of resource-based logic, the intervention is, as we have concluded earlier, a complete intermingling with its resources. Resources can be explained as sources of power. Competitive advantage lies in having power over specific resources and the ability to use them for that matter. We have seen that government intervention is therefore not only an interference in the institutional bandwidths of the firm, but indirectly also an interference with the strategy path of the firm. Intervention in businesses, therefore, affects not only the normative level, but also the opportunity level. Or perhaps particularly the opportunity level, as this is what most directly refers to our definition of the strategy path of the firm, which is, in the end, where government is expecting the effects of its intervention.

Taking the example of figure 3 again and applying it to the opportunity level, we see organizational routines of the firm, expressed by its strategy path, bumping into restrictions to its opportunities, deriving from the constellation of production factors, such as financial resources and technology. No wonder a controversy occurs. At this level, the government intervention is an intermingling with the resources of the firm. In our model, the intervention affects the strategy of the firm via the institutional bandwidths and the interaction process as a whole, but the effects on the organizational routines can be rather direct and tangible. That is the 'power' that governments have in modern societies. Firms, on the other hand, also have a certain 'power', as we have concluded previously. The opportunity level of controversies is therefore also of particular importance with regard to the firm-government interaction. In this light, we will therefore now look a little deeper into the mechanisms through which intervention affects the resources of the firm.

Government intervention in businesses either supplies the firm with new resources or it denies them. We will speak of an enabling intervention when new possibilities to enhance the resources of the firm arise. A license can, for instance, be an enabling intervention when new markets are being opened up. A restricting intervention does the opposite. Resources are then taken away. Withdrawal of a license is a logical counterpart of an enabling intervention. These enabling interventions will therefore generally be welcomed. They will only contribute to heterogeneity, however, when they enhance barriers to success. These are the barriers from behind which the scarce resources can be fully exploited.

In strategic literature barriers to success are often distinguished from barriers to entry (e.g. Pettigrew & Whipp, 1991: 286). Barriers to entry are those barriers that everybody has to overcome in order to join a market. The resources involved do not contribute to competitive advantage, as they are not
Interventions enhancing barriers to entry are therefore not likely to cause enthusiasm among market parties. We should however, be cautious in drawing conclusions. It is not only a matter of what the institutions are, but also what you can do with them, as we will see.

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<tr>
<th>Intervention to entry</th>
<th>Restricting (/- resources)</th>
<th>Enabling (+/+ resources)</th>
<th>Transforming (↔ resources)</th>
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<td>1. Diminishment of entry resources</td>
<td>2. Attribution of entry resources</td>
<td>3. Attribution of entry resources at the cost of success resources</td>
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<td><strong>Perfect market</strong></td>
<td>Homogenization tendency</td>
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<tr>
<td>All firms (including potential) are initially equally affected</td>
<td>Strategy: collective (sector) opposition</td>
<td></td>
<td>Strategy: polarization within sector (old vs. new)</td>
</tr>
<tr>
<td><strong>Scarce resources</strong></td>
<td>4. Diminishment of success resources</td>
<td>5. Attribution of success resources</td>
<td>6. Attribution success resources at the cost of entry resources</td>
</tr>
<tr>
<td><strong>Imperfect market</strong></td>
<td>Homogenization tendency</td>
<td>Heterogenization tendency</td>
<td>(Ultimate) heterogenization (= monopoly) tendency</td>
</tr>
<tr>
<td>Firms can initially individually be affected</td>
<td>Strategy: individual (firm) opposition</td>
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Figure 4: Modes of government intervention and their effects on the strategy process of the firm

Exploiting equally distributed or imposed resources in a unique way could eventually imply a useful barrier to success. A barrier to entry to a monopolist is in fact a barrier to success. From that point of view businesses should be expected to ultimately strive for unique barriers to entry, hence barriers to success, hence monopoly. The possible tendency towards monopolies is one of the main reasons for government to intervene in the market. Institutional interference enhances or dissolves barriers to entry or to success but, as we have seen, all four scenarios (see figure 4) can potentially be used in the quest for heterogeneity. An enabling intervention implies new opportunities to the firm, whereas a restricting intervention takes them away. However, an enabling intervention will only contribute to competitive advantage when it enhances the barriers to success. It is for this reason that the management is
expected to steer the effects of the interventions towards this category. This is where the dynamic factor comes in.

Let us look more closely at each of the six intervention categories, by using the example of three competing firms, as illustrated by figures 5 to 10. Firm X, firm Y and firm Z possess the same set of resources due to barriers to
entry. These entry resources are represented by the blank bars. The firms differ in their success resources, represented by the shaded bars. Firm Y has the best starting position and firm X has advantage over firm Z.

Figure 8: Intervention restricting barriers to success

Figure 9: Intervention enabling barriers to success

Figure 10: Intervention transforming barriers to success

The starting position is the same for each of the six scenarios and is portrayed at the left side of the page. The situation immediately after the intervention is
illustrated on the right side. An intervention restricting barriers to entry (scenario 1) has the same effect on each of the firms: their entry resources diminish. Success resources are unaffected. An intervention enhancing barriers to entry (scenario 2) favors each firm equally by supplying them with the same entry resources. There are no effects for the success resources again, although the proportions between the two resources might change per firm differently.

An intervention transforming barriers to entry (scenario 3) through attribution of entry resources at the cost of success resources has a similar effect on each firm concerning the addition of entry resources. In our example however, we see that one firm can be more affected in its success resources than the other. Firm Z, for example, loses all its heterogeneous resources after the intervention. What they were unique in is now homogeneous to the industry. What we see is that intervention in the entry resources initially affects all firms equally, but the effects on the entry-success proportions might vary individually.

An intervention aimed at the success resources varies in its effects by definition. An intervention restricting a barrier to success (scenario 4) takes away success resources of one or more firms. In our example, firm Y loses its competitive position over firm X. An intervention enhancing a barrier to success (scenario 5) attributes one or more firms with success resources. In our example, firm Z can now keep up with its competitor firm Y. An intervention transforming barriers to success (scenario 6) through the attribution of success resources diminishes the entry resources equally among the competitors, but the effects on the success resources vary individually. In our example, all firms lose the same entry resources, because if one firm loses these, they will all lose the same, but what replaces that, the success resources, has different effects on each firm. Such interventions are extreme in the sense that every firm would like to trade entry resources for success resources. However, as a 'scenario' it is worth consideration. For instance, creating a monopoly could be explained as dissolving all barriers to entry and attributing success resources to one firm.

It must be stressed that the effects of the intervention can change over time. The question as to whether an intervention supplies or denies resources, and with regard to which barriers, depends on how the firm deals with it, rather than what the intention behind the intervention was. In other words, the effects come into being as well. At the opportunity level, the intervention gives rise to a power issue. The effects of the intervention at the opportunity level, if any, will be expressed by a changed or changing constellation of
resources. In our model, taking the perspective of the firm, they will be visible in the strategy path.

Not surprisingly, resource-based view and institutional theory have primarily covered two of the levels of social structure. From an institutional perspective the intervention affects, at least, the normative level. Government intervenes in the market by altering and enforcing norms from which firms can derive legitimacy. These norms are part of the institutional bandwidths. Changes in the institutional bandwidths, caused by intervention, are meant to influence the behavior of the firm. Government thus uses the ISP to steer the strategy path of the firm (cf. figure 3). It is from this perspective of the firm that resource-based logic deals with the intervention in the market as, at least, an interference with the resources of the firm. The possession of resources, or the absence of them, is a matter of power which relates to the opportunity level. Having the model of social becoming in mind we should be aware of the facts that a.) intervention in the market might stretch beyond the dimensions of legitimacy and power over resources, and b.) that institutional theory is not only about legitimacy, nor is the resource-based view only a matter of power. The levels of social structure can analytically be distinguished from each other, but they are by definition related to each other. Despite the initial focus of the resource-based view and institutional theory on the opportunity level and the normative level, the ideal level and the interactional level are also undeniable parts of the social interaction.

The ideal level
The ideal level draws the attention to the cognitive dimension of social interaction, rather than the cultural side of it as the normative level does. How do people perceive their social reality? What is their world view? These questions, hence the ideal level of social becoming, are relevant to our object of study. The intervention in the market comes with a certain definition of reality. Policy makers assume causal relationships between behavior of firms, institutional dynamics, effects of a particular intervention, etcetera. Political debates almost per definition reveal that such evaluations can vary strongly among the stakeholders involved. Firms use their marketing tools to actively influence the public’s perception of their products and all the good it brings the buyer. They can also use lobby techniques to convince politicians of how

39 Given that ‘resources’ can be found at any level of social becoming, we must take into consideration that the categorization as described here can be applied to all controversies. However, as government has the ‘power’ to create, adjust and dissolve barriers to entry and barriers to success, the opportunity level is the right place to discuss it.
to look at things. Perceptions can thus be an important resource. This becomes particularly clear when a firm’s fine image is damaged. The media, captains of industry, lawyers, politicians, scientists, artists, and even the public, are aware of the power of perceptions. Altogether, it is safe to state that the communication of perceptions is an important part of social interaction. Taking the example of figure 3, we could see two scenarios of conflicting perceptions. Considering the focus of our research, there will be an explicit role for government, and government intervention, in this respect. However, the institutional bandwidth at the ideal level is perhaps the ‘broadest’ of the four, in the sense that it will generally entail an undefined potential of stakeholders with an infinite range of world views. Controversies can thus easily arise at unexpected places, at unexpected times.

The interactional level
The interactional level discloses the network dimension of social interaction. It is tempting to relate the network aspect to either one of the three other levels. Sztompka’s model, however, suggests that there is a discretionary relevancy of network relationships beyond legitimacy, power and perceptions. Following that line of reasoning, it is argued here that the fact that there is a network tie or not, regardless of possible qualifications supplied by the other levels of social structure, is a potential explanatory factor in itself. The position within a certain network constellation in time and place is only partly a result of coincidence. Alliances between agents for instance sometimes occur against the odds. The interactional level is a pure network description that refrains from the questions of ‘how’ and ‘why’ the ties are relevant. Accordingly, the ISP model leaves separate room for institutional bandwiths at the interactional level, hence a fourth dimension of the social structure where controversies can arise. Taking the example of figure 3 and applying it to the interactional level, we see two possibilities for a firm which is about to give in on network ties. Management can deliberately head for such an occasion, or the network that the firm finds itself in can change. In both cases, a connection with the government intervention should be looked for. Is government directly intervening in the network relations of the firm or is the intervention an impetus for management to actively reconsider its connections with the outside world? Here also, several possibilities are thinkable.

Conclusion
As stated earlier, the four levels of social structure are strongly intertwined. Changing institutional patterns are for instance also likely to have repercussions on network relations and cognitive schemes. Power issues, to
mention another example, will not leave the ideal level and the interactional level unaffected either. Nevertheless, the analytical distinction will prove to be worthwhile in unraveling the complex government-firm interaction. The social interaction process runs on controversies. If it were not for controversies, there would not be any change, or at least no grounds for potential change. Without controversies, hence the absence of any agency even trying to defy the current social structures, things would just stay the way they are. The government intervention, however, is a sufficient condition for at least one controversy as it is a deliberate attempt to change social structures, and more particularly institutional bandwidths. The extent to which those attempts are effected depends on the manifested agency of firms involved, here defined as the strategy path.

We have learnt that the four levels have to be taken into account when investigating how the controversy unfolds. It is in that process of social becoming that the effects of the intervention come about. We must, therefore, not only look at changes in the institutional bandwidths and the strategy path of the firm, but constellations of legitimacy and power in a broader perspective, plus cognition and network relations. Each of those dimensions are likely to be affected by the intervention. The intervention is part of a process, and so are its effects. The effects become visible in the duality of structure, assuming that one cannot do without another. Social structures cannot exist without confirmation through daily actions, while human agency is meaningless if not against the background of social structures.

The question of why and how possible changes in social structures occur is in fact the answer to if and why a controversy at stake has been settled. Once it has, the social structures have either been sustained or a new order has arisen. In either case, both action and structure were needed, in which the effects have become apparent. In order to get the best out of the interaction process the agents involved will try to settle the controversy in their own interest. From the perspective of the firm, management will aim for an outcome of the process which best contributes to the firm’s heterogeneity. To settle the controversy mobilization is needed; the final component of the model of the institutional survival path.

MOBILIZATION

We have seen that the effects of government interventions in businesses are not restricted to one moment in time, nor are the effects certain beforehand or fully predictable. The intervention affects the strategy path via the
institutional bandwidths that government is interfering with. However, this does not concern a unilateral causal relationship where the intervention leads to a destined modification of the institutional bandwidths, which in turn leads to a destined shift in the course of the strategy path of the firm. The main cause for this is the clash between the homogenization forces of the intervention that contrasts with the search for heterogeneity by the firm. This has been explained by discussing institutional theory to define the institutional bandwidths on the one hand, and resource-based view to define the strategy path of the firm on the other. Although the two mentioned theoretical orientations seem mutually exclusive at first sight, hence the mentioned 'clash', Oliver (1997) has shown they can be considered as complementary. A firm’s ability to effectively use competitive barriers on the one hand and institutional forces on the other hand come together in a situation where the firm should use what Oliver has labeled ‘institutional capital’. It will be argued here that mobilization goes beyond the use of institutional capital. Firms have an active share in structuring institutional bandwidths. Mobilization is a leverage tool to steer controversies at one or more levels of social structure by anchoring vested and secure parts of the social structure. In addition, as we will see, firms can even ignite controversies themselves to create additional possibilities to acquire more room for maneuver.

Institutional capital

Oliver (1997) argues that the institutional environment and its homogenization forces still leave room for the quest for heterogeneity to flourish. Heterogeneity can also lie in the way management deals with the institutional environment. It therefore has to put in practice its institutional capital. Institutional capital concerns those resources with which the firm can distinguish itself from competitors by how it exploits the institutional environment. If managers are willing, they can use this institutional environment to gain competitive advantage over their rivals. “Institutional capital can be defined as the firm’s capability to support value-enhancing assets and competencies. Institutional capital is the context surrounding resources and resource strategies that enhances or inhibits the optimal use of valued resource capital” (Oliver, 1997: 709). Knowledge of the policy process could for instance lead to anticipation on forthcoming legislation by early adaptation

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40 The notion of mobilization, is thus more specifically theory-laden than Sztompka’s approach, who only slightly elaborates on the concept: “Agents mobilize their potential capacities, abilities, needs, attitudes and dispositions in taking actions of various sorts. They eat when hungry, quarrel when angry, compose symphonies when talented, make revolutions when ‘relatively deprived’, wage wars when armed etc.” (1991: 90)
of the production processes. The needed new skills can thus be acquired earlier than competitors for the sake of competitive advantage. There can thus be variation among firms in how they respond to similar regulations, including the possibility of compliance going beyond those required by law (Gunningham & Kagan, 2005; Gunningham, Kagan & Thornton, 2003; Kagan & Axelrad, 2000).

Oliver has indicated that processes of homogenization and heterogenization can co-exist. Crucial in this line of reasoning is the attribution of the ‘willingness’ to exploit the institutional environment. The logic behind institutional capital nonetheless still leaves the firm relatively passive. In the model of the institutional survival path however, it is argued that each agent has a potential ability to *actively shape* the institutional context. In other words, the model looks beyond the possibility of the will to use institutional features. Institutional pressures do not necessarily have to be taken for granted by the agents involved. What, for instance, if firms collectively do not conform to certain legislation? Formal structures are in that case overruled by daily practice defining the institutions rather than legal boundaries. It connects with the idea of structuration.

Recently, a body of literature on the so-called institutional entrepreneurship has emerged which examines the active divergence of existing institutions (e.g. Leblebici, Salancik, Copay & King, 1991; Kraatz & Zajac, 1996; Rao, Morril & Zald, 2000; Dorado, 2005; Maguire, Hardy & Lawrence, 2004; Cliff, Jennings & Greenwood; Greenwood & Suddaby, 2006). Battilana, Leca & Boxenbaum (2009: 69) summarize recent developments in this field by stating divergent change “can be initiated within the boundaries of an organization and/or within the broader institutional context in which an actor is embedded. Active participation in change efforts is the other requirement for institutional entrepreneurship.” A body of literature has also emerged on social movements and institutional analysis recently. In that respect, Schneiberg and Lounsbury (2008: 649) argue that: “The integration of movements into institutional analysis has begun to revise existing imageries of institutional processes, actors and the structure of fields, generating new leverage for explaining change and path creation.” The logic of the ISP model dovetails with that of institutional entrepreneurship and social movements to a large extent.

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41 Zimmer & Ortmann (2001) have also developed the idea of strategically ‘institutionalizing’ the environment, combining, amongst others, neo-institutional thought and resource-based view.
Settlement of the controversy

The model of the institutional survival path assumes defiance of restricting interventions as they deny resources to the firm. The firm is assigned an active role in the interaction process. It has the potential ability to steer its institutional bandwidths by carrying out mobilization. This mobilization is part of the strategy path of the firm. It is meant to settle current controversies in the firm’s own interest. The controversy that has arisen needs to be settled in such a way that it eventually does supply new resources for potential heterogeneity to the firm. The firm will mobilize those available resources that direct the debated part of the social structure towards a desired end. A controversy has questioned parts of the social structure, in this case the particular institutional bandwidths, and until actual practice has confirmed new or current institutional boundaries, a discretionary room for institutional uncertainty has opened up. Settlement of the controversy is nothing more than narrowing down that discretionary room for uncertainty so that the controversy in fact vanishes through structuration of actual practice along certain social structures. Mobilization ‘anchors’ parts of the social structure in order to narrow down the remaining room for uncertainty. The anchored parts of the social structure are resources that are brought into play to lever the disputed part of the social structure in the desired direction. We have seen that controversies can involve one or more levels of social structure. Accordingly, mobilization can take place at each of the levels of social structure bringing resources into the debate, which stabilize the firm’s interest. Cognitive values could be referred to, legitimacy be claimed, specific network relations emphasized or political power expressed, and so on and so forth. Given the likelihood of controversies generally entailing more than just one level of social becoming, mobilization must take all of these into account. A controversy has only been settled, when all levels of social structure show no room for uncertainty. As long as only one level remains ‘open’, even to a slight extent, opponents will carry out their mobilization in order to direct the settlement of the controversy in their interest. The firm will push the debated part of the institutional bandwidths into that desired direction which contributes to heterogeneity. This is the ultimate dynamic capability for management, strategizing in government sensitive markets.

The notion of mobilization is not as far-fetched or abstract as it might seem. It happens in daily life continuously. In the case of an argument, which is in fact a controversy, people usually bring in various claims that resolve the debate in the desired direction. These claims can be a direct counterattack on the issue itself, but that might as well be ‘your word, against my word’, that carries no resolution in itself. The dispute can therefore be levered by other
claims, spread over the various levels of social structure. It might thus be worthwhile to point to your reputation, to offer money, to bring along other people to support you or to emphasize that there are no rules violated. These are just some examples, one for each level of social becoming, but many more are thinkable. It all boils down to the idea of making your own position stronger by controlling the disputed space within the social structure that comes with controversies, in order to steer the settlement.

Path dependency and triggering controversies
We have come to the conclusion that the firm plays an active role in the firm-government relationship with regard to settling controversies through mobilization. However, it will be argued here that the potential of the firm goes beyond steering the controversy in the desired direction. Management also has the possibility to trigger controversies.

Triggering controversies can be a tricky thing to do. How and why the controversy will be settled remains an uncertain thing, until the moment is there. Other parties will also ‘jump into’ the room for uncertainty, trying to steer the controversy in their own interest. There is something to win, but there is also something to lose. The institutional bandwidths might also develop in undesired directions. The safest thing would be to stick to the course of the strategy path and to the course of the institutional bandwidths. In the long run, however, competitive advantage can only be acquired through innovation and picking up challenges. It can thus be concluded that firms will see their institutional bandwidths becoming endangered at a time when they do not put into practice their ability to ignite and steer controversies. When failing to do so, firm and resource heterogeneity will eventually vanish in a competitive and dynamic environment.

Management must be willing and able to take risks. It takes power and guts to challenge path-dependent developments, which is inherent to the strategy path and institutional bandwidths. Management has the choice to sustain path dependency through positive feedback loops or to try and change them for its own competitive advantage through mindful deviation. The notion of path dependency goes beyond the idea that ‘history matters’. It is notably an explanation of how self-reinforcing mechanisms can diverge from an optimal end state. This is in contrast to, for instance, neo-classical theorists who predict allocation towards an efficiency equilibrium. Evolutionary economists, on the other hand, have adapted the idea of path dependency (e.g. Nelson & Winter, 1982). A famous example of the phenomenon is that of the QWERTY keyboard (David, 1985). The positions of the keys find their logic in technical circumstances which are not relevant nowadays, but they
remain fixed to this date, no matter how random they seem now. Changing the keyboard on the basis of other logics would bring too many switching costs with it.

Path dependency explicitly leaves room for the effects of accidental events. Single events can turn out to have long-lasting repercussions as lock-ins can occur. The ability to put this knowledge into practice can be a powerful strategic resource. Yet, it is not the most obvious thing to do, from a short-term economic perspective, expecting increasing returns. Besides, it is usually rather tempting to ‘go with the flow’. Going back to the QWERTY example, even if other keyboard configurations were more efficient, there would still be nobody willing to invest in these as initially only decreasing returns could be expected after incurring all the switching costs. So how can path dependency be used to acquire competitive advantage? Patenting is a good example of how a single event can have long-term advantages for the firm. It is for this reason that innovative industries acquire many more patents than are expected to turn out to be valuable. But if those that appear to will, they will make it all worth it. Management must thus be aware of both the paths that resources have paved in the past - their history so to speak - and the long term consequences of choices in resource allocation, either radically breaking with past developments, slightly changing them or sustaining them. "Managing enterprises is managing paths." (Van Nieuwkoop, 2009: 228)

Summing up, we can state that mobilization is the ultimate organizational routine for a firm in government-sensitive markets. Once management has the capability to ignite and steer controversies, and knows how to put it in practice effectively, it has potential to actively shape and reshape the institutional bandwidths that are relevant to its survival. It will now be argued, wrapping up the five components of the model that have been discussed, that management should not only be the captain of its own strategy path, but also of its own institutional survival path.

PROPOSING THE INSTITUTIONAL SURVIVAL PATH

In the above, the five major components of the model of the institutional survival path (ISP) have been dealt with successively: the government intervention act, institutional bandwidths, the strategy path of the firm, controversies and mobilization. The model has been developed to analyze the effect of government intervention. It is advisable to view the firm in terms of the ISP, particularly in the case of a government-sensitive market and a government intervention. Thereby, the model is a proposition in itself. This is
how government intervention affects the strategy of the firm. The ISP model is thus a theoretical answer to the central research question of this study. However, the proposed model constitutes a rather general and abstract proposition. The subsequent ambition of this research is to subject the ISP model to an empirical study. An empirical test is considered to be the next logical step in trying to bring the model further and discover the potential for further development and application. For that matter, two more specified propositions should be formulated (cf. Popper, 1959). Let us now go through the model again, summarizing what has been set out in this chapter in order to formulate the propositions, by putting them into context, with sensible interrelations between the components of the model.

![Figure 11: The institutional survival path of the firm (ISP)](image)

The ISP is the firm-unique aggregate of institutional bandwidths. These bandwidths comprise the room for maneuver by means of institutional boundaries that surround the firm. They can be categorized in levels of social structure, i.e. the ideal level, the normative level, the interactional level and the opportunity level. Bandwidths can widen out or narrow down, indicating respectively more or less room for maneuver. The strategic maneuvering of the firm is captured by its strategy path. It is the actual strategic course of resources expressed by routines. As long as the strategy path stays within the institutional bandwidths, hence the ISP, it sticks to current institutional boundaries, logically. However, crossing the boundaries of institutional bandwidths, with regard to one or more levels of social structure, will result in legitimacy problems. Such occasions can be the result of the strategy path leaving the ISP, or the bandwidths challenging the current strategic course of the firm, or a combination of the two.
Government interventions will generally narrow down the ISP. This indicates less room for maneuver. Of course, firms want the opposite. They want to utilize opportunities for heterogenization, whereas government intervention generally has a homogenizing influence on those involved. These interventions are then restricting, initially. Such a qualification, however, is not inherent to the intervention act. The effect of the intervention act comes into being throughout the intervention process, which is an interaction process in which firm, government, but also other stakeholders, are involved. The intervention act manifests at least one controversy. A controversy is particularly relevant to the firm when it entails potential negative effects on its strategic position. For instance, the shift of the boundaries of the ISP force a shift of the strategy path. Figure 11 illustrates this scenario. The controversy questions current social structures, like the institutional bandwidths, in order to influence strategic behavior. If the intervention act were not to lead to a controversy, it would not be an intervention defined as an actual or potential threat to the firm’s current strategic course. Hence, there would be no real firm-government interaction, which is the focus of our research. We thus have a first proposition.

Proposition 1: Government intervention in businesses leads to a controversy.

Controversies are the driving forces behind the interaction process, as explicated by the proposition formulated in the above. Effects of the intervention will evolve as long as the controversy exists. Throughout the process, other related controversies can also merge with the process. The question of whether or not the controversy leads to the desired outcome, in terms of the intervention, depends on the settlement of the controversy. The controversy is also an opportunity for other stakeholders, besides government, to have their share in the structuration process involved, which leaves various outcomes open. The firm, for instance, will try to steer the controversy in a direction that enables heterogenization. It will do so by means of mobilization. It leads to a second proposition.

42 The opposite, i.e. potential positive effects on the strategic position of the firm, is also relevant, as has been argued in this chapter. In fact, one of the main messages of the ISP model is that potential institutional threats could be turned into potential competitive advantage.
Proposition 2: A controversy leads to mobilization by the firm.

Figure 12 visualizes the relationship between the components of the ISP model and the positioning of the propositions in that constellation. This graphic overview emphasizes the interrelations between the components, hence the propositions. In addition, the overview reveals a certain sequentiality of the propositions. As has been argued at the beginning of this chapter, the first proposition features a starting point from which the other proposition logically derives, within the context of the model as a whole. If government intervention cannot be related to one or more controversies, the ISP model would turn out to be utterly useless from the start. The role of the controversies, related to the government intervention, is crucial in the interaction process. In the following chapter, it will be argued that they are the generative mechanisms that drive the process. Consequently, the controversies will be assigned a central role in the analysis. To put it simply, as long as there are controversies relevant to the strategic positioning of the firm, the interaction process is in motion. Moving on from there, mobilization by the firm is expected to take place, as stated by the second proposition.

Figure 12: The 2 propositions

The two propositions, capturing the causality between government intervention, controversies and mobilization, are the backbone of the model. They specify the theoretical answer to the general research question by arguing that the effects of government intervention come about in a process of controversies in which the firm puts into practice mobilization efforts to acquire competitive advantage.

The two propositions do not, by far, capture the entire theoretical model as it has been presented in this chapter. Nonetheless, it anchors the most essential causalities that need to be detected in the empirical interaction process as necessary conditions for the ISP model to hold true and consider it as workable. Sustention of the controversies would lead to the conclusion that
The two propositions do not, by far, capture the entire theoretical model as it has been presented in this chapter. Nonetheless, it anchors the most essential causalities that need to be detected in the empirical interaction process as necessary conditions for the ISP model to hold true and consider it as workable. Sustention of the controversies would lead to the conclusion that the model can stand this empirical test. It is thus the quest of the researcher to try hard to falsify the propositions. One of the biggest challenges will then be not to get trapped in a tautology mode where the researcher sees what he or she expects or wants to see because the logic of the model says so. Structuration perspectives in particular are vulnerable to the risk of molding reality until it fits the theoretical frames. It is for this reason that the model has been narrowed down, by means of the propositions, to its essence in order to allow a precise analytical conclusion in the final chapter. Firstly however, the theoretical model requires some methodological considerations. The next chapter will provide that, before the empirical research can be reported on in the subsequent chapters.
Chapter 3

Concerning Process
Research Method

Contrary to offices, brands, employees and products, the ISP is a rather intangible feature of the firm. Nonetheless, after its theoretical exposure in the previous chapter, it is now time to see how the ISP can be put into practice. There is no such thing as an ISP, waiting on the shelves, ready to be just taken off it. The ISP might not have an ontological status, yet it is being argued here that its empirical and analytical relevance is certainly there. However, a precise operationalization is the *sine qua non*. In this chapter, the procedure to get the model ready for confrontation with the empirical world will be outlined. Only when the epistemological foundations of the ISP model have been anchored, its components operationalized and the research design mapped out, is the road paved for the actual analysis and the testing of the propositions in the remaining chapters, in the tradition of process research (Pettigrew, 1985a; 1990; Yin, 2003; Hall, 2006; Bitektine, 2008).

In the previous chapter, we have conceptualized the ISP model. It has been theoretically demarcated and defined. But, what does the ISP look like in the *empirical* world? For instance, how can we pinpoint its five basic ingredients in our day-to-day life? And eventually, how can we test the four propositions? The structuration approach in general, and the theory of social becoming in particular, implies a perception of social reality in terms of a duality of structure. Actual behavior might be visible in day-to-day life; social structures, on the other hand, are conceptual constructs, invisible to the human eye. However, the notion that the two go hand in hand implies practical consequences. “If we think of any empirical event or phenomenon in society, anything that is actually happening, is it not always, without exception, a fusion of structures and agents, of operation and action?” (Sztompka, 1991: 91) In other words, every agent is enmeshed in some structure, whereas no social structure can exist apart from individuals.
Previously, it has been argued that it is this agency which is the proof of the pudding, when investigating the effects of government intervention. For instance, whilst a law might be expressed by visible words or documents, its relevance as a social structure lies in the agency that is related to it. In other words, when elaborating on this specific example, it is the process of the coming into being of the law and the process of compliance or non-compliance to it which are of particular importance in the light of this research. And these are the processes that drive actual behavior, which can be detected in the real world and from which structures can be derived. Assuming that this real world is composed of an indefinite number of actions, varying in an immeasurable number of aspects, social research must be rather focused and determined in order to get hold of the necessary data as a prerequisite for being successful in understanding the outside world. Not surprisingly, the structuration perspective implies that the search for data incorporates both the perspective of agency as well as that of the social structure, whereas only the former can be pinpointed in time and space. In this chapter, it will be argued that agency relevant to the object of study can be designated as an ‘event’. These events encompass features of agency as well as social structure.

Pettigrew (1990) defines process as a chronology of events, with reference to Giddens (Pettigrew, 1985a; 1992) and Sztompka (Pettigrew, 1992; 1997). According to Pettigrew (1997: 338) process encompasses “a sequence of individual and collective events, actions, and activities unfolding over time and in context.” This requires an active language. The empirical work, carried out to explain processes and subsequent outcomes, should be aimed at getting hold of events and event sequences. Sminia (2009:106 ) argues that, theoretically, “Pettigrew seems to work with levels of abstraction, with structuration-like theory at the most abstract level as a basic account of how the process of strategy formation can be understood.” Less abstract levels in this respect are found, also in the work of Pettigrew, in the descriptions that can be seen in the most concrete form of process accounts, for instance as presented with the two case studies for this research. In addition, this particular data can serve as the basis for comparison and abstraction (Sminia, 2009: 106). At this intermediate level, we find, respectively, the comparison of the two case studies and the testing of the ISP model. The confrontation of the concrete level with the intermediate level will reveal to what extent the ISP model will hold good.
Structure and agency in time and motion

One would think that the more structural the features, the easier it would be to detect them. This counts for theoretical notions, as well as for empirical objects. Time and distance can enhance the disclosure of structures. Nonetheless, the course of The Great Wall of China might be visible from a high altitude, but its first developments were definitely not, even if planes had existed at that time. From a process perspective, these rudiments were no less important than the final wall. On the contrary, one could argue. The message is that time and distance can indeed help us to, retrospectively, define structures, but we have to bear in mind that infant structures might remain unnoticed. This would argue for a less synoptic view and a certain sensitivity for rudimentary structural developments. Yet, on the other hand, a more incremental approach, analyzing from the current position in time and space, runs the risk of overlooking the grand designs. This is for instance why knowledge of history is generally regarded as a contribution to self-awareness. It puts the present in a meaningful context, full of partial explanations of the here and now.

French philosopher Ricoeur (1984) argues that experiencing time is essential to humans. Identity is strongly related to the perception of time. According to Ricoeur, what we are largely depends on where we have come from and what we are heading for. The past and future are connected with stories that give meaning to the here and now. Problematic with the ‘now’ is, however, that it instantly turns into a past. Time is intangible, says Ricoeur, but it is the story which is the tool to get hold of temporality. This reading of time and storytelling connects with decisions which will be made in this chapter regarding the contextualist research design and the importance of narratives.

In conclusion, then, we could say that distance might indeed reveal the most obvious structures, but a consciousness towards incremental, yet potentially structural, relevant developments should not be disregarded. This notion has been anchored in the proposed theoretical model by means of the tension in social reality between agency and structure, or should we perhaps say ‘the happy marriage’ of the two, as seen from the structuration approach, which has been opted for.

In the case of structural features of the model, it is temporality which will be instrumental. Like the old proverb says, ‘truth is the daughter of time’. The structural features of the ISP are a sufficient condition for a longitudinal design. Nevertheless, the proof of the pudding with regard to agency lies in the momentum at a certain moment in time. In contrast to structures, agency can easily be overlooked. Potentially relevant handling
could be lost in the blink of an eye. Action is, however, something that actually takes place. Attributes such as the agent, space and time can be specified. The two extremes, agency and structure, require a different approach. Geiger (1962) speaks, in this respect, of a cataascopic method versus a anascopic method. The cataascopic method focuses on the overarching structures in society, whereas the anascopic method focuses on the agency of individual humans. It can be concluded that the ISP model requires both methods. The duality of structure, inherent to structuration theory, will direct us towards a process method to accommodate the ‘measuring’ of the ISP.

There are various kinds of methods for process research. In order to choose the right methodological tools, the ontological and epistemological positioning need to be explicated. This elaborative run-up is of particular importance for this research because it concerns a newly developed model. As a consequence, it would not suffice to choose a research method based on, for instance, pragmatism or resemblance. Nor would it do justice to the model to refrain from reporting on the actual epistemological considerations and only supply the actual choices to which that has led. Theory and method cannot be seen separately in this research. When constructing the ISP model, ontological and epistemological consequences have continuously been thought through, with each step of elaboration.

In this chapter, it will be argued that there are solid arguments for choosing a process approach at the epistemological level, yet that the ontological positioning remains problematic. Nonetheless, holding on to the epistemological level, Pepper’s world hypotheses direct us towards contextualism and its ‘root metaphor’ of historic event (1942). In this tradition, knowledge derives by means of analyzing ‘the whole’ of a ‘multitude of facts’ without any determinate order (Pepper, 1942: 142). Contextualism nicely dovetails with the dialectics of a conflict approach such as structuration theory. After the basic epistemological issues have been sorted out, the components of the ISP model can be operationalized. It is then time, closing off this chapter, to report on the actual decisions and steps taken concerning the used research methods, as laid down in the research design.

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44 It has to be noted that this distinction should not be projected on the ontological level. For instance, Durkheim, who has worked in the anascopic tradition, does not state that ‘institutes are things’, but that we should perceive them as things (Zijderveld, 1966: 17).
**EPISTEMOLOGICAL POSITIONING**

There are several ways to try and grasp the outside world. In order to get hold of the empirics, one needs to be aware of its ontological positioning first: how is the nature of things being perceived? This is of particular importance when it is social change that is under study. Democritus (460 – 370 BC) and Heraclitus (540 - 480 BC) represent two classical ideal typical ontological positions. According to Democritus (e.g. Bailey, 1964), reality is made up of enduring entities. Change occurs as a result of a rearrangement of entities, either by substitution or by different positioning. In this atomistic view, the entities themselves do not change. Heraclitus (e.g. Barnes, 1979), on the other hand, holds the view that reality is a matter of processes, sustained by his famous statement that you could never step into the same river twice, for other waters are ever flowing over you. Van de Ven & Poole (2005) argue that the choices in the ontological positioning lead to different approaches for studying organization change, particularly when the epistemological issue is also taken into account.

**Variance versus process**

Concerning epistemology with regard to organization change, two research approaches can be distinguished: that of variance and that of process. Mohr (1982) was the first to oppose these two diverging approaches, leaving a clear mark on studies of organization change. Van de Ven & Poole (2005: 1381) argue that various studies and insights in the meantime have opened up possibilities for further generalization of the dichotomy: “The common thread running through these works is the difference between scientific explanations, cast in terms of independent variables causing changes in a dependent variable, and explanations that tell a narrative or story about how a sequence of events unfolds to produce a given outcome.” Whereas Mohr adheres to the viewpoint that theory dictates methods, Van de Ven & Poole argue that uncoupling the two puts the variance-process distinction in a broader perspective. They, in fact, unravel and demarcate epistemological and ontological issues. Research methods can be divided along the lines of the variance-process distinction, yet at the same time, the ontological positioning is open to two extremes, in accordance with the Democritus-Heraclitus distinction. The authors thus propose a typology of four approaches for studying organizational change. For our research, we are particularly interested in the process methods, which are in fact process narratives (Van de Ven & Poole, 2005: 1387).
Now, why a process approach, and not a variance approach? The firm-government interaction is such a complex and – politically – sensitive process that uniformity of meanings, roles and ideas of those involved in time is rejected here. This research adopts the idea that entities, attributes and events may change in meaning over time and that the time ordering of these events is crucial (Poole et al., 2000:36). In addition, this research does not restrict itself to fixed entities, nor to efficient causalities, as inherent to variance methods (Poole et al., 2000:36). The entities and causalities involved in the firm-interaction process are expected to be uncertain in all its aspects. Participants may come and go and final and formal causalities are taken into account as well.

Variance theory investigates social phenomena in terms of the relationship between independent and dependent variables (Mohr, 1982). Such an approach would not suffice to answer the question of why government intervention leads to certain effects. This is the leading question when opening up the firm’s black box of strategizing. A description of the effects in static terms of what strategic action the intervention has led might be interesting to policymakers to see if they have achieved their desired goals. However, it does not give any insight in why and how these effects have come about. In other words, a variance approach would do the job when one wants to know ‘what has come out of the black box’ at a certain moment. It would not supply the right tools to investigate ‘what has happened within that black box’. The answers to these ‘why’ and ‘how’ questions lie in the interaction itself. To capture this process, it is time and context, both contributing to its complexity, that must be taken into account. If they did not matter, a static analysis would be sufficient to explain why and how effects emerge. As a consequence, intervention effects would then be fairly predictable anyway: intervention A would then lead to strategy X. How likely would that be, a final causal determination within the policy making process? For example, a new law imposing pollution norms would then just lead to adjustment of corporate strategies in order to conform to the new standards. If this were the case, it would still leave the reasons for that unrevealed. Why does the firm conform to the new intervention, or why does it not? In addition, it does not disclose the explanation for choosing specific strategic alternatives. Static approaches will be restrictive in perceiving strategic alternatives or scenarios anyway. Summing up, we can say that, to open up the strategy black box and answer the ‘why’ and ‘how’ questions, a process approach is needed.

In this respect, it has to be noted that process research must not solely be associated with change. Sminia (2005: 2) notes that process theory is suitable for “understanding how and why a social phenomenon changes, comes
into being, disappears, but also continues to be.” In other words, a process is no guarantee for change. Applying this argument to this research, a process approach could also help to understand why things do not change, despite government intermingling in the market. Policymakers are also expected to benefit from the insight into the process which has not led to the desired outcomes.

So, considering what has just been said and putting the firm-government interaction in the context of ‘one big process’, why the focus on a concrete intervention? Part of the answer has already been given in the above. This research aims to open up the black box of corporate strategizing, not that of public policymaking. However, as we have concluded also, the complexity of the policymaking process must not be ignored either. The firm-government interaction is the coming together of respectively the strategy process and the policy process. It is the black box of strategizing which is opened up for that reason. The black box of the policy process is incorporated in the analysis through a description of what is relevant with regard to the intervention as an exponent of that process.

Another compromise has to be made to narrow down the complexity of the context in which the firm-government interaction is placed in order to make the theoretical model workable. A wide variety of stakeholders is often part of the firm-government interaction. They are all worth thorough investigation in terms of processes. Again, however, in this research analyses will be restricted to a description of those events relevant with respect to the intervention, for the sake of opening up the black box of strategizing.

The intervention is the solid analytical core of the model. The intervention ‘connects’ the policy process with the strategy process. The two processes perpetually converge over the course of time. During that interaction, the intervention marks the occasion when government puts into practice its intention to steer the strategic decisions of a business. Despite the fact that the intervention is restricted to one event, its effects are not. As stated in the above, intervention takes place through the institutional bandwidths. As bandwidths exist over time, the effects on the strategy process of the firm will not be restricted to one moment in time. Firstly, managers will generally ‘see things coming’, for instance via their contacts in the field or simply through extrapolation of developments they perceive as relevant. Interventions can thus lead to effects prior to the actual policy measure. As soon as the intervention is being perceived as ‘real’, it will be real in its consequences (cf. Thomas & Thomas, 1928). Secondly, the actual intervention often marks the start of a time span in which the desired effects are to be expected. An intervention is generally aimed to influence strategic
decision-making from a certain moment on. In other words, both ex-ante and ex-post effects are likely to occur. To trace these effects, the strategy black box must be opened up.

In addition to that, an analysis of the institutional bandwidths has to be carried out as the intervention not only affects the strategy process but, as has been pointed out in the above, also the institutional bandwidths. Moreover, the intervention in fact is an attempt to alter institutional bandwidths in order to steer managerial decision-making. We have also seen that institutional bandwidths are not confined to norms and rules laid down by government. In other words, government is just one of the agents having their share in creating and maintaining the institutional bandwidths. Besides, for instance, consumers, environmental agencies, interest groups, academics, it is also - or particularly - the firm itself that plays an important role in shaping its own set of institutional bandwidths. This firm-unique set of institutional bandwidths has been labeled as the institutional survival path. The institutional survival path is therefore directly linked with the strategy process of the firm. This strategy process, which is also unique to the firm, has been labeled as the strategy path.

The notions of the strategy path, the institutional survival path, controversy and mobilization each fit a process approach and they have been conceptualized as such. Together, they put the intervention in the needed process perspective. The effects of the intervention thus come about in the strategy of the firm and its institutional survival path, the two mutually influencing one another. The intervention itself is restricted to one moment in time; its effects are not, obviously. The focus on the intervention, and the definition of it, is by no means a compromise to the process approach. The intervention is embedded in the process and therefore part of the interaction process. The intervention has not been ‘reduced’ to just an independent variable in the process. A process can be defined as a sequence of events (Langley, 1999; Miles & Huberman, 1994; Pentland, 1999; Pettigrew, 1985a; Poole et al., 2000; Van de Ven, 1992; Van de Ven & Poole, 1995), but this does not imply a total impossibility of any focus. Our focus is the intervention, and the process is those events related to that and captured by the strategy path and the institutional bandwidths.

In contrast to explicit epistemological positioning, the ontological issue has not been clarified up to this point, whereas, according to Van de Ven & Poole (2005), this needs to be sorted out to define the process approach used. A process method applied in the Democritian tradition, also described as ‘weak’ process approach (Tsoukas, 2005), puts an emphasis on the sequence of events, whereas a ‘strong’ process approach (Tsoukas, 2005), in line with
Heraclitus' point of view (Rescher, 1996), emphasizes the emergence of actions as the core reality seen as a process. Van de Ven & Poole point at the 'irony' that the latter approach faces. How can things, which are by definition assumed to be 'fluid', be captured by static means such as words and diagrams? It is perhaps inherent to the Heraclitian assumption about the river and the water. It does not exclude the – Democritean – idea that the water consists of enduring entities. In other words, a process approach, taken to its extreme at the ontological level might in practice be a bit far-fetched for the social sciences at this stage. If the nature of things is genuinely expected to be infinitely complexly processual, so should its tools be to grasp it. Luckily, and logically, Van de Ven & Poole designate their classification as complementary. In this research, we will adhere to this modesty. We will opt for a process method, but will be conscientious regarding the ideal typical processual ontological positioning.

**World hypotheses and root metaphors**

The impossibility to even perceive the empirical complexity has led Pepper (1942) to speak of world hypotheses. The best we can do, in this view, is to hypothesize about the outside world. Ontology (and in particular its restrictions) is thus strongly related to epistemology. The only thing we can do is think how it all works. Pepper distinguishes between four categories of world hypotheses. They each have their own so-called root metaphor. These are areas of basic analogy that we, consciously or unconsciously, use when trying to comprehend what we see happening. Root metaphors are basic templates derived from our common sense and experience with which we try to understand complexities around us. According to Pepper, a world hypothesis goes hand in hand with its specific root metaphor.

Two foci are distinguished by Pepper: the analytical and the synthetic. The former sees the world in terms of discrete - or separate - entities and is trying to understand these. Evidence thus lies in the nature of things. A synthetic focus, on the other hand, tries to comprehend 'the whole'. The evidence thus lies in complexity, not in separate facts. In addition, Pepper distinguishes between two sorts of theories: those that bring forward dispersive hypotheses and those that bring forward integrative hypotheses. The former is based on the assumption that empirical facts are randomly distributed. Integrative theories, on the other hand, assume a determined ordering of entities.

The two dimensions of theories – analytical versus synthetic and dispersive versus integrative – has led Pepper to his four world hypotheses and corresponding root metaphors. For our research, we position ourselves in the
tradition of dispersive theories. In contrast to what analytic theories are aiming for, we are particularly interested in understanding the firm-government interaction as a process. Evidence is not expected to lie in the separate entities of that process, but in the process itself. Formism, for instance, explains social reality in terms of ideal types and fixed entities. Its root metaphor is, not surprisingly, that of similarity. Evidence lies in the correspondence of empirical facts with theoretical descriptions. Mechanism is another analytic theory that will not suffice for this research. Its root metaphor, machine, says it all: what comes out of it depends on what you put in it. In contrast to formism, it even assumes the determined ordering of entities, which underlies this instrumental approach to social reality. In this research, we are rather hesitant when it comes to the determinism of causality. It assumes, at least the possibility, that putting intervention X into the black box of strategizing will lead to outcome Y. The integration root metaphor, which underlies organicism, works that way. It is a synthetic theory, so it does focus on the whole, in accordance with the aim of this research, but it remains to be seen to what extent complex interaction processes evolve in an organic way to a destined outcome. Even if there were such an outcome, which lies waiting to be discovered by future social scientists, at this stage we are particularly interested in how the outcomes come about. We thus assume that the answer lies in the process as a whole which develops towards uncertain outcomes. Contextualism is therefore the theoretical niche in which we will find our research methods.

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<th>Analytic theories</th>
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*Figure 13: Pepper’s (1942) world hypotheses and corresponding root metaphors*

**Contextualism**

Contextualism is the world hypothesis that is aiming at the ‘whole’. Research in this tradition sees, and treats, processes as a sequence of historical events. Pepper (1942) defines the quality\(^{45}\) of historic events in terms of spread, change and fusion. Historic events are spread over time, having a past, a present and a

\(^{45}\) Pepper actually states that quality of historic events cannot be seen separately from its texture, with which he means ‘precision’.
future. In addition, historic events continuously change: they are always in motion, or ‘in the making’. Finally, historic events are subjected to fusion in the sense that they merge into more than the sum of the parts. Contextualism thus portrays processes as a sequence of events that the process analyst needs to ‘catch in flight’ (Pettigrew, 1997: 338). Pettigrew (1992, 1997) is one of the major exponents of contextualism in strategic management. He has pointed at five ‘internally consistent guiding assumptions’ for strategy process research.

Firstly, Pettigrew mentions ‘embeddedness’. Studying processes should take into account both lower levels of analysis, such as the firm, and higher levels of analysis, such as sectors. In addition, levels in terms of dimensions of social reality have their own significance for the process, such as cognition, norms, networks and politics. Secondly, there is the need for ‘temporal interconnectedness’. Processes stretch out over time, encompassing a past, a present and a future. It is not the separate events that make up the process, but the pattern of these events that needs to be understood. Thirdly, Pettigrew points at the ‘role in explanation for context and action’. Events drive the process, but they are in turn embedded in the nested structures that have derived from past agency. In the fourth place, the researcher should ‘search for holistic rather than linear explanations of process’. It logically derives, according to Pettigrew, from the previous three guidelines. And lastly, there is a need to link process analysis to the location and explanation of outcomes. Encompassing outcomes delivers anchor points for the research by means of which the complexity can be presented in a simplified manner and comparison can be made possible. Pettigrew’s guidelines are in line with a structuration approach to social reality.

Pettigrew has linked the contextualist process approach with Sztompka’s theory of social becoming. Not surprisingly, there is thus a clear connection with the model of the ISP that is proposed in our research. It is the ISP itself, but also its components, which become and are made up of events that spread, change and fuse. The basic assumption of the ISP model is that the interaction process is always in motion and multi-interpretive. Naturally, the river metaphor immediately comes to mind, but we have concluded that the seductiveness of extreme ontological positioning should not stand in the way of epistemological research decisions.

External validity might seem the Achilles’ heel of contextualist process research, as each process is by definition unique and perhaps even incomparable, the value of the verstehen has the potential to reach beyond that one process under study. The so-called ‘generative mechanisms’ (Tsoukas, 1989) have proven to be worthwhile tools for comparison (e.g. Pettigrew,
The controversy is the generative mechanism in the ISP model. Controversies, including triggering and settlement, drive the firm-government interaction process. Regardless of its specific context and content, it is argued that the mechanism works in all government-sensitive markets. The controversy is a notion which touches upon the heart of a structuration approach. This implies further specific anchor points for the needed research methods.

**Generative mechanism of the dialectical mode**

Van de Ven & Poole (1995) have proposed four basic theories that serve as ideal types for explaining processes of organizational development and change: evolution, life cycle, teleology and dialectic. They are each characterized by a different generative mechanism, respectively competitive change, regulated change, planned change and conflictual change. The four categories are divided along the lines of the unit of change (single entity versus multiple entities) and the mode of change (prescribed versus constructive). The structuration approach of this research fits the category of dialectic mode. Dialectic processes run on conflictual change. The origins of dialectical thinking can be traced back to the work of Hegel and Marx. Conflicts occur when the status quo (thesis) is challenged by non-conforming behavior (antithesis). The conflict is settled with a synthesis which, in turn, potentially serves as a thesis, vulnerable to new antitheses. Dialectic process thinking assumes a constructive mode of change, in contrast to evolution and life cycle processes which, according to Van de Ven & Poole (1995), are heading for prescribed directions of change. The evolution model drives competitive change. Scarcity and selection determine the outcomes of the process. The lifecycle model is driven by regulated change. Change occurs according to a pre-fixed program. The ISP model, in its dialectical tradition, does not assume scheduled modes of change. There might be a prescribed or preferred change, as one could expect from government, but the actual changes are not supposed to go by the book. In addition, the model takes into account multiple entities, as the evolution model does, in contrast to the life cycle and teleology model. The latter model is, like the dialectical one, based on social construction, hence non-prescribed change, but it focuses on single entities, as the life cycle does. Teleological processes are planned in the sense that a

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46 According to Popper (1963), taking the Greek origins of the word, meaning ‘(the art of) the argumentative usage of language’ we could go back to Plato even.

47 Evolutionary approaches with undetermined outcomes, or non-equilibrium tendencies, are very well thinkable, but we will now stick to the argumentation of Van de Ven & Poole.
desired outcome is set and is strived for by means of consensus. It can thus be concluded that the structuration approach to processes of the ISP model implies a generative mechanism, that of conflictual change, which dovetails with what the model assumes to be the motor of the firm-government interaction process; the controversy. It thus supplies an anchor point for our further operationalization.

**INDICATORS OF THE ISP COMPONENTS**

Operationalization of structuration-like theories does not seem the easiest thing to do. We have started this chapter with the question of how we can detect features of the ISP model in the empirical world. Now that we have remained conscientious about ontological assumptions and, yet, have been somewhat more decisive with regard to the epistemological positioning, we have the foundations to work out the theoretical notions of the ISP model and get them ready for confrontation with the empirical reality. Despite the high level of abstraction that characterizes structuration-like theories, it can be put into practice, as will be demonstrated here. Both deduction and induction are required for this exercise. The deductive element concerns the designation of what constitutes the indicators of the model. The inductive element lies in the empirical identification of these indicators.

The central concept in this research is, of course, that of the ISP, which encompasses all five elements as described in the theoretical chapter. It is also the biggest challenge to make this one come alive. Sztompka’s model of social becoming (1991) has been introduced in the previous chapter as the meta-theoretical framework enabling a process approach for the firm-government interaction. Social interaction takes place on either one or more of the levels of social structure, also with regard to maintenance of the ISP, the needed mobilization and the development of the controversies. In other words, all structures and agency relevant to this research can be designated to either one or more of these four levels.

Sztompka’s dialectical model supplies the grid to flesh out the ISP and put the proposed vocabulary into operation. The five components of the ISP model will now be dealt with successively. By now, there should be no question about the fact that these components should not have been separately dealt with in the light of this research. However, the model will not automatically unfold immediately or linearly. The search for data to make the model come alive should be carried out from the perspective of all five components simultaneously and taking into consideration their processual
interconnectedness and the agency-structure duality. For each of the components it will be suggested where indicators for elements of agency and structure could potentially be ‘found’. With ‘finding’ here is meant the exercise of relating actual agency to social structures, and vice versa, in order to designate events. It has to be stressed again that for this kind of process research it is essentially not the single event that supplies the explanatory power but the connections between all of them. As will be confirmed in the remainder of this chapter, what the ISP model is based on are social structures that reveal themselves through patterns of events (cf. Yin 2004; Hall 2006; Bitektine, 2008).

**Indicators of the intervention act**

Of all five components, the intervention act is the easiest to operationalize, for it is a single event. We can, in essence, restrict ourselves to the catascopic approach, in contrast to the other components of the model. The intervention has been defined as the deliberate and explicit attempt of government to affect the behavior of individuals or organizations for the public cause. It will generally concern a policy measure of a governmental body. Besides specification of the agent, the intervention act must also be assigned a historical date and its formal description, including its purpose.

The intervention act might be relatively easily abstracted from the empirical reality; the decision of which exact intervention to choose should not be overestimated. The intervention is the axis of the whole firm-government interaction process or, as has been stated previously, a necessary condition for this study. In other words, it is the intervention that dictates the object of study, rather than the selection of the firm. When choosing the intervention act, the researcher should take into account that the intervention process stretches out, ex-ante and ex-post, beyond the intervention act. As a consequence, the ex-post effects in terms of processes can only be studied when the intervention is not of a too recent date. Finally, it has to be noted that intervention acts are seldom isolated from other interventions which, together, are part of a broader policy. The choice for an intervention act is therefore usually also a choice for a specific policy, which is a *totum pro parte*. In consequence of that, it is suggested that the choice of an intervention act is also based on an investigation of the larger policy, which it is part of. Thus one can avoid, for instance, overlooking more relevant, yet related, intervention acts. The eventual choice of the intervention act implies the choice of the specific firm, or a potential of firms, of which the ISP will be studied. The choice of the intervention and of the firm, or sector, are thus strongly related. Finally, the ISP model currently being in its infant stage, it is strongly
suggested that commercial businesses are chosen which operate in the so-called government-sensitive markets.

**Indicators of institutional bandwidths**

Institutional bandwidths are the standards defining the strategic boundaries of the firm. It has been argued that there is room for maneuver at each of the levels of social structure ‘belonging’ to the firm. Institutional bandwidths are unique to the firm, although they can overlap with those of others. They stretch out over time. Institutional bandwidths are like the Heraclitian rivers; describing them is describing structures. The tough part is the analysis of their fluctuations. The good news, though, is that they should be ‘visible’ from a distance, bearing in mind the absence of their ontological status. Institutional bandwidths do not ‘exist’ because of one single event. They exist because of a sequence of events. Therefore missing out on one event does not always have to be critical. The structure might very well still be visible. Let us now see how we can detect the institutional bandwidths at the subsequent levels of social structure.

Analysis of the institutional bandwidths can best be started with those at the normative level. The most obvious ones can be found in the relevant laws, rules and regulations that surround the firm. Less tangible options, such as etiquette or public morale, are also thinkable. In general, however, the normative bandwidths should relatively easily come to the surface. They are usually made explicit, somewhere, and count for longer periods of time. Institutional bandwidths can be found at a macro level, like the Universal Declaration of Human Rights, but it is safe to state that the more specific the rules, laws and regulations, the more relevant they are when identifying the institutional bandwidths. The demarcation of the ISP largely lies in its uniqueness. In its most specific form, bandwidths could involve firm-specific norms such as codes of conduct. Taking into account what has been said earlier about the intervention act being part of a larger policy framework, it is safe to state that at least some normative bandwidths are expected to be directly affected by the government intervention act. Indicators for

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48 Interestingly enough, De Soto (2000) even stresses the dominance of the normative level in Western economies. He argues that the cause of poverty has to do with law. Large parts of the world do not have the judicial infrastructure that enhances the efficient trade of modern market systems. De Soto believes that Western economies are in fact based on paperwork. In this research we refrain from such ‘normative’ (note the alternative meaning) statements, but De Soto’s idea does connect with the argument that for an inquiry of certain phenomena in modern economies a first look at the normative level gives at least a basic understanding of the structural features of the empirical reality.
institutional bandwidths at the normative level are expected to be found mostly in documents. The researcher could be guided with questions like: Which laws, rules and regulations apply to the operating of the firm? Do respondents refer to intangible norms?

The institutional bandwidths at the ideal level are less evident than, for instance, laws, rules and regulation. Perceptions, however, are sometimes measured. Think of goodwill. Nobody will deny the relevance and value of reputation. Yet at the same time, it is hard to pinpoint the exact qualifications. Valid examinations of perceptions at the individual level might seem feasible, but what is really important to businesses is what the public thinks and believes. Reputation at the collective level is an intersubjective issue. Institutional bandwidths at the ideal level are expected to be found, if not systematically investigated by third parties, in the personal opinions of the relevant agents. Qualitative interviews are a good method— if not the best—to investigate what people believe. Central questions are: How do people perceive the role of the firm in society? What do people think of other agents involved in the interaction process? How do they judge their own position?

The institutional bandwidths at the interactional level map out the network that the firm finds itself in. The network ranges from customer-contact to more specific one-to-one relationships. Parts of the network will be laid down in documents, others in email traffic. The researcher has to be sensitive to ‘hidden’ contacts as it is expected that, for instance, crucial communication can take place behind closed doors. Such network relationships can only be detected through gaining trust of the people involved, preferably confirmed by ‘both sides’. Ultimate evidence would be the personal correspondence records, such as email archives, of those involved. The basic question at this level is: Who is connected to whom?

The institutional bandwidths at the opportunity level concern the resources that the firm could explore to sustain or improve its bargaining position, either in the market or in the political arena. The most important resources that firms withdraw from the outside world are money, employees and raw material. The opportunity level is thus expected to be evident in corporate documentation such as annual reports. In a search for the opportunity level, the researcher could ask the question: What resources is the firm using and what resources could be used?

Having elaborated on indicators of the institutional bandwidths at the four levels of social structure separately, it has to be stressed again that the

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49 One could think of market research. Such research, however, does not necessarily give the whole picture that is covered by the ideal level.
researcher should particularly be interested in exploring the *dynamics of patterns* in the social structure. In other words, it is essential to map out the fluctuations of the institutional bandwidths. When do things change? And because of what? The interesting, yet difficult, thing about institutional bandwidths is that they are on one hand part of the firm, yet on the other hand are external to the firm. When detecting them, the researcher should look not only inside the firm, but also at its environment. This counts for either level of social becoming. Rules and norms can be imposed upon the firm, but management can formulate its own codes of conduct as well. The reputation of businesses lives among the people on the street, yet is at the same sustained by the actual behavior of the employees. The network of a firm exists because of its own people having ties with the outside world. The resources that the firm possesses are only valuable in relationship to other resources on the market. In other words, institutional bandwidths can only be found when taking the corporate business environment into account. At the same time, however, as has been argued in the theoretical chapter, those levels cannot—in the end—be seen as strictly separate. Just to mention an example, an analysis at the interactional level could be easily linked to the ideal level, as the firm’s network is also likely to say something about how it ‘sees’ its position. Explicit attention should be paid to such overlaps, and even more so to the discrepancies between analyses at the various levels. Findings can thus be triangulated and particularities be traced. A similar approach is suitable for comparing findings for each of the five components of the model. For instance, to what extent do the institutional bandwidths ‘match’ with the strategy path of the firm?

**Indicators of the strategy path**

The strategy path has been defined as the actual strategic course of the firm through time. In contrast to institutional bandwidths, the strategy path is intrinsic to the firm itself, in terms of a resource-based view. As a consequence, data is expected to lie within the corporate walls. The researcher can be guided by a question like: Which resources have been put into practice by whom and when? It is not very likely, however, that all relevant data has found its way into, for instance, annual reports, nor can management be expected to be immediately completely open about past strategic moves. Our definition of the strategy path in terms of routines will guide us towards structural features of strategic behavior. It is advisable here, however, to be sensitive to more ‘separate’ events and the timing of those. Markets and political arenas are environments where it can pay to be in the right place, at the right time. The challenge with regard to the strategy path
will be - besides detecting the ‘red lines’ - to pinpoint the crucial strategic events. Such events will appear to be particularly crucial in the light of the controversies and the attempts to settle them.

**Indicators of controversy**

A controversy arises when existing social structures are challenged by non-conforming behavior. As we have seen, a fair defense can be put forward by the idea that the dynamics of social reality *runs* on controversies. They can take place at both the micro and macro level. It has been argued that a government intervention will be accompanied by at least one controversy. For this research, it is suggested that the analysis should be begun with the investigation of relevant controversies with *that* particular one. It is very likely then, that this ‘intervention controversy’ will soon appear to be embedded in larger issues, encompassing several smaller and bigger controversies. Each controversy entails at least two agents, representing the contesting positioning. Controversies will thus generally be ‘living in between’ agents. As a consequence, defining controversies should be restricted to the angle of the firm, running the risk of overlooking actual or potential controversies which are not (yet) perceived as such from a corporate perspective. Nonetheless, taking the starting point of the intervention controversy, the researcher should be able to draw on the larger palette of all connected controversies. A timeline is suggested, containing the most relevant controversies with their beginning and end, chronologically defined. The leading question for that matter would be: Which part of the social structure is contested by whom? In addition, the researcher should try to find the triggering event of the controversy, trace who is involved and what attempts have been made to settle the controversy. This brings us to the last component of the model, that of mobilization.

**Indicators of mobilization**

Mobilization has been defined as the attempt to settle the disputed part of the social structure, in the case of a controversy, by levering it with those parts of the social structure which are undisputed. The deliberate and explicit inclusion of the word ‘attempt’ in the definition has some crucial implications for the researcher when looking for mobilization. We have already come to the conclusion that a wide array of controversies can be expected. In order to keep a certain focus, it is suggested that the ‘intervention controversy’ should be taken as a starting point from which the mobilization of the firm can be derived. Selection of controversies and mobilization can thus best go hand in hand to keep it comprehensible. However, it has to be noted that in the case
of mobilization, it is of particular importance to take into account those attempts that have not led to the desired outcomes. The reason for such ‘failures’ will most likely be due to the successful attempts of opponents in the interaction process, the so-called counter-mobilization. For this research, taking the perspective of the firm, we focus on mobilization of that particular firm, including effectuated and un-effectuated strategies. Relevant mobilization carried out by third parties can be dealt with when discussing the overall controversies. The leading question for selecting and defining mobilization could be: Which attempts have been put into practice by the firm to settle a controversy?

It can be concluded that the indicators of the ISP model reveal a strong interlinking of its five components. They should be, because together they are the ISP model. In fact, the model is even more than the sum of its components. Hence, after having gathered the data to put some flesh on the bones of the components, some additional attention should be given to how to interrelate them. Does it all fit together? Are there any ‘loose ends’? Do we see contradictions? The duality of structure is crucial in that respect. It has been argued that each of the five components of the model has structural as well as behavioral aspects to it, for which some indicators have been given in the above. Actual behavior might be directly observable, whereas social structures are in essence invisible structures; taking them both into consideration will enhance the search for both agency and structure and sense-making in the light of this research. Analyzing the ISP model is an iterative process. It has now been argued where to start when entering the empirical world as a researcher. And we also know where we would like to end: with the ISP model. The time is thus now right to see which exact decisions have been made for this particular case study.

RESEARCH DESIGN

In the second chapter, the ISP model has been constructed, to answer the central question of this research, ‘How does government intervention affect the strategy of the firm?’ The model contains the theoretical answer to that question. It has been argued that the effects of the intervention come about in the collision of the policy loop and strategy loop, in which institutional bandwidths, the strategy path of the firm, controversies and mobilization play crucial roles. The aim of this research is to go beyond a mere theoretical exercise. In other words, the model has also been applied in an empirical study. In the remainder of this chapter, the actual procedure that has been
gone through to get the ISP model ready for empirical testing will be reported on.

**Theory-carried generalization**

A case study is the most obvious format for testing the ISP model. According to Eisenhardt (1989: 534), a case study is “a research strategy which focuses on understanding the dynamics present in single settings.” The term ‘case study’, however, refers to many things, covering a wide variety of research (Gerring, 2007). Gerring (2006: 707) distinguishes between nomothetic and ideographic case studies. The former has the objective of saying something about a broader population. The latter can be labeled as ‘single-outcome studies’; “their aim is to investigate a bounded unit in an attempt to elucidate a single outcome occurring within that unit” (Gerring, 2006: 707). This ‘ideographic’ approach seems appealing, particularly because of its within-case variant, by means of which a real in-depth analysis of the object of study is possible. For our research, however, the angle is not to be restricted by a single outcome. In other words, we do not ask ourselves the question of why that one particular effect has occurred. We wonder which effects have occurred, and how. However, the openness of the single-outcome studies to contingent causal factors such as leadership and decision and the sensitivity to necessary and sufficient conditions, is something which could be taken into account for our current design.

In order to test the ISP model, generalization of longitudinal empirical findings to the theory is needed (Yin, 2003). Do we see, in real life, what we expected to see in terms of the process vocabulary? The issue of generalization is a matter of external validity. The epistemological positioning of this research and the assumption of non-representativeness of the complex firm-government interaction processes, does not allow for a statistical, or distributive, approach. Consequently, the question as just posed in the above cannot be asked with regard to ‘real life’ in general. Real life in this research is restricted to one case study and so will be its outcomes. Yin (2003) has suggested replication logic, instead of the sample logic of statistical representativeness. Replication, by means of subsequently choosing cases that fit the theory, enables the researcher to detect where the hypotheses are falsified

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50 Gerring (2006) describes three analytic angles of single-outcome studies: nested analysis (large-N cross-case analysis), most-similar-analysis (small-N cross-case analysis), and within-case-analysis (evidence drawn from the case of special interest).

51 Ferlie & McNulty (1997) give an alternative interpretation of external validity than that being used here. To them, it concerns the availability and suitability of the research to people ‘external’ to the research community.
or affirmed, in order to sharpen the theory. This idea of analytical induction goes back to Znaniecki (1934). Reformulation of the theory takes place via the systematic selection of cases. Smaling (2003) has suggested the term ‘theory-carried generalization’ for this particular approach, instead of Yin’s (2003) ‘generalization to theory’ or Seale’s (1999) ‘theoretical generalization’. According to Smaling, his definition does do more justice to this specific concept of inductive generalization: “It indicates that the theory functions as a carrier or as a vehicle.” (Smaling, 2003: 5)

The idea of theory-carried generalization fits with the purpose of our research. The research results cannot be generalized to larger populations. The aim of this research, and of process research in general, is descriptive understanding (Pettigrew, 1985b: 242). Both practitioners and theorists are expected to benefit from an in-depth analysis and understanding of a specific case and its – internal – validity in terms of the proposed model. Internal validity deals with the evidence for causality. For this research, instead of talking about variables, we should rather apply the criterion to the generative mechanism of the process, as discussed in the above. In other words, does the controversy play the role in the process that it is expected to play? At this stage, discussing the research design, it is of particular importance to optimalize the construct validity. Construct validity refers to the congruence between operationalized ‘measuring’ scales and the unobservable social constructs (Pennington, 2003). This issue is, logically, of quite some importance when studying social processes. The ISP model is a construct of a social process.

The ISP model is an hypothesis in itself. This is how the interaction process is expected to work. This is how we expect the effects of government intervention to come about. The model exists of five generalizable components which have been operationalized in the above. Generalization of empirical findings to the five components alone does not suffice when trying to grasp the holistic nature of the phenomena under study, in other words, the process itself. The process is more than the sum of its parts. Four propositions have been suggested that serve as a ‘proof of the pudding’. They capture essential dynamics of the model. If we can put flesh on the bones of the five components and if the dynamics as expressed by the propositions can be sustained, then we have reason to believe that the ISP model holds true. Putting it all together, several steps need to be taken to generalize empirical findings to the theory. They will be dealt with in the following, discussing case

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52 Pettigrew (1985b) would speak of ‘generalizable concepts’ (Italics mine, KvN).
selection, intervention designation, data collection and data processing, including the use of the database.

Case selection and intervention designation
Mechanical cockle fishery and gas extraction in the Dutch Wadden Sea has been chosen as the case study to test the ISP model on. It is a case study entailing two cases: that of the mechanical cockle sector and of NAM, both active in the Wadden Sea. In addition to having a similar context, the two businesses would eventually ‘meet’ in the year 2004. It was the year when the fishermen were expelled from the wetlands and the Shell/Esso joint-venture NAM could finally start carrying out its extraction plans. In terms of our model, the fishermen seemed to have lost their room for maneuver. Their ISP had collapsed. Interestingly enough though, at the time of choosing the mechanical cockle sector as an object of study, early 2003, it was not expected that such a dramatic outcome would soon be the case. In fact, the fisherman, at that time, had some good hopes for the future. The case was appealing nonetheless, because it was a sector which was clearly under institutional pressure. In addition, there had been an obvious intervention, back in 1993, which would serve as a perfect ‘intervention act’, a minimal requirement for our model. The Policy Agreement on Coastal Fishery that was put into practice that year was a result of increasing institutional pressure of the previous years. As a consequence, it was expected that there were ex-ante and ex-post effects of that intervention to be studied. In fact, part of the Policy Agreement was the announcement of an evaluation of its effects in ten years time.

When studying the strategic behavior of the cockle sector, real time, there appeared to be a sword of Damocles hanging over the sector, much more seriously than they had initially thought. Interestingly enough though, at the same time, there was a resurrection of the mining company NAM, which saw its chances growing for finally picking up its plans with the Wadden gas, despite the fact that many had thought they had definitely lost that battle in the political arena some years before. And indeed, the Wadden gas from the new fields would be flowing in 2007. In other words, the Wadden Sea had served as a stage for two businesses, of which one seemed to have lost its room for maneuver and the other one had renewed it. Both to the surprise of many. In addition, the developments with regard to the cockle sector appeared to be connected with those of the Wadden gas. In addition, the developments with

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regard to the cockle sector appeared to be connected with those of the Wadden gas, and there had even been deliberate attempts to do this. It thus became clear that there was such a thing as the case-study of the mechanical cockle fishery and gas extraction in the Dutch Wadden Sea. For the NAM-case, an intervention act was soon found. The Parliamentary 'no' to Wadden gas in 1999 was an obvious 'restricting intervention'. Summing up, there were now one case-study, two cases, two ISPs and two interventions. There are, however, some differences between the two cases that need to be taken into account.

**Dissimilarities between the cases**
The ISP is firm-unique. In the case of NAM, we do have a single firm to focus on. This is slightly more complicated for the mechanical cockle fishing sector. Although the fishermen started out as individuals or small firms, the industry turned into a rather homogeneous and tightly collaborating sector in the 1990s. The sector became the firm, so to speak. To capture both extremes, i.e. the first movers in the 1960s on the one hand and the homogeneous sector which it would become in the decades to come on the other, one particular fisherman has been selected as the starting point of 'the firm': fisherman Bakker. Bakker’s career spanned from being one of the first mechanical cockle fishermen on the Wadden Sea to a fleet coordinator of the biggest investor and a prominent representative of the sector. The stories of the cockle industry will therefore be narrated differently from that of NAM. The one is the story of a single fisherman, the other that of a major economic player in the Dutch economy. The fact that these stories would converge after so many years is believed to contribute to the richness of the analysis.\(^{54}\)

Reconstructing the ISP is indicating its five theoretical components. The ISP of NAM has a natural starting point with its founding in 1947. From that moment on a rough sketch of relevant developments can be given with the use of archival resources. NAM itself, and particularly gas extraction in the Wadden Sea, have never suffered from a lack of media attention. A lot of data could therefore be retrieved from various archival resources. In addition, NAM has documented and archived much of its own history itself.

This is all different as far as the cockle sector in general and fisherman Bakker in particular are concerned. Bakker started out as a fisherman in 1973,\(^{54}\) It has to be noted that a disadvantage of the two cases selected is the fact that they are restricted to firms with poor competitive conditions. The cockle industry started out as a highly competitive market, but the first serious public scrutiny in the early 1990s soon turned them into a self-regulating homogeneously strategizing sector. As a consequence of its licenses for the Wadden gas, NAM has certain monopolistic features also.
but got his own license a little later and started his own enterprise only in the early 1980s. Moreover, particularly in the case of the mechanical cockle fishery, a fair defense can be put forward to take into account developments even prior to the three controversies. As it appeared, Bakker has been part of a traditional business of a handful of fellow cockle fisherman who have been responsible for the sector’s strategic course. In the end, the sector operated as a homogeneous strategic entity. For this research, Bakker had thus become the sector, or vice versa. The previous generation, quite often the fathers or relatives of the current fishermen, were the pioneers in mechanical cockle dredging and, more importantly, in strategizing with regard to government. In other words, there is a lot to say for not being too rigid in demarcating the ISP of Bakker.

Another complication, as compared to the reconstructing the ISP of NAM, is the fact that Bakker and his colleagues have not really documented their own history. Nor has the sector gained much attention in media and science, until the early 1990s, when the first massive death rates among birds occurred. It was from that moment on that the sector itself became more professional as well, for instance by maintaining a website and hiring a PR bureau. Nonetheless, for the early stages of the ISP the main sources from which to retrieve the needed data were interviews. Indeed, valuable information appeared to have been passed on only from father to son. As noted above, the timing of the research offered the unique opportunity to study that part of the process real-time. This was particularly worthwhile with regard to possibilities for two of the three data sources that were used: qualitative interviewing and observation. The use of these data sources will now be reported on.

Data sources and the use of the databases
For this research, three categories of data sources have been employed: archival resources, direct observation and qualitative interviewing. Concerning the first source, a distinction needs to be made between newspaper sources on the one hand and other archival resources, such as literature, reports and corporate documentation on the other. The newspaper archives have been used as the basis for processing data into two separate data bases,\(^{55}\) one for each case. Based on our conceptualization and operationalization of the interaction process, we can adhere to a research where a process is studied as a sequence of events (cf. Langely, 1999; Pentland, 1999; Pettigrew, 1997; Poole et al., 2000; Van de Ven, 1992; Van

\(^{55}\) Microsoft Access
de Ven & Poole, 1995). The two databases have been designed to process these events. Events are empirical bits that are meaningful in the context of the research. These bits can be referred to as ‘incidents’ (Poole et al., 2000; Van de Ven et al., 1989; Van de Ven & Poole, 1990). Empirical reality is made up of countless incidents, but only a few are relevant for the object under study. As soon as they are designated as such, they will be labeled as events.

<table>
<thead>
<tr>
<th>Data category</th>
<th>Sources used</th>
<th>Processing and storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archival sources</td>
<td>Newspaper archives</td>
<td>Access database</td>
</tr>
<tr>
<td></td>
<td>Newspapers, journals and magazines as of 1990 via Lexis Nexus</td>
<td></td>
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<tr>
<td></td>
<td>Additional archival sources</td>
<td>Access database and notes</td>
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<tr>
<td></td>
<td>Books, reports, e-mail archives, websites, proceedings, corporate documentation, etcetera.</td>
<td></td>
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<tr>
<td>Direct observation</td>
<td>Attended meetings and conferences</td>
<td>Reports</td>
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<tr>
<td>Qualitative interviews</td>
<td>44 respondents, incl. focus group</td>
<td>Transcripts, e-mail correspondence and notes</td>
</tr>
</tbody>
</table>

Figure 14: data sources used for this research

For this research, newspaper archives have been used to retrieve the events for the two cases. Each event has been coded with relevant theoretical labels, based on the operationalization as described earlier in this chapter. For the cockle case, 923 events have found their way into the database. For the NAM case, 971 have been processed.

For both cases, the year 2004 was the final year of analysis. It was the year when the Meijer commission presented its report, aiming to settle the major controversies for the cockle industry as well as gas extraction in the Wadden Sea. It was the last year that the fishermen were allowed to fish in the Wadden Sea and it was the year when NAM started the procedures for further activities in and around the nature reserve. The story, of course, did not really end there completely, but a final date was set nonetheless. It was now time to fill the database.

Event selection
Selecting events is a delicate matter. It is the moment to decide which incidents will be turned into events and which ones will not. Those incidents which have been selected and eventually turn out to be less or not relevant,
hence not becoming an event, will not cause any severe problems, apart from
perhaps a reflection on the question of why they were selected anyway,
without actually having much relevance in the end. On the other hand, those
events that should have been selected, but were not even an incident, are
more problematic. Once the sources of the raw data have been put aside, it
will be hard, if not impossible, to retrieve these events at a later stage.

It is therefore necessary to thoroughly go through the sources, having
the completed theoretical framework in mind and with a clear operationalized
picture of what to retrieve from the sources. The decision as to whether or
not to include an event in the analysis is a fundamental one and touches upon
the heart of process research. As a definite demarcation of social processes is
virtually impossible, there can most likely always be a reason found, far-
fetched or not, to relate an incident to the set of relevant events. For instance,
anything that a firm has done should logically be connectable to the case in
which it is part of the object of study. Or even more far-fetched indeed, chaos
theory states that minor phenomena, even unintended actions or mistakes, in
time may be decisive in present or future outcomes (e.g. Gleick, 1987). Not
occupied with predicting future outcomes of processes, but focusing on
previous or current ones, looking back in history, the process researcher can
benefit from the insight that there might be a 'butterfly-effect'\textsuperscript{56} to detect and
explain it retrospectively, rather than forecasting its effects. Again, the need
for an adequate theory must be stressed here.

When busy with event selection, the researcher finds himself or
herself on the nexus between the deductive and inductive phases in process
research. After the theory has been formulated in a predominantly deductive
manner, the event selection directs the researcher to a more inductive
approach. In this research this becomes particularly apparent in defining the
controversies as they emerge out of the pool of events.

While collecting data, a first glance of the inductive process becomes
apparent. For instance, retrieving sources from electronic databases, like
those of newspapers and magazines, will deliver a specific result for a
particular query. Different queries will lead to different source selections. It
gives a first impression of when and how certain topics were covered by the
media, indicated by the number of hits per month or year. Intensive media
coverage is not a sufficient condition for detection of the most important and
relevant events of a particular topic in a temporal perspective, but it does tell
something about the empirical world. There was, or was not, media attention

\textsuperscript{56} The idea that a butterfly can cause storms in New York by flapping its wings and
stirring air in Beijing.
on the topic. And this fact might be very well worth taking into consideration throughout the further research process, as the media channels are likely to play their role in social processes such as those investigated. The Wadden Sea in general proved to be very vulnerable to public scrutiny.

When doing process research, one runs a constant risk of missing out relevant data. There is always a chance of something crucial that has happened beyond the scope of the researcher. Bilateral secret agreements could have taken place for instance. Capturing processes through the analysis of controversies obviates this risk to large extent. Controversies are not likely to exist on only one or even a few events in a short time span. The controversy arose, arguments were being exchanged, people got involved and eventually the controversy will be settled. It is harder to miss out on detecting a single event, than overlooking a whole controversy. Being aware of the controversy, the researcher can at least be alert for missing events if the logic of those analyzed reveals an inexplicable or illogical successive flow of actions throughout the controversy.

The database has been the backbone of the empirical analysis. However, the two data sources of observation and qualitative interviewing have not been fully exploited in order to fill the databases. Newspaper archives have been the primary source for event collection. Other data sources also contain relevant events, obviously. It has been decided, nonetheless, to apply a rather rigid strategy, focusing on newspaper media, when feeding the database. The reason for this is that there has been abundant media coverage of the two cases, relatively easily accessible through a search engine such as Lexis Nexus. In addition, it soon appeared that the news indeed covered most of the relevant events. Few additional events were found outside the newspaper archives. An advantage of the Lexis Nexus database is that the sources are digitally available, hence easy to store. Media coverage does have its drawback - something we will come back to later on - but it does provide a reliable source in terms of chronology. Observations and qualitative interviews are very reliable concerning the present, but they can only deal with the past in a retrospective way. Adding events coming from, for instance, qualitative interviews, would do more harm to the ‘cleaness’ of the database, rather than really contributing to it. In addition, reflections of the interviewees, or even those of the researcher observing real-time, will generally be too ‘rich’ to be captured by a single event.

Another aspect that needs to be taken into account is the subjectivity involved. Media is not objective either, one could say, but here we can benefit from the variety of newspapers usually reporting on one event. When selecting events, the various newspaper articles on the topic can be compared.
It gives the researcher the opportunity to at least detect a clue or indication for a potential bias in the media coverage. It is this personal judgment of the researcher which has, on some occasions, also led to picking up events from other sources than newspapers. For instance, books or studies sometimes mention historical ‘facts’ which were not found in the papers. Above all, keeping the data sources separate, with the newspaper events finding their way in the database, is a good starting point for triangulation. Triangulation can be interpreted in several ways. For this research, by triangulation is meant the procedure in which one event derived from one particular data source is tested by means of one or two other sources.

The chronological ordering of the events in the database provides a story line of the case. It is the narrative of when and what happened, plus who was involved. It also reveals ‘quiet’ periods. It has proven to be useful baggage for the researcher to carry on the empirical journey. The chronology can serve as a sequence of questions that could be asked to respondents, to reports or to reality when in the midst of observing it. Is it right what the papers say? And if not, why? What is missing? Once that train keeps rolling, the triangulation process comes in motion. Every bit of data that the researcher comes across raises the question of how it relates to other events, particularly derived from other sources. The three data sources provide three streams of events: those in the database, those marked in interview transcripts and those highlighted in the observation reports. They all should be in accordance with one another. The findings can thus be confirmed through comparison with rival sources. And if not, then there is a fair chance that the researcher is onto something interesting. Let us now go through the three sources to see what data they have delivered. We will start off with the archival resources, which are divided into newspaper archives and additional archival sources such as reports.

**Newspaper archives**

For this research the Lexis Nexis database was used. Queries of keywords (three maximum) and a selection of sources and the period to be covered (going back to 1990) lead to a full text overview of the relevant newspaper and magazine articles. It is worth trying various queries, sometimes just slightly varying, to see what the effect on the selection is. In the first case the decision was taken to search for (in Dutch) "<cockle fishery> or <cockle sector> or <cockle fishermen>". For the second case the query was "<N.A.M.> and <gas mining> or <gas drilling>". An advantage of the first query is that there are hardly any other synonyms being used for the object of study than the three mentioned. It is therefore safe to state that the whole
sector should be covered by this query. In addition, most of the articles selected were related to the sector with regard to the Wadden Sea. Relatively few articles were left out because of a lack of significance for the case study. The second case caused some more deliberation on the query. NAM was not only in the news because of its intended activities in and around the Wadden Sea. Several issues emerged out of the selection based on the mentioned query. The mining activities in the Biesbosch or the oil extraction in the North Sea, for instance, have been ‘popular’ issues that have been reported on in the period studied. However, it was believed that it would be safer to go through a larger pile of articles and leave some aside later on, than vice versa.

Retrieval of digital newspaper sources has been restricted to relatively recent files. The Lexis Nexis database, which was used for this research, supplied search items going back to 1990 ultimately. Hence, the two databases built for this research contain mostly events from that year on. Earlier events, derived from other sources such as academic publications or other secondary material, were added to the database as well. They remain relatively scarcely distributed, as discussed in the above. These ‘early’ events are usually chronologically less accurate, just mentioning a year. Files taken from Lexis Nexus, on the other hand, are specifically dated, mentioning the day and often even the hour of publication, such as in the case of ANP press bureau bulletins. Deriving events from interviews suffers from a similar drawback. As the human memory is not flawless, interviews deliver rather rough historical sketches. All in all, the databases on cockle fishing and gas extraction in the Wadden Sea are chronologically quite accurate from the year 1990. The chronological accuracy of the databases, as far the recent history of the two case studies concerns, is particularly useful in testing the theoretical framework on its temporal aspect in detail. For example, the succession or simultaneity in the development of the various controversies which come and go can thus be investigated minutely.

Sources from newspaper archives have a particular disadvantage when reconstructing a social reality. A journalist’s perspective is not to be confused with an objective perspective, if there is such a thing at all. In this particular case, talking about controversies with regard to the use of the Wadden Sea, the newspapers themselves have occasionally been subjected to the debates themselves. The cockle fishermen, for instance, accused the newspapers of tendentious journalism and of only supplying media exposure to environmental agencies and big companies like Shell. Another example worth mentioning here is the media having reported that a central agent in the process had entered Parliament ‘because of the Wadden Sea’. However, being interviewed for this research, she declared that this was not the case. Such a
statement of a journalist could still be a relevant event nonetheless, despite the fact that it can be—easily—falsified. The media coverage, in this case, enforces the image of that particular person being a ‘fanatic’. Throughout the process there have been several examples of people having been attributed stereotypical features. Taking this into account, triangulation can overcome the issue of subjectivity, and not just in the newspapers. The position of scientists and their research appeared to have been a tough controversy also. So, the more reason to triangulate various sorts of empirical data in order to sustain the theory.

One particular newspaper, which cannot be retrieved via the Lexis Nexus database is worth mentioning here also. A subscription to Fishery News (Visserij Nieuws), the weekly newspaper for the whole Dutch fishery industry, contributed to the real time character of the study. For more than a year, the mechanical cockle fishery could thus also be followed through the eyes of the newspaper which gave it a lot of coverage, during that turbulent period in its existence. Bakker, for instance, also contributed with a column in one of its issues.

Additional archival resources
Besides the newspaper archives just mentioned, other archival resources have also been used for this case study. For both cases, a large number of documents have been collected. Concerning cockle fishery, these documents entailed mostly research. The sector itself is not really characterized by extensive self-documentation, but a lot has been written, and particularly been researched, on the effects of mechanical cockle fishery in the last few years. The EVA II-report, for instance, has integrated about 40 studies that had been conducted for about a decade. The studies themselves generally do not deliver data for this particular research, but the researcher should at least be familiar with their general themes and findings. In addition, the whole research process on cockle fishery is an intriguing chapter in itself, vital to understanding of the case in all its complexity. This is also true for the NAM case. This case is accompanied with a tremendous amount of research on gas extraction. The monitoring projects, for instance, continuously pop up during the process. For both cases, it appeared that a certain level of practical knowledge on the object of study is absolutely necessary to understand what is going on. In addition, a minimal level of jargon is required to interact with people involved when doing interviews or conducting direct observations.

57 In this research, most documents are referred to by means of footnotes, rather than incorporating them in the references or a separate list.
When studying the firm-government interaction, policy documents are an indispensable part of the data collection. For this research, several policy documents, such as laws and legislation, have been gathered and processed. Amongst them are also transcripts of Parliamentary debates. Such documents are nowadays easily accessible via the internet. In general, the internet provides abundant opportunities to get hold of certain information. Not only do the cockle fishermen and NAM provide ample documentation via their own - or related - websites. Other stakeholders, such as research institutes and environmental agencies supply a rich amount of information digitally. As a consequence, a substantial part of the research process was spent with a virtual journey around websites that were, one way or the other, related to the topic.  

One specific advantage of the digitalized modern world is worth mentioning here. NAM has given us the opportunity to go through the e-mail archive of the contact person for the Wadden Sea at its headquarters in Assen. It was agreed that e-mails and files would not be copied. Much correspondence is, obviously, to a large extent confidential. In particular, contacts with politicians and CEOs in the energy sector often deal with delicate matters. NAM treasures its good network contacts and is very serious about confidentiality. Not without success, as we will see. It was all the more a privilege to have a look at it by means of the e-mail archive. It has been worthwhile with regard to this research in terms of triangulation. Going through literally all the archived messages gives us the opportunity to see the current view on the process, based on other methods such as interviews and document analysis, is sustained by the actual correspondence. In addition, it is also a search for the unexpected. 

Investigating hundreds of e-mails without being able to copy or record anything from them has its obvious restrictions, yet at the same time it implies certain possibilities. Firstly, the e-mails were divided over several folders. Together they form a template of how the owner structures social reality. To put it bluntly, what is important, gets a folder. To give an example, the folder 'NGOs' indicates that these organizations are relevant to the owner and its sub-folders reveal which are regarded as most relevant. Secondly, the e-mails put in chronological order portray a certain timeline, for each folder. It can thus illustrate when certain issues were 'hot' within the organization, relating the number of e-mails to specific periods. The folder 'politics', for instance, discloses the peaks in lobbying. Thirdly, the e-mail archive is also a network track record. It shows the network ties of the owner with the outside world at
specified periods. It could thus be detected that certain contacts already existed earlier than first assumed. For all these three aspects, the researcher should at the same time investigate if he sees what he expects and detect novelties. In the case of this research, several novelties have not made it to the analysis because the potential damage (corporate or personal) was not expected to even out the contribution to the research. The contribution of this additional research method thus lies in confirmation of the existing analysis and the remark that there have not been any significant facts hiding away in the correspondence. The latter is no evidence, of course, that all has been disclosed.

Another token of trust was portrayed by the people of IMSA. As will appear from the analysis later on, this bureau for sustainability and innovation has played a crucial role in the whole process under study. They appeared to be very willing to be rather open about their role in it, despite the high level of political sensitivity. Particularly because of the delicacy involved in their direction of the process, it was a true privilege to have a little peek though the keyhole. Various archival resources were made available for this research, but also intensive correspondence with one senior researcher and the participation in certain events have been a result of contacts with IMSA.

**Direct observation**

During the research, several windows of opportunity opened up to observe parts of the process in action. Direct observation is the second category of data sources used for this research, besides archival research and qualitative interviewing. It is a true privilege for a process researcher to see the interaction process under study taking place in front of his or her own eyes. It provides an ultimate opportunity to see if the used theories and assumptions can stand the test of reality. In addition, it opened up several possibilities to get access from one event, or person, to the other. The so-called snowball method has indeed been proven to pay off. However, observation can be close to participation. Several meetings involved interaction with relevant agents. In a polarized setting, such as in this case study, the researcher runs the risk of being accused of partiality. A strategy was therefore chosen to be open and explicit about the aims of the research and the position of the researcher. It has been continuously emphasized that the research does not intend to be part of the current political debate and that the researcher refrains from political positioning during the research and in the reportage thereof. In addition, it was explained, the research aims to unravel this extremely interesting and complex process by testing the developed theoretical model. In spite of that, the researcher must nonetheless still be continuously alert. To give an
example, when entering the waiting room of the Council of State, it is a delicate matter who to greet first and where to have a seat. Being too friendly and at ease with the fishermen will risk the scrutiny of their opponents at the other side of the room, the environmental lobby, and vice versa. On such occasions, a professional distance must be kept.

Several occasions where real-time observation has taken place must be mentioned here. In early 2004, the Ministry of Agriculture organized four public consultation meetings for the EVA II-report. Two of them were attended: in Yerseke on January 8th and, three weeks later, in Groningen on January 31st. That same month, an audit symposium was held at the University of Groningen, which was participated in. The symposium was organized to discuss the scientific basis underlying the EVA II-report. The auditorium was packed, and not just with scientists. The cockle-case had attracted a lot of media attention by that time. On September 13th 2004, the appeal of environmental agencies against cockle licenses at the Council of State in The Hague was witnessed. Not much later, on October 6th, Parliament held a hearing about EVA II which was attended. On November 2005, the Trilateral Wadden Sea Conference was held at the island of Schiermonnikoog which was visited for that reason. On January 24th, 2006, NAM organized the ‘Zeegse II’ meeting, near its headquarters, to which the researcher was invited. The meeting was a follow-up on a previous session in which the current state of Wadden Sea issues were discussed. Later that year, in Dokkum-Friesland, on May 5th, the Ministry of Economic Affairs organized a consultation meeting on gas extraction in the Wadden Sea. The researcher was one of the attendees. For the ‘Fryske Akademy II’ conference, also in Friesland, on October 30th 2006, the researcher was invited by IMSA. Over the course of more than two-and-a-half years, by means of occasions as just mentioned, parts of the interaction process could literally be observed. Quite often, the meetings featured interaction in optima forma, as opponents confronted each other. Every now and then, the temperature rose really high, reminding the researcher of the fact that it was not only an object under study, but ‘real life’ in the first place. The jobs of people and millions of tax revenues were at stake. Not to mention ‘the environment’. The more the researcher showed up at relevant occasions, the better the chances were to get access to other people and places. Several interviews have been a result of that.

**Qualitative interviews**
The case of mechanical cockle fishery and gas extraction in the Dutch Wadden Sea entails an immense network of stakeholders. It is by definition impossible to interview all relevant agents in the process. As a result, for efficiency’s
sake, not all qualitative interviews have been comparable in size and extent of structuring. In fact, the qualitative interviews range from extended interviewing sessions to e-mail correspondence and telephone calls. By qualitative interviews we hereby thus include all information that resulted from one-to-one contacts. A considerable amount of energy has been put into those qualitative interviews. They have really paid off in the sense that they have delivered a substantial amount, and particularly quality, of information. It appeared that some people are carrying a lot of intriguing information in their heads which cannot be found anywhere else. In addition, with no exception, these people were happy to speak about most issues openly. They all endorsed the aims of the research, acknowledging that it is indeed a complex, yet fascinating case that needs further analysis. In certain cases, explicit agreements were made about the potential use of confidential information that was given. Several issues were very politically-sensitive at that time. In addition, the economic stakes were very high. Most interviewees acknowledged that it was a fragile process which was going on at that time. The procedure, then, was to send the transcription of the interviews for approval to that particular person. The idea behind that was that the interviewee, in the end, decided what raw material the researcher could use. Certain parts of transcriptions have indeed not been authorized. The researcher, however, has been willing to pay that price for the honesty and trust that was portrayed. Whilst certain information might not have made it to the text eventually, it has played its role in the intellectual processing of the researcher. Not surprisingly, the network of contacts has been treasured by the researcher, until the present day. The systematic qualitative interviews have all been recorded and transcribed. In addition, all e-mail correspondence has been archived.

In that vast and complex network of stakeholders, a first priority was contacts with representatives of the two cases. The perspective of the firm, which is used in this research, logically requires access to inside information of the object under study. In the cockle case, fisherman Bakker was obviously the most important contact person. In the NAM case, the senior advisor for external affairs was the central contact person. She had been on the Wadden case for many years. There have been close contacts with the two of them throughout the entire course of the research, by encounters on various occasions, by visits, via e-mail and via telephone. One specific occasion is worth mentioning here. On June 8th 2004, Bakker was visited on his ship in the harbor of Den Oever for another interview. It was a difficult time for the
fishermen. In fact, when drinking some coffee in the cabin of the ship and getting ready for the interview, Bakker turned on his TV and saw the news that political party D66 had changed its opinion with regard to the Wadden gas, and realized that this would not be in favor of him and his colleagues. At just that moment, his crew and some other fishermen actually entered the cabin. An emotional debate was unavoidable. This was the process in action, from the perspective of the fishermen. When everybody had calmed down a little bit, but nobody having left the cabin, the planned interview unfolded as a focus group. Without too much interference from the researcher, who had of course switched on the recording device, the fishermen discussed recent developments in all honesty and detail. Social reality would not get more real than this.

The qualitative interviews have served an exploratory goal. The list of contacts, in combination with the interview transcriptions and archived correspondence, is like a logbook of a discovery journey of five years, reporting on some spectacular findings every now and then. These little treasures of qualitative data are relatively scarcely distributed, of course. Large parts of the data are, however, also useful for verifying findings derived from other sources. It touches upon the issue of triangulation, which has been an explicit part of this research. Triangulation has been a constant exercise. A routine perhaps, that takes off as soon as the first data is being collected and that does not end when the coding and processing of the data takes place. Several phases in the research process might analytically be distinguished; in practice it is a labor of constant analysis. In the iterative research process, each new piece of data or each new coding could be a reason to ‘go back’, or ‘step aside’. Does it correspond with other data sources? Does it fit the theory? Or, how does it relate to other coding? As a consequence, induction and deduction go hand in hand, instead of following up on one another. Nonetheless, in the research design, the various phases can be analytically demarcated, as presented here. The ‘next step’ is thus the coding and processing of the data.

**Coding and processing of the data**

Once an empirical fact, i.e. an incident, has been designated as an event, hence a meaningful piece of data, it is ready for coding and processing into the database. Each event is assigned the tags as found in figure 15.

The Access database supplies the opportunity to attach the digital sources to the events. For that matter, a (unique) source number, a source title (e.g. newspaper), and a source date have been assigned to the event. When using the database, the original source (if available) can be retrieved. In addition, each event has been assigned one or more agents that are involved.
<table>
<thead>
<tr>
<th>Tags:</th>
<th>Content description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident number</td>
<td>A unique number</td>
</tr>
<tr>
<td>Incident label</td>
<td>Description of the event</td>
</tr>
<tr>
<td>Incident date</td>
<td>Date when the event took place</td>
</tr>
<tr>
<td>Chronology code</td>
<td>Date of event in ‘reverse’ order for easy chronological ordering</td>
</tr>
<tr>
<td>Act</td>
<td>Description of the event starting with the verb</td>
</tr>
<tr>
<td>Ideal level</td>
<td>What are the effects at the ideal level?</td>
</tr>
<tr>
<td>Normative level</td>
<td>What are the effects at the normative level?</td>
</tr>
<tr>
<td>Interactional level</td>
<td>What are the effects at the interactional level?</td>
</tr>
<tr>
<td>Opportunity level</td>
<td>What are the effects at the opportunity level?</td>
</tr>
<tr>
<td>Trigger event</td>
<td>Is it a trigger event for a controversy?</td>
</tr>
<tr>
<td>Settlement controversy</td>
<td>Does it settle a controversy?</td>
</tr>
<tr>
<td>Controversy 1 (to N)</td>
<td>Does it concern controversy 1?</td>
</tr>
<tr>
<td>Agent firm</td>
<td>Is the firm (or represents) the agent?</td>
</tr>
<tr>
<td>Agent government</td>
<td>Is government the agent?</td>
</tr>
<tr>
<td>Agent opponent</td>
<td>Is one of the ‘opponents’ the agent?</td>
</tr>
<tr>
<td>Institutional capital</td>
<td>Does it concern the use of institutional capital of the firm?</td>
</tr>
<tr>
<td>Mobilization</td>
<td>Does it concern mobilization of the firm?</td>
</tr>
<tr>
<td>Effect ISP</td>
<td>What are the effects (grosso modo) on the ISP?</td>
</tr>
</tbody>
</table>

Figure 15: Tags of the database

Agents can thus be easily traced in the database. It has to be noted, that the list of agents, per event, goes beyond the one particular agent that is acting and which can be found in the ‘event label’ [YYYY_Agent_verb_description].

A potential complication when feeding the database with agents might be the various affiliations that people sometimes have had throughout their careers. One record for one person does not leave room for specification of these various positions for certain periods. A partial solution to this is a separate note for noteworthy career moves when they occur. In practice, like in our two case studies, this has not caused many problems. Only a few people were worth mentioning in this respect because of (a.) an excessive span of
Controversy 1 (meta-controversy)

The effects of mechanical cockle dredging on the ecology of the Wadden Sea
Those who state that there are durable effects against those who state there are no durable effects.

Sub-controversy 1a Cockle population
Sub-controversy 1b Common eider population (Somateria mollissima)
Sub-controversy 1c Oystercatcher population (Haematopus ostralegus)
Sub-controversy 1d Knot population (Calidris canutus)
Sub-controversy 1e Common Scoter population (Melanitta nigra)
Sub-controversy 1f Herring Gull population (Larus argentatus)
Sub-controversy 1g Benthic organisms (like sea grass and mussels)

Controversy 2

Qualifications of the government policy (as a means)
Those who state that the right policy is being implemented against those who criticize it.

Sub-controversy 2a The license system (as such and the decisions to grant them)
Sub-controversy 2b Quotation
Sub-controversy 2c Closure of fishing grounds
Sub-controversy 2d Appliance of Habitat and Bird guidelines (European guidelines)
Sub-controversy 2e Appliance of precautionary principle

Controversy 3

The effects of government policy
Those who state that government policy leads to desirable outcomes and those who state that there are no or unsatisfying effects

Sub-controversy 3a The behavior of the cockle fishermen
Sub-controversy 3b The ecology of the Wadden Sea

Controversy 4

Attempts of fishermen towards sustainable fishing practices (potential and actual)
Those who state that the fishermen sufficiently invest in sustainable fishing practices and those who believe they do not

Controversy 5

The campaign of the anti-cockle front
Those who approve with the campaign of the anti-cockle front and the means they are using against those who oppose that.

Controversy 6

The status of the scientific research that is being carried out and used
Those who state that particular scientific research supports the stakes of the fishermen and those who state it does not.

Controversy 7

The option of buying out the sector
Those who regard the buying out of the sector as an option and those who do not.

Controversy 8

The socio-economic relevance of the sector
Those who emphasize the socio-economic relevance of the sector and those who point at the relativity of it

Sub-controversy 8a The use of cockles for the Dutch market
Sub-controversy 8b Connection with gas mining in the Wadden Sea

Figure 16: The initial cockle controversy list
their career, (b.) striking career moves or (c.) alleged contesting interests of positions.

When feeding the database and coding the events, it will appear that the designation of the controversies is a crucial exercise. For most of the tags, as found in figure 15, relatively unambiguous values should be found based on the given operationalization. However, the tags concerning the controversies (controversy 1, controversy 2, etc.) come into being throughout the process of feeding the database. It is another example of the induction-deduction iteration. It is suggested that, as soon as the first event is processed, the researcher should reflect on what controversy could possibly be at stake there. For the two cases, a list was made with ‘controversy candidates’. The controversy list thus came into being while processing the data, so to speak. After all the events had been processed into the database, it was reflected on this list. How do the controversies relate to each other? Can they be grouped? Are some of minor importance perhaps? Answering these questions can lead to a definite list of controversies with which the coding can be completed.

Selecting the cockle controversies

For the cockle case, the initial controversy list entailed eight categories plus sixteen sub-controversies, as shown in figure 16. Altogether, this controversy grid appeared to be somewhat excessive in its size. The list was reflected upon to see if regrouping of the controversy could lead to a more concise structure, without losing too much of its initial refinement. It is a rather reflective phase in the research process, in which the researcher should put into practice his or her knowledge and overview of the object of study, overlook the theoretical implications and, last but not least, apply a great deal of common sense and logical abstraction. Which are the disputes that keep coming back? Which disputes seem to drive the process? It then appeared that three broader categories cover all controversies on the initial list.

The first one of the final three controversies, as presented in figure 17, is about the ecological effects of mechanical cockle dredging on the ecology of the Wadden Sea. It had become clear rather soon that this controversy was to be designated as the ‘central controversy’. Settlement of this ‘ecological damage controversy’ would take away grounds for most, if not

\[\text{\footnotesize 60\ There have of course been more disputes in which the sector has been involved, but they appeared to be of minor importance with regard to the focus of the research and they concerned only one or few events. It is at least an indication that the process of selecting incidents resulted in few less-relevant events, which can therefore be reduced to incidents again. However, there is no guarantee that all potential incidents have been turned into events.}\]
all, other disputes. In fact, this controversy is the *sine qua non* to this case. If it was not for the dispute on the effects of the cockle dredging, the government would not have had such a stringent reason for its increasing involvement with the sector, hence it would not have been such an interesting case study as it appeared to be. It is a comforting situation to find out that the research process leads to a certain outcome, the designation of a central controversy, which afterwards seems rather obvious. Slightly complicating though, were the number of sub-controversies involved. It was decided to regroup these into three larger sub-controversies, namely that on (a.) the cockle population, (b.) bird populations, and (c.) benthic organisms. Throughout the whole process, the central controversy, including its sub-controversies, appeared to pop up continuously. It was decided that the sixth controversy on the initial list, dealing with the status of the scientific research, can be put in the context of the central controversy, without being a controversy itself. Scientific research is a common ‘vehicle’ to accommodate disputes such as on the ecological effects of economic activities.

<table>
<thead>
<tr>
<th>Controversy 0</th>
<th>Preceding controversy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcomers in the Wadden Sea</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controversy 1</th>
<th>Central controversy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effects of mechanical cockle dredging on the ecology of the Wadden Sea</td>
<td></td>
</tr>
<tr>
<td>(effects/damage/risks/externalities)</td>
<td></td>
</tr>
<tr>
<td>Sub-controversy 1a</td>
<td>The effects of cockle fishing on cockle population</td>
</tr>
<tr>
<td>Sub-controversy 1b</td>
<td>The effects of cockle fishing on bird populations</td>
</tr>
<tr>
<td>Sub-controversy 1c</td>
<td>The effects of cockle fishing on benthic organisms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controversy 2</th>
<th>Socio-economic relevance of the cockle industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>(interests other than ecological)</td>
<td></td>
</tr>
<tr>
<td>Sub-controversy 2a</td>
<td>The relevance of the sector for the Dutch market</td>
</tr>
<tr>
<td>Sub-controversy 2b</td>
<td>The option of buying-out the sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controversy 3</th>
<th>Strategic position of the cockle industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>(strategizing/network-relations/attacks on strategy or effects thereof etc.)</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 17: Definitive cockle controversy list*

The second controversy is on the socio-economic relevance of the sector. The significance of this controversy came to the surface relatively late.
in the interaction process. Particularly around the time of the Meijer report the socio-economic relevance of the sector was heavily disputed. It appeared that this debate encompassed topics which were attributed to separate controversies in the initial list. The seventh controversy on the initial list, which deals with the option of buying out the sector, merged with sub-controversy 8b, on the connection between the cockles and the gas. The buying-out option, it appeared, could hardly be seen separately from the gas-cockle connection. Two sub-controversies were thus designated, the first one on the use of cockles for the Dutch market and the second one on the option of buying out the sector. In addition, aspects of the fourth and fifth controversy on the initial list could easily be accommodated by the socio-economic controversy. Attempts of the fishermen to adopt sustainable practices were partly aimed at illustrating the socio-economic relevance of their sector, whereas the anti-cockle front, of course, tried to devalue it. The events of the initial fourth and fifth controversy that did not concern the socio-economic relevance of the sector appeared to be related to the third, and new, controversy.

The third controversy, which derived from the initial controversy list, is on the strategic positioning of the cockle fishermen. This controversy encompasses various other elements of the initial list. Firstly, the new controversy comes close to the core of the fourth initial controversy on the attempts of the fishermen to adopt sustainable fishing practices. Sustainability is the main theme in the discussion on the strategizing of the sector. Secondly, the strategic position can also be expressed in relationship to government and policies, which are of significant importance in this case. They were initially covered by the second and third controversy. It has thus been decided that, respectively, the qualifications of the government policy and the effects of the government policy, could be seen as part of the third controversy on the strategic positioning of the cockle fishermen, rather than being separate controversies, or in theoretical terms, ‘motors’ of the interaction process.

Now that the controversy grid has been reduced to a more concise one, capturing the essential motors driving the interaction process, it must be realized that the whole procedure to get there has been a useful exercise. The structure and refinement of the initial list does make sense. In addition, it helped to unravel the complexity of the interaction process. As was stated above, it is a luxury to find out that playing with the induction-deduction nexus leads to a first step that appeals to both reality, theory and common sense. In addition, the outcome has been discussed with people in the field, including Bakker, to see how they reacted on this abstraction. It was generally approved as the set of disputes which drove the whole process. Interestingly
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helped to unravel the complexity of the interaction process. As was stated
structure and refinement of the initial list

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tries of the fishermen to adopt sustainable fishing practices. Sustainability
controversy comes close to the core of the fourth initial controversy on the

The reports of the qualitative interviews showed another controversy, which could not be captured by any other data source, partly due to the fact
that it had been settled, well before any sort of documentation had started. It
has been designated as the 'preceding controversy’, dealing with the
newcomers in the Wadden Sea. In the late1960s, early 1970s, fishermen
from the South-west of the country came to the Wadden Sea, seduced by its
enormous stock, compared to what they had back home. The concern of the
'Northerners' would eventually lead to a license system to stop the ‘wild
west’ in the Wadden Sea. The preceding controversy had thus been settled,
but at the same time, it would be the start of new developments, in a new
institutional setting, that would have its effects for the next decades to come,
up until the next millennium, as we will see in the coming chapters. For the
cockle case, there were now four controversies, including the preceding one.

Selecting Wadden gas controversies
The process of selecting the Wadden gas controversies proceeded slightly
differently from that of the cockle controversies, although comparable
databases served as a starting point for both cases. The knowledge and
experience of the previous case enhanced a certain bias towards the selection
of Wadden gas controversies. It soon appeared that the template of the three
cockle controversies were applicable to that of the gas case. It was thus
decided to see what would happen if the first coding of events with regard to the
controversies were based on the three cockle themes immediately, adjusted of course to the new object of study.

It appeared that the first two controversies, respectively on the
ecological damage and the socio-economic relevance, also make a lot of sense in the context of the Wadden gas. However, surprisingly enough, the third controversy on the strategic positioning, of NAM in this case, covered less events compared to the cockle case. A general first impression was that the array of gas controversies was not as wide as that of the cockles. Such findings, and subsequent decisions regarding the designation of the controversies, are of course worth taking into account throughout the further research process. For instance, has the strategic positioning of NAM indeed been subjected to a dispute to a lesser extent than the cockle sector?
Having defined the Wadden gas controversies, as shown in figure 18, a more general question arises. To what extent do we see similar patterns of triggering, maintaining, and settling controversies when comparing the two cases? The controversies are expected to be the generative mechanisms that guide the interaction processes. In that sense, they can be seen as story lines. We already know that the two cases are very different from one another, but we might see similar mechanisms occurring. The more reason to embark on the next phase of this study and carry out the case study.

**Plan of the remainder of the book**
The first part of this book has been devoted to introducing this study, to expose the theoretical framework of the ISP model, to explain the methodological considerations and to report on the actual research design. It is therefore now time to dive into the empirical world more deeply. Firstly, chapter 4 will introduce the Wadden Sea, with an emphasis on the social context in which the fishermen and NAM have been operating. An analysis of the regulatory framework and the network of agents involved will disclose the first glimpses of institutional bandwidths that are relevant to those who operate in the Wadden Sea. Subsequently, the two firms will be dealt with in two successive chapters: the mechanical cockle sector in chapter 5 and NAM in chapter 6. Chapter 7 will wrap up the research with a summary and conclusions.
Intermezzo

The island of Terschelling, summer 2003. Wouter van Dieren walks along the coastline of the place where he has been wandering around for more than fifty years now. The Wadden Sea is calm. There is no wind. The sunlight is heating up the wetlands. In the distance, ten, maybe twenty kilometers away, engines roar. The ships to which they belong are invisible, but audible nonetheless, like a murmur. Van Dieren worries about ‘his’ Wadden Sea. The abundance and variety of fish, shrimps and shellfish he knew as a child seems something of a long forgotten past now. The Japanese oyster, on the other hand, is spreading like wildfire, repressing other wildlife. This exotic species was imported by the Zeeland growers to compensate for the loss of endemic shellfish due to the severe and legendary winter of 1963. The expectation that these Asian oysters would not stand the Dutch climate in the long run appeared to be wrong, evidently. And then that sound, these rumbling engines. It could very well be of the cockle ships, disturbing the delicate bottom life of the precious wetlands. Something had to be done, Van Dieren was convinced of that. The muddling through with the Wadden Sea of the last few years had to come to an end. In that context, the option of buying out the mechanical cockle fishery with revenues from Wadden gas had kept coming up, repeatedly. And not to his surprise. The plan could be a crucial key to turn the tide, he knew.

Former minister Pieter Winsemius had been the first one to make this plan explicit. His lobby for that matter, ten years ago, had not really led to anything at that time. Nonetheless, the people at IMSA, Van Dieren’s consultancy bureau, took good note of that little piece of paper, on which Winsemius had written the essence of his exchange plan. The basic idea was to use the tax revenues involved in gas extraction in the Wadden Sea to get rid of the cockle issue - which was called the ‘headache files’ in The Hague - and to create a fund for ecological recovery projects in the Wadden Sea. The time seemed ripe now for that plan, more than ever, Van Dieren had concluded. The previous Summer, in 2002, during the famous Oeral festival on the island, the Minister of Education Loek Hermans, who Van Dieren had as a guest in his garden on Terschelling, informed him about how the negotiations on the new cabinet were panning out with regard to the Wadden Sea. As a compensation for some plans which would be unpopular with the environmentalists, the Wadden Sea would remain untouched, he was told. Van Dieren immediately realized that, much to his surprise, gas extractions in the wetlands would thus be declared a taboo again. A few years earlier, in 1999, the so-called Integral Seabed Subsidence Study on the Wadden Sea had indicated that no
negative effects of gas extraction were to be expected. Leaving the gas underneath the Wadden, government would not only miss out on relatively clean fossil energy resources and billions of euros of tax revenues, it would also be a missed chance to finally implement the exchange plan to buy-out the cockle fishermen and to establish the Wadden fund.

In that garden, Van Dieren and Hermans decided to get the whole process started. Mining company NAM, which had found itself in a political deadlock with the Wadden gas, was contacted to see if it would join in. Subsequently, a meeting at Terschelling was planned for next January. Some key players, including representatives of NAM and government, were invited to set sail for an exciting journey to break through some strong boundaries in and around the Wadden Sea. It was decided that a commission had to be installed, just as Winsemius had proposed initially. As quite some commotion and opposition was expected, Van Dieren willingly offered to function as a scapegoat throughout the whole process. He would do the PR and receive all the scrutiny and condemnation.

And now, walking on the Wadden, this long and hot summer of 2003, Van Dieren knows that they are about to embark on this remarkable enterprise. The commission would be chaired by Labor Party eminence grise Wim Meijer. Van Dieren’s team at IMSA had already started to get their Cascade Model mathematically ready for application on the Wadden Sea. The model would be crucial for implementing the big plan. Van Dieren is well aware of that, while watching over the grand design of these beautiful wetlands. In 1934, the brother of his father, ‘uncle Wout’, after whom Wouter was named, wrote one of the first ecological PhD theses in The Netherlands, about the morphology of the Terschelling dunes. Now he stands there, his eyes on the gracious Wadden, and behind him the battered dunes that Uncle Wout had so passionately written about. And ahead of him, the tide is coming in…
Chapter 4

Turning tides: introducing the Wadden Sea

Descriptions of the Wadden Sea range from “the last wilderness in the Netherlands”, “the largest piece of nature in Europe”, “a unique and irreplaceable nature site”, “a high-quality ecological site”, “the wonder of the Wadden”, “international wetlands”, “symbol of excessive materialism”, “a nursery”, “one of the 200 most important nature reserves in the world” to “the five percent remaining of original nature in the Netherlands”. Besides its ecological importance, the Wadden Sea also has a significant social dimension, as the above descriptions indicate (e.g. Vollmer et al., 2001; Knottnerus, 2005). The use and “abuse” of these wetlands, shaping the Northern coastline of the country, has been one of the most intense and long-lasting political debates of the last few decades. The Wadden Sea has not always been under such intensive public, political and academic scrutiny, however.

Until the 1960s, commercial businesses, initially dominated by various fishing activities, hardly faced any legislation when exploiting the resources of the wetlands. The Mining Act (Mijnwet) of 1810 and 1900, the Dredging Regulation of 1934 (Baggerregelement) and the Fishing Act of 1963 (Visserijwet) were general rules with no particular concern for ecological values. In fact, the Wadden Sea, until that point, had even been designated for future land reclamation. The wetlands had long been destined to become a polder. The year 1965 can be regarded as a turning point (Verbeeten, 1999). Plans to connect the island of Ameland with the mainland through a dam caused local opposition. This led to the foundation of the Wadden Association (Waddenvereniging) that year. Five years later, already 25,000 people had become members of what would become the prime stakeholder in defending values of the wetlands. Protection of the Wadden Sea had rapidly become a

61 Trouw, November 16, 1999
62 De Jong et al. (1999) sum up current human activities in the Wadden Sea: fishery, gas and oil mining, tourism and recreation, civil air traffic (airports), shipping (ports), hunting, military use, wind energy, extraction of sand and shells and dumping of dredged material.
national concern, with all its consequences for a wide range of stakeholders, the cockle fishery and NAM included.

This chapter portrays the Wadden Sea as a social phenomenon by introducing the relevant policies and the people and organizations who are involved in it. An analysis of developments in legal institutions and the network of agents in the Wadden Sea is a necessity before diving into the cases of cockle fishery and gas extraction in particular. The chapter gives an overview of agents and structures that will be part of either one or two of the following analytical chapters. The first half of this chapter sets out the regulatory framework, with a focus on, respectively, the Nature Protection Act, the Flora and Fauna Act, the Birds and Habitat Directives and the Key Planning Decision Wadden Sea. The second half of the chapter gives an overview of the network of agents by focusing on, respectively, the fishermen and NAM and their industries, government, environmental agencies, research institutes, the Wadden Sea Council and the Council of State. It will appear, when concluding this chapter, that this general analysis of the Wadden Sea as a social phenomenon reveals the contours of institutional bandwidths, particularly at the normative and interactional level. Not surprisingly, the developments as described in this chapter will appear to be compatible with the analysis of the ISP of the fishermen in chapter 5 and that of NAM in chapter 6.

REGULATORY FRAMEWORK OF THE WADDEN SEA

Firms in modern societies face legal frameworks to which they have to adhere. Rules, laws, policies, conventions and treaties; they are obvious and undeniable institutional bandwidths which have to be taken into account when strategizing. Not surprisingly, they will turn out to be an essential dimension of the ISP, as has been argued in the second chapter. Both the cockle fishery sector and mining company NAM encounter a set of such regulations when carrying out their strategies in the Dutch Wadden Sea. Describing the regulations applied to the Wadden Sea is in fact a description of the Wadden Sea itself. Not in biological or ecological terms, but as a social phenomenon. Particularly since the mid-1970s, the Wadden Sea gained increasing significance in a legal context, in addition to its traditional function of supplying exploitable natural resources. The recent history of the wetlands is a story of intensifying institutional pressure through the aggregation and adjustment of regulations aimed at nature conservation. The main regulations
relevant to the Wadden Sea, and the dynamics they underwent, will therefore now be looked at in more detail.

The Nature Protection Act
The history of the Nature Protection Act (Natuurbeschermingswet) is illustrative of the development of nature conservation policy in The Netherlands. In addition, it has a particular relevance for the Wadden Sea. As early as 1928, the government announced the development of the Nature Protection Act, but it would not be until 1968 that it would be put into effect. In the meantime, as of 1929, State Forestry (Staatsbosbeheer), which was founded in 1899, was made responsible for the protection of Dutch nature. “In those years, nature protection was mainly directed to the protection of (mostly terrestrial) areas of natural beauty and aesthetic values and, in order to protect them from cultivation, the acquisition of those areas.” (Turnhout, 2003: 55) Wolff (1997), in fact, argues that government was still rather late putting into practice its concern. Nature Monuments (Natuurmonumenten), a private initiative and founded in 1905, had already become a relevant player by 1929.

Shortly after the implementation of the Nature Protection Act, 1970 saw the European Nature Conservation Year. Opening up the European Conservation Conference at Strasbourg on February that year, chairman Boote of the European Committee for the Conservation of Nature and Natural Resources stated that:

for the first time in history, the nations of Europe are cooperating in designing tomorrow’s environment. Thus, ECY is already a success. More than twenty countries, many international, and a vast number of official and voluntary bodies clearly agree that the environment is a top priority problem: that it can be no longer ruthlessly exploited; that it is a mirror of our social conscience; and that as we change it, we change it ourselves. [...] Massive and continuing education and information are required. Whatever this costs, it must be less than failure to achieve our aims, with all the impoverishment of our lives that would result.”63

The Ministry of Culture, Recreation and Social Works (CRM: Cultuur, Recreatie en Maatschappelijk werk) was the governmental body first confronted by the question of how to implement nature preservation in the Wadden Sea. The Nature Protection Act of 1968 and the European Nature Conservation Year in

63 Proceedings of the European Conservation Conference, Strasbourg, 9-12 February 1970
1970 urged governments to take care of natural environments, for instance, through designation of protected areas. In the Nature Conservation Year, the young Wadden Association published a comprehensive book on the Wadden and its ecological importance. It was an attempt to counterattack plans for turning parts of the Wadden Sea into new polders. There had been such plans since the seventeenth century (Verbeeten, 1999: 42), but now it seemed, to some, a logical follow-up for the Delta works which were about to be completed. The new polder, as it was argued, would provide more protection from the Sea and more land for agriculture, housing and recreation. In 1970, the Mazure Commission (Waddenzeecommissie or: Commissie Mazure) was installed to investigate these plans and its possibilities. The commission concluded that there was no real urgent need for land reclamation and that, in addition, the costs of such projects would be too high. Moreover, the report emphasized the negative effects for fishery, recreation and nature values which were to be expected. According to the commission, the Wadden Sea is “a unique and valuable piece of nature that needs to be preserved.”

One of the commission’s recommendations was the implementation of an administrative body, particularly for the Wadden Sea. The Staatsen Commission (Commissie toekomstige bestuursstructuur Waddengebied or: Commissie Staatsen) was therefore installed, that very same year, on the initiative of the Wadden Association, to investigate the possibilities for such measures in order to accomplish “the protection, the preservation, and recovery of the natural state of the Wadden area.” It can thus be concluded that the first half of the 1970s is marked by an increasing environmental awareness, although, with respect to the Wadden Sea, the progress was restricted to the abolishment of the designation as a future water works. The Wadden Sea was, in fact, not sufficiently protected yet. For instance, the plan for a future status as a natural park was even rejected at that time, particularly because, according to Wim

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64 The Delta works are the dams, locks, sluices, dikes and storm surge barriers built in the second half of the previous century to protect the South-west of the country from the sea. The American Society of Civil Engineers has declared the works to be one of the ‘Seven Wonders of the Modern World’ (www.asce.org).
Wolff, the international definition excluded human activities, which were already abundantly available in practice at that time.\textsuperscript{68}

In 1975, the increasing awareness of natural values had led to the publication of three so-called ‘green’ documents (Turnhout, 2003: 55) by the Ministry of Culture, Recreation and Social Work. Nonetheless, one of these documents,\textsuperscript{69} the Policy Document on National Parks\textsuperscript{70} explicitly designated the Wadden Sea as unsuitable for being a national park, because the wetlands required, as it was argued, an international modus operandi. In other words, the international significance had now been emphasized. It would, however, take a bit longer for the Nature Protection Act, amongst other regulations, to conform to the European standards, which would increasingly tighten in the years to come.

\textit{The Wadden Sea finally under the Nature Protection Act}

In 1981, a first part of the Wadden Sea was placed under the operation of the Nature Protection Act. In December 1993, another part was added, which implied that most of the Wadden Sea had now been designated as a State Nature Reserve.\textsuperscript{71} The Wadden Sea is currently the largest protected area in The Netherlands.\textsuperscript{72} Some Wadden areas even have the highest protective status. The start had been rather hesitant, but as of the beginning of the 1980s, the Wadden Sea was finally heading towards protection status under the Nature Protection Act. This was a crucial, but also delicate process, as became clear from an interview with Jan Jaap Hooft, who was occupied in it at that time.\textsuperscript{73}

State Forestry, the governmental organization managing the natural heritage of the Netherlands, and at that time working for the Ministry of CRM and of LNV, was asked to investigate how to apply the Nature Protection Act

\textsuperscript{68} Personal correspondence
\textsuperscript{69} The other two documents were the Interim Policy Document on National Landscape Parks (CRM, 1975b, Advies van de interdepartementale commissie nationale parken en nationale landschapsparken, deel I nationale landschapsparken, TK 1974-1975, 13283, nrs. 1-2.) and the Policy Document on the Relation between Agriculture and Nature and Landscape Protection (L&V et al., 1975), which was published with the Ministry of Agriculture and Fisheries (L&F) and the Ministry for Housing and Spatial Planning (VRO).
\textsuperscript{70} CRM (1975a) Advies van de interdepartementale commissie nationale parken en nationale landschapsparken, deel I nationale parken, TK 1974-1975, 13283, nrs. 1-2.
\textsuperscript{71} The only areas of the Wadden Sea which do not fall under the Nature Protection Act are the access channels, the large tidal inlets and the military grounds, Vliuchs and Noordsvaarder (Vleet, 2007).
\textsuperscript{72} Vleet, 2007
\textsuperscript{73} Interview April 11, 2006
to the Wadden Sea. Marine biologist Jan Jaap Hooft was put on the job. How could the Wadden Sea be protected within the existing and forthcoming legal frameworks? The first thing Hooft and some of his colleagues undertook was a physical exploration of the entire Wadden Sea coast, traveling the Danish, German and Dutch shores. It appeared that human activities like recreation and land reclamation were indiscriminately taking place. Researcher Wim Wolff was then asked if there were any comparable wetlands in the world, to see how they were being protected. Wolff indicated that similar wetlands were available, in various places in the world, e.g. on the East Coast of North America, but that few of them were protected.74

The Canadian National Parks and the United States Sea Shores are examples of legally protected nature sites. Most of the Dutch Wadden Sea is State-owned land (Mörzer Bruyns & Wolff, 1983), like the Canadian National Parks. The margins of the Wadden area, however, are characterized by multiple land ownership, which also applied to National Sea Shores. The Americans had a long tradition of nature preservation since the foundation of the famous Yellowstone National Park in 1872. Two big lessons were learnt by the Dutch delegation. In the first place, in order to protect the Wadden Sea-like wetlands and the nesting areas, the high tide roost areas and the feeding grounds need to be protected together. A second thing learnt was the likelihood of local opposition to nature conservation measures.

Back home, Hooft and his team started to make a proposal for the Application of the Nature Protection Act in the Wadden Sea. They colored the Wadden Sea map by demarcating the nesting areas, the high tide shelter roosts, the feeding grounds and the important seal nursery areas. It turned out that 80% of the map was then colored. However, the researchers themselves were not surprised. Nevertheless, the question was now of how to put these findings into practice. One of the CRM civil servants had good connections with prominent D66 Democrats parliamentarian Jan Terlouw. It was decided to 'insert a motion' supporting the plans for the application of the Nature Conservation Act in the Wadden Sea just before the debate on the Key Decision Planning (PBK), which would sort out the spatial planning of the Wadden Sea. The basic idea of applying the Nature Protection Act to parts of the Wadden Sea in order to maintain bird populations and seal populations was put on paper and handed over to Terlouw for further backroom lobbying. All political parties complied when Terlouw read the motion in Parliament. Hooft and his colleagues, happy to see their plan succeeding, at the same saw

74 Personal correspondence
the angry faces of the delegates of the province of Friesland, disapproving what was happening down below in the political arena.

The province of Friesland was regarded as one the most serious obstacles for Hooft and his team. With four of the Wadden islands on its territory and having the longest coastline, compared to the other two Wadden provinces, the Friesland delegates wanted to have a big say in the whole discussion. They worked on provincial directives for conservation of the wetlands and opposed implementation of the Nature Policy Act for that reason, explaining their disapproval with the sudden and effective lobbying. The national and provincial level had now been taken care of. What was left was the local level.

Hooft and his team organized public consultation meetings at each of the Wadden islands. The local community was told that the national government had decided, on request of Parliament, to put areas of the wetlands under the Nature Protection Act. The political agreement at the national level was thus used, of course, as a lubricant for enhancing local commitment. It has to be noted that the 80% had not been mentioned up to this point. Both politicians and locals were left ignorant of the percentage when asked to approve the principle of applying the Act to the wetlands. The local community was asked what they were afraid of losing. “Large parts of the Northern coastlines of the islands were already owned by us, Staatsbosbeheer, and therefore we could of course expect opposition when the locals were told that this would also become the case for the Southern shores, bordering the Wadden Sea. They would feel physically squeezed in between protected areas”, recalls Hooft. 75

It turned out that people only worried about small-scale recreational activities on small parts of the tidal areas, relatively harmless to the ecosystem. The citizens were invited to help and physically draw these areas on the maps. They were then told that these would not be affected by the new plans. In addition, the so-called management consultation groups (beheersoverleg groepen), being the successors of these consultation meetings, would be held once a year on each island again. The past year could then be evaluated and new plans be commented upon. No regime change would take place without the consent of the management consultation groups. “As we found out, this management instrument had started to play a significant role as a means for the local community to express their complaints and concerns in a very broad sense. Anything that affected their island was discussed” reflects Hooft. 76 The

75 Interview April 11, 2006
76 Ibid.
meetings were so successful that the islanders opposed attempts by the Friesian government to involve them in the provincial policy plans. "The people on the islands thought they were not being listened to by Friesland, whereas they had the feeling they were being taken seriously by us. Friesland again was not happy with State Forestry", Hooft remembers, smilingly. The management consultation groups were ahead of their time, as would appear later on, and they still live on to this present date.

Currently, many important existing as well as new nature areas are made part of the Ecological Main Structure (EHS: Ecologische Hoofdstructuur). The coastal zone of the North Sea and the Wadden Sea, for instance, belong to that structure. The idea behind it is that when separate nature areas are connected, plants and animals are supplied with a larger total territory to survive and reproduce. These connections can be woodland, banks, meadows, grain fields and grasslands. Viaducts and tunnels allow wild animals to cross transecting motorways.

It has taken some time for the Nature Protection Act to reach its full-grown status as an adequate policy tool to protect the Wadden Sea, as has appeared from the above. On October 1st, 2005, the act underwent its most recent change, with which it would finally meet the European standards. Worth mentioning in this context is that formal objection procedures do not suspend the disputed activities until a decision of the Court, as was previously the case. The mechanical cockle sector, for instance, has repeatedly asked for the abolishment of this suspension principle, because each year valuable periods of harvest were lost, in between the carefully planned objections of environmental organizations and the decision of the Court, no matter the specific outcome. The Nature Protection Act supplies the regulatory framework to shield specific areas with regard to their natural values. Other regulations, such as the mentioned Birds Directive, however, are aimed at specific species that require protection, regardless of where they are. These directives fall under the category of the Flora and Fauna Act, which must therefore also be dealt with in this respect.

The Flora en Fauna Act

The Flora and Fauna Act is a relatively new piece of legislation. It came into effect on April 1st, 2002. It provides for the protection of plants and animals and does not restrict itself to protected areas, as the Nature Protection Act

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77 Ibid.
78 Ibid.
79 e.g. Raad van State, September 14, 2004: 200407395/1
animals to cross transecting motorways. Banks, meadows, grain fields and grasslands. Viaducts and tunnels allow wild territory to survive and reproduce. These connections can be woodland, nature areas are connected, plants and animals are supplied with a larger total instance, belong to that structure. The idea behind it is that when separate Hoofdstructuur EHS made part of the Ecological Main Structure (again was not happy with State Forestry, Hooft remembers, smilingly. Whereas they had the feeling they were being taken seriously by us. Friesland people on the islands thought they were not being listened to by Friesland, Friesian government to involve them in the provincial policy plans. The meetings were so successful that the islanders opposed attempts by the mechanical cockle sector, for instance when other wildlife is at stake. The act also designates some protected species in particular. The Flora and Fauna Act has incorporated existing regulations, such as the Bird Act (Vogelwet), the Hunting Act (Jachtwet), the Useful Fauna Act (Nuttige Dierenwet), the Endangered Exogenous Flora and Fauna Act, the CITES treaty, and chapter V of the Nature Protection Act, which is on the protection of species. In addition, the European Birds Directive and Habitats Directive have been implemented in the Flora and Fauna Act. They require some more attention, because they have played an important role in the process under study here. Both the fishermen and NAM have encountered birds when carrying out their profession on the Wadden. These birds, represented by environmental organizations, have acquired more and more rights by means of the mentioned directives in particular, making it harder to carry out economic activities in the wetlands.

The European Birds and Habitats Directives: towards Natura 2000
The Birds Directive was adopted by the European Union in 1979 and implemented by the Netherlands on April 1981. It arranges the protection, management and regulation of birds in the wild, including their eggs, nests and habitats. Appendix 1 of the Act mentions protection measures that need to be implemented in order for 181 bird species to survive in their current habitat. About 60 of them reside in the Netherlands. For the protection of these birds, the member states need to designate so-called Special Protection Area’s (SPA’s). The Habitats Directive was adopted by the European Union in 1992 and implemented in The Netherlands on June 1994. It aims to secure the biological diversity of wildlife on European territory. Member states are obliged to take measures to protect these so-called Special Areas of Conservation (SAC’s). The precautionary principle is crucial in this respect (cf. Fleurke, 2008). Worth mentioning, however, is the room for acceptance of certain damage in the case of a social necessity and no available alternatives.

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78 The CITES treaty (Convention on International Trade in Endangered Species of Wild Fauna and Flora) of 1974, has been signed by 143 countries in order to prevent trade of endangered species.


80 www.vogelbescherming.nl

The Habitats Directive obviously has some overlap with the Birds Directive. Recently, the European Union has been working on merging SPAs and SACs into the Natura 2000 network. Member states must submit a list of areas to the European Commission which then decides which are designated as Natura 2000 sites. In May 2003, the Dutch Minister of LNV submitted a list of 141 sites to the Commission, which have all been approved. Some of the areas are in and around the Wadden Sea. Prior to finally designating the areas as approved by the EU, the Ministry organized several consultation meetings.

Concerning birds, which are in the end major ‘players’ in this study, the Ramsar Convention is worth mentioning here also, as a worldwide treaty, aimed at the conservation of sustainable utilization of wetlands. In Ramsar, Iran, in 1971 already, the significance of wetlands was thus stressed. In particular, the protection of water birds was given a lot of attention. The Netherlands signed the treaty in 1980.

Summing up, it is safe to state that water birds in their natural habitat have been more and more protected by a legislative framework since the 1970s, leading up to the European Natura 2000 network. It all started however, with the discussion on the possible future of the Wadden Sea as a waterworks. The aspect of spatial planning shows other dimensions of the regulatory framework of the Wadden Sea, for instance in the Key Planning Decision.

**Wadden Sea Memorandum**

A Key Planning Decision (PKB: Planologische Kernbeslissing), or memorandum, is a tool for the national government to coordinate spatial planning. A PKB is a framework of rules and principles for specific areas like the Schiphol airport area, the Rotterdam harbor or the Wadden Sea. A PKB is indicative for provincial and local governments when planning spatial development. However, certain guidelines can be binding, for instance when Parliament wants to reserve an area for a specific purpose. The PKB can contain ‘decisions of fundamental significance’. Divergence from these decisions requires revision of the full PKB. Citizens have an explicit opportunity of participation throughout the process of drawing up the PKB or its revision.

The first intention of government to implement a PKB for the Wadden Sea stems from 1974\(^4\) and was officially laid down in a policy document two years later\(^5\) declaring the protection of the Wadden Sea as a main administrative goal. It is only then, in 1980, when Parliament approved...

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\(^4\) TK 1973-1974, 12 006, nr. 6:2  
\(^5\) TK 1975-1976, 13 933, nrs.6-7:4
this policy that the possibility of reclaiming land was officially abandoned. The first PKB Wadden Sea, or Wadden Sea Memorandum, saw the light that very same year.

The Wadden Sea Memorandum provides protection of ecological values, yet at the same time leaves human activities unobtrusive. What is of more importance are the first steps being taken for integral Wadden Sea management. The Wadden Sea Memorandum was partially revised in 1985, but an integral revision took place in 1993, the year in which the lion’s share of the Wadden Sea was designated as a State Nature Reserve under the Nature Protection Act. The Wadden Sea Memorandum received a stronger legal status when the largest part of the Wadden Sea was declared a State Monument in 1993, in the framework of the Nature Protection Act, since both are coupled with the approval of Parliament. In addition, Environmental Effect Reports (MER) are now required to take place before activities are permitted in the Wadden region.

Whereas the initial aim of the Wadden Sea Memorandum was the protection of the ecology of the Wadden Sea, the second version emphasized ‘sustainable protection and development’ of the nature reserve. The second Wadden Sea Memorandum of 1993 also differed from its predecessor of 1980 in the sense that it was a more elaborated and detailed framework. However, some of the new criteria remained fuzzy (Verbeeten, 1999: 48). For instance, the criteria of ‘social necessity’ still leaves room for debate and diverging interpretations. Is there a social necessity for cockle fishery when whole families are depending on the income of their traditional business, or is there none because the interests of these people are of relatively no significance compared to the contribution of the sector to the GDP? Or is ecological preservation the crucial determinant for social necessity? The same goes for gas extraction. Is there a social necessity for gas anyway, because of the instant State revenues, or is there only a necessity when the alternative reserves have almost diminished? And again, how does social necessity relate to ecological preservation values?

Verbeeten (1999:49) detects some more interesting differences between the two Wadden Sea Memorandi which will appear to be highly significant for the two cases. Firstly, the second Wadden Sea Memorandum introduces the ‘decisions of essential importance’ which leave no room for deviation. At the same time, however, the ‘present and intended activities’ of the first Wadden Sea Memorandum have been replaced by just the ‘intended activities’, when it comes to restrictions. Apparently, from 1993 on, there

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86 TK 1992-1993, 22 605, nr. 34:3
was no need to test the existing activities in the Wadden Sea to the mean principles of the Memorandum. Nonetheless, the fact that, ten years later, the European Court would designate the cockle dredging as a 'project' in the Wadden Sea, instead of an existing practice, would subject the sector to the precautionary principle with disastrous effects for the fishermen, as we will see later on.

Another remarkable difference is pointed at by Verbeeten. Whereas the first Wadden Sea Memorandum aimed to 'recover' the Wadden Sea, the second one was looking ahead by emphasizing the 'development' of it. This shift in the approach would be backed up by the remainder of the process leading up to the climax in 2004. In the mean time, a third Wadden Sea Memorandum was planned and approved by Parliament on December 19, 2006.  

The second Wadden Sea Memorandum was destined to last until 1998, the year when the agreements between government and mining companies on gas in the Wadden Sea would expire. Nonetheless, it was decided to expand its validity until 2005. The coming into being of the third Wadden Sea Memorandum would appear to be a heavy and lingering deliverance, not even being ready at the postponed date. However, this was not surprising, taking into account the complexity of the political decision-making process which had only increased in the meantime. The two case studies will both illustrate this.

For now, it can be concluded that the first two Wadden Sea Memoranda incorporated protective measures regarding both ecological values and economic interests. This contradiction has been inherent to the Memorandum ever since its early days, as we have just seen. The Wadden Council (Raad voor de Wadden) and the Public Administration Council (Raad voor het Openbaar Bestuur) presented a report in 2006 stating that Wadden Sea management should be executed based on nature protection law, rather than on spatial planning law, hence the Wadden Sea Memoranda.  

87. VROM (2007) Ontwikkeling van de Wadden voor natuur en mens: Deel 4 van de planologische kernbeslissing Derde Nota Waddenzee, tekst na parlementaire instemming

It has to be noted that not all policies relevant to the Wadden Sea have been dealt with in the above. There are several other treaties, such as MARPOL (International Convention for the Prevention of Pollution From Ships), OSPAR (Convention for the Protection of the Marine Environment of the North-East Atlantic) and CMS (Convention on the Protection of Migratory Species), that have been left out of analysis deliberately because it would only damage the comprehensiveness of the overview, without adding much to the insights needed for this research. In addition, it has to be noted that the regulatory framework cannot be seen separately from the people and organizations that deal with it in practice. Discussing the regulatory framework, we have seen many of them appearing already. Therefore, the remaining part of this chapter, but also the following chapters, will complement the overall analysis.

THE NETWORK OF AGENTS

The analysis of the regulatory framework has indicated the complexity involved in the Wadden Sea, from a policy perspective. An analysis of the network of agents engaged in the Wadden Sea will only emphasize this view to an even larger extent. A wide variety of people, be it organized or not, have an interest in the wetlands. Those agents and their behavior say something about the Wadden Sea. Again, not as an ecological phenomenon, but as a social setting. An analysis of this social setting adds to the...
understanding of the interaction processes studied in this research. Most of the agents will not be dealt with in great detail here, as their most relevant behavior is, logically, incorporated in the two following analytical chapters.

**The main characters in their industries**

The primary agents for this study are, obviously, the mechanical cockle sector and NAM. The choice for these two enterprises implies an immediate network of other agents to which they are directly tied. For instance, the two are part of a larger industry, from which they cannot be seen separately. The mechanized cockle fishery operates within a larger setting, including manual cockle fishery, other shell fishing industries and the fishery sector in general. At these various levels of industry, several suppliers, buyers, traders, and transporters are involved. For instance, the preservation industry plays a crucial role in the processing of shellfish. It has to be noted that the smallest level of analysis within the cockle fishery itself is the individual fisherman. Only a few, however, are independent in the sense that they operate on the basis of their own individual license. In practice, most fishermen are employed by a handful of larger license owners. These, in turn, can be in the hands of international investors, such as UBS. As we will see, the cockle sector has gone through some significant changes throughout the last 15 years in particular. One of the most striking developments was the change from an internally competitive industry to a unified and self-regulated sector. As a consequence, the representative body of the cockle producers’ guild (PO kokkels) has gained an increasing importance in the strategic course of the collective, hence individual, fishermen.

The industry in which NAM operates is rather different from that of shellfish. To start with, NAM is owned by Shell and Esso, two major players in the oil and energy industry. The industry is, both from a national and international perspective, enormous in size. Notwithstanding the quantitative aspects, having natural liquid gas as its main product, to be delivered via the physical and organizational infrastructure of Gasunie, NAM finds itself in a relatively simple network of buyers, traders, and transporters, particularly because of the intermediary role of Gasunie. At the international level, however, the energy market, with its powerful suppliers, is far from a simple market; not in the least because of its political relevance, an aspect that will be dealt with in greater detail later on. One particular organization needs to be mentioned here. NOGEPA, the Netherlands Oil and Gas Exploration and Production Association, represents the interests of all companies holding licenses to explore for, develop and produce hydrocarbons on- and offshore in The Netherlands.
For both the fishermen and NAM, one of the most important relationships, if not the most important, is of course that with the consumers of their products. The cockle sector has its consumer market mainly outside The Netherlands and sells most of its harvest to Mediterranean countries, like Spain, where they are sold as berberechos. NAM sells its gas to domestic and foreign households and industries. However, it does not trade directly with customers and countries, because organizations such as Gasunie, and even governments, play their intermediary role in that interaction process. Just to mention an example, the price of gas is connected, by law, to that of oil.

**Government and the Wadden Sea**

The object of this study leaves no question about the importance of government: it is the firm in interaction with government which is focused on here. Moreover, the case study concerns a so-called government-sensitive market. In the introductory chapter, it has been argued that the Wadden Sea is such a market. Taking this into account, plus what has been said in this chapter about the regulatory framework, implies that economic activities without any administrative intermingling are hardly thinkable. This vast and complex regulatory framework that oversees the wetlands is derived from policymakers at various levels of administration. Four levels of administration can be distinguished: the national, the provincial, the local and the international. At each of these levels, government is occupied with the Wadden Sea.

*Government at the national level*

At the national level, several Ministries are involved in the Wadden Sea, from different perspectives. The interest of the Ministry of Agriculture, Nature Conservation & Food Quality (LNV) in the Wadden Sea is twofold, expressed by its motto: ‘food production and rural areas of international standing’. On the one hand the Ministry is responsible for nature preservation, whereas on the other hand, it is occupied with the interests of the agricultural sector. Obviously, this causes a rather fundamental tension regarding the cockle fishery in the Wadden Sea, as we will see in the coming chapters.

The Ministry of Housing, Spatial Planning and Environment (VROM) is relevant for the Wadden Sea with regard to environmental issues. Recently, for instance, the Minister appointed the Wadden Fund Advisory Committee, which commenced its activities on November 1st, 2007. More generally, the Key Planning Decision Wadden Sea, for which relevance for the Wadden has been stressed in the above, is coordinated by VROM. In addition, VROM is also responsible for the Environmental Impact Assessment procedure (MER),
which is the self-reportage of businesses to affirm, ex-ante, that the intended activities will do no harm to the environment. Particularly for NAM, this procedure has been rather crucial in order to get the extraction started, as we will see later on.

The Ministry of Transport, Public Works and Water Management (VenW) is occupied with the protection of the country against flooding and to ensure connections of international quality. For the Wadden Sea, the Directorate-General for Public Works and Water Management (Rijkswaterstaat) has to be mentioned in that respect. Another crucial Ministry is that of Economic Affairs (EZ), particularly in the case of gas extraction, involving national energy supply and enormous tax revenues.

Considering the fact that so many Ministries have a certain interest in the Wadden Sea, it is not surprising that in 1980 the Interdepartmental Wadden Sea Commission (IWC) was installed to coordinate the diverging stakes involved. The IWC has been put into practice to give more structure to the contacts between the various departments and to be some sort of one ‘postal address’ in The Hague for issues concerning the Wadden. In addition, several advisory tasks are laid down regarding policy coordination. Verbeeten (1999: 57) argues that the IWC has succeeded in expressing a more uniform positioning of government at the national level, except for the case of gas extraction. Points of view diverged too much, as we will also see in the sixth chapter of this study.

At the national level, we also have Parliament and Government as major players involved in anything regarding the Wadden Sea. Parliamentarians belong to political parties, positioning themselves differently on various Wadden issues. Parliament in The Netherlands consists of the House of Representatives (Tweede Kamer) and the Senate (Eerste Kamer). Given the fact that the legislative power in The Netherlands lies in Parliament, it is the parliamentarians and the political parties to which they are affiliated with that by definition play a crucial role in the firm-government interaction.

In both the case of mechanical cockle fishery and gas extraction in the Wadden Sea, Parliament and parliamentarians have played decisive roles, literally. The two intervention acts which have been designated for the two cases derive from Parliamentary decision-making. Eventually, it was the House of Representatives that expelled the fisherman from the wetlands and allowed gas extraction again. In fact, the intervention act concerning the latter case was on the initiative of some parliamentarians. A lively and long-lasting

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89 Staatsblad 1980, Besluit van 21 juni 1980, houdende instelling van een Interdepartementale Waddenzeecommissie, nr. 370.
debate in the House of Representatives on December 9, 1999,\textsuperscript{89} led to the
issuing of a motion against new gas mining activities in the Wadden Sea. Interestingly enough, NAM has consistently stated that this motion came as a
surprise, or even a shock.\textsuperscript{91} As will appear from the analysis in chapter 6, there
had been signs that particularly within the Labor Party discussions had been
taking place about Wadden gas. In the discussion paper ‘Gas: to win or to
lose,’\textsuperscript{88} it was argued that there was no necessity of gas extraction in the
Wadden Sea, almost two years before the actual motion, which would then
strongly be supported by the Labor Party. A subsequent broad discussion
meeting was organized, in which many major players, including officials from
Shell, Esso, NAM and their competitors participated.\textsuperscript{93} Thus, the ‘shock’ to
NAM was perhaps the realization that they had underestimated the
parliamentary dynamics, rather than a genuine surprise that obstruction to
their plans could occur. In addition, as a Member of Parliament recalls, “they
– rightly so – tried to convince the House of Representatives to another, i.e.
their vision.”\textsuperscript{94}

The executive power in The Netherlands lies with government. Members of government consist of the Prime Minister, plus Ministers and
State Secretaries, divided between the available Ministries. The most relevant
for this study have been dealt with in the above. What must be stressed here is
that members of government are also, by definition, affiliated with a political
party. In fact, they have been recruited by political parties, so besides the
interests of their Ministry, they also have to take into consideration their
political background. The influence of the political parties stretches beyond
the national level. Generally speaking, administrators and representatives at
the provincial, local, and international level are also attached to political
parties.

The idea that the various levels of administration cannot – or should not – be seen separately in practice, is also sustained by the Coordination
Board Wadden Area (CCW: Coördinatiecollege Waddengebied), which was
installed in 1980.\textsuperscript{95} The board consists of representatives of national,

\textsuperscript{89}TK 1999-2000, 26431, nr. 11
\textsuperscript{88}e.g. Vice-director Rien Herber at Zeegse II, January 24, 2006.
\textsuperscript{89}Gas: winnen of verliezen? Een aanzet tot een herbetrachting op het aardgasbeleid in het licht
\textsuperscript{91}Gas: winnen of verliezen? Een verslag van de discussiebijeenkomst op 12 januari 1998,
PvdA.
\textsuperscript{94}Personal correspondence, March 19, 2008
\textsuperscript{95}Staatsblad 1980, Besluit van 21 juni 1980, houdende instelling van een Coördinatiecollege
Waddengebied, nr.340
provincial and local government. From the perspective of local administrators it is a means to influence the larger political process, whereas national government sees it as a tool to communicate its policy to the other levels of administration (Verbeeten, 199: 64). Until 1995, the Coordination Board Wadden Area met twice a year, but as of 1996, yearly meetings were expected to suffice.96

Another multilevel administrative body is the Regional Board Wadden Area (RCW: Regionaal College Waddengebied) in which national government, the provinces, local government and the polder-boards (waterschappen) participate. The board is responsible for the Management & Development Plan Wadden Area (Beheer- & Ontwikkelingsplan Waddengebied). In addition, it has some coordinating tasks, such as involving the compliance with laws and legislation. In December 2005, the Wadden Sea Council and the Public Administration Council (Raad voor het Openbaar Bestuur) advised the Minister of VROM to dismantle both the CCW and the RCW.97 It was argued that the current administrative system of horizontal and vertical coordination and consultation is in fact a spatial model in which the various interests are simultaneously dealt with each time. This leads to a carousel of slow and ineffective decision-making. Taking into consideration the trend of increasing importance of ecological conservation in the Wadden Sea policy, it was advised to let nature protection prevail. As a consequence, the Minister of LNV should coordinate Wadden Sea administration, as she already does at the international level. The Wadden Sea Council and the Public Administration Council even speak of a paradigm change.98

Involvement of the Provinces
Three Provinces in The Netherlands contain Wadden Sea territory. From East to West, they are Groningen, Friesland and Noord Holland. Already in 1974, after government had put into effect a policy plan for the Wadden Sea, the three of them realized that some sort of coordination at the provincial level was opportune. Provinces are responsible for regional planning.99 These region plans (streekplannen) concern extra-municipal arrangements, such as infrastructure. It was thus decided to establish the Wadden Provinces

96 Waddenadviesraad (1995), Pré-advies over de (toekomstige) structuur voor bestuur en beheer met betrekking tot het Waddengebied, 6 december 1995, p. 16
98 Ibid., p.7
99 Spatial Planning Act (Wet Ruimtelijke Ordening), Art. 1.4
Management Board (*Stuurgroep Waddenprovincies*), consisting of deputies of the provincial parliaments (*Gedeputeerde Staten*) of the three provinces. It was soon decided that they would not work separately on regional planning involving the Wadden Sea, but only through the Management Board (Verbeeten, 1999: 60). In 1981, the Interprovincial Structure Sketch for the Wadden Sea Area (*Interprovinciale Structuurschets voor het Waddengebied*) was implemented,\(^{100}\) which was for the most part compatible with the Wadden Sea Memorandum (*PKB Waddenzee*). Verbeeten (1999: 60), however, has remarked that the provinces are more restrictive regarding future gas extraction\(^{101}\) than the text of the Wadden Sea Memorandum,\(^{102}\) which left possibilities for licenses open, under strict circumstances. A revision of the Wadden Sea Memorandum some ten years later, would lead the provinces to revise their policy as well, resulting in the Interprovincial Policy Plan Wadden Sea Area (*Interprovinciaal Beleidsplan Waddengebied*). Verbeeten (1999: 59) has argued that the Wadden Provinces, by means of the Wadden Provinces Management Board, have indeed succeeded in delivering a shared expression of their points of view, particularly in interaction with national government.

*The local level of government*

Several municipalities have a special interest in the Wadden Sea. These interest could lie in, for instance, tourism, the community of fishermen, recreation, effects of gas extraction, a harbor, or a combination of these. Some villages are even located on one of the Wadden islands. These people literally live in the wetlands. Surprisingly enough, one particular village, located at the other end of the country, also has a special interest in the Wadden Sea. Yerseke is well-known for its shellfish industry, processing most of the Wadden harvests. When the future of the cockle fishery became more and more at stake, the people in Yerseke also became worried and were eventually even made part of the process, as we will see in the next chapter. Interesting to note is that the former mayor of Yerseke, which is part of the Reimerswaal municipality, is the chairman of the mussel producers’ board.

Similarly to the national and provincial levels of administration, coordination efforts at the local level have also been effectuated. In 1980, 27 municipalities united by means of the Wadden Municipalities Contact Association (*Vereniging Contact Waddengemeenten*). However, shortly thereafter,

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\(^{100}\) Stuurgroep Waddenprovincies, Friesland, Groningen en Noord-Holland (1981) De interprovinciale structuurschets voor het Waddengebied, deel 4: Conceptstructuurschets

\(^{101}\) Ibid., p.26

\(^{102}\) TK 1980-1981, 13 933, nr. 53: 5
due to diverging interests (Verbeeten, 1999: 62), the five island municipalities
decided to walk away from the Wadden Municipalities Contact, and founded
their own association.103-104 This Wadden Islands Meeting Board (Overlegorgaan
Waddeneilanden) does not participate in the Coordination Board Wadden Area
(Coorindatiecollege Waddengebied, or: CCW), because that is, at the local level,
by law, exclusively reserved for the Wadden Municipalities. As a
consequence, as of 1985, the Wadden municipalities were no longer part of
the CCW. Subsequently, in 1986, the Wadden Municipalities Contact
decided to change itself into the Association of Wadden Sea Municipalities
(Vereniging van Waddenzeegemeenten), including 15 coastal municipalities.105 In
addition, the Federation of Wadden Sea Municipalities was founded (Federatie
van Waddenzeegemeenten), in which both the Association of the Wadden Sea
Municipalities and the islanders of the Wadden Islands Meeting Board would
participate. This federation, in turn, would represent the Coordination Board
Wadden Sea. It is thus safe to state that the start of coordination efforts at the
local level has been rather hectic. According to Verbeeten (1999: 62), the
separation of the islanders and the coastal municipalities has had both
advantages and disadvantages. To start with the former, in this situation, the
separate interests are better represented. A disadvantage, however, is a
weaker position in relationship with higher levels of administration.

Relevance of international administration
The first half of this chapter has already illustrated the relevance of the
international context for the Wadden Sea with regard to the regulatory
framework. Fleurke (1988: 62) has argued that an effective means for
achieving a coherent administration in the Wadden Sea is that of international
cooperation. Not surprisingly, several international agents are also involved,
of which some are worth discussing here. First and foremost, the European
context as an accelerator for environmental policy has already been
mentioned. The European Commission, controlled by the European
Parliament, is a crucial agent in that respect. In general, Europe has appeared
to provide strong guidelines for the protection of species of animals and
natural environment, which are abundantly found in the Wadden Sea, and the
Dutch government has increasingly been conforming to these in the last three

103 Coördinatiecollege Waddengebied (1985) Algemene beheersvisie voor het
Waddenzeegebied, Tripartite werkgroep beheer Waddenzee, p.3
105 Everink, M.E. & G.H.M. Tromp (1994) Overleg over de Wadden,
Samenwerkingenverband Bestuurswetenschappen Noorden des Lands, Rijksuniversiteit
Groningen, nr.21
decades. Directives from the European Union are legally binding and a certain time-span is given for the nation states to implement them in national law. For the Wadden Sea, the Birds and Habitat Directives, as dealt with in the above, are the most important ones.

More particularly, it is Germany and Denmark with whom the Dutch share the Wadden Sea. On the initiative of The Netherlands, the first Trilateral Governmental Conference on the Protection of the Wadden Sea was held in The Hague, in 1978. Ever since that time, the trilateral meetings have been held every three to four years, hosted by the countries successively. The responsible ministers of the three Wadden countries have been working together on the protection and conservation of the wetlands, covering management, monitoring and research, as well as political matters. In between the conferences, the Trilateral Working Group functions as a permanent working group. This working group consists of civil servants of the responsible ministries and other relevant ministries, as well as regional authorities. The Common Wadden Sea Secretariat supports, initiates, facilitates and coordinates the activities of the trilateral collaboration and has its office in Wilhelmshaven, Germany.

Finally, within the international context, since June 26, 2009, the Dutch Wadden Sea, together with the German counterpart, was inscribed on UNESCO’s World Heritage List. Interesting to note in that respect is that most of the Wadden municipalities and the Chambers of Commerce were initially opposed to designation as world heritage, fearing more restrictive economic regulations. Recently, based on a large-scale investigation of birds in the Wadden Sea, Engelmoer & Brandsma (2008) have argued that it is one of the three most important areas for birds in the world and, for that reason alone, deserves to be on the UNESCO list.

Environmental organizations
From the analysis of the regulatory framework, in the above, it has already become clear that the environmental issues have been dominating the social dimension of the Wadden Sea for more than three decades. Not surprisingly, environmental organizations have been crucial players in this respect. The

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106 Currently responsible are the Minister of the Environment for Denmark, The Federal Minister for the Environment, Nature Conservation and Nuclear Safety of Germany, and the Minister of Agriculture, Nature and Food Quality of The Netherlands.
107 www.waddensea-worldheritage.org
108 Vleet, 2005
109 See also: Report of decisions of the 33rd session of the World Heritage Committee (Seville, 2009) WHC-09/33.COM/20, p. 184
Wadden Association has already been mentioned as the organization where it all started, when it opposed the plans for the wetlands as waterworks, with one dike in particular. From that moment on, the Wadden Association has been a leading representative of the environmental movement, watching over the wetlands. As soon as the plans for polders in the Wadden had been abolished, the Wadden Association focussed on the protection of its ecosystem and the compliance to rules and regulation. Recently, the association has again gone through internal changes, in terms of its focus,. It appeared that within its own ranks, there were two diverging views on the preferred position in the Wadden debate. The so-called ‘conservatives’ were willing to strive for an ultimate situation in which there would be hardly, if any, human interference in the Wadden. The ‘relativists’, on the other hand, were willing to ‘share’ the wetlands with other stakeholders under strict circumstances. This tension particularly tore the Wadden Association apart, on the eve of the Meijer report, when it became clear that gas extraction in the Wadden Sea would be freed from the taboo label. The relativists were open to arguments and insights which had emerged from new research, the conservationists were clearly not. The Wadden Association did not want to air its dirty laundry to the outside world, but insiders knew what was going on and when the chairman suddenly left, to be replaced by another, there was not much to guess anymore.

Another prominent environmental organization is the Netherlands Society for the Protection of Birds (Vogelsbescherming). It was founded in 1899 and is, since 1994, part of the Birdlife International network. The Wadden being such an important habitat for birds, either permanently or temporary, makes it an obvious concern for the bird society. In particular, the gas extraction and cockle dredging have always attracted its scrutiny because these activities are regarded as harmful to shellfish populations, on which many birds feed.

Whereas the two before-mentioned organizations have a particular focus mission-wise, respectively based on one area or on specific wildlife, Nature Monuments (Natuurmonumenten) is a society that aims to preserve nature sites nationwide. Some of these sites are located in the Wadden Area, such as Lithuizerwad, Griend, Schiermonnikoog National Park, Hoge Berg, Texel Lage Land and De Schorren. It was former Minister Pieter Winsemius who, as a chairman of Nature Monuments in the mid-1990s, first came up

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110 As a consequence, there have been no quotes or sources incorporated on this topic in the text here, because the people who were asked about it for this research agreed with this reading, but preferred to refrain from quotes.
with the idea of buying out the cockle sector with tax revenues from the Wadden gas. In September 2003, Nature Monuments stated on its website that mechanical cockle fishery is ‘disastrous for nature’. In addition, it supplied an overview of its strategy against the cockle fishery. “In 1997 we had asked KNIOZ to research the effects of mechanical cockle fishery on Griend. Since that time we have repeatedly pointed at the relationship with the nutrition for migration and breeding birds. We have objected to licenses for mechanical cockle fishery in the Wadden Sea several times. […] Furthermore, Nature Monuments took the initiative to bring environmental organizations together, in order develop a common strategy.” When a survey was undertaken during a regional meeting of members in Harlingen, a city with its harbor in the Wadden Sea, 95% agreed with the proposition that mechanical cockle fishery should disappear from the Wadden Sea, Nature Monuments stated.  

Finally, at the international level, there has been the involvement of Greenpeace. Particularly at the time of the Meijer report, Greenpeace actively participated in the anti-cockle lobby.

One environmental organization that is worth mentioning here in particular is the Wild Cockles. The Wild Cockles started out as a protest group of mostly young environmentalists, opposed to mechanical cockle fishery. When, in the Autumn of 2002, the Wadden Association and the Netherlands Society for the Protection of Birds agreed with a proposal of the Ministry of LNV to allow mechanical cockle fishery in the so-called closed areas, the Wild Cockles was founded by members of the two existing organizations. One of the founding members, Petra de Goey recalls: “We thought it was terrible. The reason why there was nothing to fish for in the open areas was because the mechanical cockle fishery had emptied it already. How could they agree with that? But, above all, the background was that at the Bird Society it was believed that nothing could stop the fishermen anyway.” In November that year, it obtained the legal status of a foundation, which made it easier to initiate judicial procedures. Besides the interaction with the cockle sector in court, the Wild Cockles also became known for its less conventional opposition to the fishermen. For instance, on April 7, 2002, 35 dead eider ducks were put in front of a UN conference in The Hague, symbolizing the alleged daily death rate due to mechanical cockle fishery. In

111 Ibid
addition, the twenty protesters distributed flyers to the 1,500 participants of the conference, coming from 188 countries. In October 2000, the Wild Cockles were leading in addressing a letter to the State Secretary of LNV which was signed by more than 200 biologists, 800 supporters and 20 environmental organizations. In that letter, the ecological damage of the shell fishing industry was emphasized. The Wild Cockles has held strong relationships with various research institutes, and with KNIOZ in particular. At the time of the climax of the interaction process in 2004, the Wild Cockles had become a leading agent within the anti-cockle movement.

Research institutes

Undeniably part of the firm-government interaction with regard to the Wadden Sea are the research institutes. They provided not only the two key players with crucial research, but also, for instance, the aforementioned environmental organizations. In fact, the ties between these categories are often blurred, as research institutes sometimes have strong links with certain ministries or environmentalists. Turnhout, for instance, argues that the fact that many of the Wadden Sea experts work at IMARES and RIKZ, which are closely related to ministerial departments, could be an important factor regarding “the intimate relationship between science and policy in the Dutch Wadden Sea.” (2003: 74) Swart and Van Andel (2008) even go as far as rethinking the interface between ecology and society, based on a case study of cockle fishery in the Dutch Wadden Sea, by narrowing down the social interaction process to the science-policy interface.

Professional research in the Wadden Sea had a slow start (Piersma, 2006: 28). In 1876, the Netherlands Zoological Society (Nederlandse Dierkundige Vereniging) bought a wooden observatory cabin. Somewhat later, Dutch Wadden research really took off when biologist Jan Verweij came back from the Dutch East Indies in 1931 (Piersma, 2006: 28). With an old trailer, some students and interns, he set sail for the Wadden Sea. In the next 35 years, he would lay the foundations of the Wadden research. Verweij was responsible for moving the research headquarters to the island of Texel, where eventually, in 1969, the Zoological Society would be transformed into one of the leading institutes to this day, for research on the Wadden Sea: the Royal Netherlands Institute for Sea Research (KNIOZ: Koninklijk Nederlands Instituut voor Onderzoek der Zee). Another push to Wadden Research was given by environmental concerns and plans for land reclamation in the 1960s and

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114 Gieryn (1995) speaks of ‘boundary work’ in this respect, discussing the twilight zone between science and policy.
1970s (Piersma, 2006: 29). This was the background against which, in the 1980s, the Wadden Sea Working Group published extensively on the Wadden Ecology. This team of young researchers, led by Wim Wolff, formed the heart of the Texel research community at KNIOZ. Currently, KNIOZ is one of the oldest oceanographic research institutes of Europe. In 2001, it obtained the predicate ‘royal’. It is part of the Netherlands Organization for Scientific Research (NWO: Nederlandse Organisatie voor Wetenschappelijk Onderzoek). The research focus currently lies on natural and anthropogenic climate variability on the one hand and ecology and sustainability on the other hand. Research on the Wadden Sea, however, is not solely carried out by KNIOZ. The most important research institutes in the Wadden Sea will be summed up here.

The University of Groningen (RUG: Rijksuniversiteit Groningen) is the University closest to the Wadden Sea and has a long tradition of research on the wetlands, making it the ‘core of Wadden Sea ecological science and expertise’ (Turnhout, 2003: 74).

Wageningen IMARES, Institute for Marine Resources & Ecosystem Studies, is a research institute of Wageningen UR (university & research center). The institute is the result of the merging in 2006 of National Institute for Fishery Research (RIVO: Rijksinstituut voor Visserijonderzoek), parts of Alterra and the department Ecological Risks of TNO (institute for applied scientific and physical research).

The National Institute for Coastal and Marine Management (RIKZ: Rijksinstituut voor Kust en Zee) is under the auspices of the Ministry of Public Works and Water Management (VenW). The institute aims to provide knowledge to enhance sustainable use of estuaries, coasts and seas and to prevent flooding. As of late 2007, part of RIKZ has been brought under the new Water Service (Water Dienst) of the Directorate-General Public Works and Water Management (Rijkswaterstaat). IMARES focuses on the four fields of Ecology, Marine Fisheries, Environment and Aquaculture. Its research is concentrated in the North Sea, the Wadden Sea and the Rhine Delta in Zeeland. As a consequence, IMARES, and its predecessors, has had a long history with the effects of gas extraction and cockle fishery in the Wadden Sea.

These four research institutes encompass an impressive body of knowledge and expertise on the Wadden Sea, which can therefore be considered as an intensively studied ecological area. Together, these research institutes sometimes look like an old family. Everybody knows everybody. They often cooperate in big research projects, but the diverging approaches can also clash, as we will see later on.
Wadden Sea Council
Besides the four categories of agents, as mapped out in the above, there are some other agents that do not fit in the categories, but are worth mentioning separately nonetheless. They are the Wadden Sea Council and the Council of State. Let us look at the Wadden Sea Council first. In the 1970s, at the time of the Key Decision Planning for the Wadden Sea, government found it important that other influences than those of the provinces and municipalities should also be heard.\footnote{TK 1975-1976: 13 933, nrs. 1-2: 33} It was thus decided to install the Wadden Advisory Council (Waddenadviseraad) in 1982. A provisional status would last until 1990. For that period, its task was to advise government and the CCW, either on request, or on its own initiative, on anything that concerned the common interest of the Wadden Sea.\footnote{TK 1989-1990, 21 434, nrs. 1-2: 2 and Staatsblad 1990, Wet van 3 september 1990, houdende vaststelling van nieuwe voorschriften omtrent de ruimtelijke ordening (Wet op de ruimtelijke ordening), nr.473} In 2003, the Wadden Advisory Council was succeeded by the Wadden Sea Council (Raad voor de Wadden). The council now has 15 members, including its chairman. The members represent specific areas of interest in the Wadden. Currently, about 70% of the advice is delivered upon request and the remaining 30% is issued on the initiative of the council itself. The advices generally concern legislation or policy issues and they are prepared by the council’s working group. The Wadden Sea Council wants to maintain contact with national and international society, as far as relevant to the Wadden. It therefore maintains a vast network of ministers involved, provinces, municipalities, public officials and the Wadden countries of Germany and Denmark. In addition, it actively participates in the network of the European Environment and Sustainable Development Councils (EEAC).

Council of State
The Council of State (Raad van State) is part of the High State Council (Hoog College van Staat).\footnote{Other bodies that belong to the High State Councils are Parliament, the General Court of Audit (Algemene Rekenkamer) and the National Ombudsman. The High State Councils are regulated by the Constitution, each having its own specific task, carried out independently of the Government.} The task of the Council of State is twofold: it is both an advisory body and an administrative court.\footnote{Articles 73, 74 and 75 of the Constitution} The first task implies advising Government and Parliament on governance and legislation. The second task is to serve as the highest administrative court with general jurisdiction. Both the
fishermen and NAM have encountered the Council of State several times, usually being called to court by environmental organizations that went into appeal against licenses that had been granted. An example of a decisive moment was when the Council asked the European Court to make a judgment on the yearly appeals against the cockle licenses. When it was decided that mechanical cockle fishery should not be regarded as an ‘existing activity’ but as a ‘project’, requiring application of the precautionary principle, it marked a turning point in the political decision-making in 2004, something which will be analyzed in more detail later.

For NAM, the Council of State made a more positive decision, in 2007, approving the Environmental Effects Report (MER: Milieueffectrapportage). The MER is required for certain activities that might do damage to the environment, even if the damage is minimal. The self-assessment report must be handed in to government, prior to the carrying out of the intended activities. The expected environmental effects are crucial, when also compared with a situation in which the activities do not take place. In addition, attention must be given to alternatives. After the MER is approved by government, it is made public to give stakeholders a chance to object to it. This is what brought NAM to the Council of State after a long, and apparently well-prepared, MER assessment process. During this process, NAM was assisted by Van Dieren’s bureau. This bureau, IMSA, is another crucial agent for understanding the case study.

**IMSA and the Meijer commission**

Prior to this chapter on the Wadden Sea as a social phenomenon, an intermezzo has painted an impression of how Wouter van Dieren and his bureau IMSA got involved in the Wadden Sea. The plan that IMSA had designed would play a crucial role in the climaxing of the Wadden issue in 2004. According to Van Dieren, the year 1999 was indicative of the political deadlock that the Wadden Sea files had characterized for far too long. The Integral Seabed Subsidence Study on the Wadden Sea (Oost et al., 1998) had indicated that there were hardly visible effects and no damage to be expected from gas extraction in the Wadden Sea. That same year however, Greenpeace published a report called ‘Shadows of the Wadden Gas’ (Schaduwkant van het

119 Staatsblad 1994, Wet van 26 juli 1994, Besluit Milieueffectrapportage, nr. 540
120 This section on IMSA and Meijer is for a large part based on interviews and correspondence with people of IMSA and internal documents.
Waddengas) which was carried out by AIDEnvironment (Van Wetten et al., 1999). It calculated the costs of the loss of the Wadden, based on the assumption that one third would vanish due to gas extraction. The report got significant attention from the media and later that year the motion in Parliament against the extraction was approved. In the eight-o’clock news of November 5th, prime minister Kok summarized the viewpoint of the government: “In case of doubt, no drillings in the Wadden Sea.” Van Dieren was astonished by the fact that the blockade on Wadden gas had been sustained once more. The year 2002 was then used by Van Dieren to collect information on the ecology of the Wadden Sea, including interviews in the field carried out by IMSA, and to hook up with Lock Hermans as a political companion and NAM as a sponsor in order to try and force a breakthrough one more time. On January 6, 2003, a workshop was organized by IMSA on the island of Terschelling. Representatives of the Ministry of VROM, the provinces and NAM attended this ‘WinWinWad Workshop’. It was concluded that the ecological state of the Wadden Sea was hampered by administrative inertia. A commission was then proposed. In Spring 2003, IMSA explored and consulted the network of agents in and around the Wadden Sea. In The Hague a political lobby was carried out for a Wadden commission, which would be installed later that year as the Meijer Commission. In addition, the so-called ‘cascade-model’ was developed further in order to apply it to the wetlands.

The cascade model entails five concentric rings. Each ring represents a dimension in which effects of human intervention can be investigated. Reasoned from the center, the first ring is that of the dynamics of the sea bottom, including fish. The second ring deals with aquatic life. The third ring concerns benthic life such as cockles, mussels, worms and sea grass. Birds and seals are the fourth ring. The outer ring is that of the perception value (belevingswaarde). This last ring has a weight attributed of 2/6, instead of the 1/6 for the other rings. The model enables a score for each human intervention on all five rings separately and collectively. Version 7 of the model was provisionally applied to the Wadden Sea in November 2003. It had to be ready for the crucial second Fryské Akademie meeting, which was planned two months later, on February 15, 2004.

125 IMSA Amsterdam, Presentation NAW400, November 2003.
Two days before the Fryske Akademie II meeting, on February 13, a session at the IMSA headquarters was planned with a small group of people who were key players in EVA II at that time. This grand evaluation study on the ecological effects of shellfishery had caused some confusion and commotion, as will be discussed in more detail in the next chapter. IMSA found it of crucial importance to remove the view, which had arisen in the media, that the EVA II researchers had delivered inconsistent results on the relationship between shellfishery and the ecology of the Wadden. It was obvious that the effects were not always precisely to be determined, but the least that the EVA II team could do was to be unanimous and strategically selective about what would be presented to the outside world. This was of particular importance with regard to the public synopsis of the massive research, which the Minister of LNV asked for, hoping for some more clarity and unanimity among the scientists, and in relationship to the public. The people at IMSA knew that the slightest uncertainty within the EVA II report would be used by the fishermen to establish their view on the issue, which would be counterproductive to the plan they had in mind.

Two days later, at Fryske Akademie II in the city of Leeuwarden, things did go as planned. The aim of the meeting was to apply the cascade model in order to establish a ranking of human activities in the Wadden Sea, according to their alleged ecological damage. All participants were asked, out of their specific profession, to attribute values to potential risks to the Wadden ecology in terms of the extent of the expected damage. Taking all five rings into consideration, the cockle fishery had the highest score, followed by mussel fishery. Number three was climate change. Gas extraction ended up in the lowest ranks... IMSA knew that their plan was about to come together.

It has to be noted that of those present at Fryske Akademie II, four people refrained from the ranking procedure. Amongst them was Marnix Van Straalen, the marine biologist for whom the cockle fishermen had a high esteem. In addition, three of the invited people were absent from the meeting. Among these were the secretary of the Dutch Producers Organization of Cockle Fishermen Jaap Holstein, and the representative of the Dutch Fish Product Board. It could be a coincidence, but it is rather striking

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128 This ranking remained the same when the value perception (fifth ring) was left out of the calculation.
129 Some other categories were marine calamities, exotic species, expansion of harbors, micro pollution, shrimp fishery, recreation, windmills, military practice.
that among those who abstained, or were absent, were people who can be
designated as crucial cockle connections. At IMSA it is believed that Holstein
did not attend because of a dispute with Van Dieren on the news radio the day
before.

At the time of Fryske Akademie II, the people at IMSA knew that
three circumstances were crucial. Firstly, as just mentioned, the EVA II
process was not going smoothly at all. Secondly, in the summer of 2003, the
environmentalists had asked the European Court, via the Dutch Council of
State, to test the yearly procedure for cockle dredging licenses. Thirdly, the
Meijer Commission would soon present its advice, yet later than initially
planned. Then, in March, the solicitor-general of the European Court
announced its pre-advice on the cockle licenses. The advice was not in favor
of the cockle sector and both the fishermen and IMSA knew that the European
Court generally adheres to the pre-advice. In other words, the road was now
paved for the report of the Meijer Commission.

The Meijer Commission was officially called the Advisory Group
Wadden Sea Policy (AGW: Advies Groep Waddenzeebelied) and consisted of Wim
Meijer, Tineke Lodders and Loek Hermans, a carefully selected group of
people representing respectively the Labor Party, the Christian Democrats
and the Liberal Party. Chairman Meijer had been, amongst others, Member
of Parliament, Secretary of State and an official of Rabobank. He ranked
number 9 on the Shadow Power list (Schaduw macht), published by the Green
Party in early 2004. The list was intended to indicate the political power of
a relatively small number of people appointed to advisory commissions
reporting for the government. At the time of being chairman for 'his'
commission, he was a member of the Oil and Gas Board. This caused the
scrutiny of the fishing industry, not only with respect to Meijer, but also
regarding Wouter van Dieren and IMSA. For the fishermen, Van Dieren
equaled Meijer, which equaled NAM. Van Dieren, however, never made a
secret out of it that he, on his own initiative, indeed had contacted NAM to
sponsor his plan. In addition, the connection between IMSA and Meijer was
also made rather explicit from the start.

130 TK 2003-2004, 29 508, nr. 1
131 The issue of the independence of IMSA also made it to the national news in early 2006. It
had appeared that the bureau would receive 1.7 million euros from a national energy supplier
when the desired effect of an advisory trajectory was achieved. IMSA was hired to research
and advise on the planned splitting of the Dutch energy grid and production. Van
Dieren’s defence was based on the fact that IMSA is mission driven and that he himself had
never been paid for a non-independent report. In addition, the money at stake was not to be
A possible Wadden covenant

1. Gas extraction
   a. Extraction allowed if within the boundaries of what nature can handle.
      - Burden of proof lies on those who extract (`slower extraction when soil
         subsidence accelerates`)
      - Geographic spreading in order to minimize accumulation of soil
         subsidence
   b. Commission of Three (`big shots`) for supervision
      - Ponderous advice on things like extraction pace (e.g. pausing of
         extraction if soil subsidence accelerates) and compensation measures
         (e.g. sand suppletion)

2. Pollution
   a. Funding for dissolving pollution of the Wadden Sea (including that of other sources
      such illegal dumping from ships, detached oil platforms or damaged pipelines)
   b. Promise of ultimate technological and management efforts in case of pollution

3. Compensation
   a. Funding for buying out the entire cockle fishery (est. 100 million Dutch guilders)
   b. Funding for acceleration/improvement of creation and maintenance of mud-flats

4. Claims
   a. Gas producers: refrain from a claim on `eternal rights` and/or related financial claims
   b. Environmental organizations: refrain from further appeals etc.
   c. Government: (to be elaborated on if government will be part of the covenant)

5. Miscellaneous
   a. Regular meetings throughout the process between the parties involved, led by the
      Commission of Three

Figure 19. 'A possible Wadden covenant'. Literal translation of the Wimsmius informal note (1994)

IMSA issued a press communiqué on September 16, 2003, in which it announced the installation of the Meijer Commission and supplied some background information. The communiqué declared that IMSA had been studying the current problems in the Wadden Sea, which had led to the Terschelling meeting earlier that year. The scientists, administrators, politicians, the energy sector, NGOs and civil servants present on the island, it was stated, had concluded that the situation of a worsening of the Wadden ecology in conjunction with the ineffectiveness of the administrative system required a `temporary and heavy extra administrative Wadden Sea Commission`. During the work of the commission, it was stated that no considered as an bonus or fee, but a support for specific overseas ecological projects IMSA is busy with.
information would be made public. Nonetheless, it was announced that in October that year 'the results of the EVA II research program will be published.' In other words, that little press communiqué left not much to guess about the IMSA and Meijer connection. At the same time however, the specific formulation regarding EVA II could also give the impression that these researchers were part of that grand team...

The relationship between IMSA and Meijer on the one hand and EVA II on the other remains an intriguing one. EVA II is the second phase of the evaluation of the shellfishery policy in The Netherlands. A final report, based on a large number of studies, was planned for December 2003. The research was carried out under the responsibility of leading researchers from Alterra, the Animal Sciences Group of Wageningen UR and RIKZ. The Ministry of LNV led the giant research project. A Policy Advisory Group (BAG: Beleidsadviesgroep) was installed to coordinate the public and administrative consultation meetings in order to issue an advice to the Ministry for the new shellfishery policy. The culmination of the EVA II consultation meetings, the publication of the public summary and the advice of the Policy Advisory Group took place in the first months of 2004. Meijer presented its report on April 1st that year. As we have just seen, the people at IMSA were well aware of what was happening concerning EVA II at that time. The researchers of the three institutes just mentioned, respectively Bruno Ens, Aad Smaal and Jaap de Vlas, were kept in close contact and they were involved in the Fryske Akademie sessions. The chairman of the Policy Advisory Group also admitted that the ‘interference’ of the advice of Meijer was one of the complicating factors when issuing their own advice to the Minister.

Taking into account the developments leading up to the presentation of the Meijer report on April 1st 2004, one cannot deny the fact that the design of IMSA’s plan largely corresponds with some of the actual developments since 1999 and the final outcomes. However, it is an illusion to attribute it all to one agent pulling the strings. “The role of Van Dieren and his team was crucial in the sense that people were brought together and that problems were being reframed. This is not to say that Van Dieren as a

132 WIN-WIN en het Wad – Persbericht naar aanleiding van het kabinetsbesluit tot instelling van de Commissie-Waddenzee, IMSA Amsterdam, September 16, 2003
133 Another agent was the advice of the Wadden Sea Council issued that same April. The Wadden Sea Council agreed with Meijer that gas extraction should be allowed, but it opposed the proposal of giving the mechanical cockle sector seven years to reach sustainable practices (Reactie Raad voor de Wadden op Advies Adviesgroep Waddenzeebeleid, 19 April 2004, aan minister van VROM, LNV, EZ en staatssecretaris V&W).
134 Letter of Madam Chair Siepie de Jong to the Minister of LNV, June 8, 2004.
For instance, the political arena deserves a whole separate and thorough analysis. However, this chapter serves as an introduction and does not intend to provide an exhaustive overview, either with regard to the network of agents that has been involved in the Wadden Sea for several decades, nor the specific role of certain agents that has been written in the above. Of course, there is much more to say about certain agents than has been written in the above. For instance, not all people and organizations have been incorporated in the overview. In addition, there is much more to say about certain agents than has been written in the above. For instance, the political arena deserves a whole separate and thorough analysis. However, this chapter serves as an introduction and does not intend to provide an exhaustive overview, either with regard to the network of agents that has been involved in the Wadden Sea for several decades, nor the specific role of certain agents that has been written in the above. Of course, there is much more to say about certain agents than has been written in the above. For instance, not all people and organizations have been incorporated in the overview.

131 ‘Enige gedachten over de opzet van een Waddenzee aardgas fondo’ (‘Some thoughts on a possible Wadden Sea natural gas fund’) by Pier Vellinga, in preparation for the OOG meeting on October 1st, 2003.
136 Personal correspondence.
agents, or with regard to the regulatory framework. As a consequence, the media has not been mentioned, nor has one particular painter who made it to the news frequently opposing gas extraction, just to mention a specific example. Certain individual researchers have played important roles as well, although they have not been mentioned in the light of their affiliation. Neither has Clingendael, the Netherlands Institute of International Relations, been mentioned, despite the fact that it has some renowned specialists that publish in the field of energy policy. In addition, the above-mentioned meeting of OOG was held at Huys Clingendael, the more than 350-year-old mansion in which the institute resides. The reason why these examples have not been incorporated in the text is that they would damage the comprehensive overview of the landscape, whereas the point of complexity has already been made. Over and above, the more relevant the agents are, the more it will appear from the successive analytical chapters.

FIRST GLIMPSES OF INSTITUTIONAL BANDWIDTHS

In this chapter, an overview has been given of the regulatory framework and the network of agents involved in the Wadden Sea. Together, these two foci have shed some light on the Wadden Sea as a social phenomenon. Concerning the regulatory framework, we have seen an increasing institutional pressure on those making use of the Wadden since 1965. The overview encompasses not only social structures, in terms of policies, but also, for instance, those who put them into practice and those who are expected to conform to them. This duality of structure is compatible with the underlying notion of the institutional bandwidths, as presented in the second chapter. Not surprisingly, therefore, the analysis of the regulatory framework can be considered as an analysis of the institutional bandwidths at the normative level for the Wadden Sea in general. The regulatory framework defines the strategic room for maneuver for those in the wetlands in terms of legitimacy.

A similar line of reasoning applies to the network of agents. The many people and organizations involved in the Wadden Sea, including their ties and the long history of it, indicate a large extent of complexity. This complexity is also carried by the duality of structure. Being in the Wadden Sea implies being

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138 One organization has been omitted for the fact that it came into being when this research was already in a finishing state is the Wadden Academy (Wadden Academie). It is a result of the political decisions made in 2004, which will be discussed in this research. It is expected that this Wadden Fund will be a prominent player in the Wadden Sea in the future.
part of this network. In other words, the network of agents can be considered as institutional bandwidths at the interactional level for the Wadden Sea in general, defining who is connected to whom.

The argument that has been made in the second chapter, stating that the levels of social structure can analytically be distinguished, but that they cannot be seen separately in practice, also applies to the analysis exercised in this chapter. The regulatory framework and the network of agents clearly match with, respectively, the normative level and the interactional level. This of course leaves the question open of why the opportunity level and the ideal level have not been incorporated in this introductory chapter of the Wadden Sea. The reason for that lies in the argument that the insights, in essence, which would derive from such analyses can be found in this chapter already and, in addition, they will be elaborated on in the remaining chapters as well.

A short remark can be made here however.

Concerning the ideal level, which deals with cognition, we have seen that different agents have different views on the use of the Wadden Sea. In addition, it can be concluded that a general tendency towards the view of the Wadden Sea as a protected area has prevailed more and more since the abolishment of the idea of using it as a future waterworks. This tendency is clearly backed-up by developments at the normative level, as we have just seen.

At the opportunity level, we have seen that various sources of power have been exercised. Clear examples are the political power at the time of the Parliamentary motion, which stopped the whole train towards gas extraction. We have also seen the judicial power exercised by the Council of State. The money involved in gas extraction, worth billions of euros of tax revenues, is another obvious example. But the environmentalists, the research institutes, and the consumers all have the potential ability to put pressure on the Wadden debate.

These aspects, at the opportunity level, the ideal level, but also the normative level and the interaction level, will be dealt with in more detail. After all, one of the aims of this research is to indicate that firms in government-sensitive markets each have their own institutional survival path, consisting of a unique set of the bandwidths at each of those levels of social structure. The time is now ripe for the case-specific analyses in the next two chapters, dealing with the mechanical cockle fishery and gas extraction in the Wadden Sea respectively.
Chapter 5

Mechanical Cockle Fishery in the Dutch Wadden Sea

In this chapter, the model of the institutional survival path (ISP) will be applied to the case of mechanical cockle fishery in the Dutch Wadden Sea. The chapter contains the case narrative of a fisherman who has been active in cockle fishery for over 30 years. The story spans almost the entire history of mechanical cockle fishery, going back to the early 1970s. Once started out as an entrepreneur in an emerging market with fierce competition, this fisherman witnessed in 2004, shortly before retiring, the buying out of what in the meantime had become a unified and self-regulated sector. The year had started with high hopes for the fishermen and big plans for innovation, but half a year later, Parliament ‘suddenly’ decided to expel mechanical cockle fishery from the Wadden Sea. It is not only a dramatic story, it is also a story which can be told in terms of the model of the institutional survival path (ISP). Throughout the three decades, we will see an ISP which is, slowly but surely, narrowing down till its final collapse in 2004. The case narrative of the fisherman is fact the story of the fisherman, the sector and their ISP. Initially, being a single entrepreneur, he was not even aware of such a thing as institutional bandwidths, and later, having become the fleet coordinator of the largest investor, the die had already been cast, he had to admit.

It is safe to state that the case of mechanical cockle fishery in the Dutch Wadden Sea is highly complex. The ISP model, which has been presented in the second chapter of the book, however, will unravel the social interaction process through the procedure as reported on in the third chapter. It has been argued that the interaction runs on controversies. These controversies will be the ‘storylines’, guiding this analytical chapter. Firstly however, the case requires some thorough introduction. In the previous chapter, the Wadden Sea has been discussed as the place where ‘it has all happened’. The actual context, so to speak. We will now move on from there. This chapter will commence with a demarcation of the exact object of
study. What is a cockle, where can it be found, what are the fishing activities involved and what will this research specifically look at? Fisherman Bakker will be introduced as the ‘firm’. It will appear that the firm has evolved from ‘fisherman Bakker’ to ‘the mechanical cockle fishing sector’ of which Bakker had become a prominent representative. A substantial part of the chapter will then be used for setting out the relevant controversies on mechanical cockle dredging. What has been subjected to a debate throughout the firm-government interaction process? It will appear that the dynamics of the cockle case run on a complex set of controversies. Four controversies will be distinguished and analyzed subsequently. One controversy has been designated as the ‘central’ one and two controversies entail respectively three and two ‘sub-controversies’, the three of them being preceded by a ‘preceeding controversy’. The analysis of each (sub-) controversy starts off with a trigger event and ends with either a settlement or at the end of the data collection. The analysis of each controversy is concluded with the mobilization that has been carried out by Bakker and his colleagues. Taking into account all five components of the model, it is then time to conclude the chapter with the overall analysis of the development of Bakker’s ISP. In this particular case, it will answer the question of why Bakker and his colleagues have not been able to prevent their ISP from a total collapse.

**DEMARCATION OF THE OBJECT OF STUDY**

Most people either know the cockle (Cerastoderma edule) as the ribbed shellfish on the sea shore or as an ingredient of paella. Those sea shores with cockle banks can be found for instance in North-West Europe, whereas paella is the famous Spanish dish. Most of the Dutch cockles are exported to Spain. Cockles in The Netherlands can be found in the Wadden Sea and the delta area in the province of Zeeland, Southwest of the country, including the Oosterschelde, the Westerschelde and the Voordelta. The Wadden Sea stock easily outnumber that of the delta.\(^{139}\) For this research, we will focus on the cockle fishing in the famous Wadden Sea. It is the scenery of an intense and long-lasting discussion on nature preservation and economic values. It is also the scenery for the second case which is part of this study, that of the gas extraction.

\(^{139}\) ODUS (2001) Uit de Schulp (p.5)
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Cockles and fishermen
Cockle fishery in the Dutch Wadden Sea cannot be seen separately from the fishing industry in the Zeeland delta, on the other side of the country. The small Zeeland town of Yerseke is considered to be the national shellfish headquarters. Most of the processing industry is located there. Back in the old days, the fishermen sailed their ships to the fishing grounds in Zeeland or the Wadden Sea, depending on the quality and quantity of the available stock. Nonetheless, there has always been a distinction between the ‘Northerners’ and the ‘Southerners’. The former were based in and around the Wadden Sea, the latter in the Zeeland delta. As the institutional pressure increased through the years, the bonds between the fishermen, regardless of where they were based, grew stronger and stronger. When the possibility of the expulsion of mechanical cockle fishery from the Wadden Sea became more likely, the sector predicted that this would have disastrous effects on the processing industry in Yerseke.

This research investigates the strategic development of the Dutch mechanical cockle fishery in the Wadden Sea. The roots of the sector lie in the manual collecting of cockles, a tradition which goes back to the middle ages (Wolff, 2005: 33). Mechanical cockle dredging devices came into use in the 1950s, but in the Wadden Sea it has been prohibited since 2004. Nonetheless, there are still some authentic cockle fishermen manually practicing their profession in the wetlands nowadays. Only a few licenses for this purpose are being supplied and this particular branch of shellfishery remains in debate until the present. Currently, experiments have started, not necessarily in tidal areas, but also on land, to breed cockles, something which had long seemed impossible.

Cockles dig themselves into the sandy bottom of the wetlands for just a few centimeters. The first ships developed for mechanical cockle dredging came into use in the 1950s. Later on, an hydraulic device was introduced to systematically scrape the shellfish from the sand. A horizontal knife digs itself into the sea bottom for about 2.5 centimeters while a strong water stream releases the cockles from the sand and flushes them through a grating with 15 millimeter holes. The shellfish are then dredged onto the ships. This is the way that cockles are still being caught, but no longer in the Wadden Sea…. 
Fisherman Arie Bakker

Bakker became a fisherman in 1973. Working for the Wadden Sea-based cockle veteran Kooij on the ship Wietex, he noticed a ‘tremendous amount of cockle seed’ in the Wadden Sea in 1979. Bakker was good friends with a former colleague in the mussel sector and together with a brother-in-law of that former colleague they decided to ‘go into cockles’. Gerdia B.V. was founded, the name being an acronym with the names of the three men in it, and they started to look for a ship. Secondhand ships did not meet the technical requirements and they decided to have a new one built. Bakker’s companions got quite a lot of money from the bank for their investment as they came from the esteemed mussel firm Ter Bokkel. Bakker himself had no money to bring in, but he possessed another crucial resource. Some years earlier he had obtained, rather by coincidence, a license needed for cockle dredging. When he found out only later that he had this license, he first had to hire a ship himself to keep the license valid. Now with his own business in sight he could put it into practice even better. Gerdia B.V. would be based on Bakker’s license.

In 1981, the WR 82 came into use for Gerdia B.V. The ship measured 9 by 40 meters. The prospects for the available stock were good at first, but then the cooking oil scandal took place in Spain in 1981. The epidemic caused the death of 1,000 Spanish people and seriously affected the Dutch cockle export as cockle consumption radically decreased. While the WR 82 was under construction, Bakker had approached shellfish investor Simon Lenger in Harlingen. Lenger had lent Gerdia B.V. some money to set up their enterprise and said he would buy their catch. Lenger, though, went bankrupt at the time of the Spanish cooking oil scandal, just before the WR 82 sailed out. Bakker then turned to Bart Landa who was a newcomer in the business and who had sold Gerdia B.V. a cooker for the new ship. Landa was interested in the entire harvest of Gerdia. Bakker offered Landa half of their catch, pretending he had obligations to sell Lenger the rest, as he had lent them some money. Lenger had already suggested to Bakker and his colleagues that they should see if they could sell their cockles elsewhere; he would not be able to do anything with these shellfish himself, considering the dire straits he was in. Lenger played the game with Gerdia B.V. pretending he indeed expected cockles in return for his investments. Bakker told Landa he had a serious dilemma now and that he would take it in into deliberation. He waited for two weeks, already knowing what his answer would be and being very excited about the

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The section on Arie Bakker is, for the most part, based on various interviews and correspondence with the fisherman and features his personal view.
Bakker became a fisherman in 1973. Fisherman Arie Bakker corresponded with the fisherman and features his personal view. Knowing what his answer would be and being very excited about the deliberation, he waited for two weeks, already for his investments. Bakker told Landa he had a serious dilemma now and that the game with Gerdia B.V. pretending he indeed expected cockles in return but himself, considering the dire straits he was in. Lenger played could sell their cockles elsewhere; he would not be able to do anything with these shellfish. The former colleague he had already suggested to Bakker and his colleagues that they should see if they had obligations to sell Lenger the rest, as he had lent them some money. Lenger turned to Bart Landa who was a newcomer in the business and who had harvested of Gerdia. Bakker offered Landa half of their catch, pretending he had sold Gerdia B.V. a cooker for the new ship. Landa was interested in the entire stock. Lenger, though, went bankrupt at the time. The company had lent Gerdia B.V. some money to set up their enterprise under construction, Bakker had approached shellfish investor Simon Lenger in 1979 by 40 meters. The prospects for the available stock were good at first, but the death of 1,000 Spanish people and seriously affected the Dutch cockle export as cockle consumption radically decreased. While the WR 82 was the leading ships sailing out if cockles were to be dredged. Bakker had developed himself more and more as one of the spokesmen of the sector. As the cockle fishery was being criticized intensively in the 1990s, the media knew where to find people like Bakker in order to have him comment on the actualities. The media attention reached a peak at the time of the EVA II coming to an end.

EVA II was the aggregation of various researches executed throughout the last decade to evaluate the effects of the 1993 Policy Agreement. It would serve as a basis for the new shell fishing policy. Bakker and his colleagues had some high hopes of this report, because they believed it would demonstrate that the measures so far had been effective and that further sustainable fishery was definitely possible. The anti-cockle front, which had strongly intensified its lobby over the last years, had opposite expectations. Bakker, his sons and their former colleague in the mussel sector and together with a brother-in-law of Bakker's two sons took over the shares in Gerdia B.V. of the other two companions, Gerdia B.V. was now a family business. Together with his sons Bakker would witness turbulent times in the cockle industry. A few years earlier, sudden and dramatic death rates of birds in the Wadden Sea focused public attention on mechanical cockle dredging. The fishermen were blamed for taking away the food of the birds. The Policy Agreement on Coastal Fishery in 1993 marked a new era in which the sector was bound to tighter regulations, such as the closure of fishing grounds and securing food stocks for the birds. The sector realized something had to be done in order to keep on following their profession. Sustainable fishery would be the credo. Black boxes for instance were introduced to trace the movements of the ships minutely and supplied the tools to falsify accusations of non-compliance with regulations. A major change was that the sector decided to move from a highly competitive business to a large extent of self-regulation; the fishermen had decided to unite. Business plans and collaborations with stakeholders such as government, environmental agencies and researchers served as basis for a deliberate and structured strategy of a homogeneously operating sector. The cockle producers’ board (PO Koppels) would decide which ships, which crew, where and when they would sail out.

**A major policy shift**
The ship of the Bakkers was technically improved in 1996 and was one of the leading ships sailing out if cockles were to be dredged. Bakker had developed himself more and more as one of the spokesmen of the sector. As the cockle fishery was being criticized intensively in the 1990s, the media knew where to find people like Bakker in order to have him comment on the actualities. The media attention reached a peak at the time of the EVA II coming to an end. EVA II was the aggregation of various researches executed throughout the last decade to evaluate the effects of the 1993 Policy Agreement. It would serve as a basis for the new shell fishing policy. Bakker and his colleagues had some high hopes of this report, because they believed it would demonstrate that the measures so far had been effective and that further sustainable fishery was definitely possible. The anti-cockle front, which had strongly intensified its lobby over the last years, had opposite expectations. Bakker, his sons and their former colleague they decided to “go into cockles”. Gerdia B.V. was now a family business. Together with good friends with a cockle seed” in the Wadden Sea in 1979. Bakker was g...
colleagues obviously started to suffer more and more from the uncertainty caused by the delay of the EVA II report, hence the political decision-making. Moreover, the general anti-cockle campaign did not leave them unaffected either. Various fishermen admitted that they were depending on tranquillizers at that time, to cope with the situation emotionally.

It eventually was not the EVA II report that caused the political breakthrough, but another report that had been worked on in the meantime. The Meijer commission presented its report on April 1st 2004. It concluded that cockle dredging was one of the most devastating human activities taking place at the Wadden Sea. Gas extraction in the Wadden Sea, on the other hand, was far less harmful than was generally believed. In addition, it was stated, the gas revenues could be used to create a Wadden Sea fund for ecological investments in the wetlands and to buy out the cockle sector. The fishermen were devastated and felt betrayed by the politicians when Parliament intended to put the advice of the Meijer report into practice. “Although all economic activities have become subject to some restrictions, the shellfish fishermen in the Wadden Sea have probably experienced most impact from the articulation of nature conservation.” (Steins, 1999: 125)

In the meantime, the anti-cockle front had persistently been working very hard on their contribution to expel the cockle vessels from the Wadden Sea. They met the sector in court each year to fight the yearly permits to sail out. But this year the Council of State had asked the European Court of Justice for help. The European Court judged that cockle fishery is not to be regarded as an 'existing activity', but as a 'project'. 142 This implied that the granting of permits should not be taking place automatically as a continuation of previous experiences. For projects, having no precedent, the precautionary principle should be applied in order to grant a permit. The precautionary principle states that activities are only allowed when harmful effects can be excluded. With the overall scrutiny of cockle dredging in the Wadden Sea, sustained by politicians, academics and environmental agencies, the fishermen knew that the ships would not only stay in the Wadden Sea harbors this year, but probably for the years to come.

Clearly, fisherman Bakker and his colleagues increasingly encountered stormy weather at the Wadden Sea. What they had actually been witnessing for the last few decades, was the coming and going of disputes in which they became heavily involved. In this research, these disputes have been designated

142 European Court, Judgement of the Court, Case 127/02, September 7, 2004 (Official Journal of the European Union, 23.10.2004). For a thorough analysis of the application of the precautionary principle in the Dutch Wadden Sea see Fleurke (2008).
as controversies which carry the firm-government interaction process. The ISP model has been designed to analyze the effects of government intervention in government-sensitive markets. For the cockle case, the 1993 Policy Agreement has been indicated as the government intervention. The question that needs to be answered now is: “How has the 1993 Policy Agreement affected the strategy process of fisherman Bakker and his colleagues?” The effects will be found in the components of the ISP model; the strategy path of the firm, the institutional bandwidths, controversies and mobilization. Analyzing the controversies is the next step in the analysis for that matter.

FOUR COCKLE CONTROVERSIES

The disputes in and around the Wadden Sea regarding the cockle fishery in the end boil down to one general issue; what are the effects of mechanical cockle dredging on the ecology of these wetlands? It is the central controversy; a sine qua non. If it was not for the quarrel on the effects of the cockle dredging, government would not have had stringent reasons for its increasing involvement with the sector at all. Generally speaking, a dichotomous approach to the central controversy would position those who state there are no effects against those who say there are effects. In practice, of course the debate will display a continuum, also including less extreme positions. As we will see, there will be nobody arguing that there are no effects of mechanical cockle dredging at all. Cockle ships in action logically affect the environment they are in. There is a physical interaction between the ships and the sandy bottom, harboring all kinds of organisms. The central controversy is eventually the debate on whether or not there are sufficient harmful effects to call a day to mechanical cockle dredging.

Settlement of the central controversy would take away grounds for most, if not all, other controversies. From that point of view, settling the central controversy in one’s own interest would definitely be the first prize to aim for. In practice however, the central controversy is just a kaleidoscopic approach to a complex social reality which is made up of a wider range of controversies and sub-controversies. They all come and go at different times, varying in intensity and with various outcomes. The central controversy consists of an array of sub-controversies, each focussing on an ecological aspect. For instance, the effects on cockle populations, on various birds feeding on these shellfish and on other benthic animals have each been subjected to a dispute.
Besides the central controversy on the effects of cockle dredging, two other general controversies can be distinguished. Firstly, the relevance of cockles and the industry for the Dutch economy has been debated throughout the interaction process. This will be designated as the socio-economic relevance controversy. How many people find their employment in the industry? What is the contribution to the GDP? Who is actually buying and eating these cockles? Answers to these questions, each forming separate sub-controversies, have been interpreted differently all the time. The dispute in this respect concerns the question of to what extent the interests of the cockle fishermen weigh up against those of other stakeholders. The mobilization of the pro-cockle lobby will generally be aimed at stressing the relevance of the industry, whereas its opponents can be expected to downsize the economic contribution of the industry, in conjunction with the alleged damage done to the ecology. Clearly, this controversy cannot be seen as totally separate from the central controversy on the ecological effects. The controversy on the relevance of the cockle industry and its sub-controversies have paved the way for the related issues on the connection with gas extraction and the possibility of buying out the sector, which would eventually play deciding roles in the development of the interaction process and the ISP.

Secondly, there has been the controversy on the strategic position of the cockle fishermen. The industry finds itself in a situation with many diverging interests at stake. Some of these interests have proven to be of a rather overwhelming caliber for the fishermen. The dispute in this respect concerns the question of how the sector was strategically maneuvering itself within that complex playing field called the Wadden Sea. It is the typical scenario of a government-sensitive market in which the cockle industry has found itself. As the focus of this research is the firm-government interaction, this controversy will be analyzed against the background of the policy process. What is the position of the cockle sector with respect to laws and regulations to which they have to adhere and in relationship with the policymakers? Do they comply with laws and regulations sufficiently? It is eventually the policymakers who design the future regulatory framework. Mobilization can thus be expected to influence the policymaking process. Again, this controversy is connected with the central one on the effects of cockle fishery. In the end, the position of the fishermen would be related to the alleged damage they caused. The fishermen thus faced a wide array of opposition: “Their activities are not only contested by the local bird population, wild mussel beds and the sediment (through their spokespersons, that is), but have also become a public issue.” (Steins, 1999: 125)
Bakker became a fisherman at the start of a new era in mechanical cockle fishery. The new license system, introduced in 1973, marked the start a new institutional setting. From that moment on, the interaction between the fishermen and government was taking shape and the controversies were about to start. However, prior to that license system, another controversy had emerged. Government was not yet really part of that debate, but it would be this controversy which would eventually lead up to the developments in the early 1970s. This 'preceding' controversy concerns the dispute over newcomers, mostly from the South-west, entering the Wadden Sea, competing with the Northerners. This preceding controversy must be analyzed first in order to understand the other three controversies to their full extent.

The preceding controversy: newcomers in the Wadden Sea
Cockle fishery has been, to a large extent, mostly a family business. Expertise is often passed from father to son, as in the case of Bakker and his two sons. A contemporary of Bakker, Hessel Tot, has also been part of that family tradition. The Tot family encompasses the history of the early days of cockle fishery. This family history is vital to analyzing and understanding the preceding controversy on the newcomers in the Wadden Sea. In addition, it is also undeniably part of the broader picture, including recent history.

Tot’s grandfather is generally regarded as the inventor of the ‘wonder claw’ (wonderklauw). The wonder claw is a rake with a net attached, tied to the waist of the fisherman, standing in the water, and walking backwards, pulling the rake through the sandy sea bottom, filling the net with cockles. It is still being practiced by the so-called manual cockle fishery. This type of fishery has not been expelled from the Wadden Sea. A few license holders are allowed to fish a maximum of 10% of the cockle stock in the Wadden Sea. At low tide, they leave their vessels and wade through the wetlands. Like Caribbean dancers, they swing their hips, to which the wonder claw is attached, and plow through the cockle banks. Manual cockle fishery might not have changed that much throughout the course of the century, mechanical cockle fishery on the other hand does have a history of technological innovation.

Already before the Second World War, Tot’s father, Klaas, installed an old T-Ford engine on one of his vessels, introducing the first motorized ship on the Wadden Sea. Some years later, in the early 1950s, one of his colleagues on the Wadden Sea started to work on another innovation in the

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143 The section on the Tot family is based on an interviews with Hessel Tot and reflects his view.
business. The Texel 67 was equipped with new devices, including a hose which flushed the cockles from the sea bottom into a net. Klaas Tot, however, worried about these latest developments. According to his son, his concerns were the cockle stock, the employability of the sector and the environment, which were all endangered. "Well, later on he had to admit that he was wrong about the cockle stock, because there have always been enough and will always be enough cockles" explains his son Hessel years after, but the distress concerning the effects of mechanical cockle fishery on jobs and the ecology were in fact controversies avant la lettre.

Klaas Tot decided to buy the Texel 67 ship to get it off the Wadden Sea. In addition, he went to the Ministry of Agriculture to warn the policymakers of the effects of modernization in the cockle business. His appeal remained unheard. In the meantime, however, technological innovations and the stories about the abundant cockle banks in the Wadden Sea attracted the attention of people outside the cockle sector. It was particularly the fishermen from the Zeeland delta, South-west of the country, who decided to try their luck in the Wadden Sea. As these so-called 'Southerners' were specialized in mussels, they brought with them adjusted mussel ships. Tot's concern about a 'wild west' on the Wadden became increasingly shared among his colleagues.

Bakker, a young man and working for cockle veteran Kooij in 1973, recalls: "Kooij had a flat-bottomed ship at that time already, whereas most others used old mussel vessels. Particularly the newcomers. We were 70 centimeters deep and the mussel ships about 110 centimeters. So holes all over the place. Cockles were flying around. That drove Kooij crazy." 144 It was Kooij who suggested measures to keep the new 'gold diggers' away from the wetlands. He contacted the keeper of the Western Wadden Sea, Bos, who informed the policymakers in The Hague, just as Tot had done some years earlier.

Interesting to note in this respect is the fact that Kooij was regarded as a pioneer in the Wadden Sea. He had, for instance, invented a mechanical cockle dredging device. Nonetheless, the technology that the Southerners brought to the Wadden Sea was at that time regarded as being top of the bill. Their mussel ships had been adjusted to cockle fishing and were equipped with an hydraulic dredging device which had just been invented in Zeeland. The newcomers on the Wadden Sea and their new invention had most likely not only worried Kooij, but also annoyed him to a certain extent with their new invention.

144 Interview July 13, 2003
In the early days of mechanical cockle dredging, the sector was left relatively undisturbed by any rules or regulations. The Fishery Act of 1963 was the major law to deal with, aiming to safeguard sufficient livestock. The licensing for mechanical dredging or the exclusion of some areas, like mussel banks, were a few exceptions in a hardly regulated field.145 Looking back now, most fishermen acknowledge the view of a wild west situation on the wetlands. As soon as possible, at the start of the season, the ships left their harbors to hunt for all the riches that the sea had to offer. A former fisherman recalls: “It sometimes happened that the whole catch of the day, dead already, had to be thrown overboard as the processing plants couldn’t handle the overload of cockles.” It was a matter of “as quickly and as many as possible. And this lasted until nothing was left, so to speak.”146 There was some fierce competition among a handful of major players. The profitability of the business had been attracting more and more newcomers to the tidal areas and this worried the fishermen. How could they protect their business?

The appeal of Kooij and Bos for policy intervention addressed at the Ministry of LNV was heard, apparently. The cockle fishermen were called for a meeting in The Hague, the political capital of the country, in 1973. The Ministry had been busy working on a new license system. It was the fishermen themselves who asked for that as they wanted to prevent more newcomers ruining the Wadden Sea. This particular meeting was organized to distribute the new cockle dredging licenses, although the fishermen themselves were not aware of the status of this meeting beforehand.

All the fishermen present that day got one or more licenses to execute mechanical cockle dredging. It would thus happen that, sometime later, Bakker got a telephone call from the Ministry. Holstein, then working for Agriculture under minister Braks and later the spokesman of the cockle sector, informed him that if he did not use his license soon, it would no longer be valid. “Of course, I said, thank you for the reminder, and I hung up. I looked at my wife, astonished, and I said: guess what, now I have got a cockle license myself!”, recalls Bakker, as if he is still amazed. He had been granted a license without even knowing. He went to The Hague to accompany his boss, not being aware of the fact that he, like all the others present at that particular meeting, would be listed for the eventual distribution of licenses. The total of 37 licenses, including the two that were added after the meeting (as some fishermen appeared to own more than one ship), would remain stable for the years to come. As soon as Bakker found out that he owned one

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145 Ibid.
146 Ibid.
of them, he hired a ship himself to safeguard his license. It was the big, but unintended, step from being an employee to setting up his own enterprise.

The introduction of the license system in 1973 is an important turning point with regard to this study. Firstly, it implies the settlement of the preceding controversy on the Southerners entering the Wadden Sea. The cockle fishermen successfully protected their business from newcomers by demanding a license policy. Secondly, it provided a new institutional context which would remain intact until 2004. Future developments would take shape against the background of this policy. Thirdly, it marks the beginning of Arie Bakker as 'the firm'. Now having his own license, he started his long career as a cockle entrepreneur. Fourthly, the events leading up to the license system have indeed been a prelude of what was to come. How clairvoyant of Tot to designate, amongst others, the issue of the ecological effects of mechanical cockle fishery as a point of concern. It would turn out to be the central controversy for the next three decades.

Controversy 1: The effects of mechanical cockle dredging on the ecology of the Wadden Sea

We already came to the conclusion that the central controversy is the *conditio sine qua non*. If it was not for this controversy, the whole discussion about cockle fishery would not be an issue. It is the all-encompassing controversy, discussing the effects of cockle fishery on the ecology of the Wadden Sea. This 'central controversy' has been divided into three sub-controversies, covering three categories of wildlife focused on in the debate on the ecology of the wetlands; the cockle population, bird populations and miscellaneous benthic organisms.

The sub-controversy on the effects of mechanical cockle dredging on the cockle population itself is a rather obvious one as these are the actual shellfish being fished for. However, cockles are particularly relevant for being food to various birds. Throughout the interaction process several species have been brought into the debate, like the common eider, the oystercatcher, the knot, the common scoter population and the herring gull. They all belong to the sub-controversy on the effects of fishing on bird populations. The third sub-controversy, that on benthic organisms, encompasses categories of species like sea grass, worms, mussels and other kinds of shellfish playing their role in the ecological system and related to mechanical cockle dredging. We will see that the central controversy was in fact ignited by the sub-controversy on the cockle population, but it was eventually the sub-controversies on the bird populations that left the biggest mark upon the process with regard to the
central controversy. Let us now look at the three sub-controversies more closely.

*Sub-controversy 1a: The effects of cockle fishing on the cockle population*
What are the effects of mechanical cockle dredging on the ecology of the Wadden Sea? The question was first posed in the early 1970s by, surprisingly perhaps, the fishermen themselves, as we have seen in the above. Environmental organizations were not yet occupied with shellfish industry at that time (Verbeeten, 1999: 111) and government had just abandoned the idea of even reclaiming parts of the wetlands. The concern of the fishermen was the cockle stock.

The initiative of the cockle industry in the early 1970s to exclude new competitors is the trigger event for the central controversy. It was in fact the increasing competition between the Southerners, mainly specialized in mussels, but eager to move up to the Wadden Sea for the cockles, and the Northerners, that started the whole process. In particular, Kooij’s appeal on that matter has been crucial. Given the competitive threat, he worried about the cockle stock in the Wadden Sea in relation to the cockle dredging itself. In other words, he admitted that the sector does leave its marks upon the ecology of the Wadden Sea. His main concern was of course the immediate profitability of his own business. This came under pressure because of the new entrants going for the very same resources, the cockles of the Wadden Sea. Eventually, however, Kooij, according to his then-employee Bakker, did see the importance of maintaining the ecosystem in the long run. The controversy was therefore now triggered. Cockle fishing and its effects on the ecological system of the Wadden Sea would remain debated, even increasingly so, for the years to come.

The effects of cockle dredging on the ecological system as a general issue was thus initially restricted to the cockle population itself, in the interest of the fishermen holding the 37 licenses. However, the ecology of the Wadden Sea is of course not restricted to shellfish. The constantly and regularly flooded areas of the North Sea and Wadden Sea are home to over 2,000 groups of organisms (Wolff & Heydemann, 1998). The central controversy was ignited by the debate on the cockle stock, but other wildlife would eventually also be subjected to the debate. The sub-controversies on bird populations played a particularly significant role in the general debate.

The cockles and birds cannot really be seen as separate in the discussions themselves: concerns about the cockle population imply concerns about bird populations and vice versa. It is therefore interesting to note that there is no real demarcation for the end of the cockle controversy. Scientists,
however, tend to agree, so it seems, that there is now consensus over an undeniable extent of serious damage done to the cockle population by the cockle industry.

The fishermen themselves, on the other hand, still hold on to their view that there have only been more and more cockles in the last few decades, partly because of their sustainable fishing techniques. Variations in cockle population are supposed to be part of the dynamics of the ecological system. The fishermen adhered to their logic that they would never ruin their own acres as that would imply the end of their business. The fact that they were making money until the last moment is an indication that this logic holds true to a certain extent. However, scientists state that nobody questions the damage to the cockle population anymore. This perception is to a certain extent sustained by the voting on the ranking of harmful activities which took place prior to the Meijer report. IMSA, Van Dieren’s institute, canalized the consensus over the harm done to the ecosystem by the various activities in and around the Wadden Sea. Of the group of gathered scientists, only a few abstained from voting, but there indeed appeared to be a common agreement on the fact that cockles suffer from fishery. It might be sufficient reason to conclude that the controversy on cockles was now settled, moreover as this consensus played a crucial role in the content of the Meijer report, hence the political decision to expel the cockle ships from the Wadden Sea. But then again, as was just stated, the fishermen still would not buy this line of reasoning. Taking that into account, the controversy on the effects of cockle fishery on the cockle population is still up in the air. The more reason to see what happened with the closely related controversies on bird populations...

Sub-controversy 1b: The effects of cockle fishing on bird population
Though fishermen themselves worried about the cockle population way before anybody else expressed concerns about wildlife in the Wadden Sea, it was the birds that first attracted the attention of outsiders to the ecological effects of cockle fishing. An estimated 10 million birds have their temporary home in the Wadden Sea, while migrating, or permanently, of which 700,000 are in the Dutch section.

The sub-controversy on the bird populations entails various bird species which have entered the debate. Throughout the entire process, there has been a consistent flow of events claiming the harm done to birds by the cockle fishermen. The first bird that was connected to the cockle fishery was

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148 Ecomare: Vleet
the common eider. In the early 1980s, Cees Swennen of Nioz called Jan Jaap Hooft of State Forestry. KNIOZ had concerns about the eider population due to cockle fishery. They informed Staatsbosbeheer, supervising the compliance to the Nature Protection Act in the Wadden Sea, and asked for measures. In the case of such demands, State Forestry will initiate research. In agreement with Wim Wolff it was decided to let RIV have the job to do research on the eiders. The effects of cockle dredging would also be taken into account. It was the start of an array of all kinds of research on cockle fishery and bird populations which would be carried out for the next two decades.

The bird controversies are not only strongly and logically tied up with the sub-controversy on fishery effects on cockle populations, but also with the fierce and enduring debate on the use of academic research, as we will see later on. Yet it is important at this stage to notice that there has been a rather steady flow of events relating to the bird controversies throughout the whole process since its triggering in the early 1980s with the eiders. The controversies on the birds have played a crucial role ever since. One respondent even stated: “It’s all about birds. The bird lovers, you know, they can be very, well, let’s say ‘passionate’, about ‘their’ birds. Cockles are not the problem, people hardly care about them; it’s the birds and the emotions, which drive the whole process.” The debates on the alleged damage done to birds have indeed been present the whole time.

The controversies on the birds in the Wadden Sea have not only consistently been there from the start, but none of them has really been settled ever since. They remained disputed until the Meijer report and even thereafter. In fact, the report did not even settle these controversies at all. It politically overruled the EVA II report which contained most of the academic research on the effects of cockle fishery on bird populations. It appeared that bird controversies are relatively easy to trigger, yet hard to settle. Environmentalists, bird lovers and the anti-cockle front made good use of this.

After the attention drawn to the eiders, other species would soon be subjected to the debate. Besides the eider, the oystercatcher was referred to most. At the time of the consultation meetings for the EVA II report it sometimes looked as though it was the fishermen against the oystercatchers. Bakker admitted that they were indeed competitors as both oystercatchers and fishermen go after the same shellfish. Oystercatcher expert Goss-Gustard was invited to the EVA II audit session in January 2004 to sustain the conclusions on the causality between cockle fishery and death rates among these birds. The fishermen disagreed. They indicated the tables being used, which showed a dramatic decrease in bird populations in the early 1990s. The fishermen pointed at the winter storms in 1990 and 1991. It was the storms that washed
away the food supplies for the birds, not the cockle ships. This had been debated for more than a decade. KNIOZ, for instance, already pointed at the industry in 1994 for these sudden extreme death rates in these particular winters. That same year, 1994, The Netherlands Society for the Protection of Birds published a red list of threatened birds. Among them were the eiders. Vogelbescherming also blamed the cockle industry for that.

The radical decrease of bird populations in the early 1990s was the big accelerator for the bird controversies. The birds made it to the media frequently. A newspaper for instance once headed ‘massacre among eiders’ and a member of Waddenvereniging remembered ‘eiders falling down from the air in dozens in the early 1990s. But not only eiders and oystercatchers were subjected to the debate. Knots, common scoters and herring gulls were also supposed to suffer from mechanical cockle fishery.

The fishermen just could not get their arguments through in the debates on the bird populations. They did see the relevance of the competition with the birds, but they did not believe that the birds suffer from fishery. The fishermen even believed that the EVA II results sustained their view. The package deal on the basis of the Meijer report shortly thereafter and the settlement of most controversies at the political level has never got the approval of the sector. The question now arises as to what extent the bird controversies have been settled. The EVA II process was designed for that reason, but finally did not succeed in that. Has the Meijer report settled the controversies or has it overruled or surpassed them? Fishermen would opt for the latter.

Sub-controversy 1c: The effects of cockle fishing on benthic organisms

Scientists and environmentalists attributed the extreme death rates of wading birds in the early 1990s to shell fishing. These ecological catastrophes were a major accelerator of the increasing academic and political scrutiny of fishing activities in the Wadden Sea, which cannot be seen separately from the content of the Policy Agreement on Coastal Fishery in 1993 and its subsequent evaluation project EVA II. The dead birds have consistently been used as evidence for the harmfulness of the shell fishing industry, ‘robbing the food of the birds’. The fishermen themselves, however, blamed the big thunderstorms in January 1990 and February 1991. A fisherman recalls: "The day after that storm I went out to check the damage. Where there had been

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149 Nrc, April 3, 2002
150 Algemeen Dagblad, April 3, 1999
massive cockle banks earlier that week, all there was left that morning were
big and empty craters."

During the public consultation meetings and the audit conference of
the EVA II report, in early 2004, the fishermen brought in their argument of
the natural damage done to the shellfish populations. "It is all part of the
ecological dynamics of the wetlands", they said. "Some years we are given a
good harvest, some other years we are not. Frost, storms, they are all things
we have to take for granted. The good years help us to overcome the bad
years." Surprisingly, the committee of researchers, facing big auditoriums
packed with stakeholders reacting on EVA II, did not really go into the
arguments of the cockle fishermen in this respect. The vanished shellfish and
starved birds were supposed to be a fact, frustrating the cockle fishermen even
more. The problem, in fact, was that the researchers found the loss of mussel
banks problematic, whereas the cockle fishermen were talking about their
cockles. Both are shellfish, but they are two different species and two different
controversies. Ironically, the cockle fishermen were, of all fishermen, under
the biggest pressure at that time, but they were dragged into the debate which
actually belonged to their mussel colleagues. It was the disappearing mussel
banks, leading to the death of birds, that scientists worried about most, not
the primarily the cockles.

Nonetheless, the tendency during these meetings was an ongoing
focus on attacking and blaming the cockle fishermen. This might explain the
speech misfiring and increasing antagonism between the cockle fishermen on
the one hand and on the other, so it seemed, most of the others present in the
auditoriums. EVA II researcher De Vlas reflects: "Cockle fishery still had the
worst reputation among scientists. One of the reasons for that is that it is just
very obvious where the cockle vessels have been active. The traces left behind
by the ships on the sea bottom are easily visible and photographable from the
air at low tide. The effects of mussel fishery are less visible. Everything stays
under water."152

Controversies on benthic organisms played a relatively small role in
the process. Particularly in the academic world the effects of fishing on, for
instance, worms was being discussed. Theunis Piersma, the expert on this
field from Groningen University, published extensively on this subject (e.g.
Piersma et al. 2001; Piersma, 2006). His argument that mechanical cockle
fishery leaves the benthic wildlife in and on the sea bottom devastated for at
least a decade has caused some scrutiny, even among scientific colleagues.

152 Interview January 24, 2006.
Piersma et al state that “suction dredging of Cerastoderma [the cockle, KvN] had long-lasting negative effects on recruitment of bivalves, particularly the target species, in sandy parts of the Wadden Sea basin. Initially, sediment reworking by suction-dredging (especially during autumn storms) probably caused losses of fine silts. Negative feedback processes appeared to follow that prevented the accumulation of fine-grained sediments conductive to bivalve settlement.” (Piersma et al, 2001: 976) When he set out his line of reasoning based on his research during the EVA II audit session in January 2004 it clearly caused some agitation among the audience of scientists, journalists, fishermen and other stakeholders. Fishermen thought it was ridiculous to assume that nature needs more than ten years to recover from a slight obtrusiveness of the sandy sea bottom by the dredgers, some other scientists thought a decade was perhaps a little bit too exaggerated and others still believe in serious long-term effects of the cockle ships on the sea bottom ecology.

It is fair to conclude that the effects of mechanical cockle dredging on the ecology of the Wadden Sea can be considered as academic work in progress. The intersubjective conclusions on harmful activities in and around the Wadden Sea underlying the Meijer report did not fully resolve this controversy. Controversies and sub-controversies were in this respect particularly used to trigger and maintain the debates. The anti-cockle front seemed to be aware of this and was, consciously or unconsciously, applying a divide et impera strategy.

The status of the scientific research regarding the central controversy

The central controversy on the effects of cockle dredging has always been accompanied by a steady debate on the status of the scientific research being used for argumentation. Vast amounts of money and energy have been spent on a wide range of research, but the outcomes always supplied ground for further debates rather than settling controversies. It appeared not only hard to reach a point where the cockle fishermen and their opponents agreed on how to evaluate scientific reports, but in addition to that, among scientists themselves various interpretations caused continuous confusion and insecurity. Still, to this date, there is no real agreement on what are the longitudinal effects of cockle dredging on the ecology of the Wadden Sea, as we concluded earlier. Piersma (Piersma et al, 2001), for instance, uses a long-term scenario of at least a decade needed for the sandy bottom to fully recover from the obtrusive cockle ships. The fishermen themselves say that the

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ecological system only needs a few weeks or months to reach its initial equilibrium.\textsuperscript{154} De Vlas, after having been involved in shellfish research for about three decades, comes to this conclusion: “We still do not really know what the exact effects over time are. The only thing we do know is that the ecosystem of the sea bottom is severely being damaged, at the very moment when cockle dredging takes place. Nobody will deny that. And it is the only thing we can say with certainty.”

Continuing debates on the status of scientific research delivers a specific implication for analyzing the events dealing with such controversies. The question arises of which level of social becoming we are talking about. Does referring to a scientific report take place at the ideal level or at the opportunity level? The latter would be the case when an extent of power can be derived from a certain report. However, as long as the outcome of research does not achieve a certain established status, the scientific debate will be confined to the ideal level, where perceptions compete for acknowledgement. The EVA II research project illustrates this. The report, consisting of over 40 sub-reports, had kept a controversial status until its publication in early 2004. By that time, the Meijer report overruled EVA II by getting full media and political attention. Even though EVA II, being the evaluation of the previous shellfish policy, was meant as the basis for the due political decision-making, it would never play that role in the process as it would unfold that year. Whereas fishermen were referring to EVA II as the evidence that sustainable cockle fishery could very well be possible, their opponents saw that very same report as sustaining their scrutiny regarding the possibility of sustainability. The appeals on EVA II were therefore of a different character, and in vain to a certain extent, from those on Meijer, which did settle the controversy. The political arena had already put the establishment of the status of Meijer into practice.

Carrying capacity

One particular example of the role that scientific research has played in the process, worth mentioning here, is that of the carrying capacity of the Wadden Sea. Before EVA II was officially published, Wageningen University had already announced in a press bulletin that ‘fewer wading birds are due to lower carrying-capacity of the wetlands and shell fishing’. The Wageningen Institutes Alterra and RIKZ had carried out the research. The cockle fishermen were quite happy with these preliminary conclusions as it was

\textsuperscript{154} Volkskrant, November 12, 1998.
\textsuperscript{155} Interview January 24, 2006.
inferred that the size of the cockle population depended on the nutrition values of the water, the so-called carrying-capacity. The fact that fewer and fewer waste products had been drained into the rivers delivered a diminishing provision of nutrients for benthic organisms in the tidal waters. Waste products such as phosphates and nitrates are necessary for algae, which in turn is the basic food for cockles. Various wading birds fit into that very same food pyramid, explaining the correlation between the carrying capacity and bird populations. Taking these insights into account, the Minister of Agriculture also concluded that EVA II provided no grounds for removing the fishermen from the tidal waters.

As soon EVA II was officially published in January 2004, there was an immediate critique of the carrying-capacity theory by KNIOZ, a research institute not involved in the EVA II project, despite the wishes of parliament. EVA II research director Bruno Ens had to use all his rhetorical skills to resolve the confusion. Yes, it was true that the carrying capacity of the Wadden Sea had decreased, but this should not lead to the conclusion that mechanical cockle fishery has no effects on wildlife in the Wadden Sea. The academic debate had been fierce and long-lasting, but Bakker and his colleagues wondered to which ‘wisdom’ it had all led. In their view, the fishermen are the ones who live with the dynamics of the Wadden Sea, as they depend on it, whereas scientists just investigate it from the sidelines. It raises the question of which ‘knowledge’ is more valuable or worthwhile, the practical knowledge of the fishermen or the theoretical knowledge of the scientists...

**Mobilization to settle the central controversy**

In the above, we have seen the central controversy coming up in the early 1970s, then diverging over various components of the ecology of the Wadden Sea, expressed by the three sub-controversies, and then having, as we will see, a ‘formal’ settlement in 2004. The fishermen, however, to this date still reject the accusation that they have caused damage to the Wadden. Nonetheless, they have not been able to settle the controversy. How could they have? Which mobilization has been executed, which failed or which ones should have been used?

The causal link between the fishing practices and alleged ecological effects is hard to reject and hard to prove. For instance, what have the opponents of the fishermen really proved? Scientific research has been brought into the debate by the environmentalists, but even researchers have to admit that the Wadden Sea is a complex dynamic ecological system which might never be fully predictable and comprehensible. Whereas the anti-cockle front
wants to prove the harmfulness of cockle fishery, the fishermen themselves are of course eager to deny it. However, three decades of disputes have not resolved the issue, illustrated by the fact that the all-encompassing and million euro-costing EVA II report could not settle the controversy and was politically overruled by the Meijer report, and the decision of the European Court is particularly illustrative of this. The fishermen have not proven anything, so it seems, nor have the environmentalists. It is still one word against the other. The controversy has therefore never been settled at the ideal level. The two parties just see the world differently in this respect. It is, however, the level that the fishermen put a lot of emphasis on, but not in practice. Not in their mobilization, to be more precise. They were convinced of their rightful place in the Wadden Sea and were hoping that others in the end would come to that very same conclusion. However, people did not buy their story. Few people could be convinced that mechanical cockle fishery did not harm wildlife in the Wadden Sea. The context of national and international concern about the ecological effects of human activities, illustrated by high death rates of birds in particular, have made it difficult to get the view of the fishermen across. They had told their story so many times, on various occasions, but it remained unheard.

Mobilization at the ideal level was for a large part based on the argument that fishermen would not ruin their own acres. On the contrary, the cockle sector has actually contributed to expanding cockle populations, they state. The two views on the effects of mechanical cockle fishery have been mutually exclusive and neither has prevailed, based on the arguments used. Evidence must be obtained on one or more of the other levels of social structure.

At the opportunity level, settlement of the controversy can be achieved by ‘overpowering’ opponents. Mobilization is restricted at this level, concerning the central controversy. It is hard to impose perceptions. Scientific research can be used to convince people, but the fishermen did not succeed in getting scientific research and researchers ‘on their side’. An exception was Marnix van Straalen, a marine biologist. According to the fishermen he was ‘one of the very few scientists you can trust’. In addition, Van Straalen was also an esteemed professional among his colleagues. Interestingly enough though, contrary to what the fishermen thought, Van Straalen was not the only scientist who was not ‘against’ cockle fishery per se.\(^{156}\) In fact, when working on EVA II, Han Lindeboom asked his fellow colleagues working on the project, Aad Smaal, Bruno Ens and Jaap de Vlas what they, in the end,

\(^{156}\) Interview, April 24, 2004.
thought should happen to the mechanical cockle sector on the Wadden.\footnote{Personal correspondence.} The three were unanimous in their belief that the sector should not necessarily be abandoned from the wetlands. Not surprisingly, the EVA II report did leave room for further sustainable cockle fishery, which was recognized as such by the fishermen.

Trying to get scientific accreditation of the arguments being used is a mobilizing strategy that takes place at the interactional level as well. Network partners can be instrumental in backing up the message. Besides what has just been mentioned, the fishermen did not mobilize at the interactional level in their attempts to settle the general controversy.

The formal settlement of the central controversy took place at the normative level. Formal, because, as we have seen, the debate itself has not come to a conclusion, at least not at the ideal level. While the antagonism, concerning the perceptions of the actual effects of mechanical cockle fishery on the Wadden Sea ecology had only been intensifying, without reaching a climax, a process at the normative level eventually caused a breakthrough. Environmentalists had been objecting to the granted cockle licenses every year by an appeal in court. They never won however, until autumn 2004. That year, the court in The Hague had asked the European Court to shed some light on the procedure of granting licenses, before another judgment was made. The Court in Straatsburg decided that cockle fishery in the Wadden Sea should not be regarded as an ‘existing activity’ when granting the licenses each year. Instead, it should be seen as a ‘project’. Each year, depending on the quality and quantity of the cockle stock, the fishermen investigated if they could fish, where and how much. As a consequence, licenses should not ‘automatically’ be granted, based on what happened the previous year. For projects, other procedures apply. Possible negative effects of a project must be assessed and excluded before the Ministry of Agriculture can grant the license. The precautionary principle must be part of that procedure. Activities are only allowed when negative effects on the natural environment can be excluded. In other words, the cockle fishermen must prove they do no harm to the Wadden Sea.

The precautionary principle hits the nail on the head when it comes to the impossibility of settling the controversy. It can only be settled when absence of negative effects is proven. But as we have concluded in the above, proving either the existence or absence of a causal relationship between fishing practices and ecological phenomena has appeared to be a mission impossible. In general, how can the absence of a relationship be proven at all? It is exactly
where the fishermen have not succeeded. The precautionary principle thus favors the opponents of criticized activities and settles the controversy at the normative level. It has become such a fundamental and widely accepted principle in the European Union that has acquired a dominant status over other levels of social structure.

Ironically enough, the fishermen could in fact only sustain their argument by stopping their fishing activities. The presence of the effects in conjunction with the absence of the fishermen on the Wadden would prove them right. As Bakker said: "I would feel really sorry for those birds, don't get me wrong, but I would be very eager to see how environmentalists would react if tons of oystercatchers were suddenly to drop dead after they have gotten us off the Wadden Sea."\textsuperscript{158}

For Parliament, the decision of the European Court was a sufficient condition, backed up by the Meijer-report, to call a day to the mechanical cockle fishery in the Wadden Sea. The effects of the radical events at the normative level then rapidly spread out over the other levels. Like a self-fulfilling prophecy, people are likely to adhere to the new situation based on formal decisions, hence adjusting their views on it and positioning themselves in the anti-cockle camp, deliberately or not. The precautionary principle has been an effective tool to let the ISP collapse, via the normative level. After the judgment of the European Court, the institutional bandwidths rapidly narrowed down to minimal proportions, if any.

However, it would be too simple to state that applying the precautionary principle would be a sufficient strategy to torpedo any ISP. The Court could, for instance, have come to a similar conclusion years earlier, but that does not mean that the effects would have been as in 2004. The political context would have differed, the scientific discussion would have been at a different stage, the image of the fishermen might not have been as badly damaged, just to mention a few contextual factors. In other words, the role of the precautionary principle is to a large extent shaped by its timing in the complexity of the process. Its effects can only be understood and explained by taking into account the broader picture. In this case, the two remaining controversies need to be looked into in more detail. They will appear to have paved the way for the fatal events in 2004.

\textsuperscript{158} Interview, April 28, 2004.
Controversy 2: The socio-economic relevance of the cockle industry

There must be a certain significance at stake when something is being subjected to such a heavy and long-lasting political issue as has been the case with cockle fishery and the Wadden Sea. The ecology of the wetlands, and in particular bird populations, have been discussed earlier on. This is what the real debate actually started with, as we have seen. However, if there were not an intrinsic significance of the sector itself, then there would most likely not have been such a lingering overall discussion. In other words, if it were not for the cockle fishermen themselves there would not have been any such problem, so what exactly is it that justifies the existence of the sector?

The cockle industry can be regarded as relevant in two ways. Firstly, the industry is part of the Dutch economy, contributing to the GDP and supplying the market with products and labor. Secondly, the cockle industry got involved in a larger, nationwide, debate on the use of the Wadden Sea together with the gas extraction. The relevance of the sector from these two perspectives has been debated throughout the firm-government interaction. Some people did not see the relevance of cockles for the Dutch market, while others stressed their importance for the national shellfish processing industry. Some people regarded the buying out of the sector as an expiatory sacrifice to enable gas extraction, while others compared the ecological effects of the two industries. The controversy on the socio-economic relevance of the sector can thus be split into two sub-controversies. The first sub-controversy is about the significance of the cockle to the Dutch market. The second controversy is about the option of buying out the sector. The two are of course strongly related. The connection became very apparent at the time of the Meijer report. The relevance of the cockle industry had been increasingly questioned, despite arguments of the fishermen, while the connection with other activities such as gas extraction had more and more become an issue. Buying out the sector had been some sort of implicit scenario for a long time, but now it suddenly started to appeal to more stakeholders. A political breakthrough was unavoidable.

The socio-economic controversy is the dispute in which the cockle industry had to defend itself to the tax-payer or the consumer. In practice, they were being represented by parliamentarians and politicians. This controversy thus largely took place against the background of the political arena. As this is eventually also the place where laws are made, it is a crucial controversy to analyze. Parliament is in fact the ultimate controversy-settling body. It is actually here where it was decided to expel the mechanical cockle fishery from
the Wadden Sea. In addition, it is in the political arena where all other aspects of the issue, as captured by the other two controversies, come together.

Sub-controversy 2a: The relevance of the sector for the Dutch market
It was at the time of the Policy Agreement on Coastal Fishery in 1993 that the first references were being made to the economic relevance of the cockle industry. Parts of the Wadden Sea and the Oosterschelde in Zeeland would be closed for cockle fishery. The Liberal party VVD disapproved, and blamed the Christian Democrats for not being trustworthy by unexpectedly consenting to the new policy. The sector was now ready to be ‘depreciated’ VVD provoked.159 The Fish Product Board warned of the loss of millions of guilders and dozens of jobs if Brielsche Gat in Zeeland were closed off. The cockle sector in particular was expected to suffer from the policy plans.160 The closing of parts of the Zeeland delta thus triggered the controversy on the economic relevance of the sector as a whole for the Dutch market, as people now started to stress the consequences of the policy in terms of loss of income and labor. Nonetheless, the controversy would remain dormant for quite a while thereafter.

Getting the cockle on the menu
In 1998, the fishermen started a campaign to promote the cockle as a delicacy. A press bulletin claimed that cockles were libido-enhancing. Some restaurants were offered free cockles to put them on the menu for a week or two. The secretary of PO Cockles explained why it was decided to bring the cockles to the attention of the Dutch consumers: "You cannot buy cockles anywhere. Because we do not know the cockle, we do not ask for it, and because we do not ask for it, retailers will not buy it. The cockle is trapped in a vicious circle."161 The secretary hit the nail on the head.

Despite the fact that the Netherlands was Europe’s biggest exporter of cockles, as a delicacy it never appealed to the domestic consumers’ market, by and large. In contrast to that other shellfish, the mussel, being part of Dutch culinary folklore and available in all supermarkets, the Dutch hardly know what a cockle is. The argument can be taken even further, taking into account that almost all stock is exported to Spain. The anti-cockle lobby unanimously agrees on the fact that there is no real bond between this shellfish and the

159 Trouw, April 23, 1993
160 ANP, October 11, 1993
161 Interview, August 7, 2004.
Dutch. The campaign to promote the cockle on the domestic market did not achieve the desired effect, nor was it intensified or repeated at a later stage.

Now that the cockle promotion campaign had failed to get it on the menu, the fishermen left the culinary dimension for what it was. From that moment on they focused on the labor aspect. Fisherman Harm Teerling for instance explained that people did not dare to invest in the business any more due to the political uncertainty. One of his colleagues on his ship even burst into tears when pointing at the equipment on the deck: "Look at that dredge for instance, it has not been properly been maintained for some years, because we do not know if we will ever sail with this ship again. It is just rotting away. It is such a shame. I cannot believe it. Who wants to invest in a business with such an uncertain future?"  

In early 1999, new policy plans threatened the Zeeland cockle fishery again. The stock threshold in the Oosterschelde was to be raised from 2 to 5 million kgs. The threshold is the minimum stock needed in the wetlands for the fishermen to even sail out. The measure was intended to protect the birds by leaving them enough food. The secretary of PO Cockles feared a shrinking sector in the Zeeland area, with an estimated 'local economical significance of 150 to 170 million guilders and 300 jobs'. This development does have to be taken into account in this respect, despite the fact that the Zeeland delta is more than 200 kilometers away from the Wadden Sea.

The Zeeland town of Yerseke is considered to be the national headquarters of the Dutch shellfish industry. It even has the only mussel stock market in the world. Most of the shellfish processing industry is located in Yerseke. The local economy therefore has strong ties with the cockle industry both in Zeeland and in the Wadden Sea. Circumstances in Zeeland can thus affect those in the Wadden Sea and vice versa. The sector would more and more try to involve this in the debate. Simon Lenger of Shellfish International backed up the statement of the secretary of PO Cockles. He estimated that the execution of the policy plans would result in 60 people being discharged from employment. The secretary could also be even more precise now: "In total seven firms are being threatened in the south-west of the country. The jobs of 200 employees ashore and 100 on the fleet are then endangered."  

The numbers grew bigger and bigger as the frustration grew stronger. Two years later Holstein stated: "The cockle industry is being strangled. If

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162 NRC, September 7, 1999.
164 Dagblad voor Zuid-West Nederland, March 8, 1999.
165 Dagblad voor Zuid-West Nederland, March 11, 1999.
things keep on going like this, 3,000 to 5,000 will lose their jobs soon. Because together with us, the mussel sector will also disappear."166 The connection between the cockle fishery and the mussel sector was explicitly emphasized, in conjunction with the role of the processing industry. The loss of jobs would not be restricted to the cockle fishery, but the policy was destined to have a broader impact: "Particularly in the processing industry. Not just the plants processing export products. Also the mussel processing industry is having a hard time, because there are not enough mussels. Back in the old days this was compensated for by the processing of cockles, but there are very few of them this year as well, sadly enough."167

The ties between the cockle fishery in the Zeeland delta, the mussel industry and the processing industry had now been highlighted, but the ties between the Wadden Sea and Zeeland themselves had not really been emphasized clearly yet. This would change in 2003 when the cockle activities in the Wadden Sea were really under attack. The scenario of buying out had become more and more likely by that time. Holstein warned that: "If cockle fishing were not allowed any more, it could also be the end of Yerseke. The catch might vary per year, but the production lines for cockles can also be used for mussels. Without the cockle catch, these lines will be no longer profitable for the mussel fishery."168 Now everything was being connected to each other with the small town of Yerseke as the epicenter of it all. The conclusion was then that the cockle fishery in Wadden Sea was particularly important for the local economy of Yerseke.

Sub-controversy 2b: The option of buying out the sector
An extreme measure to resolve the general controversy, hence all controversies, would be to expel the industry from the wetlands. It is such an extreme measure that it would not be the first thing that would come to mind. For government it would be a rather drastic measure, likely to cause major political and social opposition. As we have seen earlier, environmental agencies at first did not even worry about the presence of the fishermen on the Wadden Sea. Nonetheless, a political package deal following the conclusions of the Meijer report eventually did contain the basis for expulsion of the fishermen from the wetlands in conjunction with financial compensation.

The controversy on buying out the sector started in 1992 and was settled in 2004. Starting out with a rather dormant first phase, t
The controversy really broke through in 1999 in conjunction with the renewed debate on gas extraction in the Wadden Sea and was settled in 2004 with the installation of a buying-out commission. It will appear that those who regarded the scenario of buying out as a realistic option not only outnumbered those who did not, but that the sector, being the logical antagonist to that plan, in fact helped to pave the way for their opponents with respect to this controversy.

The first attempt to trigger the controversy

In 1992 Pieter Winsemius, former Minister of Housing, Physical Planning and the Environment and former chairman of Nature Monuments Association, deliberately triggered the controversy on buying out the sector. It was part of his proposal to permit gas extraction in the Wadden Sea. At that time, the ten-year moratorium on gas extraction was coming to an end, so new policymaking on the issue was due. From that point of view the timing to try and initiate the debate made sense. Together with the 1993 Policy Agreement, setting the pace for tightening regulations on coastal fishery, an evident political window of opportunity was looming.

Winsemius’ plan only consisted of five bullet points. With these on a piece of paper, he started his lobby in The Hague. The idea was to allow gas mining and to create a fund for environmental investments in the Wadden Sea. Part of that fund was to be used for buying out the ‘entire cockle fishery’ with an estimated 45 million euro. The bullet points did not make it to a real debate at first. The Ministry of Economic Affairs and NAM decided to ‘just walk over the plan, as they wanted to go for the short cut’. The bullet points remained dormant for some years, but would prove to be groundbreaking and predictive in what would happen in the decade to come.

The controversy finally breaking through

From 1999 onwards there was a sudden uplift of the debate on buying out the cockle fishermen. On March 10th the Ministry of Agriculture and cockle fisherman Bout met at the Council of State. Bout had been denied a license because the Ministry stated that he did not earn a full income as a professional cockle fisherman prior to 1993. The chairman then openly wondered if the minister had started to buy out the sector, as newcomers apparently could not get any access to it; such a provident thought.

Less than a week later, the Netherlands Society for the Protection of Birds and the Wadden Association was to send a letter to Parliament, asking

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169 Volkskrant, April 9, 1994.
for an immediate buying out of the sector. They had been to court a week earlier to acquire access data of the cockle fleet. The state secretary of Agriculture had refused to make this data public. The Freedom of Information Act (Wet Openbaarheid Bestuur) supplied the environmental organizations with the legal tools to get this done. The actual surface covered by fishing vessels appeared much more than the agencies expected: "If government is really serious about protecting ecosystems, then this type of fishery has to be stopped."170 The State Secretary had to defend her new policy on coastal fishery that week in front of a Parliament with lots of questions and deliberations on the new insights. The debate on a potential buying out of the sector had now fully entered the political arena.

The Liberal Democrats (D66) were the first political party to plead for an immediate buying out of the sector. The new plans of the state secretary to close additional parts of the Wadden Sea for commercial fishing would only 'slowly squeeze the industry to death', without compensation, they stated. Buying out would be more fair. The Liberals (VVD), on the other hand, believed that the new plans were based on the wrong assumption that only the cockle industry was to be blamed for the food shortage in the Wadden Sea. Other parties held intermediate positions, but agreed with the policy plans.

The conditions seemed much better now for the plan that Winsemius had proposed some seven years earlier. The discussion on the Wadden gas had also blazed up by the end of 1999. On December 5th that year Winsemius declared his views on the popular Sunday afternoon TV show Buitenhof. The gas revenues should be used, he repeated, to create a fund for long-term investments in the ecology of the Wadden Sea and buying out the most harmful activity, the mechanical cockle industry. The former Minister had now finally got full media attention for his plan, as most newspapers took up the debate immediately.

The chairman of the PO Cockles was extremely irritated with the timing of all this: "The Lower House in majority has concluded on the basis of scientific research that shellfish policy is functioning well for the Wadden Sea. Winsemius’ plans are way behind the political reality."171 The Secretary of the PO also hastened to stress that Winsemius was not in touch with political reality: "You would expect somebody of the caliber of Mister Winsemius to
be more aware of the backgrounds. It looks as though he missed out on all the reports since he was Minister himself.\(^{172}\)

Bakker was also being interviewed for a national newspaper immediately after Winsemius’ performance: "This is not a good thing of course, particularly for one’s own business. I do not understand how such a man can say things like this. It is the cockle fishery of 40 years ago, the way he explains it all. Fortunately, there are also quite a few people who do know something about cockle fishery.\(^{173}\)

Just before the turn of the century the controversy on the buying out of the sector had now finally been established in the public debate. From that moment on it has been referred to by politicians, scientists and particularly environmental organizations on a regular basis. Interesting to note is that the sector itself also made explicit or implicit reference to a potential buying out. For instance, in Autumn 1999 the secretary of the PO Cockles compared the sector to the pig farmers in the country. They had faced large scale buying-out arrangements in the recent past. He was even more explicit: "If society thinks cockle fishery must be abolished, then they should buy us out."\(^{174}\) It is remarkable to see that these pronouncements were made even prior to Winsemius’ second and successful attempt to back up the real breakthrough of the controversy.

The increasing likelihood and effectuation of buying out
The secretary of PO Cockles referred to a possible buying-out again. It was summer 2003, four years after the breakthrough of the controversy. He feared for the survival of the sector, acknowledging the ever increasing pressure. If the cockle sector was indeed to be stopped in the Netherlands, he said, then ‘a solid buying-out arrangement’ was needed.\(^{175}\) A year later, he could be even more explicit. The sector now wanted a ‘generous buying-out arrangement with a solid social paragraph for the personnel’ in the case of expulsion from the Wadden Sea.\(^{176}\) By this time, the scenario of a buying out had become more feasible than ever. The Meijer report had just been published, putting the mechanical cockle dredging on top of a list of the most harmful activities for the ecology of the Wadden Sea.

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\(^{172}\) Trouw, December 7, 1999.
\(^{173}\) Trouw, December 7, 1999.
\(^{174}\) NRC, September 7, 1999.
\(^{175}\) Haagsche Courant, August 6, 2003.
\(^{176}\) BN/De Stem, June 24, 2004.
In the five years prior to the Meijer report in 2004 various agents had alluded to the buying-out of the sector. The Wadden Association\textsuperscript{177}, political party LPF\textsuperscript{178}, the Netherlands Society for the Protection of Birds\textsuperscript{179}, Van Dieren\textsuperscript{180}, National Park Schiermonnikoog\textsuperscript{181}, Milieudefensie\textsuperscript{182} referred to this option explicitly. In particular, political party D66 had been very persistent in expressing its advocacy of a buying-out scenario.\textsuperscript{183}

The Meijer report suggested seven years for the mechanical cockle fishery to reach a sustainable practice. Interestingly enough, the fishermen themselves declared that that would not be enough. This was in line with some earlier statements by the sector, as we have just seen, actively anticipating a buying out. Government eventually adhered to the bottom line of the Meijer report, in the sense that it regarded mechanical cockle fishery as one of the most harmful economic activities in the Wadden Sea. In addition, it was a problem relatively easily solved with the ‘package deal’ involving gas money for buying out the sector and the statements of the fishermen themselves on the impossibility of sufficient innovation. Mechanical cockle fishery would be abandoned and the door was being opened up again for future gas extraction in the Wadden Sea. A buying-out commission was installed in September 2004.

**Mobilization to settle the socio-economic relevance controversy**
The controversy of the relevance of the cockle industry features the fishermen versus ‘the nation’. The consumer and the taxpayer became relevant to the discussion. Who is eating cockles and what is the economic significance? Both questions appeared to be tough ones to answer for the fishermen. From a culinary perspective, there is hardly a bond between the Netherlands and this particular shellfish. There has only been one serious attempt to settle this sub-controversy by trying to get the cockle on the menu. It was not only in vain, but eventually the spokesman of the PO confessed that this had never been a real option.\textsuperscript{184} Apparently the fishermen had never had the illusion of being able to turn the cockle into a national delicacy. Perhaps there was not even a need for it as businesses had been profitable and cockle stocks restricted. The

\textsuperscript{177} March 3, 1999; March 17, 1999; December 7, 1999
\textsuperscript{178} May 13, 2002
\textsuperscript{179} March 3, 1999; September 6, 2002; July 15, 2003; May 12, 2004
\textsuperscript{180} January 6, 2003
\textsuperscript{181} May 24, 2003
\textsuperscript{182} April 5, 2004
\textsuperscript{183} March 17, 1999; June 21, 2000; October 3, 2000; January 17, 2001; May 4, 2002
\textsuperscript{184} Interview, August 7, 2004.
cockle sector was, in fact, not so eager to grow, but very reluctant to give in on what they already had. From a commercial perspective, particularly a long-term one, this is a rather risky thing to do. If the will and need to renew or grow are absent, external threats are likely to be disregarded. The mechanical cockle sector had already long been treading a thin line by exploiting national offshore ‘acres’ without any connection with the consumers on the mainland. In fact, with regard to this sub-controversy it is even safe to speak of a lack of any room for maneuver within the ISP, on all four levels. The cockle does not appeal to the public, people do not even know what it is, they don’t eat it, it does not bring them any other good, etcetera. In addition, they particularly hear of the negative externalities, seeing the dead birds, the big ships on the Wadden and then find out that most of it goes into Spanish paella. There had long been no need for the fishermen to worry about all this, but when they realized they should have, it was already too late. There were no bandwidths to defend. They actually had to be created first. Getting the cockle on the menu was a mobilizing strategy which came too late. In addition, it was by far an insufficient strategy and, above all, it was not really endorsed by the fishermen themselves.

Getting the people on the ships
A mobilizing strategy which never really escaped its rudimentary status has been the open invitation to have people come onto the ships to have a look. Occasionally, the fishermen sailed out to harbors where fairs where being held and gave people the opportunity to see for themselves what mechanical cockle fishery entails. The experience of witnessing cockle dredging in practice usually led to positive reactions of the audience. Bakker recalls: “Is that what it is really all about, they said, when they thanked us and got off board again.”

It could have been an effective strategy to create some more institutional bandwidths through this kind of interaction with the public. Even if people do not eat the cockles themselves, perhaps a certain romantic enthusiasm for this kind of business, such as the sturdy fishermen, the smell of the sea and the care for the Wadden Sea, could have resulted. It was not an efficient strategy however, as Bakker explained: “We can only have a few people on board each time and these small numbers don’t make the difference. These experiences don’t make it to the newspapers.” And he is right. The pro-cockle front did indeed have problems getting its message across to the media. The relationship between the cockle industry and the man on the street remained a distant one, until the debate was about to reach a climax in the political arena.

185 Interview, September 27, 2005.
It was particularly the sub-controversy on the option of buying out the sector that reached the larger audience of tax-payers. There were some more institutional bandwidths to defend concerning this issue. The cockle is part of the Dutch export economy and supplies employment to some specific regions. This is also what the mobilizing strategy of the sector was aiming to emphasize. It was the strategy that was employed until the last moment. However, already early in the process the spokesman of PO Cockles referred to the scenario of buying out the sector and the consequences thereof. This is a contra-mobilizing strategy as it actually paved the way for the sub-controversy to evolve. Buying out had soon become an option. Staying far from that possibility would have contributed to the maintenance of institutional bandwidths at the ideal level, by just not regarding it as an option. This adherence to vested interests however, did not, and in fact could not any more, become part of the mobilizing strategy in the debate. The buying out scenario had been fought effectively.

Employment arguments might have been good arguments, but particularly with regard to the development of this sub-controversy, taking place in the national political arena, it did not carry enough weight when the connection with gas extraction had been made. At the opportunity level, the employment arguments apparently did not weigh up to the financial stakes involved in gas extraction. That is what the opportunity level is all about, being over-powered or not. Taking the cockle issue to the national level eventually appeared disastrous for the sector. If there was a bond with the public, then it was only at the local level, concentrated in the fishing communities. A bond with the larger public had always been lacking. The connection with gas extraction finished off the controversies and minimized the ISP at the opportunity level.

Controversy 3: The strategic position of the cockle industry
The controversies in which the cockle sector got involved were not restricted to the ecological effects and the societal significance. The ultimate strategic goal was to settle the central controversy on the ecological effects. In addition to that, the dynamics concerning the controversy on the socio-economic relevance of the sector appeared to have played a ‘powerful’ role in the process. However, the dispute has had other aspects to it than just these two. In order to win ‘the battle’ and settle the controversies, including, above all, the central one, triggering and maintenance of other controversies can be instrumental. The strategic position of the cockle sector is to a large extent best explained in relation to the rules and regulations it has to deal with. It is after all, or it actually has become, a so-called government-sensitive market.
Again, connections and overlap with the other controversies are unavoidable as, for instance, diminishing the ecological effects and emphasizing its economical significance are part of the strategic position as well. For the previous controversies we looked at, respectively, the fishermen versus the birds and the fishermen in the political arena. For the controversy on the strategic position of the cockle sector we will focus on the core of the firm-government interaction, being that between the fishermen and the policymakers at the Ministries. Policymakers are the people who interact with the sector on a regular basis, on behalf of the Minister, and prepare new policies. Throughout the interaction processes there have been disputes on to what extent the fishermen comply with rules and regulations. In addition, qualifications of the policy framework itself are a logical part of that controversy. It was not only the fishermen themselves who criticized their political context, but also their opponents, from another point of view of course.

The previous chapter has already supplied the first glimpses of the policy context in which the fishermen operate. It will now be narrowed down to the sector-specific features. Which laws and regulations have been debated? What has been the role of the fishermen in that respect and which mobilization has been carried out to settle the controversy? And what have the effects of all this been on the institutional survival path?

Policy Agreement on Sea and Coastal Fisheries: The Breaking Point
As we have seen earlier, the dramatic decrease of shellfish life stock in the Wadden Sea in the early 1990s caused a lot of uproar from the nature conservationists as it had particularly disastrous effects on the bird population depending on shellfish as its main nutrition. The pressure of environmentalists had become inevitable by that time. Under pressure from the environmental lobby, the Ministry of LNV started to work on a policy for the protection of the wildlife in Dutch coastal waters. The appointment of the Wadden Sea in 1981 and the Oosterschelde 1990 as State Nature Reserves (Staatsnatuurmonument) did not affect the shellfish industry. Cockle fishery was acknowledged as an ‘existing activity’ without any harmful consequences to the environment. There had been a slumbering discussion about potential damage to the environment due to fishery before the 1993 Policy Agreement, both among nature protectionists as well as policymakers in The Hague, however. As a policymaker recalls: “European policy on nature preservation
started to play its role. It was announced but it hadn’t yet been effected by that time, in 1987-1988, however.\footnote{186}

The experience of the German environmental organizations, “which had a strong influence on the policymaking of the Ländern at that time”\footnote{187} did not leave the discussion in The Netherlands unaffected. The Trilateral Wadden Sea Cooperation between Germany, Denmark and The Netherlands appeared to be helpful in transporting those experiences and ideas. At their conference in Esbjerg in 1991 it was agreed to close those fishing grounds where fishery was incompatible with nature preservation criteria. Two years later, in 1993, the Nature Protection Act (\textit{Natuurbeschermingswet}) confirmed almost the entire Wadden Sea as a state nature reserve and stated that the shellfish industry was harmful to worthwhile nature reserves and the maintenance of sufficient nutrition for birds.

The Policy Agreement on Sea and Coastal Fisheries was introduced that same year. The goal was twofold; (a.) the recovery of the sea bottom and in particular the mussel bank and sea grass fields, and (b.) avoiding nutrition shortage for the birds due to the shellfish industry. The agreement stated, however, that human activities should still be possible within the context of safeguarding the maintenance, protection and development of valuable ecological sites.

A similar line of reasoning can be found in the Wadden Sea Memorandum (\textit{PKB Waddenzee}) of, again, 1993. In this case, the precautionary principle was explicitly mentioned; activities are only allowed when you can be sure about the absence of negative side effects. The Memorandum came from the Ministry of Spatial Planning and Environment (VROM) but was written in cooperation with the experts of the Ministry LNV. Summing it all up, it is safe to conclude that the sector faced a wide array of legislation within only a few years, after decades of hardly any involvement by the government. The year 1993 is among fishermen still considered to be ‘the breaking point’.

The changes in the early 1990s as just described were not totally unforeseen by the sector. Germany, as a forerunner in safeguarding the Wadden Sea, has already been mentioned, but the tendency towards nature protection is considered to be a global development of the last couple of decades. Looking back, most people involved at that time, inside the sector or outside, admit to have seen the tide coming in. Ecological awareness has become an unavoidable issue in the political agenda-setting in most modern societies. A policymaker briefly describes the interaction between the

\footnote{186}{Interview 13/07/04:3}
\footnote{187}{Interview, July 13, 2004.
Ministry of Agriculture and the sector at the time he and his colleagues were working on the Policy Agreement on Sea and Coastal Fisheries in 1993:

The unrest in society wasn’t unnoticed by the sector and we talked about it with them of course. Prior to writing such a document there is consultation. They played a role in the team. We had a look at how the measures could fit into the goals of nature preservation. It is a process where, at a certain moment, you can see where things are going. For instance, the partial closure of the Wadden Sea for the shellfisheries and the food reservations for birds. Once this became clear, the discussion with the sector then focused on how much to set aside for the birds, or in other words, 'how much are we able to fish and what exactly do you want to close?’ This discussion lasted for about one or two years and resulted in this Policy Agreement.  

With the 1993 policy agreement the cockle fishery faced the closing of 26% of the Wadden Sea for fishing purposes and the obligation to safeguard sufficient stocks for the birds. The sector already anticipated these regulations by voluntarily refraining from fishing in designated areas. They were assisted by the Fish Product Board (Produktschap Vis). This board is by law the representative of the whole fishing industry. One of its tasks is to coordinate the Management Plans (beheerplannen). These are the frameworks, meeting the regulatory demands, within which the sector promises to operate. The actual strategizing is laid down by the sector in the Fishing Plans (visplannen) each year. The Fish Product Board holds the sector accountable for sticking to their own plans. They can even be fined if failing to do so. A director of the Fish Product Board explains:

The closed areas for instance. The very first Fish Plan provided for a voluntary closing down by the sector itself. So that wasn’t initiated by the government. It’s the kind of thing we did in cooperation with the sector and which eventually became government policy. We played a kind of an intermediary role between government and the sector.  

With the management plans and the fishing plans, fierce competition diminished into an measure of self-regulation. The fishermen understood that they could not keep on doing as they had always done. The social context had

189 Interview, June 24, 2004.
changed and they were now under intense scrutiny. The sector could see the changes coming up, anticipated them, and accommodated to a certain extent the regulatory adjustments. They could not, however, foresee the implications of this major policy shift in the long term and they certainly did not expect it to turn out to be a point of no return.

The Policy Agreement on Sea and Coastal Fisheries indicated the disclosure of a controversy that had arisen over the last few years. What role does the mechanical cockle fishing industry play in the ecosystem of the Dutch Wadden Sea? There was now a need for the sector to establish its ecological sustainability and to legitimize its position in the Wadden Sea. Opponents of human interference in the Wadden Sea, however, started to become increasingly convinced that the sector was doing more harm to the wetlands than could possibly be justified. The Policy Agreement laid bare this controversy waiting for settlement. The policy would be evaluated after ten years, in 2003, with an intermediate evaluation in 1997. Those ten years would become the most turbulent decade the cockle fishery had ever seen with the completion of the final evaluation, EVA II, and its political consequences in the year 2004. It would be the decade in which the sector had to settle the controversy to its own advantage. Compared to the other two controversies and the attempts to settle them, the sector has carried out a significantly wider array of mobilization to sustain its strategic position with regard to the policy framework. The strategies will therefore be dealt with per level of social becoming for a concise analysis.

**Mobilization to settle the strategic positioning controversy**

The period of the Policy Agreement on Sea and Coastal Fisheries in 1993 until the closing of the Wadden Sea as of January 2005 can be designated as an episode in the legitimizing of cockle fisheries in the Wadden Sea. From 1993 on, there was no denying that something needed to be done to legitimize the existence and practices of mechanical cockle fishery in the Wadden Sea, as tighter rules, hence a narrowing ISP, were now looming. The closing of parts of the Wadden Sea, even though initiated by the sector itself, was the first severe intervention in the market. However, further interventions could also be possible, depending on the settlement of the controversy.

**Mobilization at the normative level**

The debate at the normative level is on norm setting. Government is the primary agent shaping rules through legislation. These rules can generally be debated in court. However, this is not the path that the sector has chosen. Even though restricting interventions are by definition not welcomed by the
The sector acknowledged the need for tighter rules: the fishermen wanted to prove commitment to these rules and they were eager to have a share in the process of norm setting. An emphasis on existing norms had also been the strategy when the anti-cockle front objected to the nature preservation license, based on the Nature Protection Act, needed for fishing. The Ministry supplied this license yearly, accompanied by an appeal from the anti-lobby front on the last day of the period for objection each year. Until 2004, the Minister had always been proven right by the court in supplying the license. The sector, however, lost some precious months each year, refraining from entering the wetlands for fishing for as long as the legal procedure was in process.

**Mobilization at the opportunity level**

The opportunity level explains the intervention in terms of power. Government has the ability to directly intervene in how the firm uses its resources. More than a quarter of the fishing grounds were taken away from the sector as a basic resource. The sector voluntarily complied to this. Seemingly, at least, as they in fact did question the long-term effects of their inability to maintain ‘their fields’. The sector complied with the closing of the 26% and the additional 5% of the Wadden Sea, expecting it would be a temporary closure. It was believed that it would be to everybody’s advantage when these ‘fields’ would eventually also undergo plowing, as farmers do with their land to keep it fertile. However, the sector was unable to mobilize the needed resources to widen up the ISP at the opportunity level. Instead, the fishermen anticipated the changes at this level by implementing strategies even prior to the actual interventions. Another example is the adjustment of engine power to relieve the wetlands from some unnecessary disturbance by the ships. The introduction of the ‘black box’ is also illustrative in this respect.

The fishermen were repeatedly accused of fishing in the ‘closed areas’. The secretary of PO Cockles happened to be at a birthday party one day where he met an owner of a certain technology firm who suggested the use of a black box. Such devices would register all the movements of the ships on which they were installed. That same night a telephone call was made to the U.S. to see what the possibilities were for delivering the memory capacity. Only three weeks later the black boxes were installed. Already on the first day
of usage, the fishermen saw the unquestionable benefits of the system: “From now on we will never be accused of entering the closed areas.” Not much later, a helicopter of the Ministry of Agriculture discovered a trace on the Griend, a bank the fishermen were not allowed on. They were accused again, but a printout of the black box showed 100% proof to the contrary. This would happen several times.

The fishermen also realized the further potential of the system: “Then we thought; we can do more with this thing. We can also use it to make mutual agreements amongst ourselves. Perfect. So you agree on fishing for exactly one hour and you don’t have to worry about your colleague not doing it.” They even connected a penalty system of fines to it. Another possibility was to put the collected data together on one map. Over time this supplied some valuable information which was made available to anybody who was interested. This has been done on a contract basis ever since to reduce the possibility of “abuse, which occasionally happened, for instance by NIOZ.” Those contracts gave the fishermen the possibility of having a look at the data before processing and publication.

The use of the black box has now been standardized but it can hardly be considered to have directed the controversy in the desired direction. The ISP did not really widen out at the opportunity level, in spite of the fact that the fishermen had a power tool to prove that the closed areas hadn’t been fished. Instead, the willingness to ‘voluntarily’ restrict itself in the use of particular resources only sustained the tendency of the ISP at the opportunity level to narrow down.

In 2003, the sector, in collaboration with dredge company IHC Holland and Delft University of Technology, was still working on improvement of its dredging techniques. It was believed that the cockle drag head needed further examining (Zwanenburg et al., 2003). As it was stated, “the dredging of cockles leaves tracks which cause a negative public perception of the cockle sector. So a reduction of these tracks, together with a reduction of the required power and an improvement of cockle quality, is desired.” (2003: 2) In their paper, secretary Holstein of the Dutch Producers Organization for Cockle Fishermen (PO kokkels) and three researchers from the aforementioned institutes argued that in particular the design of the blades, which scrape the cockles from the sea bottom, needs further improvement. Several configurations of serrated knives were thus tested, leading to satisfying laboratory results, but “the question is whether the

190 Interview, April 28, 2004.
191 Interview August 1, 2004
conditions in the laboratory can be compared to that of practice." (2003: 1) Additional tests were believed to be necessary, yet at the same time “The question remains as to whether these tests will be cost-effective.” (2003:1) Summing up, the report touched upon the heart of the problem, dealing with the visibility of the tracks. At the same time, a potential solution was believed to lie in technical improvements to the drag head device, thus being an example of mobilization at the opportunity level. However, a cost-benefit analysis, although not explained further in the report, was the reason not to continue the experiments. In addition, the report itself would never see the light of day, either in a refereed journal or as a PR tool, to steer the controversy on the strategic positioning. This was another example of a mobilization effort that would not develop beyond its rudimentary status. The fact that both the EVA II report and the Meijer advice were due shortly makes the question of why this particular effort was not pushed a bit further even more intriguing.

Mobilization at the interactional level

The interactional level deals with the intervention in terms of the relational networks. Until the early 1990s the sector had been relatively isolated and highly specialized. The fishing activities were unobtrusive to society in general and government in particular. The controversy, however, dragged the sector into a large network of stakeholders of the Wadden Sea, such as activist groups, scientists, politicians, tourists and other fisheries or related industries. The fishermen suddenly had to position themselves in this polarized field of stakeholders. It became obvious rather quickly that the network of profound advocates of the cockle fishery was not easily expandable. The sector got the impression that the world was turning against them. They felt they had been put into a line of scapegoats for the larger ecological goal. The whole fishing industry in the coastal waters and seas was also in dire straits, but the cockle industry seemed to be the first one in the line of fire. The mussel and shrimp sector watched their cockle colleagues as they were afraid of being next.

The sector explicitly enforced its network in various directions. As mentioned earlier, the inner ties had already become much stronger. The industry wanted to present itself to the outside world as a unity. The shellfish sector as a whole started to collaborate in order to withstand the upcoming institutional pressure. The secretary of the producers’ board became the central, and preferably sole, spokesman of the sector. He maintained the external contacts together with the chairman. The board even attracted a former Minister of Agriculture as a new chairman in 2003 to put some extra political weight on the scale.
The sector selected a few but essential people whom it trusted to incorporate into its network; the agricultural specialists of some of the major parties in parliament, policymakers involved in the EVA II evaluation process and one or two scientists. They all became involved in the lobby machine of the cockle industry. An external public relations bureau was hired to advise and assist in this strategy. However, the contacts with the media remained problematic. More and more criticism appeared in the media, but the sector barely got a chance to reply to this. Newspapers appeared to be more eager to publish on ‘green’ issues in accordance with the ecological lobby, than to leave some room for the organizations being scrutinized. Communication to the larger public was therefore problematic. This was not in the least because of the fact that cockles as a product hardly appeal to the Dutch public, in contrast to for instance mussels, which are considered to be a national delicacy. The dialogue with environmental agencies had always been problematic, but it eventually almost totally disappeared. The two camps were on non-speaking terms.

Altogether, we can conclude that the sector had difficulties in withstanding the effects of the intervention on the interactional level of the ISP. They managed to enforce the existing or rudimentary inner network ties, but essential connections outside their little circle were hardly established. The intervention thereby resulted at the interactional level in the continuance of the relatively isolated and introvert position of the cockle industry in society. The network that the cockle fishermen had been in for some decades proved to be too small and inert to mobilize resources and counteract the diminishing ISP at the interactional level.

**Mobilization at the ideal level**

The ideal level covers the perceptions involved in the interaction process. The intervention is part of a controversy which can be explained in terms of diverging perceptions. One view is the possibility of an ecological sustainability in the coexistence of the cockle fishing activities and the ecosystem of the Wadden Sea. The intervention is an indication that these perceptions exist and that they are relevant. The cockle industry of course had a clear picture of how the controversy should be settled. Settlement in the opposite direction, with the perception of the harmfulness of its activities prevailing, would leave no room for the ISP at the ideal level. The chairman of the Dutch Fishery Association (*Nederlandse Vissersbond*), in his annual speech, argued that there is an internal mission for the fishing industry in general based on the credo “One gram of image is worth as much as a thousand kilos
of labor."\textsuperscript{192} Surprisingly enough though, in this speech the cockle fishery as a specific example was not mentioned, despite the fact it was this particular branch within the fishing industry which was suffering most from an image problem at that very moment. The credo as just mentioned might perhaps be an eye-opener; it is not an emergent mobilization strategy itself. For that, things need to be put into practice.

A central piece in the strategy to communicate the view of the sector was the report Out of the Shell (ODUS, 2001). It laid out the plans for sustainable fishing and is often referred to when asked how the sector sees itself in the future. The report published by ODUS, the foundation for development of sustainable shellfishery (Stichting Ontwikkeling Duurzame Schelpdiervisserij), was based on the ‘profit, planet, people principle’. In other words, the shellfish industry strived for, respectively, economic profitability, ecological sustainability and social acceptance. Concrete goals and ambitions which derive from that mission were laid down in the Out of the Shell report. After its publication, ODUS asked for feedback from organizations in the field.\textsuperscript{193} In a letter, the director of the Netherlands Society for the Protection of Birds rejected the vision as presented in Out of the Shell because it does not guarantee the recovery and protection of birds in the Wadden Sea. In addition, it was stated, “the sector will be judged on its actual practice, not just on words.”\textsuperscript{194} Moreover, there was no need for further dialogue, the director stated, also closing the door at the interactional level.

Out of the Shell can be considered a rather concise piece of strategy formulation. The fishermen really had high hopes for it. The report was also endorsed by the Dutch Fish Product Board (Productschap Vis). The fishermen believed that it could be a blueprint for a successful sector regarding the three P’s. They would hold on to their vision for the years to come. The principle of dynamic and adaptive management (bestandbeheer) formulated by ODUS was emphasized by the PO Cockles chairman in his speech for the Dutch Fish Product Board on January 2004.\textsuperscript{195} In the mean time, RIVO was working on a study to explore the possibilities of the ODUS vision (Bult et al, 2004). Much to the chagrin of the fishermen, however, their vision remained infamous.

\textsuperscript{192} Annual speech for the Dutch Fishery Association by chairman Johan K. Nooitgedacht at Akersloot, April 17, 2004.

\textsuperscript{193} In January and February 2002, ODUS also arranged so-called study meetings throughout the country.


\textsuperscript{195} Speech of PO Cockle chairman Gerrit Braks for the Dutch Fish Product Board, Wassenaar, January 7, 2004.
among many and it would not only be rejected by the Society for the Protection of Birds. In April 2004, for instance, when the sector was under siege as never before, another example of counter-mobilization took place. The Wild Cockles rejected the vision of Out of the Shell and its follow-up Turn the Rudder (Het Roer Moet Om) (ODUS, 2004). The latter report was a response to EVA II in particular. The Wild Cockles argued that by using a specific definition of sustainability from an economic perspective, ecological sustainability was neglected. The protest group argued that the plans and proposals of the fishermen as mentioned in their two reports cannot be considered sustainable. In addition, ODUS was accused of selective references to sustain their arguments. Lastly, the Wild Cockles stated, the reports neglected the interests of the small-scale fishermen.

In their minds, the fishermen had a vision, a perception of a present and future mechanical cockle sector. They believed that they had laid it down in Out of the Shell, the image of a worthwhile sector, in all its aspects. The traditional background of the sector passed on from father to son, their craftsmanship, their honesty and their concern for the Wadden Sea as a rich ecosystem, was all emphasized to argue why the view of the sector holds true. There had only been more cockles since the mechanical fishery started in the early 1960s, so the sector believed. They played an insignificant role in the mighty and dynamic system of the wetlands. The storm of February 1990 is often used as an example to illustrate how nature itself can cause more radical changes than ‘a few ships covering only a small percentage of the Sea’. Complete cockle banks were washed away. The view that the sector had on its role in the Wadden Sea is a coherent framework of logical and empirically testable arguments. This view is a crucial resource that was mobilized to steer the debate. The extent to which it could be considered as a successful strategy to settle the controversy in the desired direction in the end largely depends on what simultaneously happened at the other levels of social structure.

**Demarcating four periods**

Taking into account all controversies, as analyzed in the above, four periods can be distinguished. The first period, in the early days, prior to 1973, the Wadden Sea was a discretionary room for maneuver for the fishermen. The

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196 ODUS had used the definition of the Advisory Report on Corporate Social Responsibility (SER, 2000).

197 The Wild Cockles referred to the Scientific Council for Government report Sustainable Development (WRR, 2002) and to the UN report Our Common Future (UN, 1987).

198 The PO Cockles for instance issued a flyer titled “Cockle fishery: a home-grown tradition” (Kokkedvisserij: een traditie van eigen bodem).
newcomers in the early 1970s were a threat to that, but the consequent controversy was short-lived and rapidly settled with the license system in 1973. However, we have also seen that from that moment on, the first silhouettes of future controversies, characteristic of the second period, took shape. The Northerners had expressed their concern about the ‘wild west’, particularly in relationship to the newcomers, and the effects on the cockle population. In addition, general environmental concerns in society started to flourish. And ultimately, in the early 1990s, high death rates among birds gave the final push to the Policy Agreement in 1993 which explained the controversies on the ecological effects of mechanical cockle fishery and the strategic position of the sector. From that moment on, it was clear that the fishermen would have ten years to settle the controversies which had arisen, and which were to arise, such as the socio-economic relevance of the sector.

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<td>Discretionary room for maneuver</td>
<td>The dawn of the controversies</td>
<td>Need for mobilization to settle the controversies</td>
<td>Settlement of the controversies</td>
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Figure 20: Four periods for the cockle controversies from a sector perspective

The fourth period is the hectic year 2004 in which the controversies were settled, at least formally, and not in favor of the fishermen. Apparently, something had gone wrong for Bakker and his colleagues. It can be concluded that particularly the third period was the time for the fishermen to undertake action. It is also the period that commenced with what has been designated as the government intervention for this research: the 1993 Policy Agreement. Its effects, taking into account the innovation efforts by the cockle sector, were to be evaluated in ten years’ time. In other words, the sector had ten years to mobilize. We will therefore now particularly focus on that decade to find out what went wrong for them.

The courses of the controversies, separately, but also in conjunction with each other, shine a light on the interaction process and its outcomes, particularly when also taking the levels of social structure into account. What we see is that the controversies (excluding the preceding controversy of course) were all at least formally settled in 2004, though as we have seen, some debates will always remain up in the air. The third controversy, on the strategic positioning of the cockle sector, has actually not been settled at all. And there
was no real need for that, as the ‘war on the Wadden’ was lost on other fronts: the central controversy, on the ecological effects, and the second controversy, on the socio-economic relevance. These two controversies climaxed in 2004, slamming the door right in the face of the fishermen, who had been restricting their mobilization too much to the strategic positioning controversy. The ISP of the mechanical cockle sector had collapsed. Let us now see how that can be explained.

No settlement of the ‘strategic positioning controversy’ despite mobilization

While business had gone well for Bakker and his colleagues most of the time, environmental concern had increasingly become a national and international issue since the 1980s, which also affected the use of the Wadden Sea. The sudden high death rates of birds in the early 1990s definitely focused the attention of environmentalists on the mechanical cockle sector. Bakker and his colleagues realized that there was no escape from public scrutiny of their practices. If nothing happened, the evaluation of the effects of the 1993 Policy Agreement, which was due in 2003, could have disastrous effects on his institutional survival path.

The fishermen then decided to unite in order to turn the tide. The sector became one. As a consequence, the institutional survival path of Bakker became the institutional survival path of the sector. Their vision on sustainable fishing practices for the future were laid down in a document ‘Out of the Shell’. The black box was introduced, the fishermen cooperated with anybody who wanted to do research, they had their lobbying network in The Hague, they complied with a closing of fishing grounds on their own initiative, ships were left ashore to shrink the active fleet and fishing plans were made. These moves were all mobilization to settle the controversy on the strategic positioning of the sector with regard to the policy framework. The strategies seemed to cover all four levels of social structure and provided anchor points for vested interests of the sector, but it did not really settle the controversy. The fishermen thought they had done enough to justify their strategic positioning, by sticking to rules and regulations and by proactive behavior, and so did the policymakers, but there was a whole other world outside where another debate took place. The controversies on mechanical cockle fishing in the Wadden Sea were not restricted to the two obvious stakeholders of the firm-government interaction, the fishermen and policymakers.
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| Controversy 1: The effects of mechanical cockle dredging on the ecology of the Wadden Sea (central controversy) |
| Sub-controversy 1a: The effects of cockle fishing on cockle population |
| Sub-controversy 1b: The effects of cockle fishing on bird populations |
| Sub-controversy 1c: The effects of cockle fishing on benthic organisms |
| Dispute | Those who state that there are durable effects against those who state that there are no durable effects |
| Opponents | The anti-cockle front, representing 'the birds', versus the cockle fishermen |
| Trigger event 1a | Kooij's appeal for a license system in the early 1970s, acknowledging the exhaustibility of resources |
| Trigger event 1b | Nioz concern about eider populations in the early 1980s |
| Trigger event 1c | | |
| Mobilization | Fishermen believed (= ideal level) in their arguments but did not really mobilize, particularly at the other levels (which are needed to sustain the ideal level) |
| Settlement | European Court: precautionary principle: absence of effects must be proven (normative level) |

| Controversy 2: The socio-economic relevance of the cockle sector |
| Sub-controversy 2a: The relevance of the sector for the Dutch market |
| Sub-controversy 2b: The option of buying-out the sector |
| Dispute | Those who emphasize the socio-economic relevance of the sector against those who point at the relativity of it |
| Who | The cockle-sector versus the anti-cockle front, representing 'the tax payer' and 'the consumer' |
| Trigger event 2a | Reactions (of the sector and politicians) on the closing fishing grounds in 1993 |
| Trigger event 2b | Winsemius plan (1992) |
| Mobilization | The fishermen focused on its relevance in relation to Yerseke and the larger shellfish sector, but it failed to stress the national relevance and even kept the buying-out option open itself |
| Settlement | The decision of Parliament in 2004 to buy out the sector (opportunity level) |

| Controversy 3: The strategic position of the cockle industry |
| Dispute | Those who state that the sector has been carrying out the right and sufficient strategies to justify its existence in the Wadden Sea against those who question their efforts |
| Opponents | The cockle-sector versus the anti-cockle front |
| Trigger event | Environmental agencies accusing the fishermen of not leaving sufficient food for the birds resulting in extreme death rates in the early 1990s eventually leading to the 1993 Policy Agreement. |
| Mobilization | The fishermen anticipated on and complied with government regulations and cooperated with media and academia. |
| Settlement | The sector admitting that they would not be able to innovate sufficiently (= strategic positioning) in the next seven years |

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*Figure 21: The four cockle controversies summarized*
Settlement of the ‘effects controversy’ at the normative level

The fishermen, in fact, got involved in a controversy between them and the birds, rather than between them and the policymakers. The birds were said to be suffering from this human competition. Environmentalists argued that the mechanical cockle fishery has long lasting negative effects on the ecology of the Wadden Sea. It appeared to be relatively easy to trigger this controversy and related sub-controversies by bringing all kinds of bird species and benthic animals into the debate, but to settle the controversy seemed impossible. The fishermen just could not prove there was no causal relationship between their practices and damage to the ecology. This was largely due to the fact that the dispute took place at the ideal level, where perceptions on the causality strongly diverged. Even scientists were not able to let one view prevail. This was one of the reasons why the scientific EVA II report was ‘overruled’ by a judgment of the European Court stating that the precautionary principle should be applied when granting mechanical cockle licenses. The precautionary principle implied that no licenses should be given when the absence of negative effects of the activities cannot be guaranteed. The precautionary principle thus settled the controversy at the normative level, because proving the absence of negative effects was exactly what the fishermen just could not do, whereas the debate was in fact still open at the ideal level. Looking back, the fishermen admit that they were relying too much on their hopes that everybody would ‘see’ that they would, and could, never ruin their own resources. The mobilization for that goal has, by far, not been efficient and effective. Settlement of a controversy on such a complex matter as the effects of human activities on the dynamic ecological system of the Wadden Sea might be thinkable on the ideal level, but that would at least have required other circumstances, such as no predominance of other levels, and other resources and mobilization. The fishermen were lacking seductive and convincing representatives and the needed network ties to get their messages and views across.

Settlement of the ‘relevance controversy’ at the opportunity level

The relatively isolated position of the fishermen appeared to be a bad starting position to settle another controversy that had arisen: that on the economic significance of the sector. The product and the industry had no bonds with Dutch society, other than that it supplied local employment. Triggering this controversy was a smart move of the anti-cockle front to weaken the position of the fishermen. The controversy remained dormant for quite a while, until the moment that the Meijer report and the related political discussion connected the relevance of the cockle industry to that of gas extraction in this
very same Wadden Sea. The financial stakes of the cockle industry appeared to be incomparable to that of gas revenues. Wadden gas affects the general taxpayer to a much higher extent than cockles do. Regarding this controversy, the cockle sector was 'over-powered' at the opportunity level when the connection with the Wadden gas was brought into the debate. Serious attempts to settle this controversy were restricted to emphasizing the relevance of the sector to the shellfish industry and its employment, concentrated in local fishing communities.

Conclusion
Summing up, we can say that the sector, Bakker included, has not succeeded in carrying out the right mobilization to maintain its institutional survival path, and admits that it has failed to do so. It could have been seen that the boundaries of the institutional bandwidths had been closing in since the early 1970s. Not only was environmental concern becoming a general trend that anybody could have noticed, the fishermen in fact played a crucial role in the settlement of the preceding controversy which would lead to the license system in 1973. They thereby shaped their own institutional survival path. Future controversies would thus take place against the background of what was the start of the firm-government interaction. The mobilization of the fishermen was largely concentrated on the controversy that involved their positioning with respect to the policy framework. Not surprisingly perhaps, but the danger lay elsewhere. The fishermen were naive in the sense that they dealt with the firm-government interaction in a narrow approach. Looking back, they admit that they have relied too much on the Ministry. They believed that sticking to the rules, imposing self regulation and keeping close contact with The Hague would suffice. The ironic thing is that mobilization in that respect has never really paid off. A fair defense can be put forward by the idea that achievements with respect to the third controversy can be considered as a necessary condition for playing the interaction game, rather than a sufficient condition. Decisive settlements are to be expected. The controversies on the ecological effects of their fishing practices and on the relevance of their industry to society were overlooked in that respect.

The central controversy, dealing with the ecological effects, was settled at the normative level. It was just judicially not appropriate any more to carry on with the current policy arrangements and fishing practices. The precautionary principle proved to be deadly for the cockle sector in that respect. The question now arises as to whether the controversy could have been settled in favor of the fishermen. It is safe to state that there is not much that a fisherman can do against the precautionary principle itself, besides
proving that future economic activities will do no harm to the ecological environment. The only thing that the fishermen could have done was to avoid ending up at the European Court, in order to avoid the precautionary principle. In practice, however, they will not be the last ones to confront this ultimate test at the normative level. For the cockle sector, it has to be mentioned that the timing of it has been extremely effective from the perspective of its opponents. Another controversy, which was still up in the air, could now also be settled...

The controversy on the socio-economic relevance was also settled in 2004. The Meijer report and the European Court had paved the way for ending the dispute at the opportunity level. The cockle sector was now ready to be subdued to a political bargaining process. The sector stood no chance against the financial, hence political, stakes involved in the Wadden gas. Similar to the central controversy, here also there has not been much that the fishermen could have done once they were there. Cockles are just no match for gas revenues. The mobilization aimed at emphasizing the relevance of cockles for the larger shellfish industry proved to be all in vain. The ‘value’ of the sector was something, in the end, that was taken into account when determining the buying-out sum.

Finally, it can be concluded that across the controversies, the fishermen relied too much on the ideal level, without converting that into sufficient mobilization. The sector truly believed that it could not be blamed for all the ecological damage it was held responsible for. This resulted in several exponents of mobilization, such as the Out of the Shell report or openness and willingness for any kind of cooperation with anybody. Complex institutional settings such as the Wadden Sea will always be the background for a wide array of worldviews, which often clash. If one wants to convert others to see the world through different eyes, which is generally a good step towards settling controversies, more is needed than the internal logic or power of the arguments. To get the message across, the means to articulate, and certain communication channels are needed. However, the mobilization of the fishermen neglected the opportunity level and the interactional level. They operated from a rather isolated position, getting no real support from society, lacking a solid culinary and financial relevance to the nation. Summing it all up, believing in your own right and sticking to the rules might not be enough to survive in such government-sensitive markets as the Wadden Sea.
Chapter 6

Gas Extraction in the Dutch Wadden Sea

In this chapter, the model of the institutional survival path (ISP) will be applied to the case of gas extraction in the Dutch Wadden Sea. The chapter contains the case narrative of a mining company in search of the gas reserves under the Dutch Wadden Sea. The story goes back almost 40 years. Originally founded for the exploration and exploitation of oil on Dutch territory shortly after WW II, Dutch Petroleum Company NAM soon thereafter came across gas reserves, including the giant Groningen field in 1959, one of the largest in the world of that quality known at that time. Within a few years, virtually every Dutch household was connected to a dense gas network to benefit from the newly discovered national treasure. Government implemented a ‘small fields policy’ in 1974 that promoted and facilitated exploration and exploitation of additional gas fields to preserve the Groningen field and its buffer function as long as possible. The Wadden Sea appeared to hide several gas fields, which - all together - can be considered a ‘big small field’. Though active in the Wadden Sea since the early 1980s, NAM encountered increasing opposition to its presence in these wetlands. Their struggle to get the gas from the Wadden Sea and make the hundreds of millions of euros investments all worthwhile turned out to be an exciting strategic journey.

Having started out in a situation where the ownership of gas reserves was surprisingly easily acquired in the 1960s, NAM would face more and more problems putting its extraction plans in action, from the 1980s onwards. From 1984 to 1994, NAM complied with a moratorium on gas extraction in the Wadden Sea. Eventually, to the surprise of NAM, as it was officially stated, the door to new drillings in the Wadden Sea was even definitely and abruptly closed by Parliament in 1999. As will appear from the analysis in this chapter, the extent to which this decision indeed came as a surprise must have been exaggerated to some extent, because there had been signs of such a development for some years already. In July 1998, NAM was prohibited by a
court judgement to execute five of its exploration drillings in and around the Wadden Sea because it was judged that the criteria set by the government were insufficient, particularly with respect to the effects on wildlife.  

That was only shortly after the Minister of Economic Affairs himself had delivered the Third Energy Note (Derde Energienota), announcing a reorientation on the role of government with regard to energy policy in the light of a need for more sustainability. Nonetheless, despite the fact of being seemingly defeated in the political arena, NAM managed to execute a strategy which would help to pave the way to new opportunities in the Wadden Sea again. In 2006, preparations could start for extraction of the gas from on-land installations. The case narrative of NAM and the Wadden Sea is in fact the story of NAM and its ISP. Initially, NAM was not even aware of such a thing as institutional bandwidths, but having learnt some hard lessons after the moratorium and seeing its ISP fully collapsing in 2000, it succeeded in mastering the mobilizing skills needed to open up its institutional bandwidths again.

It is safe to state that the case of gas extraction in the Dutch Wadden Sea is highly complex. The ISP model, which has been presented in the second chapter of the book, however, will unravel the social interaction process through the procedure as reported on in the third chapter. It has been argued that the interaction runs on controversies. These controversies will be the 'storylines', guiding this analytical chapter. Firstly however, the case requires some detailed introduction. In the fourth chapter, the Wadden Sea has been discussed as the place where 'it has all happened'; the actual context, so to speak. We will now move on from there. This chapter will commence with a demarcation of the exact object of study. What is NAM, what does it have to do with natural gas and why does this research specifically focus on the Wadden Sea? A substantial part of the chapter will then be used for setting out the relevant controversies on mechanical cockle dredging. What has been subjected to a debate throughout the firm-government interaction process? It will appear that the dynamics of the Wadden gas case run on a set of three controversies. They will be analyzed subsequently. The analysis of each controversy starts off with a trigger event and ends with either a settlement or at the end of the data collection. The analysis of each controversy is concluded with the mobilization that has been carried out by NAM. Taking into account

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200 Interestingly enough though, the social relevance of the Wadden gas was acknowledged by a court.
201 TK 1995-1996, 24 525, nr. 1 & 2
all five components of the model, it is then time to conclude the chapter with the overall analysis of the development of NAM’s ISP. In this particular case, it will answer the question of why NAM has succeeded in opening up their ISP, after the moratorium and the setback in 1999 when the bandwidths seemed to have fully collapsed.

**DEMARCATON OF THE OBJECT OF STUDY**

The discovery in Groningen in 1959 of one of the largest natural gas fields in the world marks the beginning of the Dutch gas era. Since then, until 2004, gas revenues have earned the State an estimated 159 billion euros. It has been one of the foundations on which the Dutch welfare State has been built. “The Netherlands equals Belgium plus the gas revenues.” This is what prominent liberal party member Henk Vonhoff answered when asked what his estimates were of the economical significance of the State revenues which had derived from the famous Groningen field. Until large-scale exploitation of that field from the early 1960s onwards, the Dutch economy had mostly relied on coal and oil as the main energy sources. Gas was used prior to the discovery of the Groningen field on a small scale, but nobody would have thought at that time that gas would soon dominate national energy production and would even be exported. The effects on the economy and society as a whole would be even more impressive. In 1974, the government stimulated the exploration of additional gas fields, which directed NAM to the Wadden Sea. It would be the start of a long and intense relationship between NAM and the wetlands. The Wadden Sea has also been the scene for the other case used in this study, as dealt with in the previous chapter. We thus know already that the mechanical cockle fishery and NAM would eventually meet one another.

**Natural gas and NAM**

Natural gas is found in conjunction with oil and coal. These three minerals are all the result of the process that the remainder of organisms, which died hundreds of millions of years ago, have gone through. ‘Wet’ gas is found in oil fields and ‘dry’ gas in coal beds (Kielich, 1988: 13). The Groningen gas is of the latter composition and is regarded to be of a high quality. Generally

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203 Ibid
204 Ibid
speaking, a big advantage of gas, compared to oil and coal, is that it is a relatively clean energy source. “Gas is the cleanest of all fossil fuels, and an especially important fuel, because our oil companies and the chemical industry can make clean fuels out of methane” says production geologist Weber (in: Correljé et al, 2003: 45).

It was no surprise that minerals were found on Dutch territory. The province of Limburg had had experience in coal mining for some centuries. In 1923 the Mineral Exploration Agency (Rijksdienst Opsporing van Delfstoffen) came across some gas and oil when looking for coal and stone salt in another part of the country, near the town of Winterswijk. A year later, on February 21st 1924, gas came out of the Dutch soil for the first time in history, followed by oil, two days later. With only 240 liters of oil, and the gas immediately being burned, there was no immediate big economic interest at stake, but the ‘smell’ of fuel got through to the headquarters of Shell-daughter BPM (Bataafse Petroleum Maatschappij). In 1933 it obtained the exploration rights for bitumen in some provinces. By accident, in 1938, oil was found in the exhibition grounds in The Hague. A drill tower had been erected to show people how BPM was producing oil in the Dutch East Indies. To everybody’s surprise, real oil came up to the surface. This unexpected discovery would not be forgotten, nor would those near the German border some years later. Particularly not by the Germans themselves. German occupiers, who were keen on any kind of fuel resources, forced BPM to intensify its activities during the Second World War. Dutch engineers, however, sabotaged oil production of the Schoonebeek field, which was one of the fields in operation under German supervision. It would therefore only after the war prove to be the largest oil field in the country.

Soon after the War, in 1947, BPM (Shell) and Standard Oil Company New Jersey (Esso) joined forces to take the risk of going for the Dutch oil reserves. The two participated, on an equal basis, in NAM (Nederlandse Aardolie Maatschappij) which was founded that year. Focusing on oil, NAM came across a giant gas reserve in Groningen in 1959. Once it became clear that the Dutch territory had been hiding one of the largest gas reserves in the world, NAM would not just be an oil company, as its name was suggesting, but it would be also famous for its gas production. The small fields policy, introduced by government in 1974, stimulated the exploration and exploitation of additional ‘smaller’ gas reserves to produce the gas in conjunction with the Groningen field to preserve this giant buffer as long as possible. This made the gas under the Wadden Sea, which was expected to be a ‘big small field’, an interesting strategic target for NAM. However, as the Wadden Sea has increasingly become a nationally and internationally
acclaimed nature reserve, gas extraction in and around these wetlands has become more and more restricted and institutionally embedded in a framework of rules and regulations. NAM has been on a strategic journey going after the Wadden gas for some decades already. It is has been a journey of ups and downs, eventually leading to the definitive exploitation drillings planned for 2006. In this case study, the strategic maneuvering of NAM will be focused on, from the concession rights in 1963 to the decision of Parliament in 2004 to allow gas extraction in the Wadden Sea.

**NAM in the Wadden Sea**

The road of oil company NAM to the gas in the Wadden Sea is a remarkable one. With its founding, shortly after World War II, few would have expected the strategy path to have taken such interesting turns. So how did NAM end up in the Wadden Sea anyway? As we have seen, NAM was founded September 19th, 1947, as a joint venture of the Shell subsidiary BPM and the Esso predecessor Standard Oil Company of New Jersey. BPM had already been putting into practice its exclusive rights for oil and gas exploration in parts of the Northeast of the country, and discovered oil in Schoonbeek during the Second World War. Only one year after its founding, NAM came across a gas reserve in Coevorden. In 1950 and 1951 gas was discovered at three other locations in the area. At first, gas was regarded as of minor importance; something that, by accident, while looking for oil, could just come up out of the soil. The NAM acronym, meaning Dutch Oil Company, illustrates this focus. Shell managing director Bloemgarten even advised: “Stay out of gas, there is no money to be made.” (as cited in Kielich, 1988: 19).

Nonetheless, NAM continued its activities in both oil and gas exploitation. By the early 1950s, NAM had vested its name because of the Schooneveld oil production - exceeding 700,000 kg-tons in 1951 - and its working sites scattered all over the country, ranging from the Wadden Sea islands to the Southwest of the country.

It was in this most densely populated area, in the province of South Holland, that another significant oil field was discovered in 1953. Horizons for oil production were even expanded beyond the mainland and the first off-shore drillings in Western Europe were scheduled in the North Sea for the late 1950s. They would eventually take place some years later than planned and would turn out to be somewhat disappointing, but NAM and oil were obviously on a roll. And then, on July 22nd 1959, during a test which started at 6.30 in the morning, gas was found at the Slochteren location, in the province of Groningen, in the North of the country.
The first well of what would eventually become known as the Groningen field was handed over to production service on August 14th. Skyrocketing flames on the torches marked the drill location and attracted people from far and wide to come and have a look. Obviously gas was found, but nobody had the foggiest idea of what this discovery would eventually lead to. A second drilling a year later confirmed the existence of the gas field. The results were matched with those of earlier drillings in the neighborhood, going back to 1955, which appeared to be of the same quality. NAM thus came to the conclusion that it was onto a giant gas bubble with an estimated size of 60 million cubic meters (Correljé et al., 2003: 26). However, management decided to keep the estimates on their discovery quiet. Such a quantity of natural gas was unheard of in the world at that time and other parties were likely to be interested in the treasure that had been hiding on Dutch territory. NAM only informed the Minister of Economic Affairs, De Pous. It wanted to secure the full exploitation rights. The current regime for gas exploitation and distribution was based on a small-scale production and infrastructure with relatively low margins for NAM. Now with the prospect of the Groningen gas no longer being a by-product, NAM started to think of strategies to secure its exploitation rights and make as much money out of Groningen as possible.

In the meantime however, on October 14th 1960, a Belgian senator of the European Parliament, Victor Leemans, announced that a gas reserve had been found in the North of Holland of no less of 300 billion cubic meters. The media immediately made this front page news and NAM was unpleasantly surprised by the disclosure of their discovery. Leemans believed that monopolization by a European Community member should be prevented in the case of possession of significant energy reservoirs. In addition, Kielich (1988: 29) suspects him of also taking into account Belgian plans to import gas from Algeria, much further away than the neighboring Netherlands. The day after the headlines in the newspaper, NAM wrote a formal letter to the Minister of Economic Affairs, De Pous, announcing that they wanted a concession for the Groningen field, but not under similar conditions as for previous concessions. These negotiations would eventually lead to a completely new institutional set-up of the energy supply system (Correljé et al., 2003).

The ‘Groningen concession’ was obtained on July 25th 1963 and embedded in a social partnership, the so-called Maatschap (60% NAM / 40% 205). Also known as the ‘Slochteren field’, named after the village were the actual drillings took place.
DSM). NAM was now the owner of one the largest gas reservoirs in the world. The gas would be distributed by Gasunie, a joint venture of DSM, Esso and Shell, which had been founded some months earlier, on April 6th. In this new regime State revenues of the Groningen field were secured, which “also generated a remarkable shift in the relationship between the State and the private sector in Dutch energy sector. Indeed, the large State involvement in the Groningen Concession was at the time certainly something new.” (Correljé et al., 2003: 36). In October that year, it was announced that the volume was now estimated at 1100 million cubic meters (Borghuis, 1988: 57). In the years to come, virtually every household would be connected to the gas grid which was spreading all over the country with a surprising speed. In the summer of 1965 an operation had started to install 1200 kilometers of pipelines within a period of six months. The San Francisco-based Bechtel International Company was hired to do the job as there was hardly any expertise in The Netherlands for that. Part of the whole operation was negotiations with about 100,000 landowners, tenant farmers and other land users.

The gas era in the Netherlands had now finally arrived. Throughout the years, until the present date, the importance of gas has increasingly been emphasized. This is the reason that, in addition to the Groningen field, the exploration and exploitation of other, smaller, fields has been stimulated, as laid down in the 1974 small fields policy. The Wadden Sea appeared to be hiding several of these fields, which made NAM and the Ministry of Economic Affairs determined to take it out. This was easier said than done, as we will see. Concerning the Wadden gas, the firm-government interaction turned out to be an interesting chapter in the history of NAM.

**A major shift in energy policy**
The case of gas extraction in the Wadden Sea is a complex issue to unravel. This is particularly due to the fact that the stakes are very high. As stated earlier, according to some, gas revenues have been an indispensable foundation of the Dutch post-war welfare State. In other words, from this perspective, The Netherlands would not have been such a prosperous society for the last 40 years if it was not for its gas reserve, concentrated in the massive Groningen field. The gas reserves under the Wadden Sea cannot be compared to the volume of the Groningen field. However, the Wadden gas and the Groningen gas are linked with one another. Not physically, despite

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206 Dutch acronym for 'Dutch State Mines'
the fact that the fields are in each other’s vicinity, but from a policy perspective.

The first oil crisis forced the government to seriously reconsider its energy policy (De Jong et al., 2005). The White Paper, which was presented by Minister of Finance Lubbers in 1974, stated that the extraction of the Groningen field had to be brought under control. One of the means for long-term effective and efficient gas production, as was suggested by the White Paper, was a ‘small fields policy’. The discovery and exploitation of additional fields had to be encouraged to benefit from the reservoir in Groningen as the cornerstone of Dutch energy production as long as possible. The Groningen field is unique, for it is a relatively large and condensed reservoir. It is therefore a matter of opening the tap for a steady and firm flow of high quality gas. Despite the low marginal costs involved and its size, the Groningen bubble is not exploited at full throttle.

Gas from the smaller fields in the Netherlands is unsuitable for the current devices in the domestic households and industries. However, mixing it with the Groningen substance does not require any technical adjustments. The small-fields policy aims to benefit from the various reserves spread all over the country, in conjunction with the main stock. In addition, Groningen as a swing supplier contributes to the prevention of disturbance of natural gas supply. In particular, climatic conditions can cause a large variation in energy demand. Severe winters are well-known for that. Its outstanding qualifications have turned the Groningen gas reservoir into an extremely valuable national resource. The famous Delta works protecting the Western part of the country from the sea, for example, would have not been possible without the gas tax revenues.

In its search for smaller fields, NAM also ended up in the Wadden Sea. The extraction on the island of Ameland would start in 1980. A few years later, in addition, extraction would start from the village Blija, on the

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208 MEZ, Letter from the Minister of Economic Affairs, October 12, 2004: TK 2004-2005, 29 023, nr. 6: 13
209 The discovery of natural gas in the Netherlands and its role in the national budgetary system has led the Economist (November 26, 1977: 82-83) to coin the notion of ‘Dutch disease’. Hereby is meant a situation in which the gas tax revenues (which peaked during the oil crises due to the fact that the prices of gas and oil were coupled) are abundantly spent on short-term investments, causing a (sudden) increase of wealth, yet damaging the international competitive position due to the strengthening of the national currency (See also Corden & Neary, 1982; Van Wijnbergen, 1984). In 1994, it was decided that a certain percentage of the gas revenues can only be spent on infrastructural investments (Wet fonds economische structuurversterking, 21 december 1995).
The small-fields policy aims to benefit from the various reserves spread all over the Groningen substance does not require any technical adjustments. The current devices in the domestic households and industries. However, mixing supply. As a swing supplier contributes to the prevention of disturbance of natural gas over the country, in conjunction with the main stock. In addition, Groningen energy demand. Severe winters are well-known for that. Its outstanding Groningen field had to be brought under control.

by Minister of Finance Lubbers in 1974, stated that the extraction of the energy policy (De Jong et al., 2005). The White Paper, which was presented long-term effective and efficient gas production, as was suggested by the perspective.

It is obvious that NAM increasingly encountered stormy weather at the Wadden Sea. What it had actually been witnessing for the last few decades was the coming and going of disputes in which it got heavily involved. In this research, these disputes have been designated as controversies which carry the

210 Seismological research was not part of this agreement.
211 TK Handelingen 1999-2000, 2564-2586: Behandeling van de brief over de gasboring in de Waddenzee (26431, nr. 11)
212 Christian Democrat Van Wijmen argued that refraining from extraction of Wadden gas would intensify the exploration and exploitation of the smaller fields on the continental shelf of the North Sea (TK 1999-2000, 26431, nr. 11: 33-2568). The institutional arrangements to stimulate such activities were indeed provided for, but they were dissolved by the Balkenende I administration not much later.
firm-government interaction process. The ISP model has been designed to analyze the effects of government intervention in government-sensitive markets. For the Wadden gas case, the acceptance of the 1999 motion in Parliament has been indicated as the government intervention. The question that needs to be answered now is: “To what effects has the prohibition of new gas extraction in the Wadden Sea in 1999 led in the strategy process of NAM?” The effects will be found in the components of the ISP model; the strategy path of the firm, the institutional bandwidths, controversies and mobilization. Analyzing the controversies is the next step in the analysis for that matter.

THREE WADDEN GAS CONTROVERSIES

The disputes in and around the Wadden Sea regarding gas extraction in the end boil down to one general issue; does gas extraction do damage to the ecological system of the Wadden Sea? It is the central controversy; a sine qua non. If it were not for the question of to what extent gas extraction does damage to the ecology of the Wadden Sea, nobody would, ceteris paribus, oppose the economic benefits of the gas. Wastewater, drill rinsing, blow outs, drain cracks, visual ‘pollution’, soil subsidence, earth shocks, noisy helicopters, they have all been brought into the debate as possible or alleged damage to the Wadden and the area around it. Settlement of the central controversy would take away grounds for most, if not all, other controversies. From that point of view, settling the central controversy in one’s own interest would definitely be the first prize to aim for. In practice however, the central controversy is just a kaleidoscopic approach to a complex social reality which is made up of a wider range of controversies. Once the discussion has opened up, other controversies derive from the central controversy. The need to settle controversies through mobilization often illuminates the possibilities of triggering new controversies. In the case of gas extraction in the Wadden Sea it is therefore not surprising that opponents of NAM’s activities elaborate on broadening the discussion by questioning the significance of gas for the Dutch economy and NAM’s strategic position. These are the two other controversies, besides the central one.

Firstly, there has been the controversy on the socio-economic relevance of the Wadden gas. In addition to proving that no harm is being done to the ecological environment, NAM and its allies had to defend the need for Wadden gas. For instance, is it really necessary to extract the gas of the Wadden? What is the contribution to the GDP? Answers to these
questions have been interpreted differently all the time. The dispute in this
respect concerns the question of to what extent the interests of the Wadden
gas weigh up against those of other stakeholders. The mobilization of NAM
will generally be aimed at stressing the relevance of the industry, whereas its
opponents can be expected to downsize the economical contribution of the
gas, contrasting with the alleged damage done to the ecology. Clearly, this
controversy cannot be seen as totally separate from the central controversy on
the ecological effects. In addition, controversy of the socio-economic
relevance of Wadden gas eventually found its way to the cockle sector and,
more particularly the buying out of the fishermen. This connection would
eventually play a deciding role in the development of the interaction process
and the ISP.

Secondly, there has been the controversy on the strategic position of
NAM. The mining company found itself in a situation with many diverging
interests at stake. Such stakes were very demanding, strategically. The dispute
in this respect concerned the question of how the sector strategically
maneuvered itself within that complex playing field called the Wadden Sea. It
is the typical scenery of a government-sensitive market in which NAM found
itself. As the focus of this research is the firm-government interaction, this
controversy will be analyzed against the background of the policy process.
What was the position of NAM with respect to laws and regulations to which
it had to adhere and in relationship with the policymakers? Did it comply with
laws and regulations sufficiently? It is eventually the policymakers who design
the future regulatory framework. Mobilization can thus be expected to
influence the policymaking process. Again, this controversy is connected with
the central one on the effects of gas extraction. In the end, the position of
NAM would be related to the alleged ecological damage it causes.

Controversy 1: The effects of gas extraction on the ecology of the
Wadden Sea

We already came to the conclusion that the central controversy is the conditio
sine qua non. If it was not for this controversy, the whole discussion about
Wadden gas would not be an issue. It is the all-encompassing controversy,
discussing the effects of gas extraction on the ecology of the Wadden Sea. The
controversy was triggered with the concession for the Wadden gas. Policymakers
take into consideration possible external effects for that matter. And indeed,
from that moment on, we see the development of long-lasting controversy with surprising moves and variance in intensity.
The first concession for the Groningen field was granted to NAM by the Minister of Economic Affairs on May 30th 1963. This concession also included a part of the Eastern Wadden Sea. With hindsight, some people believe that this was made too easily, as this concession was ‘everlasting’. An explanation, which is often heard, concerns the lack of environmental conscience regarding the Wadden Sea at that time. There was no environmental policy for the Wadden Sea in the early 1960s for instance. However, in 1964, only a year after the first concession, Parliament discussed the concession policy in order to prevent ‘a wild west’ on the Wadden Sea. In other words, negative effects apparently were perceivable. The Groningen concession stated that pollution of water and soil must be prevented. Environmental awareness of the policymakers must have been looming at that time already, not in the least because within a few years it would rapidly rise beyond its rudimentary status.

There is a more likely explanation for granting everlasting concessions. It was initially expected and hoped that the gas reserves could soon be exhausted by producing and exporting the gas for a good price, before the nuclear era arrived. This will be discussed in more depth in the remainder of this chapter. At this stage it is important to notice that the first concession for the Wadden gas, as being part of the Groningen concession, and particularly the parliamentary discussion soon taking place, also marks the beginning of the central controversy. The controversy, though, would remain in its embryonic status for quite some time. There was not yet any antagonism from representatives of the ecological movement, nor was there any judicial or policy framework to rely on, in order to back up ecological concerns. The Wadden Sea was generally regarded as a future waterworks and the first environmental organization focusing on the Wadden Sea was only founded in 1969. Soon, however, the discussion about the ecological effects of gas extraction would break loose.

In the 1970s, the putting into practice of concessions by Elf Petroland at Zuidwal and by NAM and Mobil at Ameland did not go as smoothly as hoped for by the concession holders and the Ministry of Economic Affairs. NAM and Mobil wanted to use their shared North Friesland concession on the island of Ameland. The Ameland municipality however was not willing to adjust their zoning plans (bestemmingsplannen) to this. The national government then pushed the local politicians to cooperate. If Ameland did not cooperate, the island would not be connected to the gas network, it was stated (Coolsma, 213 Stcr. 126, 1963, nr. 39, 214 Interview, December 2, 2005)
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In the meantime, within the Council of Ministers a compromise had been reached which stated that the Ameland drillings would be allowed at the expense of those at Zuidwal by Elf Petroland (Coolsma, 1988: 28). The Zuidwal concession had already been asked for by Elf Petroland in 1971. Government did not want to make a decision at that time, stating it was busy with an integral policy for the Wadden Sea (Coolsma, 1988, 28). This “work in progress” eventually appeared indeed to be the background against which the delay of the Zuidwal and the Ameland drillings had taken place. It was the Wadden Sea Memorandum which had been under construction and which would eventually see the light in 1980. The Wadden Sea Memorandum designated the Wadden Sea as a nature reserve. As we have seen in chapter 4, there was still room left for extractions and concessions. Yet, a very important tendency had now been anchored. Nature preservation had become a relevant issue to the wetlands. Ecological effects would therefore from now on be explicitly in the picture.

Interesting to note is that government justified its decision not to allow activities at Zuidwal by pointing at possible serious damage to ecological values (EZ, 1981: 14). The advices for this decision, however, had not been univocal, as Verbeeten (1999: 145) concludes. The Geological State Service (Rijksgeologische Dienst), State Supervision on Mining (Staatstoezicht op de Mijnen) and the Mining Council (Mijnraad) advised that the concession be granted. The Province of Friesland would only approve under certain conditions. The Planological Commission of the State (Rijksplanologische Commissie) did not reach a consensus. RIN, later Alterra, expected certain ecological effects. We can thus conclude that the issue of ecological effects was on the agenda and anchored in the process itself and, most importantly, in the Wadden Sea Memorandum, but that there was still no consensus on what really to expect. In other words, at the ideal level, nothing had actually been sorted out. At the normative level however, institutional bandwidths were closing in as the prevention of ecological damage was laid down as a principle in the Wadden Sea Memorandum.
Elf Petroland took advantage of the room for maneuver at the ideal level by an appeal to the Council of State with regard to the denial of their Zuidwal concession. The French-Dutch joint venture argued that the Zuidwal activities were crucial to its survival. This was successful, because it was advised that the concession be granted. Elf Petroland could also now go about its business in the Wadden Sea. However, government now felt the need to protect the parts of the Wadden Sea which were not yet covered by a concession, to back up the principle of the Wadden Sea Memorandum that it was in fact a nature reserve. The Eastern Part of the Wadden Sea was largely covered by concessions, so it was decided to keep the Western Wadden Sea, except for the small Zuidwal, free of any mining activities.

In addition to safeguarding the Western Wadden Sea from gas extraction, government started a dialogue with the mining companies in the run-up to the partial revision of the Wadden Sea Memorandum in 1984. In the revised version, the encouragement of gas extraction in the Wadden Sea would now be replaced by the nature conservation principle. To put this into practice, government and the concession holders reached a gentlemen’s agreement. For a period of ten years, from 1984 to 1994, no gas extraction in the Wadden Sea would take place. This so-called moratorium can be explained as a mutual acknowledgement of the lack of knowledge on possible ecological effects of gas extraction. It can, however, not be seen as a declaration of the mining companies that they admitted their activities were harmful to the Wadden Sea. Opponents to Wadden gas held other views, of course. Throughout the moratorium, both parties would develop their line of reasoning without keeping in contact with each other. Verbeeten (1999: 149) designates this as a ‘missed chance for both parties.' Expectations at the end of the moratorium would appear to be strongly diverging.

Preparations for a new Wadden Sea Memorandum started in 1992, two years before the end of the moratorium. There seemed to be a majority in Parliament against further gas extraction in the Wadden Sea, until the moment that the Christian Democrats declared that they were willing to allow gas extraction under strict conditions. This political turnaround implied the loss of the Parliamentary majority against Wadden gas. The Christian Democrats referred to the Zuidwal experiences, which had shown no negative ecological effects since 1988. The Zuidwal site was even visited by representatives of the political party, shortly before the discussion in Parliament (Durville, 1993: 137).

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The turnaround of the Christian Democrats intensified collaboration among the environmentalists (Verbeeten, 1999: 150). They united themselves with the founding of the 'Boorplatform' (Drilling platform) in May 1993. Boorplatform clashed with the government when it demanded examination of the data which was being used for the negotiations between government and the mining companies. They managed to do so by threatening a lawsuit, based on the Freedom of Information Act (Wet Openbaarheid Bestuur).

The antagonism intensified as the Minister of Economic Affairs installed a Management Group 'Mining Activities in the Wadden Sea' (Stuurgroep Mijnbouwactiviteiten in de Wadden Zee) which would investigate gas extraction in the Wadden Sea in a broad perspective. Part of that Management Group were representatives of the mining companies (Mobil, Elf Petroland and NAM) and the Ministries (EZ, VROM, V&W and LNV). Opponents to Wadden gas were not represented. The Management Group published its report in October 1993 and advised 11 drillings for the period 1995-2000 (MINEZ, 1993: 13). Arguments used in favor of gas extraction concerned the social relevance, which will be discussed later on, and the slight ecological effects (Verbeeten 1999: 151). Experiences of Zuidwal and Ameland were used as a benchmark and to illustrate the expected absence of ecological effects. According to the Ministry of Economic Affairs, ecological effects can be minimized by careful planning and by taking into account the ecological circumstances (MINEZ, 1993: 28). In addition, soil subsidence can be expected, due to sand hunger and coastal erosion, but the latter can be compensated through sand suppletion (MINEZ, 1993: 37).

Environmentalists, of course, did not agree with the whole process, which had led to the report and its conclusions. Verbeeten (1999: 153) has investigated the critique of environmentalists, local governments and advisory bodies and distinguished four counter-arguments that were being used. Firstly, gas extraction causes negative ecological effects such as visual 'pollution', noise and artificial light. Secondly, there are risks like blow-outs. Thirdly, knowledge gaps sustain uncertainties about effects like soil subsidence and sand hunger. Fourthly, criteria of the Wadden Sea Memorandum were referred to. Taking this into account, the anti-Wadden gas front came to the conclusion that the precautionary principle should be applied.

217 MINEZ (1993) Rapport Stuurgroep 'Mijnbouwactiviteiten in de Waddenzee'
218 TK 1993-1994, 23 546, nr. 1: 2
219 Landelijke Vereniging tot Behoud van de Waddenzee (1993) Wat in 't wad zit verzuurt niet: 8-10
In September 1993, a public workshop on soil subsidence was organized by NIOZ. NAM announced that day that a soil subsidence of 2 to 10 centimeters could be expected (Gussinklo, 1993: 23). In addition to that, sedimentologist Oost (1993: 15) argued that soil subsidence would only be a temporary phenomenon, as the holes would be filled with sand again through natural processes. Coastal erosion, however, Oost states, would also occur, but there are means to minimize these effects such as through sand suppletion. To many present that day, including MPs, the workshop left an impression that soil subsidence is perhaps not such a big problem as initially thought (Durville, 1993: 230).

The turnaround of the Christian Democrats, thus, had its consequences beyond Parliamentary proportions. People had started to question the seriousness of potential ecological effects of gas extraction in the Wadden Sea. Government was now more or less forced to investigate possible conditions for drilling (Verbeeten, 155). Deviated exploration drillings appeared to be a tempting possibility. The Ministries of V&W, LNV and, after some hesitation, VROM, decided to allow off-shore exploration drillings under strict conditions (Verbeeten, 1999: 154). These were expected not to cause any ecological damage, since they only investigate if there is any gas worth mentioning. However, it has to be noted, of course, that exploration activities, in the end, are a means for the eventual exploitation activities. In other words, despite the fact that at the normative level ecological values had found their way into the regulatory framework, narrowing down the room for maneuver for gas extraction to a certain extent, NAM had secured a slight opening of the door to future exploitation. The agreements between government and mining companies were also laid down in the revised Wadden Sea Memorandum of 1994. The deviated exploration drillings could just carry on. At the ideal level, the debate was still open and nothing had been settled really. In the meantime, however, at the interactional level a wide range of stakeholders had been activated and became part of the whole process. The firm-government interaction had now definitely been swallowed by a much larger interaction process.

Elf Petroland and NAM would each carry out three of the six allowed drillings. In July 1995, however, Elf Petroland withdrew itself, leaving the six drillings to NAM. In order to carry these out, a MER is needed. The MER commission was not satisfied with the MER report handed over by NAM to the Minister of Economic Affairs in December that year.220 Also, at the MER

The turnaround of the Christian Democrats, thus, had its effect. Waddenvereniging and WAR stressed, amongst others, the uncertainties, ostensible certainties, knowledge gaps and insufficient insight in the data. NAM needed to re-write the MER, but this new version was also not approved by the MER commission. Based on this second version, the commission decided to allow five of the six drillings and demanded further research for the other one. The anti-Wadden gas front, led by Waddenvereniging, had obviously been aiming at the fogginess at the ideal level regarding the controversy on the effects. To their disappointment, though, the Leeuwarden Court judged, after an appeal against the MER, that, as far as ecological effects concerned, there is only certainty about visual ‘pollution’. At the normative level, the controversy seemed to have been settled. At the ideal level, however, things had only just begun. Some people just did not believe that gas extraction would do no harm to the ecology of the Wadden.

And indeed, after a long debate in Parliament and a subsequent motion in November 1999, the government called a halt to the new mining activities in the Wadden Sea. Looking back now, NAM admits that this came very unexpectedly. Parliament eventually voted against the new drillings, as it was not convinced of the social necessity of Wadden gas. Apparently, things were not so secure at the normative level as it had looked after the success of the MER at the Leeuwarden Court not that long ago. The Parliamentary ‘no’ to new gas extraction activities in the Wadden Sea came as a shock to NAM. Vice-director Herber recalls: “We had just been a bit too ignorant of certain processes in our social environment.” Instead of accepting the defeat at the normative level, having lost the legitimacy to extract, NAM decided to pick up the pieces again and work on a new strategic plan.

Interestingly enough, this plan would not just be restricted to a definite settlement of the central controversy, NAM had learnt that an ultimate mobilization at the ideal level would perhaps be an illusion. In public consultation meetings there appeared to be some scrutiny concerning the report. Waddenvereniging and WAR stressed, amongst others, the uncertainties, ostensible certainties, knowledge gaps and insufficient insight in the data. NAM needed to re-write the MER, but this new version was also not approved by the MER commission. Based on this second version, the commission decided to allow five of the six drillings and demanded further research for the other one. The anti-Wadden gas front, led by Waddenvereniging, had obviously been aiming at the fogginess at the ideal level regarding the controversy on the effects. To their disappointment, though, the Leeuwarden Court judged, after an appeal against the MER, that, as far as ecological effects concerned, there is only certainty about visual ‘pollution’. At the normative level, the controversy seemed to have been settled. At the ideal level, however, things had only just begun. Some people just did not believe that gas extraction would do no harm to the ecology of the Wadden.

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221 Waddenvereniging (1996) Reactie MER Proefboringen Waddenzee: 20
223 Commissie voor de Milieu-effectrapportage (1996a) Brief aan de Minister van Economische Zaken inzake aanvulling op het MER proefboringen Waddenzee, 11 juni 1996.
224 Commissie voor de Milieu-effectrapportage (1996b) Brief aan de Minister van Economische Zaken inzake Tweede aanvullend rapport behorend bij de MER “Proefboringen naar aardgas in de Waddenzee”, 21 oktober 1996.
225 Rb. Leeuwarden, July 17, 1998: 130
226 Observation report Zeegse II meeting, January 24, 2006
addition, complying with the rules and regulations, for instance with the MER, had appeared not to be a sufficient condition for settling the controversy at the normative level. At the opportunity level, however, technological progress had been achieved in the meantime. It was now possible to extract the Wadden gas from an on-land installation, via deviated drillings. In general, NAM had learnt that diminishing the visibility of economic activities takes away at least some potential opposition. The issue of soil subsidence would not be solved with such measures, nonetheless. The 'hand on the tap'-principle appeared to be a solution. NAM said it would monitor the dynamics of the soil in relationship to gas extraction punctiliously in order to stop the production immediately as soon as unacceptable subsidence occurred. However, this would not settle the controversy on the ecological effects, which centers around soil subsidence. On the contrary, the discussion was in fact kept open, or perhaps paralyzed, until further notice. NAM chose to control the controversy, rather than trying to settle it.

Mobilization to settle the central controversy
Until the motion in Parliament in 1999, as we have seen, NAM did not carry out any significant mobilization to settle the central controversy. The lack of knowledge on possible ecological effects might be a sufficient reason for that. As soon as the extraction at Ameland started, however, NAM used, and still uses, these experiences as a benchmark to illustrate their point that there are no serious effects to be expected. And if there were any, NAM states, they could be compensated for by natural processes or artificial means. Nevertheless, each extraction site having its unique circumstances, a guarantee or exact estimation of the actual effects cannot be given. NAM also learnt that the MER procedure is a necessary vehicle, rather than a sufficient condition for settling the ecological controversy.

In collaboration with the IMSA people, it was decided to get all the relevant stakeholders 'on board' to create a 'broad platform' to discuss the issue of the ecological effects. The cleverest move in that respect was to let everybody rank human activities in and around the Wadden Sea by the alleged damage done to the ecological system. Gas extraction ranked much lower than other activities such as mechanical cockle fishery. This network aspect is an essential part of the grand strategy which was developed in collaboration with IMSA. The ranking might not have settled the controversy; it did have its effects on the ideal level. Apparently, experts believed that gas extraction was far less harmful, as compared to mechanical cockle fishery, than the public and politicians had believed, particularly since the Parliamentary motion. What in fact happened, whether on purpose or not, is that the focus of attention
fact happened, whether on purpose or not, is that the focus of attention politicians had believed, particularly since the Parliamentary motion. What in far less harmful, as compared to mechanical cockle fishery, than the public and effects on the ideal level. Apparently, experts with IMSA. The ranking might not have settled the controversy; it did have its an essential part of the grand strategy which was developed in collaboration than other activities such as mechanical cockle fishery. This network aspect is damage done to the ecological system. Gas extraction ranked much lower everybody rank human activities in and around the Wadden Sea by the alleged issue of the ecological effects. The cleverest move in that respect was to let for settling the ecological controversy.

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Controversy 2: The socio-economic relevance of the Wadden gas

Wadden gas must be worth all the effort that NAM has put into it. Hundreds of millions of euros have been invested in the preparations. In addition, the long and heavy political debate is another indication that there is indeed something at stake in the Wadden Sea. If of no significant value, NAM would not have been so persistent and the political debate would not have been such a lingering one. Throughout the interaction process, those who stated that Wadden gas is relevant to the Dutch economy opposed those who argued that these benefits do not justify the external effects in terms of ecological damage and costs. Interestingly enough though, NAM itself was not the most prominent agent expressing its opinions in this debate, whereas it is in fact NAM opposing the general public. Gas extraction should be justified to taxpayers, gas consumers and users of the Wadden Sea. The wetlands had become a national nature reserve and its ecological values were possibly endangered. Risks and damages have been discussed in the previous section. On the other hand, it is the citizens who will benefit from gas extraction, either consuming it or benefiting, indirectly, from the State revenues which derive from it. In addition, in the case of no gas extraction, mega-claims by NAM could be expected, as concessions had already been granted long ago. The tax-payer would pay the price for this. Gas extraction in the Wadden Sea has thus been, from a very early stage, a national issue. The tax-payers and consumers were represented by Parliamentarians and politicians; Parliament being the major arena where the debate took place.

It was only at the end of the ten-year moratorium that the controversy on the socio-economic relevance of Wadden gas was triggered to its fullest extent. The report ’Mining activities in the Wadden Sea’ which was presented by the Management Group in October 1993 (EZ, 1993: 13) set out seven arguments for the social necessity of gas extraction in the Wadden Sea (Verbeeten, 1999: 151). These arguments can be considered to cover the controversy on the relevance to a large extent: the small fields policy,

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228 TK 1993-1994, 23 546, nr. 1: 2
obligations to Gasunie, export contracts, the composition of the Wadden gas, State revenues, the employment aspect and the threat of compensation claims. These seven aspects could be designated as sub-controversies, but interestingly enough, in practice most of them did not really ‘flourish’ as such in the interaction process for the years to come. We will therefore not treat them as real separate sub-controversies. In addition, as we will see shortly hereafter, when discussing mobilization, there was no real need to mobilize to settle these nearly controversial issues, as they were cast in judicial concrete. The issue of the small fields policy, however, is worth looking into a little deeper to illustrate this mechanism of path dependency.

**Wadden gas and the small-fields policy**

A first argument in favor of Wadden gas, as provided by the management Group in 1993, is the small fields policy. As we have seen earlier, gas extraction in the Wadden Sea can hardly be seen separately from the small fields policy. As we have seen in the above, the relationship between Wadden gas and the small fields is essential to the whole debate. The small-fields policy is the core legitimacy for the gas mining activities in the Wadden Sea, being one of the smaller fields on Dutch territory. The policy had already been put into practice before it was eventually laid down in the Gas Act in 1982. The sensibility of the small fields policy has not been without scrutiny. However, this debate has remained rather latent. The controversy almost came to the surface in the late 1990s when the secretary-general of Economic Affairs at that time initiated a report on the small fields policy. The secretary general was a true critic of this policy. Adhering to basic economic principles he did not see the logic of exploiting the small fields gas prior to the Groningen gas which had lower marginal costs. “All that needs to be done is to open the tap and the gas will flow abundantly. The small fields policy does the exact opposite of what should be done; cheaper things first in the case of equal returns. Against that is the fact that earlier exhaustion implies loss of the flexibility benefits of the Groningen field 30 years from now if the exhaustion date is brought forward a few years; this loss occurs decades in the future, however, while the efficiency costs of the small fields policy are incurred today.” However, the report he had in mind on evaluating that trade-off would never be finished.

The subordinates at the Ministry could not relate to such an approach. In their view the small fields policy had a rather successful history and served a long-term goal of supply security. In the long run, as it is believed, exploring

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229 Interview December 2, 2005.
and exploiting the relatively expensive smaller fields in conjunction with the Groningen swing supplier will turn out to be cheaper than any other succession of short-term scenarios. In addition, the policy as part of a larger legal structure has attracted a lot of small firm activities exploiting the little bubbles. The State offers to participate in the case of favorable expectancies, joint ventures emerge, random depreciation is allowed and the Gasunie, owning the infrastructural network, guarantees purchase. Some other time, the civil servants had to defend the inertial small fields policy against the scrutiny of the OESO by guaranteeing that the gas revenues would not be used for structural expenses. Besides these occasional near-eruptions of the slumbering controversy, it was still latently there. The discussion apparently pops up every now and then in the ministerial echelons. In June 2004, for instance, it led to a ceiling for the Groningen field of an average production maximum for the next decade.

The issue on Wadden gas and the small fields policy could have been designated as a (sub-) controversy, although, in fact, it would have remained a latent one (Van Nieuwaal, 2009). The use of the policy as such has been discussed within the Ministry of Economic Affairs, but as we have seen, it never really left that building. The report of CPB in 2006, putting question marks on the policy as well, was discussed in Parliament early that year, but again it did not cause any real scrutiny. Apparently, the small fields policy is not to be questioned. This is a rather interesting conclusion, because if the legitimacy of the policy were to become obsolete, one of the main arguments for gas mining in the Wadden Sea would disappear as well. So why has this controversy not been used more effectively by those who oppose the activities of the NAM in the wetlands?

**Additional arguments in favor of Wadden gas**

In addition to the small fields policy, a second argument in favor of Wadden gas, as provided by the management group in 1993, concerns the obligations to Gasunie. The 1974 White Paper encompassed a general policy regarding the production and use of energy.\(^\text{230}\) It was decided that Gasunie, owner of the gas infrastructure, would have to present a ‘Plan of gas delivery’ (*Plan of gasafzet*) yearly. ‘Annual production and import volumes were set against the proven reserves, export and other supply commitments, in such a way that sufficient gas would remain available for the next 25 years of consumption.’ (Correljé et al, 2003: 89) The Wadden Sea reserves have been incorporated in the total reserves as ‘futures’. Omitting the Wadden reserves would cause a

\(^{230}\) TK 1974-1975, 13 122, nrs. 1-6: 188-120
gap in the planning of Gasunie, which would have to be compensated for by either increased production or import of gas. The first option would speed up the exhaustion of the national gas reserves, whereas the latter would imply a more expensive alternative to Wadden gas.

Thirdly, there are the export contracts. Part of the policy as presented in the White Paper was a reduction of gas exports. In the 1970s, export volumes had reached 50 billion cubic meters per year (Correljé et al, 2003: 93). Most of these contracts dated from the time shortly after the discovery of the Groningen field. The duration was generally 25 years, so at the end of the 1980s we see indeed a decline to about 30 billion cubic meters per year (Correljé et al, 2003: 93). Nonetheless, in 1993 the Ministry of Economic Affairs stated that the export obligations might become problematic. The loss of Wadden gas would only make this problem worse. As we have just seen, the Wadden gas has been counted on by Gasunie in its yearly planning, so gas extraction in the Wadden Sea, or the absence of it, was expected to have its effects on the export obligations.

In the fourth place, the composition of the Wadden gas must be taken into account. Wadden gas has a high caloric value. It is different to that of the Groningen field, to which the infrastructure and devices have been adjusted nationwide. Gas from the Wadden Sea, without being mixed with that of Groningen quality gas, could only be used if equipment all over the country were adjusted to its specific quality. Such an operation would cost a tremendous amount of money. In other words, waiting too long for extraction in the Wadden Sea would either result in extra costs for technical adjustment or not using it at all.

A fifth argument in favor of the Wadden gas is the State revenues. It has already been mentioned and illustrated that the State has acquired billions of euros of gas taxes. At the time of the report of the Management Group, total tax revenues were estimated to be of nearly four billion euros (MEZ 1993: 11). Part of the tax income was at that time destined for mega-infrastructure projects such as the infamous 'Betuwe rail road' and the high speed train (HSL). A substantive portion was also added to a Structural Economic Enforcement Fund (Fonds Economische Structuurversterking). In other words, underneath the Wadden Sea was also a potential tax reserve waiting to be extracted.

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233 TK 1993-1994, 23 546, 6: 6
In the sixth place, the employment prospects involved in future Wadden gas production must be taken into account. According to the Ministry of Economic Affairs in 1993, gas extraction in the Wadden Sea would deliver direct employment of 8,300 to 11,000 ftes and an additional employment of 23,300 to 33,500 ftes.

Finally, according to the Management Group, the potential claims in the case of no production should not be disregarded. If gas extraction in the Wadden Sea were not allowed, claims from NAM would be a possibility, as their concession would become worthless and so would their investments thus far. Interestingly enough though, NAM has never been very explicit about the likelihood of such a claim. At the Ministry and in Parliament it was, however, something which had always been regarded as a serious possibility. The distant strategic position of NAM in this respect counts for the other aspects of the socio-economic relevance as well. With the report of the Management Group in 1993, NAM was deliberately putting into practice mobilization, although not very visible to the public at first. Actually, the question even arises as to whether the real mobilization had not already taken place much longer ago, between 1963 and 1973, whereas in 1993 it was only pointed at these anchor points… The socio-economic controversy would not be settled until the decision of Parliament in 2004 to allow gas extraction.

**Mobilization to settle the socio-economic relevance controversy**

The origins of the socio-economic relevance of Wadden gas lie in the small fields policy of 1974. It was not a ‘lively’ controversy in the beginning however. The focus concerning gas reserves lay elsewhere at that time and the first activities of NAM in the Wadden Sea only started in the 1980s. Not only did nobody have an idea of how much gas there actually was under the wetlands, but NAM also willingly complied with the moratorium from 1984 to 1994. Apparently there was no rush. At the end of that moratorium, when NAM was destined to pick up the pieces again, it appeared that opposition to Wadden gas had not diminished, but only increased. The Management Group was the vehicle to carry out the strategy of the mining companies and the Ministries. The aspects, as discussed in the above, cover the whole range of the relevance of Wadden gas. It was a well thought out mobilizing strategy to anchor its vested interests by addressing the general public.

Given the aspects of this controversy, strategies at the opportunity level are likely to be expected, as financial motives can sustain a powerful positioning. Interestingly enough though, NAM itself has never really emphasized these aspects; at least not in public. At the time of the Management Group, the then director Dijkgraaf backed up the report in the
press. But also then, he remained silent about possible claims for instance. It seemed to be the Ministry of Economic Affairs that was articulating the arguments that NAM was expected to use. Very likely, there was pressure on the part of NAM management behind closed doors. Not coincidentally, there was the turnaround of the Christian Democrats resolving a majority against gas extraction in the Wadden Sea. In addition, the environmentalists, united in ‘Boorplatform’, threatened lawsuits in order to get access to the data being used in the negotiations between NAM and the Ministry.

The close bonds between NAM and government are an intriguing discussion in itself. Why are these bonds so close? Firstly, because the State earns more money with gas than NAM itself does. Secondly, the whole country relies on gas as the main energy source. Gas supply is a national concern. Thirdly, historically seen, the two parties have always held close contacts. They have been some sort of ‘allies’ from the start. It started when the Minister of Finance was trusted with the ‘Groningen secret’. These three reasons for the specific relationship between NAM and government have been illustrated in the above. There is, however, another reason, that has not been dealt with. Fourthly, NAM is half Shell. Officially, because in practice, NAM is regarded as ‘just Shell’.

NAM people are Shell people, if you look at their CVs and e-mail addresses. Royal Dutch Shell is not only one of the major oil companies in the world and one of the biggest Dutch enterprises, it is also a national symbol, like ING, Philips and Heineken are. Officials of these firms usually hold good contacts with those at the Ministries. It is a public secret that officials of Shell and the Ministry of Economic Affairs meet on a regular basis. NAM is thus represented by Shell at the highest echelons in The Hague. 234 In addition, NAM has a lobbying tradition itself, although a relatively short one. Since the 1999 ‘incident’ there have been frequent contacts with all political parties. At least once a week a public relations official drives up and down to The Hague to keep in touch with the political arena. It sustains the conclusion, as acknowledged by vice-director Herber earlier in this chapter, that NAM was rather ignorant concerning developments in its environment until the 1999 motion. From that moment on, regular contacts with The Hague have been part of the lobby strategy of NAM. It was no longer only reliant on the Shell entry to the policymaking capital.

234 There have long been persistent rumors about the amount of shares that the Dutch royal family has in Shell. Official records of that are not available however. The legacy lives on nonetheless, particularly within the financial world.
It has to be noted that, even after the ‘defeat’ in Parliament, which did question the social relevance in 1999, NAM still adhered to its strategy not to put too much emphasis on this controversy, and particularly at the opportunity level. Again, at least not in public. By the time of the Parliamentary motion NAM had also realized that an ‘arrogant’ attitude can be counterproductive in the delicate interaction process. The controversy on the socio-economic relevance has thus remained a rather implicit one in the sense that NAM did not put mobilization in practice, open to the public, to settle the controversy. It popped up in Parliament every now and then, but it was mainly the Ministry of Economic Affairs that opposed critics in Parliament and environmental organizations, rather than NAM itself.

The eventual settlement of the socio-economic controversy took place in 2004, after the Meijer report, when Parliament decided to allow gas extraction and expelled the mechanical cockle fishermen from the Wadden Sea. The decision was, of course, not just based on an evaluation of the socio-economic relevance, although some would say that in the end it is just a financial cost-benefit analysis. The ecological effects were also taken into account. Interestingly enough though, as we have seen, the ecological damage controversy was actually just put on hold by means of the ‘hand on the tap’ principle. The mobilization strategy to settle the socio-economic relevance seemed to have been put into practice relatively late at the end of the moratorium. The opposite is true, however.

At the time of the first concessions, mobilization was in fact already taking place. From that moment on, NAM was the legitimate owner of the gas under certain parts of the Wadden Sea. This is a very strong, judicial, anchoring of vested interests at the normative level. In addition, the small fields policy connected Wadden Sea reserves to the Groningen bubble, worth a tremendous amount of money and energy. As a consequence, as of 1974, the opportunity level featured the security of valuable resources for NAM. It has become increasingly aware of its vested interests at these two levels of social structure. Mobilization at these levels was not necessary, as most stakeholders were aware of NAM’s securities in this respect. The Management Group report, in 1993, just made an overview of the socio-economic relevance of the Wadden Gas, leaving further conclusions to everybody’s own imagination. The icing on the cake was, intended or not, the connection of the Wadden gas with the cockle fishery ‘problem’ at the time of Meijer. With the gas revenues, the sector could be bought out, solving that problem, and, in addition, a Wadden fund could be effected. NAM did not even need to
emphasize the socio-economic relevance much more. Instead, attention was given to the other two levels of social structure: the ideal level and the interactional level.

**Controversy 3: The strategic positioning of NAM**

The controversies in which NAM got involved with regard to the Wadden gas were not restricted to the ecological effects and the social significance. NAM’s strategic maneuvering itself has also been subjected to debate. How did NAM handle the issues of the external effects of gas extraction and the money involved in gas revenues? A company that can potentially cause damage to the nationally treasured wetlands and can fill the national treasury with billions of euros will, by definition, attract a lot of attention. This started very early, as extraction activities have always been accompanied by little earthquakes or soil subsidence. As a consequence, NAM has a long tradition in dealing with that. The general policy has always been to compensate those who have encountered the negative external effects of NAM’s economic activities. People who live near the installations, for instance those that exploit the Groningen bubble, know that.

With regard to the Wadden gas, criticism of NAM’s strategizing was unavoidable. It started, as we have seen in the above, with the island of Ameland where gas extraction commenced in the early 1980s. The initial local opposition to NAM’s activities was tempered with compensation and the cultivation of goodwill within the local community. However, the Wadden gas plans would not be restricted to Ameland and more opposition was to be expected. It would even become a national issue. The fiasco due to the 1999 motion made NAM realize that some more drastic measures would be needed. They teamed up with Van Dieren’s IMSA. Together they worked on a grand strategy, which has been discussed earlier. Part of that strategy was mobilization aiming at the ideal level and the interactional level.

**Mobilization to settle the strategic positioning controversy**

NAM had learnt a tough lesson in Parliament, in late 1999. Securities at the opportunity level and normative level, regarding potential tax revenues and contract obligations, appeared to be insufficient conditions to keep the train...
running. The 1999 motion had called it to a halt. NAM realized that part of the explanation for this was that there was something wrong with its 'image'. A partial explanation indeed, because the motion itself for instance cannot be expected to be the result of just having a bad image, i.e. concerning the ideal level. Nonetheless, to many, NAM was that arrogant Shell-company going after natural resources without regard to the natural environment in which it operates. NAM realized that something needed to change at the ideal level. The Zeegse meetings illustrate this perfectly.

Zeegse Meetings

On June 21\textsuperscript{st}, 2005, NAM arranged a workshop which would become known as the Zeegse meeting, named after the village where it was held, near the NAM headquarters, but on 'independent' territory.\textsuperscript{236} The theme of the workshop was 'Hand on the tap' with regard to Wadden Sea gas extraction from land locations. The goal was the exchange of knowledge and to have a discussion on the scientific and legal aspects of the intended extraction activities. In order to acquire the necessary licenses for even starting the diagonal drillings from the shores, a MER is obligatory. The MER is an environmental effects report in which the initiator sets out the proposed activities and their environmental effects compared with those of alternatives, including autonomous developments, i.e. refraining from the intended activities. Government decides upon a possible license examining the MER, advised by the so-called MER commission.

As NAM was determined not to let things slip through its fingers, the procedure leading up to the report was carried out very thoroughly. Marquenie, who had actually just been released from his position as the leading Wadden Sea specialist of NAM for more than 15 years, was called back to write chapters for the MER. NAM did not want to take any risk to finally achieving gas extraction in the Wadden Sea. The Zeegse meeting was part of its plan of attack. The MER was due in January 2006. Not only was Zeegse meant to consult and inform scientists and public servants, while having a ‘fruitful’ discussion, it should also be seen as a vehicle to keep all the relevant stakeholders on board. A lesson from the past was not to overlook or ignore certain movements in society. Having failed to do that, the seizure of the advanced plans to drill, due to the infamous parliamentary motion in 1999, took NAM by surprise at that time. Apparently, as has been learnt,

\textsuperscript{236} This section was for a large part based on observations and interviews during the Zeegse II meeting on January 26, 2004.
small players, or seemingly insignificant developments, can still do a lot of harm.

Zeegse was therefore, above all, a strategy to keep a certain control on the discussion among those having something to say about the gas extraction, or, to put it differently, those who could potentially cause obstruction. A participant of the second Zeegse meeting ("Zeegse II"), for instance, when asked over lunch what he thought of what the chances were for the extraction to finally take place, stated: "They will take place this time. NAM has gotten all the people who could cause problems on board. They are all here, having lunch with us." He pointed at a representative of the Wadden Association and of Wild Cockles and said: "These guys are the best in class. As long as they are being kept satisfied, there will be no real danger."

The MER was published January 18th 2006 and a week later, January 24th, the Zeegse II was held. Zeegse II supplied feedback on how the experiences from the previous workshop had found their way in the MER. In addition, a discussion about the administrative model for safeguarding the ecological system while extracting gas was scheduled. NAM, for instance, is a strong advocate for assigning the monitoring task to a commission, such as the one which has been monitoring the soil subsidence of Ameland, which was internally regarded as a success story. Nonetheless, at Zeegse II the representative of the Economic Affairs admitted that this was not what the Ministry was thinking of. Herber, NAM vice-director and chairman of the meeting, took clear notice of that. "Has this already been decided upon, or is there still some room to?…" he wanted to know, asking the Economic Affairs representative with a big smile. This was what the meeting was all about, to detect where opinions and plans diverged. Another such an example was when a representative of an environmental organization confessed that he could not figure out what the role of his organization was in the proposed plans. The chairman frowned upon this remark, seemingly thinking "we must be careful here and keep these people on board"; an impression of the researcher that he later confirmed. The Zeegse meetings can thus be regarded as crucial components of a strategy to establish and maintain network relations.

The interesting thing about the Zeegse Meetings as exponents of the mobilization is that it relied on the interactional aspect, but would eventually have its consequences on the other levels of social structure. By bringing everybody together, a certain consensus was reached, which established intersubjectivity at the ideal level. In addition, as we have seen, everybody felt their opinion mattered. As a consequence, the intersubjectivity on the ecological effects and the network itself created a powerful means, for
instance to convince the policymakers of the relativity of the effects and the weight of the platform created. Consequently, the position of NAM was thus also strengthened at the opportunity level and the normative level. Regarding the other controversy, as we will see, , the mobilizing strategy of NAM, after the disappointment in 1999 that would eventually lead to the start of the exploration process in late 2006, can be considered as a well-thought-out strategic package to cover the whole debate.

**Demarcating five periods**

Taking into account all controversies (see figure 21), as analyzed in the above, five periods can be distinguished. The first period, from the exploitation rights to the first drillings on Ameland have been without major controversies. The first controversies arose at the local level on the island of Ameland and soon reached the national level. After this second period, the moratorium on Wadden gas marked a third period in which the actual debate was suspended. In fact, as we have seen, the controversies were not suspended at all. On the contrary, right after the termination of the moratorium in 1994, the debate took off again, leading up to a settlement in 1999, after the Parliamentary motion. This fourth period, was succeeded by a fifth period in which NAM actively put mobilization into practice to revive the controversies and to settle them to its own advantage this time. The end of the fifth period is drawn in 2004, which was the year of the Meijer report, but in practice the mobilization efforts continued until the actual drillings in 2007, and beyond...

<table>
<thead>
<tr>
<th>Period</th>
<th>Years</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1963–1980</td>
<td>Discretionary room for maneuver</td>
</tr>
<tr>
<td>II</td>
<td>1980–1984</td>
<td>The dawn of the controversy</td>
</tr>
<tr>
<td>III</td>
<td>1984–1994</td>
<td>Suspension (moratorium) of the dispute</td>
</tr>
<tr>
<td>IV</td>
<td>1994–1999</td>
<td>Revival and settlement of the controversies</td>
</tr>
<tr>
<td>V</td>
<td>1999–2004</td>
<td>Mobilization to revive and re-settle the controversies</td>
</tr>
</tbody>
</table>

*Figure 22: Five periods for the Wadden gas controversies from a firm perspective*

**Conclusion**

The fact that NAM started out in the Wadden Sea where hardly any environmental concern was present in the 1960s and concessions were easily obtained, is an indication of the fact that institutional bandwidths were not something to worry about initially. This would not last for long, as we have seen. Environmental awareness took off shortly thereafter. The controversy over the ecological effects was in fact born immediately after the concessions...
were granted, at the time when the Wadden Sea was still designated as a project for land reclamation. Soon thereafter, the other controversy came into being. The oil crisis in the early 1970s resulted in a new energy policy. Gas and the vast infrastructural gas network had rapidly locked itself into Dutch society and it was decided to treasure the massive Groningen field as a long-term strategic resource. The small fields policy would contribute to that by stimulating the exploration and exploitation of additional smaller gas fields. The Wadden Sea appeared to be hiding several of these smaller fields and was thus connected to Groningen and national energy supply.

<table>
<thead>
<tr>
<th>Figure 23: the three Wadden gas controversies summarized</th>
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<tbody>
<tr>
<td><strong>Controversy 1:</strong> The effects of gas extraction on the ecology of the Wadden Sea (central controversy)</td>
</tr>
<tr>
<td><strong>Dispute:</strong> Those who state that there are durable effects against those who state that there are no durable effects</td>
</tr>
<tr>
<td><strong>Opponents:</strong> The Wadden lobby versus NAM</td>
</tr>
<tr>
<td><strong>Trigger event:</strong> Discussion in Parliament on possible ‘wild west’ on the Wadden (1964)</td>
</tr>
<tr>
<td><strong>Mobilization:</strong> Ameland experience (as benchmark), MER (minimum requirement) &amp; Fryske Akademy ranking (for instance in relationship to cockle fishery)</td>
</tr>
<tr>
<td><strong>Settlement:</strong> Until further notice with appliance of ‘hand on the tap principle’ (normative level), accommodated by deviated drillings (opportunity level)</td>
</tr>
<tr>
<td><strong>Controversy 2:</strong> The socio-economic relevance of Wadden gas</td>
</tr>
<tr>
<td><strong>Dispute:</strong> Those who emphasize the socio-economic relevance of the Wadden gas against those who point at the relativity of it</td>
</tr>
<tr>
<td><strong>Who:</strong> NAM (hoping to convince the taxpayer/consumer) versus the Wadden lobby</td>
</tr>
<tr>
<td><strong>Trigger event:</strong> The small fields policy linking the Wadden reserves to the Groningen bubble, remaining ‘dormant’ up until the end of the moratorium in 1994</td>
</tr>
<tr>
<td><strong>Mobilization:</strong> First explicit reference to vested interests (money at opportunity level and obligations at the normative level) since the 1993 Management Group report</td>
</tr>
<tr>
<td><strong>Settlement:</strong> Parliament allowing gas extraction, particularly in relationship to the Wadden fund (fed with gas revenues) and the cockle buy-out (2004).</td>
</tr>
<tr>
<td><strong>Controversy 3:</strong> The strategic position of NAM</td>
</tr>
<tr>
<td><strong>Dispute:</strong> Those who state that the sector has been carrying out the right and sufficient strategies to justify its existence in the Wadden Sea against those who question their efforts</td>
</tr>
<tr>
<td><strong>Opponents:</strong> NAM (and IMSA) versus the Wadden lobby</td>
</tr>
<tr>
<td><strong>Trigger event:</strong> At the local level with the first activities in Ameland, settled with goodwill and compensation</td>
</tr>
<tr>
<td><strong>Mobilization:</strong> Since 1999 via the IMSA approach getting everyone ‘on board’ (interactional level) to achieve a win-win situation in which everybody recognizes their interest (ideal level) to acquire legitimacy (normative level)</td>
</tr>
<tr>
<td><strong>Settlement:</strong> Parliament allowing gas extraction (2004).</td>
</tr>
</tbody>
</table>

Neither controversy was accompanied by any significant mobilization for quite a while. The moratorium from 1984 to 1994 seemed to pause the
development of the controversies, whereas, in fact, the antagonism only intensified as NAM and environmentalists each, independently of one another, developed their own ideas on the post-moratorium era. NAM and the Ministries of Economic Affairs made a smart move, a mobilizing strategy so to speak, with the report of the Management Group which emphasized the economic relevance of Wadden Gas shortly before the end of the moratorium. Not surprisingly, at the opportunity level we see the turnaround of the Christian Democrats resolving the majority against gas extraction in the Wadden Sea. The controversy on the socio-economic relevance had now been settled and the institutional bandwidths secured, so it seemed. The game had been played by mobilizing at the opportunity level and the interactional level, as those who were expected to be crucial in the decision-making in the political arena had been convinced of the ‘need’ for Wadden gas.

NAM, however, underestimated the fact that the other controversy, on the ecological effects, had not been settled at all. On the contrary, the antagonism between environmentalists and that ‘arrogant’ NAM had only intensified and so had the arguments against Wadden gas. The controversy was open on all the levels of social structure, but the walls had been closing in for a while. At the ideal level, many people still believed that gas extraction would do harm to the ecology of the Wadden Sea. At the normative level, nature preservation had been anchored in policies such as the Wadden Sea Memorandum, which had designated the Wadden Sea in 1984 as a nature reserve. At the interactional level, the environmentalists’ network had been rapidly increasing. A wide range of organizations shared their concern and mobilized the public opinion. At the opportunity level, the value of the Wadden Sea as a nature reserve would only increase, not in the least supported by an economic climate which would be flourishing more and more throughout the 1990s. Given these circumstances, it is not surprising that an ‘unexpected’ attack in Parliament in 1999 torpedoed the plans of NAM, the Ministry of Economic Affairs and the Liberal Party.

The Parliamentary motion illustrated that the controversy on the ecological effects was indeed the central one. As long as this was not settled, the institutional survival path would be under fire. And so it was. The controversy of the socio-economic relevance was opened up again, as relevance is relative to the ecological damage being done. The Parliamentary ‘no’ seemed to be the definitive knock-out blow to Wadden gas. NAM, however, decided to stick to their vested interests at the opportunity level, which were the concessions, their investments and, hence, the possible threat of a damage claim, and pick up the pieces again.
An essential element of the strategic master plan that developed in collaboration with IMSA was the mobilization to settle the central controversy. As long as people could question the possible damage, the ISP was in danger. Mobilizing concerning the other controversy had in fact been taking place decades ago by the granting of the concession in the 1960s and the small fields policy in 1974. People did not need to be convinced of that. In addition, too much emphasis on the opportunity level would only sustain the idea of an ‘arrogant’ NAM with ‘incestuous’ contacts with The Hague and Shell, which might be counter-productive throughout the process. On the contrary, everybody should have the idea that his or her opinion mattered and would be taken into account, it was believed.

An advantage of the obstruction of the policy process in 1999 by the issued motion was the fact that the revision process of the Wadden Sea Memorandum had to start all over again. This implied a window of opportunity for NAM to jump into the interaction process again. In the meantime, the economic high tides had also come to an end, so this would only enhance the socio-economic relevance to the implicit mobilization concerning the controversy. In addition, the fact that the Meijer report, a result of mobilizing at the interactional and ideal levels in the general controversy, ranked mechanical cockle fishery much higher than gas extraction with regard to its ecological effects, delivered a powerful tool in the political arena. Left-liberal party D66 proved to be vulnerable to this and, to the surprise of many, gave up its opposition to Wadden gas. NAM could now finally start the process of exploration activities in the Wadden Sea. Their ISP had been secured, the controversies had been settled.
Chapter 7

Summary and conclusions

The research that has been carried out and reported on in the previous chapters will be considered in this final chapter of the book. Subsequently, conclusions will be drawn, including suggestions for further research.

The aim of the research has been to investigate how government intervention affects the strategy process of the firm. It has been argued that such an analysis, particularly in the case of government-sensitive markets, requires a process approach. In the second chapter, a theoretical tool for that purpose has been constructed. This model of the institutional survival path (ISP) contains the theoretical answer to the central research question on how government intervention affects the strategy of the firm. In order to test the ISP model by means of a case study, two specific propositions have been formulated that touch upon the heart of the theoretical model. In the third chapter, the methodological considerations regarding the testing of the ISP model have been outlined, including the actual research design for the case study carried out in this research. The empirical study has been reported on in the subsequent chapters. Chapter four has introduced the Dutch Wadden Sea by analyzing its regulatory framework and network of actors. Chapter five entails the case study on cockle fishery. Chapter six entails the case study on gas extraction. Together, these three chapters have delivered the needed analysis to test the propositions in particular and the model in general. In this final chapter, these findings will be wrapped into a concise summary and conclusions. The chapter will start off with a theoretical summary, outlining the ISP model and the hypothesis and additional research questions that have been formulated. Then, the cockle case will be summarized, in the light of the testing of the propositions. The same goes, subsequently, for the gas extraction case. Some theoretical implications of the research will be considered and reflected on to see to what insights the ISP model has led, thus far. Subsequently, some empirical implications will be considered by putting
the cases together. And lastly, some suggestions for further research will be discussed that might bring the ISP model further.

Summarizing the theory
How does government intervention affect the strategy of the firm? To answer this central research question, a theoretical model has been constructed and tested by means of a case study on cockle fishery and gas extraction in the Dutch Wadden Sea. The ISP model is a process model in the tradition of structuration-like theories. The model holds the perspective of the firm. The effects of government intervention are expected to come about in a process of social becoming, as defined by Sztompka (1991). It implies a duality of structure on each of the four levels of social structure. The four levels of social structure are the ideal level, the normative level, the interactional level and the opportunity level. The levels of social structure can be considered as dimensions of the social structure. Firm and government, together with other stakeholders such as consumers, competitors, pressure groups and research institutes, share certain social structures, including laws, rules and regulations. Government intervenes in businesses via the social structure, aiming to influence the emergent corporate strategy, expressed by the strategy path of the firm. The intervention is an intermingling with the firm’s resources. It manifests a controversy. One of the roles of government in society is to catalyze certain controversies, surrounding corporate operation, towards settlement. Central controversies in this study, for instance, regard the ecological effects of the fishermen and mining company NAM.

Firms do not want government involvement with their strategy process, whereas policymakers do want to influence corporate behavior. Hence both parties strive for different settlements of the controversy, which develops through the course of the firm-government interaction process. As a consequence, the intervention itself should be regarded as a process, stretching out beyond the intervention act, ex ante and ex post. In addition, the intervention might manifest at least one controversy, in practice, more controversies are likely to be involved, either triggered in advance or after the specific intervention and unfolding through time. The effects of the intervention come about in the interaction process and depend on the course of the controversies. Above all, both government and the firm are expected to be interested in the effects of the intervention. Taking into account what has been said in the above, it is the question of what happens within the black-box of strategizing, rather than what comes out of it, the former question being a determinant of the latter. Intervention is aimed at change, in this case of a structuration perspective, of social structure. The dynamics of social structure
is reflected by actual agency. The development and possible triggering of a controversy determine whether or not social structures have changed and, if so, how they have changed. The controversy derives from the defiance of current social structures by means of non-confirmative agency. Any agent involved has the potential ability to play a role in that dispute over current social structures and violations of it. An intervention by government is an example of deliberate and explicit non-confirmative agency, because its very essence is to disrupt existing social structures in a specific direction. It is in the interest of each agent to have the controversy settled to its own particular advantage. Policymakers might have had a scenario in mind, but the actual effects depend on the course of the social interaction process, as managers, for instance, might hold diverging views on what the outcomes should be. To push the controversy in the desired direction, mobilization needs to be carried out. Mobilization is the anchoring of vested interests in the social structure in order to influence the disputed part of the social structure. Controversies disclose vacuums in the social structure, i.e. the debated part, which can be resolved by means of elaboration on the established, i.e. undisputed, social structures. The more, and the better, social structures to hold on to, the better the chance that they can be exploited in order to diminish the debated ones in the desired direction. The ISP model explicitly leaves room for any agent involved to trigger controversies, but also, or particularly, to carry out mobilization to settle them. From the perspective of the firm, efforts to settle the controversy in an undesirable direction, for instance by pressure groups or political parties, can be regarded as counter-mobilization. As a consequence, the effect of mobilization partly depends on the quality of the counter-mobilization.

Firms are surrounded by specific social structures that are relevant for survival. In this research, they have been labeled as institutional bandwidths. They define the room for institutional compatible strategic maneuvering. Institutional bandwidths at the ideal level concern cognition: which perception of reality is being portrayed? (e.g. opinions and beliefs) Institutional bandwidths at the normative level concern legitimacy: what is being prescribed? (e.g. laws, rules, regulation, advice, custom and etiquette) Institutional bandwidths at the interactional level concern the network ties: who is connected to whom? (e.g. relationships, contacts and communications) Institutional bandwidths at the opportunity level concern power issues: who has the power over what? (e.g. money, knowledge, people, patents, hierarchical positioning and political mandate) The firm-unique set of
institutional bandwidths, encompassing all four levels of social structure, are labeled the institutional survival path of the firm.  

It has been argued that the government intervention has its effects on the institutional bandwidths, hence the institutional survival path of the firm. At the same time, however, the process approach of the ISP model leaves room for mutual influence: the course of the ISP is also expected to have its effect on the actual intervention in particular and the intervention process in general. Restrictive government interventions, as likely to occur in the so-called government-sensitive markets, will generally narrow down the institutional room for maneuver of the firm. As a consequence, restricting interventions could potentially dissolve the institutional survival path of the firm. No room for maneuver means no institutional survival path, hence no legitimate firm. Aside from the ultimate scenario of a collapsing ISP, its narrowing down is an indication in itself that the interest of the firm to carry out its private rent-seeking is being lost under institutional pressure. In other words, the firm needs to maintain its institutional survival path, particularly when it is under the fire of government intervention. The ISP model thus expects the effects of intervention to be found in the development of controversies and more particularly, from the perspective of the firm, in the mobilization efforts and the course of its institutional survival path.

The ISP delivers two propositions, which have been tested in this study, and supply the theoretical answer to the central research question:

1. The government intervention manifests a controversy.
2. The controversy leads to corporate mobilization.

A case study has been selected as research method. The aim of the research was to test the ISP model and its propositions through generalization of empirical findings to the theory (Yin, 1994). The subsequent empirical testing of the model is structured along the lines of the propositions, which derive from the model. The testing of the model was carried out by means of process research. One case study, entailing two cases/firms, has been studied in depth in order to sustain the proposed model by laying bare the underlying process mechanism. A case-study on mechanical cockle fishery and gas extraction in the Dutch Wadden Sea has been conducted for that purpose. For the cases of cockle fishery and that of Wadden gas, controversies were distilled from two separate databases, for two separate analyses, each for one firm and its ISP. The course of each controversy was analyzed in terms of a trigger event, its

\[ 237\text{ ISP = institutional bandwidths = social structure = firm} \]
\[ 238\text{ intervention } \Rightarrow \text{ controversy } \Rightarrow \text{ mobilization } \Rightarrow \Delta \text{ ISP} \]
general development, critical events, a possible settlement and mobilization efforts, all by taking into account the separate levels of social structure from an interaction process perspective. The process approach of the research implied an event-history analysis. Social structures might not have an ontological status; actual agency on the other hand can be detected in the empirical reality. This actual agency is operationalized in terms of an event (Van de Ven & Poole, 1995). Events were gathered from a.) archival resources, b.) direct observation and c.) qualitative interviews.

For the case study, two intervention acts were selected. The first intervention act is the Governmental Structure report on sea and coastal fishery in 1993 (LNV, 1993). The second intervention act is the Parliamentary ‘no’ to new Wadden gas activities in 1999. The effects of the first intervention were analyzed from the perspective of the mechanical cockle industry, the second intervention from the perspective of mining company NAM. The two cases would come to a conclusion in the year 2004.  

**Summarizing the cockle case**
The first analysis for this research was on the effects of the 1993 Governmental Structure Report on the strategy of the cockle fishermen. The following summary of the case study is structured along the lines of the two propositions (posed here as questions) and the controversies.

*Did the intervention manifest a controversy? (cf. proposition 1)*
Yes: the Governmental Structure Report on sea and coastal fishery in 1993, which was designated as the intervention for this research, defined the central controversy in the cockle case, which is the dispute on the effects of mechanical cockle fishery on the ecology of the Wadden Sea. The intervention expresses the concern about the ecological effects, implicates immediate measures of prevention and announces potential ones. The ecological controversy cannot be seen separately (hence the designation ‘central’ controversy) from other disputes which have been categorized into the preceding controversy, the socio-economic controversy and the strategic positioning controversy.

Four controversies were identified from the empirical database:
Controversy 0 (preceding controversy): Newcomers in the Wadden Sea
Controversy 1 (central controversy): The effects of mechanical cockle dredging on the ecology of the Wadden Sea

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239 case study = cockle case + gas case = ISP cockle sector + ISP NAM
Controversy 2: The socio-economic relevance of the cockle industry
Controversy 3: The strategic position of the cockle industry

It has to be concluded that the intervention in 1993 defined not only the then ‘mature’ central controversy, but also the ‘awakening’, controversies on socio-economic relevance and strategic positioning (see figure 23). The content, course and settlement of the four controversies can be summarized as follows:

Controversy 0, the preceding controversy, was triggered in the late 1960s, when the newcomers entered the Wadden Sea and caused concern for the local fishermen. The dispute featured those who stated that the newcomers were damaging the ecology of the Wadden Sea against those who did not see the problem.

The local fishermen, ‘the Southerners’, were opposed to the newcomers, ‘the Northerners’. Settlement of the controversy led to strong lock-ins at each of the four levels of social structure, which would be crucial for future developments, i.e. subsequent controversies. At the ideal level, the fear was now sustained that newcomers would do damage to the Wadden ecology. At the normative level, the exclusive position of the fishermen at the Wadden Sea was legitimized through legislation. At the interactional level, the boundaries of the cockle network were now demarcated. At the opportunity level, the fishermen from now on owned the licenses.

Despite the fact that the preceding controversy was settled with lock-ins at all the levels of social structure, its trigger event ignited another, more fundamental, controversy for the years to come: the ecological controversy.

Figure 24: the course of the three controversies through time
Controversy 1, on the ecological effects, was triggered at the same time as the preceding controversy, when fisherman Kooij expressed his concern about the ecological effects of more newcomers entering the Wadden Sea. The dispute featured those who stated that there are lasting ecological effects of mechanical cockle dredging in the Wadden Sea against those who state that there are no lasting effects.

The anti-cockle front, who represented ‘the birds’, opposed the cockle sector. The controversy was settled by the European Court in Autumn 2004, stating that mechanical cockle fishery should not be regarded as an existing activity, but as a project. The judgment of the European Court implied the application of the precautionary principle, which meant that yearly fishing licenses could only be granted when the absence of ecological effects could be guaranteed. The ecological controversy gave room to two other subsequent controversies: the socio-economic relevance controversy and the strategic positioning controversy.

Controversy 2, on the socio-economic relevance of the cockle sector, was triggered in 1992 with Winsemius’s plan to buy out the sector with the revenues of Wadden gas. The dispute featured those who emphasize the socio-economic relevance of the sector against those who point at the relativity of it. The anti-cockle front, who represented ‘the taxpayer’ and ‘the consumer’, opposed the cockle sector. The controversy was settled by Parliament in Autumn 2004, when it was decided to buy out the sector and allow gas extraction.

Controversy 3, on the strategic position of the cockle industry, was triggered in the early 1990s, when environmental agencies accused the fishermen of not leaving sufficient food for birds, resulting in extreme death rates. The controversy featured those who stated that the sector was carrying out sufficient strategies to justify its existence in the Wadden Sea against those who questioned their efforts. The cockle sector opposed the anti-cockle front. The controversy was eventually settled in 2004 when the sector admitted that it would not be able to innovate sufficiently within the seven years as proposed by the Meijer report.

Did the controversy lead to corporate mobilization? (cf. proposition 2)
Yes, the central controversy, in conjunction with the other two controversies, led the fishermen into undertaking various mobilization efforts, as of the early 1990s, when the intervention was due. The most significant examples of mobilization were: the publication of ‘Out of the Shell’, Braks as chairman of PO Cockles, implementation of the black box, cooperation with scientists, inviting people onto the ships, lobbying in The Hague, cockles on the menu,
fishing plans, defenses in Court and emphasizing the relevance of the branch to the shellfish industry in general.

**Summarizing the gas case**
The second analysis which was carried out was on the effects on NAM’s strategy process of the 1999 Parliamentary ‘no’ to new Wadden gas activities. The following summary of the case study is structured along the lines of the two propositions (posed here as questions) and the controversies.

**Did the intervention manifest a controversy? (cf. proposition 1)**
Yes, the Parliamentary ‘no’ in 1999 to new Wadden gas activities, which was designated as the intervention, declared the ecological controversy, which is the dispute on the effects of gas extraction on the ecology of the Wadden Sea. The intervention expressed the concern about the ecological effects and implicated immediate measures of prevention, i.e. prohibition of extraction, as a means of settlement of the ecological controversy. The ecological controversy cannot be seen separately (hence the designation ‘central’ controversy) from other disputes which have been categorized into the socio-economic controversy and the strategic positioning controversy.

![Figure 25: the course of the three controversies through time](image)
Three controversies were identified from the empirical data base:
Controversy 1: The effects of gas extraction on the ecology of the Wadden Sea
Controversy 2: The socio-economic relevance of Wadden gas
Controversy 3: The strategic positioning of NAM

It has to be concluded that the intervention in 1999 defined the ecological controversy, yet its subsequent settlement has only been of a temporary character, as the controversy re-emerged soon thereafter, including the socio-economic controversy and strategic positioning controversy.

The content, course and settlement of the three controversies will now be summarized. Controversy 1, on the effects of gas extraction on the ecology of the Wadden Sea, was triggered by Parliament in 1964, expressing its concern for a ‘wild west’ on the Wadden. The controversy featured those who state that there are lasting ecological effects against those who do not foresee negative effects.

The Wadden lobby was opposed to NAM. The controversy was put on hold for ten years during the 1984-94 moratorium and soared high immediately thereafter until its settlement in 1999 by means of the intervention. The intervention did not prevent the controversy from arising again. The controversy was settled, until further notice, with the putting into practice of the ‘hand on the tap principle’ by NAM from 2004 onwards.

Controversy 2, on the socio-economic relevance of Wadden gas, was triggered with the small fields policy in 1974, which linked the Wadden gas to the Groningen reservoir, but only rose beyond its initial dormant status after the moratorium in 1994. The controversy featured those who emphasize the socio-economic relevance of the Wadden gas against those who point at the relativity of it.

NAM and the Ministry of Economic Affairs were opposed to the Wadden lobby. The controversy remained rather dormant during the moratorium, briefly revived prior to the intervention and rose up again thereafter. The controversy was settled in 2004 when Parliament allowed gas extraction in the Wadden Sea.

Controversy 3, on the strategic position of NAM, was triggered at the local level when extraction started on the island of Ameland in the early 1980s. The controversy featured those who stated that NAM had been carrying out the right and sufficient strategies to justify its existence in the Wadden Sea, against those who questioned their efforts. NAM, supported by Shell and the Ministry of Economic Affairs, were opposed to the Wadden lobby. The
controversy remained rather dormant during the moratorium, briefly revived prior to the intervention and rose up again thereafter. The controversy was settled in 2004 when Parliament allowed gas extraction.

Did the controversy lead to corporate mobilization? (cf. proposition 2)

Yes, the central controversy, in conjunction with the other two controversies, led NAM to putting into practice various mobilization efforts, mainly as of the intervention in 1999. The most significant examples of mobilization were: deviated drilling, Wadden fund, cooperation with scientists, reference to Ameland monitoring studies, emphasis on tax revenues, emphasis on small-fields policy, emphasis on aging infrastructure, emphasis on ownership rights, ranking Wadden Sea activities, lobbying in The Hague, defenses in Court, hand on tap principle, IMSA network strategy, Zeegse meetings and the MER.

General summary: putting the theory and the two cases together

From an empirical point of view, we have seen that the strategic behavior of the cockle sector and NAM can be understood in terms of the vocabulary of the ISP model and its underlying logic, related to the designated interventions. Both enterprises operated in the ‘government-sensitive markets’. Both faced government intervention, of which one for each was made central in this research.

Reasoning from the ISP model, the intervention in 1993 should have been a stimulus for mobilization of the cockle sector, to prevent further, and more dramatic, interventions, which had already been declared for 2003 by means of the current intervention. In other words, the 1993 intervention marked the narrowing down of the ISP, but mobilization was needed in order to prevent a collapse of the ISP in the next ten years.

Reasoning from the ISP model, the intervention in 1999 implied a collapse of NAM’s ISP, which is an indication of insufficient mobilization until that point. However, the dialectical model supplies a possibility of attempts to open up the ISP again through mobilization, as NAM successfully did after the intervention.

Both cases have illustrated how the intervention act cannot be seen separately from the intervention as a process, in which more intervention acts are likely to occur and in which firms react strategically, ex-ante and ex-post: interventions and (counter-) mobilization take place in a revolving door of the firm-government interaction. From this process perspective, the message of the ISP model is to continuously be aware of institutional pressure and pro-actively and sufficiently mobilize in order to control the institutional bandwidths. In this case study, we have only seen NAM doing that, after the
'traumatic' experience of the 1999 intervention. Prior to that time, NAM had carried out mobilization, but not proactively enough (hence the 'surprise' of the counter-mobilization in 1999) and not to such a sufficient extent (not having covered all controversies and levels of social structure) to prevent a collapse of its ISP. The more impressive was the grand mobilization strategy (pro-actively and sufficient) as of 1999 to open up the ISP again.

The fishermen had, to a certain extent, pro-actively mobilized, particularly prior to the 1993 intervention (e.g. collective mobilization) and shortly thereafter (e.g. black box), but not sufficiently, leaving controversies open and levels of social structure uncovered. This vacuum was soon dominated by counter-mobilizations from the anti-cockle front, eventually leading the collapse of the ISP in 2004.

It has to be stressed that sufficient and pro-active mobilization is not by definition a ‘sufficient’ condition for preventing a collapse of the ISP, or less dramatically, to open up and exploit institutional bandwidths. It is for that reason that the propositions are restricted to (1.) controversy, (2.) mobilization and (3.) counter-mobilization and do not go into the causality involving the fluctuations of the bandwidths and the ISP. Firstly, social structures themselves are not ‘measurable’ and, secondly, fluctuations of institutional bandwidths are not one-to-one linked with the strategic agency of the firm. As a consequence, the ISP does not give a recipe for success. It delivers an analytical tool serving as a minimum requirement (perhaps indicating a barrier to entry) to ‘play the game’ of interaction. The extent of success lies in the quality of the mobilization (perhaps indicating a barrier to success) and endogenous agents. For instance, in this case study, one might wonder if the fishermen were not destined to ‘lose the game’ and NAM destined to ‘win the game’.

Government intervention is a process.

Effects of government intervention are not predestined.

Firms that (pro-) actively encounter government intervention are likely to derive competitive advantage from their mobilization strategies.

Figure 26: General messages from the - first tested - ISP model
Both the cockle case and the gas case reveal deterministic arguments as well as room for escapism. For instance, on the one hand, one could argue that the fishermen were destined to disappear from the Wadden because ecological damage does not weigh up to the socio-economic relevance of the Wadden Sea, but at the same time, what would have happened if the cockle had become a national delicacy? Or, taking the NAM case, one could argue that the gas would have come up anyway, considering the billions of euros of tax involved, but what if an economic high tide, or cheap imports, had made the reserve less valuable, compared to ecological values? The ISP model is not able to answer these ‘what-if’ questions, but it does supply the analytical framework to understand why things go the way the way they go. From that perspective, it is worth drawing some additional conclusions, with regard to the two primary stakeholders in the cases being studied: firms and government. What can NAM and the fishermen on the one hand and government on the other learn from the interaction process they have been so heavily involved in, and that has been studied for this research?

Conclusions: lessons learnt for firms
As summarized in the above, two businesses were studied when testing the ISP model. Their relevant question was and will be: what can we learn from this? The perspective of this study was indeed that of the firm, which is that of competitive advantage. With hindsight, an interesting question would be "What explains our insufficient mobilization?", as both businesses encountered some serious setbacks throughout the interaction process. Lessons learnt then include the insights that come through analyzing what could perhaps have been a better way of carrying out mobilization strategies. As will appear below, the explanations for both the fishermen and NAM show striking similarities, despite the many differences between the two cases. This may lead us to believe that these conclusions might also be of interest to other businesses under similar circumstances, for instance as suggestions for their own strategizing.

Explaining insufficient mobilization by the cockle fishermen
Did insufficiency\(^{240}\) in mobilization (i.e. uncovered controversies and/or levels of social structure) lead to counter-mobilization? The answer would be

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\(^{240}\) ‘Insufficiency’ here is meant in a relative way, with no clear definition, because (a.) actual and perceived qualifications of what (in-)sufficient is might vary over time and (b.) the qualification depends on whether the level of analysis is ‘the whole package of mobilization efforts’ or even the ‘grand strategy’ or, for instance, one particular mobilization strategy.
The mobilization efforts of the fishermen did not cover all controversies and all levels of social structure sufficiently. In addition, mobilization started relatively late. This insufficiency left room for environmentalists, led by the Wild Cockles, to counter-mobilize, particularly on those controversies and levels of social structure that the fishermen only dealt with rudimentarily. The impossibility of settling the central controversy by means of mobilization left room for the other two controversies to arise, develop and, more importantly, settle, which served as a leverage for the political wrapping-up deal in 2004, including the ‘provisional’ settlement of the central controversy, sustained by the precautionary principle. The sector (could have) witnessed a gradual narrowing down of its ISP until the 1990s and a more exponential development thereafter, culminating in a full collapse in 2004. An investigation of the insufficient mobilization, per controversy and level of social becoming, delivers an explanation of where exactly the fishermen failed in their mobilization efforts.

What were the mobilization efforts and effects per level of social becoming for controversy 1? During the long course of the ecological controversy, the fishermen failed to effectively mobilize in order to settle the dispute. The sector relied on its arguments at the ideal level, without sufficiently and actively taking care of the remaining levels of social structure. At the ideal level, the fishermen believed that the outside world would one day be convinced of their rightful place in the Wadden Sea, without durable negative effects. At the normative level, the fishermen limited themselves to a willingness to adjust to rules, norms and regulations, without proactively demarcating and exercising sufficient legitimate room for maneuver. It is at this level that the precautionary principle dissolved the vacuum that was left unused. At the interactional level, the fishermen did not sufficiently expand and elaborate on network ties with the outside world, particularly with regard to research institutes. At the opportunity level, the fishermen did not sufficiently exploit their resources, particularly with regard to technological innovation. The fishermen failed to see that mobilization at the ideal level, in order to be successful, needs simultaneous elaboration on the other levels of social structure also.

What were the mobilization efforts and effects per level of social becoming for controversy 2? The mobilization efforts of the cockle sector failed to establish its socio-economic relevance. At the ideal level, the fishermen were not able to get the Dutch market interested in the cockle as a ‘national’ delicacy. At the normative level, the sector put its judicial rights into practice to safeguard and legitimize its existence on the Wadden Sea. At the interactional level, the sector was not able to establish ties with the larger
industry to sustain its economic position. At the opportunity level, the sector was not able to compete with the economic stakes of Wadden gas. The socio-economic relevance controversy was settled at the opportunity level, after the future of the cockle industry and that of gas extraction in the Wadden Sea had become entangled in the political debate. The fishermen had little potential to settle the socio-economic relevance to direct the socio-economic relevance controversy in the desired direction, particularly when comparison with the gas revenues was made. The fact that no real effort was put into getting the cockle on the national menu, in addition to the traditional exports to Southern Europe, can nonetheless be considered as a missed chance in this respect.

What were the mobilization efforts and effects per level of social becoming for controversy 3? The mobilization efforts of the fishermen failed to convince the outside world that it was carrying out the right strategies to justify its economic activities. At the ideal level, the fishermen were not able to remove the general perception that a relatively small industry was not putting sufficient effort into diminishing the relatively large negative external effects of their activities. At the normative level, the fishermen adhered to existing regulations and put into practice an extent of self-regulation. At the interactional level, the fishermen were open to any kind of cooperation with anybody interested in their activities, either professionally or privately. At the opportunity level, the fishermen did not possess the right resources to make their activities ecologically less obtrusive.

*Explaining insufficient mobilization by NAM*

Did insufficiency in mobilization (i.e. uncovered controversies and/or levels of social structure) lead to counter-mobilization? The answer would also in this case be affirmative. NAM saw its ISP fully collapsing with the 1999 intervention, without having put into practice any significant mobilization efforts prior to that. The opposite is also true, taking the intervention as the point of departure for mobilization, covering, and opening up again, all controversies and all levels of social structure, resulting in an expansion of their ISP.

What were the mobilization efforts and effects per level of social becoming for controversy 1? It was only after 1999, when Parliament had voted against gas extraction in the Wadden Sea, that NAM started to deliberately carry out mobilization. Regarding the first controversy, mobilization was successful, particularly in the sense that a settlement of the controversy against NAM’s own interest has been prevented. At the ideal level, a crucial mobilization achievement was to get gas extraction placed much lower in the ranking of harmful activities than people expected: the
focus shifted to more harmful activities, like mechanical cockle fishery. At the normative level, mobilization consisted of complying with existing rules, reference to previous experiences and the proposal of the ‘hand on the tap principle’. At the interactional level, mobilization aimed to get as many relevant stakeholders as possible into the network, including the critics, which accompanied the whole process leading up to the drillings. At the opportunity level, NAM successfully innovated to reduce the risks of negative external effects.

What were the mobilization efforts and effects per level of social becoming for controversy 2? NAM put its mobilization potential for this controversy into practice relatively late explicitly in order to sustain the socio-economic relevance of the Wadden gas. At the ideal level, NAM stressed the relevance of gas as a relatively clean natural energy resource and an asset for the Dutch economy. At the normative level, NAM held on to its legal vested interests which defined its ownership of the gas as of the 1960s which would result in major claims. At the interactional level, NAM particularly held on to its ties with Shell and the Ministry of Economic Affairs, knowing they would be strong allies, representing major public and private stakes. At the opportunity level, NAM saved a crucial mobilization potential for last, by linking the Wadden gas with the lingering problem of mechanical cockle fishery, the interests of which did not equal that of the potential gas revenues.

What were the mobilization efforts and effects per level of social becoming for controversy 3? NAM has been careful in its strategic behavior, first restricted at the local level, but after 1999, also in respect to the national level. At the ideal level, NAM, in collaboration with IMSA, tried to convince all stakeholders that their interests were not by definition incompatible with those of Wadden gas; on the contrary, and that if stakes were damaged, compensation would take place. At the interactional level, NAM paid great attention to keeping all stakeholders ‘on board’ during the whole interaction process. At the opportunity level, NAM possessed overabundant financial resources and organizational expertise to accomplish the necessary mobilization.

**Conclusions: lessons learnt for policy makers**

The central research question of this study points to lessons learnt for policymakers. Given the outcomes of the research, what can government learn from it? Two general conclusions will be drawn here, that in fact recommendations for government in general, when intervening in the market. Firstly, it will be advisable to be clear and precise about the priorities that
underlie the intervention. Secondly, it will be advisable to facilitate active involvement of stakeholders throughout the entire interaction process. These conclusions are not far-fetched, nor are they new to scientists or practitioners. However, their relevance for the cases under examination here – and most likely for other cases of interventions in government sensitive markets also – makes it worthwhile to examine them a more deeply.

Clear and precise prioritization
An intervention is usually part of a larger policy, often encountering a wide array of interests. In addition, as has been argued here, the intervention is a process and effects can be kaleidoscopic, stretching out over time, ex ante and ex post the intervention act. Cockle fishery and gas extraction in the Wadden Sea have taken place against that background. We have seen that, within the time span of a few decades, policies can change, as in this particular case, from the plans to impolder the wetlands to the accommodation of becoming a UNESCO world heritage site. This research has indicated that both the cockle fishermen and NAM (could) have witnessed a narrowing down of their institutional bandwidths in accordance with this development towards intensifying nature preservation in that area. However, this does not, by definition, imply a fully linear and consistent policy in that direction through the years. For instance, the EVA II report was a logical and announced follow-up on the first evaluation research, but where in EVA II, or in its over 40 underlying reports, was it advised to abandon mechanical cockle fishery from the Wadden Sea, which appeared to be a definitive outcome of the process? And what was the Parliamentary ‘no’ to new Wadden gas extractions worth, if a few years later gas from new fields was flowing to the mainland? In other words, has government always been clear and precise what the priorities in the Wadden Sea were? And who is government? More of these skeptical questions can easily be formulated, but if there is one thing that this study has illustrated, it is that policymaking is a process, characterized by shifting goals and priorities. For that same reason, it is not expected that the current outcomes of the interaction processes, as described in this research, have established a status quo for the Wadden Sea. At this stage, gas revenues and nature preservation have prevailed over a relatively small cockle fishing industry, which according to some illustrates the power of the big money and nature values. It is conceivable, however, that other competing values will become increasingly important in the Wadden Sea in the future. For instance, if sea levels continue to rise, coastal safety will become an even bigger issue than it already is. From that perspective, it would be worth repeating the exercise of policy entrepreneur IMSA, in which they had let all kinds of
specialists rank potential risks and threats to the Wadden Sea. Would that ranking of 2003, with cockle fishery relatively high and gas extraction relatively low on the list, remain the same in the future? If not, policies will change, interventions will occur and the story starts all over again. A government being more clear and precise about the priorities, and potential shifts therein, could avoid gainless investments by those who hold other focal points. Moreover, benefits are to be expected if others also work towards one desired end. For instance, some considerable investments by scientists (e.g. EVA II research), fishermen (e.g. mobilization efforts) and the tax payer (e.g. the buying out millions) have been made, of which it remains to be seen if they appear to be worth it in the end, from these different perspectives. Is it thinkable that, one day, people will ask themselves “why did they not spend all that money in the development of sustainable cockle fishery?”

Facilitation of active stakeholder involvement
In this study, it appeared that government is not always the imposing first mover. This is in line with the notion proposed here of the institutional survival path, and with trends in academia and society where government is being given a less hierarchical position in society. An important role of modern governments is that of a catalyst. A necessary condition for playing that role effectively is to be able to work with other parties, through questioning, informing, triggering and facilitating. We have seen that firms are eager to see government putting that into practice. The firms being studied, but also other parties such as scientists, had a great deal of knowledge and expertise. But money is also an important asset in society that government could make better use of. Another valuable resource in society is that of initiative and innovation. As appeared from this study, NAM had done its homework very well, for instance by building up a solid track record of monitoring at the island of Ameland, and did not refrain from taking initiatives, which eventually paid off. The ISP model presumes that firms can derive competitive advantage from initiative and investments in getting to know the institutional environment in which they operate. These are prerequisites for firms to make use of that institutional environment, with the potential of changing institutional bandwidths as an ultimate source of competitive advantage. In this study, we have seen that this has worked out well for NAM, but not for the fishermen. The failed mobilization efforts of the latter might not only be a loss to the fishermen involved. It is perhaps also a missed chance for Dutch society and the economy to develop a sustainable cockle fishery. With increasing world populations and the growing need for nature conservation, it is believed that sustainable fishery is something that
should be invested in, not only by businesses, but also by, and with, government. Not surprisingly, the need argued here for the facilitation of active stakeholder involvement should best go hand in hand with the clear and precise prioritization that has also been argued in the above.

**Suggestions for further research: potential of the ISP model**

The boundaries between the public and the private spheres can be blurred, as recent history has indicated. In addition, intermediate social structures, such as trust and legitimacy, appear to function as cornerstones of the public-private interface. The model of the Institutional Survival Path has been designed to get more of a grip on the dynamics involved in that complex interaction process. The model builds on a growing body of literature in which scholars of organization studies, strategic management and/or social sciences such as public administration try to find one another. It is believed that this is a promising development for the social sciences, as well as for practitioners and policymakers who could benefit from the achievements that lie waiting.

The ISP model has been applied to the case of cockle fishery and gas extraction in the Dutch Wadden Sea. Despite the fact that the model has appeared to be workable in this case, more research is required to sustain its solidity. It is thus advisable to apply the model to other case studies. In addition, the model in its current condition leaves room for further elaboration and refinement. A few suggestions for that will conclude this study.

Firstly, to what extent is the taxonomy of controversies applicable to other environmental case studies? For this research, an analytical distinction between the ecological, the socio-economic and the strategic positioning controversies appeared to be a logical and workable one, but that might also be true for other cases of institutional pressure due to environmental concern.

Secondly, the notion of counter-mobilization deserves further elaboration. For this research, the emphasis was on the perspective of the firm and its mobilization efforts. However, taking the other angle, which is that of counter-mobilization, by the firm or its opponents, also seems promising. Despite a more negative connotation, all kinds of organizations can benefit from the ability to frustrate the strategies of another. The question then is, from a conceptual point of view, to what extent counter-mobilization differs from mobilization.

Thirdly, the taxonomy of modes of intervention (see chapter 2, figure 4) requires further investigation. Only one of the six modes has been applied to this research, but the other modes or the taxonomy in general could be worth additional research also.
Fourthly, the ISP model has been constructed in the light of a research question on the effects of government intervention, but a fair argument can be put forward to apply the model to cases with no particular relationship to government intervention. The ISP model has served as a metaphor for the firm which might imply further and more general potential for organizational research. In particular the notion of mobilization could shed some new light on how competitive advantage can be acquired by how management deals with the organizational environment. The question then is: is the ISP model a new and worthwhile way of looking at the firm?
“Our women cry. Tears for the injustice done to us. Tears for their husbands, who silently undergo yet another set-back. Tears for their sons, whose future is being taken away. Tears for a hard-working country which is suffering from the green lie.” Wout van den Berg starts his New Year’s speech for the common fishery association on an emotional note. It is March 2008. Van den Berg faces an audience of fellow mussel fishermen. Some of the sturdy fishermen in the room are fighting against the tears. Silently indeed. The other day, however, they all spoke up. Not with their own voices, but by letting their ships do the job. More than forty mussel vessels had sailed out collectively, forming one impressive armada. The ships then blew their horns, all at the same time. This was the sound of their protest against the recent developments threatening their industry.

One month earlier, the Council of State had declared the licenses for gathering the so-called ‘mussel seed’ from the Wadden Sea null and void. For decades, the fishermen had caught these baby mussels in the Wadden Sea in order to transport them to the Zeeland delta, where they would reach maturity. They would then be harvested as the famous delicacy; the Zeeland mussel. Particularly since the construction of the giant Delta Works, protecting the South-west of the country from the sea, the Zeeland fishermen had become largely dependent on the mussel population in the Wadden Sea. In turn, the little town of Yerseke, having the only mussel auction in the world and functioning as the national shellfish headquarters, has relied heavily on the processing of mussels. Van den Berg now fears the unemployment of 3,500 people. Some years ago, the local industry had already suffered from the loss of the cockles from the Wadden Sea. Cockles from these wetlands north of the country also used to end up in the preserving industry of Zeeland. However, the mechanical cockle ships had been banned from the Wadden Sea as of 2004.

Van den Berg had been afraid of this scenario. In his speech three years earlier he had urged his fellow fishermen, government and environmental organizations to prevent things from getting out of hand. Immediately after their fellow fishermen had to sell their cockle vessels, the mussel sector had agreed on a trajectory towards a more sustainable mussel industry, together with scientists and environmentalists. But now, he had to conclude, some of them had stepped out of the alliance and had gone to court. He knew that it was serious now. He had realized, a long time ago already, how important it is for a fisherman to have some knowledge of legal arrangements and judicial procedures. It had made him decide to study law. With hindsight, not such a peculiar choice for a fisherman as it first might have seemed. Fishing had more and more become a matter of sailing the stormy seas of laws, courts and procedures. He had seen it with his fellow cockle fishermen, some years earlier.
While Van den Berg is making his speech, in a laboratory of one of the largest shellfish firms in the world, a new generation of young mussels is about to see the light. The hi-tech hatchery looks like the interior of a space ship, with tubes all around the room, containing bubbling water and algae. They spread a mysterious and almost fluorescent light on those who keep a close eye on this experiment. These mussels are far too expensive now for the regular market, but the current results are promising. So are those of another experiment, a bit further away from the little town of Yerseke and the Zeeland delta. An agricultural entrepreneur kneels down in front of a big pond, hidden between the massive glass warehouses that characterize the area, far away from the salty Wadden Sea where the cockle vessels once sailed. The experiment has been kept secret. The entrepreneur knows that elsewhere in the country others are also attempting to do what the cockle fishermen have always said to be impossible; the breeding of cockles. His hand reaches into the dark and confined water space. A handful of little shellfish makes the man realize that there are an estimated five million cockles there, proving that inland cockle hatcheries are quite possible. “Why have the cockle fishermen never even tried to do so themselves?”, he wonders while walking back to his little office.

Wout van den Berg has finished his speech. For the mussel sector the future is uncertain. Not to mention that of the local community of Yerseke, which heavily relies on that little shellfish. Tomorrow, he will go back to his ship to continue the experiment with the so-called mussel seed collector. The innovative project is part of the trajectory towards further sustainability, initiated by the fishermen themselves. The experiment had long seemed promising, but it is not even sure if it will be continued for another year. Fishermen are entrepreneurs. “But how can we invest in anything at all, with all that insecurity?”, Van den Berg wonders, while walking away from the microphone and sensing the gaze of the fishermen on his bowed and weary head...
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References


## Annex 1 - Acronyms

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<tbody>
<tr>
<td>AGW</td>
<td>Adviesgroep Waddenzeebelheid (Advisory Group Wadden Sea Policy)</td>
</tr>
<tr>
<td>BMC</td>
<td>Bureau voor Medicinale Cannabis (Bureau for Medical Cannabis)</td>
</tr>
<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
</tr>
<tr>
<td>CMS</td>
<td>Convention on the Protection of Migratory Species</td>
</tr>
<tr>
<td>CPB</td>
<td>Centraal Plan Bureau (Central Planning Bureau)</td>
</tr>
<tr>
<td>CRM</td>
<td>Ministerie van Cultuur, Recreatie en Maatschappelijk Werk (Ministry of Culture, Recreation and Social Works: predecessor of Ministry of VROM, currently I&amp;M)</td>
</tr>
<tr>
<td>D66</td>
<td>Democrats '66</td>
</tr>
<tr>
<td>EBN</td>
<td>Energie Beheer Nederland B.V.</td>
</tr>
<tr>
<td>EEAC</td>
<td>European Environment and Sustainable Development Council</td>
</tr>
<tr>
<td>EHS</td>
<td>Ecologische Hoofd Structuur (Ecological Main Structure)</td>
</tr>
<tr>
<td>EMEA</td>
<td>European Medicines Evaluation Agency</td>
</tr>
<tr>
<td>HSL</td>
<td>Hogesnelheidstrein (high-speed train)</td>
</tr>
<tr>
<td>IMARES</td>
<td>Independent research institute for marine ecology</td>
</tr>
<tr>
<td>IWC</td>
<td>Interdepartementale Waddenzeecommissie (Interdepartmental Wadden Sea Commission)</td>
</tr>
<tr>
<td>KNIOZ</td>
<td>Koninklijk Nederlands Instituut voor Zeesterrenonderzoek (Royal Netherlands Institute for Sea Research)</td>
</tr>
<tr>
<td>L&amp;V</td>
<td>Ministerie van Landbouw en Visserij (Ministry of Agriculture and Fisheries: predecessor of Ministry of LNV, currently Ministry of EZL&amp;I)</td>
</tr>
<tr>
<td>LNV</td>
<td>Ministerie van Landbouw, Natuurbehoud en Voedselveiligheid (Ministry of Agriculture, Nature preservation and Food safety)</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution From Ships</td>
</tr>
<tr>
<td>MER</td>
<td>Milieu-effect Rapportage (Environmental Effects Report)</td>
</tr>
<tr>
<td>MEZ</td>
<td>Ministerie van Economische Zaken (Ministry of Economic Affairs)</td>
</tr>
<tr>
<td>NAM</td>
<td>Nederlandse Aardolie Maatschappij (Dutch oil and natural gas producer)</td>
</tr>
<tr>
<td>NOGEPAs</td>
<td>Netherlands Oil and Gas Exploration and Production Association</td>
</tr>
<tr>
<td>NWO</td>
<td>Nederlandse Organisatie voor Wetenschappelijk Onderzoek (Netherlands Organization for Scientific Research)</td>
</tr>
<tr>
<td>ODUS</td>
<td>Stichting Ontwikkeling Duurzame Scheelvisserij (Foundation for Development of Sustainable Shellfishery)</td>
</tr>
<tr>
<td>OSPAR</td>
<td>Convention for the Protection of the Marine Environment of the North-East Atlantic</td>
</tr>
<tr>
<td>PKB</td>
<td>Planologische Kernbeslissing (Key Planning Decision)</td>
</tr>
<tr>
<td>PvdA</td>
<td>Partij van de Arbeid (Labor Party)</td>
</tr>
<tr>
<td>Pvis</td>
<td>Productschap Vis (Fish Product Board)</td>
</tr>
</tbody>
</table>
RIN   Rijksinstituut voor Natuurbbeheer (Research institute for nature management)
RIKZ  Rijksinstituut voor Kust en Zee (Research institute for coast and sea)
RIVO  Rijksinstituut voor Visserij Onderzoek (Research institute for fishery research, currently part of IMARES)
RUG  Rijksuniversiteit Groningen (University of Groningen)
SAC  Special Area of Conservation
Sovon  Vogelonderzoek Nederland (Ornithology Research Netherlands)
SPA  Special Protection Area
TK  Tweede Kamer (Lower House of Parliament)
UBS  Swiss bank
V&W  Ministerie van Verkeer & Waterstaat (Ministry of Infrastructure & Water Works, currently Ministry of I&M)
VROM  Ministerie van Volkshuisvesting, Ruimtelijke Ordening & Milieu (Ministry of Housing, Spatial Planning and the Environment, currently Ministry of I&M)
WAR  Wadden Adviesraad (Wadden Advisory Board; predecessor of Raad voor de Wadden)
Annex 2 - List of interviewed agents

Arie Bakker – fisherman and Lenger Seafoods
Wout van den Berg - fisherman
Karel Berkhout – NRC Handelsblad
Ilse Bouwer – Van der Waaïj – NAM
Gerard J. Borghuis – NAM
Gerrit Braks – PO Kokkels and LNV
Simon van Dam – fisherman
Jan van Dijk – LNV and fisherman
Kees Dijkema – IMARES
Bruno Ens – IMARES
Gerbrand Gaaff – Ecomare
Pieter Geijsen – Roem van Yerseke
Rien Herber – NAM
Jaap Holstein – PO Kokkels
Jan Jaap Hooft – LNV and Staatsbosbeheer
Klaas de Jong – fisherman
Martijn de Jonge – Wilde Kokkels
Edwin Koning – Koppert Cress
Ronald Lanters – LNV
Han Lindeboom – IMARES
Martijn Lodewijkx – Greenpeace, Waddenvereniging and LNV
Joop Marquenie – NAM
Bert Meijsing – Topsy Baits
Machiel Mulder – CPB
Tammo Oegema – IMSA
Albert Oost – RIKZ
Sandra Quick – EZ
Fokke Rispens – EBN
Nathalie Steins-Oosterling – Pvis
Marnix van Straalen – Marinx
Henk Tameling – Waddenvereniging
Bote Teerling – fisherman
Harm Teerling – fisherman
Koos Teerling – fisherman
Hessel Tot – fisherman
Reinier Treur – NAM
Pier Vellinga – Wageningen University
Tanja Verbeeten – Utrecht University
Jaap de Vlas – RIKZ

241 The most relevant affiliations, either present or past, are mentioned.
Sweder van Wijnbergen – University of Amsterdam and EZ
Pieter Winsemius – Natuurmonumenten and VROM
George Wintemans – NAM
Els Witsenbur – Senter Novem
Tineke Witteveen – PvdA
Fincent van Woerden – VROM
Wim Wolff – RUG
Ton IJlstra – LNV
Annex 3 – List of used websites

http://cwss.www.de
http://europa.eu.int/comm/fisheries/policy_nl.htm
http://home.planet.nl/~camphuys/eidersterfte.html
http://home.wxs.nl/~kwant017/wadgids.htm
www.alterra.wageningen-ur.nl
www.andereijden.nl
www.ascc.org
www.biotopia-floriade.nl
www.bru.nl
www.clingendael.nl
www.commissiebodemdaling.nl
www.corbey.nl
www.curia.europa.eu
www.ecomare.nl
www.energie.nl
www.gasterra.com
www.greenpeace.nl
www.hettijgekeerd.nl
www.hettijgeleerd.org
www.imsa.nl
www.imieu.eu
www.interwad.nl
www.kokkelvisserij.nl
www.lemisnexus.com
www.milieudefensie.nl
www.minez.nl
www.minhvn.nl
www.nam.nl
www.natuurloket.nl
www.natuur,pagina.nl
www.natuurmonumenten.nl
www.nederlandnatuurlijk.nl
www.nioz.nl
www.odus.nl
www.parlement.nl
www.pvis.nl
www.raadvoorwadden.nl
www.rijkswaterstaat.nl
www.rikz.nl
www.rivo.nl
www.roemvanyerseke.nl
www.shell.com
www.schelpdieren.nl
www.senternovem.nl
www.staathbosbeheer.nl
www.stichtingwad.nl
www.tweedekamer.nl
www.unesco.org
www.vara.nl/zembla
www.visserij.nl
www.vissersbond.nl
www.vogelbescherming.nl
www.vrom.nl
www.waddenadviesraad.nl
www.waddeninzicht.nl
www.waddenloket.nl
www.waddenseamaps.net
www.waddensea-secretariat.org
www.waddenvereniging.nl
www.waddenzee.nl
www.waddenzee.nl
www.wildekokkels.nl
www.wnf.nl
www.won-3.nl
Annex 4 – Print screen example of the cockle data base
Annex 5 – Print screen example of the gas database
Annex 6 – Map of Nature 2000 areas including the Wadden Sea
Dutch Summary

Tot welke effecten op de strategie van de onderneming leidt de overheidsinterventie? De doelstelling van dit onderzoek is om deze algemene vraag ook in algemene, namelijk theoretische, zin te beantwoorden. Twee belangrijke uitgangspunten zijn hierbij van belang, namelijk (a.) ‘interventie x’ leidt niet per definitie tot ‘uitkomst x’ en (b.) de theorievorming over dit onderwerp is rudimentair. Aldus is binnen dit onderzoek een theoretisch model ontwikkeld, namelijk het model van het ‘institutional survival path’ (ISP), dat gebaseerd is op de aannames dat de effecten van overheidsinterventie in een proces tot stand komen. Inzichten uit de bestuurskunde, de organisatiwetenschappen en de sociologie zijn hierbij bruikbaar gebleken. Er is met name geput uit de literatuur over institutionele theorie, de resource-based view en structuratie theorie.

Het ISP-model plaatst het strategieproces (‘strategy path’) van de onderneming in de context van de dynamische omgeving, uitgedrukt als institutionele bandbreedten (‘institutional bandwidths’). Binnen deze institutionele bandbreedten laveert het strategisch pad van de onderneming. Iedere onderneming kent zijn eigen unieke set van institutionele bandbreedten, sommige gedeeld met bijvoorbeeld branchegenoten, andere weer zeer individueel bepaald. Te denken valt aan respectievelijk wetgeving en imago. De ondernemingsunieke set van institutionele bandbreedten is een institutioneel overlevingspad, oftewel het ‘institutional survival path’. In een dynamisch perspectief is dat te visualiseren door middel van een horizontale koker van institutionele manoeuvreerruimte waarbinnen het strategisch pad van de onderneming zich door de tijd beweegt. Geen manoeuvreerruimte betekent feitelijk geen onderneming en handelen buiten het ISP is een potentieel gevaar voor het legale en gelegitimeerde voortbestaan. Waar een onderneming doorgaans wordt geassocieerd met bijvoorbeeld een merk, product of beurswaarde, daar wordt in dit onderzoek betoogd dat de onderneming is te analyseren in termen van het eigen institutional survival path.

Het ISP-model betoogt dat de overheid intervenieert via de institutionele bandbreedten. Bij institutionele bandbreedten kan onderscheid gemaakt worden tussen een viertal dimensies, namelijk (a.) de cognitieve dimensie (‘ideal level’), (b.) de normatieve dimensie (‘normative level’), (c.) de netwerkdimensie (‘interactional level’) en (d.) de machtsdimensie (‘opportunity level’). Dit impliceert dat de effecten van overheidsinterventie zich op verschillende dimensies kunnen voordoen, vanuit een dynamisch perspectief. Met andere woorden, effecten van overheidsinterventie zijn eenduidig, noch statisch. Nog concreter gesteld, de effecten beperken zich niet tot
bijvoorbeeld een wetswijziging en de daarop volgende eerste reactie van een onderneming. Wat die effecten wel kunnen zijn laat de case study in dit onderzoek zien.

Voor dit onderzoek zijn twee zeer verschillende ondernemingen bestudeerd die desondanks met elkaar te maken kregen in een situatie van toenemende en vergelijkbare institutionele druk en daarom als één case study kunnen worden beschouwd, namelijk de mechanische kokkelvisserij en de gaswinning door de NAM in de Waddenzee. In het geval van de kokkelvisserij is er sprake van een bedrijfstak die lange tijd winstgevend is geweest en relatief gevrijwaard van overheidsbemoeienis. Echter, met de toenemende aandacht voor natuurbehoud in het algemeen en voor de Waddenzee in het bijzonder kwam de sector steeds meer onder vuur te liggen. De institutionele bandbreedten werden in toenemende mate nauwer, door bijvoorbeeld wetgeving. De NAM was dit fenomeen niet onbekend, want deze Shell-dochter kreeg na vergelijkbare ontwikkelingen midden jaren tachtig zelfs te maken met een tienjarig moratorium op nieuwe gaswinning uit de Waddenzee. Ook hier ontwikkelden de bandbreedten zich bepaald niet in een voor de onderneming gunstige richting, bijvoorbeeld als alleen al wordt gekeken naar de publieke opinie toentertijd. Waar de mechanische kokkelvissers echter het tij niet konden keren en uiteindelijk het veld moesten ruimen in de Waddenzee, daar is de NAM er in geslaagd om met het ‘hand-aan-de-tap-principe’ nieuw Waddengas te winnen. Waarom heeft de ene bedrijfstak het ineenklappen van de institutionele bandbreedten niet weten te voorkomen en hoe heeft de andere onderneming deze juist weten te verruimen?

Het ISP-model verklaart de dynamiek in de interactie tussen overheid en bedrijfsleven in termen van controversen (‘controversies’). Een overheidsinterventie is een klein schakeltje in een groter en complexer interactieproces van één of, doorgaans, verscheidene controversen. Het verloop van deze controversen en met name de eventuele beslechting ervan bepalen de ontwikkeling en richting van de institutionele bandbreedten. Overheidsinterventies zullen in de regel het risico in zich dragen dat het institutional survival path vernauwt, omdat er een homogeniserende werking van overheidsbemoeienis uit gaat. De onderneming daarentegen streeft een onderscheidend vermogen ten opzichte van de concurrentie na en is daarom juist gebaat bij méér manoeuvreerruimte. De beslechting van de controversen die gemoeid zijn met de overheidsinterventie kunnen niet alleen negatief uitvallen voor de onderneming, bijvoorbeeld wanneer lobbypogingen niet hebben kunnen voorkomen dat een nieuwe wet de bedrijfsvoering in de wielen rijdt, maar de controversen zijn vooral ook een mogelijkheid om ze aan
te wenden ten behoeve van het concurrerend vermogen. Zo zal een onderneming die het beste weet te halen uit de overheidsbemoeienis, bijvoorbeeld door te anticiperen en innovatief in te spelen op aanstaande institutionele veranderingen, zich positief onderscheiden ten opzichte van de concurrentie. Binnen het ISP-model wordt dit vermogen uitgelegd aan de hand van het begrip ‘mobilisation strategy’. De belangrijkste controversen waar zowel de kokkelvissers als de NAM mee te maken kregen betroffen de ecologische effecten, de sociaal-economische relevantie en het strategisch handelen van de onderneming.

In deze studie blijkt dat de NAM zich goed vergewist heeft van de mogelijkheden die institutionele druk met zich mee brengt en vervolgens bewust een mobilisatiestrategie heeft ontwikkeld waarmee het institutional survival path zich heeft verruimd. De mechanische kokkelvissers daarentegen hebben deze boot gemist, met name in de periode toen het rapport van de commissie Meijer uitkwam, in het voorjaar van 2004. In deze hectische en complexe episode, met belangrijke rollen voor verschillende spelers, variërend van het Hof in Straatsburg tot individuele zogenaamde ‘policy entrepreneurs’, werd het pleit uiteindelijk in de Tweede Kamer beslecht ten nadele van de mechanische kokkelvissers in de Waddenzee en ten faveure van nieuwe boringen naar Waddengas. De resultaten van het empirisch onderzoek bevestigen de aanname van het ISP-model dat een succesvolle mobilisatiestrategie tenminste alle vier de genoemde dimensies beslaat en dat de onderneming zich hiermee proactief mengt in de controversen die de institutionele druk kenschetsen. De strategie van de kokkelvissers kwam niet alleen te laat, ook was er sprake van een achilleshiel op enkele dimensies. De NAM had daarentegen zorgvuldig een strategie in de volle breedte van de relevante dimensies opgezet, met navenant resultaat. Zo zag de Waddenzee tegelijkertijd een institutional survival path van de ene onderneming ineenklappen als dat van een andere onderneming zich ontvouwen. In relatie tot de centrale vraagstelling van het onderzoek kan geconcludeerd worden dat de effecten van de overheidsinterventie niet eenzijdig door beleidsmakers worden opgelegd, maar dat die effecten zich manifesteren in de dynamiek van de institutionele bandbreedten, en dus het institutional survival path, waarbij zowel de overheid als de onderneming tot de spelers behoren die deze in een interactieproces gezamenlijk vormgeven.
Acknowledgements

Knowingly or unknowingly, many people have contributed to this research. In other words, it has not been an exercise of total monkhood. I would therefore like to take the opportunity to mention some people in particular. First and foremost, I would like to thank Fred Fleurke and Harry Sminia. We have been quite an extraordinary team for over the last few years. I consider the discussions that we had, either back in Amsterdam or in Sheffield, as the most challenging ones that I have encountered throughout the whole research process and they have undoubtedly left their mark upon the product as it is presented here.

I would then like to thank all the respondents, as they are - rather impersonally - being summed up in the appendices. In practice, however, the interaction with each and every one of them has been extremely rewarding and enjoyable to me. The passion, professionalism and knowledge that they portrayed have been more inspiring to me than this little piece of work could possibly reflect. The text in the book is the author’s, but the reality - which is far more intriguing and complex - is theirs. Thank you for having shared that with me.

I would like to thank the following people for their useful comments on previous versions of the text, or parts thereof: Nicky Bouwers, Peter Driessen, Peter Groenewegen, Leonie Heres, Jaap Holstein, Frank den Hond, Anoop Madhok, Tammo Oegema, Emmie van Oirschot, Theunis Piersma, Arthur Ringeling, Hens Runhaar, Katrien Termeer, Jörg Sydow, Zeger van der Wal, Gail Whiteman, Jakomijn van Wijk, Sweder van Wijnbergen, Arnold Wilts, Pieter Winsemius, Tineke Witteveen-Hevinga, Wim Wolff and Anton Zijderveld.

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Amsterdam, August 2008