ABSTRACT ENGLISH

Facilitated by the rise of digital infrastructures and platforms, and driven by the increasing complexity of organizational problems, collaboration and innovation between actors with heterogeneous backgrounds, understandings, perspectives, and interests is becoming more and more relevant to the success of organizations. However, collaboration and innovation between heterogeneous actors includes contradictions, such as open versus closed innovation, centralized versus decentralized control, and collaborative versus conflicting goals. This dissertation uses a process perspective to understand how such contradictions are organized and managed. The first study reports a systematic literature review on open innovation and the second and third study report on a longitudinal study of Helix Nebula, which is a collaboration between European “big science” (CERN, EMBL, ESA) and “big business” organizations (Atos, CloudSigma, T-Systems), small- and medium-sized firms (SixSquared, Terradue, The Server Labs), and public e-infrastructure providers (EGI, GÉANT) to develop a European scientific cloud computing infrastructure. The findings show that collaboration and innovation between heterogeneous actors requires dynamic ways to perform both open and closed innovation, benefit from elements of centralized and decentralized control, and make collaborative and conflicting goals mutually enabling. Collaboration and innovation between heterogeneous actors thus require organizing and managing contradictions through dynamic movements between opposing forces.