Frequently, IT projects are discussed in the news because they do not meet the expectations that were initially set. These projects either spend more, take longer, deliver less functionality than forecasted or do not deliver anything at all. For these projects, the initial expectations were considered valid and accurate.

Surprisingly however, the quality of such forecasts is hardly ever assessed, whereas they serve as key elements in decision making and monitoring progress. In this thesis, we propose a method to quantify IT forecast quality that enables IT executives to know their forecast quality and what bias they can expect.

We applied our method to real-world data of 1926 projects with total investment cost of 1232+ million Euros for which 12389 forecasts were made. In one case study we found that the organization overestimated their forecasts tenfold up to hundredfold times, whereas the management assumed the forecasts to be accurate.

Moreover, we discuss that several benchmarks, among which often-quoted rates of success, are meaningless without accounting for the potential biases in the forecasts. Finally, we illustrate how IT executives can use the quantified forecast information to enhance decision making.