EQUITY

"exploring quantifiable IT yields"

Explanation of reference cone

Quantifying IT forecast quality
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http://www.cs.vu.nl/equity/

Introduction

- A reference cone shows what the f/a ratios should look like when an infinite number of forecasts are made.

- The reference cone allows to compare f/a ratios in an f/a plot to how they should behave.
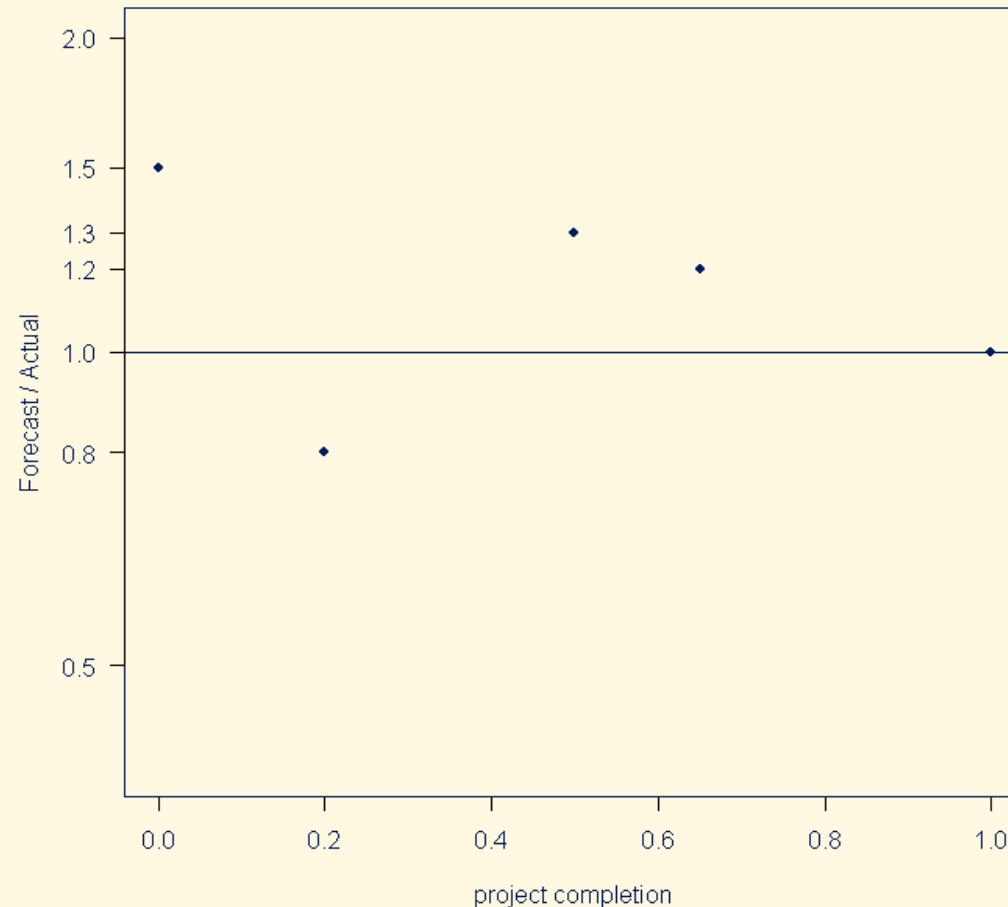
Example forecasts

- Suppose a project started 1/1/2008 and ended 1/9/2008. The project costs were 20 million euro.

- During the project the following forecasts were made:

Forecasted costs (millions)	Date of forecast	Project progression	f/a ratio
30	1/1/2008	0	1.5 (=30/20)
16	19/2/2008	0.2 (= (19/2 - 1/1) / (1/9 -1/1))	0.8
26	2/5/2008	0.5	1.3
24	8/6/2008	0.65	1.2

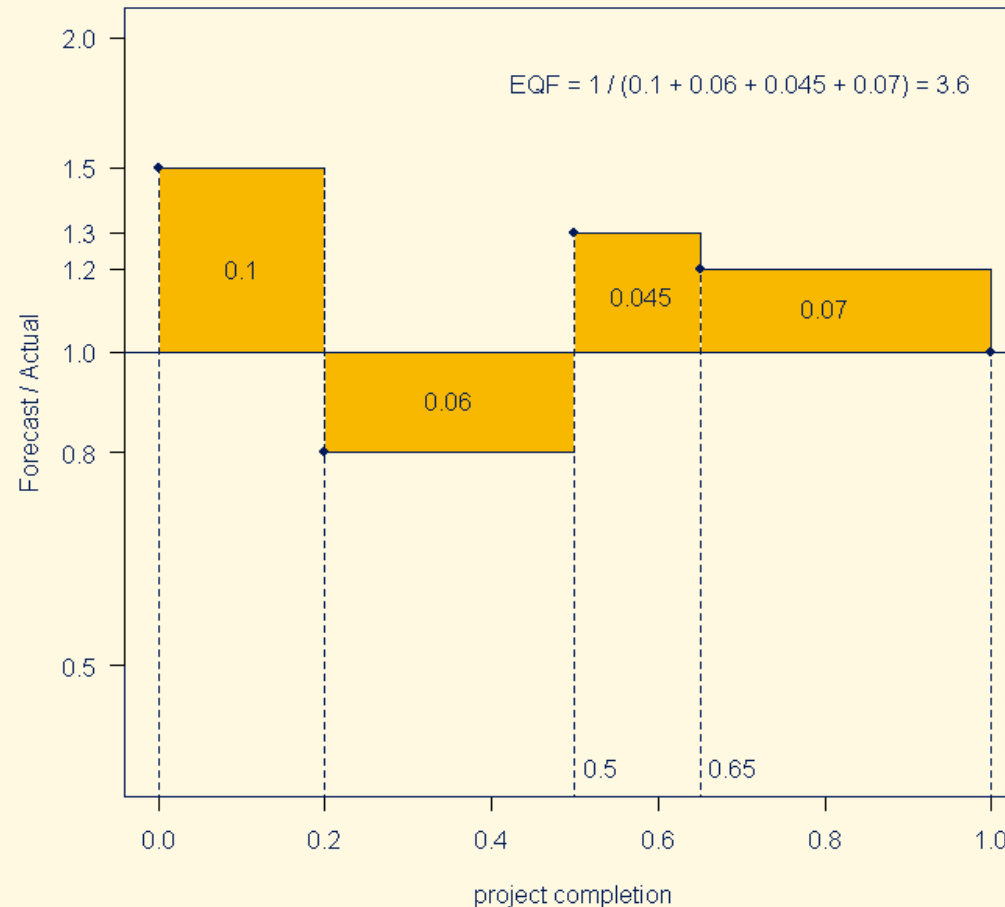- What is the quality of these forecasts?

Example forecasts

With the f/a plot it is possible to see whether the forecasts are biased or not and what the spread of the forecasts is.

But it is difficult to assess how good an individual forecast is. For instance, is the first f/a ratio of 1,5 reasonable?
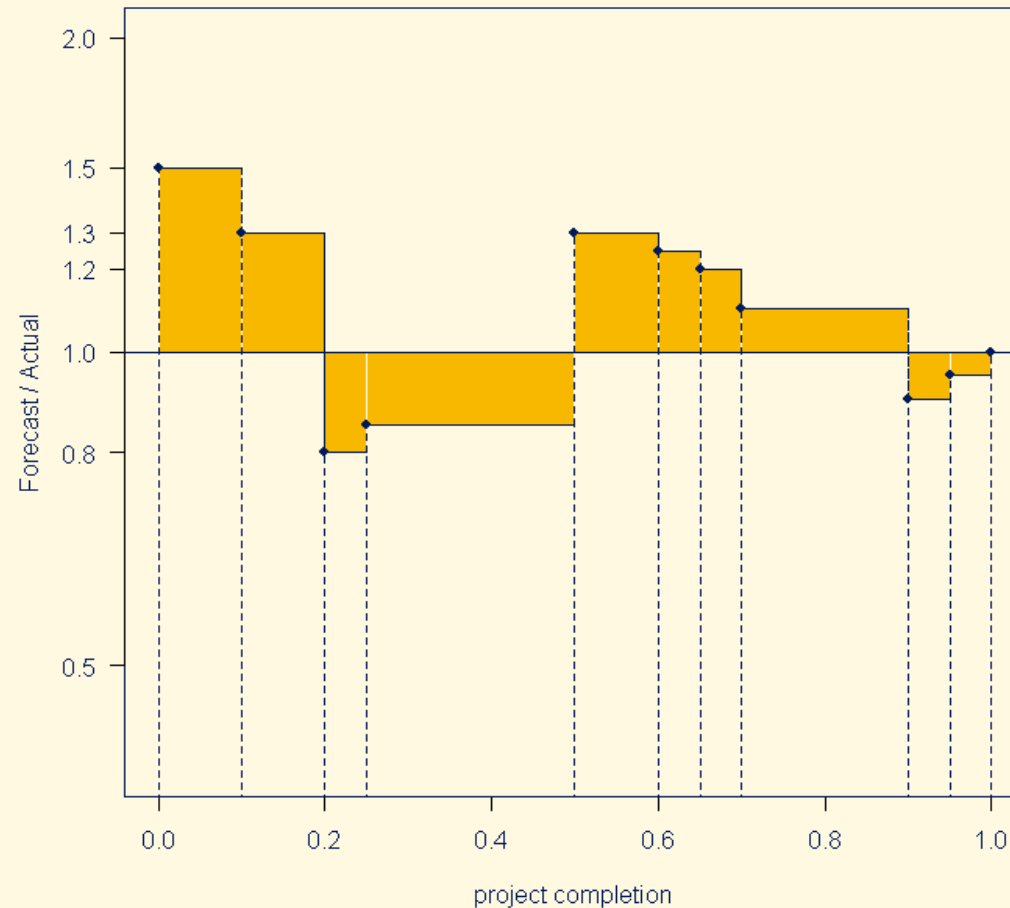
4 example forecasts

With the EQF it is possible to quantify the quality of all forecasts made for a project.
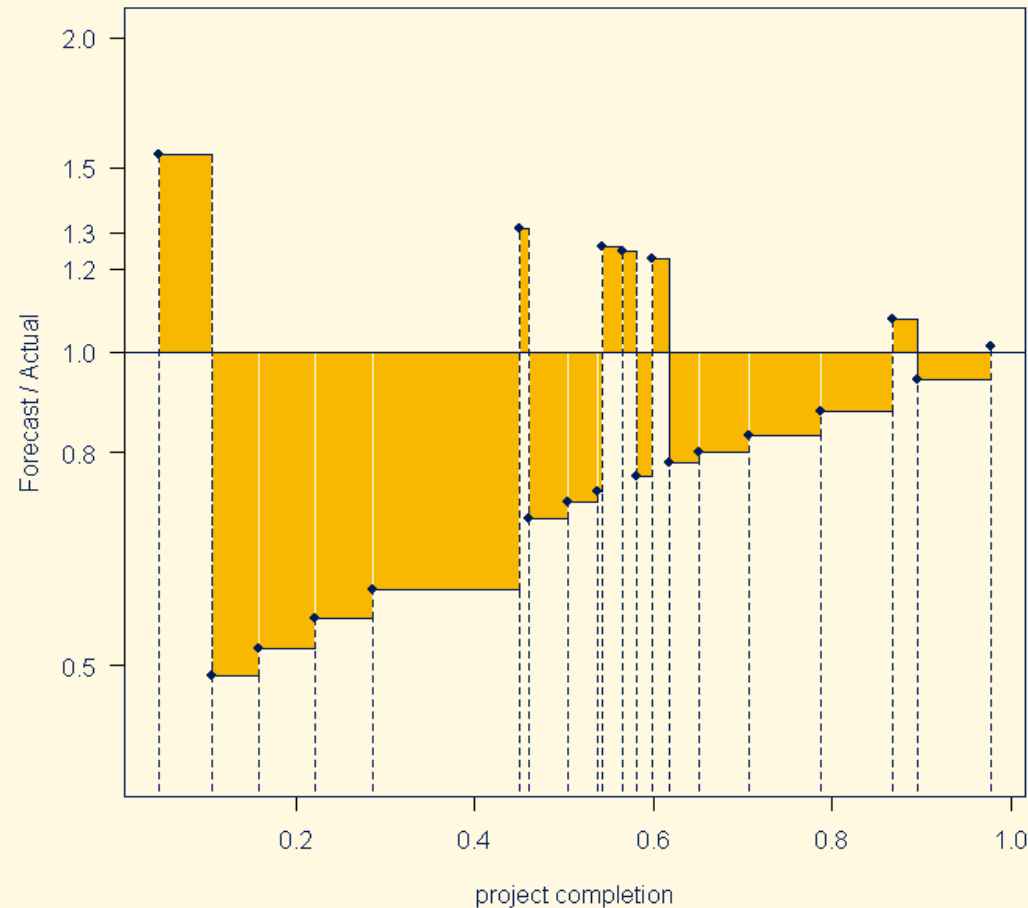
However, this does not allow us to see whether the first forecast was good. It is only possible to assess the forecasts overall.
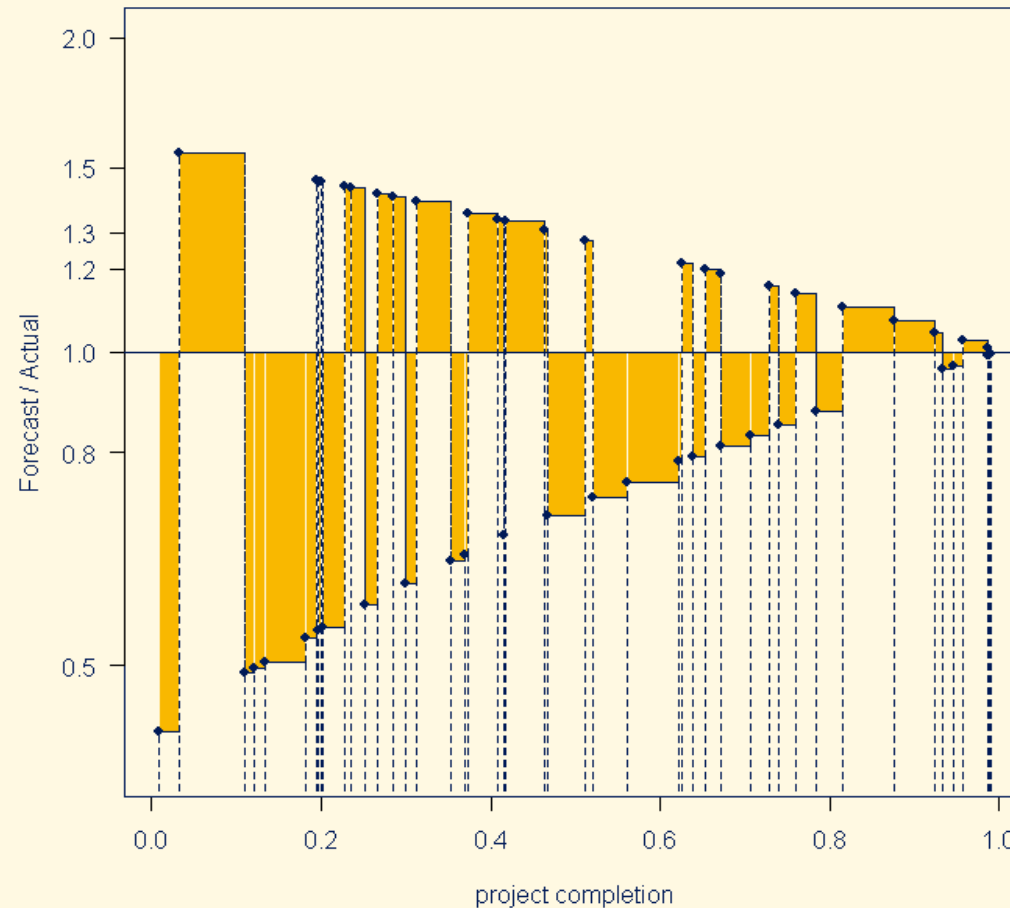
10 example forecasts

Now, suppose we would have made 10 forecasts for our example project with similar EQF quality.

20 example forecasts

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Suppose we would have made 20 forecasts for our example project with similar EQF quality.
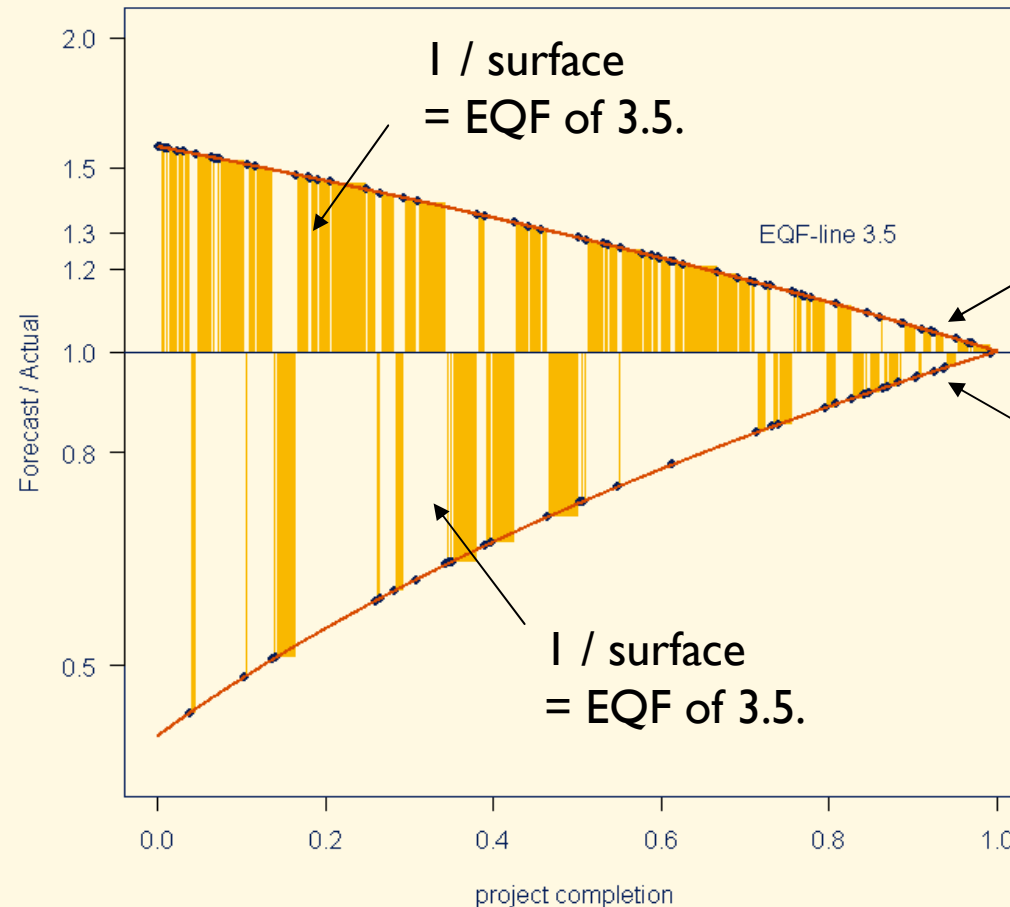
50 example forecasts

Suppose we would have made 50 forecasts for our example project with similar EQF quality.

100 example forecasts

When we would make an infinite number of forecasts for a particular project, the f/a ratios will form a line which we named the reference lines.

1 / surface = EQF of 3.5.

1 / surface = EQF of 3.5.

EQF-line 3.5

Forecast / Actual

project completion

The upper part describes how the f/a ratios behave in case of only underruns / overestimations.

The lower part describes how the f/a ratios behave in case of only overruns / underestimations.

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Initial example forecasts

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With the reference cone we are able to see that the initial f/a ratio of 1.5 is reasonable.
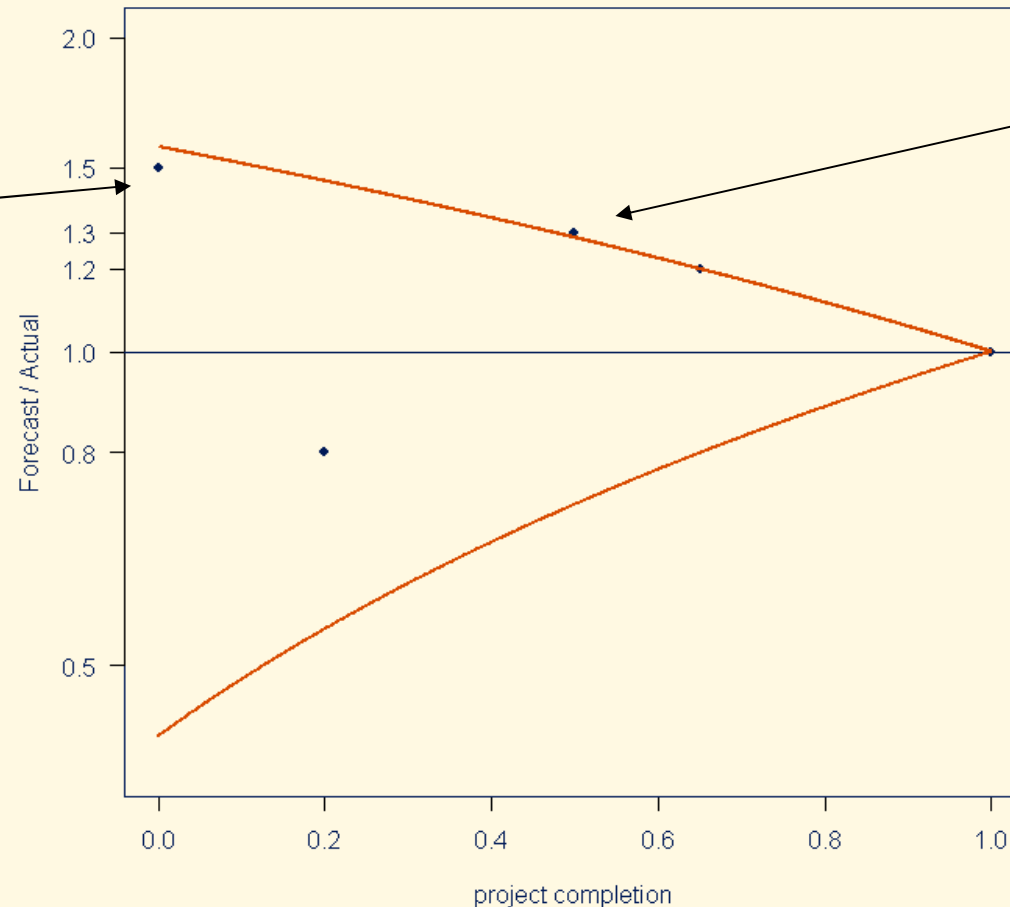
Note that the EQF value for this project was 3.6 and the reference line had an EQF of 3.5.

It is not necessary for all f/a ratios to be within the reference cone to have a better EQF value.