



## How a large German Transport company uses Function Points for Estimating

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# Agenda

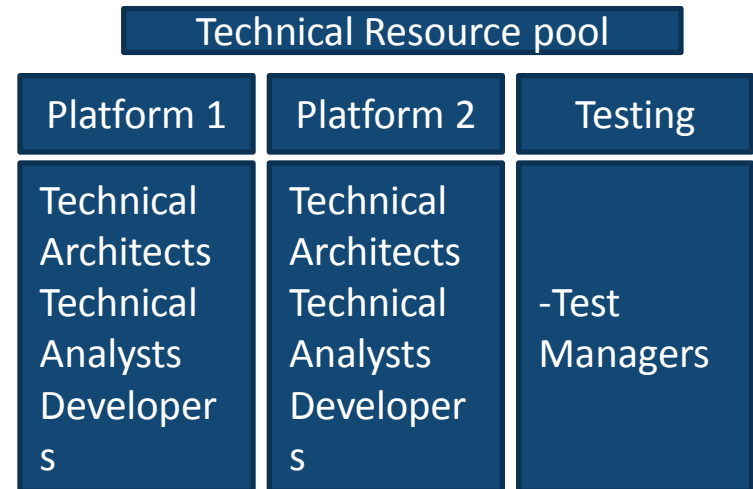
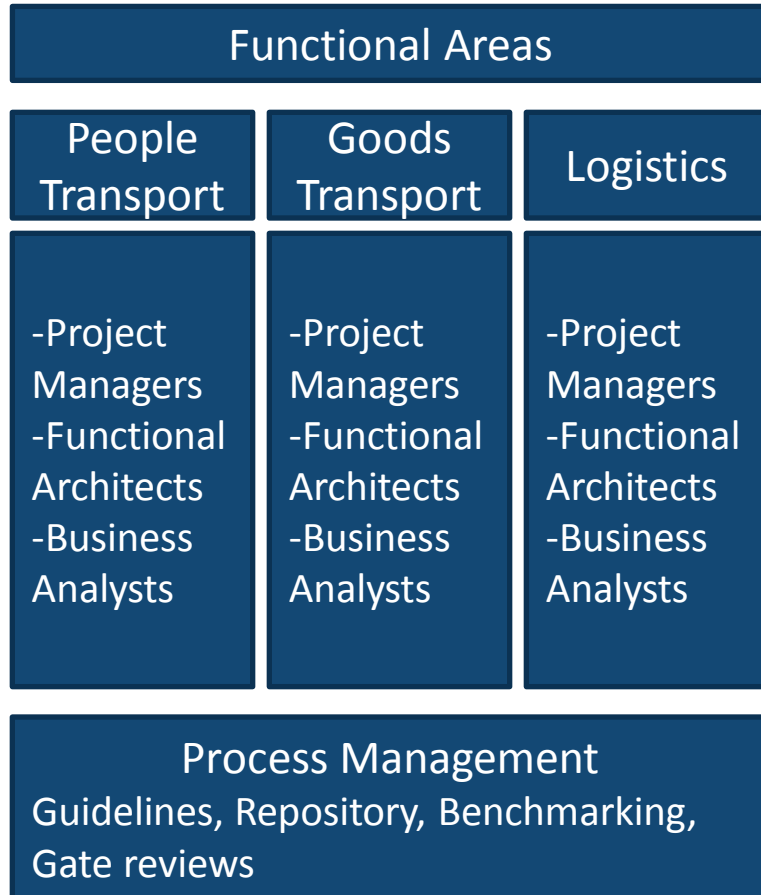
- Introduction
- The company & it's figures
- History & evolution of metrics, FP's and Estimating within the company
- FP Governance: how is the FP counting organized?
- Projects: How are FP's used in estimating
- Benchmarking: what role does it play

- My story, our company, our customers (briefly)
- Why present a positive example
- Large companies, big problems, complex solutions

- Three main activity areas:
  - people transport
  - goods transport
  - transport network maintenance & enhancement
- Some key figures:
  - 2.7 Billion travelers per year
  - 341 Million tons transported per year
  - 63 914 km dedicated network to maintain
  - 5 707 dedicated charge discharge terminals
  - 2009 Revenue: 29 335 Million Euros

- Over 500 systems supported
- 240 000 man days effort expended in application development during 2007
- 71 000 Desktops
- 1,2 Petabyte Disk Storage / 3,2 Petabyte Backup capacity (1 PB is approx 1 M GB)
- 300 Million visitors on Internet Portal during 2008
- Main systems supported:
  - Passenger Reservations (quote some volumes...)
  - POS ticket terminals (145 M tickets in 2008)
  - Logistics
  - Scheduling

# IT Delivery is organized by Functional areas



- Focus on the simple implementation
  - Have one steering group for Functional Counting
  - Gather count results into a centralized repository
  - Comparison amongst groups should have a limited audience
  - Counting and data gathering should take place in the functional team
  - Effort expended in counts should be commensurate with the value of the results
    - Reduce the counting effort by using average values (“Rapid”)
- Training and Communication
  - Training at different levels and depths (management, analysts, technicians, counters)
  - Correct common misconceptions through accurate and recurrent communications
- Functional metrics are used as one of parameters in estimating, however an estimating tool/method needs to be used in order to produce an estimate

# Step by step introduction of Functional Measurements

2005

- Metrics for Software Development launched
- Selection of Function Points as metric of choice

2006

- Integration of FP in the development process
- Training of Function Point counters
- Set up of FP database

2007

- FPA and Cocomo adopted as a standard
- Expanded FP training for Managers, Project leaders and Business analysts
- Establishment of FPA by Business area

2008

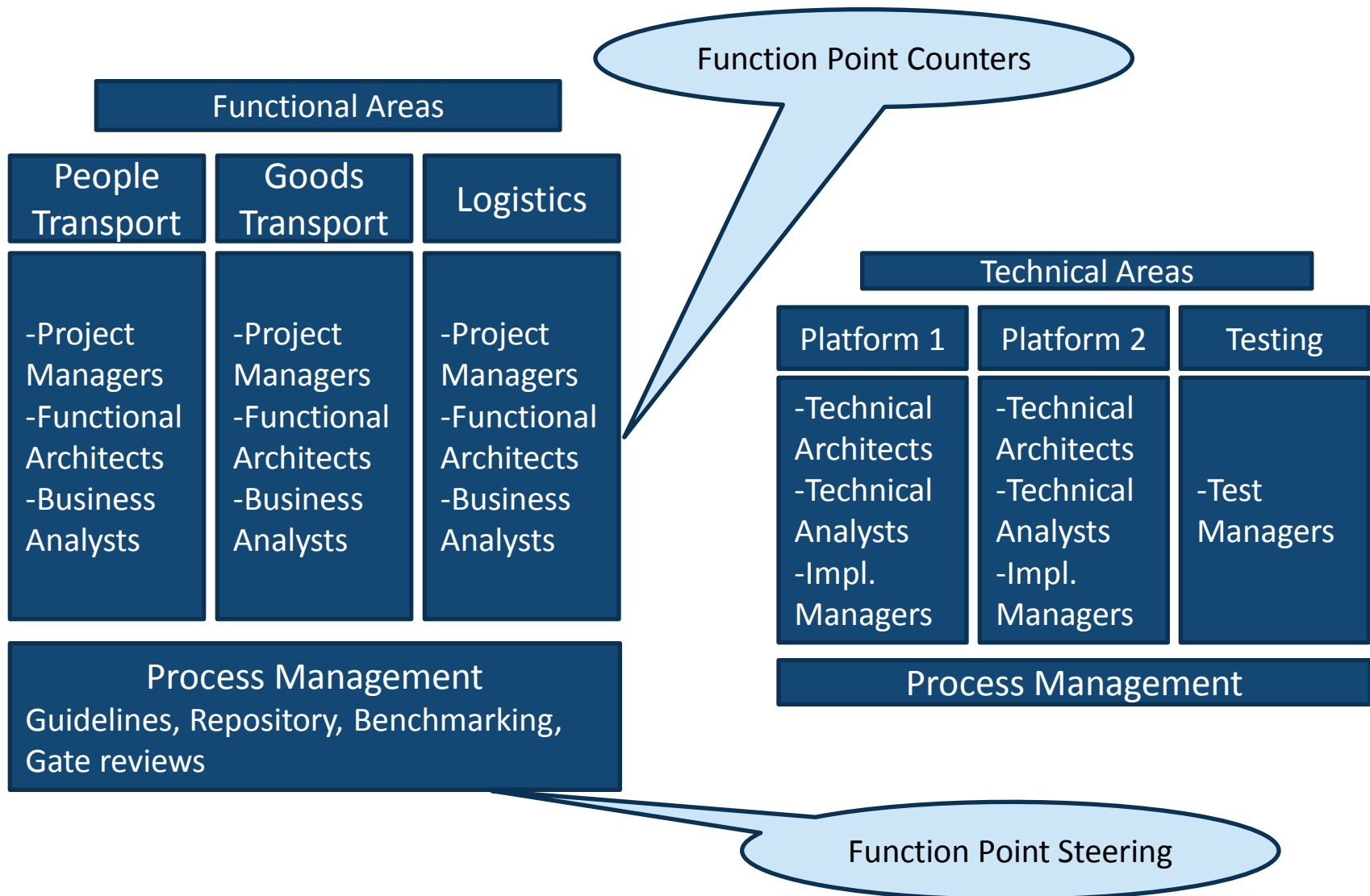
- Full integration in the existing processes and toolkit

2009

- Introduction of the concept of FP delivery rather than Man Time
- Quotations delivered in „Functionality“ rather than „Effort“

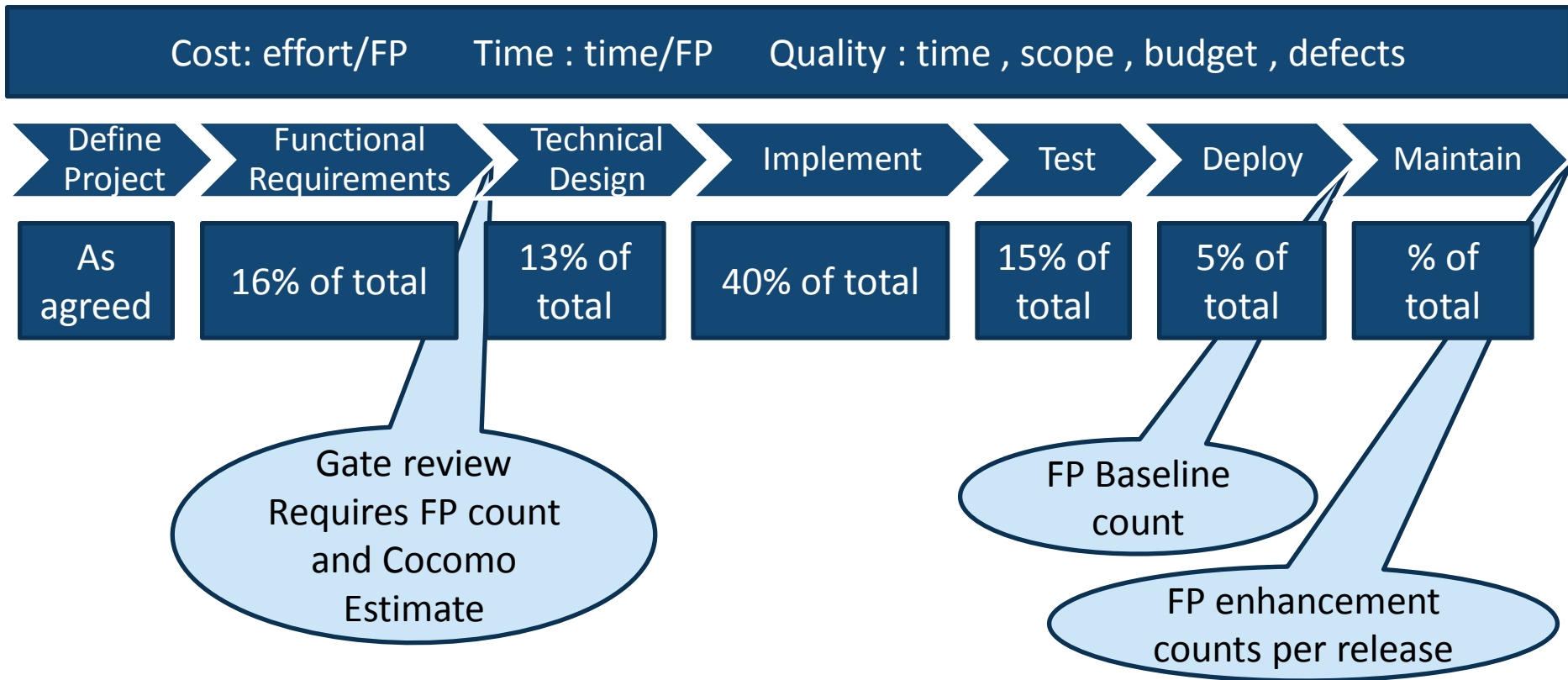


# History & evolution of metrics, FP's and Estimating within the company



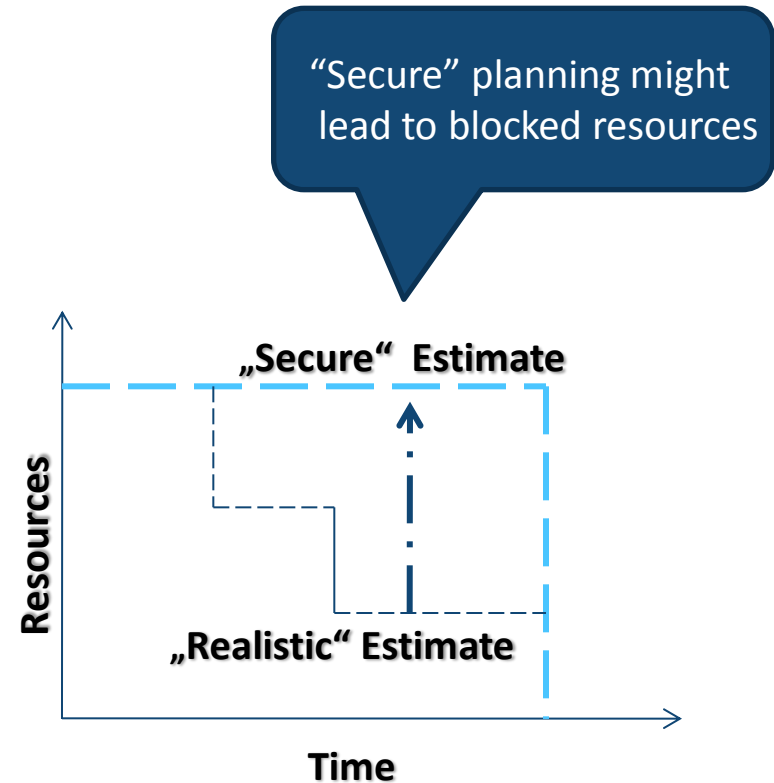
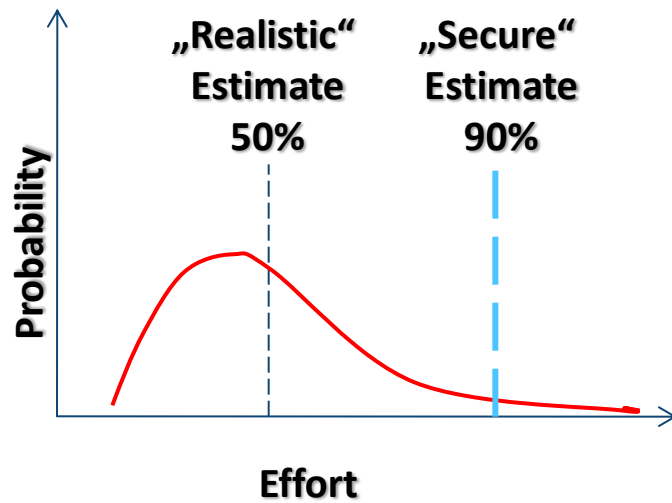
# Projects: How are FP's used in estimating

The Cocomo Model calibration: how the estimate is broken down



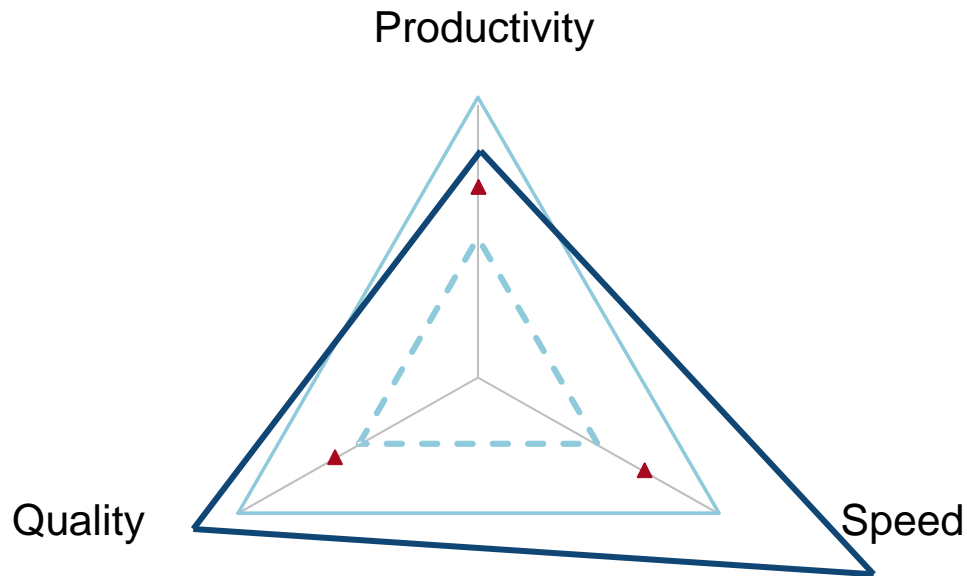
Estimates pre RFQ to support negotiations

- Cocomo model: choices to be made 50% versus 90%



- Frame contracts with IT suppliers now (since 2009) include Function point productivity requirements
- Estimating for projects is done using multiple techniques and merging them:
  - Avoid “common sense errors” that may result from a model
  - Use available experience & resources
  - Provide more accuracy in the estimate

# Benchmarking: what role does it play



- Compare yourself to the market to set your targets
- Track your performance year on year

- My Company
- - Comparison group median
- △ Comparison group best 25 %



Questions?



**Many thanks for your attention!**