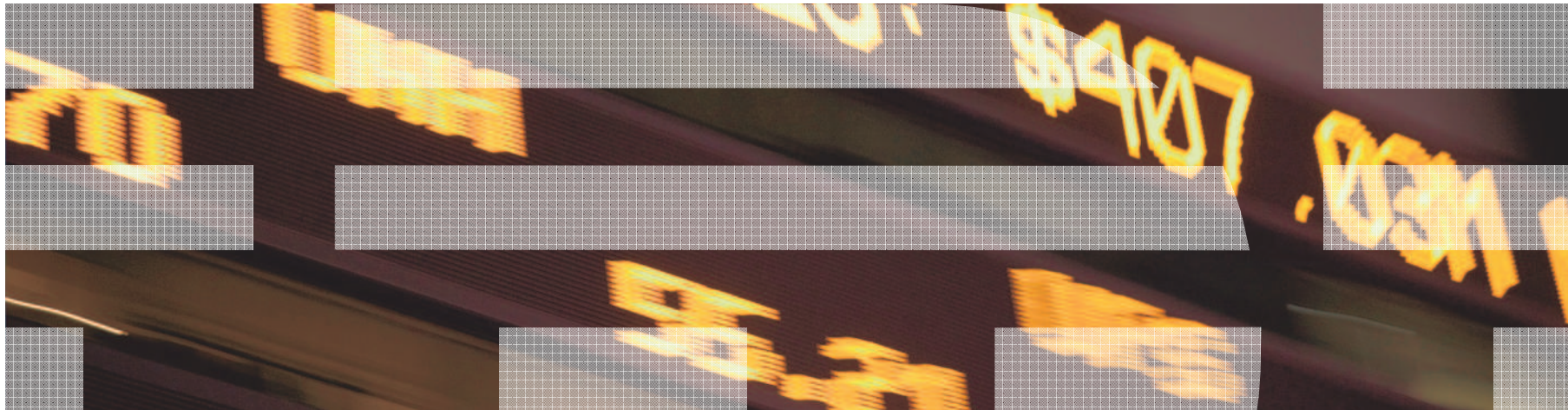

Bijeenkomst FPA en DWH

1. Welkom en voorstelrondje
2. Presentatie ervaringen FPA en DWH (Jan-Paul Fillié)
3. Ervaringen met FPA en DWH en productiviteitsmetingen (alle aanwezigen)
4. Ervaringen met de specifieke DWH FPA richtlijnen
(vragen/opmerkingen die binnen gekomen zijn)
5. Wat verder ter tafel komt
6. Verdere afspraken



Applying Function Points in Business Intelligence Projects



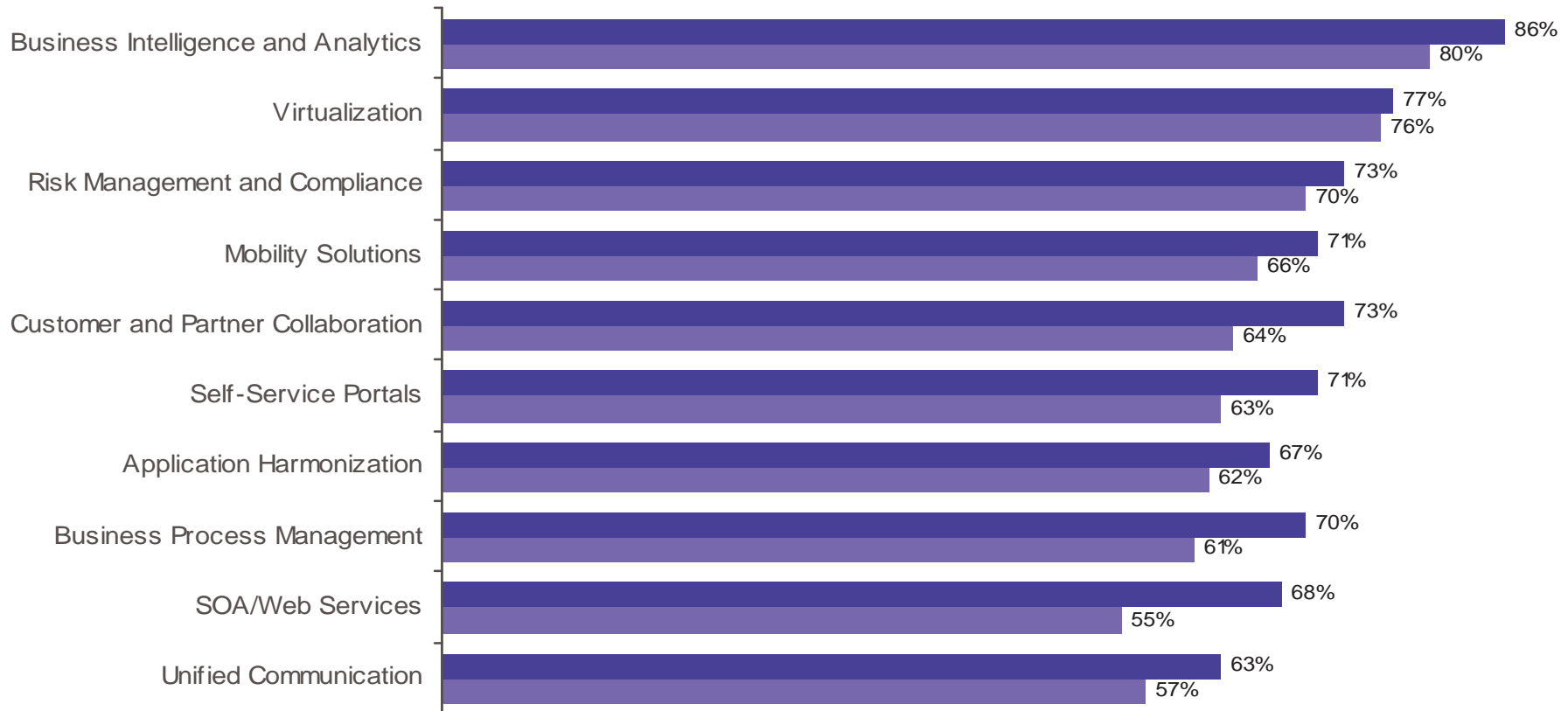
Agenda

- Focus on Business Intelligence
- Applying Functions Point in BI/Data Warehouses
- Usage of FPA
- Estimate & Forecast BI projects
- Questions & Discussion

Focus on Business Intelligence

CIOs' focus on Innovation: Business Intelligence is highest ranking

Ten most important visionary plan elements
Interviewed CIOs could select as many as they wanted

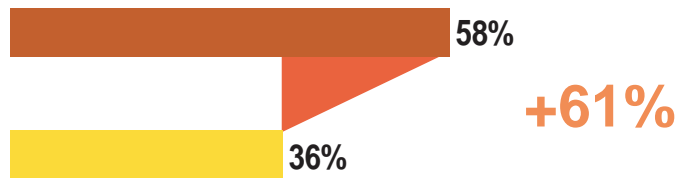


Source: IBM Global CIO Study 2009; n = 2345

■ Low growth ■ High growth

Value Creation in Data and Customers Understanding

High-growth CIOs proactively craft data into actionable information

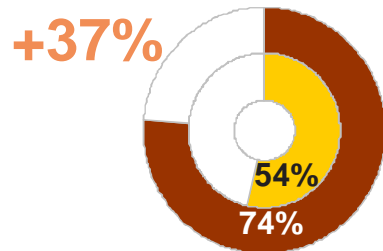


"We do recognize the strategic advantage of using data to support improved decision making. We are not as strong as we would like to be, but this is a key plank of our strategy moving forward."

Consumer products CIO, Ireland

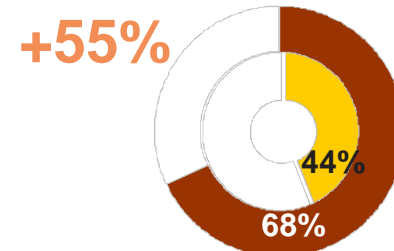
In five years, CIOs expect end-customers to continuously explore new channels...

... and anticipate much greater levels of integration and transparency with customers



"Having a strong data governance model that allows for a single view of the truth through accurate data is a strategic imperative."

Financial markets CIO, United States

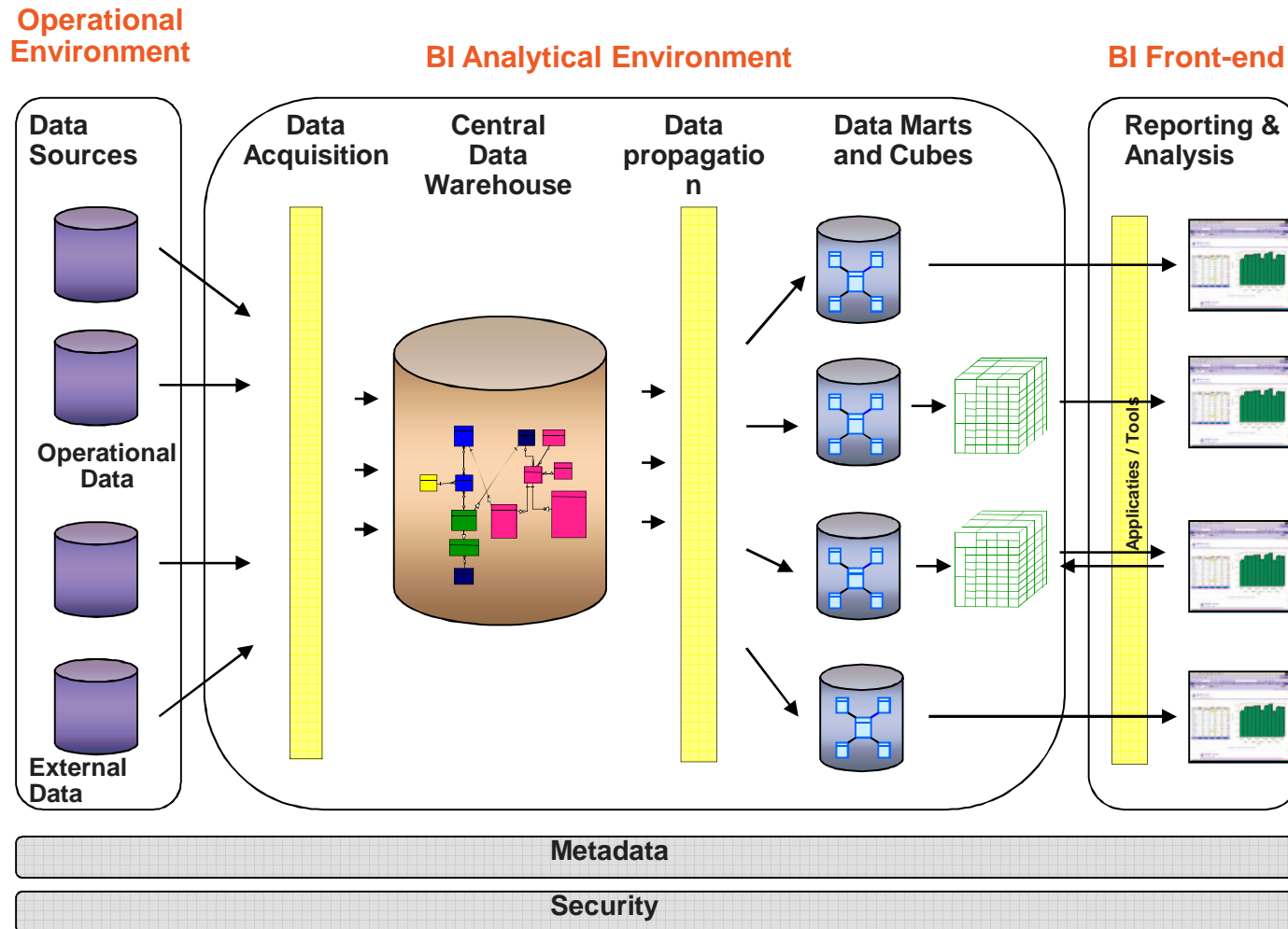


Source: IBM Global CIO Study 2009; n = 2598

■ Low growth ■ High growth

Applying Function Point in BI/Data Warehouses

Business Intelligence systems can be quite complex



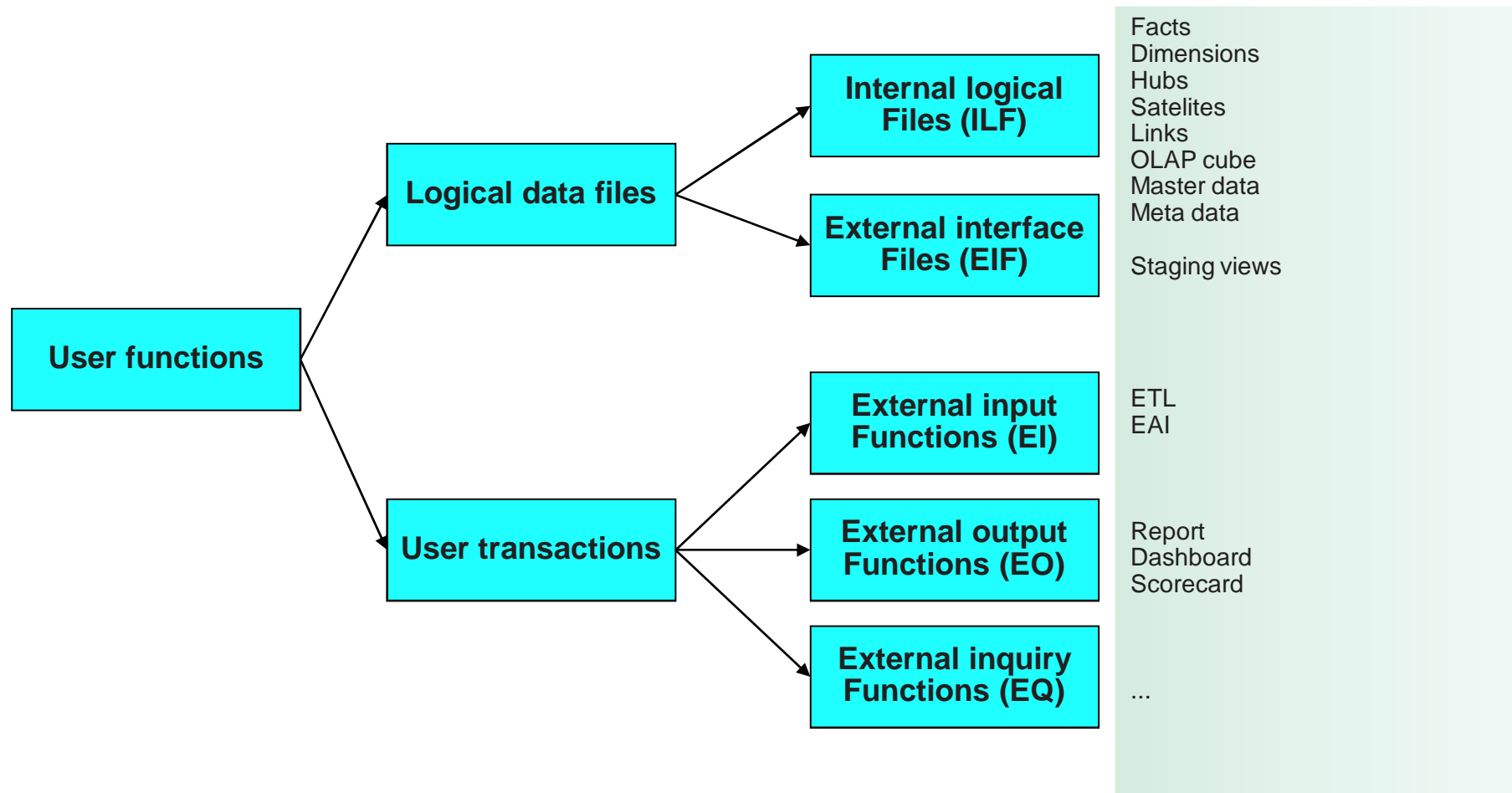
Data Warehouse versus transactional systems

	Transaction Processing	Data Warehouse
Purpose	Run day-to-day operations	Information Retrieval and analysis
Structure	RDBMS optimized for Transaction Processing	RDBMS optimized for Query Processing
Data Model	Normalized	Multi-dimensional
Access	SQL	SQL, plus Advanced Analytical tools
Type of Data	Data that runs the business	Data to analyse the business
Nature of Data	Detailed	Summarized & Detailed
Data Indexes	Few	Many
Data Joins	Many	Few
Duplicated Data	Normalized DBMS	Denormalized DBMS
Derived Data & Aggregates	Rare	Common

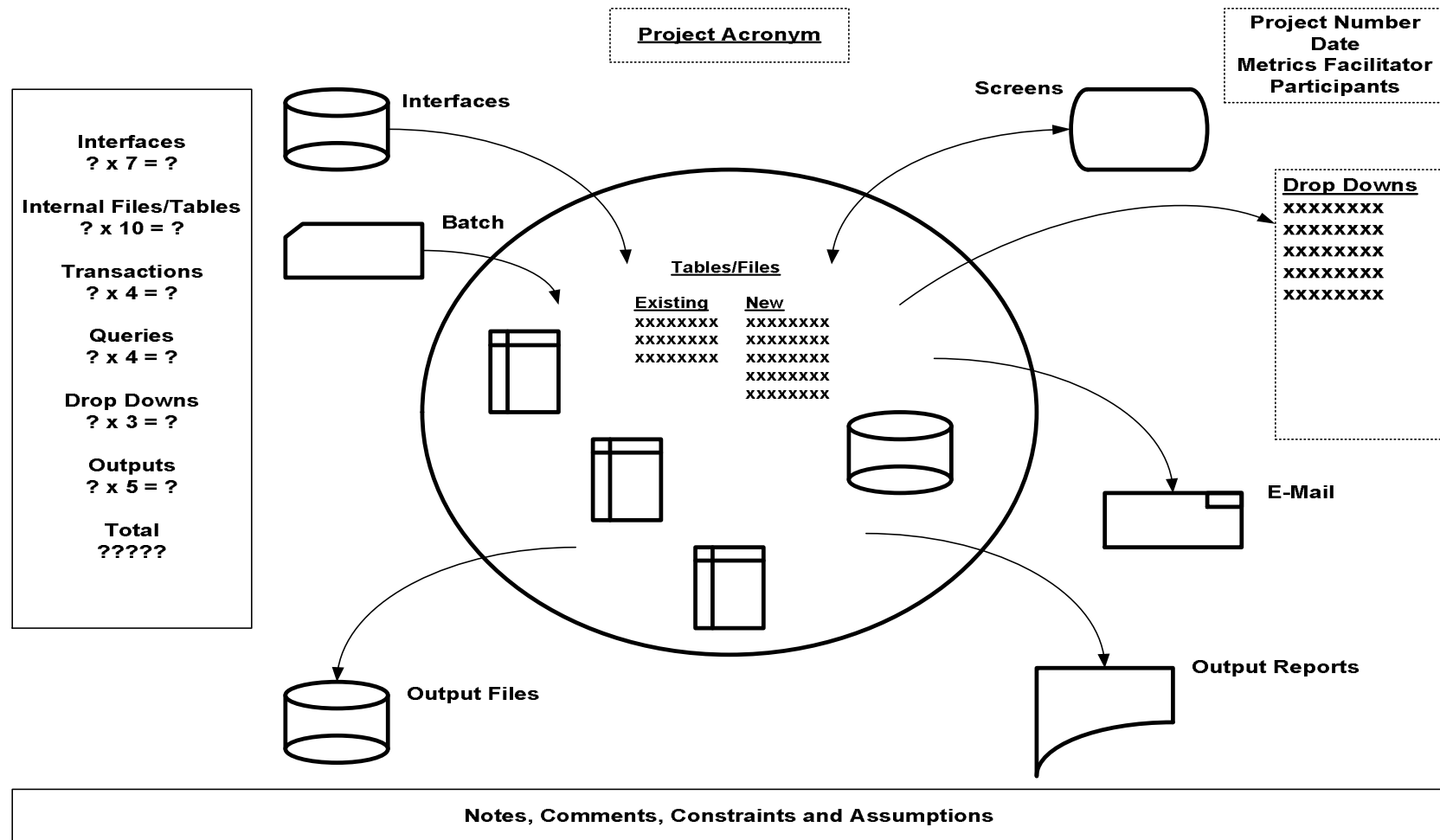
Source: Size & Estimation of Data warehouse systems – L. Santillo

FPA basics apply to BI

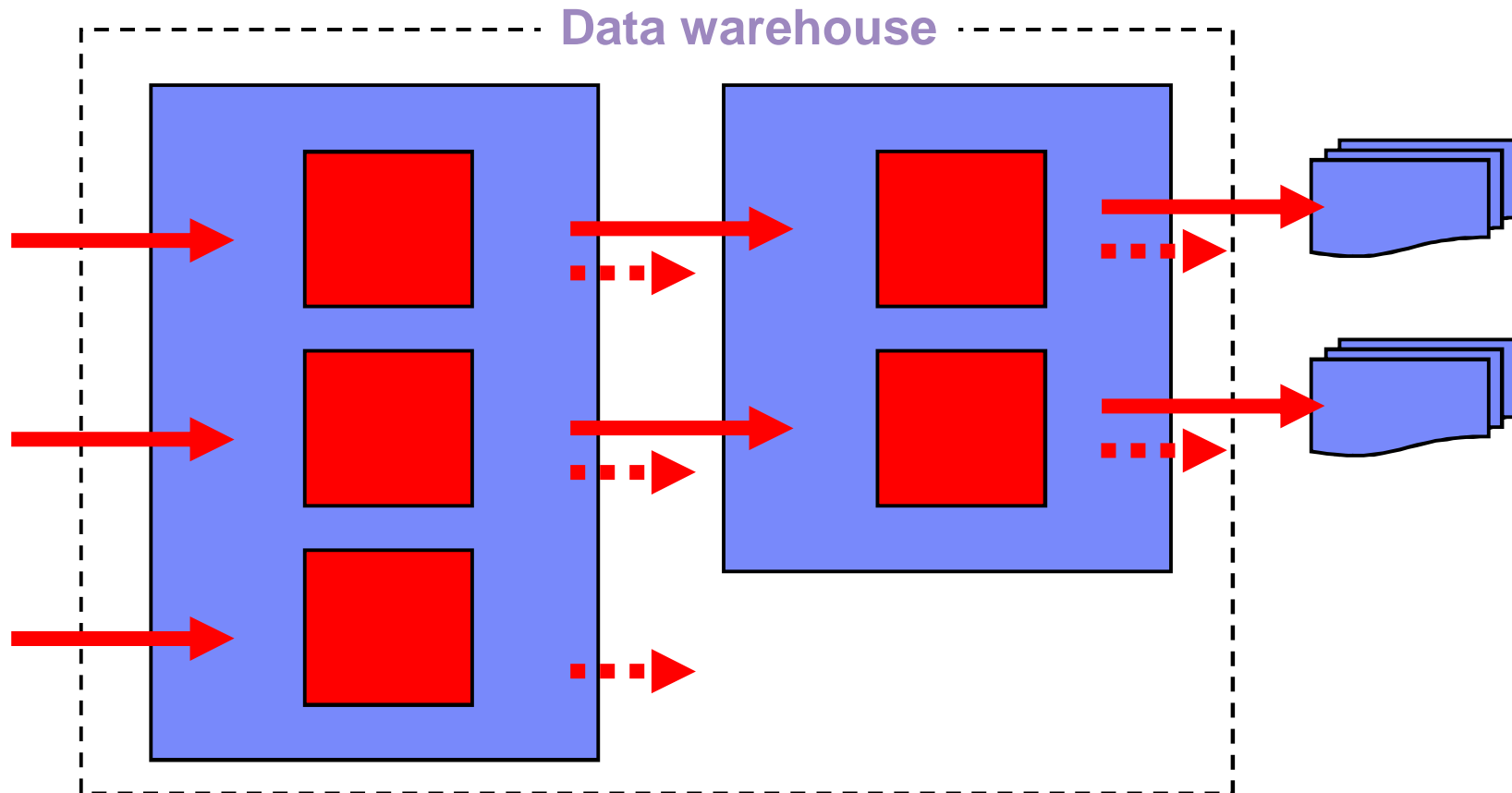
- Function Point Analysis (FPA) is a method to derive an objective and technology-independent estimation of the size of an information system.



Estimating Function Point Counts from input and output



Function point analysis for BI starts with the logical data files



Usage of FPA

Function Points: Art or Science?

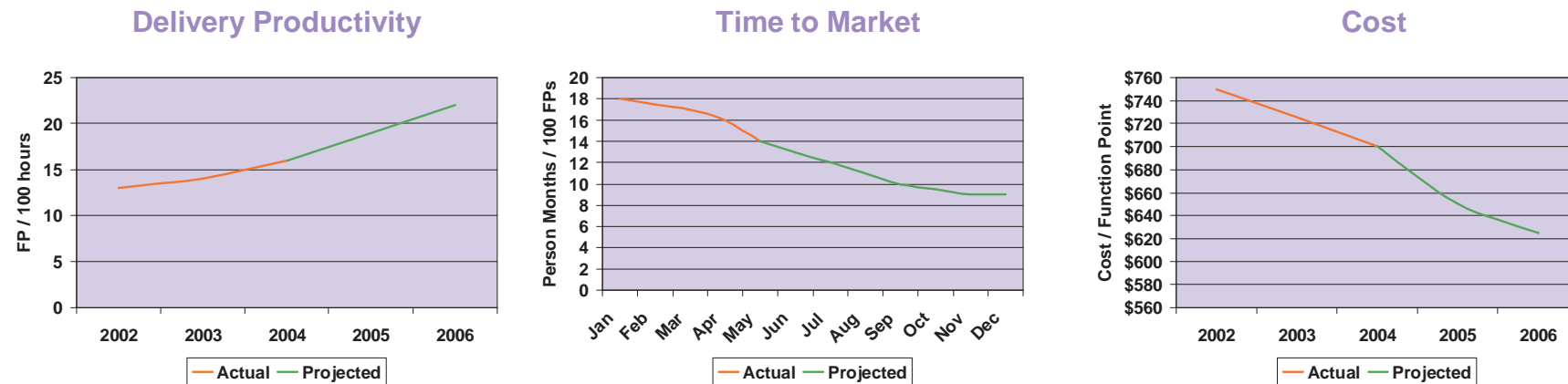
- IFPUG – Two certified counters will be on average 10% different in their function point counts
- IBM experience has been around 5%
- Industry data suggests that a first time counter can count “300 Function Points per day (FP/day)”
- Some industry consultants quote “1,000-1,500 FP/day with "FASTPATH” training
- IBM routinely does internal and external auditing of function point counting

Advantages of Function Points for BI projects

- Function Points *Normalize* Other Data
- Can Be Counted Early in the Software Life Cycle
- Technology Independent
- Wealth of Industry support for Function Points
- The Concept is Simple to Understand and Apply
- **Customers are Able to Relate to the Business Focus of Function Points**
- Can Be Used to Manage BI in Many Ways . . .

Other benefits of function point counting

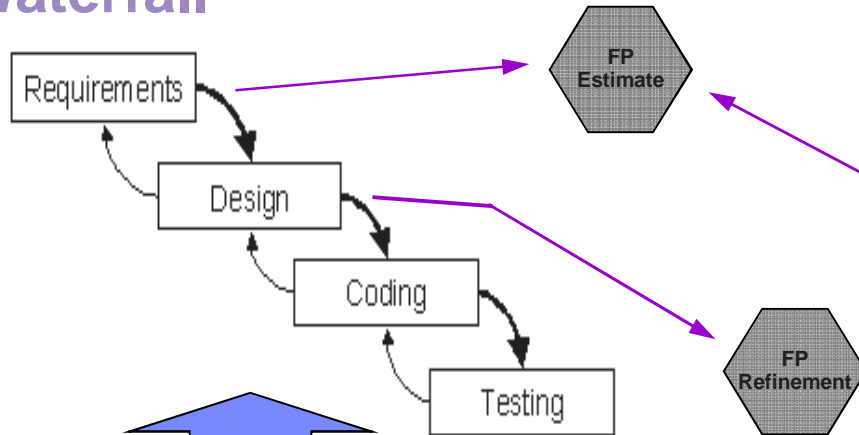
- FP's support the demonstration of "true" improvements in productivity, time to market and costs through investments in Information Technology



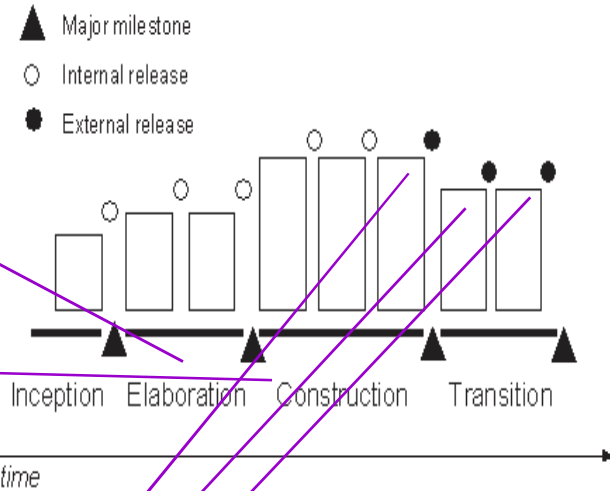
* This is sample data

FP Counting during the project lifecycle

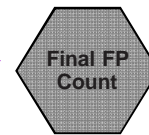
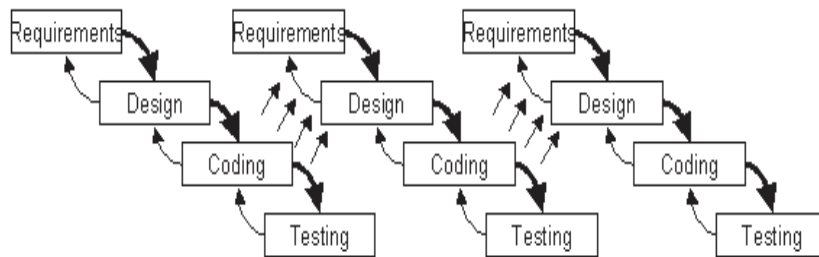
Waterfall



“Typical” RUP

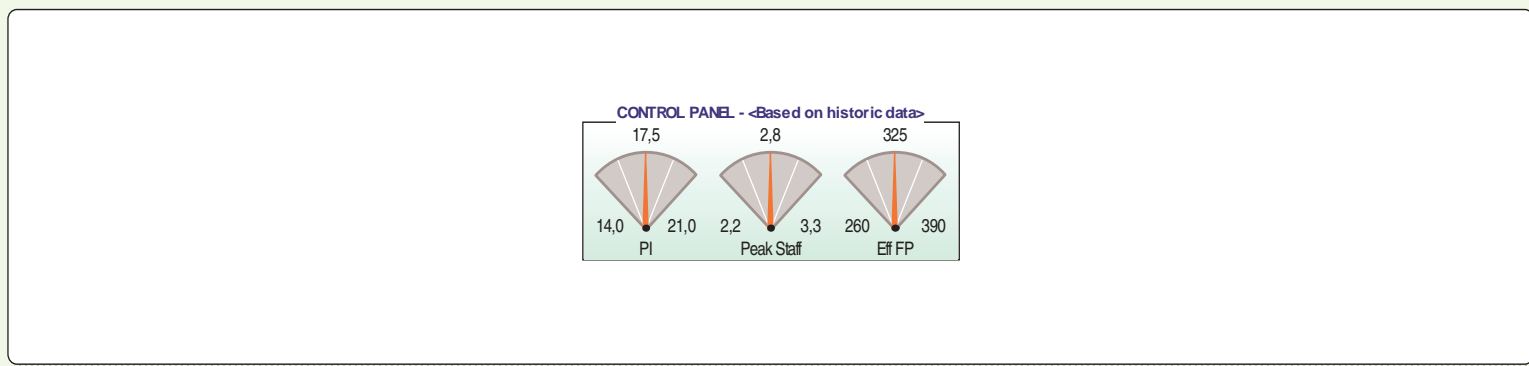
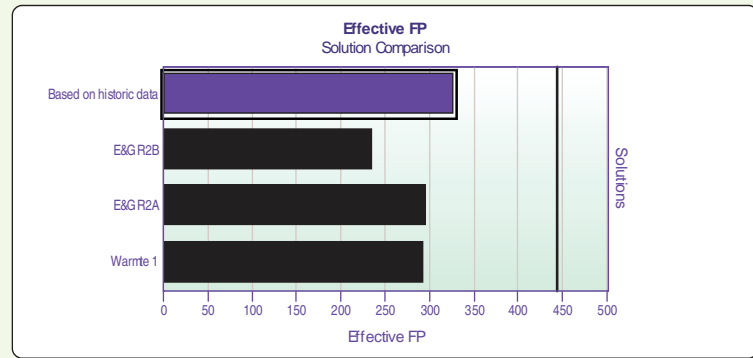
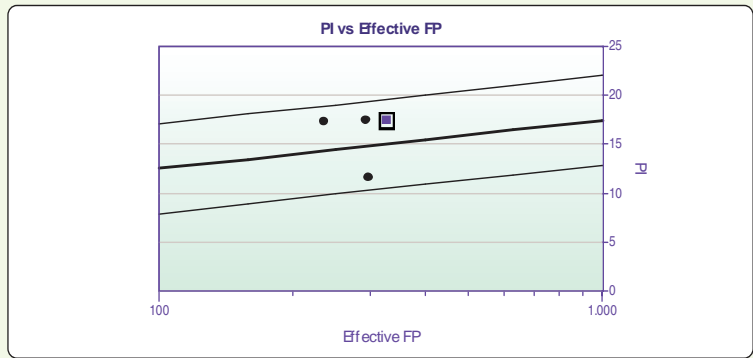
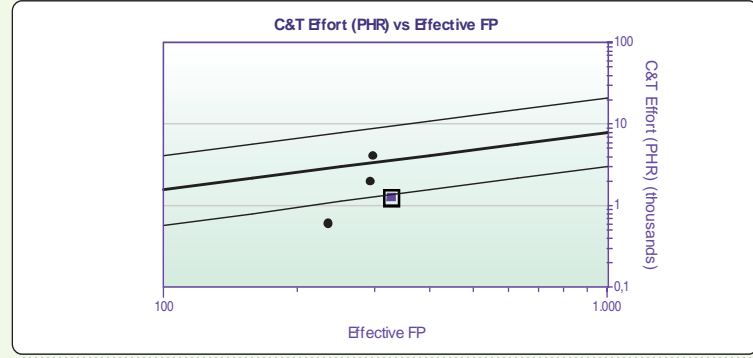
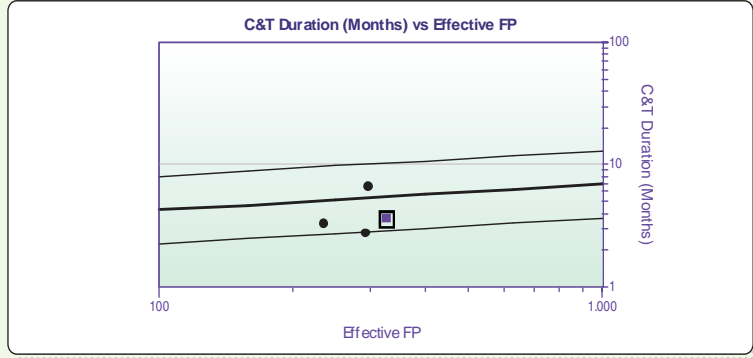


Iterative



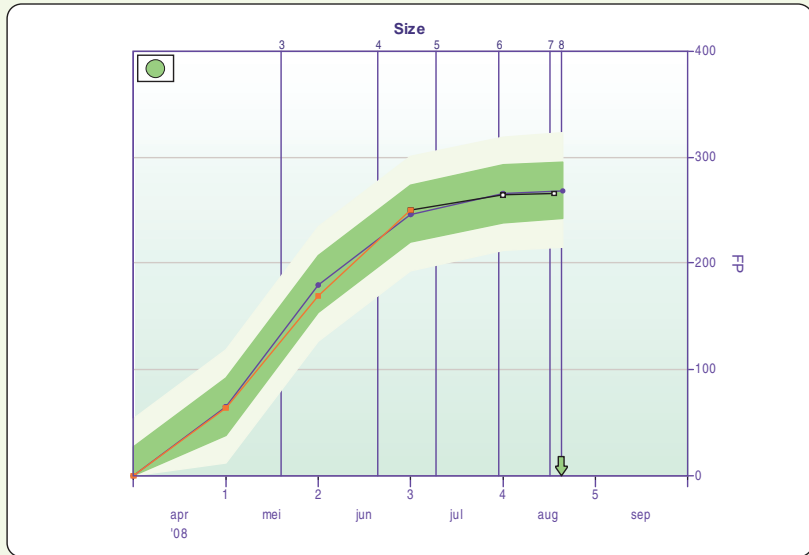
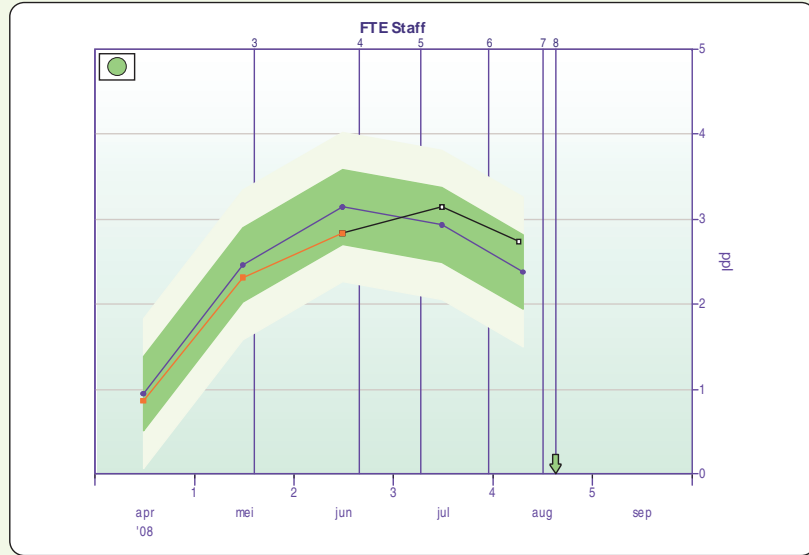
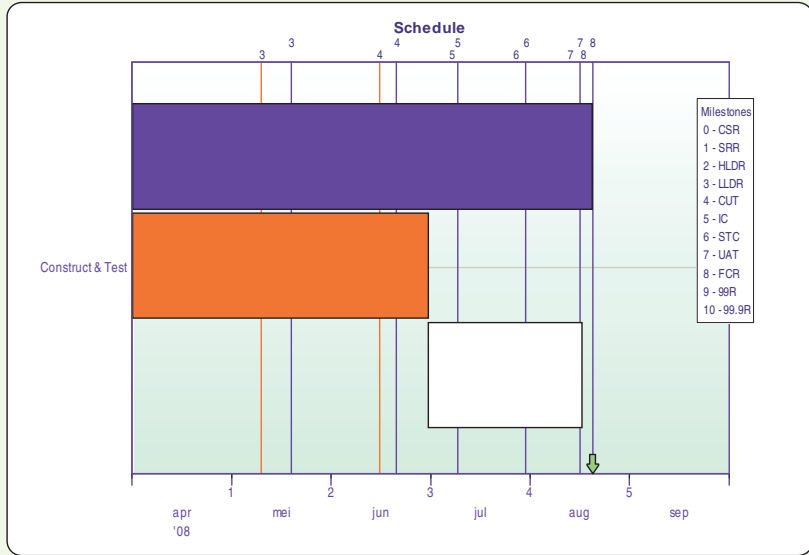
Estimate & Forecast BI projects

Validate Estimate with History



■ Current Solution
 ● Historical Projects
 — QSM 2005 Business FP
 — Avg. Line Style
 — 1 Sigma Line Style
 Project: Jumbo FIS Reporting

SEI Core Metrics

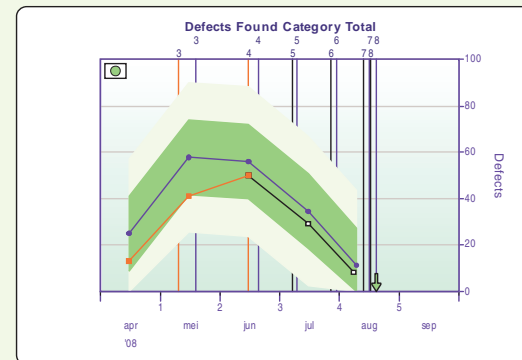
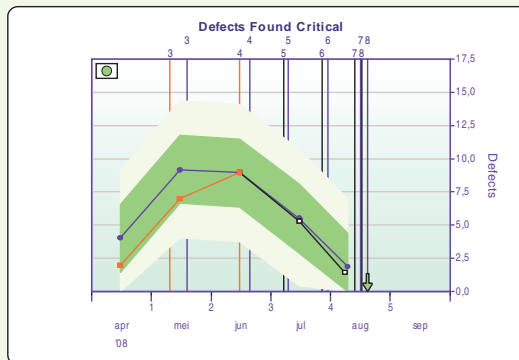
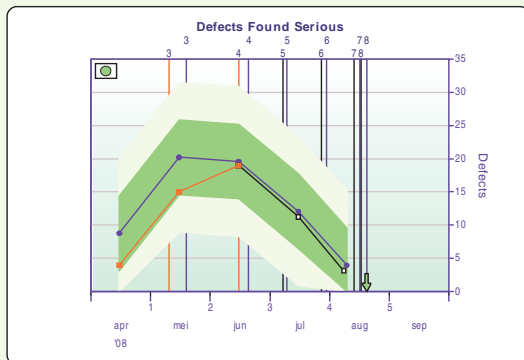
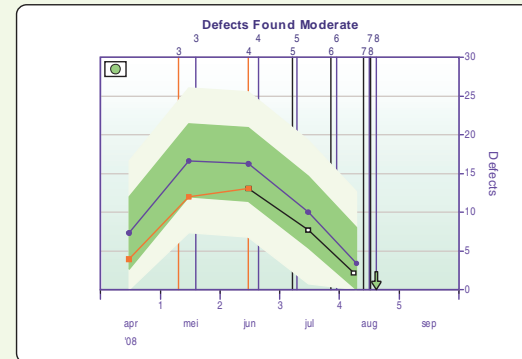
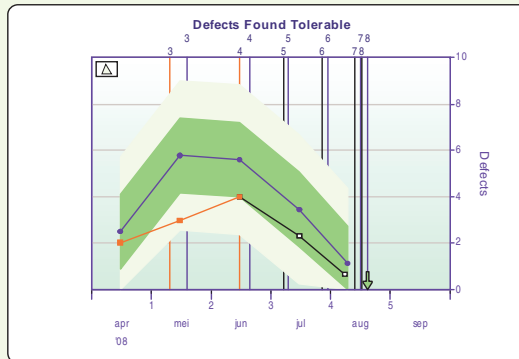
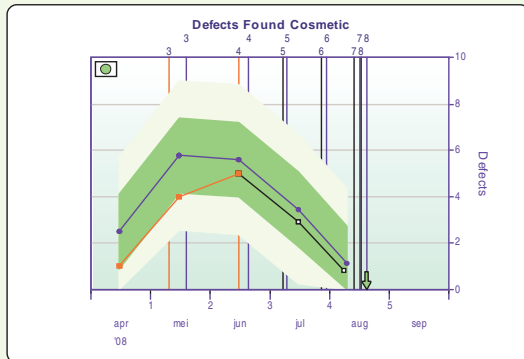


Date 20-8-2008 (4,65 months)

	Plan	Actual/ Forecast	Est. to Complete
Cum Eff FP (FP)	269,0	265,5	0,0
Avg Staff Life Cycle (ppl)	2,4	2,7	
PI	14,8	15,0	
MBI	4,6	4,7	

● Current Plan
 ■ Actuals
 Current Forecast
 Green Control Bound
 Yellow Control Bound
 Project: R&B

Defects Found



Date 20-8-2008 (4,65 months)

	Plan	Actual/ Forecast	Diff
Defects Found Cosmetic (Defects)	1,1	0,8	-0,3
Defects Found Tolerable (Defec...	1,1	0,7	-0,5
Defects Found Moderate (Defec...	3,3	2,1	-1,2
Defects Found Serious (Defects)	4,0	3,1	-0,9
Defects Found Critical (Defects)	1,8	1,5	-0,3
Defects Found Category Total ...	11,4	8,2	-3,2
PI	14,8	15,0	0,2
MBI	4,6	4,7	0,0

● Current Plan
 — Actuals
 Current Forecast
 Green Control Bound
 Yellow Control Bound
 Project: R&B

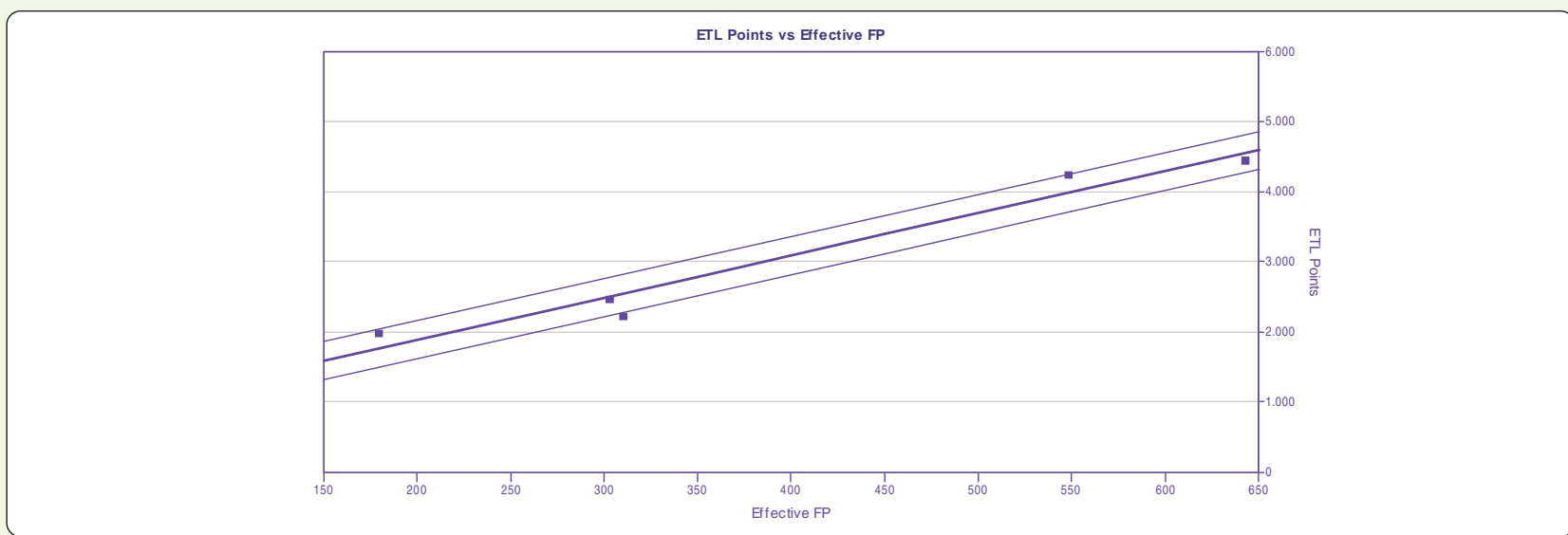
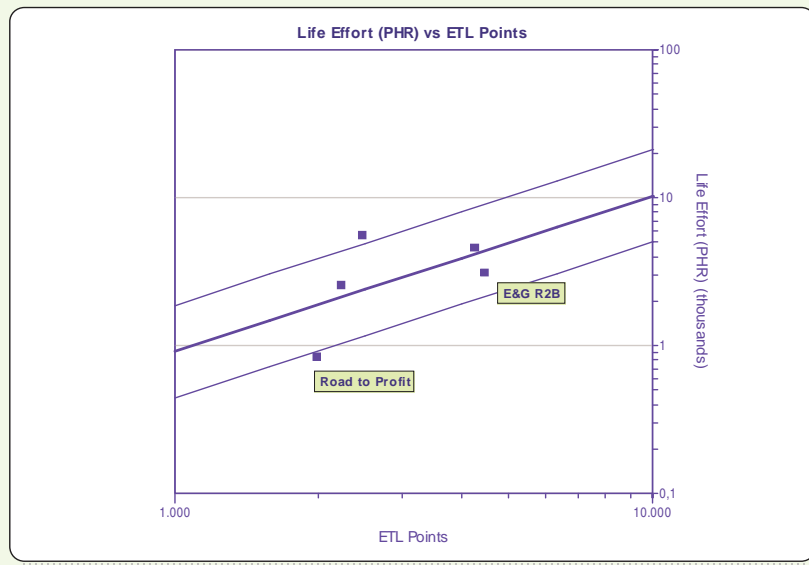
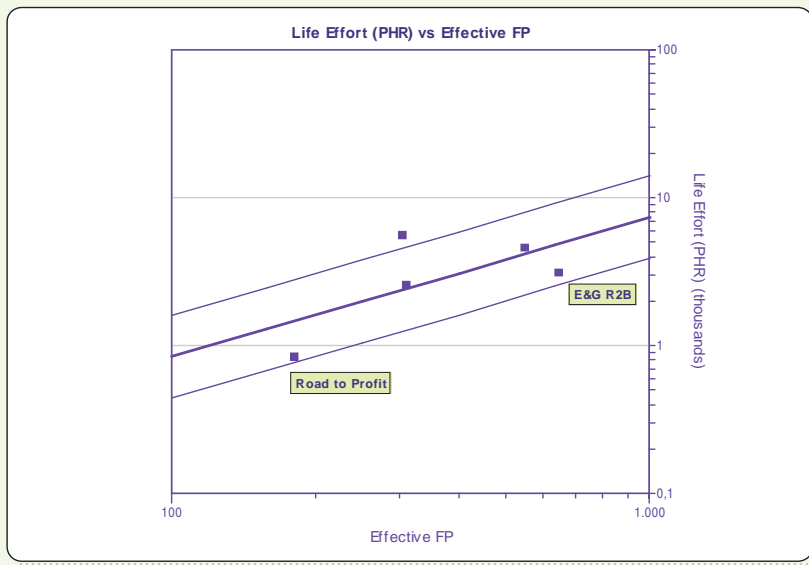
Project database

- 258 BI & data centric projects
- Starting in 2002
- Worldwide

- Captured metrics:
 - Size (FP)
 - **Size (ETL points)**
 - Effort (PHrs)
 - Duration (days)
 - Team size
 - No. defects

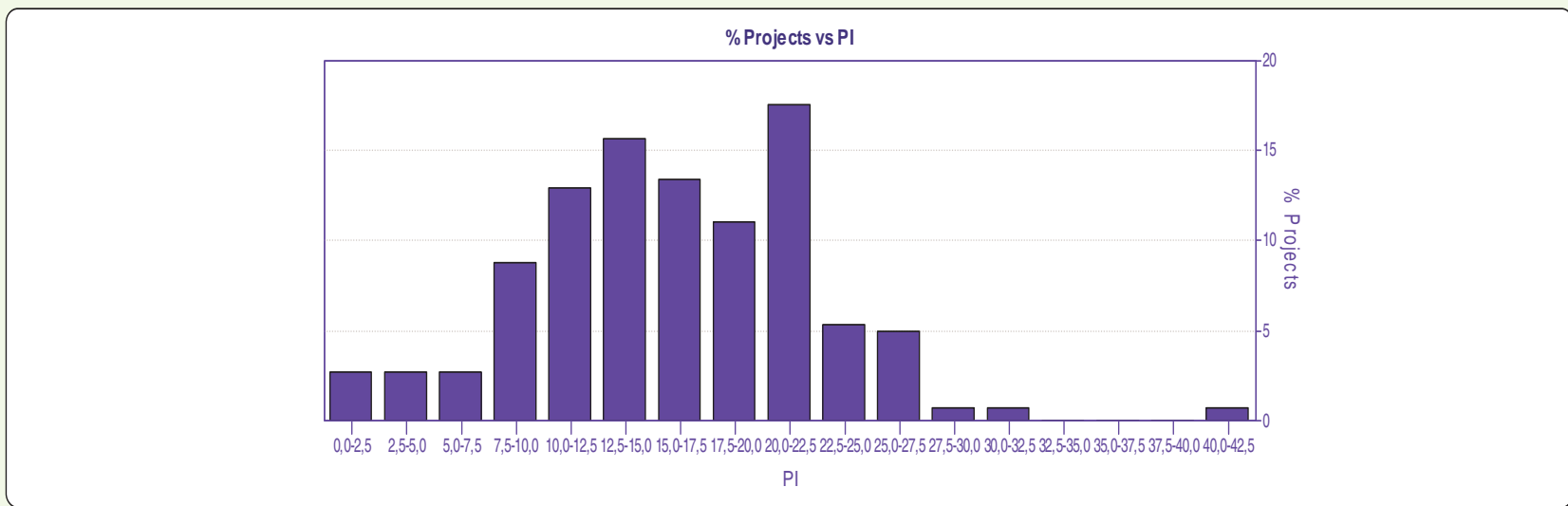
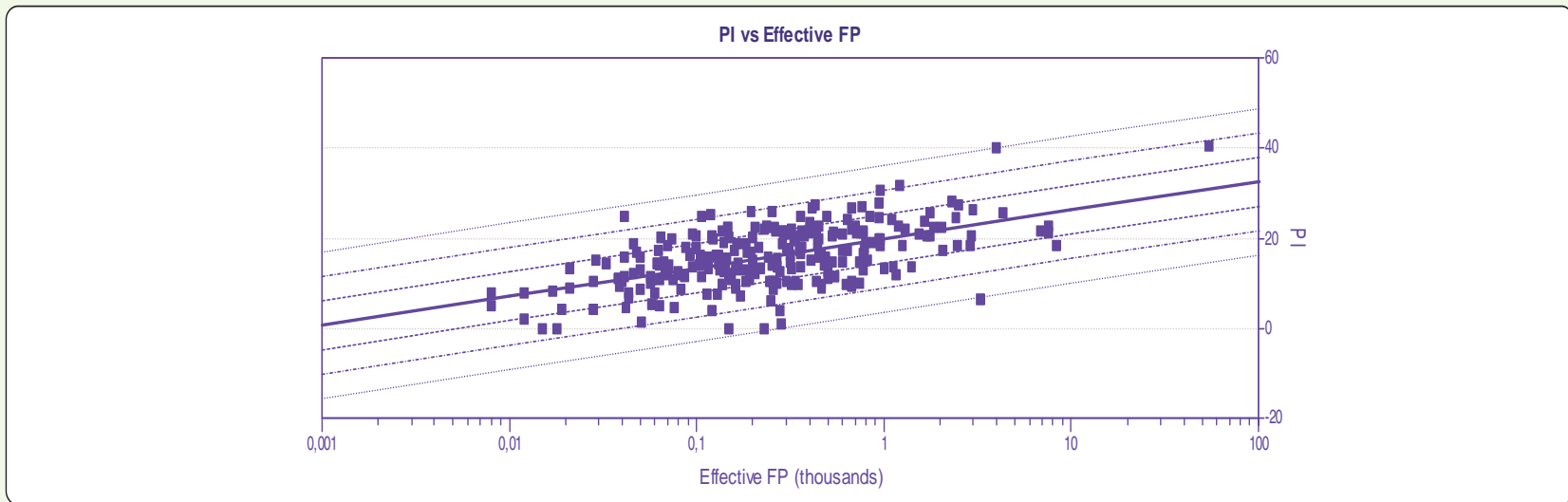
 - **No. source systems**
 - **Data intake method (flatfile/xml/db connection)**
 - **BI tooling (ETL/OLAP/Reporting)**
 - Development method (waterfall/agile)

ETL Points



■ All Systems
 — Avg. Line Style
 — 1 Sigma Line Style

BI Analysis



All Systems
 Avg. Line Style
 1 Sigma Line Style
 2 Sigma Line Style
 3 Sigma Line Style

Questions & Discussion

Questions & Discussion

References

- IBM, The New Voice of the CIO, Insights from the Global Chief Information Officer Study 2009
- NESMA, FPA toegepast bij Data Warehousing (versie 1.1, 2008; NL-versie)
- Computable, BI op waarde geschat, Jan-Paul Fillié, 2009
- Size & Estimation of Data warehouse systems – L. Santillo, 2006

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