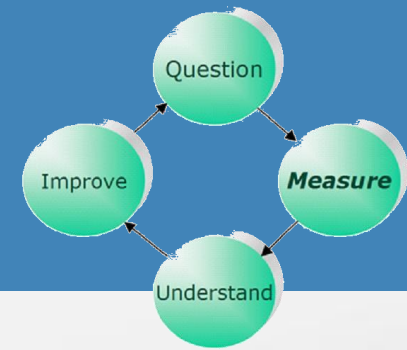


ACOSM 2008



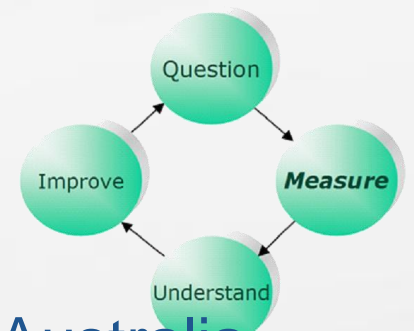
Estimation, Productivity Management and Benchmarking in Large Global Outsourcing Engagements

Bala Kalimuthu

SAP Practice Principal

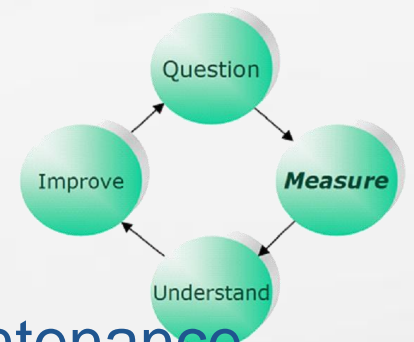
Revolution IT

Background



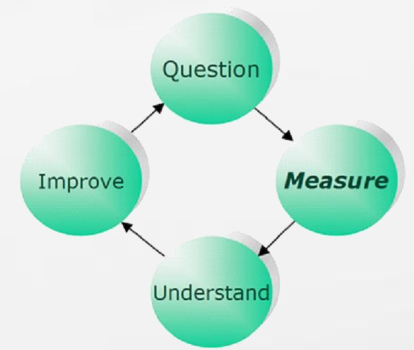
- A large multimillion dollar engagement in Australia
- Using function points (FP) to size Projects
- FP size is used to measure and track productivity

Objectives



- Analyzed 30 Application Support and Maintenance projects (~ 75,000 FPs in size) in SAP, DW / BI and Legacy space
- Analyzed 95 Application Development and Enhancements projects (~ 35,000 FPs in size) in SAP, DW / BI and Legacy space
- To Provide estimation inputs to future projects

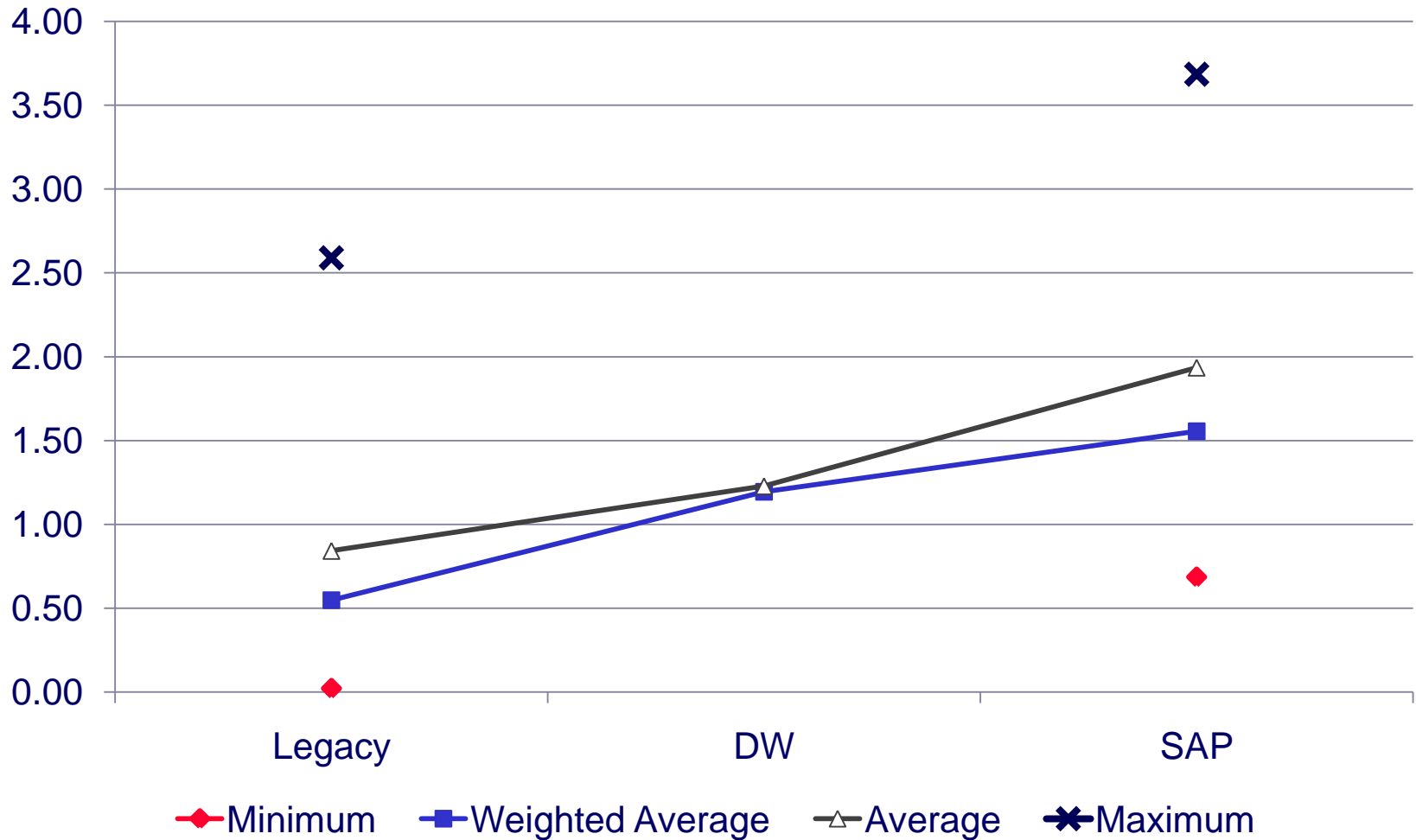
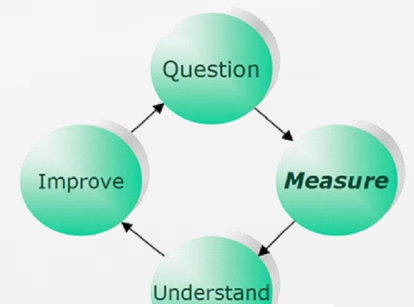
Formula for OOM Estimation



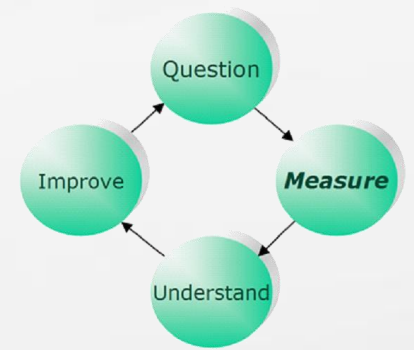
Metrics	Portfolios			Total (Over All)
	Legacy	DW & BI	SAP	
Effort required in FTEs for Maintenance and Support	$0.55*FP/1000$	$1.19*FP/1000$	$1.56*FP/1000$	$1.24*FP/1000$
Effort required in FTP days for Development or Enhancement	$3.64*FP$	$2.20*FP$	$1.06*FP$	$1.49*FP$

- Where FP is number of Function Points
- Effort will vary based on project scope & complexity

FTEs to Maintain 1000 FP

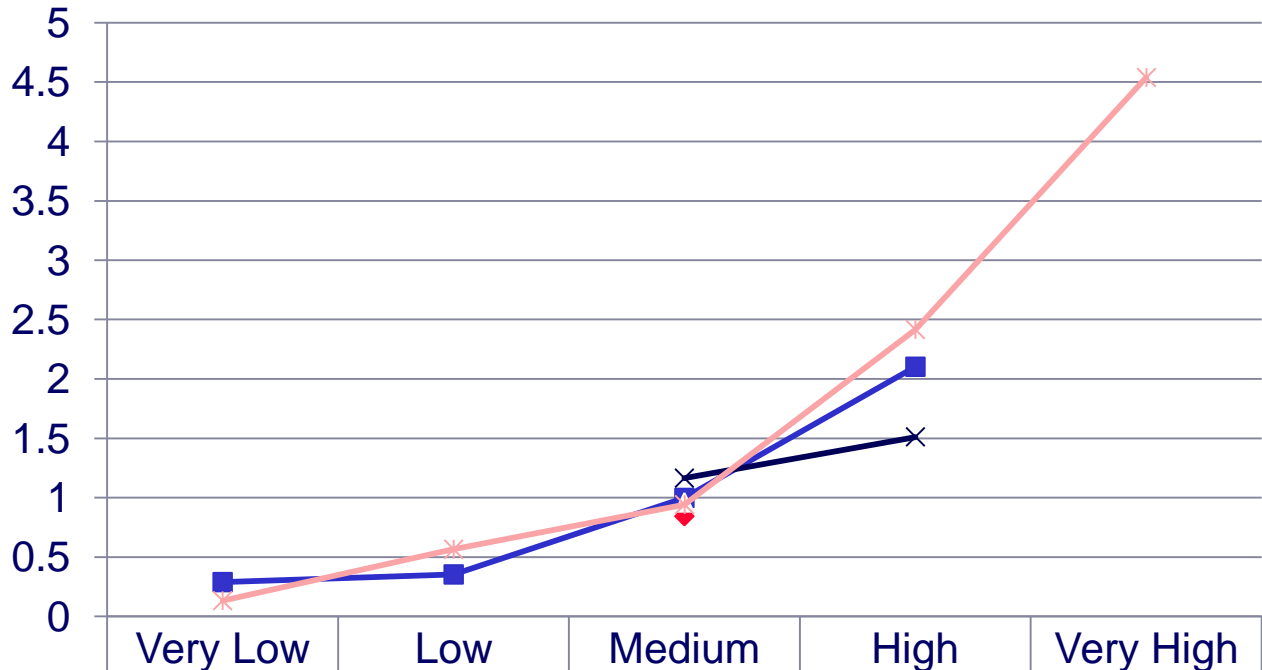
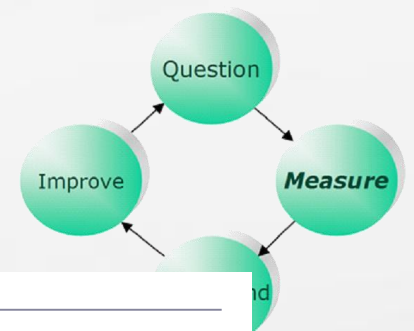


FTP Days to Develop a FP



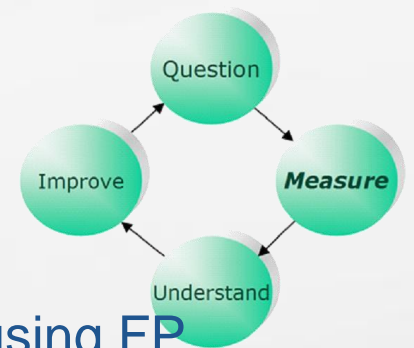
	<i>Portfolios</i>			
<i>Metrics</i>	<i>Legacy</i>	<i>Data Warehousing</i>	<i>SAP</i>	<i>Over All</i>
<i>Weighted Average Effort in FTP days to develop or enhance a Function Point (Weighted on FP)</i>	3.64	2.20	1.06	1.49
<i>Average Effort in FTP days to develop or enhance a Function Point</i>	2.89	2.56	1.72	2.25
<i>Minimum Effort in FTP days to develop or enhance a Function Point</i>		0.05	0.04	0.04
<i>Maximum Effort in FTP days to develop or enhance a Function Points</i>		11.84	6.27	11.84

FTP days per FP – SAP Projects



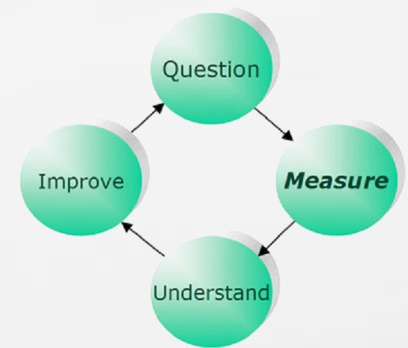
◆ Development			0.84		
■ Implementation	0.29	0.35	1.00	2.10	
☆ Upgrade			0.96		
✕ Reimplementation			1.16	1.51	
* Enhancement	0.13	0.56	0.94	2.41	4.54

Highlights

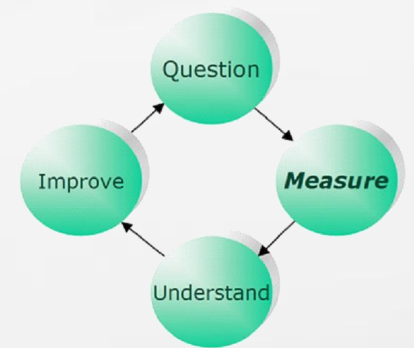


- ~50% of projects can be sized and / or estimated using FP
- ~10% of the effort is spent on minor enhancements (<50 FPs)
- FP count does not reflect the correct size of work involved in ~15% of projects
- ~25% of projects cannot be sized in terms of FPs
- In addition to FP, large engagements use one or more of the following methods to estimate (or to validate estimates of) projects:
 - Work Break Down Structure
 - Problem Statistics Based Modal
 - Delphi estimation technique

Benefits to Customer



	Year 2	Year 3	Year 4	Year 5	Total
<i>Approximate Additional Cost Savings to Customer from continuous productivity improvement (in millions of AUD)</i>	\$ 2m	\$ 3.6m	\$ 2.6m	\$ 3.0m	\$ 11.2m



Thank You

For Queries, Please contact Bala.kalimuthu@revolutionit.com.au

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