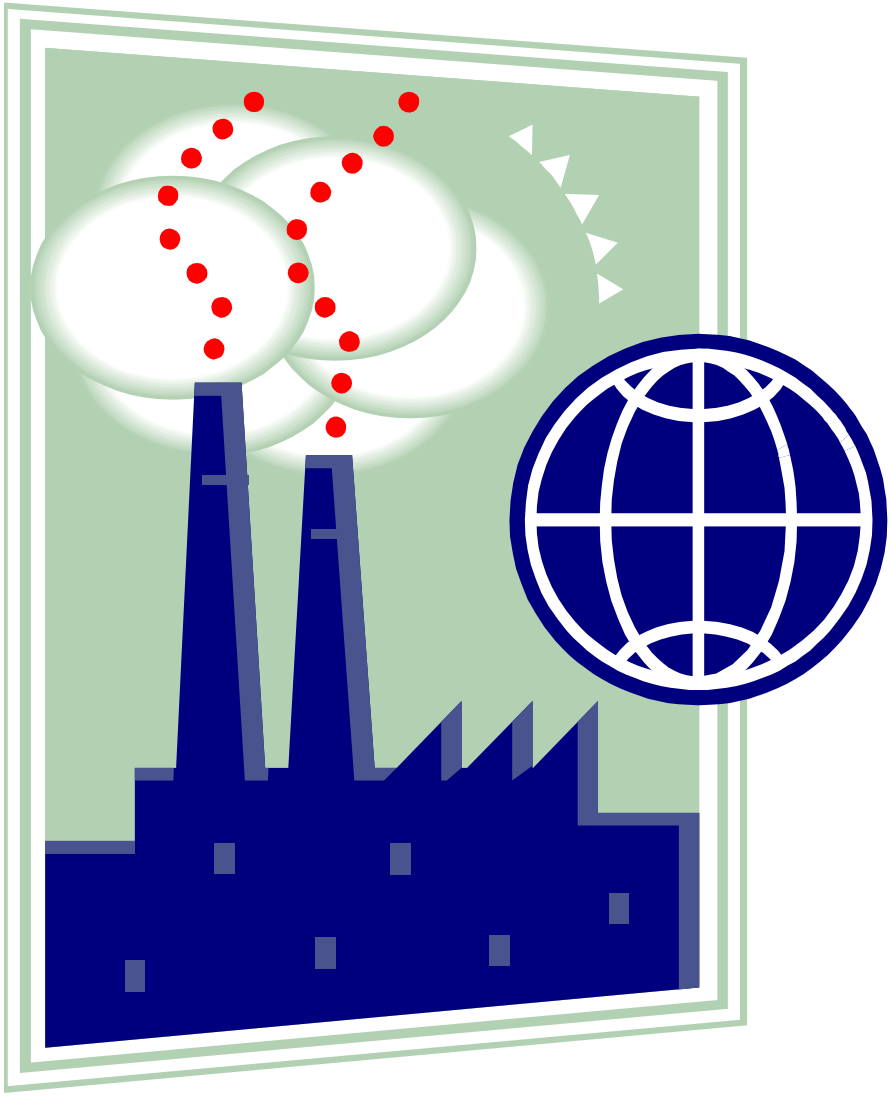
… software development analytics enabling your enterprise to deliver better software faster and at lower cost.

Senior management and reporting for Enterprise Agile:

Making sure the CTO "gets it"

What is “Enterprise”

- Large organizations
  - Large software portfolios
  - Lots of developers
- Global / Geographically Distributed
  - Split teams, common objectives
  - Outsourced software development
  - Heterogeneous



How big is big?

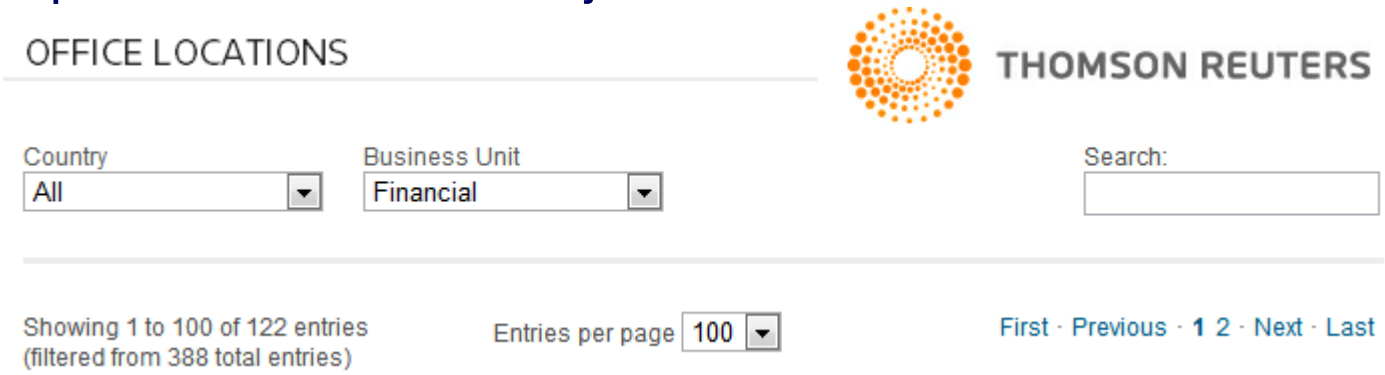
How big are development teams in the Enterprise?

Revenue Range (Lower $)	Revenue Range (Upper $)	% Revenue on IT	Devs (Lower)	Devs (Upper)
$ -	$ 50,000,000.00	6.9%	0	14
$ 50,000,000.00	$ 250,000,000.00	6.4%	14	69
$ 250,000,000.00	$ 500,000,000.00	5.1%	69	138
$ 500,000,000.00	$ 1,000,000,000.00	4.0%	138	276
$ 1,000,000,000.00	$ 10,000,000,000.00	3.3%	276	2760
$ 10,000,000,000.00	$ 100,000,000,000.00	2.6%	2760	27600
Est. Loaded Cost Per Dev. ($):	$ 100,000.00			
% IT Budget on SD:	50.0%			
% SD on Developers:	80.0%			

REFERENCES
% Revenue on IT References
http://www.techrepublic.com/article/manage-it-as-a-percent-of-revenue-to-relate-to-your-ceo/1038684
http://www.metrics2.com/blog/2006/06/26/average_company_spends_34_of_revenue_on_it.html
http://blogs.gartner.com/mark_mcdonald/2010/04/06/it-spend-as-a-percent-of-revenue-%E2%80%93-a-dubious-metric-at-best/
http://www.gartner.com/technology/consulting/key_metrics_data.jsp
% IT Budget on Software Development
http://www.linkedin.com/answers/technology/enterprise-software/TCH_ENT/632875-3158816
% SD on Developers
Applying Lean to Application Development and Maintenance. Noah B. Kindler, Vasantha Krishnakanthan, and Ranjit Tinaikar, McKinsey on IT, Spring 2007

Geographically Distributed

- Split teams, common objectives



- Outsource
  - IT outsourcing industry expected 8% CAGR in 2011-2013 and is (including BPO and hardware support) now worth over $1.7 trillion (see NASSCOM for statistics)
- Heterogeneous
  - Does anyone know a universally mature and operationally consistent Agile software development shop?

Need a metrics and management reporting regime that satisfies all scenarios!

CXOs need some lovin’

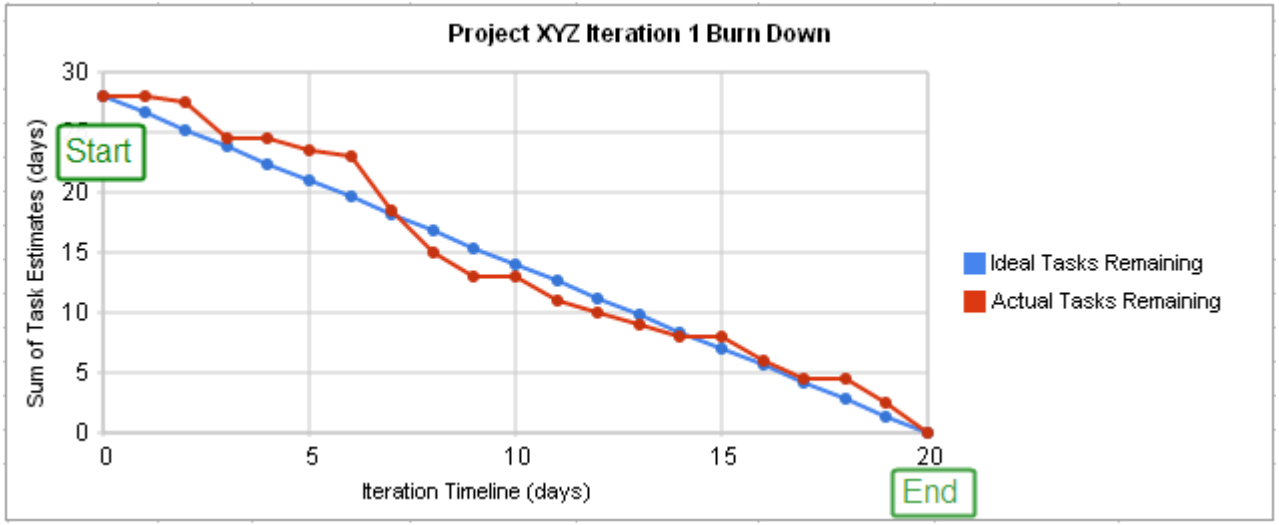
CTO/CIO/COO

- Answerable to CEO & Chairman
- Keeping one eye on the CFO
- Multiple lines of business
- Multiple operational domains

Keep it Simple!

1. Is our strategy right
2. Will we achieve our strategic objectives on time
3. Are we appropriately resourced (not just people)
4. What do I need to fix

Estimation based indicators of progress and velocity



Positives

- An excellent tool if your estimation is exceptionally good (across all teams)

Negatives

- Not an option if use story point estimation (not comparable across teams/projects/programmes)
- No account of quality or unexpected items
- Not good for Waterfall

Time based proxies of velocity

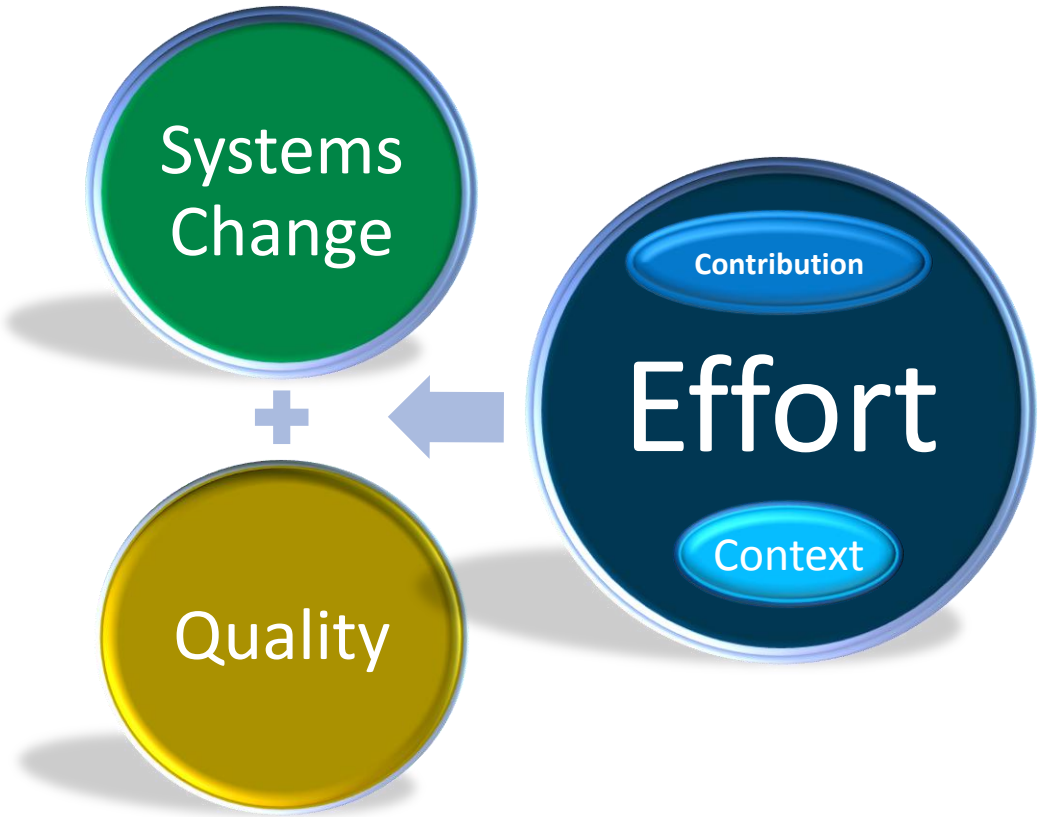
Positives

- Easily understood
- Probably already done (usually poorly)

Negatives

- Significant overhead for developers to gather at a granular level
- Remarkably difficult to get consistent discipline across teams
- Just when you need it it's done worst

Artefact based proxies for Velocity: Key concepts



Effort

- Generally: physical or mental activity needed to achieve something
- Software Development: the intellectual effort required to deliver source code and configuration files

Contribution

- Generally: something contributed toward an outcome by an individual or team
- Software Development: the source code and configuration files delivered by developers

Context

- Generally: the situation within which something happens
- Software Development: the actions of other team members impacting the ability of a developer to deliver output

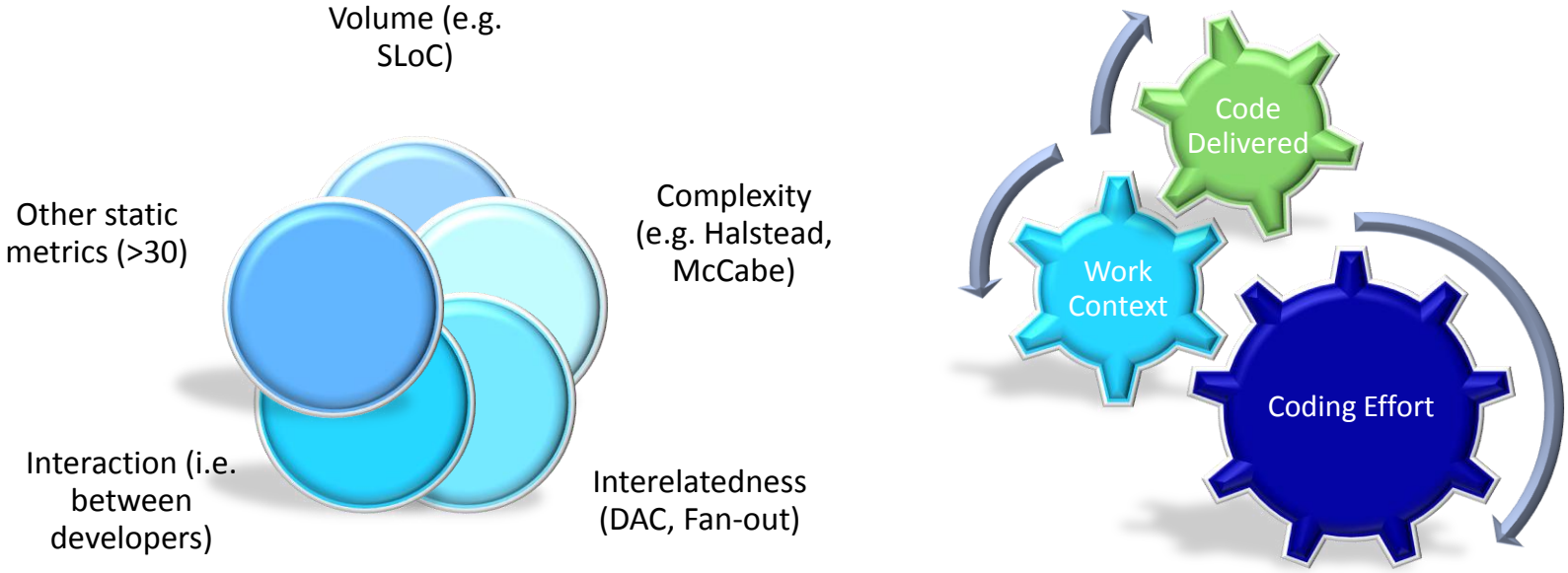
Quality

- Generally: how good or bad something is
- Software Development: the number of bugs (functional and code related) within a delivery

Systems Change

- Generally: Change in systems intended to deliver on business/product requirements
- Software Development: The delivery of new source code or change to existing source code intended to effect change in software systems

Benchmarking artefact based proxies of Coding Effort



Coding Effort Quantification

- BlueOptima allows software organizations to reliably quantify the contribution that is being delivered by their software development teams.

Performance Management

- This allows the calculation of Coding Effort for any given task that a development team is assigned to complete and development phases.

Two Ways to Measure Coding Effort: How do they compare?

Capture Time

Measure Output

Correlation with Actual Hours

(Sample size is ~ 4000 timed interactions with source files. Controlled for differences in developer role/ability)

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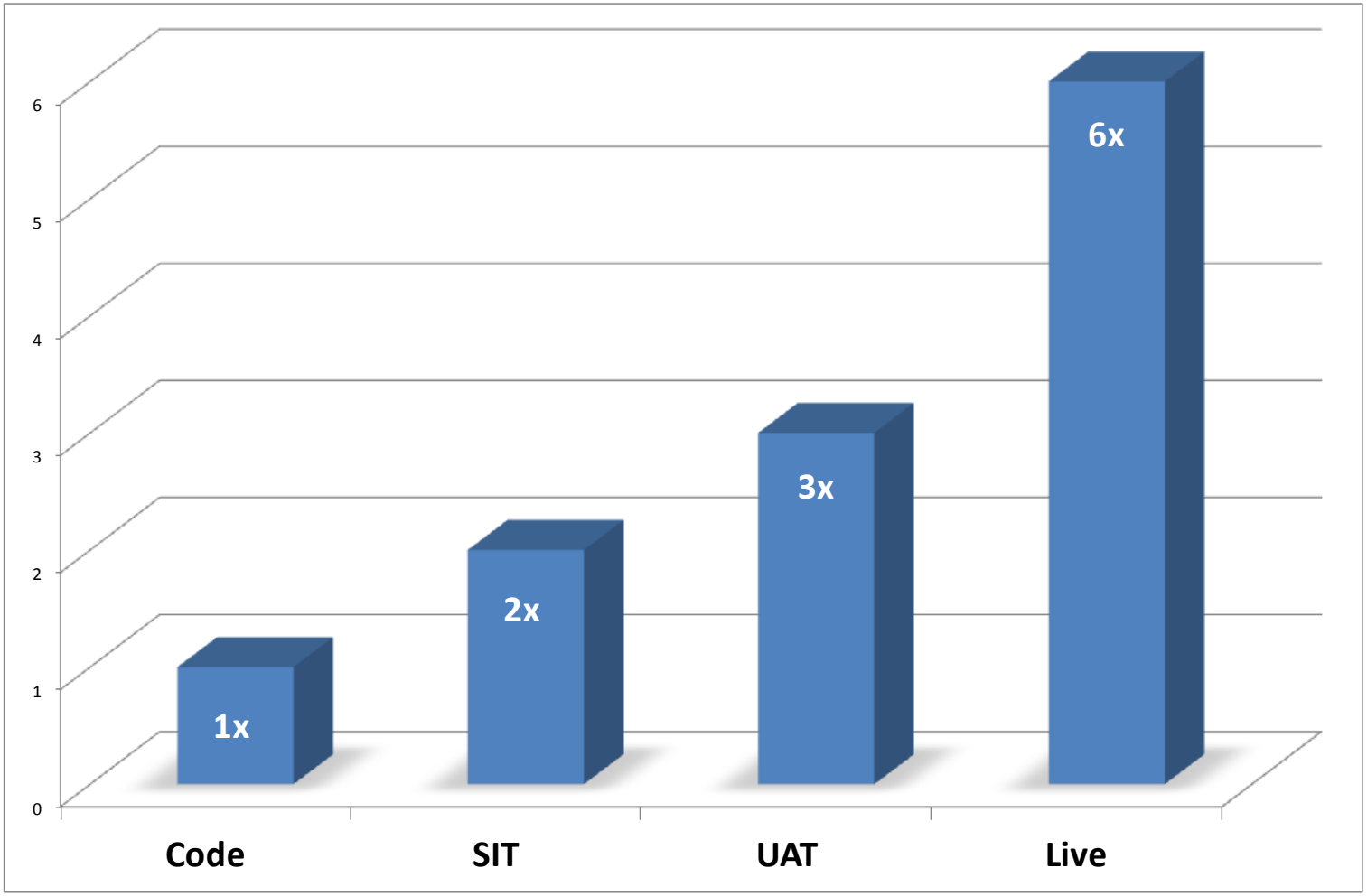
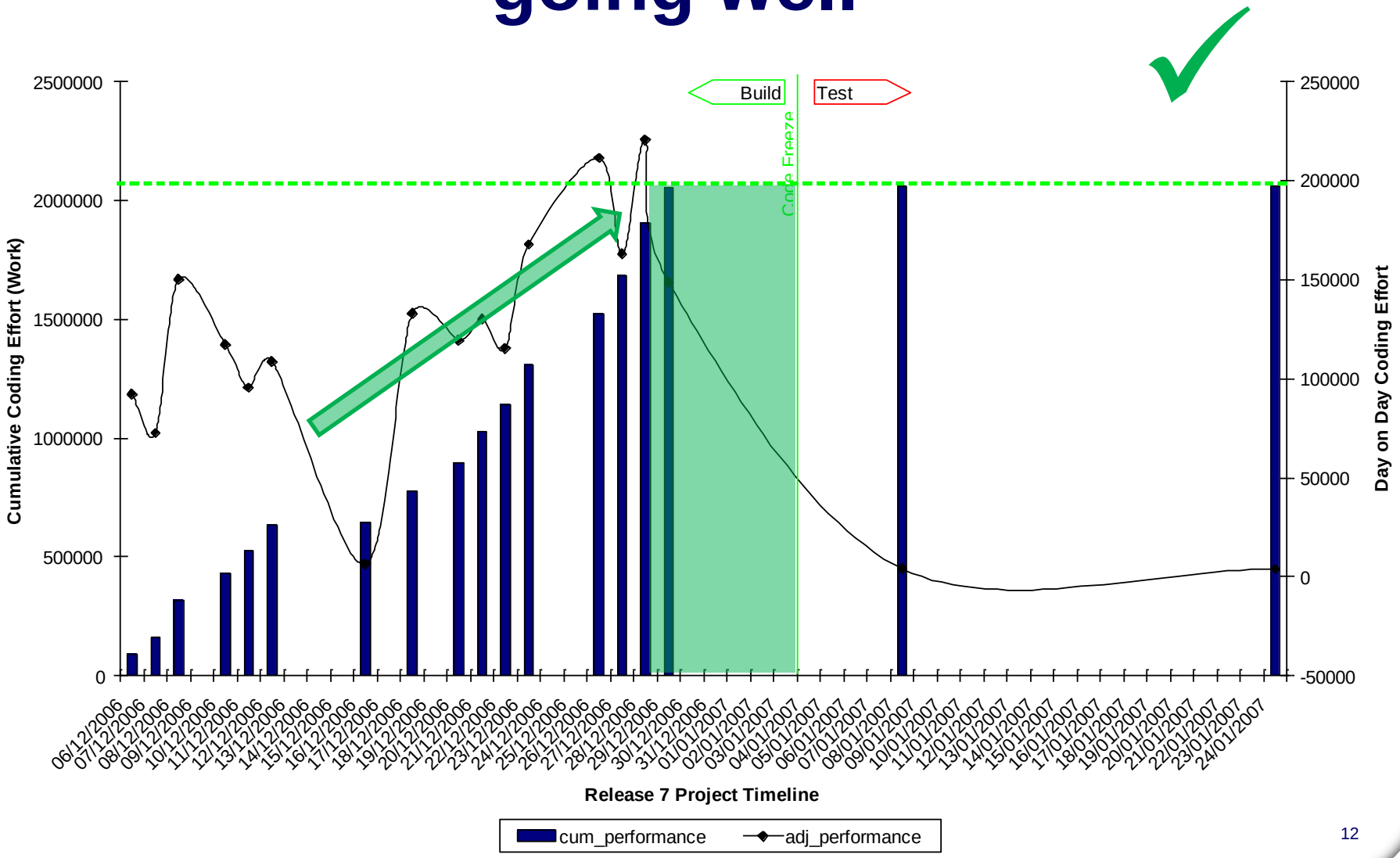
Reporting on Quality: The Quality Abacus

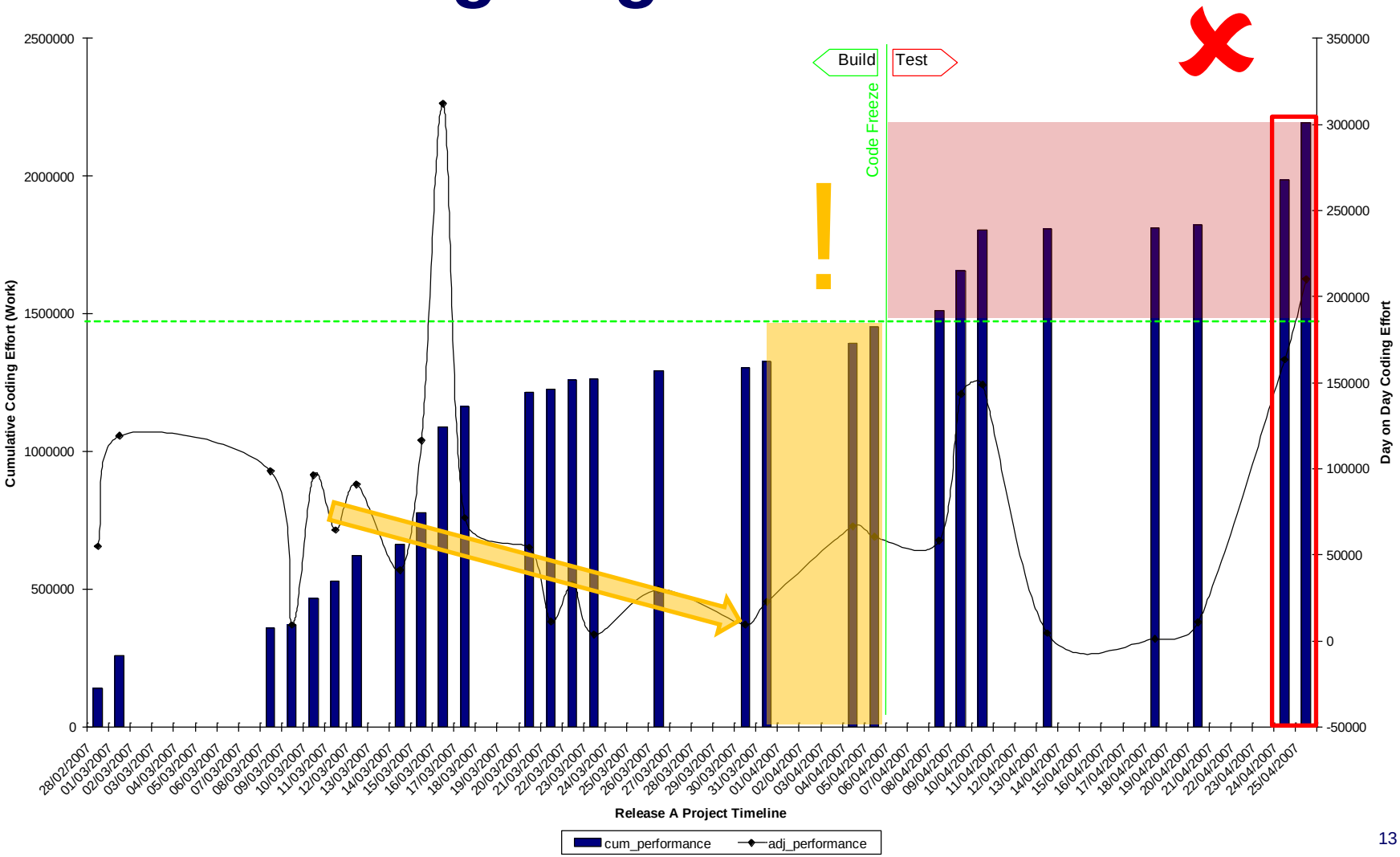


Sources: Economics of Software Quality, Jones & Bonsignour; Software Defect Analysis, An Empirical Study of Causes and Costs in the IT Industry, Kristianson, NTNU: CAST Report on Application Software Health (CRASH), 2012, Curtis, Sappidi, & Szynkarskii; IDC SQAM Forecast

Tactical Metrics: Track projects going well



Tactical Metrics: Track projects not going so well



Above all: Keep it light

Strategic Programme XYZ – The development of a global application using geographically distributed resources.

Overall	On Time	On Scope	On Budget
O A	OT A	OS G	OB G

Key Accomplishments (01/03/11-31/3/11)

Status	Date	Activity
X	7 Feb	Sign off requirements
✓	14 Feb	WM-Ware infrastructure delivered ready for the start of pilot
✓	29 Feb	Complete …..

Key Activities for Next Period (to 31/03/11)

Date	Activity
25 Mar	Complete contractual negotiations
31 Mar	Complete rollout of …..
31 Mar	Some other key activity

Name [Subproject]	Start Date	Test Date	End Date	Coding Effort Ratio	Est. Hours Effort	Total Devs	Coding Phase Est. Hrs. Effort / Day	Test Phase Est. Hrs. Effort / Day	Total Cost
IPS 57 [IPS57]	31-Oct-11	28-Dec-11	30-Apr-12	53.14 : 46.86	816.23	3	10.33	4.35	20,000.00
SDS 57 [SDS57]	31-Oct-11	28-Dec-11	31-Mar-12	96.92 : 3.08	1,023.28	4	23.61	0.47	40,000.00
Trading 57 [Trading57]	23-Nov-11	14-Jan-12	05-Jul-12	74.25 : 25.75	665.04	18	13.35	1.38	80,000.00

Outstanding Issues/Risks		Resolution / Mitigation
Issue	This is an issue (i.e. not yet a risk) that can be described here.	What is done about the issue
Risk	This is something that is a risk and may become and issue	What is done to ameliorate the risk
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Current Year Cash Spend (a/o Feb)

Full Year Plan $$	*Full Year Outlook $$*	*Variance B /(W)*	*YTD $$*	*YTD $$ % of Outlook*
$616,925	$566,806	50,119	$79,260.32	13%

Total Project Cash Spend (a/o Feb)

Total Project Approved $$	*Total Project Outlook $$*	*Project to Date $$*	*To Date $$ % of Approved$$*
$567,000	$587,806	$100,260.32	17.7%

blueoptima