The Answer to Life, the Universe, and Everything



An Agile Throwdown: Munich Germany Takes on the Columbus OH Agile Benchmark Study



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USS MARYLAND (SSBN 738)



Rayleigh Curve Defect Rate

Defect Type (All) 🔫



(#8)

















The Columbus Agile Benchmark Study (Columbus vs the World)







The Intelligence behind Successful Software Project

The QSM SLIM Database

QSM maintains the world's largest benchmarking database of 12,000+ completed software projects collected worldwide. We put industry productivity statistics on the desktop.

- The QSM SLIM database contains projects in all industries, waterfall, Agile, offshore/outsourced, inhouse, new development, and maintenance.
- SLIM tools enable managers to measure and estimate Agile and/or waterfall projects.







The QSM SLIM Database

British Telecom SAP **Microsoft** Intel AT&T/BellSouth Nationwide Motorola VerizonWireless **Roche Diagnostics** **Fiserv Corp IBM Global Misys Healthcare JPMorganChase** Boeing Bank of New York Mellon Lockheed Martin **Progressive Insurance** DirecTV

How Might Agile Be Successful?



Agile projects can be considered more successful in the sense that they deliver more functionality with fewer defects."

- Kent Beck (xp creator)





(#14)



Trondheim

Norway

COPENHAGEN

Denmark

AMSTERDAM

Hamburg

Germany

OSLO. STOCKHOLM

Glasgow-United Kingdom Manchester DUBLIN Ireland

> PARIS France

Bilbao[®] Pyren Portugal Spain

LISBON

Marseille Barcelona

BRUSSELS

Bergen

Mediterranean Sea Palermo.

RIGA. Lithuani

ERLIN Poland WARSAW

VIENNA Slovakia BERNE Zurich Austria Milan ZAGREB

> Italy SARAJEVO ROME * TIRANA * *

> > Greece









Agile Redefines Economics: What U.S. Data Reveals from Recent Agile Benchmark Research



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DOP











Successful Software Projects













Follett vs. Industry Average

	Industry Average	Current Performance	Delta
Project Cost	\$3.5 Million	\$2.2 Million	-\$1.3M
Schedule	12.6 months	7.8 months	-4.8 mos
QA Defects	242	121	-50%
Staffing	35	35	n/a

Agile Captures the Right Metrics for SLIM

Velocity/Burndown

Headcount





Stories and Point Sizing

Bugs





Project Sketch – Core Metrics



Input to SLIM



Trendline Assessment – Build Phase Schedule



Trendline Assessment – Defects/Quality



This Data Says: Kent was CORRECT



"Agile projects can be considered more successful in the sense that they deliver more functionality with fewer defects."

- Kent Beck


The Columbus Agile Benchmark Study (Columbus vs the World)







The Intelligence behind Successful Software Project

The Munich Agile Benchmark Study (Munich vs the World)







The Intelligence behind Successful Software Projects

Munich vs. Columbus







Sample Agile Release Summary

July Release:

- 4 months duration
- 10 FTE staff
 - 139 Stories, 553 Story Points
 - Delivered by Adding/Creating (an additional)
 - 26,579 New Code, plus 7,615 Changed Code
 - = 34,194 New and Changed Code
 - (Other code = same/unchanged or deleted)
 - 45 Defects during QA Testing



The Answer to Life, the Universe, and Everything



Speed - Columbus



	United States	QSM Business	Avg. Line Style	1 Sigma Line Style
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Speed - Columbus



	United States	QSM Business	Av g. Line Style	1 Sigma Line Style
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Speed - Munich



	Germany	QSM Business	Av g. Line Style	1 Sigma Line Style
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Speed - Munich



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Speed – Columbus and Munich



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Speed – Columbus and Munich



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Bugs - Columbus



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Bugs - Columbus



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Bugs - Munich



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Bugs - Munich



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Bugs – Columbus and Munich



Bugs – Columbus and Munich



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Staffing - Columbus



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Staffing - Columbus



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Staffing - Munich



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Staffing - Munich



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Staffing – Columbus and Munich



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Staffing – Columbus and Munich



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Effort – Columbus



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Effort – Columbus



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Effort - Munich



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Effort - Munich



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Effort – Columbus and Munich



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USA - 2 Germany - 1



The Intelligence behind Successful Software Projects

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Short Feedback Loops

Paired programmers Instantaneous code reviews Accelerated learning and execution Face to face communication channel





High-bandwidth Communication

The best teams have "wide-open pipes" Domain knowledge moves among the team

Information flows rapidly and accurately





Transparency

"Transparency is a great floodlight. People who thrive in political maneuvering hate SCRUM..."

- Ken Schwaber





Avoiding Burnout

XP = Sustainablepace 40 Hour Work Weeks Prevent productivity collapse for overworked teams





The Intelligence behind Successful Software Projects
So What? What Matters?



The Intelligence behind Successful Software Project





















But wait, there's more... What About New York?





Columbus Agile Benchmark Trends





Successful Software Projects





Curious George

The Intelligence behind Successful Software Projects



You're Invited!



For Additional Information

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