



WORKPLACE
SOLUTIONS

You can find a German version for this talk as a paper under:
<http://shop.heise.de/katalog/ix-dossier-agiles-it-projektmanagement>

Current trends in Software Development Management

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No Silver Bullet: Essence and Accidents of Software Engineering

by Frederick P. Brooks, Jr.

Of all the monsters that fill the nightmares of our folklore, none terrify more than werewolves, because they transform unexpectedly from the familiar into horrors. For these, one seeks bullets of silver that can magically lay them to rest.

The familiar software project, at least as seen by the nontechnical manager, has something of this character: it is usually uneventful and straightforward, but is capable of becoming a monster of missed schedules, blown budgets, and flawed products. So we hear desperate cries for a silver bullet--something to make software costs drop as rapidly as computer hardware costs do.

But, as we look to the horizon of a decade hence, we see no silver bullet. There is no single development, in either technology or in management, that by itself promises even one order-of-magnitude improvement in productivity, in reliability, in simplicity. In this article, I shall try to show why, by examining both the nature of the software problem and the properties of the bullets proposed.

Example: a huge project on a container terminal in Hamburg

CMA CGM Christophe Colomb

Length: 365,5 m width: 51,2 m

tdw : 157.092 TEU : 13.344



New hardware and new software for large container vessels

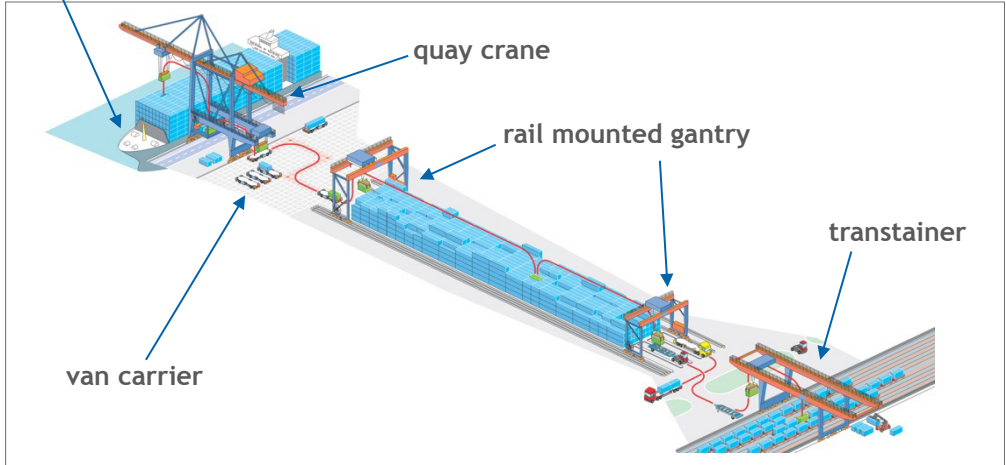
container vessel

quay crane

rail mounted gantry

transtainer

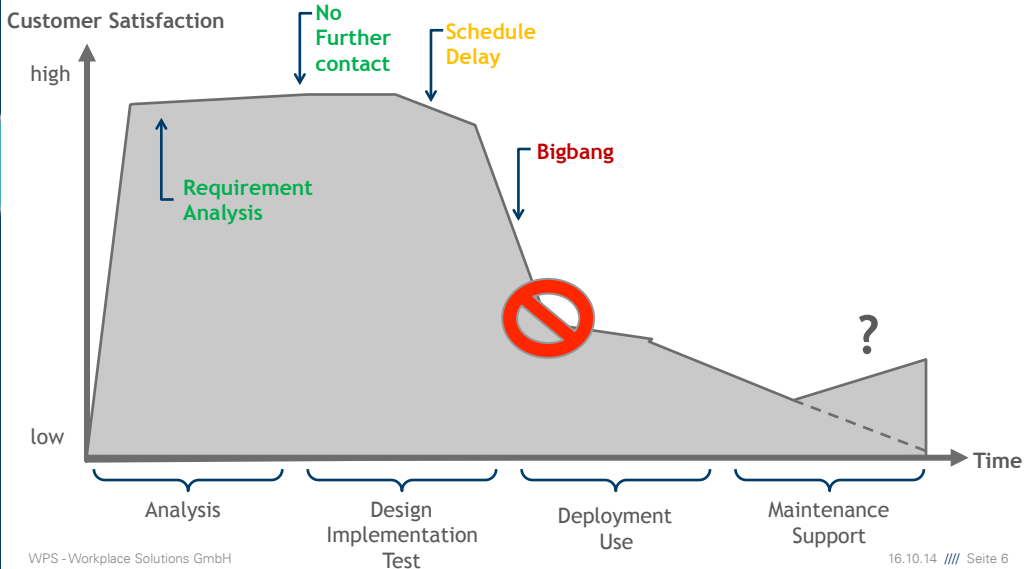
van carrier



New hardware and new software for large container vessels

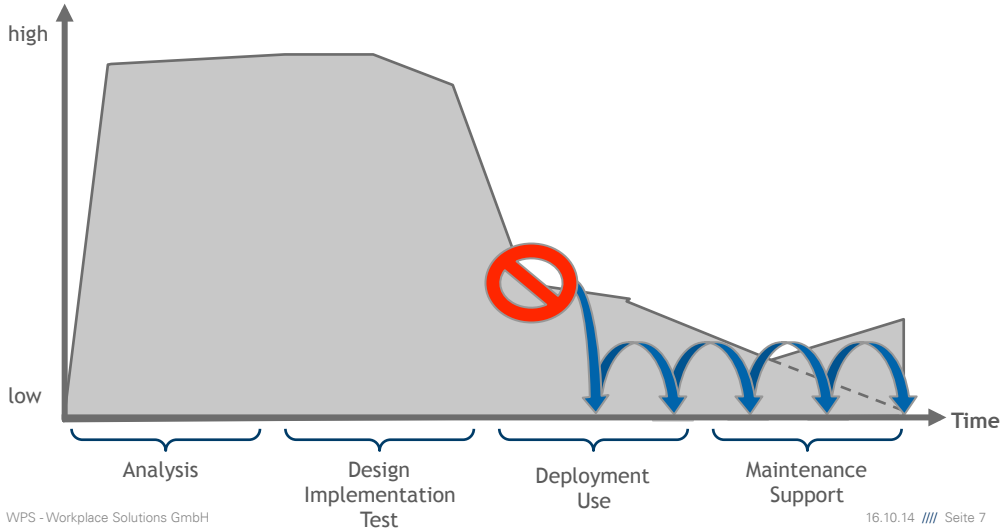


The werewolve in the waterfall model



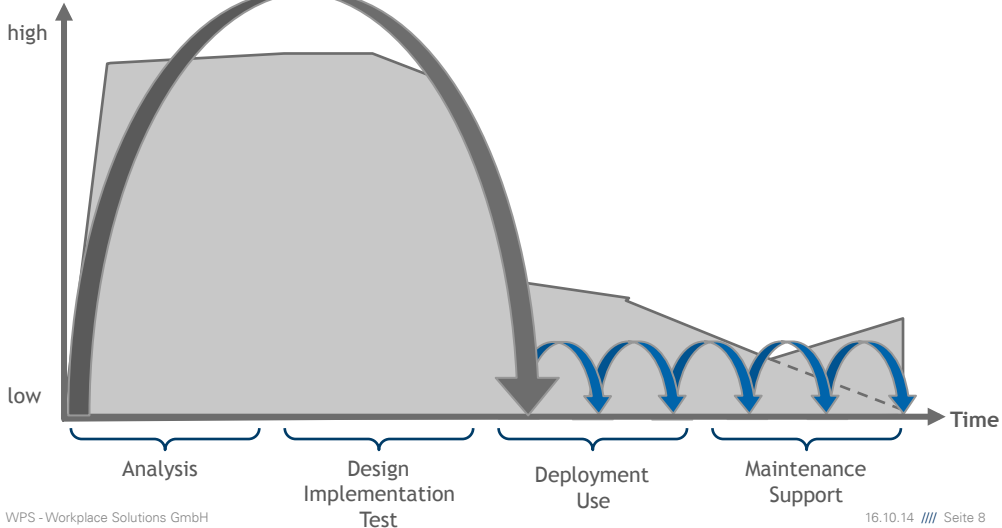
Agile cycles at the end of the waterfall!

Customer Satisfaction



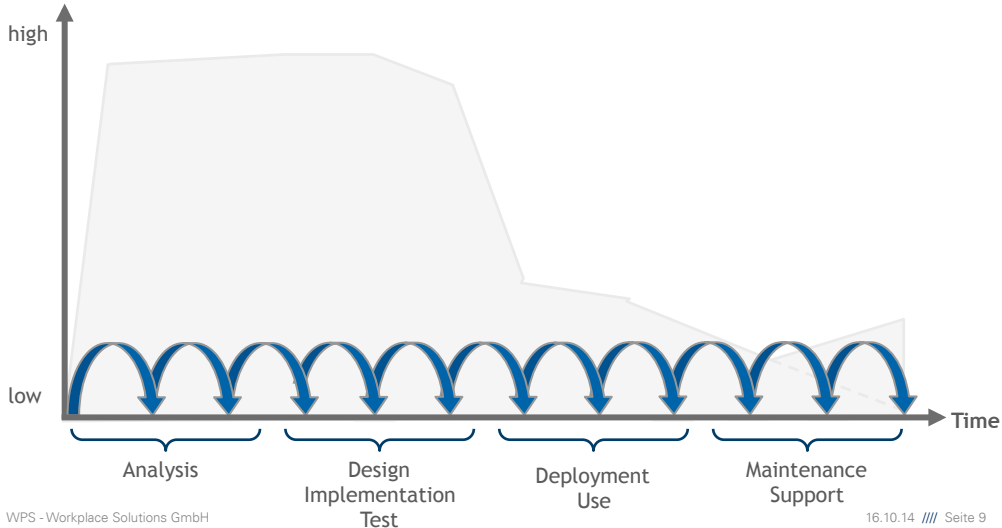
One first big cycles at the beginning of the waterfall model

Customer Satisfaction



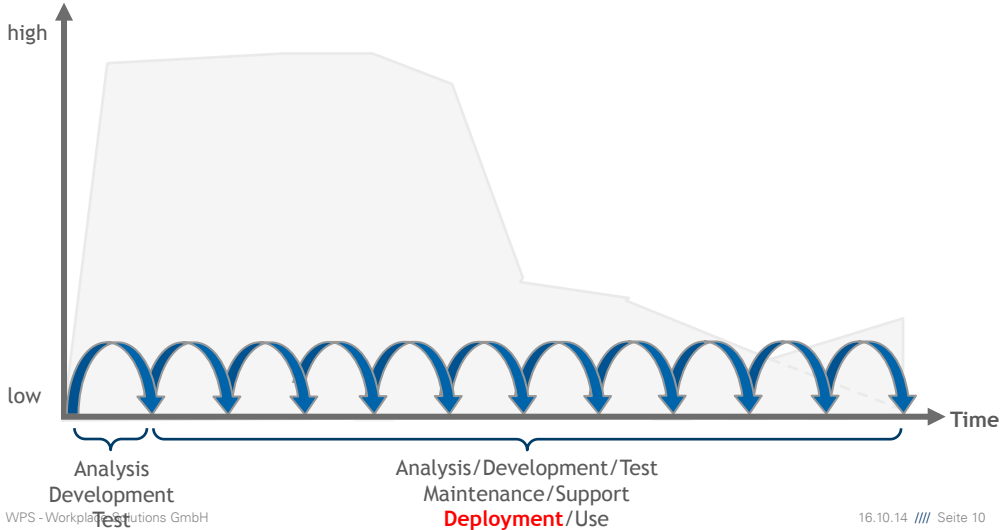
Agile Cycles all along the project

Customer Satisfaction

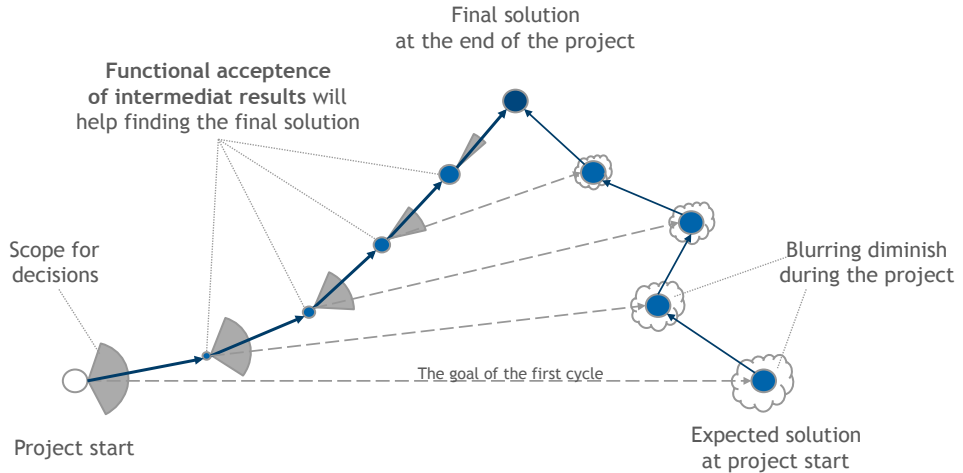


Real agile cycles

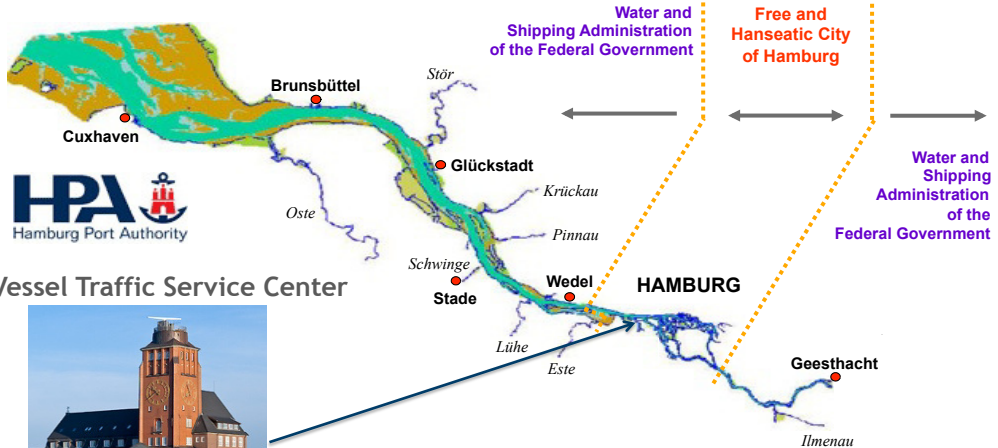
Customer Satisfaction



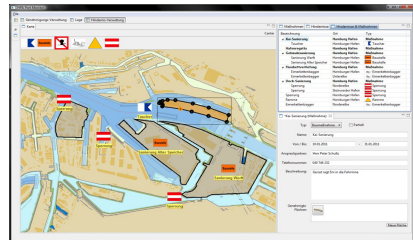
Software development = expedition



Responsibilities on the river Elbe at Hamburg

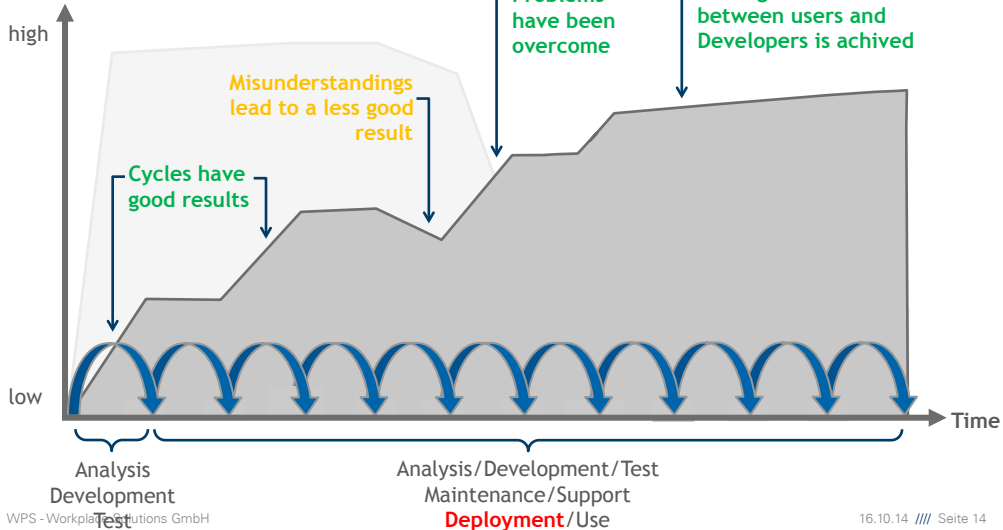


Example: Real-time system on incidents and the conditions on the waterways in the Port of Hamburg

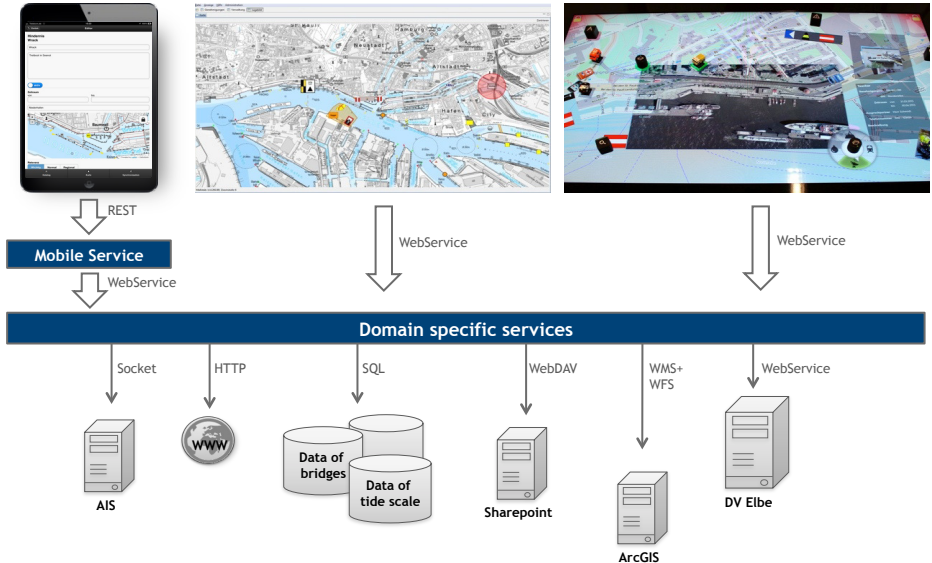


Agile development leads to customer satisfaction

Customer Satisfaction



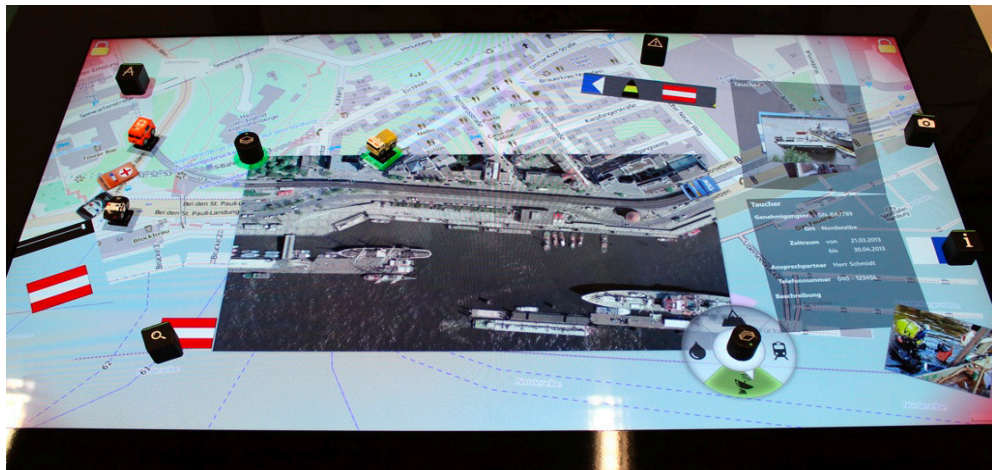
Step by step further enhancements are added



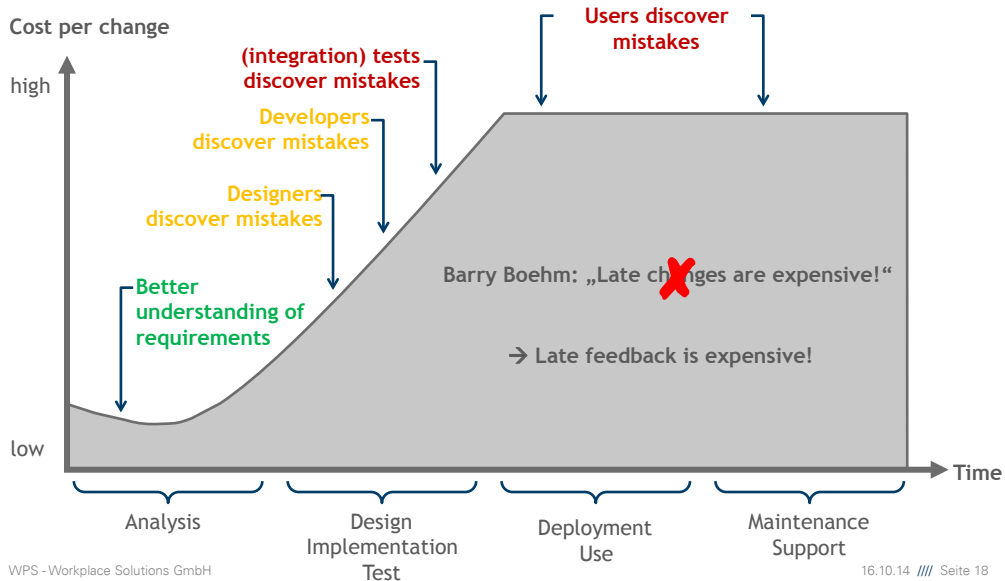
Mobile work is supported



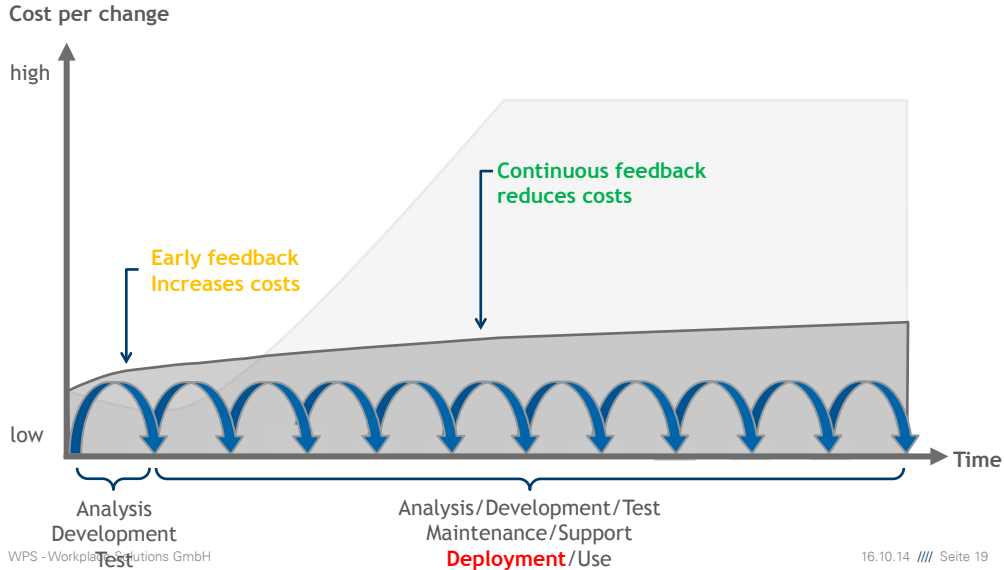
Cooperative work at the control center is supported



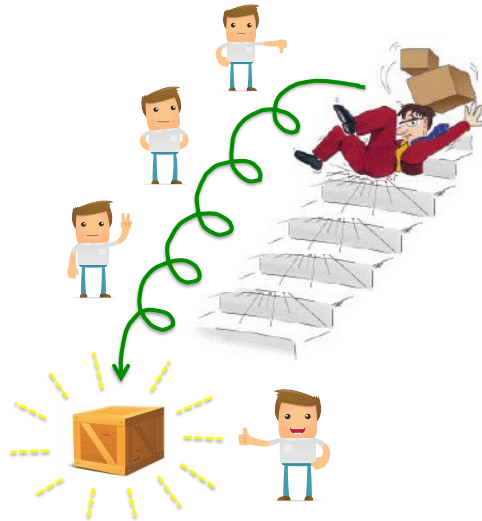
Cost curve for the waterfall model

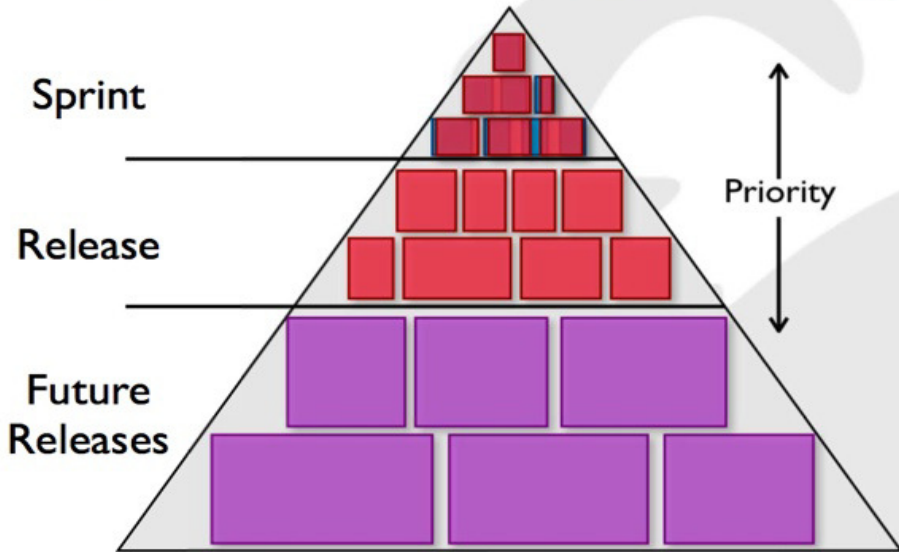


Cost curve for agile development

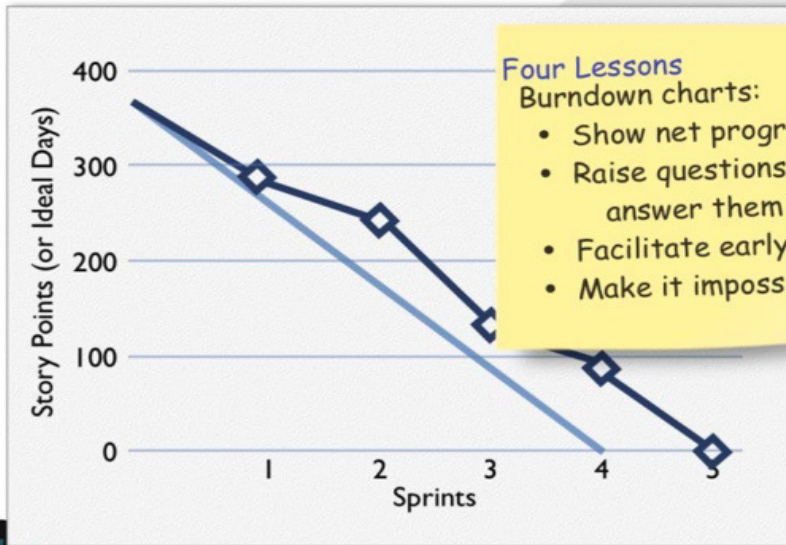


Waterfall versus agile development – there is pain!





Burndown charts: When will the system be released?



Four Lessons

Burndown charts:

- Show net progress
- Raise questions; they don't answer them
- Facilitate early discussions
- Make it impossible to lie





Have we built a viable thing?
(results reward roi)

Are we building the thing right?
(product management)

What is the right thing?
(interactive exploration)

Any questions?

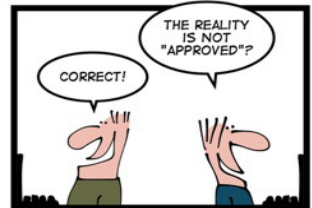
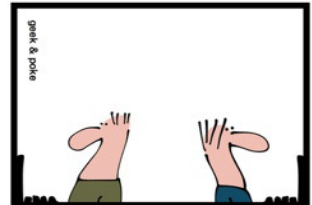
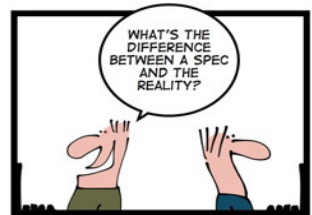


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