EVO

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Information Systems
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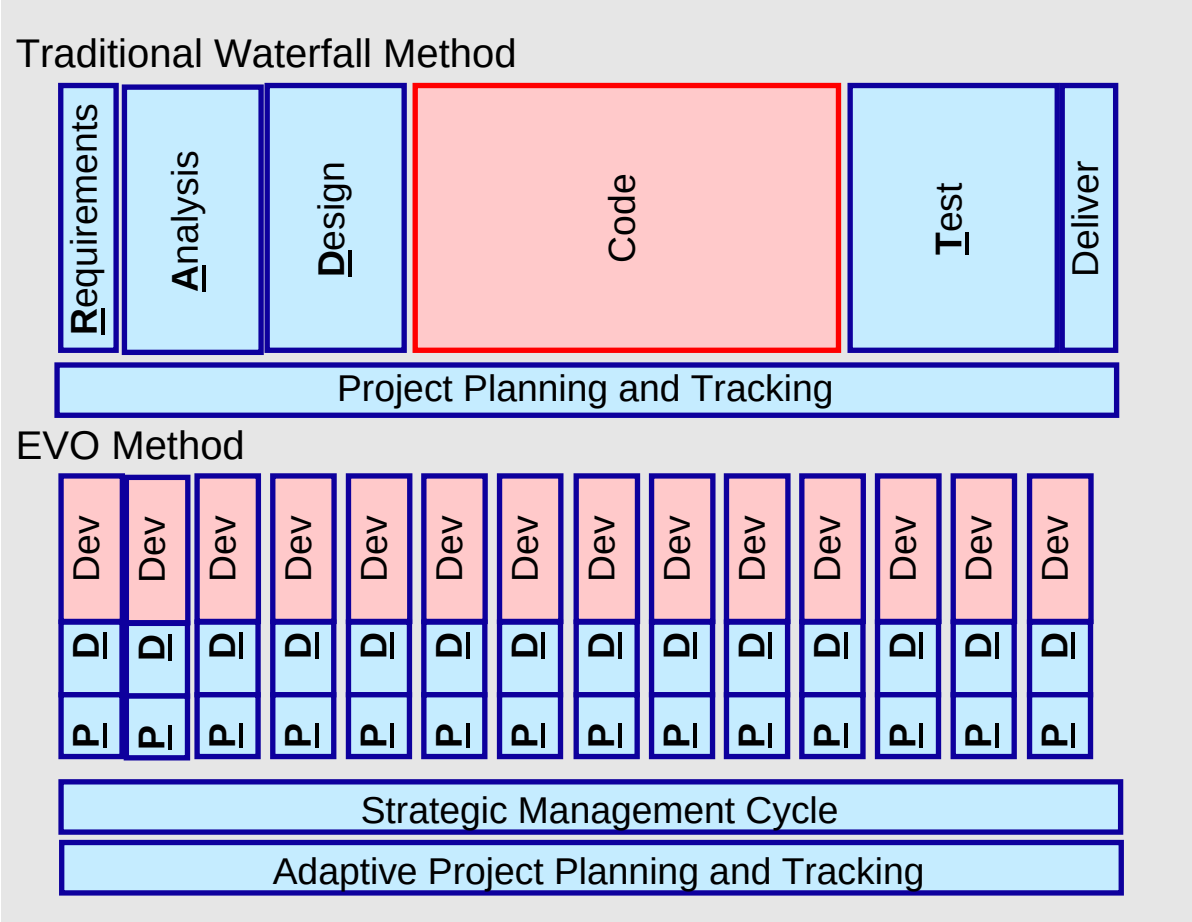
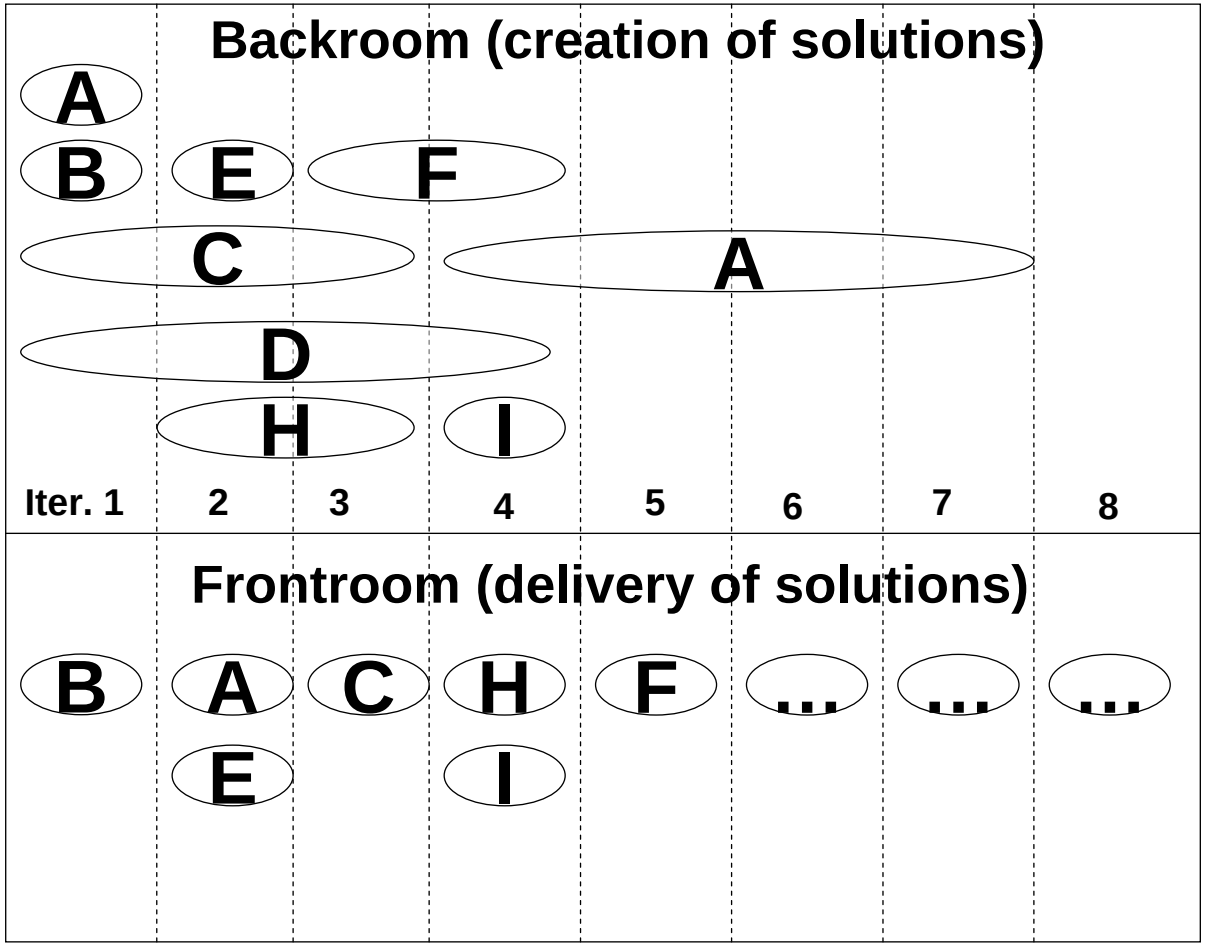
Goal

Agile Testing Principles
Tutorial on Design and XP reflections (d401a, s601d)
EVO

Process


Traditional Waterfall Method
Requirements
Analysis
Design
Code
Test
Deliver
Project Planning and Tracking
EVO Method
Dev
DI
PI
Strategic Management Cycle
Adaptive Project Planning and Tracking

Inventory Based Production



EVO Practices

Find stakeholders
Top 10 critical requirements
Define function specifications
Define performance specifications
Specification clear and where possible measurable
Planguage (optional, for req. as well as design)
Evolutionary project management (iterations 2-5% of total time and costs)
Evolutionary Delivery
Measure impact of delivered solutions

Design

Design specifications
Impact estimations
Describe connection to requirements
Tests and measures in requirements (meters)
Early Inspection/QA
Traceability links

EVO cycle

Kick-off day (all, ideas, estimates, distribution of work)
Execution of Iteration (1-2 weeks)
Last day

- PM checks developers and dev. reflect
- PM checks with stakeholders
- PM and developers generate new tasks

Roles

PM
System Architect, Implementer
Owner, Stakeholder

Planguage (Function, Performance, Design)

Tag: FLF
Type: Function Specification
----Basic Information
Gist: Find Lowest Fare for travel
Description: <input: dates, airports, carriers. Output: flights sorted by costs>
-----Relationships
Supra-functions: Res.search
Sub-functions: none
Is Impacted by: {Call Center, Web Front End}
Linked to: Supports: Res.Booking
----- Measurement
Test: T1 <correctness test 1>
----- Priority and Risk Management
Rationale: <our competitor have it> <- Marketing Director
Assumptions:
A1: [before end of next year]: Competitor X doesn't upgrade
A2: <??>
Dependencies: Res.DB
Risks: R2, R6
Priority: Must be in first public release <- Marketing Director
---- Specific Budget
Financial Budget: <??>

Impact Estimation Table

Design Ideas -> Req.	Server Cluster	High Performance hardware	Sum of Impact
Responsive Browsing: Baseline: 5 sec, Goal: 3sec			
Scale and % impact	3±1sec. 100%±50%	4±1 sec. 50%±50%	150%±100
Evidence and credibility	Competitor X has this configuration and response <- Jill Jones 0.2	Moon microsystems has customers acieving this <- moon Sys. Eng. 0.1	
…	… sum 140%	…sum 70%	
Capital/Dev Cost Baseline: 0$, Budget: $200K			
Amount and %	$20K±10K 10%±5	$100K±10K 50%±5	60%±10
Evidence and Credibility	… 0.1	… 1.0	
Benefit-to-cost Ration	14 (140%/40%)	1.4 (70%/50%)	
Impact credibility adjust	0.84 (14 * .2 * .3)	0.01 (1.4 * .1 * .1)	
Cost credibility adjust	0.08 (.84 * 0.1)	0.01 (.01 * 1.0)	

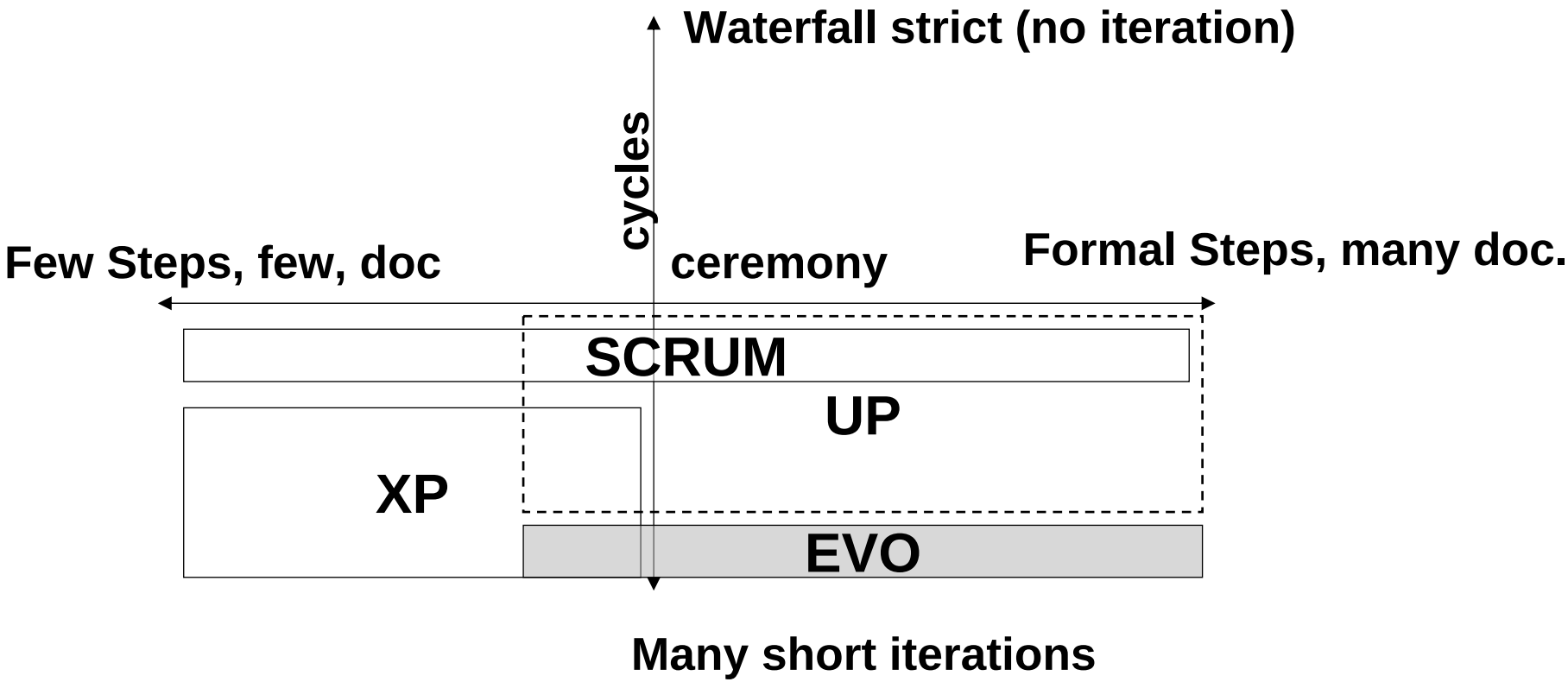
Cockburn scale

Criticality

Life (L)	L6	L20	L40	L100
Essential Money (E)	E6	E20	E40	E100
Discretionary Money (D)	D6	D20	D40	D100
Comfort (C)	C6	C20	C40	C100

People

Degree of Ceremony and Cycles



Summary

Testing
Tutorial on XP and Design
EVO