X

S A P

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SENSE OF URGENCY | LEAN DEV | LEAN & AGILE DEV @ SAP

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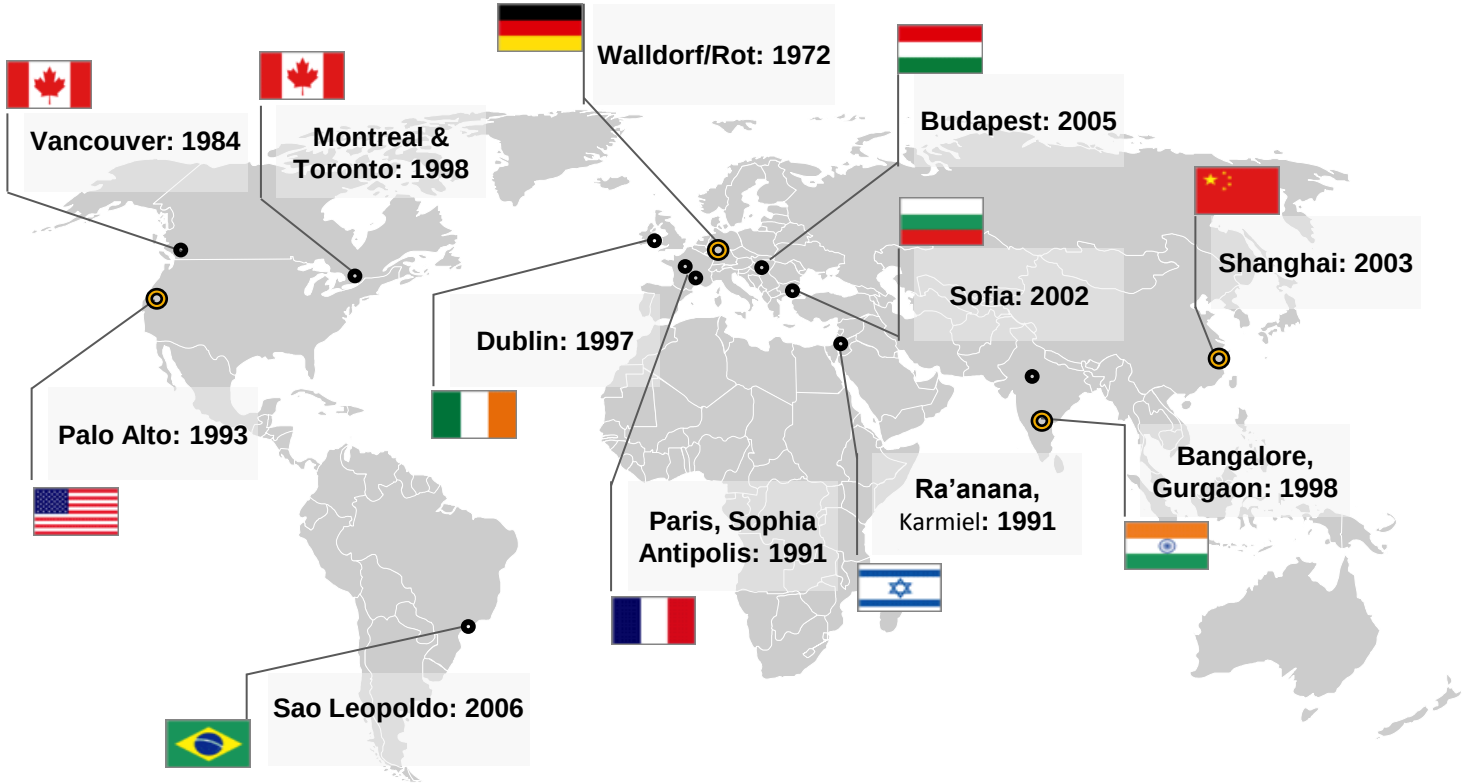

SAP PRODUCT CREATION ORGANIZATIONS

[1]

More employees did not help us

to come back into economies of scale.

NO ECONOMIES OF SCALE AFTER 1998

[2]

Arbeitstrennung, Spezialisierung

Sequentielle Entwicklung und späte Qualitätskontrolle

Starrer Projektumfang

Zentralisierte Entscheidungsfindung

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WE’RE NOT BUILDING CARS – **LUCKILY**!

[3]

SOFTWARE DEVELOPMENT IS A **CREATIVE** PROCESS

… DONE BY KNOWLEDGE WORKERS

	Manufacturing	Development
Tasks are ...	Repetitive & predictable	Non-repititive & unpredictable
Requirements are ...	a constraint & fixed	a degree of freedom & evolving
Inventory is ...	Visible (physical objects)	Invisible (information)

...

MANUFACTURING VS. DEVELOPMENT

TAKE AN ECONOMIC VIEW

ACTIVELY MANAGE QUEUES

EXPLOIT VARIABILITY

REDUCE BATCH SIZE

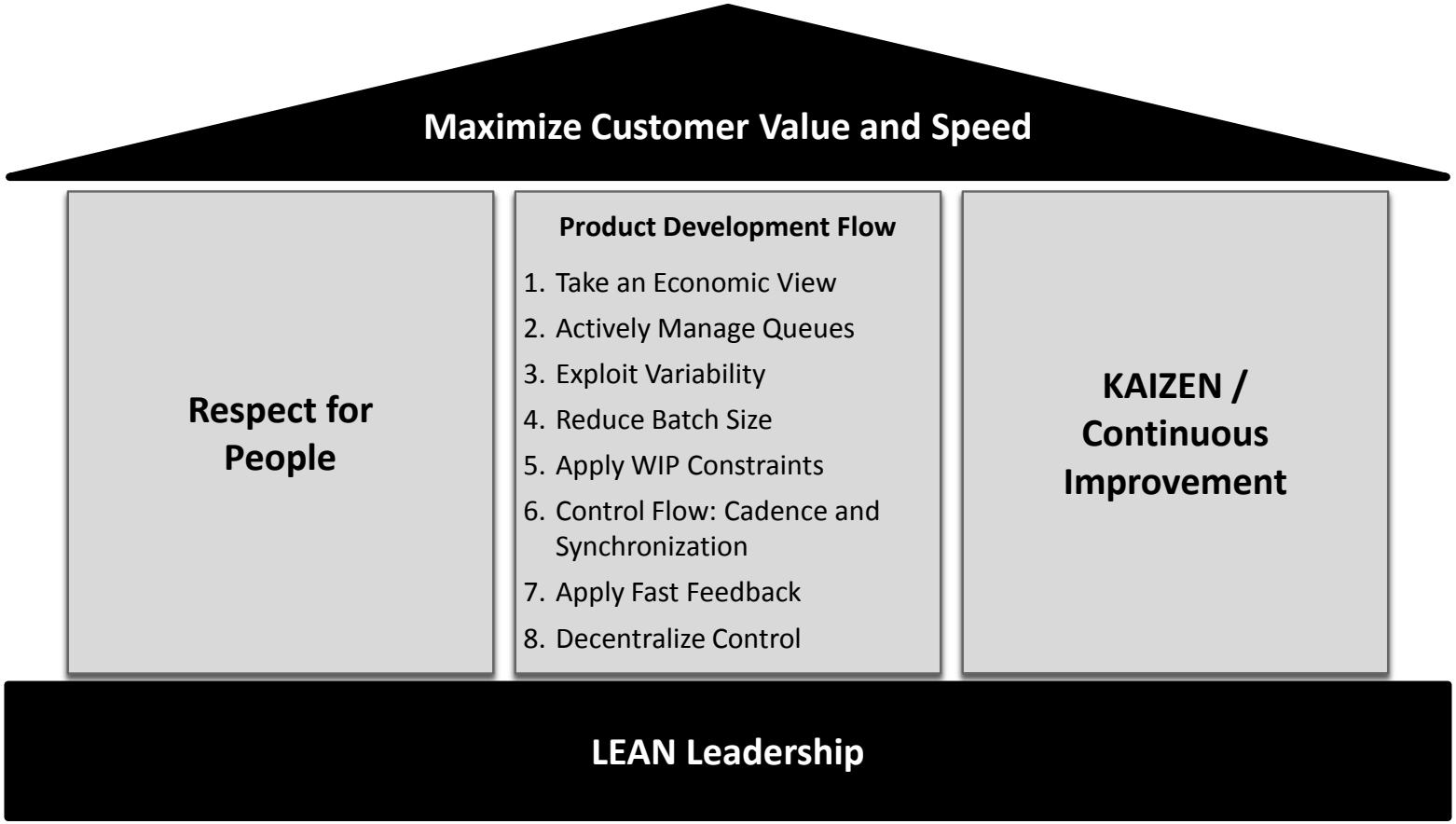
APPLY WIP* CONTRAINTS

* WIP: Work in progress

FLOW CONTROL: CADENCE & SYNCHRONIZ.

APPLY FAST FEEDBACK

DECENTRALIZE CONTROL



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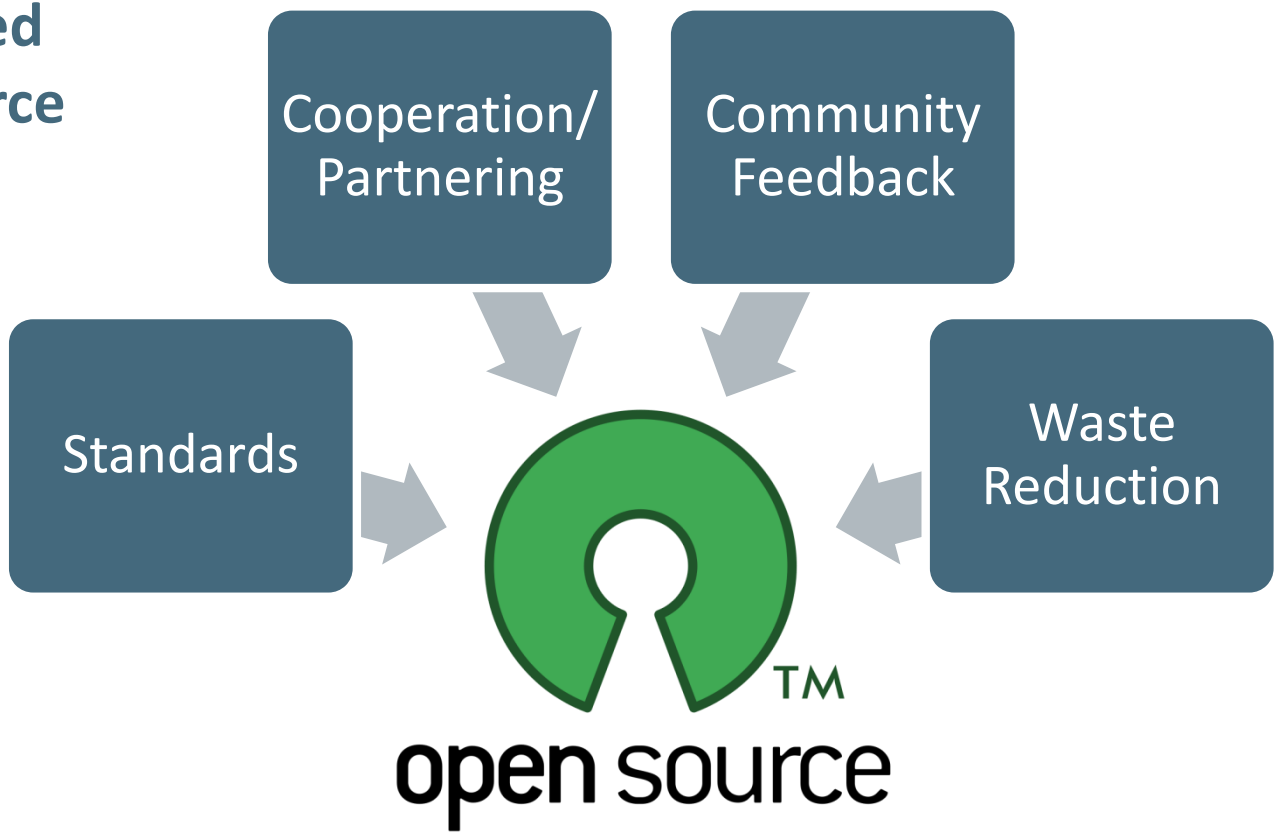
OUR LEAN THINKING HOUSE

Lean Paradigms Led to New Open Source Strategy at SAP



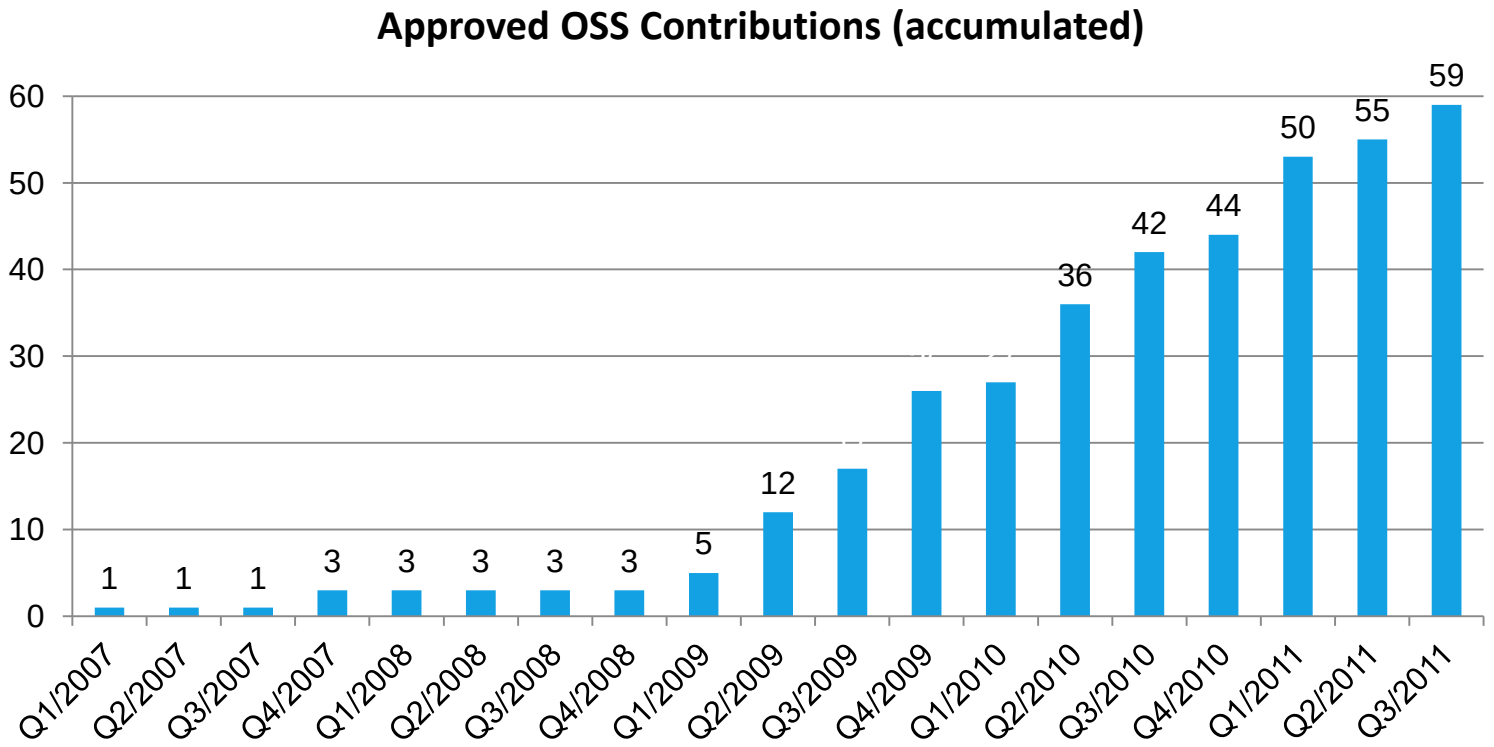
EXTERNALLY VISIBLE CHANGE – OPEN SOURCE INVESTMENTS

Past: Open Source is a risk

Present: Open Source provides business benefits

Why open source?	Why not open source?
Do not contribute back	Contribute to ensure innovation
Do not go open source	Go open source to protect investments

THE SAP MINDSET HAS CHANGED

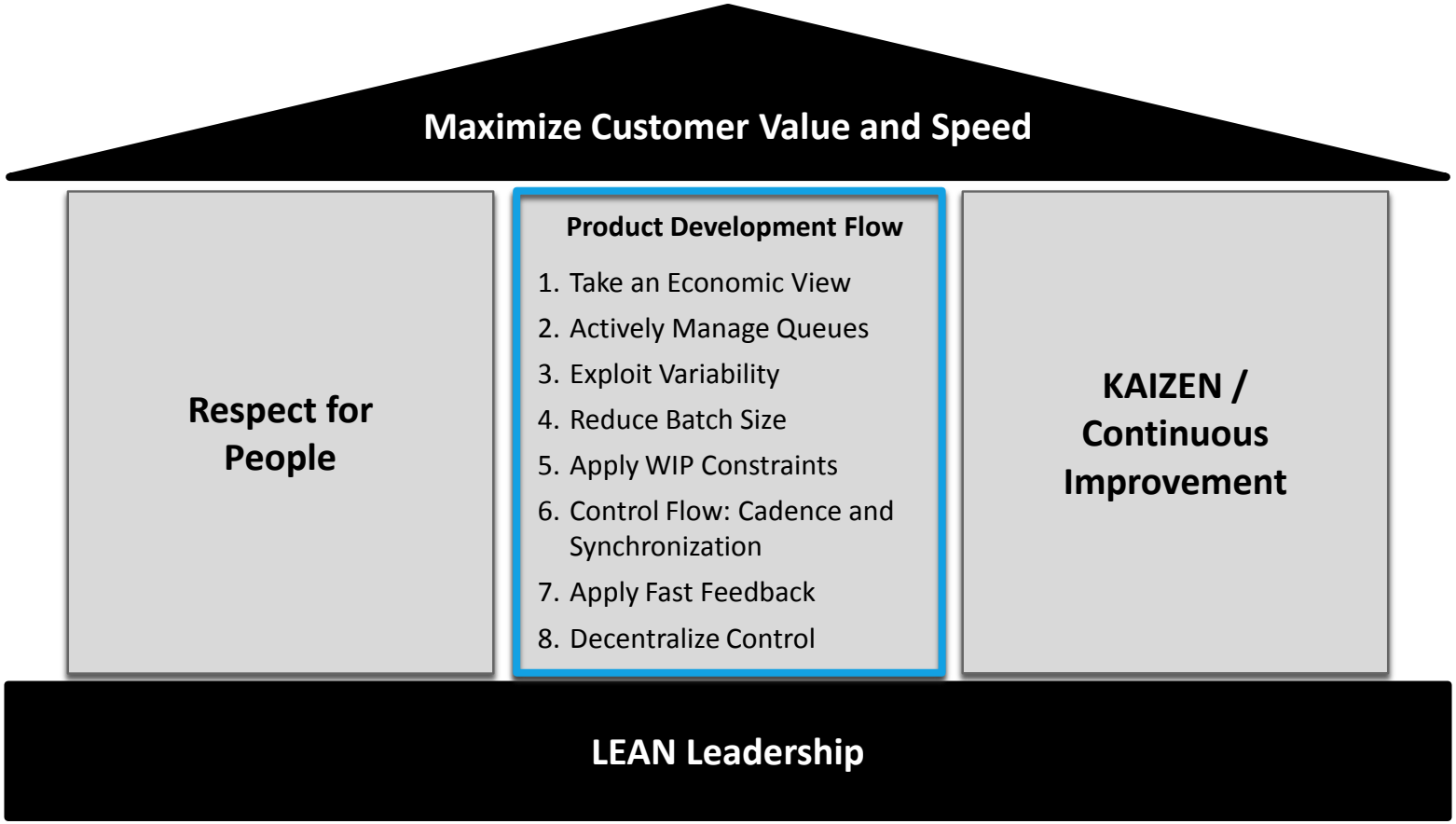


THE HOCKEY STICK

e4 Project

Memory Analyzer (MAT)

A SELECTION OF CURRENT SAP ENGAGEMENTS



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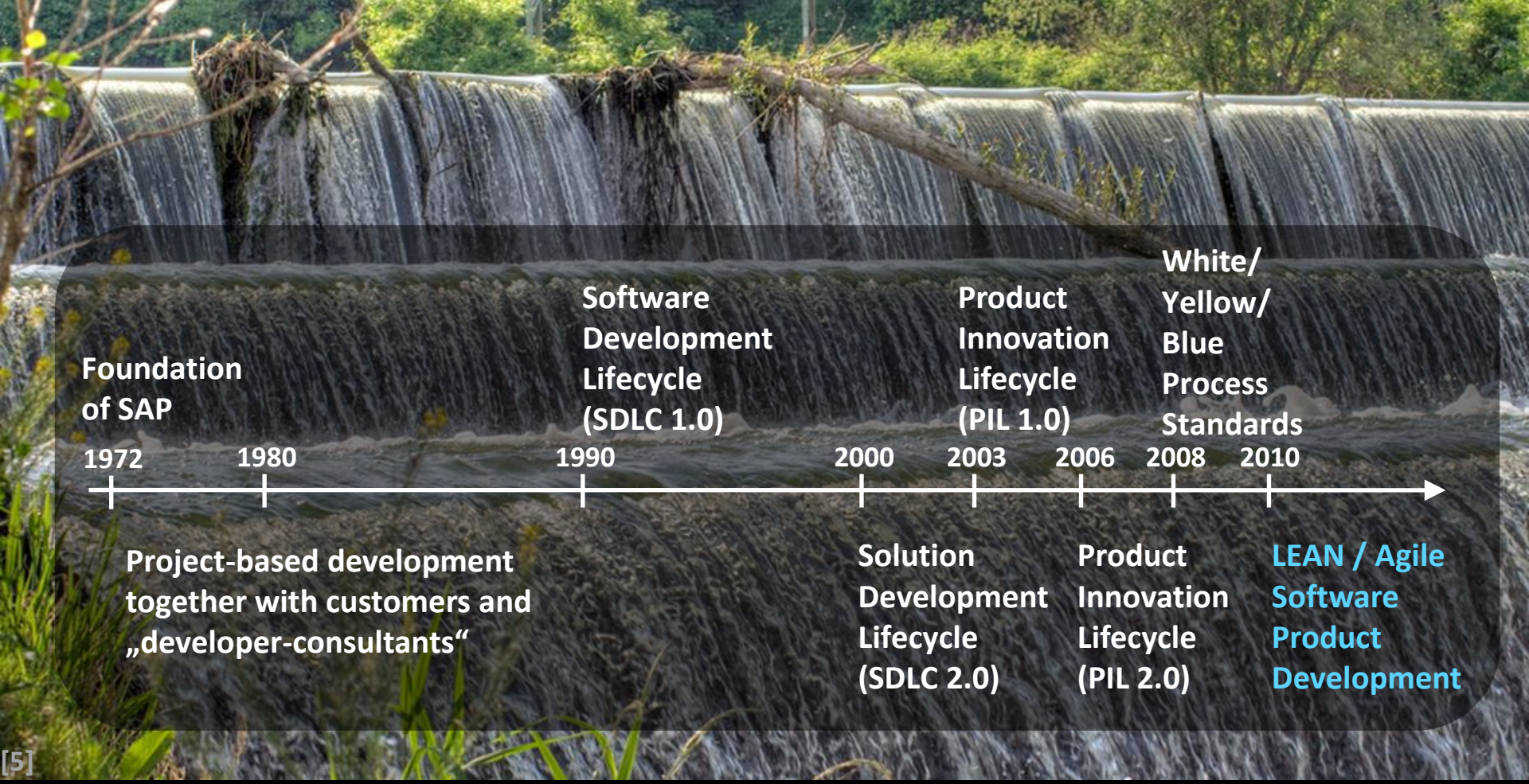


[5]

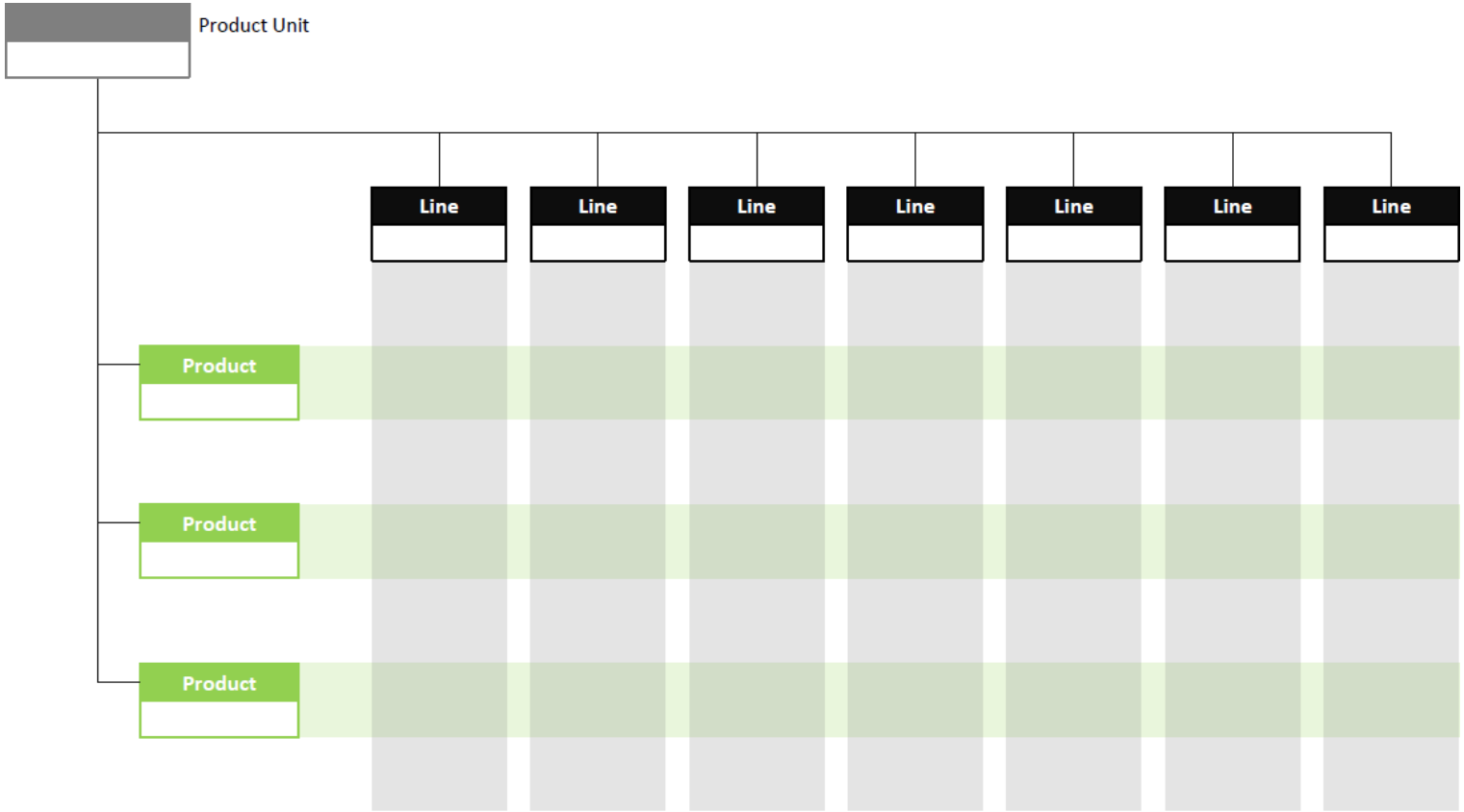
WHERE DO WE COME FROM

Multi-functional teams

led by a Chief Product Owner

responsible for a product

beginning-to-end

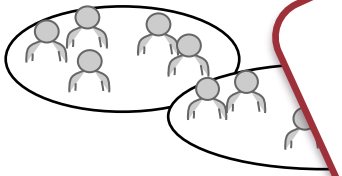


MATRIX ORGANIZATION

[6]

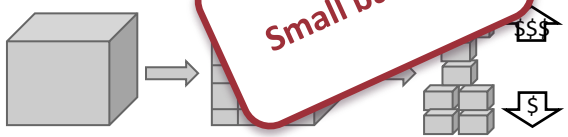
SCRUM IN DEVELOPMENT TEAMS

Split your organization – small, cross-functional, self-organizing t



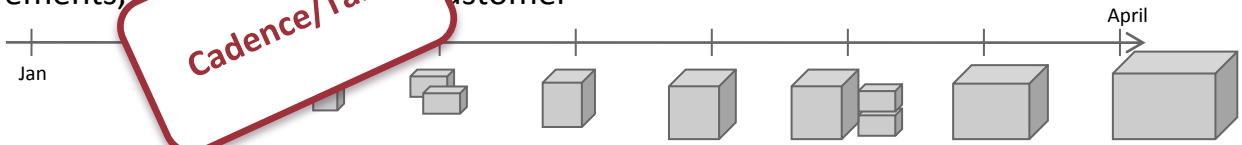
Decentralize control with alignment / Respect for People

Split your work – small li… together with customer, effort re…



Small batches

Split time – fixed t… rations (1-4 weeks) deliver potentially shippable increments, fa… ustomer



Cadence/Takt

Optimize the release plan – t… es in collaboration with the customer… gained by inspecting the release af…

Flow-control

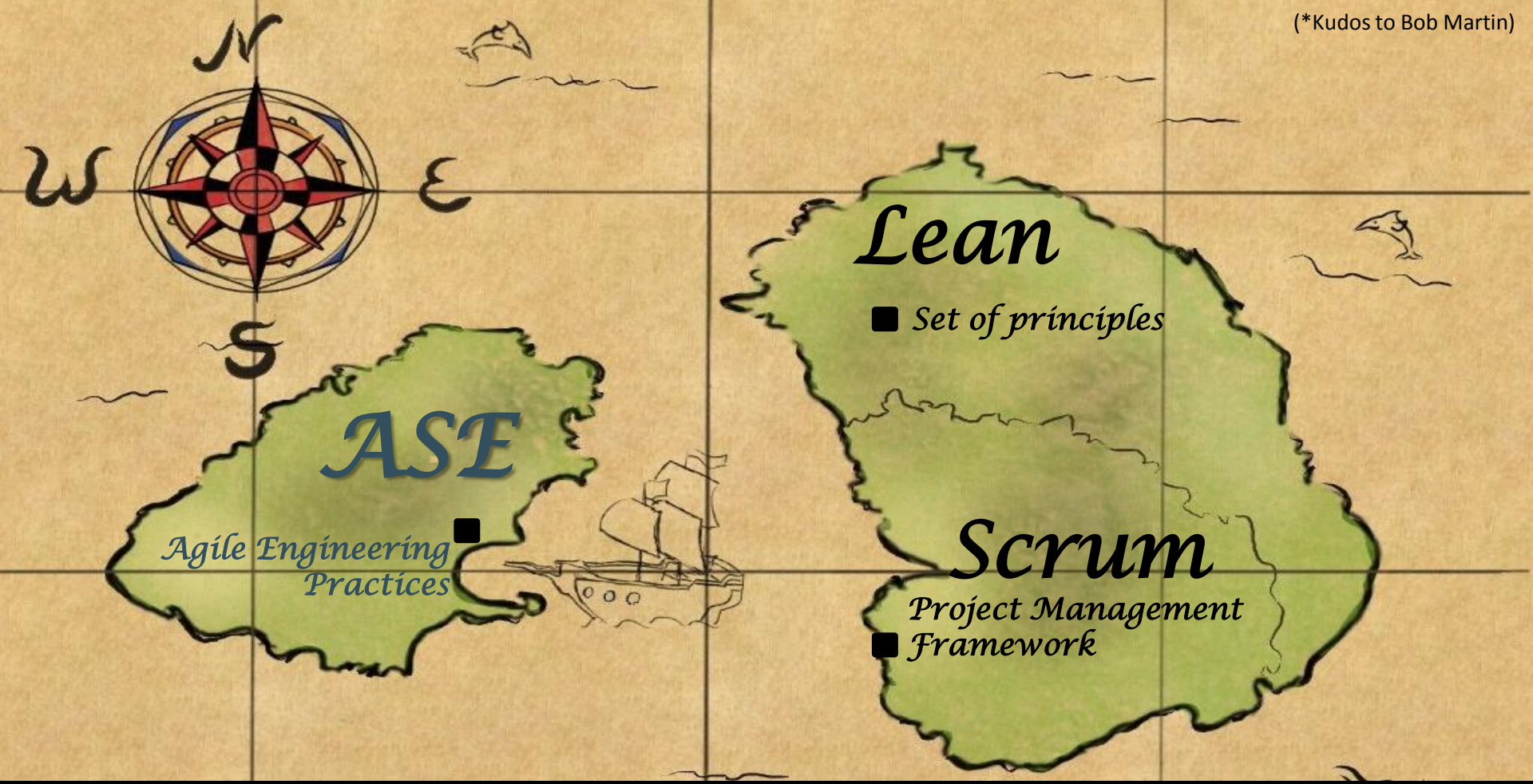
Retrospectives – after each iteration…

Continuous improvement

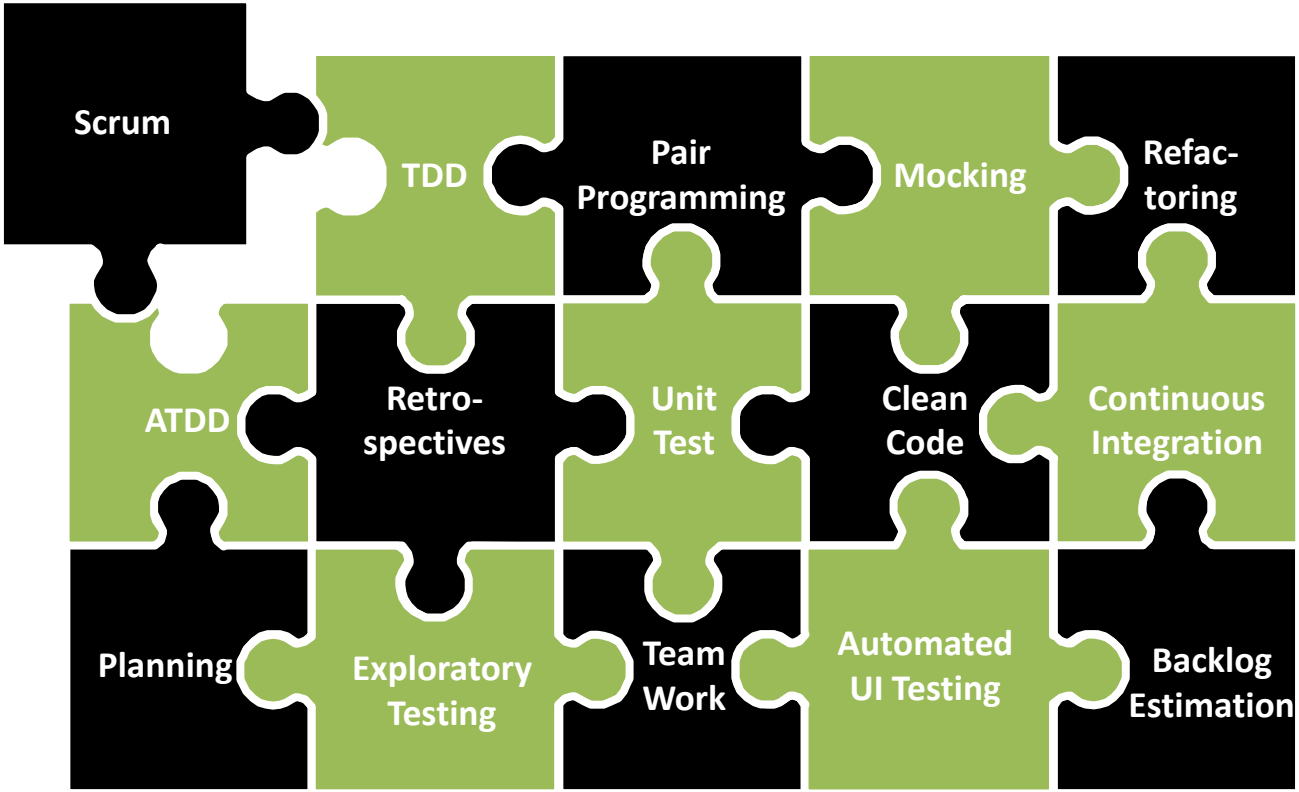
Adjusted from: http://www.crisp.se/henrik.kniberg/Kanban-vs-Scrum.pdf

SCRUM IMPLEMENTS MANY LEAN PRINCIPLES

(*Kudos to Bob Martin)



BUT SCRUM ALONE IS NOT ENOUGH ...*



Agile Software Engineering (ASE) comprises the values, principles and concrete practices that a developer needs to know and be able to apply to work successfully in a lean and agile context.

COMPLEMENT SCRUM WITH ASE

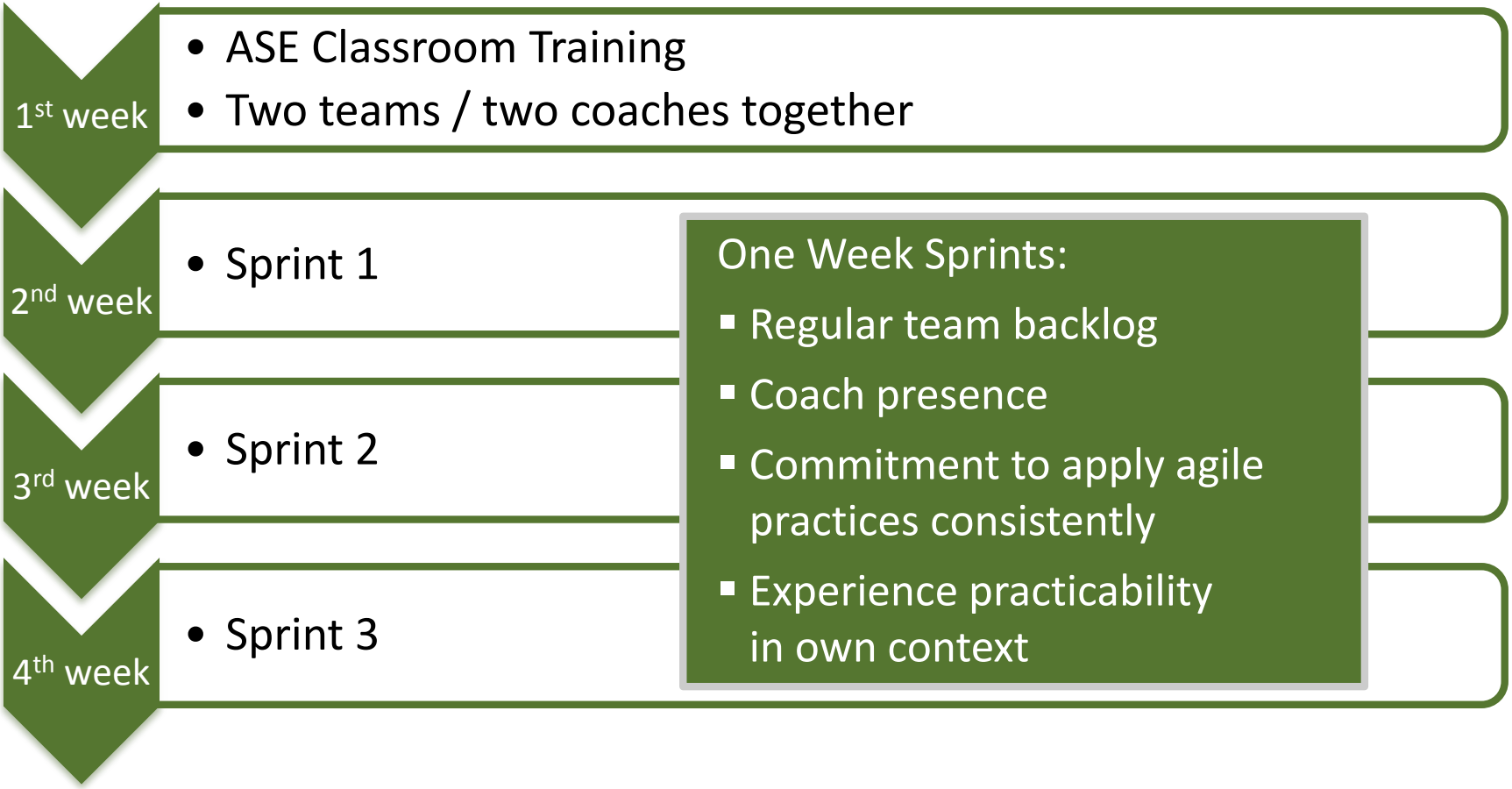
Different ‘flavors‘: ABAP, Java, ...

Monday	Tuesday	Wednesday	Thursday	Friday
Introductions, Expectations	Test Isolation + DOJO	Software Craftsmanship, Clean Code	Specification by Example, Acceptance Tests	TDD & Legacy Code
Work mode	Sprint 1 continued	Sprint 2 continued	Sprint 3 continued	Sprint 4 continued
Software Quality, “Done”				
Pair Programming				
Lunch break				
TDD & ABAP-Unit + DOJO	Refactoring	UI Testing / Test Design	Exploratory Testing	'TDD in our project' - discussion
Sprint 1	Sprint 2	Sprint 3	Sprint 4	Q&A
End-of-day discussion				Retrospective

Shown schedule: ASE ABAP

SAP andrena OBJECTS

ASE – THE COURSE



ASE – COACHING CONCEPT

Code:	+ €
Education: 2 week *	- €
Testing Effort:	- €
Refactoring:	- €
Pair Programming:	- € / 2
	< € ?

Invest in agile practices?

A SIGNIFICANT INVESTMENT – IS IT WORTH IT?

Code:	+ €
Agile Practices:	– €
Better Quality:	+ €
Better Design:	+ €
Knowledge Spread:	+ €
Higher Flexibility:	+ €
	> €

Can we afford not to improve, Roland?

A SIGNIFICANT INVESTMENT – IS IT WORTH IT?

ASE EXPERIENCE IN ‘CRM WEB CHANNEL’

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