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# Agility meets Product Management

Scaling up agility in the organization

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# Context of work ...

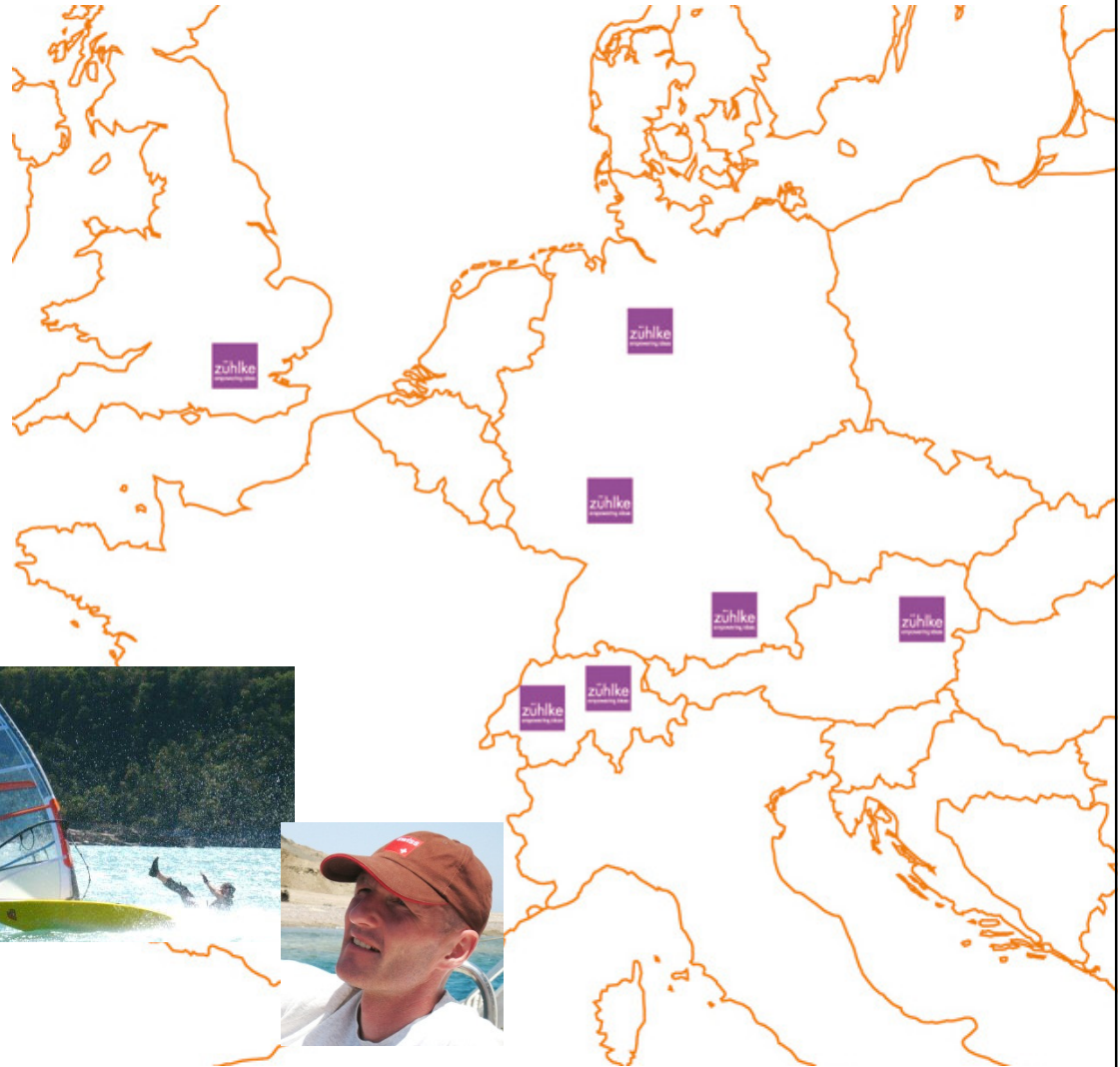
**zühlke**  
empowering ideas

**Director and Partner Zühlke Group**  
**(S)PM, RE, Lean, Agile, Change Mgmt**  
**Trainer, Coach, Mentor, Advisor**

**Working with**

- IREB, ISPMA, scrum.org , SAQ, SwissICT
- Universities: Blekinge, HSR, BFH

[www.personal.juropera.com](http://www.personal.juropera.com)



# ...and experiences working with clients



# Agenda

- **Products**
- **The Knowledge Worker's Job**
- **Organizational Context Levels**
- **Good practices (not best practices)**
- **Change Management**
- **Products**

**What we really want to build are...**

**Products...**

...and gain benefits...



low low  
low low  
**TCO**  
**Total Cost of**  
**Ownership**  
low  
low low  
low

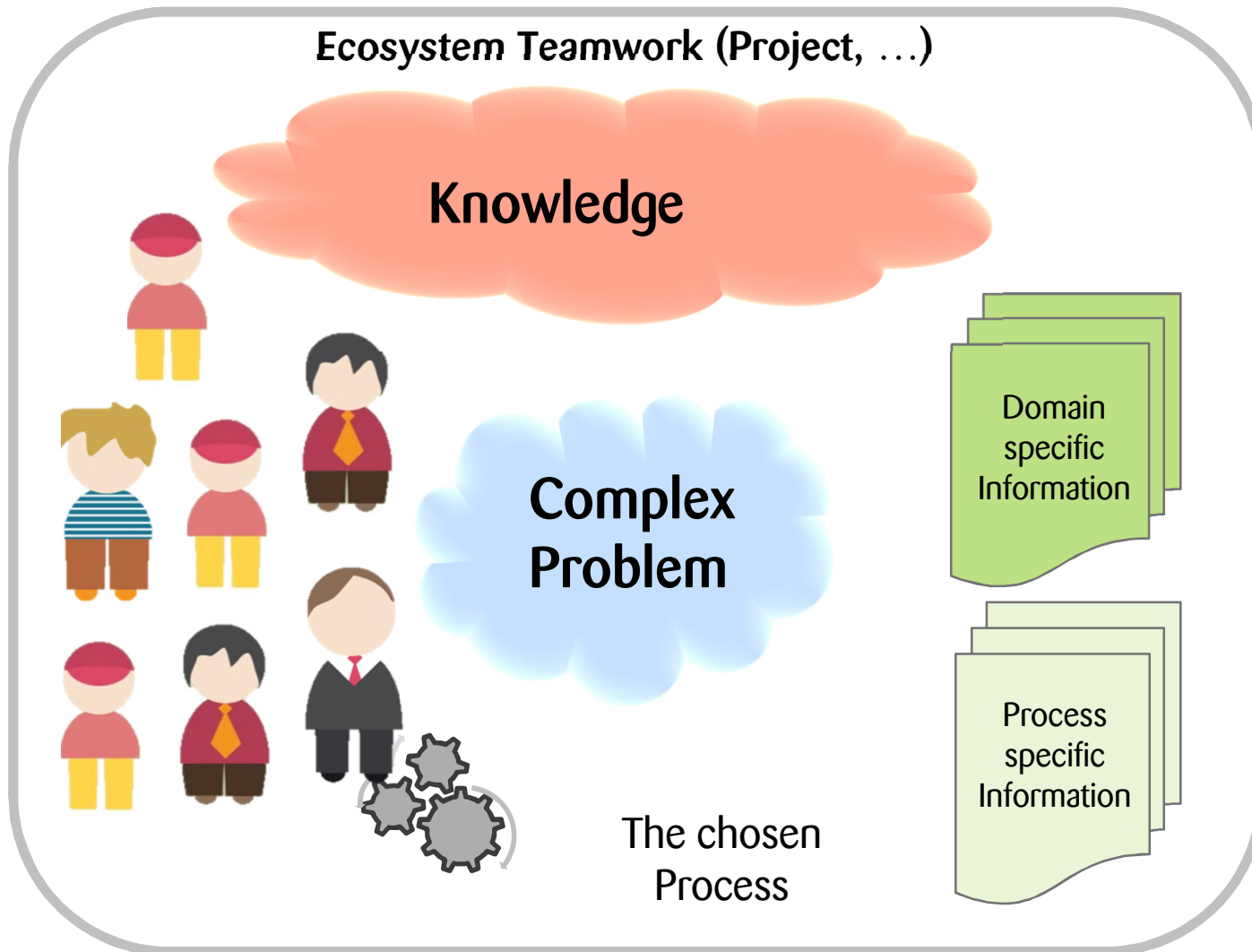
# Let's start

with...

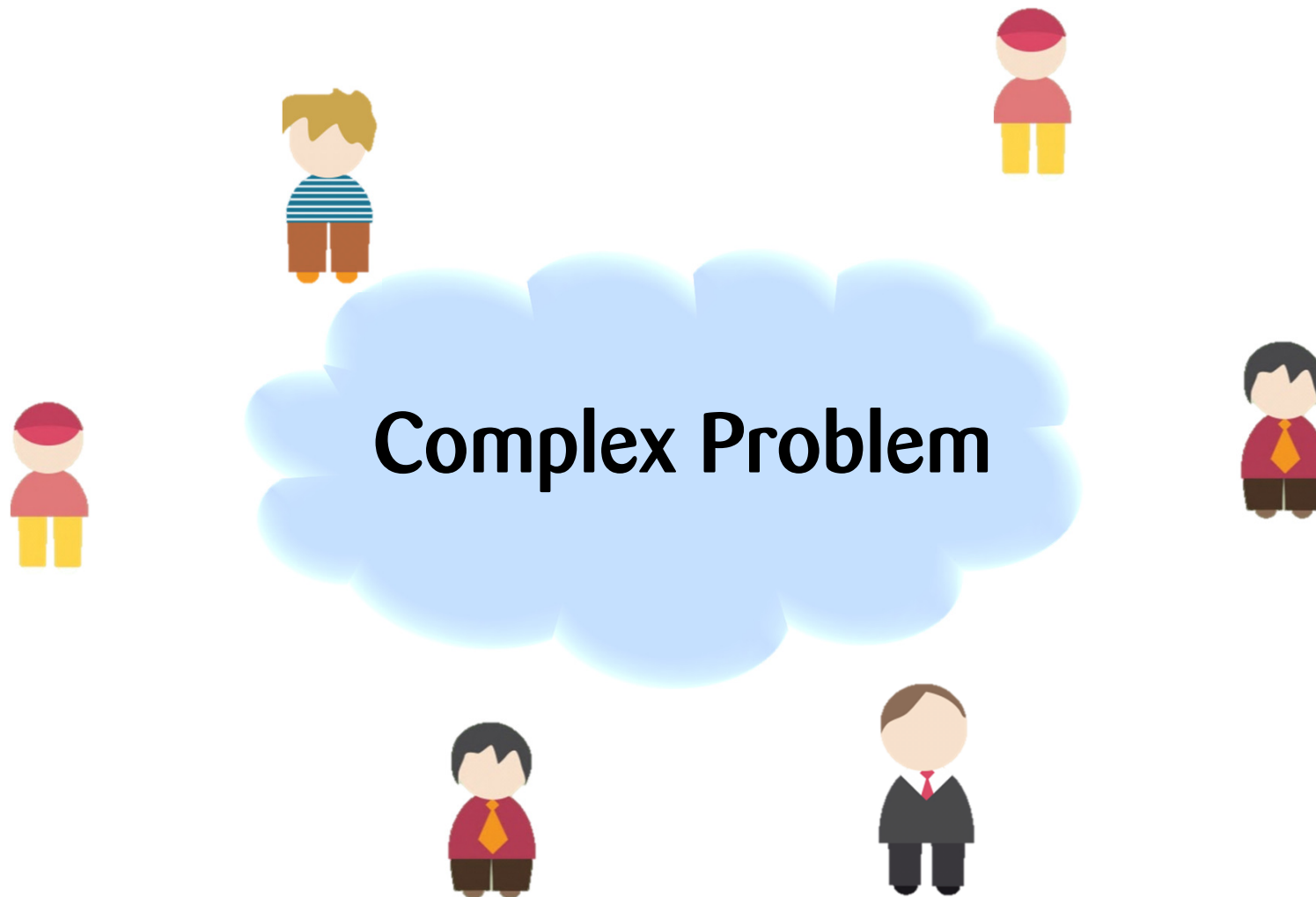
# The Knowledge Worker



# Individuals working as team (?) to build 'something'



# Actually, Knowledge Worker work on a...



# Attributes of a complex problem

Huge number of  
variables

Tight coupling  
between variables

**Complex Problem**

Many stakeholders  
with many wishes

Dynamic changing  
context

# Statements to remember



**There is no closed, plan-driven solution for a complex problem**

**The Deming PDCA feedback cycle applies → iterative processes are best suited to solve complex problems**

# Knowledge Worker? So, what is...



**Knowledge ?**

# Knowledge is...

Linking of Information  
items

Make information-networks  
accessible

**Knowledge**

Apply  
knowledge and create value

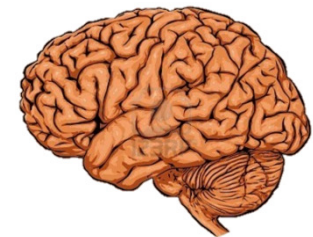


Knowledge is bound  
this specific context

Now we come to the point ...two types of knowledge

**Tacit Knowledge**  
...as the efficient form of  
**Knowledge**

volatile

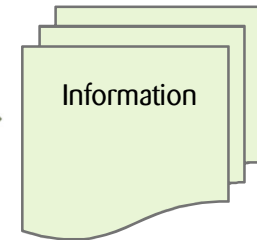


*durable*

**Explicit knowledge  
requires extra effort**



Information



# Statements to remember



**Knowledge is bound to a context**

**Knowledge is acquired in the heads of people**

**Tacit and shared knowledge is the efficient form of knowledge**



**Knowledge Work is the way...**

Identify and close knowledge gaps  
feedback, iterative, learning, experiment

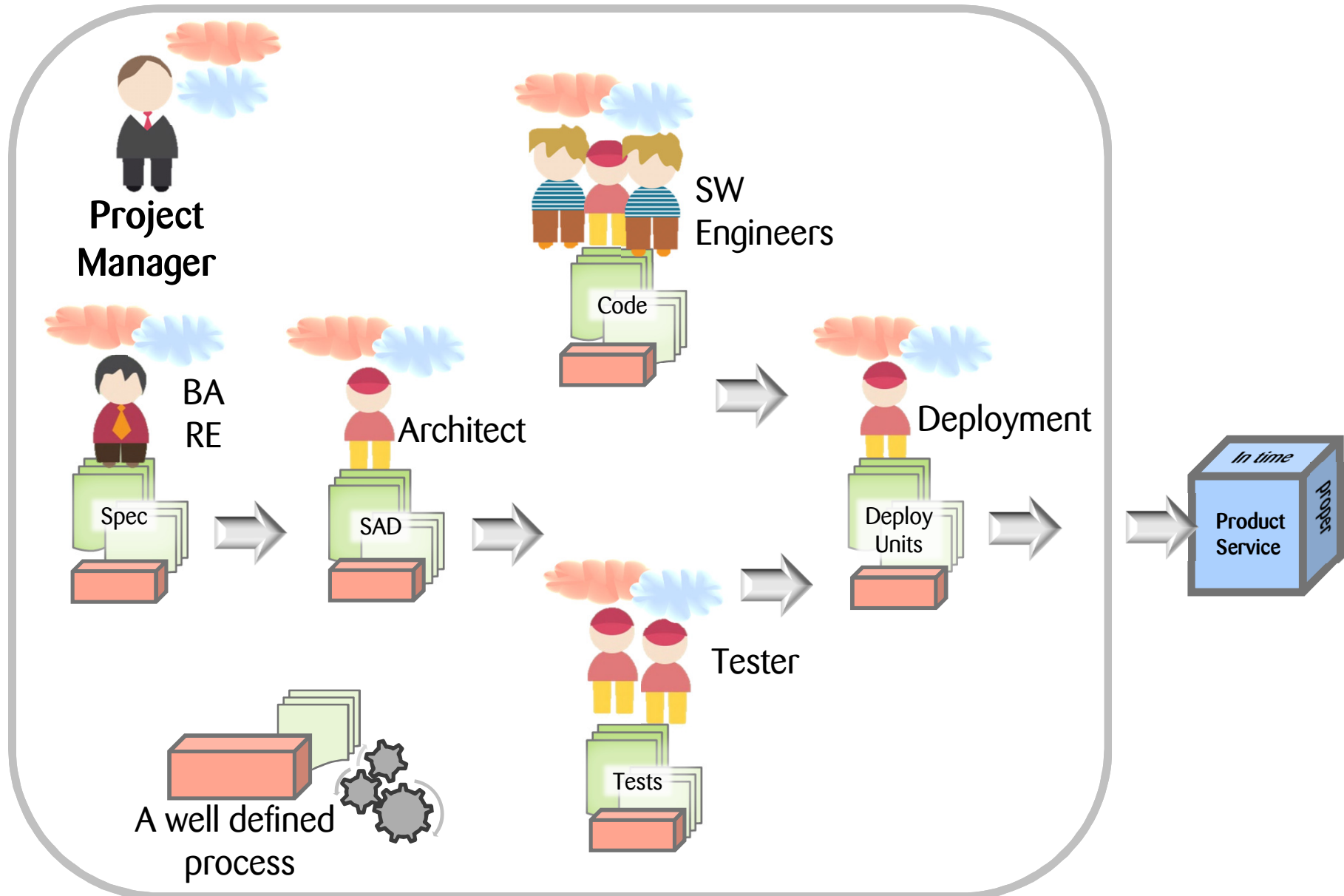
**...solving a  
Complex Problem**

**Context**

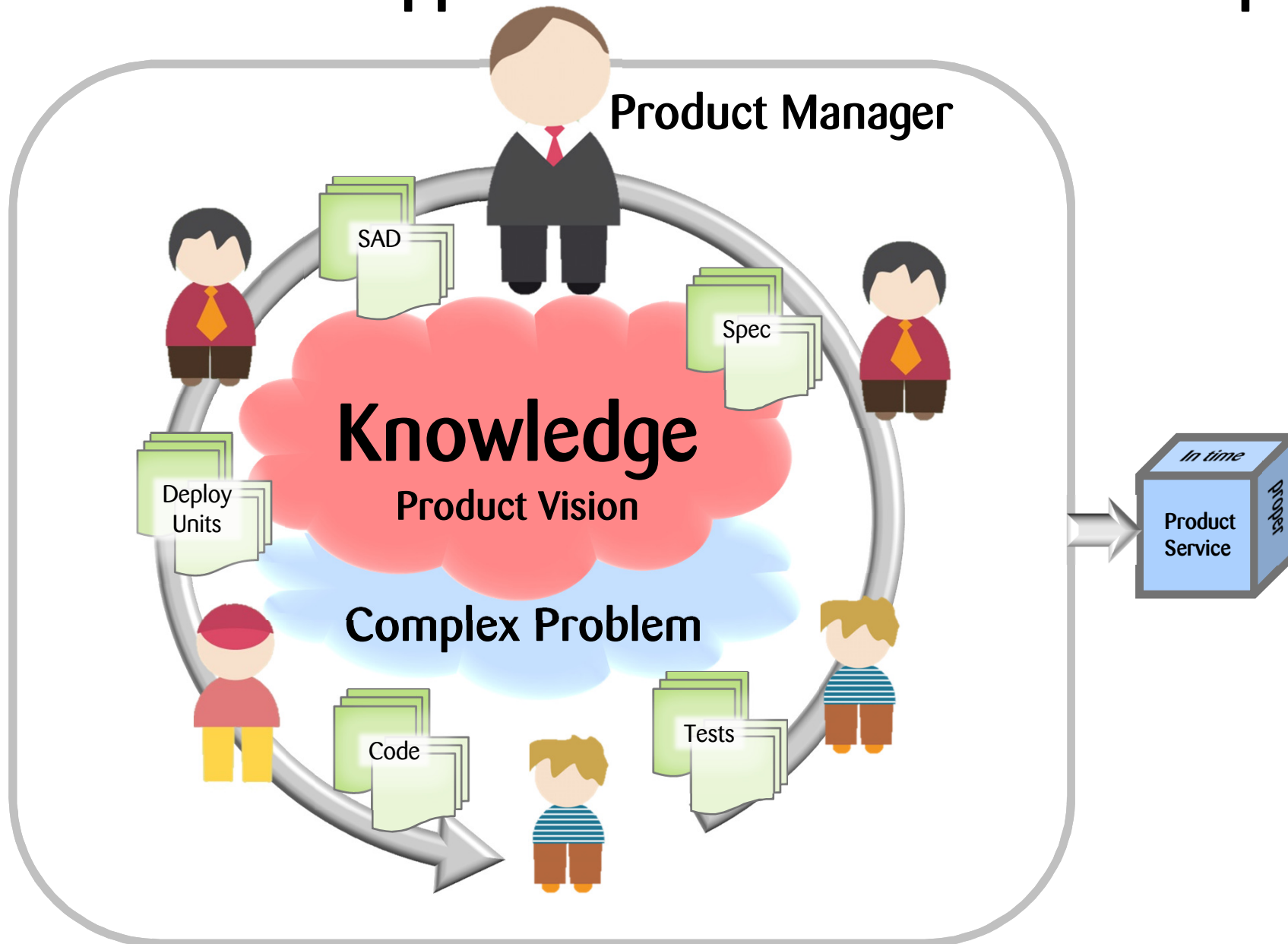
**So, what process type supports efficiency better?**

**...reflection...**

# The waterfall life cycle?



## Or an iterative approach based on feedback loops?



# Statements to remember



**Documentation (of any form) holds information not knowledge**

**Maximize the amount of tacit knowledge**

**Really think about the required amount of explicit knowledge**

# Three Organizational Abstraction Levels

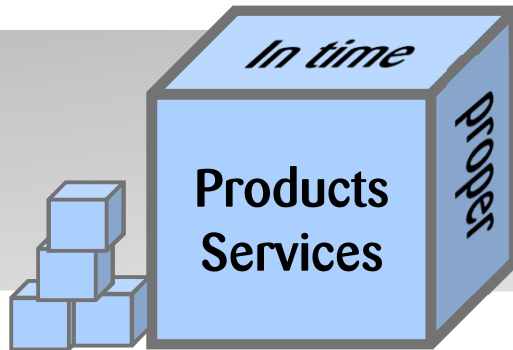


# Strategy defines what we want to sell

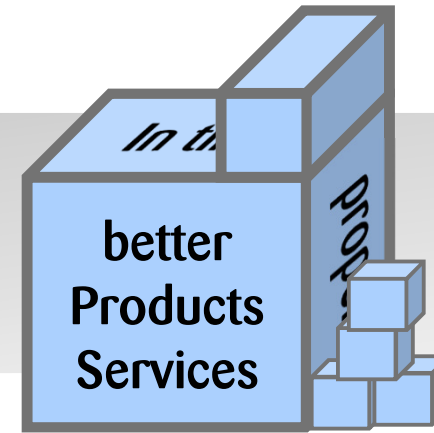
**Strategy**



**Product Portfolio**



**Today**



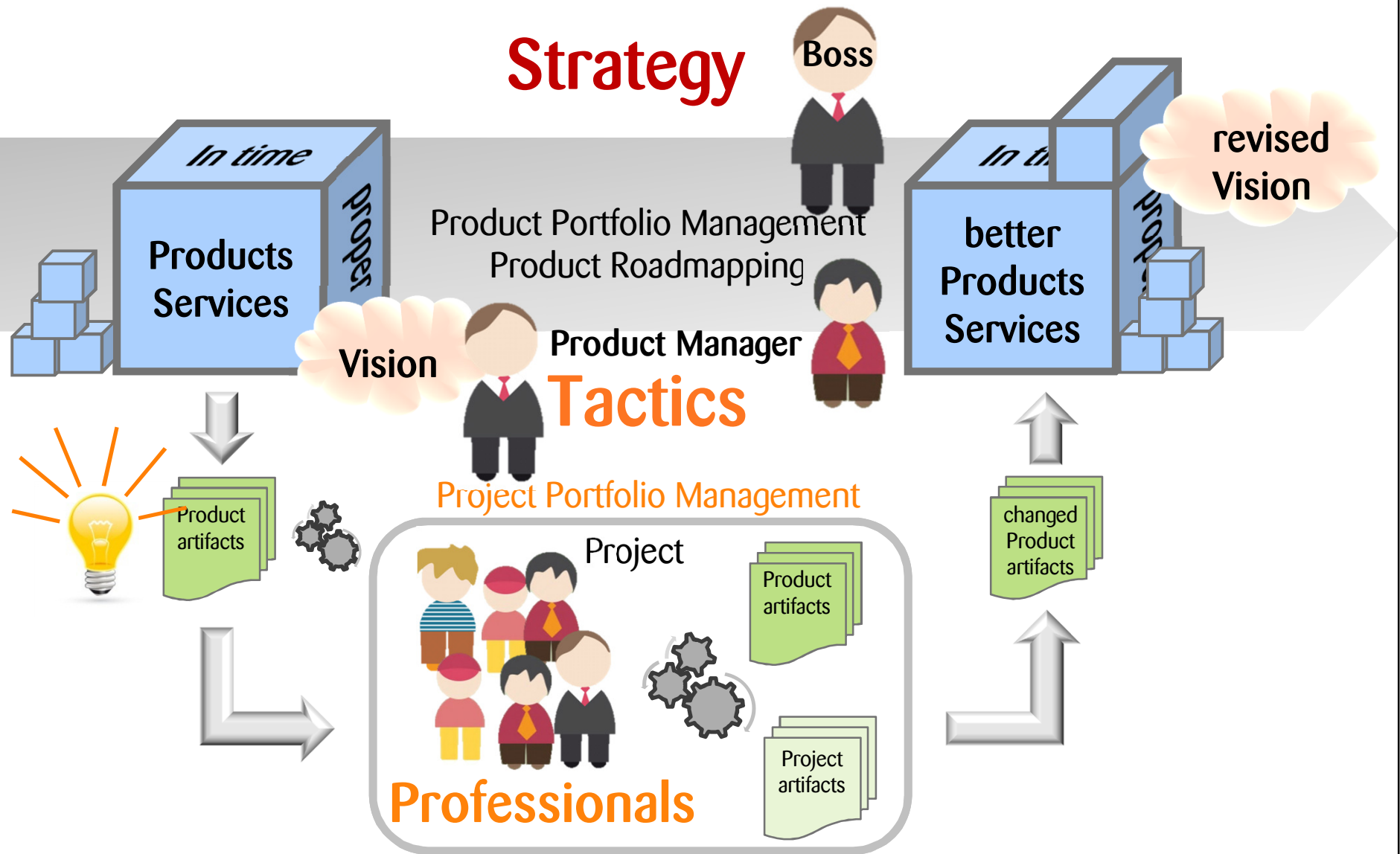
**Tomorrow**

# The Product Roadmap is the tactical implementation



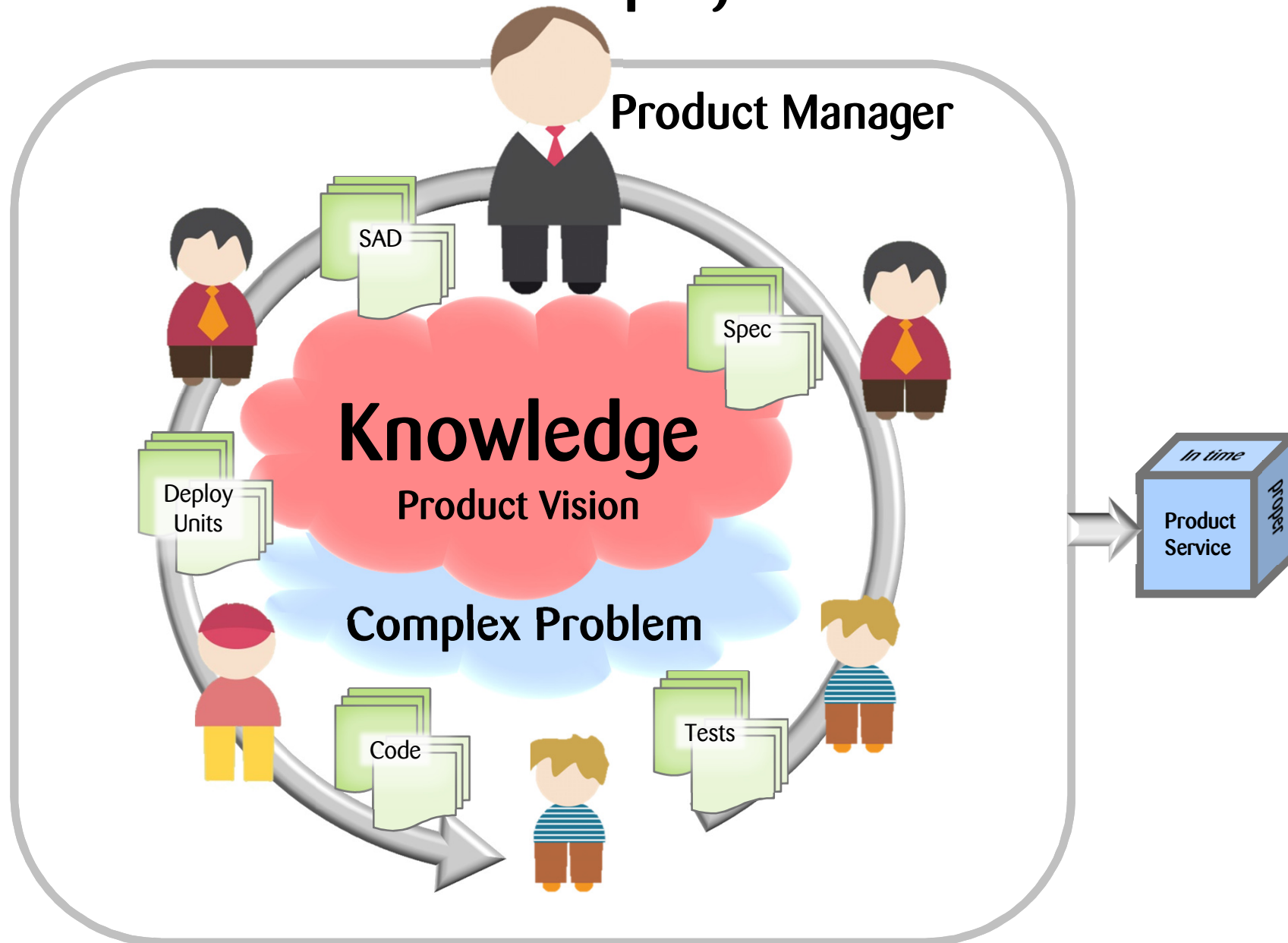


# Project are the Operational Implementation

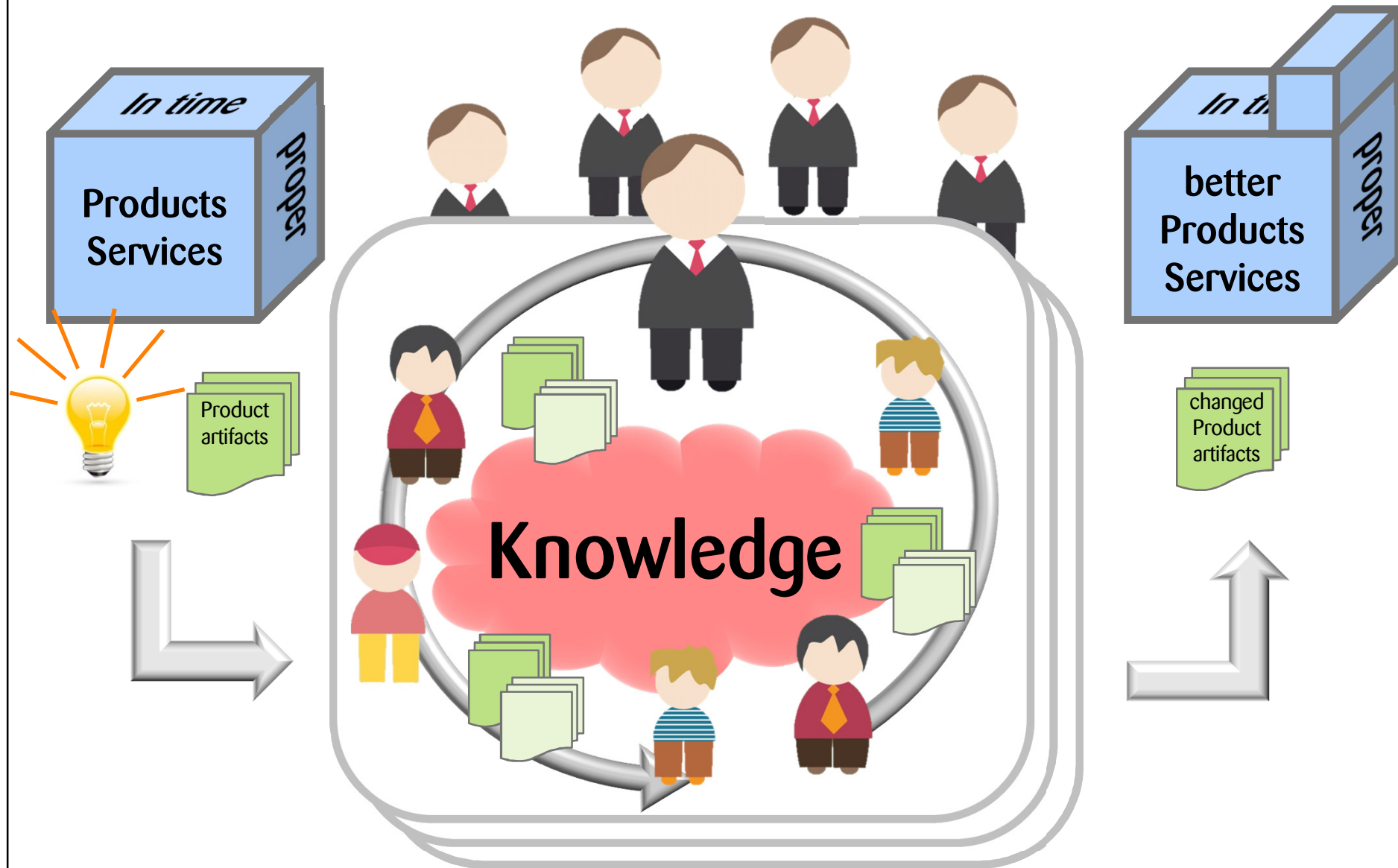


## Operational Implementation

# We found an answer on project level...

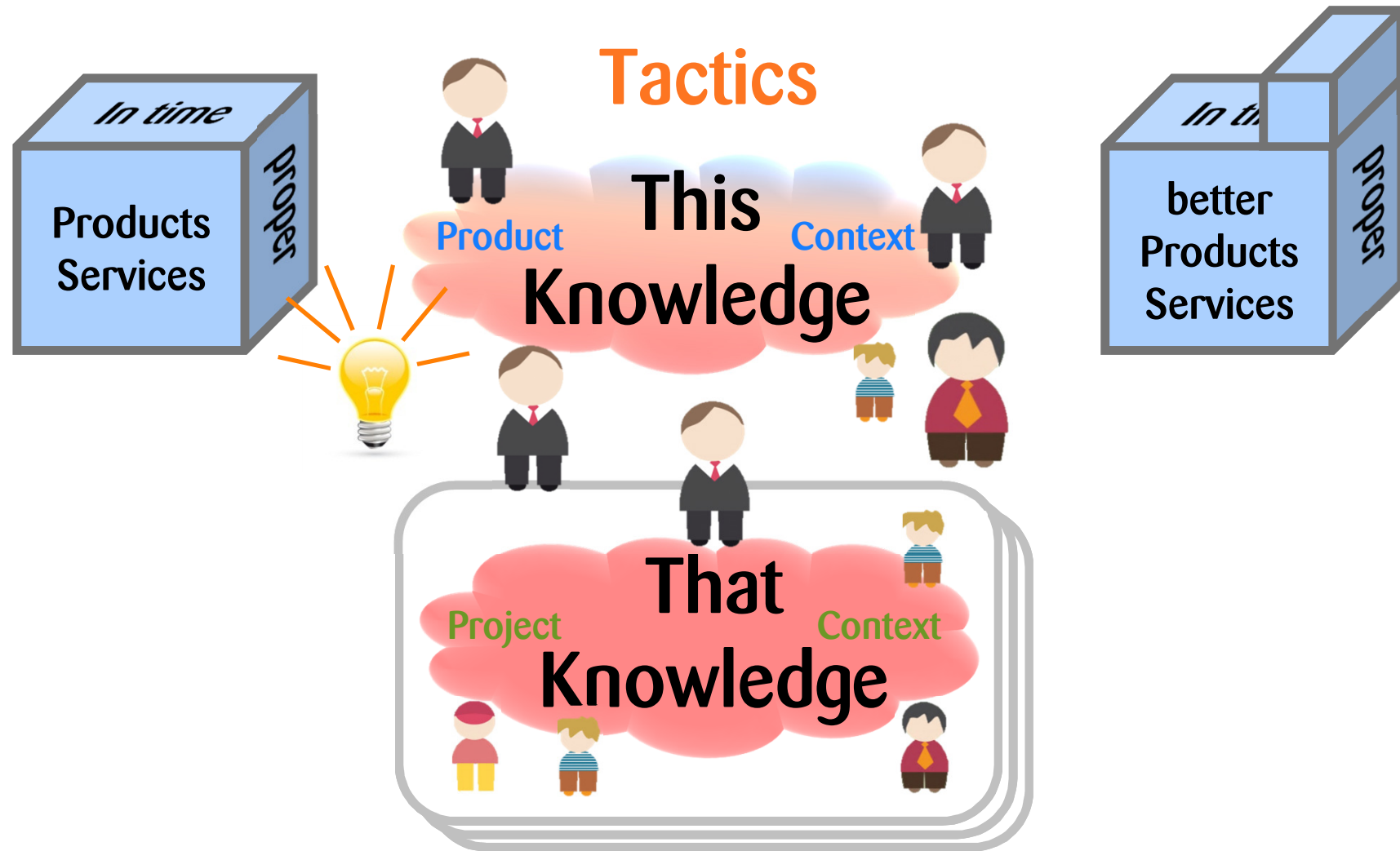


# But what about the **tactical** level ???!



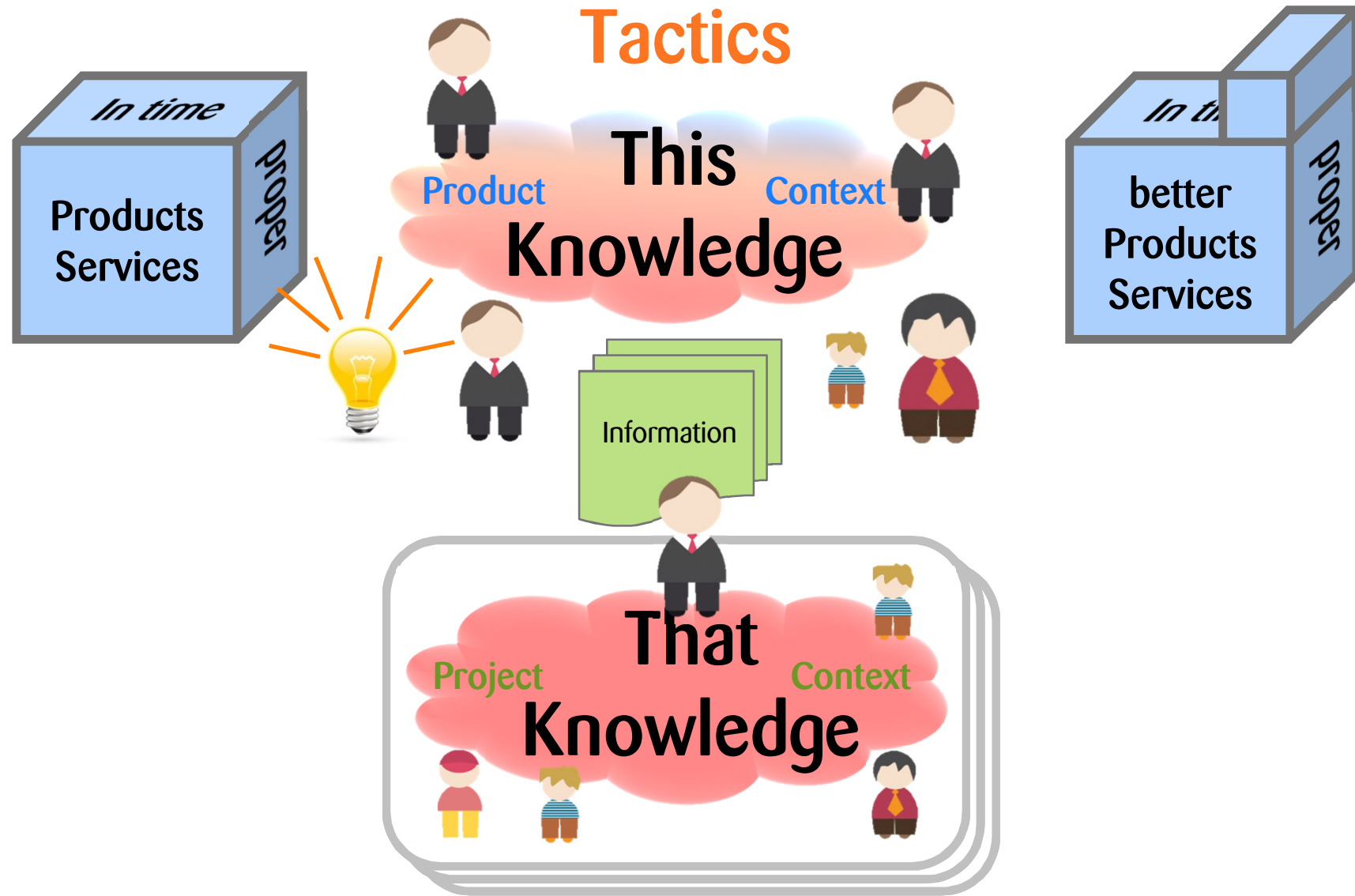
## Operational Implementation

# Two different context areas !!



## Operational Implementation

# Shared information – but different knowledge!!



## Operational Implementation

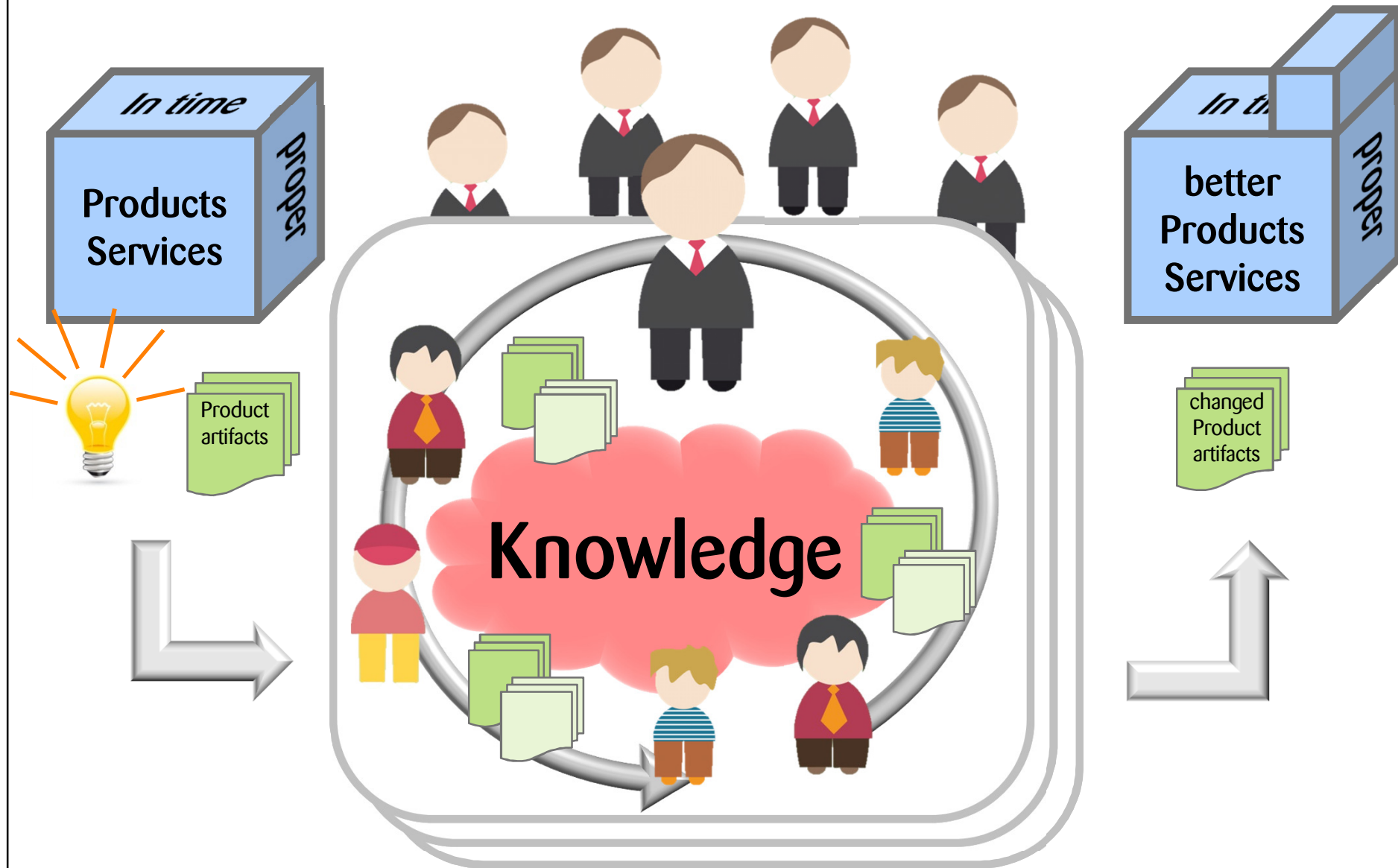
# Statements to remember



**Each organizational level exists in its own context with an specific knowledge**

**Shared information (documentation) is not equal to shared knowledge**

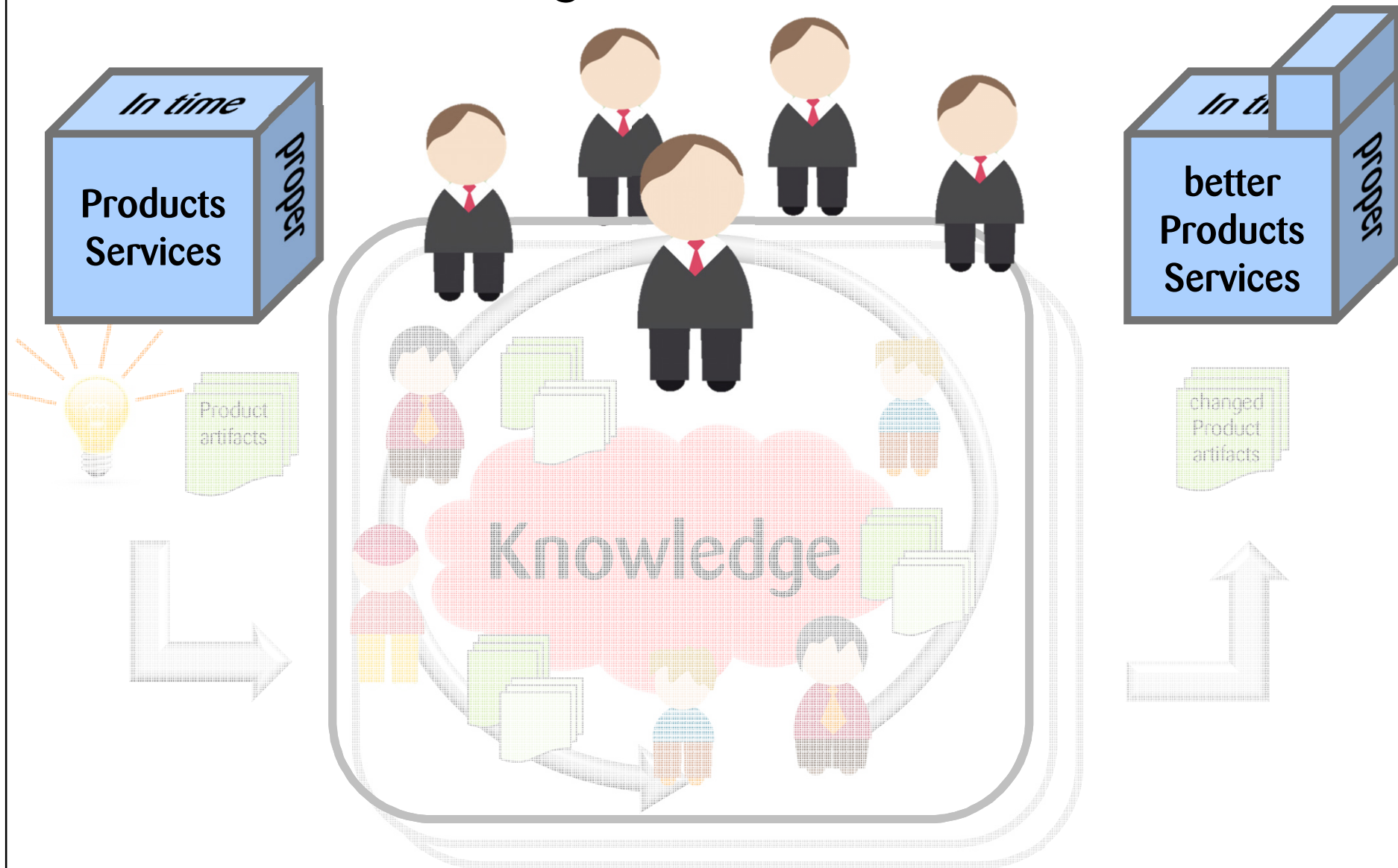
# Let's have a look on the ...



## Operational Implementation



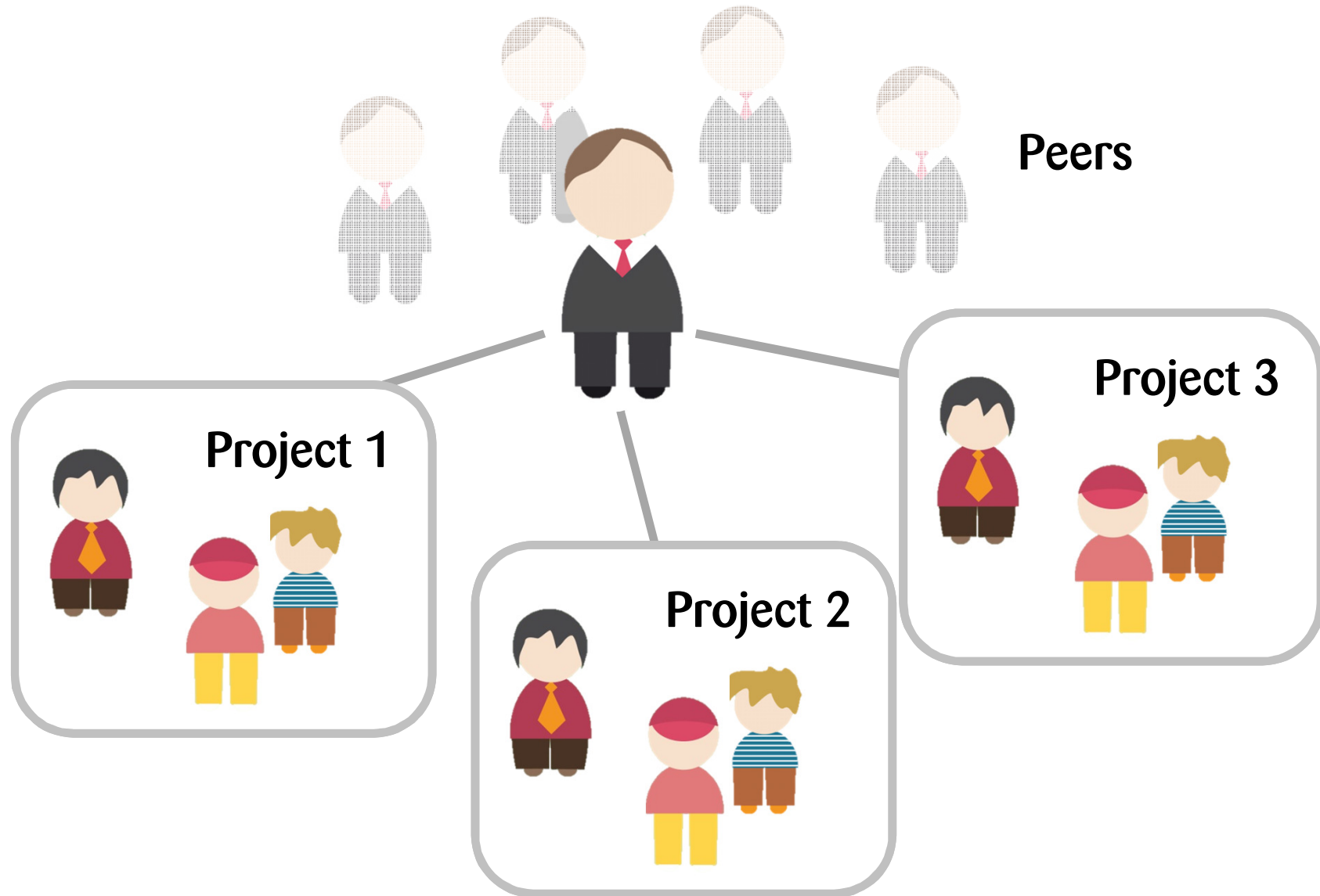
...individual existing in two context areas



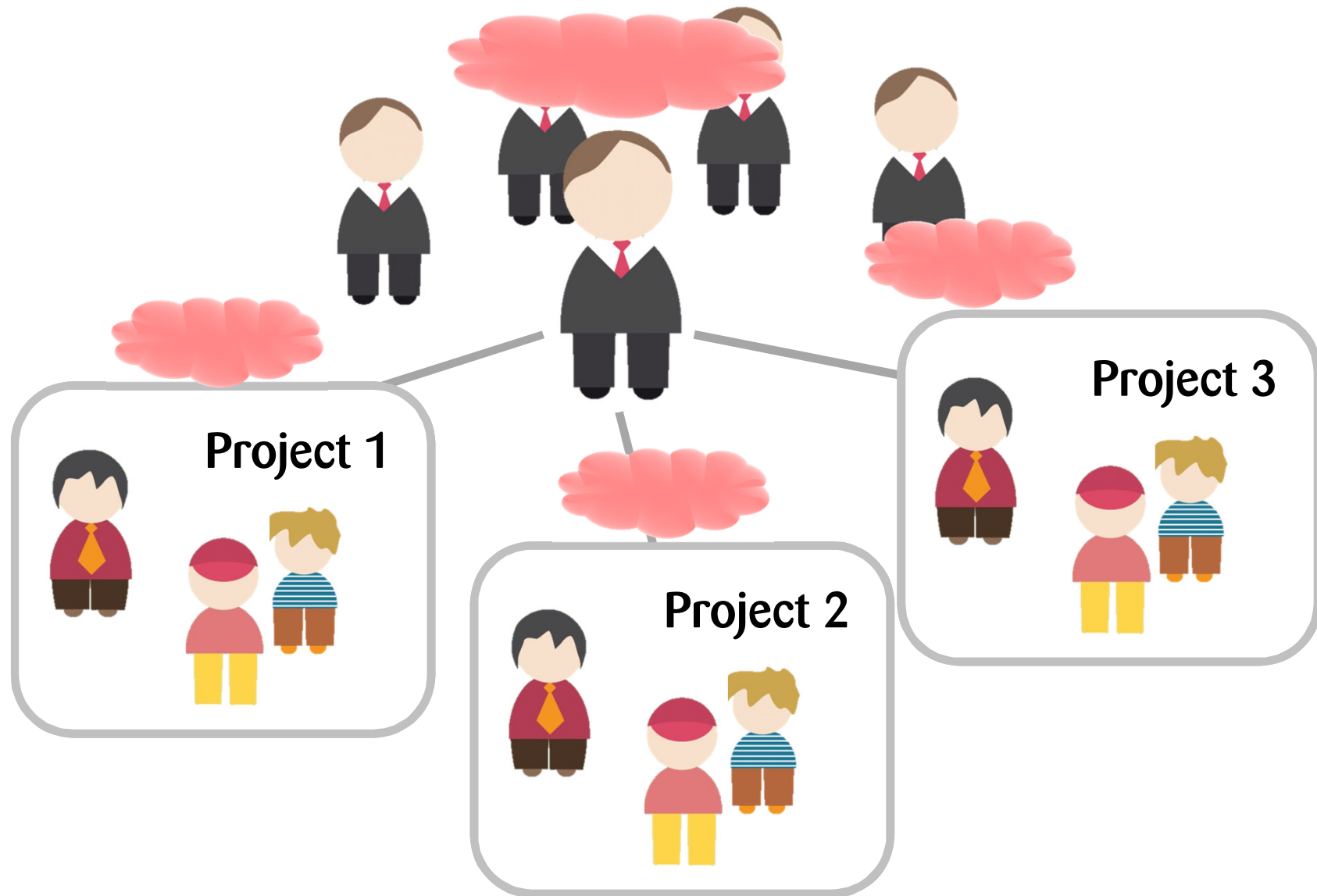
**Operational Implementation**



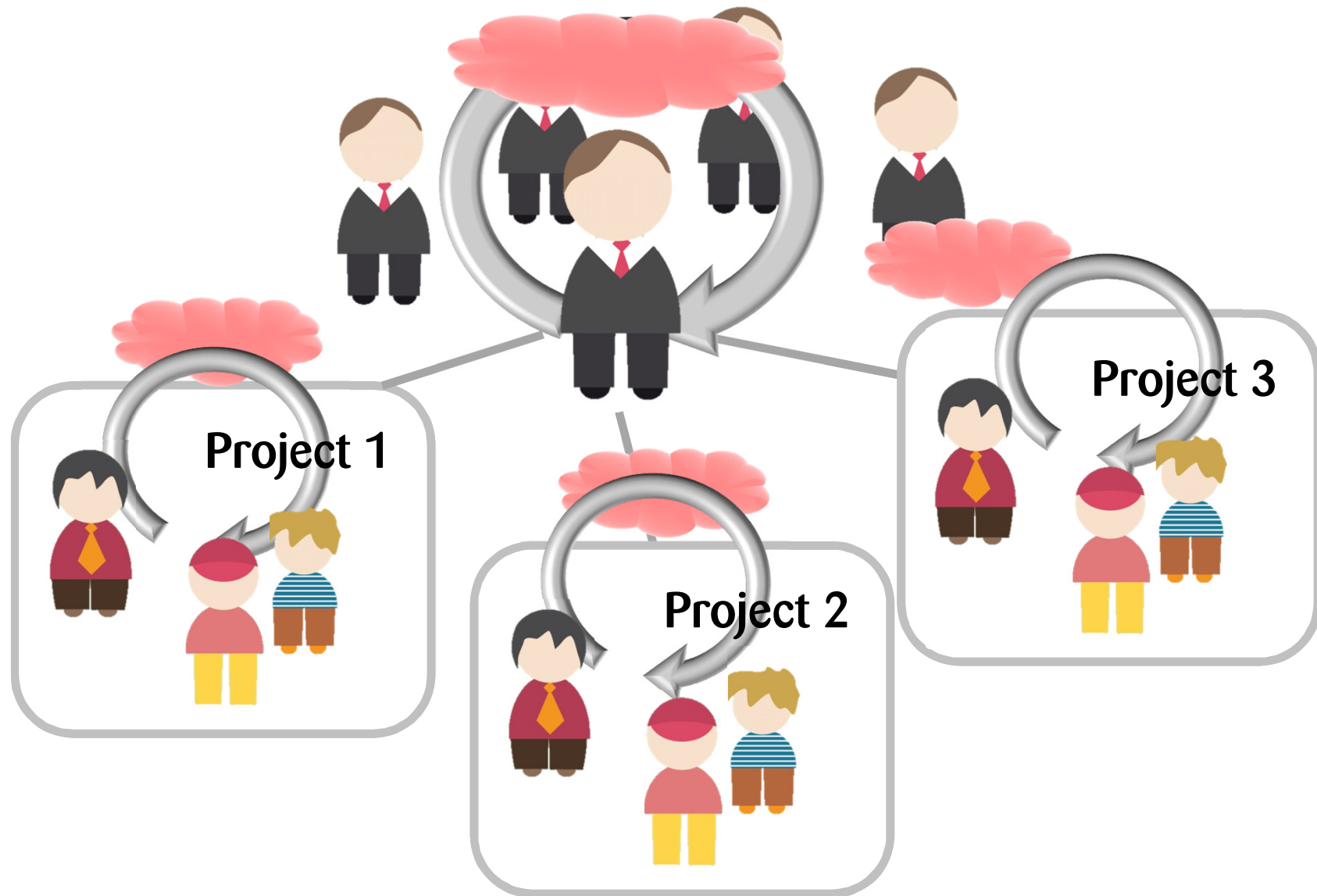
# Every single one living in many context areas



# Hard to build up tacit knowledge...



# Hard to establish feedback loops



# Statements to remember



**Carefully select information that is shared in different context levels**

**Reduce complexity (i.e. amount of information) on tactical level**

**Establish feedback loops above project level**

# Statements to remember



**Care for well balanced setup of tacit versus explicit knowledge in teams and organizational levels**

**→ care for context specific repositories**

**...and yes: managers (of any kind) are hit by permanent context switches**

# Methods and Techniques

There are **Best** Practices...

existing body of knowledge

available resources

existing tooling support

Scrum

**Just use them !!**

ATTD

user centric design

Kanban

user stories

continuous integration

small iterations

KISS

pair programming

emerging architecture

refactoring

...and many more...

There are **Good** Practices...

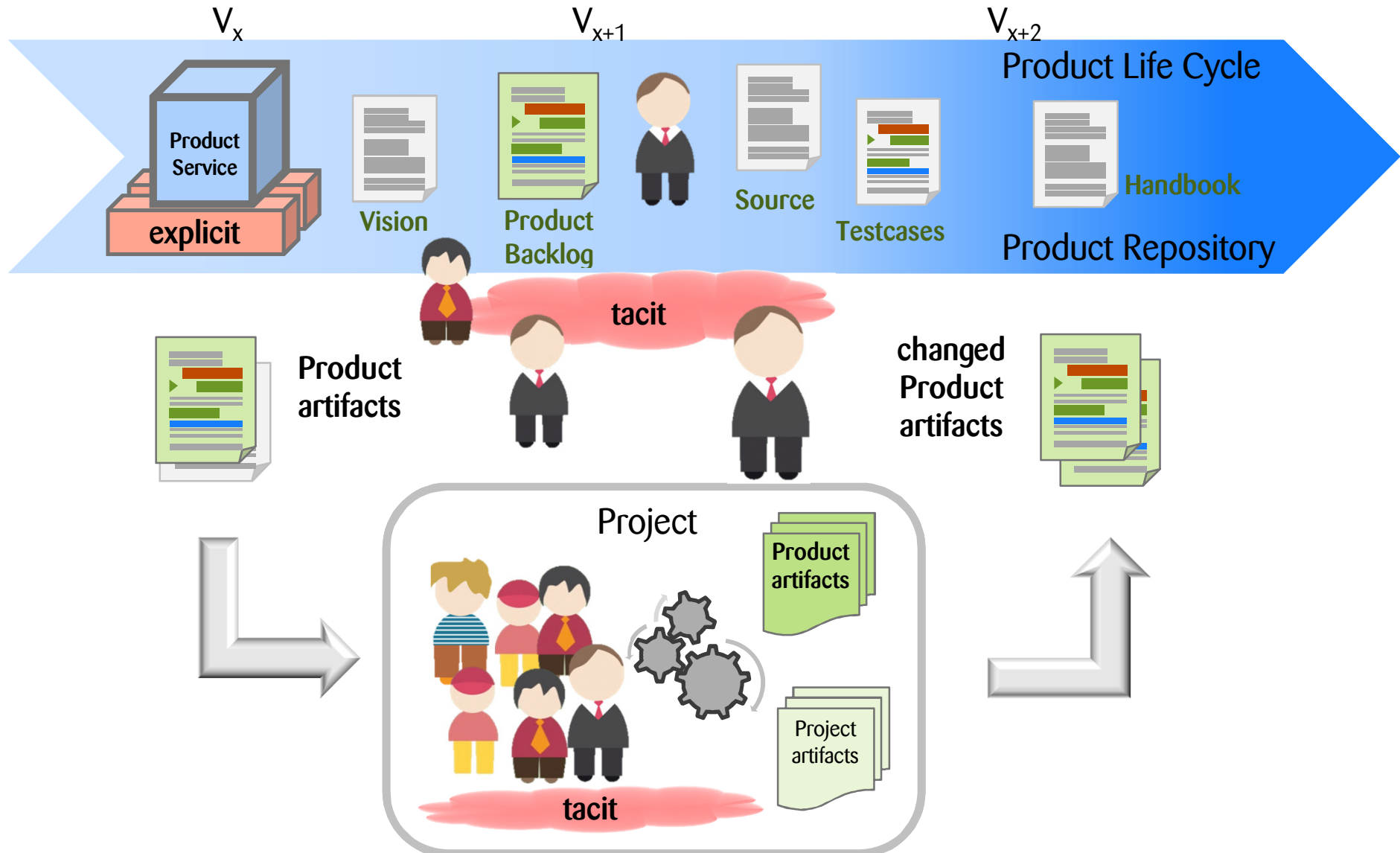
**Find, shape and  
establish your  
good practices!!**

**Let's have a look at some methods and techniques...**



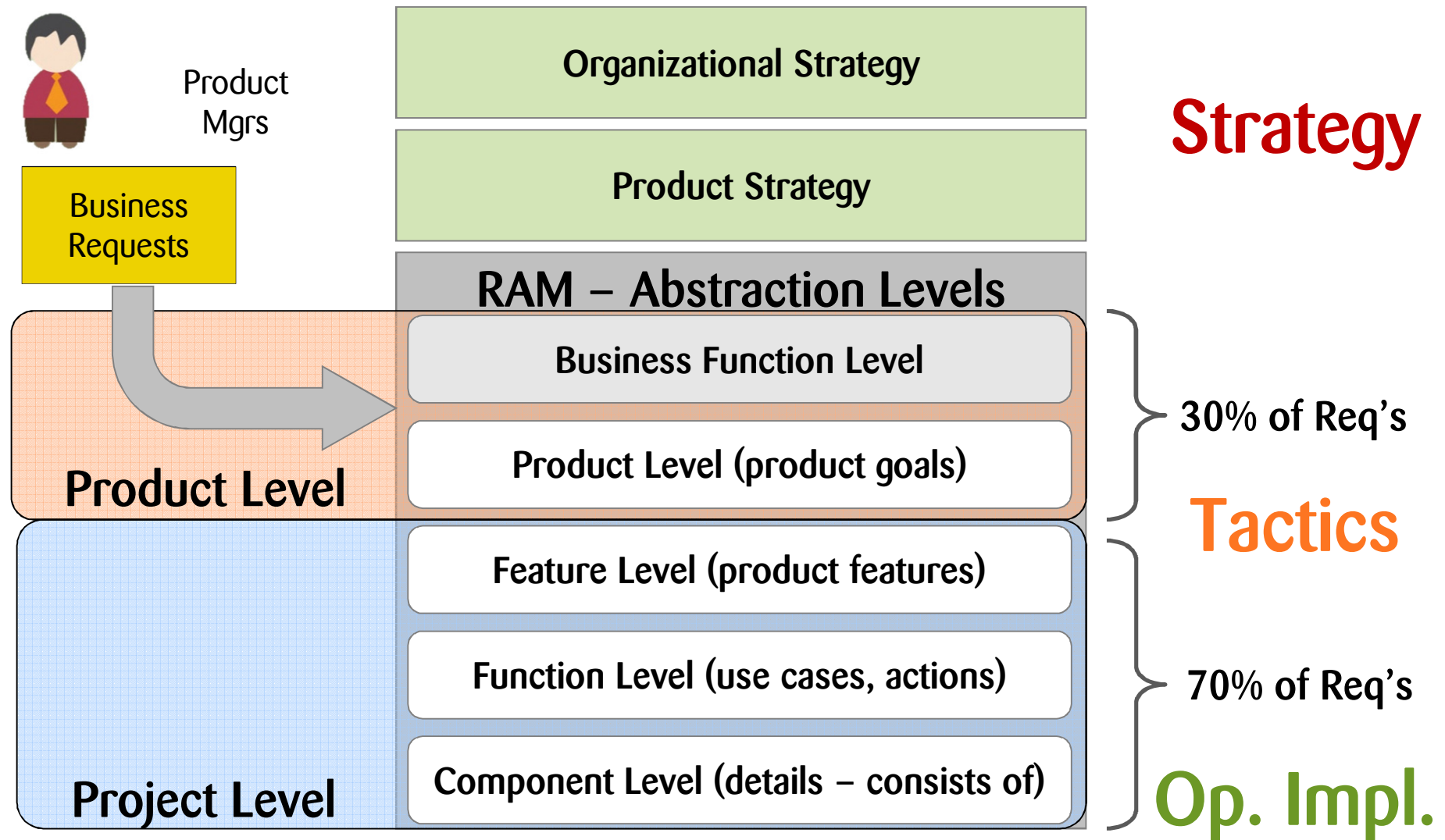
# Identify Products and build up **Product Repositories**

See as well: Product Master Data Management, Product Meta Data Management



# Concept: Requirements Abstraction Model RAM

See: [http://gorschek.com/doc/publications\\_files/A05\\_RAM.pdf](http://gorschek.com/doc/publications_files/A05_RAM.pdf), University Blekinge



# Concept: **Lean RAM**

See: [http://fileadmin.cs.lth.se/cs/Education/Examensarbete/Rapporter/2008/Vetart\\_2008-27.pdf](http://fileadmin.cs.lth.se/cs/Education/Examensarbete/Rapporter/2008/Vetart_2008-27.pdf)

**Organizational Strategy**

**Product Strategy**

## **Mapping of RAM abstraction levels to agile terms**

**Business Function Level**

**Visions**

**Product Level (product goals)**

**Themes**

**Feature Level (product features)**

**Epics**

**Function Level (use cases, actions)**

**User Stories**

**Component Level (details – consists of)**

**Tasks**

# Method: **NABC** by Stanford University

See: [http://www.stanford.edu/class/educ303x/wiki-old/uploads/Main/SRI\\_NABC.doc](http://www.stanford.edu/class/educ303x/wiki-old/uploads/Main/SRI_NABC.doc)

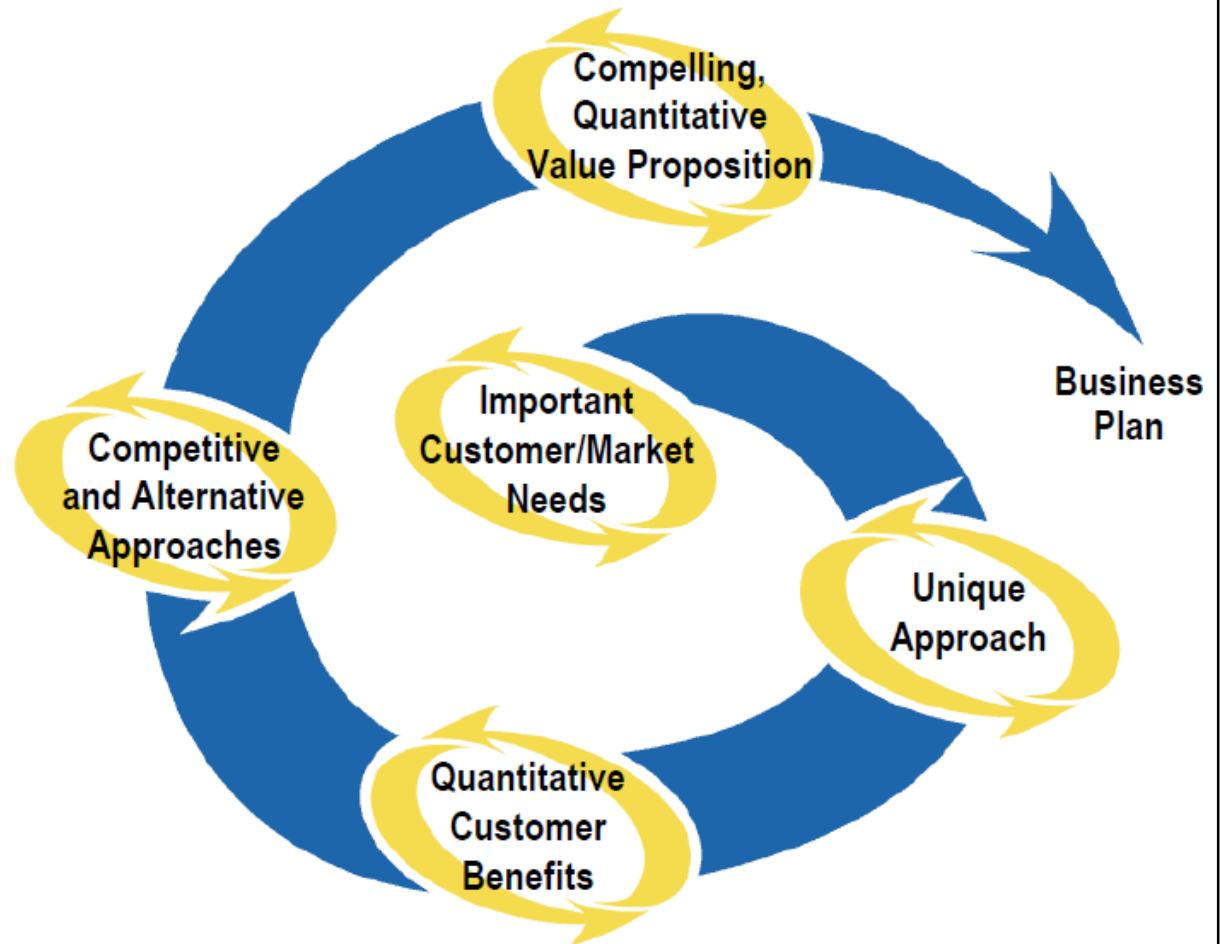
Workshop Technique to establish tacit knowledge and create clear product vision

**IMPORTANT  
CUSTOMER** **N** **EEEDS**

**A** **PPROACH**

**B** **ENEFITS**










**C** **OMPETITION**



# Technique: Business Model Generation

See: <http://www.businessmodelgeneration.com/canvas> and <http://alexosterwalder.com>

Toolbox and visual communication method to describe and sharpen business models

The Business Model Canvas		Designed for:	Designed by:	On: Day Month Year	Iteration: No.
<b>Key Partners</b>  Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform? <small>KEY PARTNERS SUPPLEMENT OURS, COMPENSATE OURS AND COMPETE WITH US. THEY PROVIDE US WITH VALUE, REDUCE OUR RISK, AND IMPROVE OUR EFFICIENCY.</small>	<b>Key Activities</b>  What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams? <small>KEY ACTIVITIES ARE THE MOST IMPORTANT ACTIVITIES IN OUR BUSINESS MODEL. THEY ARE THE ACTIVITIES THAT WE PERFORM TO MAKE OUR VALUE PROPOSITIONS WORK.</small>	<b>Value Propositions</b>  What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying? <small>VALUE PROPOSITIONS ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE BUNDLES OF PRODUCTS AND SERVICES THAT WE OFFER TO OUR CUSTOMERS. THEY ARE THE BUNDLES THAT WE OFFER TO OUR CUSTOMERS THAT THEY WANT TO BUY.</small>		<b>Customer Relationships</b>  What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they? <small>CUSTOMER RELATIONSHIPS ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE TYPES OF RELATIONSHIPS THAT WE ESTABLISH AND MAINTAIN WITH OUR CUSTOMERS. THEY ARE THE TYPES OF RELATIONSHIPS THAT WE ESTABLISH AND MAINTAIN WITH OUR CUSTOMERS THAT THEY WANT TO HAVE.</small>	<b>Customer Segments</b>  For whom are we creating value? Who are our most important customers? <small>CUSTOMER SEGMENTS ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE GROUPS OF CUSTOMERS THAT WE WANT TO SERVE. THEY ARE THE GROUPS OF CUSTOMERS THAT WE WANT TO SERVE THAT WE WANT TO SERVE.</small>
	<b>Key Resources</b>  What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams? <small>KEY RESOURCES ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE RESOURCES THAT WE NEED TO MAKE OUR VALUE PROPOSITIONS WORK. THEY ARE THE RESOURCES THAT WE NEED TO MAKE OUR VALUE PROPOSITIONS WORK.</small>	<div>Needs</div> <div>Approach</div> <div>Benefits</div> <div>Competition</div> <div>NABC</div>		<b>Channels</b>  Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines? <small>CHANNELS ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE CHANNELS THAT WE USE TO REACH OUR CUSTOMERS. THEY ARE THE CHANNELS THAT WE USE TO REACH OUR CUSTOMERS THAT THEY WANT TO BE REACHED BY.</small>	
<b>Cost Structure</b>  What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive? <small>COST STRUCTURE IS THE MOST IMPORTANT PART OF OUR BUSINESS MODEL. IT IS THE SET OF COSTS THAT WE INCUR TO MAKE OUR VALUE PROPOSITIONS WORK. IT IS THE SET OF COSTS THAT WE INCUR TO MAKE OUR VALUE PROPOSITIONS WORK.</small>		<b>Revenue Streams</b>  For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues? <small>REVENUE STREAMS ARE THE MOST IMPORTANT PARTS OF OUR BUSINESS MODEL. THEY ARE THE STREAMS OF REVENUE THAT WE GENERATE FROM OUR CUSTOMERS. THEY ARE THE STREAMS OF REVENUE THAT WE GENERATE FROM OUR CUSTOMERS THAT THEY WANT TO PAY FOR.</small>			

www.businessmodelgeneration.com

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# Explicit Knowledge: Working with Visions, part I

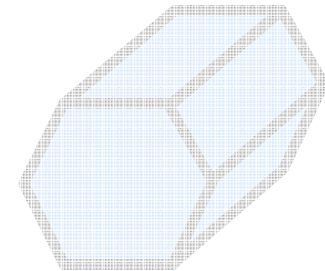
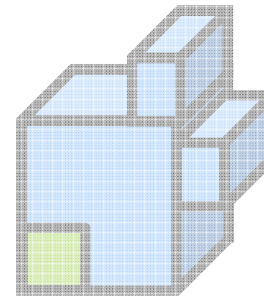
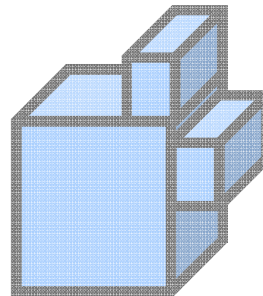
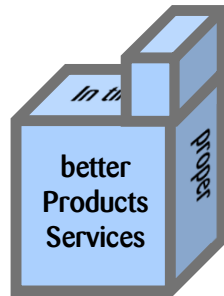
See: RUP (vision), Scrum (Vision, Sprint goal), Microsoft MSF – agile Template, ...

SSNiFs source: <http://stealthsidea.com/articles/ssnifs/>

Stakeholder (user/customer)	Situation	Need	Feature/Solution
Daily mass transit commuter	Commutes daily for 60 minutes or more by bus or train.  Long, repetitive journey becomes boring.	... something to <b>make the idle time more stimulating</b> , fun, enjoyable, or enriching.	• Portable audio player with headphones (eg. iPod, walkman)
Air traveler	On a long plane ride. There is a lot of idle time.		
Fitness buff	Running or working out gets boring without something to occupy the mind, making it hard to stay motivated.		
Teenager	Has a lot of free time on his hands.  Musical preferences are a part of their <b>social identity</b> .  Effective brooding demands physical, sonic and symbolic <b>isolation</b> .	...a way to listen to parent-repelling music at high volumes without getting yelled at.	

SSNiFs Example

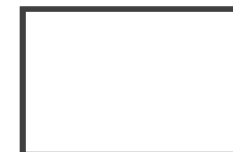
# Explicit Knowledge: Working with Visions , part II



Stakeholder (user/customer)	Situation	Need	Feature/Solution
Daily mass transit commuter	Commuter daily for 60 minutes or more by bus or train. Long, repetitive journey becomes boring.	...something to make the idle time more stimulating, fun, enjoyable, or soothing.	• Portable audio player with headphones (eg. iPod, Walkman)
Air traveler	On a long plane ride. There is a lot of idle time.		
Fitness buff	Running or working out gets boring without something to occupy the mind, making it hard to stay motivated.		
Teenager	Has a lot of free time on his hands. Mental performance is a part of their social identity. Effective handling demands physical, noise and symbolic isolation.	...a way to focus to prevent expelling social at high volume without getting yelled at.	

Stakeholder (user/customer)	Situation	Need	Feature/Solution
Daily mass transit commuter	Commuter daily for 60 minutes or more by bus or train. Long, repetitive journey becomes boring.	...something to make the idle time more stimulating, fun, enjoyable, or soothing.	• Portable audio player with headphones (eg. iPod, Walkman)
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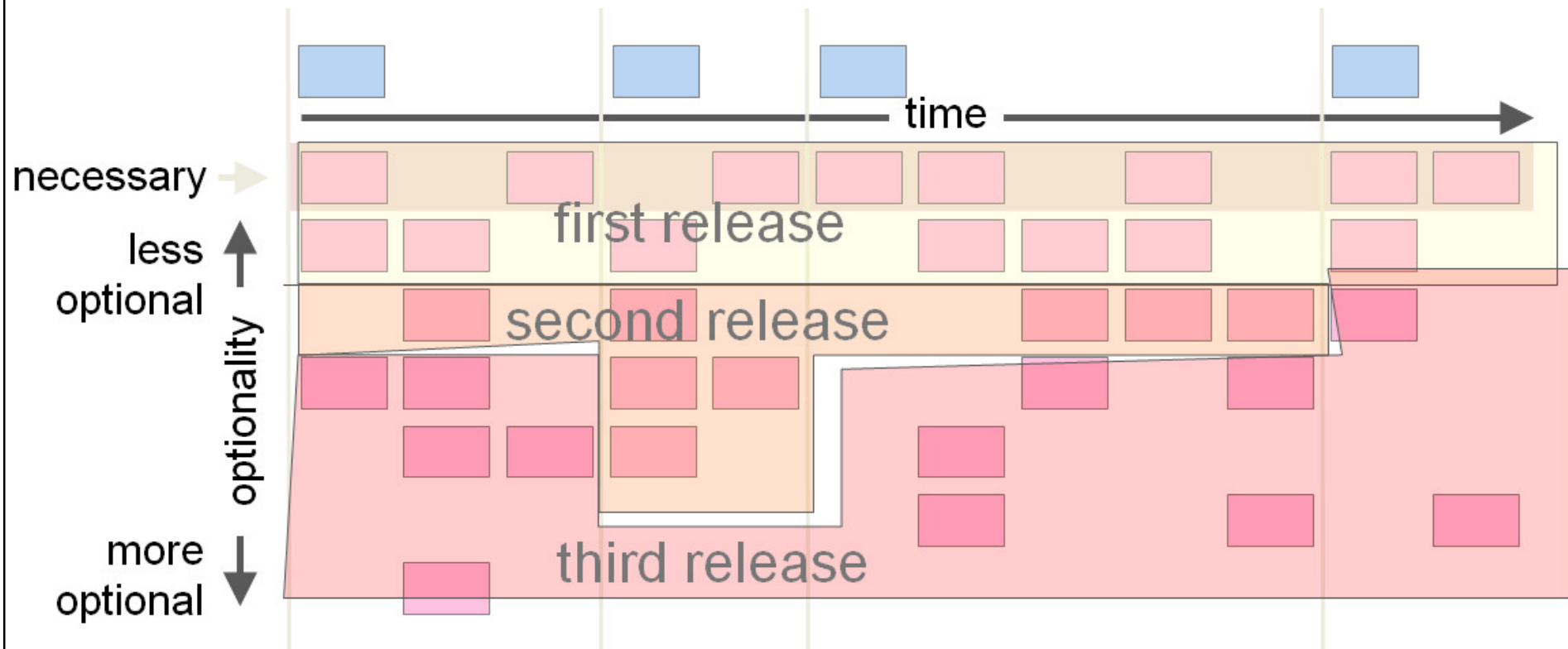


Product Roadmapping:  
Implemented as **continuous** process on product level

# Method: Story Mapping

See: [http://www.agileproductdesign.com/blog/the\\_new\\_backlog.html](http://www.agileproductdesign.com/blog/the_new_backlog.html)

Agile Roadmapping and Release Planning Method based on user stories and backlog management



**Product Roadmapping:  
Alignment of Vision view (top-down) with Backlog view (bottom-up)**



# Method: Story Mapping

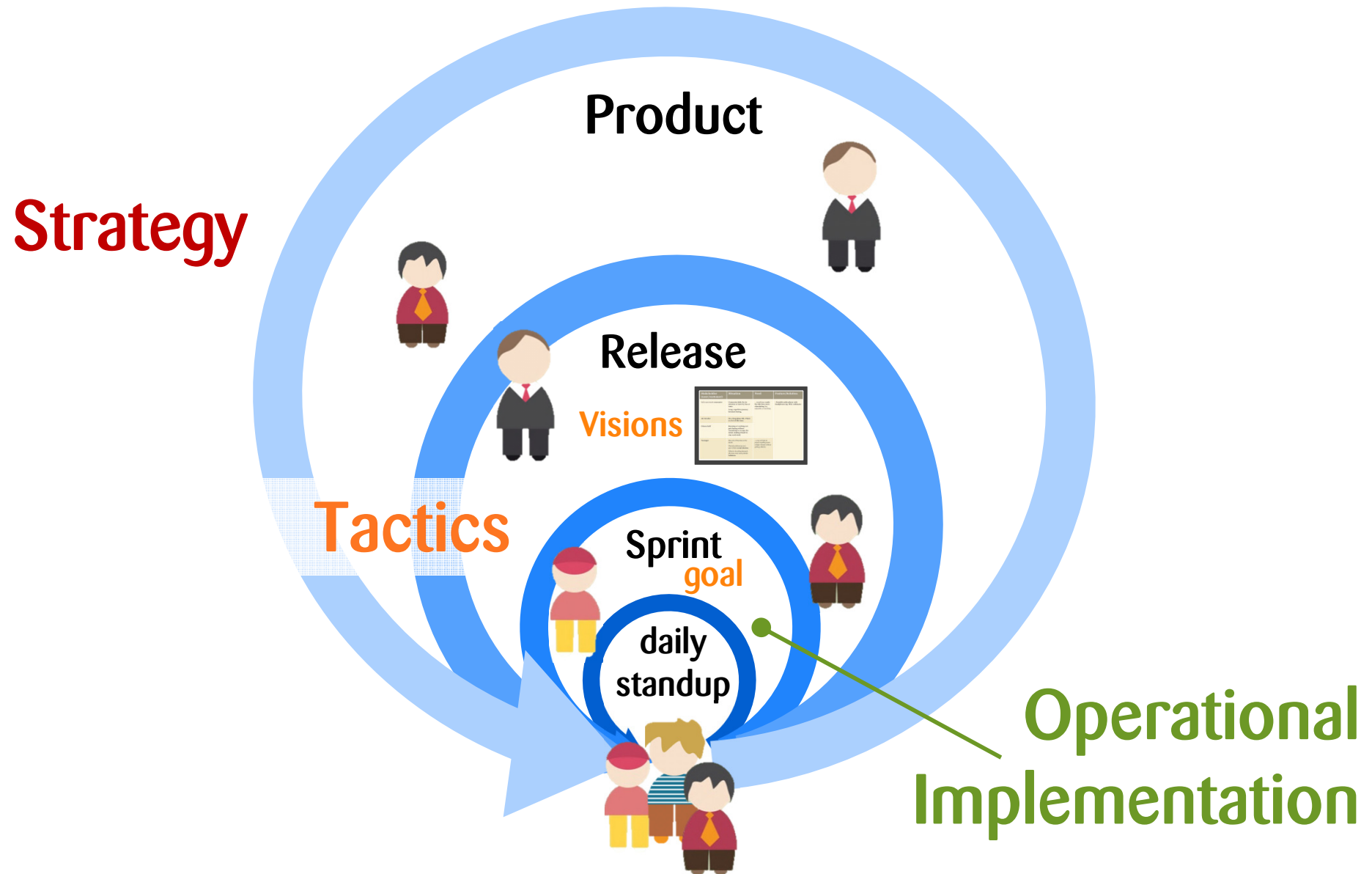
See: [http://www.agileproductdesign.com/blog/the\\_new\\_backlog.html](http://www.agileproductdesign.com/blog/the_new_backlog.html)

Agile Roadmapping and Release Planning Method based on user stories and backlog management



## Story Mapping Example

# Implicit Knowledge: Scale Up Feedback Loops

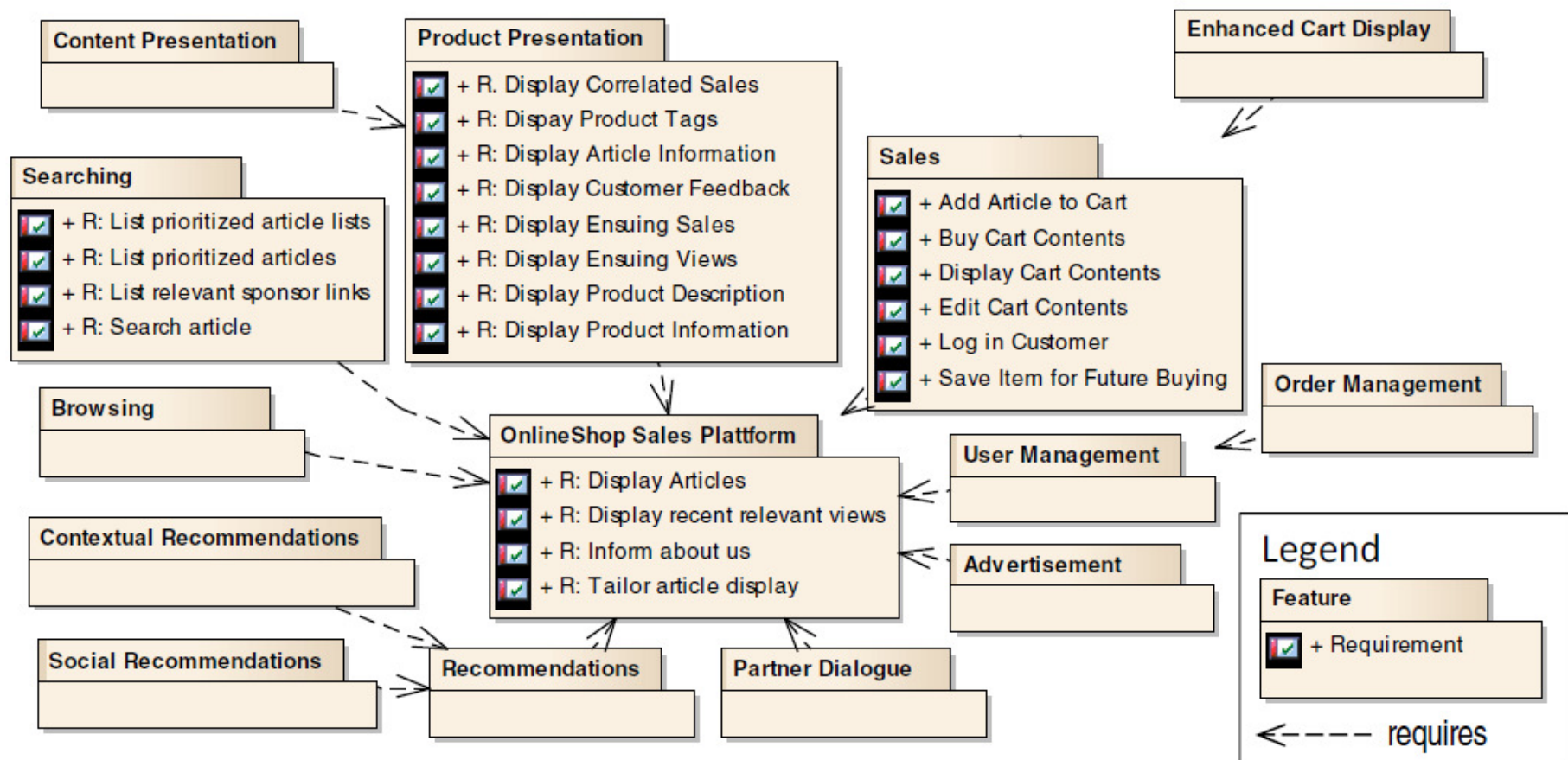


# Concept: Feature Trees

See: <http://www.bth.se/fou/forskinforfou/forskinforfou/f5649783f4f7f77cc125797b004b801b>, University Blekinge

Supports Release Management, Product Backlog Grooming, Emerging Architecture  
In combination with and aligned to story mapping

## OnlineShop SalesSolution



**...and many more  
good practices...**

# Statements to remember



**Best practices are common ground –  
so just use them !!**

**Good practices is what works in your  
organization – try and develop them !!**

**...this is part of the complex problem –  
tacit knowledge – feedback – context  
game**

**Introducing lean product management requires...**

# **Change Management**

# Your organization is of type complex problem...

Huge number of  
variables

Tight coupling  
between variables

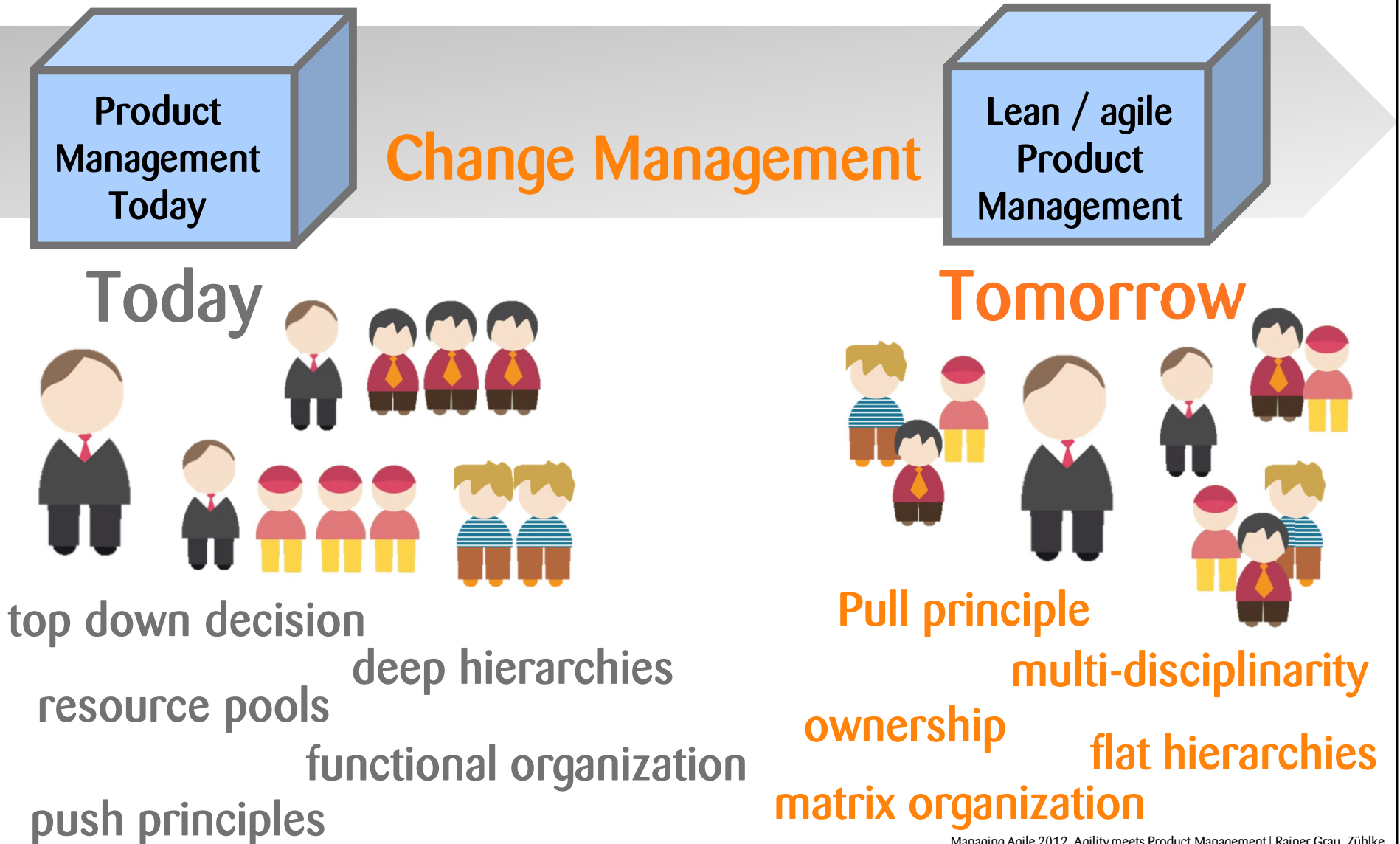
**Complex Problem**

Many stakeholders  
with many wishes

Dynamic changing  
context



# Develop your organization...





# Respect the agile manifesto as well

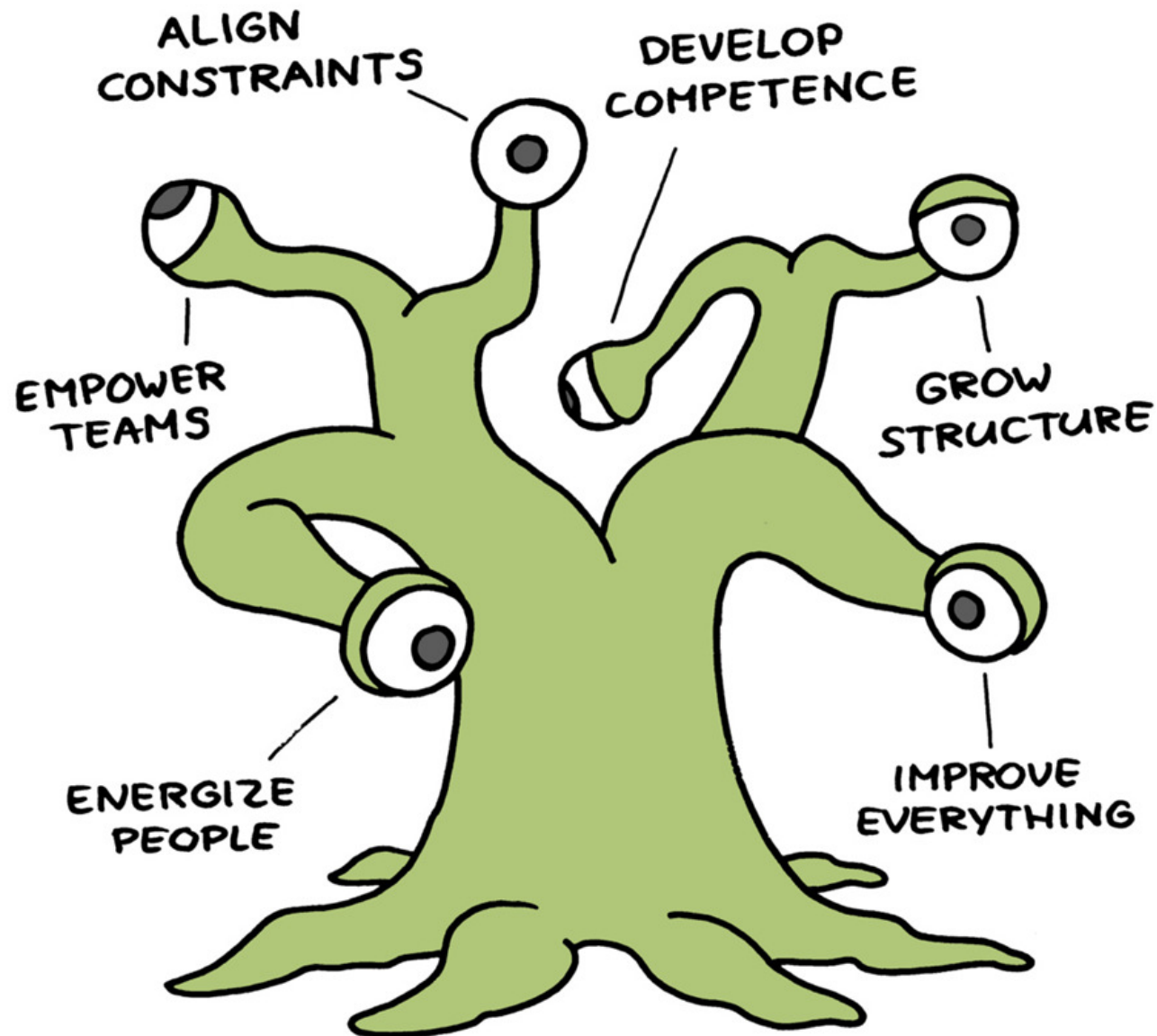


## Individuals and interactions over processes and tools

...will create tacit knowledge about your organization

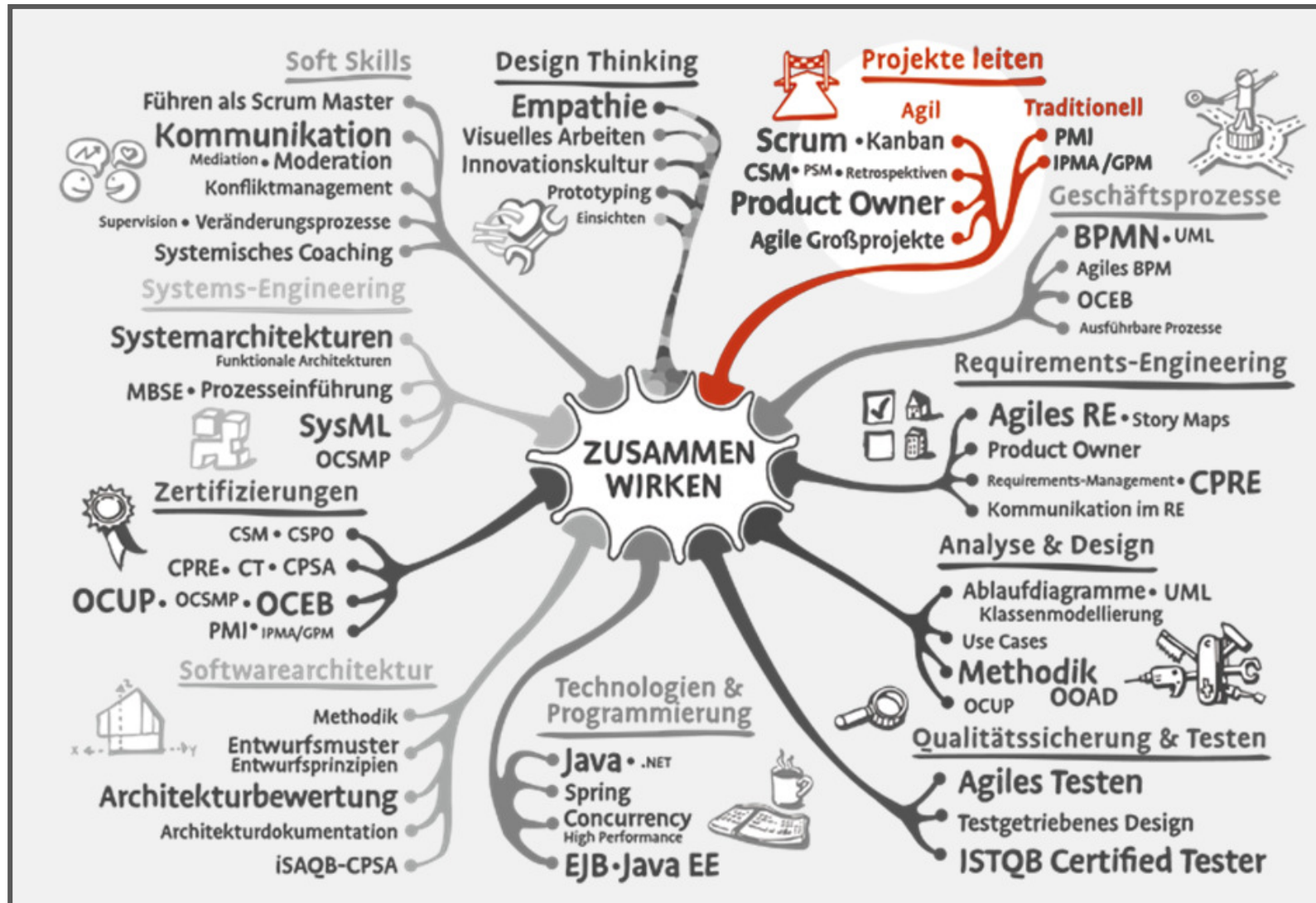
# Culture and Change Mgmt: **Management 3.0**

See: <http://www.management30.com/>, Book by Jurgen Appelo, ISBN-13: 978-0321712479



# Culture and Change Mgmt: Social Skills

See: Book “Soft Skills für IT-Führungskräfte und PL” by Uwe Vogenschow, Björn Schneider, Ines Meyrose, ISBN-13: 978-0321712479 [http://www.oose.de/publikation/?p\\_id=46157/](http://www.oose.de/publikation/?p_id=46157/),



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# Statements to remember



**Every single new method or technique implies a (minor or major) change**

**Change requires support**

**Effective change support comes from outside the context of change**

**This is a chance to build...**

**Products...**

...and gain benefits with...



**low**  
low low  
low **TCO**  
**Total Cost of Ownership**  
low  
low low  
low