



# LeSS

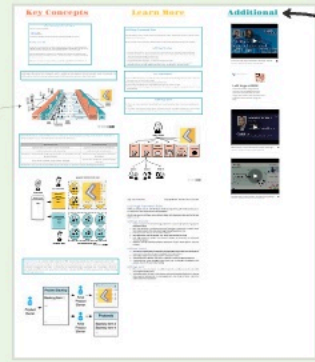
# atlas

this resource is maintained by [@Alexey Krivitsky](#)

<https://miro.com/app/board/uxjVKOapAyY=/>



### LeSS Huge



### LeSS in Soft...



### LeSS in Hea...



### LeSS in Aut...



### LeSS in Ins...



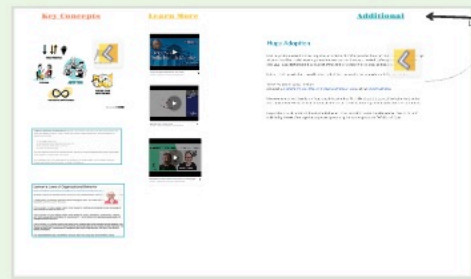
### LeSS in Ban...



### LeSS and R...



### LeSS Adoption



### Related Ide...



Why LeSS?

LeSS Complete Picture

LeSS Principles

Systems Thinking

LeSS is (not) Scrum

LeSS Rules & Structure

Product Change in LeSS

LeSS Events

Related LeSS Blogs

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LeSS in Software Development

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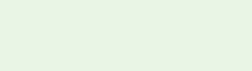
LeSS and RPA

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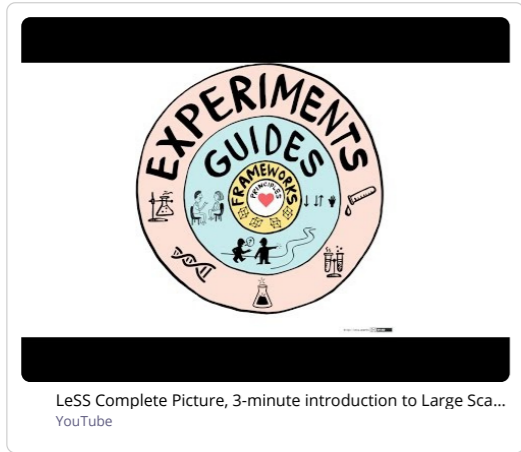
### Sprint Revi...



# Key Concepts

# Learn More

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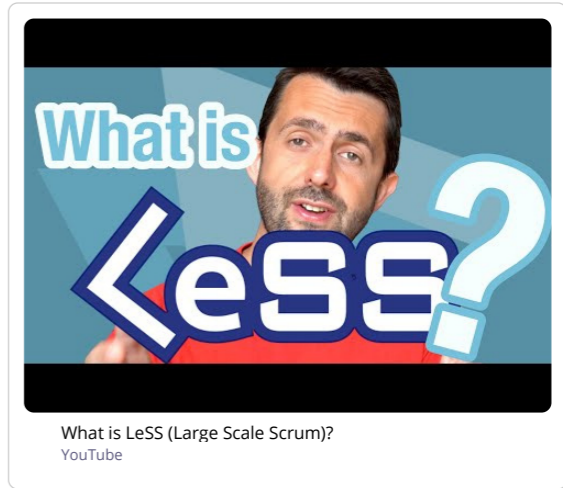
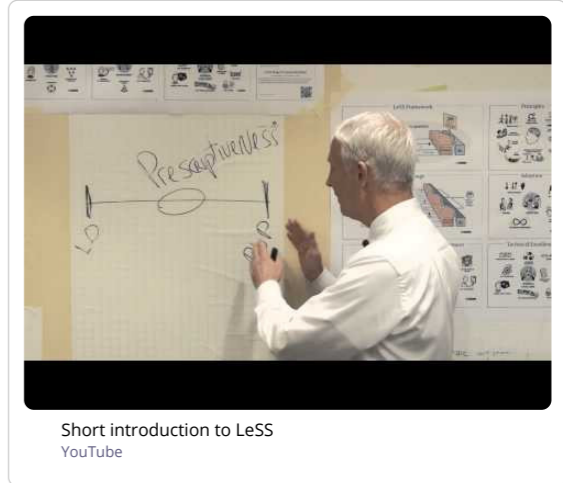
LeSS is an organizational system for product development aimed at maximizing an organization's adaptiveness. With adaptiveness (or *agility*, the original intent of agile development) we mean optimizing towards:

- Ability to change direction with relatively low cost, primarily based on discovery through frequent delivery, for...
- Maximizing value delivered to customers and end-users.

LeSS is the result of two decades of Go See, systems thinking, and experimenting to achieve organizational adaptiveness.



1. From *Specialist Roles to Teams*
2. From *Resource-Thinking to People-Thinking*
3. From *Organizing around Technology to Organizing around Customer Value*
4. From *Independent Teams to Continuous Cross-team Cooperation*
5. From *Coordinate to Integrate to Coordination through Integration*
6. From *Projects to Products*
7. From *Many Small Products to a Few Broad Products*



★★★★★ 257

[www.amazon.com](http://www.amazon.com)

**Large-Scale Scrum: More with LeSS (Addison-Wesley Signature Series (Cohn))**

Large-Scale Scrum: More with LeSS (Addison-Wesley Signature Series (Cohn))

★★★★★ 74

[www.amazon.com](http://www.amazon.com)

**Scaling Lean & Agile Development: Thinking and Organizational Tools for Large-Scale Scrum**

Scaling Lean & Agile Development: Thinking and Organizational Tools for Large-Scale Scrum

★★★★★ 41

[www.amazon.com](http://www.amazon.com)

**Practices for Scaling Lean & Agile Development: Large, Multisite, and Offshore Product Development with Large-Scale Scrum**

Practices for Scaling Lean & Agile Development: Large, Multisite, and Offshore Product Development with Large-Scale Scrum

## LeSS Guides

### Large-Scale Scrum: More with LeSS (2015)

#### Adoption 53

- Guide: Three Adoption Principles 55
- Guide: Getting Started 59
- Guide: Culture Follows Structure 64
- Guide: Job Safety but not Role Safety 66
- Guide: Organizational Perfection Vision 66
- Guide: Continuous Improvement 69
- Guide: Growing Your Adoption 71
- Guide: Evolutionary Incremental Adoption 73
- Guide: One Requirement Area at a Time 74
- Guide: Parallel Organizations 74

#### Organize by Customer Value 77

- Guide: Build Team-Based Organizations 79
- Guide: Understanding Feature Teams 81
- Guide: Feature-Team Adoption Maps 90
- Guide: Prefer Specialization in Customer Domain 95
- Guide: LeSS Organizational Structure 97
- Guide: Organizing Multi-Site in LeSS 100
- Guide: Requirement Areas 102
- Guide: Dynamics of Requirement Areas 105
- Guide: Transitioning to Feature Teams 106
- Guide: LeSS Huge Organization 109

#### Management 113

- Guide: Understand Taylor and Fayol 115
- Guide: Theory Y Management 117
- Guide: Managers Are Optional 120
- Guide: The LeSS Organization 121
- Guide: Go See 125
- Guide: Managers as Teachers and Learners 128
- Guide: Both Domain and Technical Capability 129
- Guide: LeSS Metrics with Less Targets 130
- Guide: Management Reading List 131

#### Scrum Masters 135

- Guide: Scrum Master Focus 137
- Guide: Five Scrum Master Tools 141
- Guide: Large-Group Facilitation 143
- Guide: Promote Learning & Multiple Skills 143
- Guide: Community Work 144
- Guide: Scrum Master Survival Guide 146
- Guide: Scrum Master Reading List 149
- Guide: Especially Pay Attention To... 150
- Guide: Avoid Requirement Area Silos 151

#### Product 155

- Guide: What Is Your Product? 157
- Guide: Define Your Product 162
- Guide: Expanding Product Definition 168
- Guide: Product over Project or Program 168

- Guide: No Software Tools for Sprint Backlog 281
- Guide: Product Owner Team Meeting 283

#### Coordination & Integration 285

- Guide: Just Talk 287
- Guide: Coordination-Friendly Environment 288
- Guide: Communicate in Code 292
- Guide: Integrate Continuously 293
- Guide: Communities 295
- Guide: Cross-Team Meetings 299
- Guide: Multi-Team Design Workshop 301
- Guide: Current-Architecture Workshop 303
- Guide: Component Mentors 304

#### Product Owner 171

- Guide: Who Should be Product Owner? 173
- Guide: Start Early or Messy with a Temporary Fake Product Owner 176
- Guide: Who Are Those Users/Customers? 177
- Guide: Prioritization over Clarification 178
- Guide: Don't Do It 178
- Guide: Product Owner Helpers 179
- Guide: Five Relationships 180
- Guide: Customer Collaborations over... 187
- Guide: Ship at Least Every Sprint 189
- Guide: Don't Be Nice 189
- Guide: Let Go 190
- Guide: Don't Let Undone Work Be Your Undoing 191
- Guide: LeSS Meetings 192
- Guide: LeSS Huge Product Owner 193
- Guide: Area Product Owners 194
- Guide: PO Team Helped by Scrum Master 195

#### Product Backlog 197

- Guide: Don't "Manage Dependencies" but Minimize Constraints 198
- Guide: Take a Bite 202
- Guide: Dealing with Parents 204
- Guide: Handling Special Items 207
- Guide: Tools for Large Product Backlogs 210
- Guide: More Outcome, less Output 213
- Guide: Area Backlogs 215
- Guide: Three Levels Max 222
- Guide: New Area for Giant Requirement 223
- Guide: Handling Gigantic Requirements 224

#### Definition of Done 229

- Guide: Creating the Definition of Done 231
- Guide: Evolve the Definition of Done 240

#### Product Backlog Refinement 247

- Guide: Product Backlog Refinement Types 249
- Guide: Overall PBR 251
- Guide: Multi-Team PBR 252
- Guide: Multi-Site PBR 254
- Guide: Initial PBR 255
- Guide: Splitting 260
- Guide: Scaling Estimation 269

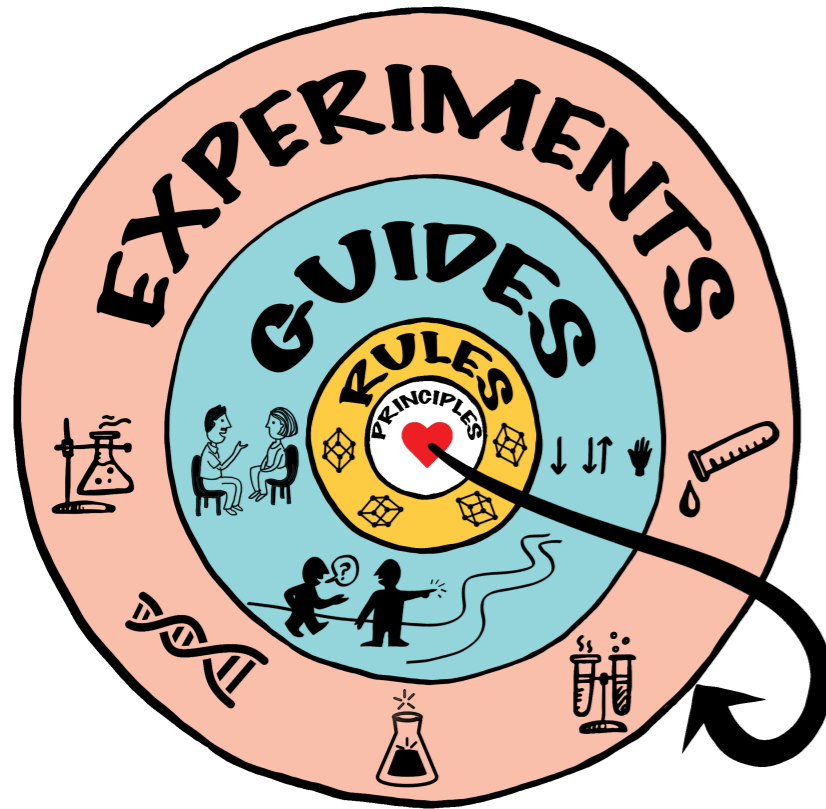
#### Sprint Planning 275

- Guide: Sprint Planning One 276
- Guide: Multi-Team Sprint Planning Two 280

- Guide: Open Space 305
- Guide: Travelers 306
- Guide: Scouts 307
- Guide: Maybe Don't Do Scrum of Scrums 308
- Guide: Leading Team 308
- Guide: Mix and Match Techniques 309

#### Review & Retrospective 313

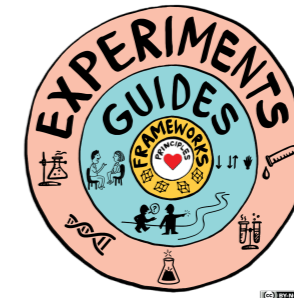
- Guide: Adapt the Product Early and Often 315
- Guide: Review Bazaar 316
- Guide: Overall Retrospective 317
- Guide: Improve the System 320
- Guide: Multi-Area Reviews & Retrospectives 325



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### Large Scale Scrum (LeSS)



#### LeSS as a framework

LeSS is more than a set of principles and experiments. It also provides a framework with rules. The LeSS Rules define what LeSS (and what isn't) and they provide a concrete framework for applying LeSS. Within the LeSS Framework, product groups can apply the experiments and discover what works best for them at a certain moment.

There are no such things as best practices. There are only practices that are good within a certain context.

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1

# Key Concepts

"No matter what we do, the number of defects in our backlog remains about the same," a manager told us: this for a 15 MSLOC C and C++ product with several hundred developers where we were working. What's going on? Systems thinking may help. In small groups the forces at play are more quickly seen and informally understood, but in large product development—or any large system—it's tough. Gerry Weinberg highlights two decisive factors in this situation:

**Weinberg-Brooks' Law:** More software projects have gone awry from management's taking action based on *incorrect system models* than for all other causes combined.

**Causation Fallacy:** Every effect has a cause... and we can tell which is which. [Weinberg92]

These reflect the impact of our mental models on the system, a subject that will be revisited later in this section.

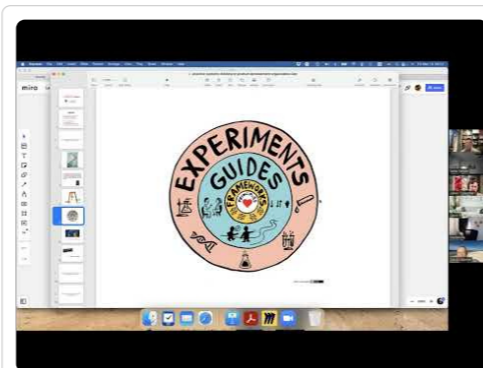


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## Systems Thinking

I took a speed reading course and read "War and Peace" in twenty minutes. It involves Russia. -Woody Allen "No matter what we do, the number of defects..."

# Learn More



LeSS Talks: Introducing System Thinking To Product Deve...  
YouTube

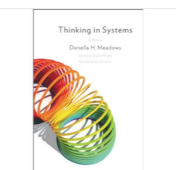


Systems Modeling in Certified LeSS Practitioner - Large-Sca...  
YouTube

# Additional



cognitive biases, systems optimizations, and component te...  
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www.amazon.com

## Thinking in Systems: International Bestseller

Thinking in Systems: International Bestseller



www.amazon.com

## The Fifth Discipline: The art and practice of the learning organization: Second edition (Century business)

The Fifth Discipline: The art and practice of the learning organization: Second edition (Century business)



cognitive biases, systems optimizations, and component te...  
YouTube

# Key Concepts

## Scaled Product Owner

It's common in large-scale product development for different people to pull in different directions and for subgroups to focus on local sub-optimizations. Maintaining one Product Owner with one Product Backlog supports **whole-product focus**.

In traditional large-scale product groups, there's a group (often product managers) that focuses outward and a group (usually developers) that focuses inward – and never the twain shall meet. In LeSS, the one Product Owner has lots of free time to focus outward on customers and their priorities while also being able to spend some time looking inwards to the teams. She acts as a connector, bringing teams and customers/users together so the teams become more **customer focused**.

In contrast with other scaled Scrum approaches, it's possible in LeSS to effectively scale the Product Owner role with just one person because there are fewer roles and positions, and less complexity.

## Prioritization over Clarification

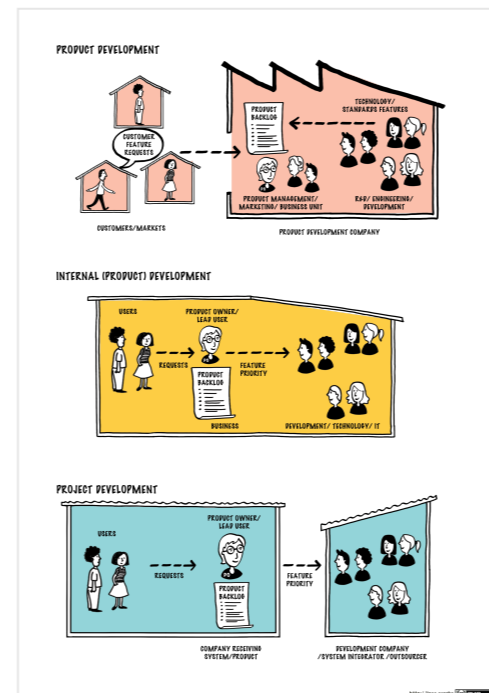
There are two key information flows in Scrum related to the Product Owner: (1) prioritizing (ordering) items in the Product Backlog and (2) clarifying items in the Product Backlog. In the first flow (prioritization), information related to profit drivers, strategic customers, business risks, and other business concerns is sought and analyzed. In the second flow (clarification), information is sought to detail the behavior and qualities of items, the user experience, and other feature design concerns.

A LeSS Product Owner focuses on thinking hard about prioritization but collaborates with the teams on clarification. Further, she encourages and helps the teams enter into a direct conversation with true users and customers for clarification. She acts as a connector, not an intermediary.

Why emphasize direct interaction between teams and customers/users? Reasons include: (1) avoiding information loss from handoffs, (2) fostering co-creation of solutions to real customer problems, and (3) improving motivation and empathy for customers by having developers collaborate with them directly.

It's worth noting that when the teams do most of the clarification work the Product Owner has more time and energy to focus on the big picture, continuously prioritizing and exploring new and strategic opportunities.

# Learn More



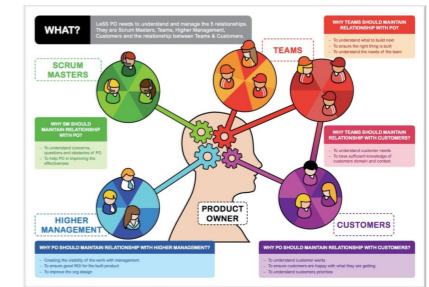
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## Product Owner

The Product Owner role in LeSS is conceptually the same as in one-team Scrum. However, at scale the focus changes slightly toward keeping an overview a...



# Additional



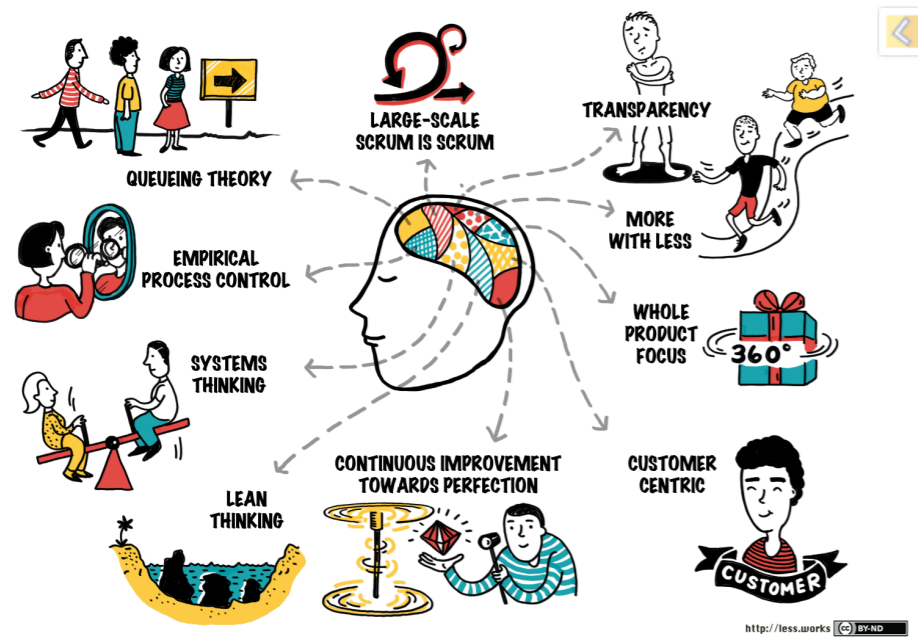
www.linkedin.com

## The role of a Product Owner

In my earlier post, I had shared the graphics about PO's relationship, and I received a lot of good, encouraging messages. Thank you for the same.



# Key Concepts



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## LeSS Principles

**Large-Scale Scrum is Scrum**—It is not “new and improved Scrum.” LeSS is about applying the principles, elements, and purpose of Scrum in a large-scale context. Multiple-team Scrum, not multiple Scrum teams.

**Empirical process control**—Inspection and adaptation of the product, processes, organizational design, and practices to craft a situational appropriate organization based on Scrum, rather than following a detailed formula. And empirical process control requires and creates transparency.

**Transparency**—Based on tangible ‘done’ items, short cycles, working together, common definitions, and driving out fear in the workplace.

**More with less**—(1) In empirical process control: more learning with less defined processes. (2) In lean thinking: more value with less waste and overhead. (3) In scaling, more ownership, purpose, and joy with less roles, artifacts, and special groups.

**Whole-product focus**—One Product Backlog, one Product Owner, one potentially shippable product increment, one Sprint—regardless if there are 3 or 33 teams. Customers want the product, not a part.

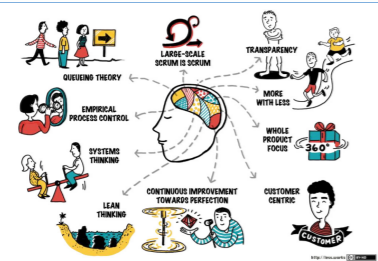
**Customer-centric**—Identify value and waste in the eyes of the paying customer. Reduce the cycle time from their perspective. Increase feedback loops with real customers. Everyone understands how their work today directly relates to paying customers.

**Continuous improvement towards perfection**—Create and deliver a product all the time, without defects, that utterly delights customers, improves the environment, and makes lives better. Do humble and radical improvement experiments each Sprint towards that.

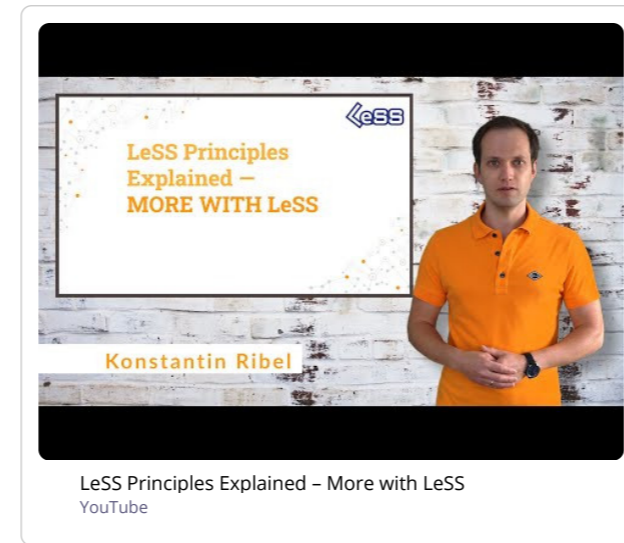
**Systems thinking**—See, understand, and optimize the whole system (not parts), and explore system dynamics. Avoid the local and sub-optimizations of focusing on the ‘efficiency’ or ‘productivity’ of individuals and individual teams. Customers care about the overall concept-to-cash cycle time and flow, not individual steps.

**Lean thinking**—Create an organizational system whose foundation is managers-as-teachers who apply and teach systems thinking and lean thinking, manage to improve, and who practice **Go See at gemba**. Add the two pillars of respect for people and continuous improvement. All towards the goal of **perfection**.

**Queueing theory**—Understand how systems with queues behave in the R&D domain, and apply those insights to managing queue sizes, work-in-progress limits, multitasking, work packages, and variability.



# Learn More



LeSS Principles Explained - More with LeSS  
YouTube

# Additional

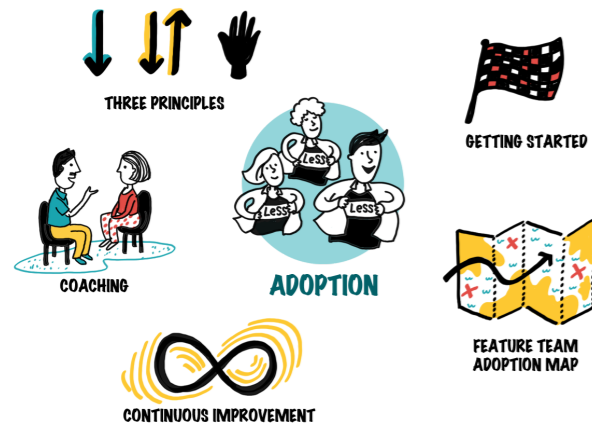


Scrum vs. LeSS (Large-Scale Scrum) - a side by side comparison  
YouTube

# Key Concepts

# Learn More

# Additional



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Continuous improvement towards perfection—Naturally, a group adopting LeSS brings to the table their assumptions and habits about adoption. Those are? Create a change vision and kick off many change projects. When the original goal is apparently achieved then:

1. "the change is done", and
2. the organization settles into a new status quo, until
3. the next change effort surfaces, and then
4. undoes the previous change.

This classic approach is like the sequential and "big batch" approach of software development where change is an exception strictly managed... by many change-control boards.

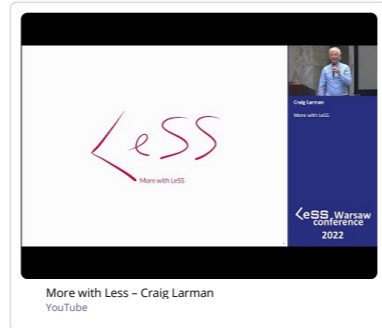
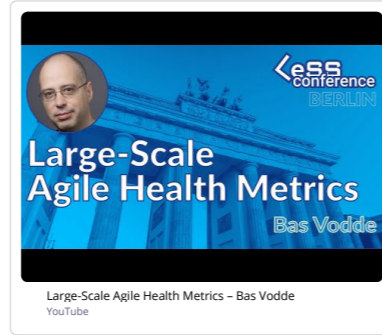
In LeSS adoptions, there is no change initiative, no change group, no change managers. In LeSS, change is continuous through experimentation and improvement and change is the status quo.

### Larman's Laws of Organizational Behavior

[\(Spanish translation\)](#)[\(Russian translation\)](#)[\(Japanese translation\)](#)[\(Persian/Farsi translation\)](#)[\(Polish translation\)](#)[\(Portuguese translation\)](#)

After decades of observation and organizational consulting, here are Larman's Laws of Organizational Behavior. These are observations rather than laws to follow :)

1. Organizations are implicitly optimized to avoid changing the status quo middle- and first-level manager and "specialist" positions & power structures.
2. As a corollary to (1), any change initiative will be reduced to redefining or overloading the new terminology to mean basically the same as status quo.
3. As a corollary to (1), any change initiative will be derided as "purist", "theoretical", "revolutionary", "religion", and "needing pragmatic customization for local concerns" — which deflects from addressing weaknesses and manager/specialist status quo.
4. As a corollary to (1), if after *changing the change* some managers and single-specialists are still displaced, they become "coaches/trainers" for the change, frequently reinforcing (2) and (3), and creating the false impression "the change has been done", deluding senior management and future change attempts, after which they become industry consultants.
5. (in large established orgs) *Culture follows structure*. And in tiny young orgs, structure follows culture.



# Huge Adoption



LeSS Huge adoptions tend to take a long time and involve a lot of changes within the organization. An all-at-once LeSS Huge adoption should be avoided, especially when there are more than three areas involved. We've experienced several all-at-once LeSS Huge adoptions and the amount of change to the organization is too large and it causes pain and suffering.

Instead, LeSS Huge adoptions should be done gradual. There are roughly two approaches to LeSS Huge adoption:

- 1) One Requirement Area at the time
- 2) Gradually [expanding the work-scope of the team](#), [Definition of Done](#) and the [Product Definition](#)

It is recommended to *at least* do one Requirement Area at a time. This is like a basic 2-8 team LeSS adoption but then the area should definitively not be mapped to the architecture but should be a true requirement area within the larger product.

It is possible to combine both of the adoption techniques. Focus most effort on the "One Requirement Area at the time" while letting the rest of the organization prepare by expanding the team scope and the Definition of Done.



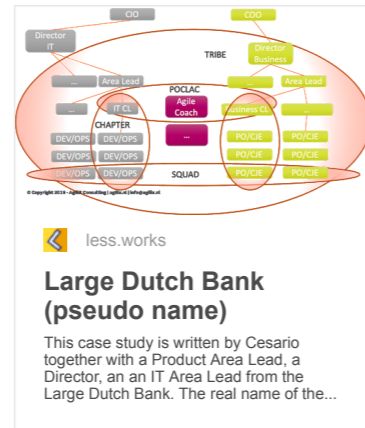


LeSS conference  
BERLIN

# LeSS adoption in Jago

Rizki Yogaswara  
Alex Titlyanov

LeSS adoption in Jago – Rizki Yogaswara & Alex Titlyanov  
YouTube



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### Very Big Bank (pseudo name)

(VBB is a pseudo name. Corporate policies restrict the usage of the actual company name. All names of individuals in this case study are also pseudo na...

LeSS DAY EUROPE 15-17 JUNE 2020 | ONLINE  
Large-Scale Scrum. Real stories of deep organizational transformations

**Gene Gendel**  
LeSS Practitioner and Certified LeSS Trainer  
Country: USA

**Case Study:**  
Steps Towards a LeSS Adoption in a Large Investment Bank

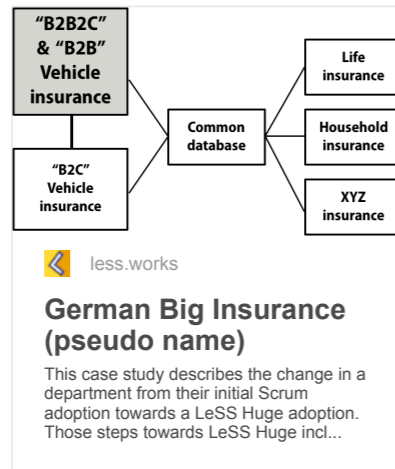
Gene Gendel: Steps Towards a LeSS Adoption in a Large In...  
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CASE STUDY  
LeSS Introduction at Merkur Insurance

www.slideshare.net

## LeSS Introduction at Merkur Insurance

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**Wolfgang Steffens**  
Certified LeSS Trainer  
Country: Finland

**Case Study:**  
Attempted LeSS Huge adoption at a German insurance company

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Large-Scale Scrum. Real stories of deep organizational transformations

Wolfgang Steffens: Attempted LeSS Huge adoption at a Ger...  
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**Karel Smutný**  
LeSS Practitioner and Professional Scrum Trainer  
Country: Czech Republic

**Case Study:**  
FrameworkLeSS Agile Adoption in Insurance NN CZ

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Karel Smutný: FrameworkLeSS Agile Adoption in Insurance ...  
YouTube

**DR. WOLFGANG RICHTER | LeSS – Large Scale Scrum | A...**  
YouTube

Pre-Agile – How it all began

- Start in 2012
- Replacement of a legacy system
- Framework chosen: Scrum
- First try with agile methods
- Single team
- Major change in their work habits
- Agility was not welcomed by everyone
- First delivery after two weeks

# Key Concepts

# Learn More

# Additional

In LeSS each team:

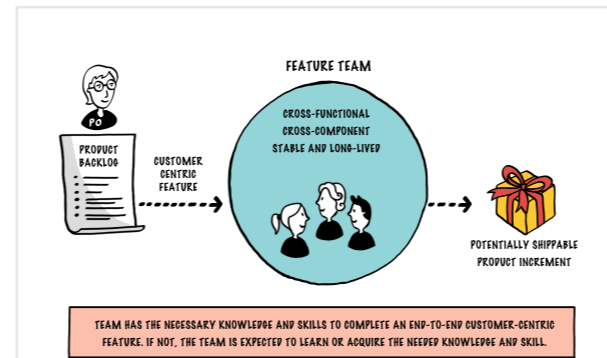
- is [self-managing](#)
- is cross-functional – all skills required are inside the team or the team can acquire them
- shares responsibility for all the team's work
- has a shared team goal
- has responsibility for managing its own relationships with external teams and people

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## Teams

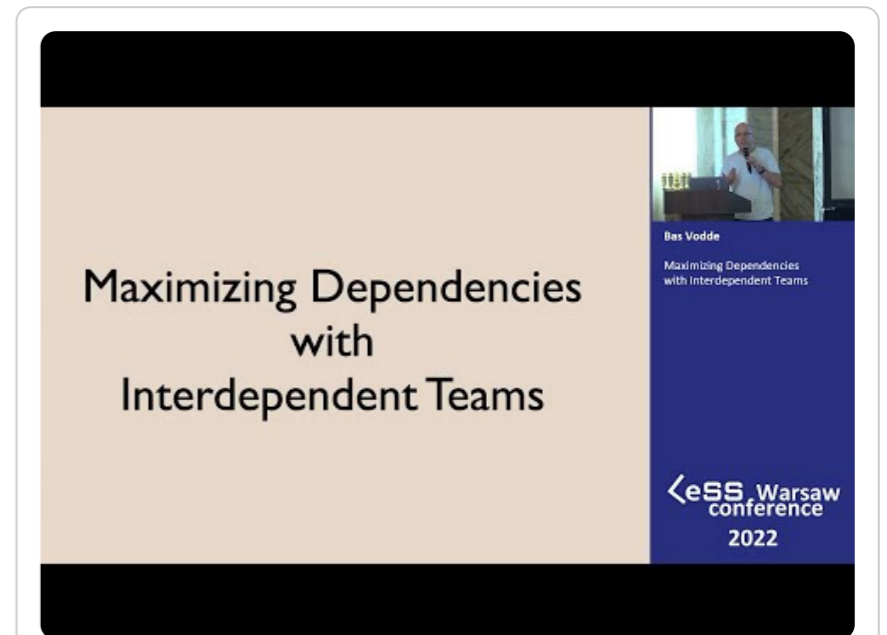
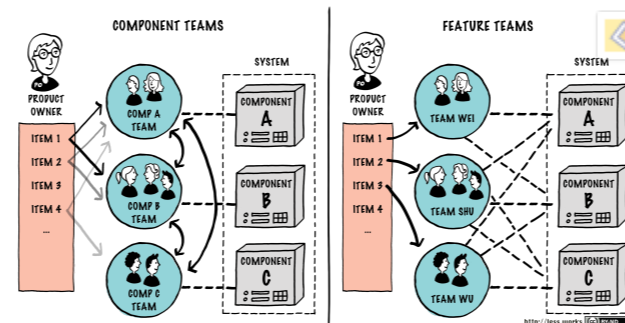
Teams are the core building block for large product development-and team structure has a huge impact on productivity and cycle time. Team has: \* a shar...



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## Feature Teams

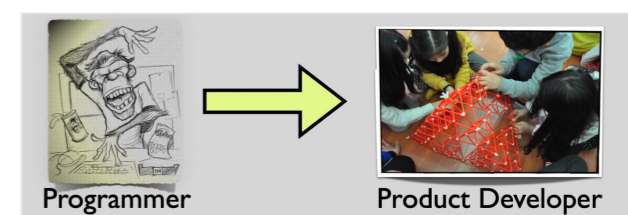
A feature team, shown in Figure 1, is a long-lived, cross-functional, cross-component team that completes many end-to-end customer features-one by one....



Maximizing Dependencies with Interdependent Teams - B...  
YouTube



AI HR & Organizational Design - Craig Larman  
YouTube




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## The Rise Of The Product Developers - Part I, Beyond User Needs

The Rise Of The Product Developers - Part I, Beyond User Needs by [Terry](#) 6 March 2023 Inspired by my colleague Bas V...

Product Backlog Refinement (PBR) is preferably done with multiple teams to increase shared learning and to exploit coordination opportunities.

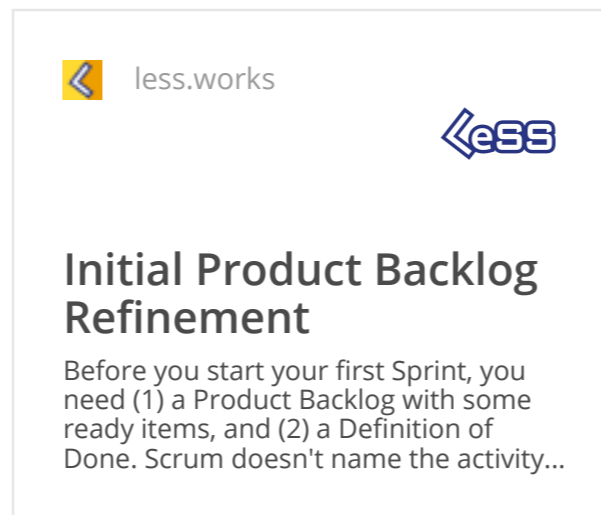


**LESS MULTI-TEAM PRODUCT BACKLOG REFINEMENT**

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## Product Backlog Refinement

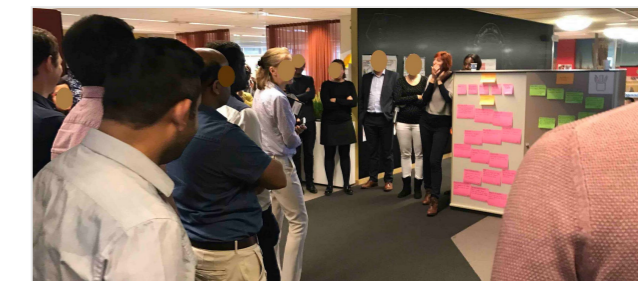
Ongoing Product Backlog Refinement (PBR) is needed within each Sprint to refine items to be ready for future Sprints. Key activities of PBR are (1) spl...



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## Initial Product Backlog Refinement

Before you start your first Sprint, you need (1) a Product Backlog with some ready items, and (2) a Definition of Done. Scrum doesn't name the activity...



R www.dcme.nu

## How to facilitate multi-team Product Backlog Refinements

Facilitating refinements with the whole development group can provide serious flexibility and speed gains. This article describes how to facilitate Multi-team Product Backlog refinement sessions.

# Key Concepts

## LeSS Product

- There is one Product Owner and one Product Backlog for the complete shippable product.
- The Product Owner shouldn't work alone on Product Backlog refinement; she is supported by the multiple Teams working directly with customers/users and other stakeholders.
- All prioritization goes through the Product Owner, but clarification is as much as possible directly between the Teams and customer/users and other stakeholders.
- The definition of product should be as broad and end-user/customer centric as is practical. Over time, the definition of product might expand. Broader definitions are preferred.
- One Definition of Done for the whole product, common for all teams.
- Each team can have their own stronger Definition of Done by expanding the common one.
- The perfection goal is to improve the Definition of Done so that it results in a shippable product each Sprint (or even more frequently).

# Learn More



## Product

When starting a LeSS Adoption, one of the first things to clarify is what your product actually is. More often than not, the product definition prefer...



## Whole Product Focus

Customers don't buy a part of the product, but the whole product. This seems obvious but it is important to remember. It leads to a couple of important...

Outcome based Product Backlog

Jürgen De smet  
Your Chief Simplification Officer

2019-10-08 - Jürgen De Smet: Outcome based Product Bac...  
YouTube

## Product Definition in Large Scale Scrum (LeSS) - Part 1

Product Definition in Large Scale Scrum (LeSS) - Part 1 by cesario-ramos" %> 7 July 2020 This is a cross-post from Agil...

## Product Definition in Large Scale Scrum (LeSS) - Part 2

Product Definition in Large Scale Scrum (LeSS) - Part 2 by cesario-ramos" %> 14 July 2020 This is a cross-post from Agil...

WE HAVE MULTIPLE BACKLOGS. SO WHAT?

Let us explain...

Étude by Alexey Krivitsky (and Miles Davis)


We have multiple backlogs. So what?  
YouTube

## Key Concepts

## Learn More

## Additional


There is one product Sprint Review; it is common for all teams. Ensure that suitable stakeholders join to contribute the information needed for effective inspection and adaptation.



less.works

### Sprint Review


The Sprint Review is an inspect-adapt point at the end of the Sprint. During the Sprint Review, customers and stakeholders examine what the teams built...



medium.com

### Multi-Teams Sprint Review-How do we do it?


We're all familiar with the "one-team sprint review" concept. It's easy to manage, the agenda is often simple, and it provides solid focus...



www.leansherpas.com

### Remote Sprint Review in Large-Scale Scrum (LeSS) - Lean Sherpas | | Robert Briese

In this article you will get an overview of the purpose of sprint reviews in Scrum and learn more about a real example of how a modified sprint review in Large-Scale Scrum (LeSS) can be designed with several distributed teams.




EXPERIENCES WITH REMOTE REVIEW BAZAAR IN LESS

17 September 2021  
Robert Briese

LEAN SHERPAS

Experiences with Remote Review Bazaar in LeSS — Robert ...  
YouTube

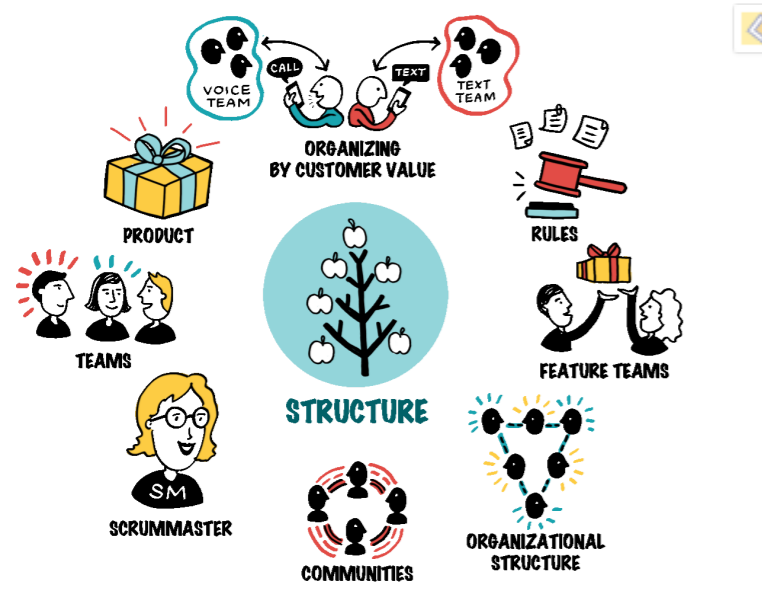


www.dcme.nu

### How to facilitate an awesome Sprint Review in "Bazaar mode"

If you are in geo1, call us today! This article aims at helping Scrum Masters to conduct the \*MOST AWESOME\* Sprint Review they ever witnessed.

# Key Concepts

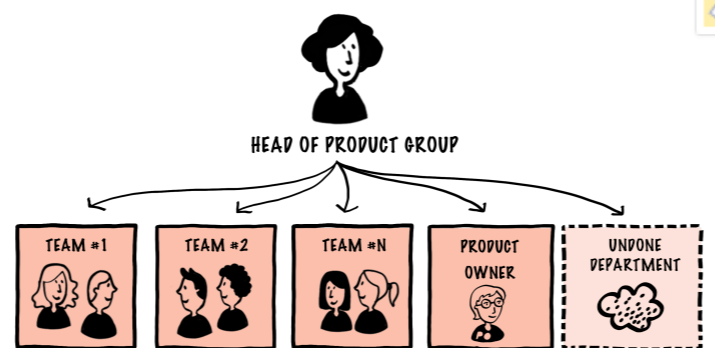


<http://resources.jetbrains.com>

# Learn More

Let's examine a LeSS organization...

- Head of the Product Group**—Most LeSS organizations still have managers including a "head of product group." They support the teams by Go See and help them remove obstacles and improve. LeSS organizations don't have matrix structures and there are no "dotted-line" managers. "Head of Product Group" is called differently in different organization, here we mean the hierarchical manager of all the teams.
- Feature teams**—This is where the development work is done. Each team is cross-functional, self-managing feature team with a Scrum Master. They are permanent units that stay together for the duration of a product (and sometimes longer). Avoid lots of hierarchical layers as much as possible.
- Product Owner (Team)**—This is also commonly called "Product Management." It can be one person but in a larger LeSS organization the **Product Owner** might be supported by other product managers. An important point in this organizational structure is that the Teams and the Product Owner are peers. This important to keep the power balanced between the roles. The Teams and Product Owner should have a cooperative peer relationship. A common alternative structure is when the Product Owner belongs to a different organization. This is OK though it does often require additional effort to ensure the Product Owner has a close relationship with the Teams.
- Undone department**—This department, ideally, does not exist. But unfortunately sometimes the teams are not yet able to create a true shippable increment every Sprint. This is reflected by their "Definition of Done" not being equal to "Potentially Shippable." Undone departments such as test, QA, architecture, or business analysis groups should never exist in the smaller LeSS framework groups as they should be integrated into the teams from the start. On the other hand, we unfortunately frequently still see an operations or production undone department in LeSS adoptions, as they often cross organizational boundaries.



<http://resources.jetbrains.com>

## LeSS Framework Rules

The LeSS framework applies to products with 2-8 teams.

### LeSS Structure

- Structure the organization using real teams as the basic organizational building block.
- Each team is (1) self-managing, (2) cross-functional, (3) co-located, and (4) long-lived.
- The teams are customer-focused feature teams.
- Scrum Masters are responsible for a well-working LeSS adoption. Their focus is towards the Teams, Product Owner, organization, and development practices. A Scrum Master does not focus on just one team but on the overall organizational system.
- A Scrum Master is a dedicated full-time role.
- One Scrum Master can serve 1-3 teams.
- In LeSS, managers are optional, but if managers do exist their role is likely to change. Their focus shifts from managing the day-to-day product work to improving the value-delivering capability of the product development system.
- Managers' role is to improve the product development system by practicing Go See, encouraging Stop & Fix, and "experiments over conformance."
- For the product group, establish the complete LeSS structure "at the start"; this is vital for a LeSS adoption.
- For the larger organization beyond the product group, adopt LeSS evolutionarily using Go and See to create an organization where experimentation and improvement is the norm.

### LeSS Product

- There is one Product Owner and one Product Backlog for the complete shippable product.
- The Product Owner shouldn't work alone on Product Backlog refinement; she is supported by the multiple Teams working directly with customers/users and other stakeholders.
- All prioritization goes through the Product Owner, but clarification is as much as possible directly between the Teams and customer/users and other stakeholders.
- The definition of product should be as broad and end-user/customer centric as is practical. Over time, the definition of product might expand. Broader definitions are preferred.
- One Definition of Done for the whole product, common for all teams.
- Each team can have their own stronger Definition of Done by expanding the common one.
- The perfection goal is to improve the Definition of Done so that it results in a shippable product each Sprint (or even more frequently).

### LeSS Sprint

- There is one product-level Sprint, not a different Sprint for each Team. Each Team starts and ends the Sprint at the same time. Each Sprint results in an integrated whole product.
- Sprint Planning consists of two parts: Sprint Planning One is common for all teams while Sprint Planning Two is usually done separately for each team. Do multi-team Sprint Planning Two in a shared space for closely related items.
- Sprint Planning One is attended by the Product Owner and Teams. They together tentatively select the items that each team will work on that Sprint. The Teams identify opportunities to work together and final questions are clarified.
- Each Team has their own Sprint Backlog.
- Sprint Planning Two is for Teams to decide how they will do the selected items. This usually involves design and the creation of their Sprint Backlogs.
- Each Team has their own Daily Scrum.
- Cross-team coordination is decided by the teams. Prefer decentralized and informal coordination over centralized coordination. Emphasize Just Talk and informal networks via communicate in code, cross-team meetings, component mentors, travelers, scouts, and open spaces.
- Product Backlog Refinement (PBR) is preferably done with multiple teams to increase shared learning and to exploit coordination opportunities.
- There is one product Sprint Review; it is common for all teams. Ensure that suitable stakeholders join to contribute the information needed for effective inspection and adaptation.
- Each Team has their own Sprint Retrospective.
- An Overall Retrospective is held after the Team Retrospectives to discuss cross-team and system-wide issues, and create improvement experiments. This is attended by Product Owner, Scrum Masters, Team representatives, and managers (if any).

# Additional



LeSS (Large-Scale Scrum) - The roles, artefacts and events -...  
YouTube

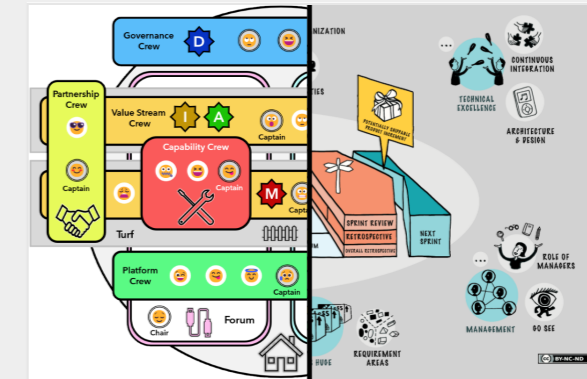
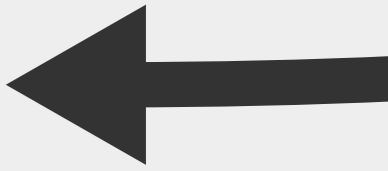
ADAPTIVITY PODCAST "INTERDEPENDENCE"

#2 Adaptivity Podcast with Bas Vodde: "Interdependence"  
YouTube

# Key Concepts

# Learn More

# Additional



 unfix.com

## Let's Unfix Large-Scale Scrum (LeSS) - unFIX

As a framework, LeSS offers part organization design and part process flow. It seems to me that LeSS and unFIX are pretty complementary.



# Key Concepts

# Learn More

# Additional



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## Creating Agile Organizations | CAO and DAO courses

Creating Agile Organizations helps you to move from agility with individual teams to agility at a large scale. Book one of our DAO and CAO courses!

### Leading with Obeya for Product Owners

Mark Uijen de Klein & Jurgen De Smet

Leading with Obeya for Product Owners - Mark Uijen de Kl...  
YouTube

### Talk LeSS 2023 | Jurgen De Smet | From Good to Great: Cr...

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www.orgtopologies.com

## Home | Org Topologies

Org Topologies™ (aka Organizational Topologies, Organisational Topologies) is a framework-agnostic approach for assessing and designing agile ecosystems where business and technology work as one for a fast flow of ideas and value.

### Org Topologies™ and The Feature Team Adoption Map

While studying organizational design, we created a visual representation of our findings using the Org Topologies™ Map. When explaining our concepts at various conferences and meetups, some people ask questions about the relationship between the Feature...

### Mastering Agile Evolution: Strategic Agility Ahead

Jurgen De Smet - Mastering Agile Evolution: Strategic Agility Ahead  
Vimeo

# Key Concepts

• Two Frameworks: LeSS & LeSS Huge •

Large-Scale Scrum has two Frameworks:

- LeSS 2-8 Teams
- LeSS Huge 10+ Teams

The word LeSS is overloaded to mean both Large-Scale Scrum in general and the smaller LeSS Framework.

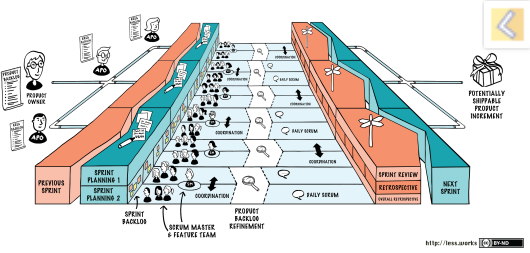
**The Magic Number Eight**

Actually, eight isn't a magic number, and if your group can successfully apply the smaller LeSS framework with more than eight teams, great! But we haven't seen that... yet. It's just an upper-limit empirical observation. And in some cases, such as varied complex goals with multi-site involvement (foreign language only teams), it could be less than eight.

In any event, at some point, the single Product Owner can no longer grasp an overview of the entire product. Or the Product Owner can't balance an external and internal focus, and/or the Product Backlog is so large that it becomes difficult for one person to work with.

When the group hits that tipping point, it may be time to change from the smaller LeSS framework to LeSS Huge. On the other hand, we suggest first trying to get better, smaller, and simpler, before getting bigger.

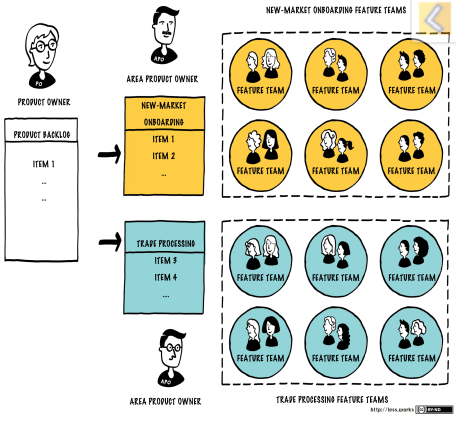
LeSS Huge is the second LeSS Framework, which is suitable for LeSS adoptions of more than eight teams. Conceptually it is LeSS scaled up further by having multiple (smaller) LeSS frameworks stacked on top of each other.



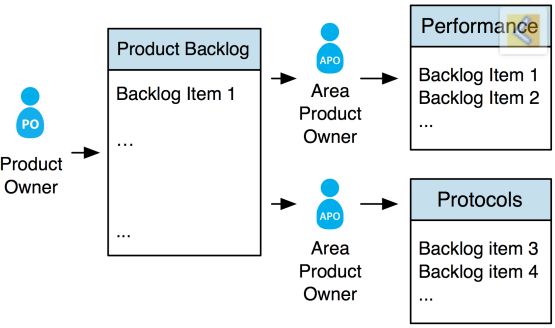
Requirement areas are scaled-up feature teams. Scaling up by structuring teams according to the product's architecture is called development areas. The table below summarizes the differences.

Requirement Area	Development Area
organized around customer-centric requirements	organized around product's architecture
collective subsystem code ownership	code ownership per subsystem
temporary in nature; should change over the lifetime of the product, but not at every iteration	tends to be more fixed over the lifetime of the product
focus on the customer, using customer language	focus on the architecture, using technology language

Development areas are *not* recommended and are only shown to show the contrast with Requirement Areas.



Requirement areas are customer-centric categories of PBIs. Example requirement areas: for a digital press printer, color workflow and transaction printing; for an internet portal area, ads and news; for a telecom system, protocols, performance, and network management (see Figure 1). Discovering the requirement areas is surprisingly easy. For example, in Berlin we once simply wrote PBIs on cards, spread them on the floor, and asked the PO and others to group them—affinity clustering into the requirement areas.



# Learn More

**LeSS Huge Framework Rules**

LeSS Huge applies to products with "8+" teams. Avoid applying LeSS Huge for smaller product groups as it will result in more overhead and local optimizations.

All LeSS rules apply to LeSS Huge, unless otherwise stated. Each Requirement Area acts like the basic LeSS framework.

**LeSS Huge Structure**

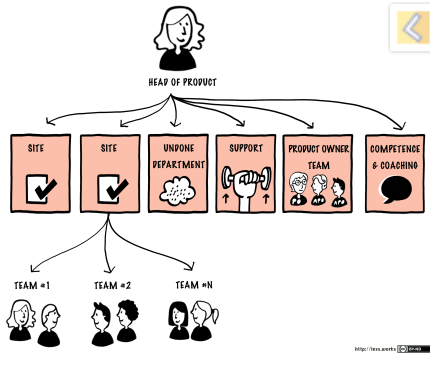
- Customer requirements that are strongly related from a customer perspective are grouped in Requirement Areas.
- Each Team specializes in one Requirement Area. Teams stay in one area for a long time. When there is more value in other areas, teams might change Requirement Area.
- Each Requirement Area has one Area Product Owner.
- Each Requirement Area has between "4-8" teams. Avoid violating this range.
- LeSS Huge adoptions, including the structural changes, are done with an evolutionary incremental approach.
- Remember each day: LeSS Huge adoptions take months or years, infinite patience, and sense of humor.

**LeSS Huge Product**

- One (overall) Product Owner is responsible for product-wide prioritization and deciding which teams work in which Area. She works closely with Area Product Owners.
- Area Product Owners act as Product Owners towards their teams.
- There is one Product Backlog; every item in it belongs to exactly one Requirement Area.
- There is one Area Product Backlog per Requirement Area. This backlog is conceptually a more granular view onto the one Product Backlog.

**LeSS Huge Sprint**

- There is one product-level Sprint, not a different Sprint for each Requirement Area. It ends in one integrated whole product.
- The Product Owner and Area Product Owners synchronize frequently. Before Sprint Planning they ensure the Teams work on the most valuable items. After the Sprint Review, they further enable product-level adaptations.



Large Scale Scrum (LeSS) Copyright © 2014 - 2018 The LeSS Company B.V.

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# Additional

Y Soft case study: huge LeSS without LeSS Huge

Zdenek Soukup Petr Kaparik

Y Soft case study: huge LeSS without LeSS Huge - Zdenek ... YouTube

LeSS Huge at BMW

Konstantin Ribel, Craig Larman discuss how the BMW driverless team was set up based on LeSS Huge, and some of the successes and problems encountered along the way.

ROBERT BRIESE

Case Study: Comparing LeSS and LeSS Huge adoptions from a practical point of view

LeSS DAY EUROPE 15-17 JUNE 2020 | ONLINE

Robert Bries: Lessons learned from several LeSS Huge ad... YouTube

Evolutionary Org Design with LeSS

PandaDoc experience

Talk LeSS 2023 | Denis Salnikov | Evolutionary Org Design ... YouTube

# Key Concepts

Scaled Scrum is not a special scaled framework that happens to include “Scrum for each team”

Scaled Scrum is Scrum scaled

# Learn More

Although LeSS is strongly influenced by Scrum, it is definitively not the same.

Some key differences between LeSS and Scrum 2017 are:

- The concept of Scrum Team does not exist in LeSS.
- What is called Development Team in Scrum is simply called Team in LeSS.
- Self-organizing teams are called Self-managing Team.
  
- Sprint Planning is split in Sprint Planning 1 and Sprint Planning 2.
- Backlog Refinement is not an activity but an event.
- Sprint Goal is not a part of LeSS but considered to be a useful practice to use with LeSS.
- Scrum Master is a fulltime role, not a member of a Team.
- Product Owner is not an expected participant in Team Daily Scrum or in Team Retrospective.

For now, we are ignoring the Scrum 2020 version.

# Additional

The Scrum Guides™ 2017:

## The Scrum Guide™

The Definitive Guide to Scrum:  
The Rules of the Game

November 2017



Ken Schwaber  
Jeff Sutherland

Developed and sustained by Scrum creators: Ken Schwaber and Jeff Sutherland

Overview of Scrum by Bas and Craig:

 [scrumprimer.org](https://scrumprimer.org)

## Scrum Primer - Short Introduction to Scrum

Scrum Primer is a short, readable and concrete introduction to the Scrum Framework by Pete Deemer, Gabrielle Benefied, Craig Larman, and Bas Vodde. It is an excellent guide for starting your Scrum journey.



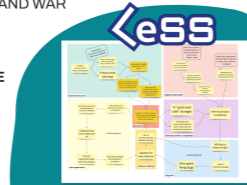
## Y Soft

Y Soft adopted LeSS in 2019. A differentiator of Y Soft's LeSS adoption was not only making significant \*organizational design\* (OD) changes, but then ...

### LESS ADOPTION AT POSTER POS INC. IN TIMES OF COVID-19 AND WAR

PART 1  
ORG BEFORE CHANGE

BY ALEXEY KRIVITSKY



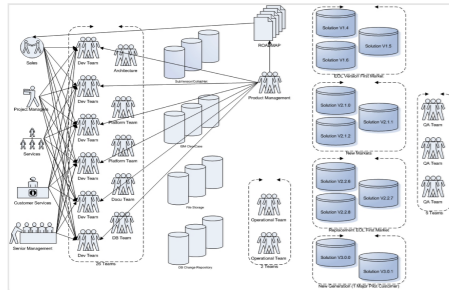
[www.krivitsky.com](http://www.krivitsky.com)

## LeSS Adoption at Poster. Part 1: Org Before Change

A full-fledged detailed LeSS case study of Poster POS Inc.

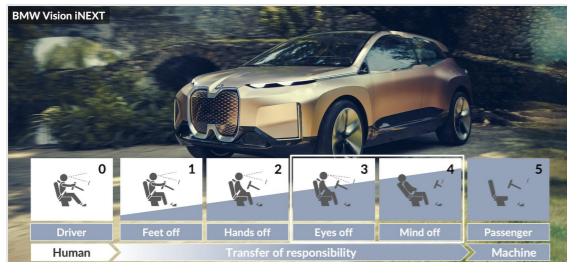


LeSS adoption at Poster: ouches, gotchas and yoohoos! – Alexey Krivitsky  
YouTube



## Agfa Healthcare

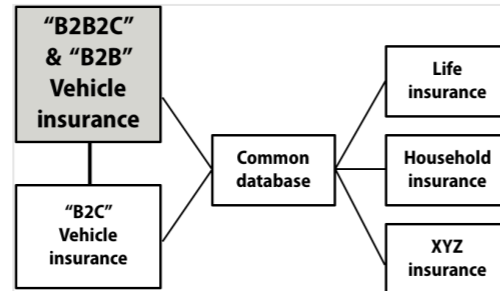
Background \* Lean A3 (PDCA) \* Prepare with Education \* Value-Stream Mapping \* The Desired Future State of the Organisation \* The Agile Coaching Team ...



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## BMW Group - LeSS Huge at Autonomous Driving

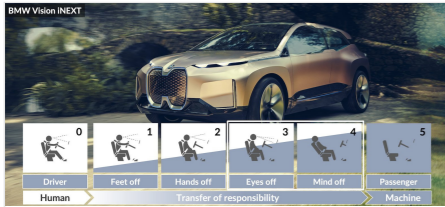
We want to acknowledge the BMW Group for the opportunity to learn, grow, and analyze a fascinating LeSS Huge case in a highly competitive and challengi...



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## German Big Insurance (pseudo name)

This case study describes the change in a department from their initial Scrum adoption towards a LeSS Huge adoption. Those steps towards LeSS Huge incl...



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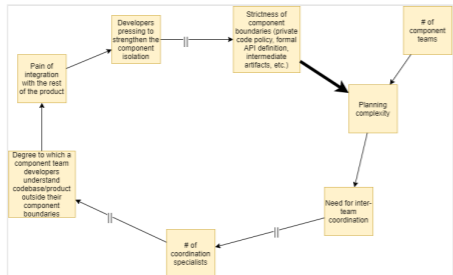
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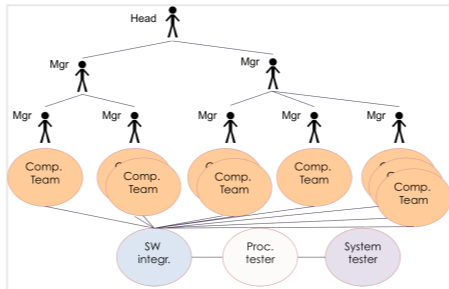
## Large Server Hardware Company (pseudo name)

Audio versions of this case study are [available here](#). I strongly believe the best chance of long-term success is achieved with a broad product boundar...



## Solarwinds

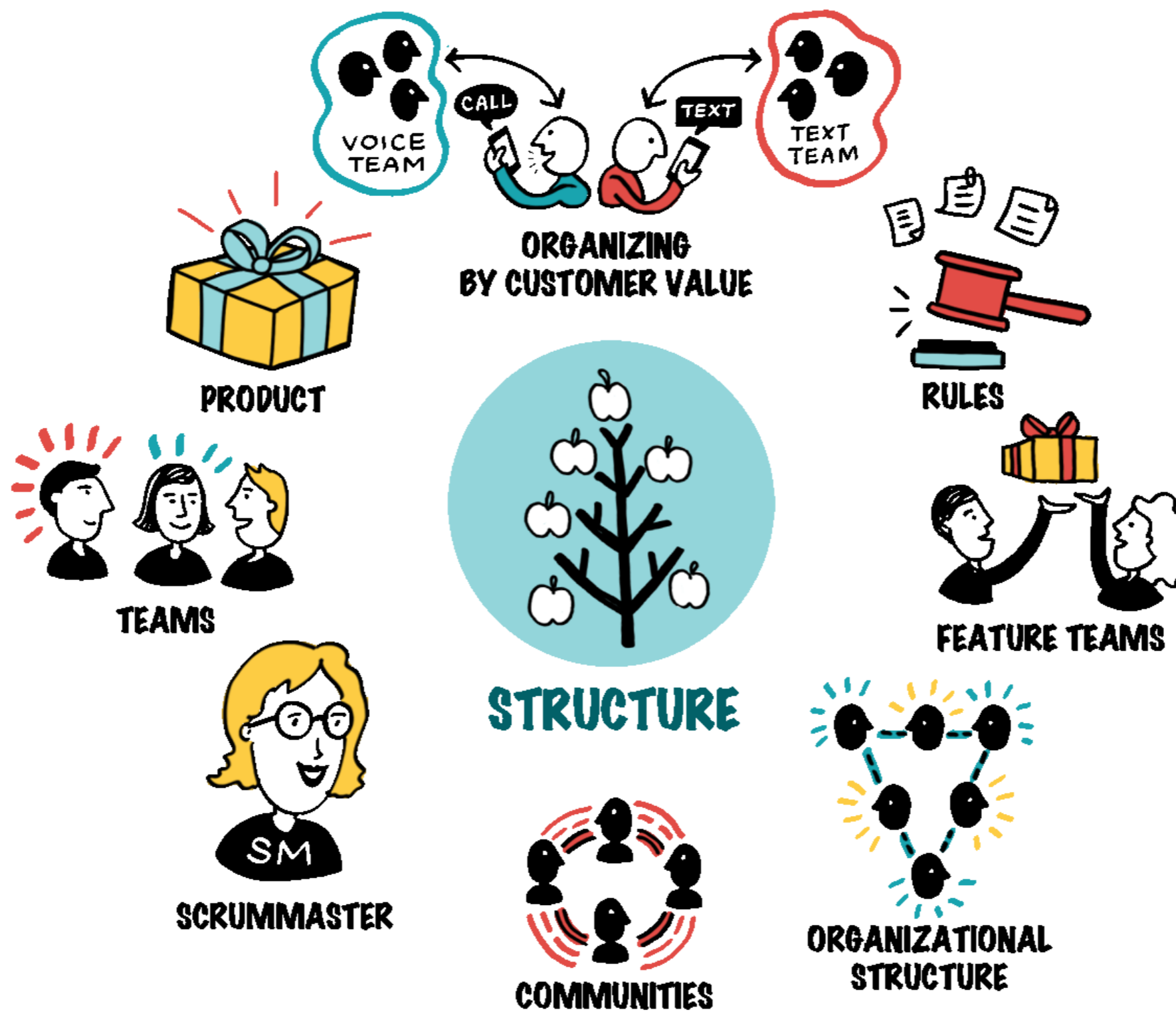
Disclaimer:\*\* This text describes the situation in one of the SolarWinds product groups until 2017, i.e. roughly three years before the event known a...



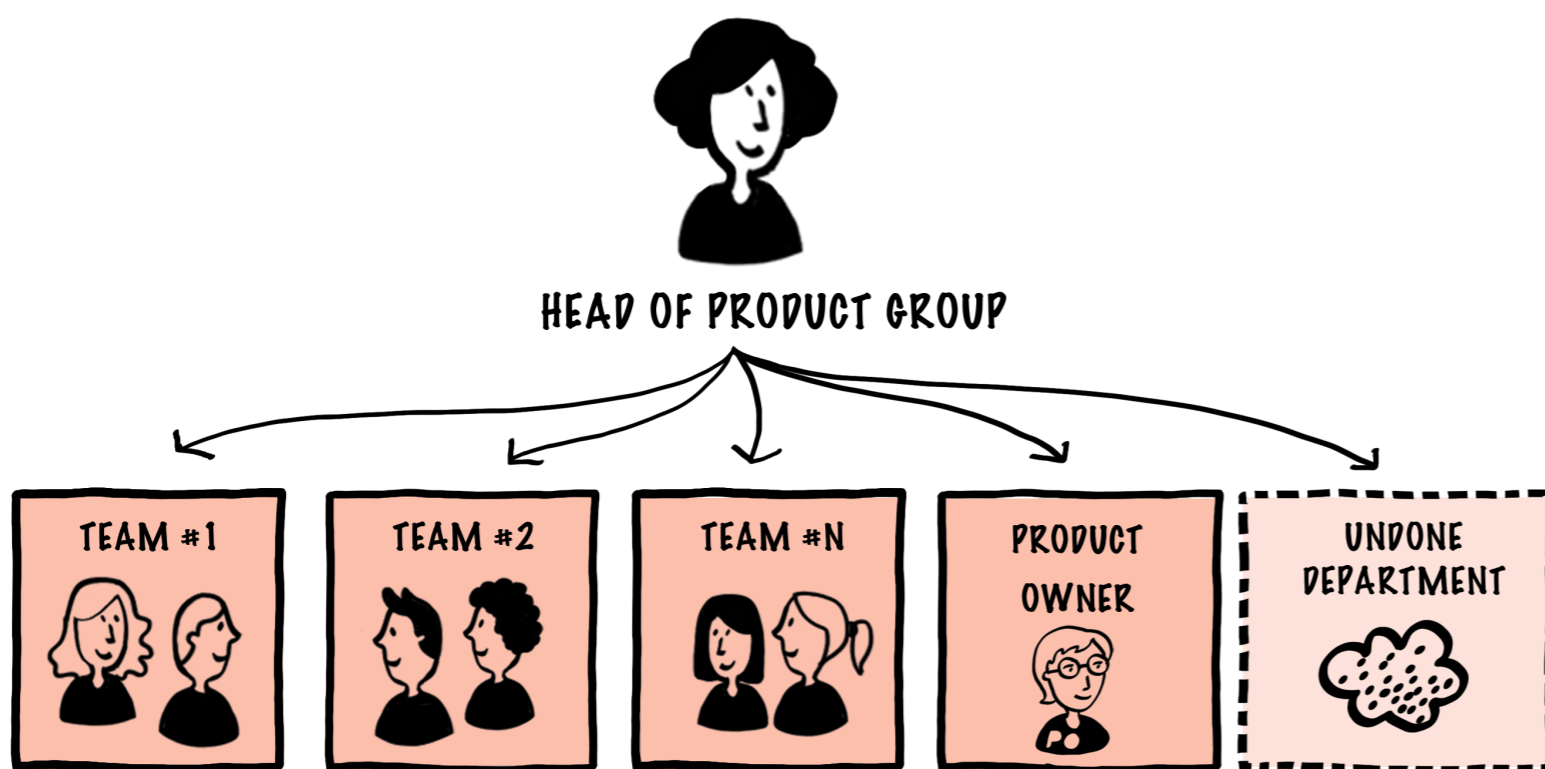
## Thales - Surface Radar

This is a story of how Thales Surface Radar TU Processing, a high-tech embedded software development department operating in an environment with defen...





<http://less.works>



<http://less.works>

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## LeSS Story: Flow of Items

This story focuses more on the flow of items (features) through part of a Sprint, primarily during refinement and development.

Portia wraps up her meeting with the government regulator and heads to the airport, and home. She's another product manager; she helps Paolo, and specializes in regulatory and audit trends.

Later, Portia meets with Paolo. Writing on cards, she summarizes the new rules that are going to impact their product, and what clients she thinks are going to want certain features first. Paolo points to the five cards and asks, "So this covers all the work, as far as you know?" Portia smiles and says, "This is regulatory. It's never finished or clear."

Paolo asks, "Can you put these in the Product Backlog for me, unordered at the bottom for now?"

"Sure."



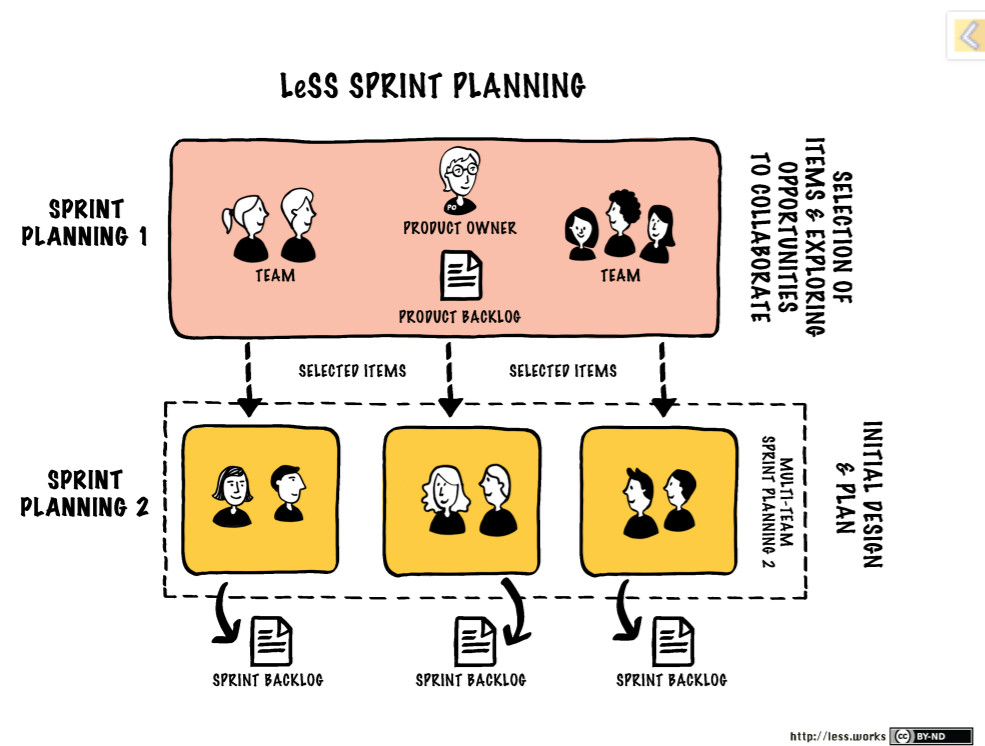
## LeSS Story: Flow of Teams

This story focuses on the flow of *teams* through a Sprint, rather than the flow of items. In reality the majority of time in the Sprint is working on development tasks, not *meetings*. However, this story emphasizes meetings and interactions, as the goal is an understanding of how multiple teams work together during LeSS events, and how they coordinate day by day.

Mark walks into the room where his team (Trade) works and sees Mira, who says, "Good morning! Just a reminder, we're the team representatives for this Sprint, and Sprint Planning One starts in 10 minutes." "Right," says Mark, "Meet you in the big room."



- Sprint Planning consists of two parts: Sprint Planning One is common for all teams while Sprint Planning Two is usually done separately for each team. Do multi-team Sprint Planning Two in a shared space for closely related items.
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- Each Team has their own Sprint Backlog.
- Sprint Planning Two is for Teams to decide how they will do the selected items. This usually involves design and the creation of their Sprint Backlogs.



Sprint Planning Two is mostly the same as in one-team Scrum... the team creates their plan for getting the items to 'done.'

- Each Team has their own Sprint Retrospective.
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## LeSS SPRINT REVIEW & RETROSPECTIVE

