

Overview of Large Scale Scrum (LeSS)

@ Agile Practitioners Association of Nigeria



About Gene

Gene Gendel is an organizational design specialist, agile/lean coach and trainer, consultant and adviser to senior leadership. Almost 15 of 20+ years of his professional experience – Gene dedicated to working with companies of various sizes and lines of business, trying to help them improve internal dynamics, organizational structure and and becoming a better place to work. Gene engages at all organizational levels: senior- and mid-level management, teams and individuals. In his work, Gene uses various methods, tools and techniques to amplify learning by others and to ensure that people gain autonomy after Gene “coaches himself out of the job”.

Gene is Certified Agile Coach (CAC), by Scrum Alliance – small elite community of [Scrum Alliance Certified Enterprise Coaches \(CEC\)](#). Today, he is the only CEC who resides in NY State. Gene is also one of the co-creators of [Team Level Coaching Certifications \(CTC\)](#) program for Scrum Alliance.

Gene is also one of very few [Certified LeSS Trainers \(CLT\)](#) that are based in the United States.

He is also well-recognized blogger and publisher. He is the author of [Adaptive Ecosystems: Collection of Independent Essays About Agility](#) and co-author of:

- [Agile Coaching: Wisdom from Practitioners](#) (free pdf).
- Best Agile Articles of [2017](#) and [2018](#)



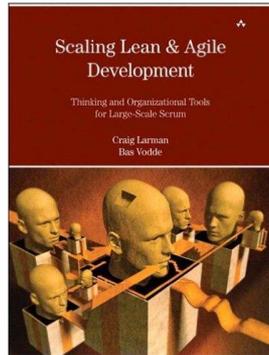
Gene significantly contributes to global and local agile communities, where he influences people by running workshops, webinars, seminars, panel discussions, lunch & learn, coaching retreats, professional gatherings and other events. While teaching and coaching Large Scale Scrum (LeSS) to organizations, Gene has built the biggest in world (today) [LeSS meetup community](#) that is used as a free educational hub about LeSS available to many people.

Assets To Consider

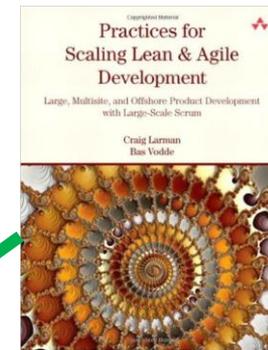
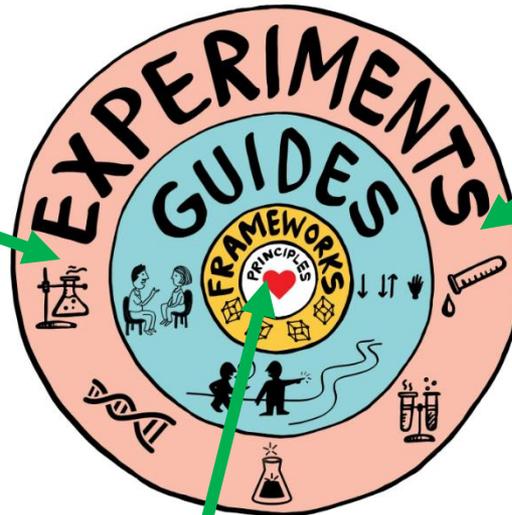
- gg_nyc@yahoo.com (underscore)
- <https://less.works/>
- <https://www.meetup.com/Large-Scale-Scrum-LeSS-in-NYC/>
- https://join.slack.com/t/kstsconsulting/shared_invite/zt-dr3bqtxg-HFX6Ke1~AdbIEOIUJY0gEg (Gene's free Slack channel – ask questions about LeSS)
- [**6/03-05 \(14:30 EST\) Certified LeSS Basics**](#)
- [**6/10-12 \(12:00 EST\) Certified LeSS Basics**](#)



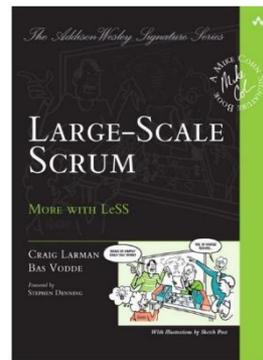
LeSS – The Big Picture & History



2008



2010



2016

FIRST READ	THEN READ	THEN READ
Large Scale Scrum: More With LeSS, Larman/Vodde (2016)	Scaling Lean & Agile Development, Larman/Vodde (2008)	Practices for Scaling Lean & Agile Development, Larman/Vodde (2010)

<https://seattlecscrum.com/downloads/Why-Scrum-Isnt-Making-Your-Company-Very-Agile-v2.pdf>

Important

Organizational STRUCTURE –

is the 1st Order Factor (Variable) that has impact on everything else inside ECOSYSTEM.

Everything else just follows: culture, mindset, behaviors, norms, values, processes, policies

e.g. metrics, velocities, OKRs, KPIs, RAGs, maturity levels – much less relevant

This is what some less experienced agile coaches do not stress, when they coach senior management 😞

Statistics (For Transparency)

CHALLENGES EXPERIENCED WHEN ADOPTING & SCALING AGILE

The top three responses cited as challenges/barriers to adopting and scaling Agile practices indicate that internal culture remains an obstacle for success in many organizations.

Please, note what the biggest challenges are ...



*Respondents were able to make multiple selections

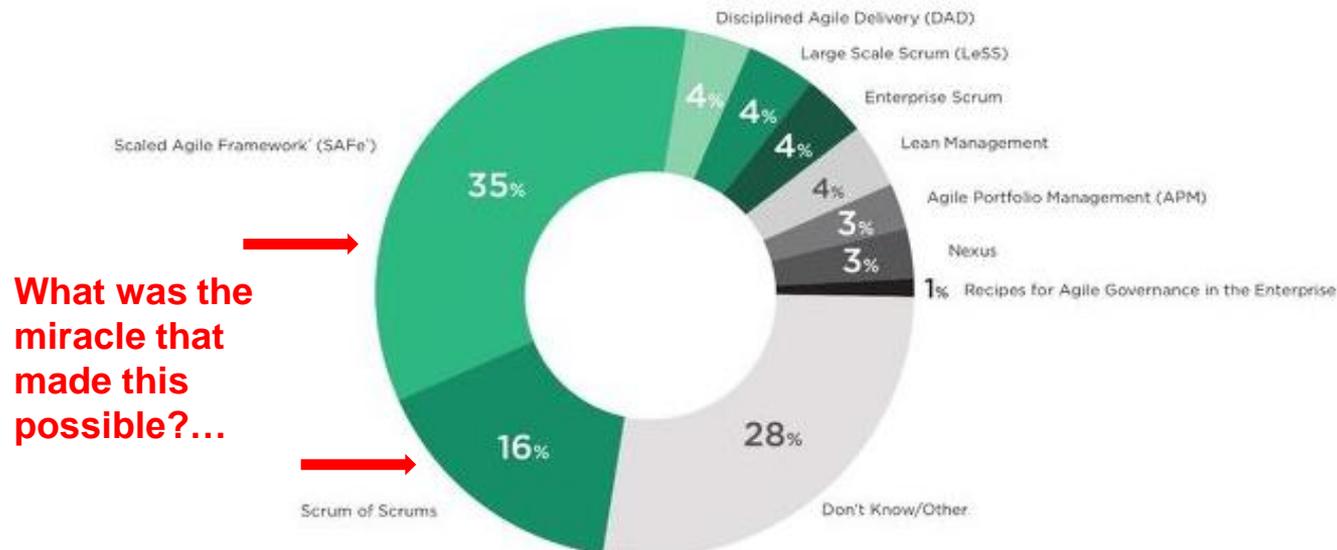
<https://explore.digital.ai/state-of-agile/14th-annual-state-of-agile-report>

Statistics (For Transparency)

SCALING AGILE

SCALING METHODS AND APPROACHES

The Scaled Agile Framework® continues to be the most popular scaling method cited by respondents (35% this year compared to 30% last year). As a percentage of all responses, SAFe® outdistances the next nearest response, Scrum of Scrums, by 19%.



What was the miracle that made this possible?...

<https://explore.digital.ai/state-of-agile/14th-annual-state-of-agile-report>

Degree of “framework implementation success” is *inversely* proportional how it [framework] challenges organizational design problems.

DO NOT (1-4)

Larman's Laws of Organizational Behavior

[\(Russian translation here\)](#)

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).**

5. Culture follows structure.

Or, *Culture/behavior/mindset follows system & organizational design*. i.e., If you want to really change culture, you have to start with changing structure, because culture does not really change otherwise. By the way, this is an observation in large-scale; in small start ups, it's the reverse: structure follows culture (org design follows mindset).

And "culture follows structure" (in large scale) is why deep systems of thought such as *organizational learning* are not very sticky or impactful by themselves in large scale, and why systems such as Scrum (that have a strong focus on structural change at the start) tend to more quickly impact culture — if the structural change implications of Scrum are actually realized.

I discovered that the well-known systems-thinker/advocate John Seddon also observed this: "*Attempting to change an organization's culture is a folly, it always fails. Peoples' behavior (the culture) is a product of the system; when you change the system peoples' behavior changes.*"

UNDERSTAND

It is vital to appreciate that organizational agility cannot be achieved by a development team in isolation -- it is a system challenge for organizational redesign. Especially when you are interested in LeSS within an R&D department of thousands, where each product group may have 200 or 700 people distributed in two or five sites around the world. If an engineering team has the technical capacity to adapt or change quickly, but requirements management, legal practices, product management, HR policies, site strategies, and deployment processes all emphasize rigidity, conformance to original plans, conformance to the status quo, and slow practices, then how can there be real agility?

Source: <https://www.scrumalliance.org/community/spotlight/craig-larman/june-2015/less-agile-or-less-agile>



<http://www.keystepstosuccess.com/2017/08/agile-organization-as-a-sushi-roll/>

DO



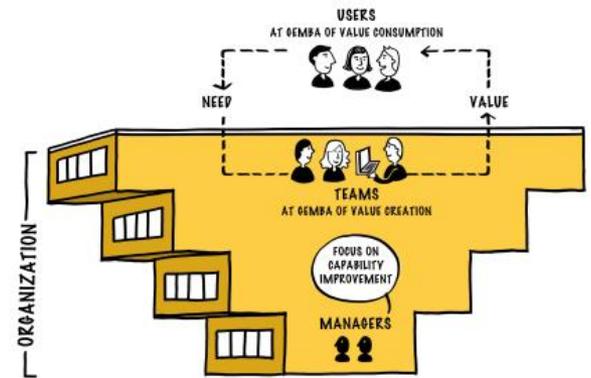
UNDERSTAND

Three (3) Adoption Principles of LeSS

➤ Deep and narrow over broad and shallow

➤ Top-down and bottom-up

➤ Use volunteering

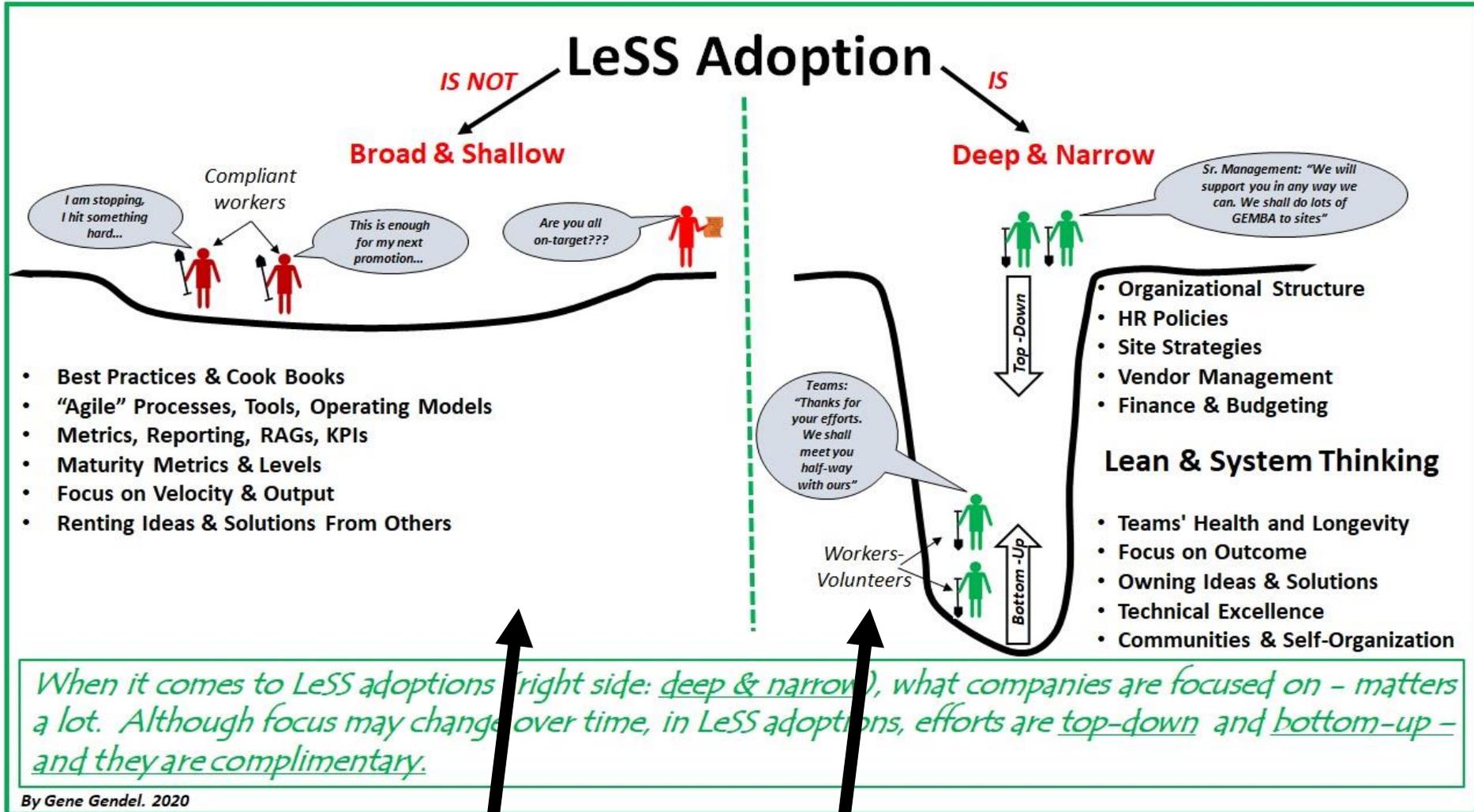


<http://lessworks.com>



<http://lessworks.com>

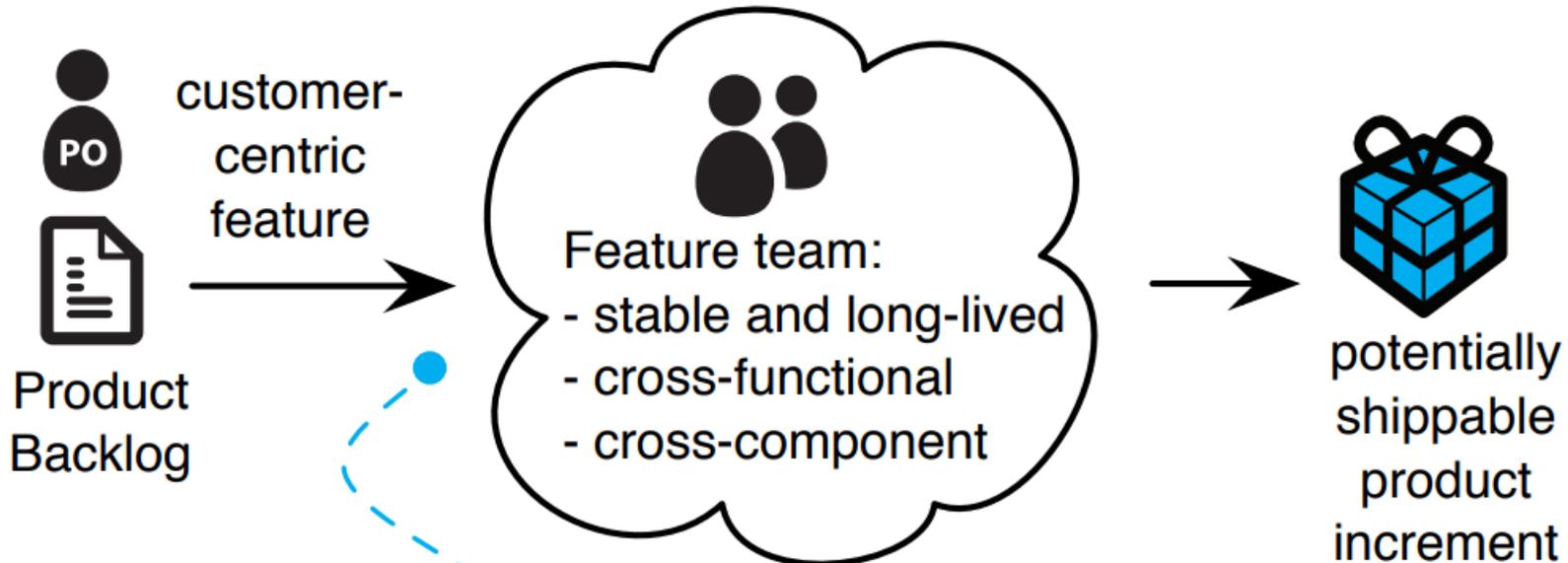
Three (3) Adoption Principles of LeSS



NO

YES

LeSS is Scrum-based Approach

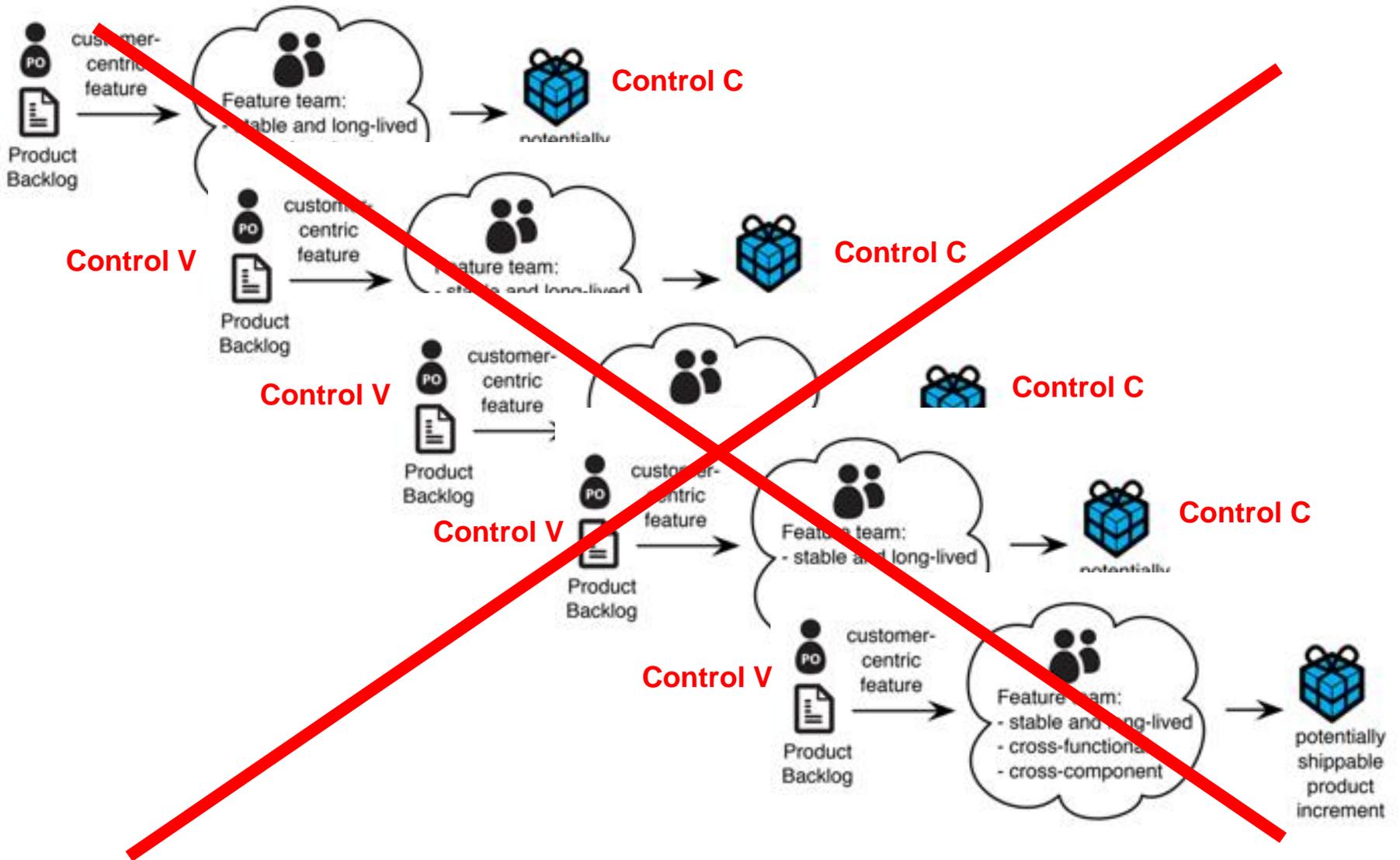


Team has the necessary knowledge and skills to complete an end-to-end customer-centric feature. If not, the team is expected to learn or acquire the needed knowledge and skill.

www.craiglarman.com
www.odd-e.com

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LeSS is NOT



Beware of Scrum Anti-Patterns

Scrum Anti-Patterns

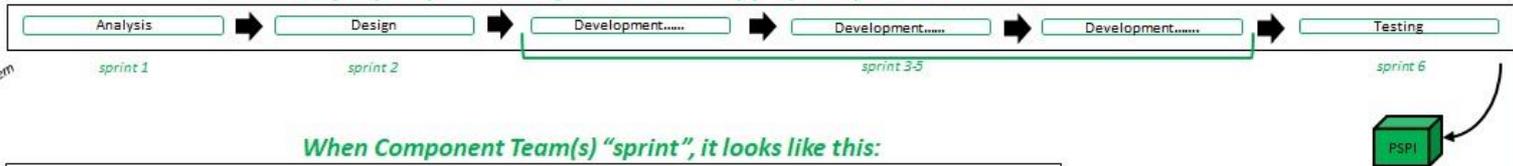
In Scrum, in every Sprint, a team delivers Potentially Shippable Product Increment (PSPI). **This is fundamental for Scrum.** In order for this to happen, each team must possess all necessary attributes (skills, knowledge, domain expertise) required to get work fully DONE (potentially shippable). This is what makes Scrum - real Scrum. Many teams that lack the required Scrum attributes still attempt to sprint, however, effectiveness of such "sprint-like activities" is significantly reduced. **Not all anti-patterns of Scrum are equally obvious.**

- separate, phase-specific backlogs or single backlog with phase-specific items
- local optimization by single-skill specialists (e.g. PM, BA, QA, Architect, Developer)
- hand-overs, toll-gates, "internal contracts"
- long periods of down-time by specialists, when it is not "their phase" to work
- "water-scrum" / "scrum-fall"
- Very weak Definition of Ready & Done
- PSPI - takes many sprints to produce

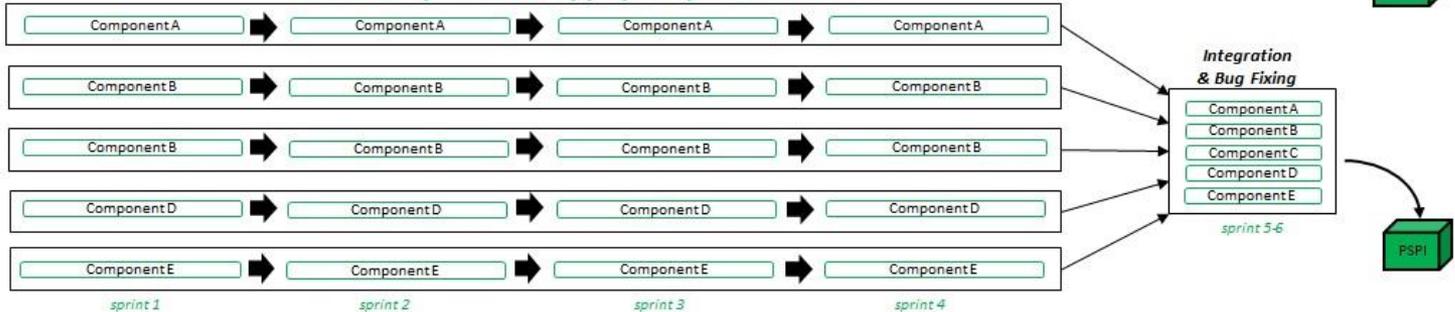


More obvious anti-pattern
Less obvious anti-pattern

When Waterfall / Sequential Project Phase Team(s) "sprint", it looks like this:

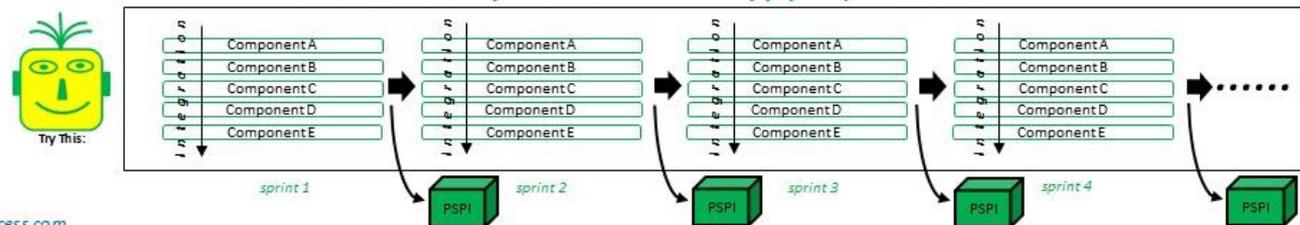


When Component Team(s) "sprint", it looks like this:



- separate, component-specific backlogs or single backlog with component-specific items
- local optimization by component specialists (e.g. UI/UX, middle-tier, back-end, web service, architecture)
- hand-overs, toll-gates, "internal contracts"
- multiple non-development sprints needed to integrate all components and fix bugs
- Weak Definition of Ready & Done
- PSPI - takes many sprints to produce

When Cross-Functional/Feature-Centric Team(s) sprint, it looks like this:



- single, shared, customer-centric backlog
- single, empowered Product Owner
- shared ownership of work, no siloes
- swarming by T-shaped people
- Strong Definition of Ready & Done
- PSPI - every sprint



Try This:

Brought to you by www.kevstestostosuccess.com

KSTS Consulting

LeSS Is Scrum with 2-8 Teams

LeSS is not: Many teams doing their own Scrum

LeSS is: 2-8 teams scrumming together (on same Product)

Different people with strategy, and vision, setting a different course



NO

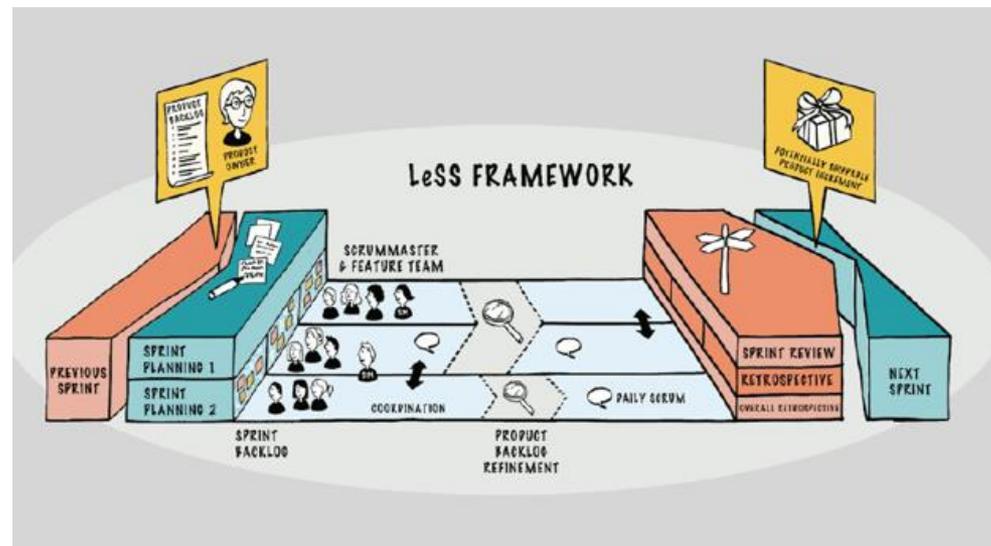
Same person with strategy, and vision, setting a unified course



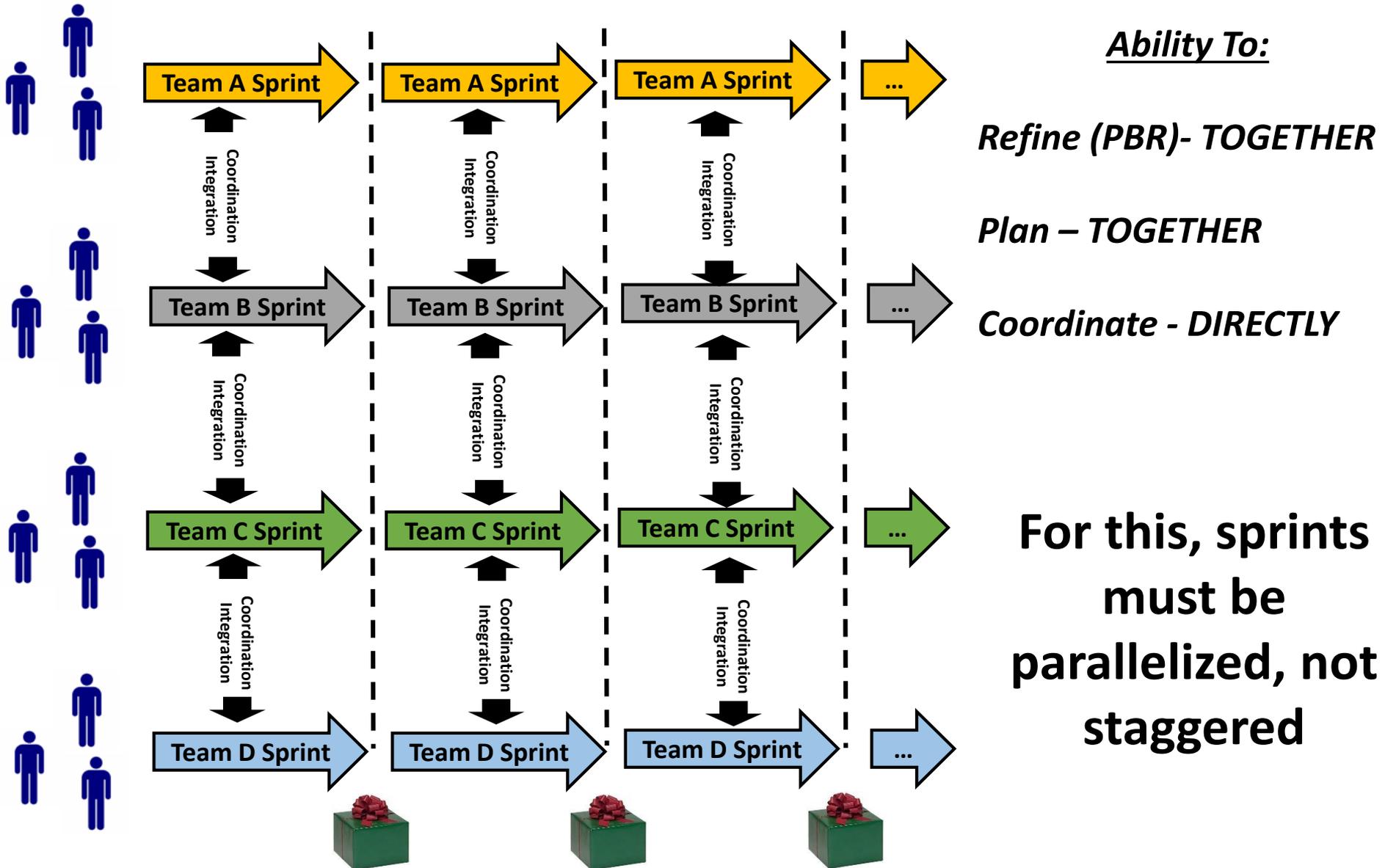
YES

Size of LeSS Adoption

- LeSS adoptions require months of preparation and then a 'FLIP'.
- LeSS is no more than 70+/- a few, people: don't try to bite more than you can swallow
- 2-8 Teams
- **One Product. One Product Owner. One Backlog**
- **NB:** (LeSS HUGE adoptions are incremental and take years)



Sprint Cadence in LeSS: One LeSS Sprint

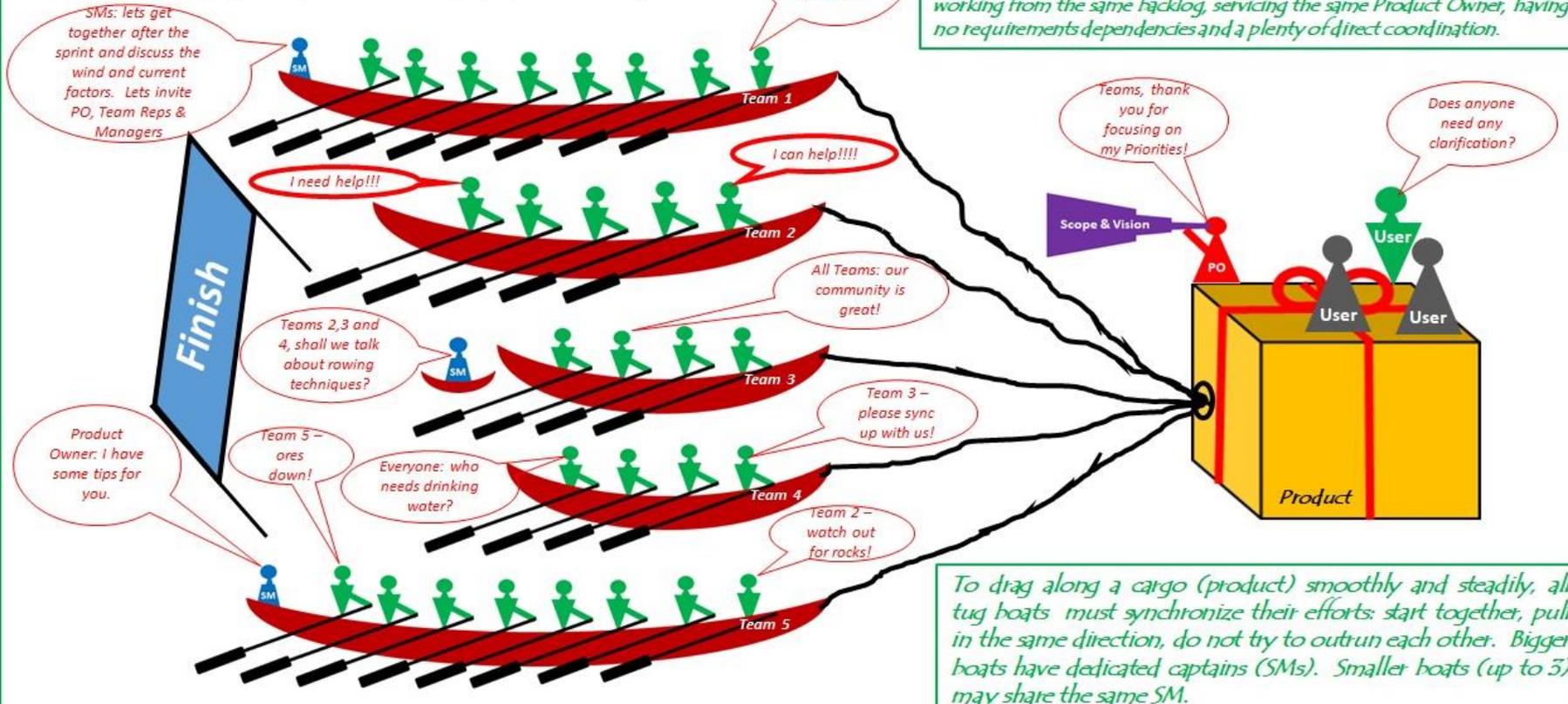


Sprint Cadence in LeSS

- One Product-level sprint
- Whole Product focus
- Shared Definition of Done (DoD) by all teams
- Teams working together/communicating by: "just talk" or "just scream"

LeSS - is NOT many teams, doing their own Scrum, sprinting ad-hoc, working from separate team backlogs, servicing different Product Owners, dealing lots of dependencies and coordination.

LeSS - IS Scrum, done by multiple (2-8) teams, sprinting together, working from the same backlog, servicing the same Product Owner, having no requirements dependencies and a plenty of direct coordination.



To drag along a cargo (product) smoothly and steadily, all tug boats must synchronize their efforts: start together, pull in the same direction, do not try to outrun each other. Bigger boats have dedicated captains (SMs). Smaller boats (up to 5) may share the same SM.

By Gene Gendel. 2020

DO NOT

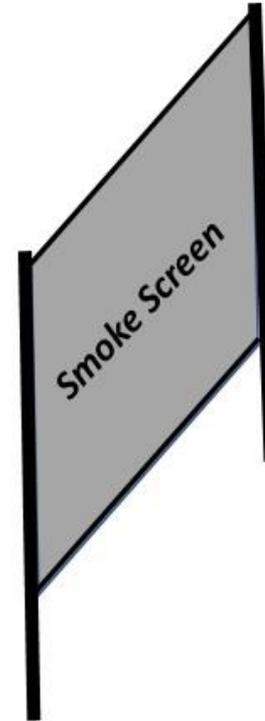
Scrum Blind Date [with Mask Show]



...while **Team** wishes to have a real **Scrum Master** (servant-leader, promoter and supporter of Scrum process), AND a real **Product Owner** (empowered person, responsible for management and prioritization of Product/Backlog)....



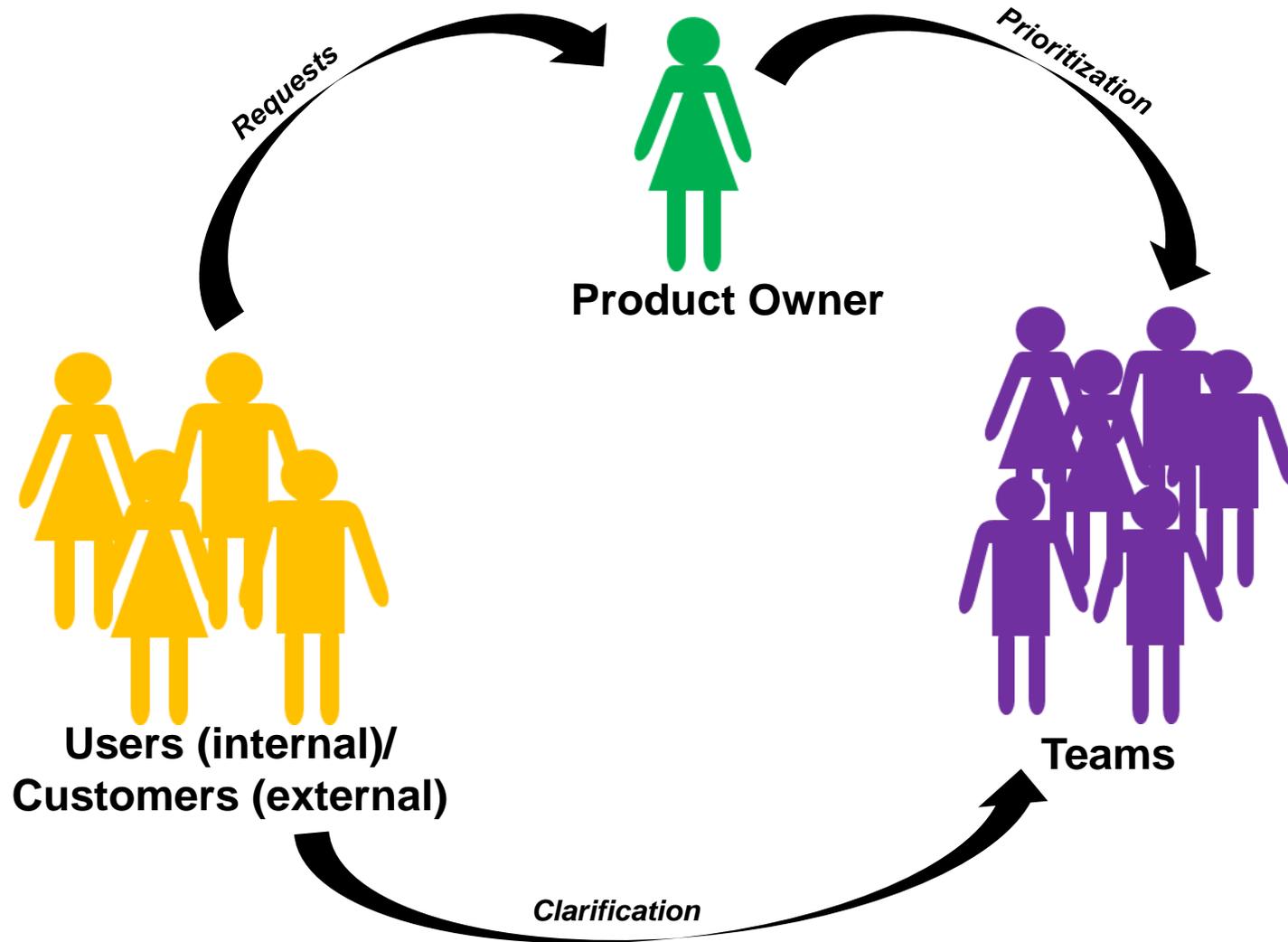
***This is
What
Team
Gets***



...organization assigns any historically abundant, but frequently unsuitable candidates to fulfill these two important Scrum roles, and by doing so, adds challenges, dysfunctions and inefficiencies to the Scrum process... Such classic organizational mistakes, as internal contractual relationships, bureaucracy, overhead and local optimization, find their way into Scrum and adversely impact its dynamics...

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Product Owner: Prioritization vs. Clarification



Condition For Success



Bad SQL

(in HR Database)

It is amazing if your company, creates the following important titles (marked in red) in its HR database, to support agile roles and careers. However, it is a sign of a deep systemic dysfunction and 'agile masquerade', if the following SQL queries are ran, as a batch job, overnight... @

```
UPDATE table_employee
  SET table_employee.title = 'Senior Agile Coach'
WHERE table_employee.title = 'Senior Project Manager'
```

```
UPDATE table_employee
  SET table_employee.title = 'Scrum Master'
WHERE table_employee.title = 'Junior Project Manager'
```

```
UPDATE table_employee
  SET table_employee.title = 'Product Owner'
WHERE table_employee.title = 'Business Analyst'
```

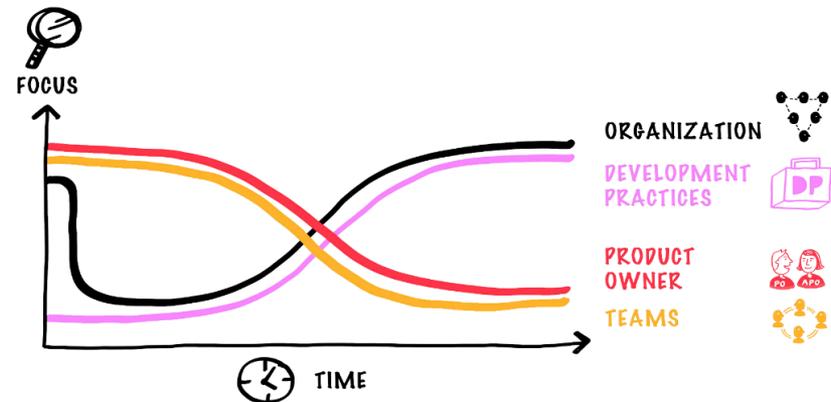
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NO

YES

Dedicated full-time role

In LeSS, the ScrumMaster role is vital. We've seen many organizations try part-time ScrumMasters, which usually leads to no ScrumMasters at all. This then affects the LeSS adoption enormously. In LeSS the ScrumMaster is a dedicated, full-time role in the same way that being a Scrum Team member is a dedicated, full-time role. Having said that, it is possible for one full-time ScrumMaster fill the role for up to three teams, depending on any number of factors.



DO NOT

Misunderstood

The ScrumMaster role is a new one and often not understood by teams and organizations who are adopting Scrum. A frequent response is to make the “leftover people” the ScrumMasters. They might be nice people but often lack the right skills, motivation, and Scrum knowledge to be effective ScrumMasters. They morph the role into something else which then becomes accepted within the organization as the way a ScrumMaster should be. After all, the ScrumMaster should know if they’re doing things correctly, right? Sometimes well-meaning ScrumMasters who are new to Scrum or not a good fit for the ScrumMaster role cause things to happen that are actually counter to Scrum and detrimental to Scrum adoption, thereby transforming them into anti-ScrumMasters.

Is there Career Path for F/T Scrum Master?

Dedicated full-time role

In LeSS, the ScrumMaster role is vital. We’ve seen many organizations try part-time ScrumMasters, which usually leads to no ScrumMasters at all. This then affects the LeSS adoption enormously. In LeSS the ScrumMaster is a dedicated, full-time role in the same way that being a Scrum Team member is a dedicated, full-time role. Having said that, it is possible for one full-time ScrumMaster fill the role for up to three teams, depending on any number of factors.

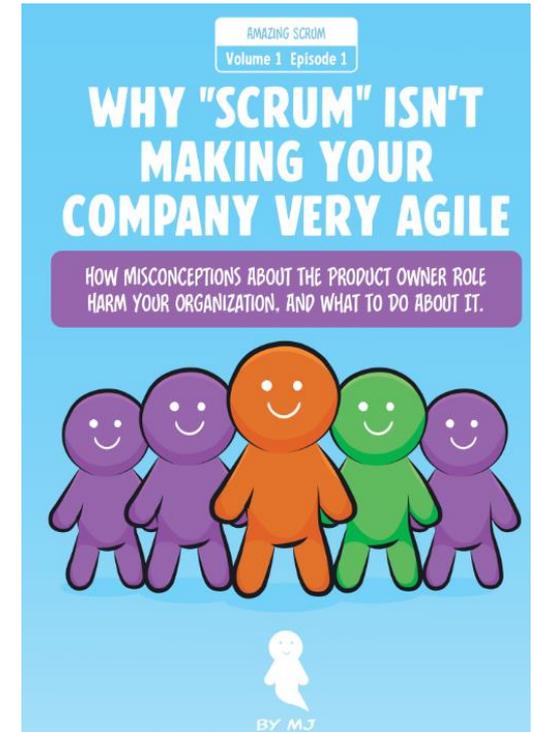
No Team Output Owner (“TOO”)



0:05 / 9:42



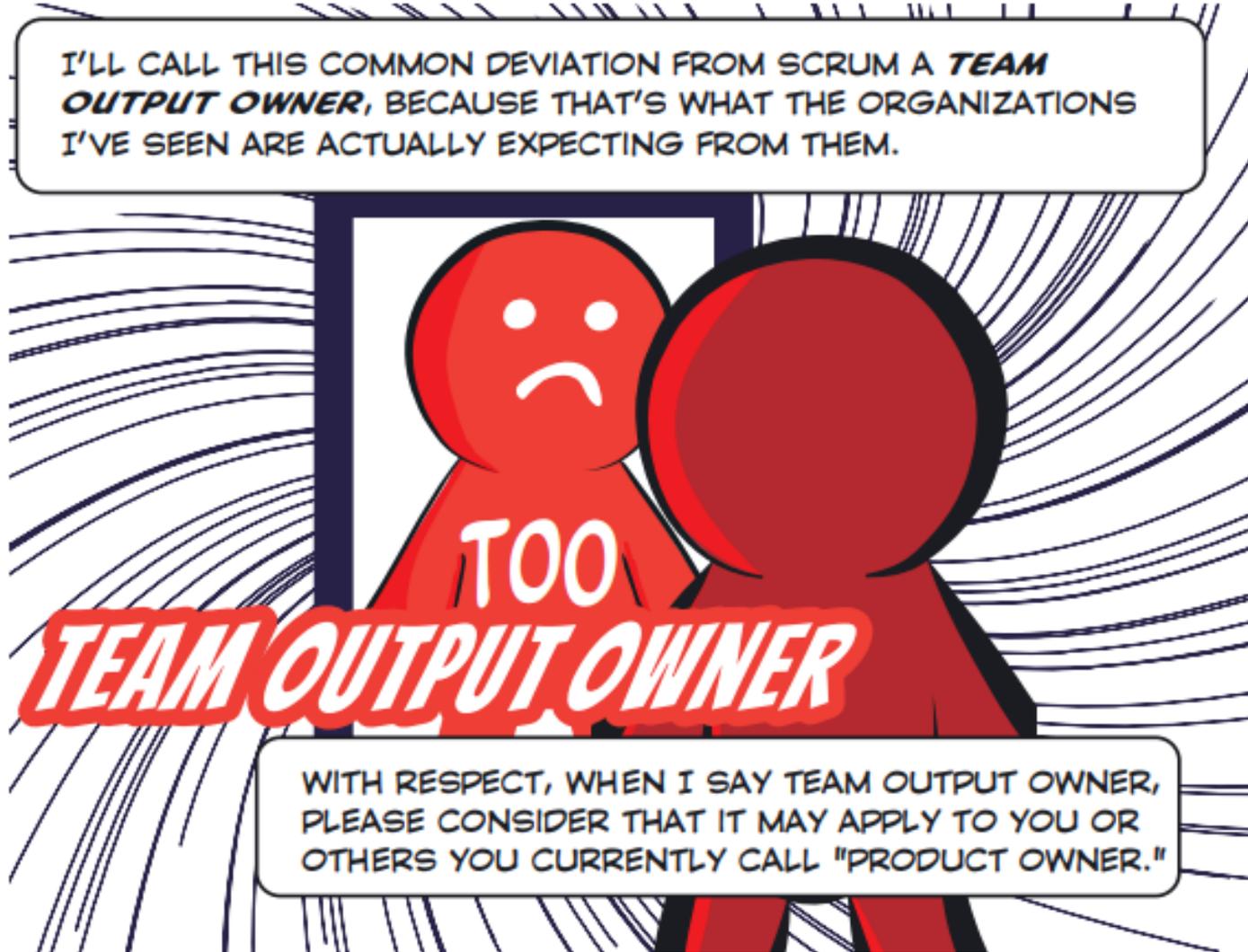
Why "Scrum" Isn't Making Your Organization Agile: Harmful Misconceptions About Product Owner Role



MJ (MICHAEL JAMES)
has written many things,
including the Scrum Master Checklist at
<http://ScrumMasterChecklist.org>
Email him at mj@seattlescrum.com
or tweet him at [@michaeldotjames](https://twitter.com/michaeldotjames)

<https://www.youtube.com/watch?v=cr2rjaGmUzo>

Team Output Owner (TOO): “More-More-More”



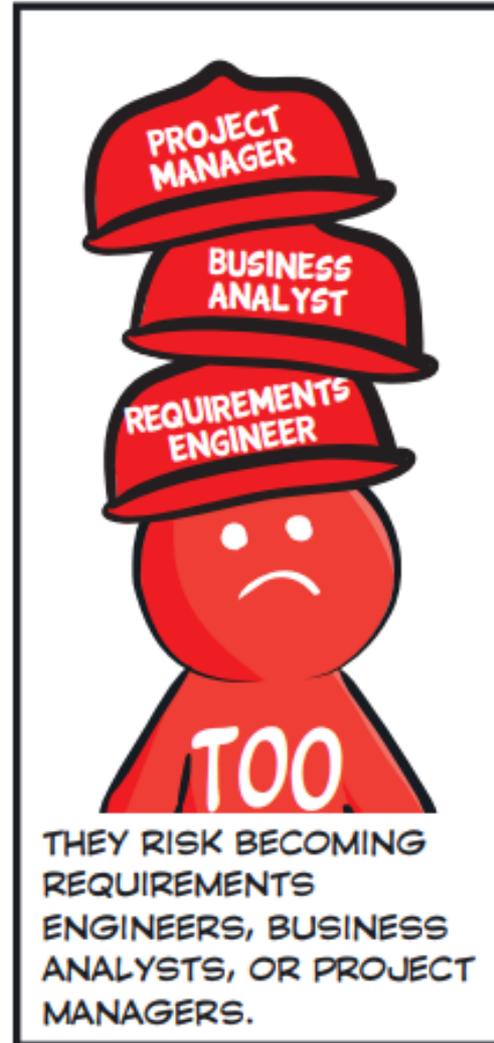
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<https://seattlecrum.com/downloads/Why-Scrum-Isnt-Making-Your-Company-Very-Agile-v2.pdf>

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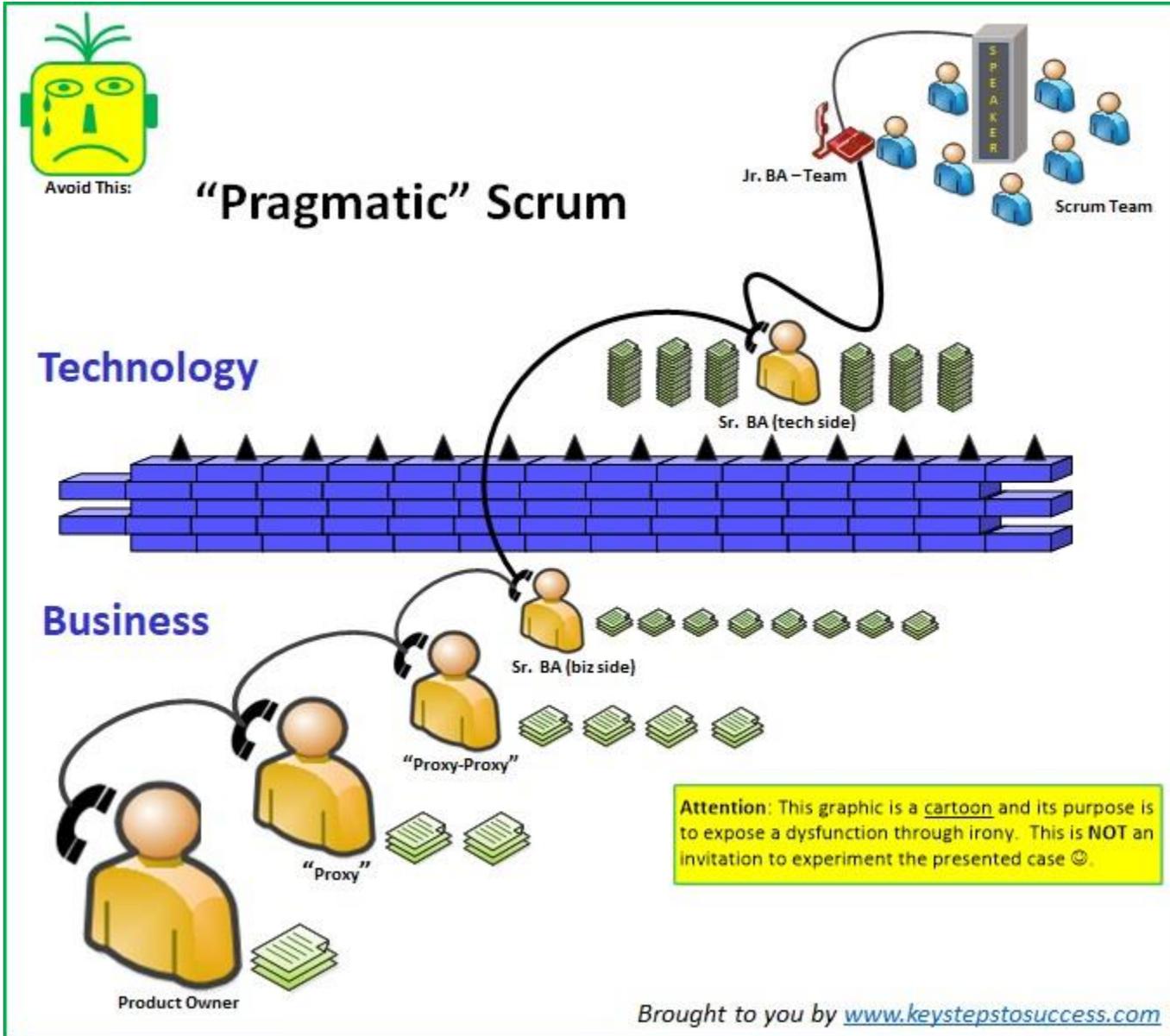
Team Output Owner (TOO): “Accountability”



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18

DO NOT



Team



<http://less.works> 

Team Maturation

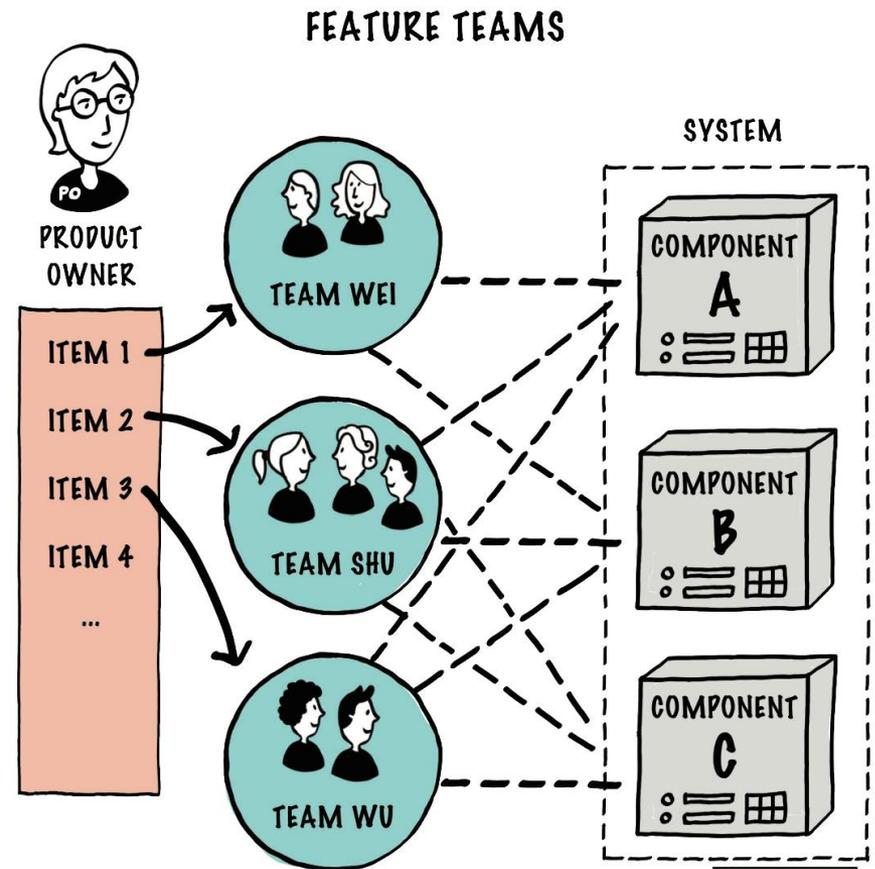
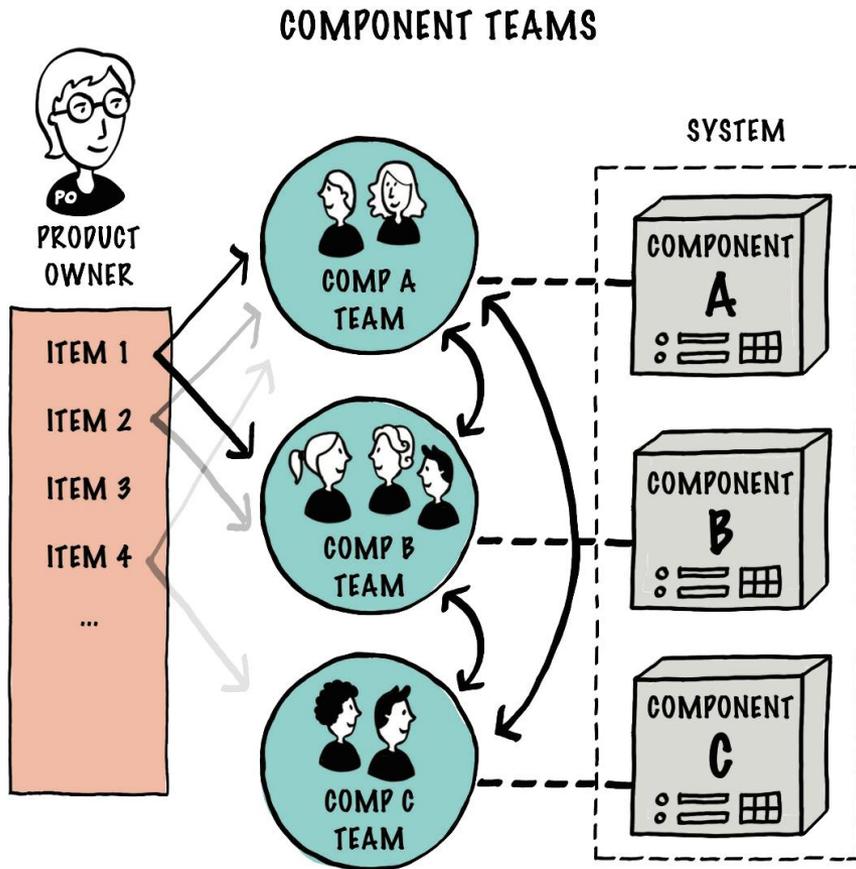
Types of teams

Setting overall direction				
Designing the team and its organizational context	Management Responsibility			
Monitoring and managing work process and progress		Team's Own Responsibility		
Executing the team task				
	Manager-led teams	Self-Managing teams	Self-Designing teams	Self-Governing teams

Figure 1. Types of Teams.

Source: <https://less.works/resources/graphics/index.html>

DO & DO NOT Local Optimization



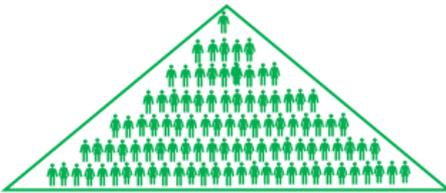
<http://less.works> CC BY-ND

APPENDIX

Less is More

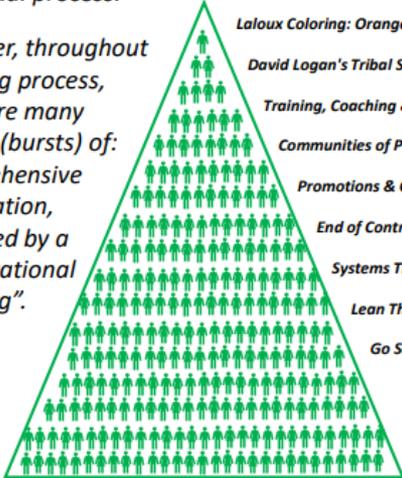
Scaling Organizational Adaptiveness (a.k.a. "Agility") with Large Scale Scrum (LeSS)

Organizational De-Scaling / Flattening



Organizational de-scaling (flattening) takes months and years to complete and from a high perspective, looks like a gradual process.

However, throughout this long process, there are many phases (bursts) of: comprehensive preparation, followed by a organizational "flipping".



- Improved HR policies
- Management → Leadership
- End to faked "Projects/Portfolios"
- Theory X → Theory Y
- Abolishing Performance Appraisals
- Laloux Coloring: Orange → Green
- David Logan's Tribal Stage: 3 → 4
- Training, Coaching & Mentoring
- Communities of Practice
- Promotions & Career Paths
- End of Contract Game
- Systems Thinking
- Lean Thinking
- Go See (Gemba)

Diagram created by Gene Gendel

LeSS

Simplified (flatter) and **inverted** (senior leadership is in supportive function) **organizational design**. **System Optimization**. Reduction of: silos, hand-overs. Scrum is implemented by coordinated, feature-centric teams (2-8), building the same, widely defined Product/serving the same Product Owner. Scrum is the main building block of IT org. structure. Teams are collocated. Teams strive to 'own' their decisions, not 'rent' from others. Adoption of LeSS is "deep & narrow", not "broad and shallow"; no Big Bang transformation attempts.

Multi-site development - used for multiple locations. Reliance of technical **Mentoring** and **Communities**. No subsystem code ownership. Reduction of 'undone' work. Focus on **Customer value**. Support of Senior Leadership. **Involvement of HR**, supporting the concept of **job security, not role security**.

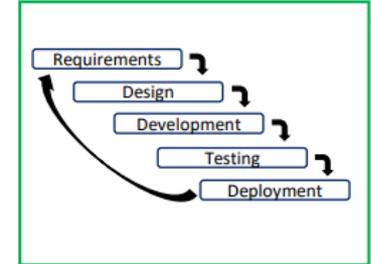
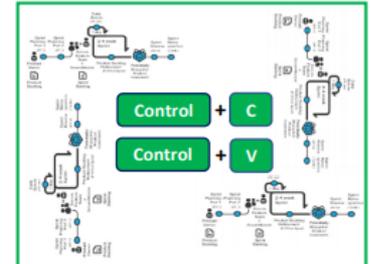
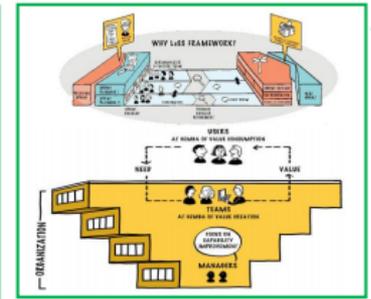
Transition from independent basic Scrum, performed by multiple teams to LeSS, is a desirable approach, when a product is widely defined and real Product Owner is identified

Scrum

Copy-paste scaling (no conscious scaling strategy) of Scrum throughout an organization: many teams doing their 'own' Scrum. Frequently manifested, when there is an internal competition between departments or company areas, on e.g. "who is going to have more scrum teams by e.g. end-of-year". True product definition is weak. Cases of using **Scrum for component-centric development** are frequent (often, the result of trying to meet goals of agile transformation (% annually), set at enterprise level. This results in massive integration problems that need to be resolved by adding "integration/stabilization" sprints. Importance of **Scrum dynamics and roles is viewed as secondary**, to existing organizational structures and blueprints. Too many single-specialty experts and very few T-shaped workers. **No meaningful HR changes**.

Waterfall

Complex organizational design. Domains of single-function expertise, ownership and control. Numerous silos, hand-offs and translational layers between component teams, single-function specialty groups, and technology and business, overall. **Internal contracts and blame-shifting** strongly prevail. Long cycle "from concept to cash". **Local optimization** by single-specialty workers/departments. **Theory X management** – is the primary way to manage/treat individuals. **HR** – putting a lot of emphasis on performance appraisals and individual ownership; manipulating workers with **subjective bonuses**; fostering an environment of **internal competition** and "I am the best and you are not" attitude. Weak definition of product value, from a stand-point of a paying customer. Manifestation of **Larman's Laws of Organizational Behavior**.



Graphics are courtesy of <https://less.works>

Scaling Scrum

Waterfall

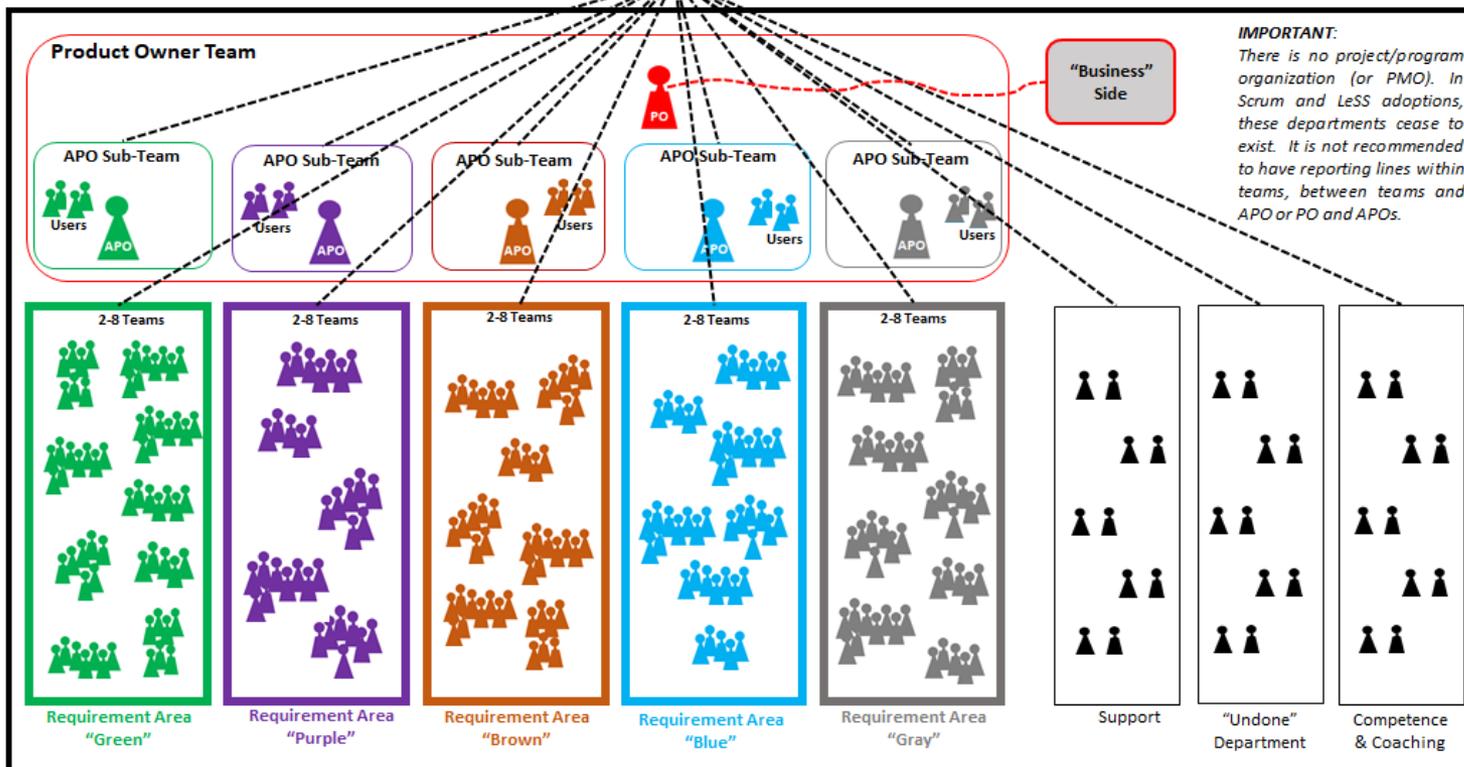
Source: http://www.keystepstosuccess.com/wp-content/uploads/2018/02/scrum_scaling_org_descaling-1.pdf

Relationships in LeSS

Guide: TRY.... Keeping LeSS Huge Organizational Reporting Structure As Flat and Simple As Possible

Product Owner Team— Product Owner plus all Area Product Owners. Conceptually, the same as in a LeSS structure. In huge LeSS Huge, there are also APO Sub-Teams that are, essentially, what is Product Owner team is in LeSS. Each APO Sub-Team consists of Area Product Owner and customers/users that can help APO with clarification and other daily work (NOT departments of analysts, specification writers, UI/UX designers, or architects).

Head of Product Group - most likely, a traditional “head of product group”. Whereas the whole group supports teams by Go See and help them remove obstacles and improve, Head of Product Group plays the *role of the line manager* of all the teams, whatever that is called in your organization. Product Owner Team members (including APO Sub-Teams) and all developers from teams in requirement areas, as well as people in other supportive organizational structures (e.g. support, 'undone' department, competence & coaching) -all report to Head of Product Group. **Note:** Since LeSS organizations don't have matrix structures, there are no dotted-line managers.



IMPORTANT:

There is no project/program organization (or PMO). In Scrum and LeSS adoptions, these departments cease to exist. It is not recommended to have reporting lines within teams, between teams and APO or PO and APOs.

Undone department - e.g. test, QA, architecture, or business analysts - they should not exist in the smaller LeSS framework groups; rather, they should be integrated into the teams. Undone department is still frequently seen, in some LeSS adoptions, as they often cross organizational boundaries. A goal in every LeSS adoption should be to remove an undone department.

Support - In a LeSS Huge organization, it typically centralizes some support because of the massive volume of work. Still, this department should be as small as possible with the attitude "How can we help?" rather than "Take it this way!" This department is less likely to exist in smaller LeSS organizations, where teams support each other without the need for a separate, centralized group.

Competence and Coaching (technical, organizational) - group consists of skillful practitioner-experts who actively Go See and observe how people work. They pair up and work with people to discover their training and coaching needs.

By Gene Gendel. 2020