Proper Scaling of Scrum And Dynamic Financial Forecasting

Presented @ Best Agile Articles of 2019

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**

Adaptive Ecosystems
The Green Book: Collection of Independent Essays About Agility
Gene Gendel
Agile Coaching
Wisdom from Practitioners
BEST AGILE ARTICLES OF 2017
BEST AGILE ARTICLES 2018
BEST AGILE ARTICLES 2019
Michael de la Maza, CEC • Cherie Silas, MCC

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://www.linkedin.com/in/ggnyc/

- http://www.keystepstosuccess.com/contact-us/

- https://www.meetup.com/Large-Scale-Scrum-LeSS-in-NYC/

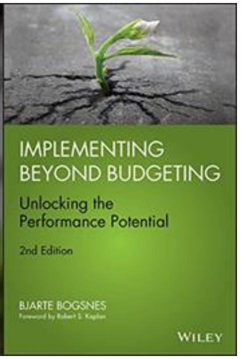
- https://join.slack.com/t/kstsconsulting/shared_invite/zt-ege93ww2-h_IAPArcR8CyujNi2umlKw (Gene's free Slack channel – ask questions about LeSS)

- http://www.keystepstosuccess.com/virtual-learning-training-coaching/

Rigid Budgets vs. Dynamic Forecasting

- Traditional budgets represent a retrospective look at past situation and conditions that may not be applicable in a future
- Even accurate assumptions get quickly outdated if cycle time is long
- Time-consuming processes add additional, financial overhead to organizations
- Rigid budgets often lead to fear of experimenting, researching and innovating – a must-do for agile/adaptive teams
- Most metrics are subjective, as they take on the form of RAG statuses
- When used as a yardstick to assess individual performance, performance indicators often lead to unethical behaviors

…If this is not obvious…



IMPLEMENTING BEYOND BUDGETING

Unlocking the Performance Potential

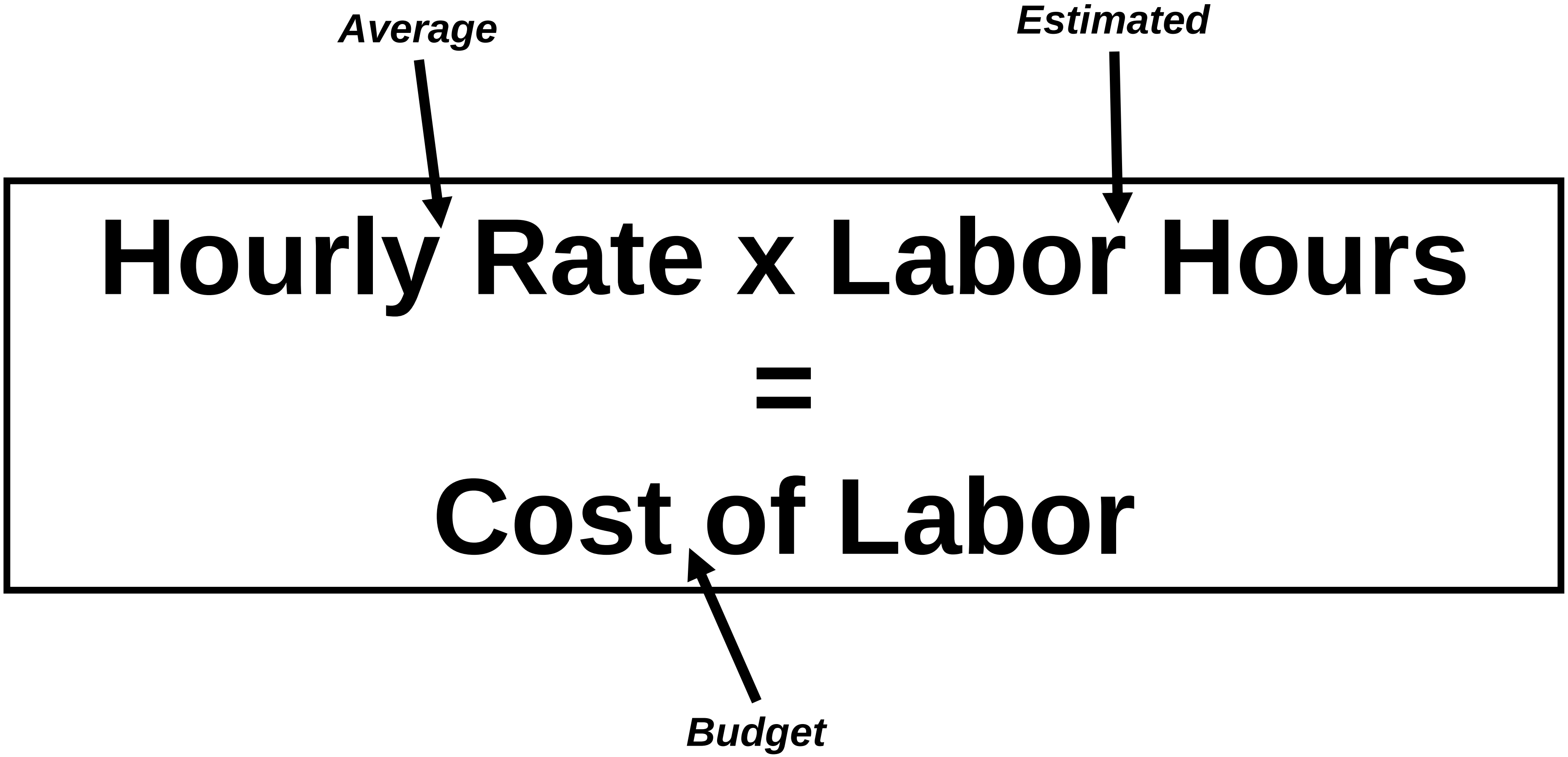
2nd Edition

BJARTE BOGSNES

Foreword by Robert S. Kaplan

WILEY

Economics of Labor (Simplified)



Average

Estimated

Hourly Rate x Labor Hours

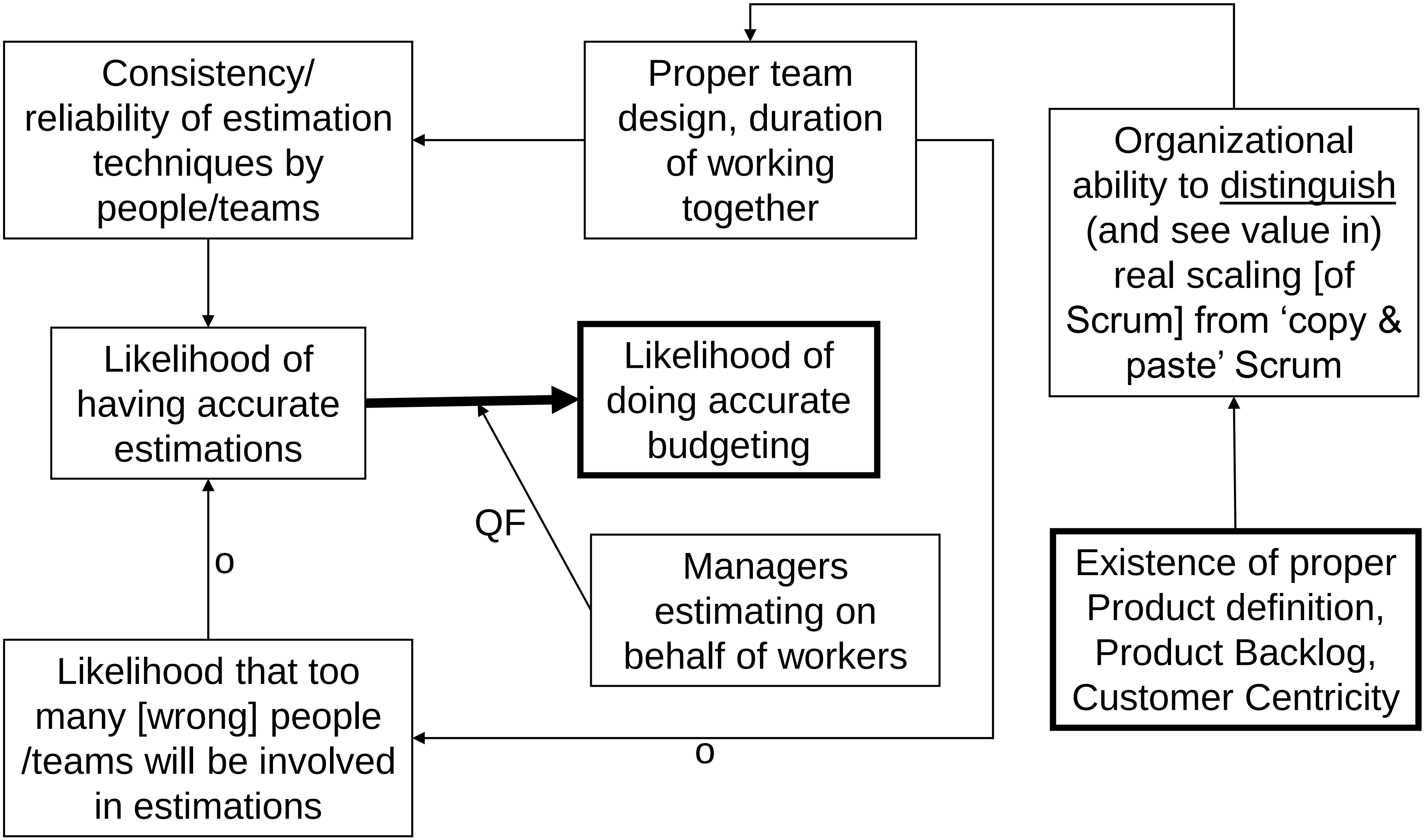
=

Cost of Labor

Budget

Modelling The ‘System’

System Goal: *to be able to do accurate budgeting*



Consistency/ reliability of estimation techniques by people/teams

Proper team design, duration of working together

Organizational ability to distinguish (and see value in) real scaling [of Scrum] from ‘copy & paste’ Scrum

Likelihood of having accurate estimations

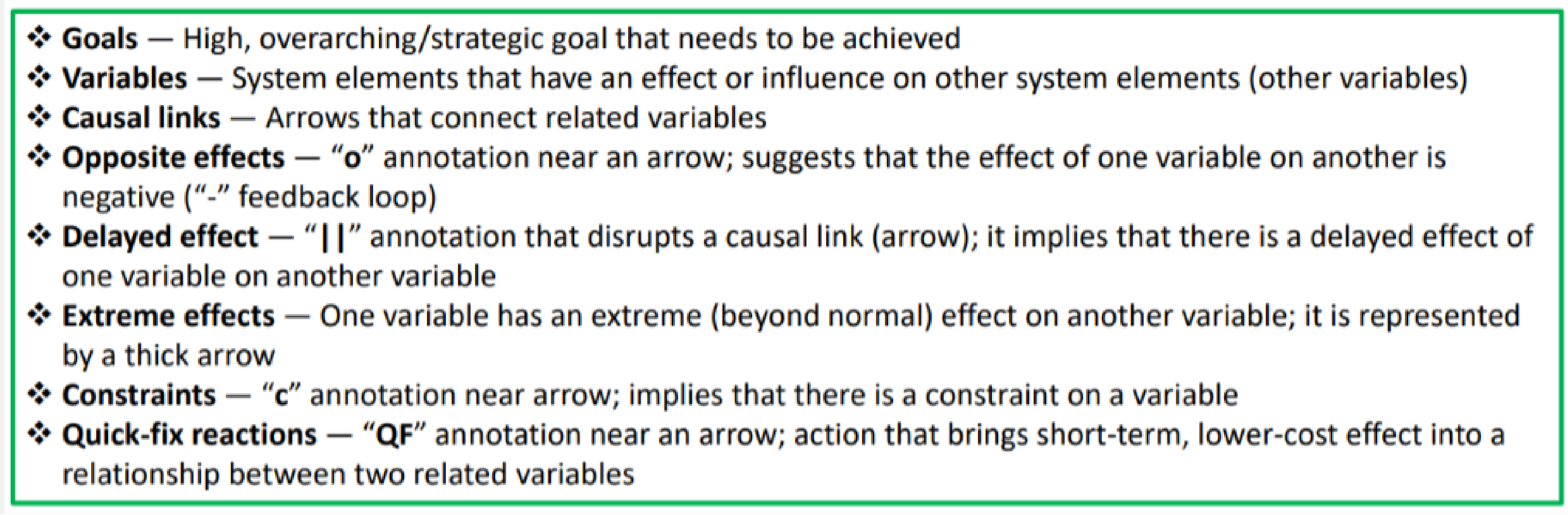
Likelihood of doing accurate budgeting

Managers estimating on behalf of workers

Existence of proper Product definition, Product Backlog, Customer Centricity

Likelihood that too many [wrong] people /teams will be involved in estimations

Modelling The ‘System’ (Legend)



- **Goals** — High, overarching/strategic goal that needs to be achieved
- **Variables** — System elements that have an effect or influence on other system elements (other variables)
- **Causal links** — Arrows that connect related variables
- **Opposite effects** — “**o**” annotation near an arrow; suggests that the effect of one variable on another is negative (“-” feedback loop)
- **Delayed effect** — “**||**” annotation that disrupts a causal link (arrow); it implies that there is a delayed effect of one variable on another variable
- **Extreme effects** — One variable has an extreme (beyond normal) effect on another variable; it is represented by a thick arrow
- **Constraints** — “**c**” annotation near arrow; implies that there is a constraint on a variable
- **Quick-fix reactions** — “**QF**” annotation near an arrow; action that brings short-term, lower-cost effect into a relationship between two related variables

Real Questions We Need To Answer

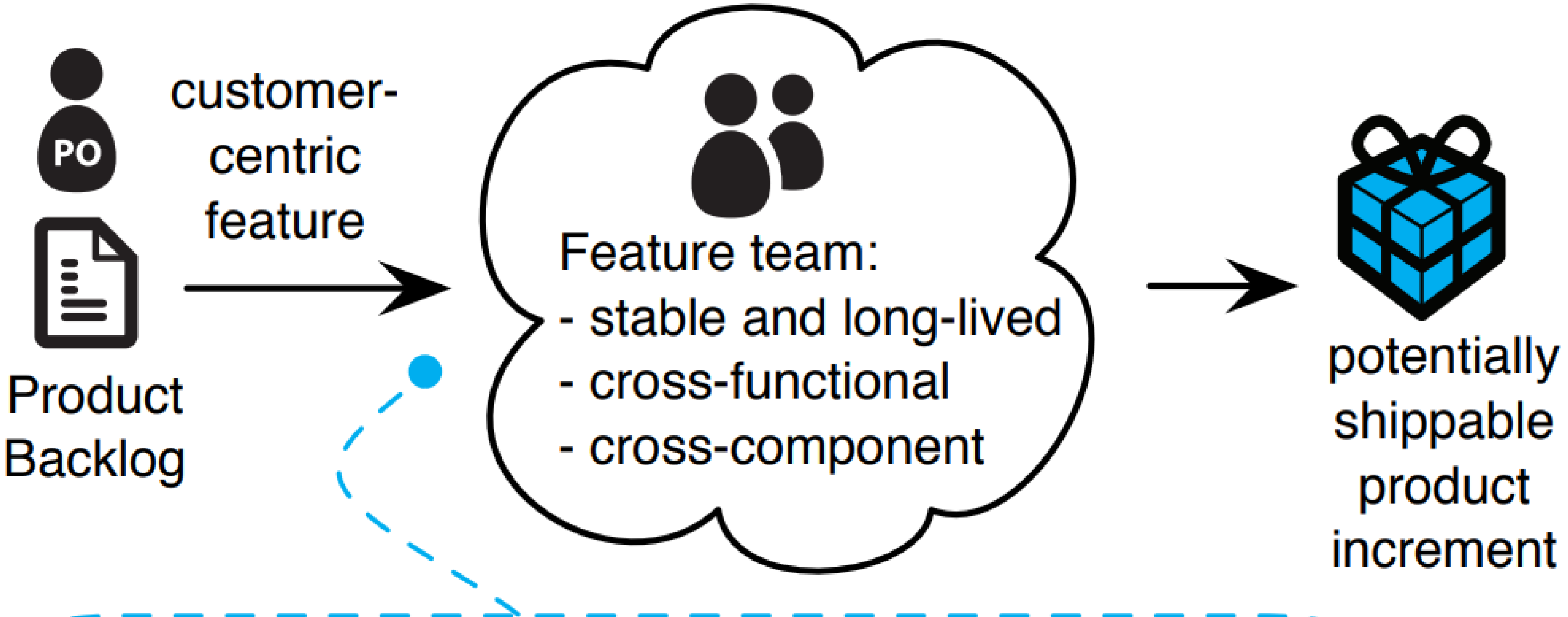
- What are people working on?

- Who is estimating?

- Why are the estimating?

- How (Often) are they estimating?

Good-Old Scrum



PO

customer-centric feature

Product Backlog

Feature team:
- stable and long-lived
- cross-functional
- cross-component

potentially shippable product increment

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.

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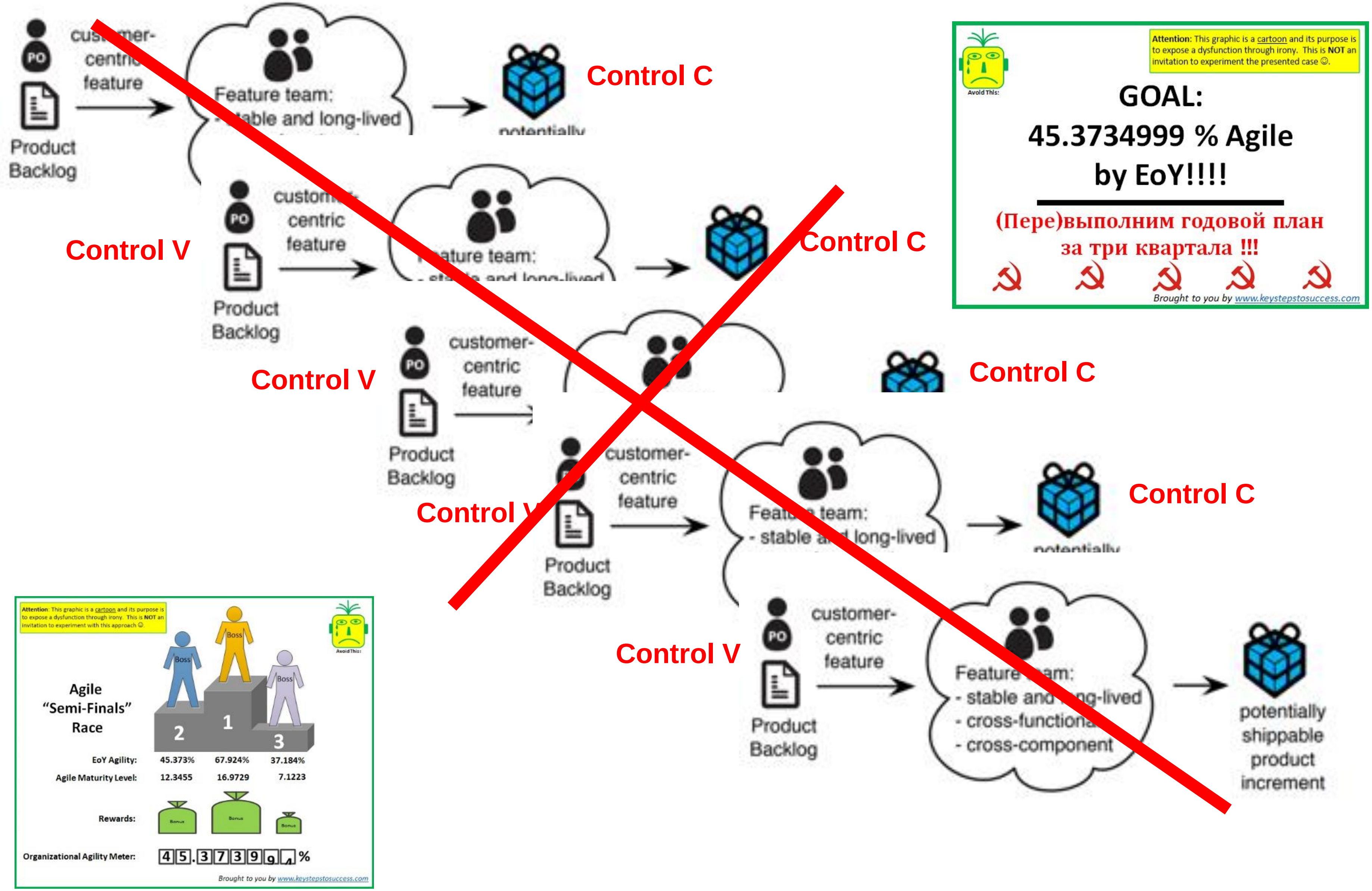
www.odd-e.com

We need a <u>REAL TEAM</u>!

Copying & Pasting Fake Scrum



Attention: This graphic is a cartoon and its purpose is to expose a dysfunction through irony. This is NOT an invitation to experiment the presented case ☺.

GOAL:
45.3734999 % Agile
by EoY!!!!

(Пере)выполним годовой план
за три квартала !!!

Brought to you by www.keystepstosuccess.com

Attention: This graphic is a cartoon and its purpose is to expose a dysfunction through irony. This is NOT an invitation to experiment with this approach ☺.

Agile "Semi-Finals" Race

	2	1	3
EoY Agility:	45.373%	67.924%	37.184%
Agile Maturity Level:	12.3455	16.9729	7.1223
Rewards:	Bonus	Bonus	Bonus

Organizational Agility Meter: 45.373994 %

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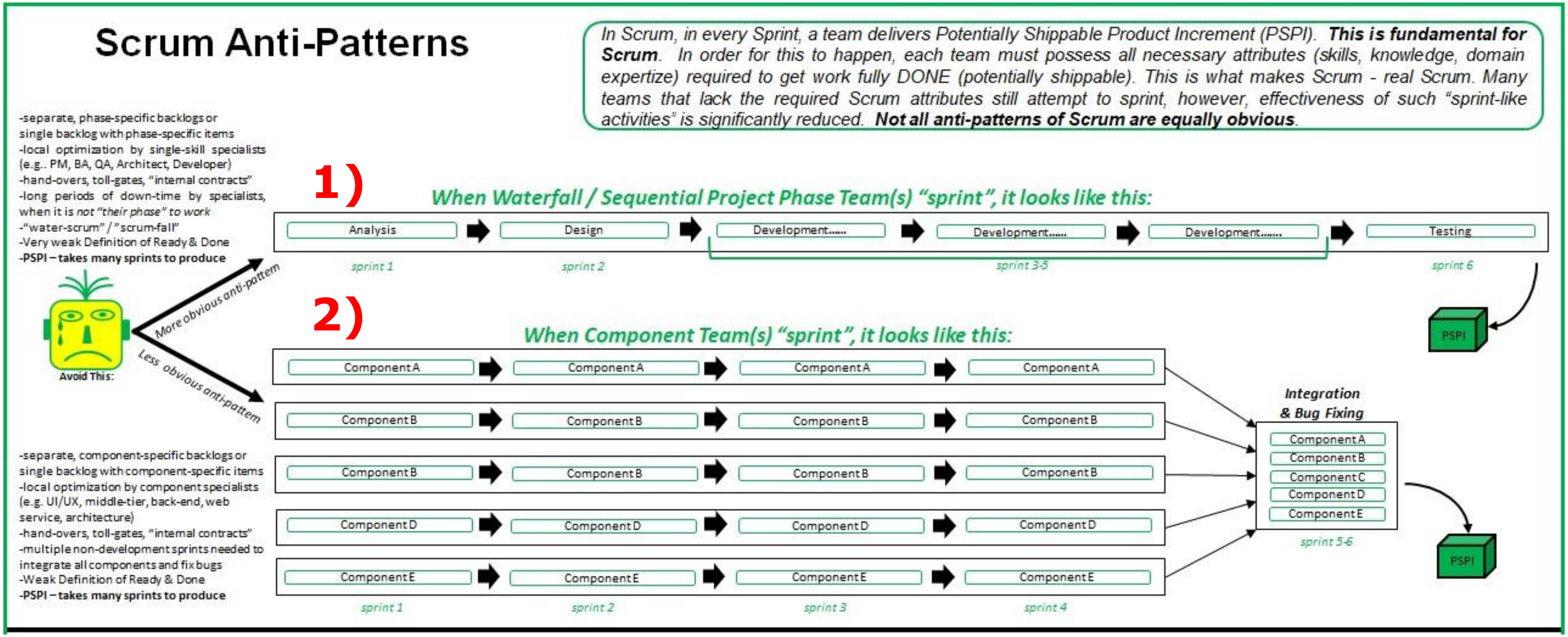
Fake Scrum & Fake Scaling



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 expertize) 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****.*

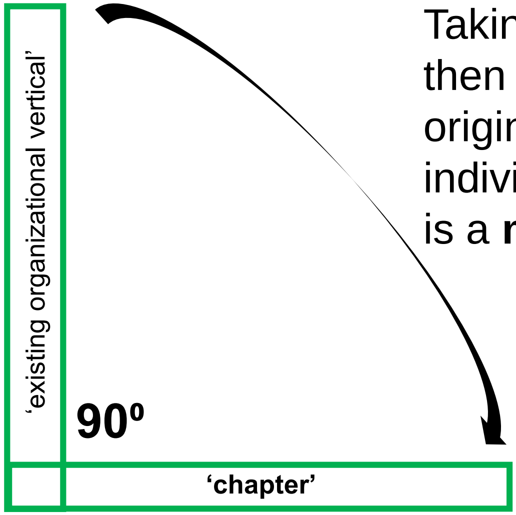
-separate, phase-specific backlogs or single backlog with phase-specific items
-local optimization by single-skill specialists (e.g.. PM, BA, QA, Architect, Developer)
-hand-overs, toll-gates, "internal contracts"
-long periods of down-time by specialists, when it is *not "their phase" to work*
-"water-scrum"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

-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

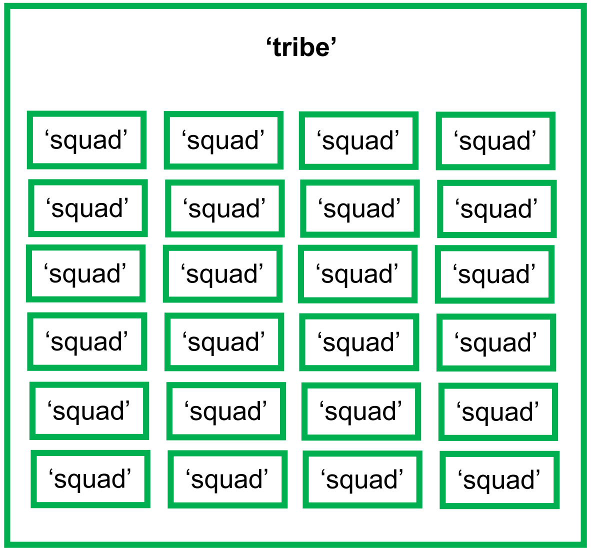
- ➢ Product definition is weak. Applications and components that don't have strong customer alignment are treated as products
- ➢ "Doing Scrum" efforts are often a result of trying to meet goals of agile transformation (some annual % goals must be met), set at enterprise level
- ➢ "Territorial" code ownership
- ➢ Top-down, "command & control" governance, with little autonomy and self-management at team level
- ➢ Importance of Scrum dynamics and its roles are viewed as secondary to existing organizational structure blueprints
- ➢ Too many single-specialty experts and very few T-shaped workers
- ➢ No meaningful HR changes to support Scrum team design

Instituting Fake Teams

Taking an existing organizational vertical, flipping it on its side, and then calling it a ‘chapter’, while preserving all elements of the original structure (reporting lines, management relationships, individual performance by ‘chapter leads’, mandatory participation) - is a **masquerade**



Can cumulative estimation by these teams be accurate?


‘tribe’

‘squad’ ‘squad’ ‘squad’ ‘squad’
‘squad’ ‘squad’ ‘squad’ ‘squad’
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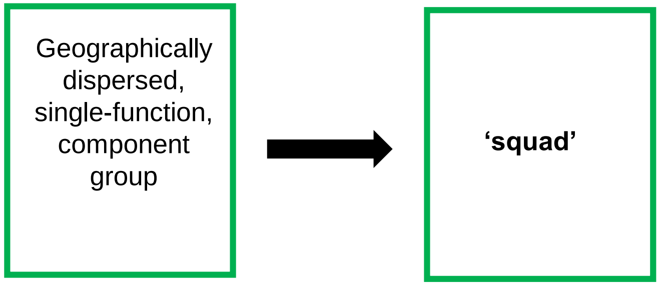
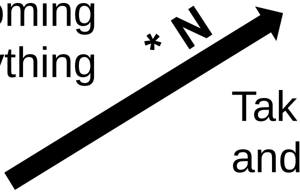
‘squad’ ‘squad’ ‘squad’ ‘squad’

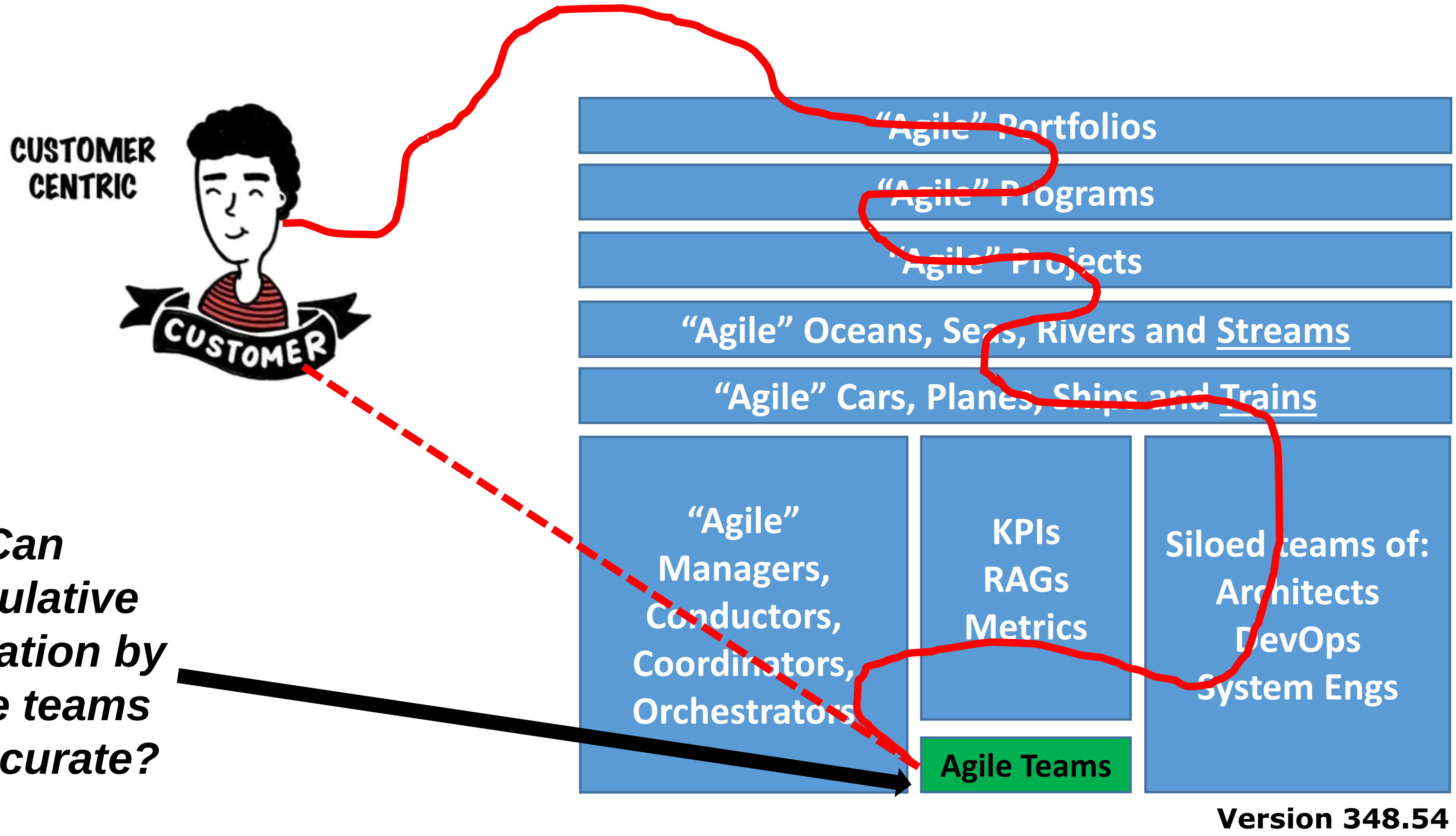
Relabeling large, geographically dispersed, single–function specialist/component group, managed by engagement managers and technical leads (with groups, frequently coming from external vendors, bound by fixed-everything SOWs) into a ‘squad’- is a **masquerade**





Taking an existing *portfolio* of *programs* and *projects* (usually, they weakly support customer-centric products) that are worked upon by used-to-be component groups, and now, so called ‘squads’, while relabeling a portfolio into a ‘tribe’ - is a **masquerade**

Gap b/w Budget Decisions and GEMBA



“Agile” Portfolios

“Agile” Programs

“Agile” Projects

“Agile” Oceans, Seas, Rivers and Streams

“Agile” Cars, Planes, Ships and Trains

“Agile” Managers, Conductors, Coordinators, Orchestrators

KPIs RAGs Metrics

Agile Teams

Siloed teams of: Architects DevOps System Engs

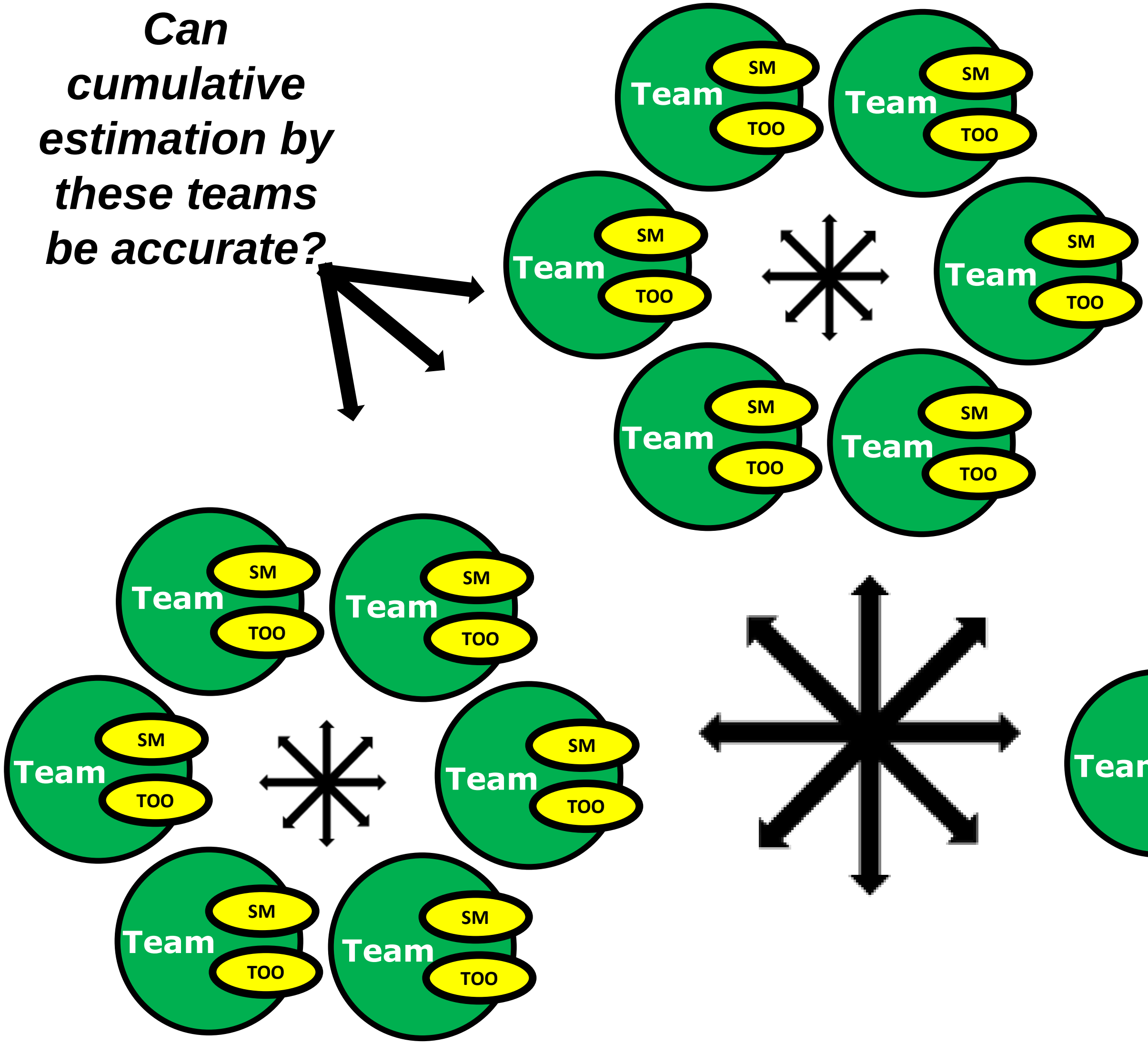
Version 348.54

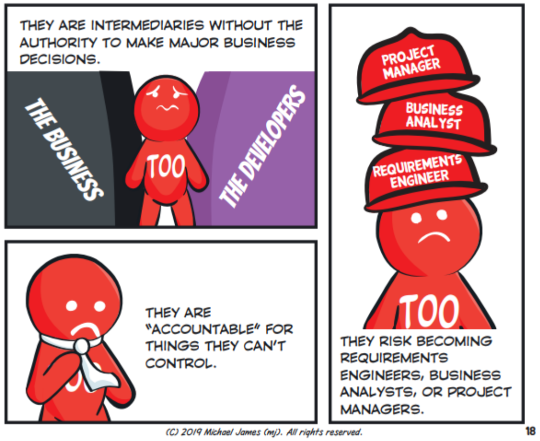
Can cumulative estimation by these teams be accurate?

- ➢ Where is customer – centricity?
- ➢ How **loooooong** is a feedback loop between customers and developers?
- ➢ How adaptive (agile, fast-reacting) can teams really be, to Customer’s requests?
- ➢ What has changed from what you saw prior to “installation”?

Fractal Scaling

Can cumulative estimation by these teams be accurate?




THEY ARE INTERMEDIARIES WITHOUT THE AUTHORITY TO MAKE MAJOR BUSINESS DECISIONS.
THE BUSINESS
TOO
THE DEVELOPERS
THEY ARE "ACCOUNTABLE" FOR THINGS THEY CAN'T CONTROL.
PROJECT MANAGER
BUSINESS ANALYST
REQUIREMENTS ENGINEER
TOO
THEY RISK BECOMING REQUIREMENTS ENGINEERS, BUSINESS ANALYSTS, OR PROJECT MANAGERS.
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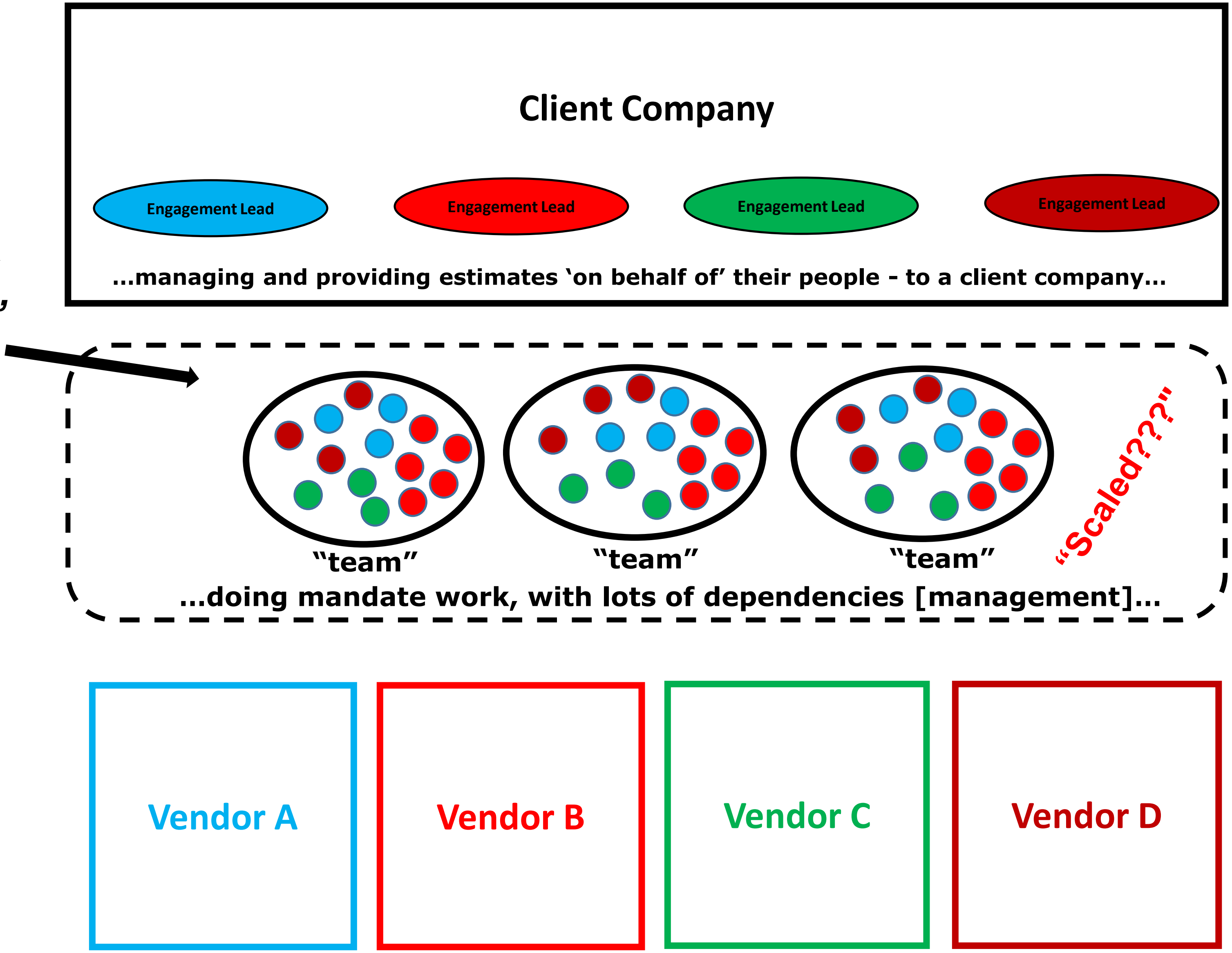
https://seattlescrum.com/Why-Scrum-Isnt-Making-Your-Company-Very-Agile/

Team private backlogs. Coordination Overhead. Local Optimization.

"Scaling" Contractually-Bound Vendor Groups

Can cumulative estimation by these "teams" be accurate?



Client Company

Engagement Lead

Engagement Lead

Engagement Lead

Engagement Lead

…managing and providing estimates 'on behalf of' their people - to a client company…

"team"

"team"

"team"

"Scaled???"

…doing mandate work, with lots of dependencies [management]…

Vendor A

Vendor B

Vendor C

Vendor D

Then, Of course!!!...

All of the above will require a lot of excessive coordination/orchestration, delegation of responsibilities, dependencies management (and managers)…

AND THEREFORE

Will lead to errors, omissions and finger-pointing, blame-gaming

IN

Estimation → Budgeting

LEADING TO

financial miscalculations…→ budget cuts and force reduction

And Therefore, All These Great Techniques:

- Coarse Estimation vs. Fine-Grained Estimation
- Day/hour estimation vs. Story Point Estimation
- Functional Points vs. Story Points
- Capacity Driven Planning
- Velocity Driven Planning (Historical Velocity)
- Velocity vs. Throughput
- Business Value (BV) point per Story Point (SP)
- Earned Value Management (EVM)

Become:

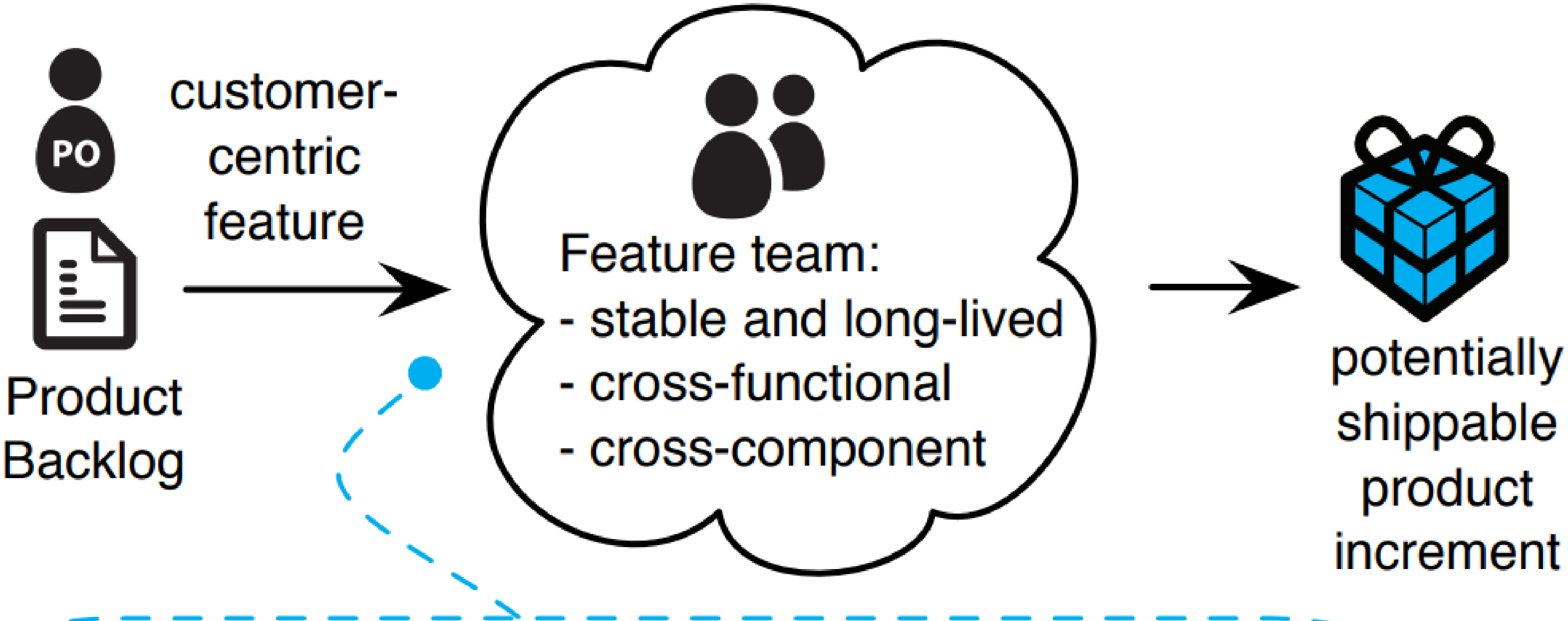
😉

As The Saying Goes…

‘Putting a saddle on a cow will not make it run like a horse’

Alternatives?

Good-Old Scrum



PO

customer-centric feature

Product Backlog

Feature team:
- stable and long-lived
- cross-functional
- cross-component

potentially shippable product increment

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.

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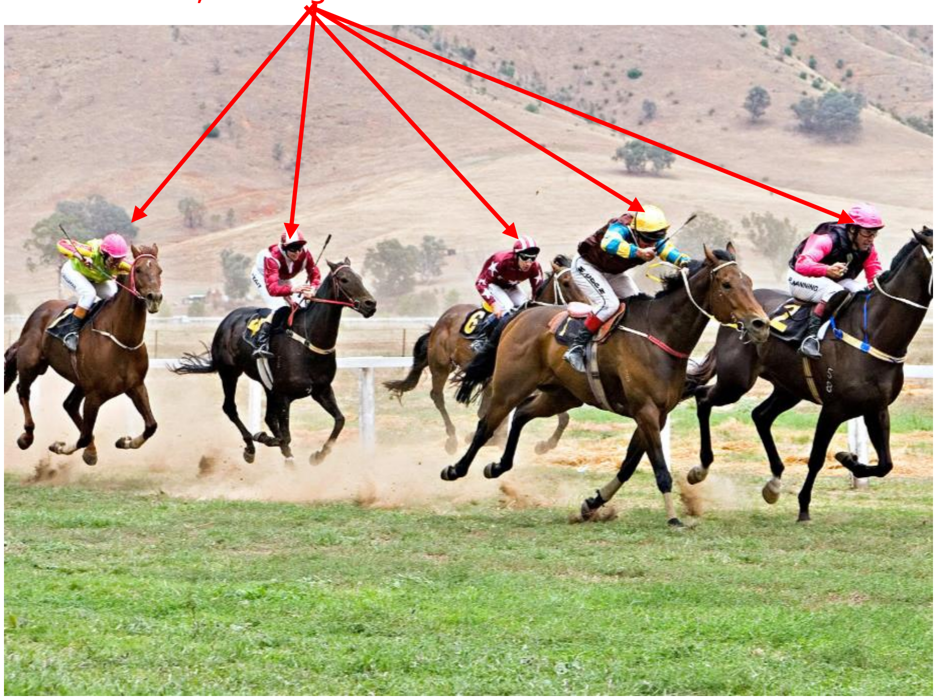
Same Sprint. Same Sprint Goal.

Multiple teams doing <u>their own</u> "Scrum"

vs

Multiple [real] teams <u>sprinting together</u> (on same Product)

<u>Different people</u> with strategy, and vision, setting a different course

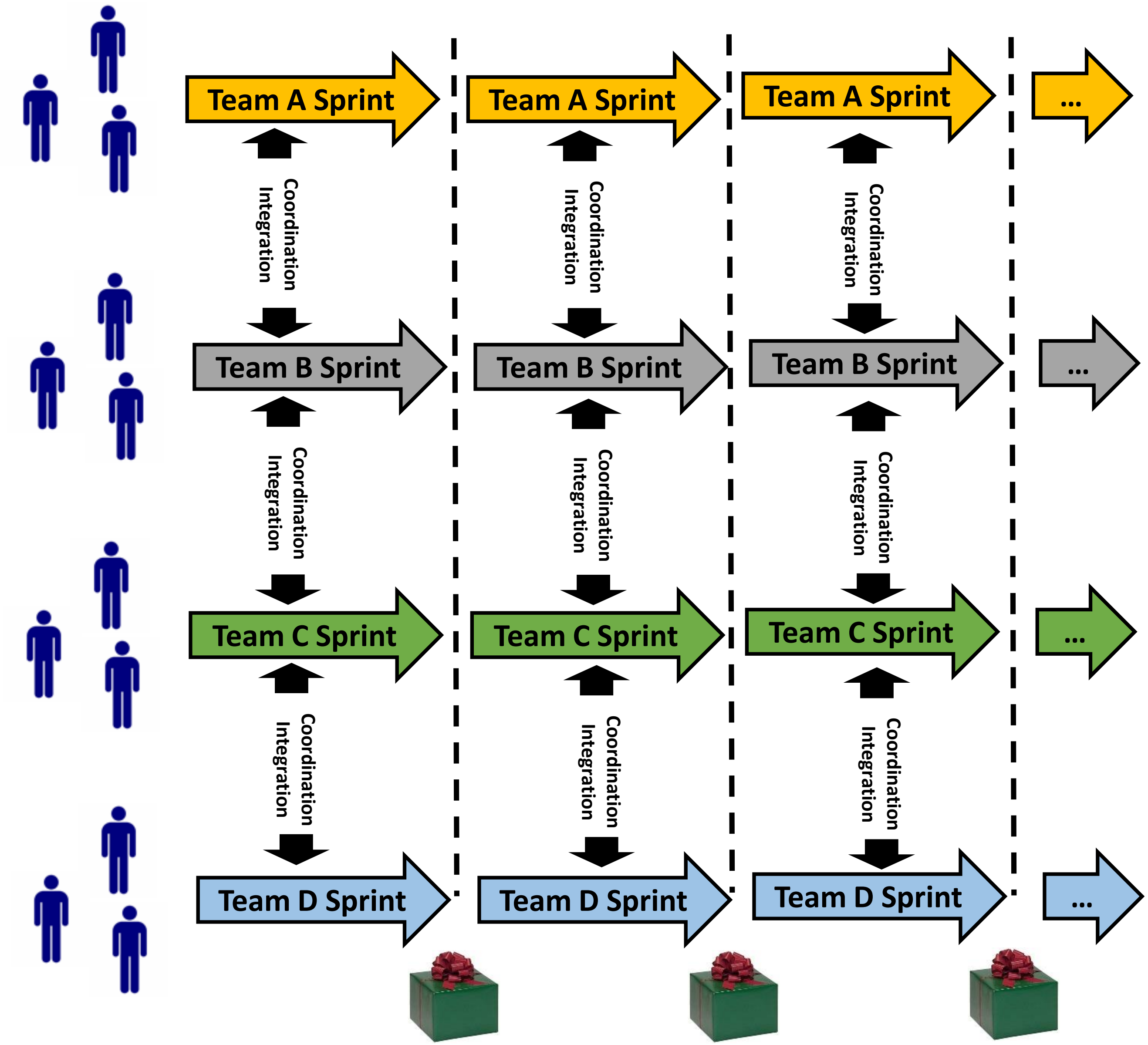


NO

<u>Same person</u> with strategy, and vision, setting a unified course

YES

Same Sprint. Same Cadence. Real C/F Teams.



<u>Ability To:</u>

Refine (PBR)- TOGETHER

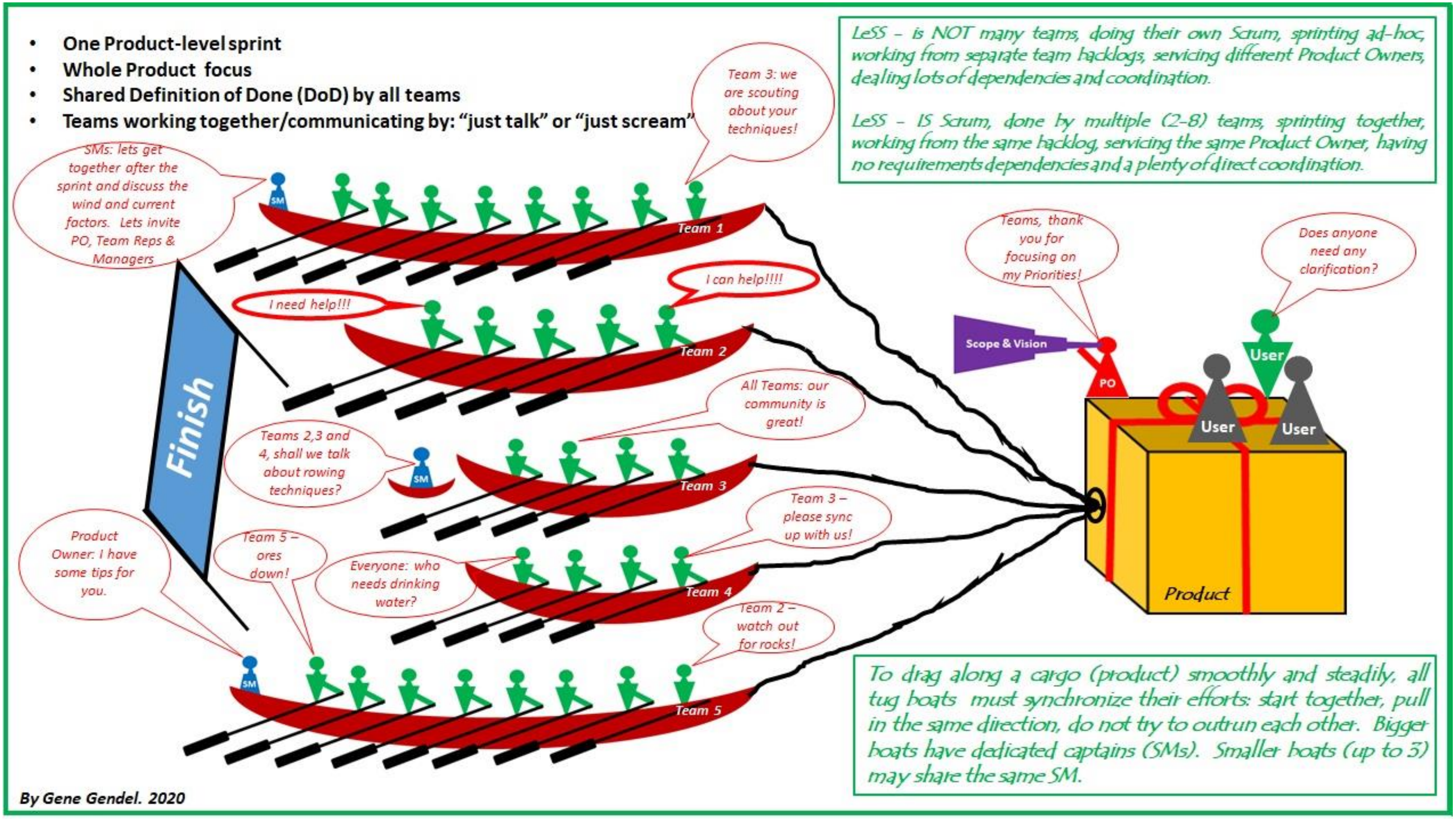
Plan – TOGETHER

Coordinate - DIRECTLY

<u>And, of Course:</u>

ESTIMATE - TOGETHER

Same Sprint. Same Product. Same PO.



- 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.

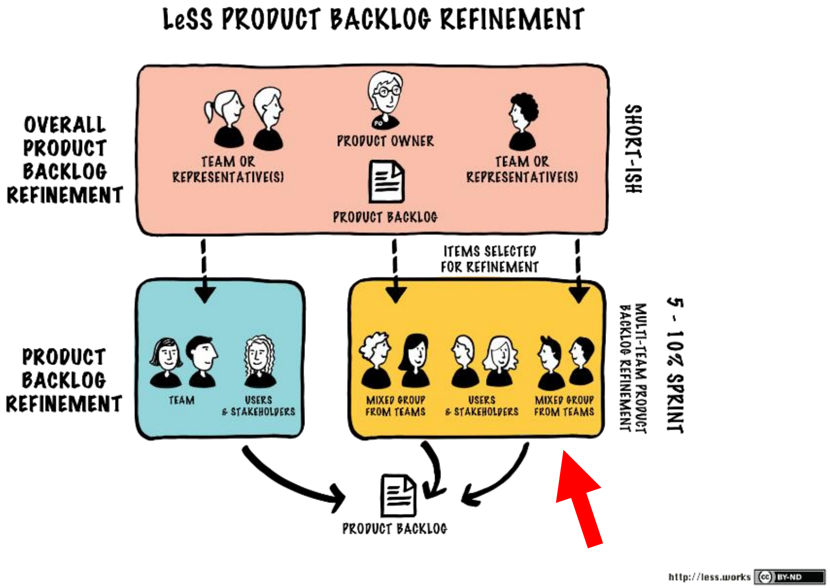
LeSS – IS Scrum, done by multiple (2-8) teams, sprinting together, working from the same backlog, servicing the same Product Owner, having no requirements dependencies and a plenty of direct coordination.

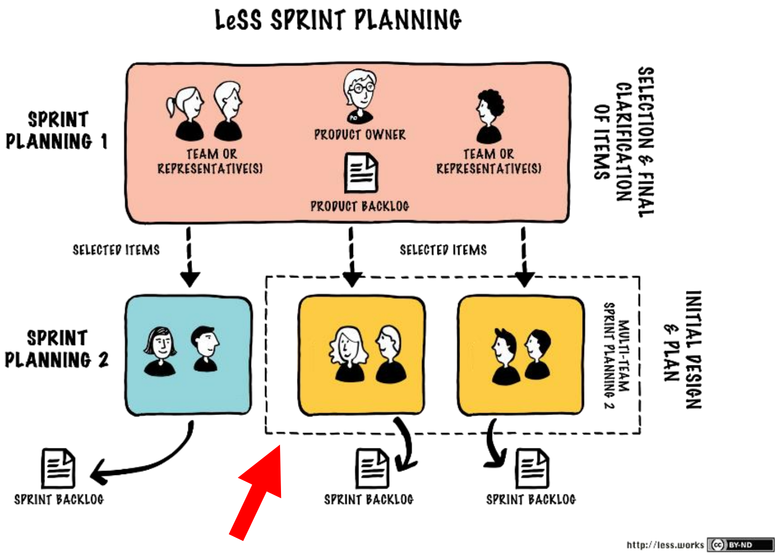
To drag along a cargo (product) smoothly and steadily, all tug boats must synchronize their efforts: start together, pull in the same direction, do not try to outrun each other. Bigger boats have dedicated captains (SMs). Smaller boats (up to 5) may share the same SM.

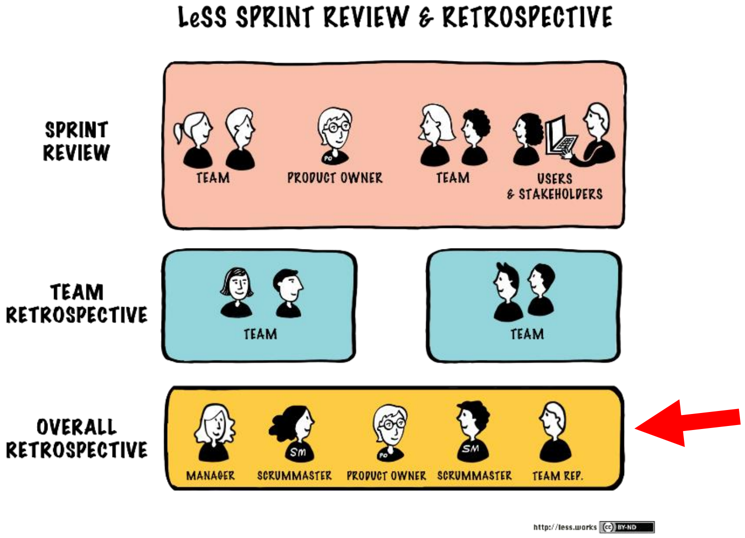
By Gene Gendel. 2020

SMs: lets get together after the sprint and discuss the wind and current factors. Lets invite PO, Team Reps & Managers
Team 3: we are scouting about your techniques!
SM
Team 1
I need help!!!
I can help!!!!
Team 2
Finish
Teams 2,3 and 4, shall we talk about rowing techniques?
All Teams: our community is great!
Team 3
Team 3 – please sync up with us!
Product Owner: I have some tips for you.
Team 5 – ores down!
Everyone: who needs drinking water?
Team 4
Team 2 – watch out for rocks!
Team 5
Teams, thank you for focusing on my Priorities!
Does anyone need any clarification?
Scope & Vision
PO
User
User
User
Product

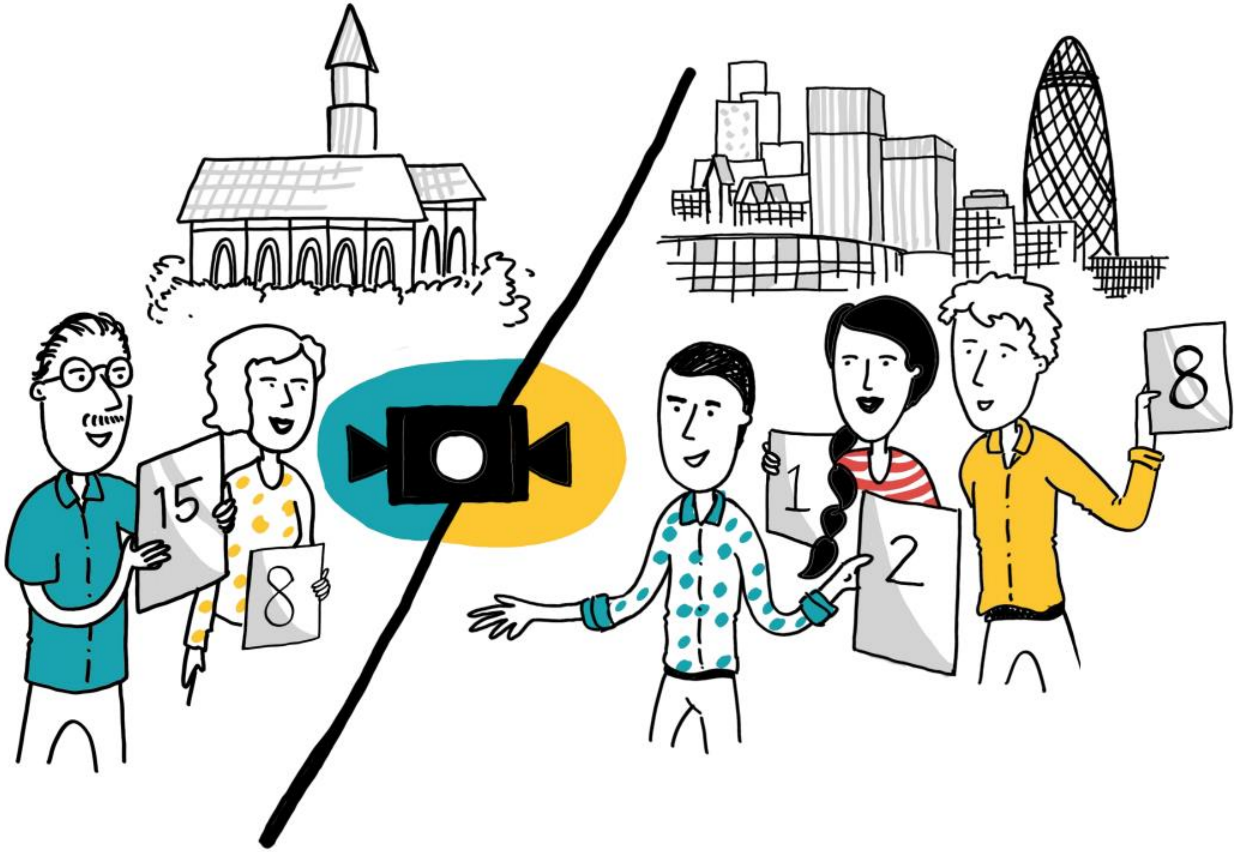
Richness of Multi-Team Collaboration


LeSS PRODUCT BACKLOG REFINEMENT
OVERALL PRODUCT BACKLOG REFINEMENT
TEAM OR REPRESENTATIVE(S)
PRODUCT OWNER
PRODUCT BACKLOG
TEAM OR REPRESENTATIVE(S)
SHORT-ISH
ITEMS SELECTED FOR REFINEMENT
PRODUCT BACKLOG REFINEMENT
TEAM
USERS & STAKEHOLDERS
MIXED GROUP FROM TEAMS
USERS & STAKEHOLDERS
MIXED GROUP FROM TEAMS
MULTI-TEAM PRODUCT BACKLOG REFINEMENT
5 - 10% SPRINT
PRODUCT BACKLOG
http://less.works BY-ND





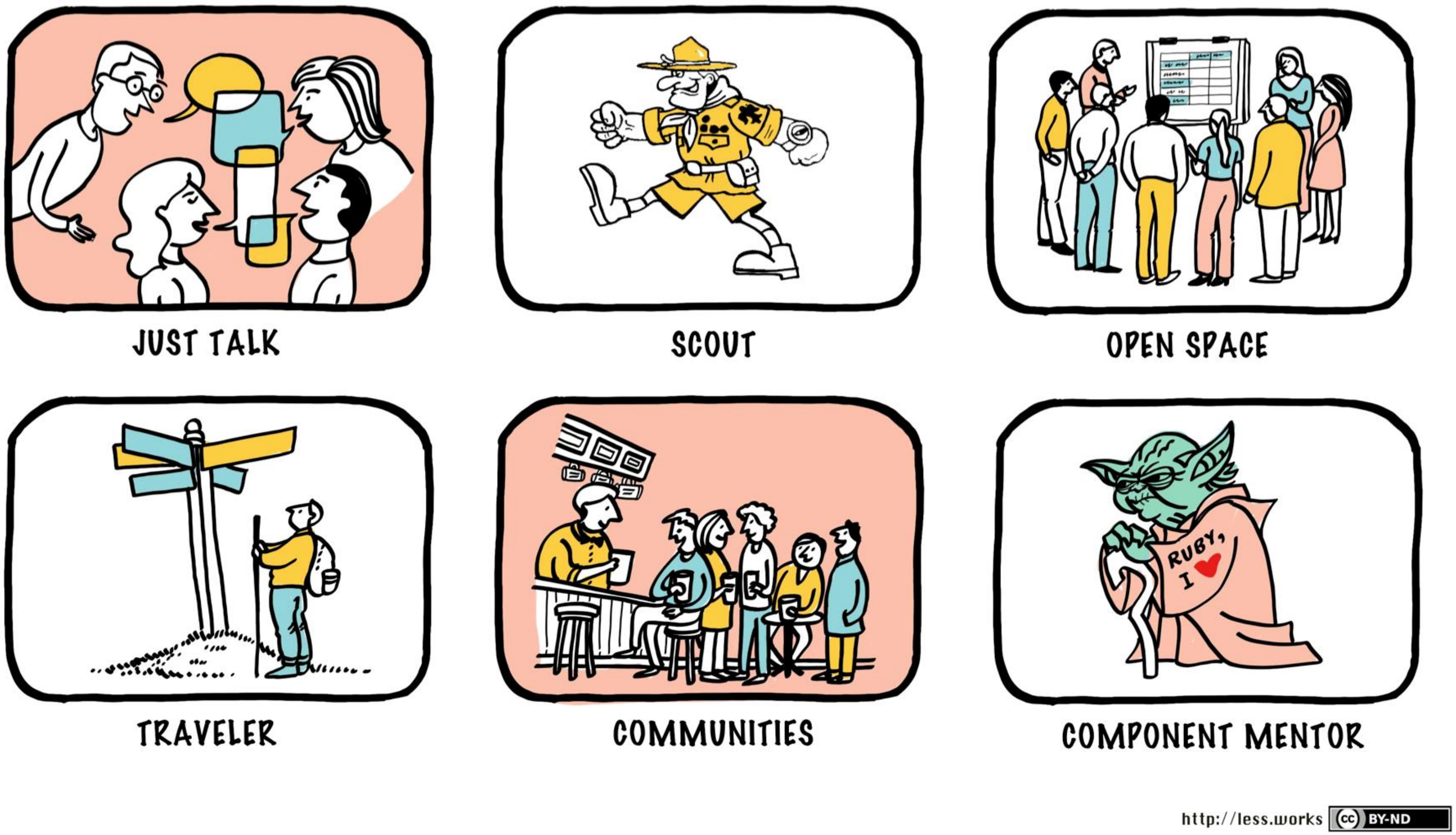
Multi-Site/Team Estimation w/ Planning Poker



http://less.works BY-ND

- By “doers” (team members)
- Everyone is involved
- The main goal: CCC (Card, Conversation, Confirmation)
- No need to be too conservative (pad) or aggressive, while estimating

Richness of Multi-Team Knowledge Sharing



https://less.works/resources/graphics/index.html

Advantages

- Teams work synchronously, together (side-by-side), on the same widely-defined, real, product (real) → Shared understanding of work size & complexity → Establishing more reliable **Estimation Techniques**

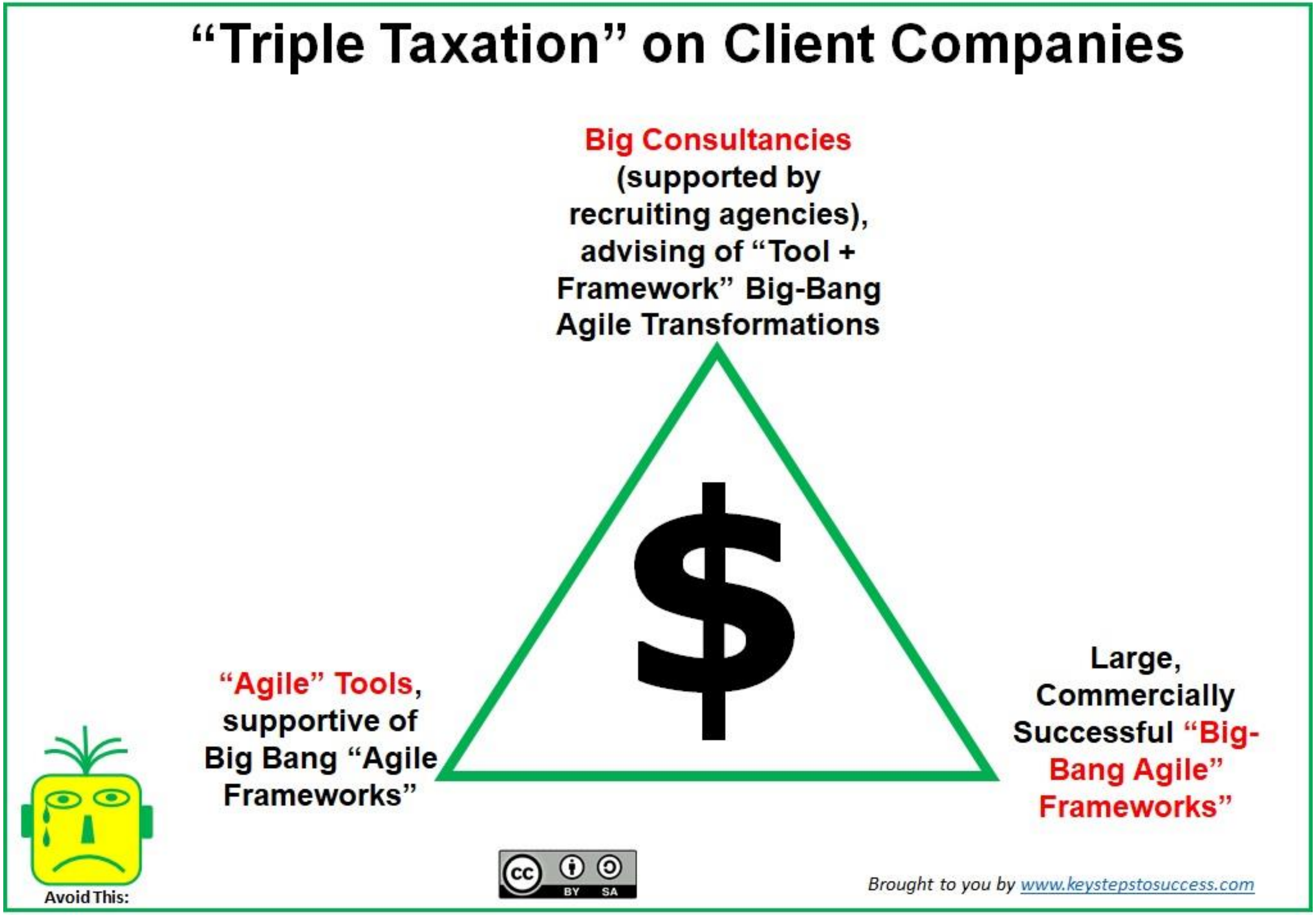
- Same Product Owner: shared understanding of product vision and strategy→ Better **Strategic Planning**

- Short cycle time and fast feedback loops → better responsiveness to increased/decreased market demands and/or product expansion/contraction

- Close proximity of real customers/users → More thoughtful strategic decisions about **Funding/Budgeting**

Q & A

Costs of Fake Agile Are High



“Triple Taxation” on Client Companies

Big Consultancies (supported by recruiting agencies), advising of “Tool + Framework” Big-Bang Agile Transformations

“Agile” Tools, supportive of Big Bang “Agile Frameworks”

Large, Commercially Successful **“Big-Bang Agile” Frameworks”**

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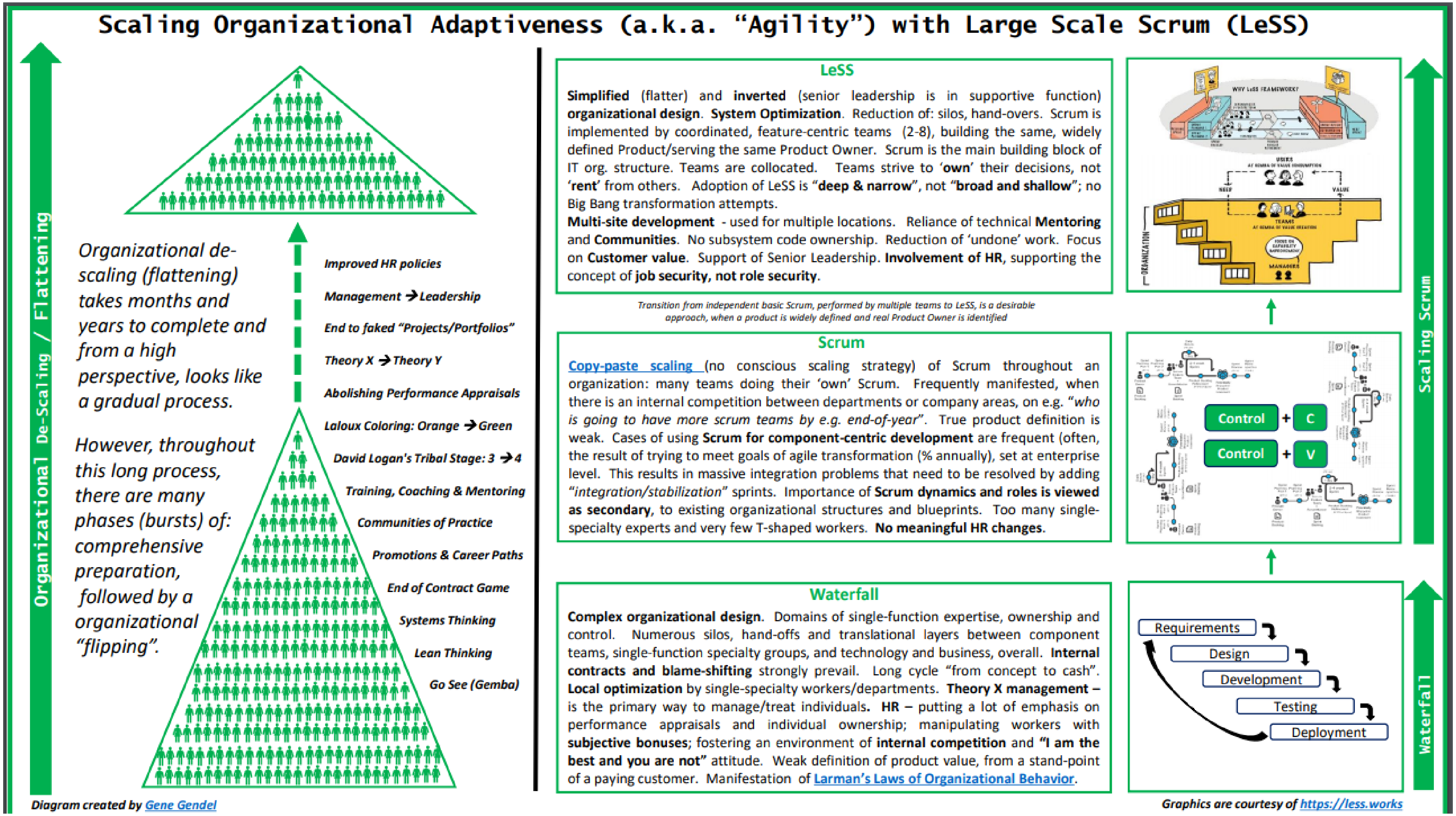
APPENDIX

Less is More



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

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)

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

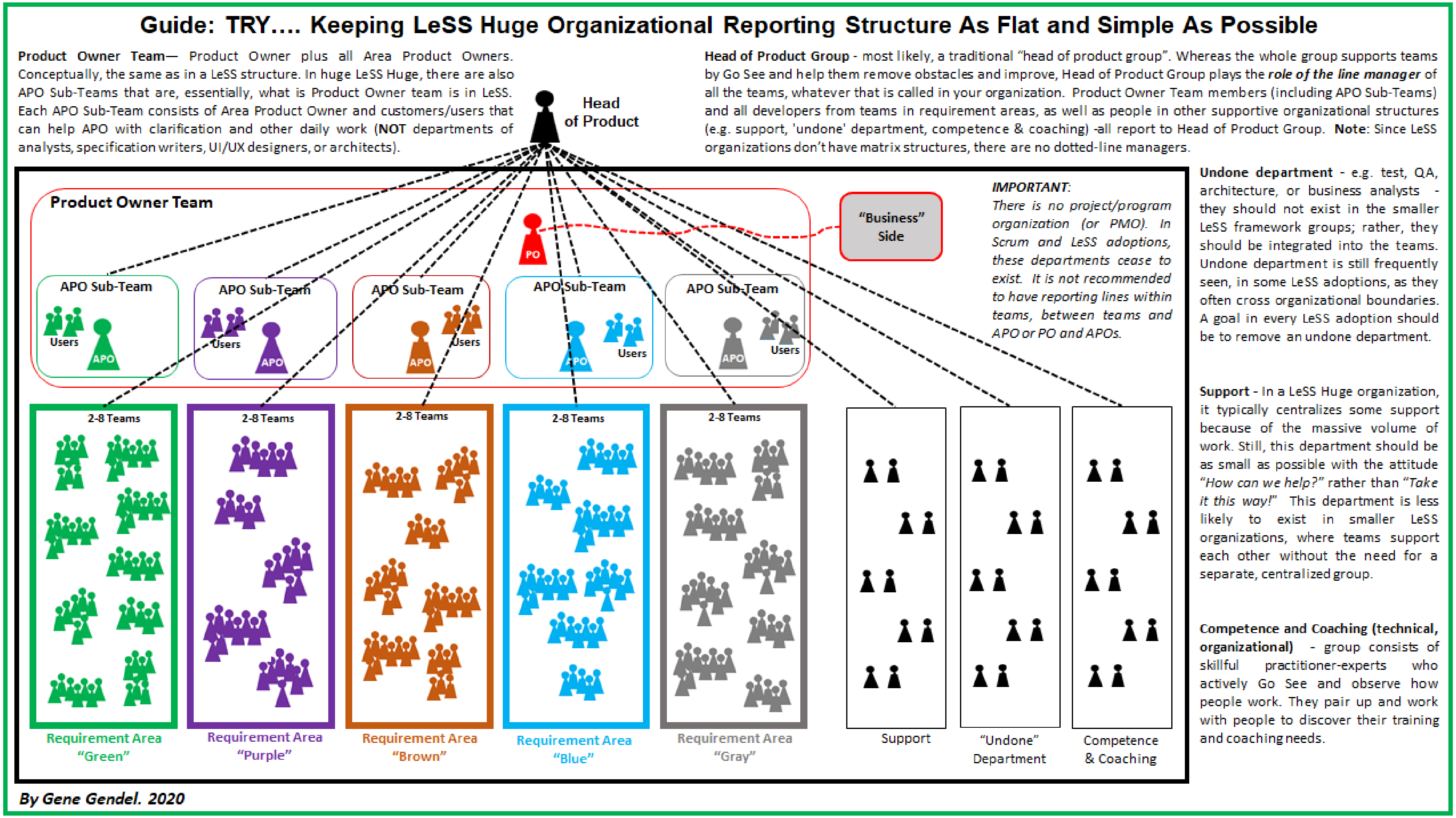
Complex organizational design. Domains of single-function expertise, ownership and control. Numerous silos, hand-offs and translational layers between component teams, single-function specialty groups, and technology and business, overall. **Internal contracts and blame-shifting** strongly prevail. Long 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.

Diagram created by Gene Gendel

Graphics are courtesy of https://less.works

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.

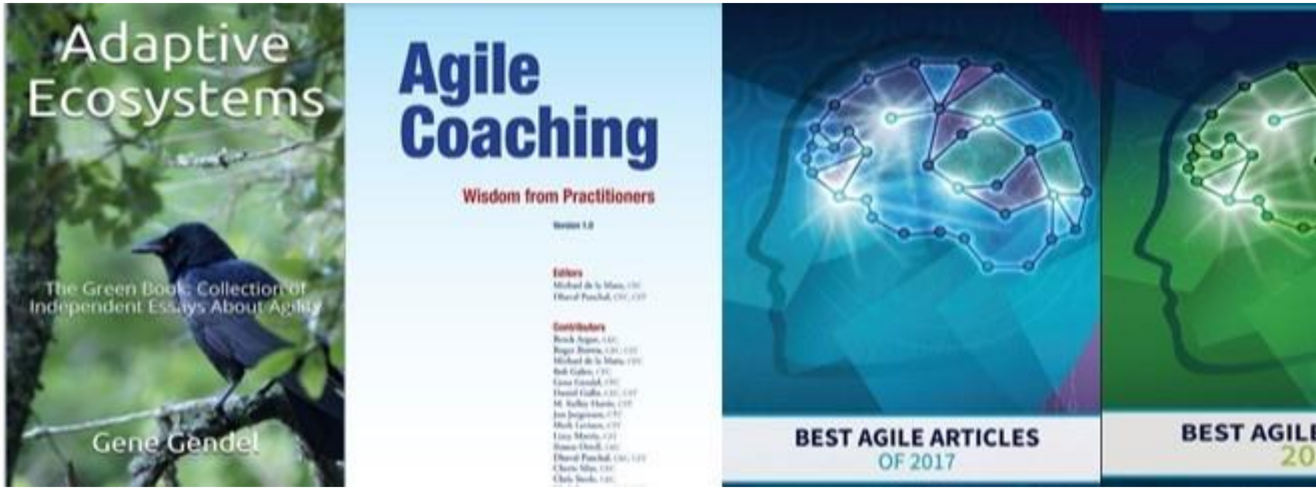
Undone department - e.g. test, QA, architecture, or business analysts - they should not exist in the smaller LeSS framework groups; rather, they should be integrated into the teams. Undone department is still frequently seen, in some LeSS adoptions, as they often cross organizational boundaries. A goal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

Consultant
Coach
Trainer
Speaker
Publisher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Wisdom from Practitioners
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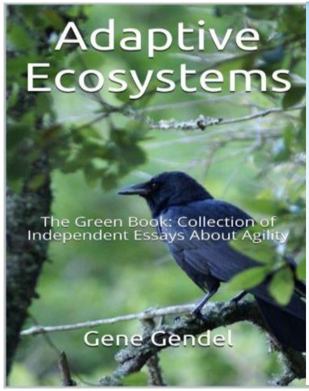
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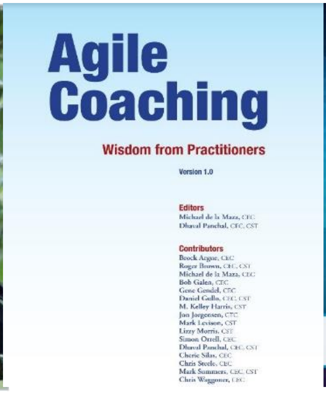
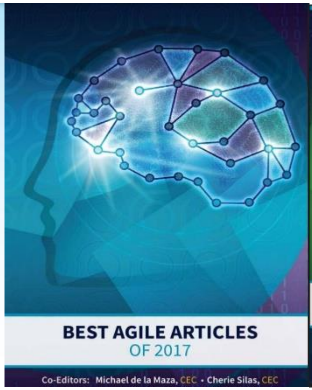
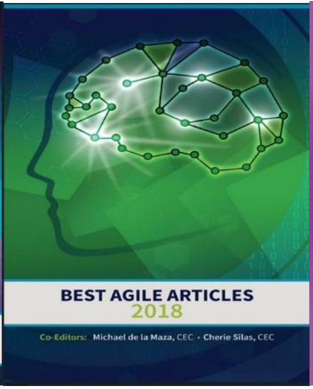
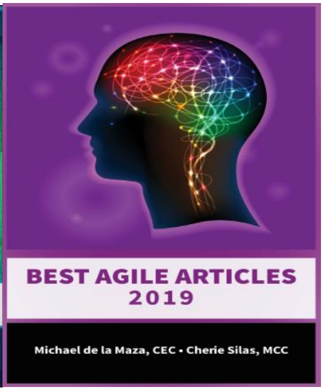
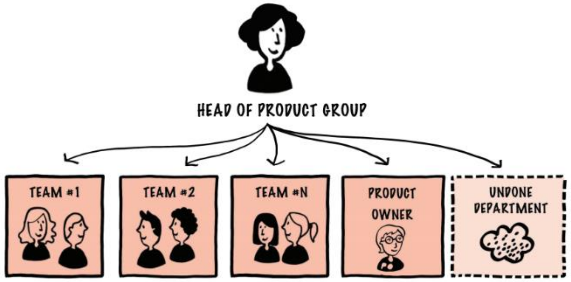
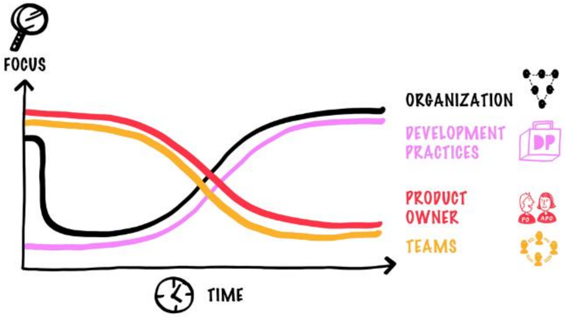


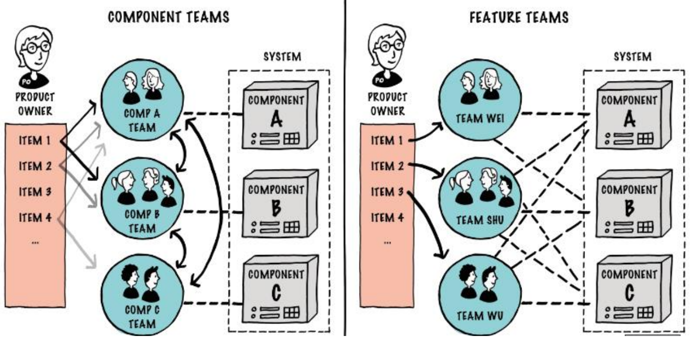




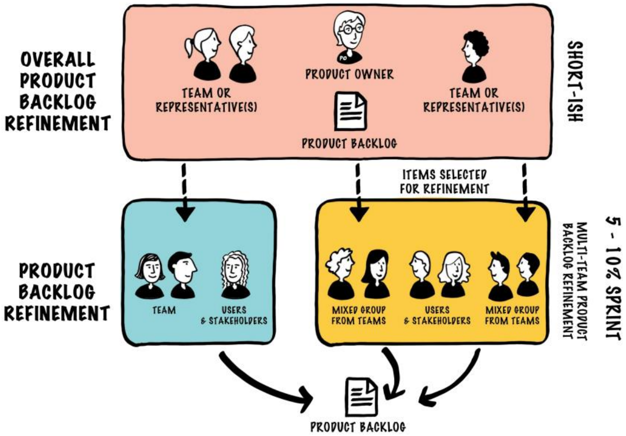




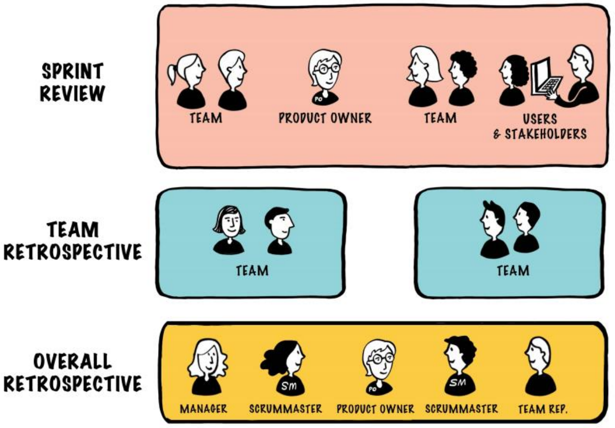




LeSS PRODUCT BACKLOG REFINEMENT


OVERALL PRODUCT BACKLOG REFINEMENT
TEAM OR REPRESENTATIVE(S)
PRODUCT OWNER
PRODUCT BACKLOG
TEAM OR REPRESENTATIVE(S)
SHORT-ISH
ITEMS SELECTED FOR REFINEMENT
PRODUCT BACKLOG REFINEMENT
TEAM
USERS & STAKEHOLDERS
MIXED GROUP FROM TEAMS
USERS & STAKEHOLDERS
MIXED GROUP FROM TEAMS
MULTI-TEAM PRODUCT BACKLOG REFINEMENT
5 - 10% SPRINT
PRODUCT BACKLOG

LeSS SPRINT REVIEW & RETROSPECTIVE


SPRINT REVIEW
TEAM
PRODUCT OWNER
TEAM
USERS & STAKEHOLDERS
TEAM RETROSPECTIVE
TEAM
TEAM
OVERALL RETROSPECTIVE
MANAGER
SCRUMMASTER
PRODUCT OWNER
SCRUMMASTER
TEAM REP.