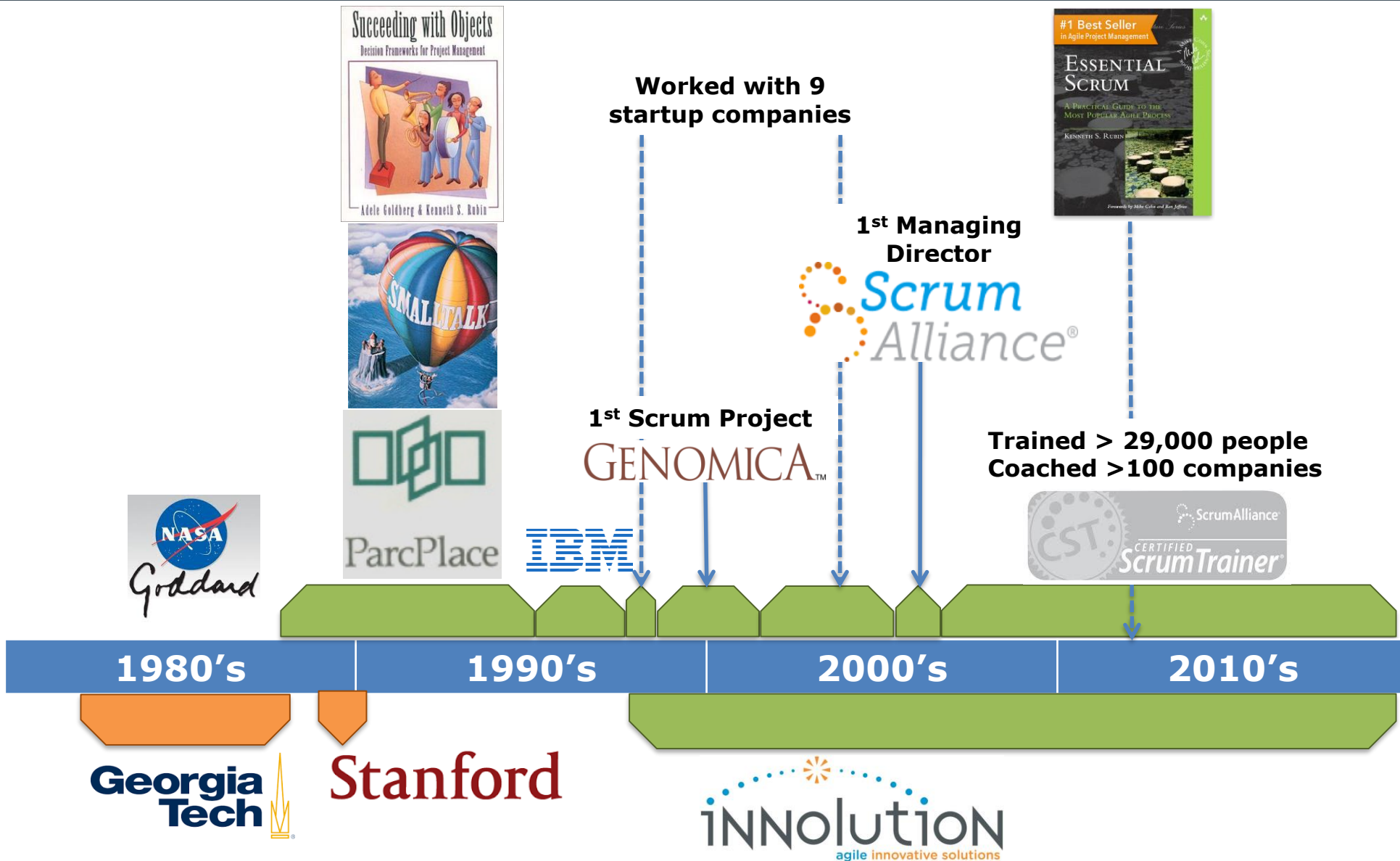




**Addressing the Significant Issues that
Impede Full End-to-End Agility
Beyond Agile
January 26, 2020
by Ken Rubin
@krubinagile**

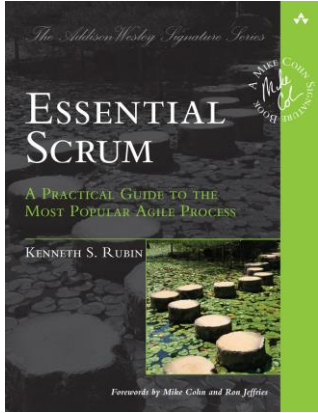
www.innolution.com

Ken Rubin Overview

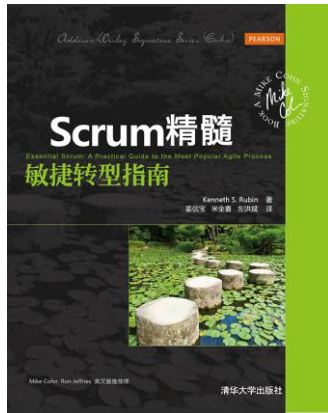


Essential Scrum in Ten Languages

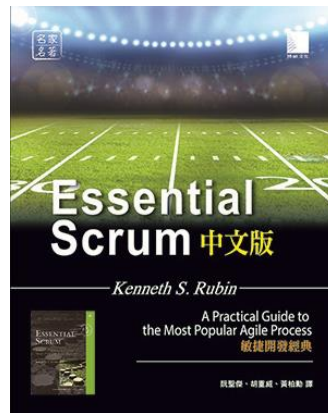
English



Traditional Chinese



Simplified Chinese



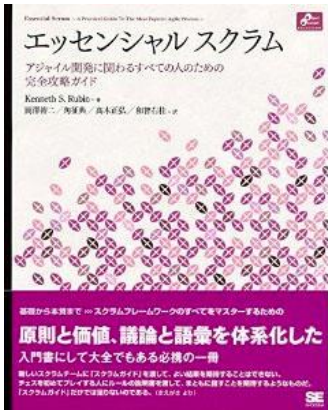
French



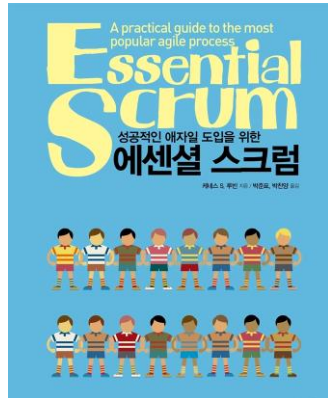
German



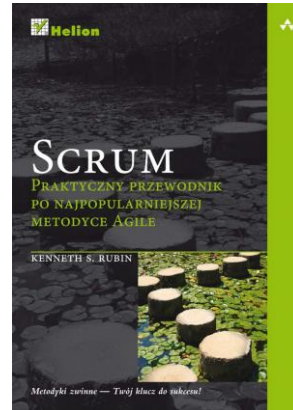
Japanese



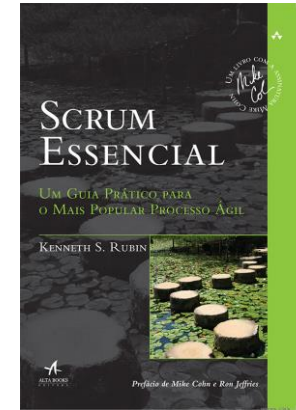
Korean



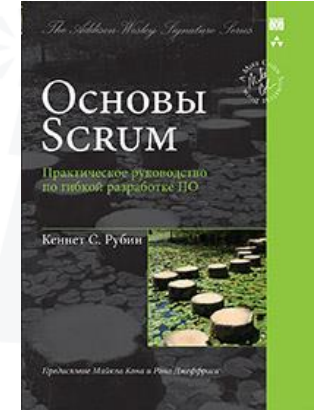
Polish



Brazilian Portuguese



Russian



Agenda

**Evolution of
Agile Scaling**

Dependencies

Whole Group

**End-to-End
Agility
Impediments**

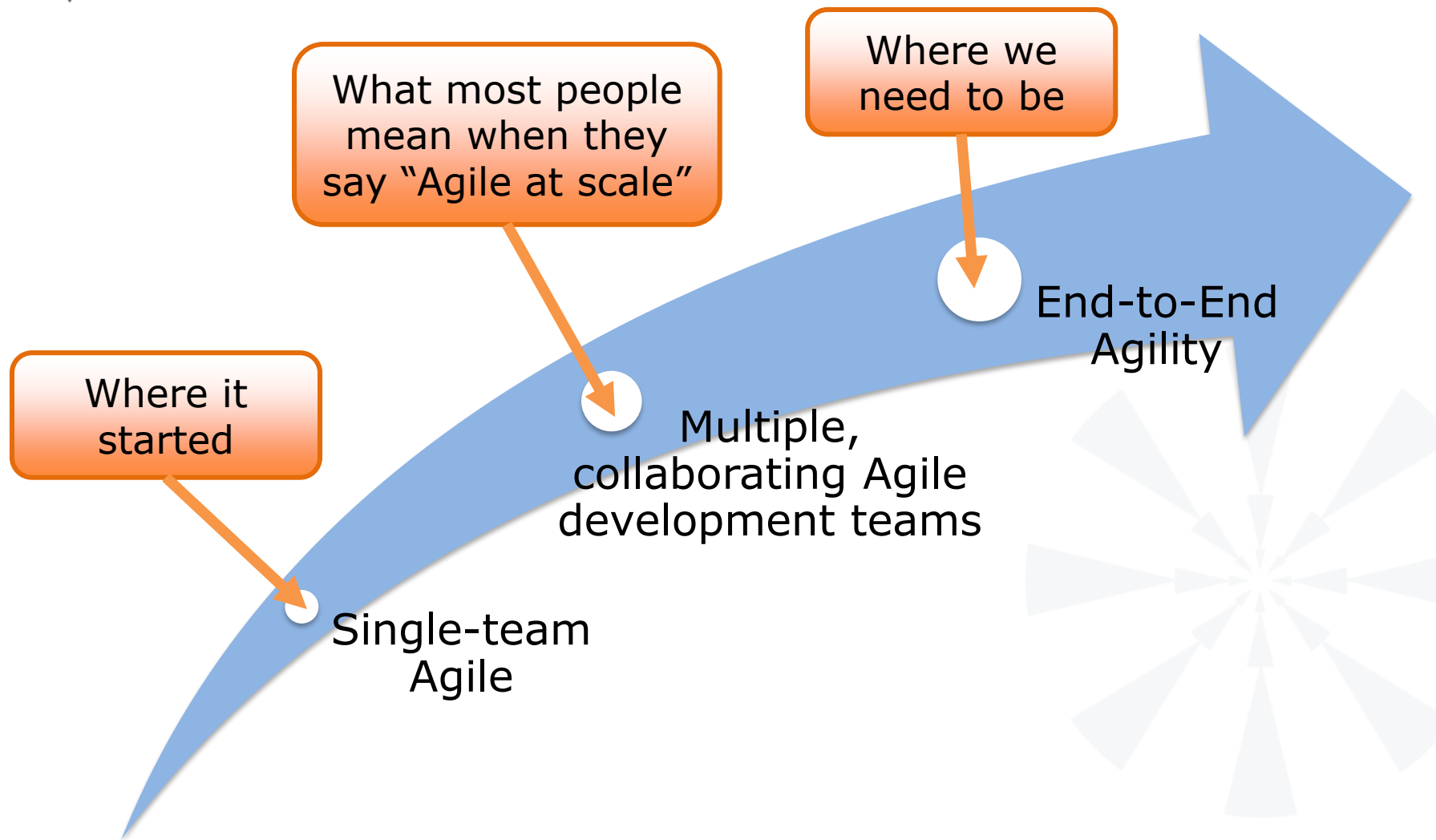




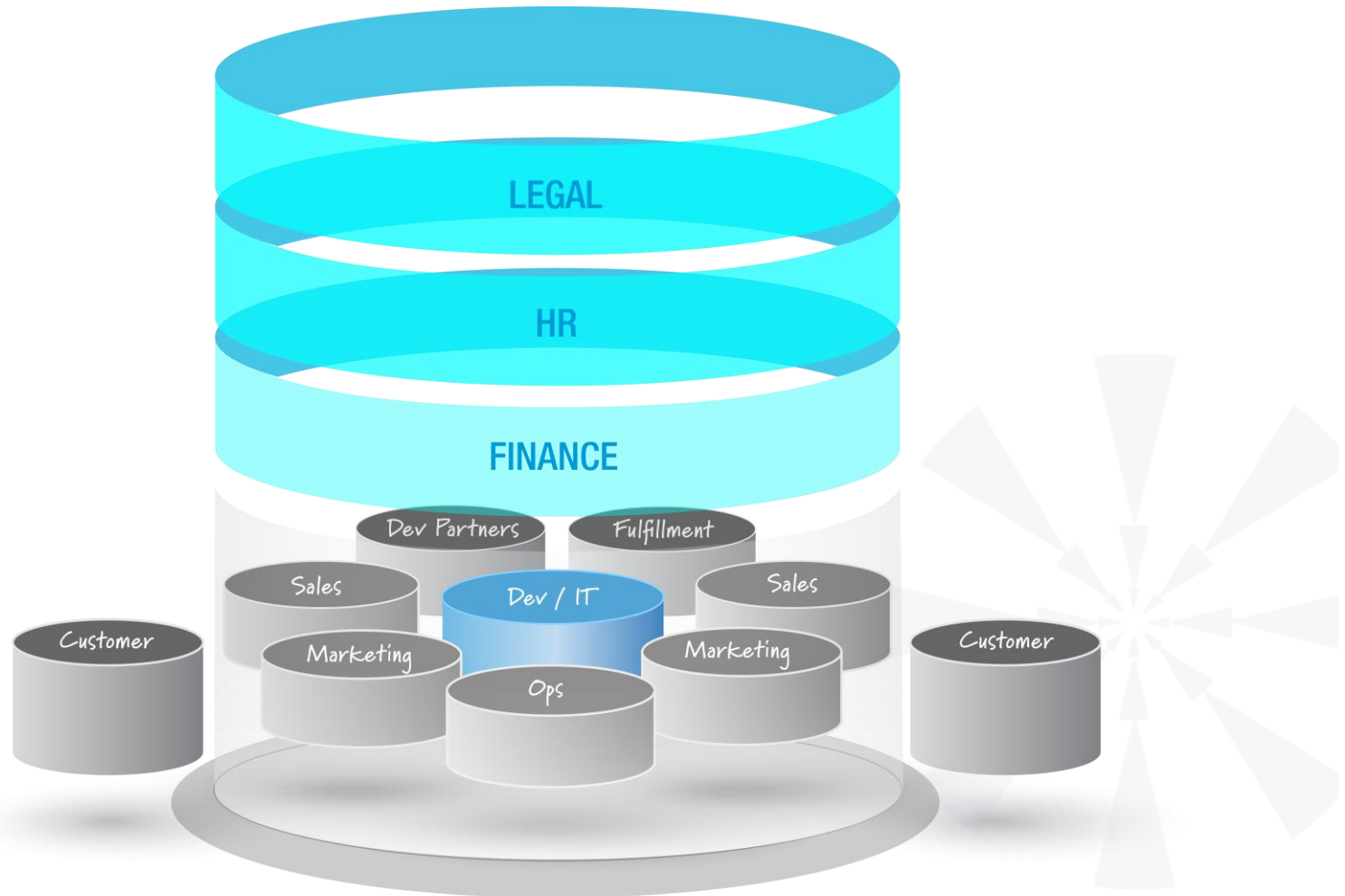
Evolution of Agile Scaling



✦ Agile at Scale Has Been Evolving



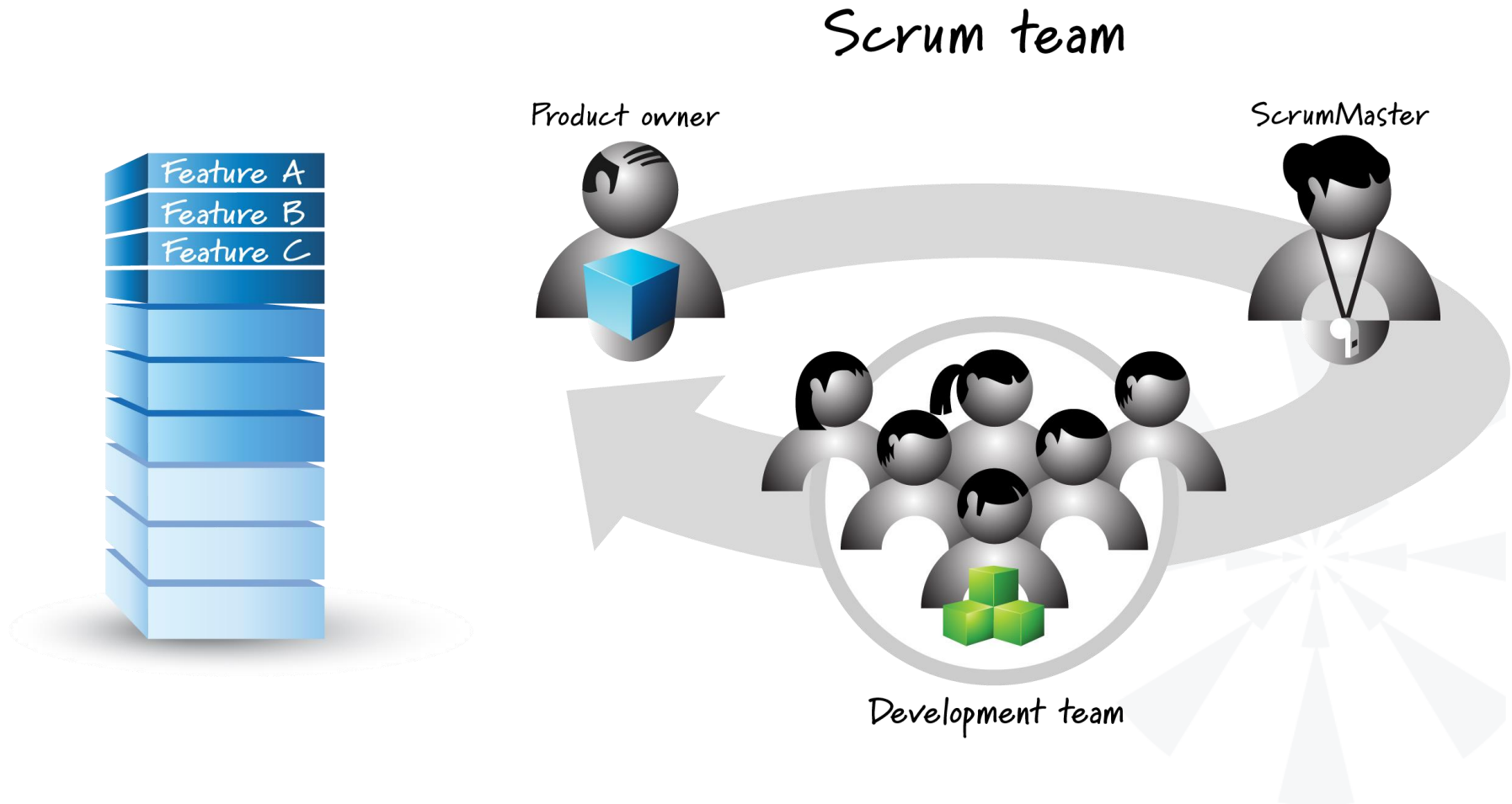
Agile Typically Enters Through Dev or IT Department



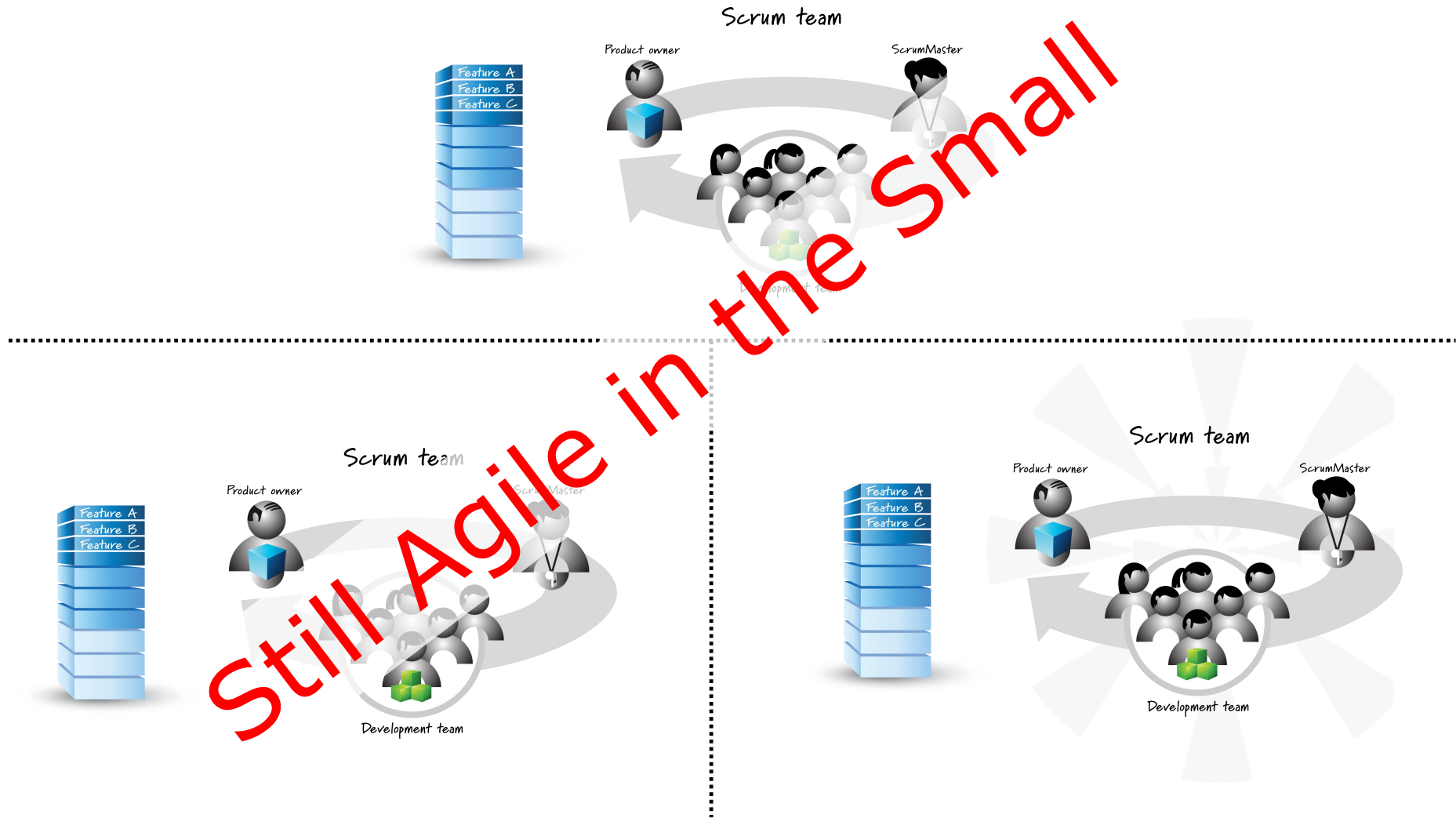
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Agile in the Small – One Team & One Product Backlog



Could Have Multiple Simultaneous One Team & One Backlog Efforts



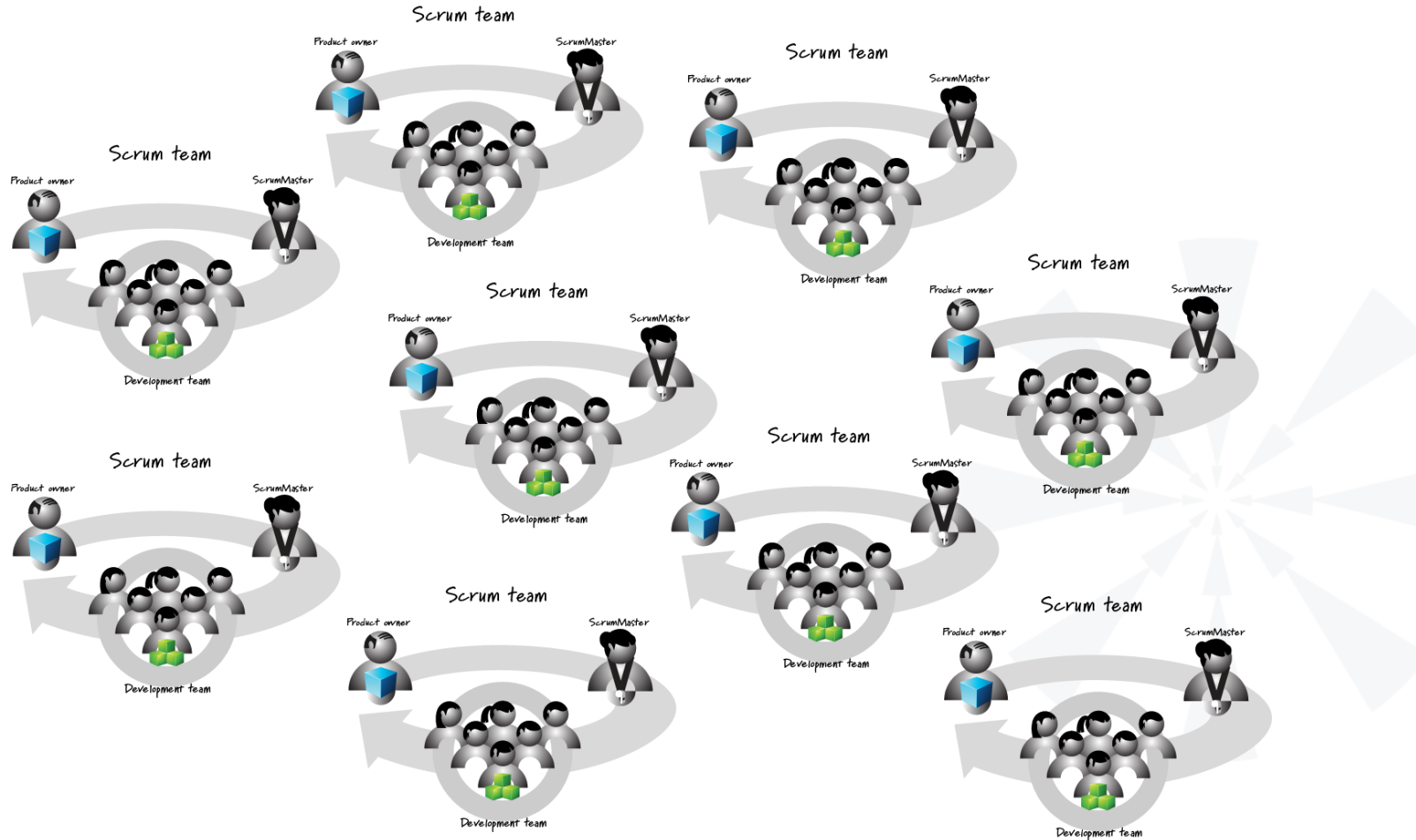
Do Agile in the Small Before Trying Agile in the Large

If you can't do small-scale agile, you should have no confidence you can do large-scale agile



Typical Meaning of Large Scale Agile Development

Multiple collaborating development teams



These Teams Can Focus on Components or the “Whole Product”

The individual pieces that when combined would constitute the whole product

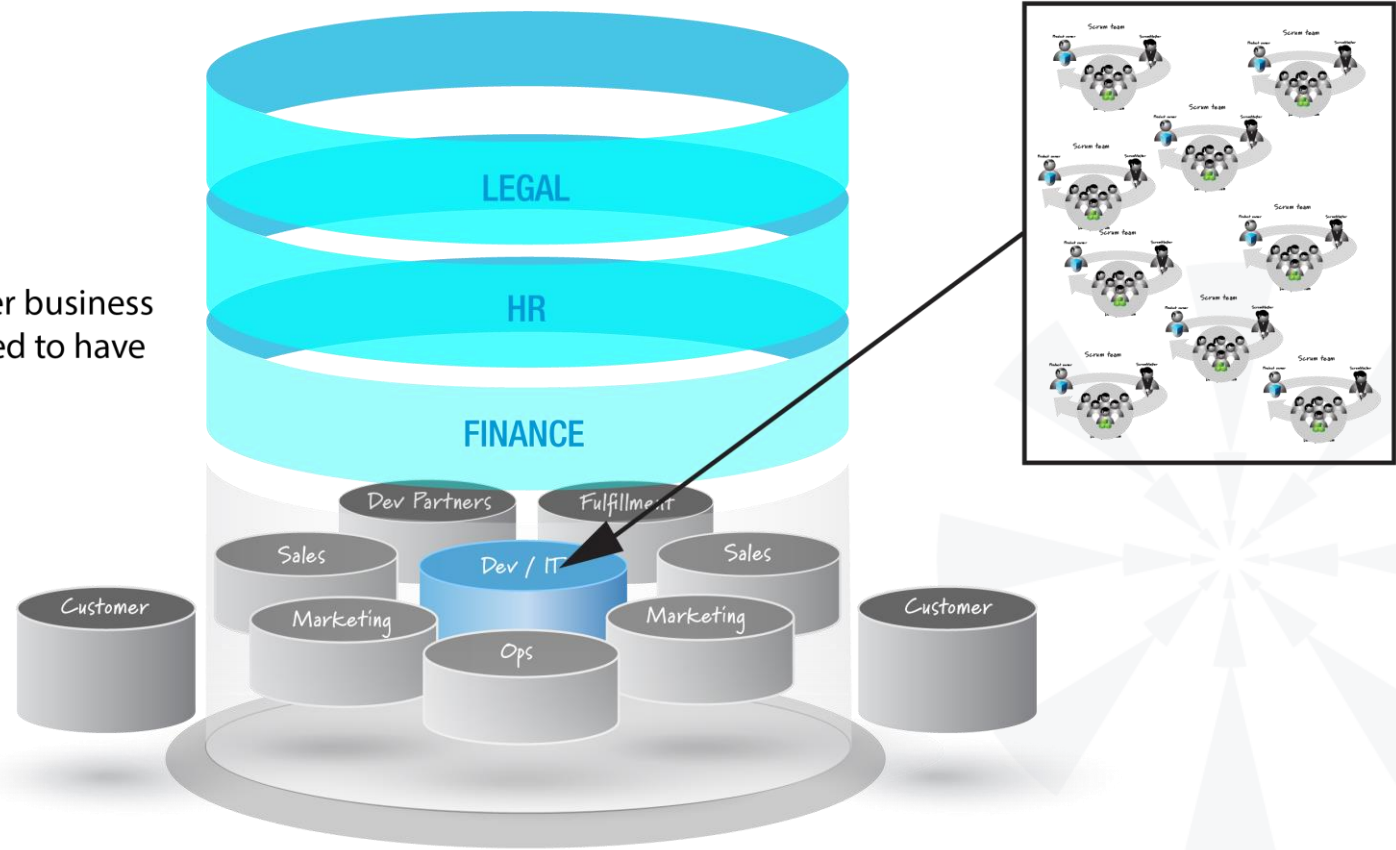
The full product that contains all the “pieces” to deliver the desired end-customer functionality



Scaling Agile Just in Dev or IT is Myopic (ראש קטן)

1. The focus of most agile scaling approaches is inside the Dev/IT organization, dealing with how to coordinate multiple development teams

2. However, all of the other business functions must be included to have full end-to-end agility



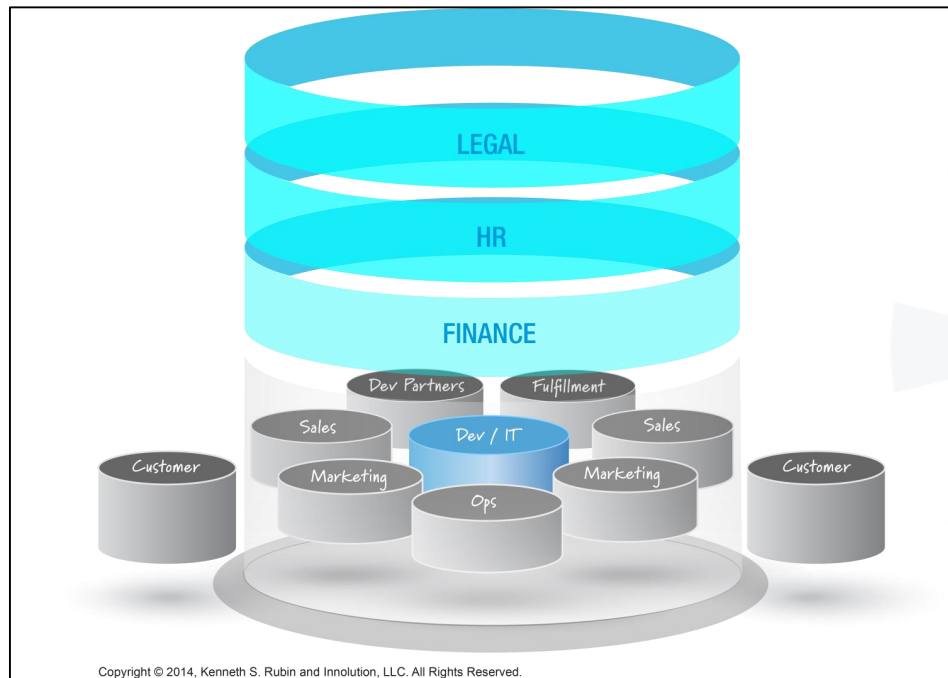
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End-to-End Business Agility (ראש גדול)

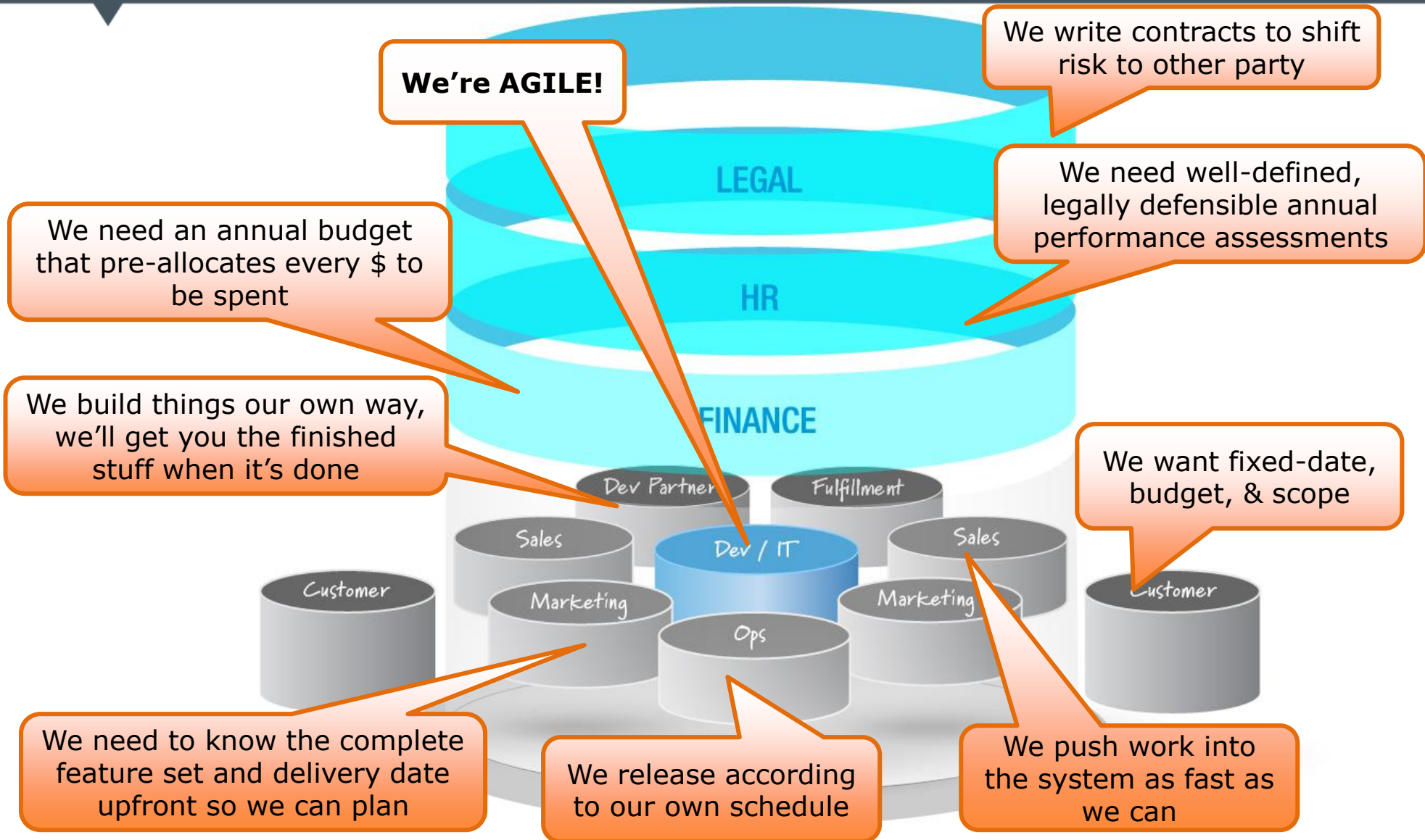
Full end-to-end value chain that includes all internal company functions and partner collaborations that are necessary to develop the whole product and bring it to market with everything else that is needed for the customer to have a compelling reason to buy.



We want to have
coordinated
agility across
the value chain



Not Involving Other Departments When Scaling Agile Causes Misalignment Through Value Chain



"Counter" Example of End-to-End Agility



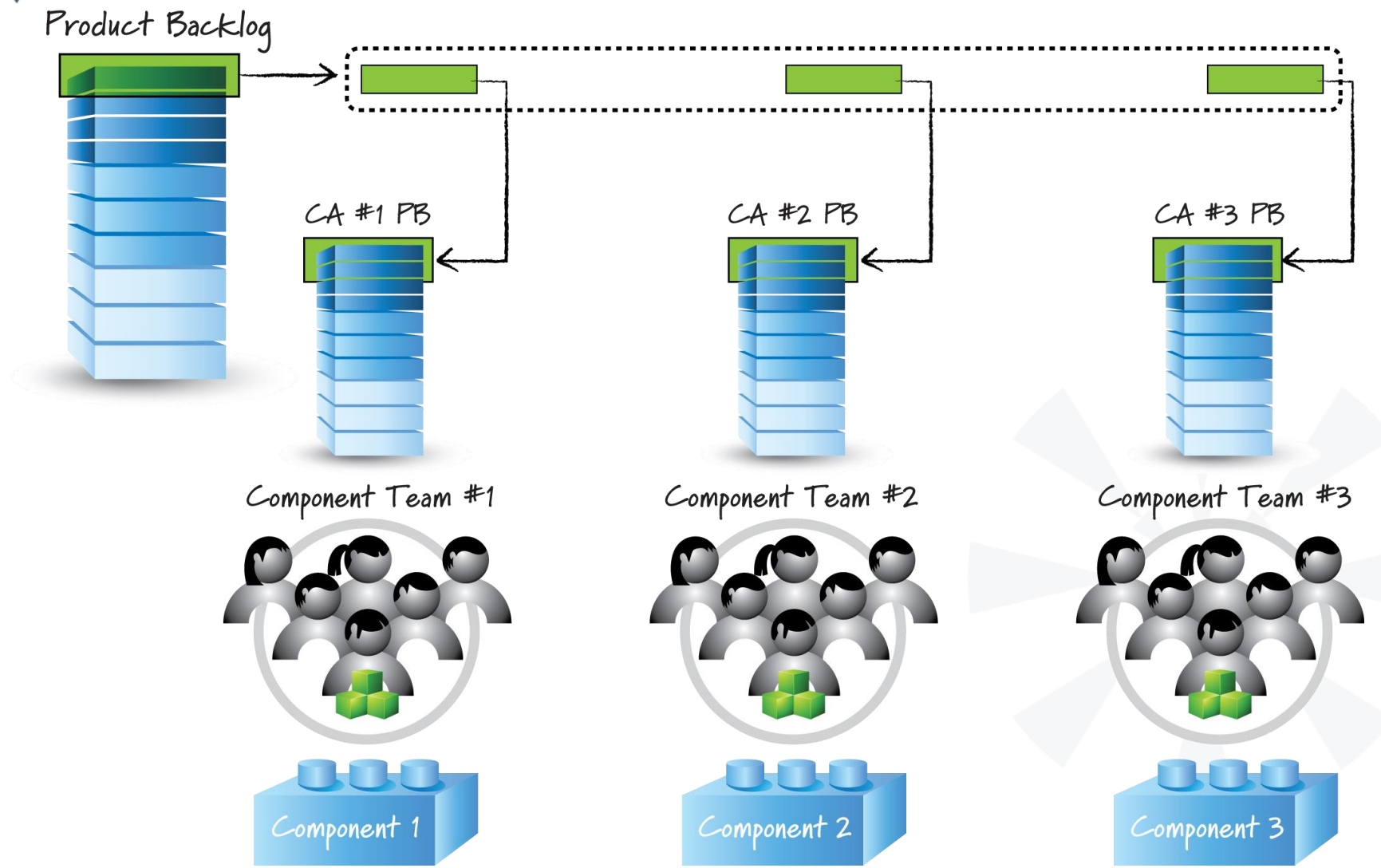
~90% of time the work is blocked



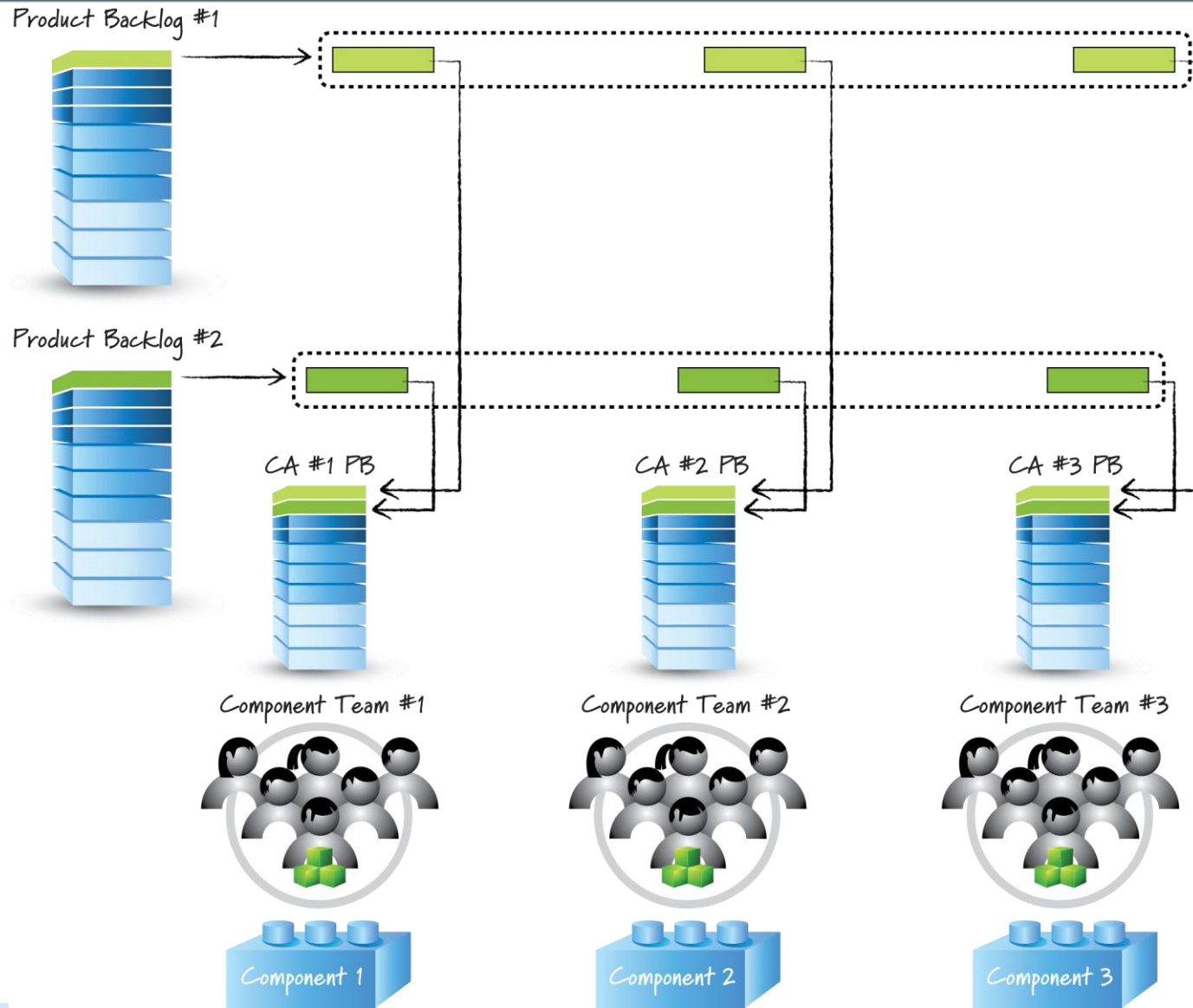
Dependencies



Common Example of How Dependencies Get Created





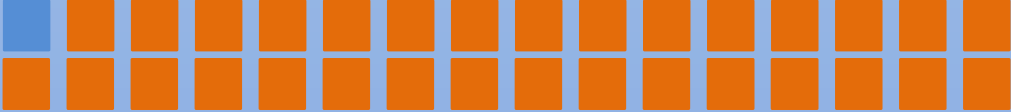
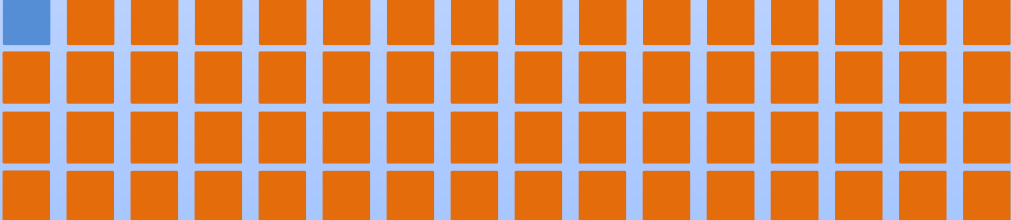


More Complicated Example



Probability of Being Blocked by Dependencies

Chances of being blocked grow exponentially with the number of dependencies

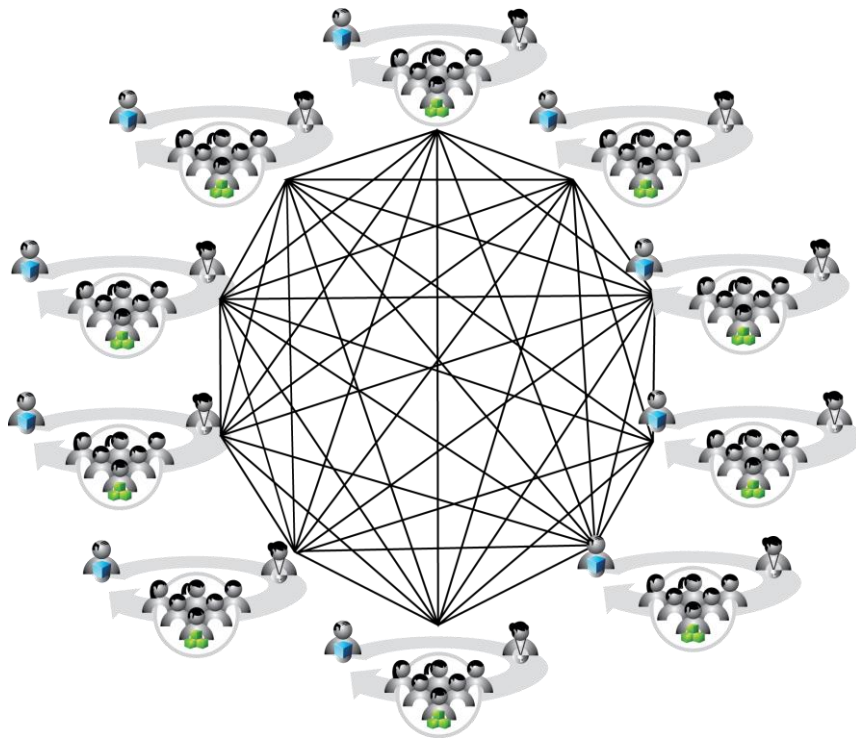
# of Dependencies	Chance of On-Time Delivery	Visualization
1	1 in 2 (50%)	
2	1 in 4 (25%)	
3	1 in 8 (12.5%)	
4	1 in 16 (6.25%)	
5	1 in 32 (3.125%)	
6	1 in 64 (1.5625%)	

Based on: <https://observablehq.com/@troymagennis/impact-of-multiple-team-dependencies-in-software-developm>



Dependencies + Asynchronicity is the Killer Combination

Dependencies



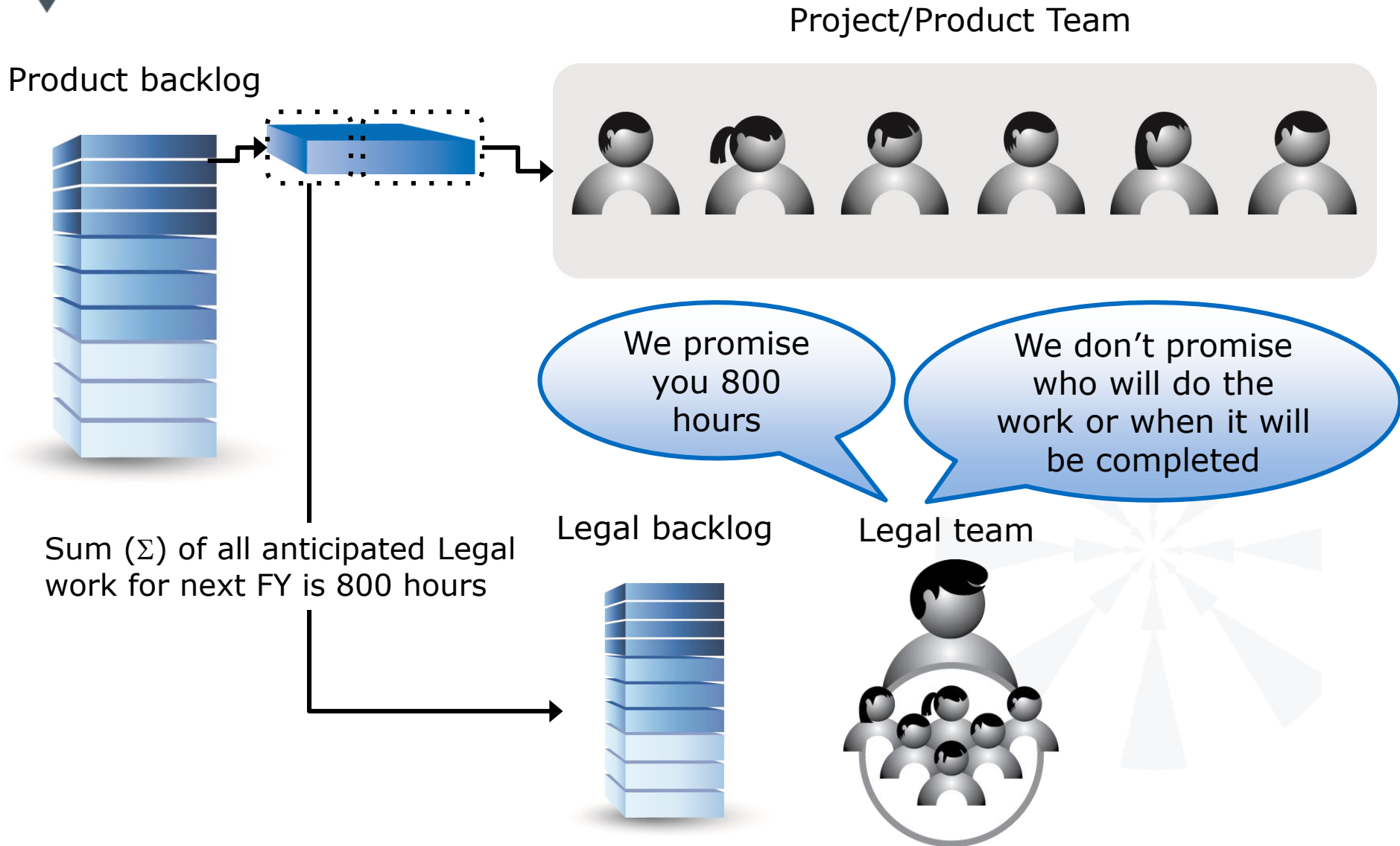
Asynchronicity



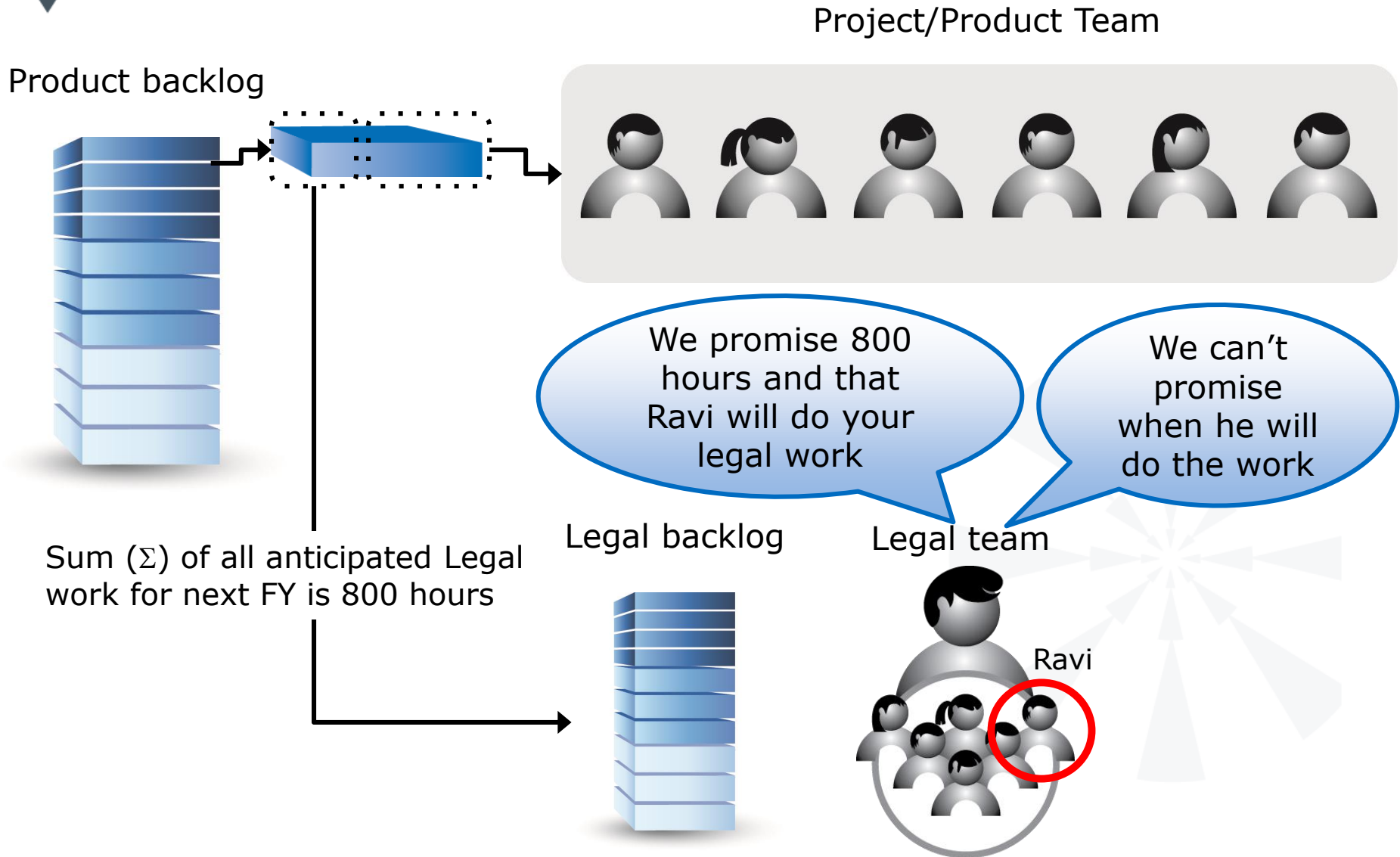
Dependency Management Patterns



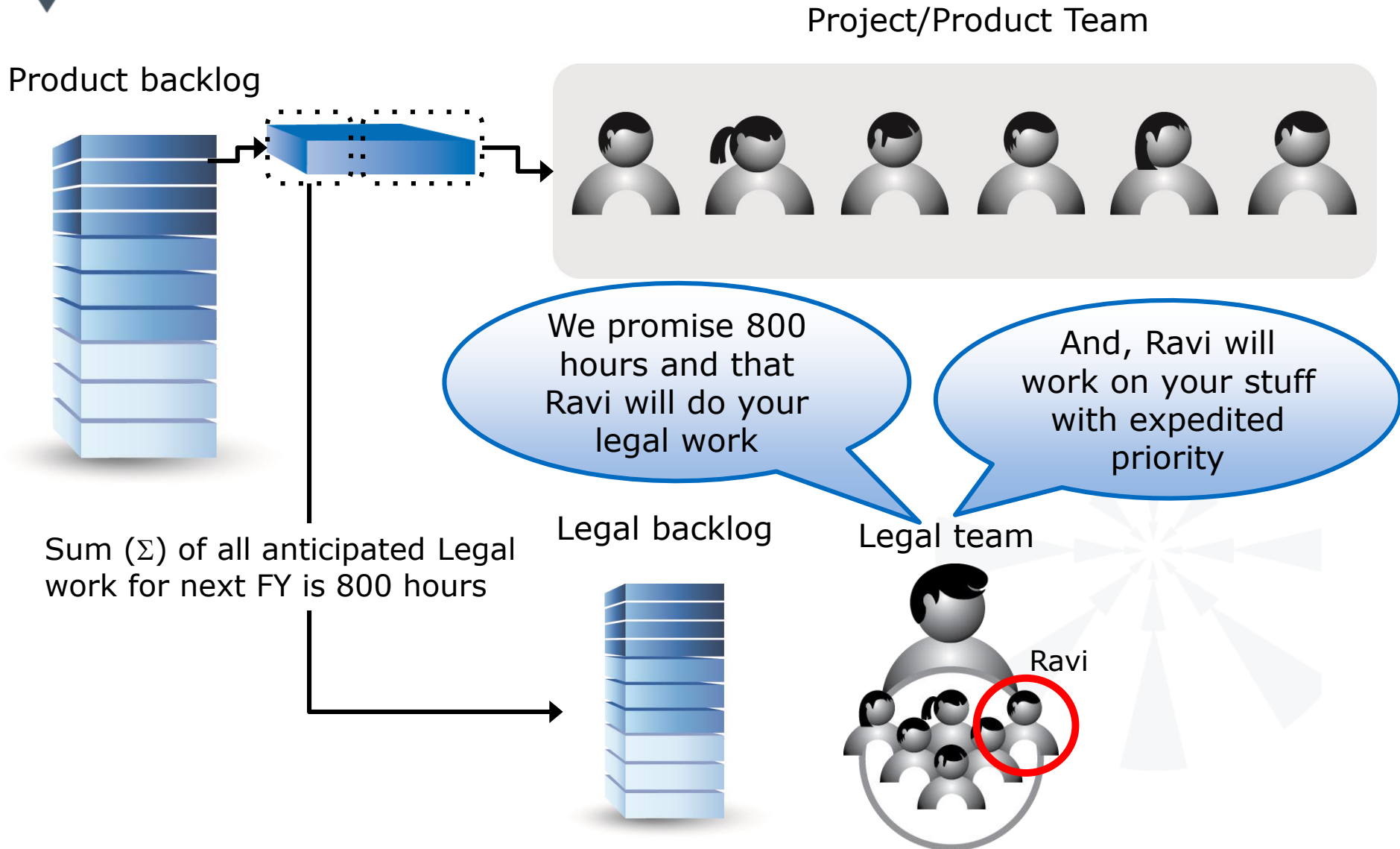
☀ Dedicated Capacity (Long-Term)



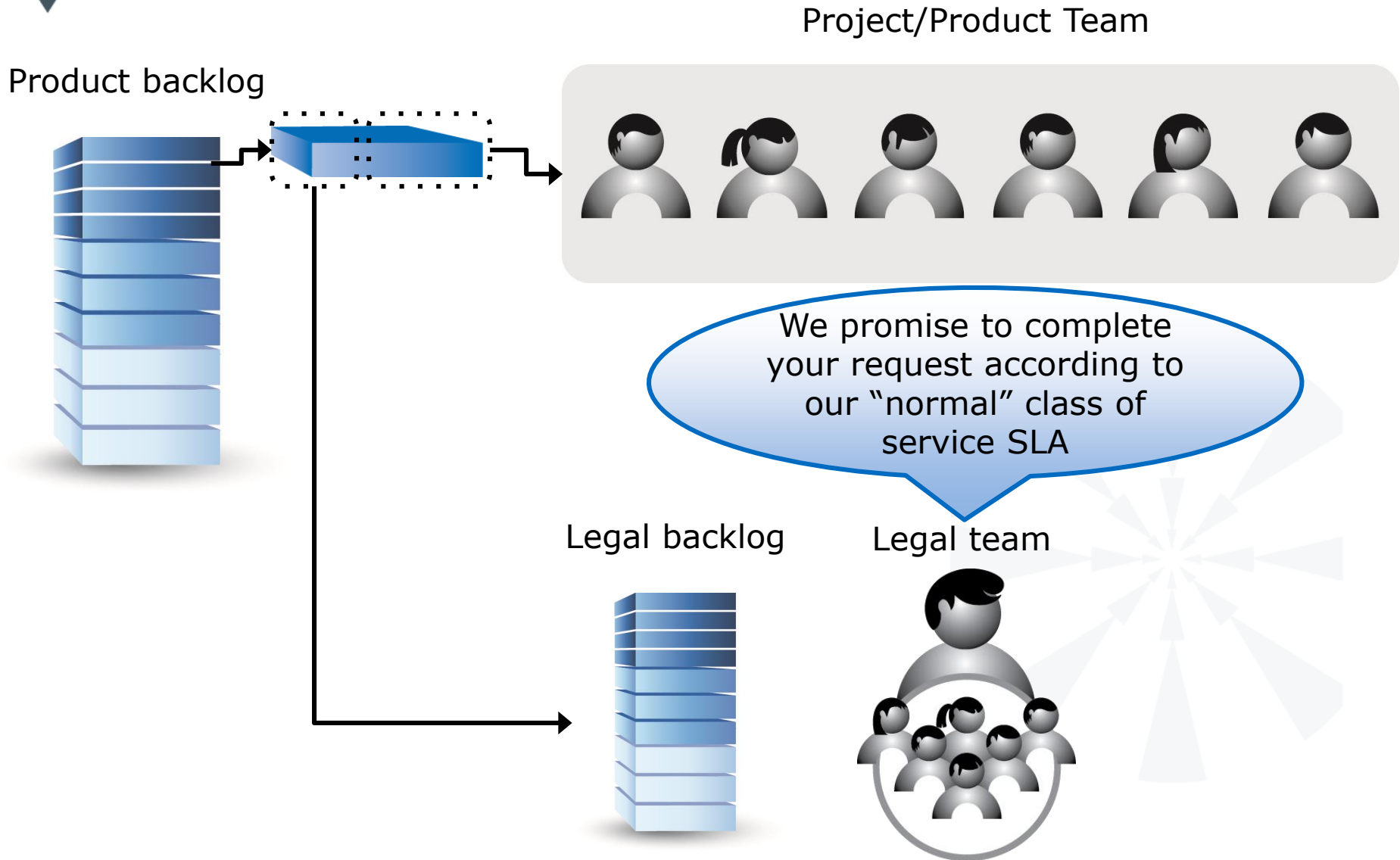
Named Individual (Long-Term)



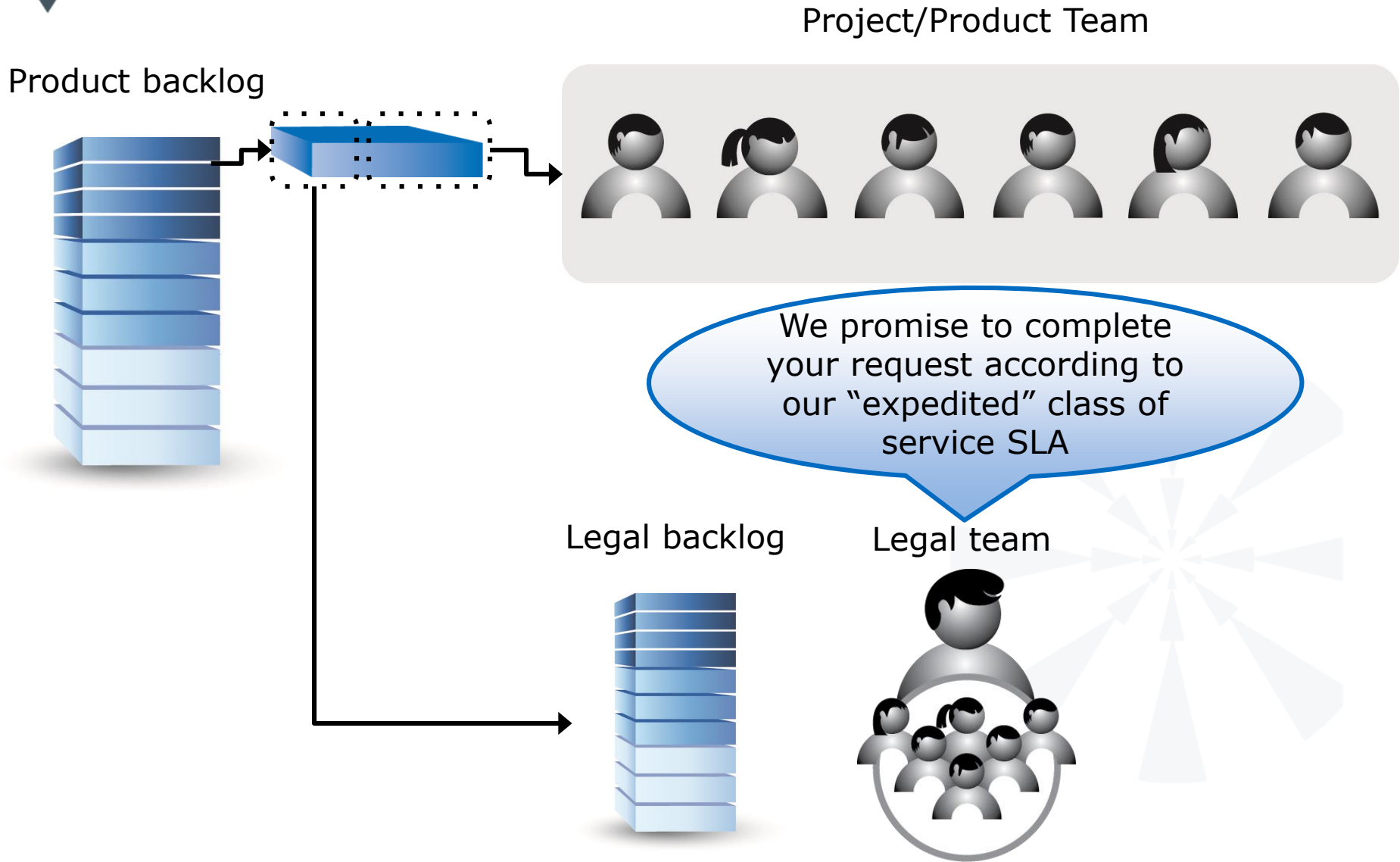
Dedicated, Named, and Expedited (Long-Term)



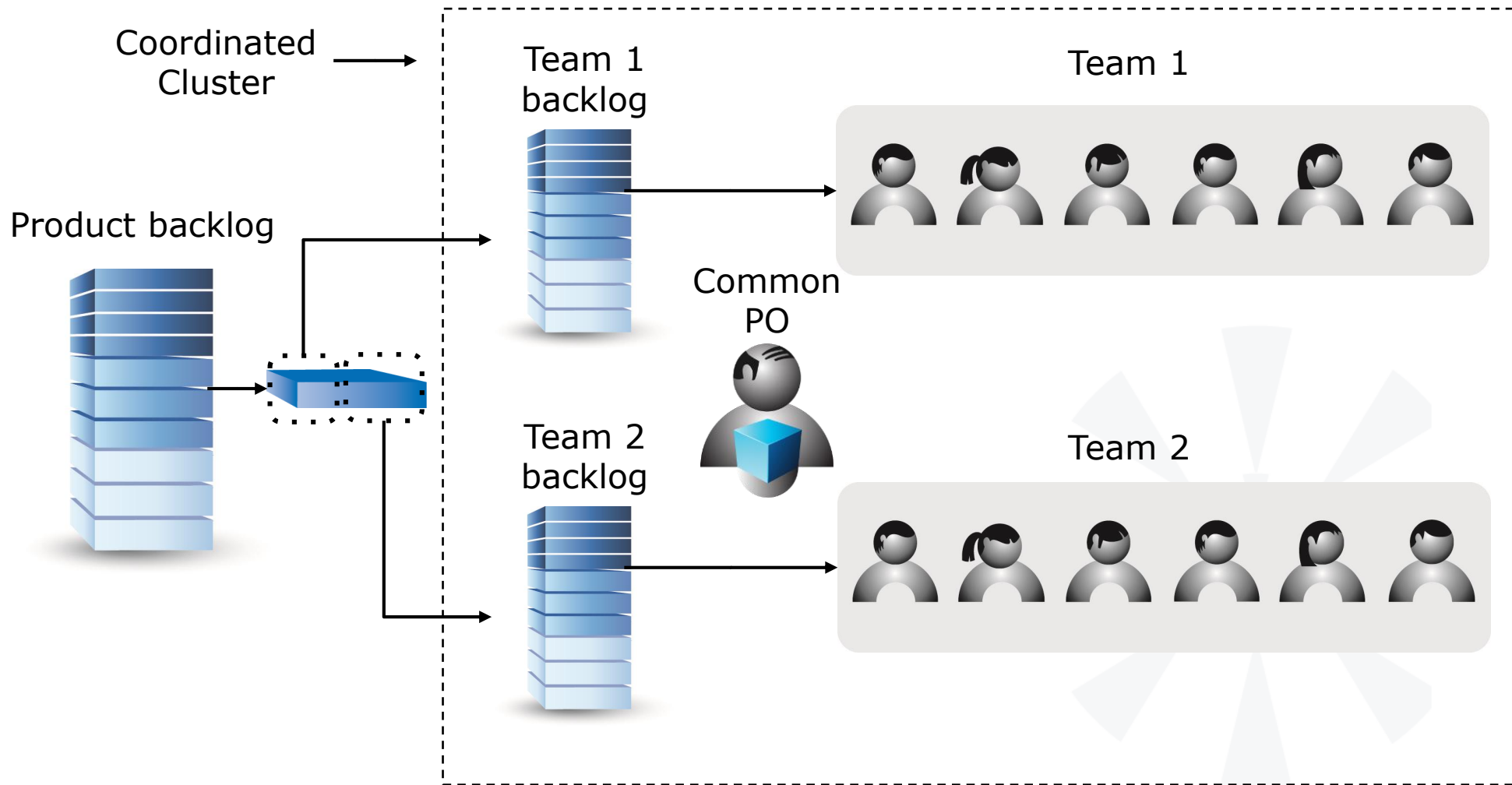
Normal Service



Expeditied Service

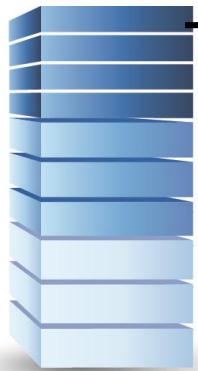


Intra Coordinated Cluster

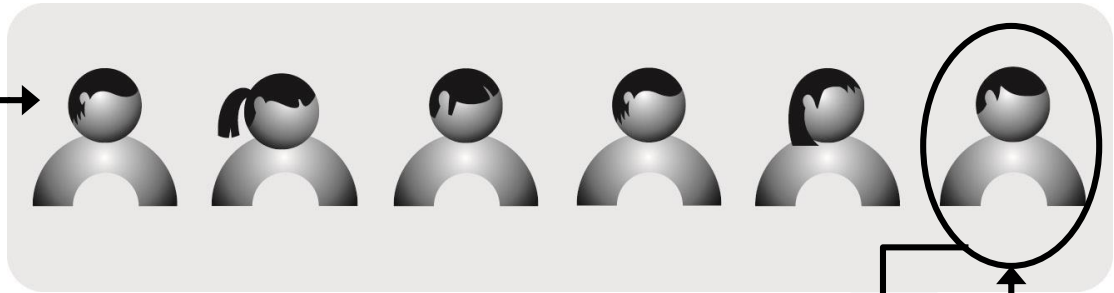


Embedded into Product Team

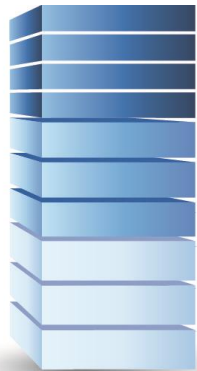
Product backlog



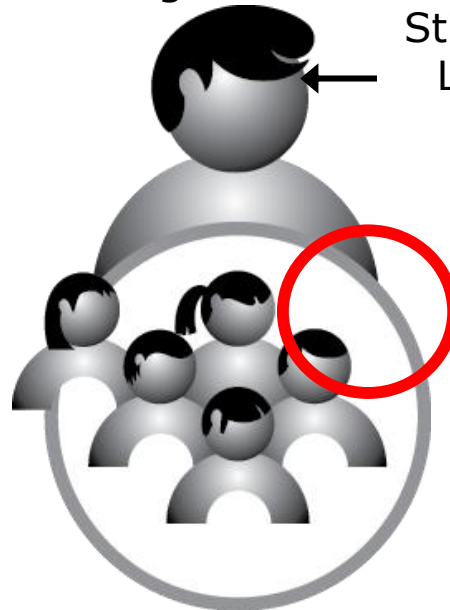
Project/Product Team



Legal backlog



Legal team

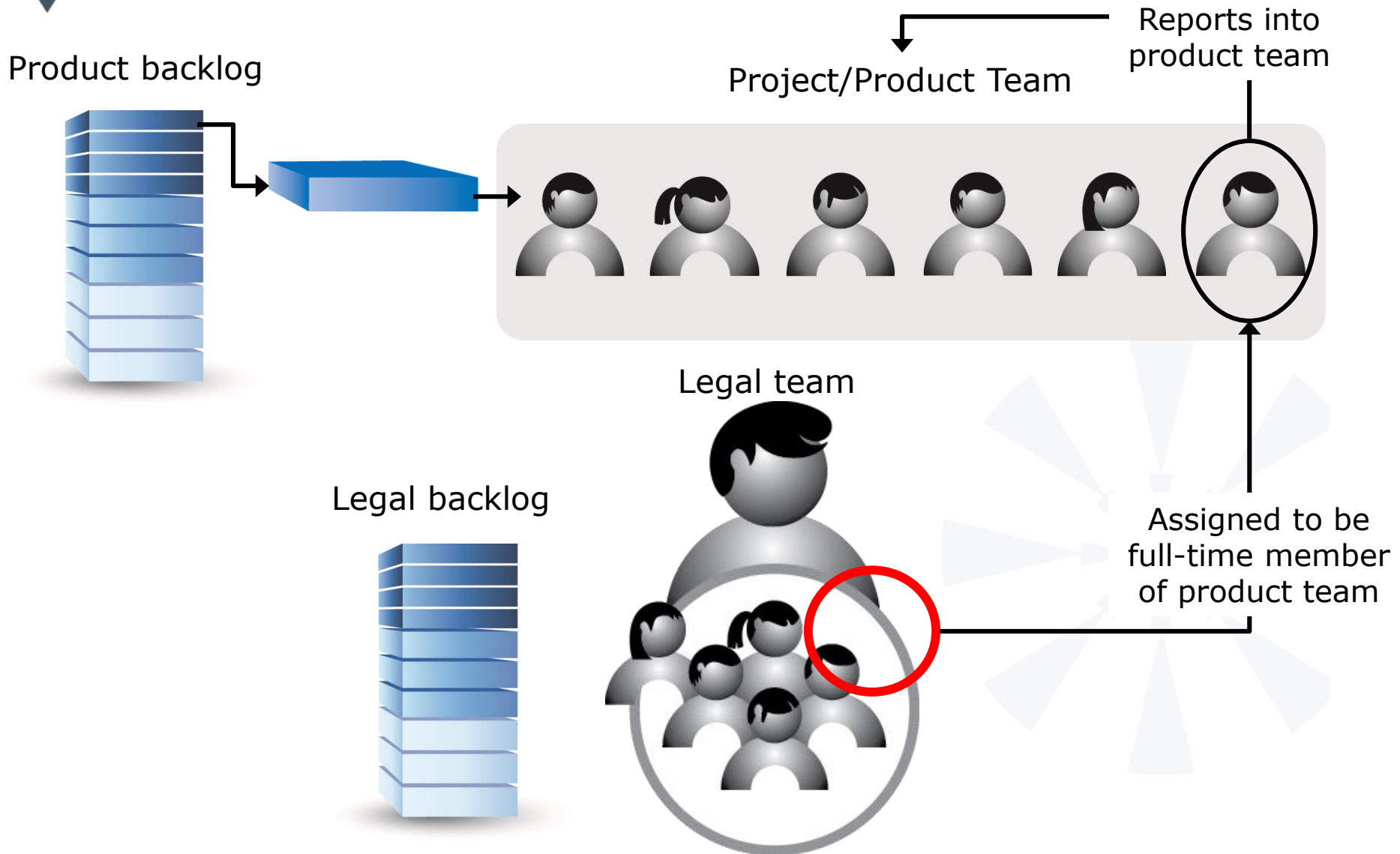


Still reports to
Legal team
Manager

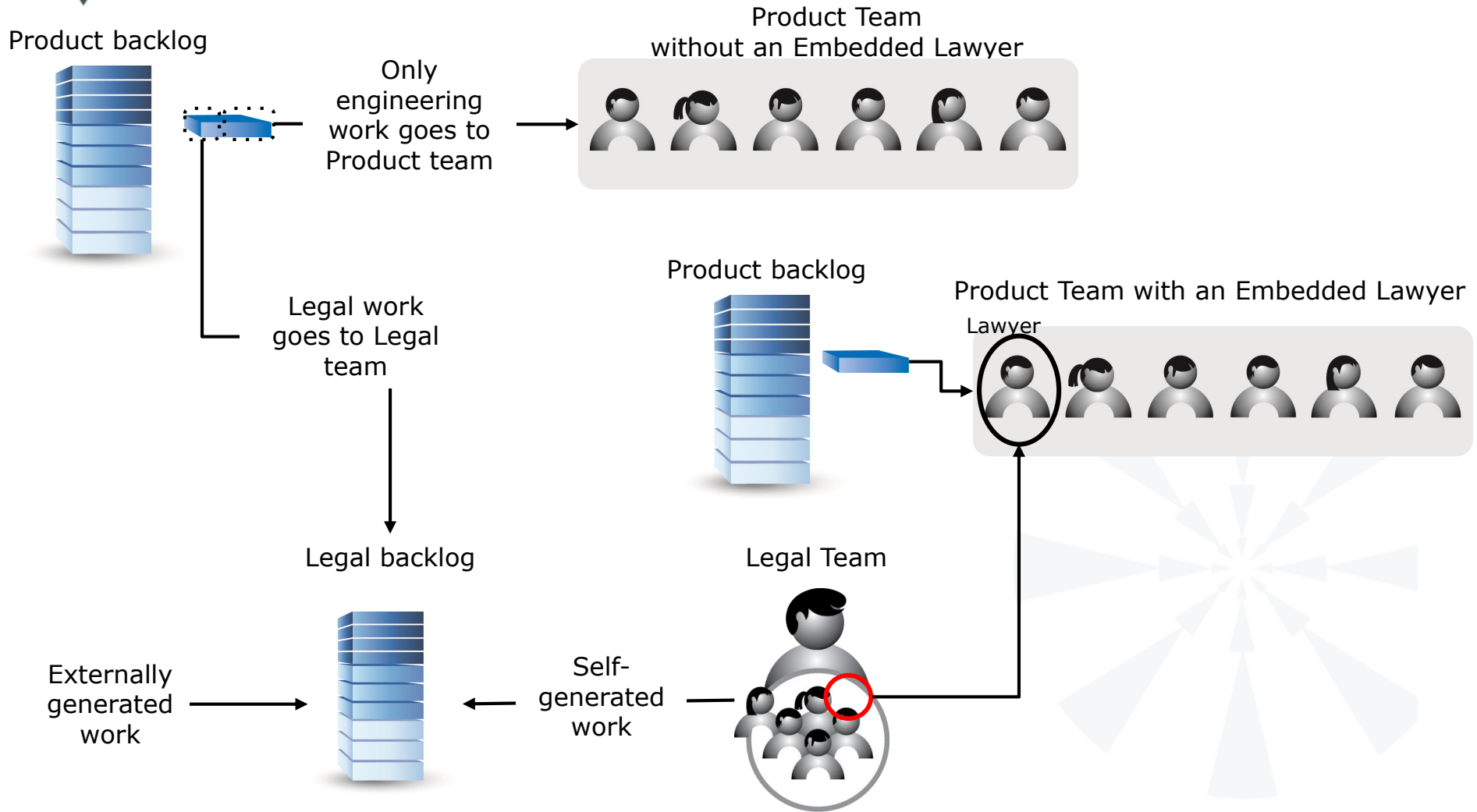
Embedded as a
full-time member
of product team



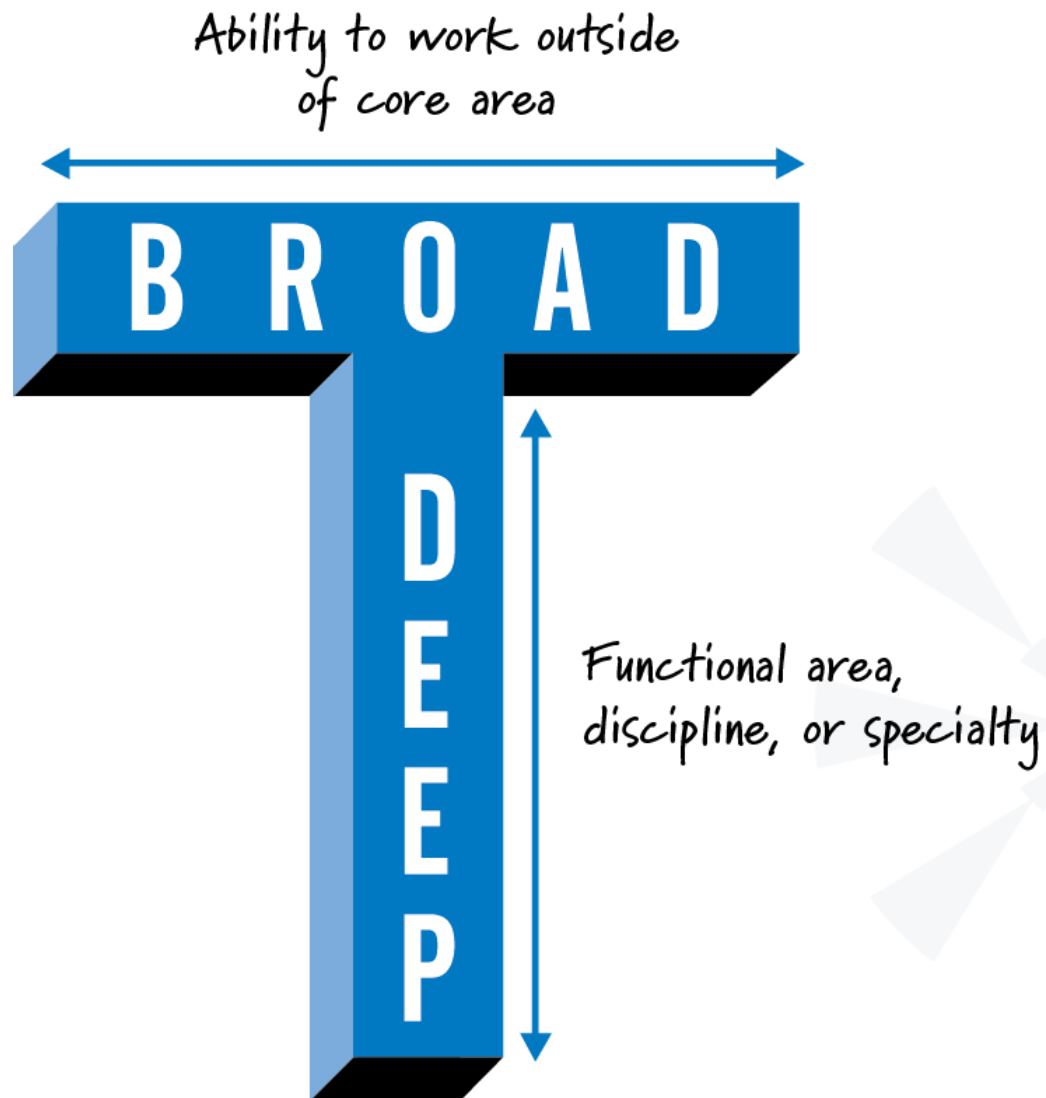
Reporting into Product Team



Embedded and Shared Service Solution



T-Shaped Skills



Multiple Patterns Will Be Necessary

In practice, we use multiple patterns simultaneously within the same company to be practical and achieve high levels of end-to-end agility





Whole Group



Helpful Question: Spin-off As a New Startup

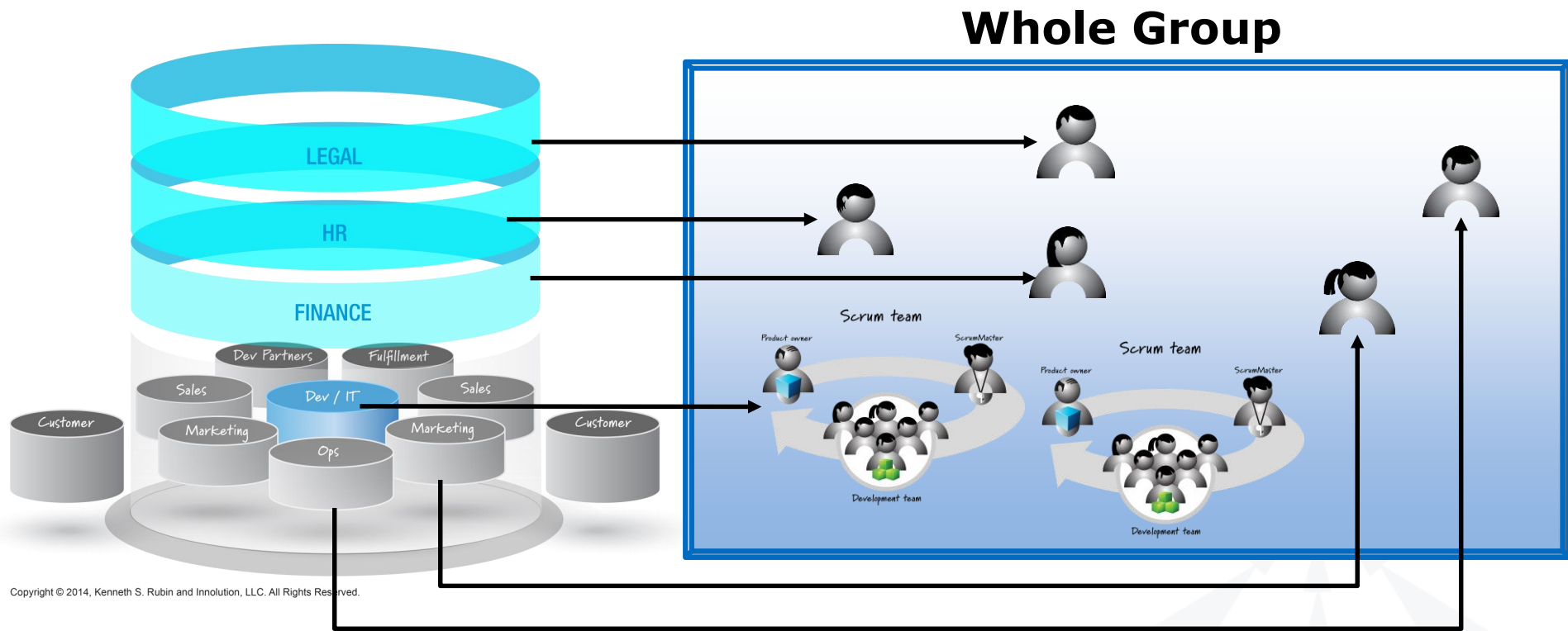
Imagine you spin off your whole group as its own company (e.g., a new FinTech, EduTech, AgTech, etc.).

What people and technologies would you need to take with you so that tomorrow you could be up and running outside your company at an equivalent level of performance as you are today within your company?



Organize All of the Necessary People and Systems Together

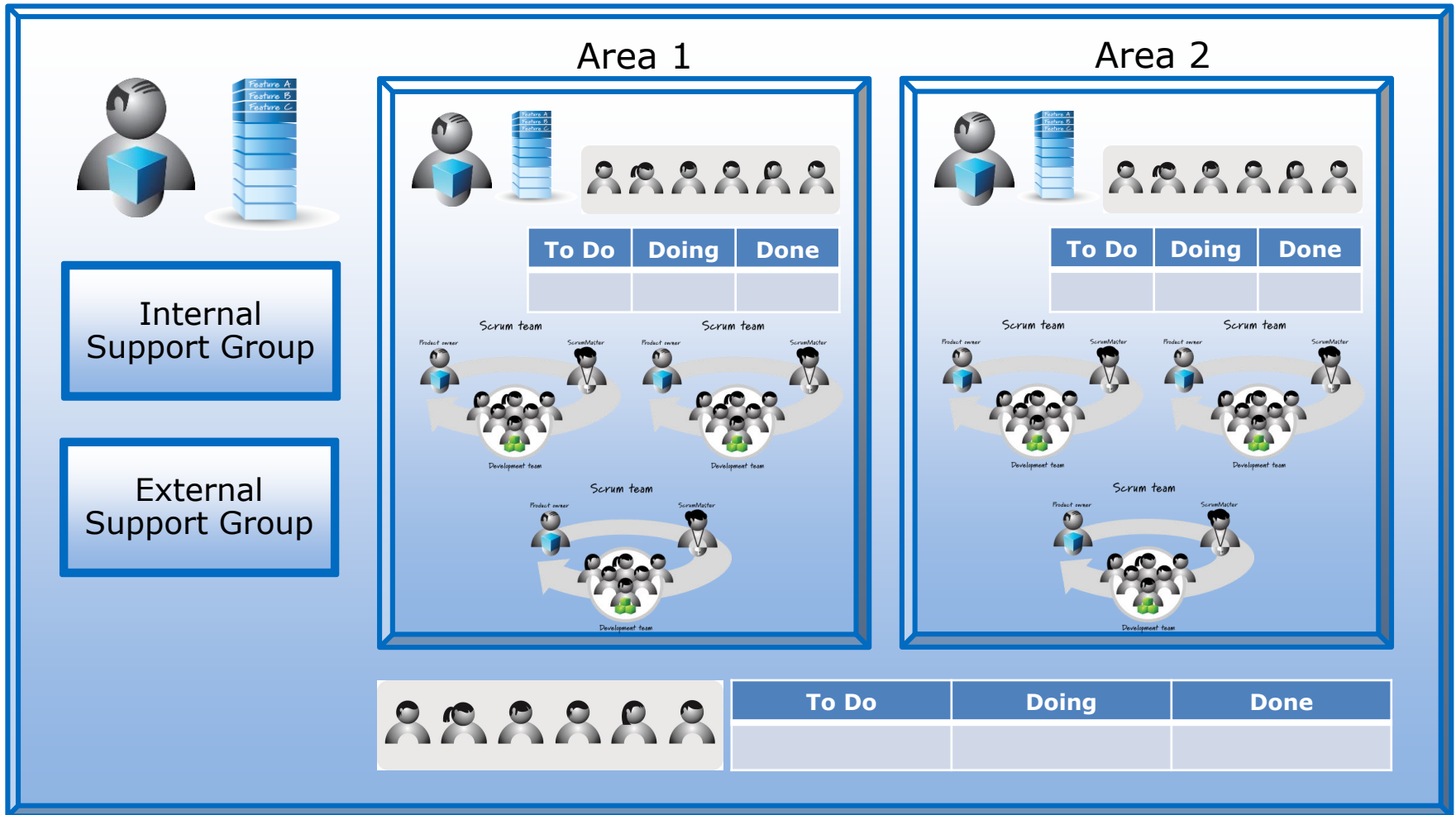
Begin by employing the "Embedded into Product Team" pattern



Makes most dependencies intra Whole Group

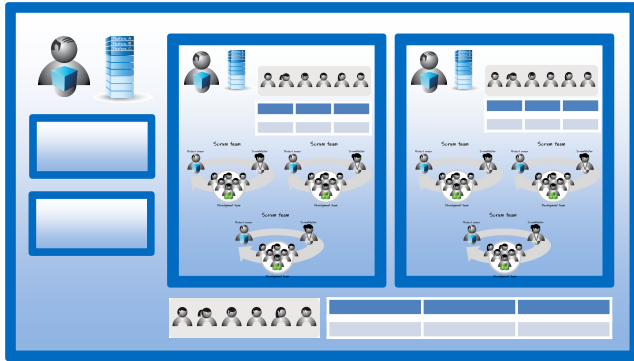


Whole Group Structure

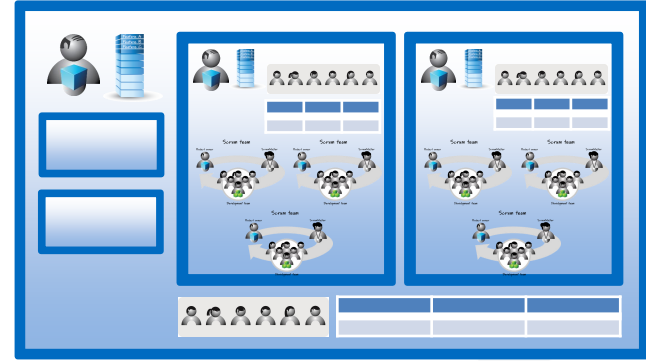


Most Organizations Will Have Multiple Whole Groups

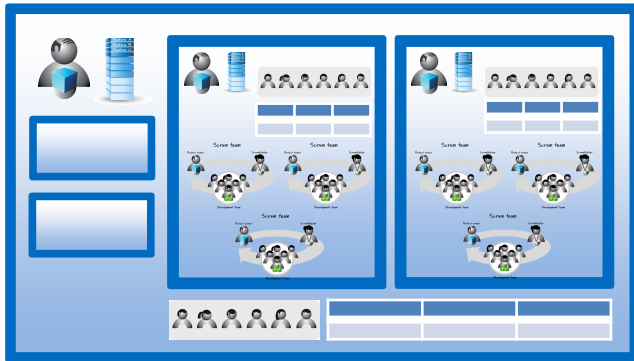
Whole Group 1



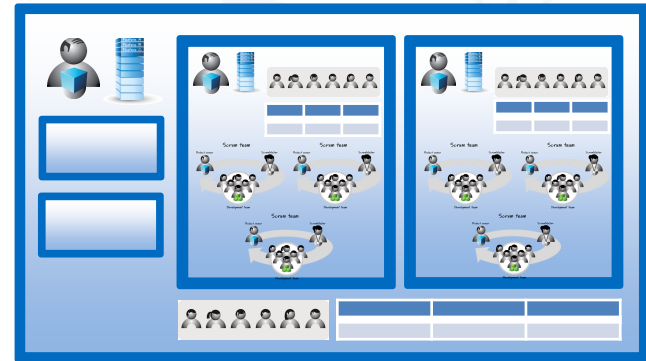
Whole Group 2



Whole Group 3



Whole Group 4



How Should We Identify Whole Groups?

Projects

Products

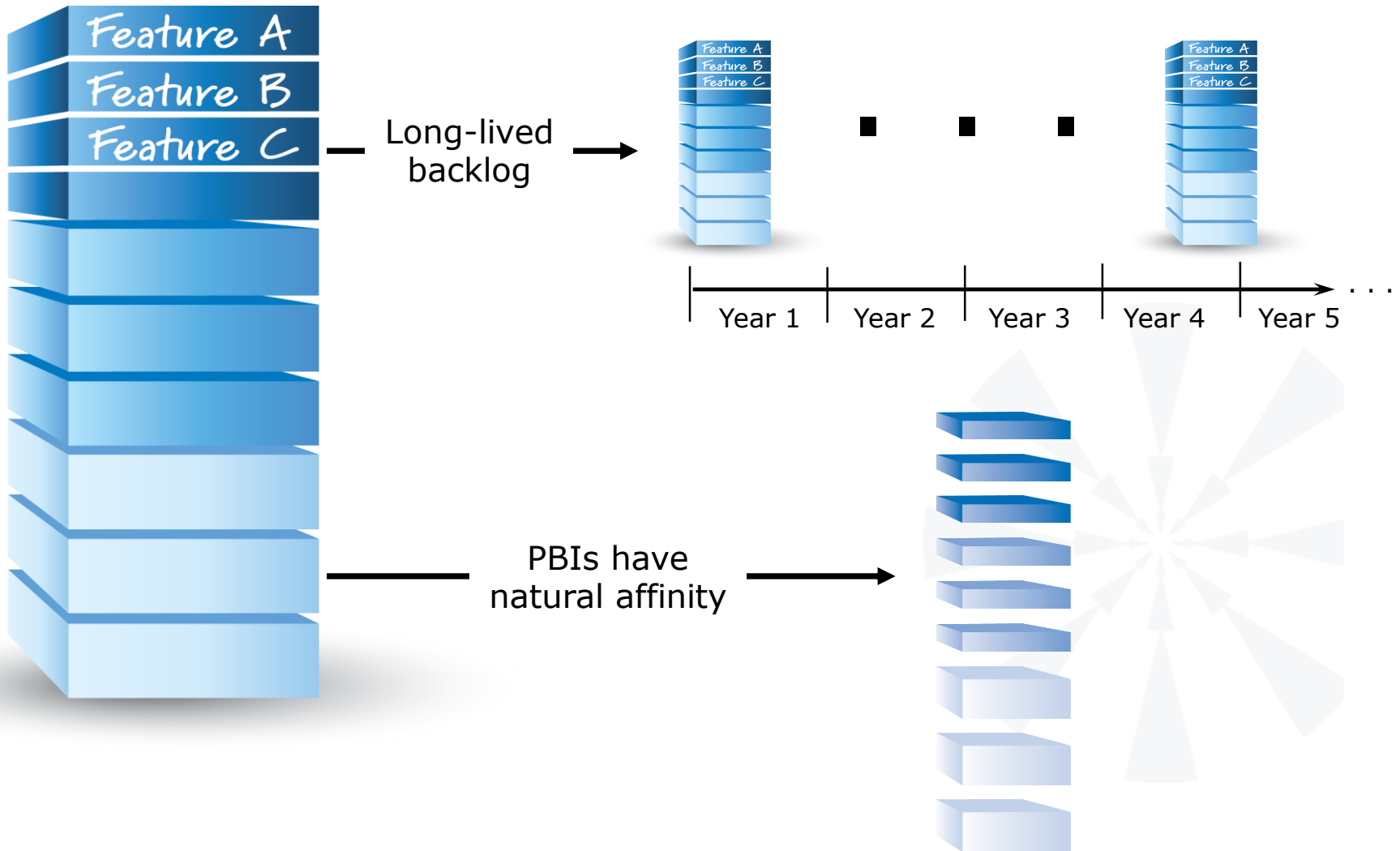
Capabilities

Value Streams

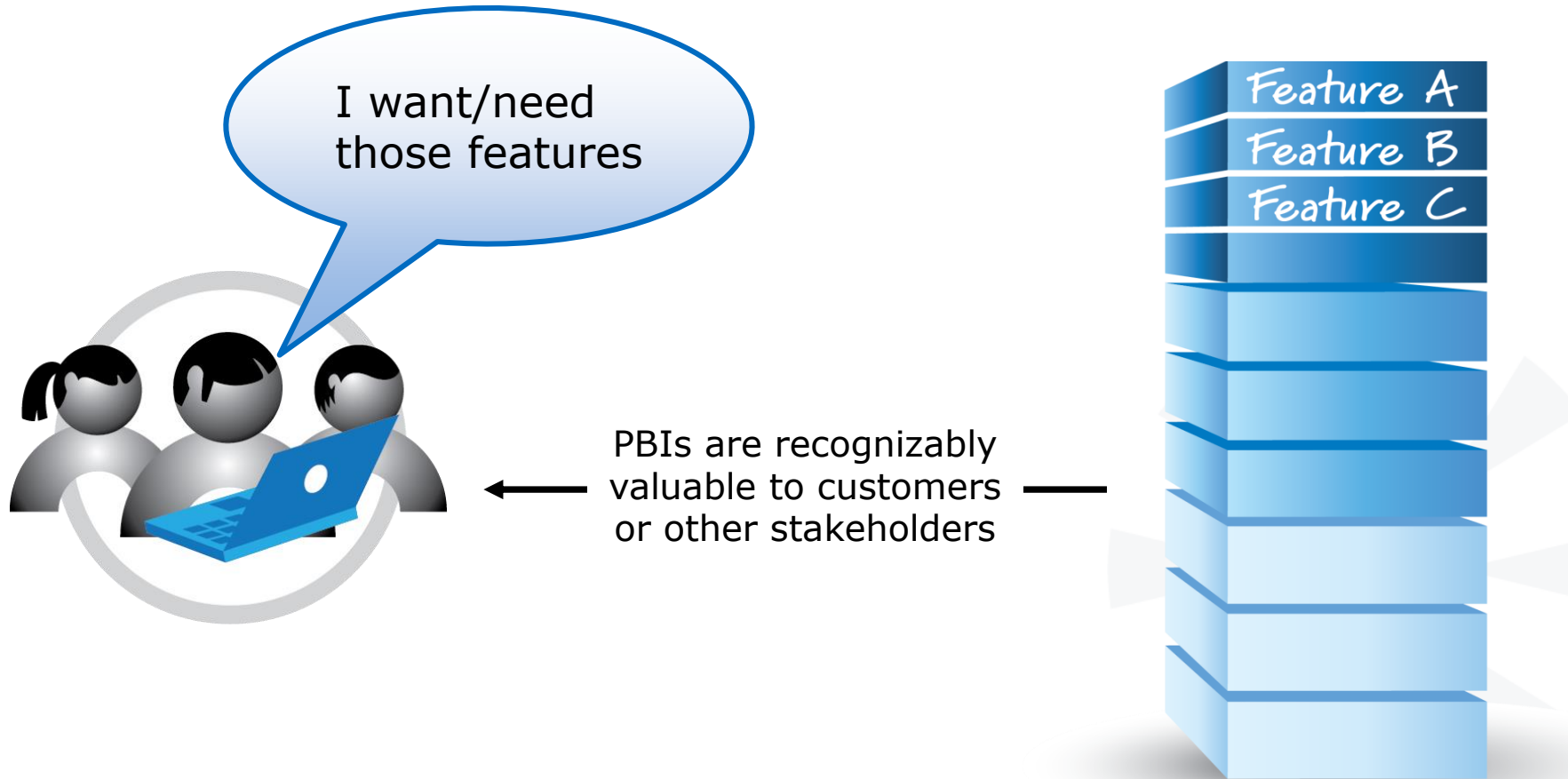
Journeys



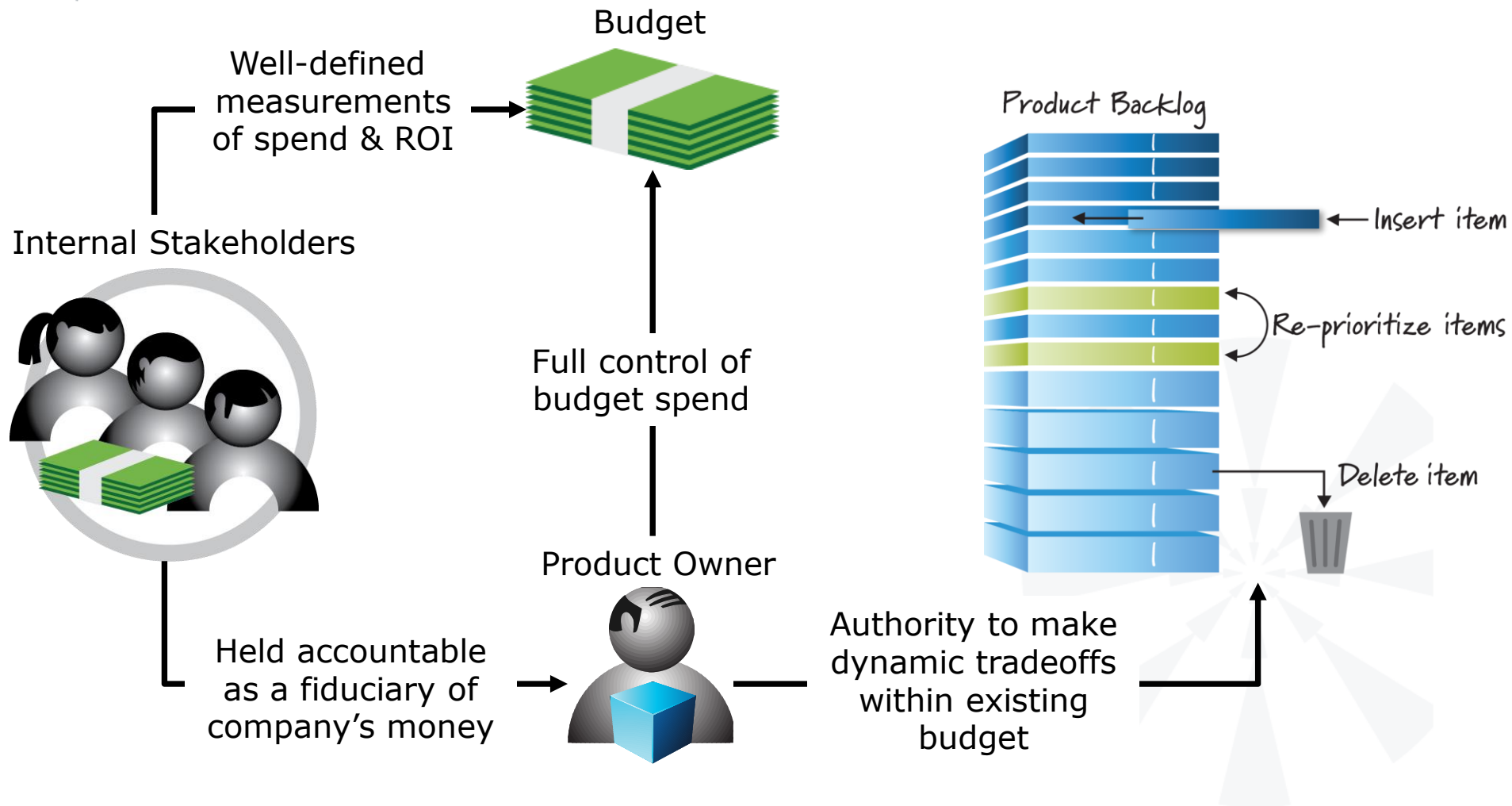
Cohesive Backlog



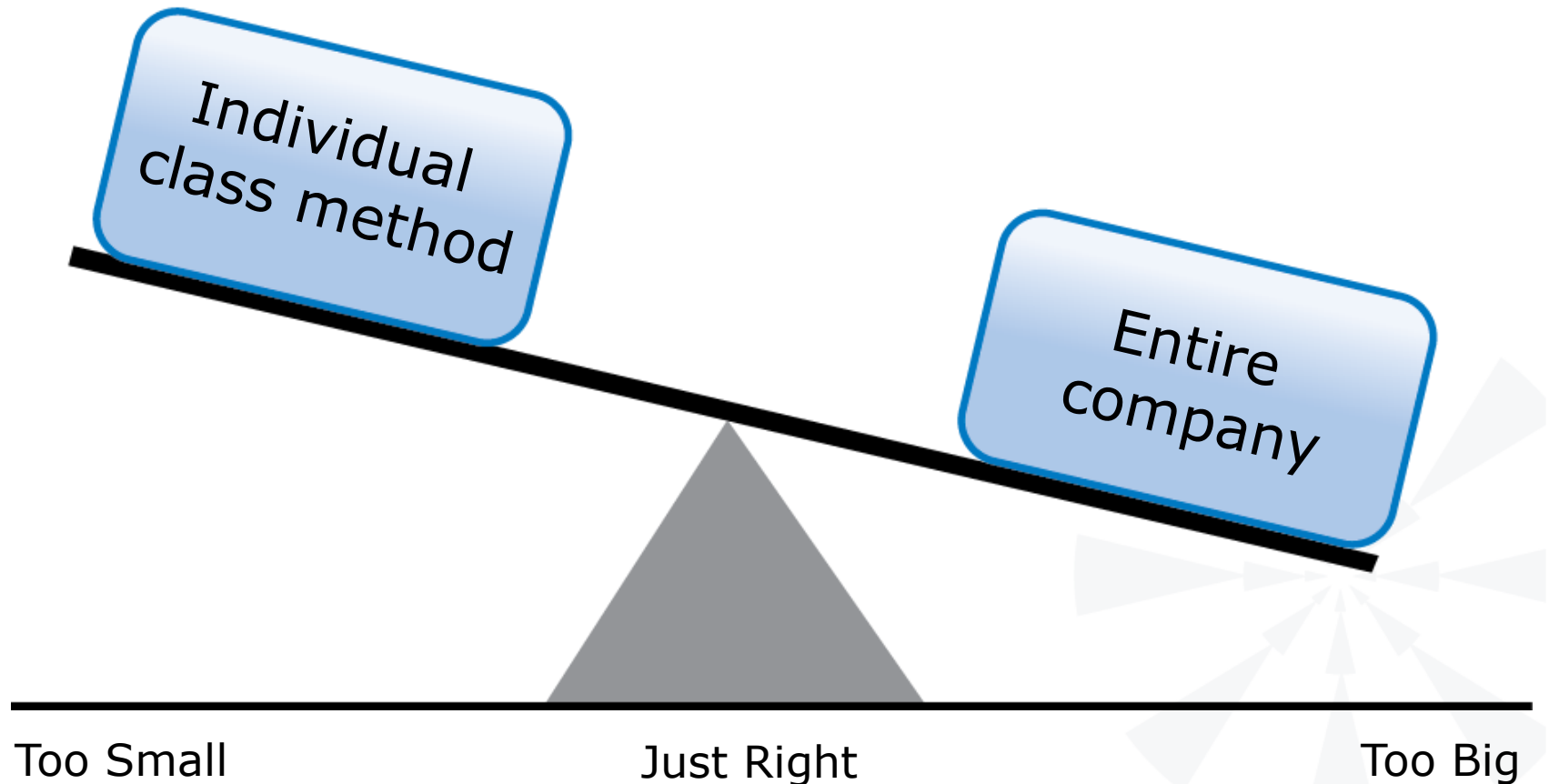
Valuable



Fiscal Control



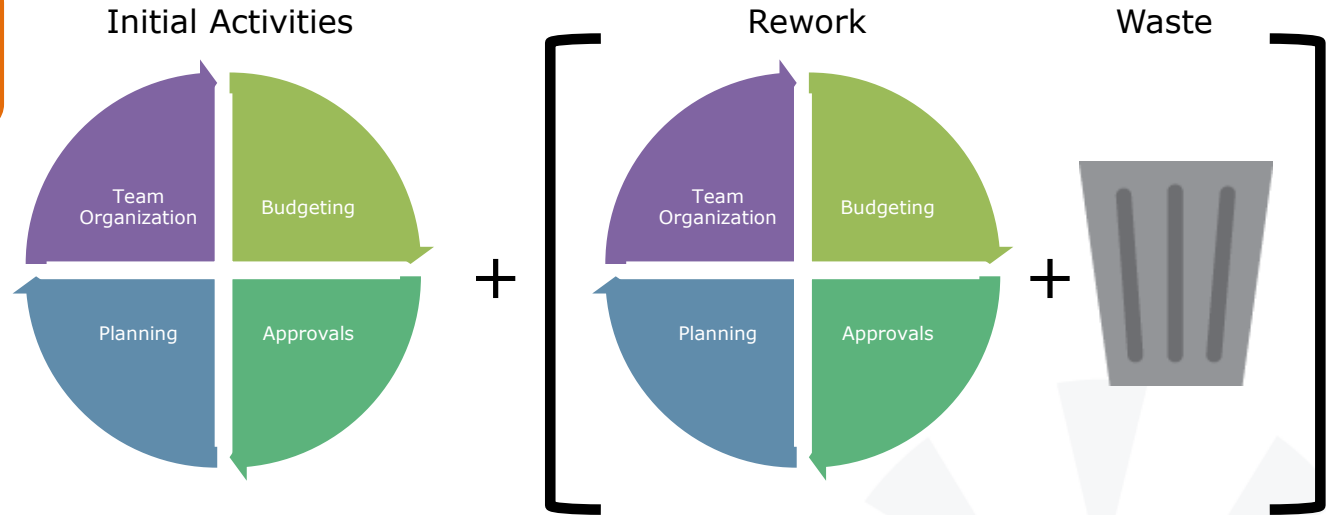
Right Sized – Can't Be Too Small or Too Large



Right Sized – Minimize Total Cost, Proper Inspection & Adaption

Minimize total cost

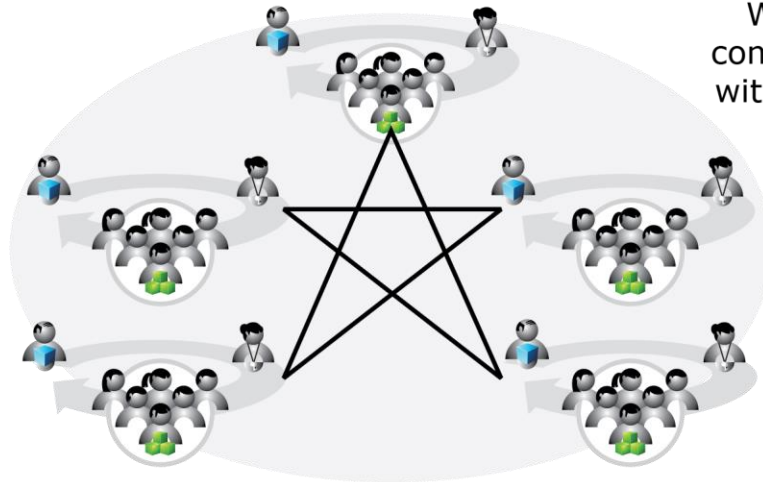
Total Cost =



Permit sensible business inspection and adaptation

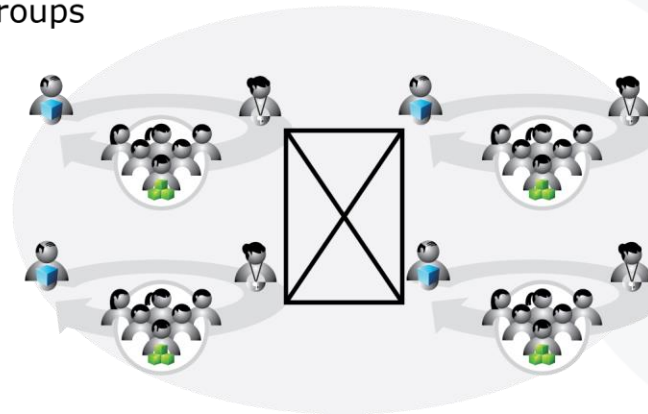
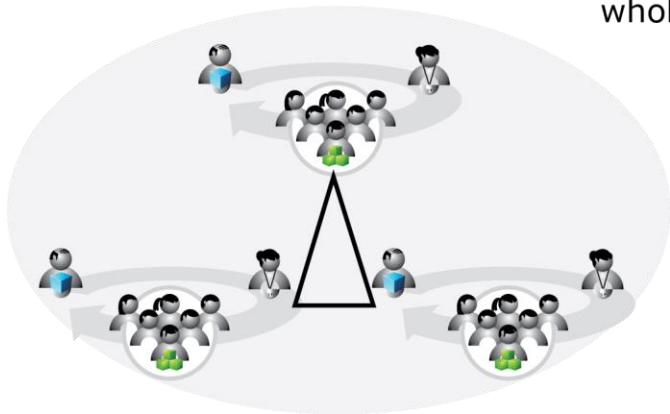


Isolated



Work mostly can be completed by the teams within each whole group

Minimal dependencies between whole groups



Dependencies can exist among the teams within a whole group



Support Use of Preferred Dependency Patterns

Pattern	Whole Group Usage
Dedicated Capacity	Never use this pattern
Named Individual	Avoid this pattern
Dedicated, Named and Expedited	Use when the person is lightly needed and won't be moved into the Whole Group
Normal Service	Use when dealing with a Kanban team whose normal SLA does not impede flow
Expedited Service	Use when dealing with a Kanban team whose expedited SLA does not impede flow
Intra Coordinated Cluster	Use with teams within the same Area inside a Whole Group
Embedded into Whole Group	Default pattern to use when forming a Whole Group
Reporting into Whole Group	Long term desirable pattern for significantly needed people



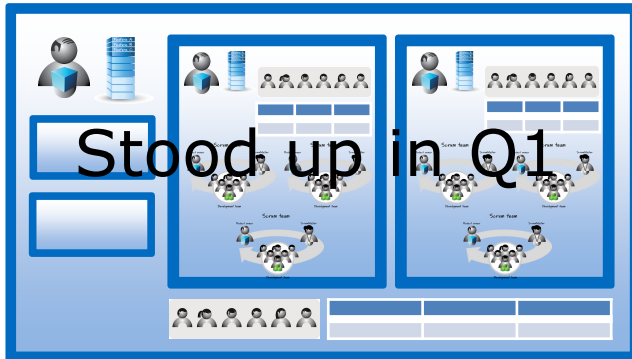


End-to-End Agility Impediments

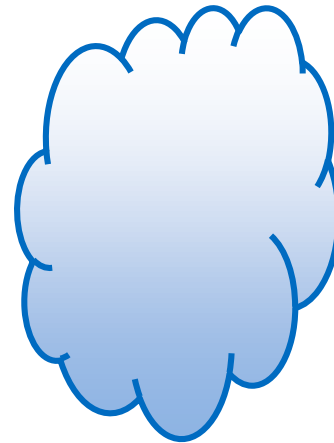
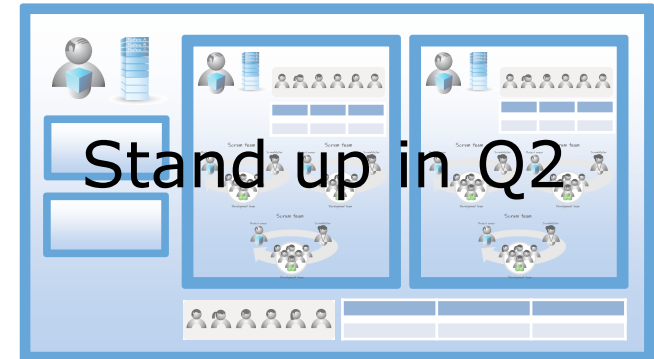


Hybrid Environment

Whole Group 1

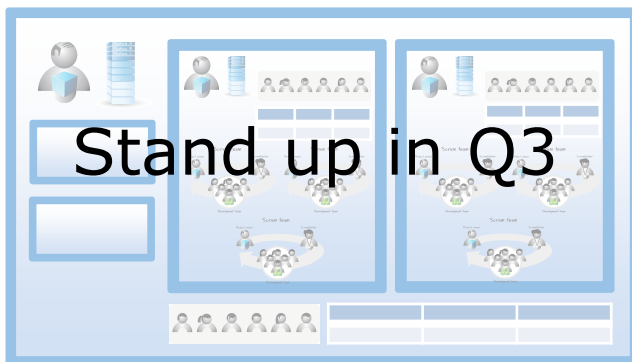


Whole Group 2



Work outside of
Whole Group

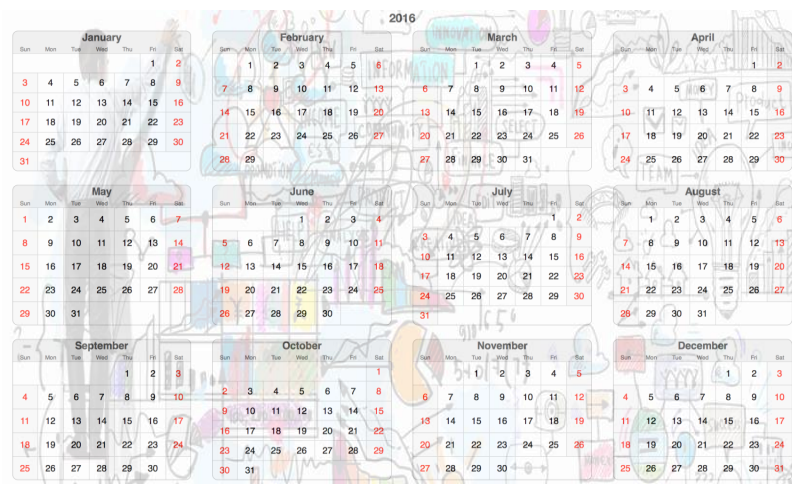
Whole Group 3



Whole Group 4



Want to Do Agile Planning and Budgeting, but...



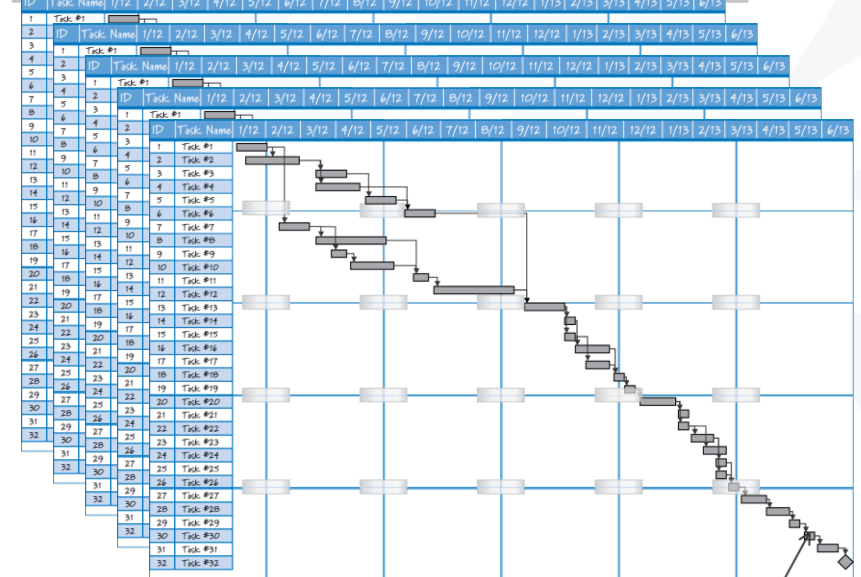
Excel frenzy

Task Name	1/12	2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	1/13	2/13	3/13	4/13	5/13	6/13	
Task #1																			
Task #2																			
Task #3																			
Task #4																			
Task #5																			
Task #6																			
Task #7																			
Task #8																			
Task #9																			
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Task #24																			
Task #25																			
Task #26																			
Task #27																			
Task #28																			
Task #29																			
Task #30																			
Task #31																			
Task #32																			

Apple & Bartlett, PC - Period ending Friday, 30 September, 2005 (ADMIN) - Deltek Vision

Resource Utilization

Resource Name	Billable Hours	Billable Goal	Billable Utilization %	Scheduled Ratio %	Utilization Ratio %	Sep 2005 07/09-30/09 Wed-Fri	Oct 2005 01/10-30/10 Sat-Mon	Nov 2005 01/11-30/11 Tue-Wed	Dec 2005 01/12-31/12 Thu-Sat	Jan 2006 01/01-31/01 Sun-Tue
Anderson, Steve	1551	14%	19%	70%	(60%)	(42%)	(18%)	(20%)	(45%)	(45%)
Apple, William	1108	38%	38%	50%	(65%)	(58%)	(58%)	(47%)	(86%)	(86%)
Ashton, Alan	1884	5%	5%	85%	(4%)	(4%)	(4%)	(4%)	(5%)	(5%)
Barrett, Tina	1551	37%	37%	70%	(82%)	(86%)	(84%)	(24%)	(43%)	(43%)
Bartlett, James	886	29%	29%	40%	(74%)	(74%)	(74%)	(70%)	(34%)	(34%)
Baugh, Laura	1773	26%	26%	80%	(41%)	(51%)	(50%)	(17%)	(21%)	(21%)
Brady, Michael	1994	37%	37%	90%	(80%)	(89%)	(89%)	(88%)	(33%)	(33%)
Brady, Richard	1773	26%	26%	80%	(26%)	(85%)	(82%)	(22%)	(23%)	(23%)
Cohen, Grace	1440	47%	47%	65%	(76%)	(102%)	(103%)	(77%)	(135%)	(135%)
Davison, Emily	1662	56%	56%	75%	(106%)	(110%)	(110%)	(121%)	(111%)	(111%)
Evans, Lisa	1551	46%	46%	70%	(84%)	(92%)	(89%)	(85%)	(116%)	(116%)
Fitz, Alexander	1662	0%	0%	75%	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Frankel, Evangaline	1330	0%	0%	60%	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Getson, Laura	1994	3%	3%	0%	(6%)	(6%)	(6%)	(6%)	(11%)	(11%)
Gonzalez, Luis	1994	49%	49%	90%	(95%)	(92%)	(92%)	(153%)	(136%)	(136%)
Gray, Brenda	1551	38%	38%	70%	(81%)	(89%)	(87%)	(29%)	(55%)	(55%)
Green, Elvis	1330	0%	0%	60%	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Hertz, Johnathan	1773	35%	46%	80%	(176%)	(209%)	(85%)	(83%)	(21%)	(21%)
Hightower, John	1662	33%	33%	75%	(1%)	(17%)	(98%)	(97%)	(181%)	(181%)
Johnson, Ann	1330	32%	32%	0%	(247%)	(72%)	(70%)	(10%)	(56%)	(56%)
Kelly, John	1994	2%	2%	0%	(4%)	(4%)	(4%)	(3%)	(10%)	(10%)
Lambert, Robert	1662	23%	23%	75%	(126%)	(145%)	(7%)	(27%)	(32%)	(32%)
Langenbloom, Victoria	1884	0%	0%	85%	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Lee, Martin	1662	6%	6%	75%	(10%)	(10%)	(10%)	(11%)	(1%)	(1%)
Lewis, Carl	1662	22%	35%	75%	(149%)	(170%)	(67%)	(8%)	(11%)	(11%)
Little, Sally	1440	11%	11%	65%	(95%)	(0%)	(0%)	(27%)	(32%)	(32%)
MacKenzie, Jonathon	1662	42%	42%	75%	(114%)	(96%)	(96%)	(90%)	(47%)	(47%)
Miller, David	1662	16%	16%	0%	(55%)	(63%)	(60%)	(0%)	(37%)	(37%)
Morgan, Dwayne	1219	3%	3%	55%	(48%)	(0%)	(0%)	(0%)	(0%)	(0%)

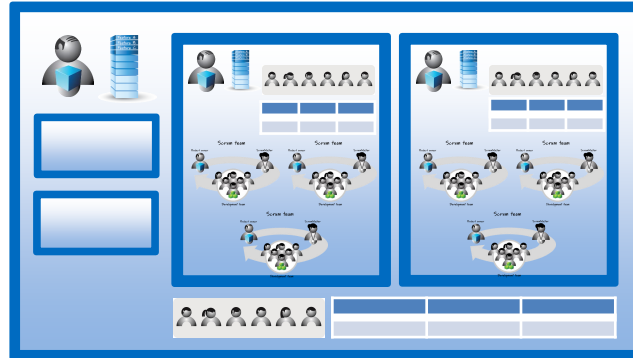


George 18 months from today

Even If We Didn't Have to Deal with Traditional Planning and Budgeting...

Whole Group 1

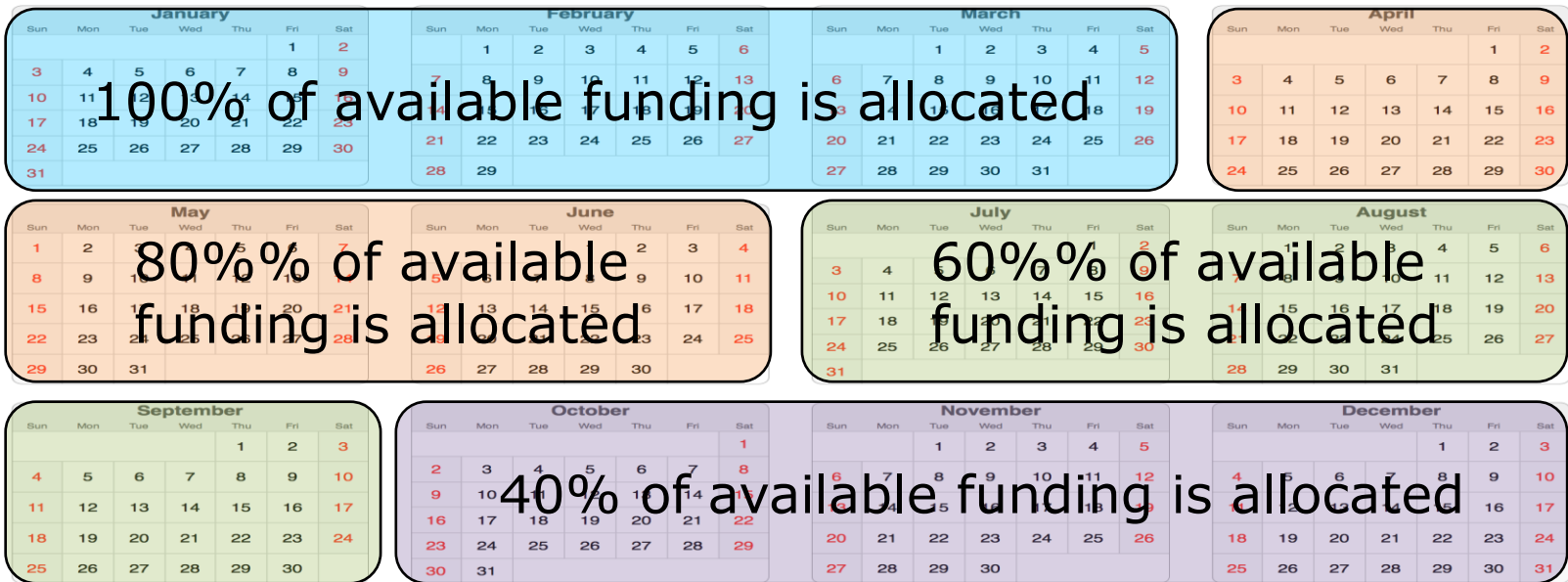
Budget???



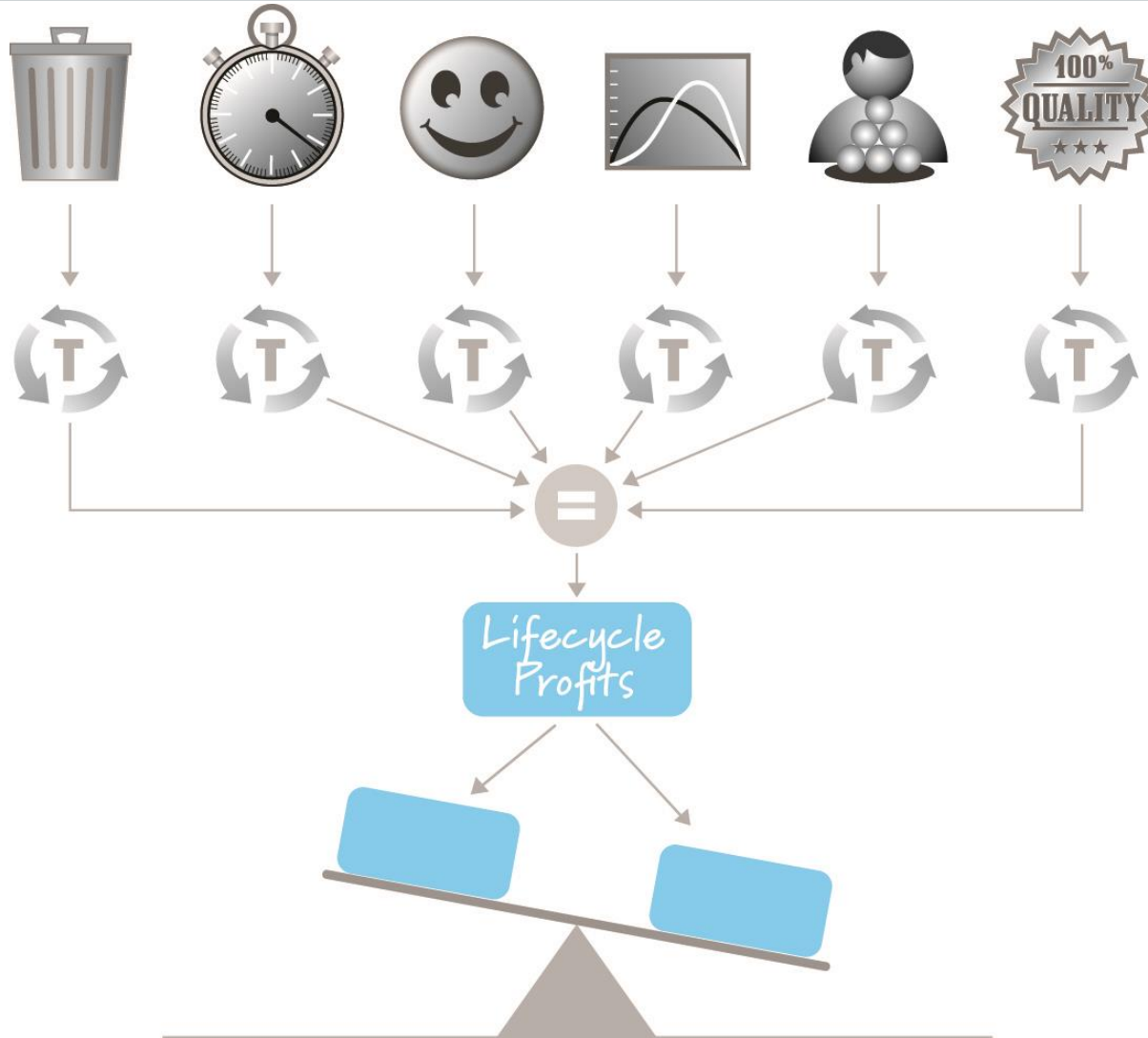
Headcount neutral?

Business-case driven?

2016



Normalize Unit of Value for Prioritization



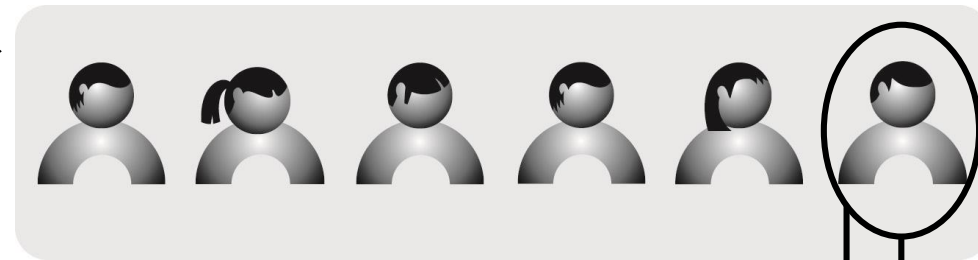
Based on Reinertsen "The Principles of Product Development Flow: Second Generation Lean Product Development"



Team Member Pulled Between Whole Group and Reporting Manager

Product backlog

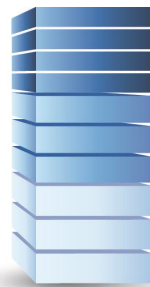
Project/Product Team



③ And, manager is demanding he focus on non-product team work

Legal team

Legal backlog

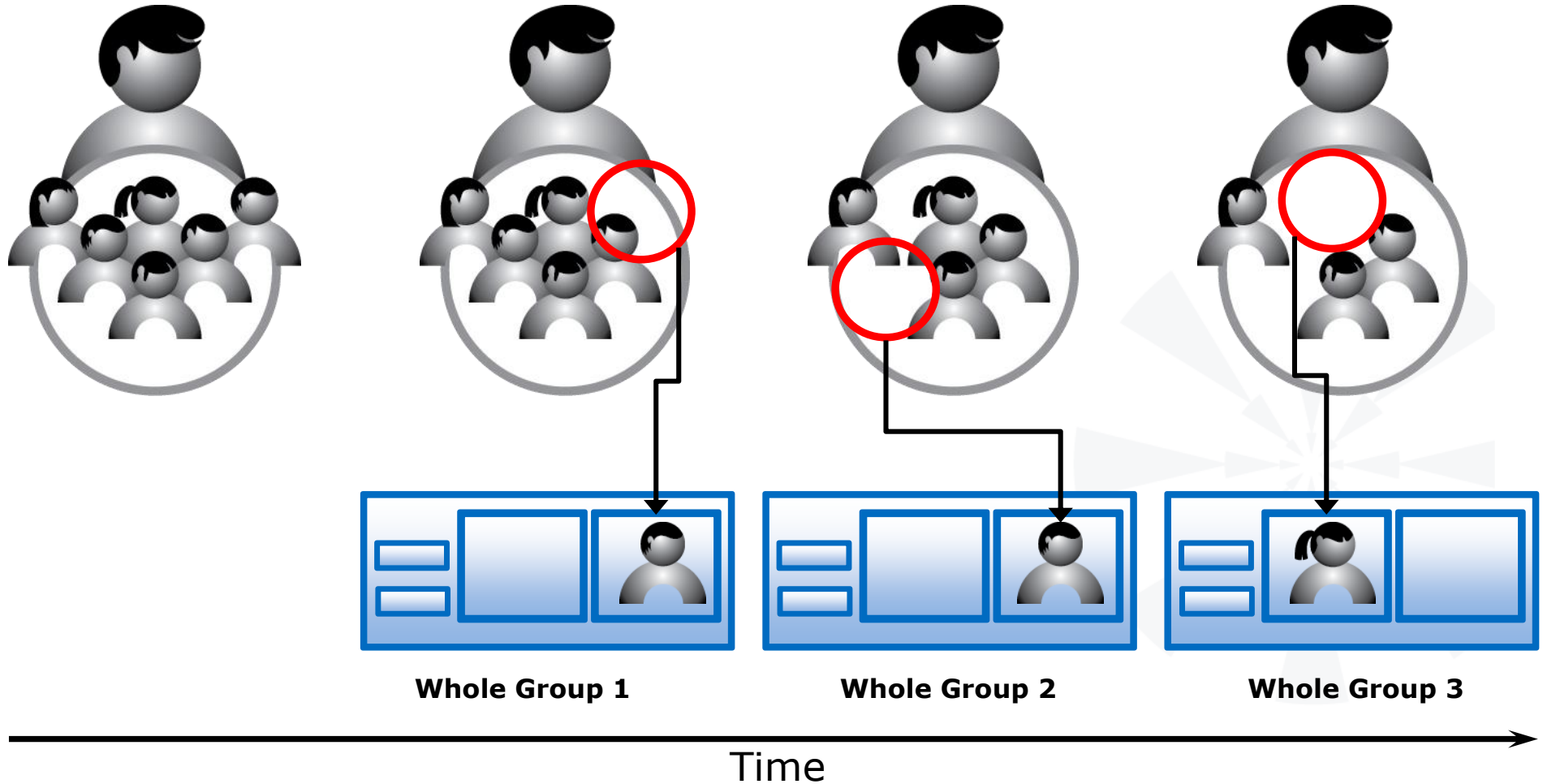


② Still reports to Legal team manager

① Assigned to be full-time member of product team

Depletion of Shared Services

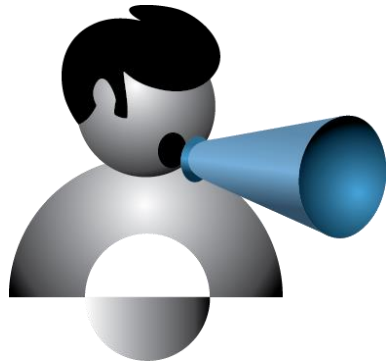
Legal Team



Impediments to T-Shaping

T-Shaping needs to be a priority!

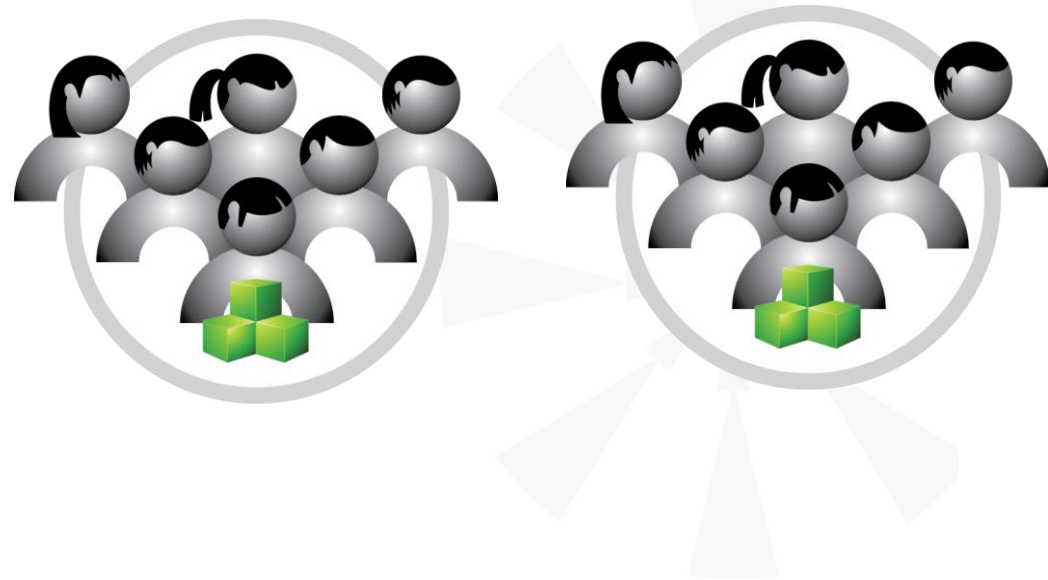
Can't effectively be driven top down



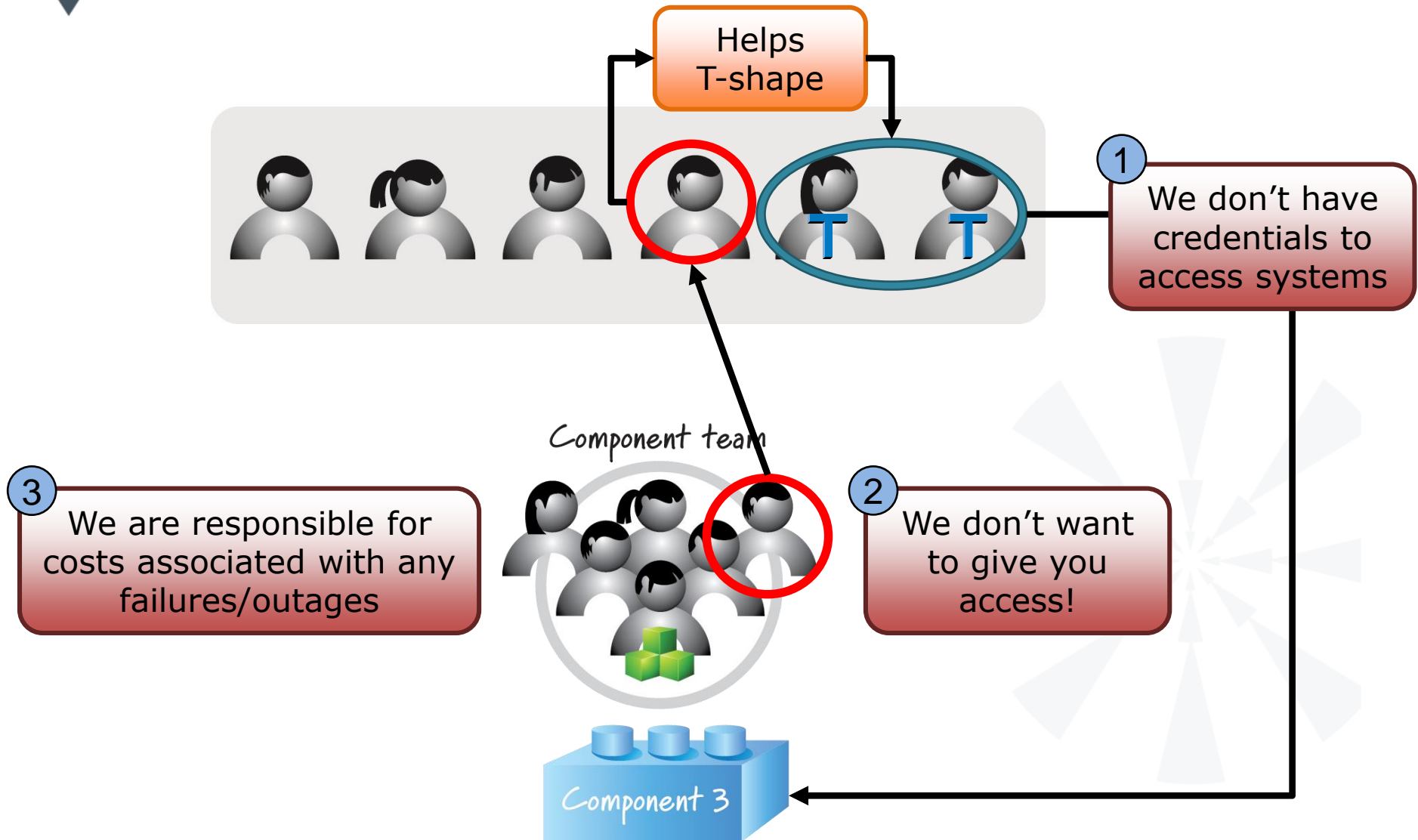
Expand your
T-shaped
Skills!

Management needs to be supportive

Team members need to be responsible

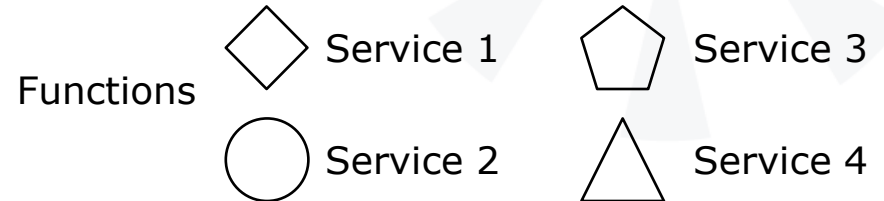
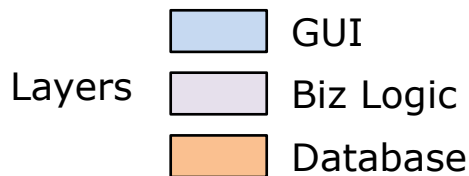
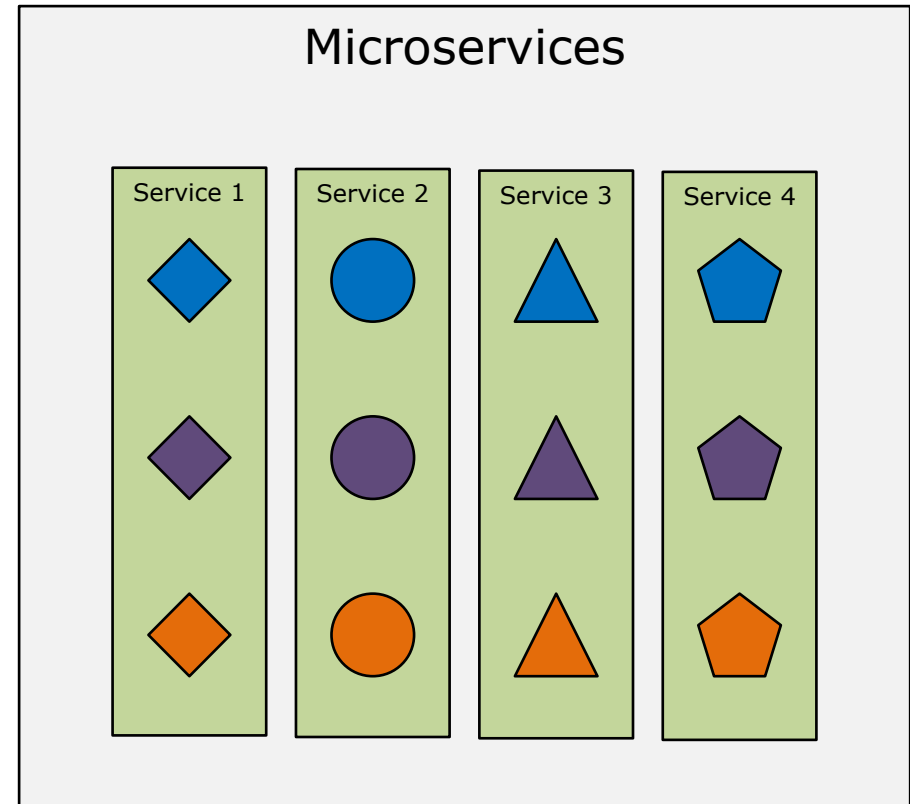
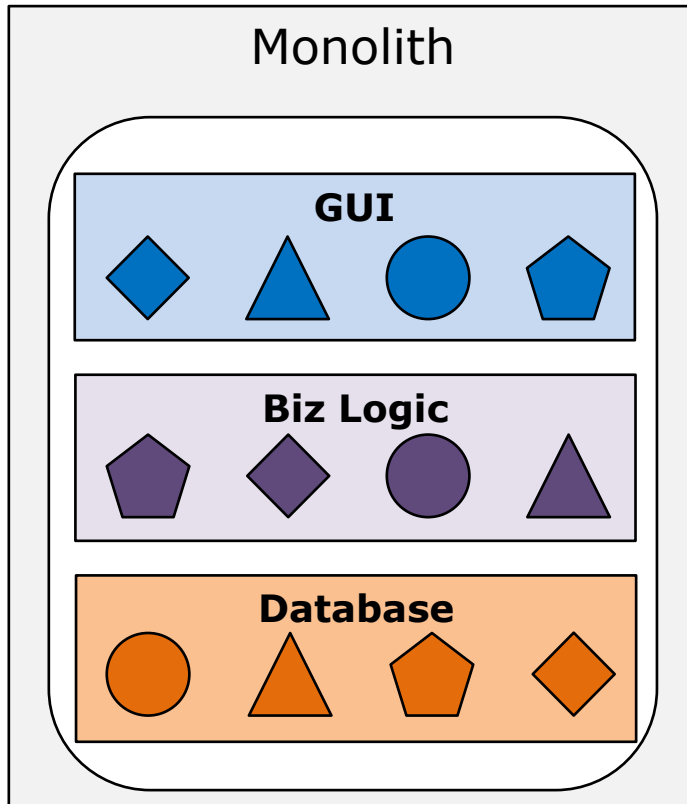


System Access Impediments



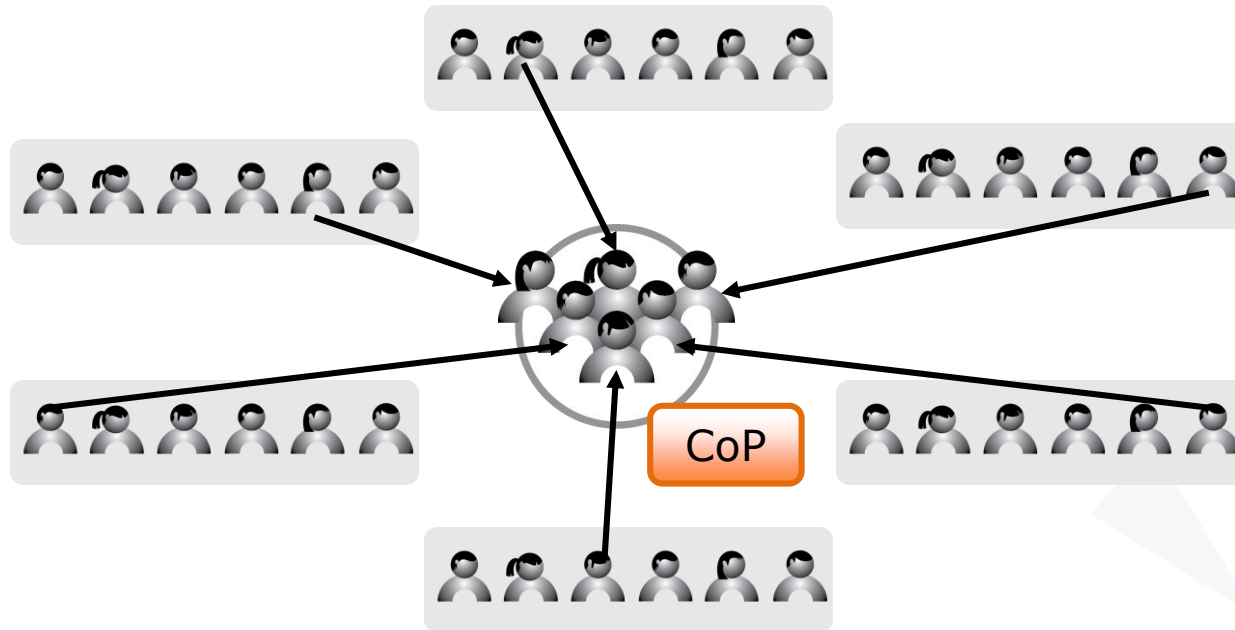
Dealing with Evolving Hybrid Architecture

May have to exist with both architectures during transition

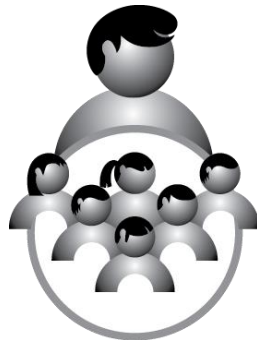


Based on a picture by Simon John <https://dzone.com/articles/a-transition-from-monolith-to-microservices>

Establishing Well Functioning Communities of Practice



Should the community have a leader?



Community members are both pollinators and harvestors



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