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Transforming the World of Work

Collaboration at Scale: Managing Technical Architectures

10-Jan-2018

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Luke Hohmann

Collaboration at Scale

Designed for Scrum-centric organizations with more than 10 Scrum teams, the Collaboration at Scale webinar series provides focused, outcome-driven solutions to collaboration problems faced by Product Owners, ScrumMasters, and Development Teams.

Produced by the Scrum Alliance and Conteneo, Inc., we're proud of the many distinguished experts who share their wisdom in our series.

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TODAY:
Managing Technical Architectures

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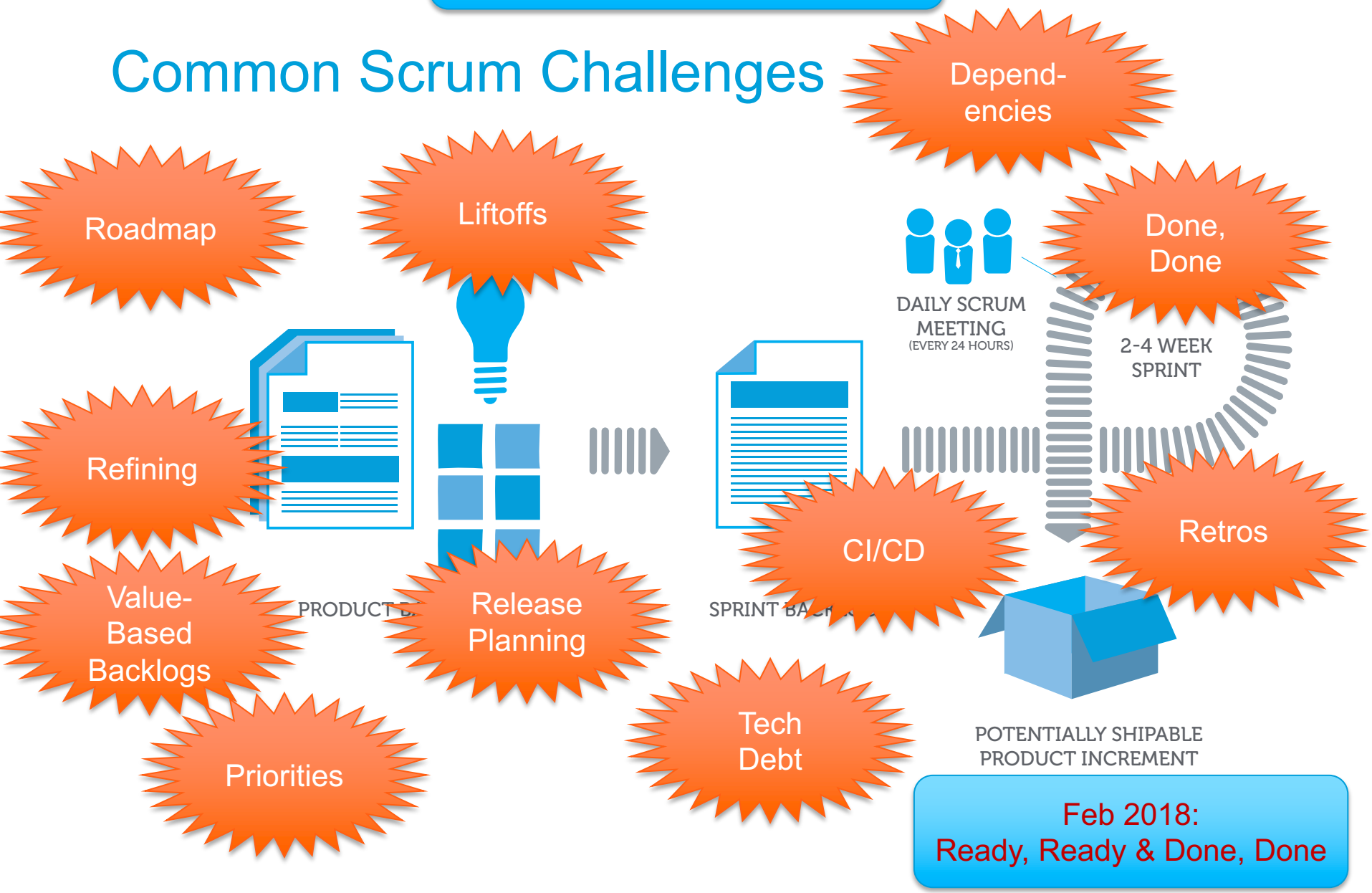
Common Scrum Challenges



Feb 2018:
Ready, Ready & Done, Done

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POLL QUESTION

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How are you documenting your architecture?

- We use a formal standard (e.g., TOFAL, ITIL, SEMAT, UML)
- We use an informal standard (e.g., boxes and lines and arrows)
- We don’t have a formal model of our architecture
- I don’t know

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Agenda

1. Making Architectural Visible
2. Planning the Event
3. Following Through

Making Architecture Visible

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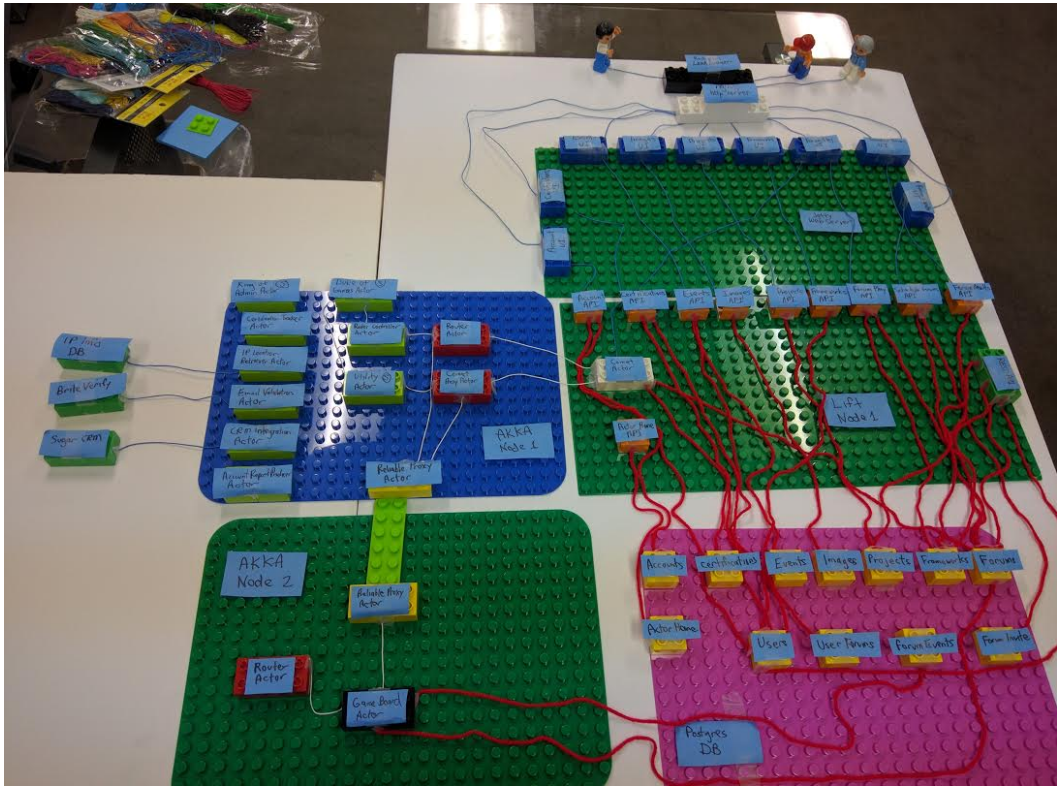
A **visible architecture** is a physical model of a system.

Typically created by architecture teams in Duplo® bricks, Visible architectures enable teams to understand the “as-is” architecture and make better choices on the “to-be” architecture.



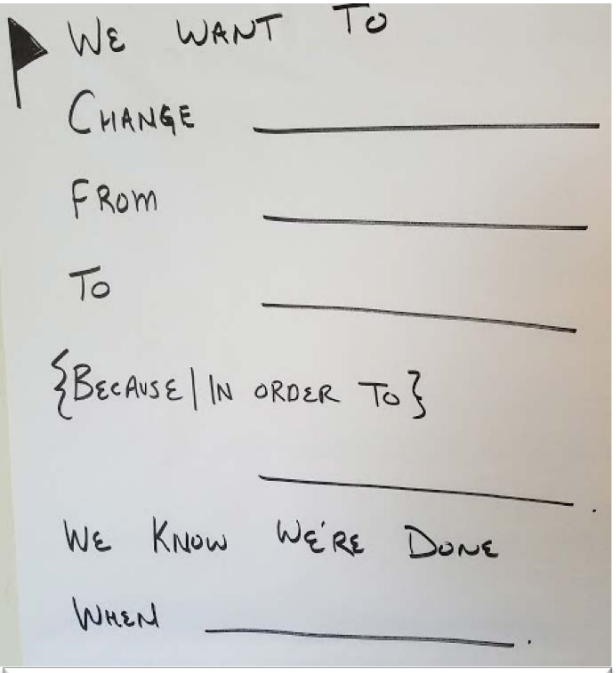
The Conteneo Weave platform.

The creative freedom afforded by the technique enables teams to explore challenging concepts.

WHY?

- Business leaders don't understand architectures
- Architects don't often understand each other
- Architects don't know how to speak in ways that business leaders can understand and support
- Can't make choices that align business and tech
- Lots of conflicting ways to communicate (TOFAL, ITIL, SEMAT, UML...)
- Dev teams are lost – what’s a microservice? What’s a shared library? What’s a framework?

Expressing Desired Improvements



This format helps technical leaders communicate improvements to their business counterparts.

Teams identify and document potential improvements:

We want to
Change *<thing to change>*
From *<current state>*
To *<desired state>*
{ because *<business reason>*
in order to *<gain this benefit>*}.

We know we're done when
<criteria for success>.

Impact – Effort Matrices

Teams map potential improvements in a matrix comparing business value relative to effort invested.

The goal is to identify the highest value, lowest effort improvements.

Tip: Create one impact-effort matrix for each platform and the portfolio as a whole.

Planning the Event

You can’t just run around yelling “Technical Debt” to make (or scare) the business team into “doing what you want”.

Leverage the Larger Business Context

- Part of an Agile Transformation?
- Part of an acquisition integration?
- Moving to microservices?
- Increasing collaboration among distributed teams?
- Technology refresh?
- New business capability enablement?

Preparing Questions

Who? → [ ] will be creating a…

What? → [Visible Architecture] in order to

Why? → [ ]

Architects from each PayU platform will be creating a Visible Architecture to identify redundancies, outdated code and prepare for our PayU's move to microservices.

Architects will create a Visible Architecture to see which changes will help us remove the most technical debt.

Detailed Planning

Who? → *how many people?*

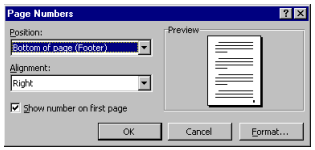
What? → *where will the data come from?*

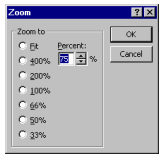
How? → *online or in-person? Facilitators?*

We expect 18-24 architects, with at least two people from each region. Existing documentation will be used to prepare. We will identify initial ideas online to prepare for an in-person meeting. Our Scrum Master will facilitate the meeting.

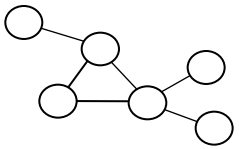
Gathering Pre-Event Data

Gather Your Docs and Print in A0 Format



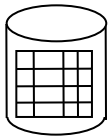


Transaction Management

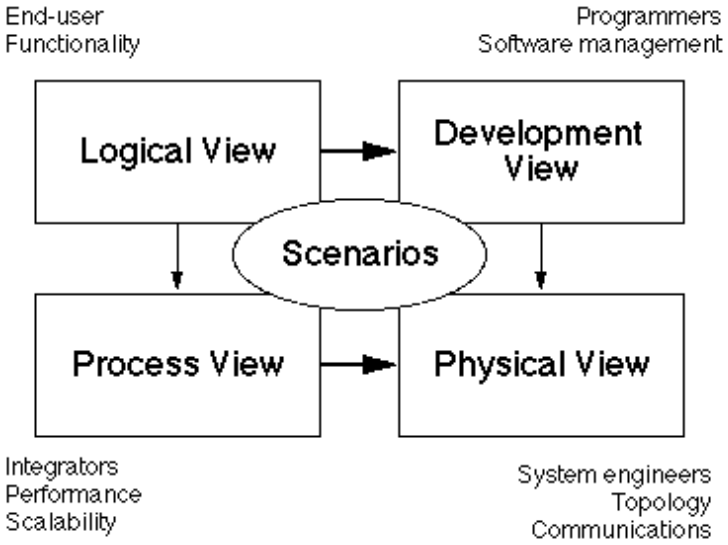


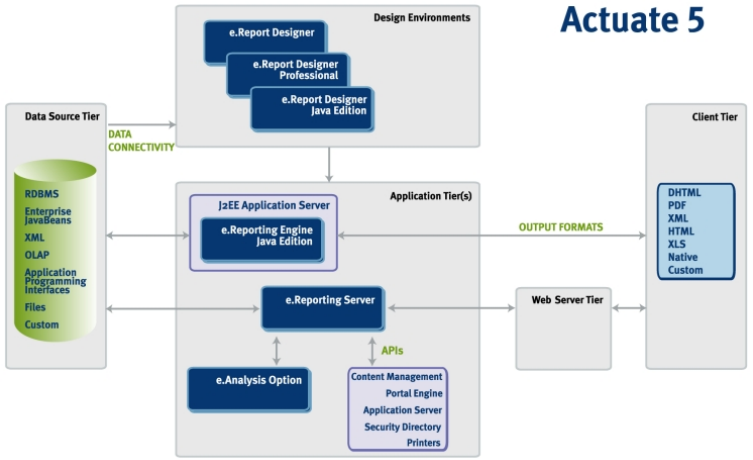
Domain Model

Object Translation

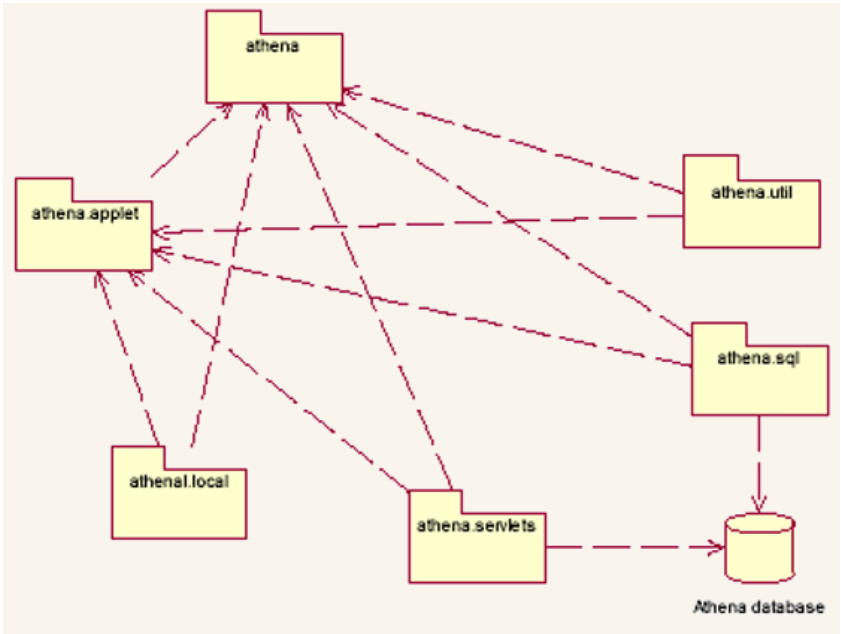


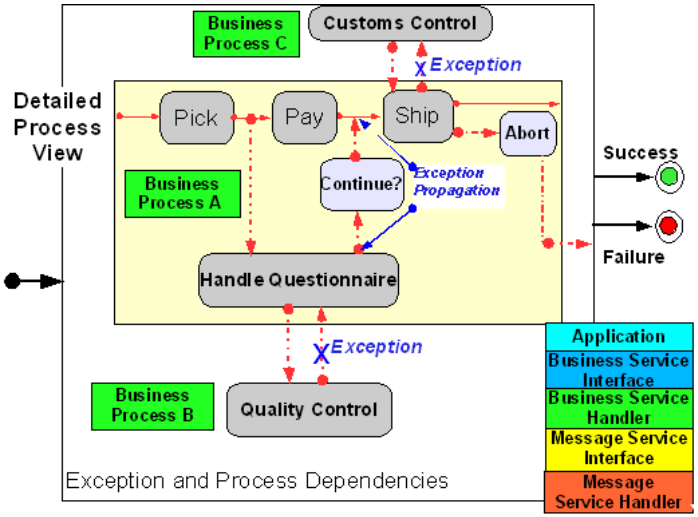
Persistent Store

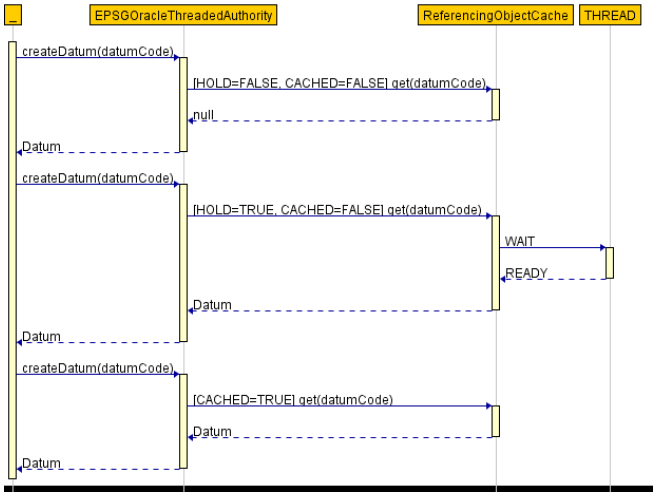




Paper is Cheap – Misunderstanding Costs!





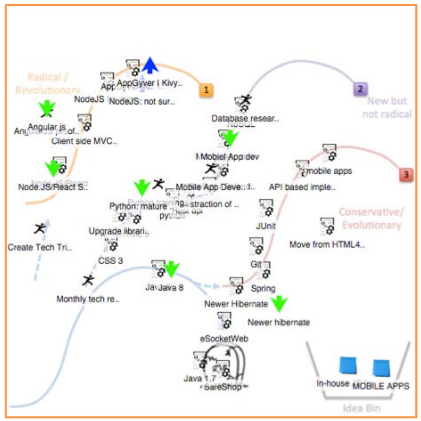


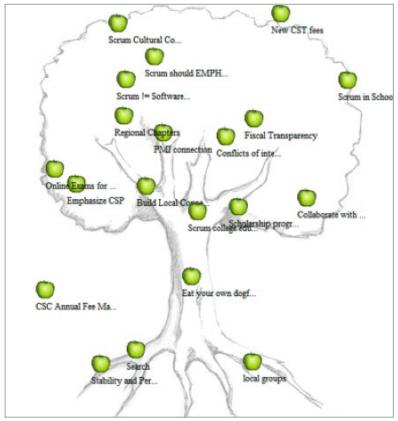
Use Frameworks to Engage Your Teams

Enterprise *Sailboat* Retro → Challenges

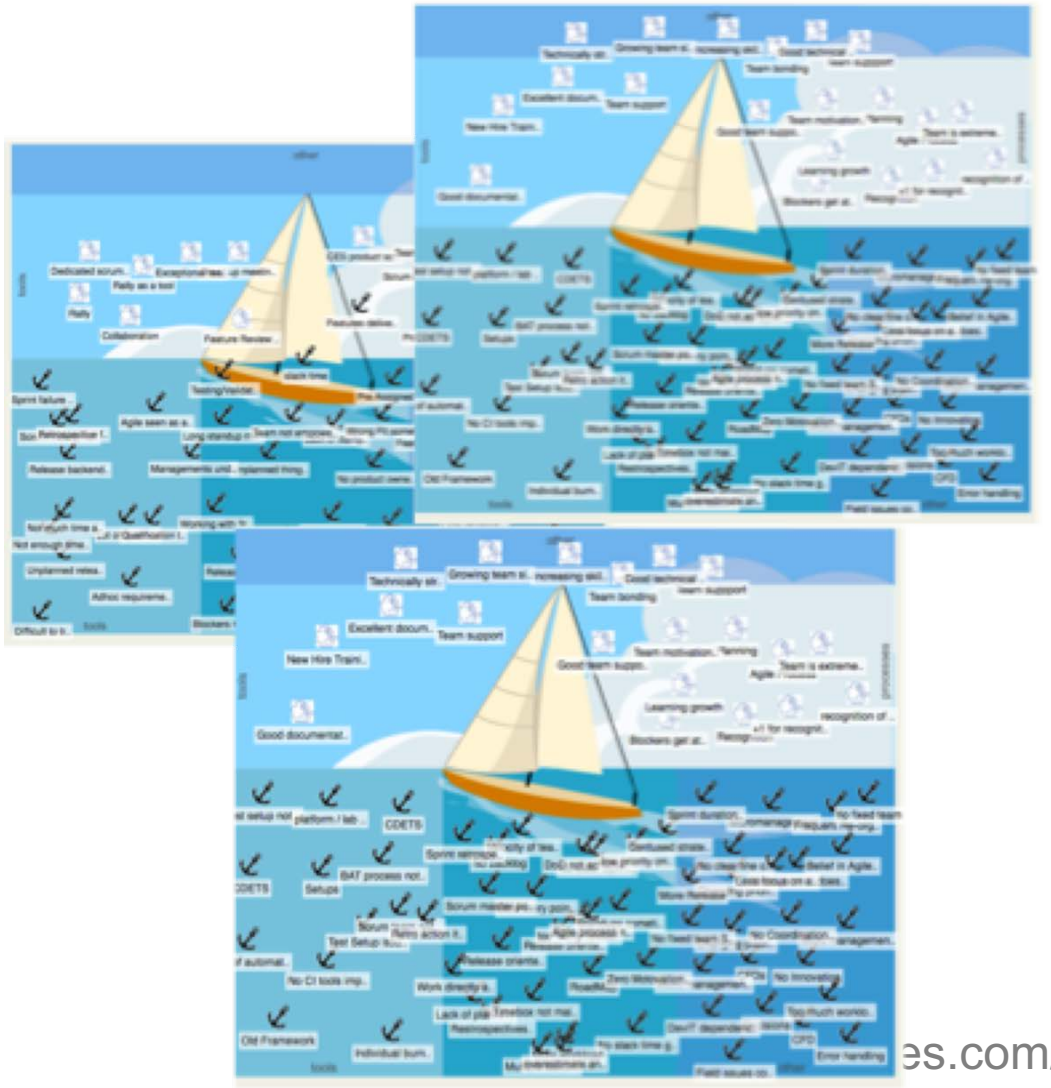
Curve Jump → Opportunities

Prune the Product Tree → Evolution/Roadmaps





Conduct an Enterprise Retrospective



Sailboat

Imagine our system is a sailboat.

What are the winds in our sales? What are the anchors that slow us down?

es.com/speed-boat

Tap Into Your Own Creativity

Curve Jump

What are the technologies we can leverage to jump a curve?

→ Conservative
→ New
→ Radical

Develop a Plan for Growth (Roadmap)

Prune the Future

How should our system grow / evolve / change over time?

What should we *prune*?

What infrastructure should we add?

www.innovationgames.com/prune-the-product-tree

You Need Gear and a Place to Play

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Gear

We get our stuff at Amazon…

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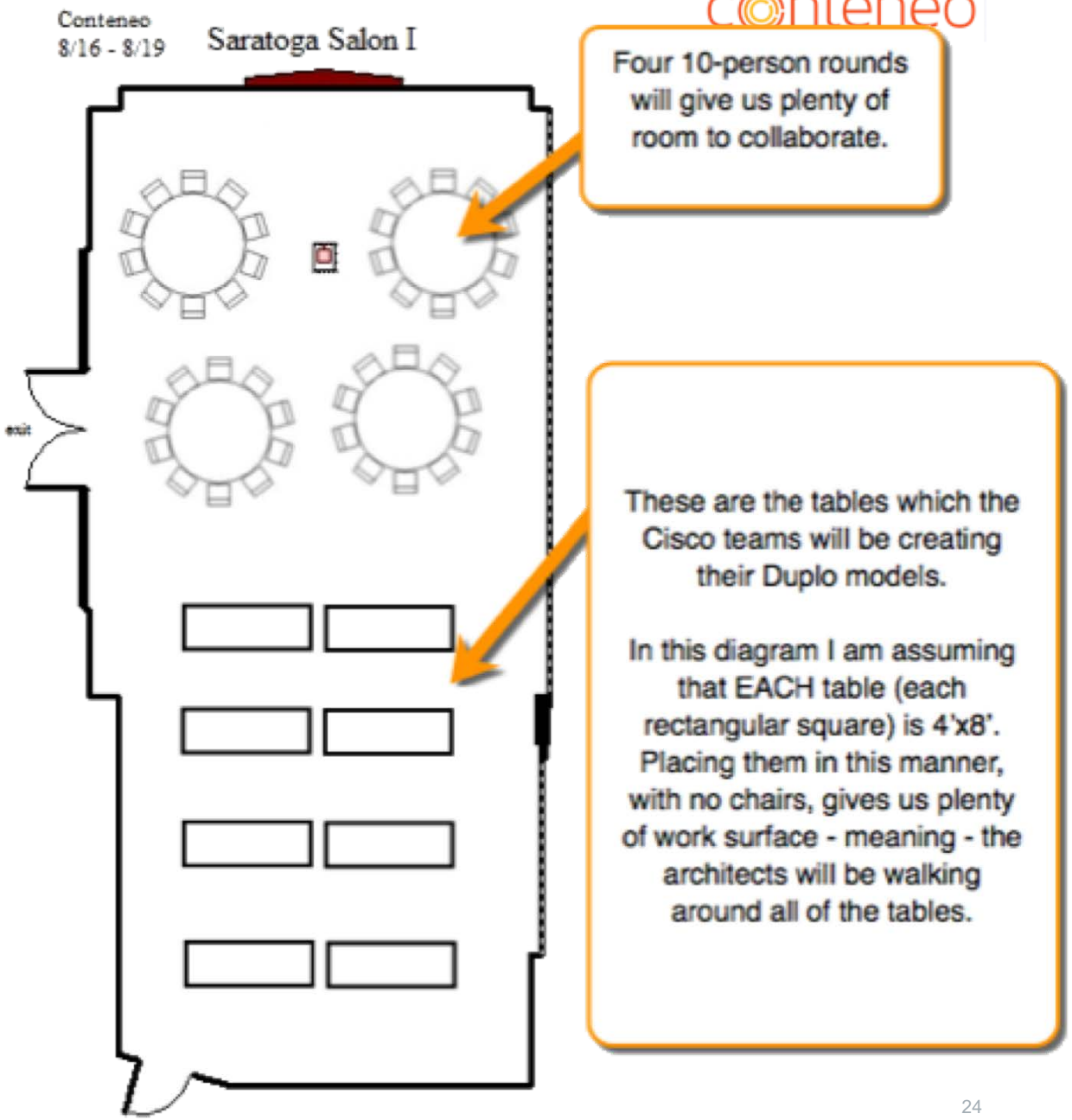
Room

You need a bigger room than you imagine.

Really.

Really.

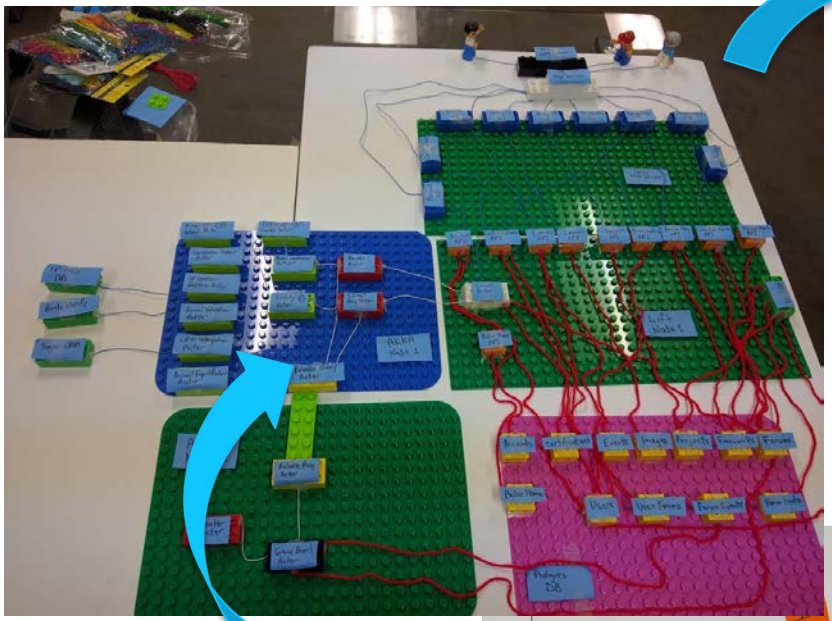


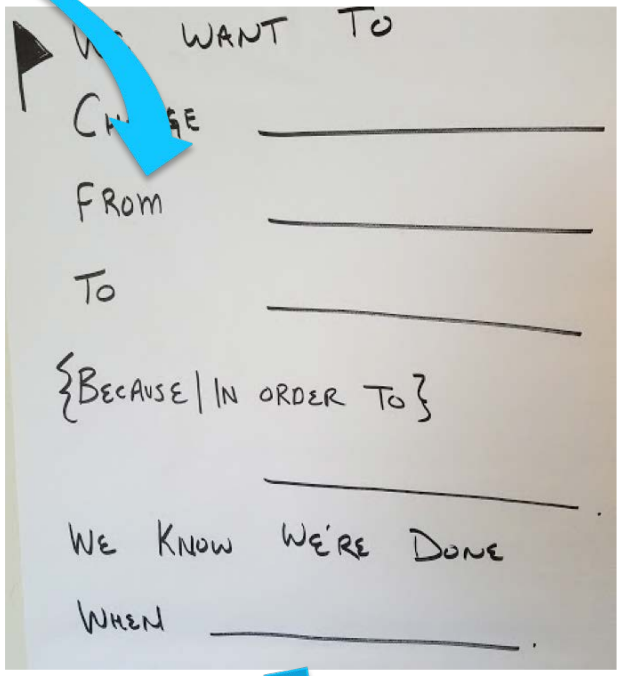
Event Structure

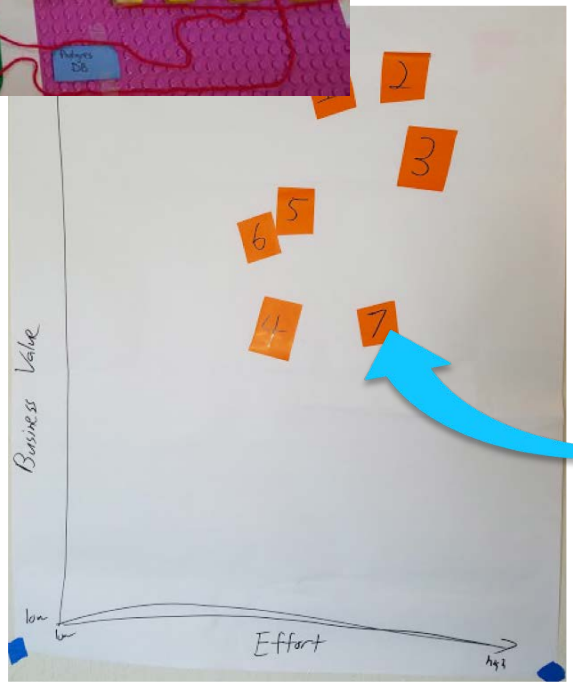
Don’t rush… you need time…

Example: Cisco Security Team

	Mon	Tue	Wed	Thu	Fri
AM	Travel Day Final preparation of room and all materials.	Overview of Visible Architectures Develop 1st Draft of "as-is" architecture.	Compare results with known business objectives and context	Compare results with known business objectives and context	Production team photographs everything, transcribes everything, transports results back to office.
PM		*Attempt* to develop *some* ideas for improving it.	Share results with business leaders; capture feedback and explore ideas.	Share results with business leaders; develop final action plans. Conduct Retro!	
		Production team photographs room.	Shared Dinner	*Production team photographs room.*	




WANT TO
FROM
TO
{BECAUSE | IN ORDER TO}
WE KNOW WE'RE DONE
WHEN


Business Value
Effort

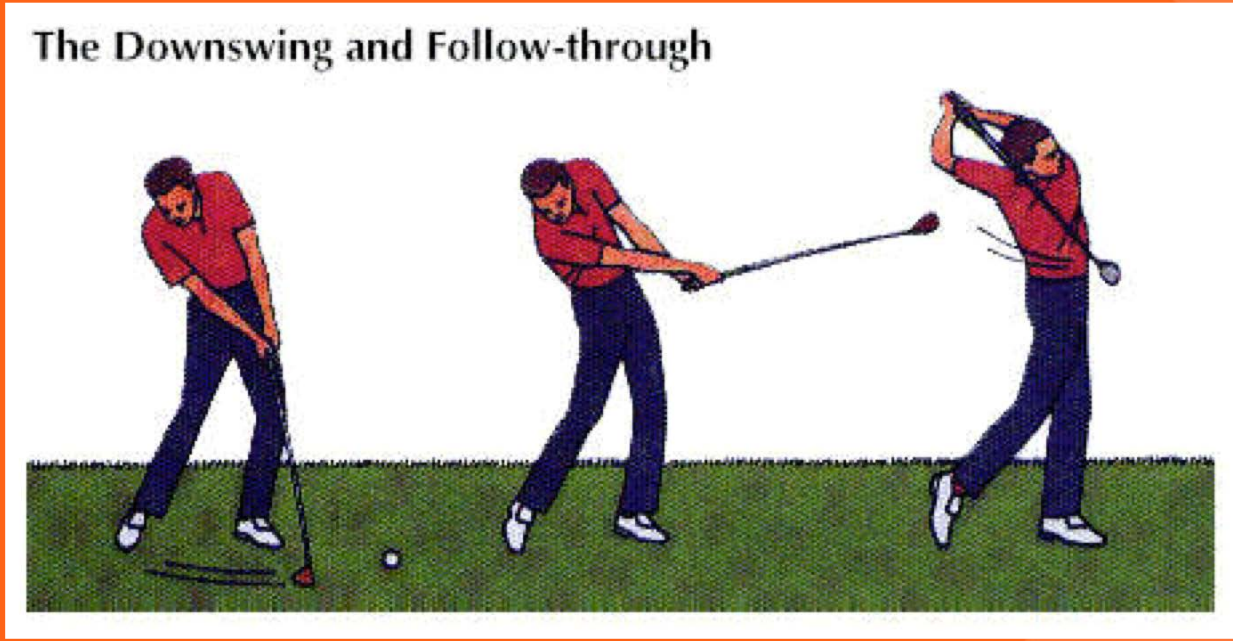
Tips

- Either pre-define meaning of bricks or let the meaning emerge, but either way, keep it clear.

- Let teams extend the core activity
  - Cisco added monsters, dinosaurs
  - PayU drew a lot of extended diagrams
  - BMW stores their visible architecture in the lunch room under a clear Plexiglas case

The Ball Doesn’t Go Far…

…. if you don’t follow through!



Develop Concrete Projects

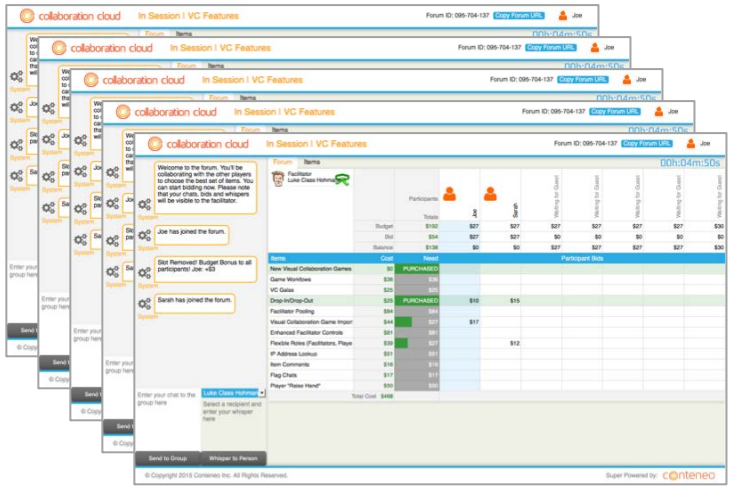
Ideas surfaced in the session need to be converted into project(s).

You might need investigative stories, spike sprints, training tasks, business reviews (e.g., open source license agreements).

Try and integrate agility into this.

Keep using frameworks!

If You're Really Collaborative…



You're not ceding control of "conceptual integrity" to a mass of developers or "junior teams".

You are honoring Agile values of collaboration and engagement.

Buy a Feature

This framework enables teams to decide how to allocate budgets through a scalable virtual market.

Which improvements would your teams fund? Why?

www.innovationgames.com/buy-a-feature

Impact / Effort Matrix (Planning Wall)

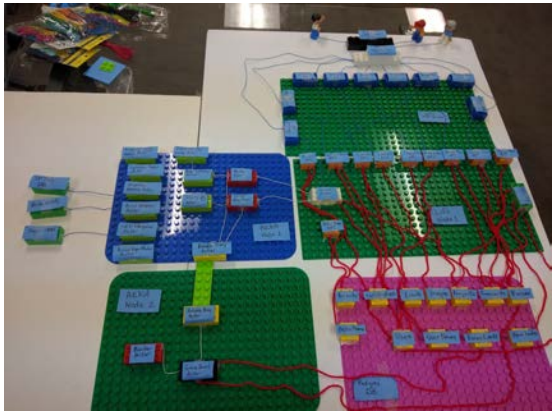
Planning Wall

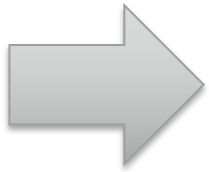
You will again use the *Impact / Effort Matrix*, but this time you will collaborate with Product Management so that you have a *mix* of business and technical items.

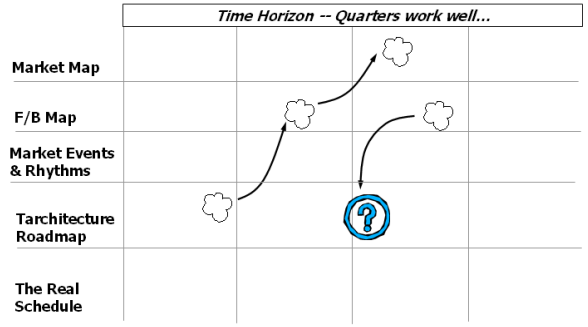
Product Mgt → Y-axis
Architects → X-Axis

www.innovationgames.com/planning-wall

Feed Your Roadmap and Backlog



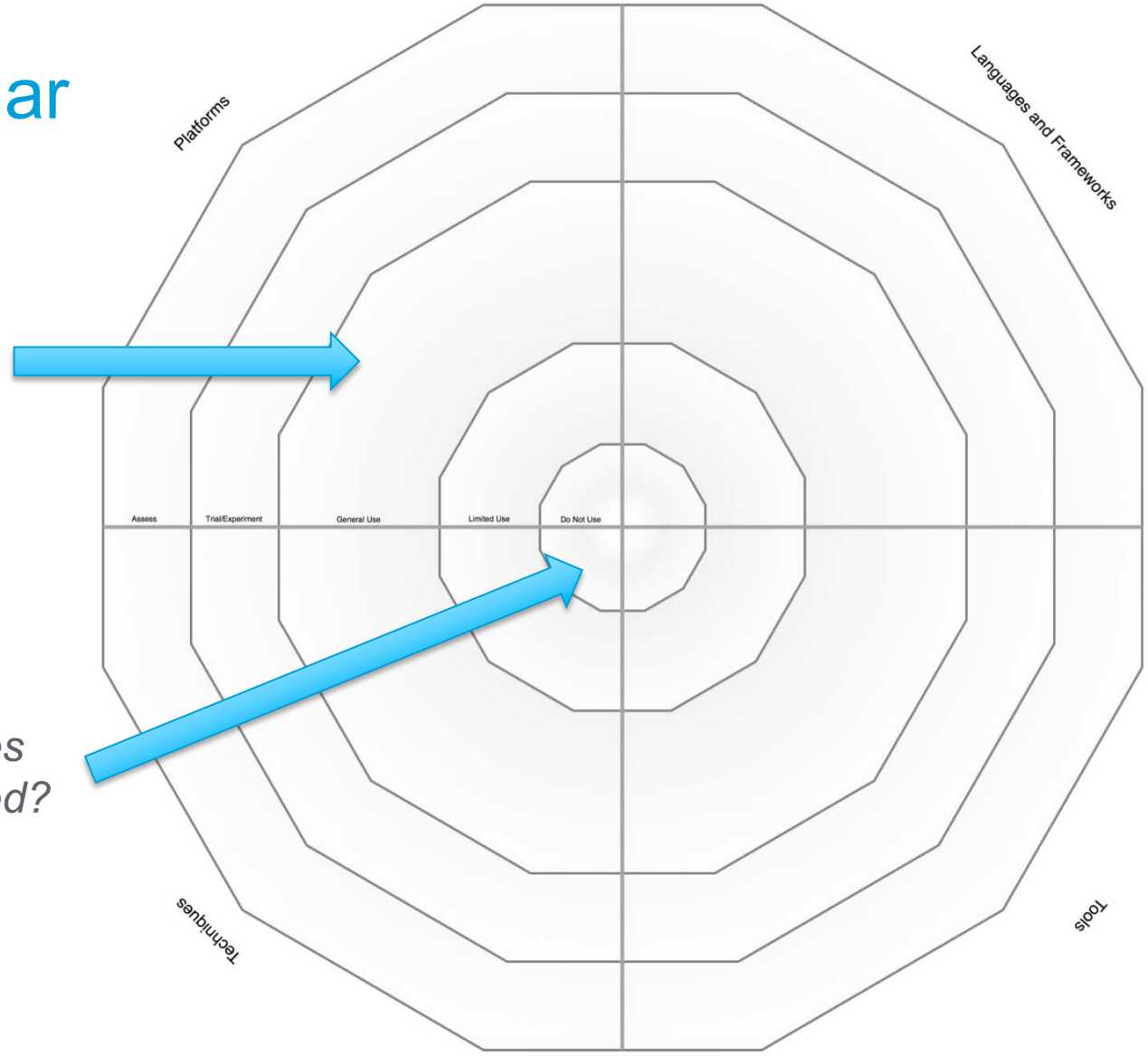




market driven road maps

http://bit.ly/roadmapping-patterns

Tech Radar



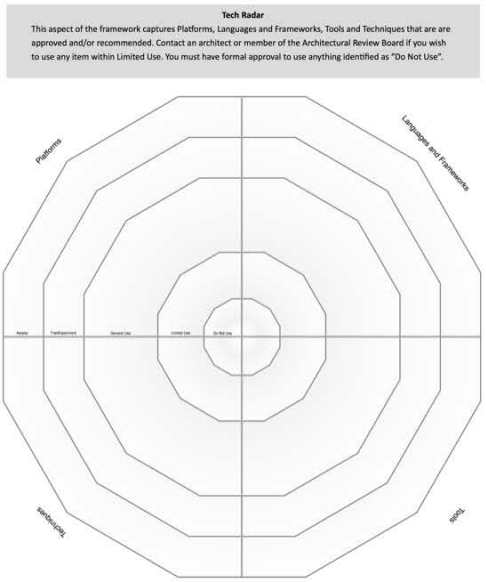
What technologies are approved?

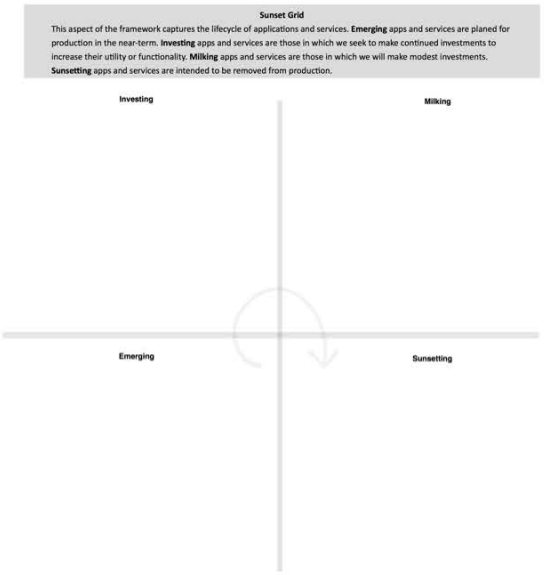
What technologies are NOT approved?

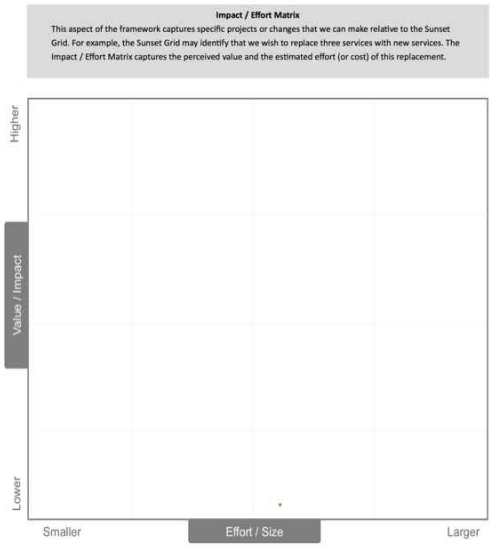
Sunset Grid

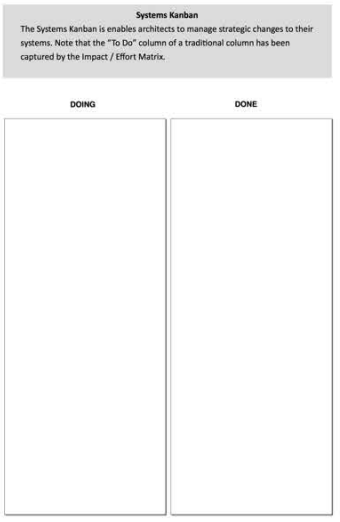
What is the status of our components, services and shared applications?

Putting this together…









Tech Radar

Sunset Grid

Impact-Effort Matrix (To Do)

Doing - Done

http://bit.ly/try-tech-radar

Tips

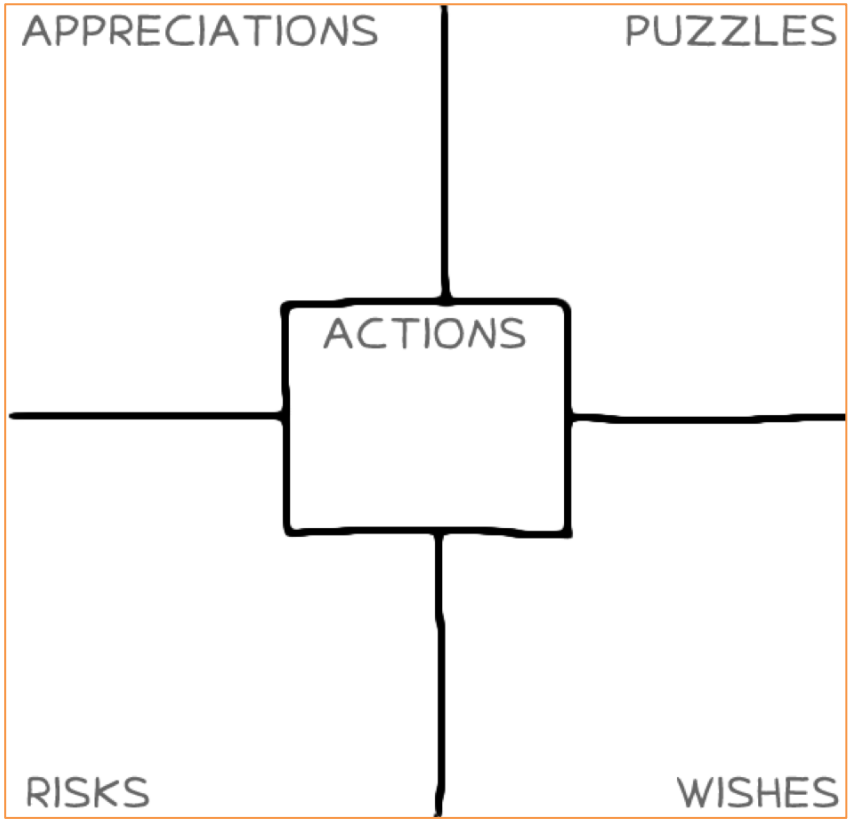
Keep the visible Architecture, well, visible.

PayU placed their architecture directly in their shared meeting space and used QR codes to connect Visible Architecture to intranet.

Videotape architects presenting the Visible Architecture to help educate newbies.

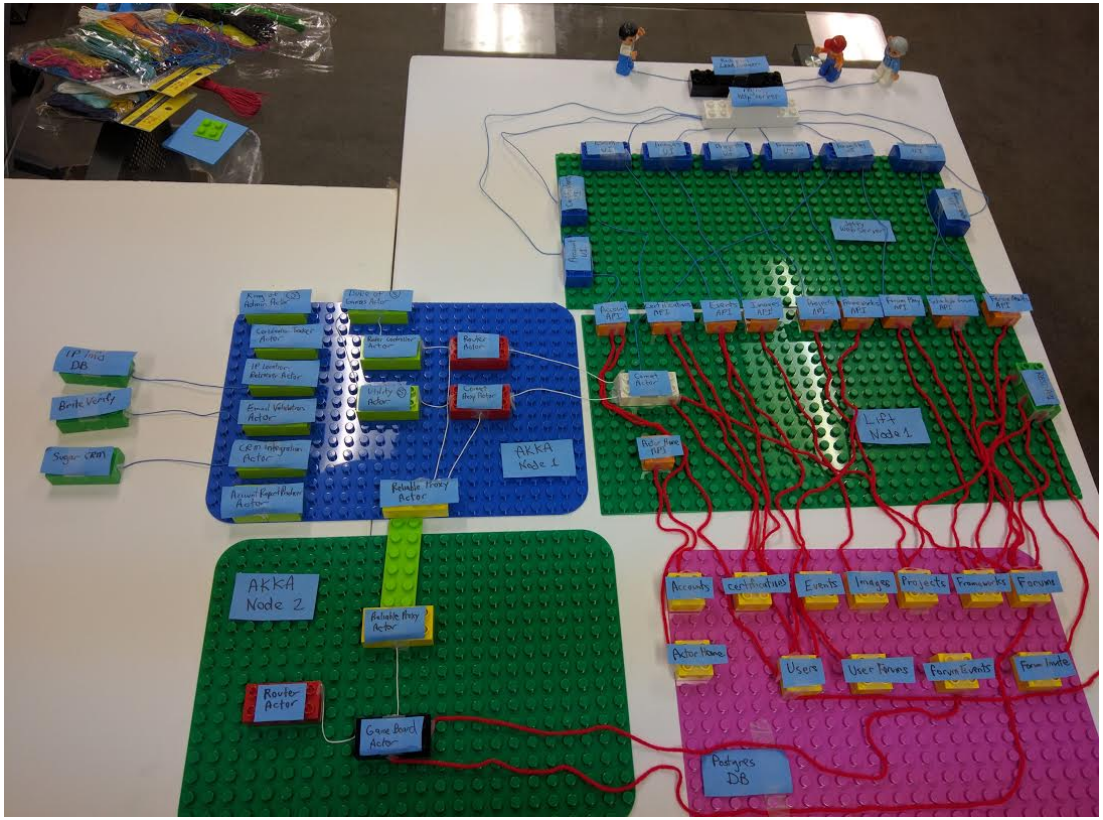
Retrospective

Each team should conduct a retrospective on the event to capture lessons learned and orient the teams to take action.



The Essential Summary

This works. Try it!



POLL QUESTION

What do you want for the Mar 2018 webinar?

- Distributed Team Liftoffs / Kickoffs
- Buyer and User Personas
- Facilitating Online Meetings
- How To Implement Lean Coffee at Scale
- Analyzing Retrospective Data at Scale
- Running Distributed Sprint Reviews
- Advanced Estimation Practices
- Release Planning Tips and Techniques
- Advanced Roadmapping
- My desired topic isn't listed – email luke.hohmann@conteneo.co

Discussions

Luke Hohmann
conteneo.co

Thank you for attending.

Our next webinar is **14-Feb-2018** on **Ready, Ready and Done, and Done.**