Lean, Kanban, and Large-Scale Agile

presented by
James Shore

Twitter: @jamesshore
Blog: http://jamesshore.com
Email: jshore@jamesshore.com

Philly ETE
11 April 2012, Philadelphia PA

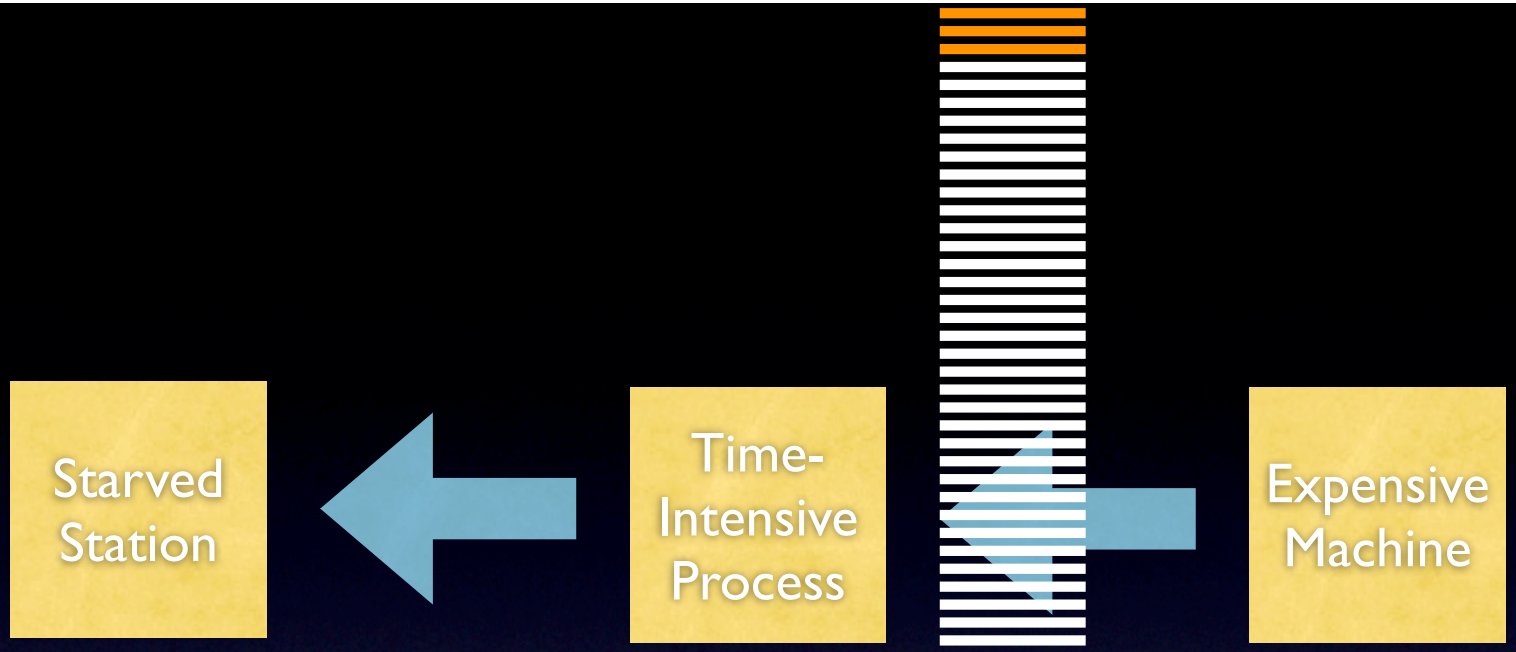
Enterprise Agile

1. Hire a Scrum trainer
2. Train everyone in Scrum
3. ???
4. ???
5. ???
6. Soul-Crushing Defeat

Large-Scale Agile

Interdependent Agile Teams

http://plysandplus.wordpress.com/2009/11/28/over-optimization/



Traditional Manufacturing

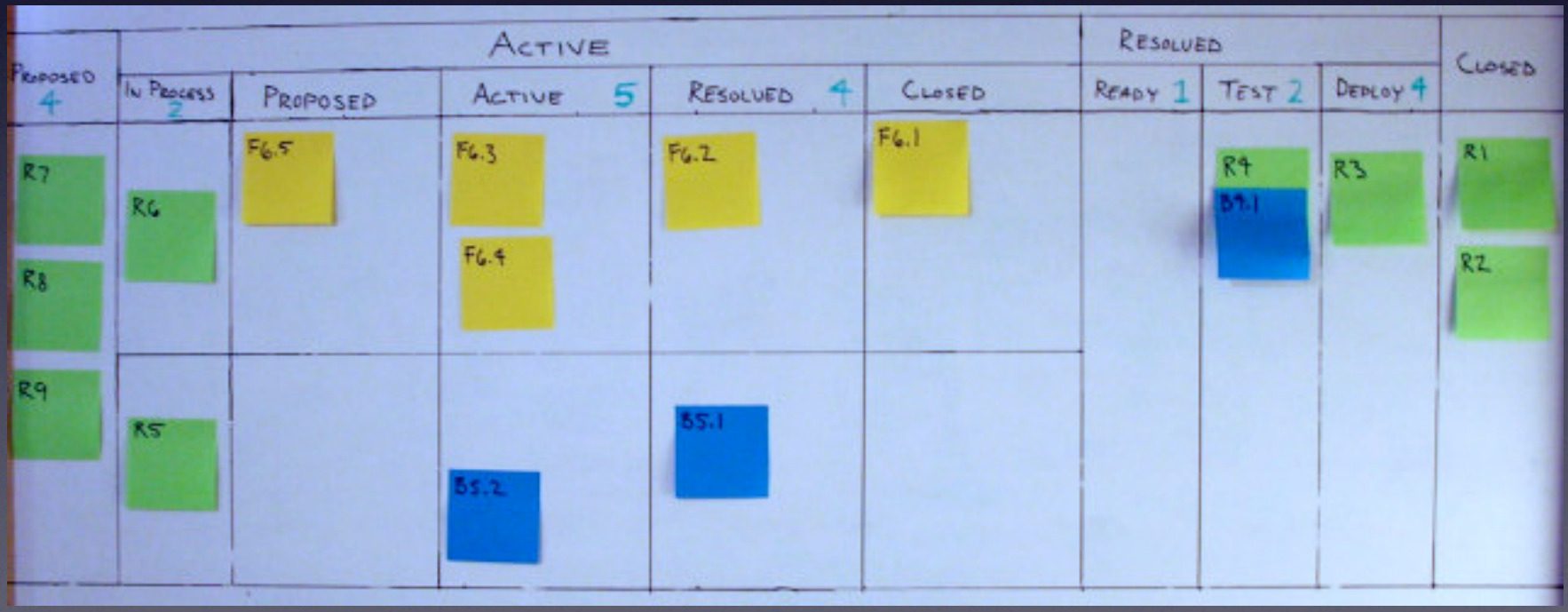
Traditional Manufacturing

One-Piece Flow

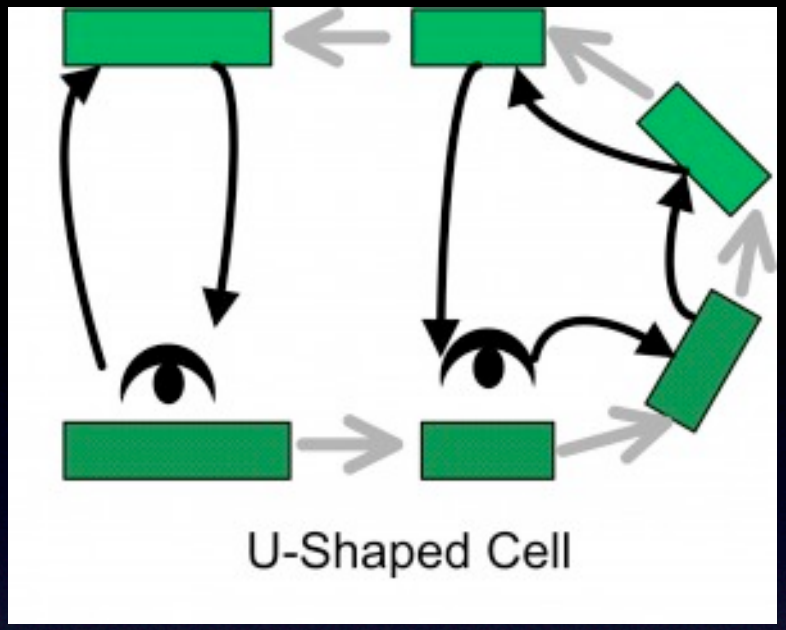
Lean Manufacturing

"The challenge is to develop a learning organization that will find ways to reduce the number of kanban… So kanban is something you strive to get rid of, not to be proud of."

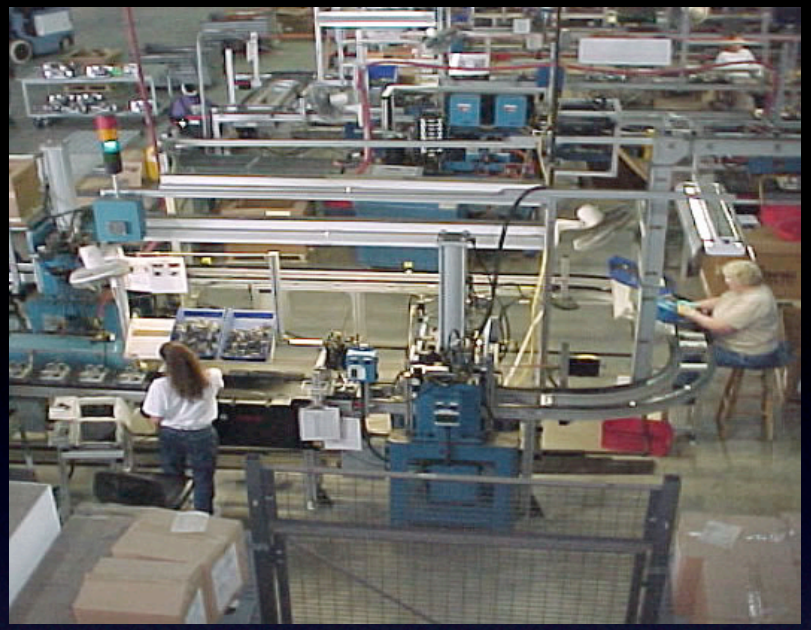
--Jeffrey Liker, The Toyota Way



http://leansoftwareengineering.com/2007/12/07/we-cant-afford-to-trust-everyone-on-larger-teams/



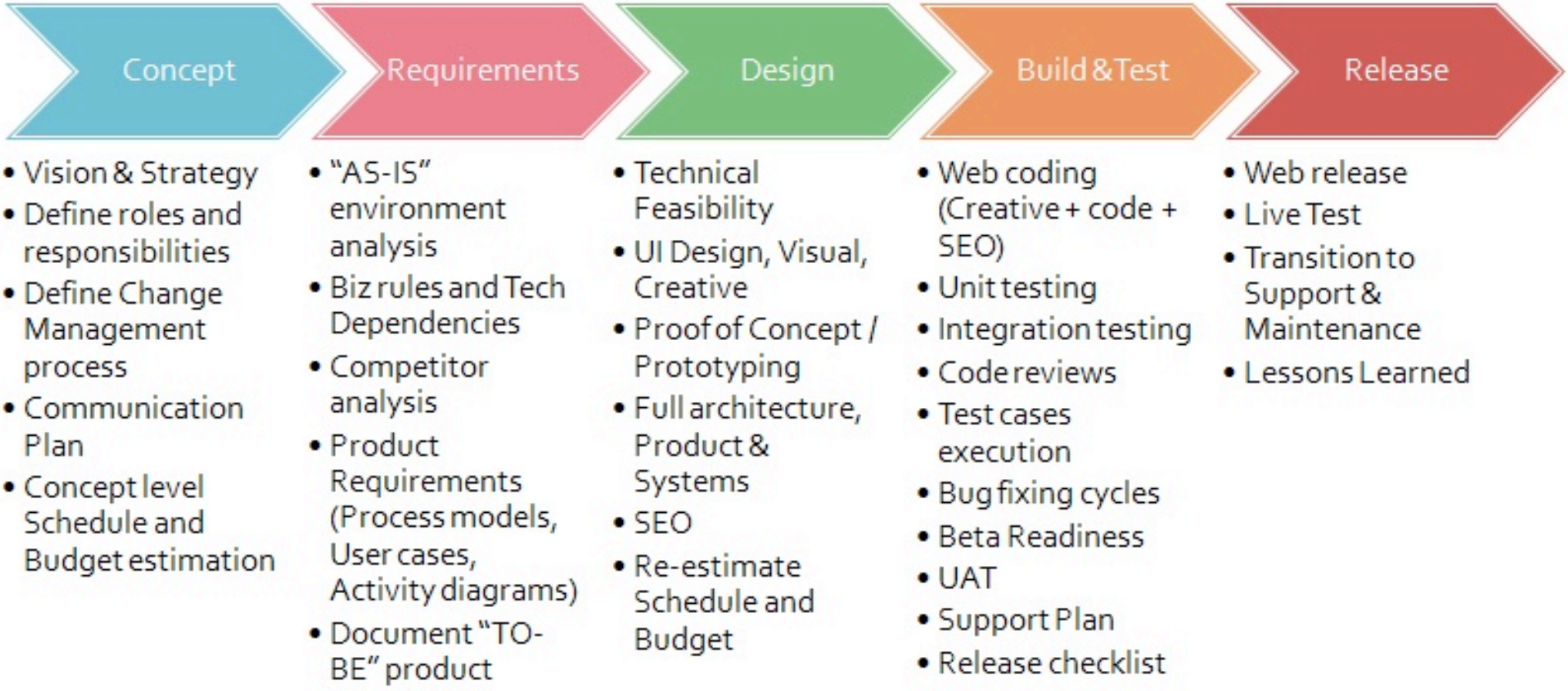
http://www.velaction.com/work-cell/



http://www.baeind.com/manufacturing.asp

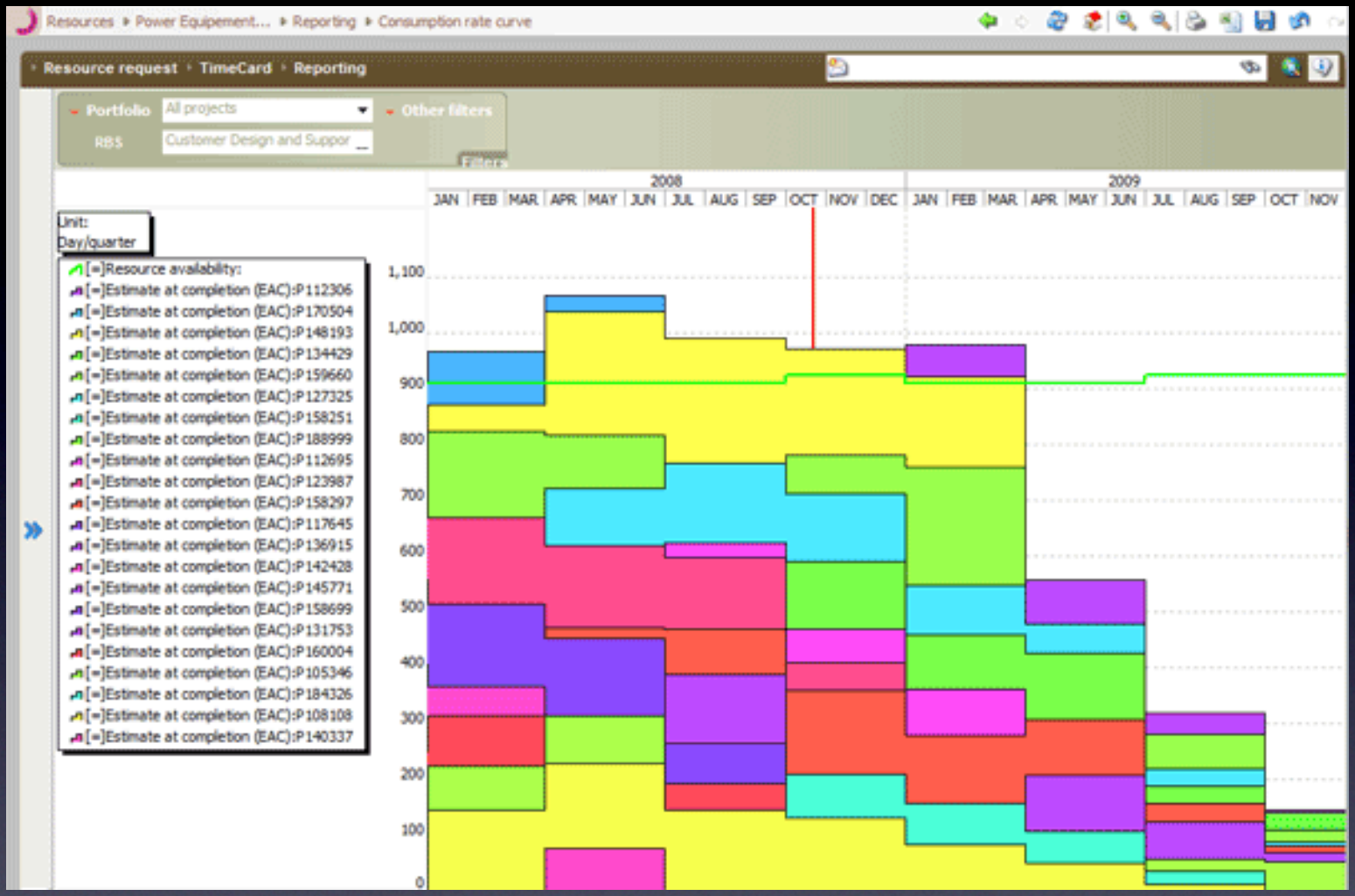
"[W]e arranged machines in parallel lines or in an L shape and tried having one worker operate three or four machines along the processing route… Our craftsmen did not like the new arrangement requiring them to function as multi-skilled operators."

--Toichi Ohno, as quoted by Jeffrey Liker, The Toyota Way



http://opensdlc.org/mediawiki/index.php?title=SDLC_Gates_Framework

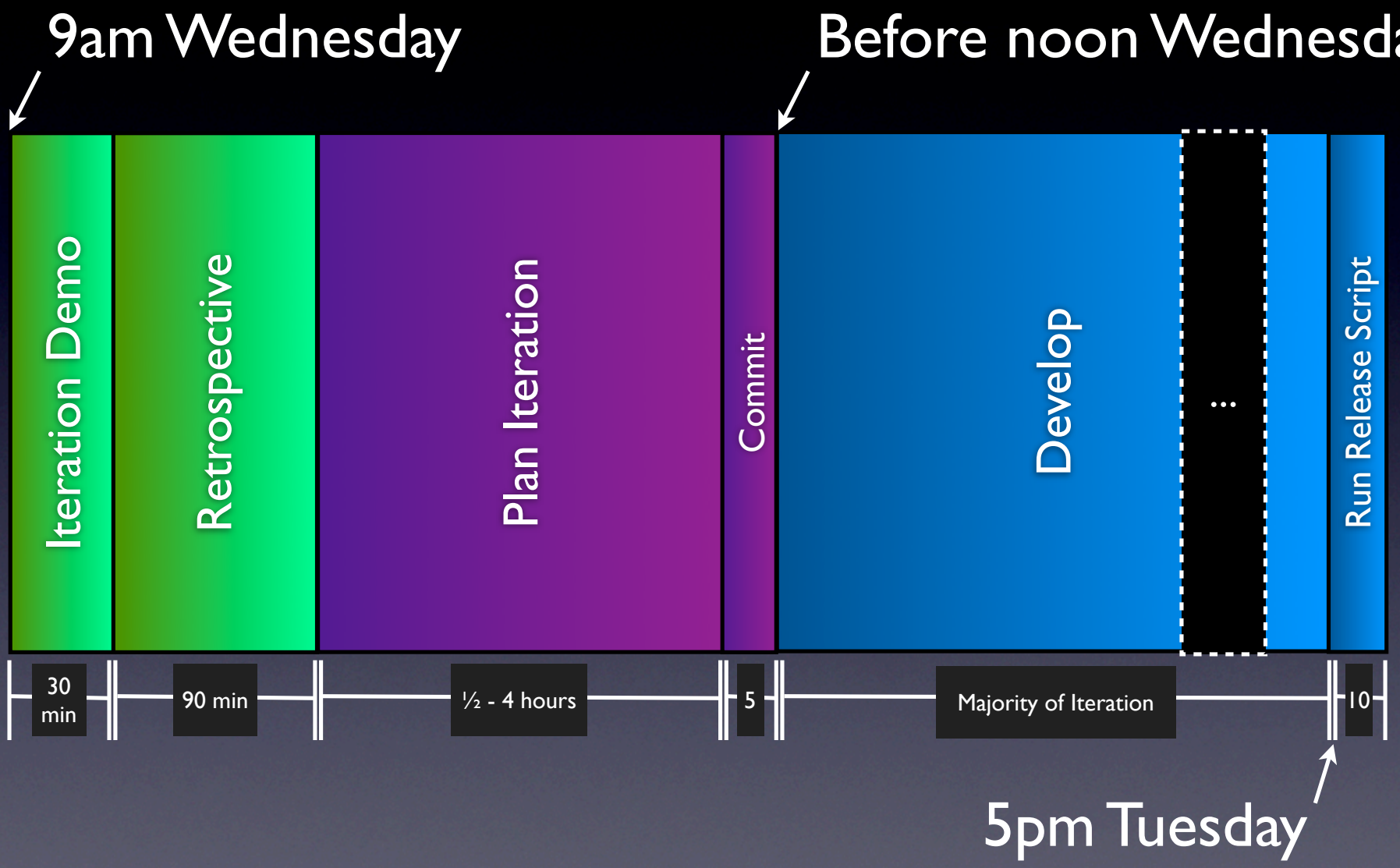
Phase-Gate Lifecyle



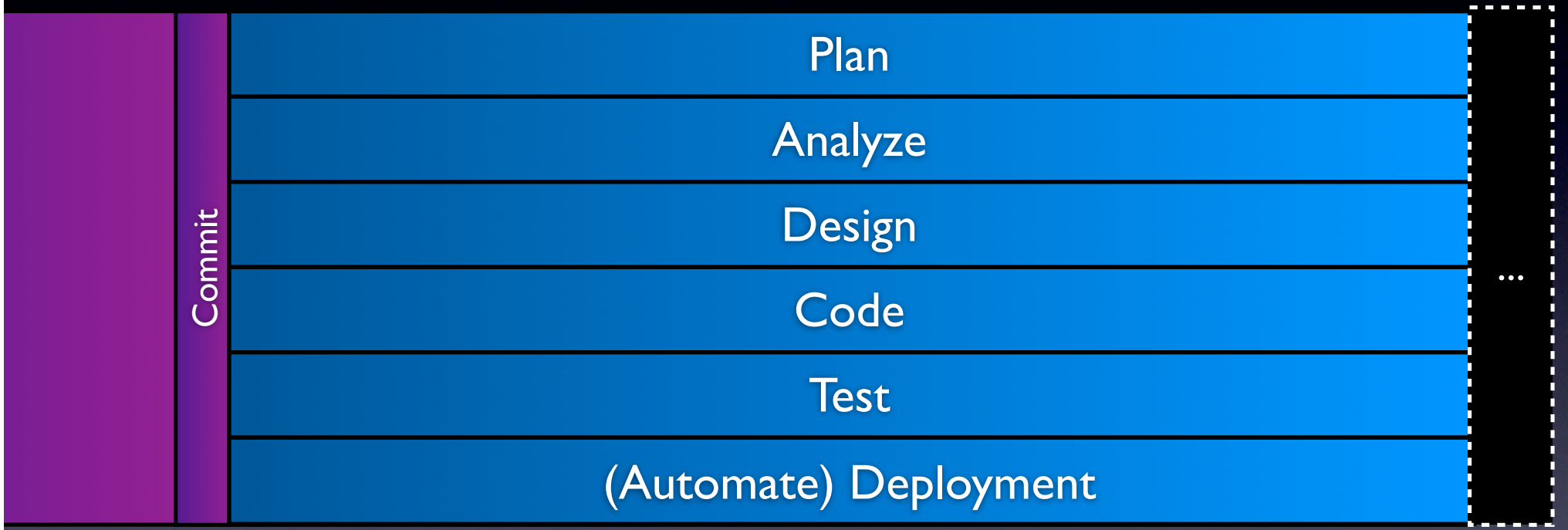
http://www.planisware.com/main.php?docid=15567

Phase-Gate Resource Shaping

The Iteration Lifecycle



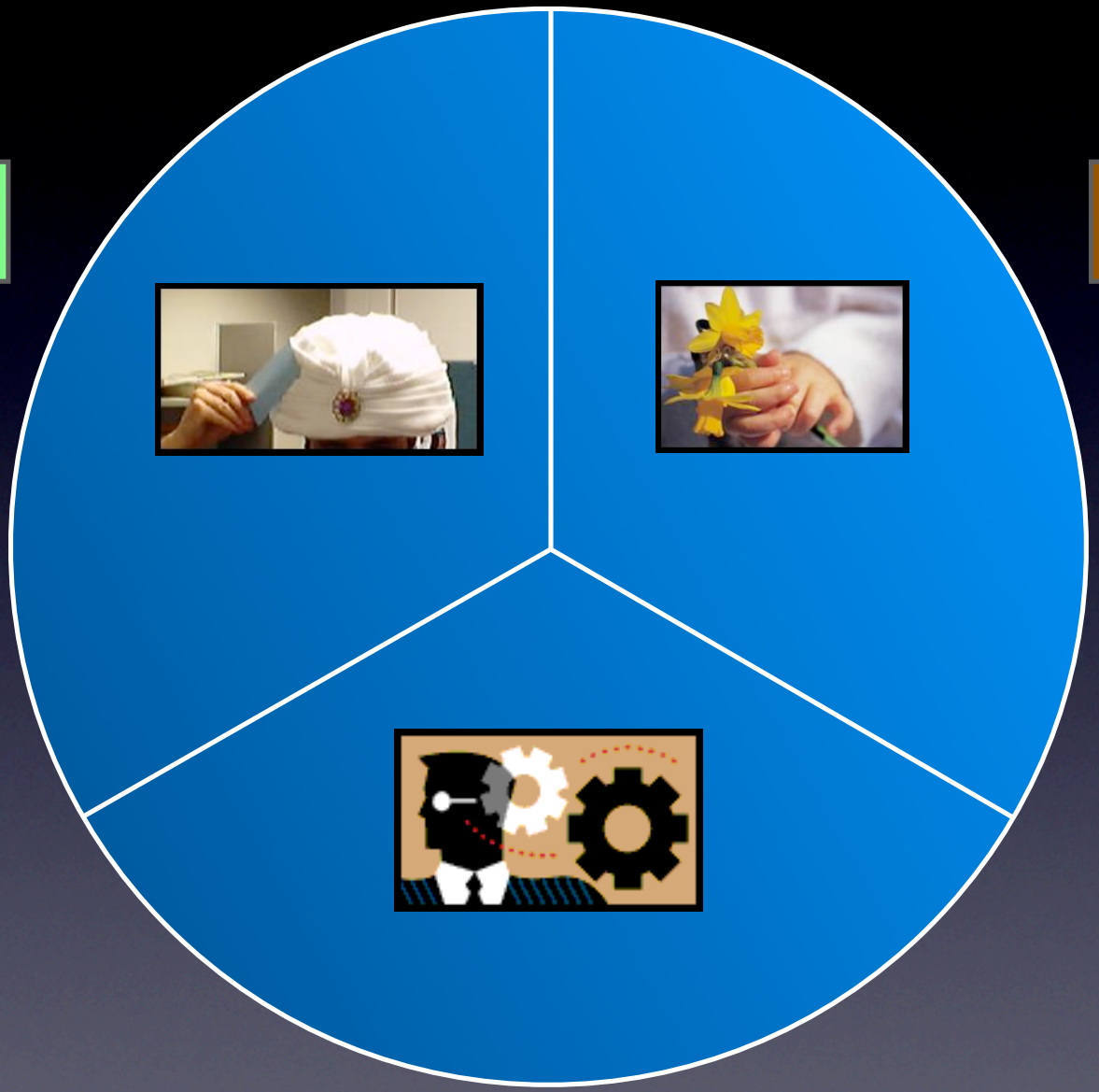
The Iteration Lifecycle



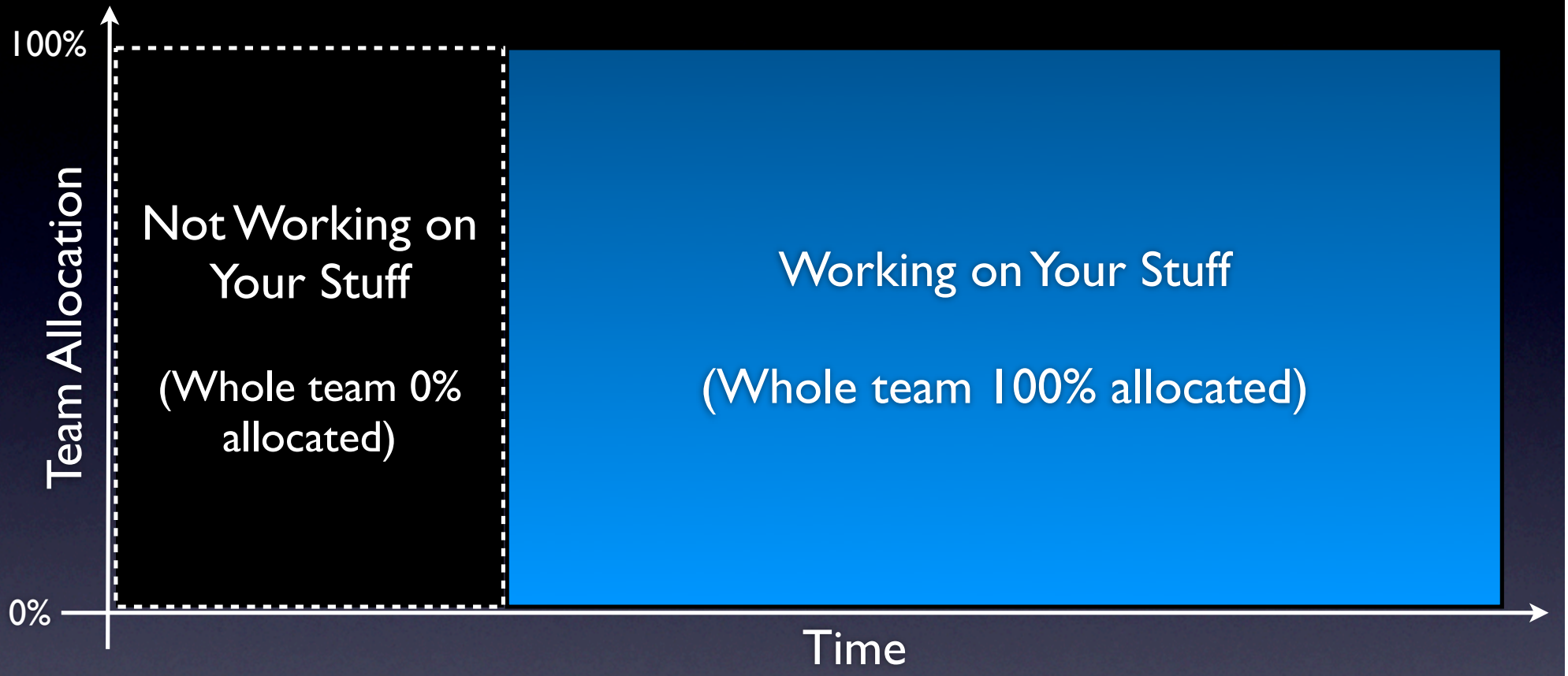
Cross-Functional Teams

Customers

Testers



Programmers



Agile Resource Shaping

Tasks: Small chunks of work

Stories: Demonstrate progress

MMFs: Releasable to market

Vision: The value we're seeking

Agile One-Piece Flow

Agile Team : Large-Scale Agile

::

Lean Work Cell : Lean System

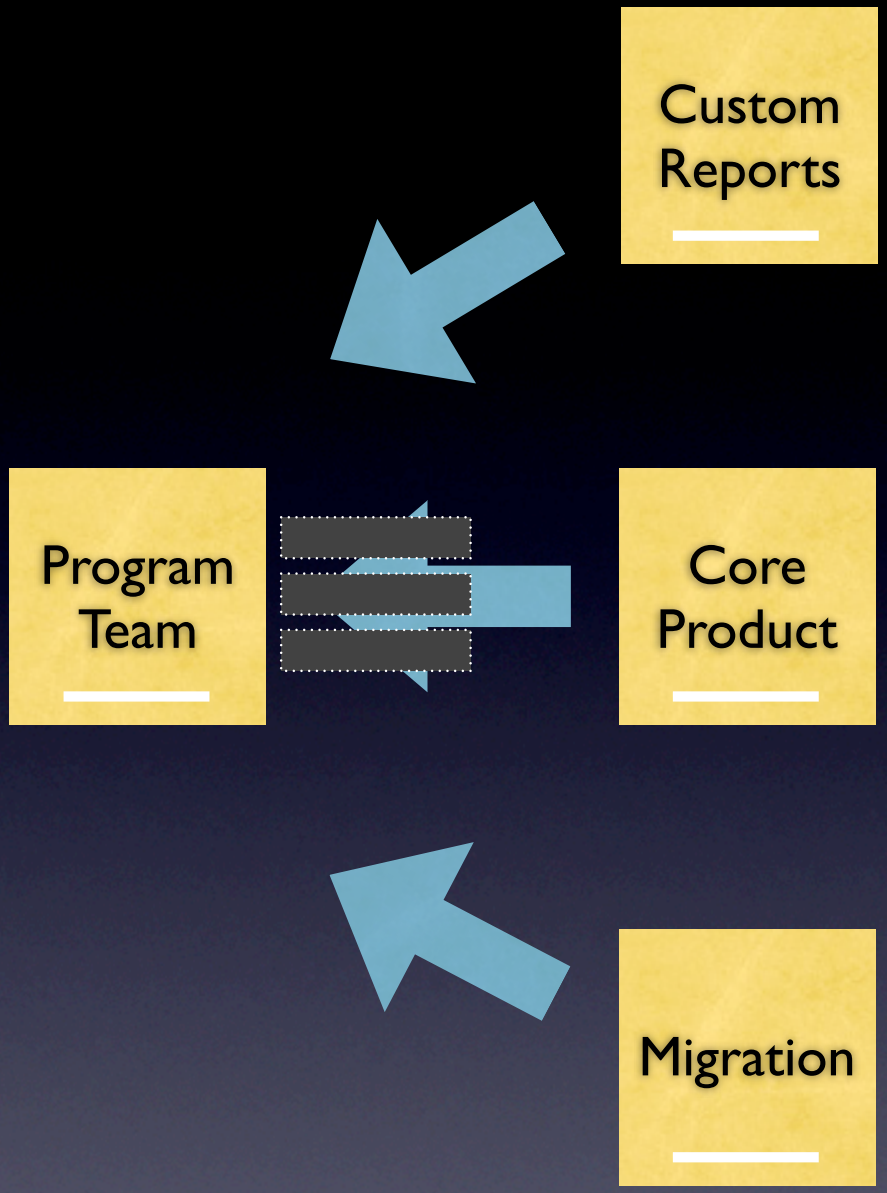
To
Do Large-Scale Agile Well

You Must First
Do Single-Team Agile Well

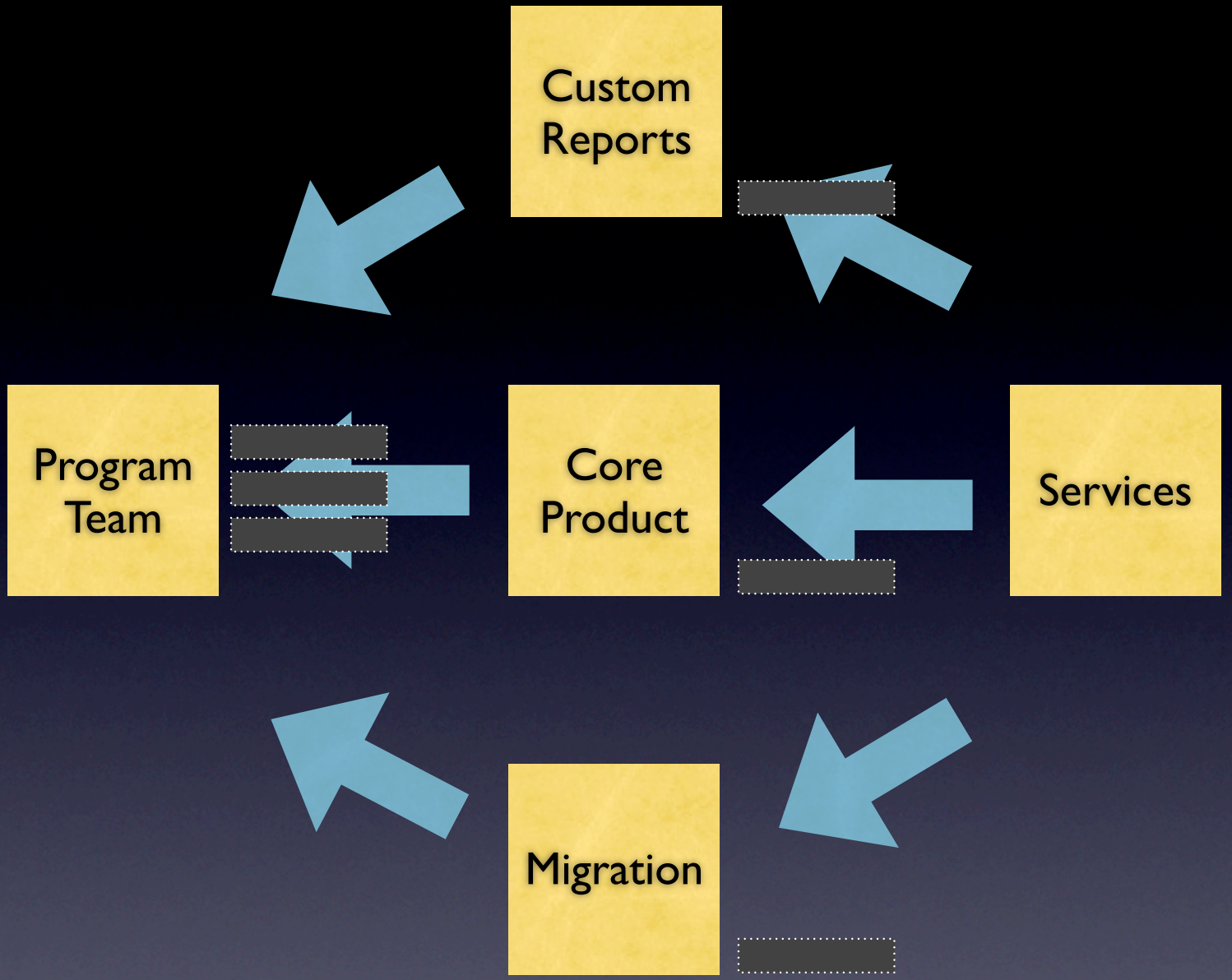
(Enterprise "Agile" Need Not Apply)

Create Work Cells
&
Coordinate Teams with Kanban

Large-Scale Agile (Poor)

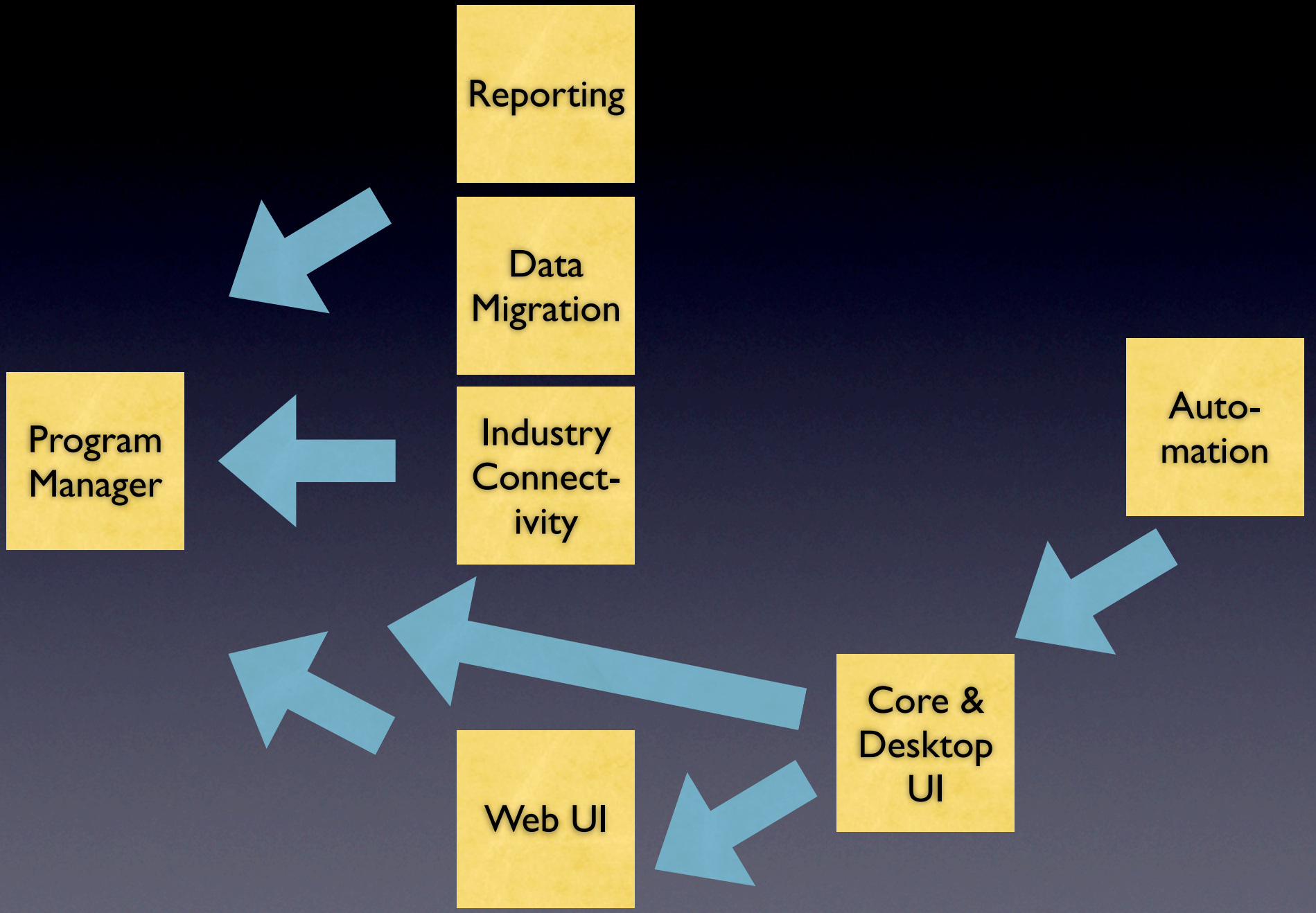


Large-Scale Agile



Large-Scale Agile

Real World Example



Respect the Software

1. One team per bounded context
2. Team ownership of code quality
3. Long-lived teams

Respect the System

1. Minimize hand-offs and number of teams
2. Favor throughput over re-use
3. Feral architects & learning organization

Respect the People

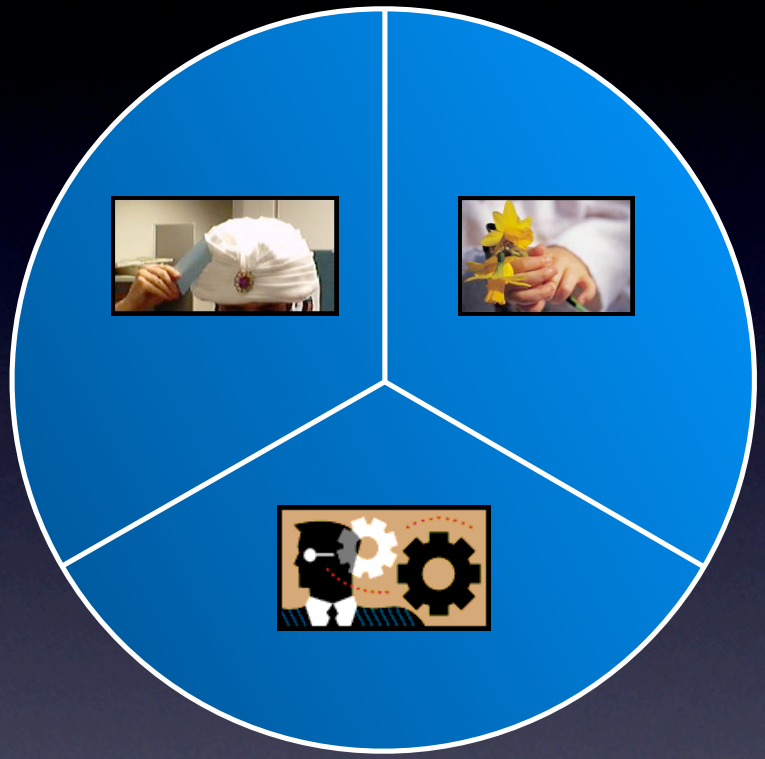
1. Visual control & defined interfaces
2. Overlapping stand-up circles
3. Self-organizing, cross-functional teams who fully own their work

Respect Competence

To
Do Large-Scale Agile Well

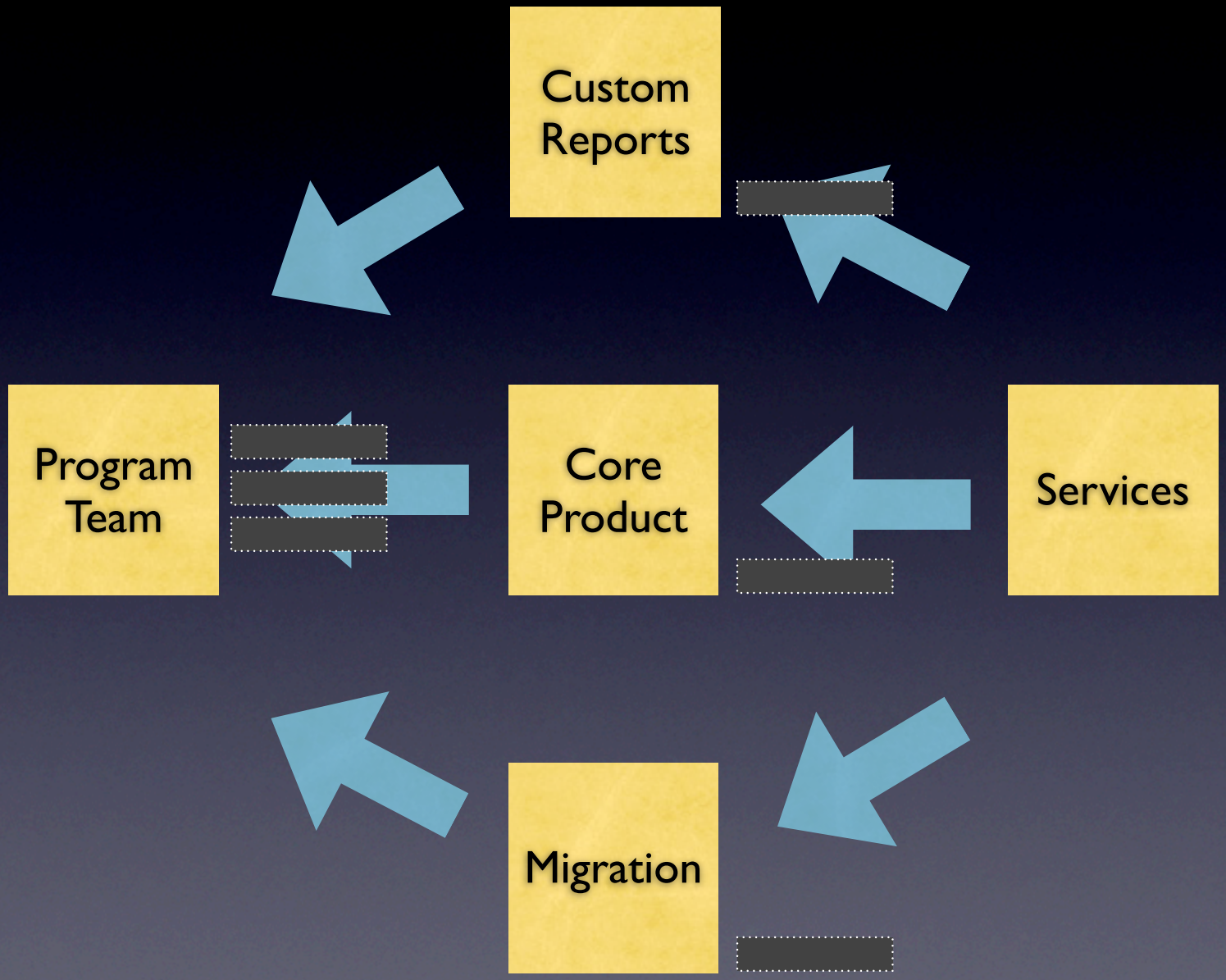
You Must First
Do Single-Team Agile Well

1. Competent Agile Teams



- Plan
- Analyze
- Design
- Code
- Test
- (Automate) Deployment

2. One-Piece Flow with Kanban



3. Create a Learning Organization

"The challenge is to develop a learning organization that will find ways to reduce the number of kanban… So kanban is something you strive to get rid of, not to be proud of."

--Jeffrey Liker, The Toyota Way

Lean, Kanban, and Large-Scale Agile

presented by

James Shore

Twitter: @jamesshore
Blog: http://jamesshore.com
Email: jshore@jamesshore.com

Upcoming training, Apr 23-27: artofagilenyc.com

Philly ETE
11 April 2012, Philadelphia PA