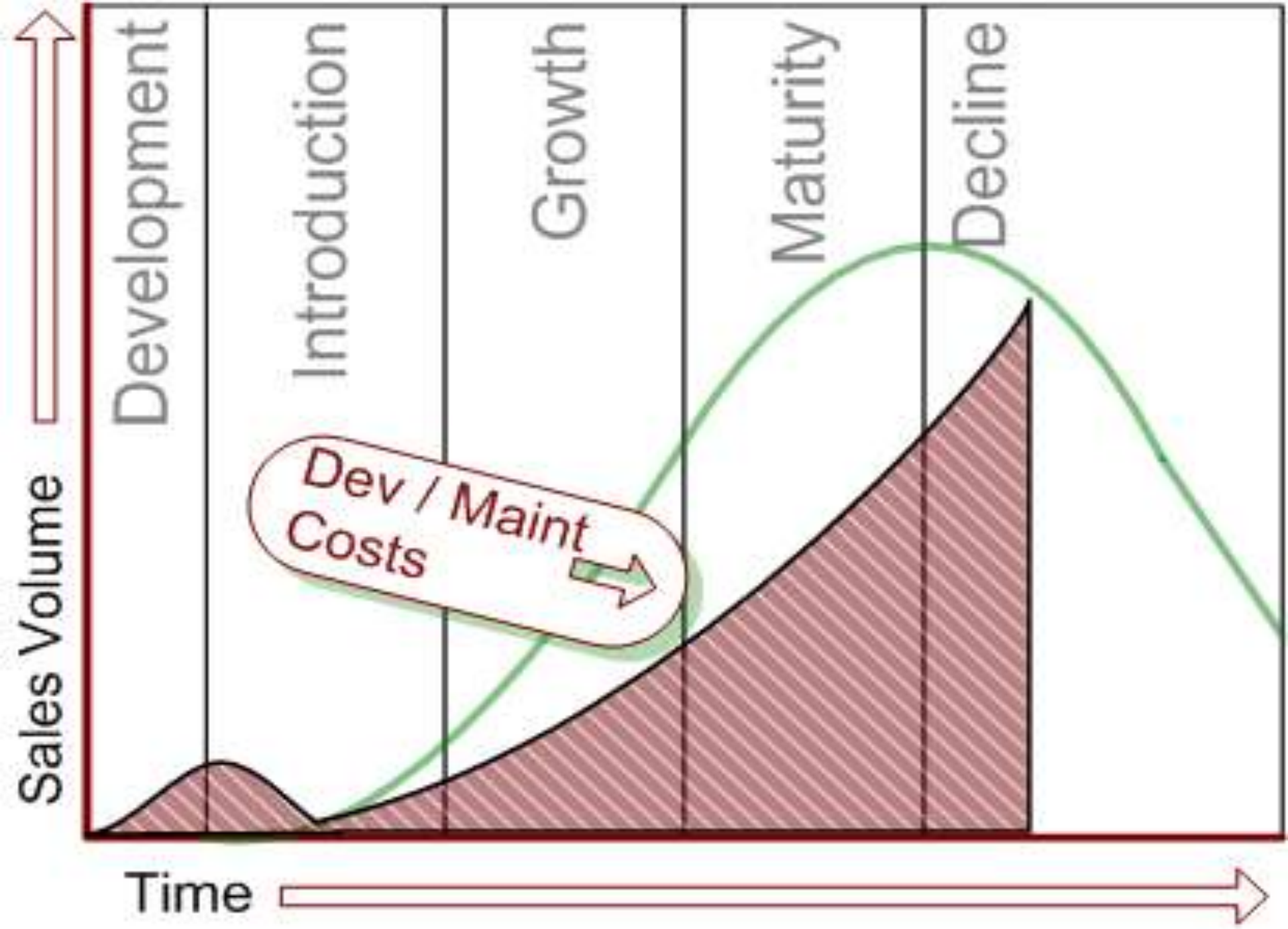
The Secret of Flow

The journey towards better software development management using lean/kanban flow approaches

Yuval Yeret

AgileSparks

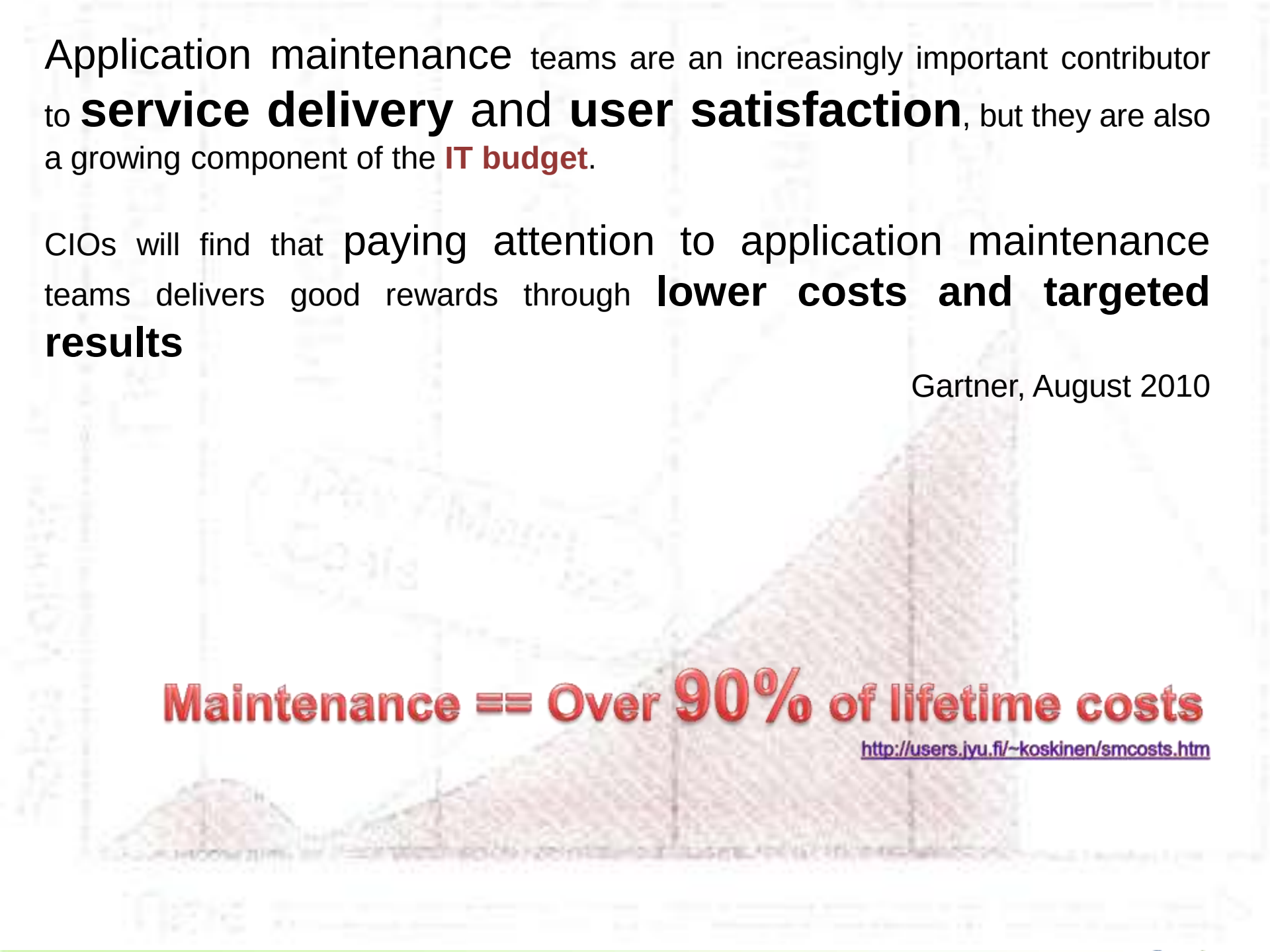


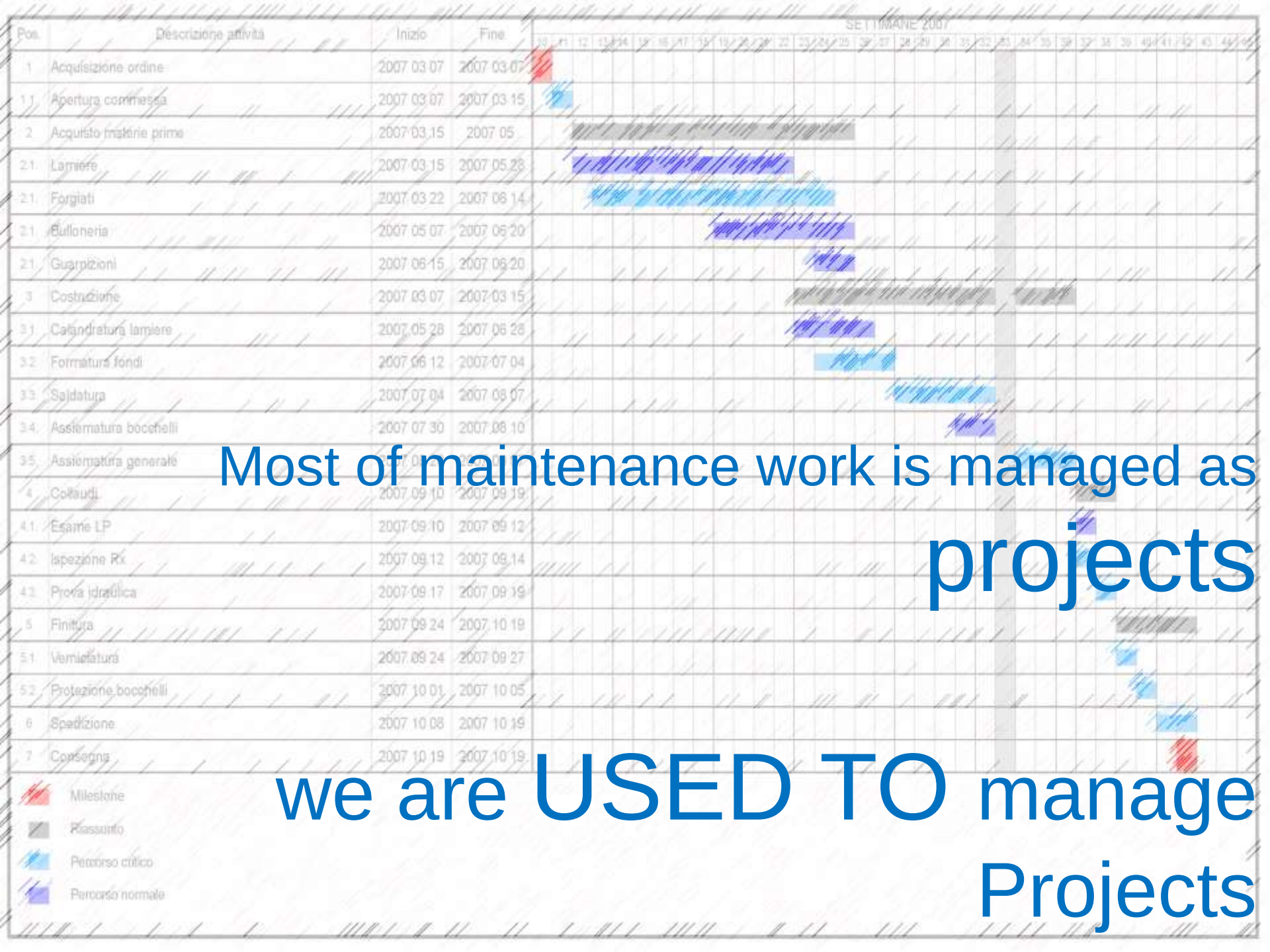
http://tynerblain.com/blog/2007/02/28/agile-development-roi-2/

Application maintenance teams are an increasingly important contributor to **service delivery** and **user satisfaction**, but they are also a growing component of the **IT budget**.

CIOs will find that paying attention to application maintenance teams delivers good rewards through **lower costs and targeted results**

Gartner, August 2010





Most of maintenance work is managed as

projects

we are USED TO manage

Projects


Is there an
alternative?


Enter FLOW based development
also called Service Delivery

プル・システム（Pull System）

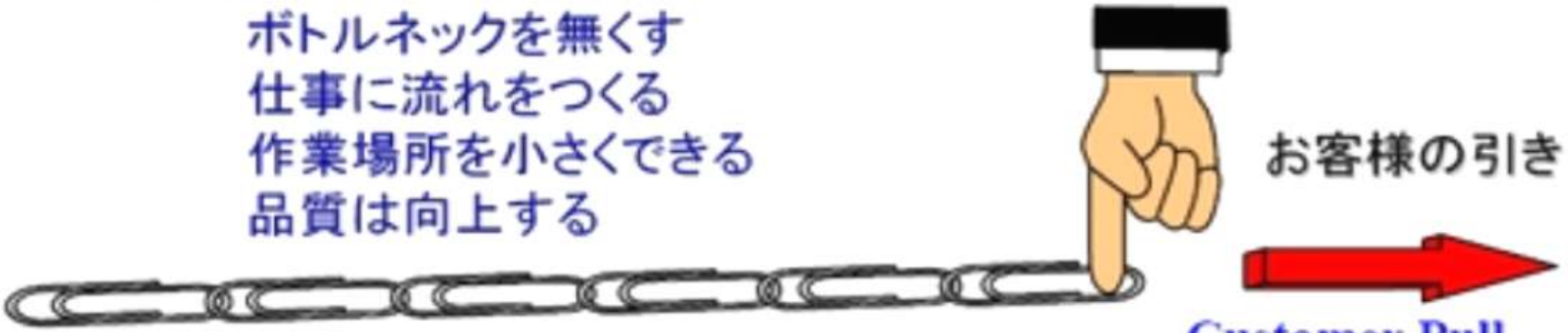
TPSの基本：お客様（次工程）の引きによる作業（運搬、生産）

一般的なビジネスプロセス　：Push Process

個々のペーパークリップがバリューチェーンにおける
それぞれの仕事のプロセスとイメージ

トヨタ生産方式（TPS）：Pull Process

ボトルネックを無くす
仕事に流れをつくる
作業場所を小さくできる
品質は向上する



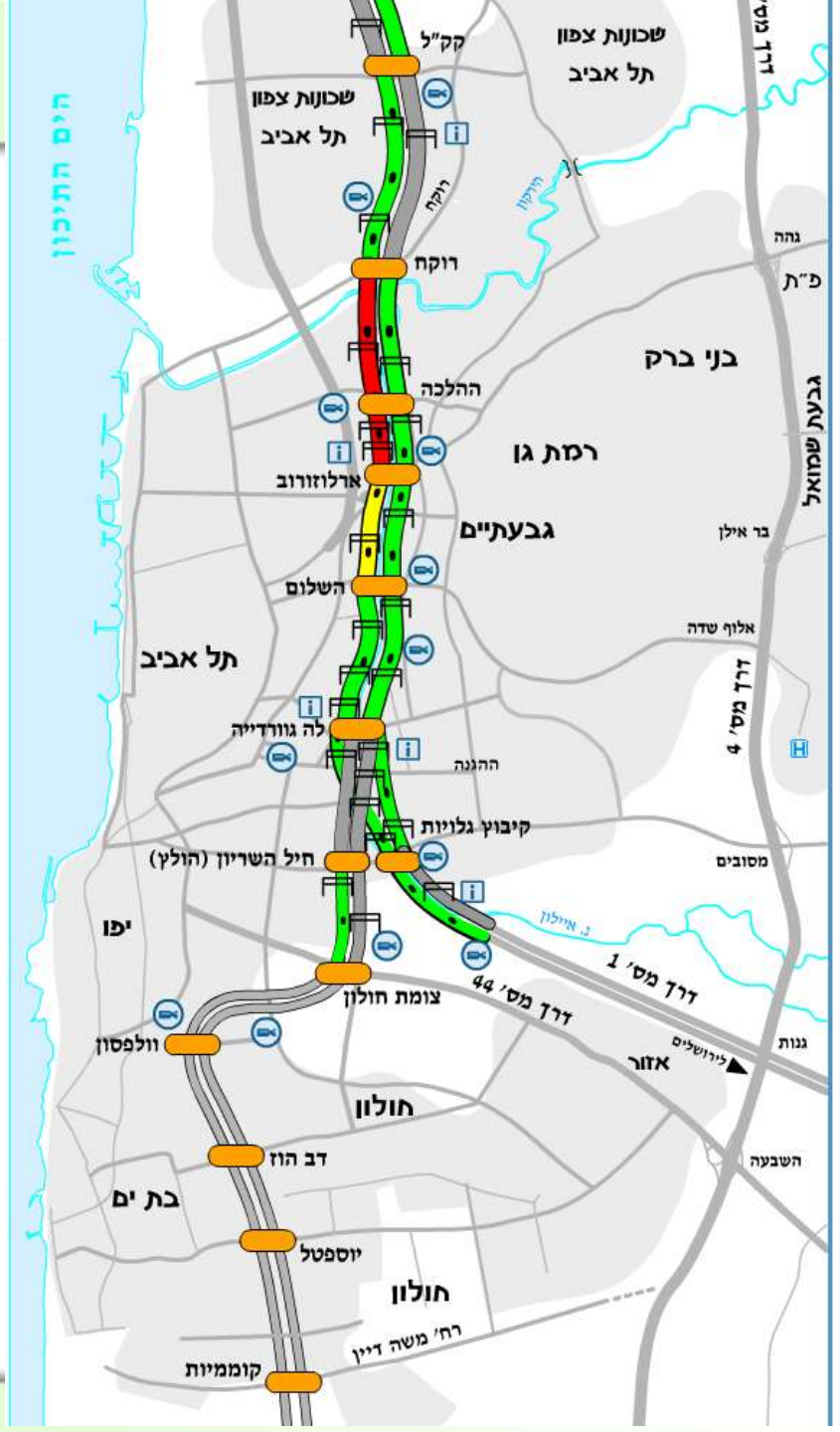
Step #1: identify and work with minimally valuable features

TIP #1:

Limit SIZE!


Can all work items be the same size?

Step #2: Visualize Flow



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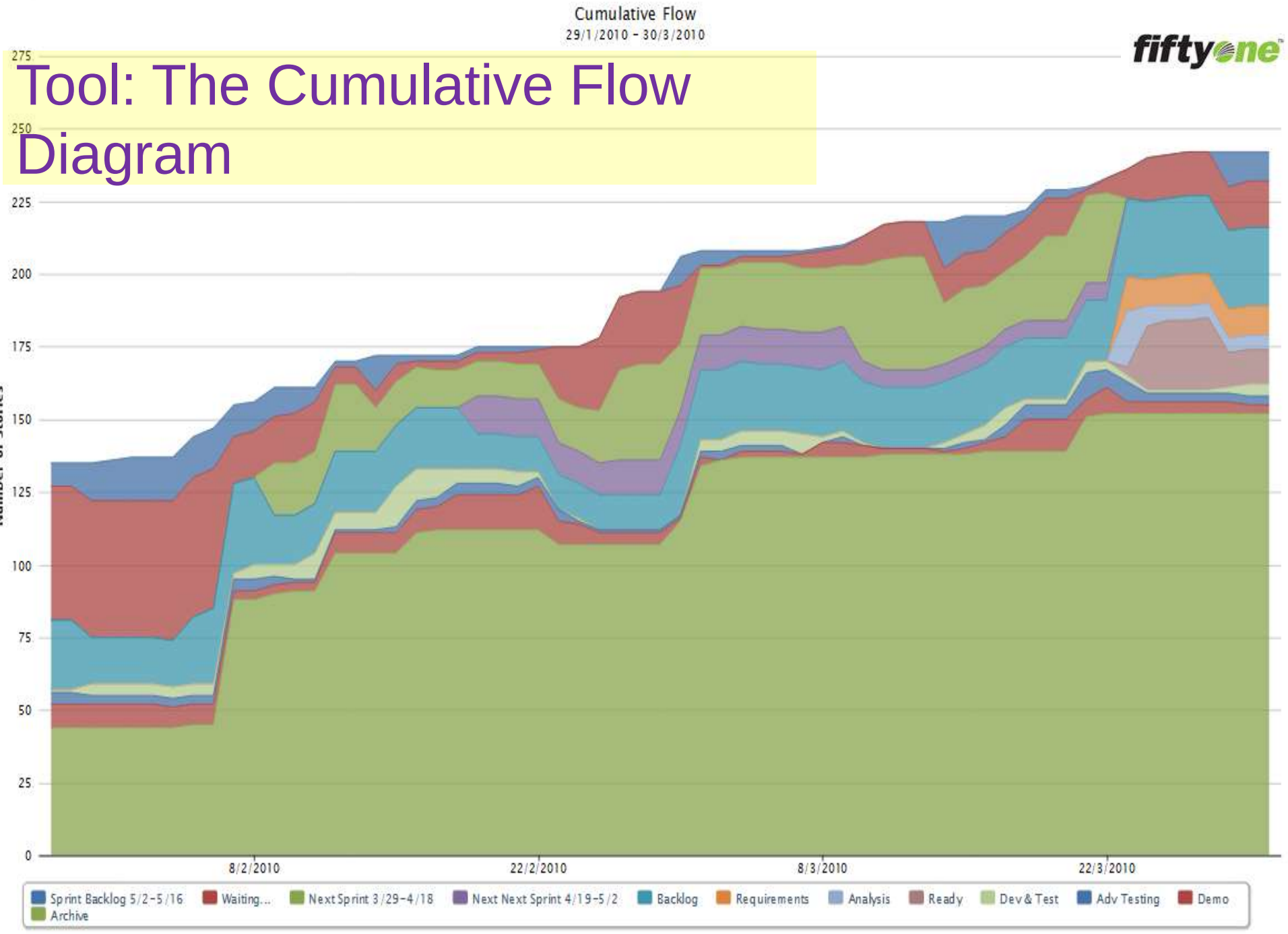
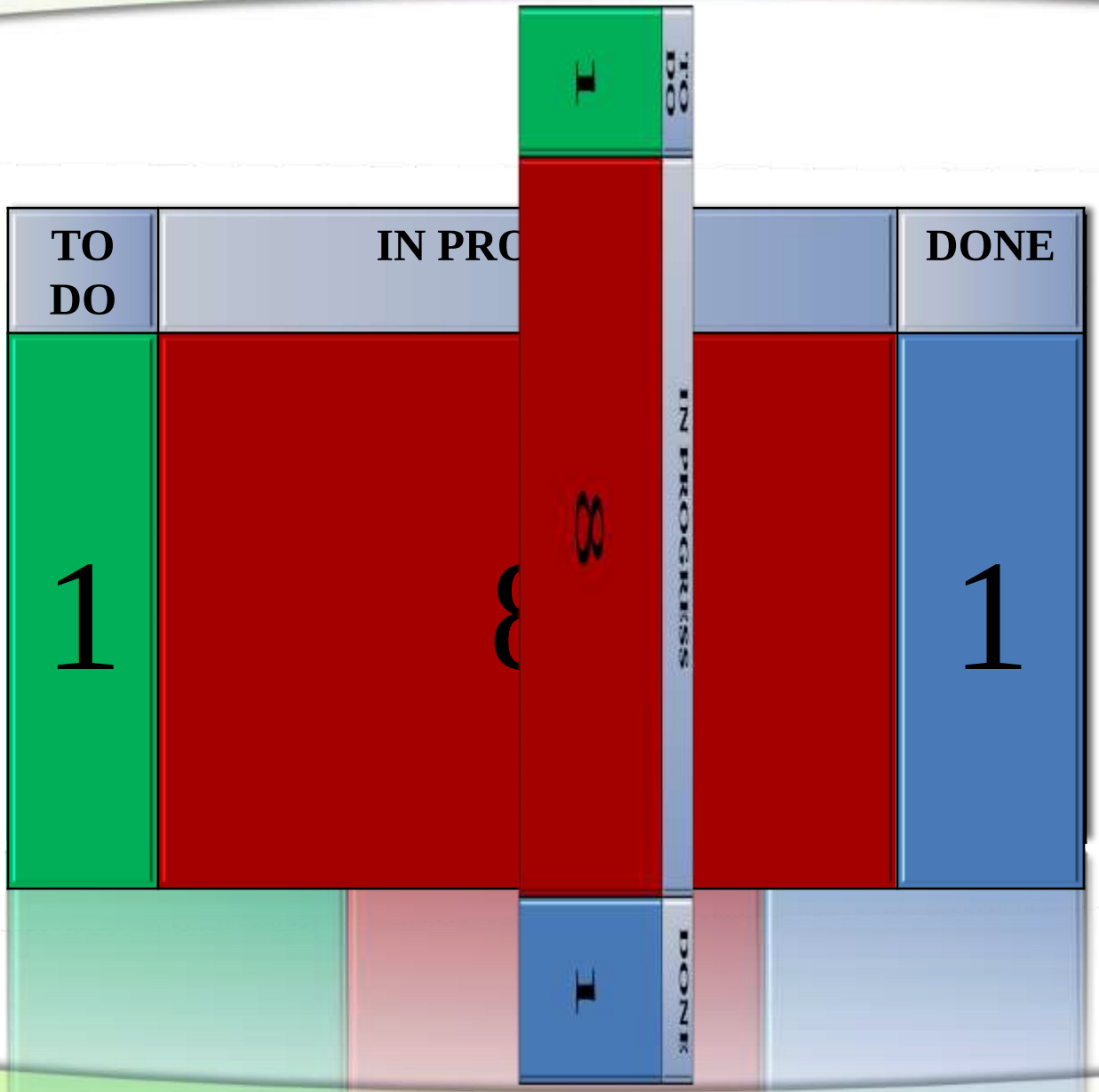
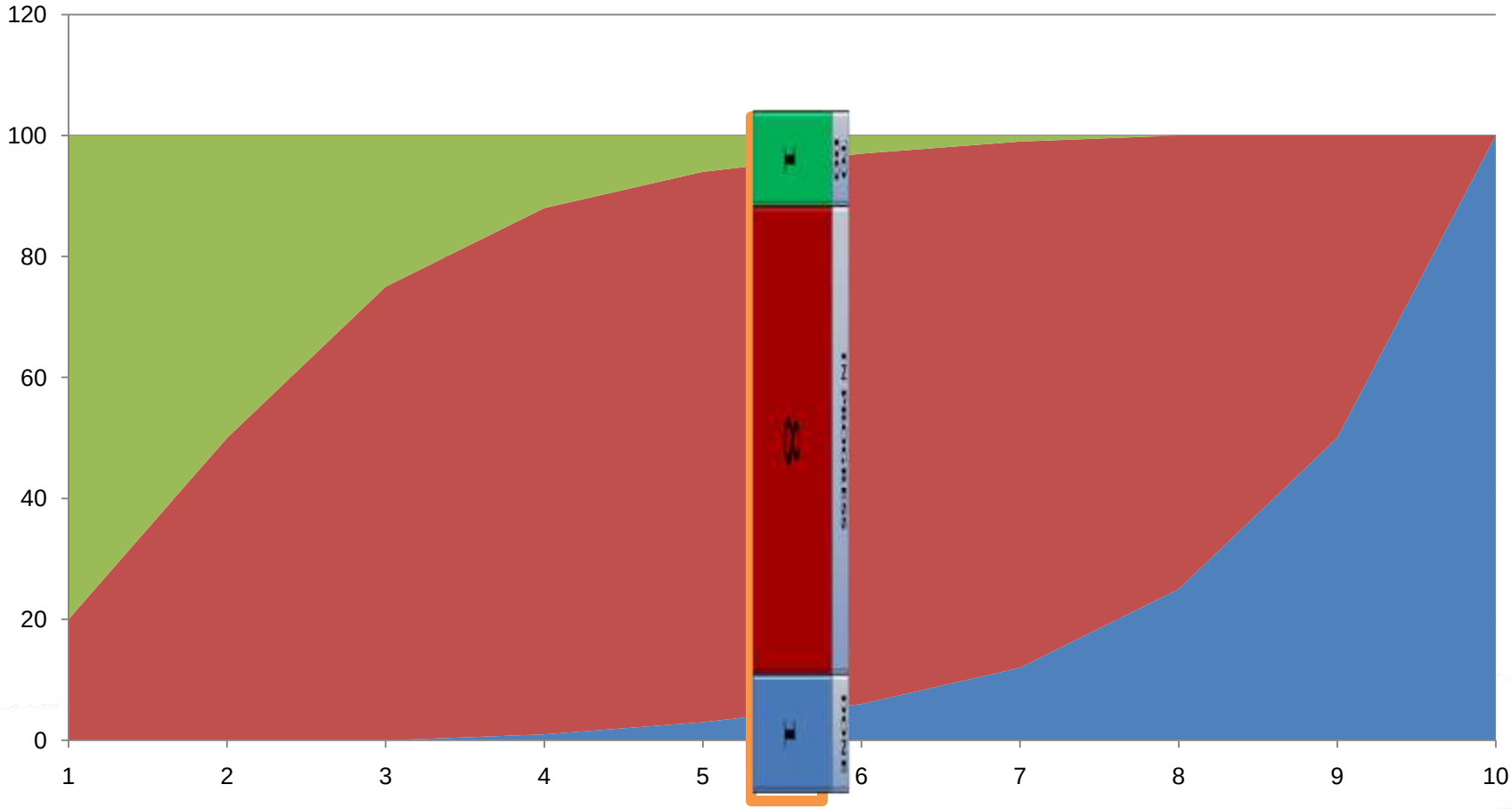
Tool: The Cumulative Flow Diagram



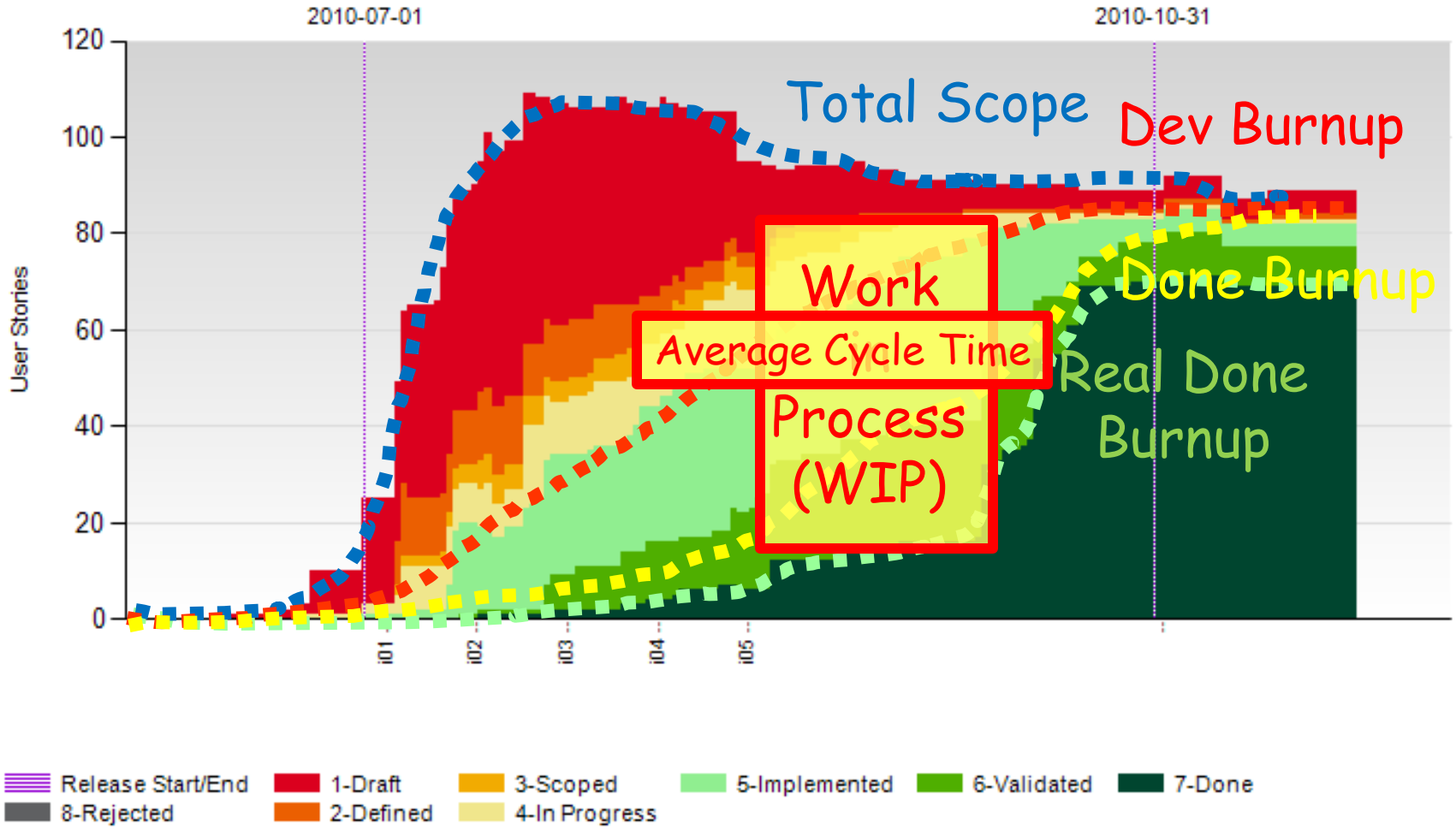
How to do a CFD



How to do a CFD



What can teams learn from Cumulative Flow?



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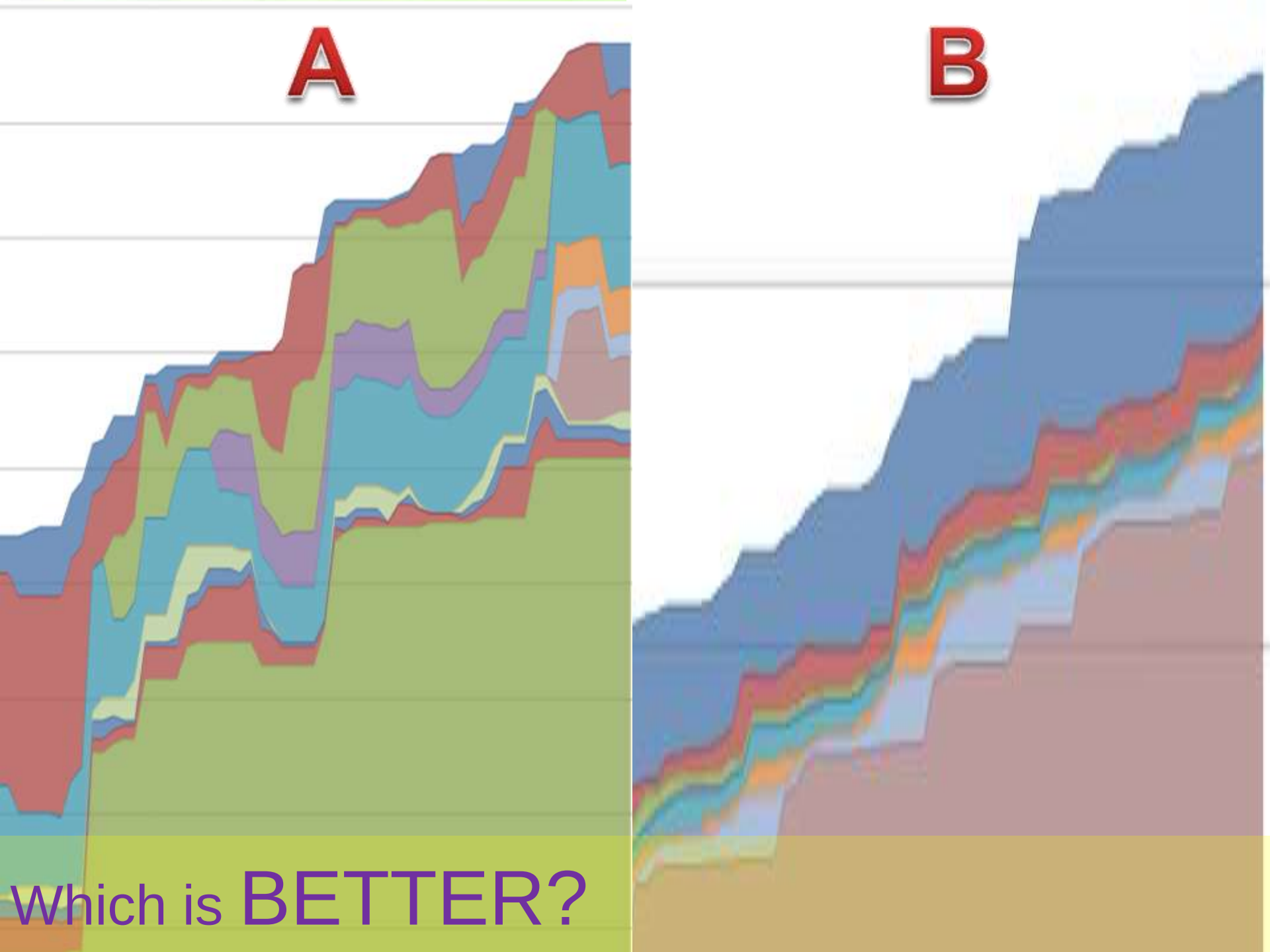
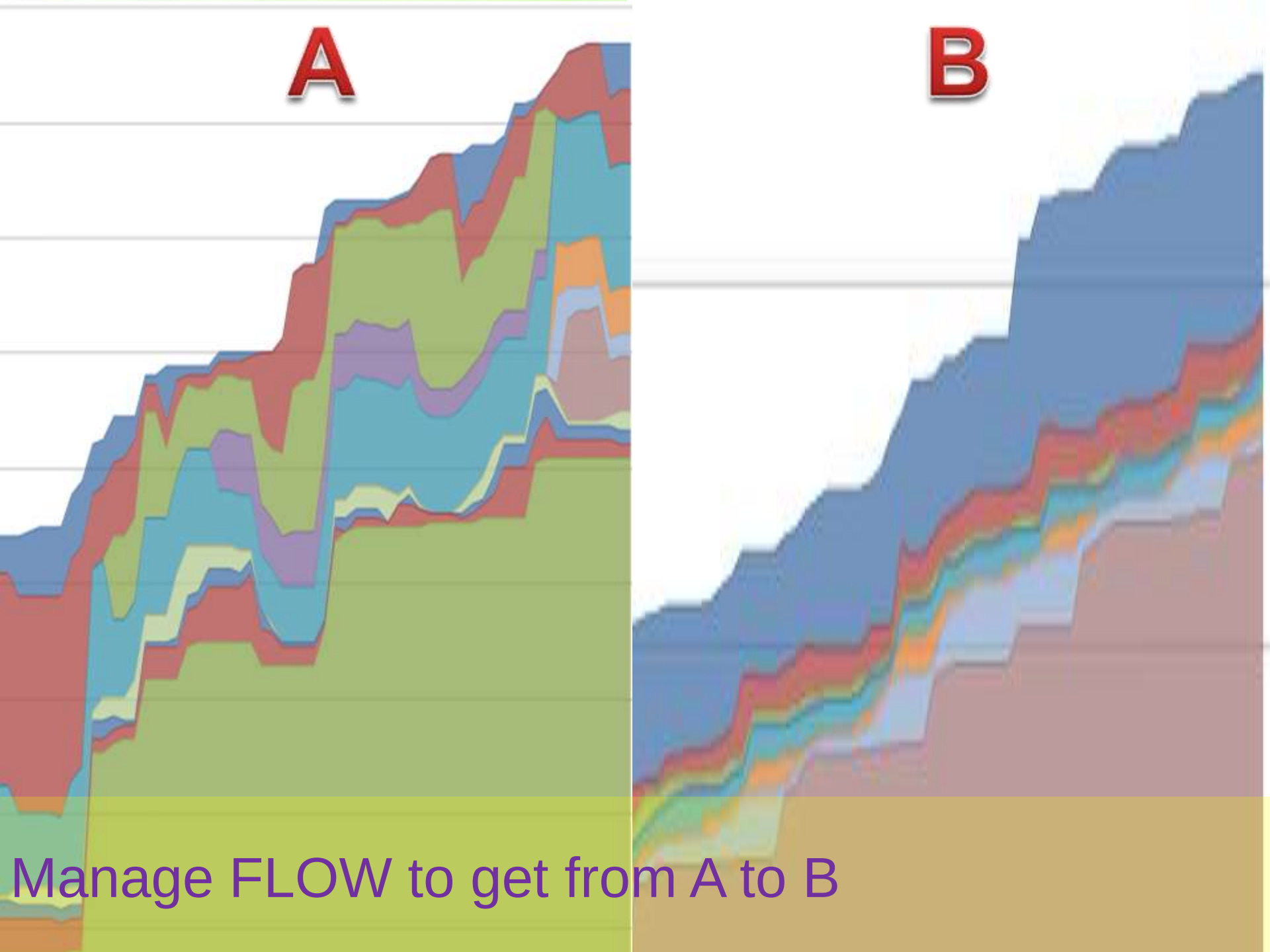
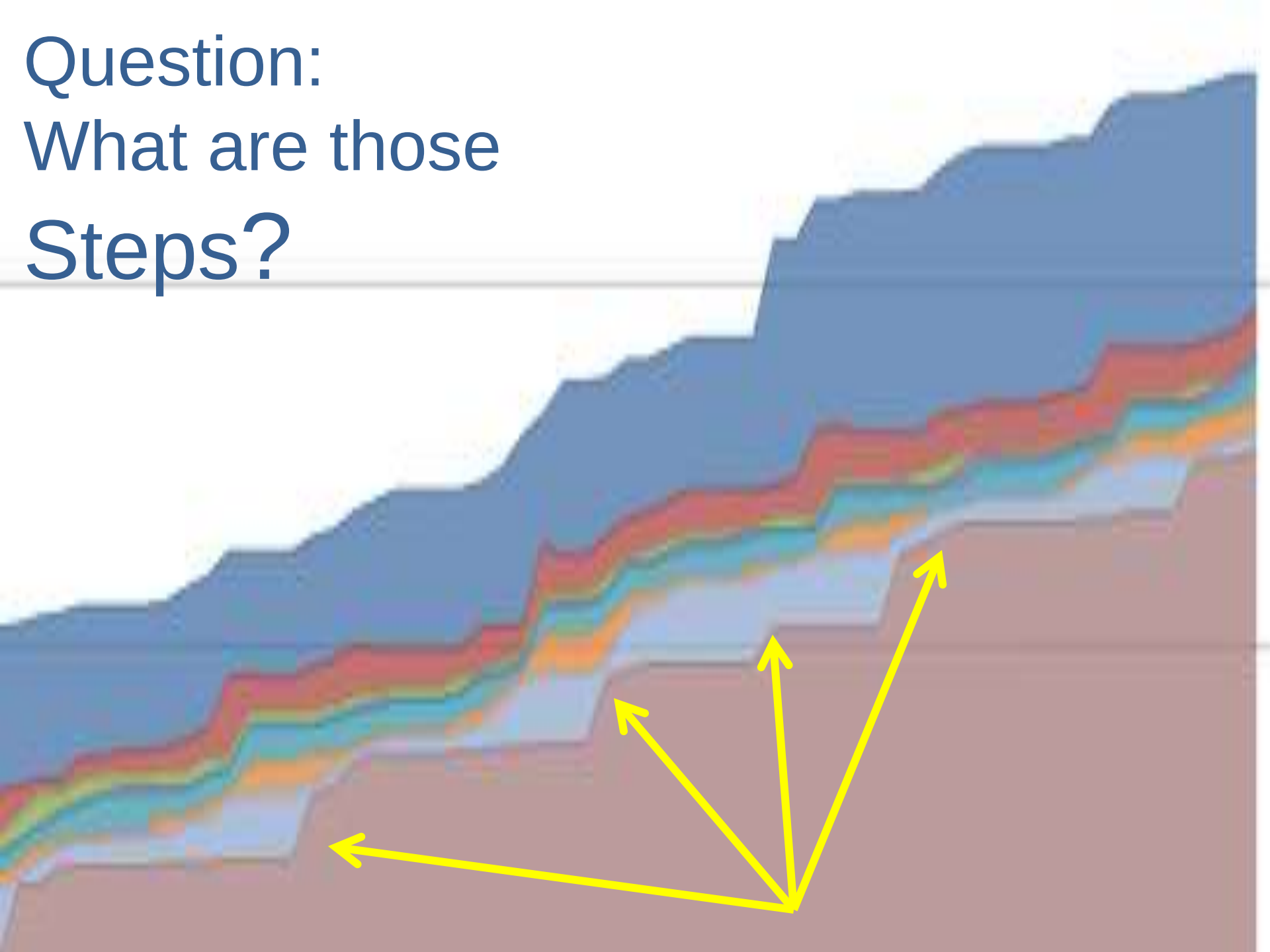

A
B
Which is BETTER?


A
B
Manage FLOW to get from A to B

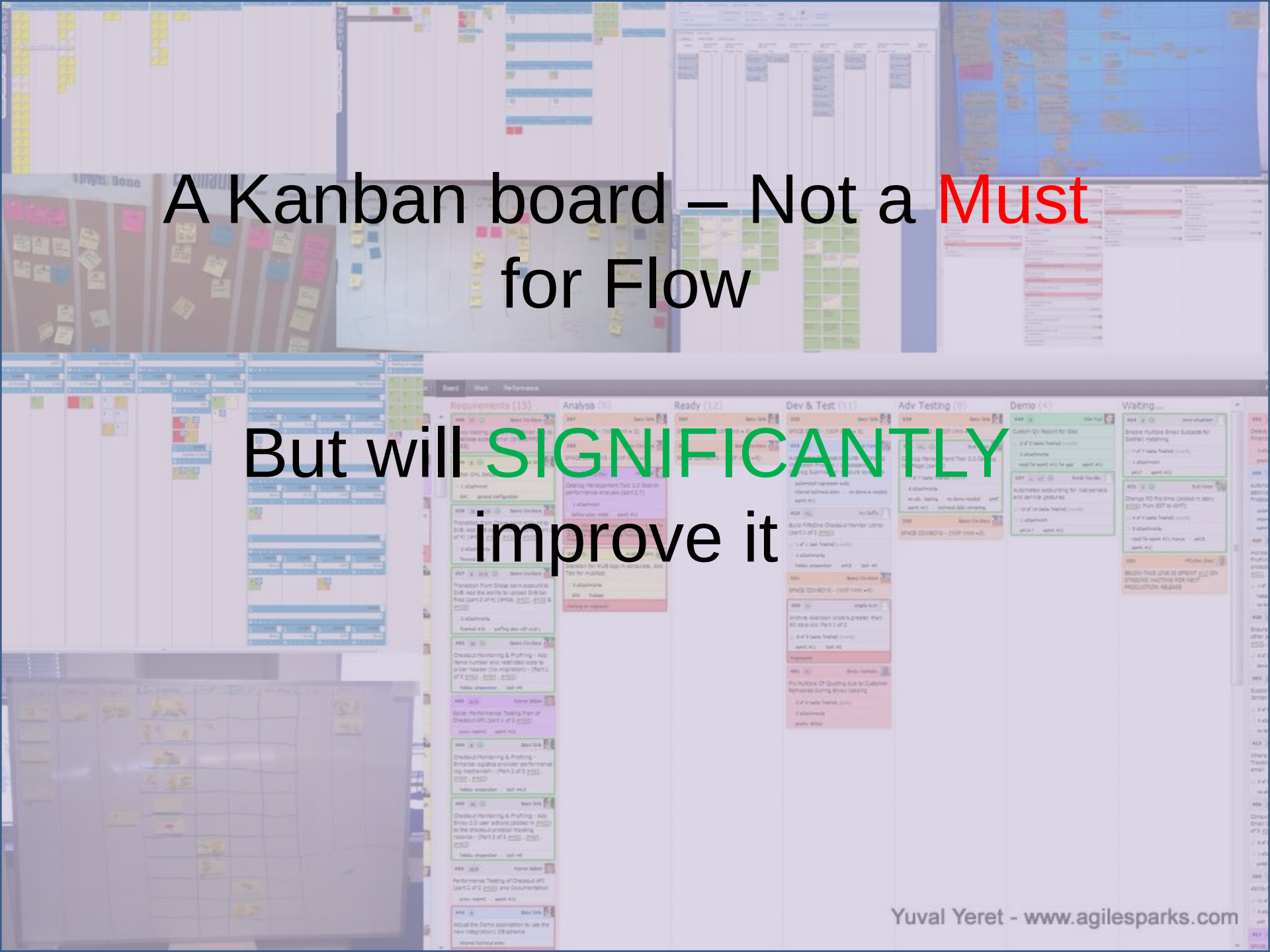
Question:
What are those Steps?



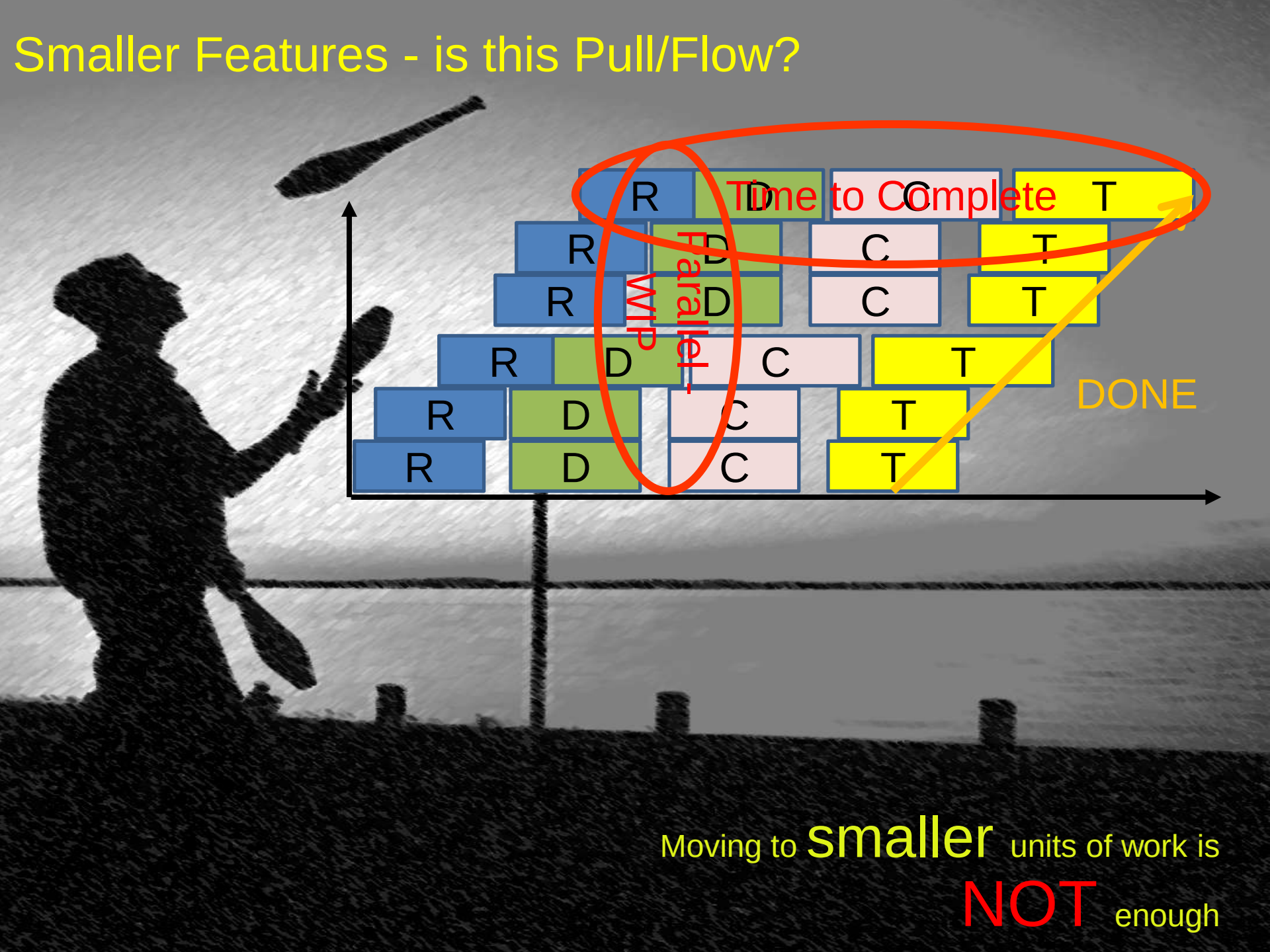
quick roundtime for short trips – no waits

TIP: Do what MAKes economic

More efficient
But longer time and queues


A Kanban board – Not a Must for Flow
But will SIGNIFICANTLY improve it
Yuval Yeret - www.agilesparks.com

Smaller Features - is this Pull/Flow?



Moving to **smaller** units of work is

NOT enough

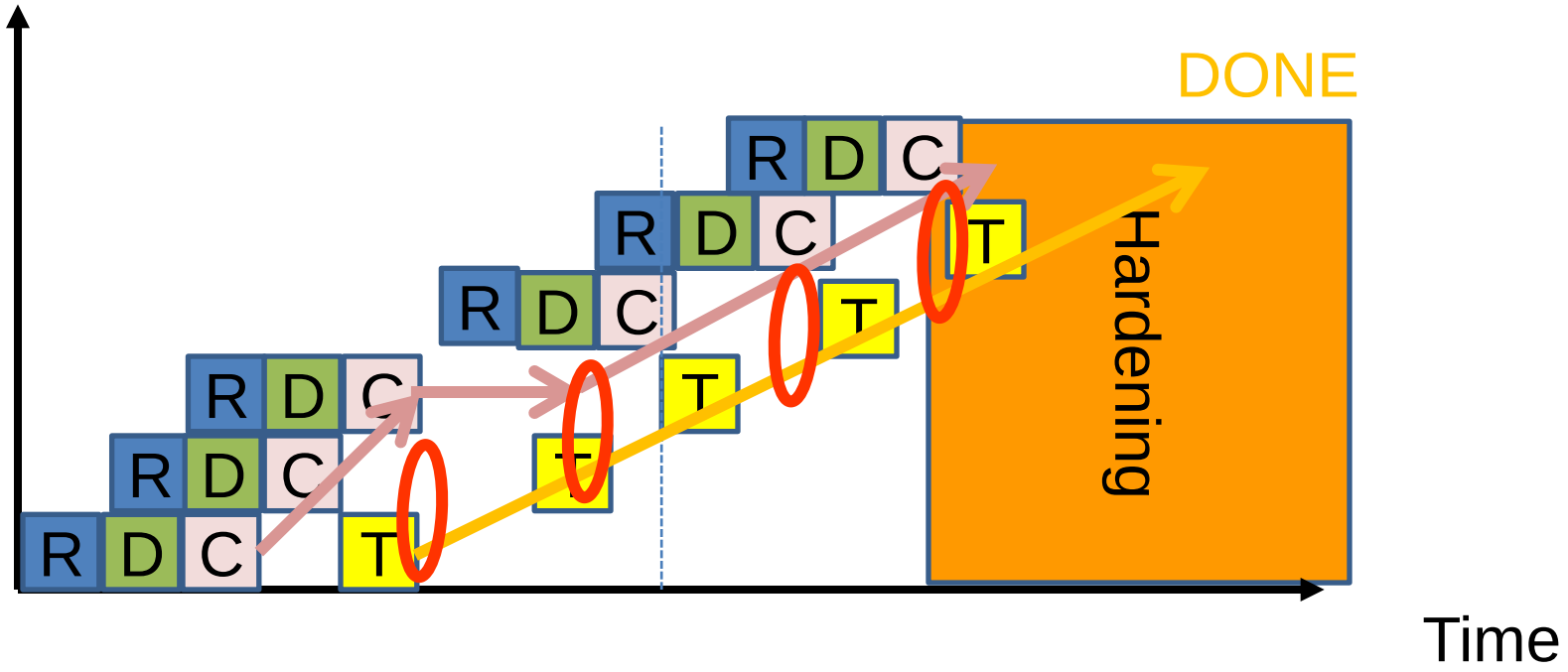

Step #3: Control Flow
RECIPE: Limit amount of Work in Progress

RECIPE: Limit WIP When PLANNING


TIP: Versatility enables lower Work in process limits and minimizes price of surprises


RECIPE: Limit WIP
When EXECUTING

Limiting WIP – pull according to the bottleneck



Say NO! to BAD project-level Multi-Tasking

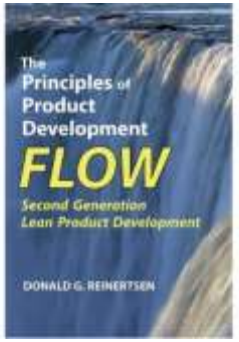
Tip:

Freeze 50% of projects/activities

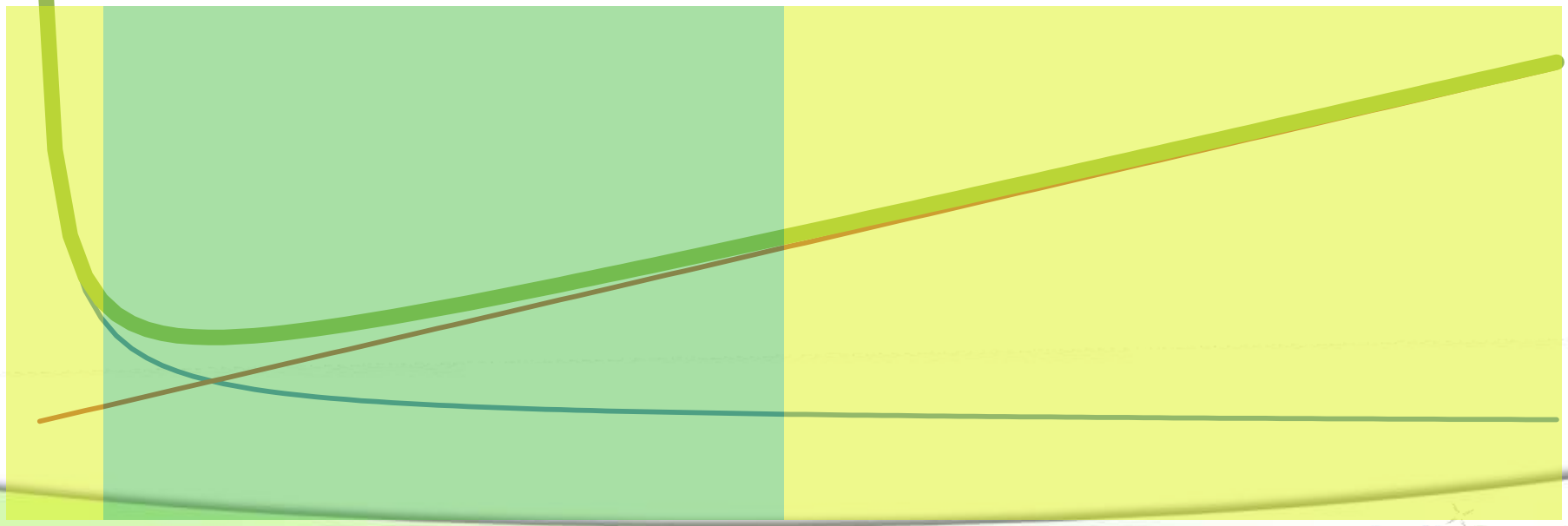
Focus/Swarm on the remaining ones

Accurate WIP Limit / Freeze amount is not that important...

½ the WIP, ½ the batch size, can be a good start...

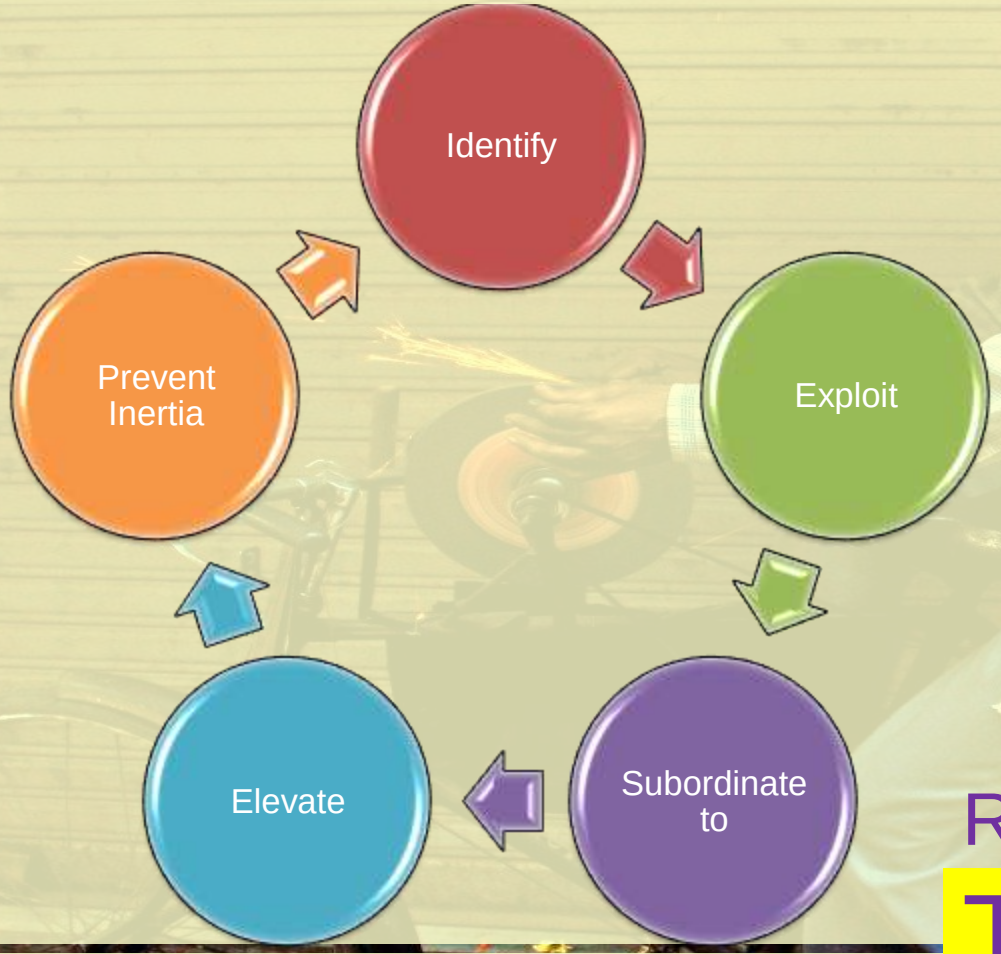


Based on Reinertsen Product Development Flow



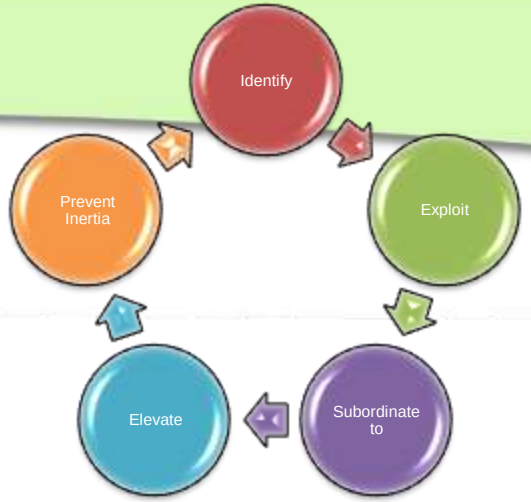
limiting WIP / freezing ➔ SLACK TIME ???

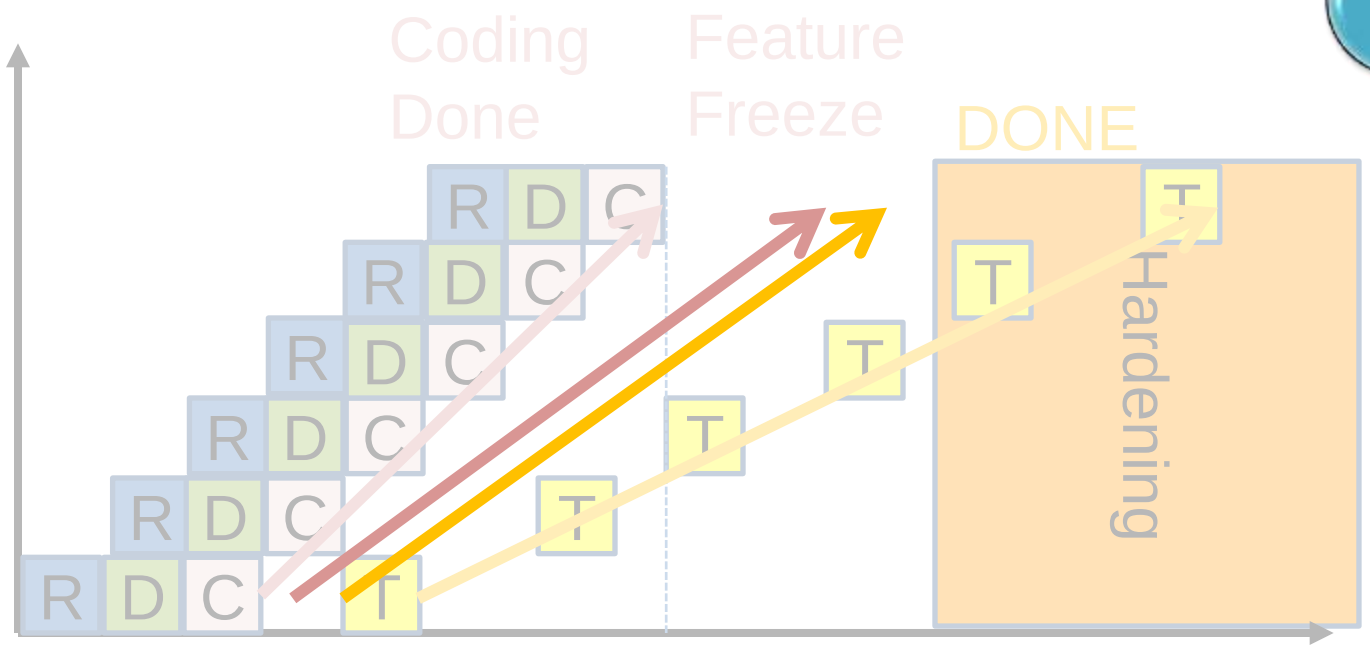
* No coaches were idle due to the preparation of this presentation



RECIPE: use

TOC 5 Focusing Steps


Identify
Exploit
Subordinate to
Elevate
Prevent Inertia


Coding Done
Feature Freeze
DONE
Hardening
R D C
T

1

Work with
minimally valuable features

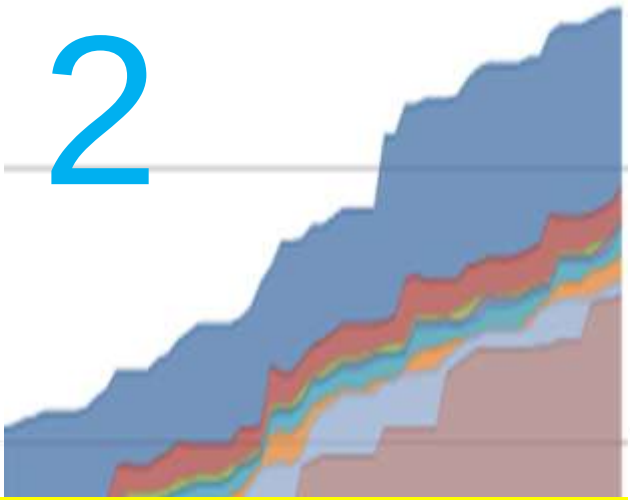
3

Limit Work in progress

5

Focus on bottlenecks

2



Visualize flow using CFD

4

Improve versatility

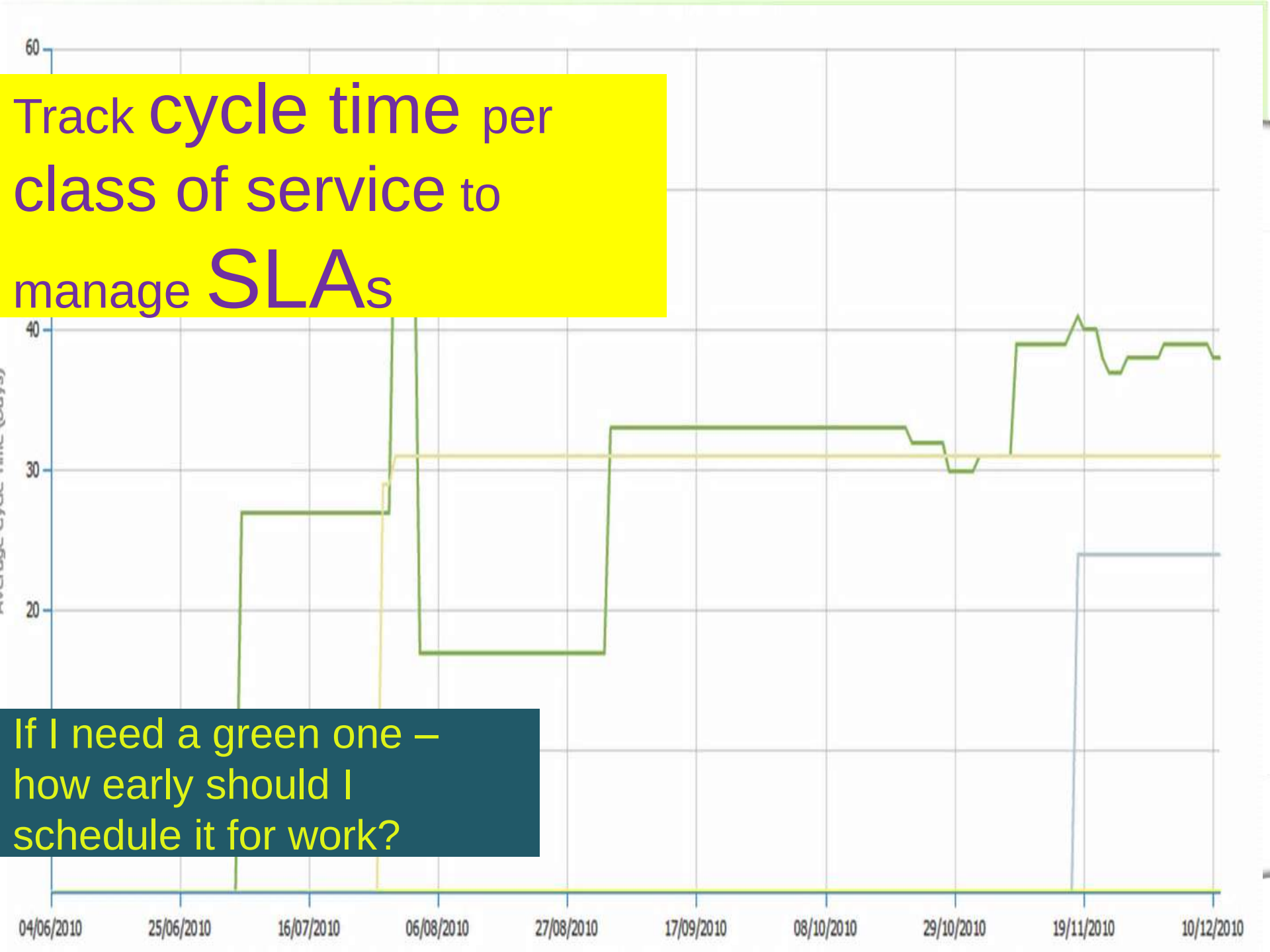

CHANGED
PRIORITIES
AHEAD

Traditional priorities might not be enough

Start thinking about

COST OF DELAY

Mike Burrows http://positiveincline.com/?p=769


Track cycle time per class of service to manage SLAs
If I need a green one – how early should I schedule it for work?
60
40
30
20
04/06/2010
25/06/2010
16/07/2010
06/08/2010
27/08/2010
17/09/2010
08/10/2010
29/10/2010
19/11/2010
10/12/2010

Now lets complicate life a little…

Enter the Shared Resource...

Test lab?

The Shared Experts

DBA

Platform/INFRA

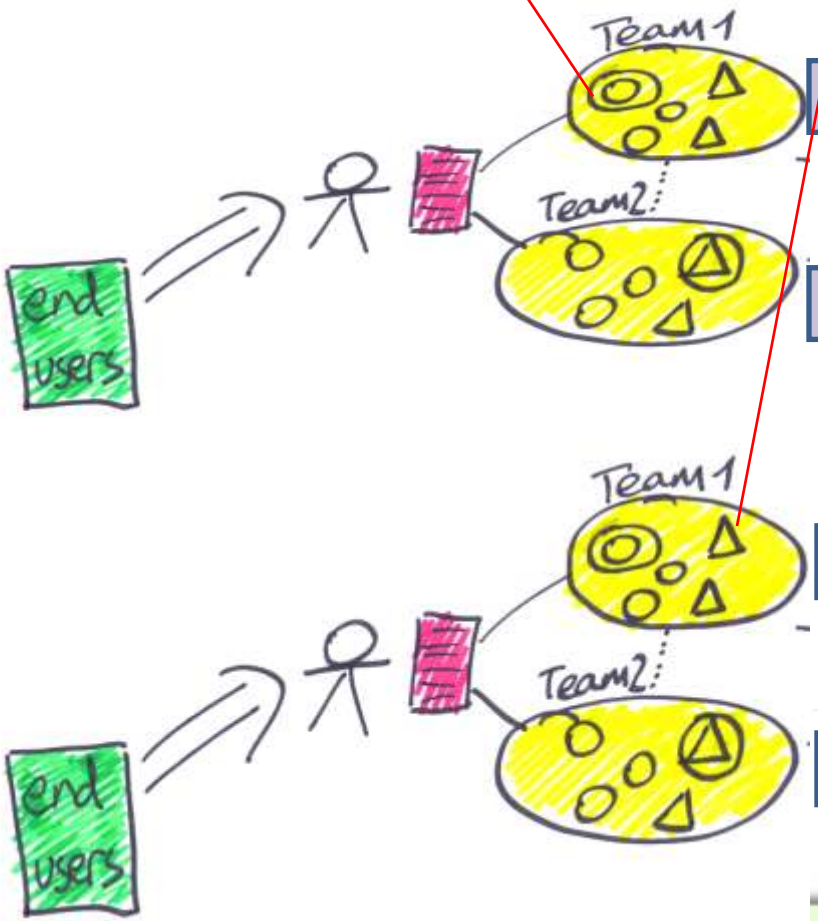
UX/UI DESIGN

Security

Will visualizing and managing flow in **each** of those roads be **enough**?

Need to visualize and manage the global end to end flow across shared resources


When dealing with shared resources...
we need to apply the flow techniques at the level at which they are shared



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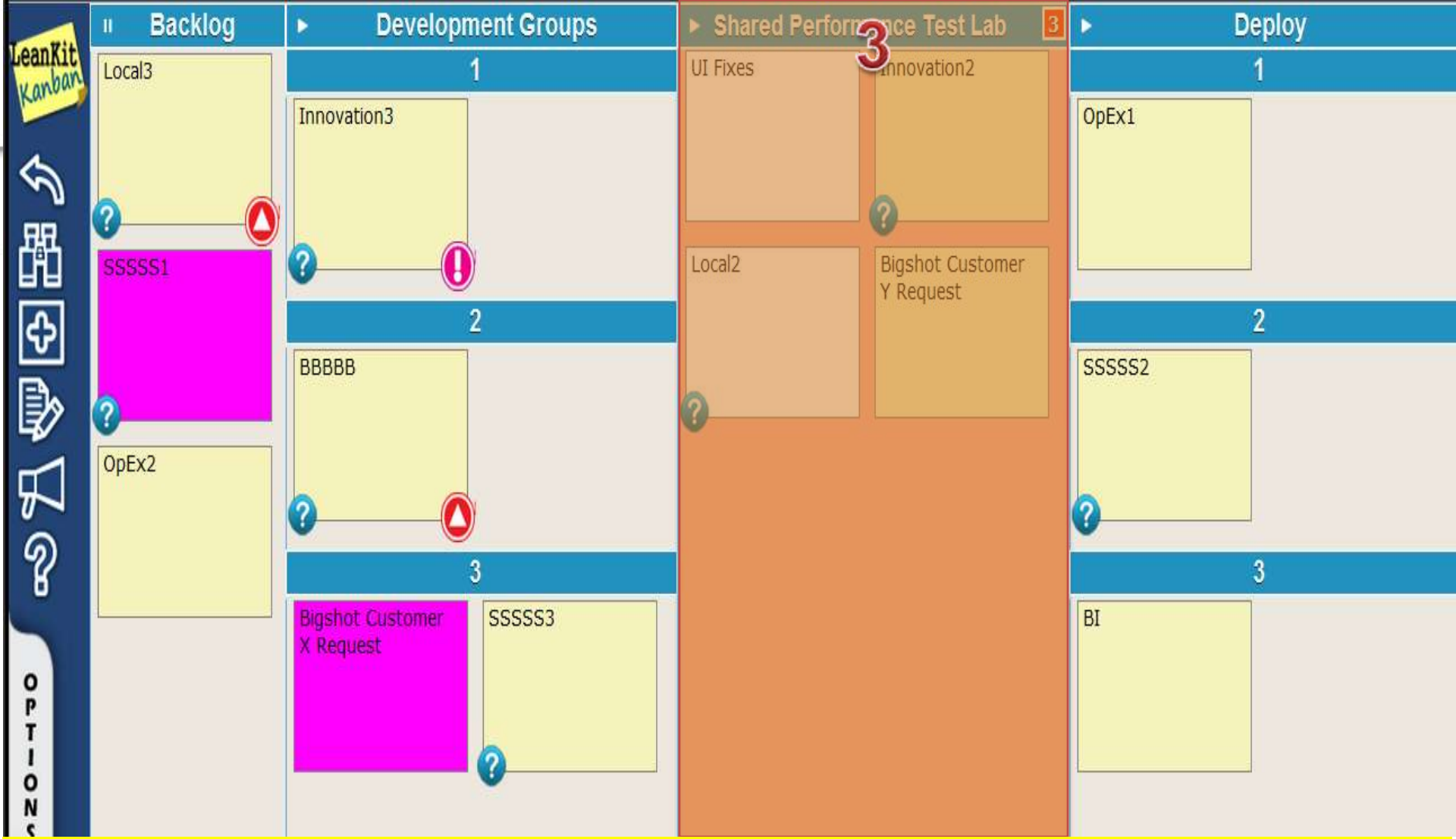
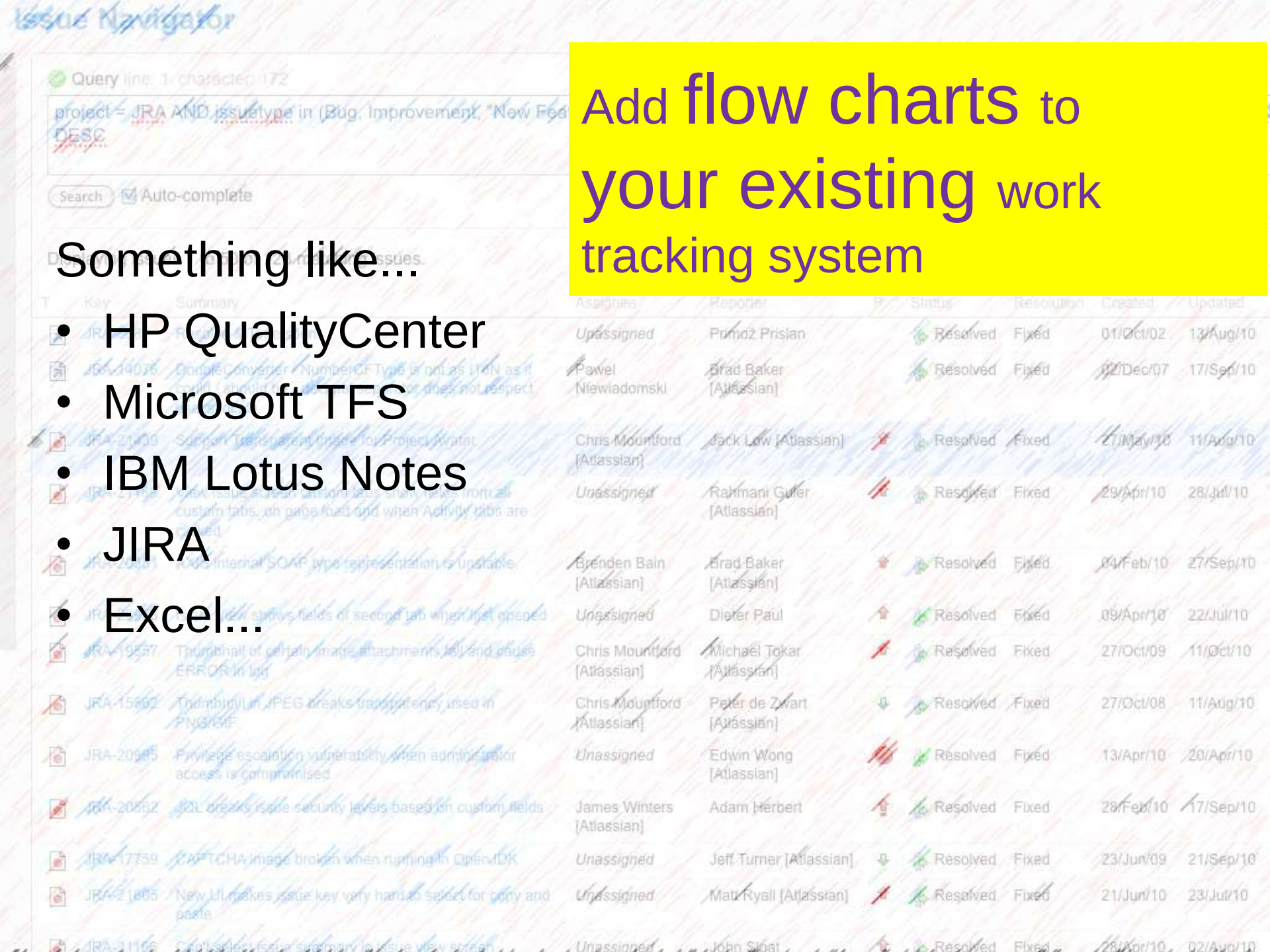


Use Kanban boards to Visualize and manage

end to end flow

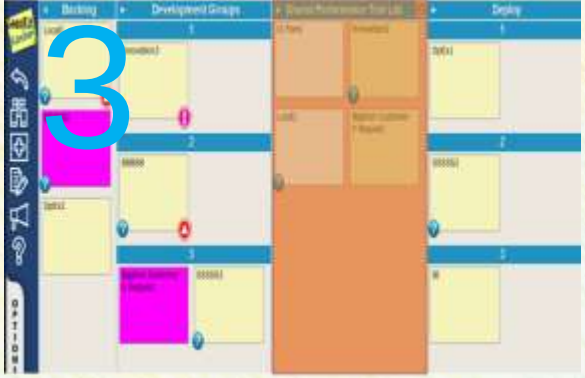
How can I take this to my context?


Add flow charts to your existing work tracking system
Something like...
• HP QualityCenter
• Microsoft TFS
• IBM Lotus Notes
• JIRA
• Excel...

Tool:
electronic
KANBAN system


Why FLOW
Tuned for Service Delivery
(80% of software development in the world is V>1.0)
Pragmatic approach to change
focused

3

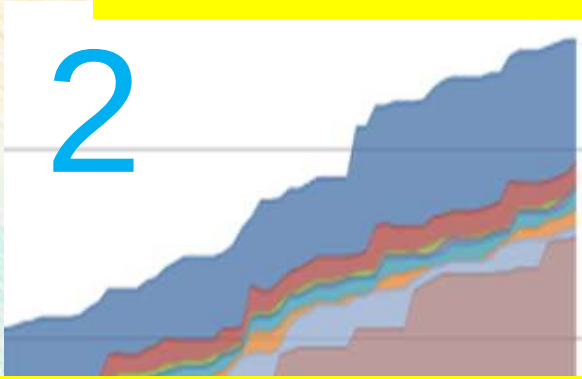


Use Kanban Boards

6

Focus on bottlenecks

2



Visualize flow using CFD

5

Improve versatility

8

Scale to shared resources

1

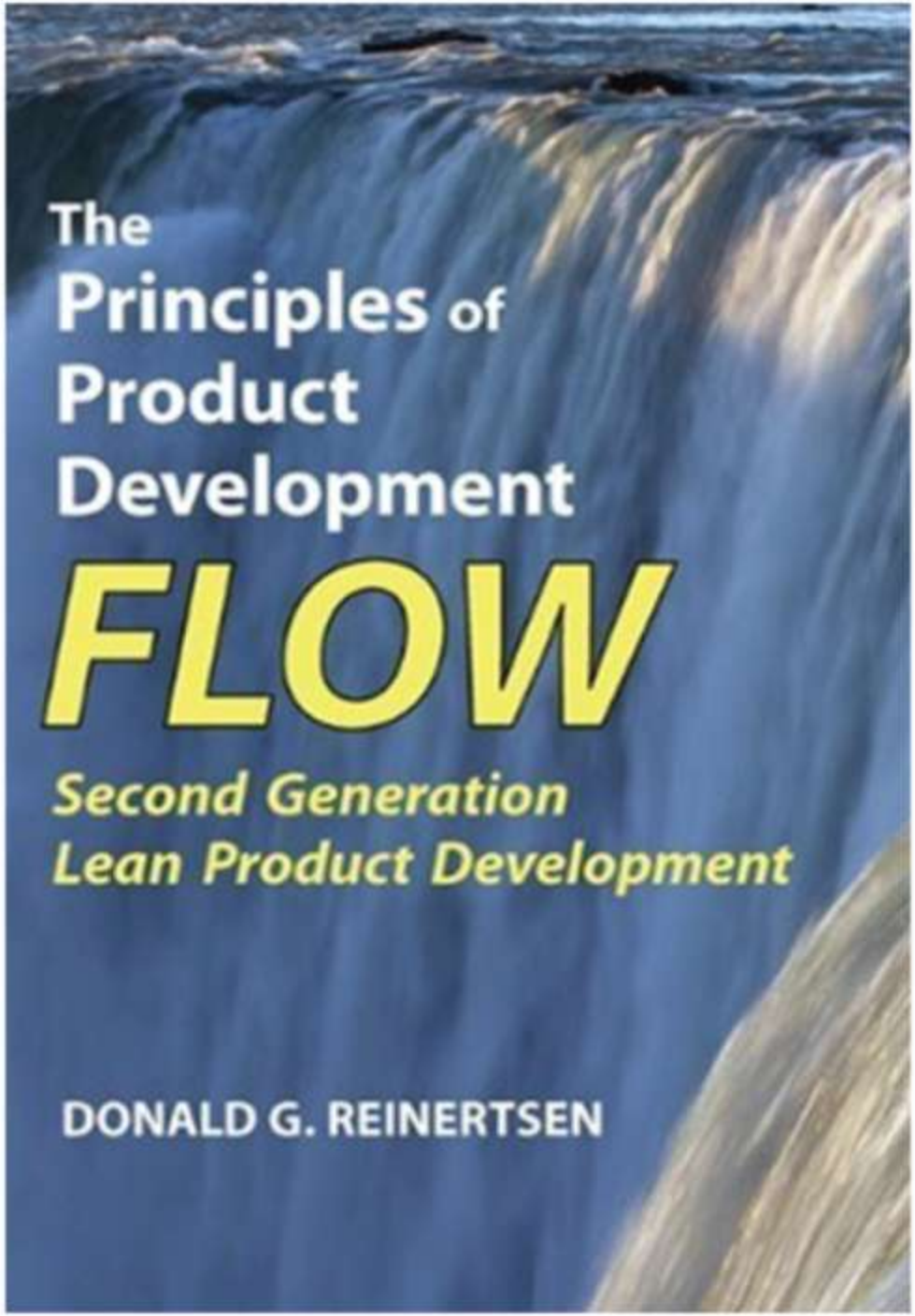
Work with minimally valuable features

4

Limit Work in progress

7

Classify by COST OF DELAY



KANBAN

Successful Evolutionary Change for Your Technology Business

David J. Anderson

Foreword by Donald G. Reinertsen

Agile Sparks

Challenging your comfort zone

Advanced Topics in Kanban

Kanban for Managers/ Leaders

Kanban for Scrummers

Kanban Primer

Kanban for IT/SUPPORT Operations


Limited
WIP
Society.org
Limit work in process:
Stop starting, start
finishing

Agile Sparks
Challenging your comfort zone
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@yuvalyeret
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Questions?

3 Use Kanban Boards

Focus on bottlenecks 6

2 Visualize flow using CFD

5 Improve velocity

Scale to shared resource 8

1 Work with minimally valuable features

4 Limit Work in progress

7 Classify by COST OF DELAY

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