

Mar 21, 2005 – Jul 11, 2005



Ken Sueda

Shawn Minto

Mik Kersten

Muress Alruhaie

The future of ALM:
Developing in the Social Code Graph

@mik_kersten, @tasktop
#javaone

Leah Findlater



100M LOC
now

300M LOC
soon

Dozens of
software
suppliers

20bb11612



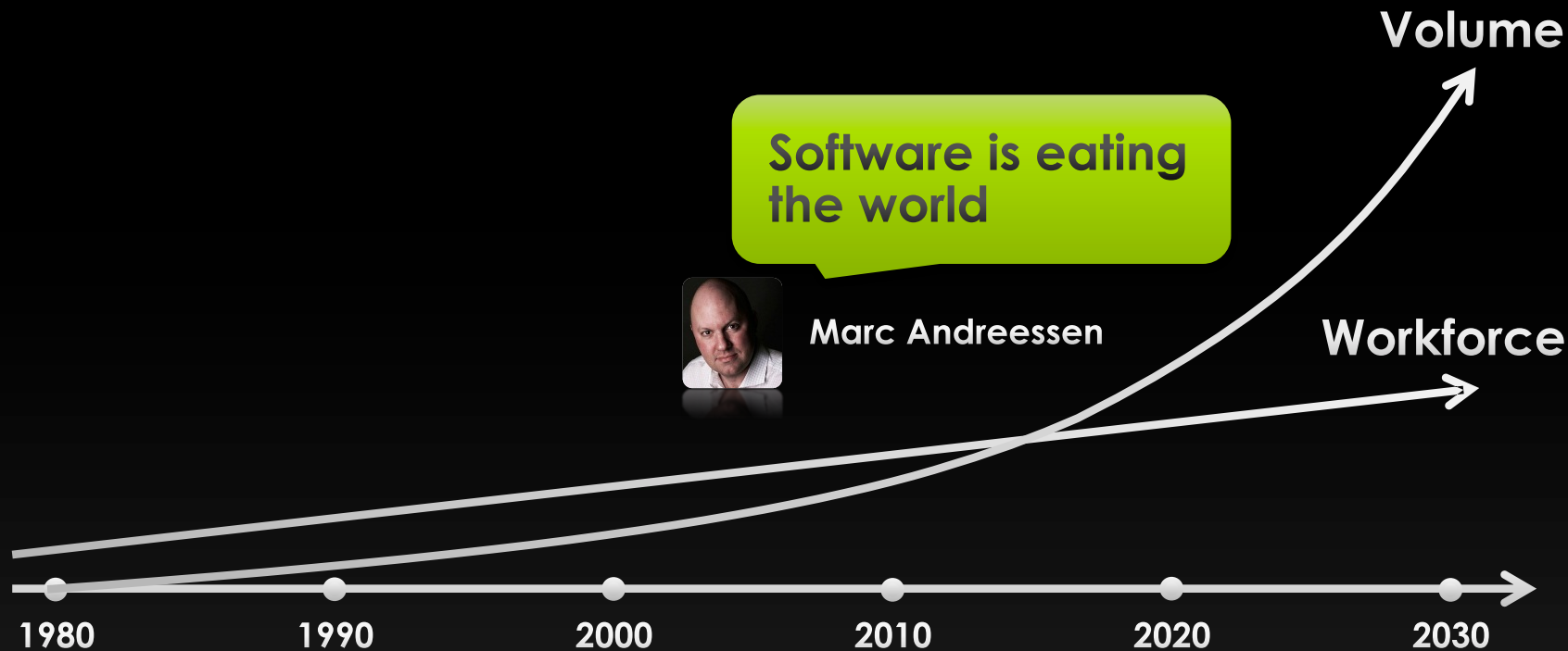
1.5M DLs
2011-01



2.5M DLs
2012-01



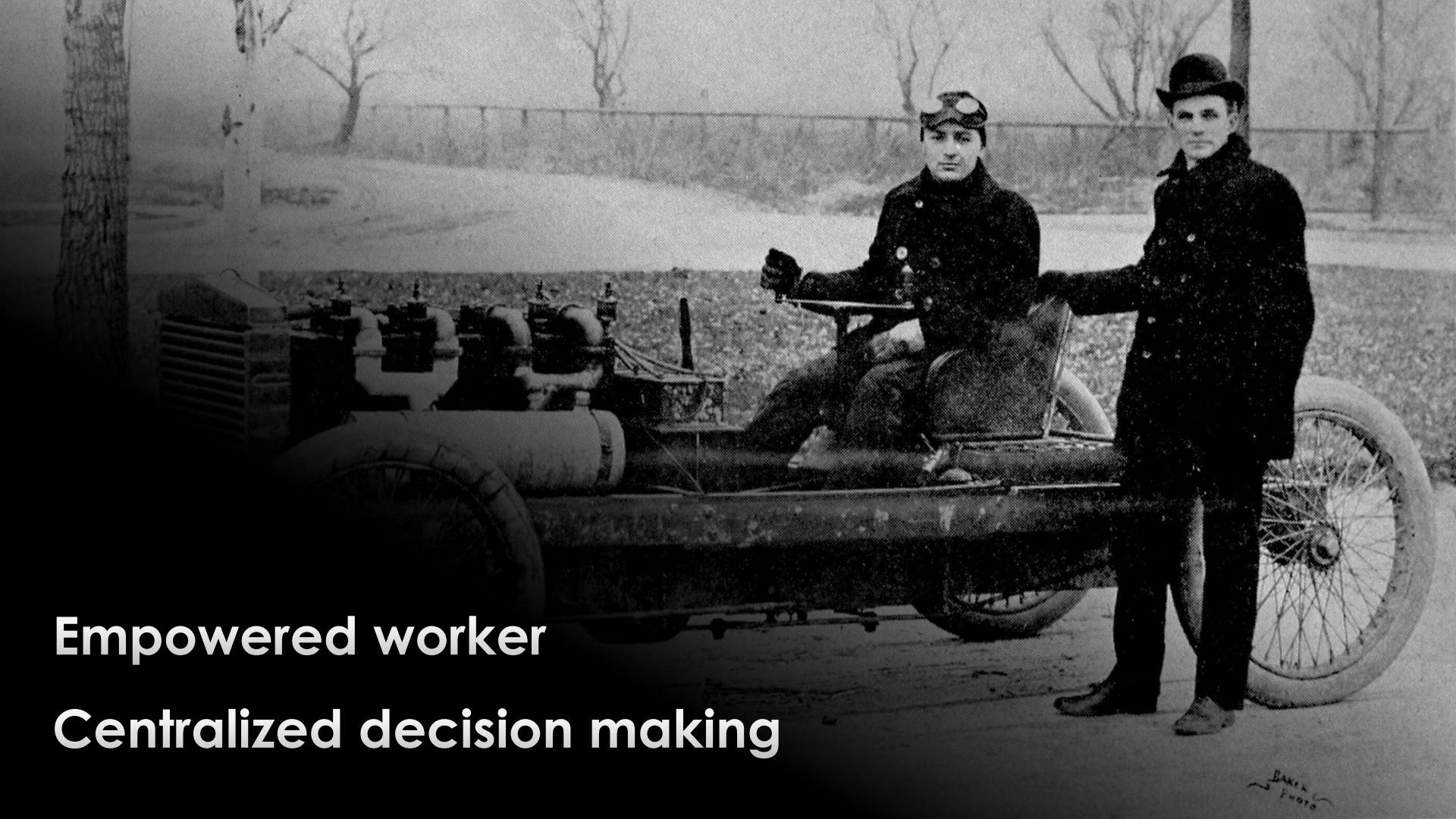
Software Ecosystems



The software economy crisis



Scaling production



Empowered worker

Centralized decision making

BAKER
PHOTO

Toyota Production System

Just-In-Time



**Autono-
mation**



Peter Drucker

Knowledge worker productivity demands that we ask the question: "What is the task?"

It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves.

Knowledge workers have to manage themselves. They have to have autonomy.

In devops we are communicate with coworker only by JIRA ticket.



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> Autonomy

> Transparency

> Collaboration

Software Delivery Silos

Is ridicule when company have wall between dev and ops.. we are use NDA instead.

Testers



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Project
Managers

Developers

Business
Analysts

Ops

THE WAR BETWEEN DEVELOPERS, DESIGNERS & PROJECT MANAGERS



Best analogy I find so far for explain concept of ScrumMaster to new devops is Tooth Fairy



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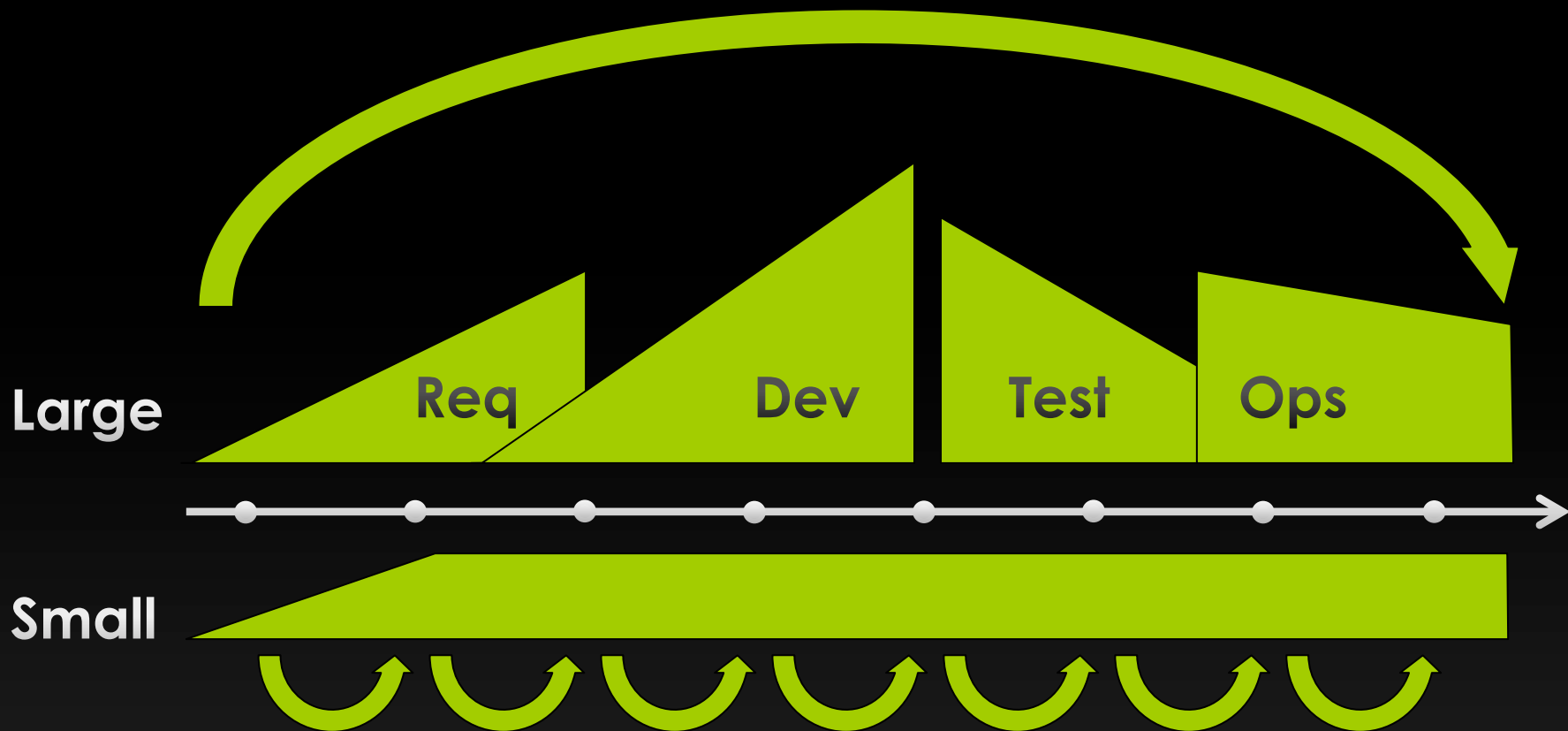
Cultural gaps



It's not that the brakes don't work,
it's the traceability of the
software.



Pat Shanahan,
GM, 787 Project



Task batch sizes



Git – 60M LOC



Bugzilla – 375K



Hudson – 337



Gerrit – 6K



Ops – 35TB/mo

Linus Torvalds



Max-Kanat Alexander



Kohsuke Kawaguchi



Shawn Pearce



Denis Roy



ALM at Eclipse



Workflow

Activity

Context



Type



Process



Asynchronous



Synchronous



Social



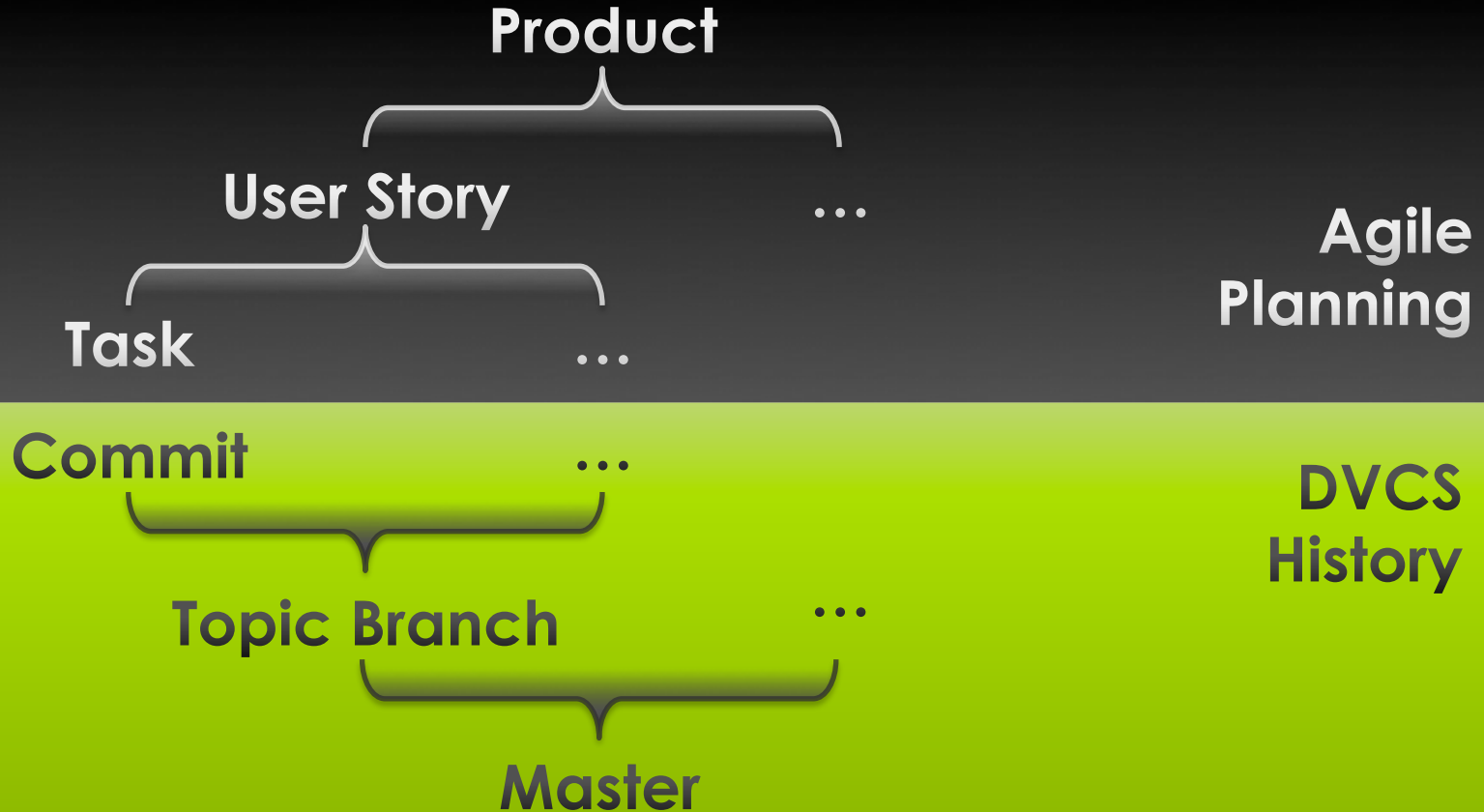
Documents



Links

Mylyn

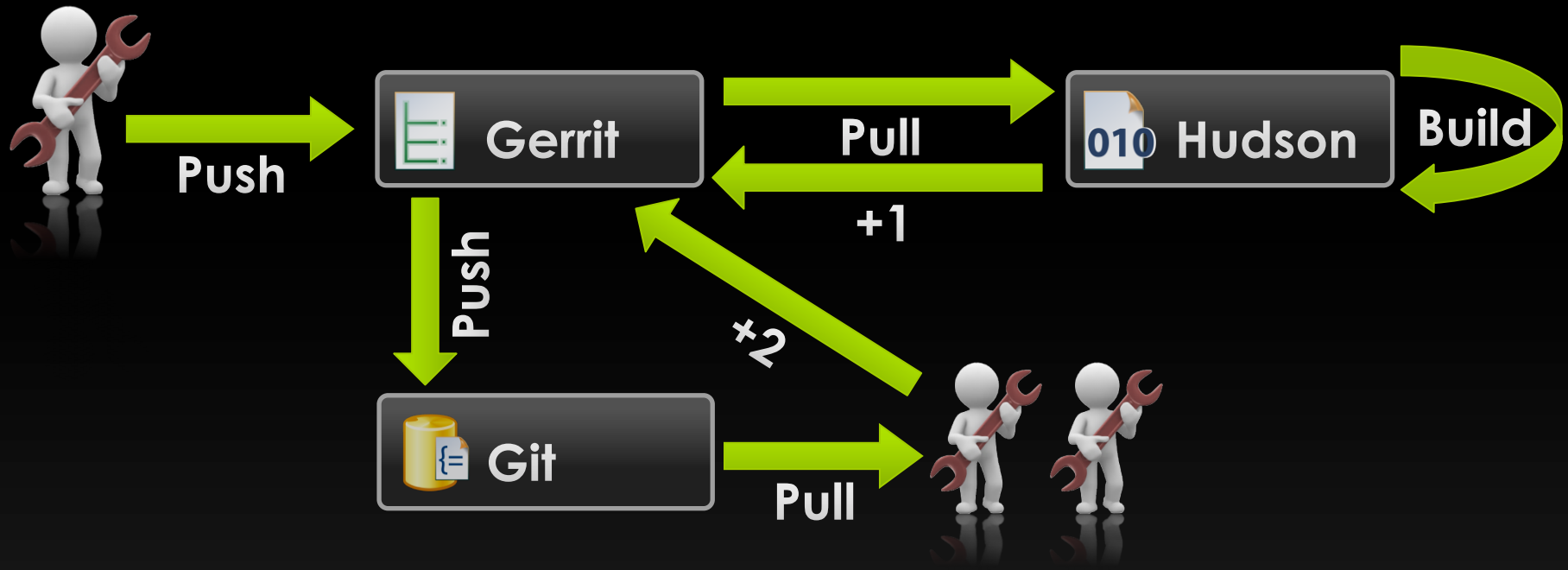
Planning and DVCS



Test #5 for fail of Open Source project: all unit test pass on local box developer, install is vomit with fail dependency everywhere else.



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Contribution Workflow Automation

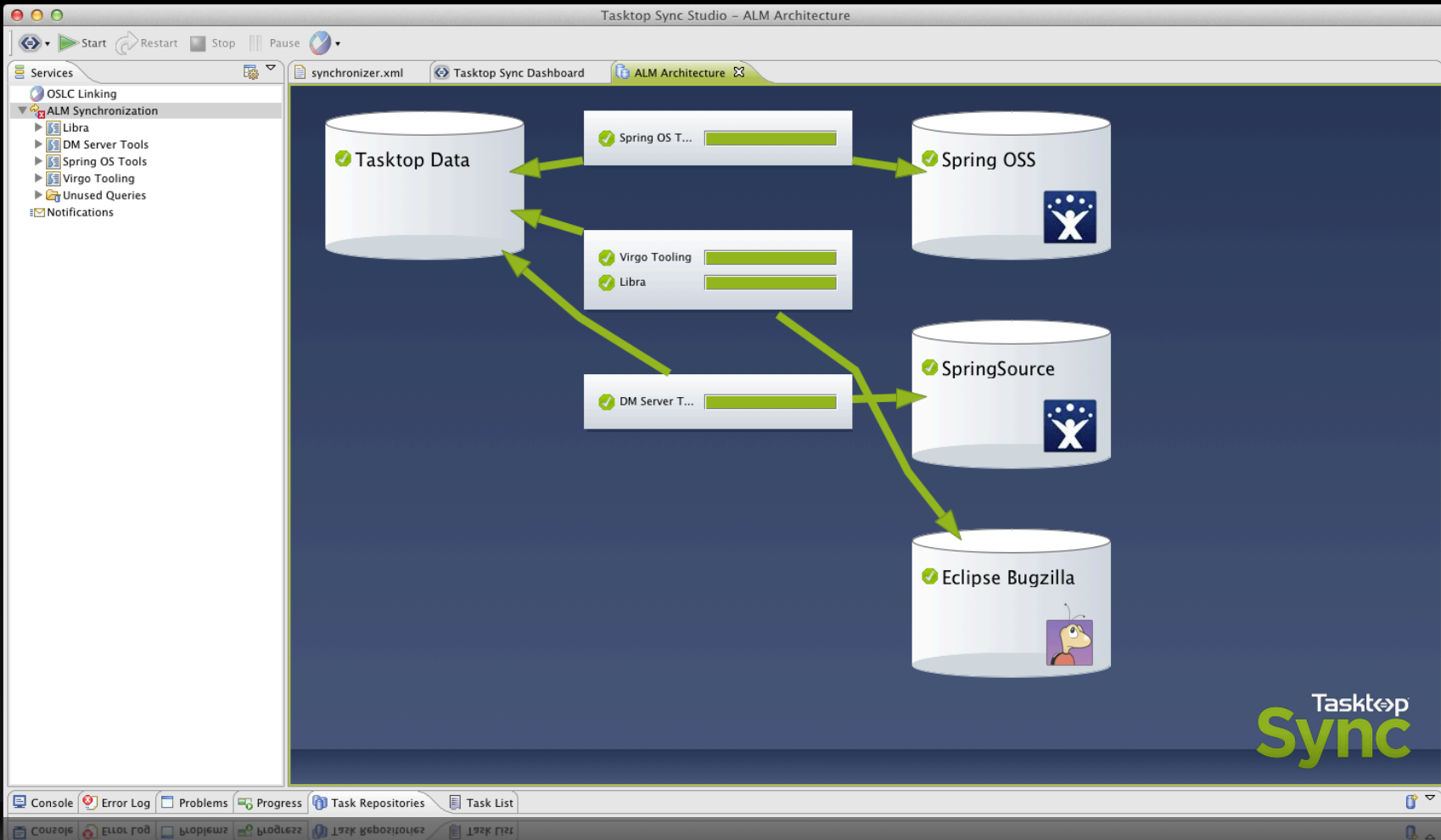
In 1995 you could able fit all Internet technology in brain. In 2011 you can not able fit even git in brain.



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ALM Automation





The social code graph illustrates

> Autonomy

> Transparency

> Collaboration

**Metcalfe's
Law**

$$N^2$$



Bob Metcalfe

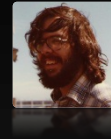
Number of
project you are
contribute in
GitHub is inverse
proportional to
number of
conference you
are attend in
year.



**@DEVOPS_BOR
AT**

**Reed's
Law**

$$2^N$$



David P. Reed

Network laws

The bigger the batch size the

< **Autonomy**

< **Transparency**

< **Collaboration**



Developers

- Grow your code network, inside, out
- Insist on transparency, cross-component visibility

Managers

- Think of every developer as a volunteer
- Embrace self-organization & autonomy

Tool vendors

- Embrace complex software ecosystems and heterogeneity
- Social tasks are the glue

- tasktop.com/blog
- eclipse.org/mylyn
- youtube.com/tasktop

@mik_kersten

Tasktop®

Test #1 for fail of Open Source project: check if word "enterprise ready" is appear in docs.

Test #2 for fail of Open Source project: is need install more of 5 other Open Source project as dependency.

Test #3 for fail of Open Source project: step of install operating system is easy part.

Lean Software Supply Chain



Myllyn

369,203

\$6,316,132



Tomcat

740,028

\$13,055,513

■ Codebase ■ Cost

Hyper productivity

Complex sourcing - offshoring, outsourcing and open sourcing - is driving demand for ALM governance.



Melinda Ballou, IDC

Compliance provides leverage to automate, and automation is vital for agility

In startup we are spend 10 hour of every single day on automate everything.



Tom Grant, Forrester



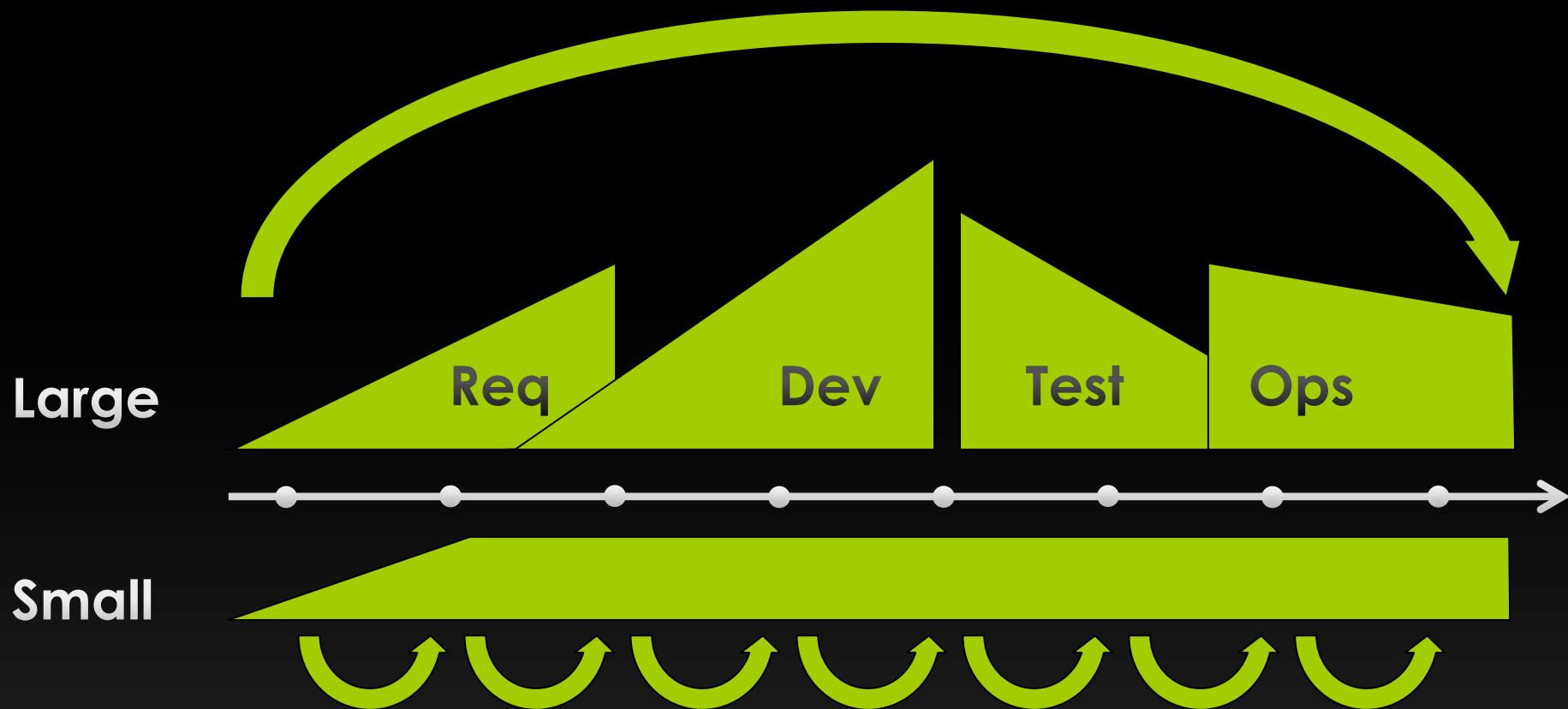
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ALM Open Source

In devops we are follow 80/20 rule: we are automate 80% and we are leave hard 20% manual for job security.



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Task batch sizes

Devs

PMs

Ops

Devs

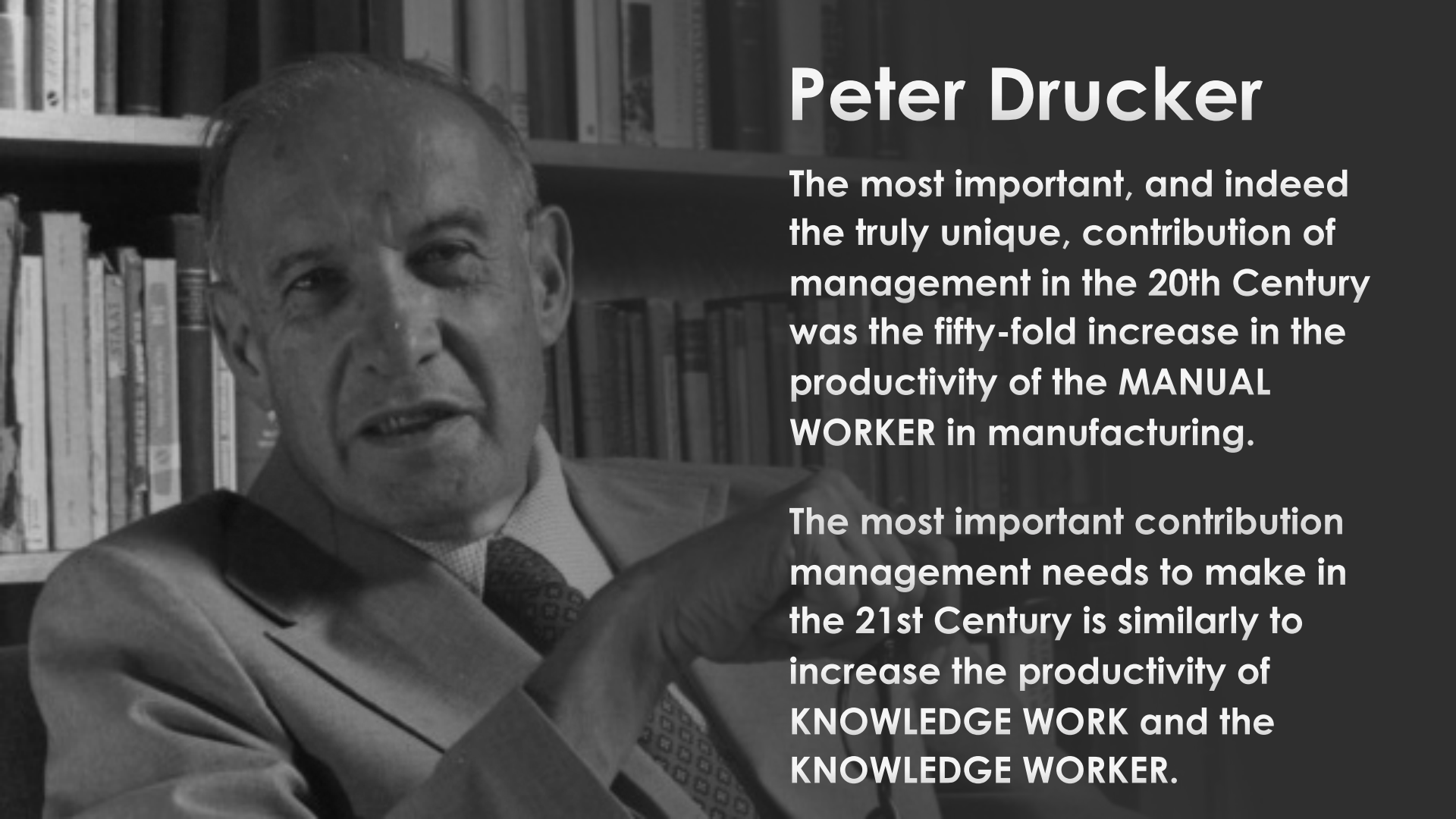
PMs

Ops

Cultural gaps

THE WAR BETWEEN DEV





Peter Drucker

The most important, and indeed the truly unique, contribution of management in the 20th Century was the fifty-fold increase in the productivity of the **MANUAL WORKER** in manufacturing.

The most important contribution management needs to make in the 21st Century is similarly to increase the productivity of **KNOWLEDGE WORK** and the **KNOWLEDGE WORKER**.

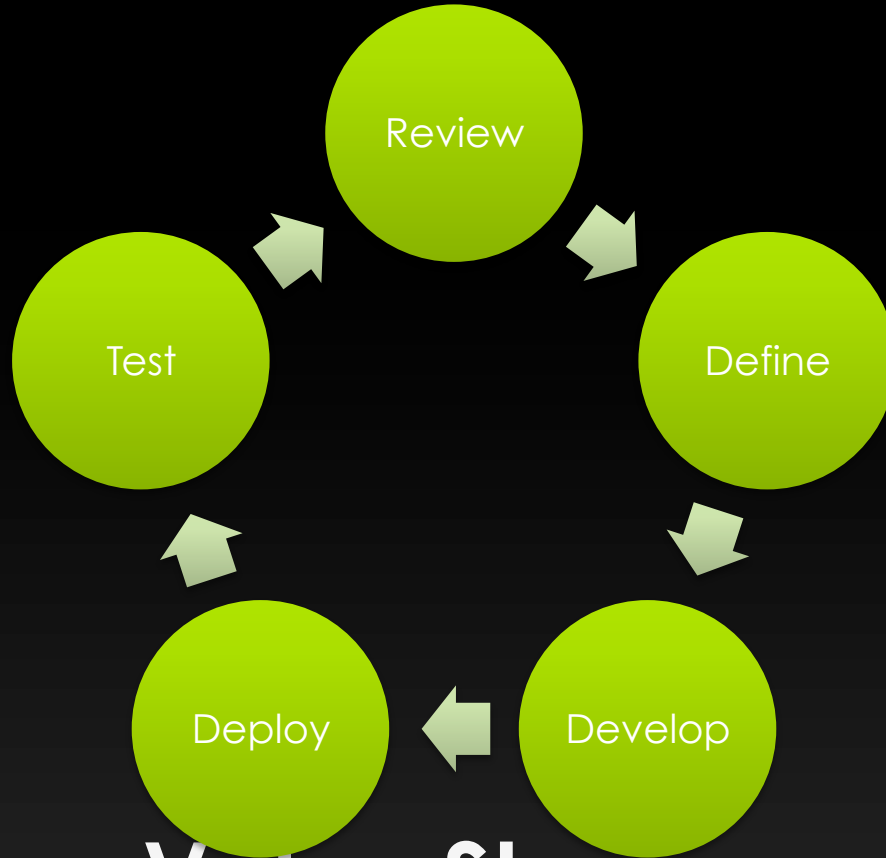
Communication not captured

@michaelbolton @marick I am there too when agile manifesto is write. Simple explanation: by tools we are mean devops which are tools.



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Miscommunication between silos



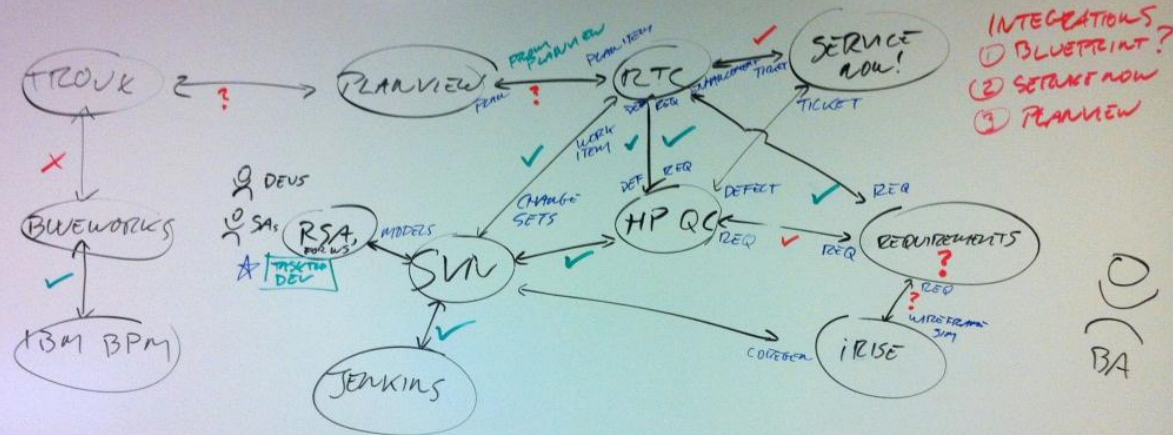
Value Stream

As with social networks, software social tools are needed to break us out of the constraints of inter-personal communication.

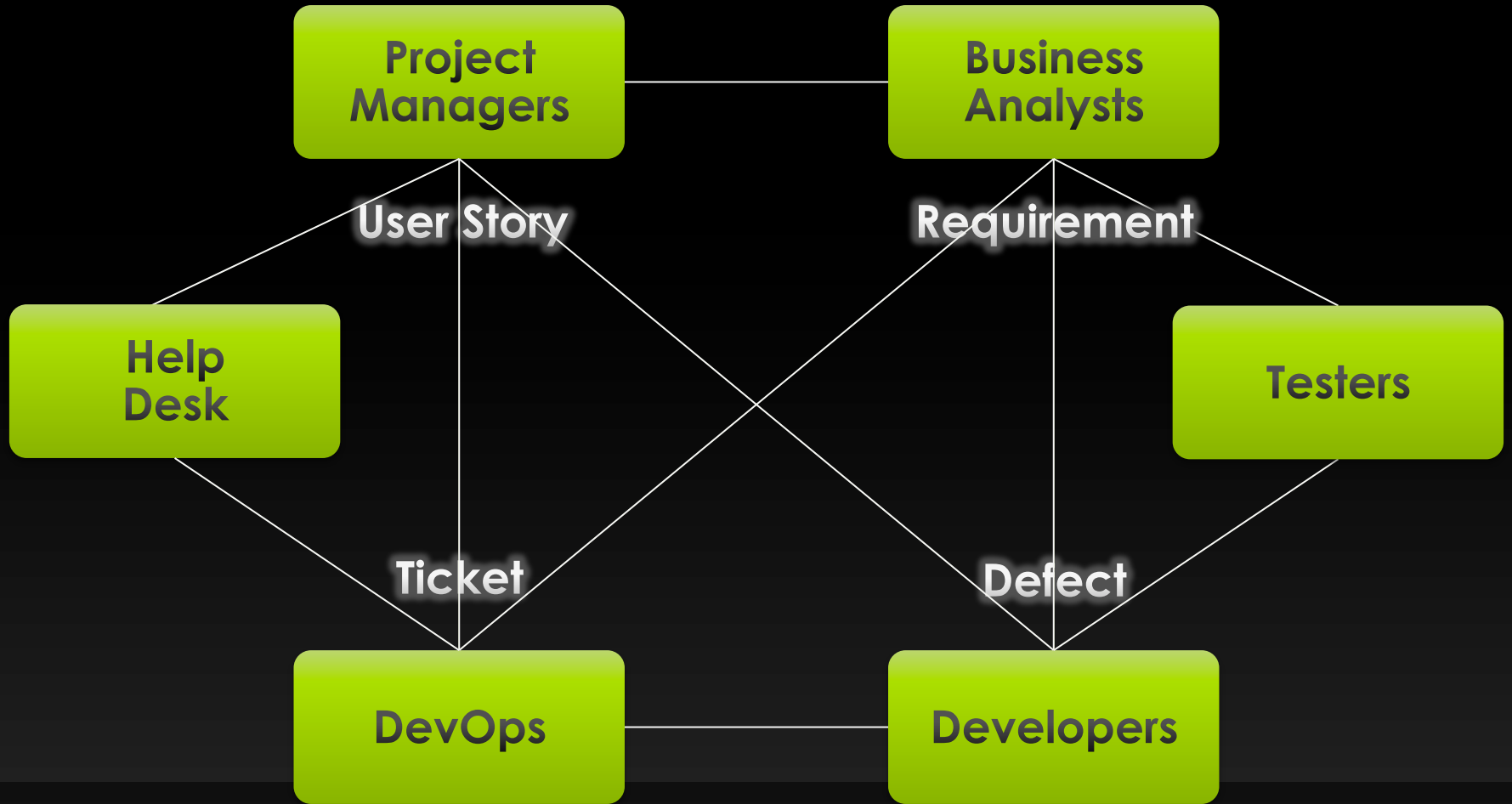
Automation must reach the end-user tool (eg, GitHub, Hudson)

Linked Lifecycle Data

Synchronization



Whiteboard



Need to replicate this at
scale

Image of post-it

Solution has to be tool based

Software Delivery

TODO: Plot rise of maintenance
vs. feature delivery cost?

