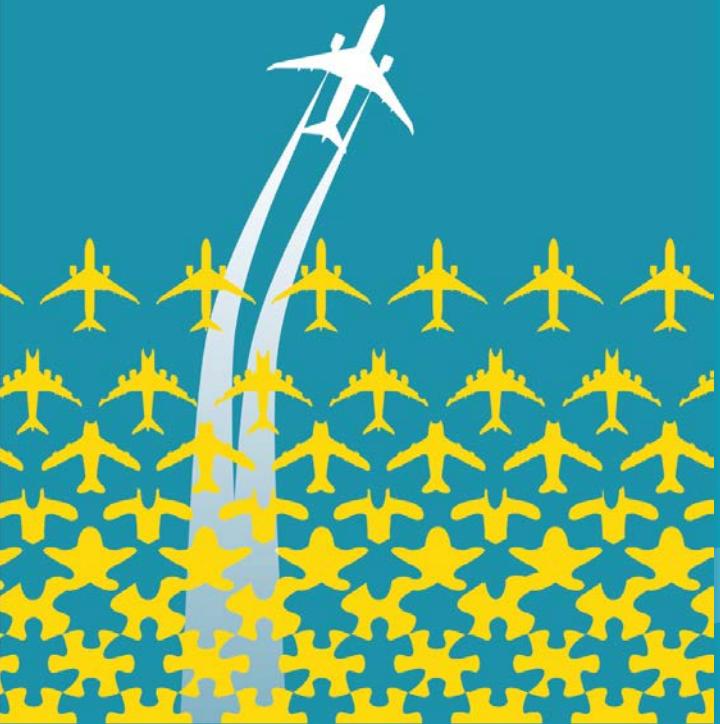


PROJECT TO PRODUCT

MIK KERSTEN

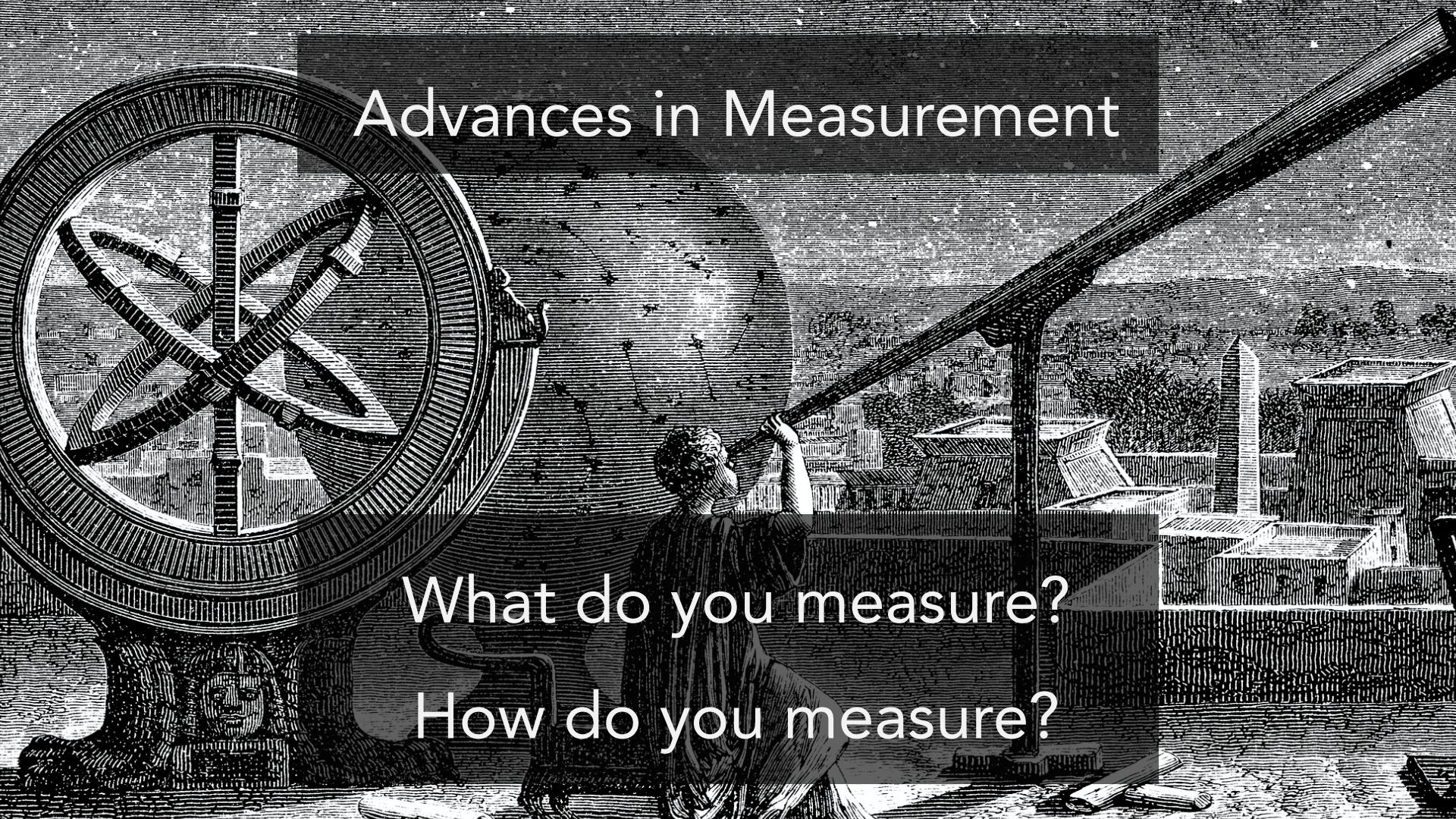
HOW TO
SURVIVE AND
THRIVE IN THE
AGE OF DIGITAL
DISRUPTION
WITH THE FLOW
FRAMEWORK



Project to Product: Beyond the Turning Point

@mik_kersten (Tasktop Founder & CEO)

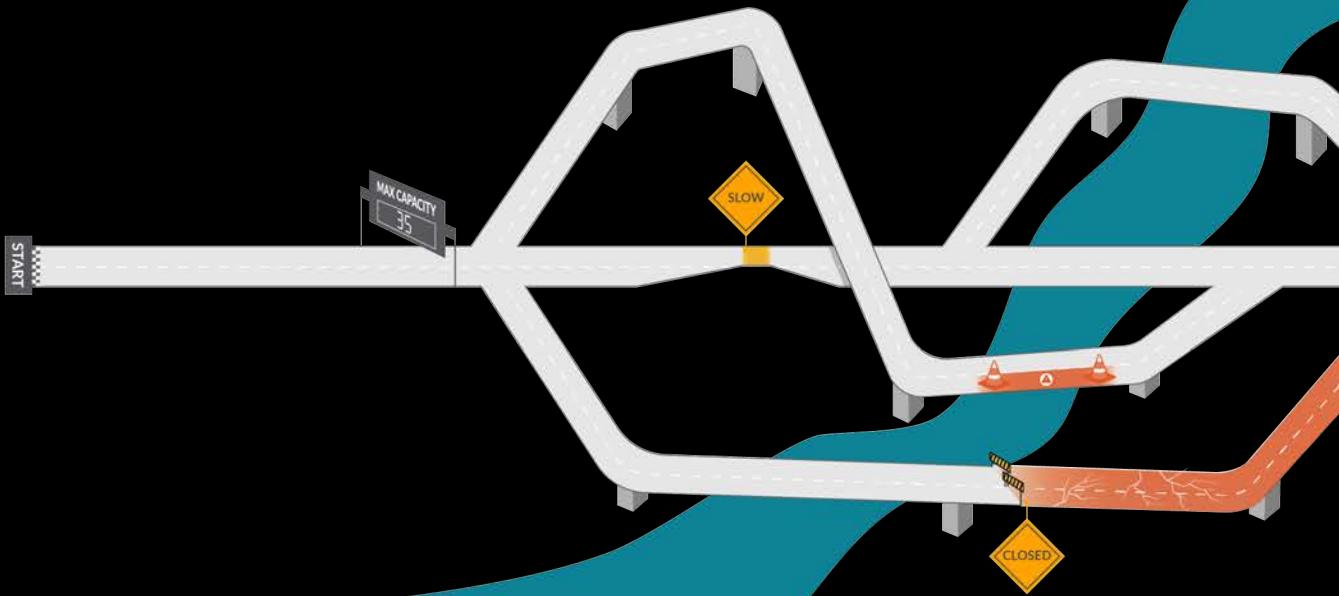
Advances in Measurement



What do you measure?

How do you measure?

Where is your bottleneck?



DOI:10.1145/3159188

Article development led by gartner.com.org

Your biggest mistake might be collecting the wrong data.

BY NICOLE FORSGREN AND MIK KERSTEN

DevOps Metrics

"Software is eating the world." — Marc Andreessen
"You can't manage what you don't measure." — Peter Drucker

ORGANIZATIONS FROM ALL industries are embracing software as a way of delivering value to their customers, and we are seeing software drive innovation and competitiveness from outside of the traditional tech sector.

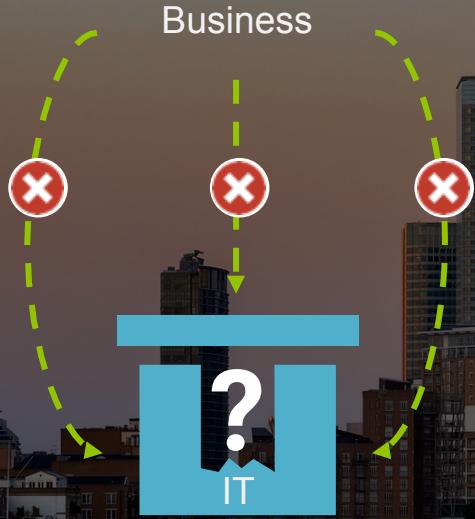
For example, banks are no longer known for hiding gold bars in safes; instead, companies in the financial industry are harnessing software in a race to capture market share. Using innovative apps, banks are making it possible for their customers to do most of their daily banking in a few swipes, from depositing checks to transferring money securely between bank accounts. Moreover, the banks themselves can improve their service in a number of ways, such as using predictive analytics to detect fraudulent transactions. Other industries are seeing similar changes: cars are now computers on wheels, and even the U.S. Postal Service is in the middle of a massive DevOps transformation. Software is everywhere.

Measuring DevOps. Collecting measurements that can provide insights across the software delivery pipeline is difficult. Data must be complete, comprehensive, and correct so that it can inform sound software business decisions. For many organizations, adoption of the latest best-of-breed agile and DevOps tools has made the task even more difficult because of the proliferation of multiple systems and toolkeepings within the organization.

One of the leading sources of cross-organization software delivery data is the annual State of DevOps Report (<http://www.safescale.com/research.html>). This industry-wide survey provides evidence that software delivery plays an important role in high-performing technology-driven organizations. It also outlines key capabilities in technology, process, and cultural areas that contribute to software-delivery performance and how this, in turn, contrib-

Leaders must embrace this new world or step aside. Gartner Inc. predicts that by 2020, half of the CEOs who have not transformed their teams' capabilities will be displaced from their organizations' leadership teams. And the only good leader knows, yet cannot improve, what you do not measure, so measuring the software development process and DevOps transformations is more important than ever.

Delivering value to the business through software requires processes and coordination that often span multiple teams across complex systems, and involves developing and delivering software much faster and more resiliently. As practitioners and professionals, we know that software development and delivery is an increasingly difficult art and practice, and that managing and improving any of these areas requires insight into that system. Therefore, measurement is paramount to creating an effective software value stream. Yet accurate measurement is not enough.



Proxy Metrics & Cost Centers
destroy transformations

Top 25 bank, 3rd transformation, now w/ DevOps, \$1B

Project management layer between IT and business

2 years later, IT delivering less to the business than before

Stock Price Change 2006-2016

amazon

1,910%



-95%
SEARS

-83%
JCPenney

-59%
KOHL'S

-49%
BEST BUY

-46%
★macys

-21%
NORDSTROM

-15%
TARGET

Walmart 
2%





Banks Spend \$1 Trillion on
Digital, But Few Reap the
Rewards

– Bloomberg, June 20, 2019

The Economist

Venezuela: Guaidó v Maduro
The Democrats and the world
Fusion power from the private sector
North Korea by night
MAY 4TH–10TH 2019

Tech's raid on the banks

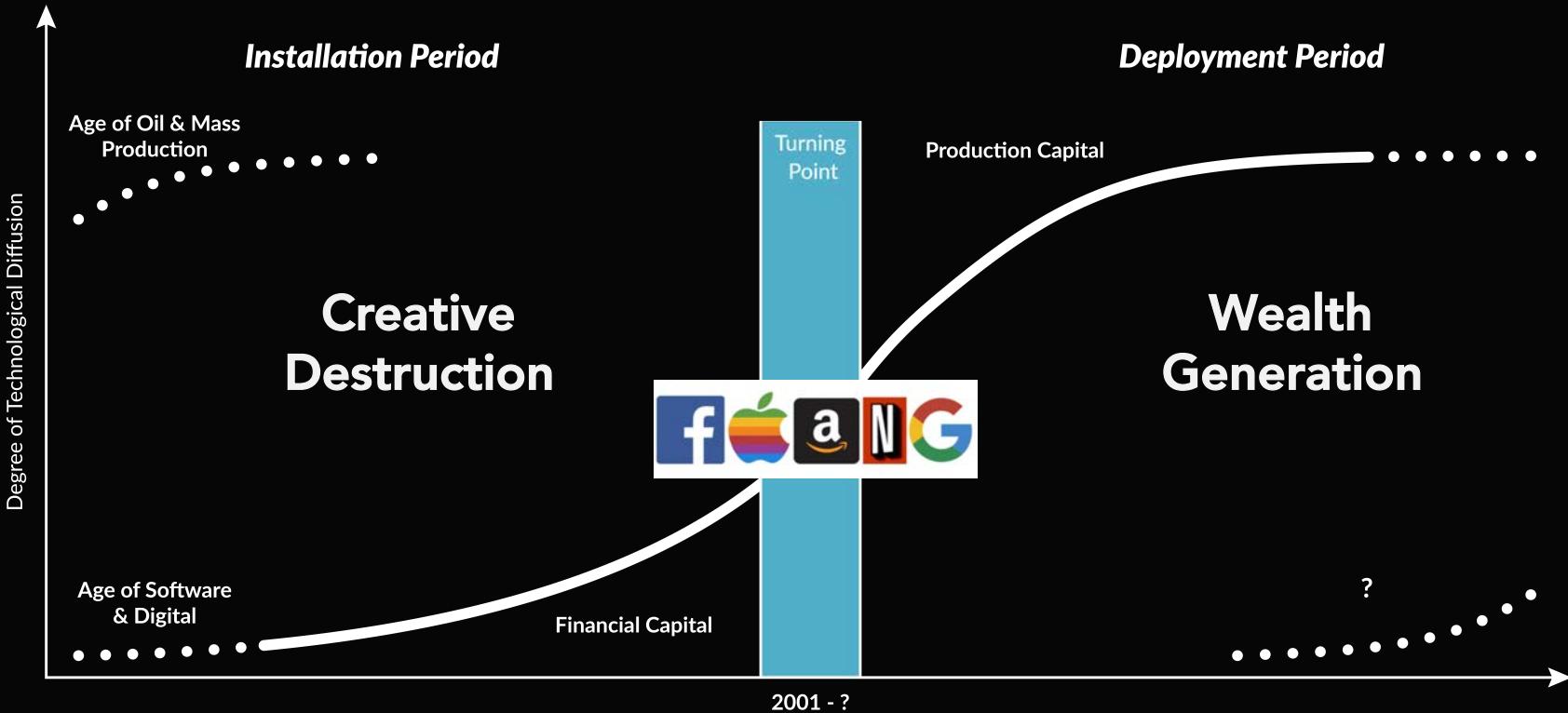
An illustration of a pink piggy bank standing upright. A stream of small, colorful pixels or digital data is leaking out of its side, forming a cloud-like shape against a light blue background. The piggy bank has a simple, cartoonish design with a small tuft of hair on its head.

Has this happened before?

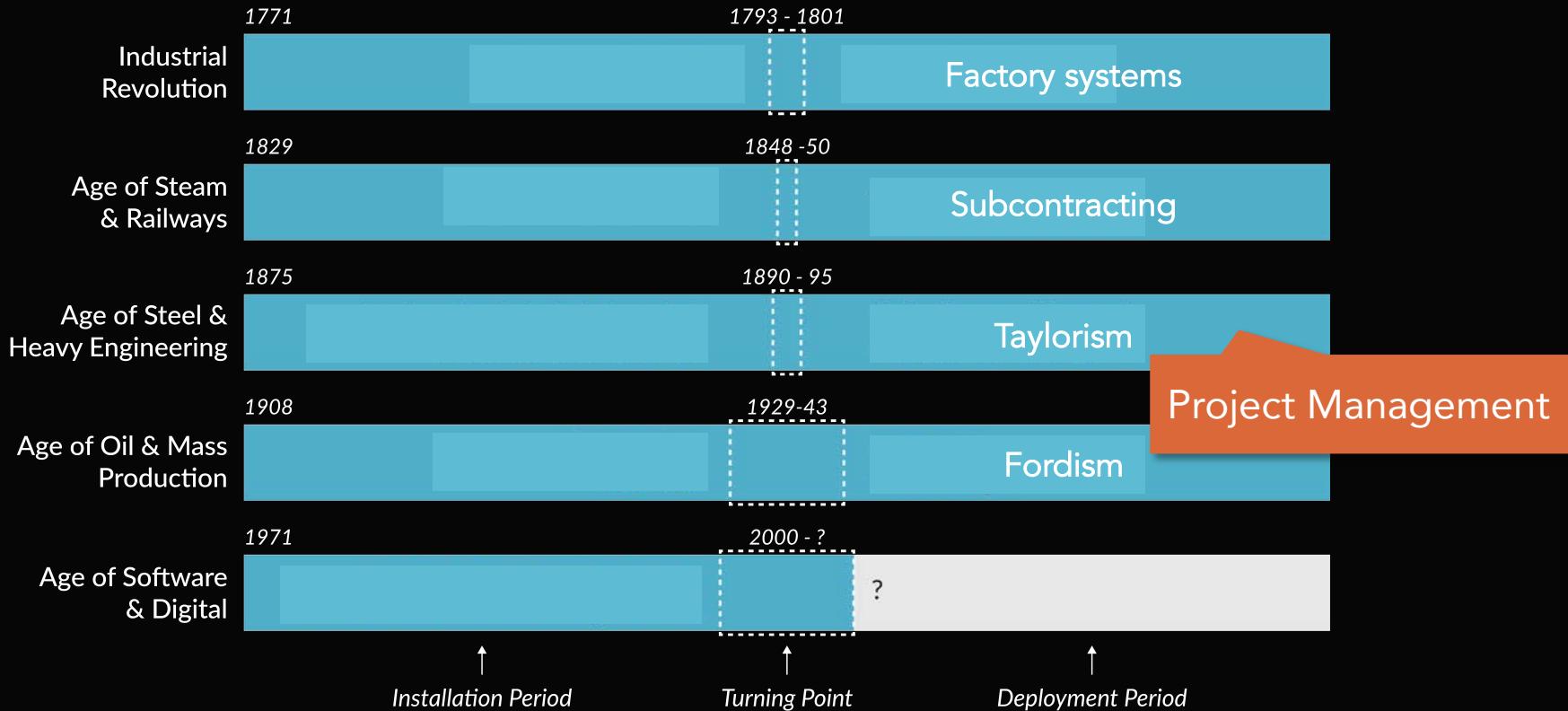
Technological Revolutions



The Turning Point



Technological Revolutions



Lean Principles

- Precisely specify value by product,
- Identify the value stream for each product
- Make value flow without interruptions
- Let the customer pull value from the producer

Lean Thinking by James P. Womack

Image Source: BMW Group

Car production



Integrated production lines



Managed as products



Architected around flow



Optimized end-to-end



Measurement of business results

Enterprise IT

Disconnected tool chains

Managed as projects

Architected as technology layers

Optimized in siloes

Measurement of proxy metrics

What flows in software delivery?

Features

New business value, pulled by customer

Defects

Quality improvements, pulled by customer

Risks

Security, availability, compliance, pulled by risk officers

Debts

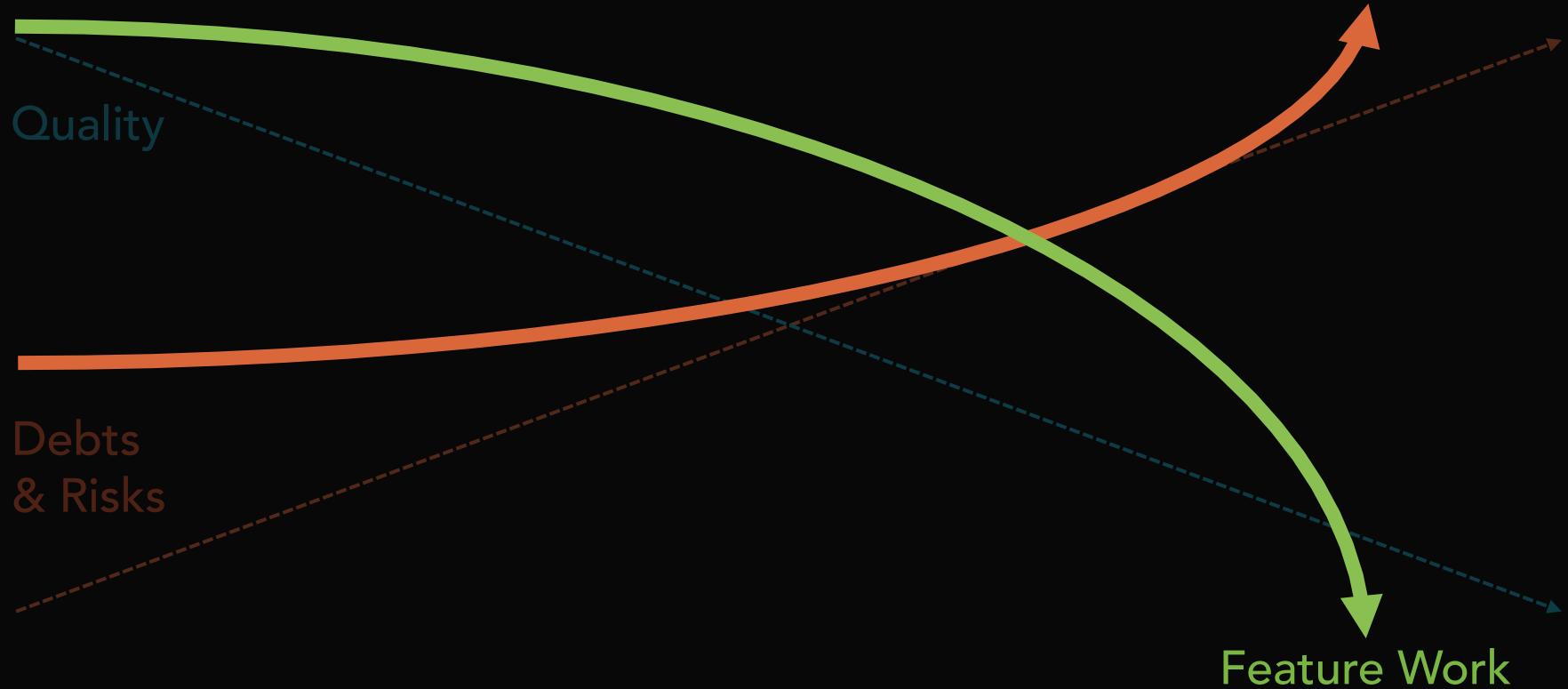
Technical debt improvements, pulled by architects

Flow Items are MECE*

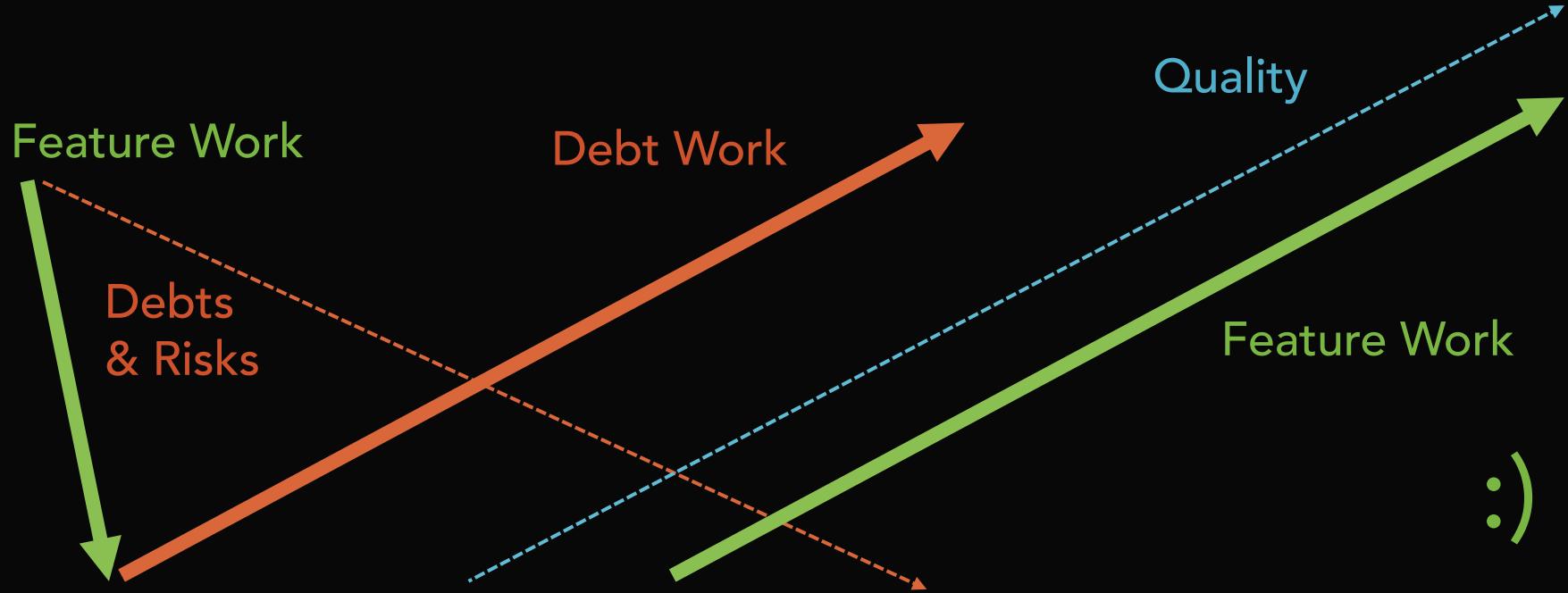
Push to Market



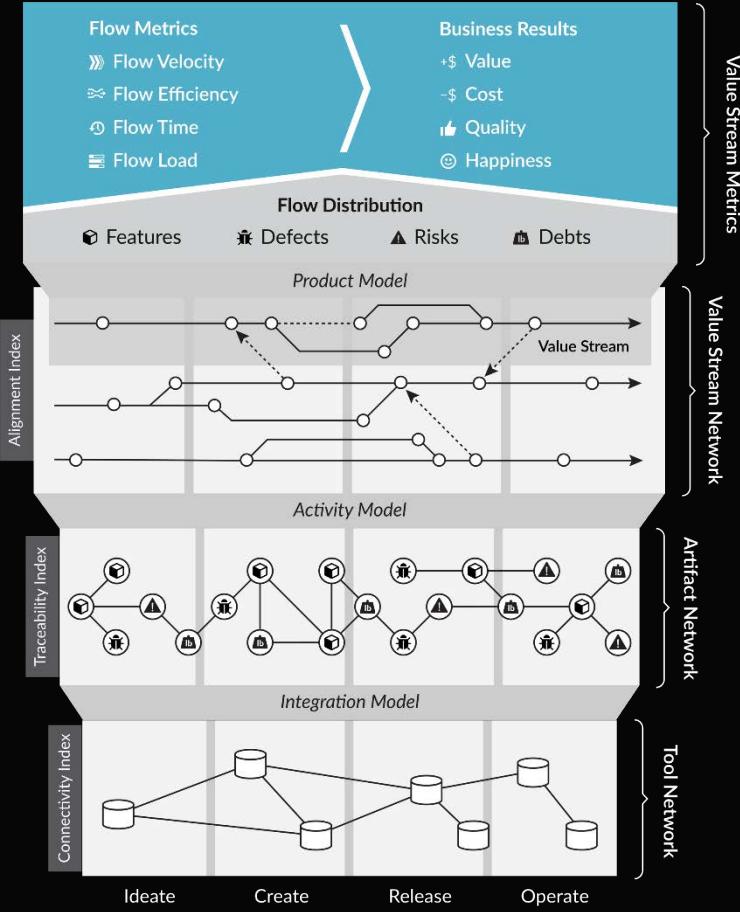
Death Spiral



Debt & Risk Reduction



Flow Framework™



The Flow Framework™ is a framework created by Mik Kersten, CEO of Tasktop Technologies Incorporated ("Tasktop"). This diagram is licensed under the Attribution No Derivatives Creative Commons License, accessible at <https://creativecommons.org/licenses/by-nd/4.0/legalcode>.

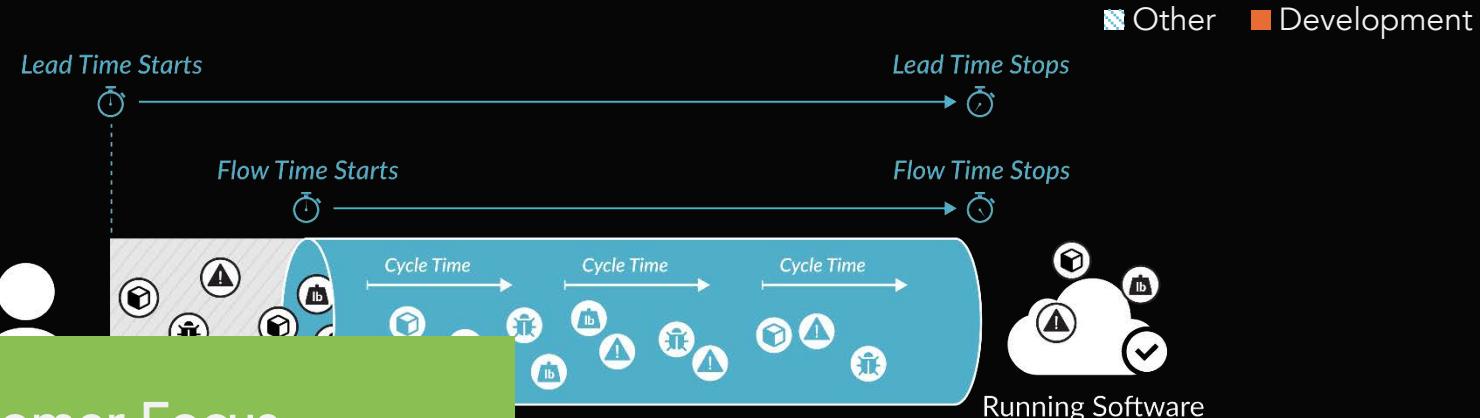
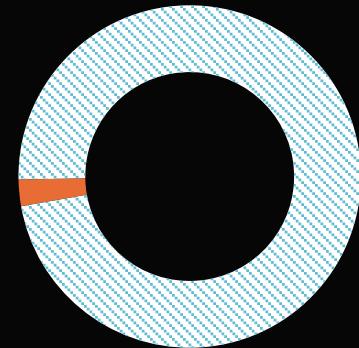


FLOW TIME



Why does it take 120 days to deliver value to customers?

Only 2.5% of time was spent in development



Customer Focus

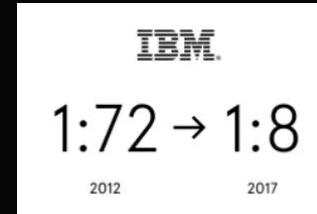
Gene Kim - The Unicorn Project

FLOW EFFICIENCY



Where is my feature delivery bottleneck?

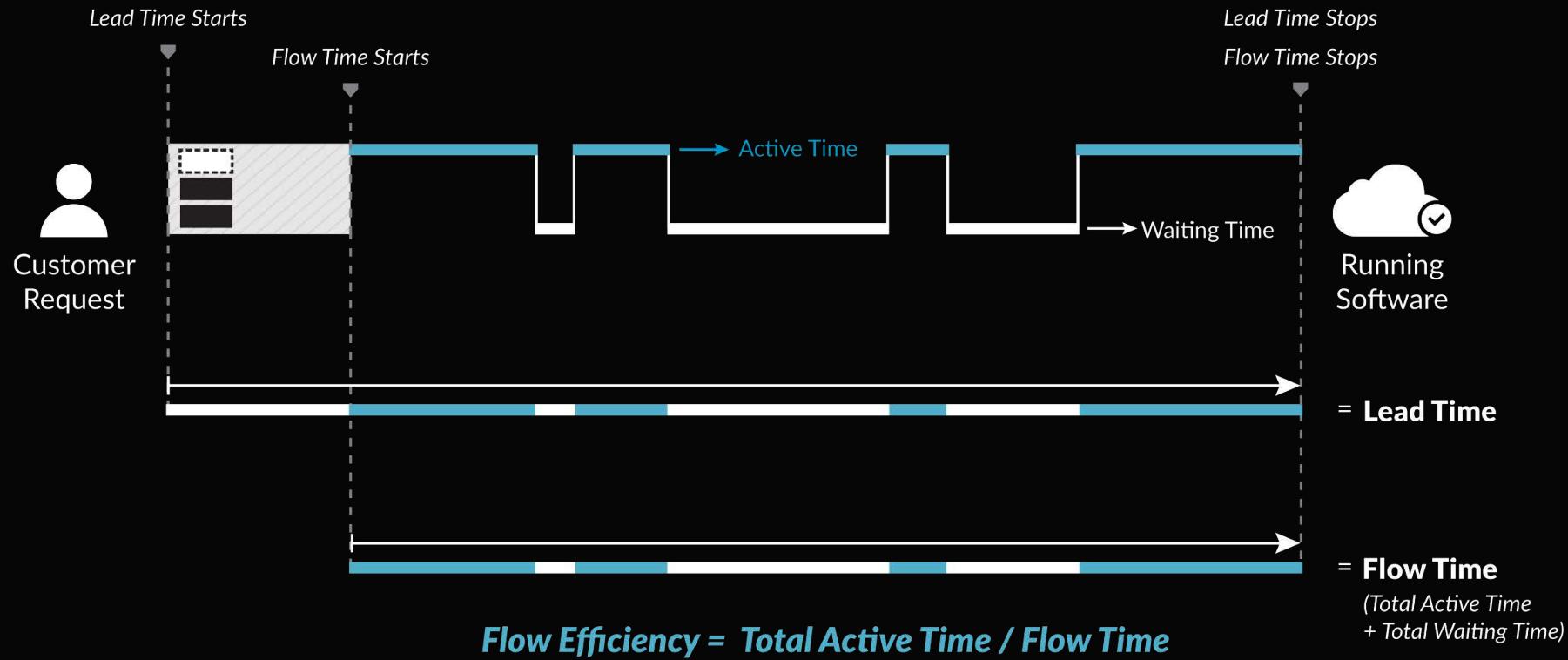
Too few designers caused wait states on upstream UX work



Improvement of daily work

Gene Kim - *The Unicorn Project*

[ome-reasons-behind-techs-design-shortage/](#)

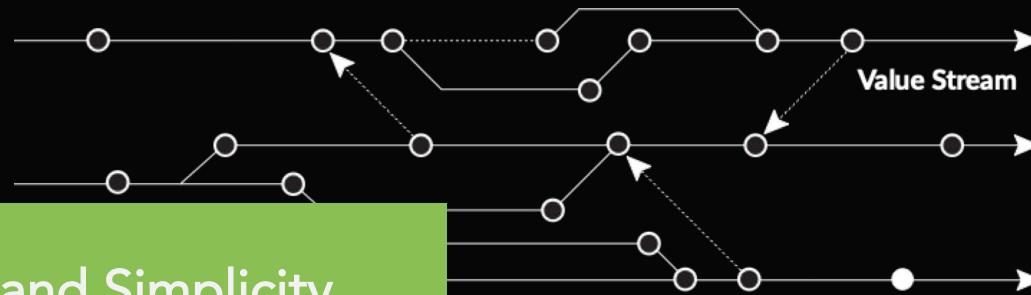


**FLOW
VELOCITY**



Why is delivery slowing as we add developers?

Software architecture is not aligned to value stream flow



Locality and Simplicity
Gene Kim - *The Unicorn Project*

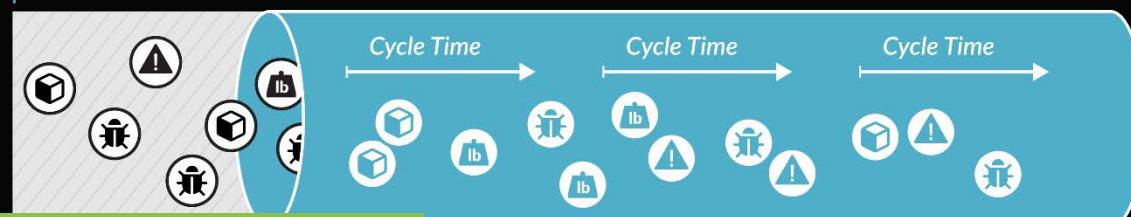
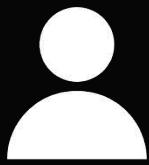
FLOW LOAD



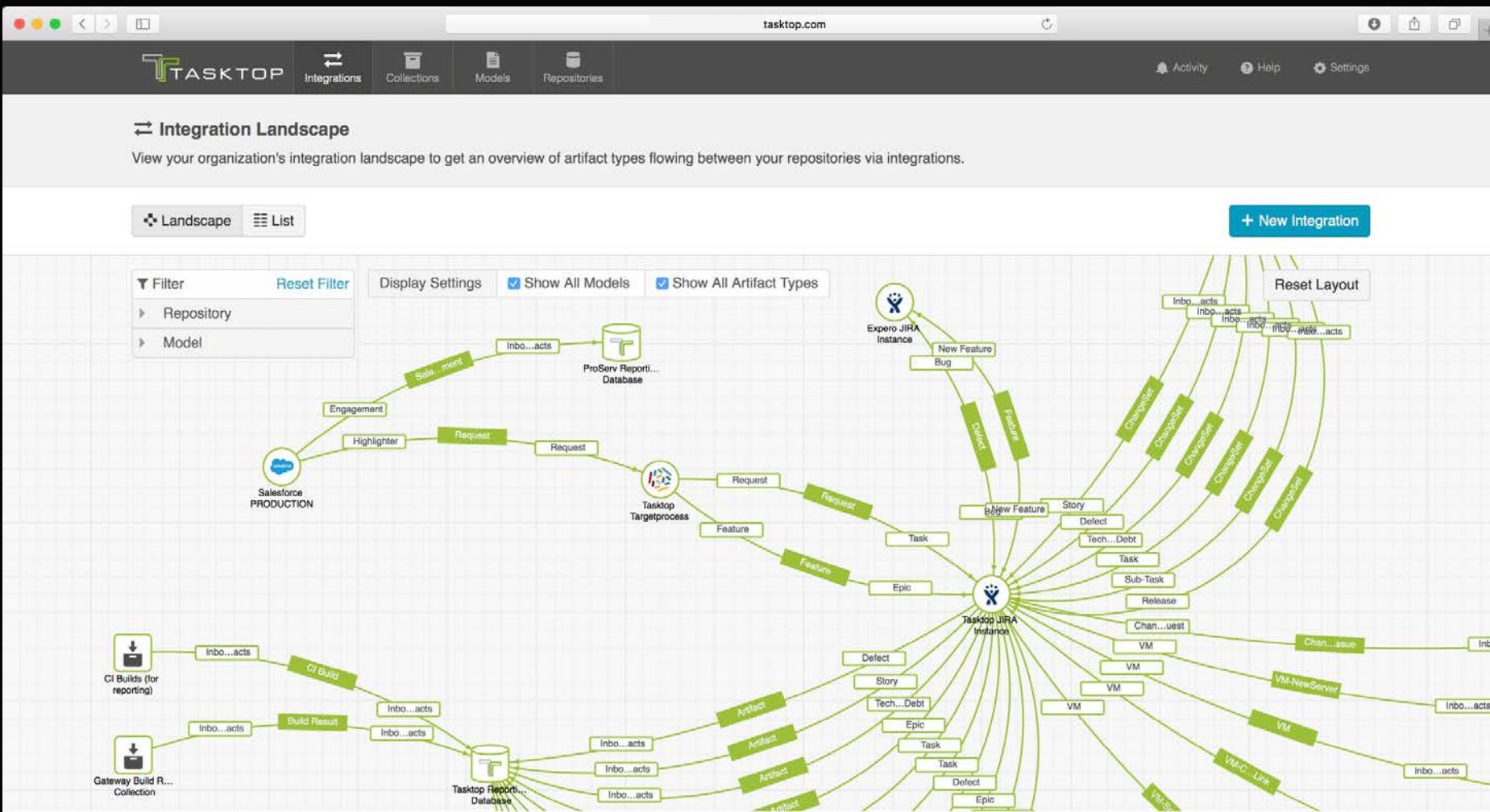
Why are the teams working on this product less happy?



Tech debt causing overly high Flow Load, frustration



Focus, Flow and Joy
Gene Kim - *The Unicorn Project*



TASKTOP

+ Add Product

Dashboard

All Products

Viz

Hub

Platform

Cloud

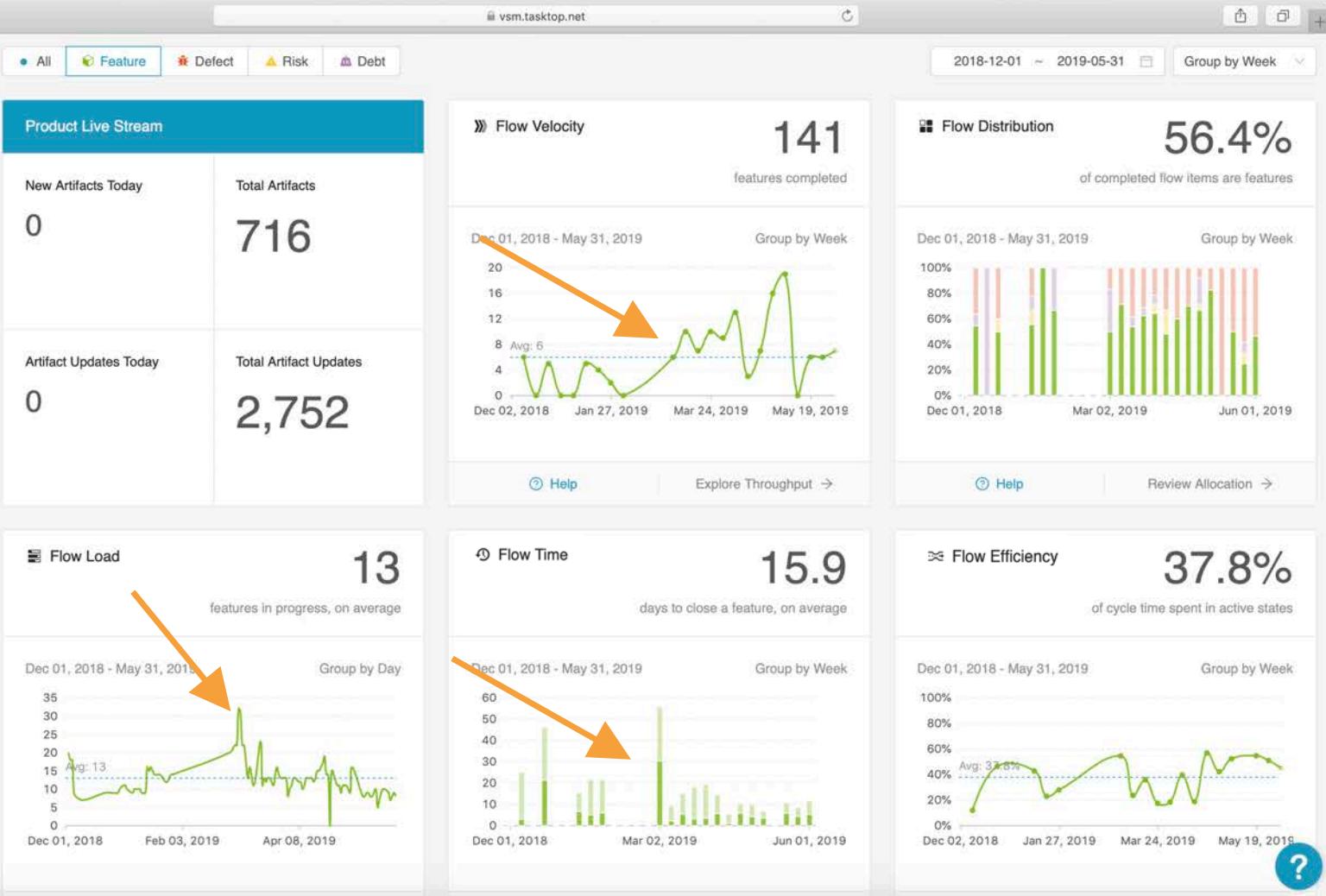
Test

Tool Connections

Organization

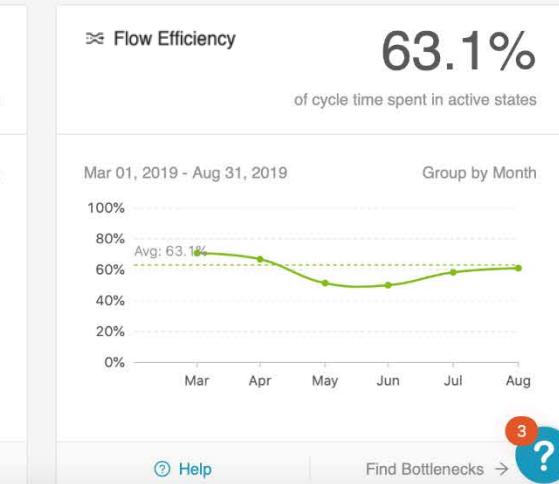
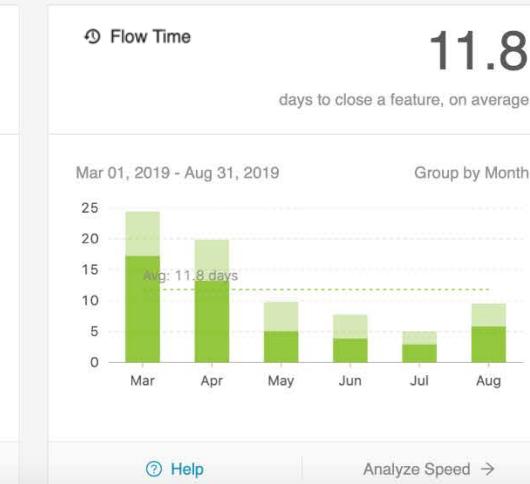
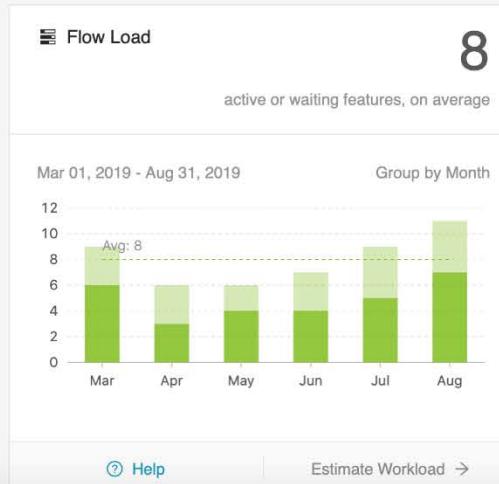
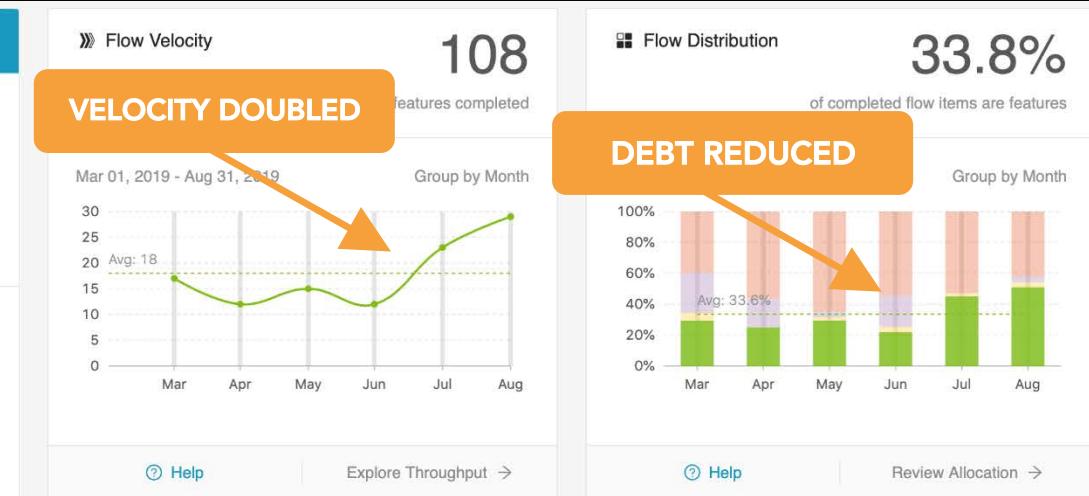
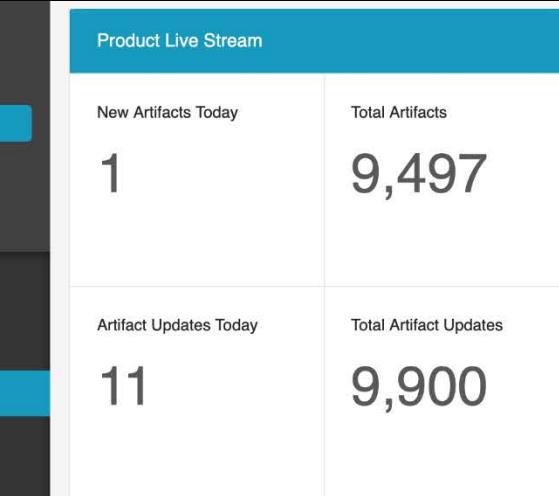
Mik Kersten G

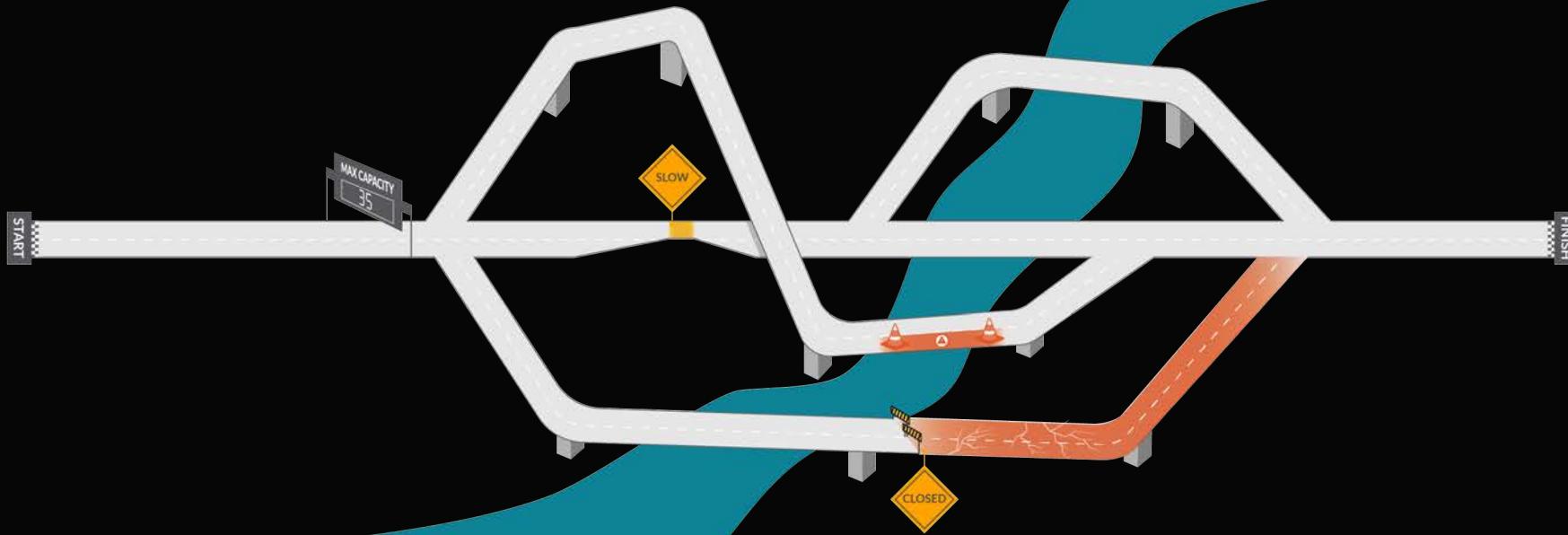
Display a menu

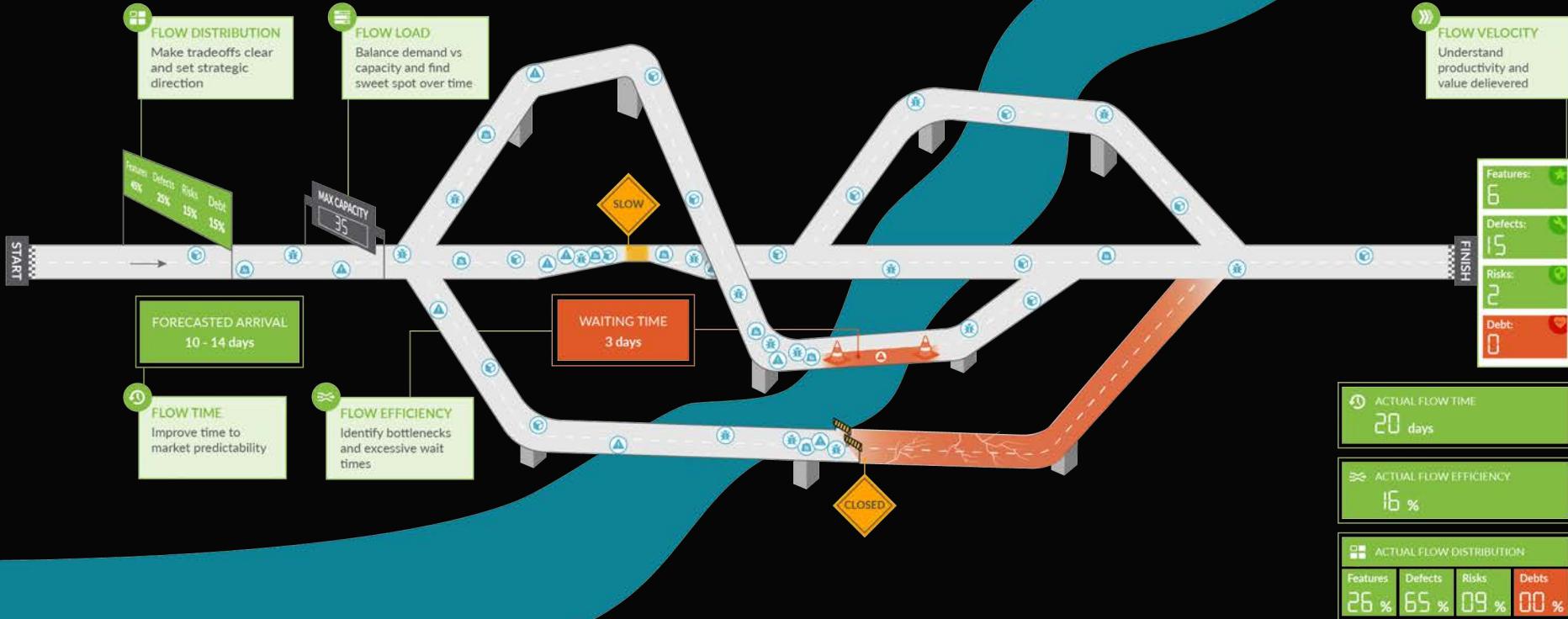


[+ Add Product](#)[Dashboard](#)[All Products](#)[All](#)[Claims Management](#)[Home Insurance](#)[Payment Platform](#)[Umbrella Insurance](#)[Untitled Product](#)[Variable Annuities](#)[Tool Connections](#)[Organization](#)

Mik Kersten

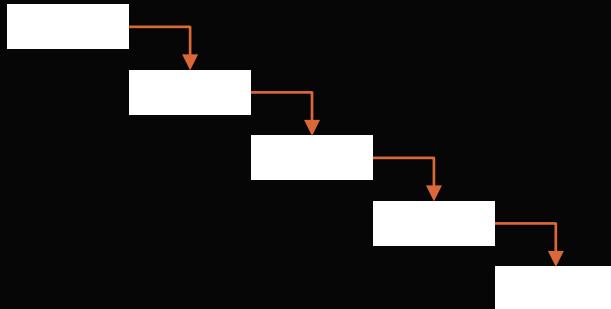






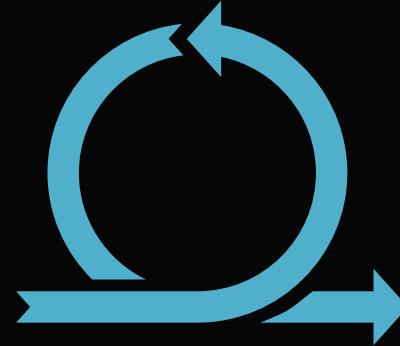
Project to Product: Planning

Project



Waterfall orientation

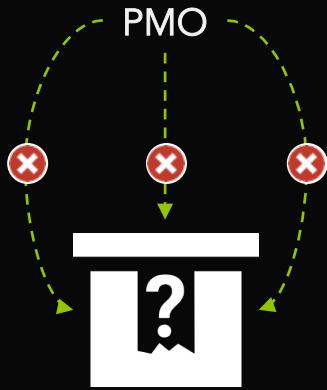
Product



Flow orientation

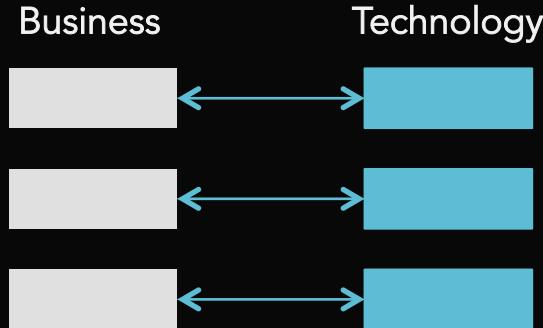
Project to Product: Visibility

Project



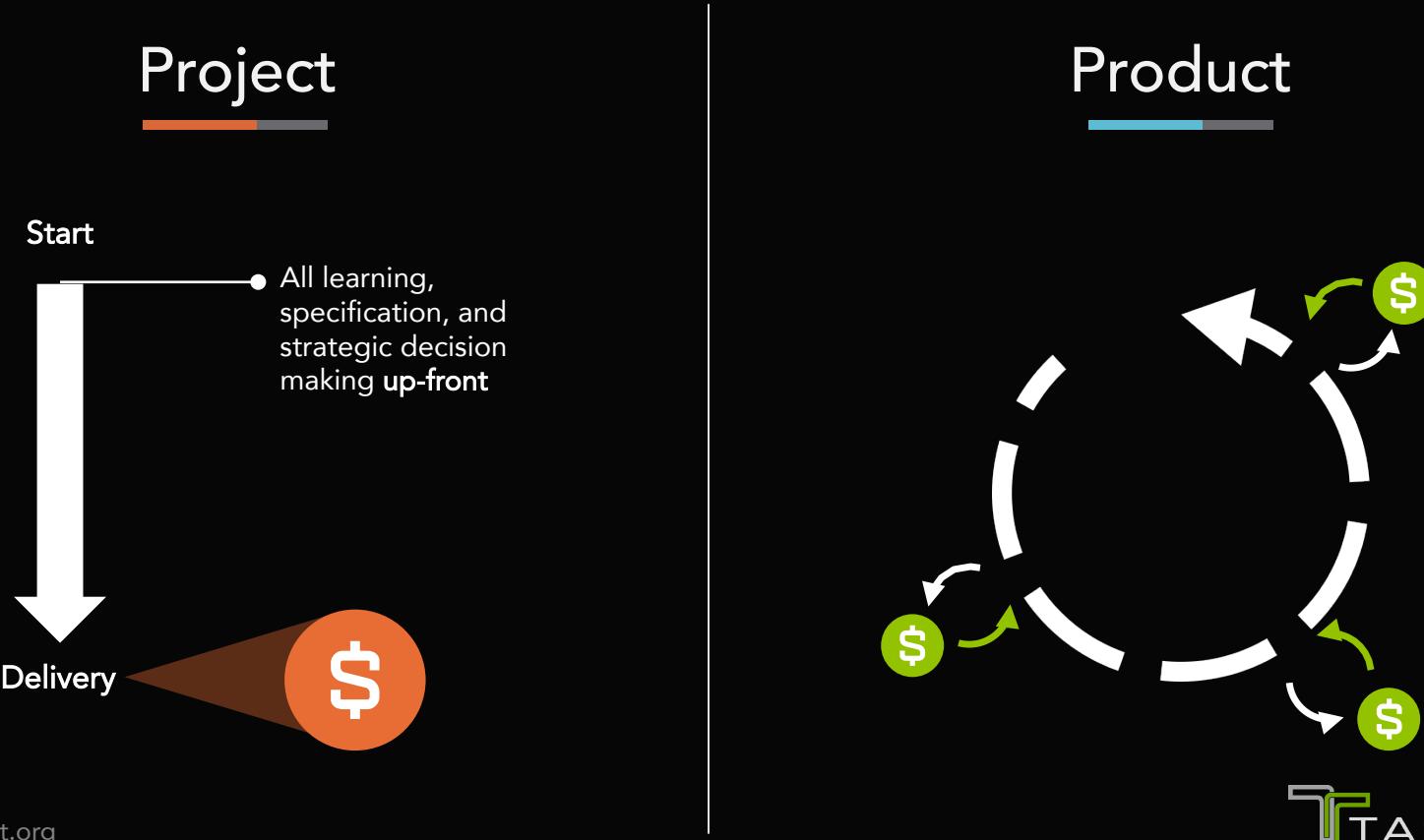
Production is a black box

Product



Direct mapping to business strategy

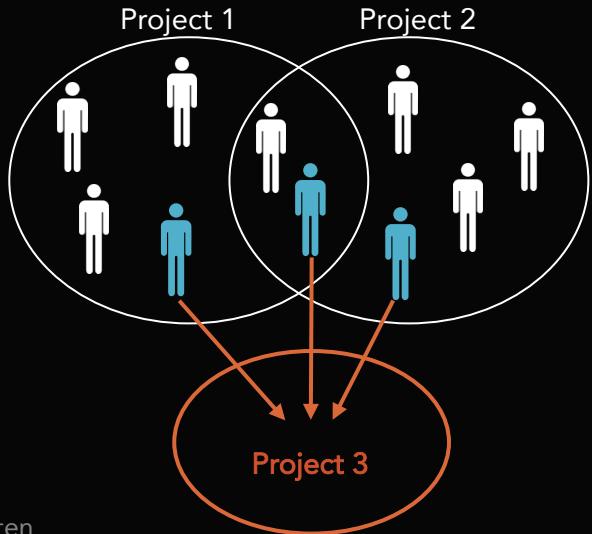
Project to Product: Budgets



Project to Product: People

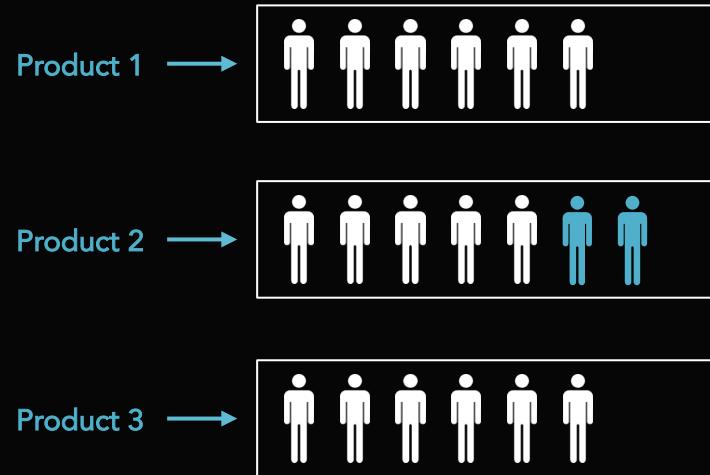
Project

People are brought to work



Product

Work is brought to People



Pitfalls

Defining the entire product model up-front

Waiting until transformation is 'done' to measure

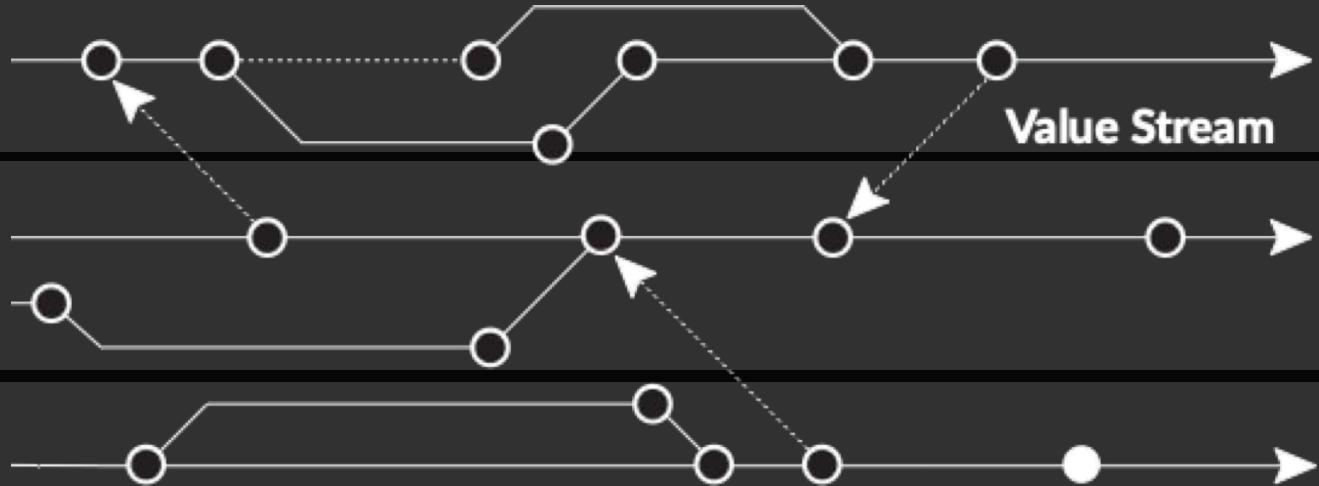
Over-focusing on external value streams

Project to Product: Architecture

Business Products
External Customer

Platform Products
Internal Customer

Delivery Tools
Developers & Specialists



There cannot be a more important thing for an engineer.. than to work on the systems that drive our productivity -- Satya Nadella

Beyond the Turning Point

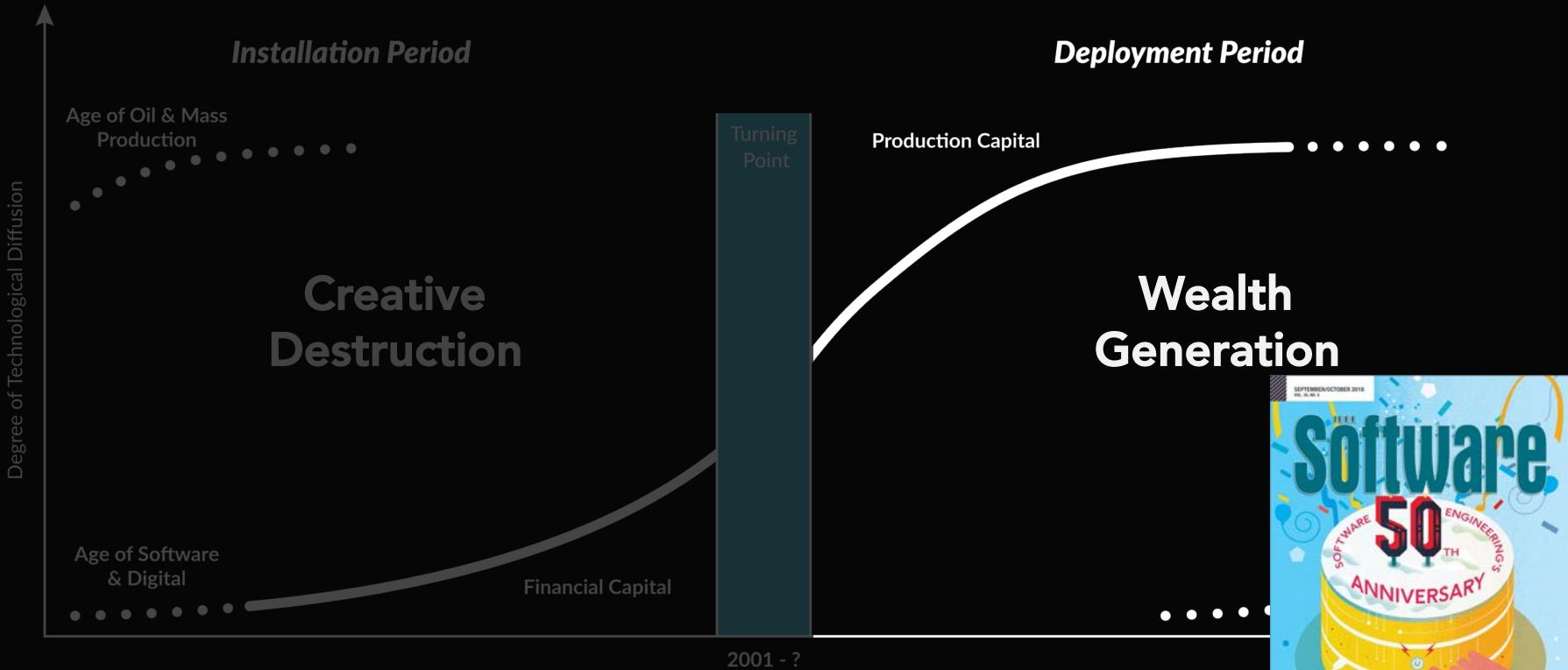
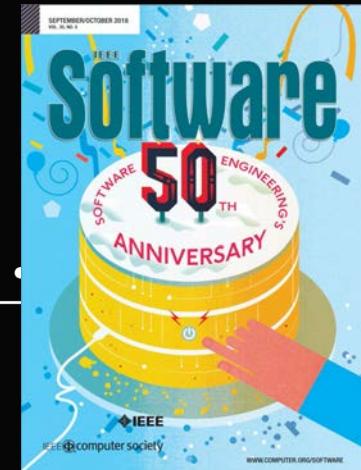


Figure: Adapted from Carlota Perez



Invention will Shift to Adoption

Rapid cycles of invention will slow

Production at scale mastered, but not evenly distributed

Run as fast as you can to adopt world-class practices

Cost of delay is too high to re-invent the wheel

Complexity Will Drive Drive Specialization

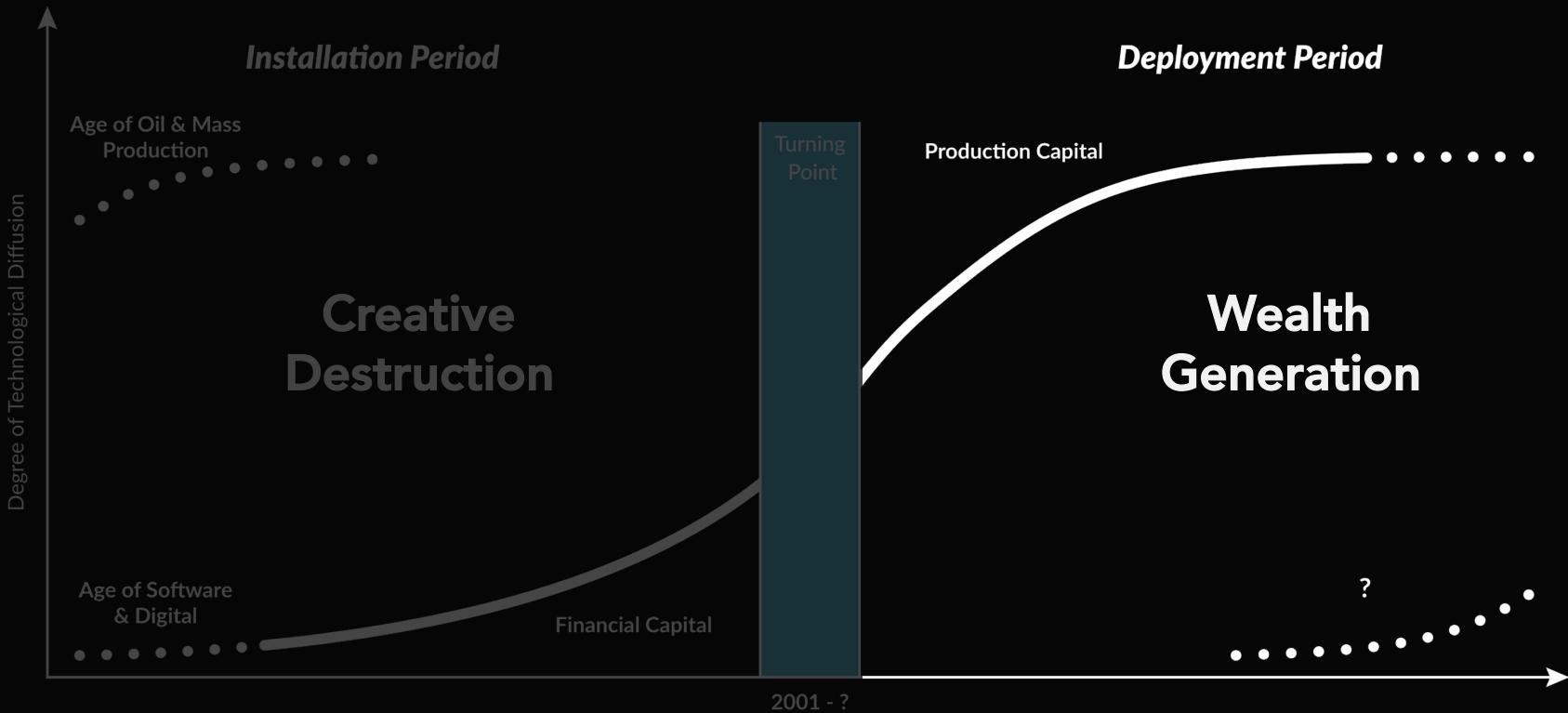
Software becomes core to every business in every sector

Elevate Lean and computation thinking to entire org

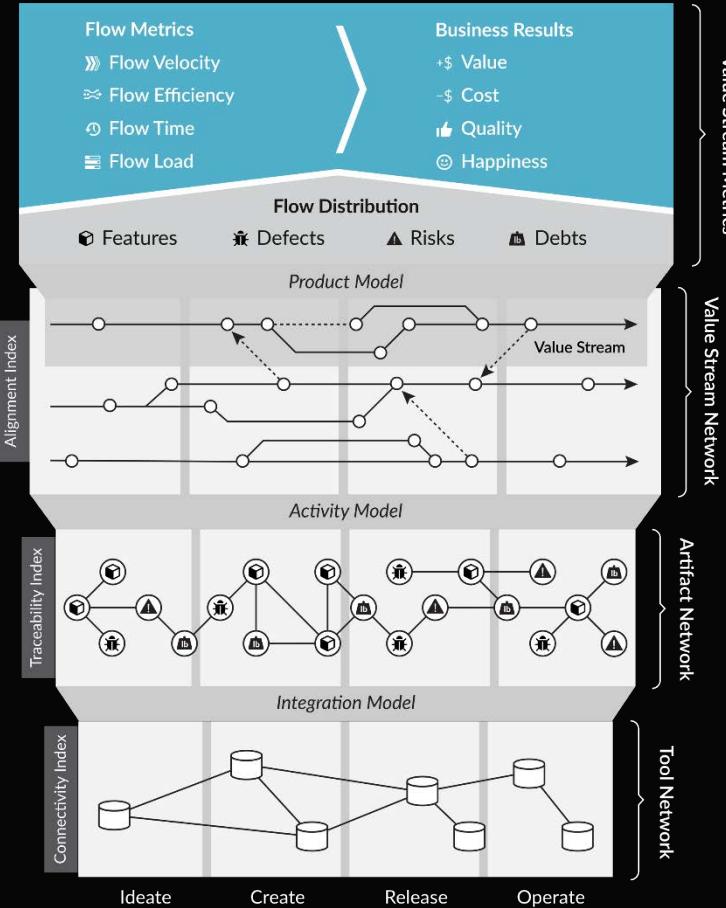
Empower the diversity needed on each value stream

Deploy a product-oriented operating model

Bring your org through the Turning Point



Flow Framework™



Project & Cost Centers

Product Value Streams

Silos & proxy metrics

Flow Metrics & Business Results

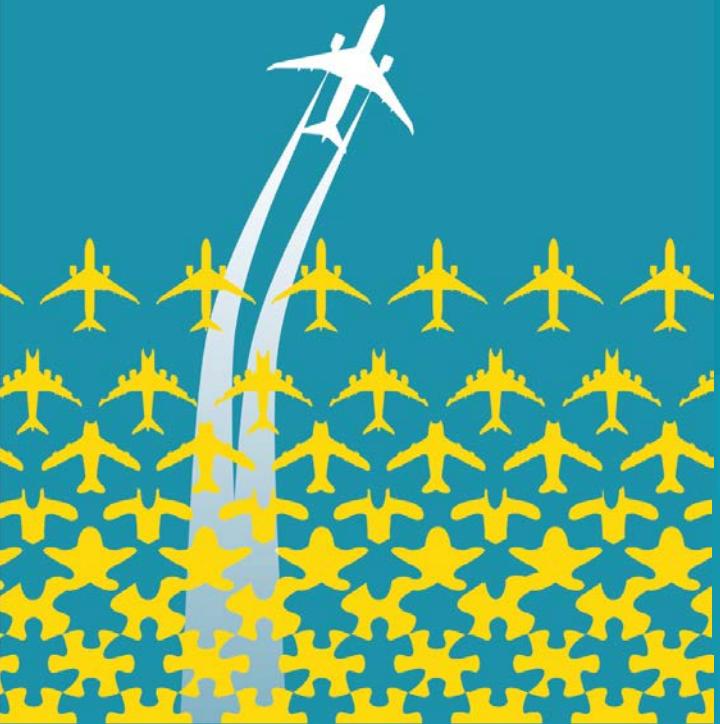
Fragmented value streams

Integrated Value Stream Network

PROJECT TO PRODUCT

MIK KERSTEN

HOW TO
SURVIVE AND
THRIVE IN THE
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FRAMEWORK



Amazon Best Seller, eBook, audiobook available

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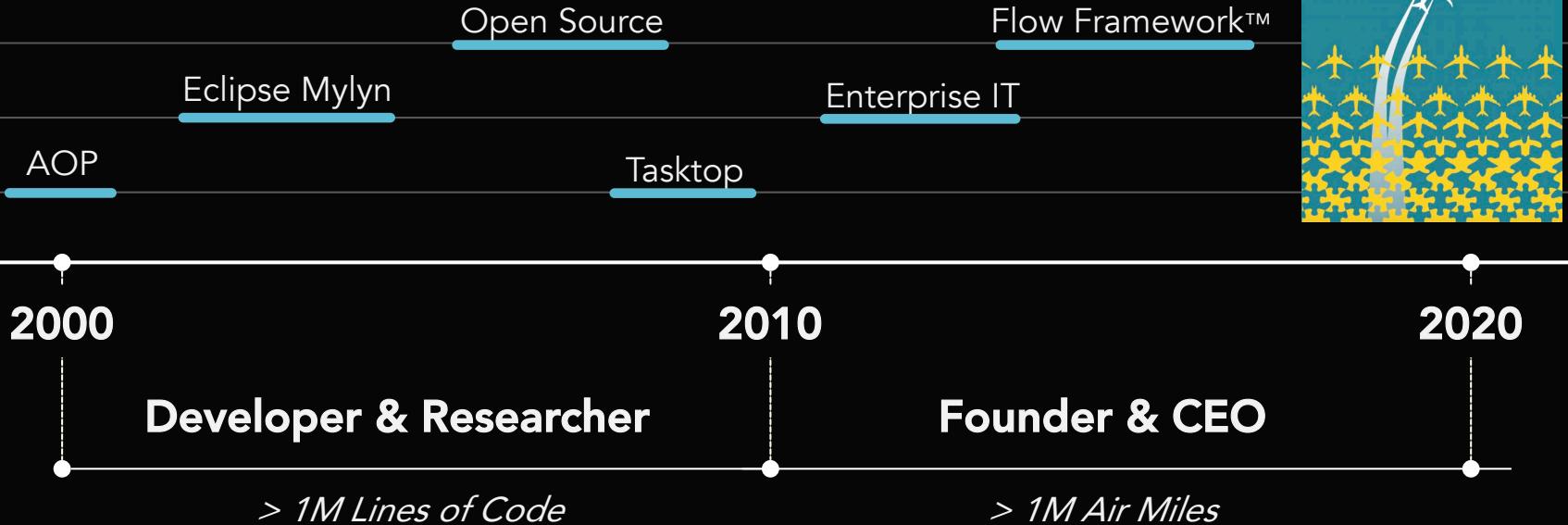
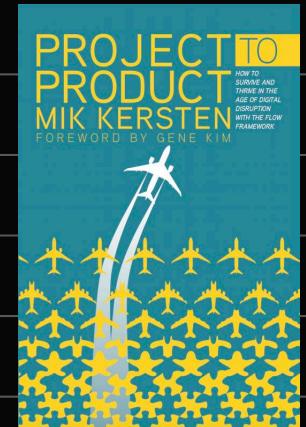
All author proceeds go to charitable programs supporting women & minorities in technology.



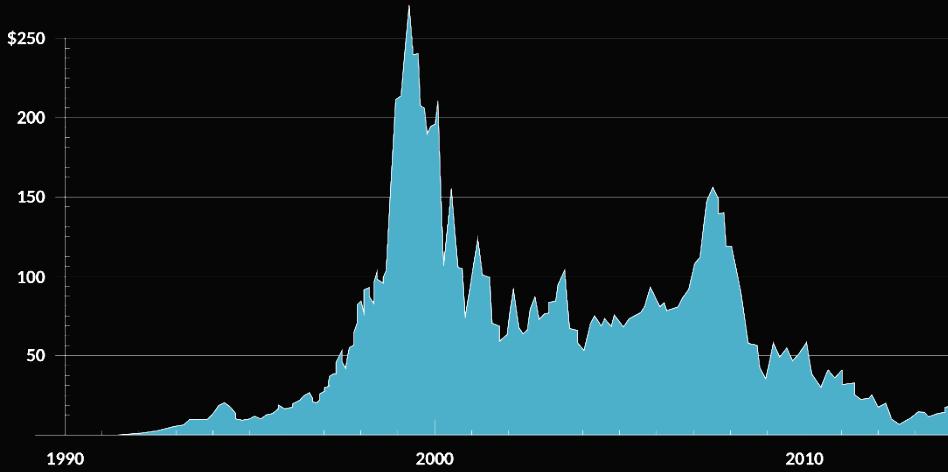


Project to Product

Dr. @mik_kersten (Founder & CEO, Tasktop)



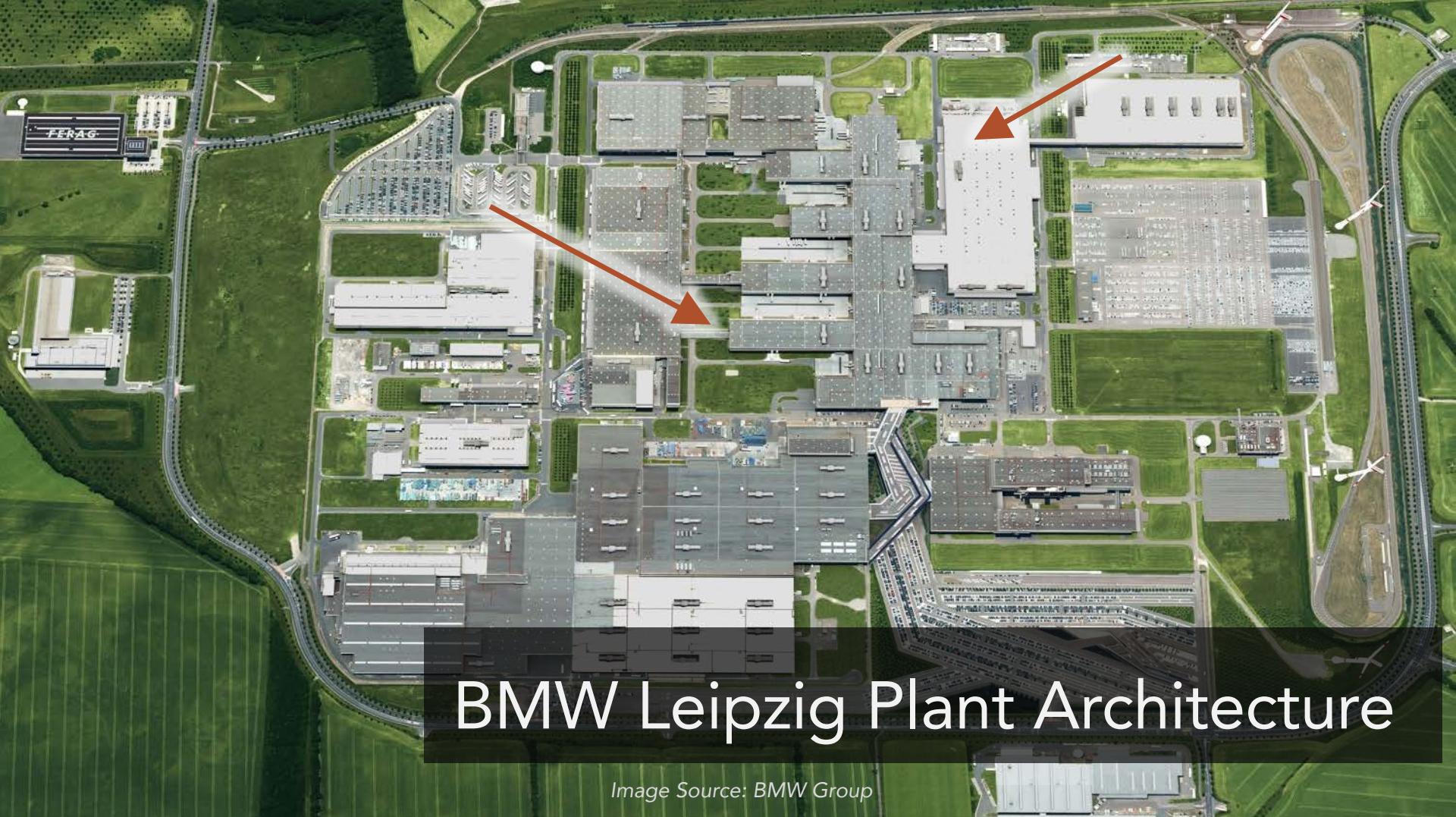
Nokia (2007): Measuring Proxies



Measuring proxies leads to local optimization of the value stream

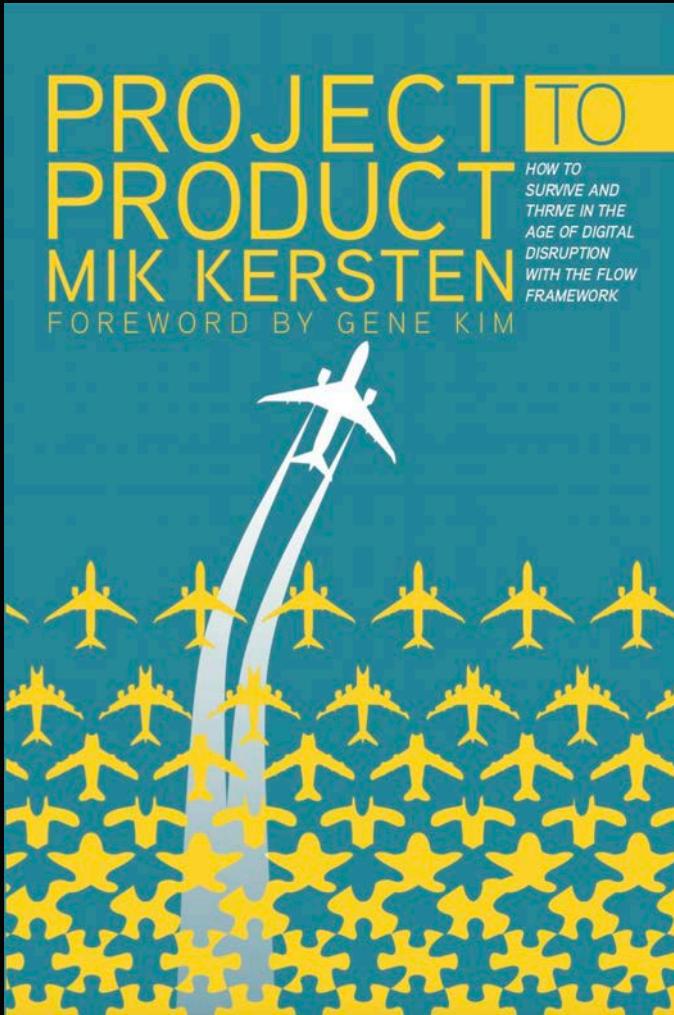


BMW Leipzig Plant Trip



BMW Leipzig Plant Architecture

Image Source: BMW Group



projecttoproduct.org



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All author proceeds go to charitable programs supporting women & minorities in technology.



Business value flow at BMW

Plant

Quality cars that deliver “sheer driving pleasure”

Designed in yearly cycles,

Creative and manufacturing process are decoupled

Flow across a linear product line

Image Source: BMW Group



Business value flow in IT

New features that deliver success and delight

Designed and delivered in daily cycles

Creative and manufacturing process are coupled

Near Death Experiences

Ebay (1999)

Microsoft (2002): Bill Gates memo

Google (2005): Automated testing culture

Amazon (2004): Jeff Bezos memo

Twitter (2008)

LinkedIn (2009)

Etsy (2009)