

A close-up photograph of the front left side of a Boeing airplane. The aircraft has a white fuselage with blue horizontal stripes and the word "BOEING" printed on it. The engine is visible on the left wing. A small watermark in the bottom left corner of the image shows the Tasktop logo, which consists of a stylized 'T' icon followed by the word "TASKTOP".

# Project to Product

Dr. @mik\_kersten (Tasktop Founder & CEO)

# PROJECT TO PRODUCT

## MIK KERSTEN

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



## Two decades

- 10 years research & open source dev
  - Xerox PARC, Eclipse, UBC
- 10 years building a company
  - Tasktop, working w/ Global 500

## Three epiphanies

- Disconnect between the software architecture and the value stream
- Software value streams span the entire business
- Not a linear process but a complex network that needs to be aligned to products

# Technological Revolutions

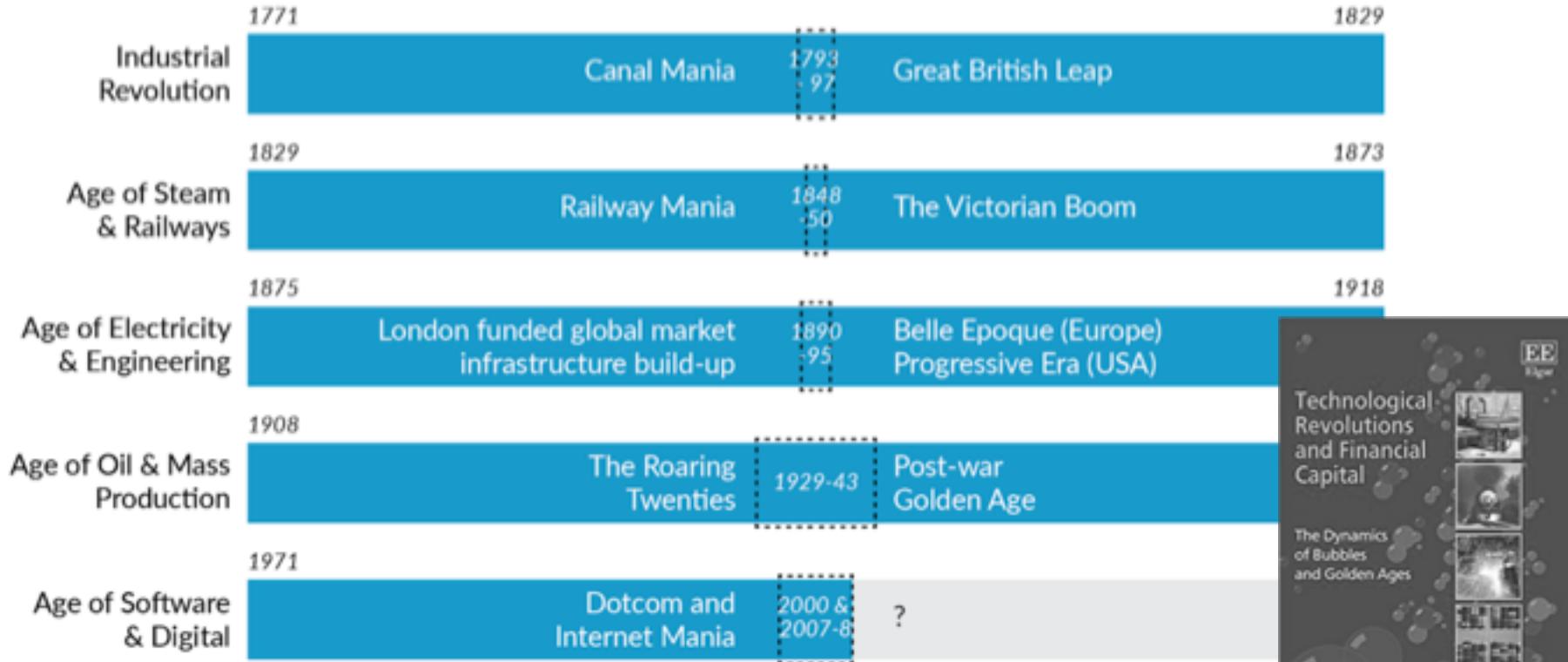


Figure: Adapted from Carlota Perez

# The Turning Point

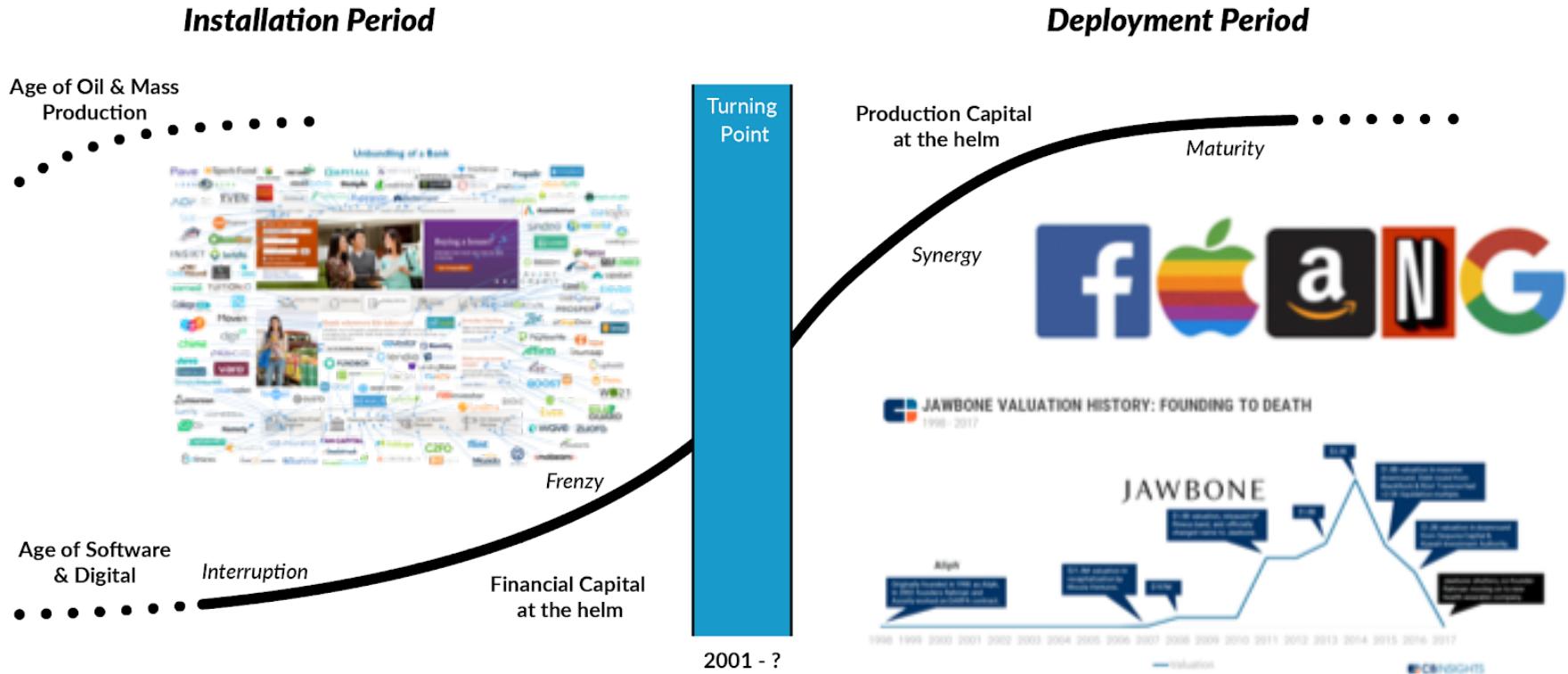


Figure: Adapted from Carlota Perez

# Failing, at scale



Economist.com



## Nokia

- Poster child for large-scale Agile transformation in 2009

## Top 25 global bank

- 3 IT transformations that failed to deliver value

# Common Problems

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01 IT is **disconnected** from the business and vision.



02 Leadership is tracking activities **not the results**.



03 Project funding is fundamentally **broken**.



04 Business feels IT is solving its own problems, **not delivering more**



05 IT feels like a **black box** to the business.

# Technological Revolutions

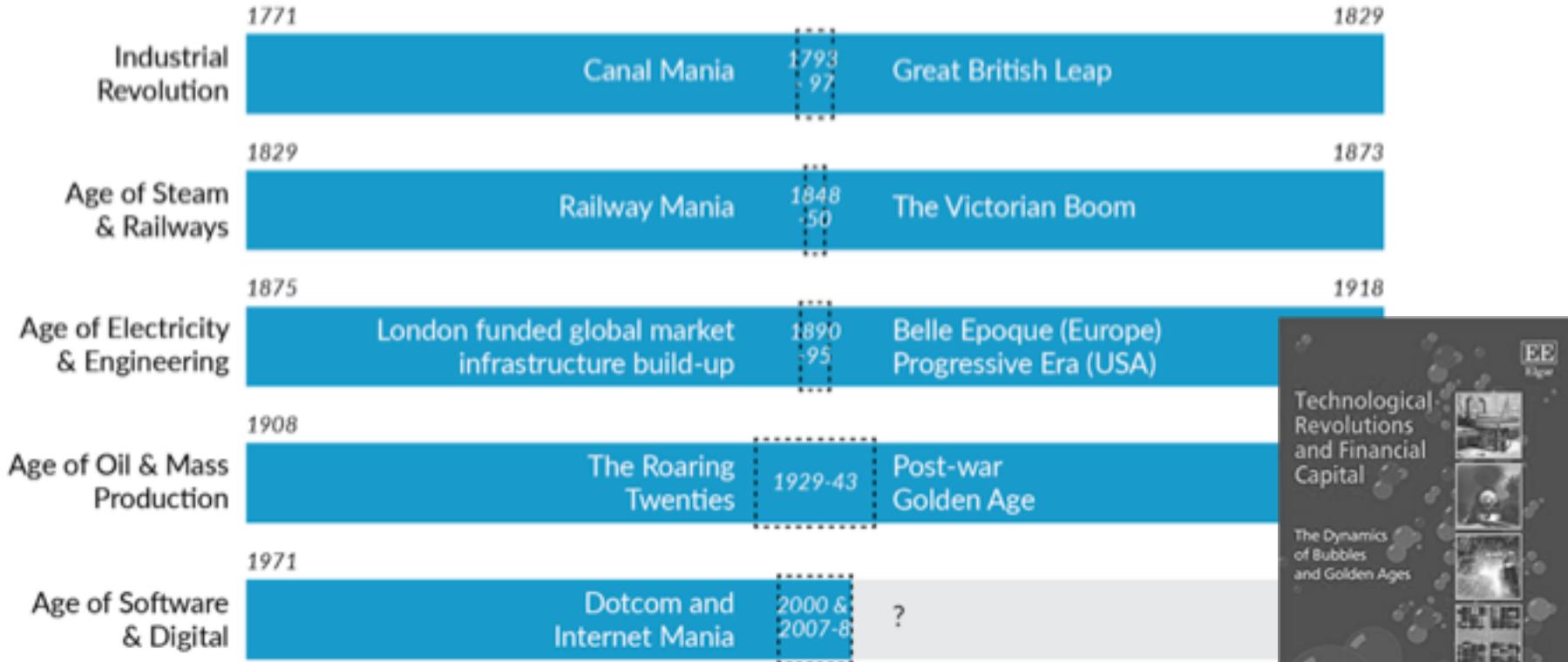


Figure: Adapted from Carlota Perez



# BMW Leipzig Plant Trip

# 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, and pursue perfection”

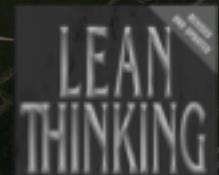


Image Source: BMW Group



# BMW Leipzig Plant Architecture

Image Source: BMW Group



## Business value flow at BMW Plant

Quality cars that deliver “sheer driving pleasure”

Designed in yearly cycles, delivered every 70s

Creative and manufacturing process are decoupled

## Business value flow in IT

New features that deliver success and delight

Designed and delivered every 2-week sprint

Creative and manufacturing process are one



## Integration Landscape

View your organization's integration landscape to get an overview of artifact types flowing between your repositories via integrations.

Filter

Reset Filter

Display Settings

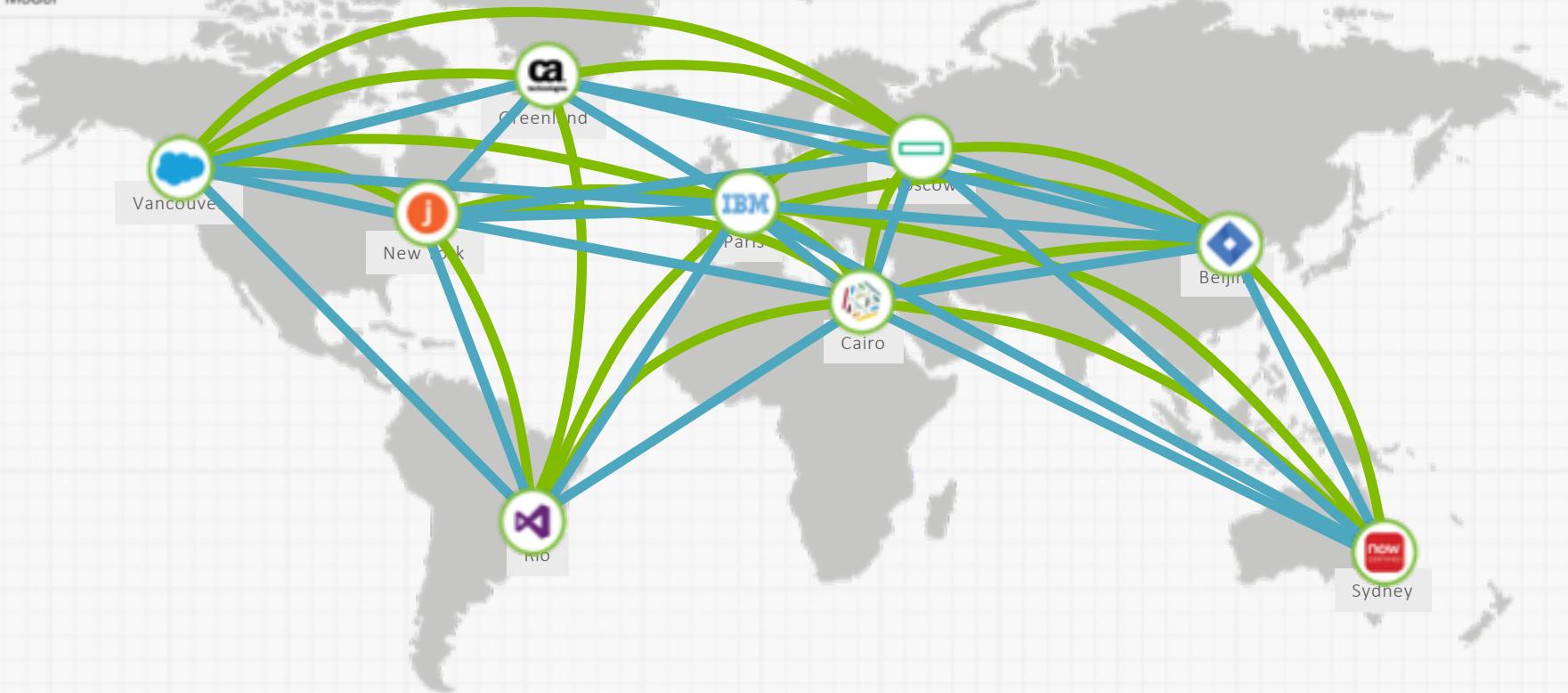
Show All Models

Show All Artifact Types

Reset Layout

> Repository

> Model



# 308 tool chains analyzed



70% integrate 3+ endpoints

40% connect 4 or more tools

66% use 4-8 integration patterns

Your value streams are networks

Ad-hoc structure, aligned to projects



# What flows in software delivery?

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?

01 How long did it take for this feature to get to the customer?

?

02 How much wait time was there for defect MTTR?

?

03 How much will work on GDPR risks affect our feature velocity?



# Project

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Production is a black box



Visibility

# Product

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Business



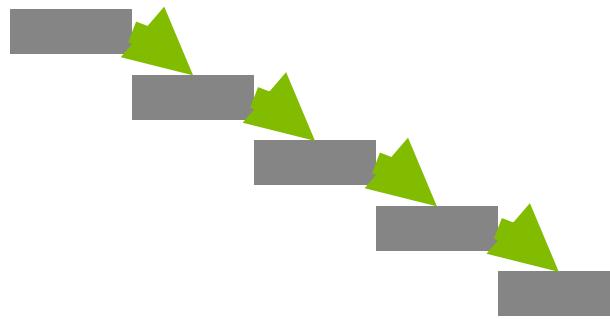
Delivery



Direct mapping to business strategy

# Project

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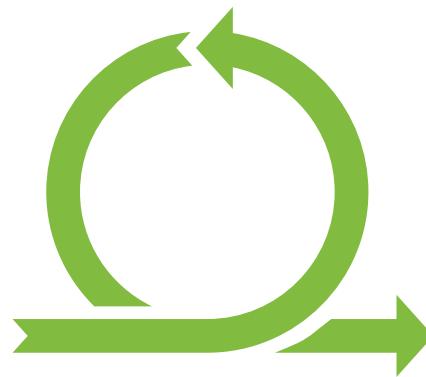


Waterfall orientation

Prioritization

# Product

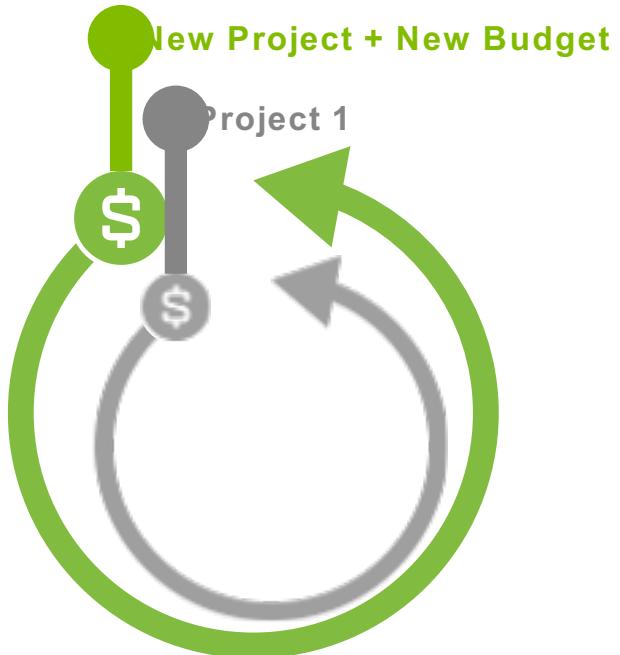
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Flow orientation

# Project

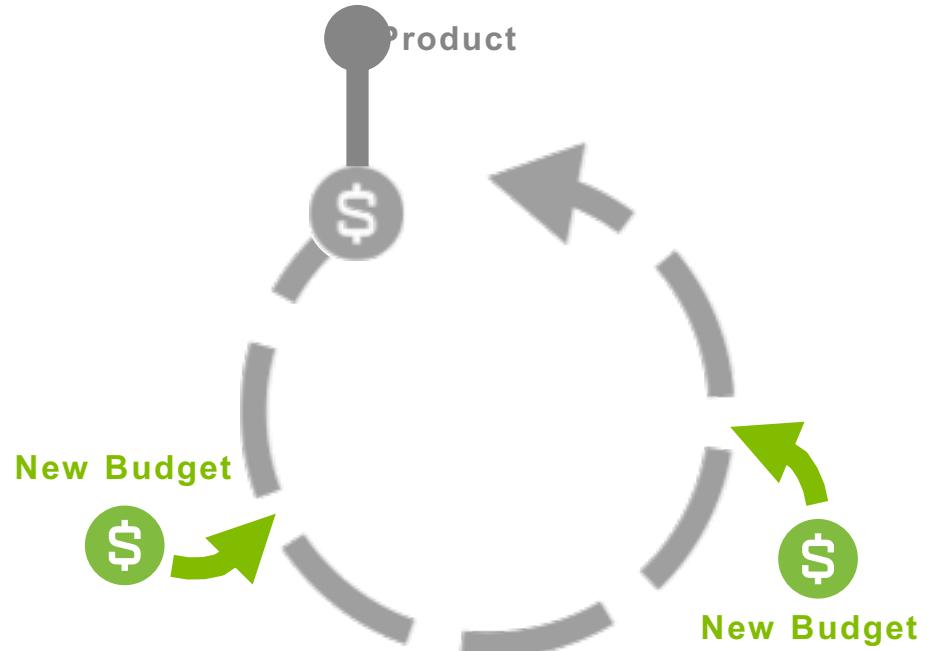
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Budgeting

# Product

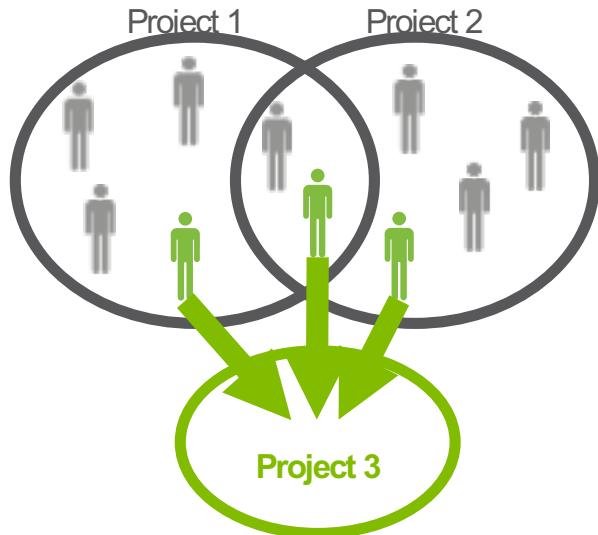
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# Project

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People are brought to work

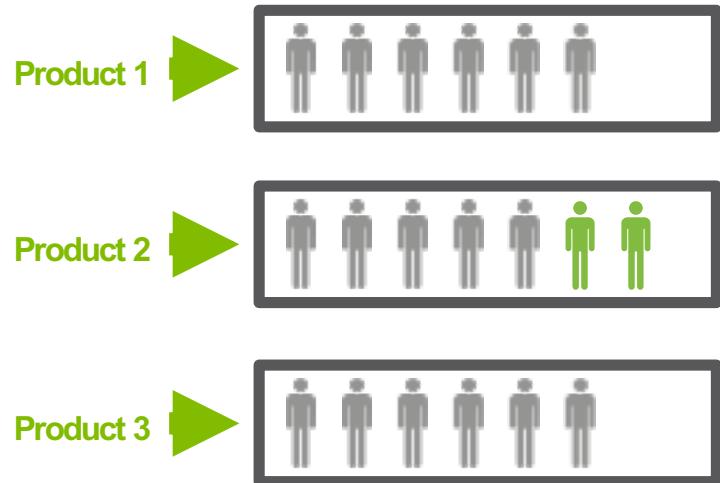


Teams

# Product

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Work is brought to People



# Project

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Start

Delivery

All learning,  
specification, and  
strategic decision  
making **up-front**



Risk

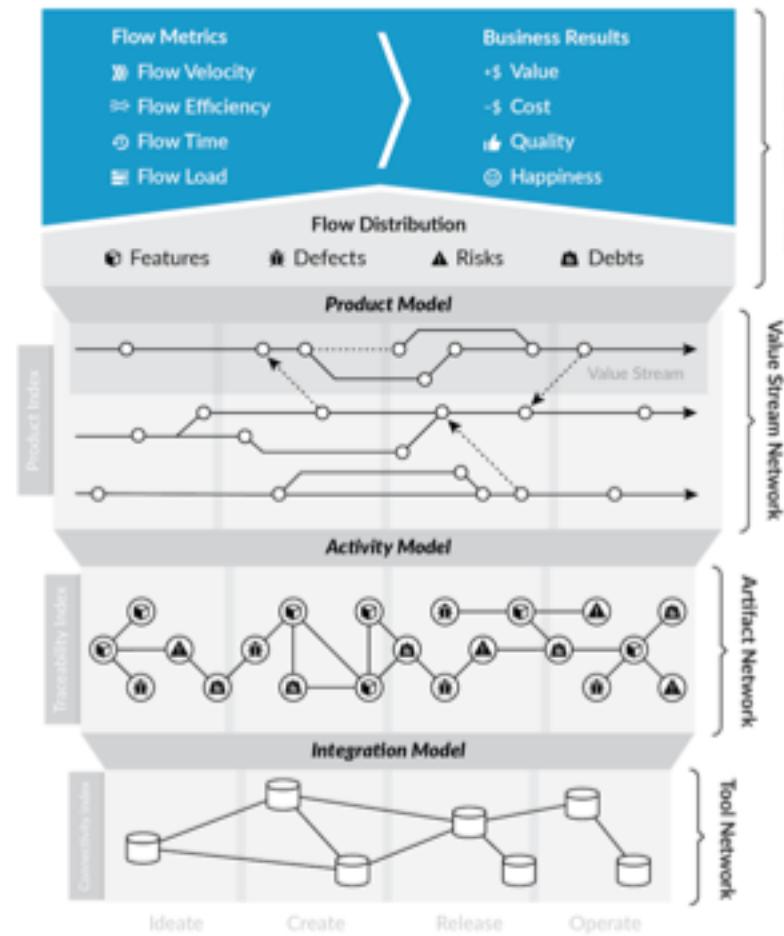
# Product

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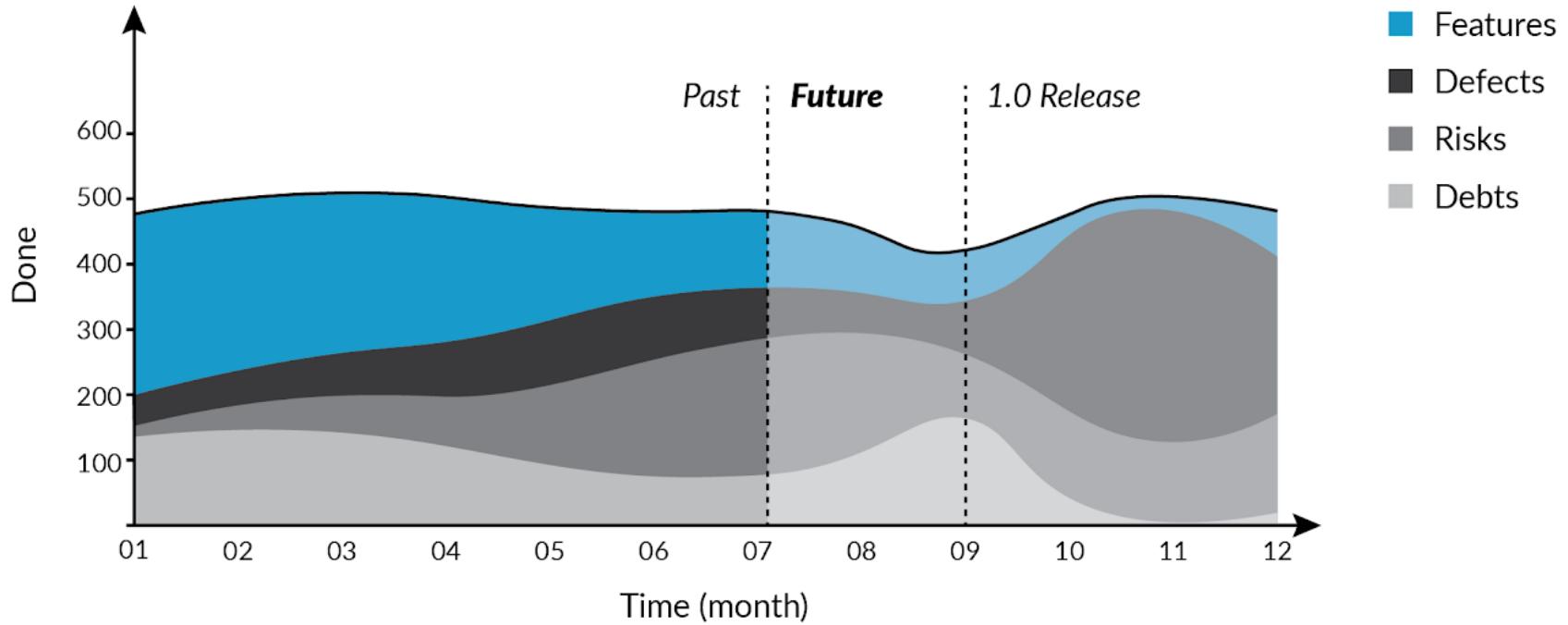


# Using Managerial Paradigms from Wrong Age

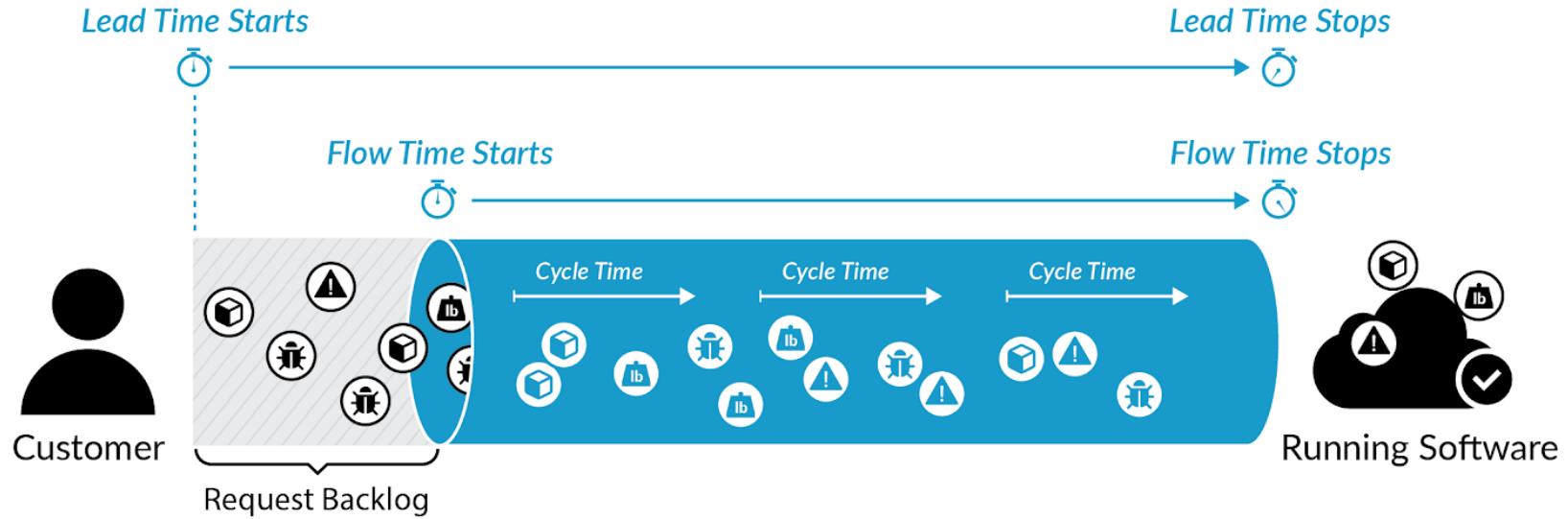
Installation to Deployment	Age	Technological Systems	New Infrastructure	Triggering Innovations	Managerial Innovations
1771–1829	Industrial Revolution	Water-powered mechanization	Canals, turnpike roads, sailing ships	Arkwright's Cromford Mill (1771)	Factory systems, entrepreneurship, partnerships
1829–1873	Age of Steam & Railways	Steam-powered mechanization and transport	Railways, telegraph, steam ships	Liverpool-Manchester Railway (1831)	Joint stock companies, subcontracting
1875–1918	Age of Electricity & Engineering	Electrification of equipment and transport	Steel railways, steel ships, telephone	Edison's New York Electric Power Station (1882)	Professional management systems, giant firms, Taylorism
1908–1974	Age of Oil & Mass Production	Motorization of transport and economy	Radio, motorways, airports	Ford's Highland Park Assembly Line (1913)	Mass production and consumption, Fordism, Lean
1971–?	Age of Software & Digital	Digitization of the economy	Internet, software, Cloud computing	Intel Microprocessor (1972)	?



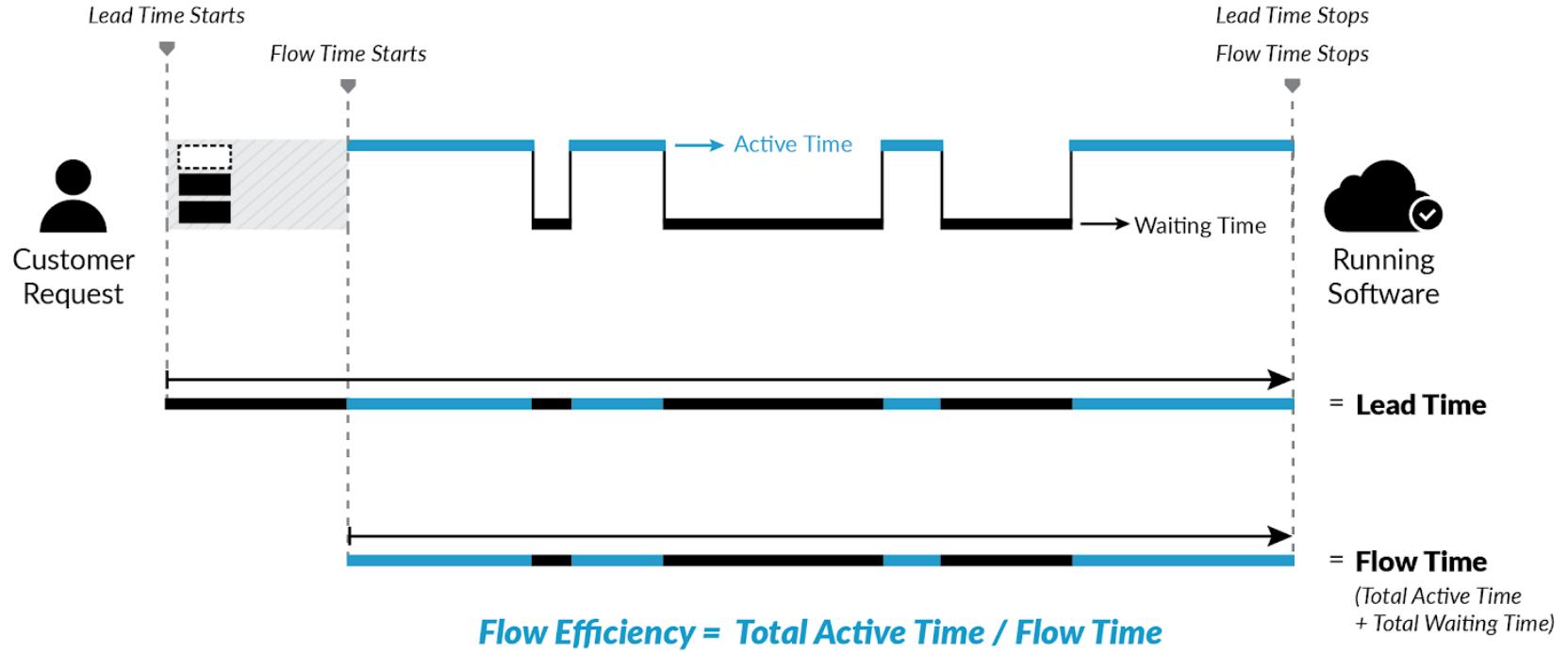
# Flow Distribution



# Flow Time



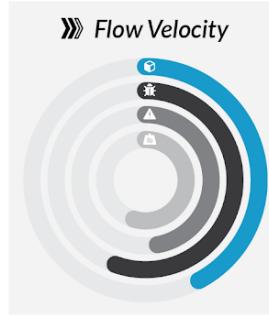
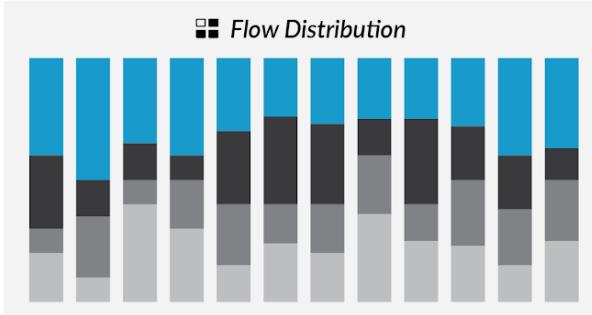
# Flow Efficiency



# Flow Dashboards

## Hub

External Customer: Fortune 500 (GA)



⌚ Flow Time (Average)

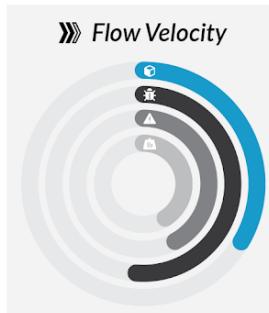
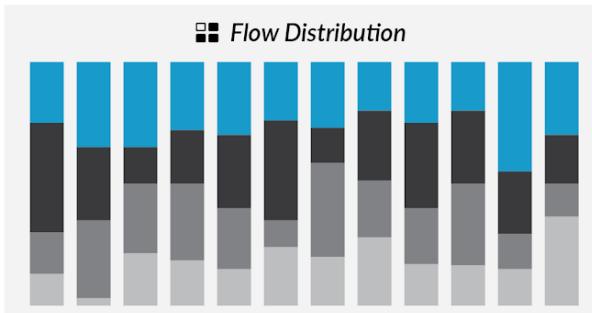
17 days

≡ Flow Load (Current)

42 flow items

## Integrations

Internal Customer: Hub, Sync, Dev

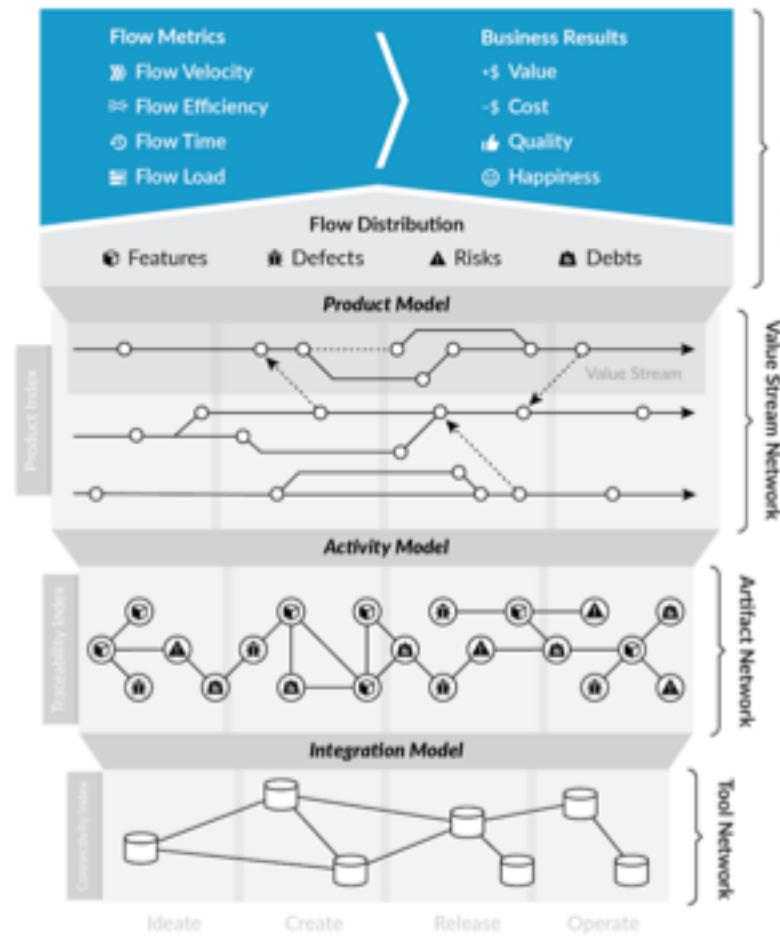


⌚ Flow Time (Average)

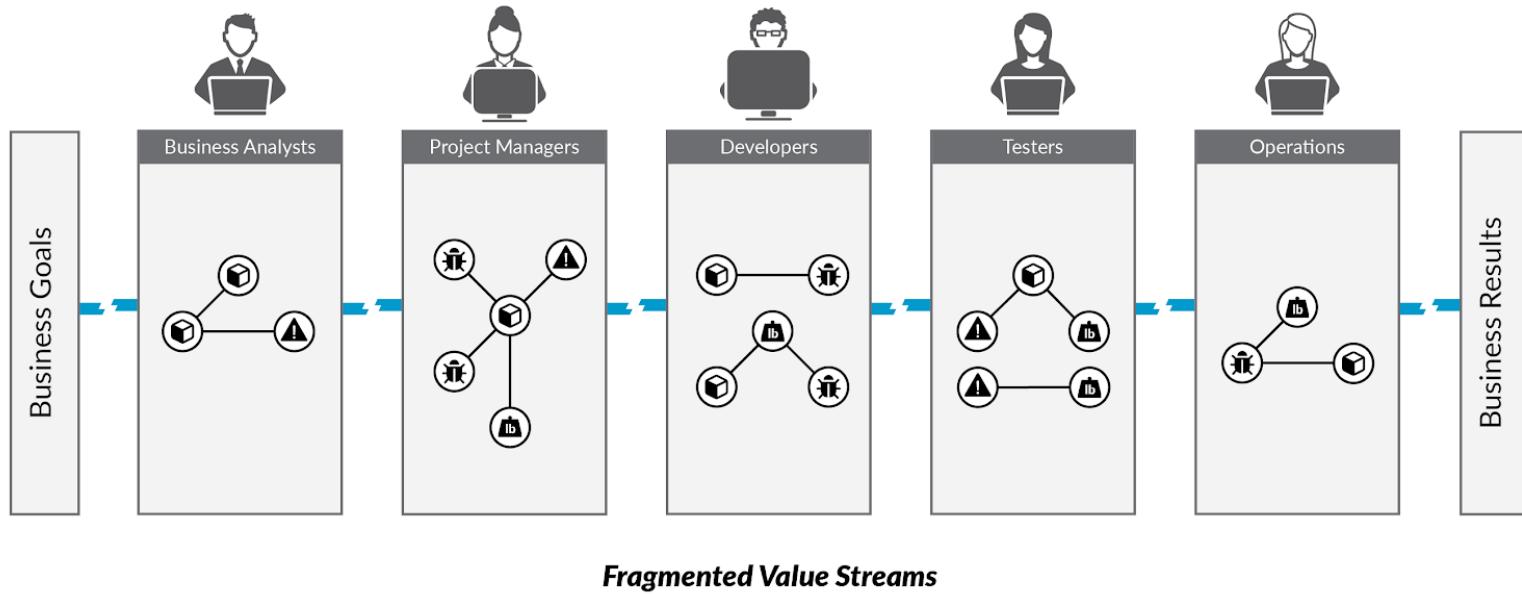
15 days

≡ Flow Load (Current)

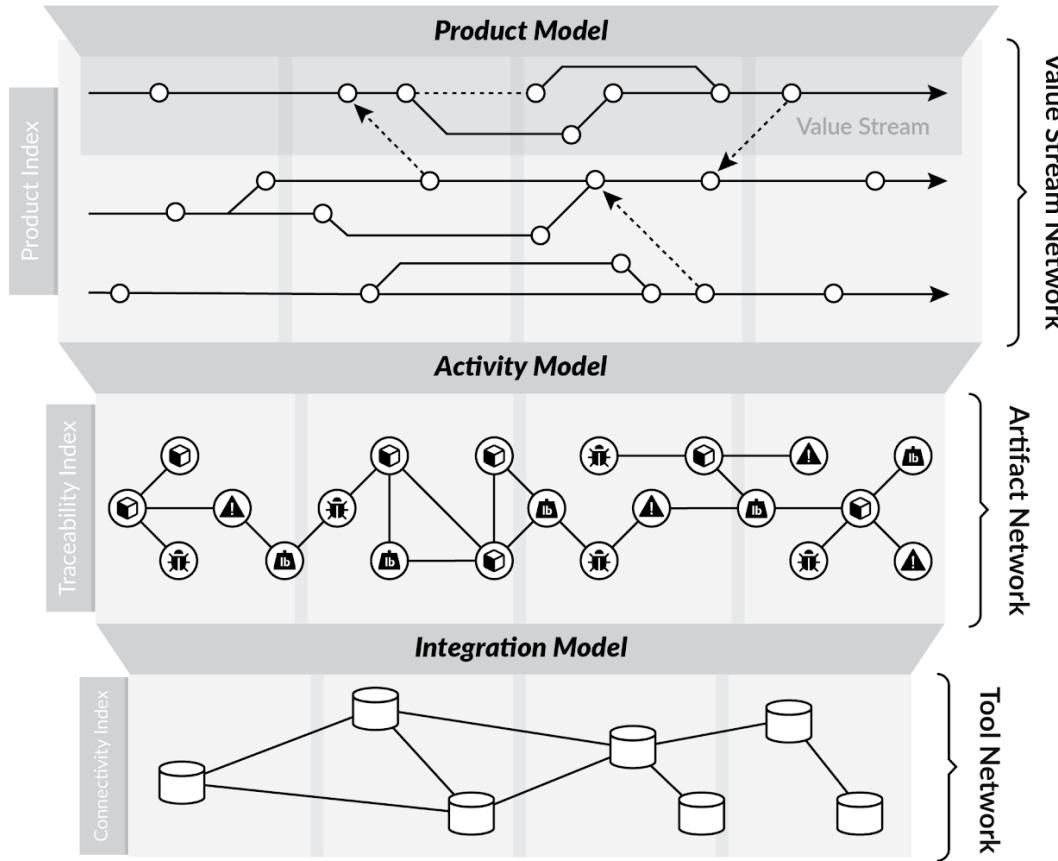
37 flow items



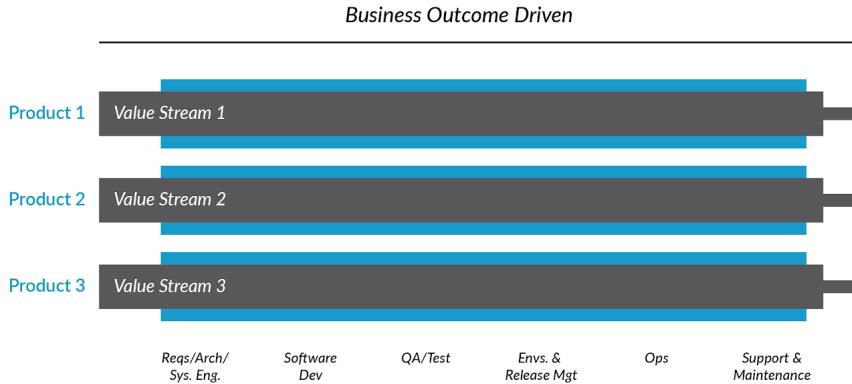
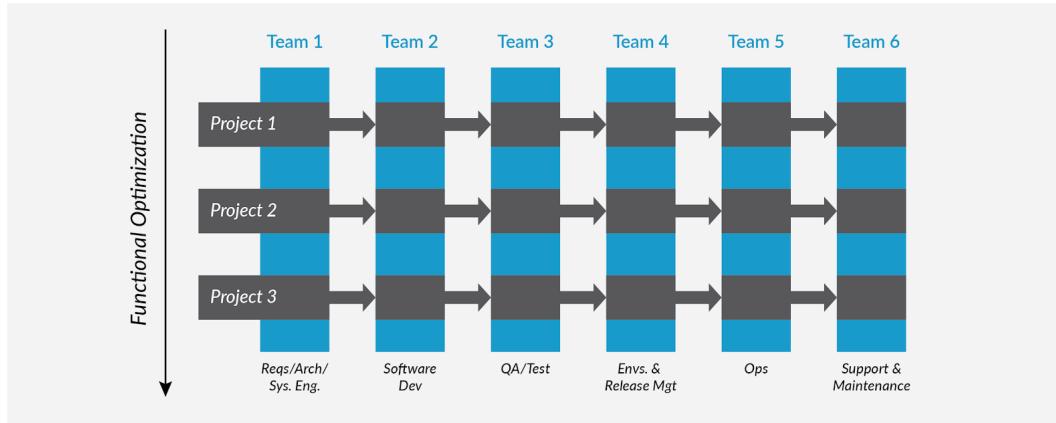
# From Functional Silos..



# To a Connected Value Stream Network



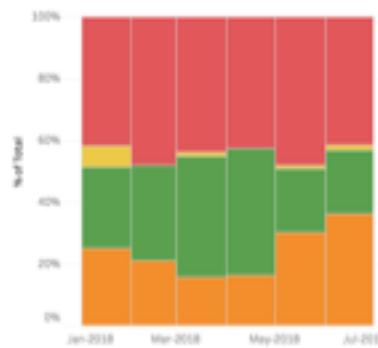
# From Project to Product



# Visible Value Stream Metrics

## Hub

**Flow Distribution**  
(Relative volume of completed flow units over time)



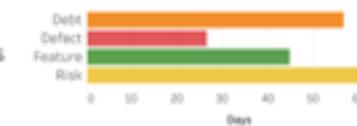
**Flow Velocity**  
(The number of flow-items completed in the last 3 months.)



**Flow Load**  
(The number of flow items currently in progress.)



**Flow Time**  
(The average amount of time it took to complete a flow-item over the last 3 months.)



192 Flow Items

40 days

**Value**  
(Recycle Revenue)

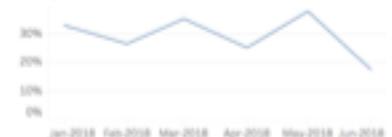
**Cost**  
(Lifetime Cost)

**Happiness**  
(WIF)

**Quality**  
(High-Fast Priority Defects)

30

**Flow Efficiency**  
(Ratio between value-adding time and the lead-time required to complete a process)



28.3%

39 Flow Items

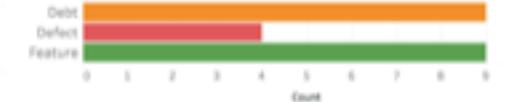
**Flow Distribution**  
(Relative volume of completed flow units over time)



**Flow Velocity**  
(The number of flow-items completed in the last 3 months.)



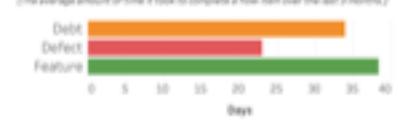
**Flow Load**  
(The number of flow items currently in progress.)



224 Flow Items

33 days

**Flow Time**  
(The average amount of time it took to complete a flow-item over the last 3 months.)



**Value**  
(Recycle Revenue)

**Cost**  
(Lifetime Cost)

**Happiness**  
(WIF)

**Quality**  
(High-Fast Priority Defects)

54.50

18.8%

22 Flow Items

**Flow Efficiency**  
(Ratio between value-adding time and the lead-time required to complete a process)



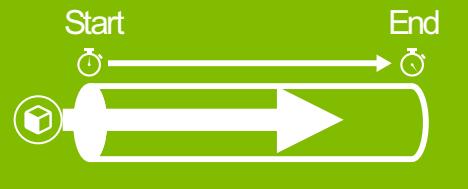
# Answers

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01

How long did it take for this feature to get to the customer?



02

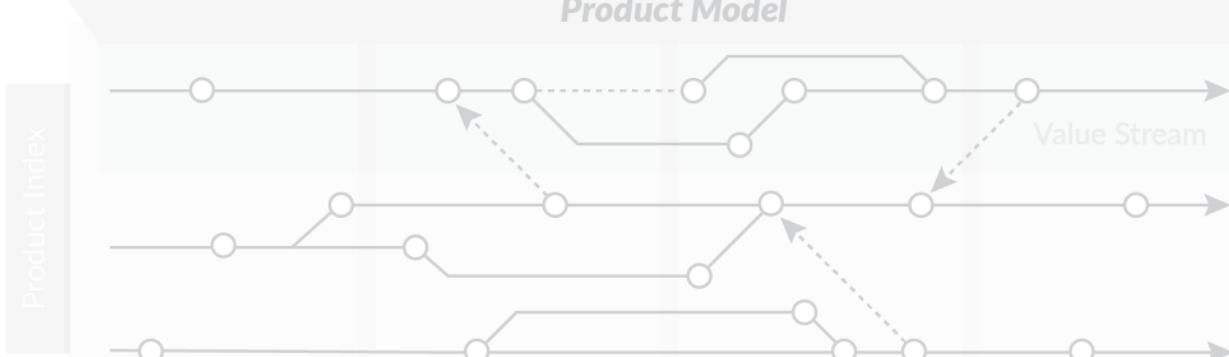
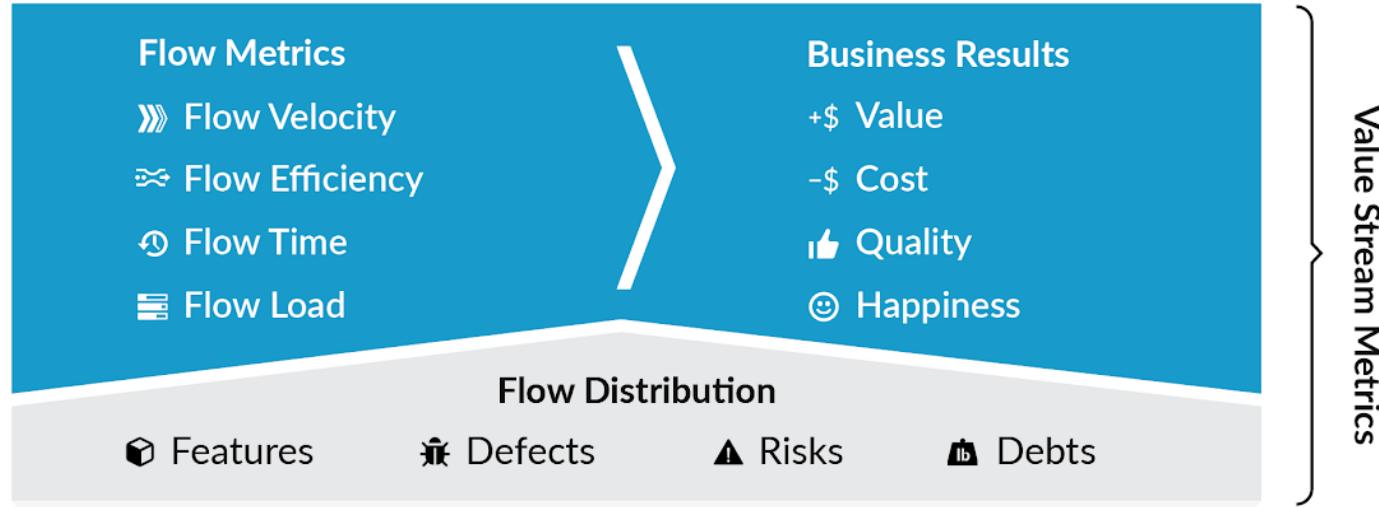
How much wait time was there for defect MTTR?



03

How much will work on GDPR risks affect our feature velocity?





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## Help I'm looking for

- <http://project2product.org>
- [mik@tasktop.com](mailto:mik@tasktop.com)