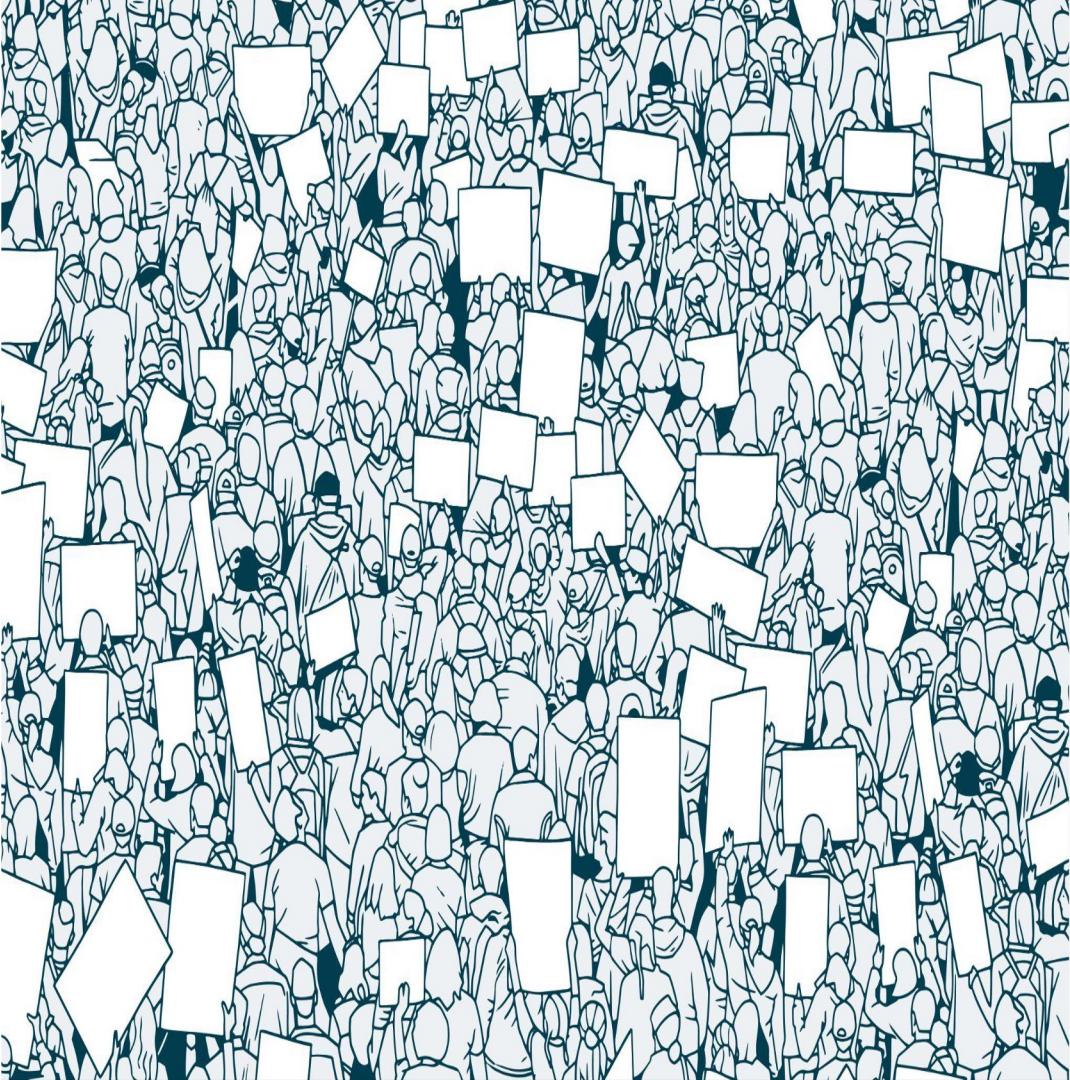


A Platform Value Model for IDPs

Ajay Chankramath
Head, Platform Engineering

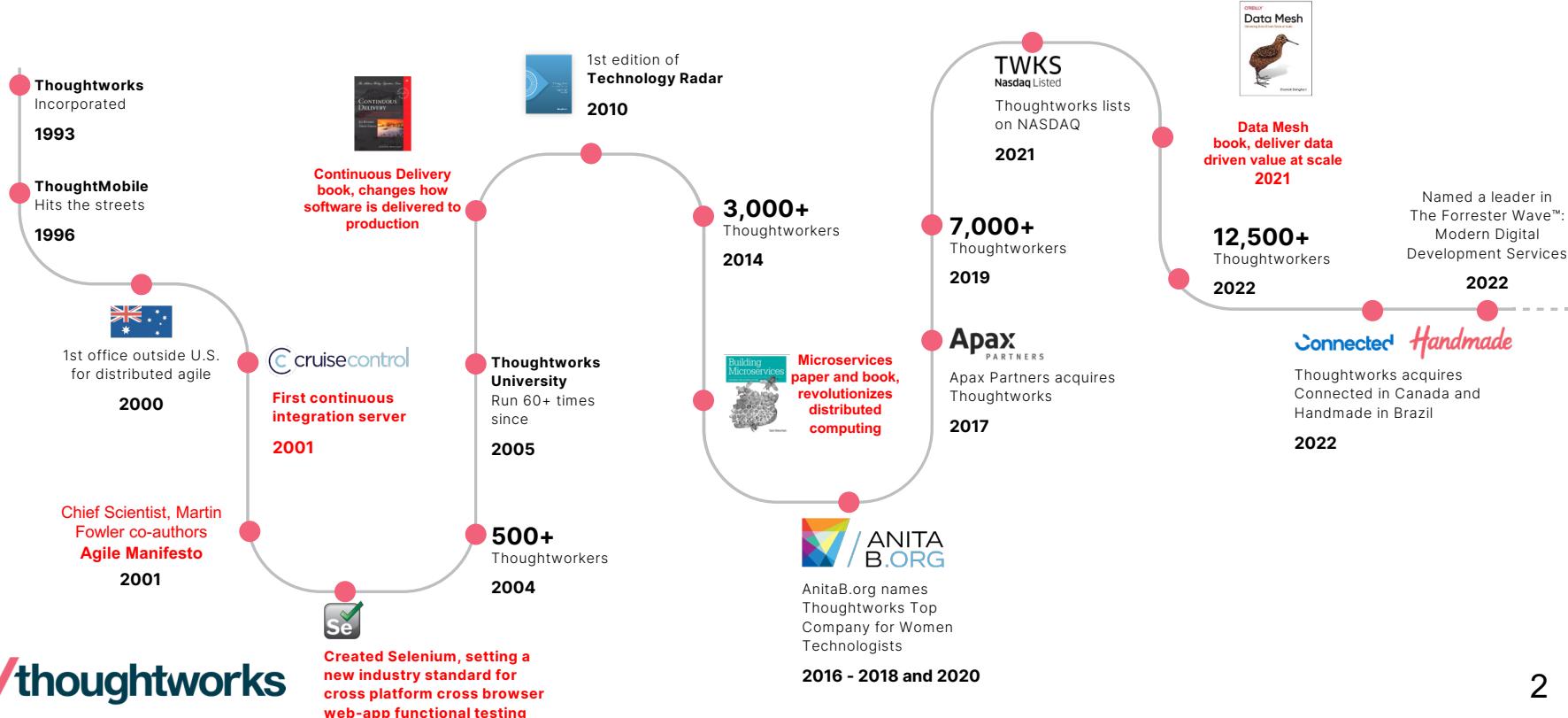
Sridhar Kotagiri
Platform Product Management Principal

Thoughtworks North America



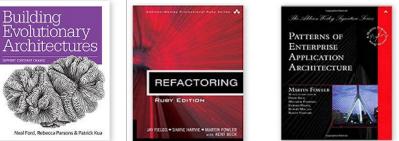
Technology excellence then, now and next

Over the past 30+ years, Thoughtworks has a reputation of being on the forefront, defining the principles used by the most advanced organizations.



Spreading thought leadership

Application Architecture & Legacy modernization



Digital Products



API Strategy & Integration patterns



Continuous Delivery



Omnichannel Platforms



100+
books written

Perspectives

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Technology Radar

An opinionated guide
to technology frontiers
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Digital Fluency Model

Discover your digital fluency
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Decoder

The A-Z guide to tech for
business executives
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Looking Glass

The trends your business
should focus on today and in
the future
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What made us think of Platform Value?

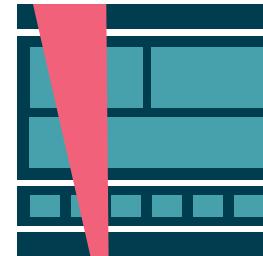
MULTIPLE ENGINEERING TEAMS



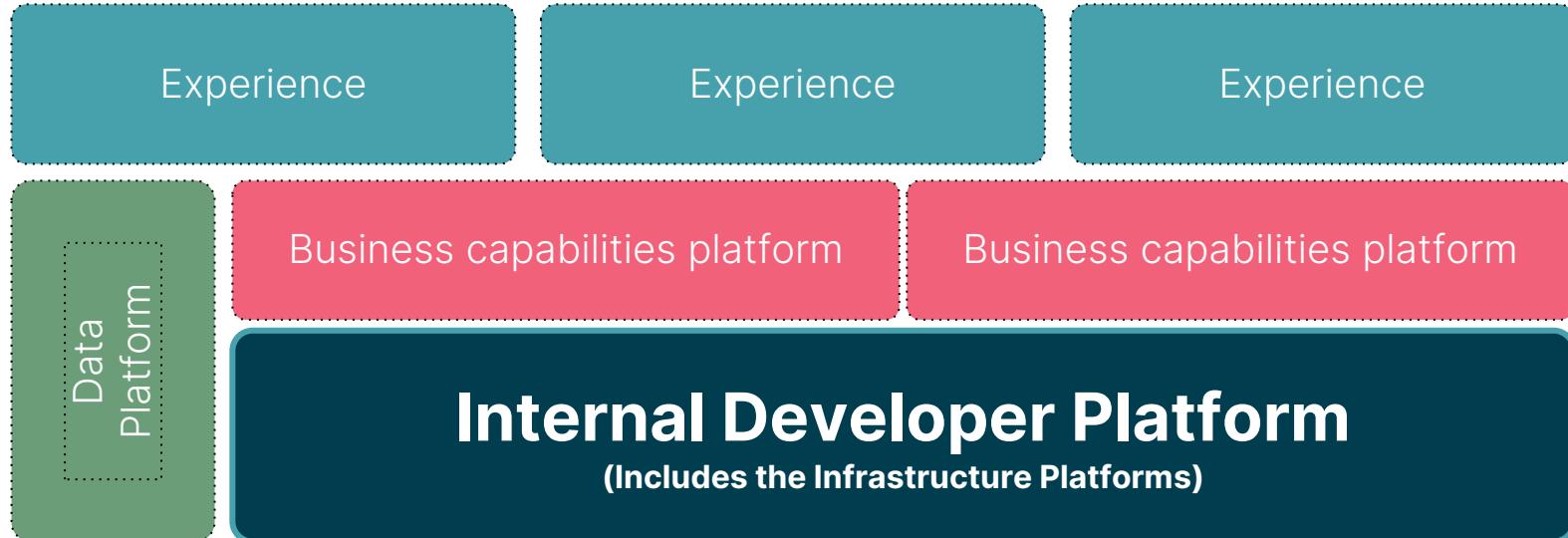
REUSABLE INTERNAL CAPABILITIES



FEATURE CONGESTION
WITH PRIORITIZATION &
ROI



IDP is an “Enabler”



How do we build IDPs?

Thin slicing approach based on the context & requirements

Platform Product Management

Team Topologies, Technical Product Management, Value Modeling, Planning & Productivity

Developer Control Plane
Version Control, Infrastructure as Code , Dev Tools, Paved Road, Dev Backends

Compliance & Governance Plane
Pipelines , Lightweight governance, FinOps compliance, Compliance @ POC

Delivery Plane
Containers, Kubernetes, Platform orchestration

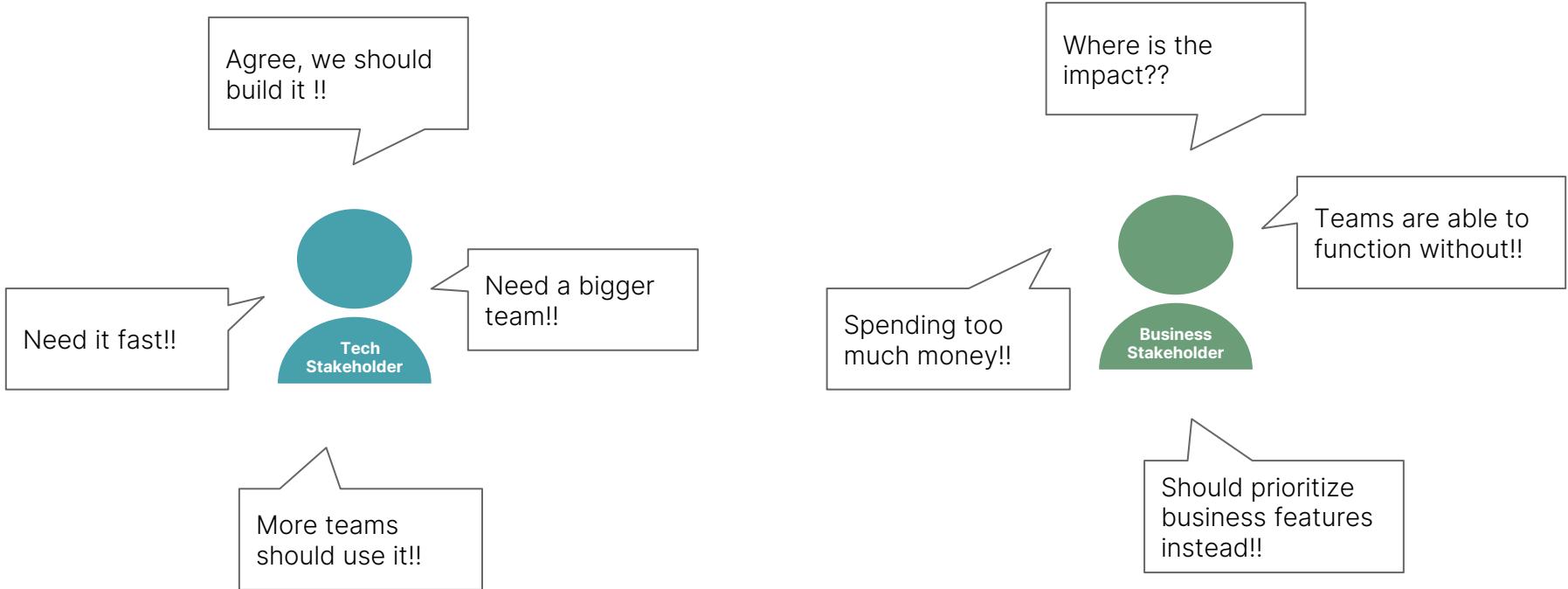
Observability & Visibility Plane
Observability, Integrations, Sustainability , Work Allocation, Code Health Surveys

Security Plane
IAM, Secret and Encryption Management, SIEM

Characteristics

Self-Serve, Onboarding enablers, Operational backbone, on-demand documentation, AI integrations

Stakeholders Not Aligned



Measure Value for IDPs

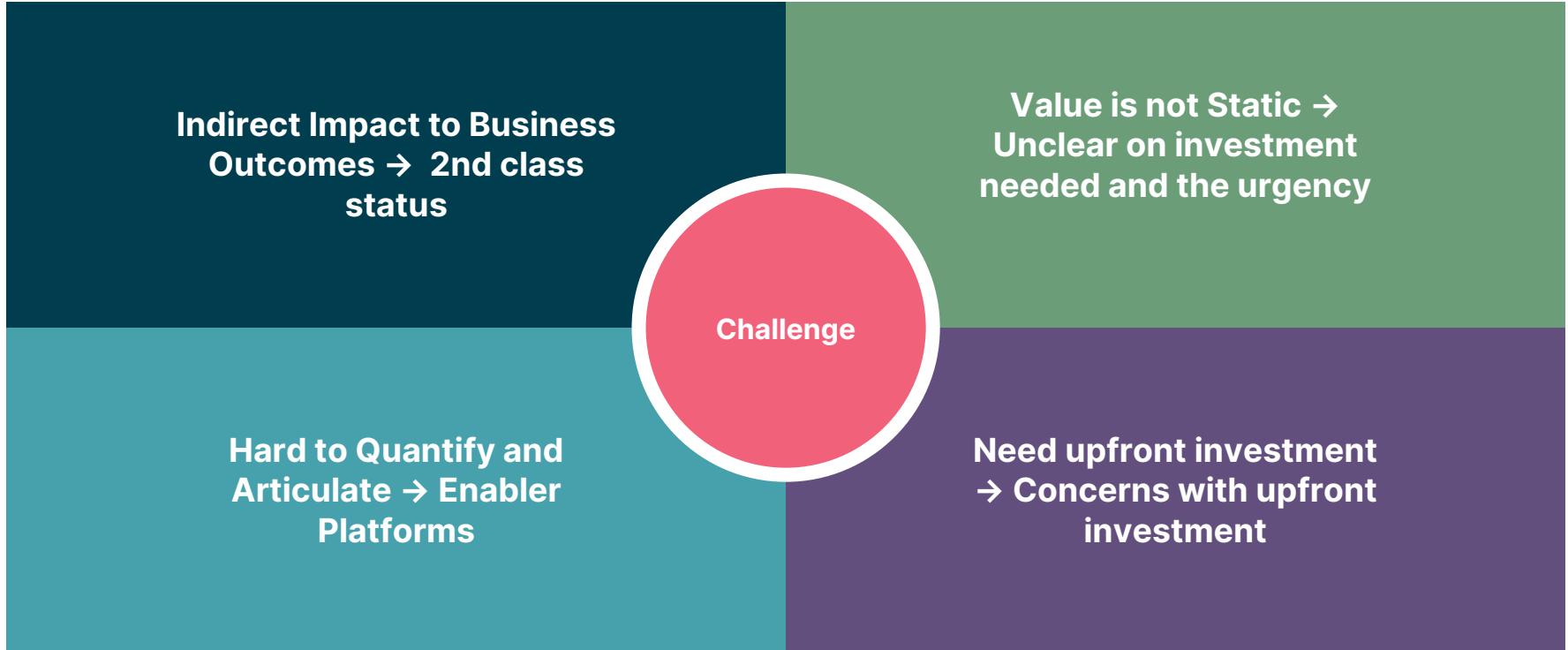
Gain visibility into ROI and value delivery timeline

Prioritize competing investments based on value rather than gut feel

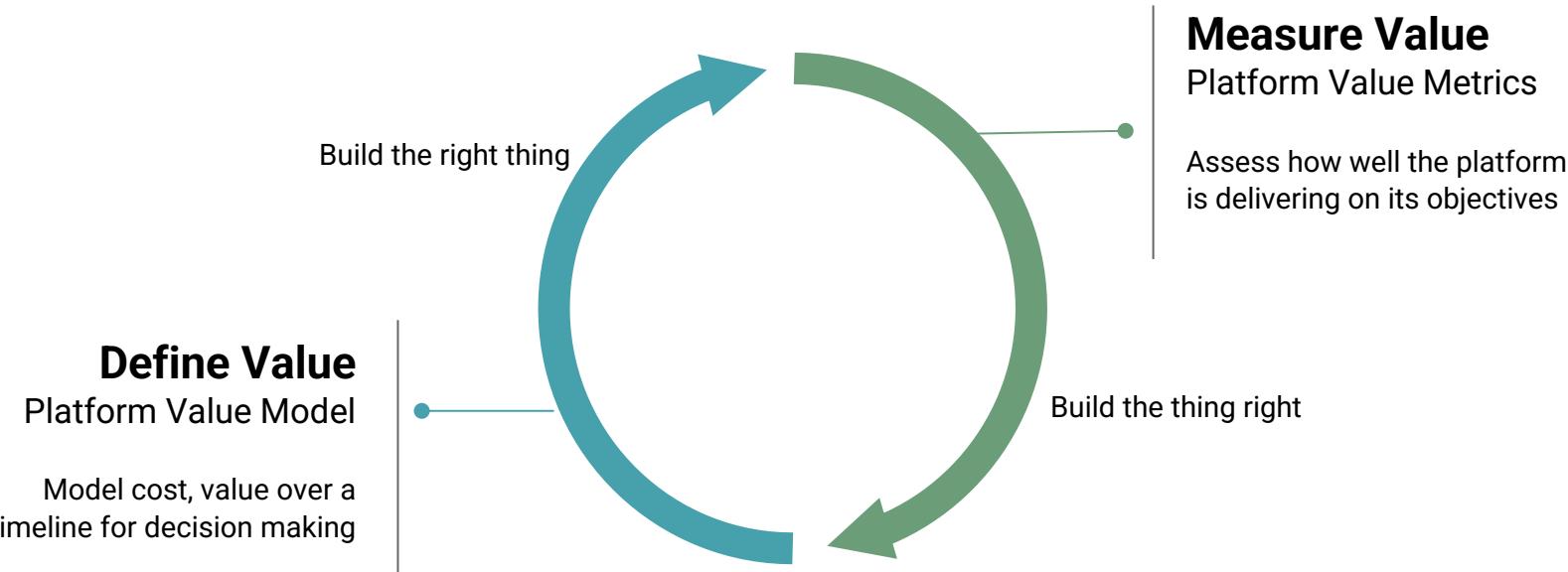
Quantify the impact on customer and the business goals

Align stakeholders

Value Challenge with IDPs

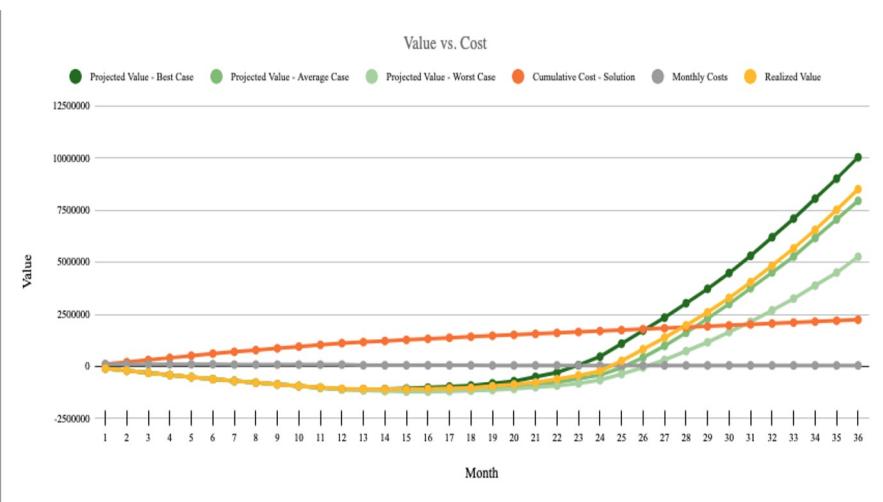


Platform Value Cycle



Platform Value Model

Model that supports various cost factors and scenarios, extensible depending on specific needs of a given technical platform product investment.



Models costs and value over a timeline



Assesses optimistic and pessimistic scenarios



Accommodates change during execution



Ability to model Realized vs. Projected value



Accommodates varying success metrics



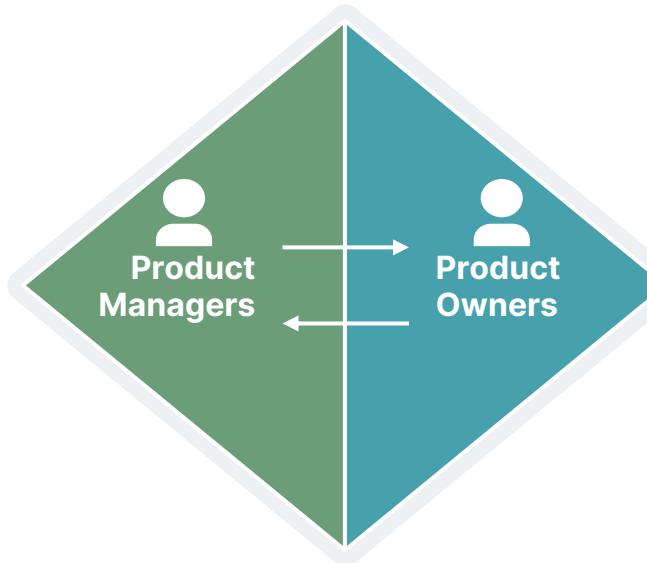
Structure that can be extended for any other technology investments

Who is this for?

Drive Value Based Prioritization

Understand why and define how

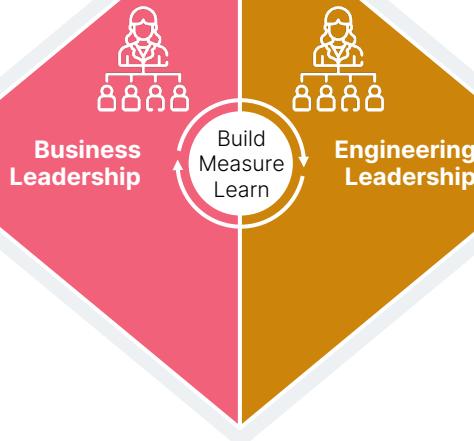
Present the
objective
value
proposition



Execute solution based on priority

Articulate, Forecast & Track

Making
Investments



How to Use?

Extend based on the use case

During prioritization
- build one for each
of the platform
capabilities

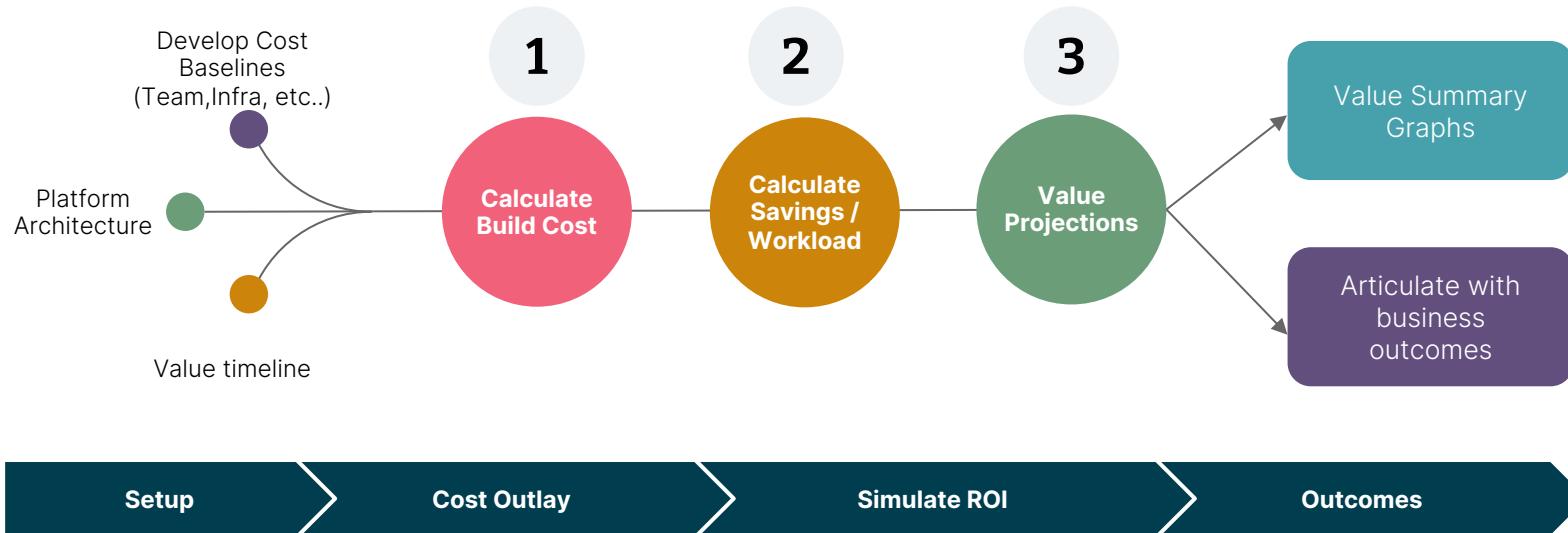
Make right
assumptions

**Quantifying value for technical
platform capabilities is not always
straightforward, value modeling
provides a solid starting point**

Extend and
customize

Make it working
Model

Value Modeling - 3 Step Process



Value Modeling Demo Use Case



Business Context: ABC corporation considering adopting microservice architecture to support their exponential growth



Problem Statement: Diverse implementations across product engineering teams. Some teams own their cloud infrastructure and others rely on OPs team



Opportunity: Building a container orchestration platform to help reduce the cognitive load abstract away the complexity



Solution: Platform architecture chose AKS to be the base solution for the platform



Investment range: \$1 to \$3M



Value expected: \$5 to \$10M



Pre-requisites:

1. Proposed Team size required
2. Infra and licencing needs
3. Measurement criteria
4. Timeline for realizing the value
5. Required cost data

Step #1 - Calculate Build Cost

Month			1	2	3	4	5	6
Build Cost								
Component	Criteria/Measure	Assumptions						
Dev Team (Contractor count)		Team size deployed for product development	4	4	4	4	4	4
Dev Team (FTE count)		Team size deployed for product development	2	2	2	2	2	2
Cost - Dev Efforts			\$102,400.00	\$102,400.00	\$102,400.00	\$102,400.00	\$102,400.00	\$102,400.00
Infra (cloud and other)		Includes cloud costs (Increases over time)	\$0.00	\$27.20	\$27.20	\$54.40	\$68.00	\$136.00
Licensing	Total license costs for all of the software involved	Costs incurred per month	\$0.00	\$0.00	\$100.00	\$100.00	\$10.00	\$100.00
Other (recurring SaaS, Support etc..)			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Build Cost - Total			\$102,400.00	\$102,427.20	\$102,527.20	\$102,554.40	\$102,478.00	\$102,636.00
Build Cost - Cumulative			\$102,400.00	\$204,827.20	\$307,354.40	\$409,908.80	\$512,386.80	\$615,022.80

Step # 2 - Calculate Savings Per Workload

Component	Wthout Product Capability	%Reduction	With Product Capability	Savings (Monthly)	Assumptions
Upfront Dev Effort	\$20,000	50%	\$10,000	\$278	W/O - 1 Dev 2 Sprints W - 1 Dev 1 Sprint
Maintenance & Support - (IaC/CaC)	\$0	33%	\$0	\$0	W/O - 3 days per month W - 1 day per month
Maintenance & Support - (Ops)	\$6,800	80%	\$1,360	\$4,352	20% of the teams
Down time costs	\$2,000	80%	\$400	\$1,600	
Lost opportunity			\$0	\$0	
			\$0	\$0	
Infra cost	\$300	80%	\$60	\$240	Monthly Infra bill
Licensing Cost	\$100	100%	\$0	\$100	Monthly
Total Savings				\$6,570	per month/per workload

Step # 3 - Projected Value - Year 1

Month	1	2	3	4	5	6	7	8	9	10	11	12
Projected Value												
Projected Savings												
Best Case Adoption Rate	0	0	0	0	0	0	0	0	0	1	2	5
Best Case Savings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$6,701.78	\$16,754.44	
Best Case Savings - Cumulative	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$10,052.67	\$26,807.11	
Average Case Adoption Rate	0	0	0	0	0	0	0	0	0	1	1	1
Average Case Savings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$3,350.89	\$3,350.89	
Average Case Savings - Cumulative	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$6,701.78	\$10,052.67	
Worst Case Adoption Rate	0	0	0	0	0	0	0	0	0	1	1	1
Worst Case Savings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$3,350.89	\$3,350.89	
Worst Case Savings - Cumulative	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,350.89	\$6,701.78	\$10,052.67	
Projected Value - Best Case	-\$102,400.00	-\$204,827.20	-\$307,354.40	-\$409,908.80	-\$512,386.80	-\$615,022.80	-\$698,526.80	-\$782,030.80	-\$865,534.80	-\$945,687.91	-\$1,022,490.13	-\$1,089,239.69
Projected Value - Average Case	-\$102,400.00	-\$204,827.20	-\$307,354.40	-\$409,908.80	-\$512,386.80	-\$615,022.80	-\$698,526.80	-\$782,030.80	-\$865,534.80	-\$945,687.91	-\$1,025,841.02	-\$1,105,994.13
Projected Value - Worst Case	-\$102,400.00	-\$204,827.20	-\$307,354.40	-\$409,908.80	-\$512,386.80	-\$615,022.80	-\$698,526.80	-\$782,030.80	-\$865,534.80	-\$945,687.91	-\$1,025,841.02	-\$1,105,994.13

Assumptions:

Starts with PILOT phase and ramp up with Early adaptors and General Availability. Given the capability will mature over time, value will be incrementally higher as the capability matures. Used 50% for Year 1, 75% Year 2 and 100% for Year 3

Criteria/Measure:

Number of workloads deployed

Varies based on the product,
Ex. criteria:

Number of workloads/services
Percentage of adoption
Number of pipelines/dashboards

Step # 3 - Track Realized Value

Month	1	9	10	11	12	13	14	15	16	17
Actual Value										
Realized Savings										
Adoption rate - Realized	0	0	3	4	5	8	8	10	15	20
Total Savings - Realized	\$0.00	\$0.00	\$10,052.67	\$13,403.56	\$16,754.44	\$40,210.67	\$40,210.67	\$50,263.33	\$75,395.00	\$100,526.67
Total Savings - Realized - Cumulative	\$0.00	\$0.00	\$10,052.67	\$23,456.22	\$40,210.67	\$80,421.33	\$120,632.00	\$170,895.33	\$246,290.33	\$346,817.00
Realized Value	-\$102,400.00	-\$865,534.80	-\$938,986.13	-\$1,009,086.58	-\$1,075,836.13	-\$1,087,197.47	-\$1,098,558.80	-\$1,099,867.47	-\$1,076,044.47	-\$1,027,089.80

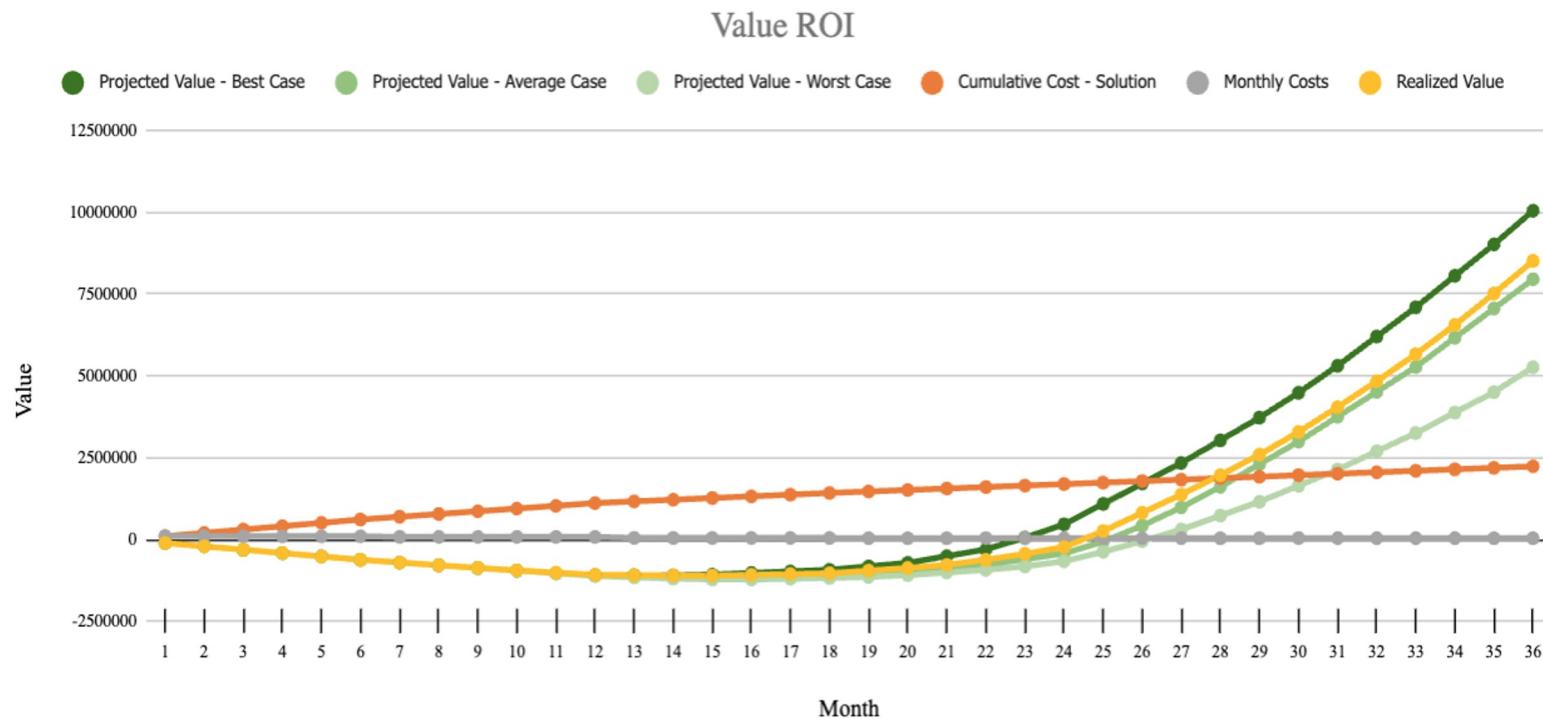
Outcome - Value Summary

Container Orchestration Platform

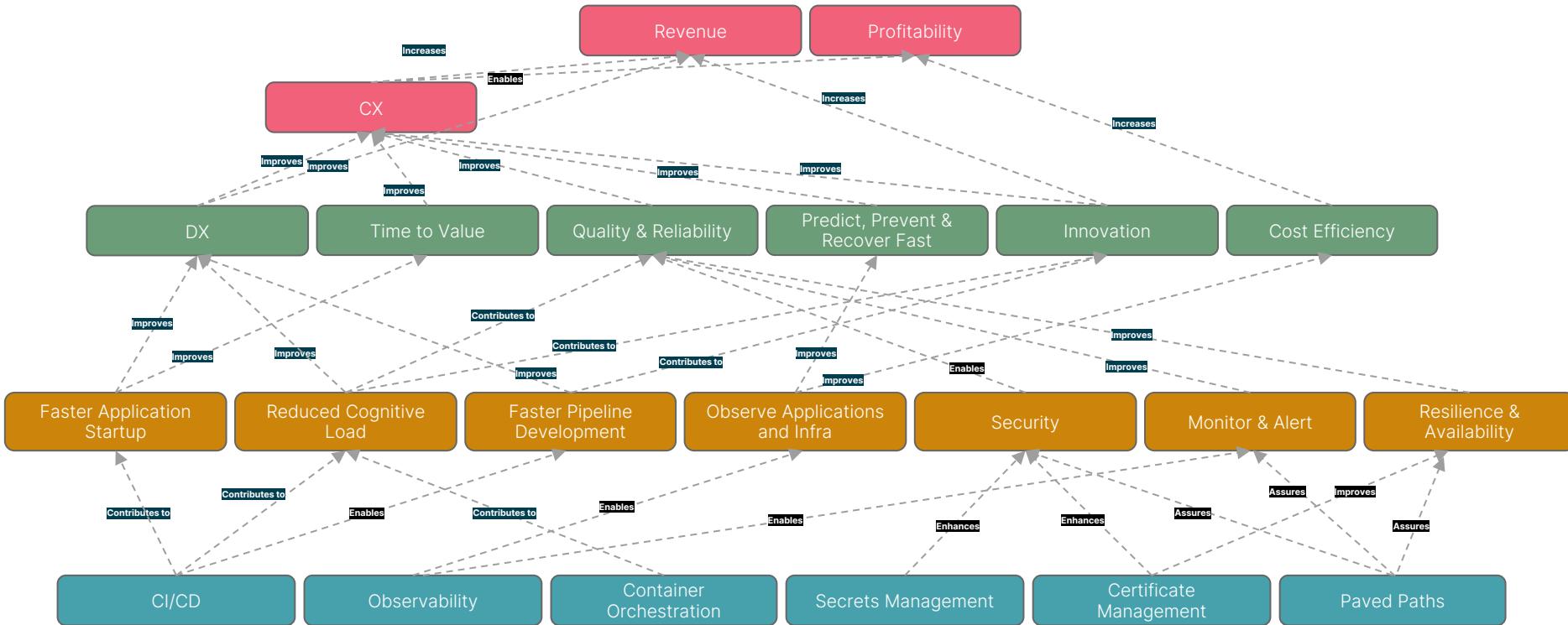
A Kubernetes platform that will provide a fully managed, secure and scalable platform that will enable product teams to quickly deploy, run and scale their workloads

Total Projected Cost in 3 Years	~ 2 Mil		
Total Projected Value in 3 Years	~ 10 Mil		
	Year 1	Year 2	Year 3
Investment (Build Cost)	\$1,116,046.80	\$1,696,510.80	\$2,238,574.80
Projected Value - Average case	-\$1,105,994.13	-\$419,822.13	\$7,951,478.31
Projected Value - Worst case	-\$1,105,994.13	-\$661,086.13	\$5,264,065.42
Projected Value - Best case	-\$1,089,239.69	\$466,487.98	\$10,044,108.42

Outcome - Value Summary



Connecting to business outcomes



Platform Value Metrics (PVM)

Platform Value Metrics are key metrics emanating from the Platform Value Model we propose:

Improved Cost Efficiency

Drive growth with faster experimentation

Improved Developer Experience

1

**Value to Cost Ratio
(VCR)**

Projected Value / Cost

Sensible Default 2
Target
/ 3 years

**Innovation Adoption Rate
(IAR)**

YoY Growth= (Adoption Last Year - Adoption This Year) /Adoption Last Year ×100

Sensible Default 10%
Target
30% / 3 years

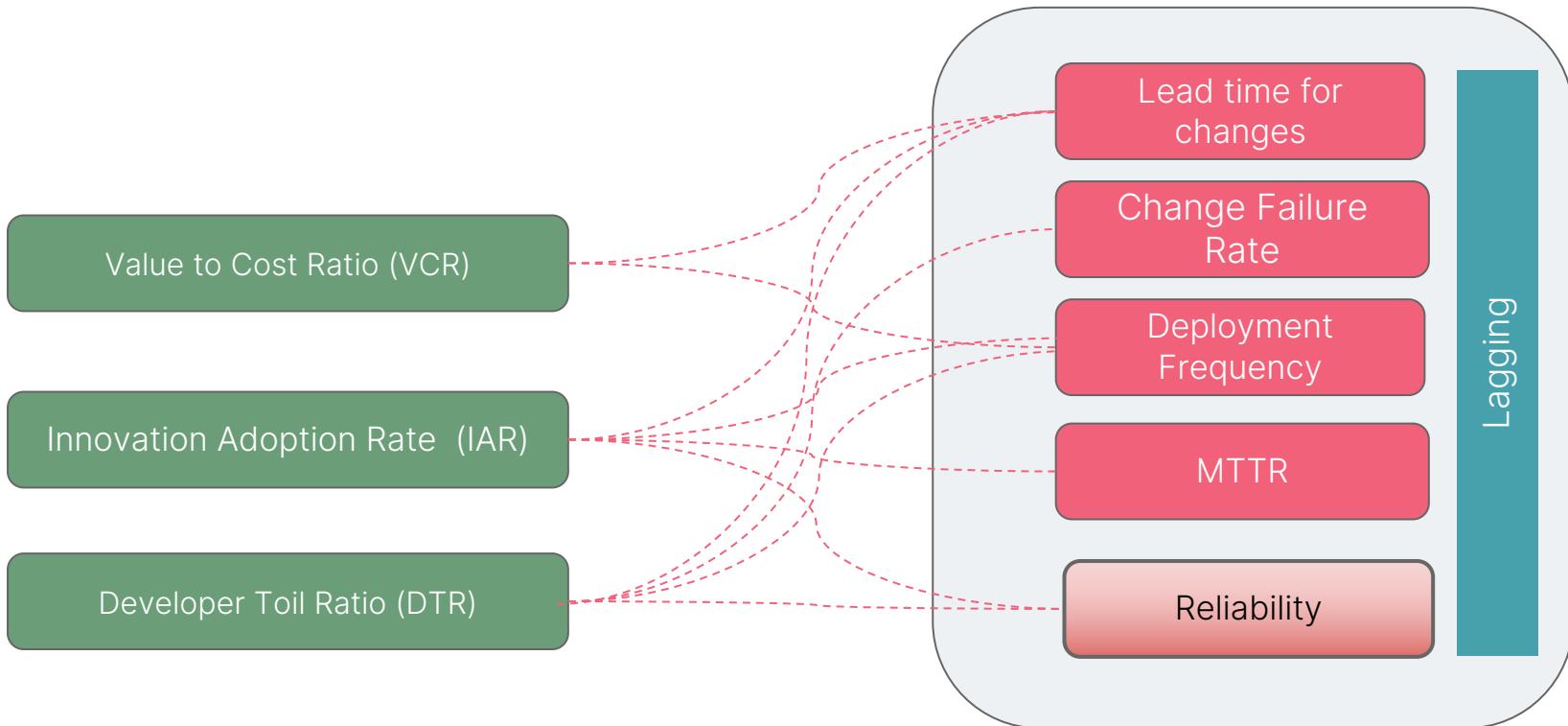
3

**Developer Toil Ratio
(DTR)**

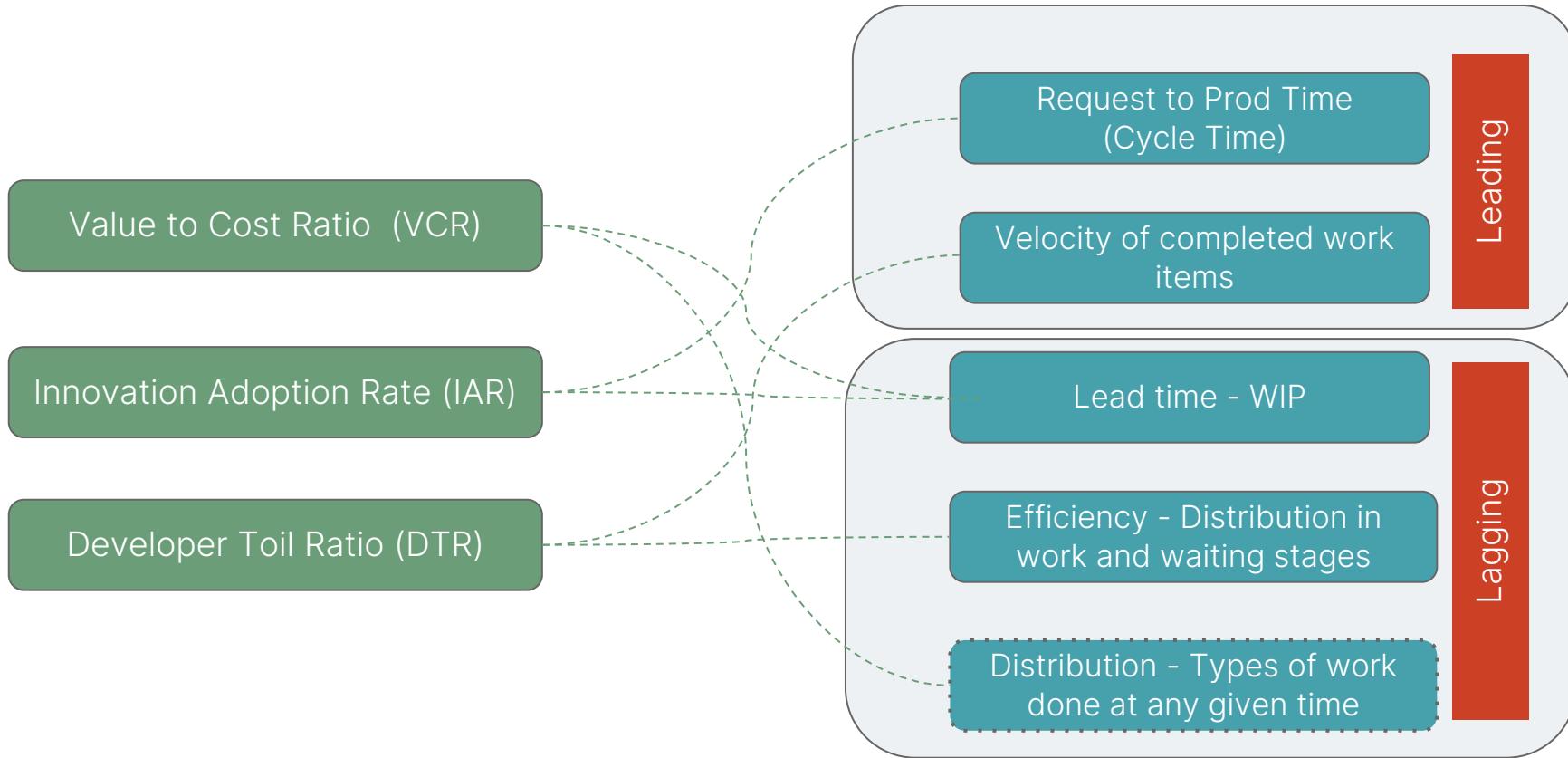
Total Time on Toil / Total Time on Feature Development

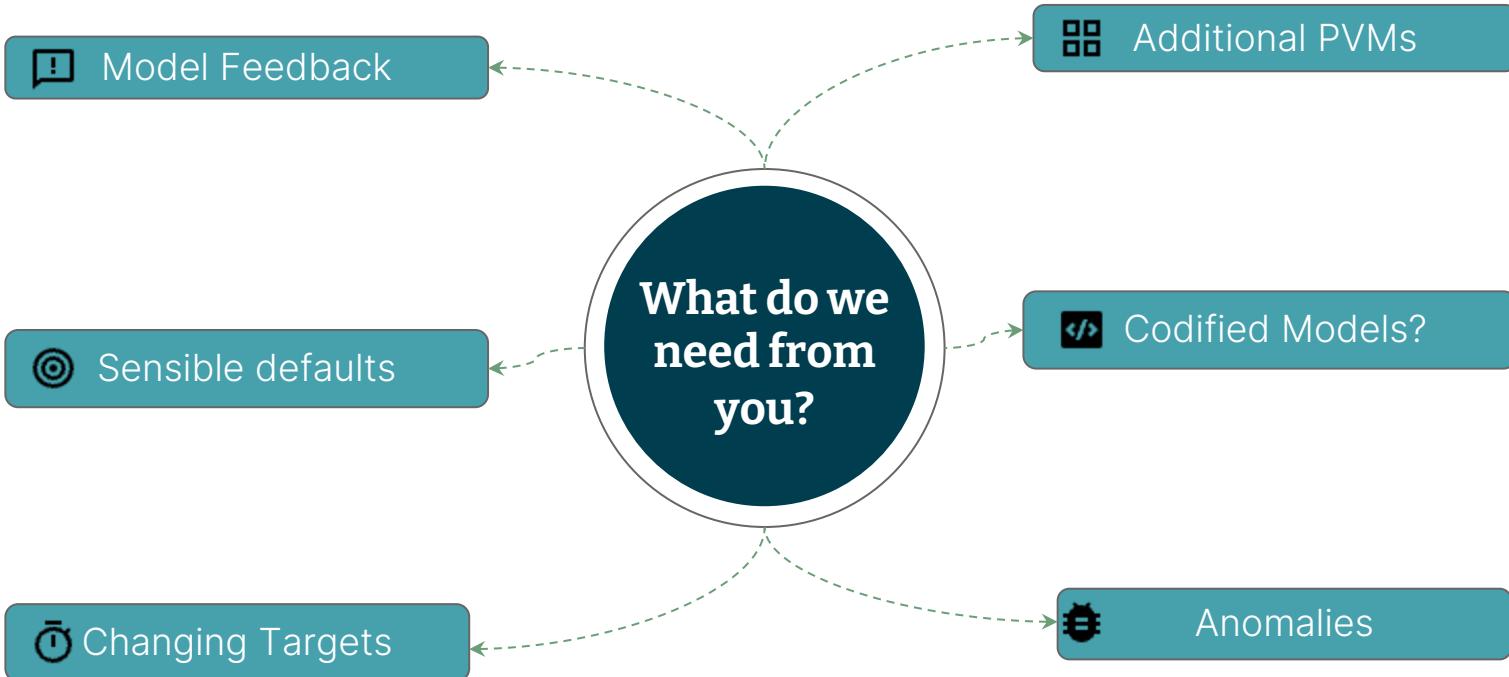
Sensible Default < 30%
Target
<10%

PVM in the context of DORA4 + 1



PVM in the context of Flow Metrics





Questions/More Information?



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