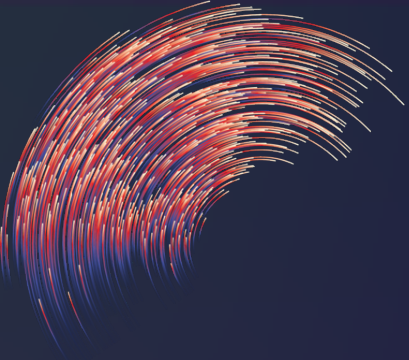




Accelerating towards Serverless First with the Value Flywheel Effect.

David Anderson – Architect, G-P



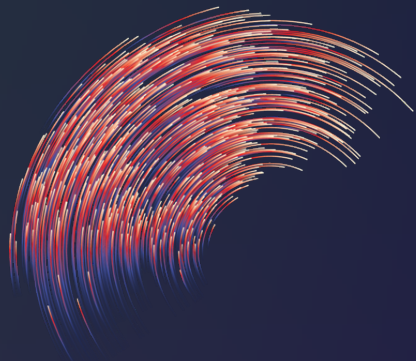
Cloud Migration

Is followed by

Modernization

with The Serverless Mindset





Journey started in 2013

1/ AWS as a partner

2/ Driving Serverless-First – “Code is a liability”

3/ Build Well

4/ Autonomy

The Second Transformation – “Modernization”

<https://aws.amazon.com/solutions/case-studies/liberty-mutual-case-study>



Liberty Mutual.
INSURANCE

Liberty Mutual Reduces Costs, Improves Time to Market by Going Serverless on AWS

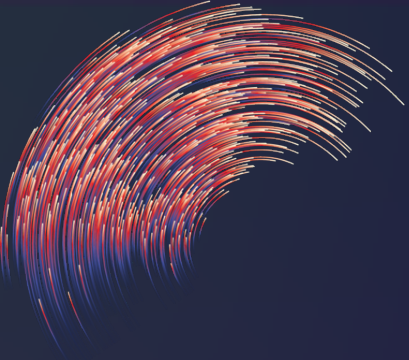
2021

To achieve its goal of becoming a global digital company, major insurance provider [Liberty Mutual](#) focused on three main areas of digital transformation: customer centricity, agility, and cloud-native development. To that end, the company made a strategic business decision to pursue a serverless-first approach—a move designed to give it an edge in a competitive, global, and increasingly digital market. Liberty Mutual used Amazon Web Services (AWS) to migrate the company's on-premises systems to the cloud to modernize and drive companywide transformation.

By using serverless architecture and letting AWS handle infrastructure management tasks like capacity provisioning and patching, Liberty Mutual reduced its operational burden and realized substantial cost savings. The company also used serverless solutions so that it could rapidly build more agile, high-quality applications. By eliminating operational overhead, serverless architecture facilitates experimentation, empowering teams to release quickly, get feedback, and iterate to get to market faster.

“Going serverless accelerated our engineering teams,” says Dave Anderson, director of technology at Liberty Mutual. “The more we experimented with a serverless mind-set, the more we started to see a flywheel effect where we could deliver value into the hands of our business partners quickly.”





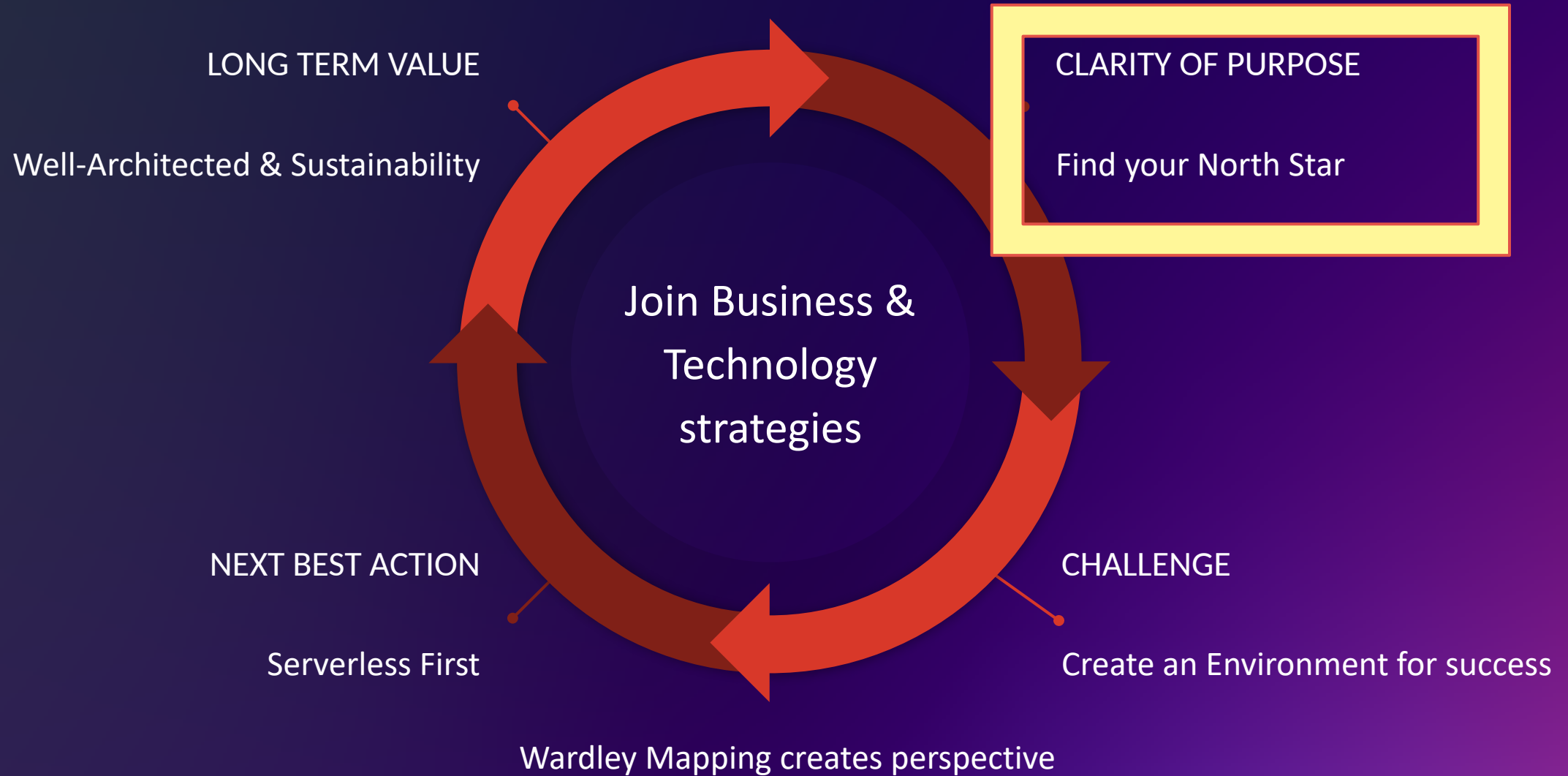
The Value Flywheel

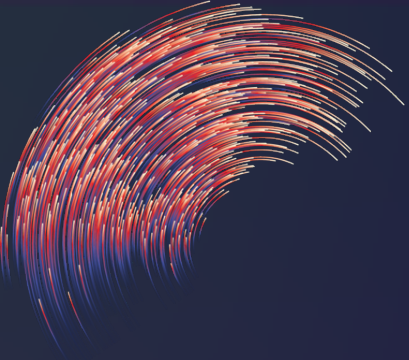


The Value Flywheel



The Value Flywheel





The Value Flywheel



The Value Flywheel



The Value Flywheel

LONG TERM VALUE
Well-Architected & Sustainability

Join Business &
Technology
strategies

CLARITY OF PURPOSE

Find your North Star

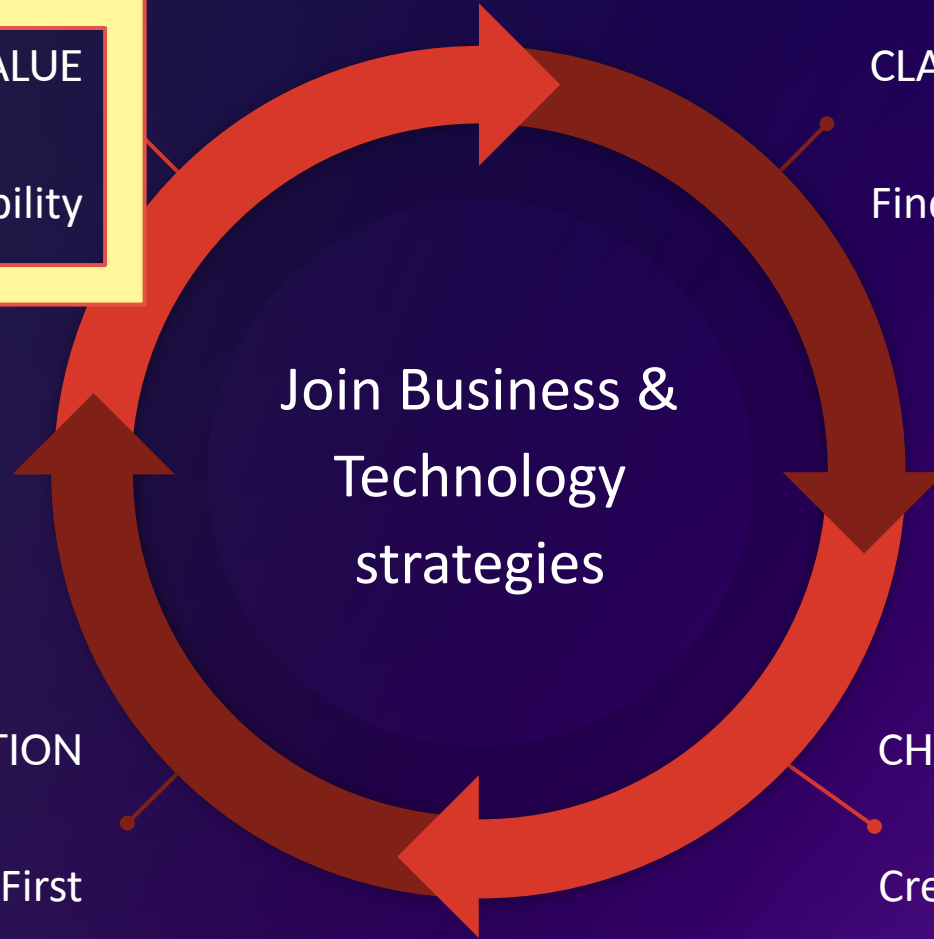
CHALLENGE

Create an Environment for success

NEXT BEST ACTION

Serverless First

Wardley Mapping creates perspective





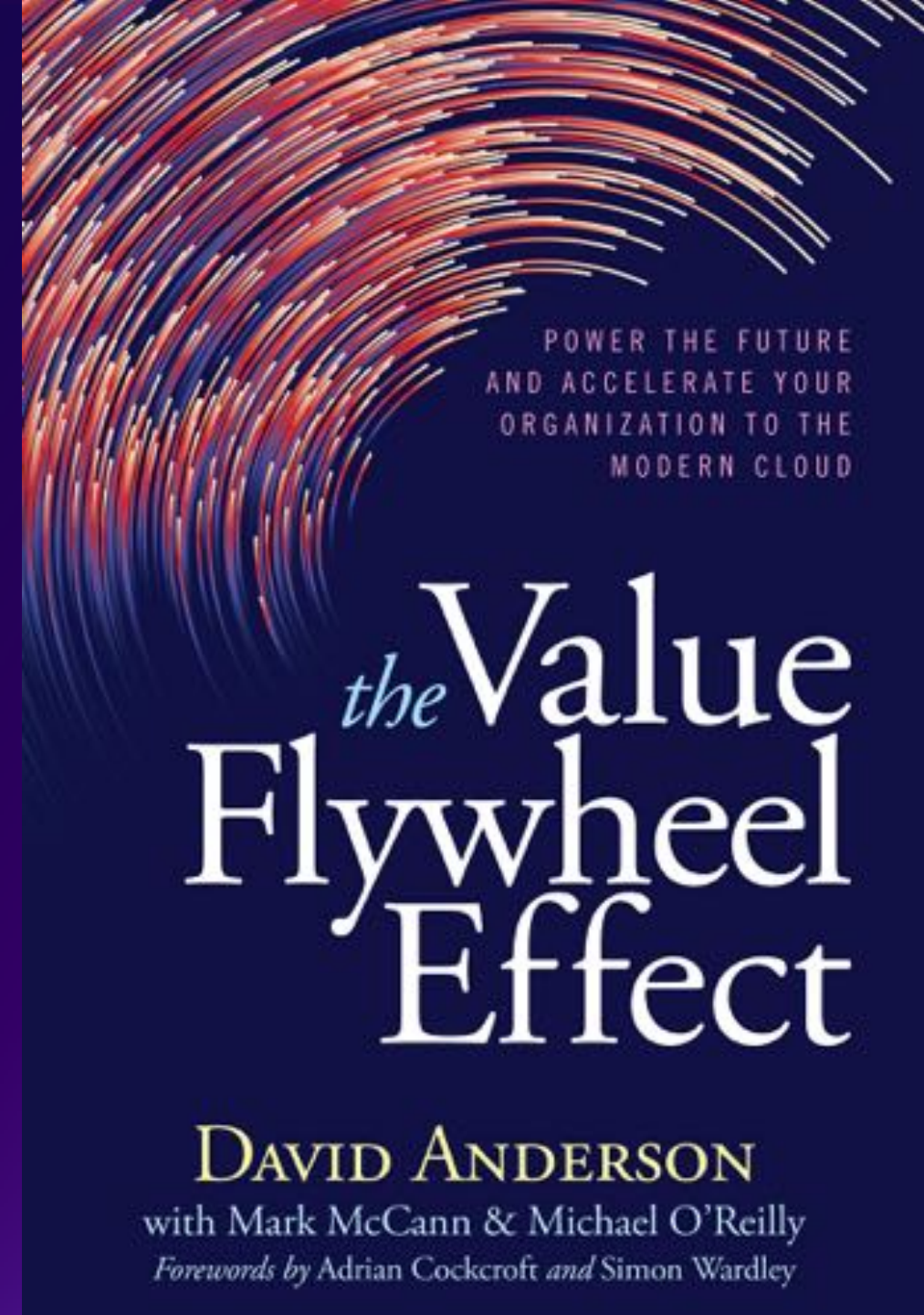
David Anderson



Mark McCann



Michael O'Reilly

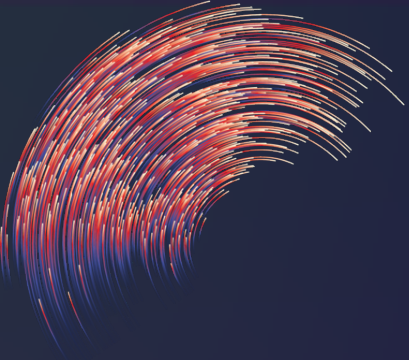




Serverless-First,
not Serverless-Only.

Only a Sith deals in
absolutes





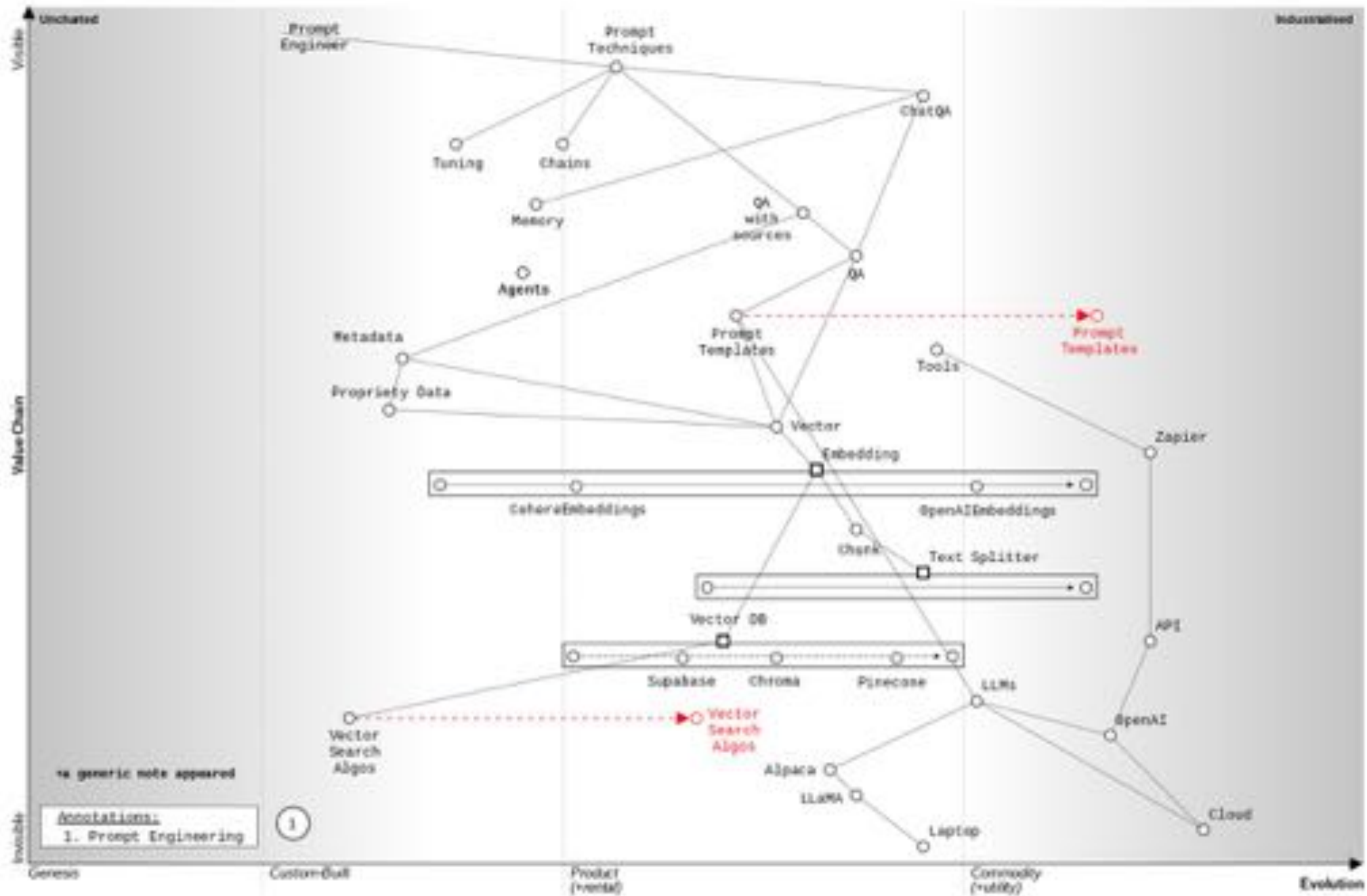
The Value Flywheel



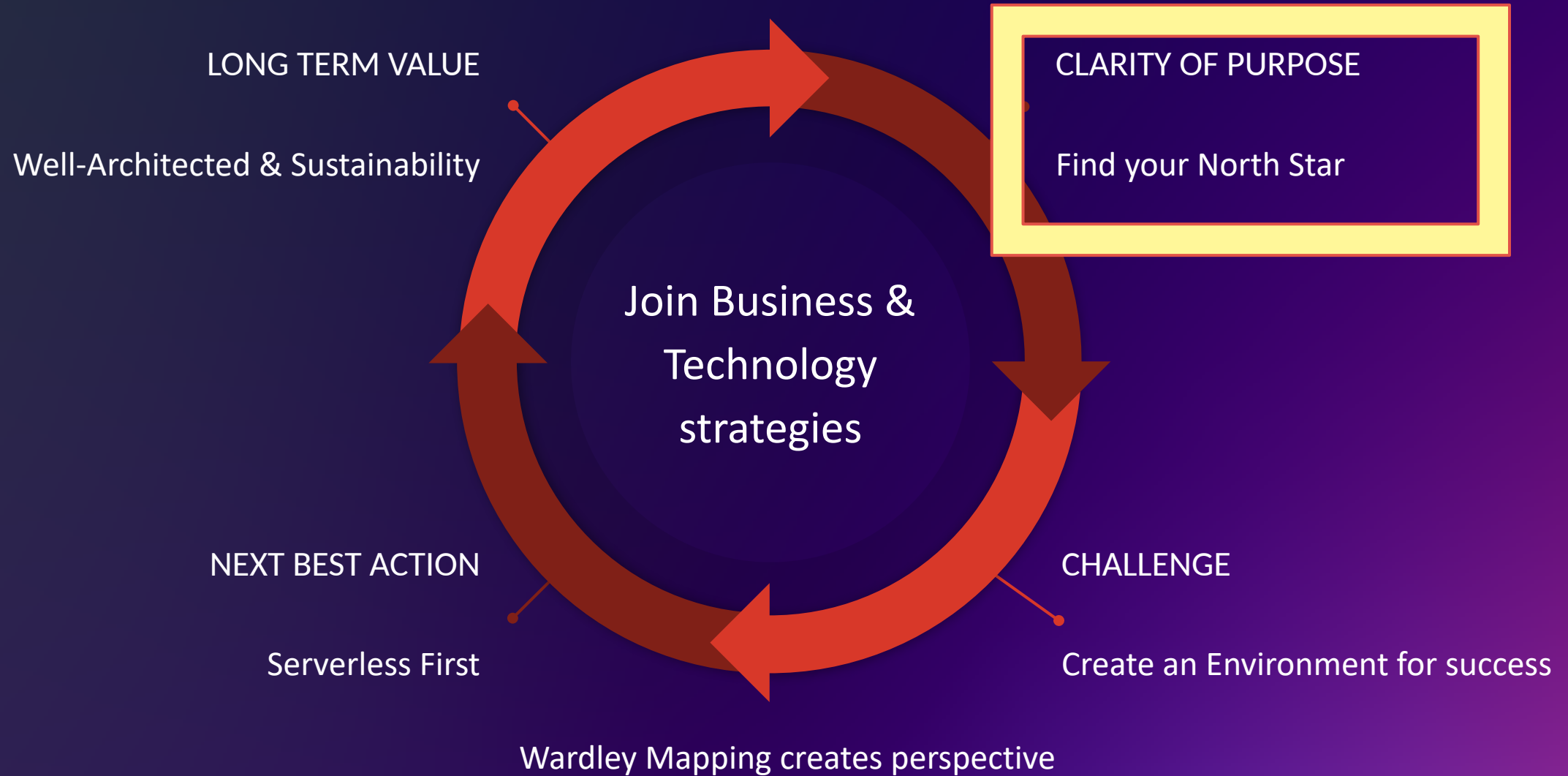


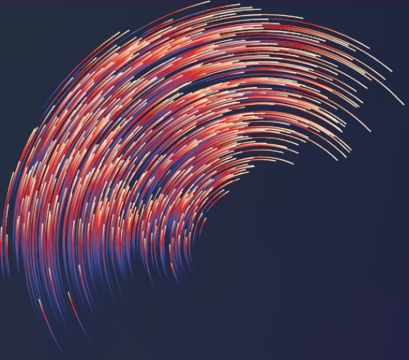
How did a few
engineers figure this
out?
Wardley
Mapping.





The Value Flywheel

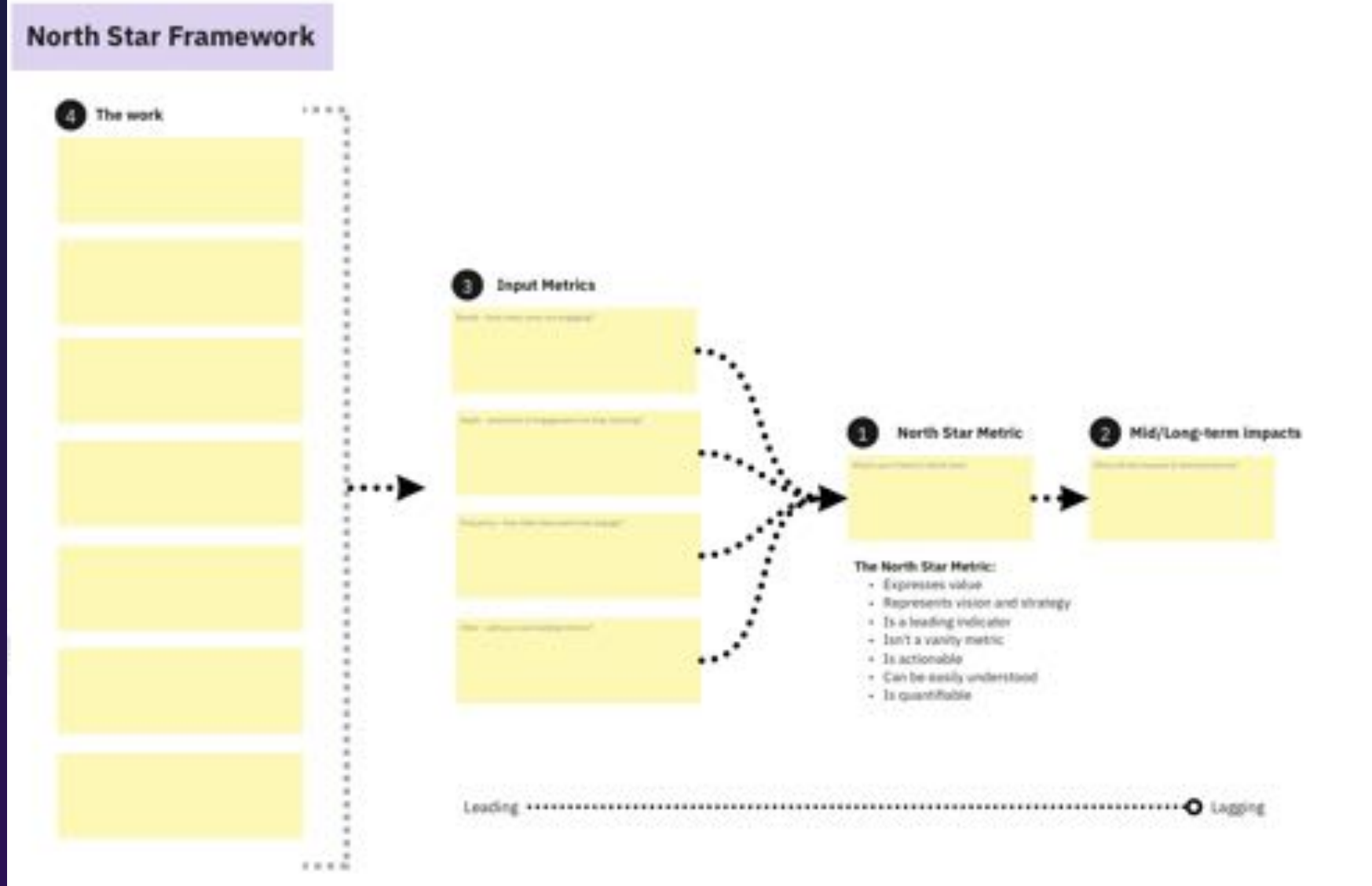




North Star Framework

From Amplitude

Who are your Users?
What are their needs?
What is the scope?
What's the supply chain?
Invisible dependences?
What is evolving?



The background features a series of concentric, slightly irregular lines in shades of red and blue, creating a tunnel-like or ripple effect. These lines are set against a smooth gradient background that transitions from a dark purple on the left to a lighter, more vibrant purple on the right.

We are the business.

Metrics that matter

Business
Goal

Technology
Goal

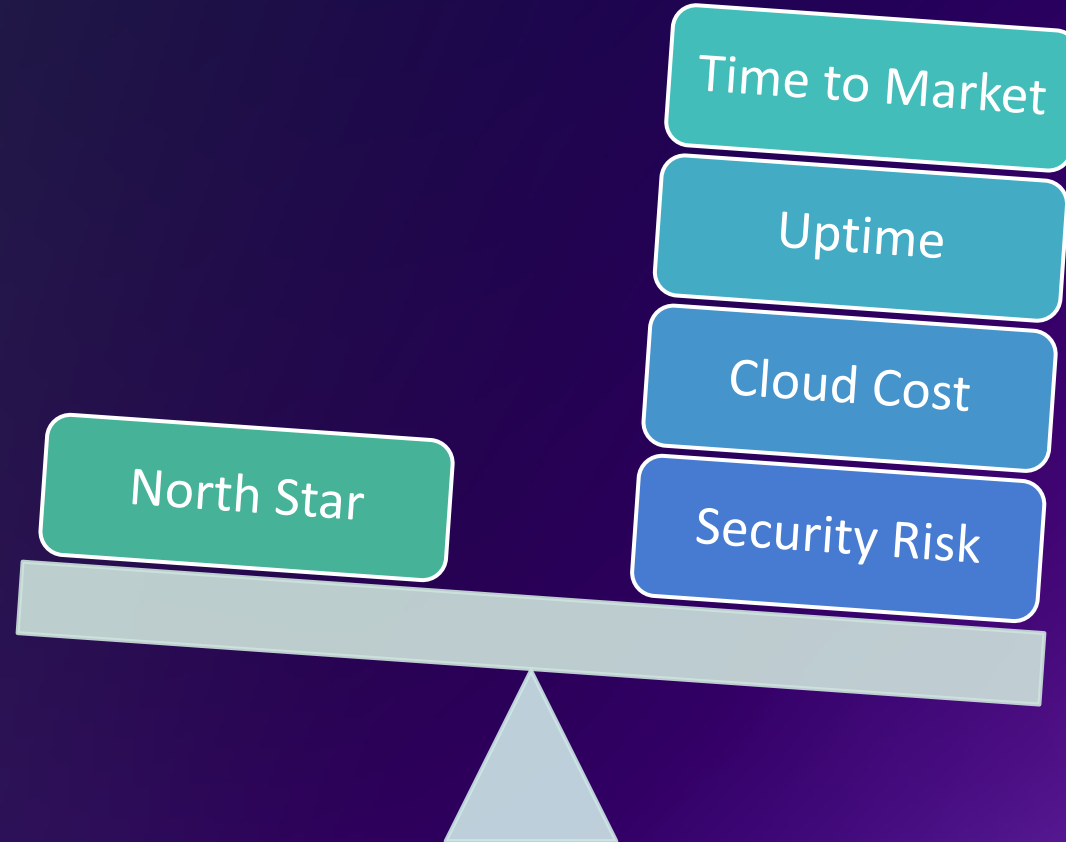
Time to Market

Uptime

Cloud Cost

Security Risk

North Star



An abstract graphic featuring a large, curved, brush-stroke-like shape in shades of red, orange, and yellow, set against a dark blue background. The shape is composed of many fine, overlapping lines, giving it a dynamic, energetic feel. It curves from the top left towards the bottom right, resembling a stylized 'C' or a comet's tail.



The Value Flywheel





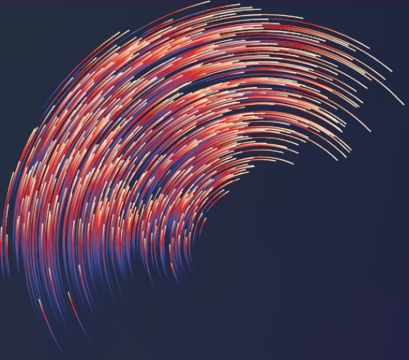
Remote work has
changed the
environment
forever.





Your system is
more than code,
it's
sociotechnical.





Taking a wider view of your
tech and teams will help
create an environment for
success.

Consider Team Topologies.

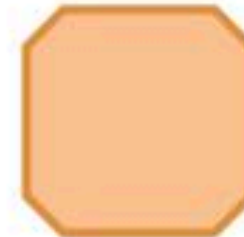
Four Team Types



Stream-aligned
team



Enabling team



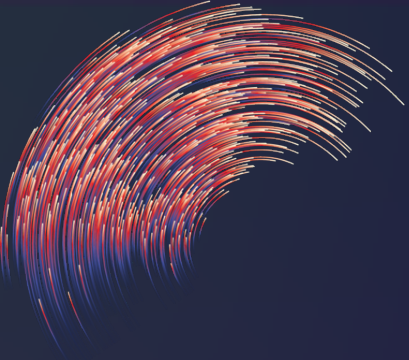
Complicated-
subsystem team



Platform team

The background features a series of concentric, slightly irregular lines in shades of red and blue, creating a tunnel-like or ripple effect. These lines are set against a solid purple background that transitions from a darker shade on the left to a lighter shade on the right.

Create enabling Constraints



Workgrid

Technical strategy

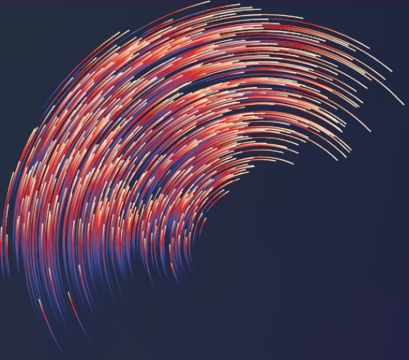
“Got an idea? Try me.”

(Invite challenge)



The Value Flywheel



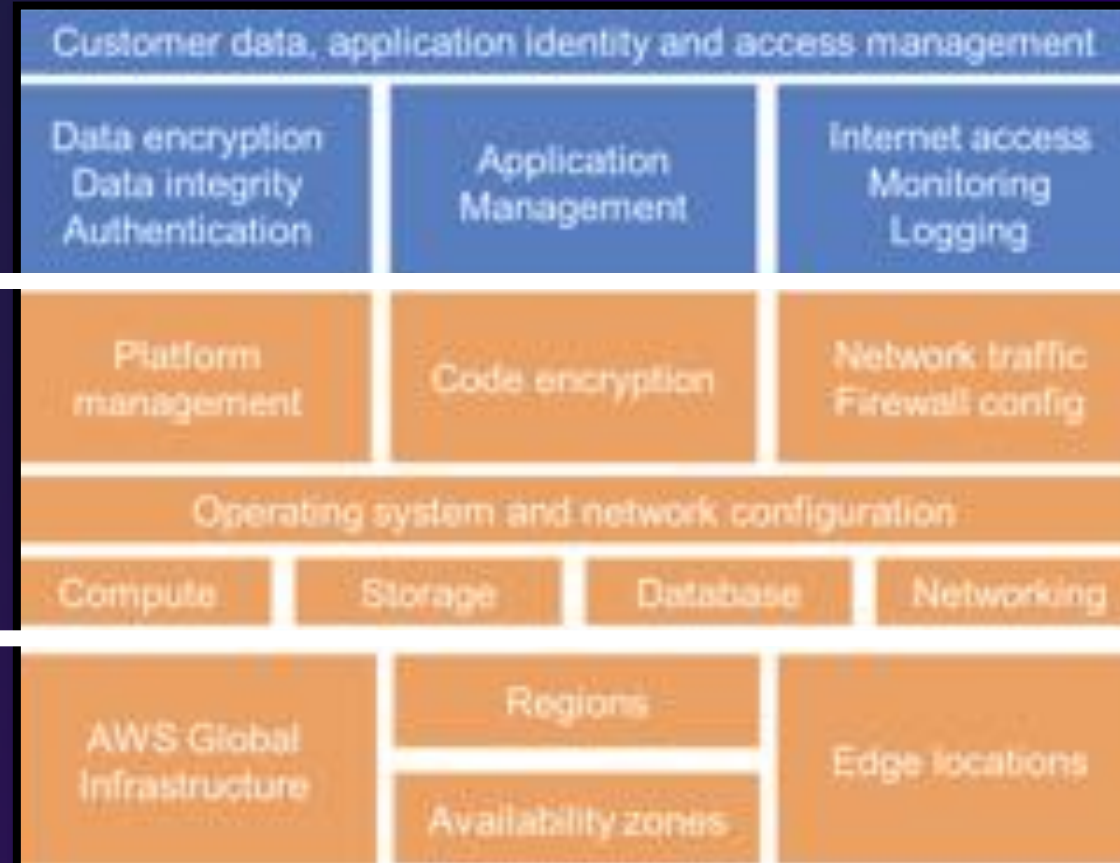


The Shared Responsibility Model

- where do you draw the line?

Modern Cloud Applications –
pushing low-value work to the Cloud.

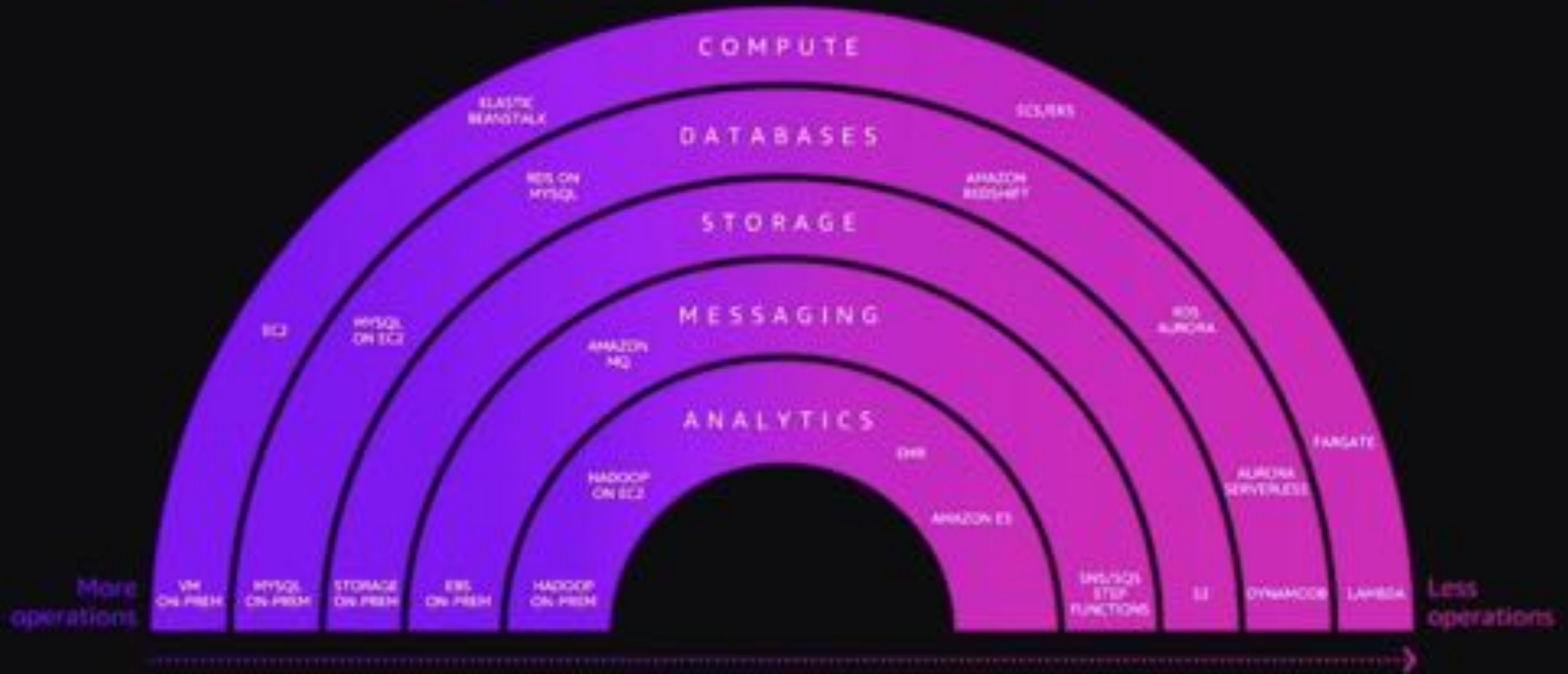
Migrated to the Cloud –
Treating the Cloud like a data centre



<https://aws.amazon.com/modern-apps/>

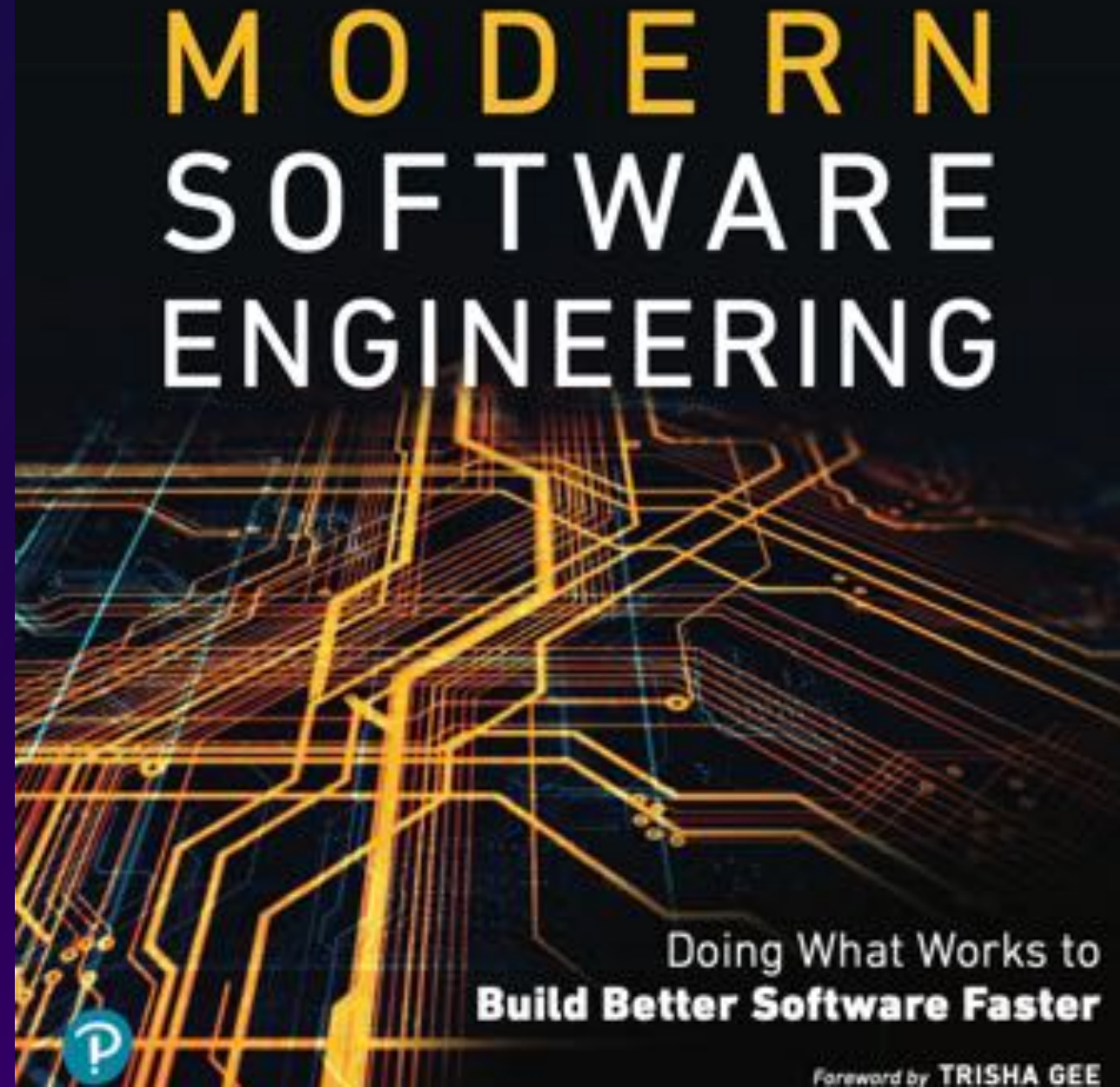
Serverless First

Serverless is an **operational construct**

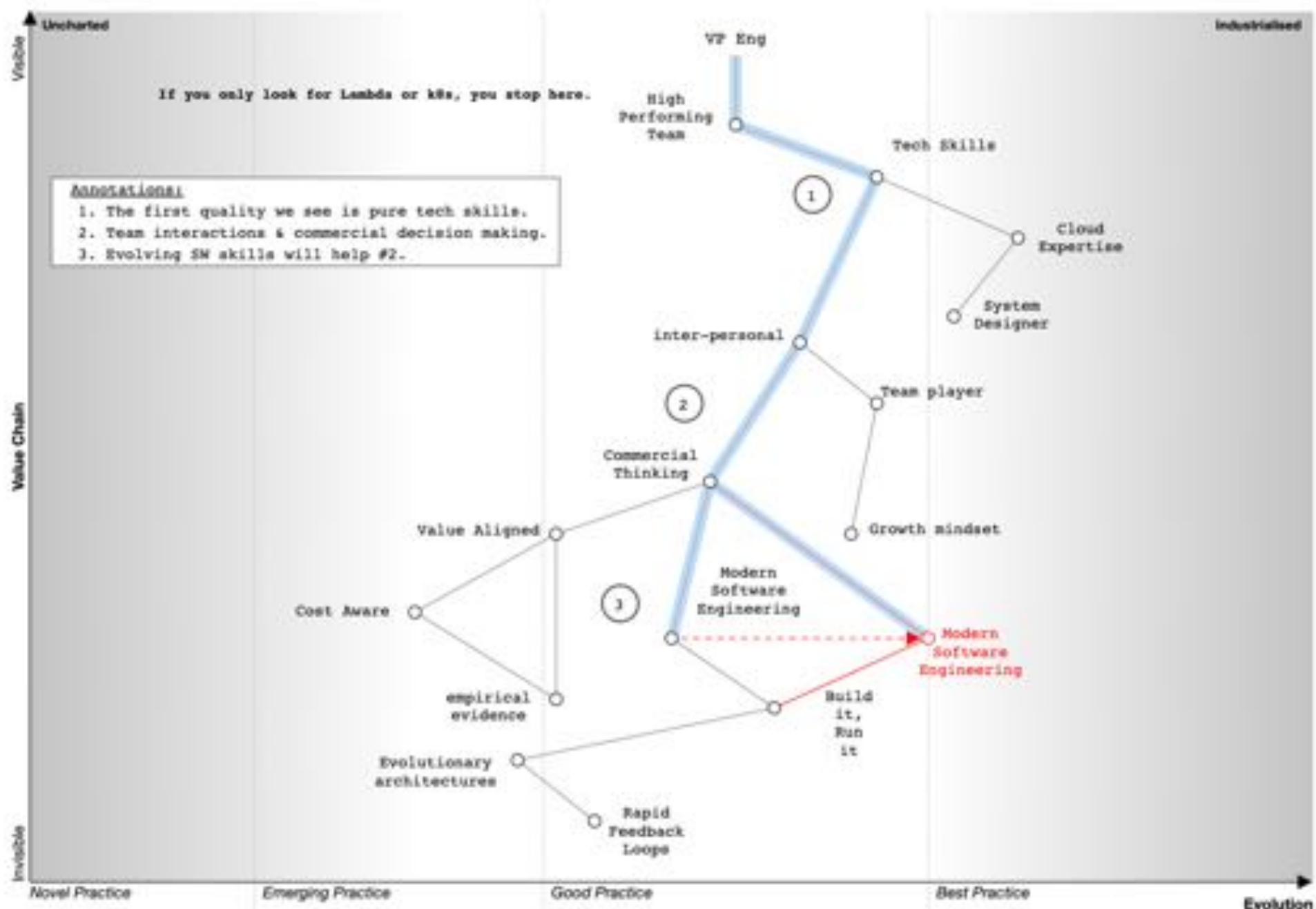


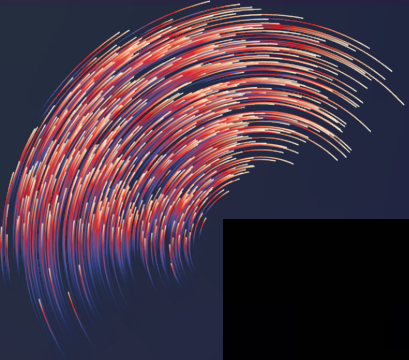
YOUR ENGINEERS ARE...

- Experts with Cloud Principles– even in leadership.
- First class System Designers (EDA?)
- Commercial thinkers – Cost & Value aware, with data.
- Sensible with learning, teaming and inter-teaming.
- A Modern Software Engineer (*nod* Dave Farley):
 - Build it, Run it, Own it.
 - Rapid Feedback Loops.
 - Modular, sense-maker, simplifier.
 - Efficient.



Serverless-First Engineers





driven

The world is **event-driven**

EVENT STORMING

Alberto Brandolini

- INVITE THE RIGHT PEOPLE
- PROVIDE AN UNLIMITED MODELLING TOOL
- A FACILITATOR
- AN ACT OF DELIBERATE COLLECTIVE LEARNING
- SILD BOUNDARY CROSSED
- ALTERNATIVE MODEL EMERGED
- DEEPER INSIGHT ACHIEVED
- VALIDATE IT!
- WRITE A PROTOTYPE

The image displays five mind maps and diagrams illustrating the relationship between financial products and user needs.

Top Left Mind Map: A central node 'Giving' is connected to 'Fast funding!', 'Clear the trust hurdle', 'Timely and accurate', 'We are reputable', 'Direct deposit (first cost)', 'Savings', 'Acquisition', 'See insights and act on them', 'Compare A/C?', 'Forming', 'Actuation achieve A/B test', 'Their budgets', 'Paying and spending', 'Recurring deposits', 'Worse integration', 'Imagined via mobile app', and 'Primary bank?'. A note 'Send from sets of account' is also present.

Top Right Mind Map: A central node 'Giving' is connected to 'Funding', 'Fast funding!', 'Send from sets of account', 'Savings', 'Paying and spending', 'Their budgets', 'Recurring', 'We are reputable', 'Clear the trust hurdle', 'Timely and accurate', 'Security Response', 'Primary bank?', and 'See insights and act on them'. A note 'Imagined via mobile app' is also present.

Bottom Left Diagram: A central node 'We are the primary bank?' is connected to 'Funding Effectiveness' (Speed and variety of sources), 'Understanding and Acting on Insights' (Insights drive spending/saving behavior), 'Financial Life Integration' (They are integrating the bank into different areas of their financial life), 'Trust, Reliability, and Reputation' (They trust it == to other major banks), and 'Conscious Consumer Acquisition' (At or below market costs, The "right" consumer, high LTV).

Bottom Right Diagram: A central node 'We are our primary bank?' is connected to 'Funding Effectiveness' (Better than to 100% secure), 'Understanding and Acting on Insights' (If users, last 7 days, with XBD spending boost), 'Financial Life Integration' (If users with no usage areas in a spending, savings, investment, last 30 days), 'Trust, Reliability, and Reputation' (Qualification for now task, Agree/Like for details), and 'Conscious Consumer Acquisition' (Average CAC, last 30d, <10€).

Bottom Right Note: DRAFT for next meeting!





Engineers with high agency & low barriers

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Well-Architected & Sustainability

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strategies

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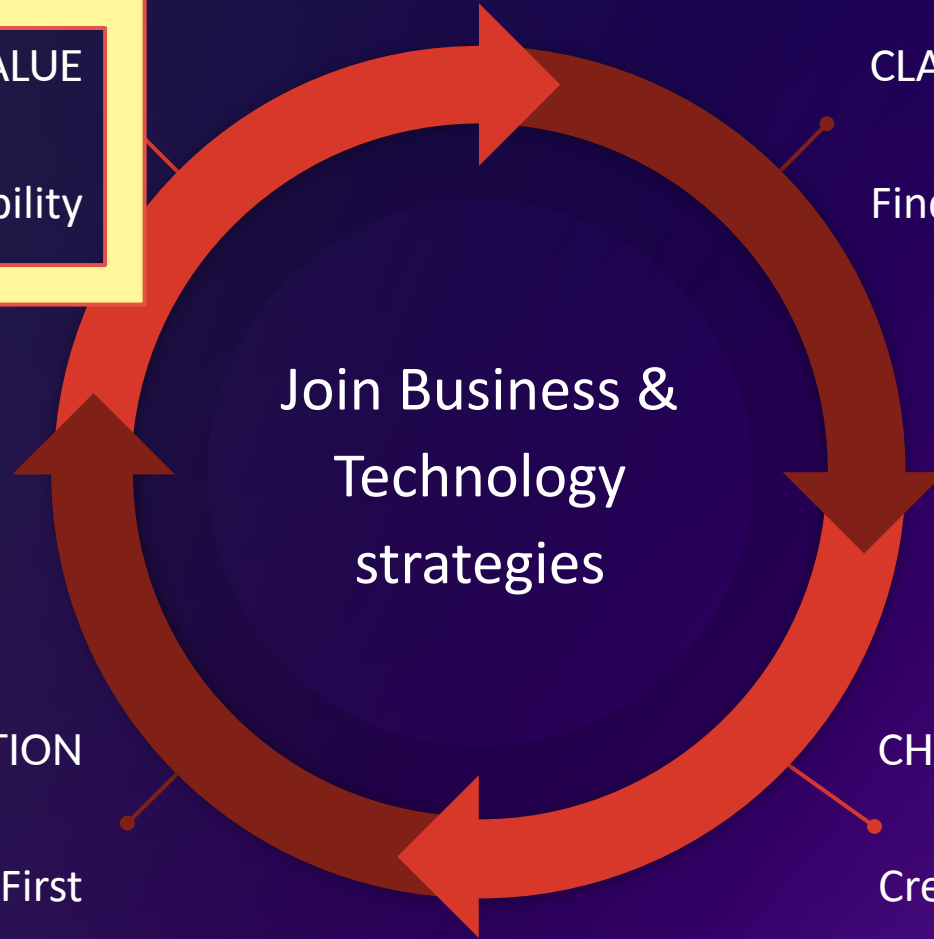
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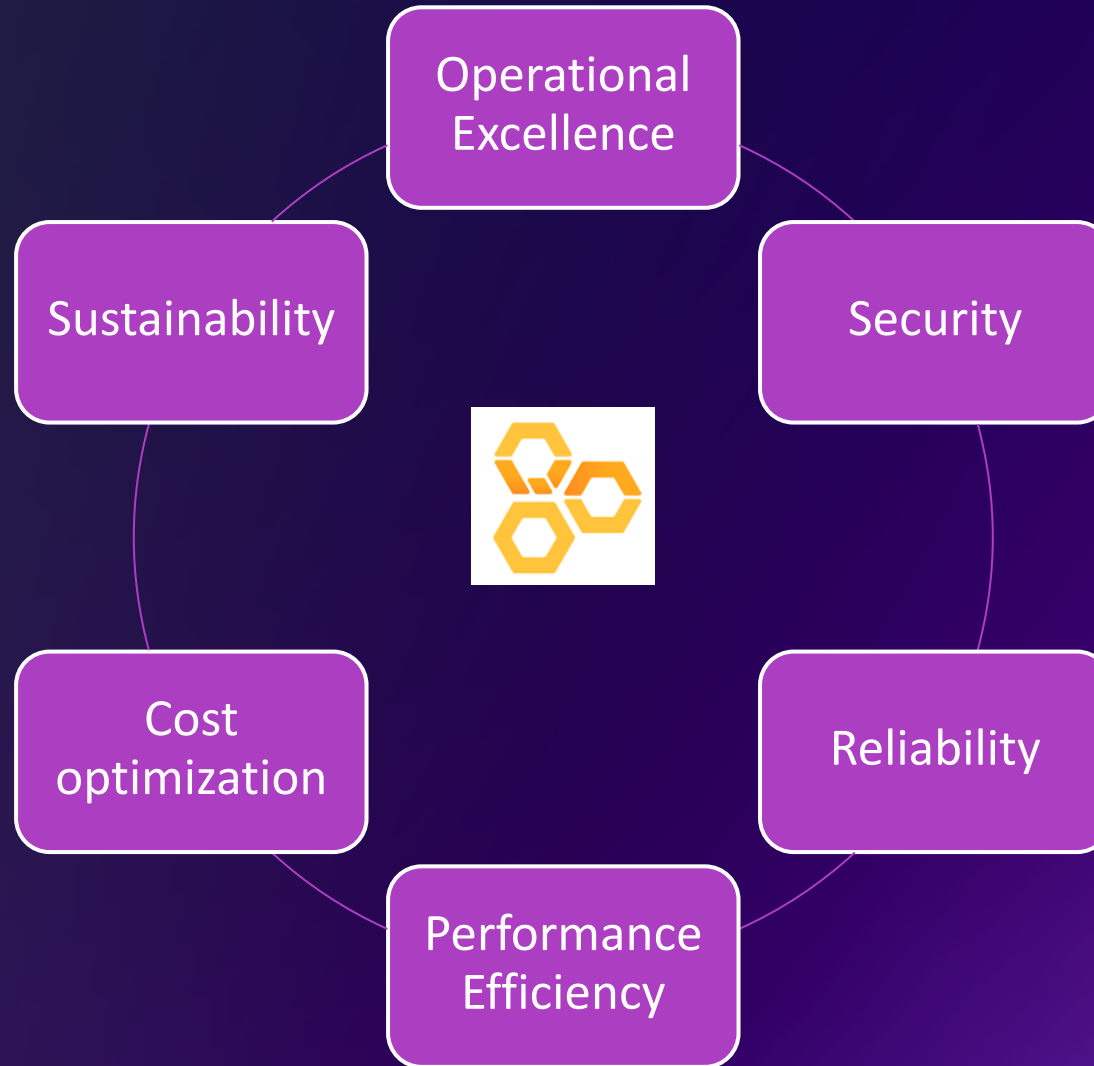
Wardley Mapping creates perspective

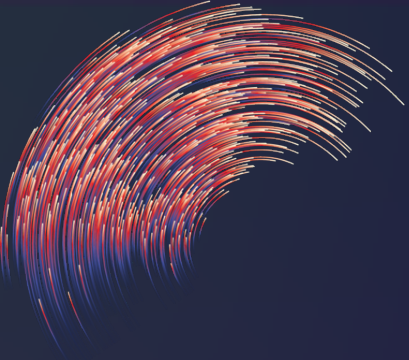


SCORP & Engineering Excellence



Be Well-Architected





SCORP

Business Metrics – transactions/failures/throughput/sales

Security – Threats & mitigations

Cost – per Cloud service

Operational Excellence – DORA metrics

Reliability – Incidents

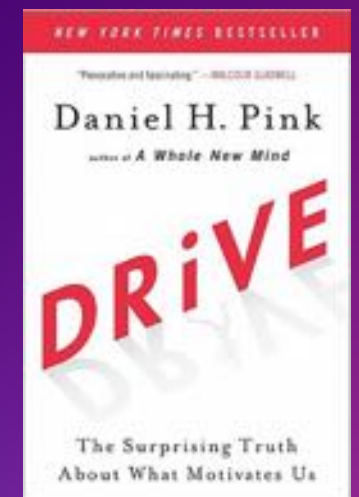
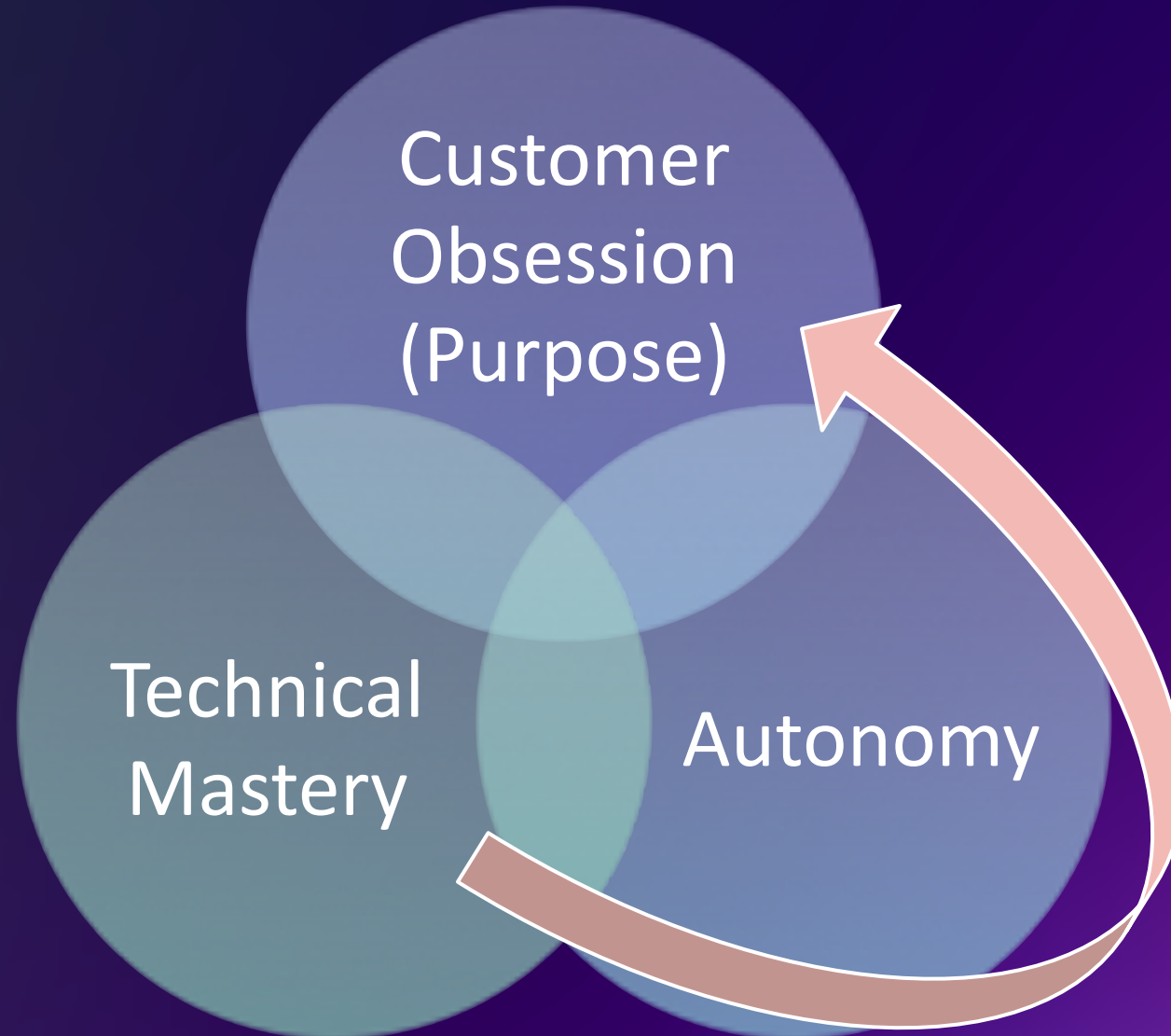
Performance – Errors/ingestion stats/various processing times

Well-Arch Review findings

In a simple wiki page, with trends across every 2 week iteration.

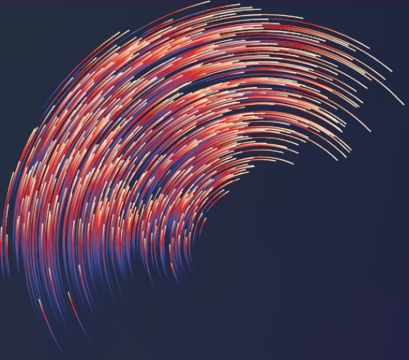


Engineering Excellence



SCORP & Engineering Excellence





BBC running at scale.

<https://medium.com/bbc-product-technology/bbc-online-a-year-with-serverless-ffc2ae474277>

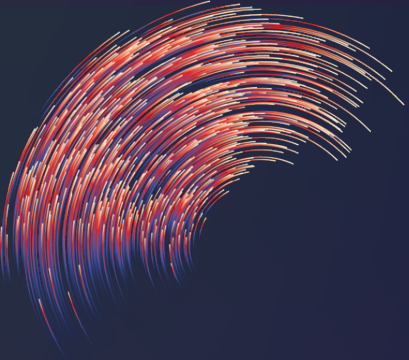


WebCore highlights for February 2022.

In Summary...

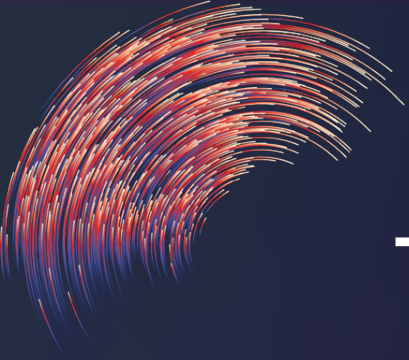
1. Create an atomic habit around Wardley Mapping – sense making!
2. Use North Star to capture needs.
3. Use Team Topologies for the socio-tech picture.
4. Lean into Serverless-First as a concept.
5. Engineering Excellence & SCORP as a heartbeat.





The Value Flywheel





This is not easier,
but it's better.

Create High
Performing teams.





The Value Flywheel Effect book
out now from IT Revolution.



TheServerlessEdge.com Blog



Serverless Craic Channel & Podcast

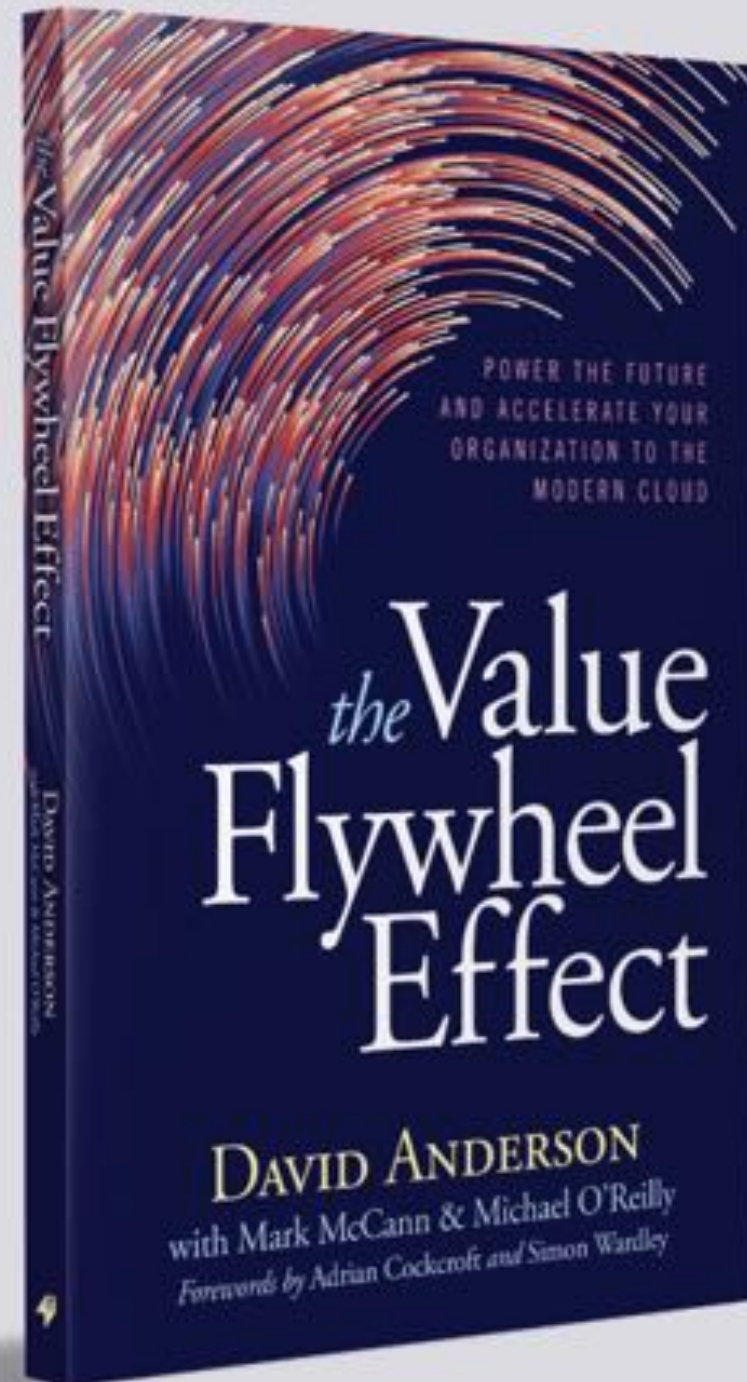


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@serverlessedge



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Thank you!

David Anderson



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david-anderson-belfast