



Using Metrics to Accelerate Value Stream Flow

Making more money, faster

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Agenda

- Why metrics matter
- What metrics matter
- How to get your metrics
- When metrics matter
- Metrics evolution



Helen Beal

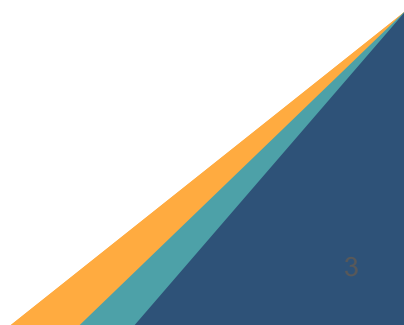
Chief Ambassador

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DevOps and Ways of Working coach, consultant, learning facilitator. Writer, speaker, analyst and strategic advisor.



Why Metrics Matter

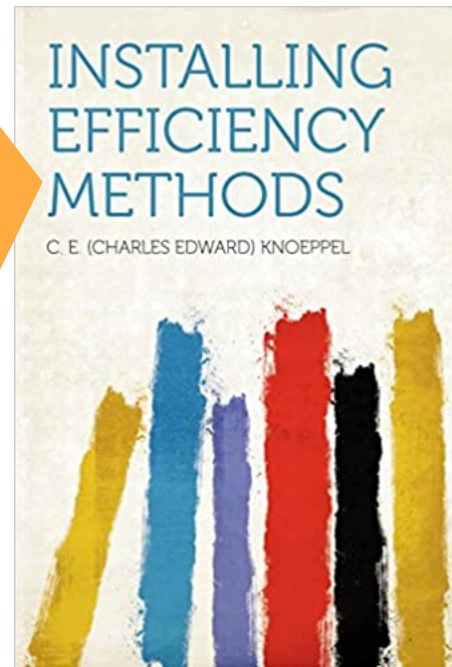




Why Metrics Matter

- We manage what we measure
- They provide insights into improvement opportunities
- They show progress
- A DevOps journey is a big investment – we need to know the return
- The goal is to become, or retain a position, as a high performing organization
- Core to DevOps culture is trust: data is evidence and builds trust

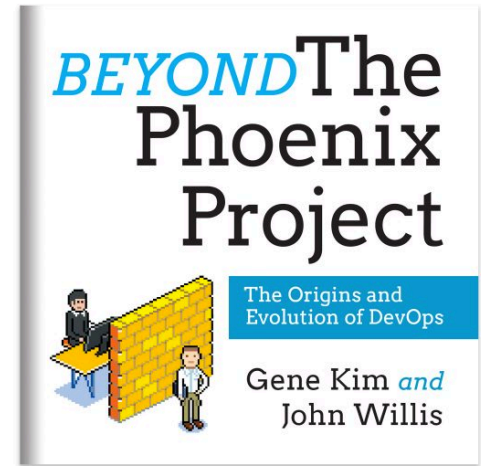
“Without a knowledge of what your work is really costing you, you are in no position to say to what extent your real costs vary from what your work should cost you. You have no gauge on performance. Further, because you don't employ time-study methods and have no definite tasks, you have no means of knowing what performance should be.” 1918





Who Metrics Matter To

“High-velocity managers are not in place to command, control, berate, intimidate, or evaluate through a contrived set of metrics, but to ensure that their organizations become ever more self-diagnosing and self-improving, skilled at detecting problems, solving them, and multiplying the effect by making the solutions available throughout the organization.”
Dr. Stephen Spear





What Metrics Matter





Aspect of Software Delivery Performance*	Elite	High	Medium	Low
Deployment frequency For the primary application or service you work on, how often does your organization deploy code to production or release it to end users?	On-demand (multiple deploys per day)	Between once per day and once per week	Between once per week and once per month	Between once per month and once every six months
Lead time for changes For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code committed to code successfully running in production)?	Less than one day	Between one day and one week	Between one week and one month	Between one month and six months
Time to restore service For the primary application or service you work on, how long does it generally take to restore service when a service incident or a defect that impacts users occurs (e.g., unplanned outage or service impairment)?	Less than one hour	Less than one day ^a	Less than one day ^a	Between one week and one month
Change failure rate For the primary application or service you work on, what percentage of changes to production or released to users result in degraded service (e.g., lead to service impairment or service outage) and subsequently require remediation (e.g., require a hotfix, rollback, fix forward, patch)?	0-15% ^{b,c}	0-15% ^{b,d}	0-15% ^{c,d}	46-60%





Velocity

Flow Velocity is the number of flow Items of each type completed over a particular period of time - also referred to as throughput

Distribution

Flow Distribution measures the ratio of the four Flow Items completed over a particular window of time

Time

Flow Time measures the time it takes for Flow Items to go from 'work start' to 'work complete', including both active and wait times

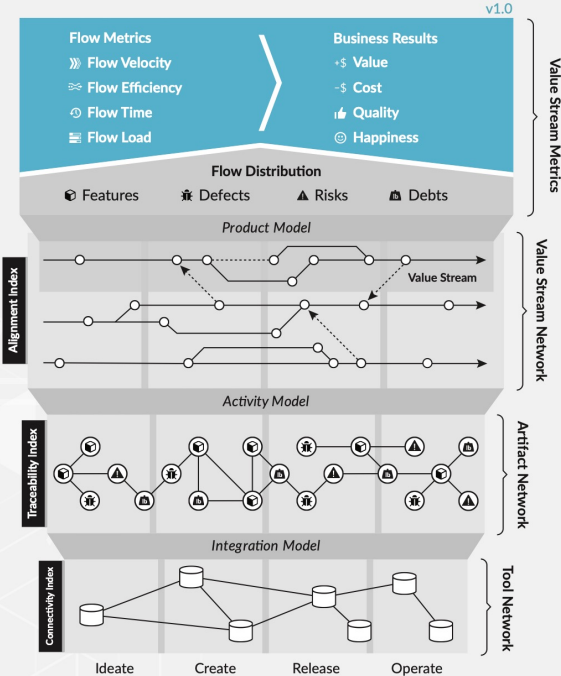
Efficiency

Flow Efficiency is the ratio of active time vs. wait time out of the total Flow Time

Load

Flow Load measures the number of Flow Items currently in progress (active or waiting) within a particular value stream

Flow Framework™



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 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>.

Project to Product, Mik Kersten
 Project to Product provides leaders with the missing framework needed to create a Value Stream Network—the technology equivalent of an advanced manufacturing line that comprises thousands of IT professionals.

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Definition of Value



value

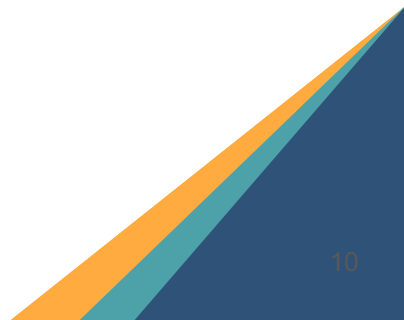
noun

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1. The amount of money that can be received for something
2. The importance or worth of something for someone

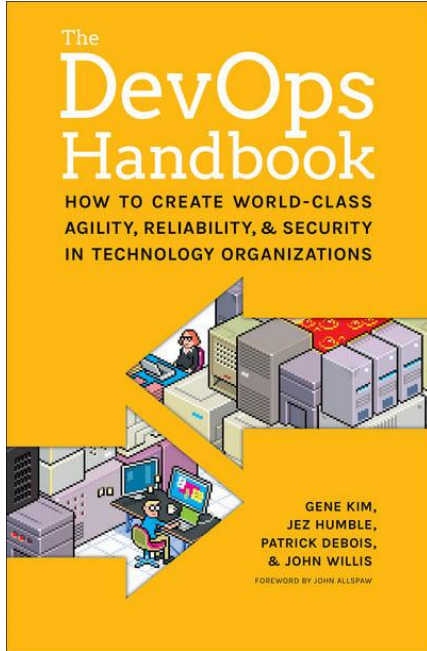


How to Get Your Metrics





Start with Value Stream Thinking



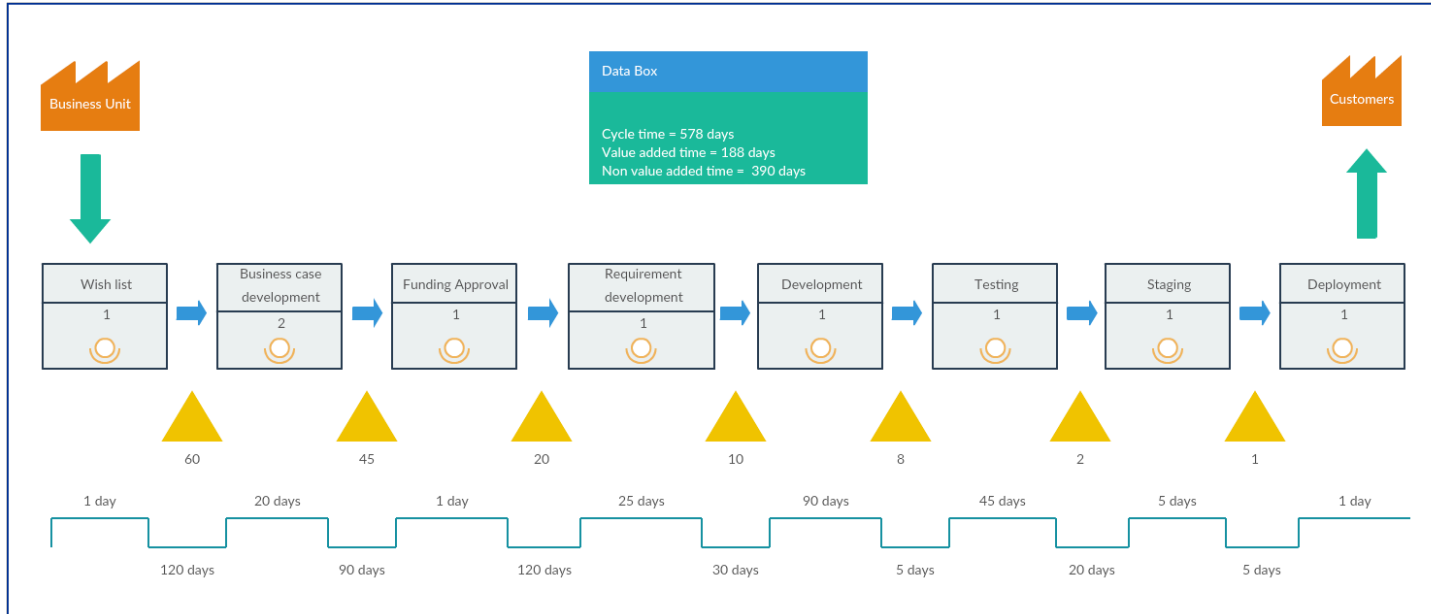
5 Selecting Which Value Stream to Start With

6 Understanding the Work in Our Value Stream, Making it Visible, and Expanding it Across the Organization

“Once we have identified a value stream to which we want to apply DevOps principles and patterns, our next step is to gain a sufficient understanding of how value is delivered to the customer: what work is performed and by whom, and what steps can we take to improve flow.”

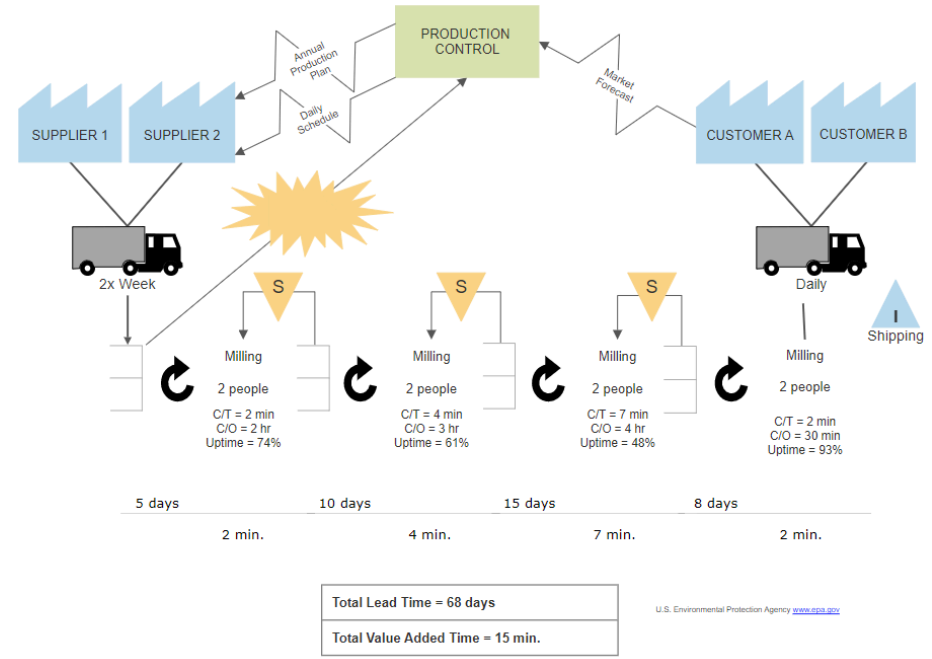


Start with Value Stream Mapping



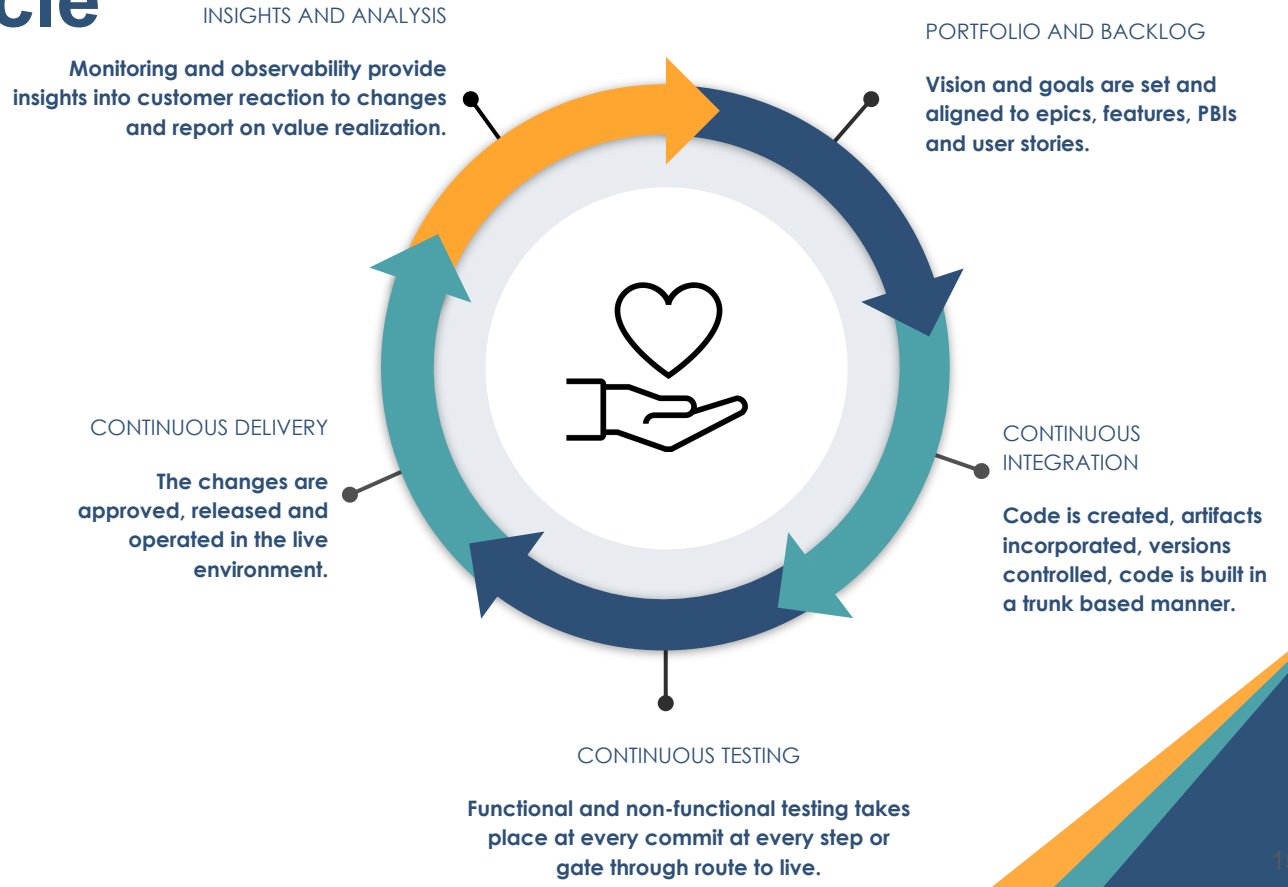


Virtual Value Stream Mapping





A Value Cycle





Where Metrics Live

	Value Stream Management: FLOW & CYCLE TIME				
	Portfolio & Backlog	Continuous Integration	Continuous Testing	Continuous Delivery	Insights and Analysis
<i>Tool</i>	Jira	Jenkins	Jenkins	ServiceNow	New Relic
<i>Metric</i>	Lead Time	Deployment Frequency	Defect rate	Change fail rate, MTR	Value



When Metrics Matter

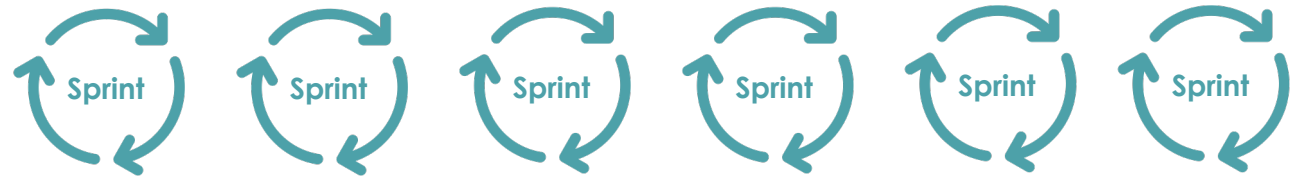




When Metrics Matter



DevOps Journey



Ad infinitum (or until product is euthanized)



Baseline

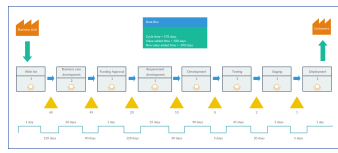
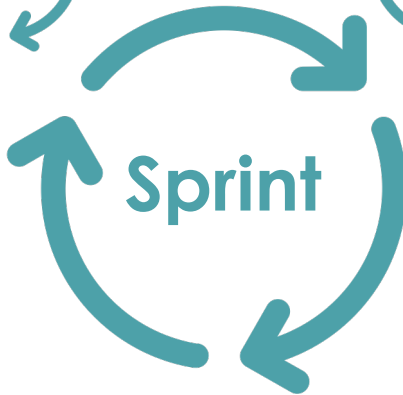
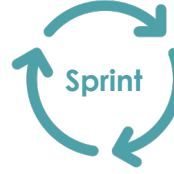


When Metrics Matter



DevOps Journey

Ad infinitum (or until product is euthanized)



Baseline



When Metrics Matter

Sprint Planning

Align sprint goal to value stream metrics – inspect Value Stream Management Tool



Sprint Review

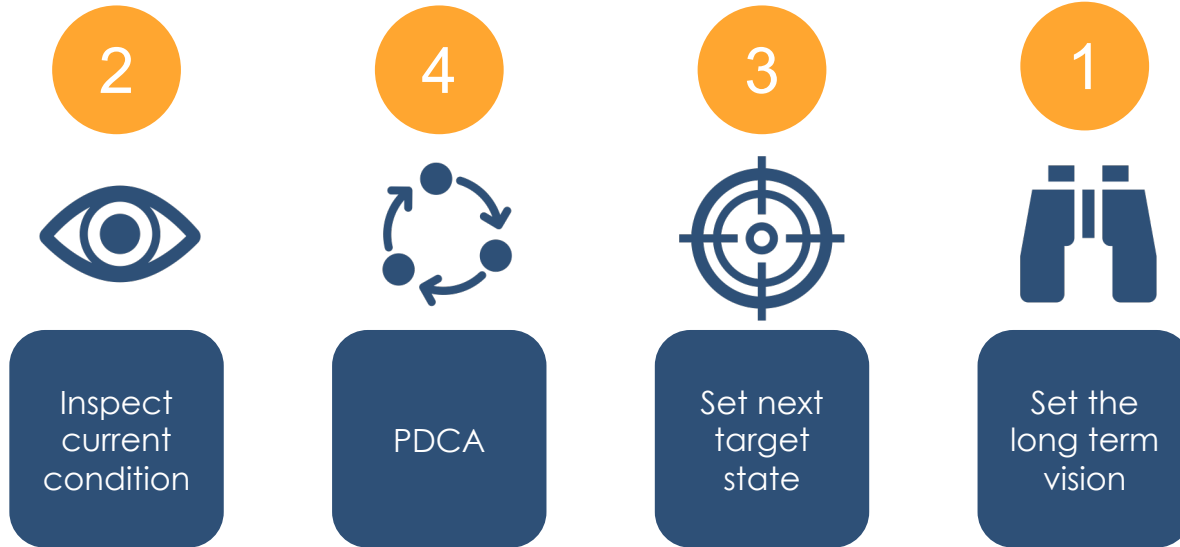
Inspect success of sprint goal using value stream metrics – inspect Value Stream Management Tool

Sprint Retro

Look for improvement opportunities – inspect insights from Value Stream Management Tool

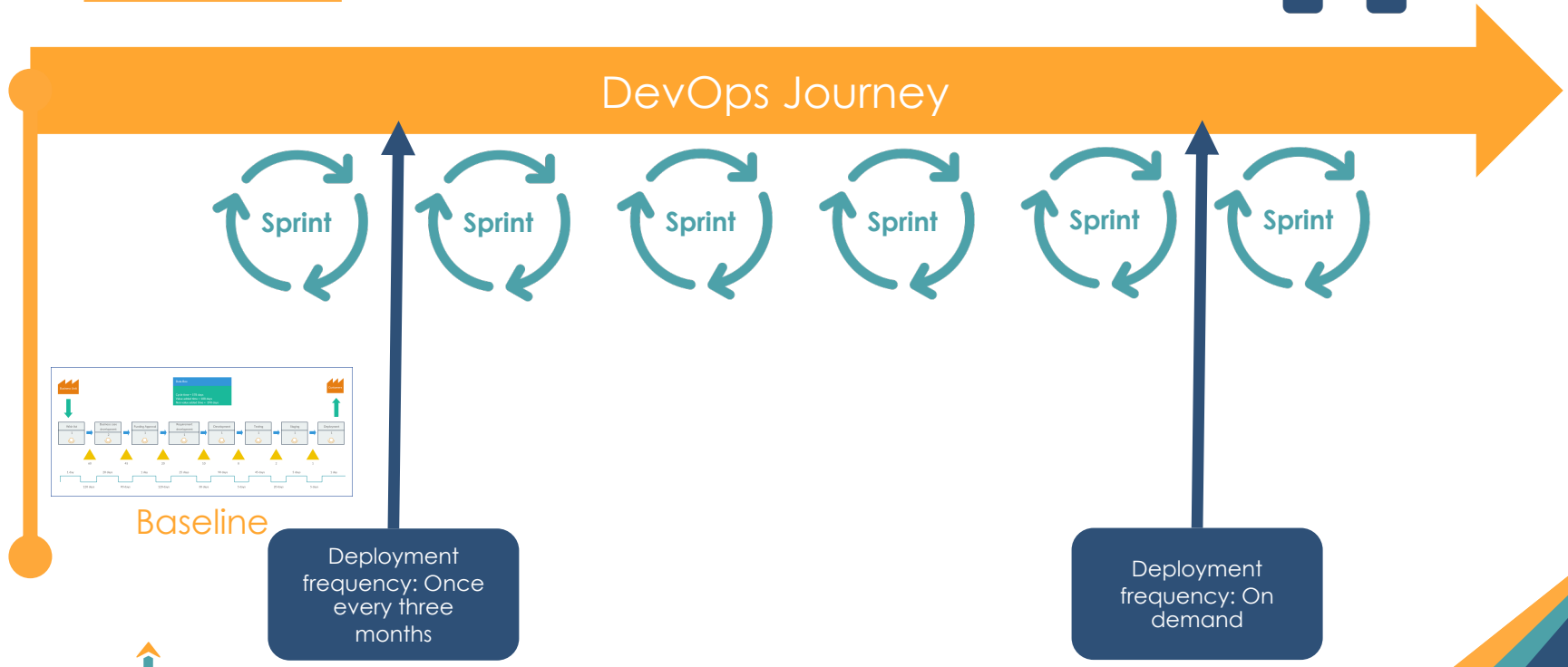


Metrics & The Improvement Kata





Metrics Evolution



Ad infinitum (or until product is euthanized)



THANK YOU!

Meet me in the Network
Chat Lounge for questions