

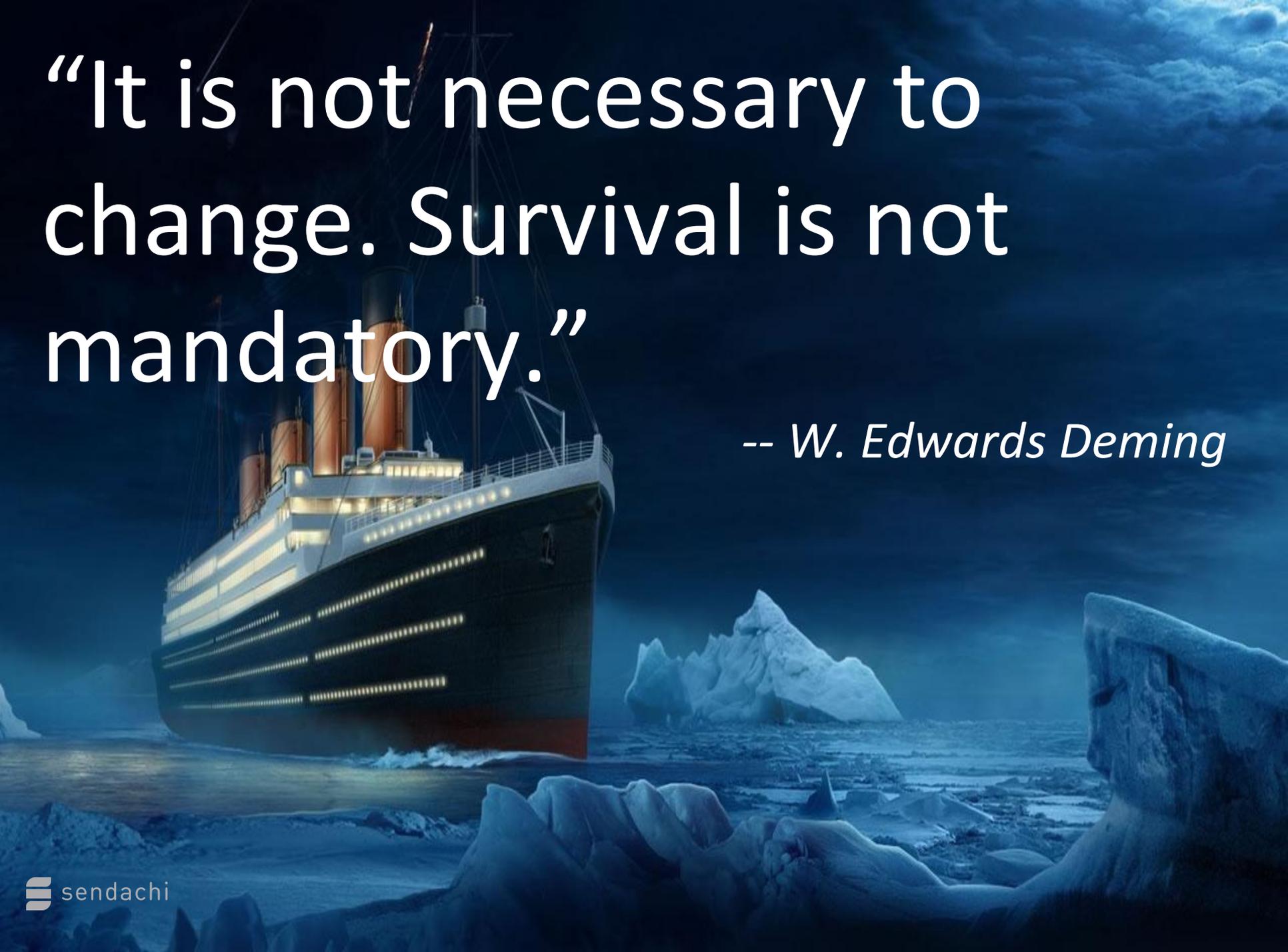
Business Intelligence Refactored with DevOps

BUSINESS INTELLIGENCE

Business Intelligence Failure Modes

- Still collecting requirements.
- No one is using the software.
- The data cannot be trusted.
- Vendor's tools are limited.
- Analyzing the wrong problems.

BUSINESS EVOLUTION

A large steamship with three orange funnels is shown at night, illuminated by its own lights. The ship is positioned on the left side of the frame, moving towards the right. The sea is dark and filled with numerous icebergs of various sizes, creating a hazardous environment. The sky is a deep, dark blue with some light clouds. The overall mood is one of danger and isolation.

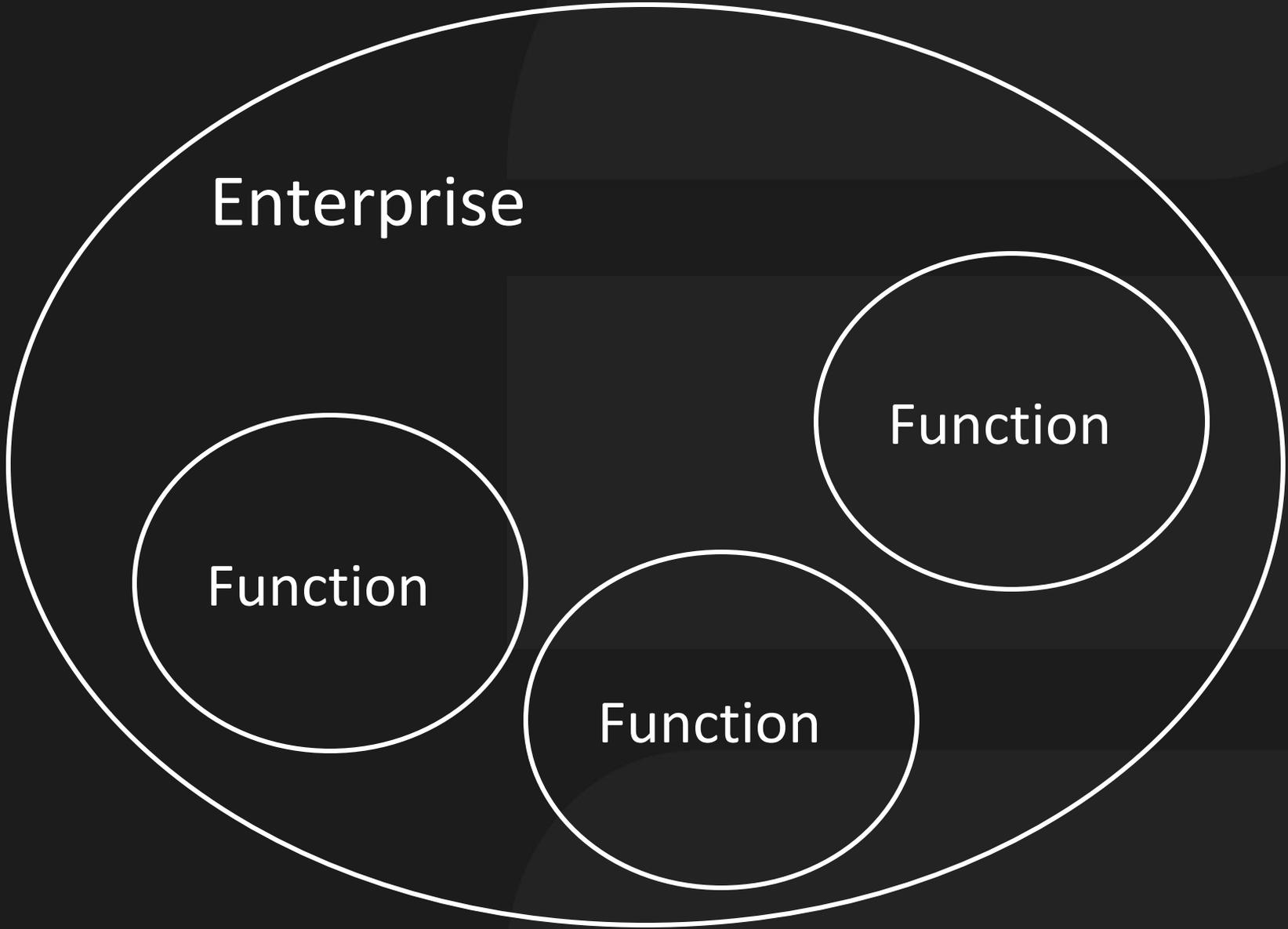
“It is not necessary to
change. Survival is not
mandatory.”

-- *W. Edwards Deming*

CHANGE

RISK

SLOW

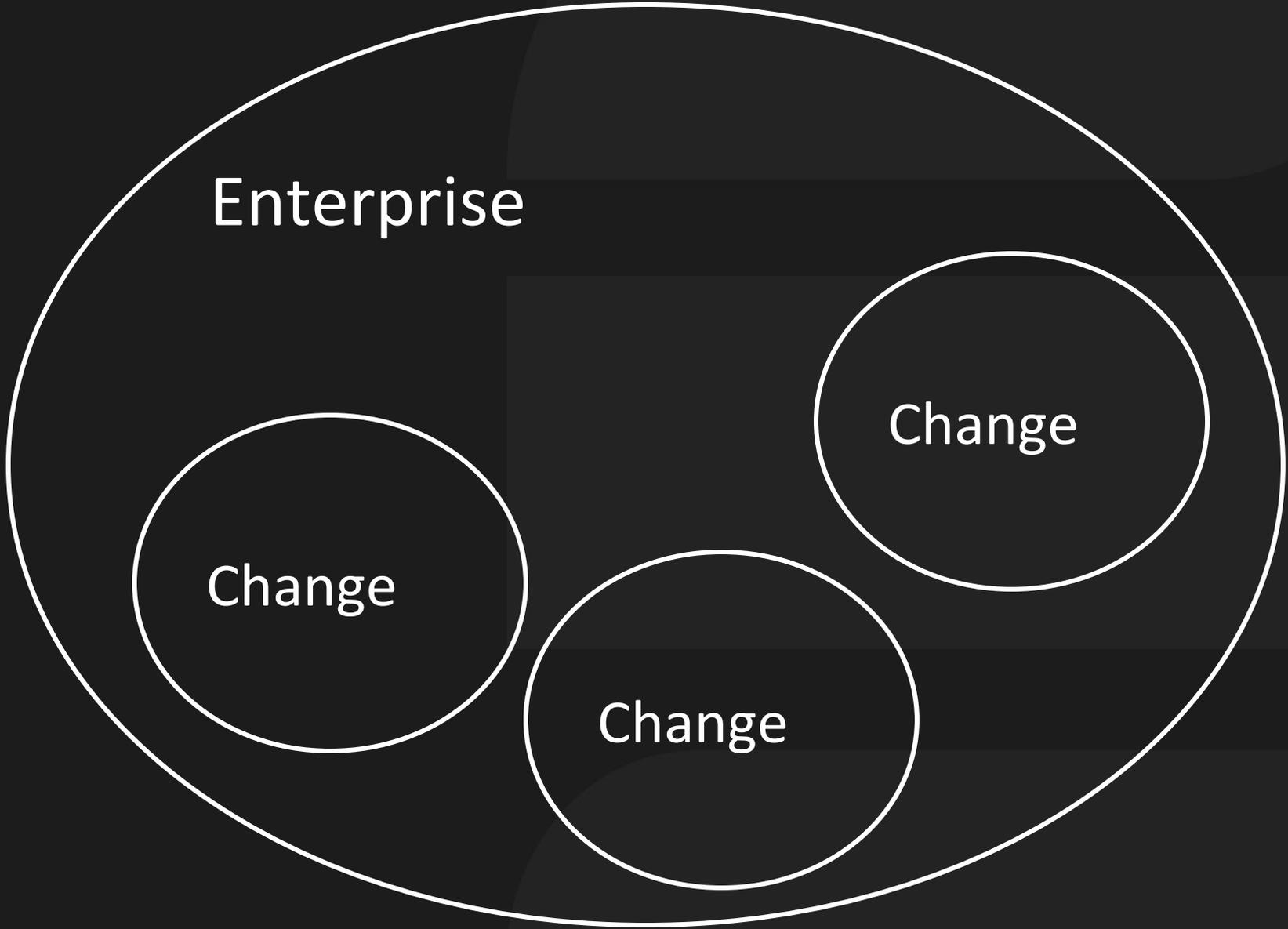


Enterprise

Function

Function

Function



Enterprise

Change

Change

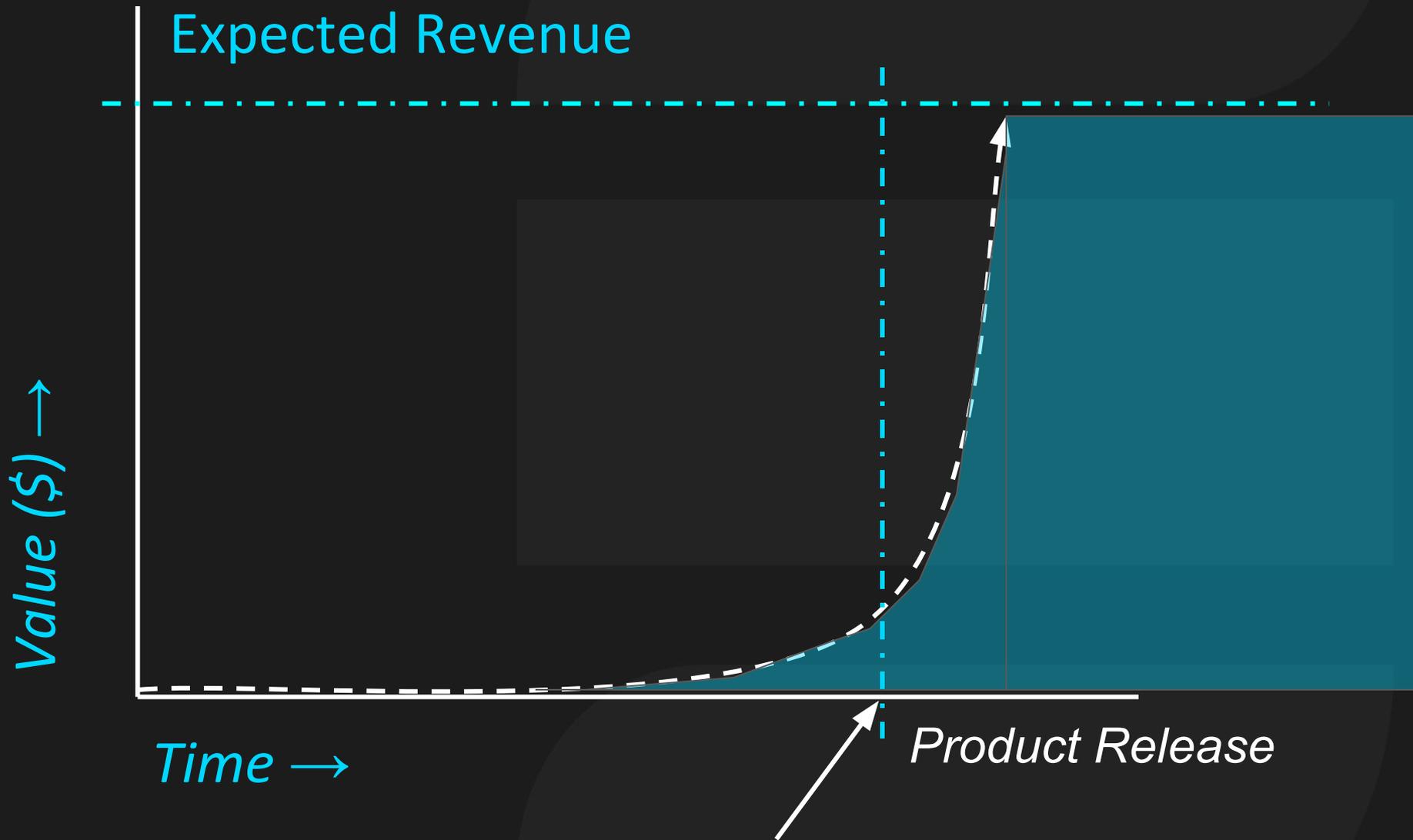
Change

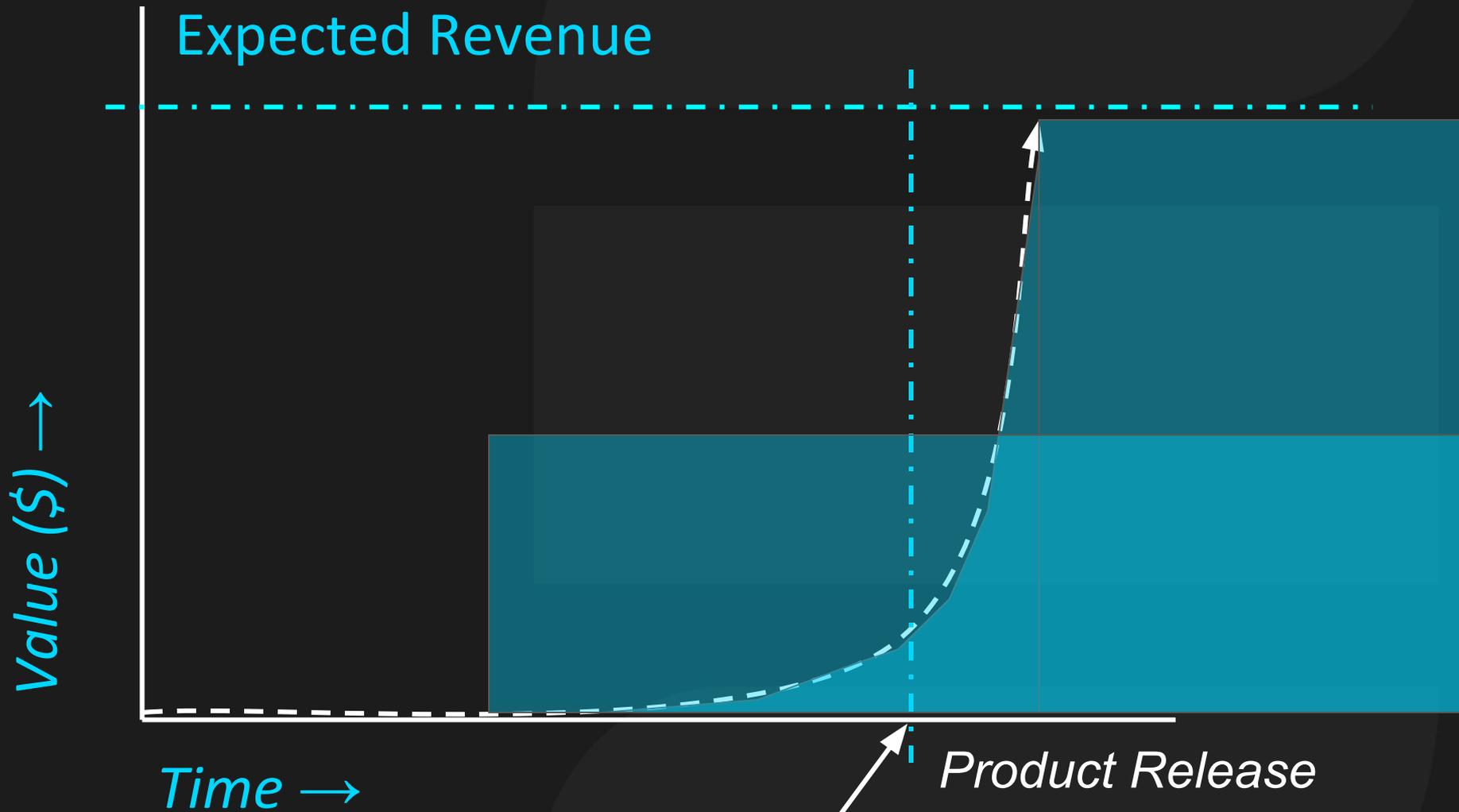
UNEXPECTED

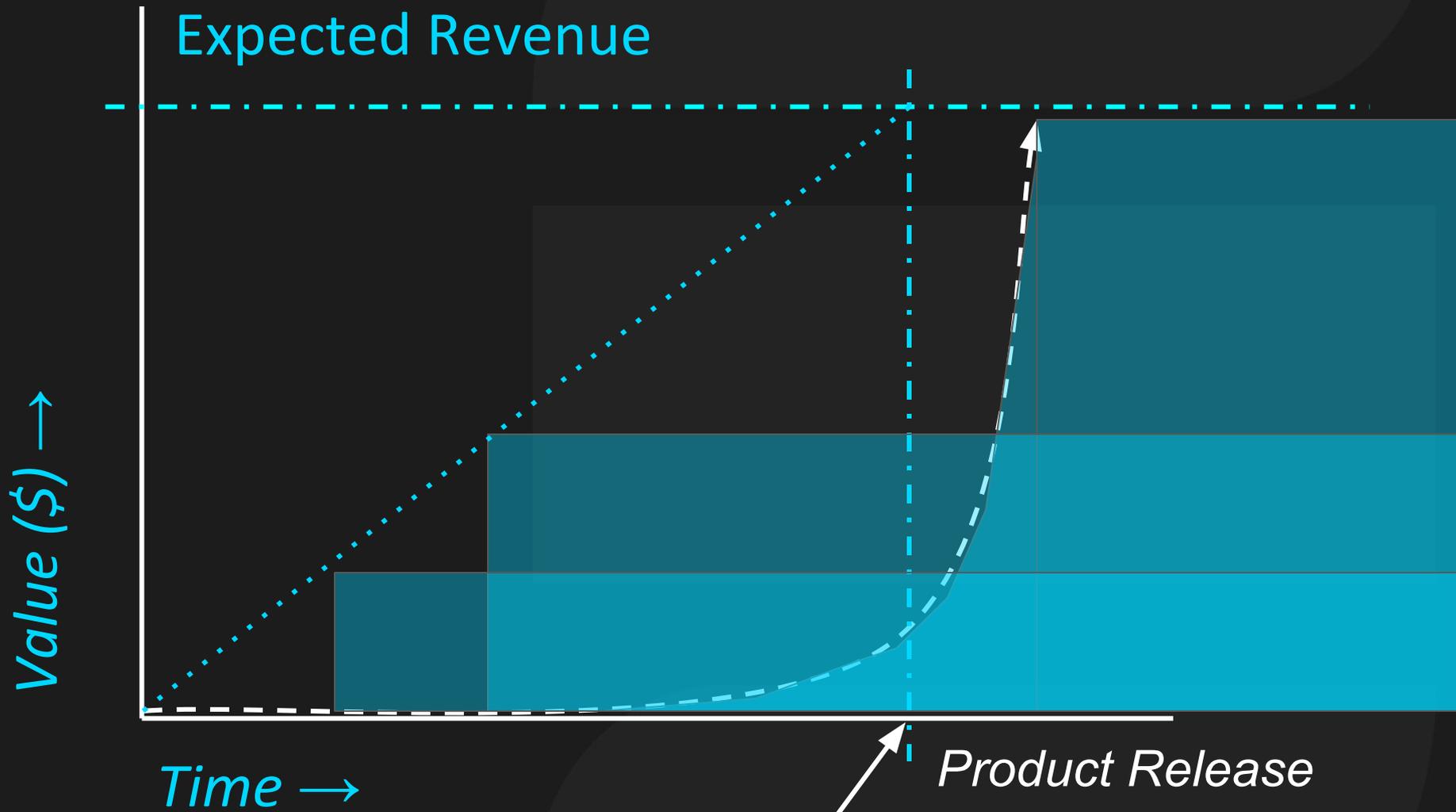


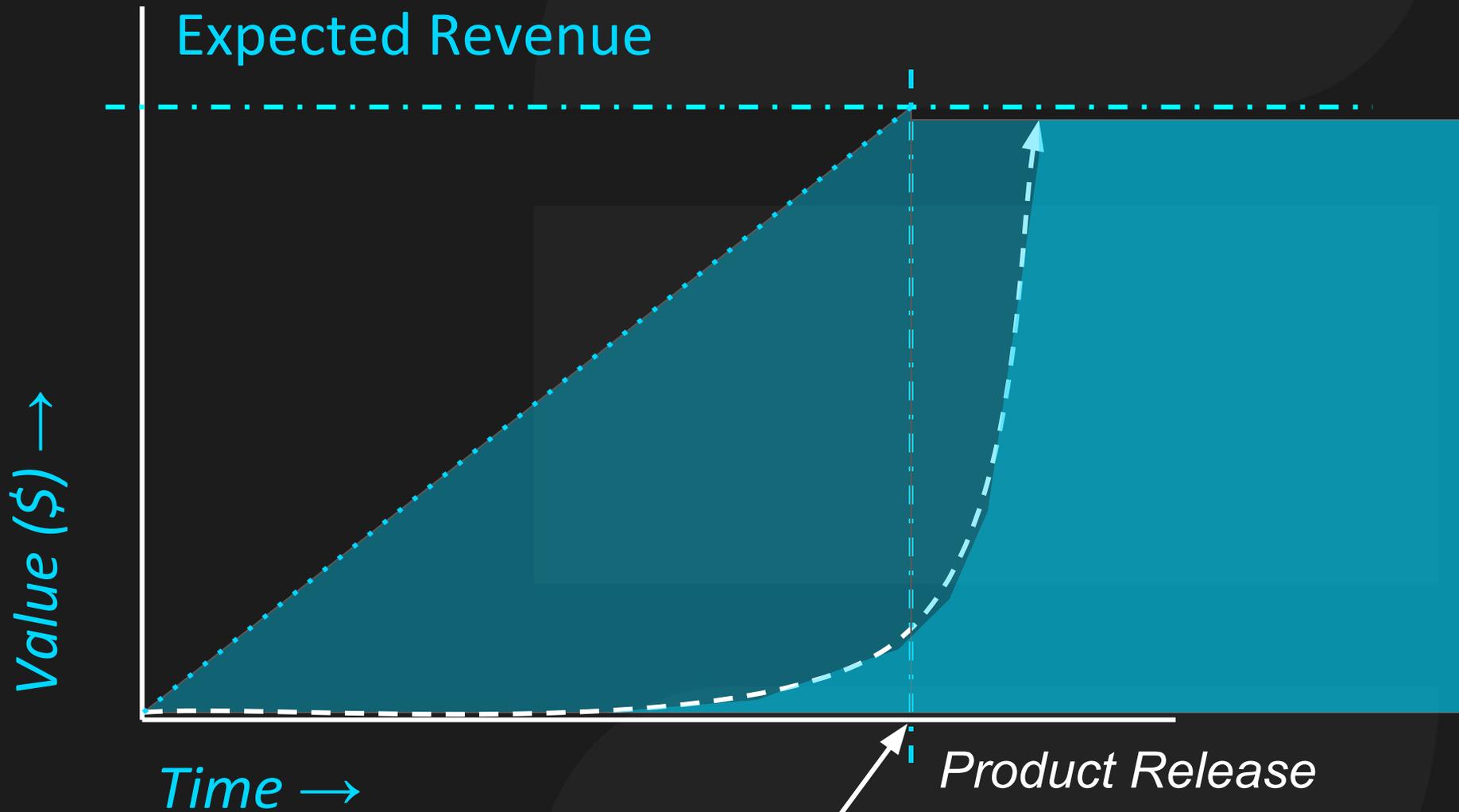
EMBRACE CHANGE

TIME VALUE OF MONEY









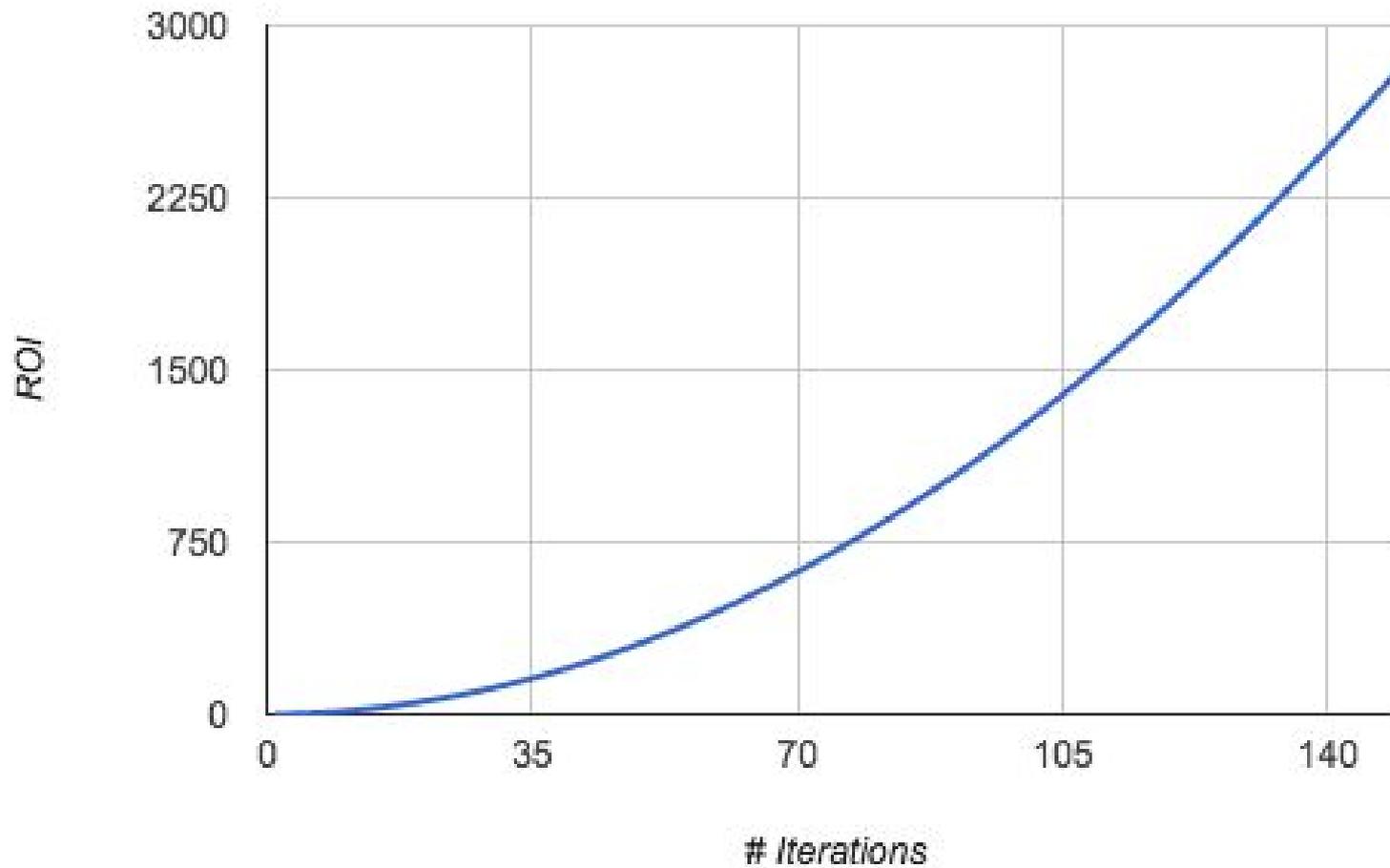
$$ROI_{iter} = \frac{R - C}{C} \cdot \frac{(n \cdot (n + 1))}{2}$$

n : count of iterations, frequency

R : revenue, net cash flow

C : cost to develop & deliver

ROI of Iterative Development



DEVOPS

- Humans are creative
- Humans are error-prone

- Processes are mundane
- Processes control error



DevOps (n):

- *Kaizen*
- Philosophy of Continuous Improvement

The value of a product is its utility to the customer.

Improving the production flow
improves the quality of the
product.

Build integrity in:

- All *internal* processes must be oriented to their impact on the customer (end user).

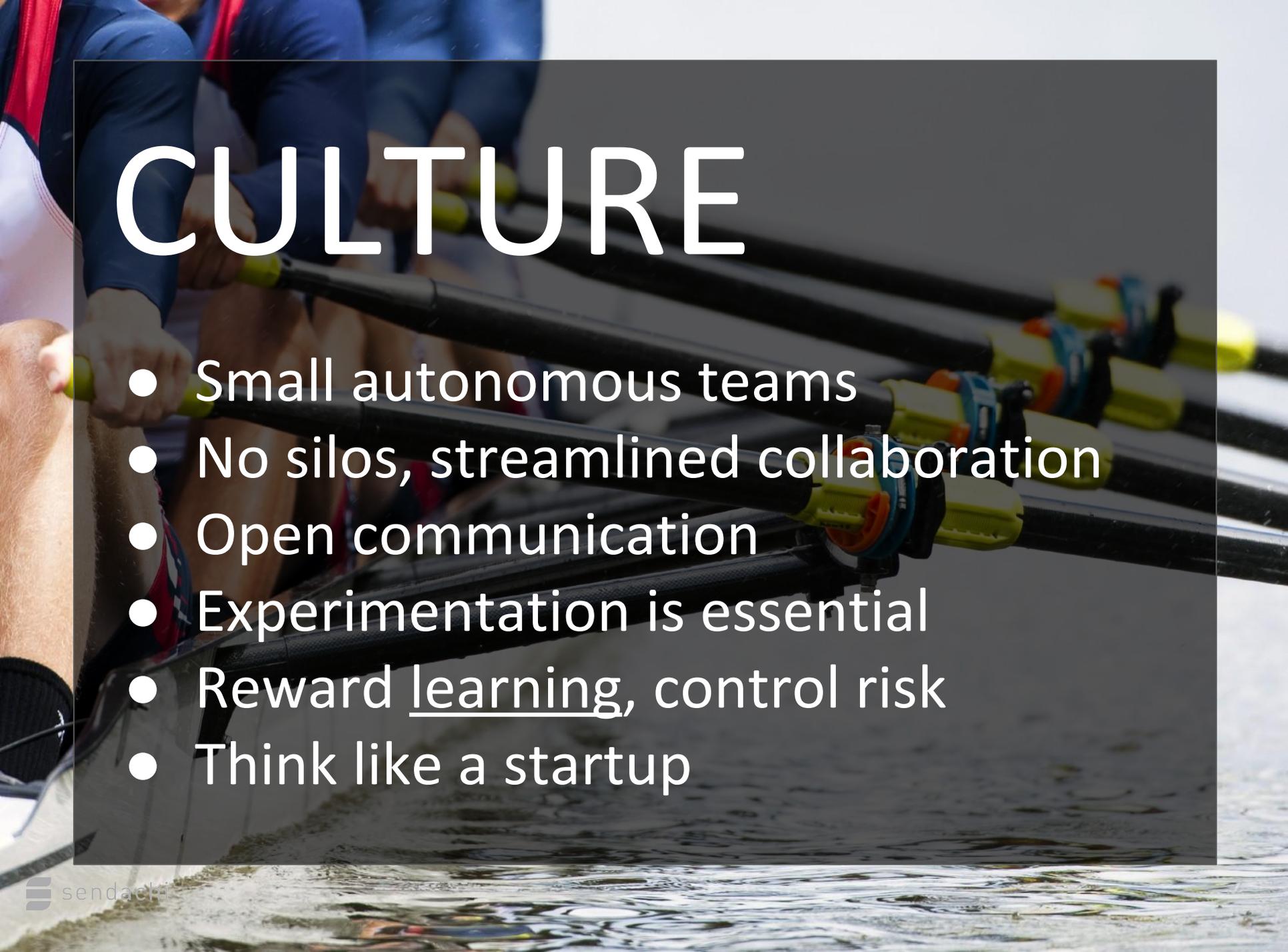
“A system cannot understand itself. The transformation requires a view from outside.”
-- W. Edwards Deming



DevOps (v):

- Culture
- Automate
- Improve Process_
- Measure & Learn
- Share Findings

CULTURE



- Small autonomous teams
- No silos, streamlined collaboration
- Open communication
- Experimentation is essential
- Reward learning, control risk
- Think like a startup

AUTOMATE

- Software testing, integration & rollout (deployment)
- Infrastructure as code
- Discover & integrate data sources
- Built-in Governance in data pipeline
- Analysis: Machine Learning

LEAN PROCESS

- Efficiency through self-service
- Easily add new reports & data sources through *configuration*
- Focus development work on *immediate value*
- Control queues and in-flow

MEASURE

- Data is everywhere
- Core requirement of projects
- Study the workflow
- Promote user-contributed data sets
- Rough data is good!!!

SHARING

- Frequent, systematic analysis
- Open communication of
 - Experiments
 - Findings & Discoveries
 - Failures & Successes
- Teams must share knowledge.

BUSINESS INTELLIGENCE

*Enable all contributors to gain
actionable insight at all levels*

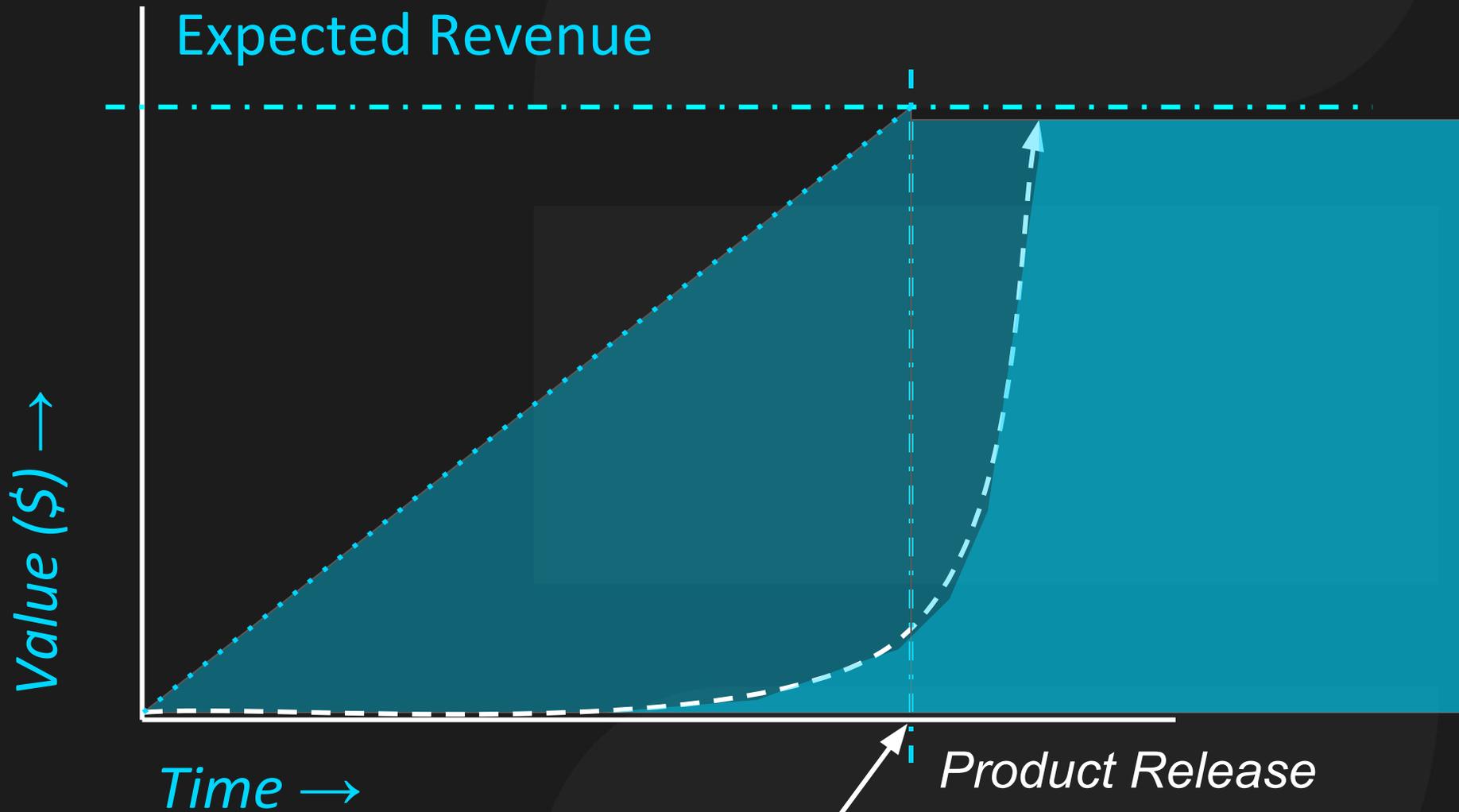


ENABLE
ENTERPRISE
AGILITY

BUSINESS
INTELLIGENCE
IS A PRODUCT

Business Intelligence is a Product

- Value proposition
- Market segments
- Feature blend
- “product-market fit”
- Support & documentation
- Development Lifecycle
- Adoption is essential

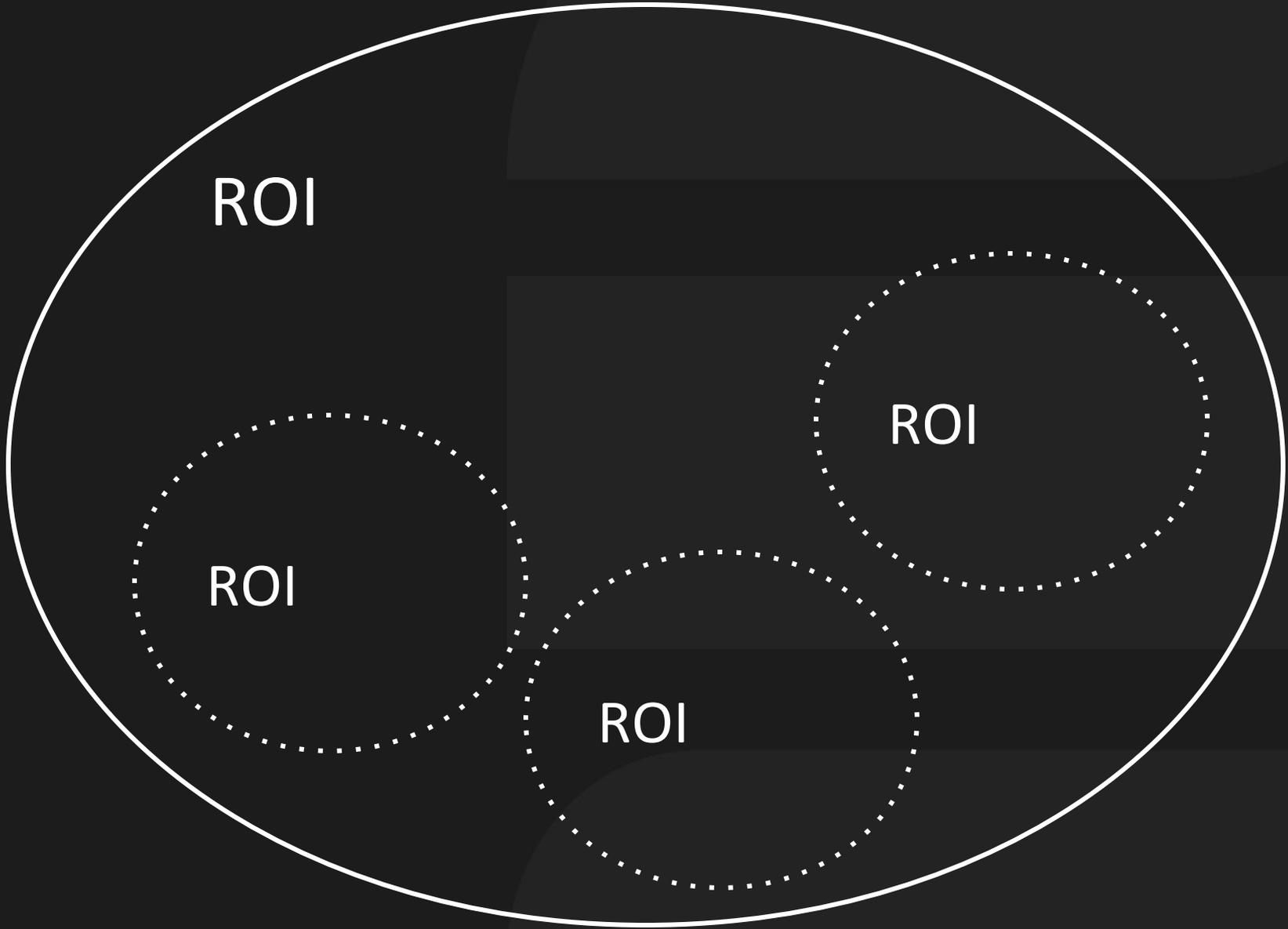


CHANGE IS
CULTURE

Enterprise

Mission

Mission



ROI

ROI

ROI

ROI

TIME TO MARKET



Business Intelligence Refactored with DevOps

Sam Briesemeister

@systemalias

sendachi.com samb.io