



9 Essentials for Succeeding with Digital Service Delivery

How Lean Discovery, Agile Delivery and a DevOps mindset can help you create and deliver products your customers love.

Fadi Stephan

Principal Consultant at Excella Consulting

Software Development Practice Lead

Digital Services Delivery Solutions Lead

Agile Coach and Trainer

Co-Organizer of the DC Scrum User Group

<https://www.linkedin.com/in/fadistephan/>

@FadiStephan @excellaco

Digital Services

- Delivery of
 - Digital information (data or content)
 - Transactional services (forms, benefits)
 - Across platforms and devices (web, mobile)
- Internal or external customers

Pain Points



Testing cycles
are **long**
and **painful**.



Your **releases**
are **infrequent** –
or **never**
happen at all.



The **quality** of
your products
is **poor**.



Customers **don't**
like – or **don't**
use – solutions
you build.

Requirements

Design

Development

Test

Deploy

WATERFALL APPROACH

AGILE IS THE ANSWER

Daily Standup



<https://www.flickr.com/photos/karthikc/333796551>

Requirements

Design



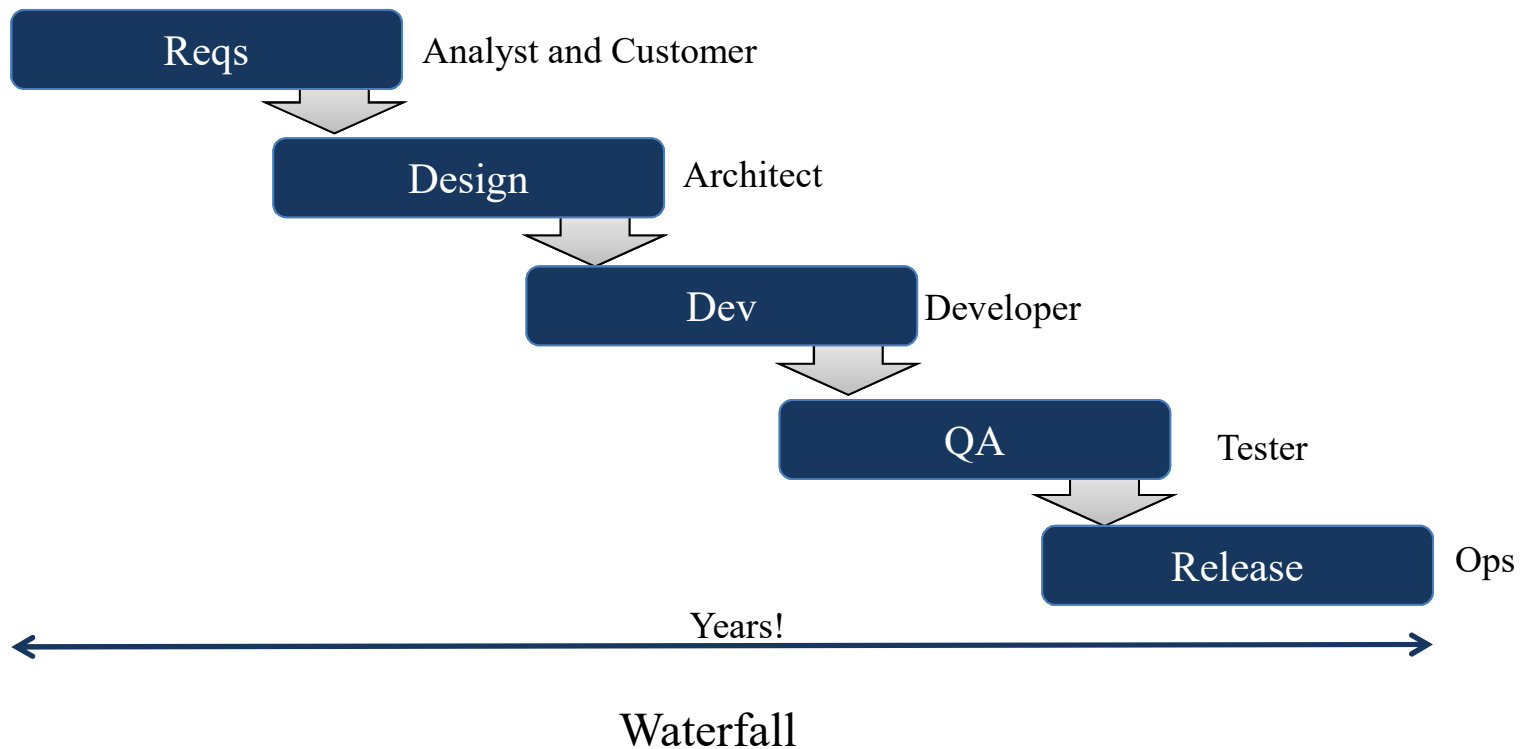
Development

Test

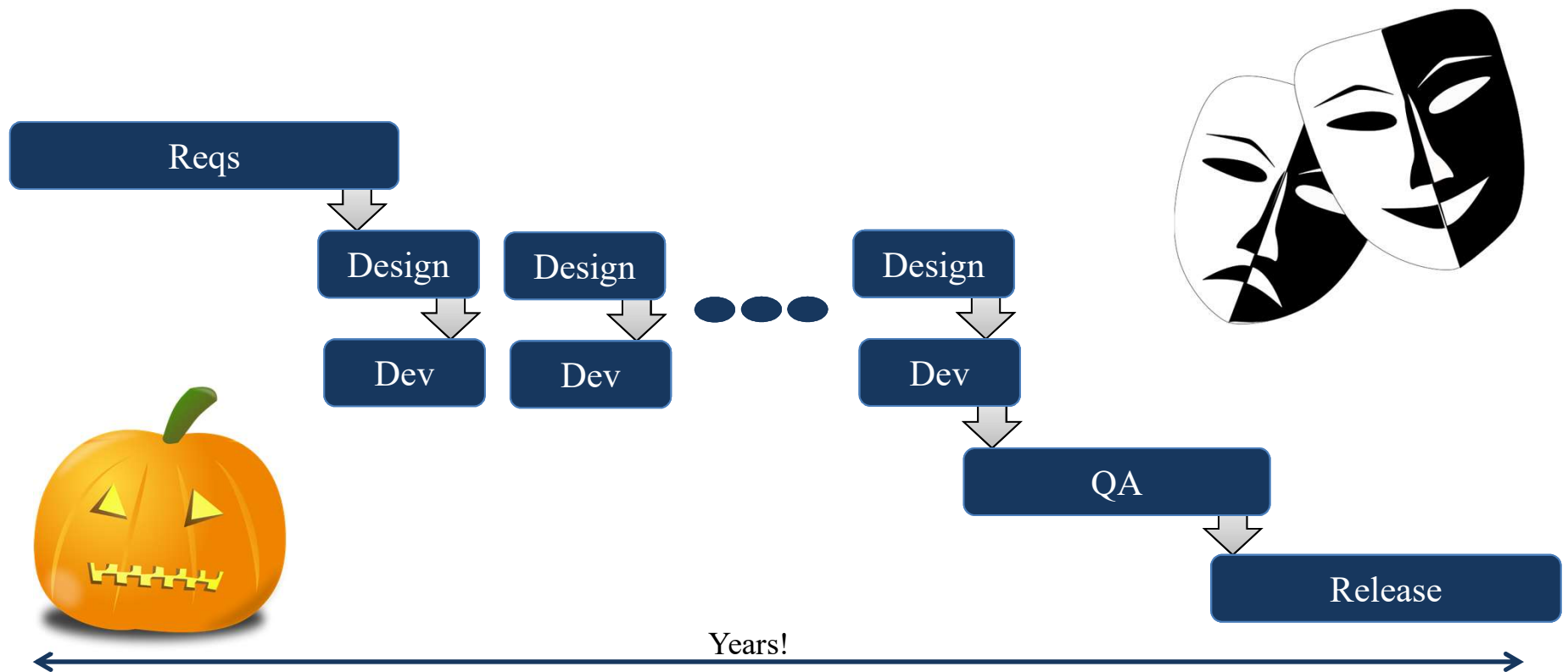
Deploy

**INCREMENTAL
DEVELOPMENT**

Not Just About Development

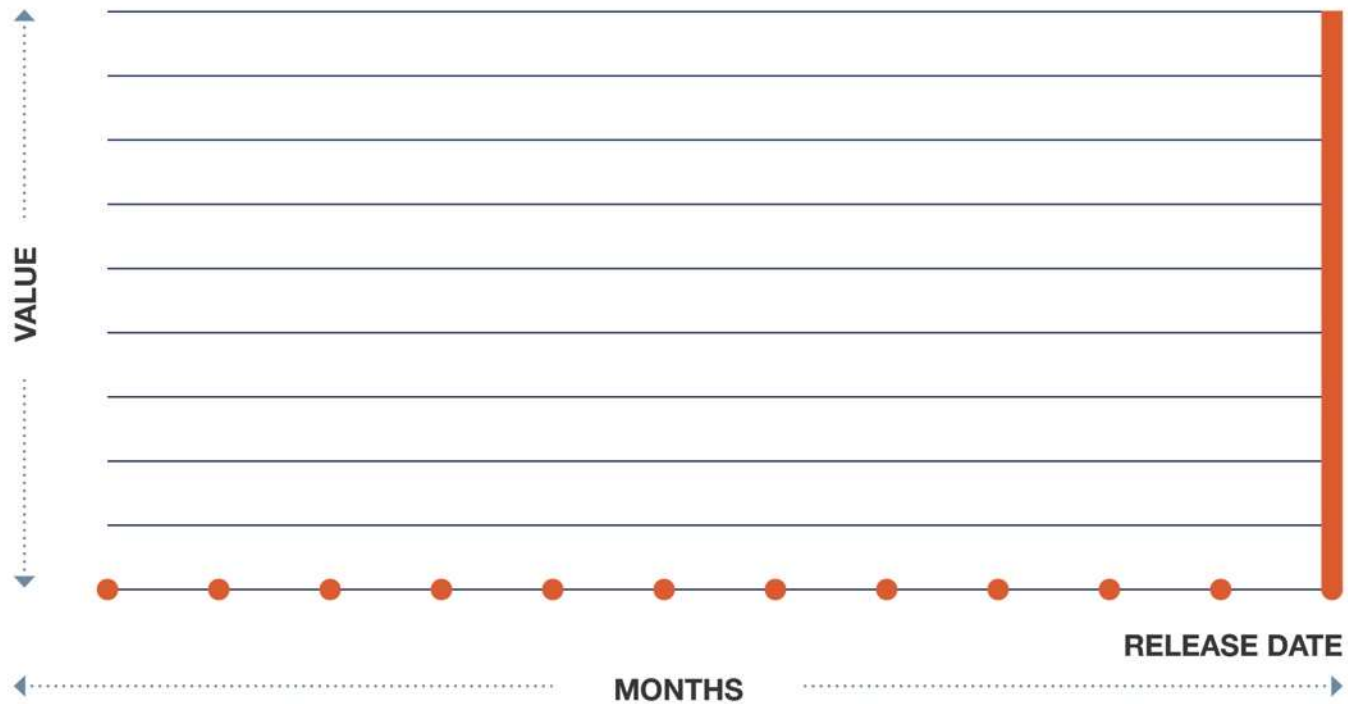


Not Just About Development

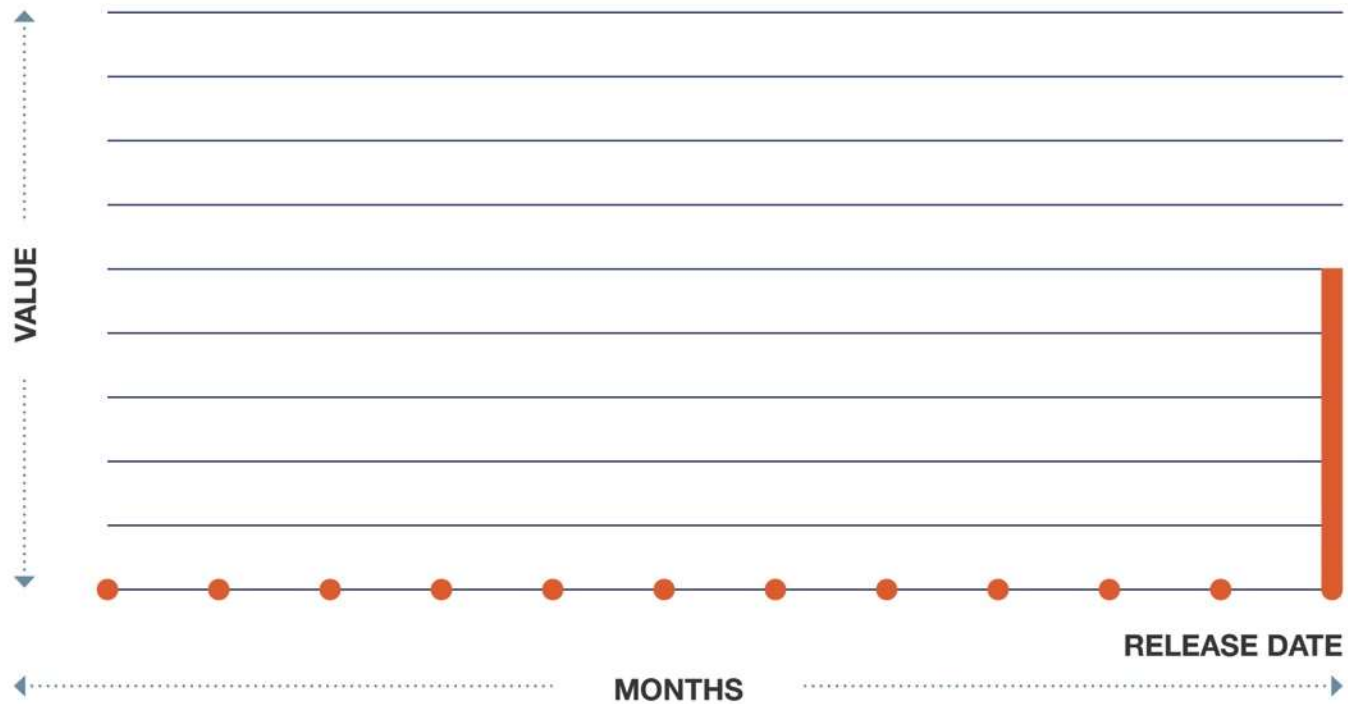


Agile Masquerade

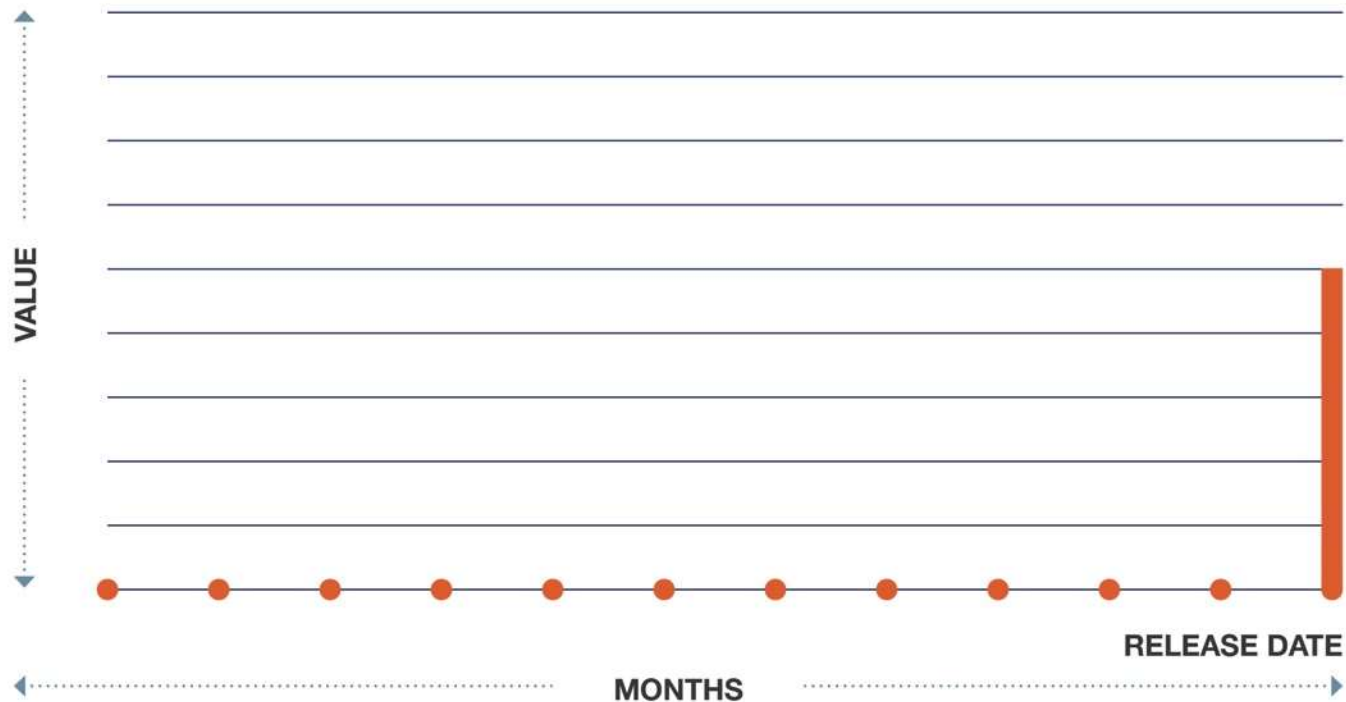
Waterfall



Waterfall



Just Development

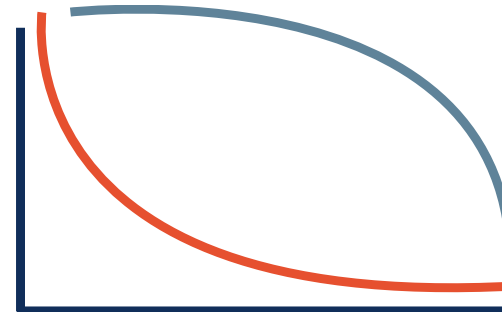


Agile Value Proposition

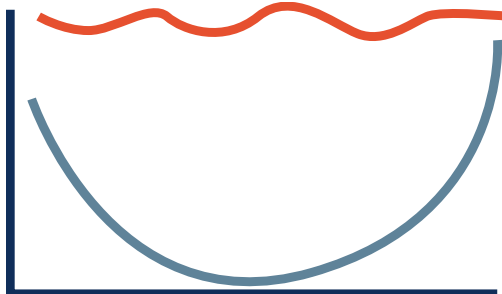
Business Value



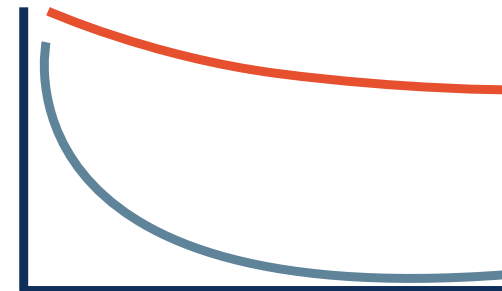
Risk



Visibility



Adaptability



— Agile Development

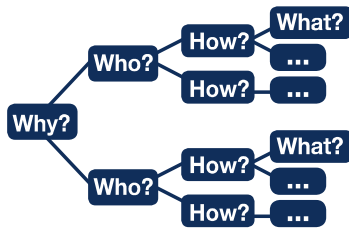
— Traditional Development

“Our highest priority is to satisfy the customer through early and **continuous delivery** of **valuable software**.”

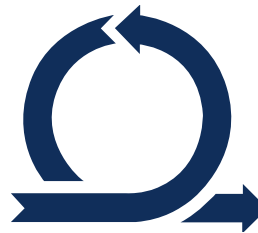
“**Deliver working software** frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.”

- First and third of the Twelve Principles behind the Agile Manifesto

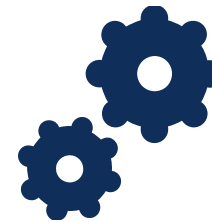
Succeeding in Digital Services



**LEAN
DISCOVERY**
Concepts



**AGILE
DELIVERY**
Practices



DEVOPS
Mindset

Deliver quality products that our customers love



ENGAGE end
users **EARLY**
AND OFTEN



Build a
QUALITY
SOLUTION



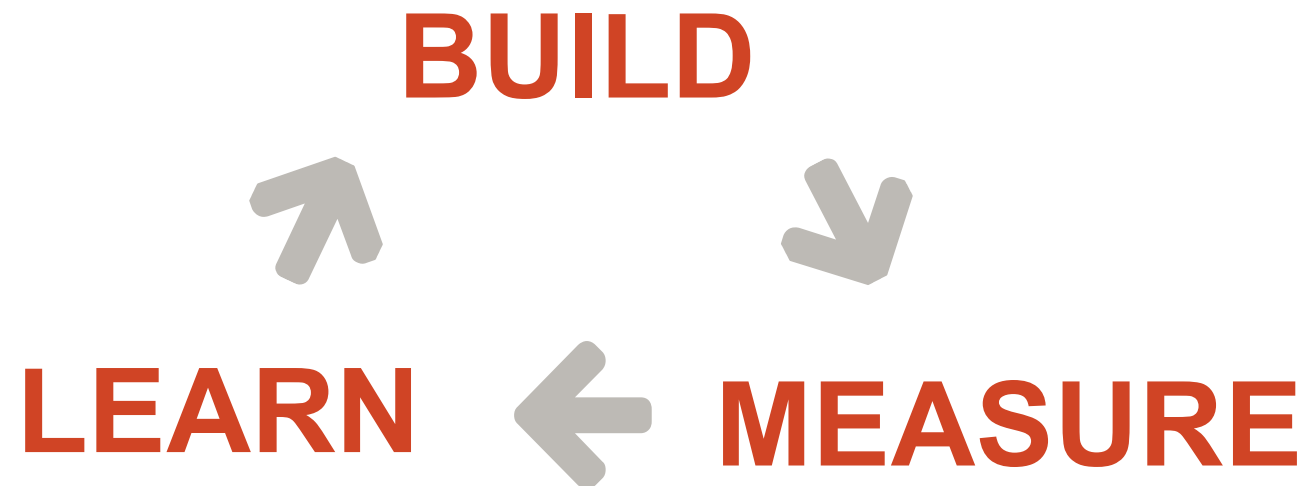
DELIVER it
FREQUENTLY
and **VALIDATE**


LEAN DISCOVERY

Building the **“RIGHT THING”**

“The big question of our time is not can it be built, but should it be built?”

– Eric Ries
Lean Startup





USE DATA TO
DRIVE
DECISIONS
BASED ON
USER NEEDS

MMF & MVP

Minimum Marketable Feature (MMF)

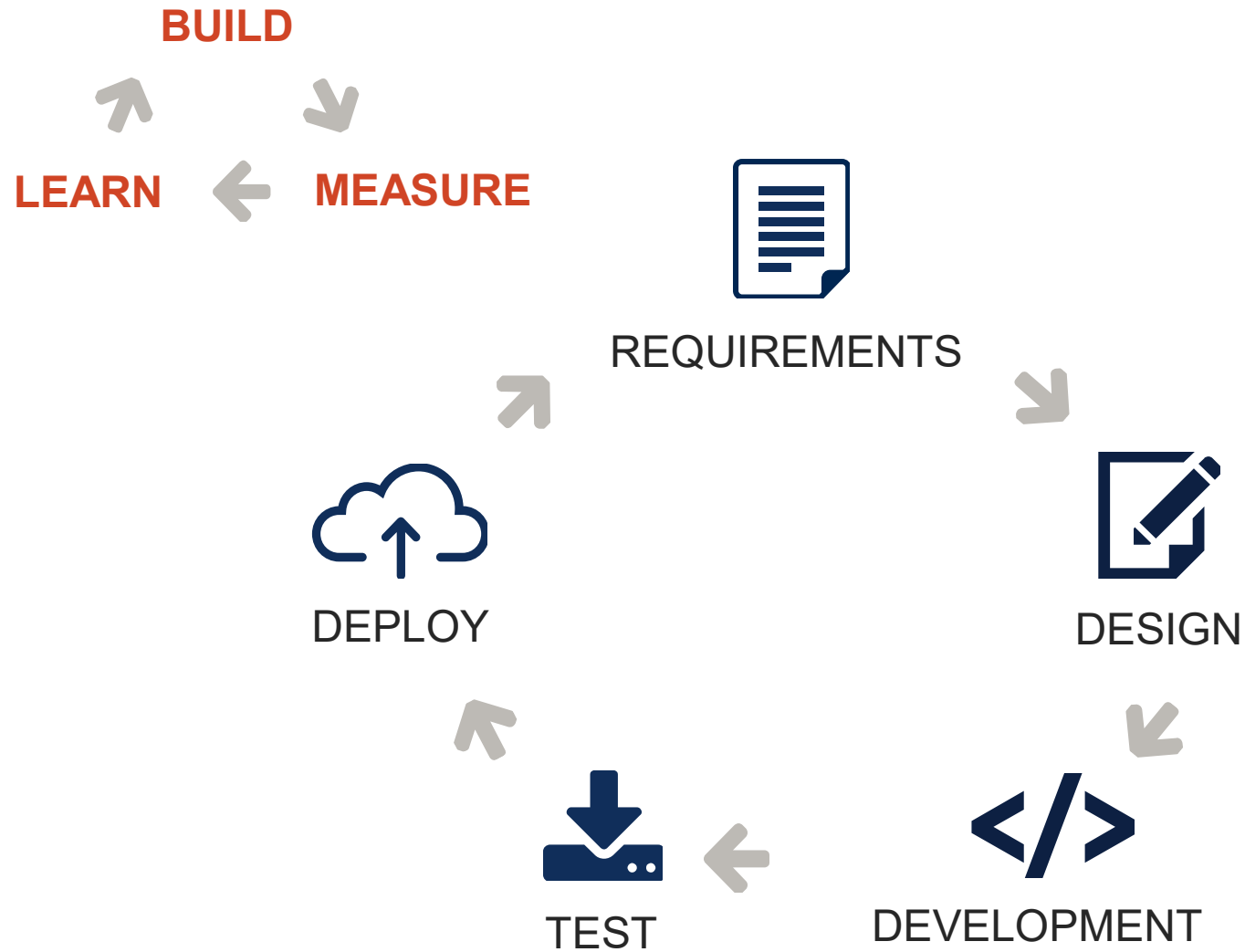
The smallest unit of functionality with "intrinsic **marketable value**."

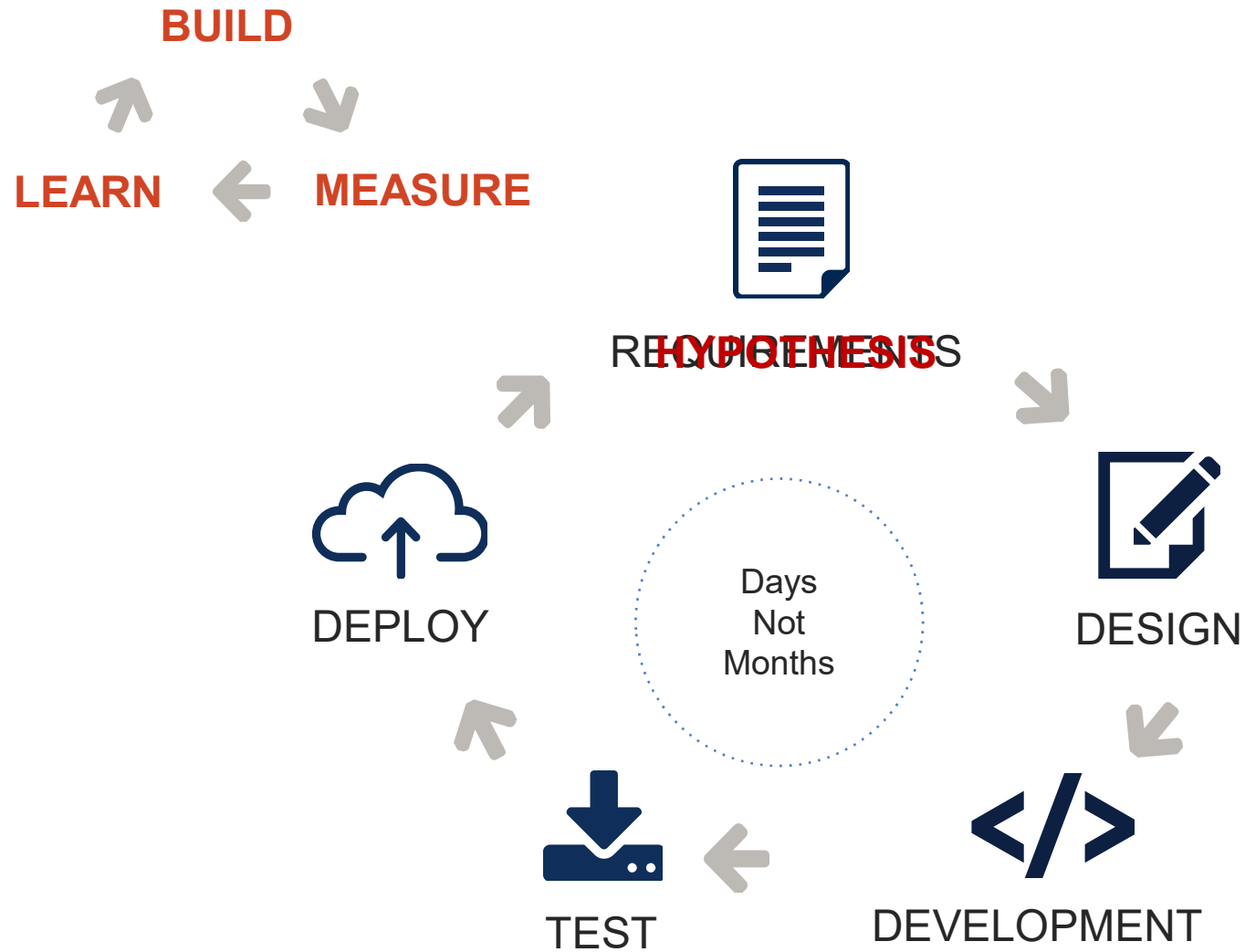
– Software by Numbers by Mark Denne

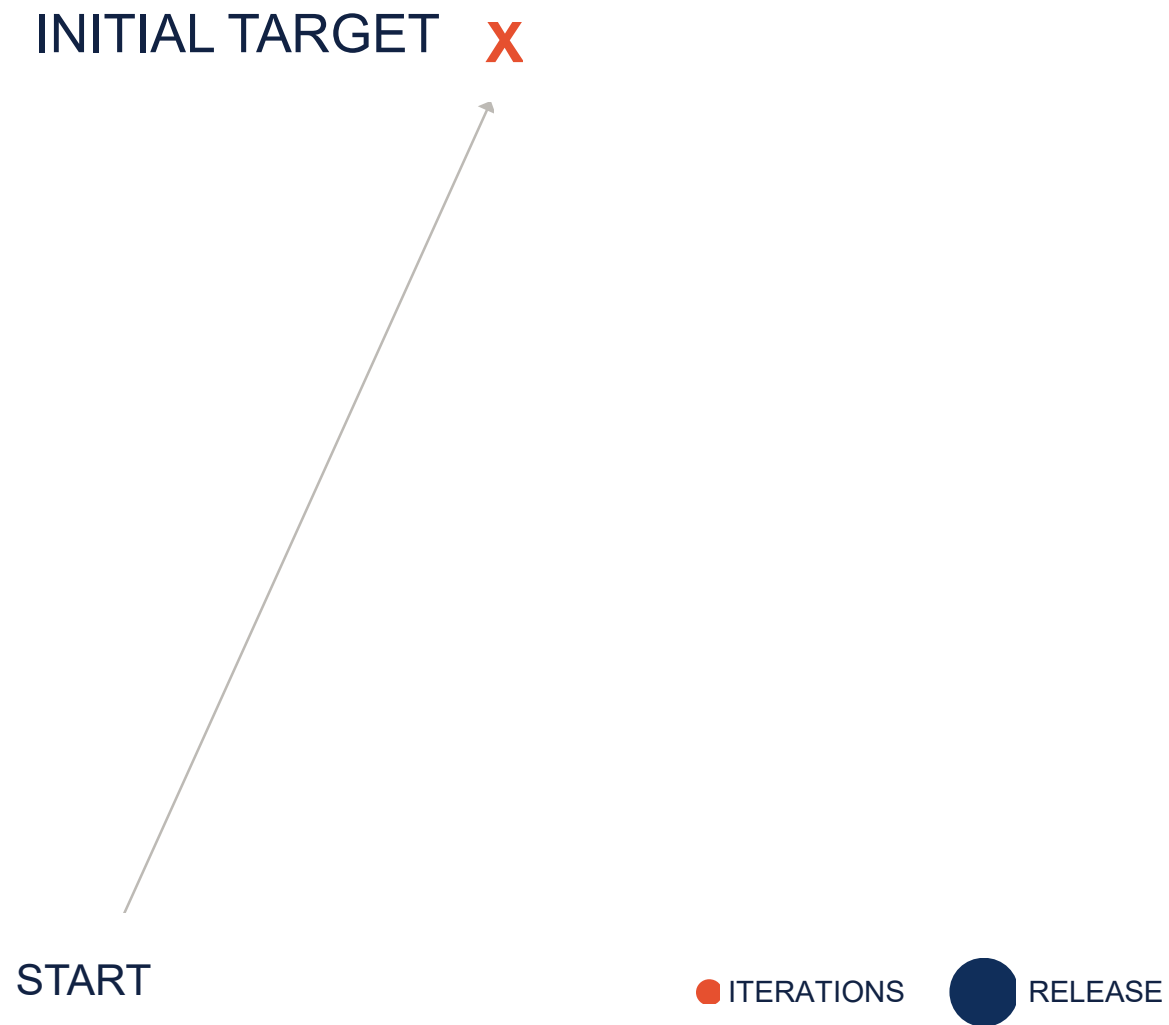
Minimum Viable Product (MVP)

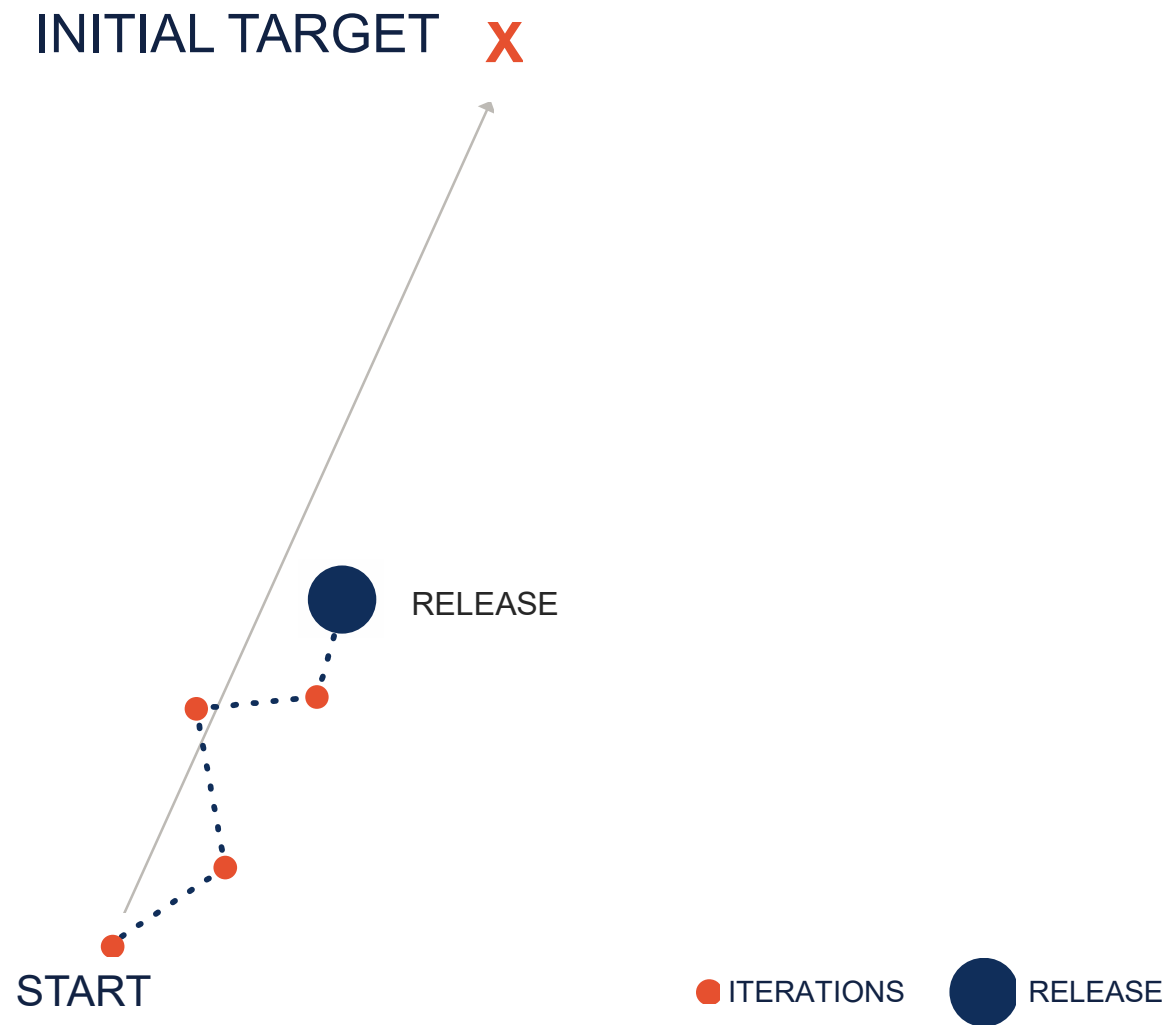
The Minimum Viable Product is that version of a new product which allows a team to collect the maximum amount of **validated learning** about customers with the least effort.

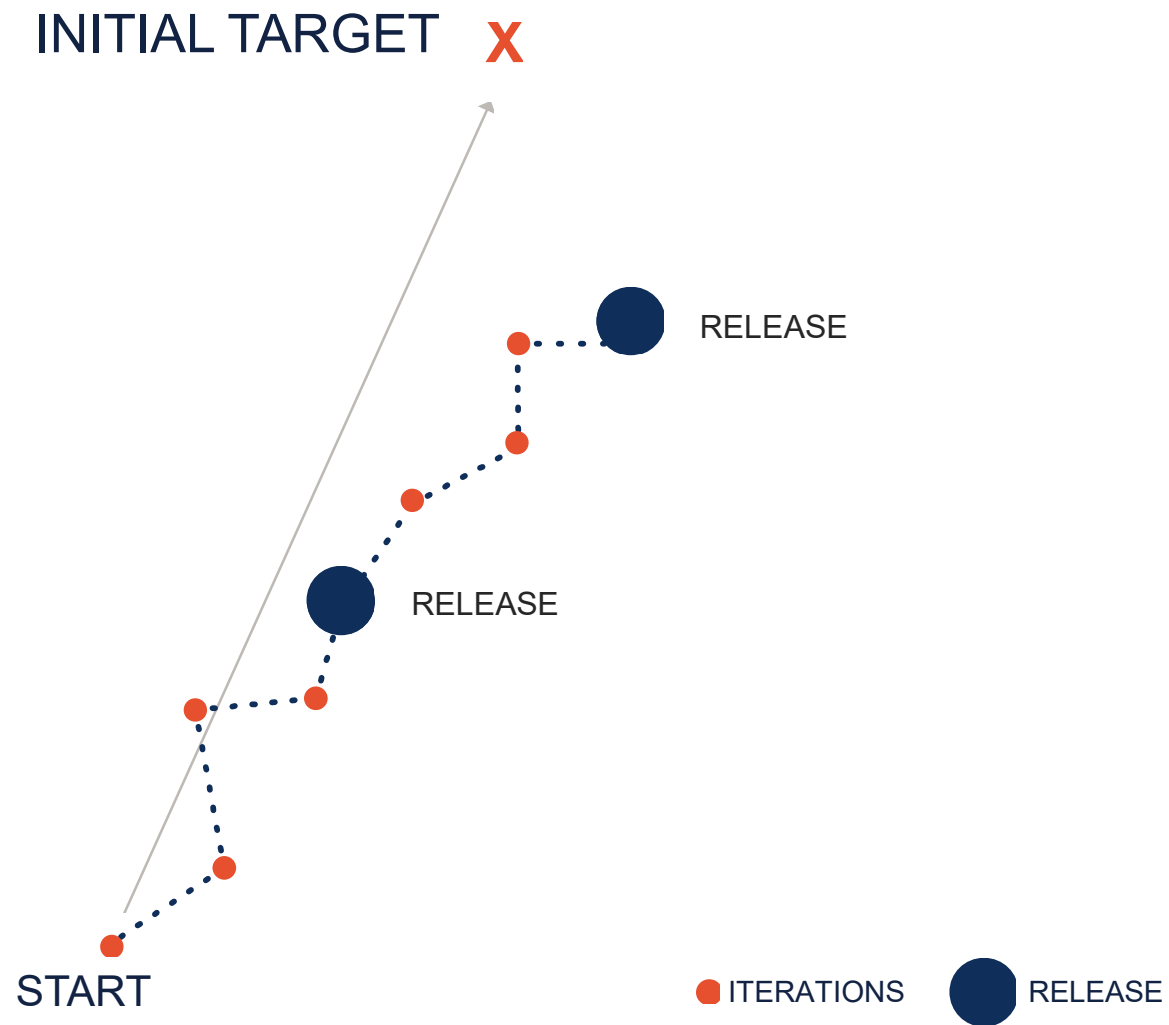
– Lean Startup by Eric Reis



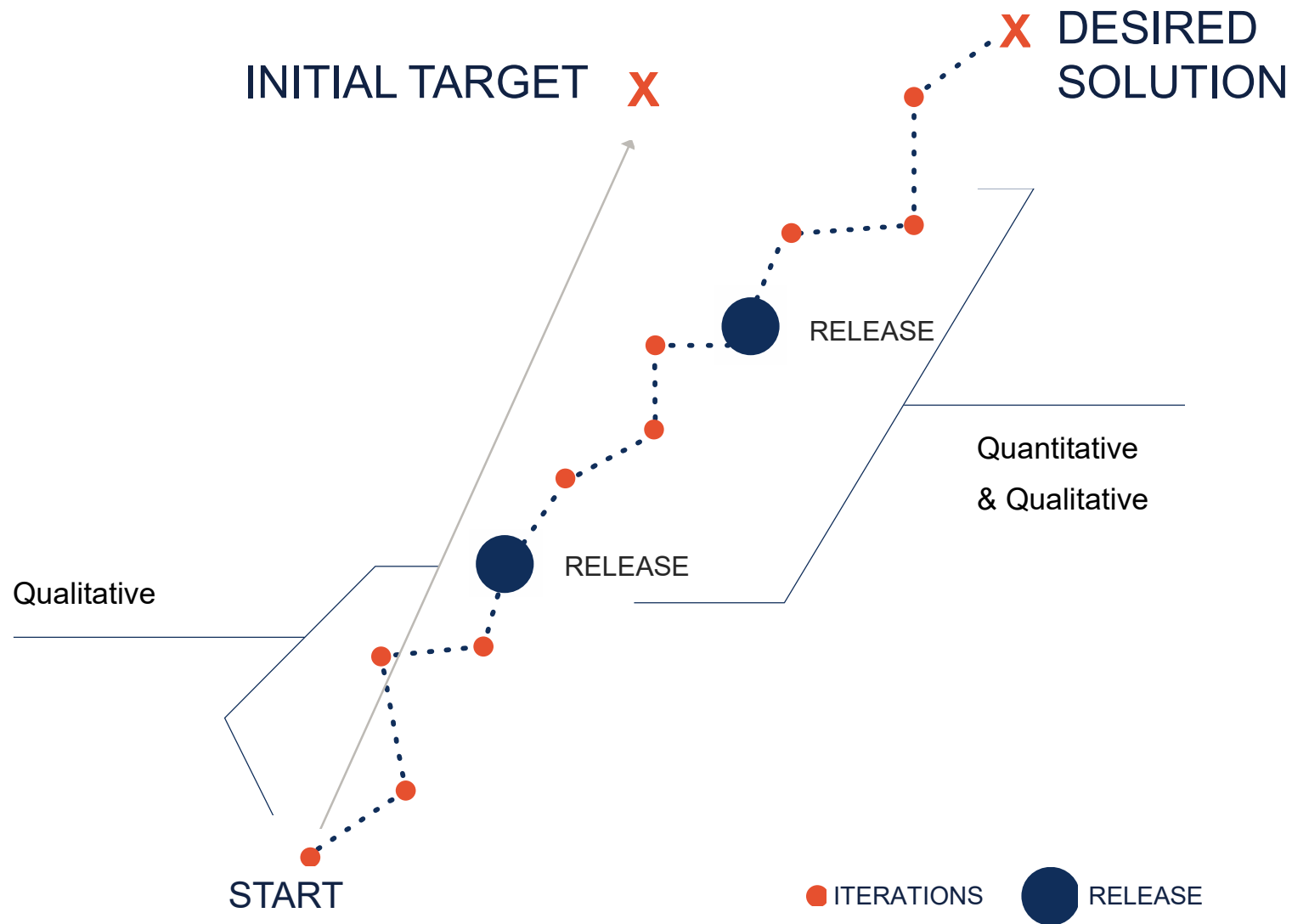












REQUIREMENTS IS NOT A PHASE

Use data to drive
decisions based on user
needs

ADDRESS THE ENTIRE USER JOURNEY



MAKE IT SIMPLE AND INTUITIVE

Use data to drive
decisions based on user
needs

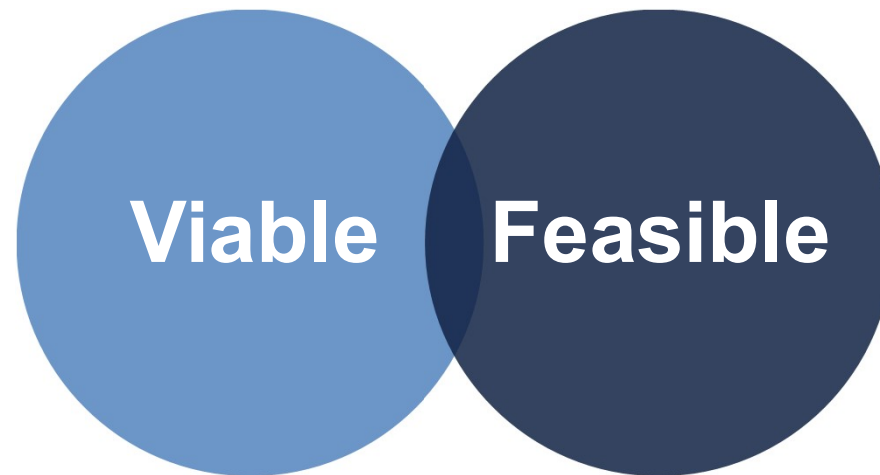
Address the entire user
journey



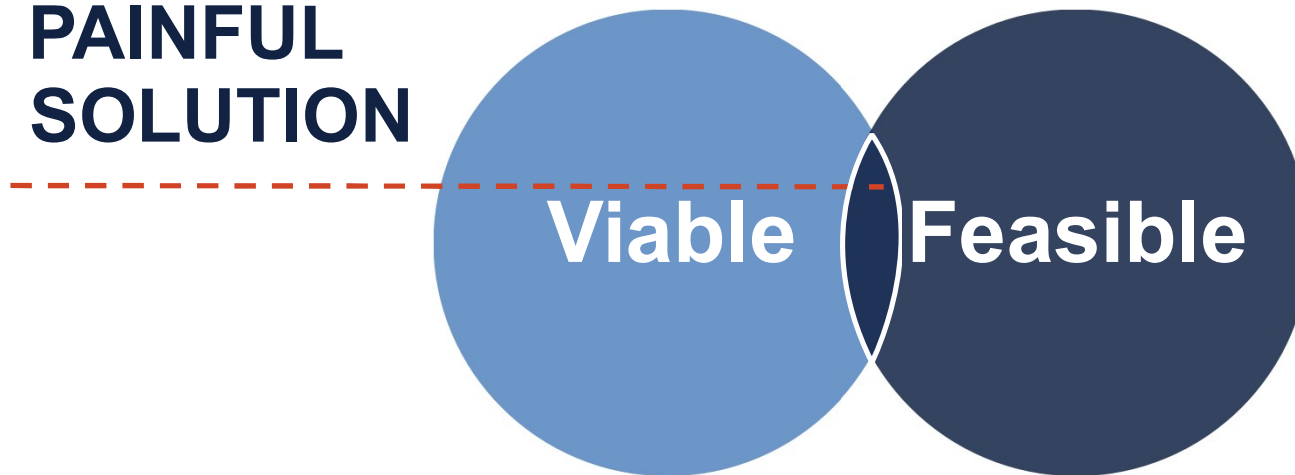
Viable



Feasible



**PAINFUL
SOLUTION**

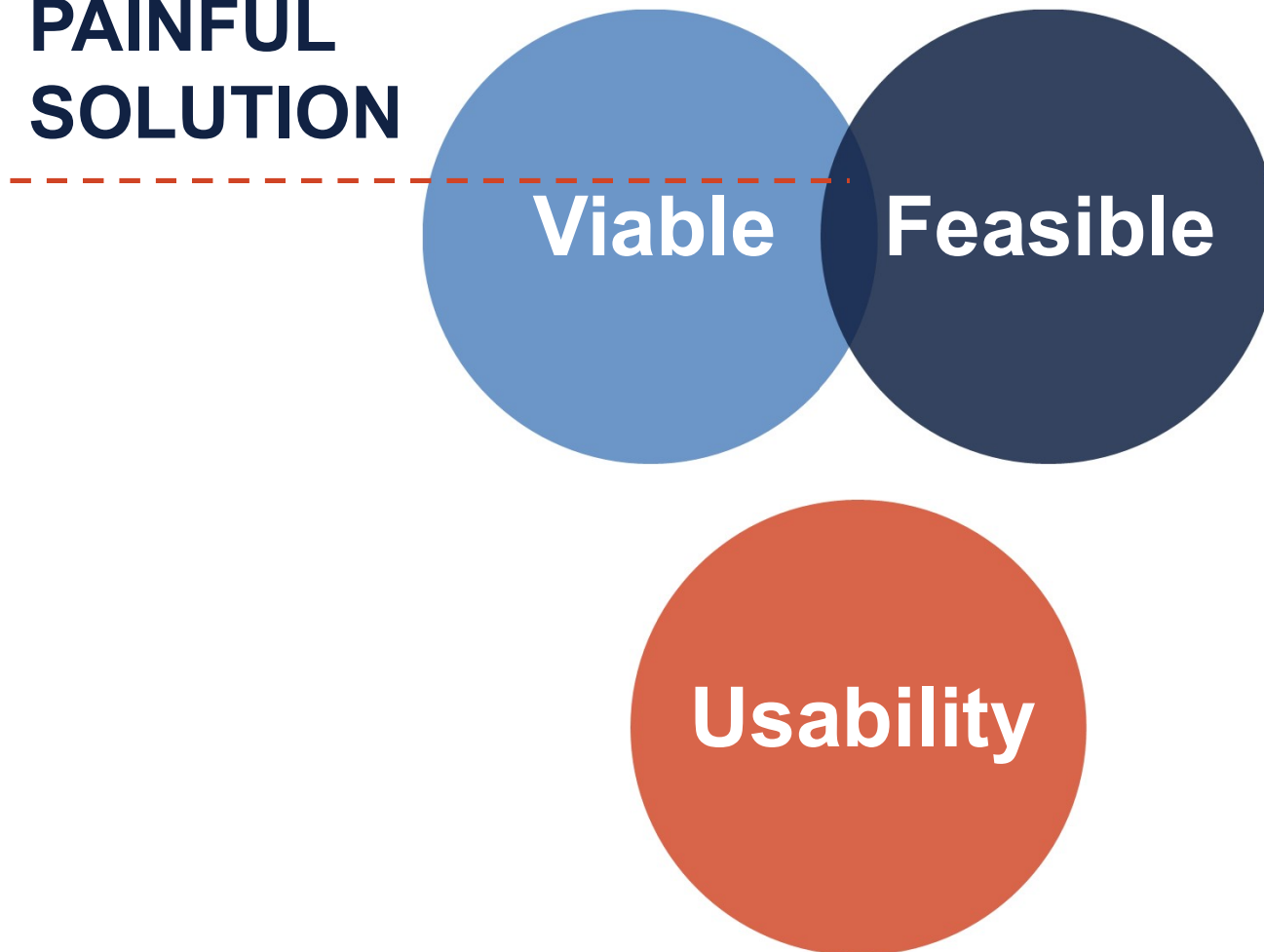


**PAINFUL
SOLUTION**

Viable

Feasible

Usability



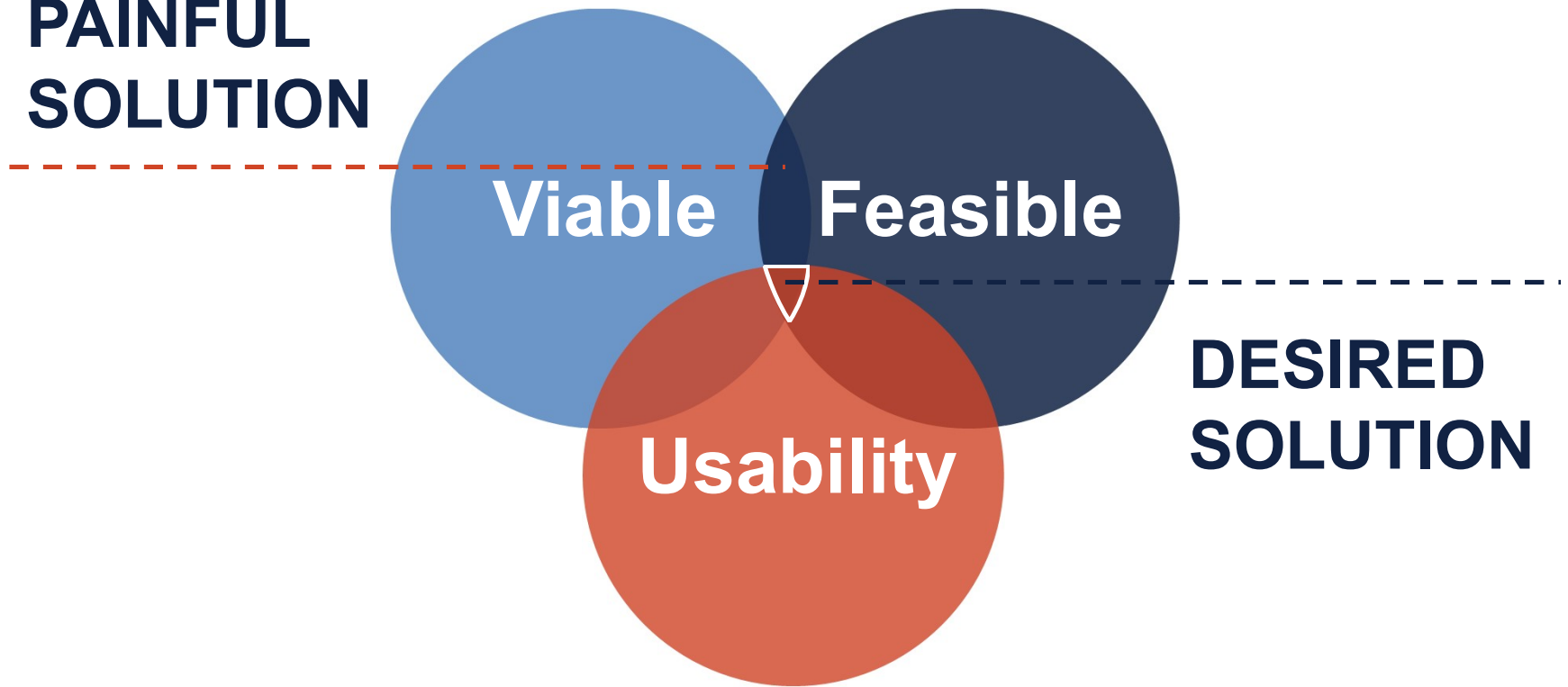
**PAINFUL
SOLUTION**

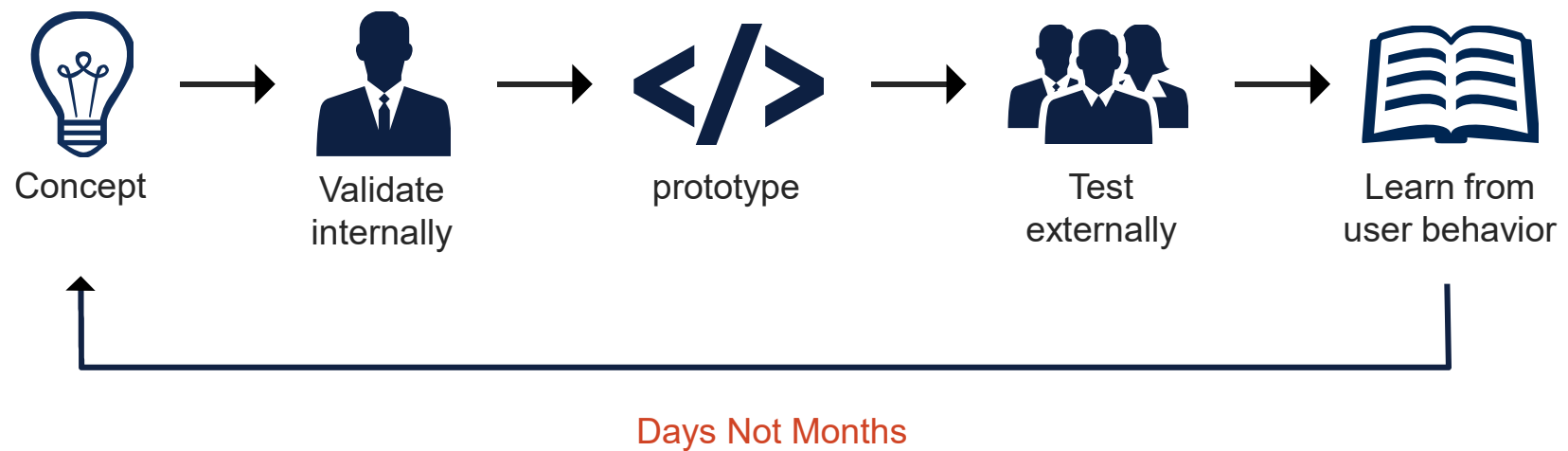
Viable

Feasible

Usability

**DESIRED
SOLUTION**



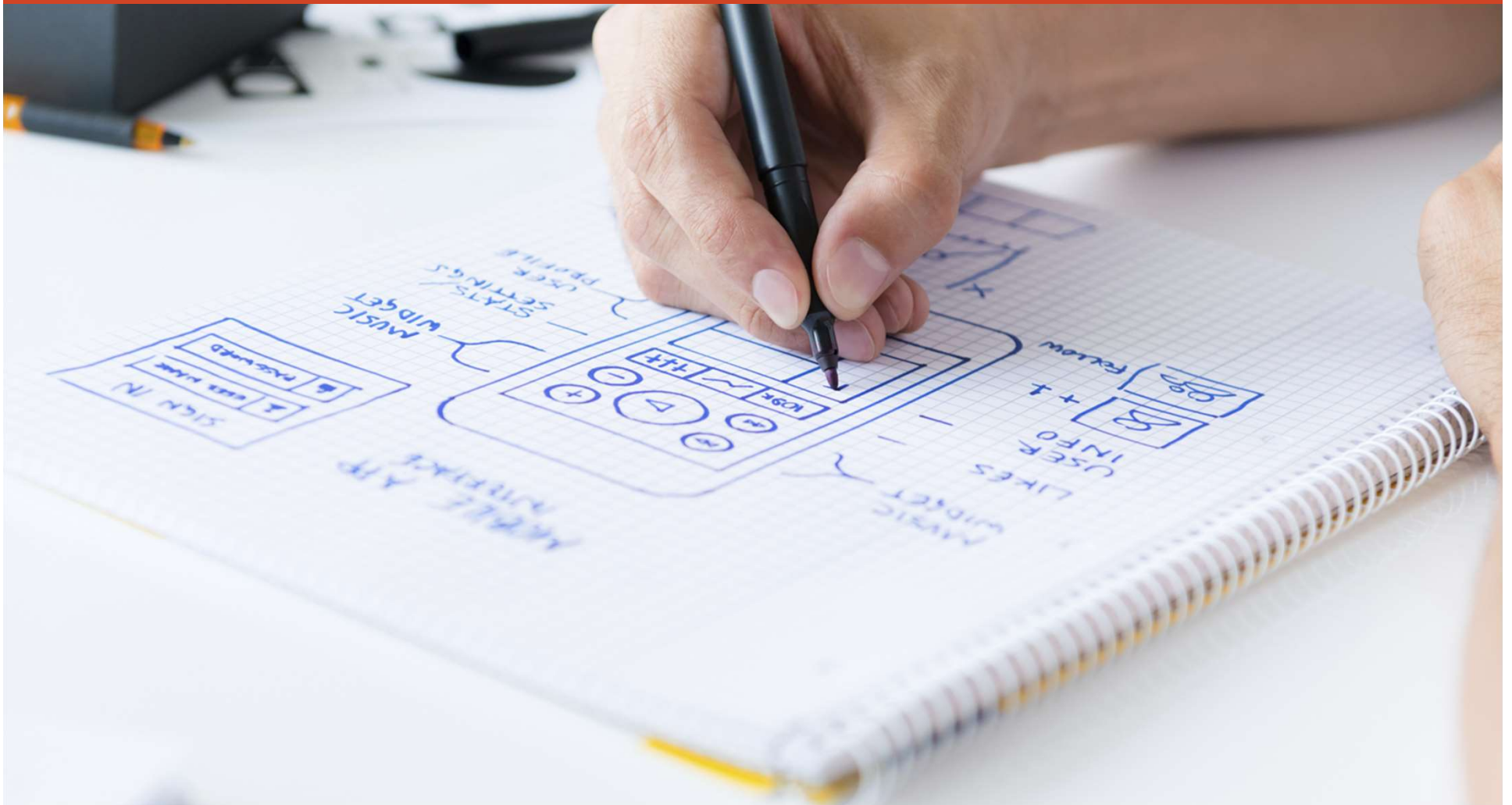


LEAN UX

Problem/Solution Interviews



Sketching / Prototypes



Usability Testing



Lean Discovery Building Blocks

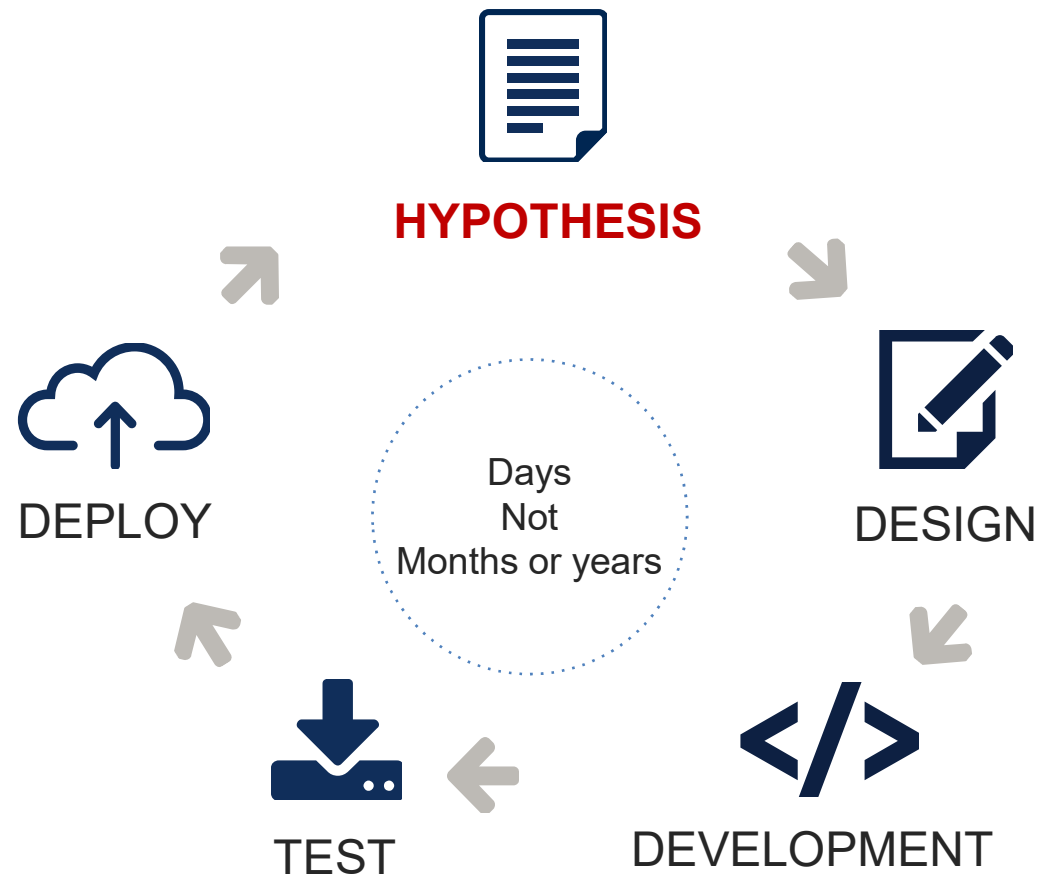


AGILE DELIVERY & DEVOPS

Building the “THING RIGHT”

“How long would it take your organization to deploy a change that involves just one single line of code? Do you do this on a repeatable, reliable basis?”

– Mary and Tom Poppendieck,
Implementing Lean Software Development



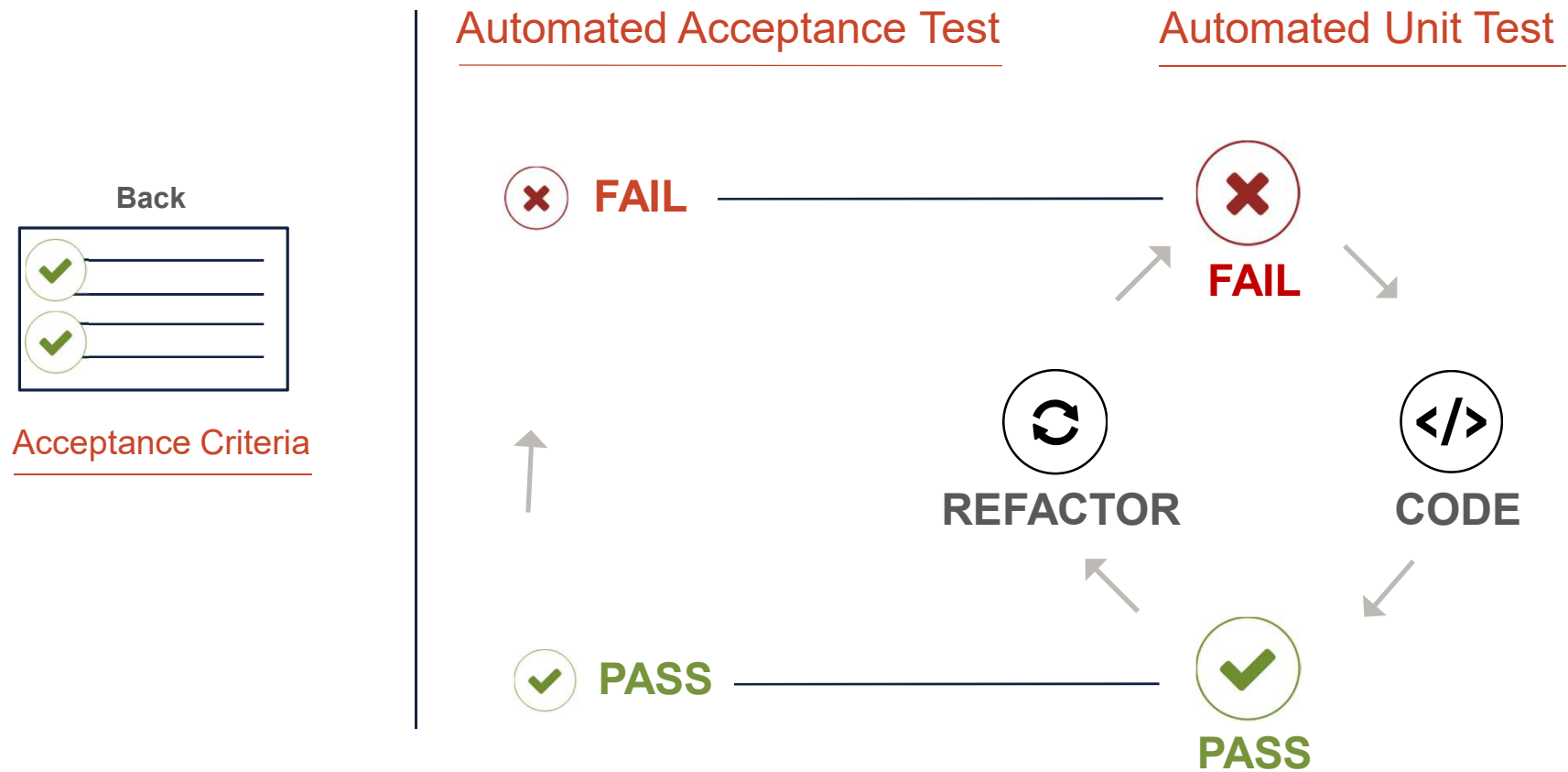
AUTOMATE TESTING AND DEPLOYMENTS

Use data to drive
decisions based on user
needs

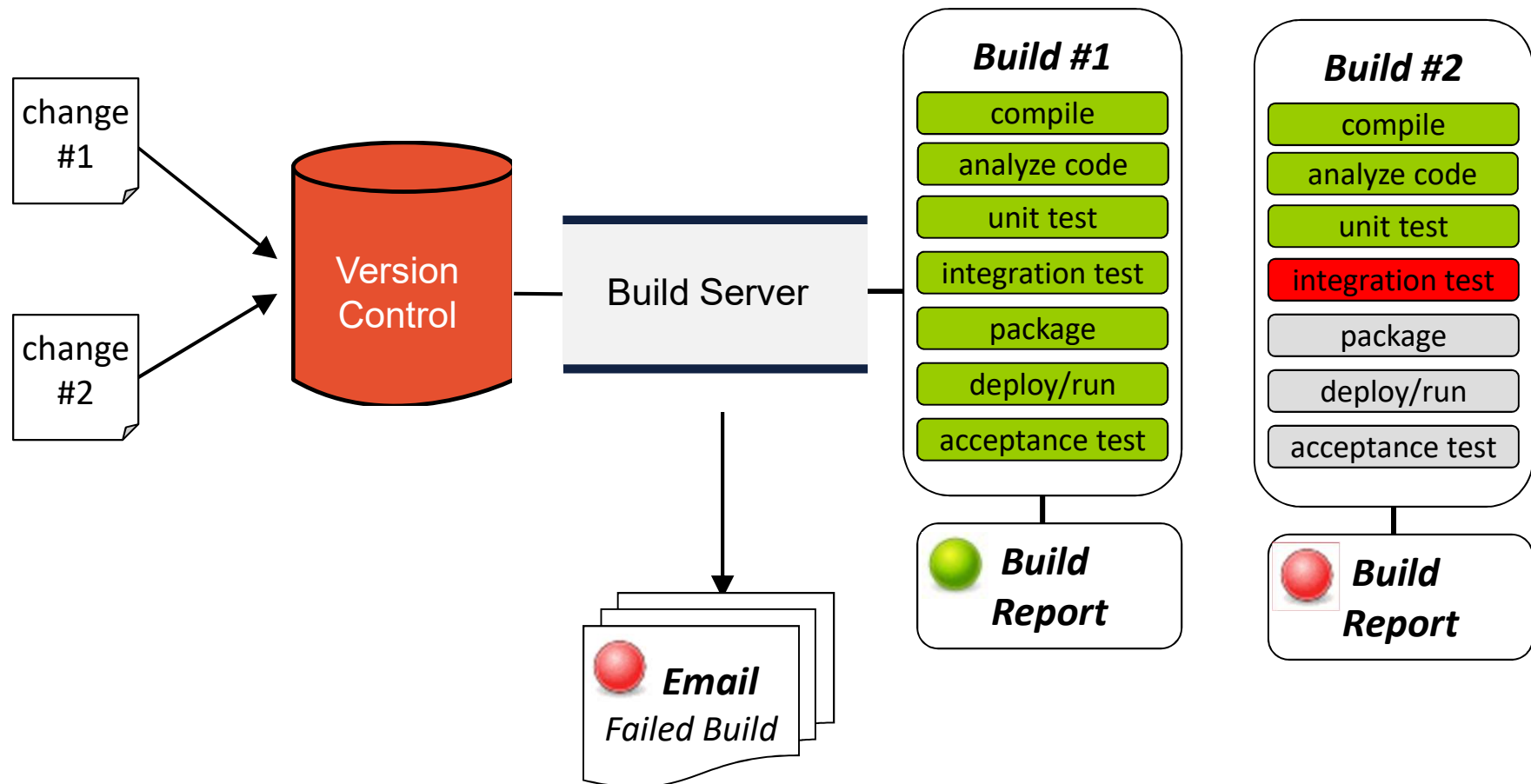
Address the entire user
journey making it simple
and intuitive

Make it simple and
intuitive

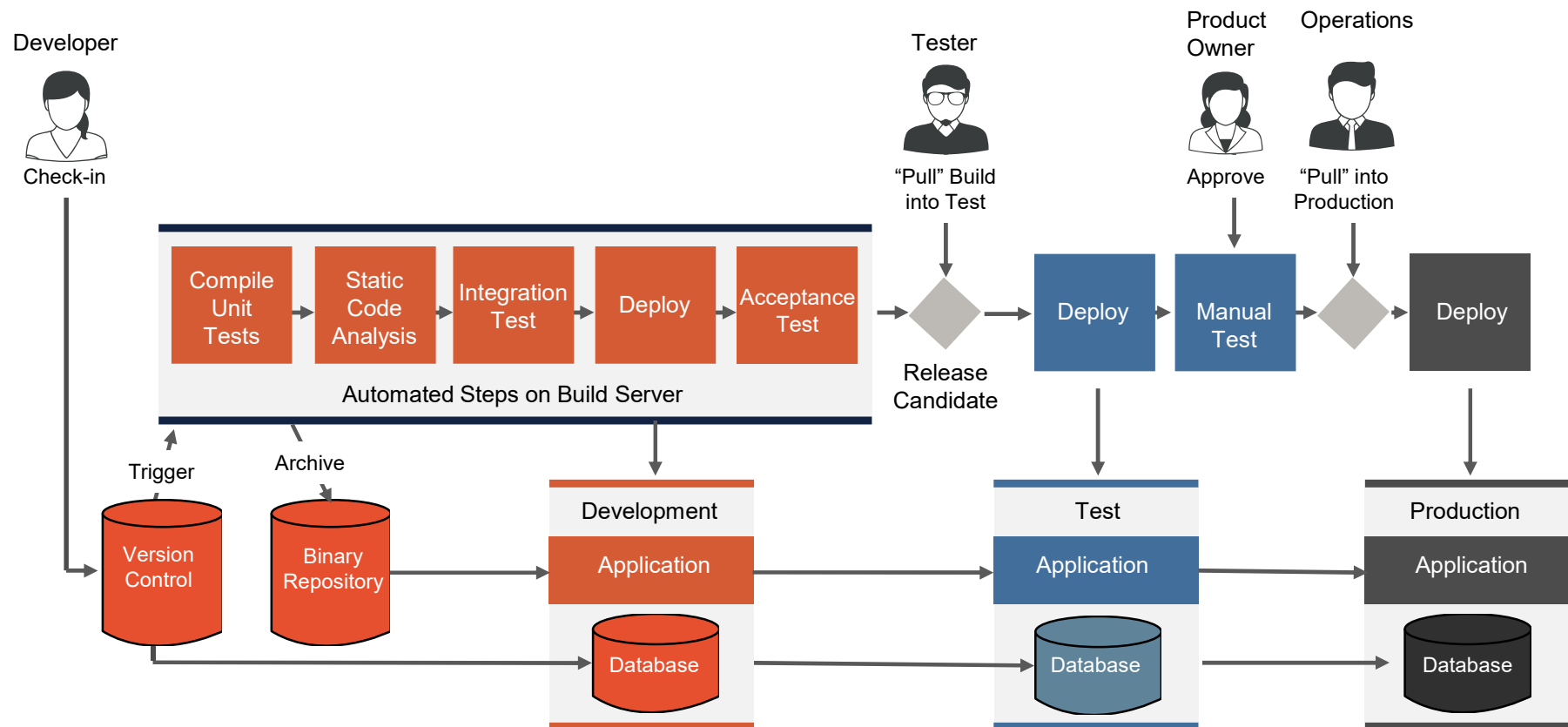
Automated Testing – ATDD/TDD



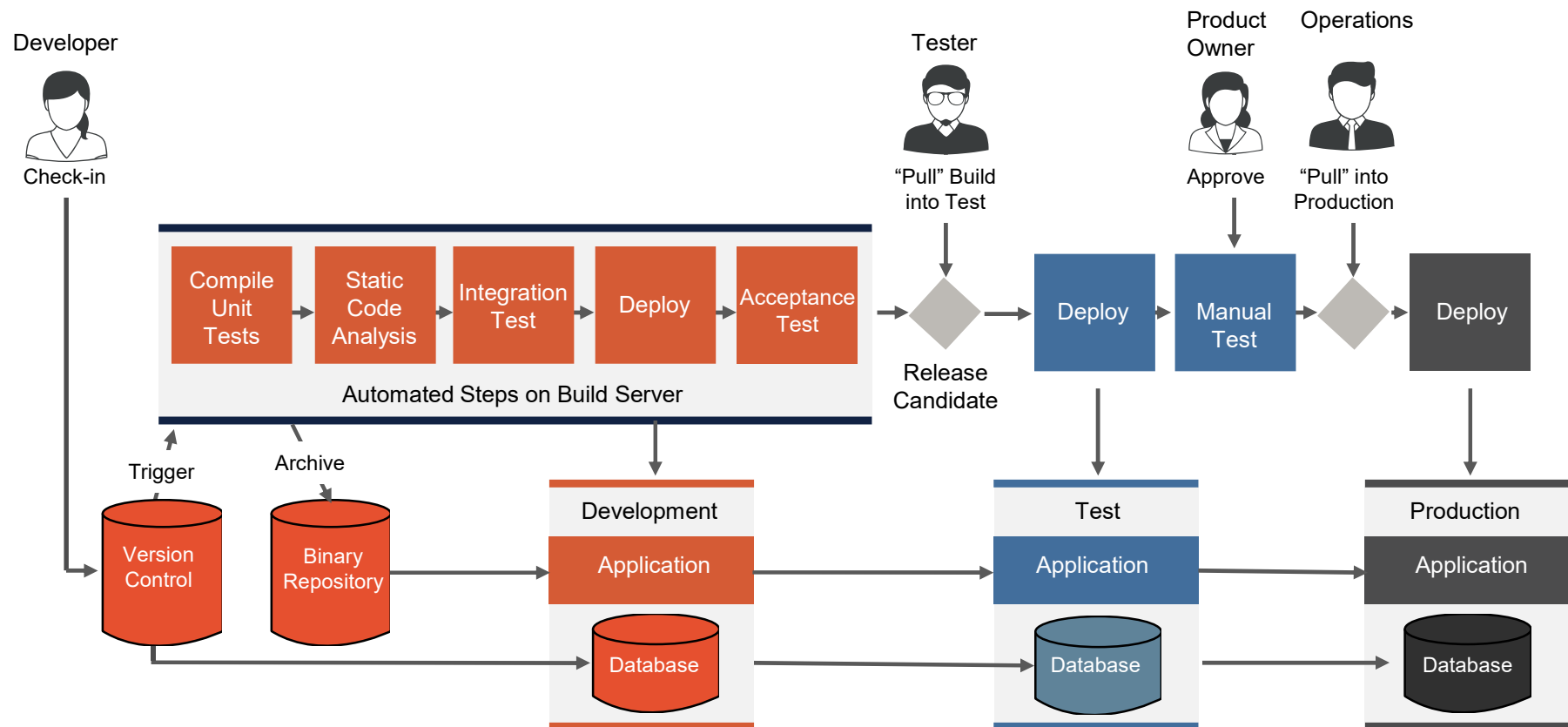
TESTING IS NOT A PHASE



Automation - Continuous Integration

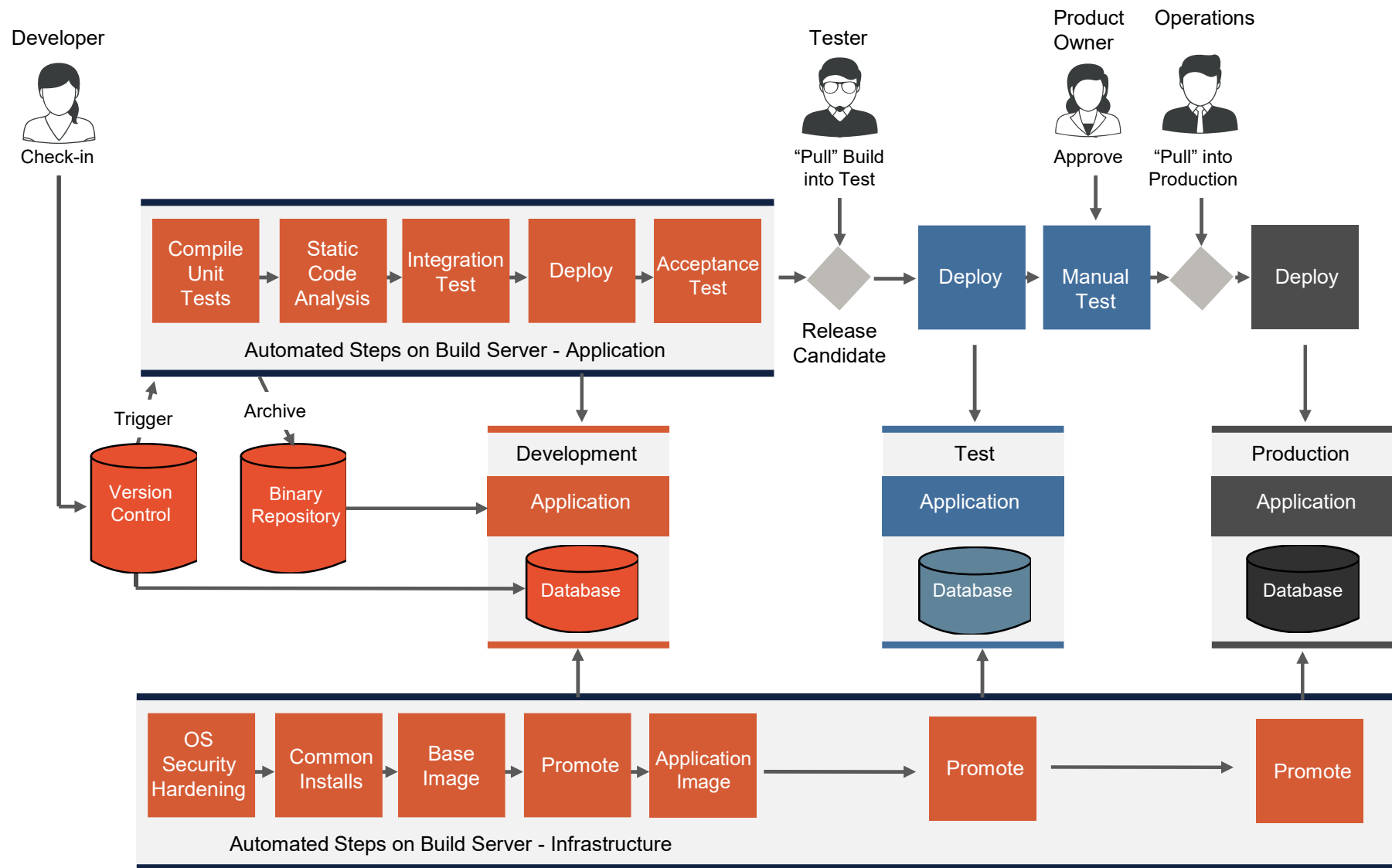


Automation – Deployment Pipeline



Automation – Deployment Pipeline

INFRASTRUCTURE AS CODE



Automation – Deployment Pipeline

USE A MODERN TECHNOLOGY STACK

Use data to drive
decisions based on user
needs

Address the entire user
journey making it simple
and intuitive

Make it simple and
intuitive

Automate testing and
deployment

LEVERAGE THE CLOUD

Use data to drive
decisions based on user
needs

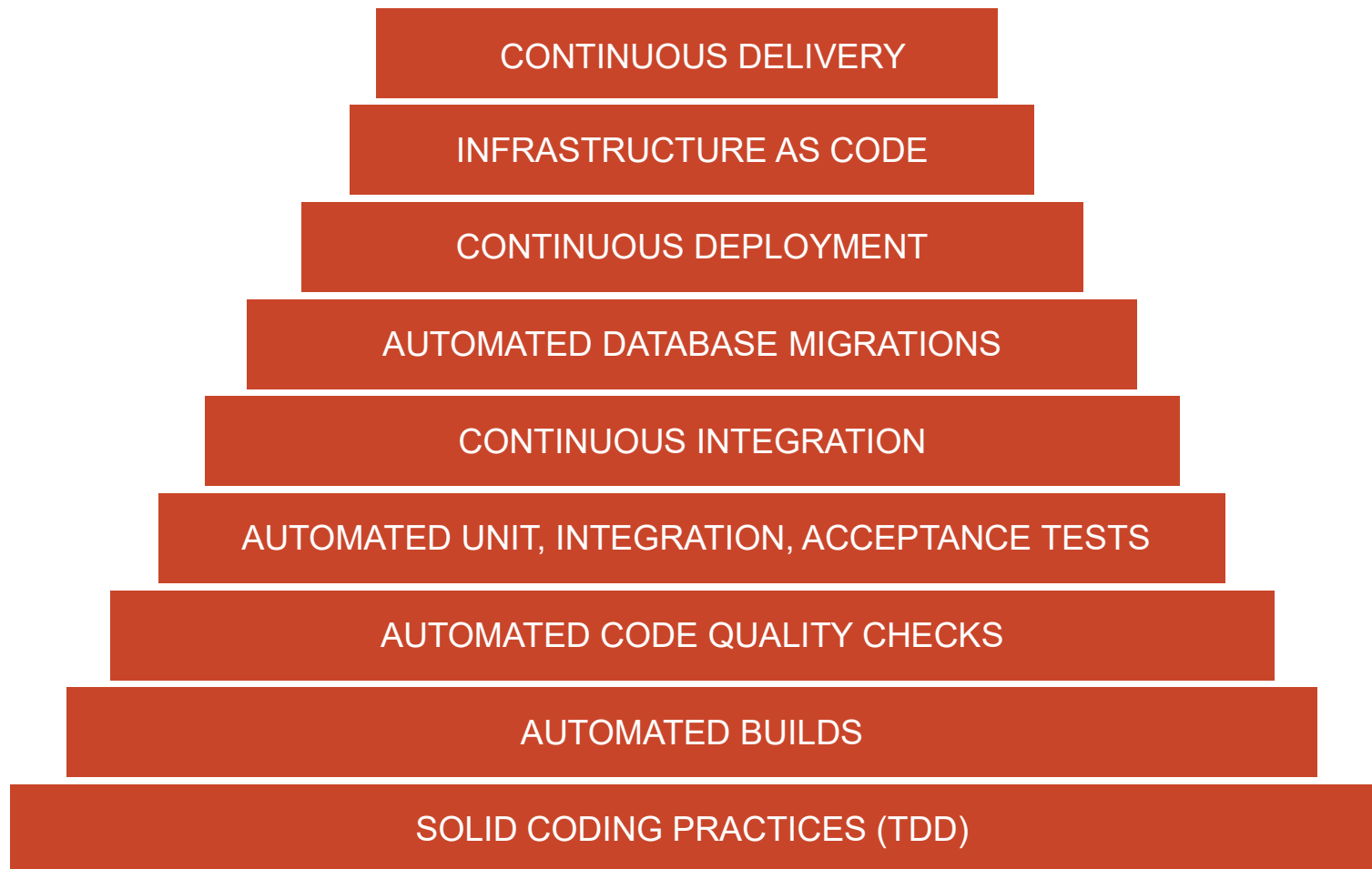
Address the entire user
journey making it simple
and intuitive

Make it simple and
intuitive

Automate testing and
deployment

Use modern technology
stack

Agile Delivery Building Blocks



MINDSET

GOAL

Continuously deliver customer value in a sustainable way with improved lead time, resilience and quality.

EXPERIENCED TEAM

Use data to drive decisions based on user needs ■

Address the entire user journey making it simple and intuitive ■

Make it simple and intuitive ■

Automate testing and deployment ■

Use modern technology stack ■

Leverage the cloud ■

Team Structure

Business Analysts



UXers & Designers



Developers



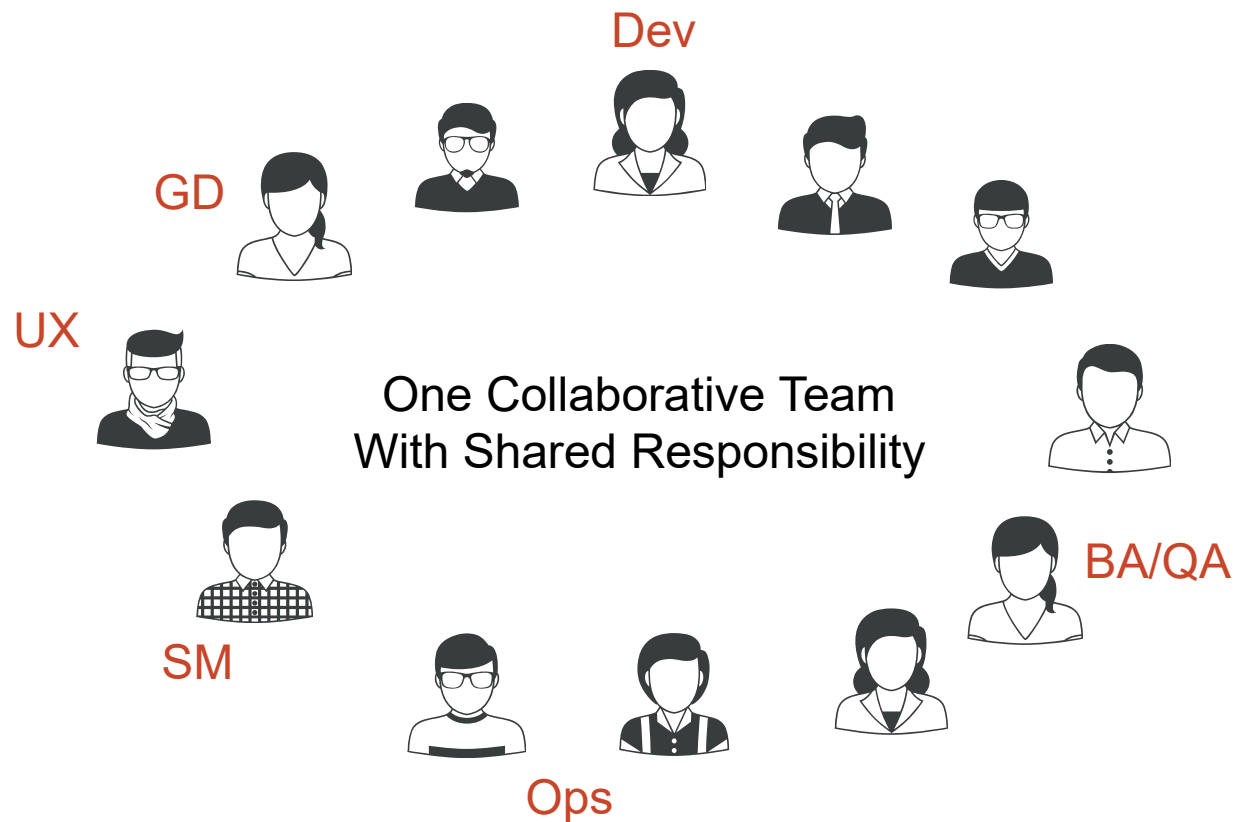
Testers



Ops



Team Structure



DEDICATED BUSINESS PRODUCT OWNER

Use data to drive decisions based on user needs ■

Address the entire user journey making it simple and intuitive ■

Make it simple and intuitive ■

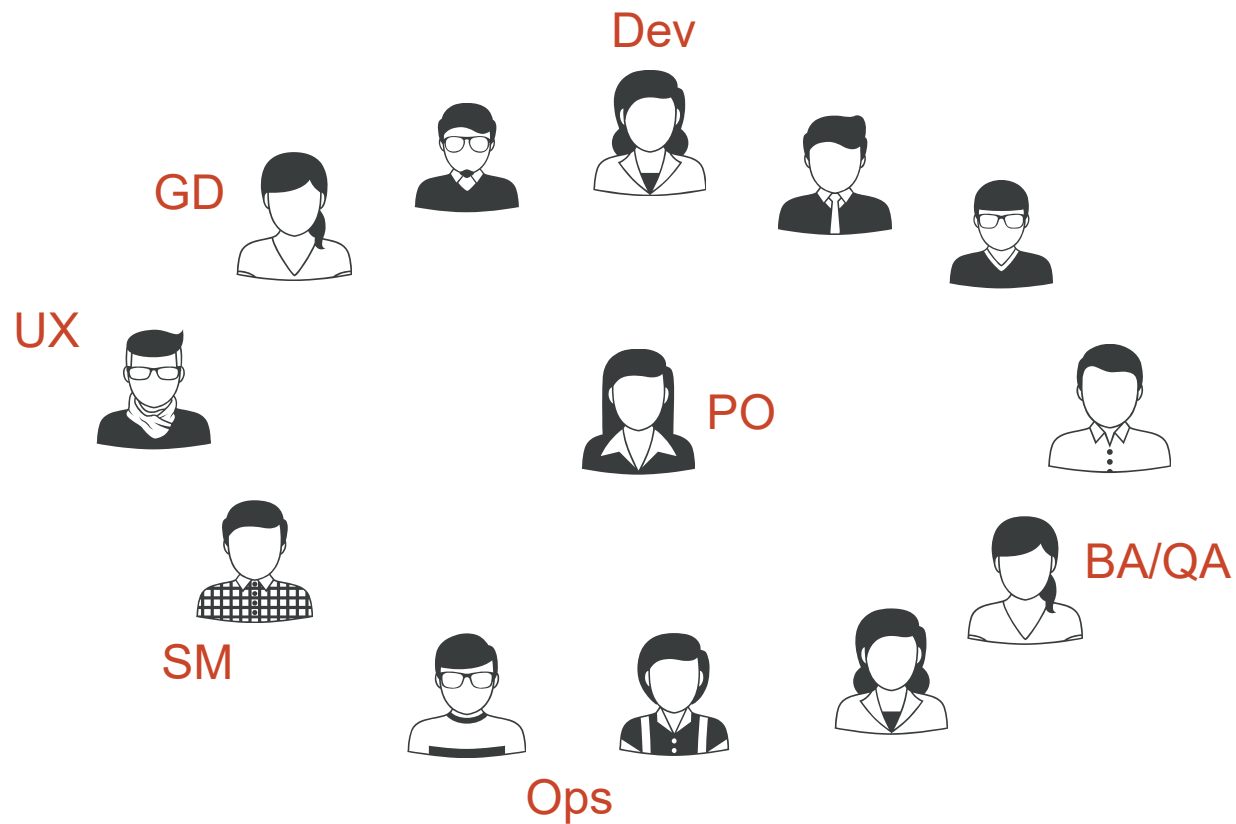
Automate testing and deployment ■

Use modern technology stack ■

Leverage the cloud ■

Experienced Team ■

Team Structure



ITERATIVE & INCREMENTAL

Use data to drive decisions based on user needs ■

Address the entire user journey making it simple and intuitive ■

Make it simple and intuitive ■

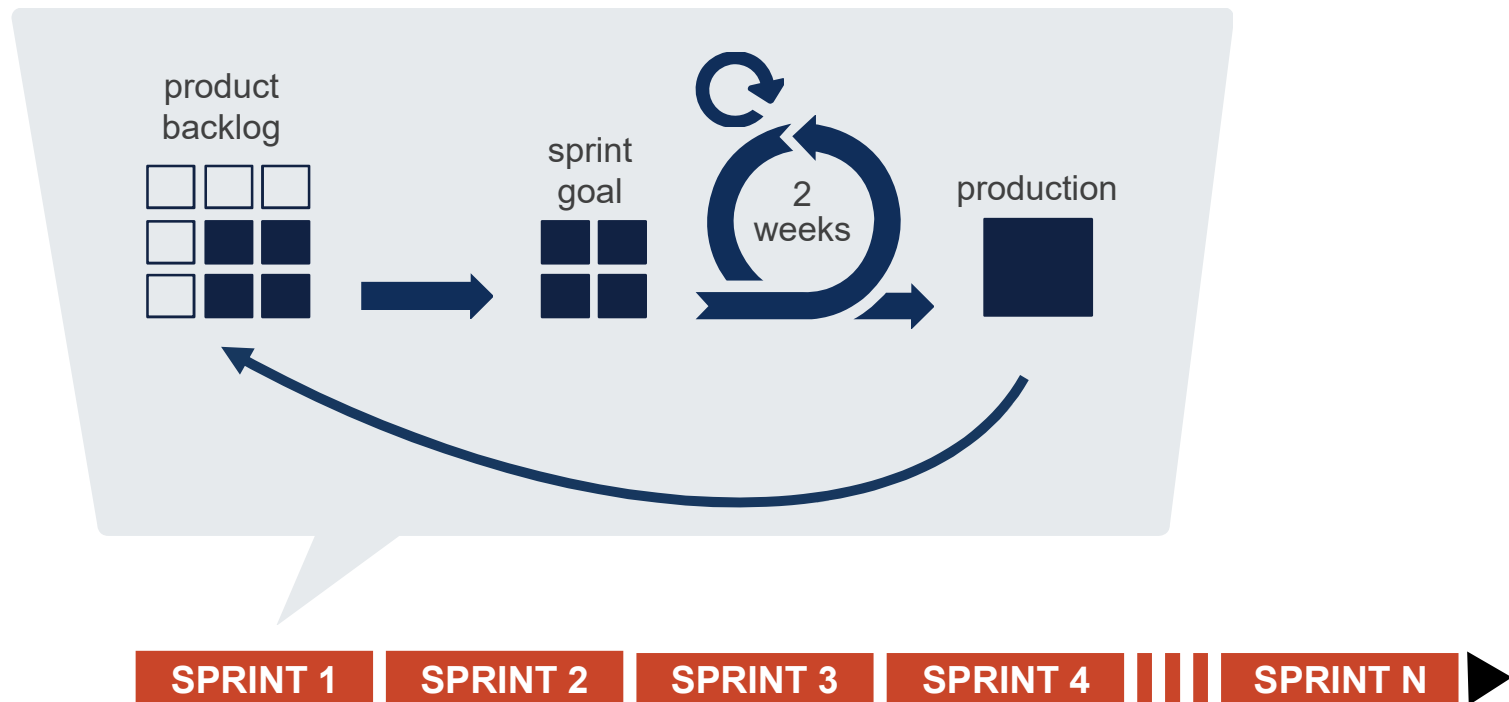
Automate testing and deployment ■

Use modern technology stack ■

Leverage the cloud ■

Experienced Team ■

Dedicated Business Product Owner ■



APPLICATION DEVELOPMENT: SCRUM

SUMMARY

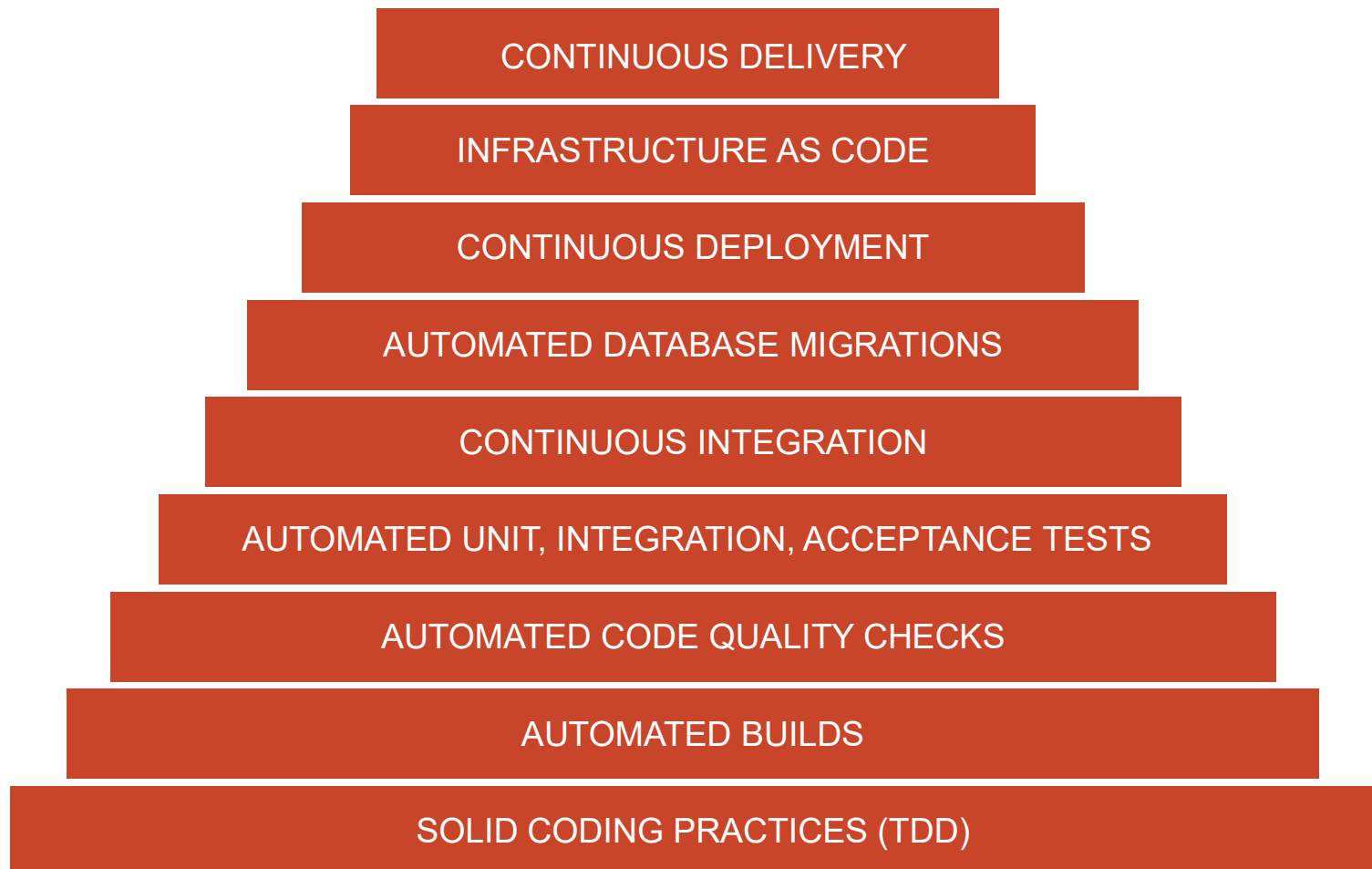
Building the
“RIGHT THING”

Building the
“THING RIGHT”

Lean Discovery Building Blocks



Agile Delivery Building Blocks



**REQUIREMENTS
IS NOT A PHASE**

TESTING IS NOT A PHASE

9 Essentials for Succeeding with Digital Service Delivery

- Experienced team
- Dedicated business product owner
- Iterative & incremental approach
- Use data to drive decisions based on user needs
- Address the entire user journey
- Make it simple and intuitive
- Use a modern technology stack
- Automate testing and deployments
- Leverage the cloud

Check out <https://playbook.cio.gov/>