

# Tech Revolution Summit 2023

Low Code Security:  
How to secure citizen software  
development

 **accenture**



# Content

01

What is low code security & citizen development?

02

Why is it a new challenge?

03

How do we solve it?

# About me



## **Professional:**

Security Consulting Manager @ Accenture Security

## **Education:**

B. Sc. Information Systems (Wirtschaftsinformatik)

M. Sc. Applied Computer Science – Software Engineering

## **Certifications:**

CISSP

ISO 27001 Lead Implementer

ISO 27005 Risk Manager

AWS Solutions Architect

MITRE ATT&CK Defender (Cyber Threat Intelligence)





01

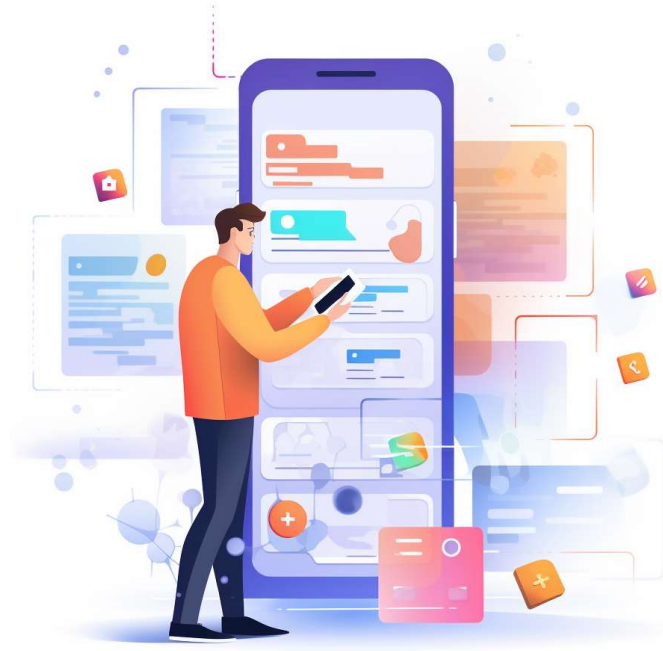
# What is low code security & citizen development?



# What is low code security or citizen development?

## Citizen Developer:

"A citizen developer is an employee who creates application capabilities for consumption by themselves or others, using tools that are not actively forbidden by IT or business units. A citizen developer is a persona, not a title or targeted role. They report to a business unit or function other than IT."<sup>1</sup>



<sup>1</sup> Gartner Glossary (Information Technology): Citizen Developer

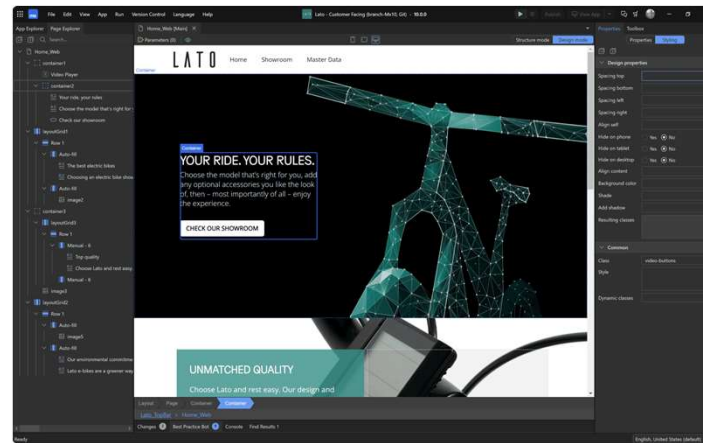
<sup>2</sup> Mendix: The Definitive Guide to Low Code Development



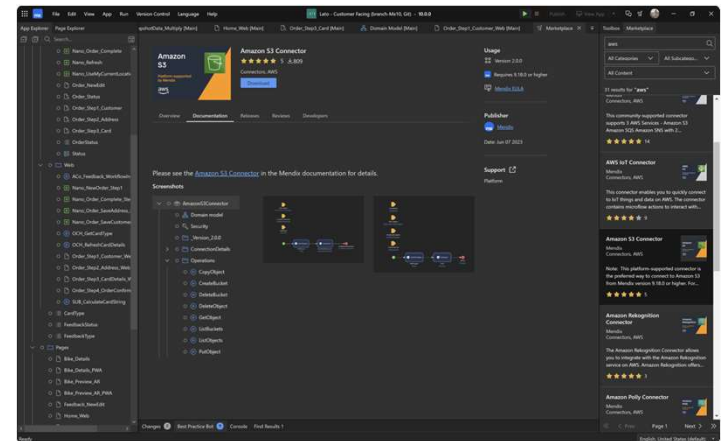
# What is low code security or citizen development?

## Low Code:

“Low code is an application development method that elevates coding from textual to visual. Rather than a technical coding environment, low code operates in a model-driven, drag-and-drop interface.”<sup>2</sup>



Mendix Studio Pro Interface



Mendix Marketplace

<sup>1</sup> Gartner Glossary (Information Technology): Citizen Developer

<sup>2</sup> Mendix: The Definitive Guide to Low Code Development



# What is low code security or citizen development?

## Citizen Developer:

"A citizen developer is an employee who creates application capabilities for consumption by themselves or others, using tools that are not actively forbidden by IT or business units. A citizen developer is a persona, not a title or targeted role. They report to a business unit or function other than IT."<sup>1</sup>

## Low Code:

"Low code is an application development method that elevates coding from textual to visual. Rather than a technical coding environment, low code operates in a model-driven, drag-and-drop interface."<sup>2</sup>

## Low Code Security:

→ What we must ensure whenever professional and citizen developers use Low Code tools to develop applications.

<sup>1</sup> Gartner Glossary (Information Technology): Citizen Developer

<sup>2</sup> Mendix: The Definitive Guide to Low Code Development



# Why should you care about it?

## Forecasts:

“Low code application platforms (LCAPs) are projected to be the largest component of the low code development technology market, growing 25% to reach nearly \$10 billion in 2023 [..].”<sup>1</sup>

“Gartner predicts that by 2026, developers outside formal IT departments will account for at least 80% of the user base for low code development tools, up from 60% in 2021.”<sup>1</sup>

“[...] Nearly half of the SMBs we surveyed stated that their business uses LCNC. We expect this trend to accelerate, as 56% of these SMBs plan to increase their weekly usage of LCNC platforms relative to other enterprise software. What’s more, 58% of the SMBs that use LCNC today expect their investment in the platform to increase. It is currently estimated that 65% of all app development will be LCNC by 2024.”<sup>2</sup>

<sup>1</sup> Gartner Press Release (13.12.2022)

<sup>2</sup> Accenture: Revolutionizing platforms through low code/no-code (17.06.2021)





# Why should you care about it?

## Forecasts:

“Low code application platforms (LCAPs) are projected to be the largest component of the low code development technology market, growing 25% to reach nearly \$10 billion in 2023 [..].”<sup>1</sup>

“Gartner predicts that by 2026, developers outside formal IT departments will account for at least 80% of the user base for low code development tools, up from 60% in 2021.”<sup>1</sup>

“[...] Nearly half of the SMBs we surveyed stated that their business uses LCNC. We expect this trend to accelerate, as 56% of these SMBs plan to increase their weekly usage of LCNC platforms relative to other enterprise software. What’s more, 58% of the SMBs that use LCNC today expect their investment in the platform to increase. It is currently estimated that 65% of all app development will be LCNC by 2024.”<sup>2</sup>

<sup>1</sup> Gartner Press Release (13.12.2022)

<sup>2</sup> Accenture: Revolutionizing platforms through low code/no-code (17.06.2021)

## So, in short:

→ Citizen Developers using low code platforms might soon be the largest group of developers, but...

→ ...existing policies, guidelines and training resources are tailored towards professional developers.





02

# Why is it a new challenge?

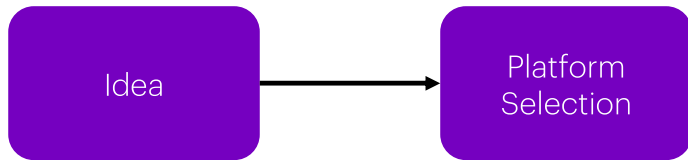


# Story time: What could possibly go wrong?

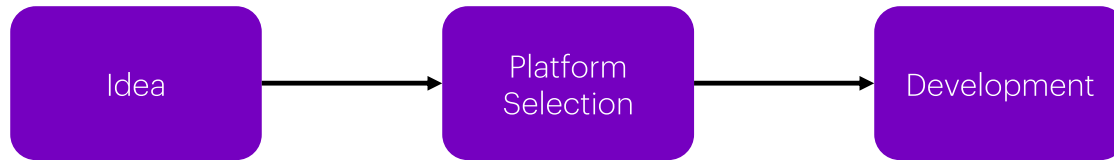
Idea



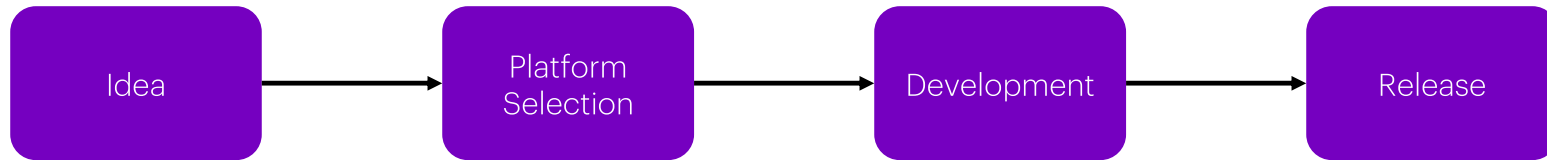
# Story time: What could possibly go wrong?



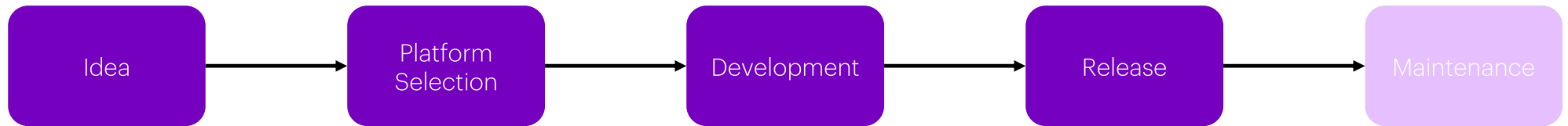
# Story time: What could possibly go wrong?



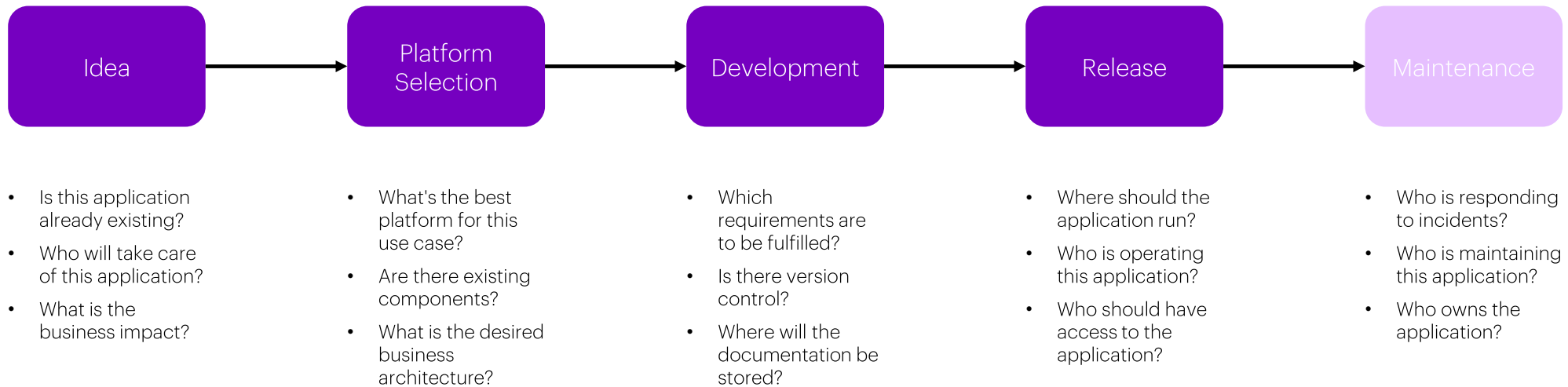
# Story time: What could possibly go wrong?



# Story time: What could possibly go wrong?



# Story time: What could possibly go wrong?



What about information security?

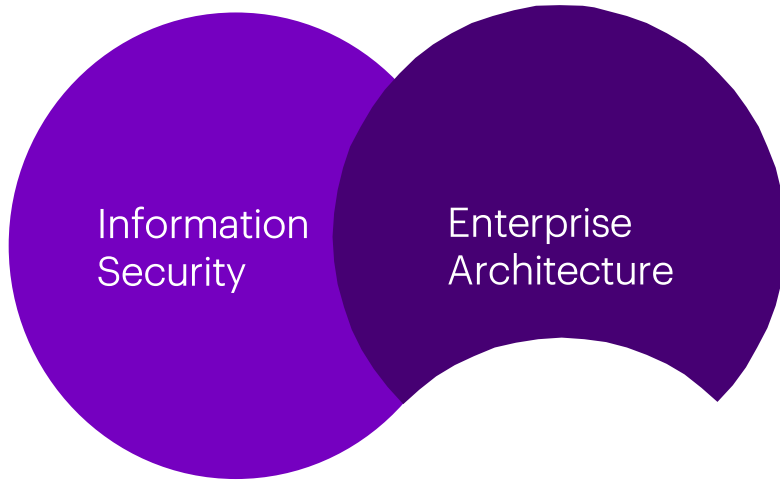




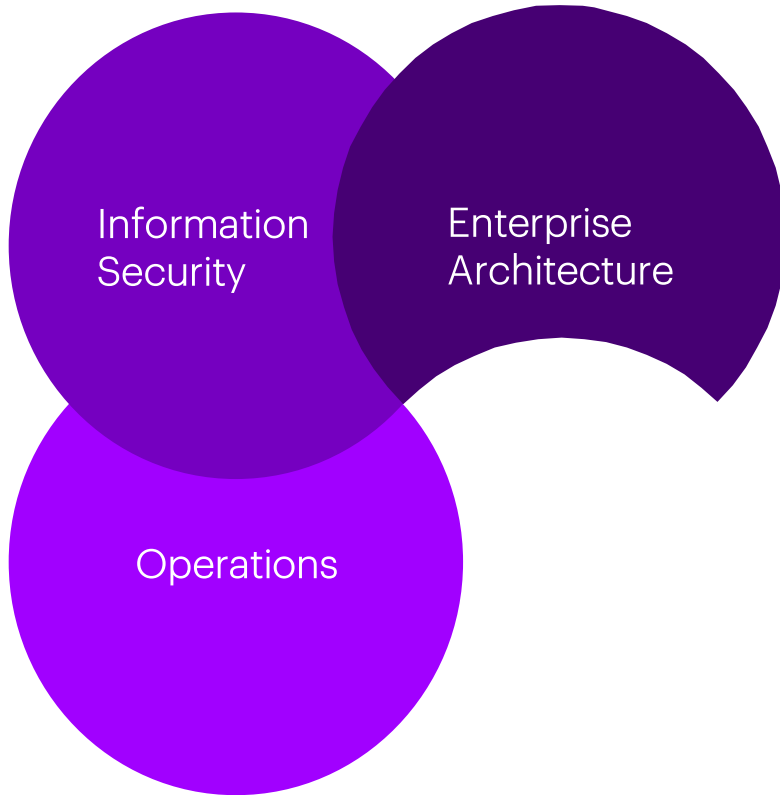
# So... who is affected?



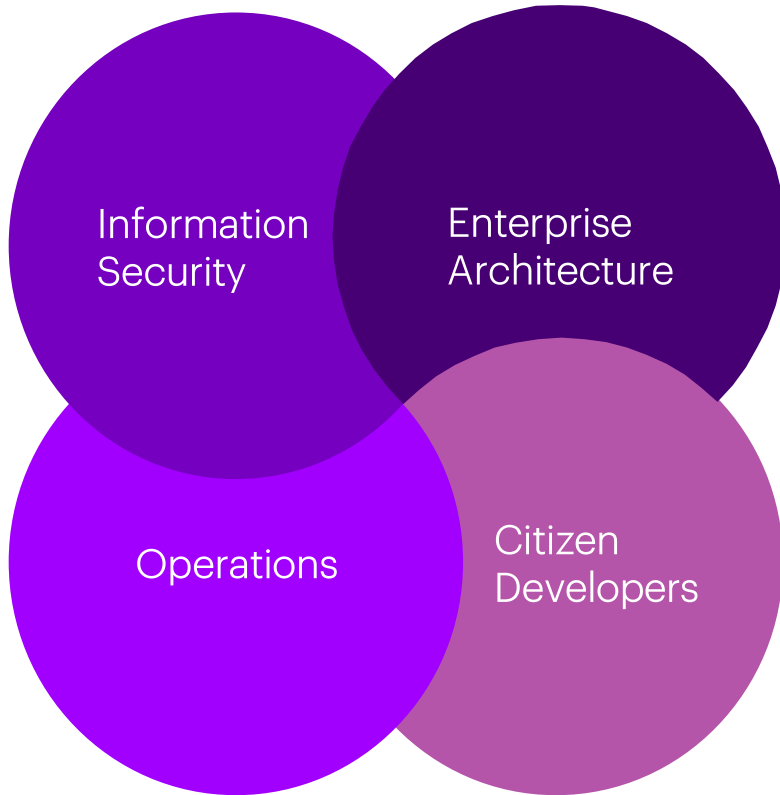
# So... who is affected?



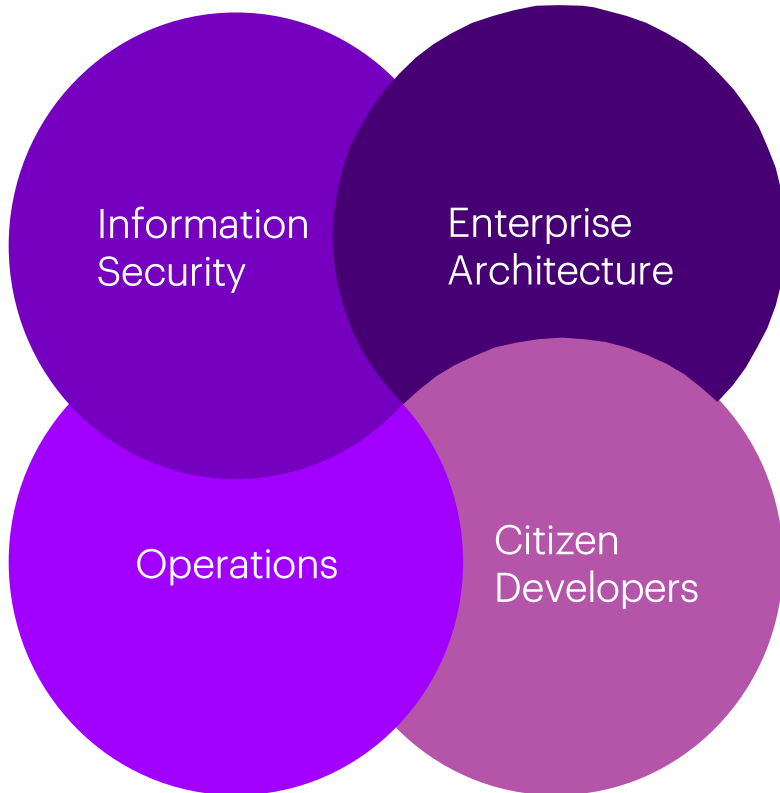
# So... who is affected?



# So... who is affected?



# So... who is affected?



## Summary:

- It's not only a security issue
- We should aim to improve the status quo for all stakeholders
- We must consider the needs of our citizen developers

# So... what is required?



Information Security - Requirements

Enterprise Architecture - Requirements

Operations - Requirements

Citizen Developer - Needs





03

# How do we solve it?



# Let's start by analysing what we have and need

## Approach:

1. Analyze the current SDLC citizen developers use
2. Identify gaps to the SDLC, tooling and resources “professional” developers in your organization use
3. Talk to the stakeholders (including the citizen developers) and identify their pain points
4. Cluster the pain points and identify categories of improvements
5. Evaluate the value of an improvement for **all** the stakeholders
6. Implement the improvements and form a working group for continuous improvement of this process
7. Start at 1





# Let's start by analysing what we have and need

## Approach:

1. Analyze the current SDLC citizen developers use
2. Identify gaps to the SDLC, tooling and resources “professional” developers in your organization use
3. Talk to the stakeholders (including the citizen developers) and identify their pain points
4. Cluster the pain points and identify categories of improvements
5. Evaluate the value of an improvement for **all** the stakeholders
6. Implement the improvements and form a working group for continuous improvement of this process
7. Start at 1

## Most improvements fall into one of these categories:

→ Education

→ Standardization

→ Automation



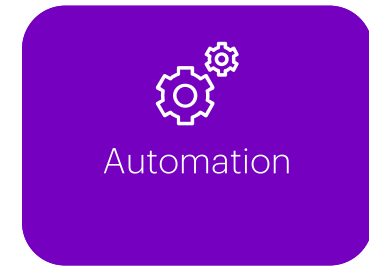
# Some examples for potential improvements



- Awareness Training
- Community Calls
- Low Code Best Practices
- Drivers Licenses
- SME Lightning Talks
- Lessons Learned
- ...



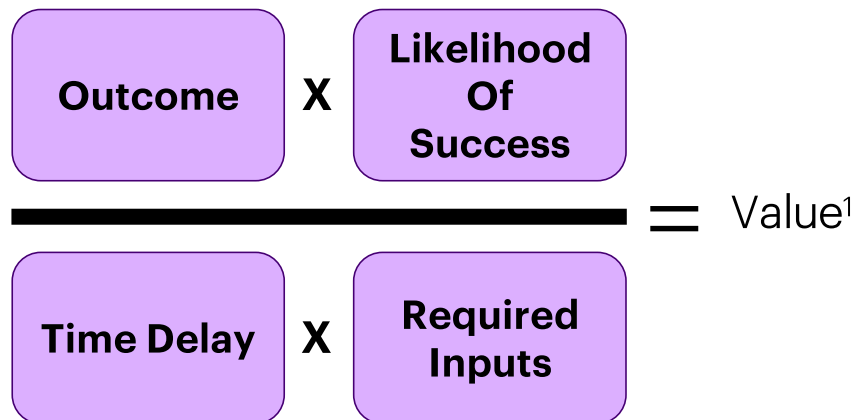
- Application Blueprints
- Premade application components
- Checklists
- Templates
- SDLC alignment
- ...



- Tool integration
- Guided workflows
- Generation of documentation
- Scanning & auto-remediation
- Chatbots
- ...



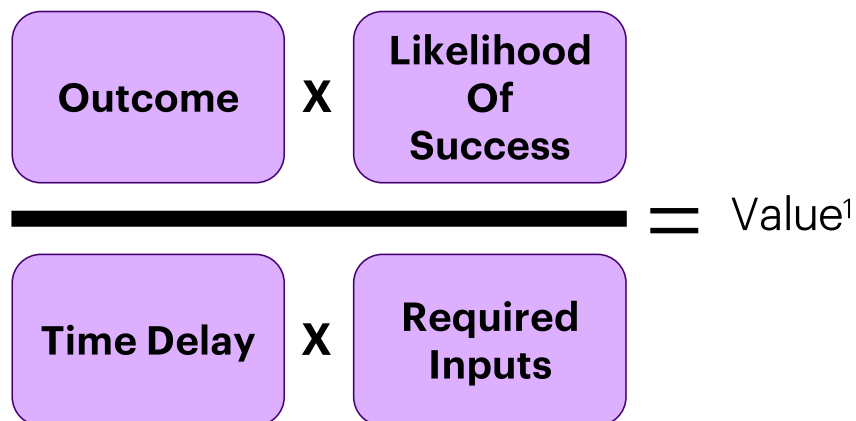
# How do we know we're on the right path?



<sup>1</sup>value model based on Alex Hormozi's "value equation".



# How do we know we're on the right path?



<sup>1</sup>value model based on Alex Hormozi's "value equation".

## Why this approach?

- We want to bring value to our stakeholders, fast
- There is no silver bullet, so we should aim for incremental improvements
- Platforms, methodologies and technologies change constantly, we should be able to do the same



**Thank  
You**

