



# SOFT3112 - Software Development Practice

Spring 2025

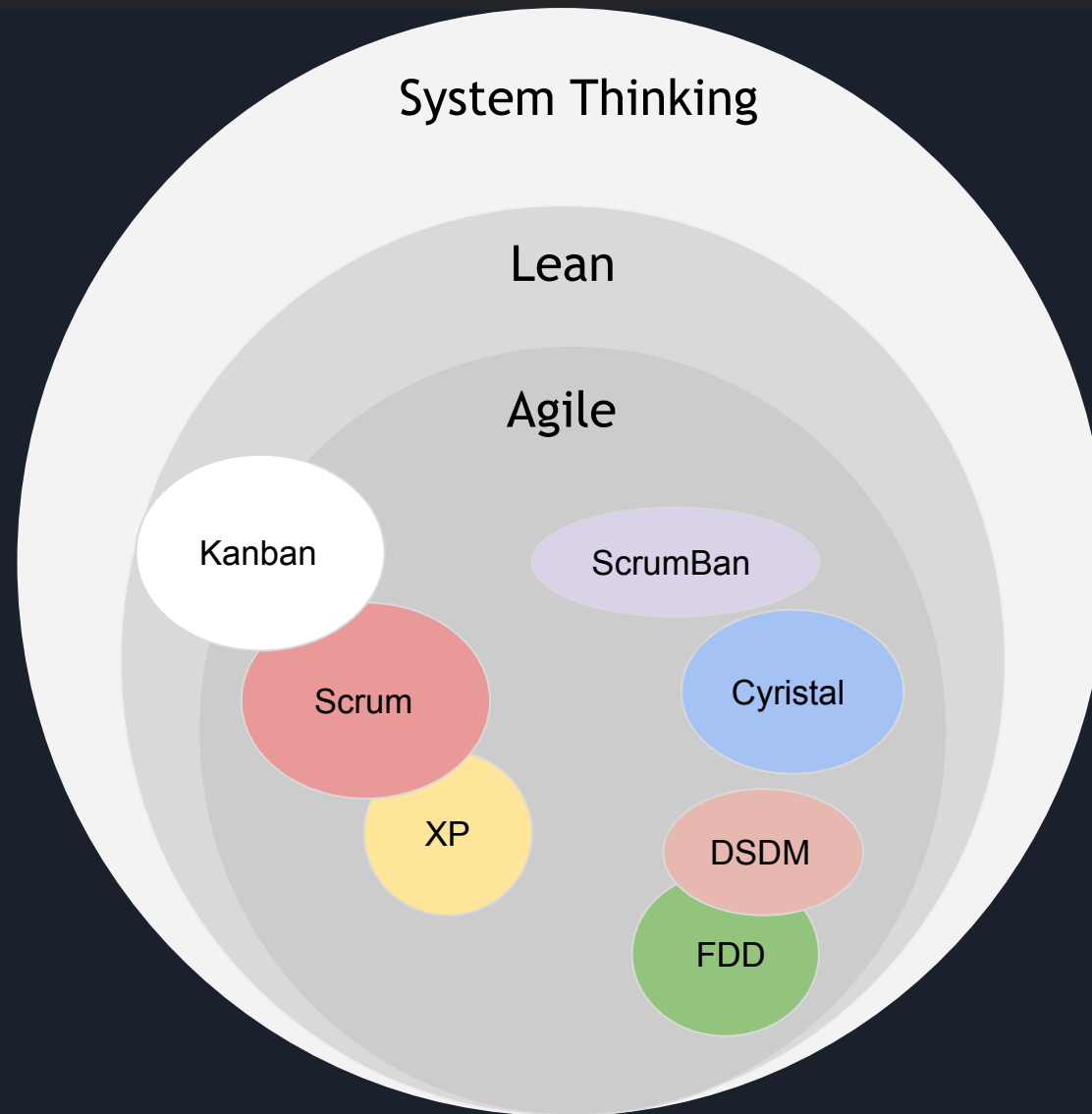


# Agile Awareness

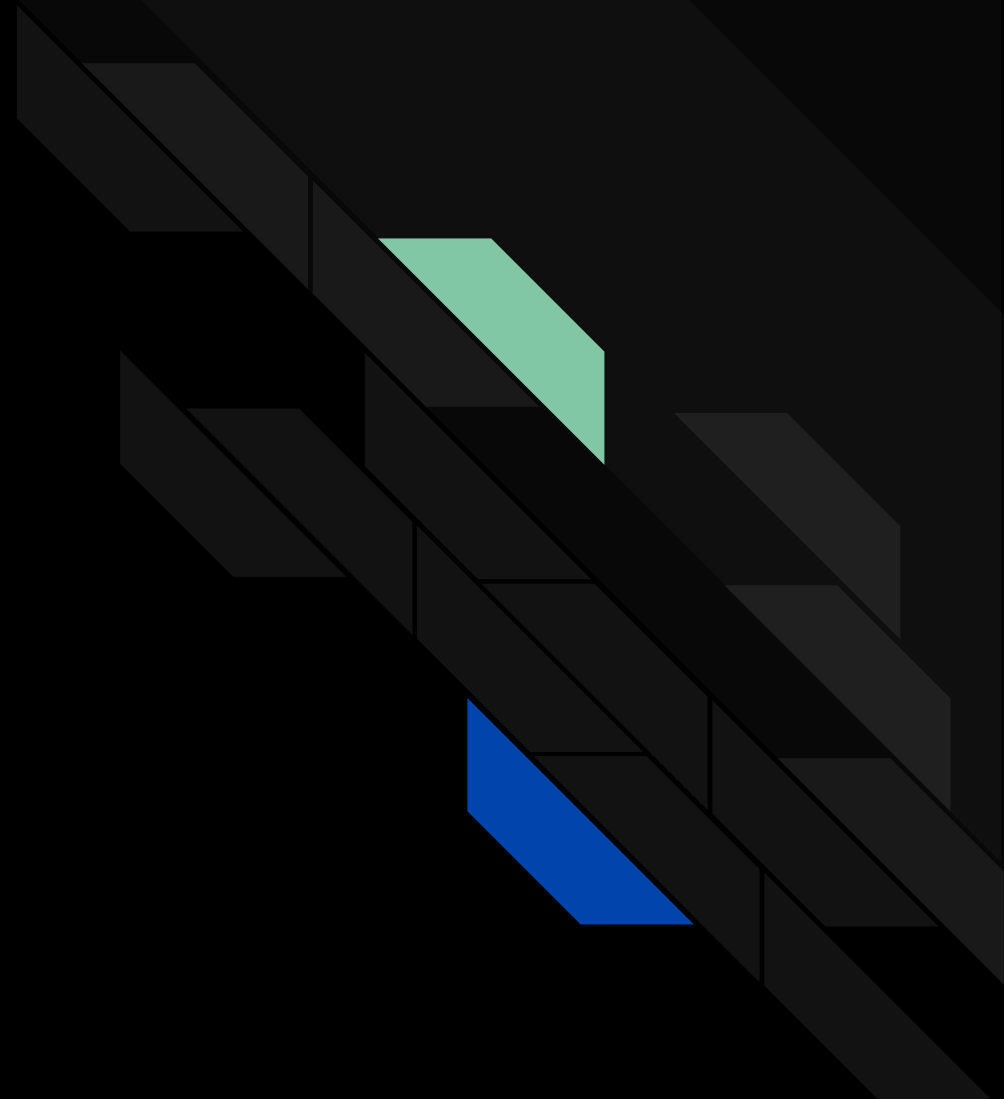


After the end of the Second World War, the Toyota Motor Co. set a daring objective:  
“Catch up America within three years”...  
Few outside of Japan took it seriously.

# Lean & Agile Practices



# Why Agile?



Changes are  
everywhere  
than before...





# Technologies Behaviours Requirements Markets Organizations...



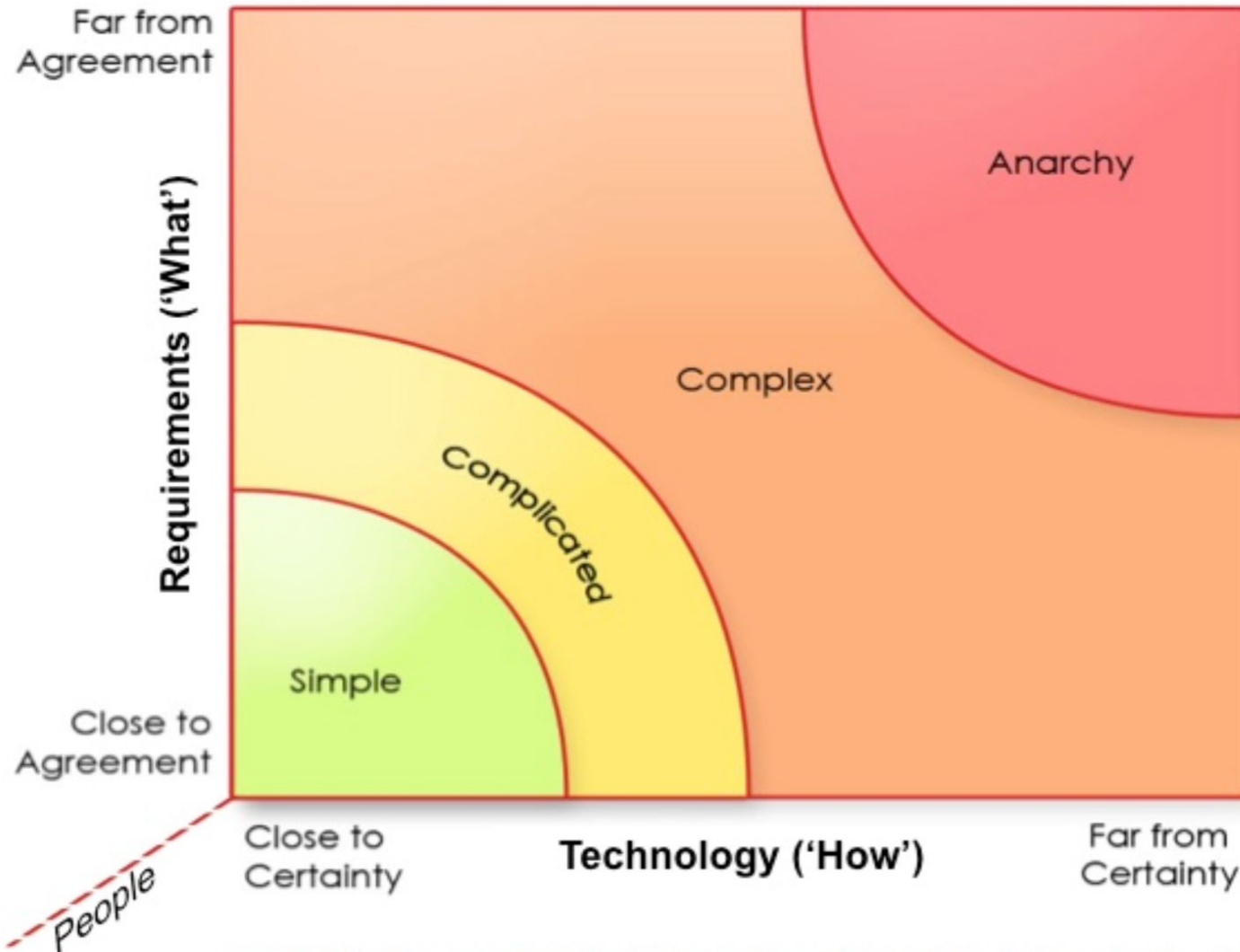


# Time to Reach 50 Million Users



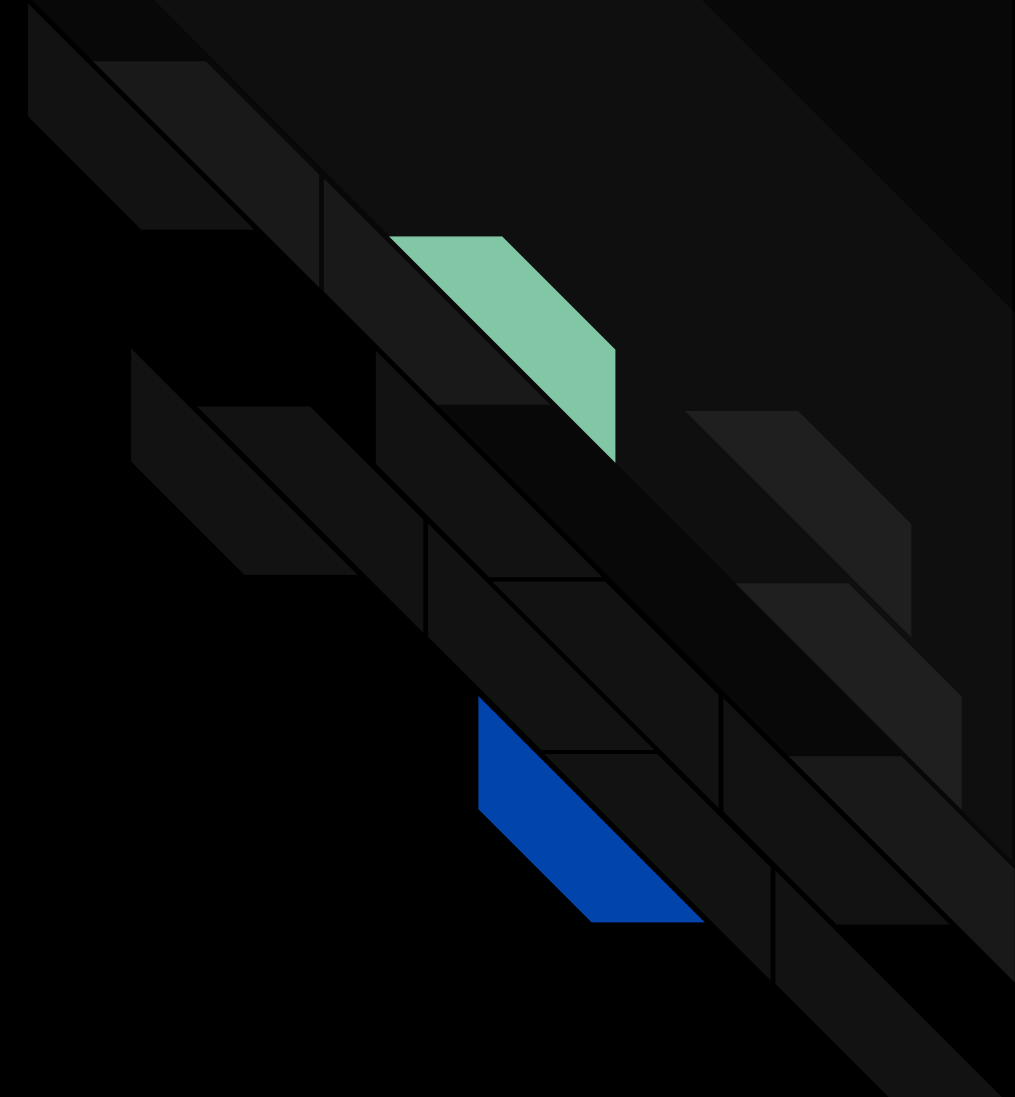


# Stacey Matrix



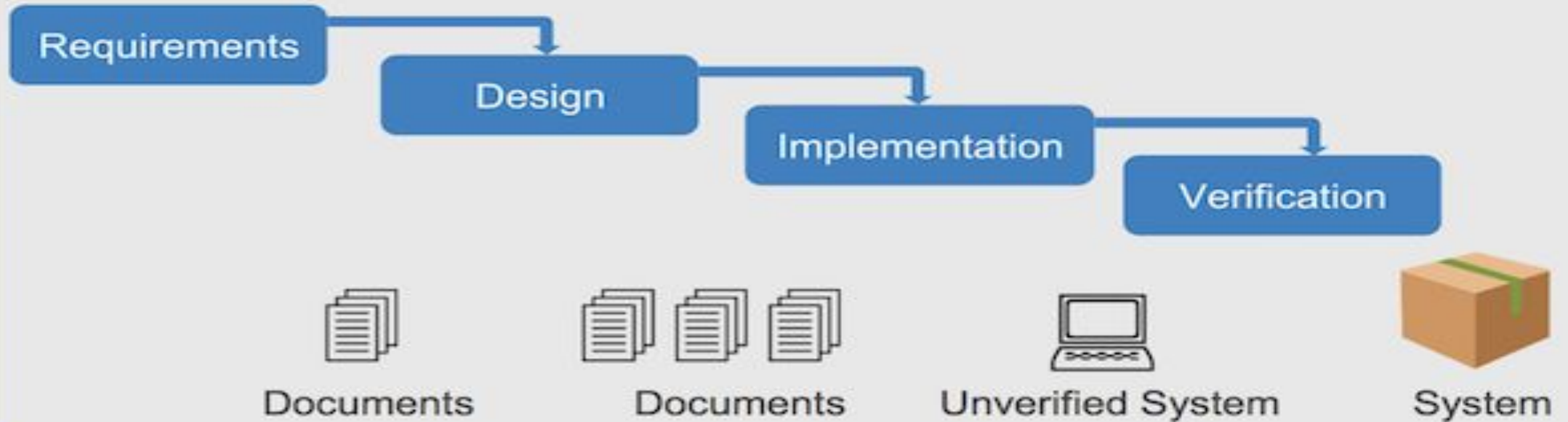
*(Ralph D. Stacey matrix for "Complexity and Creativity in Organizations")*

# How Agile works?



# Iterative & Incremental Approach

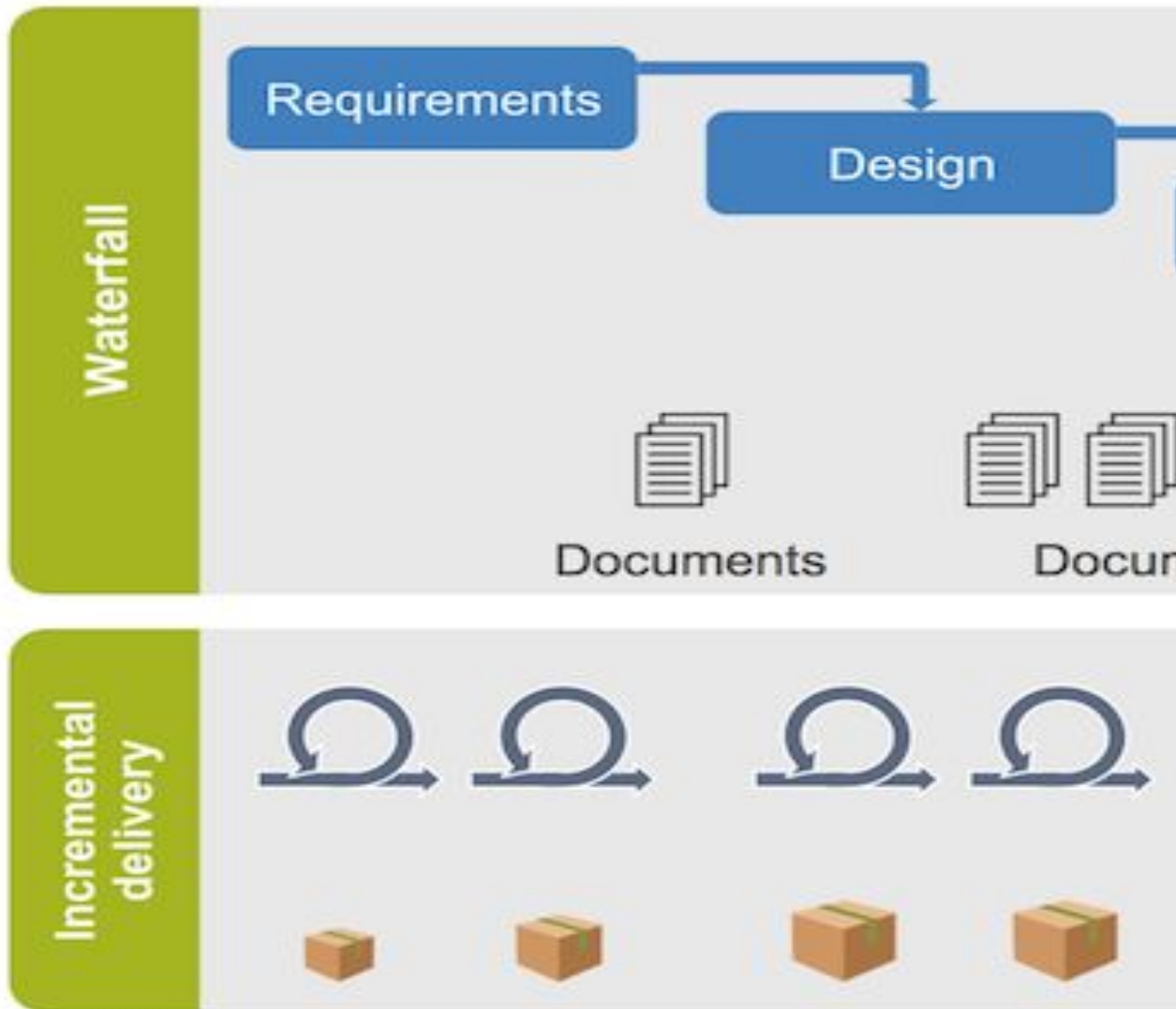
## Waterfall



## Incremental delivery

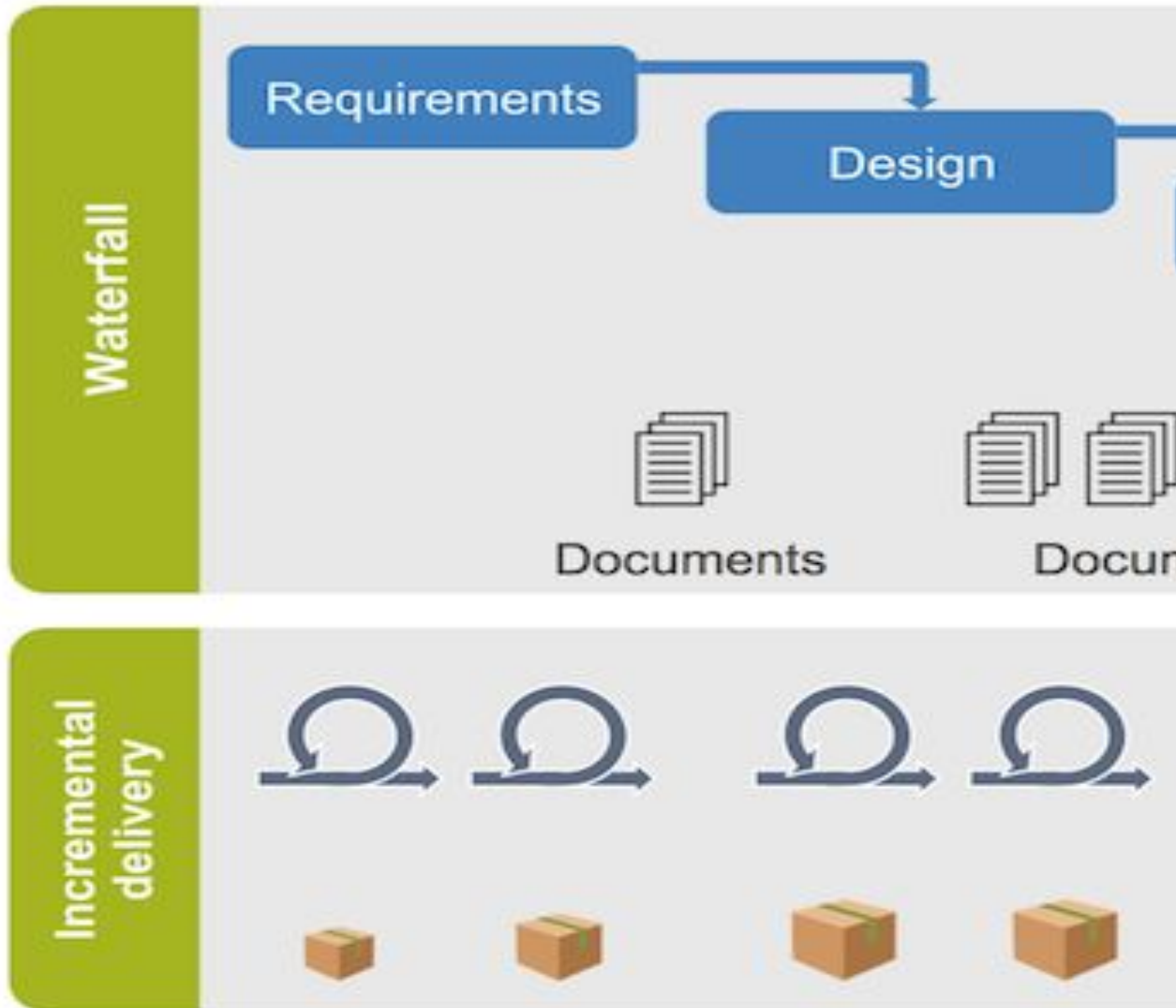


# Iterative & Incremental Approach



How much  
product is usable ?

# Iterative & Incremental Approach



None of product is usable.

Almost %30-40 of the actual product is usable.



# Agile vs Waterfall

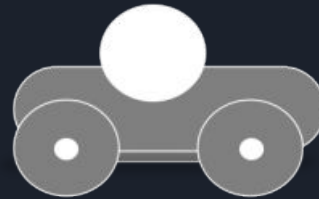
Traditional  
Waterfall



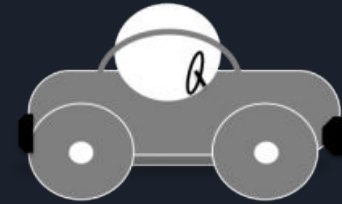
wheel



chassis



chassis + body



practical car



transportation



improved  
control



bigger distance



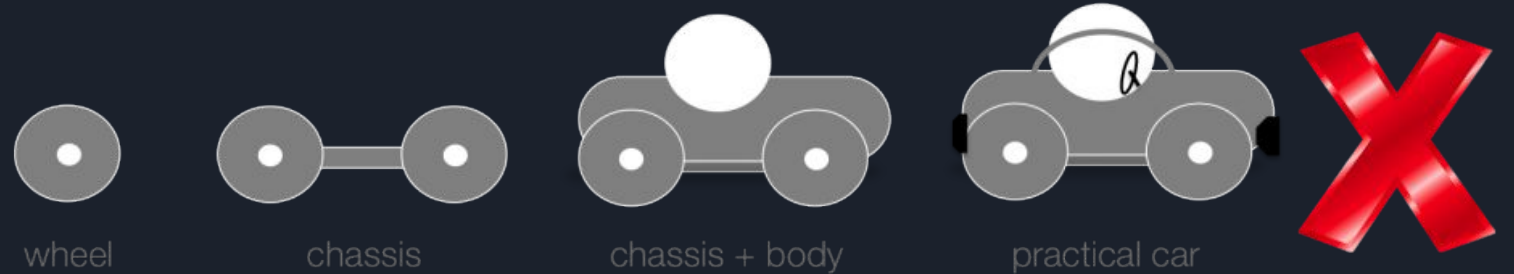
motorised



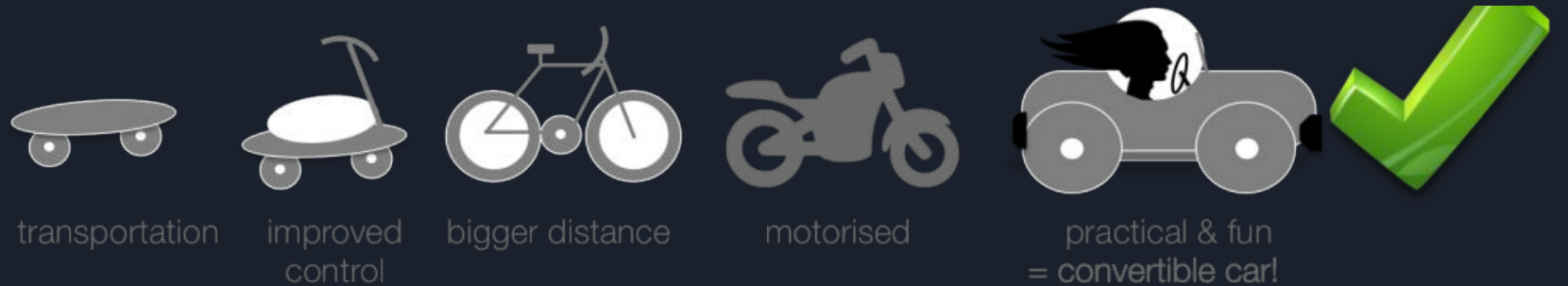
practical & fun  
= convertible car!



# Agile vs Waterfall



Agile  
Prototyping





# Agile vs Waterfall

Customer's feeling →



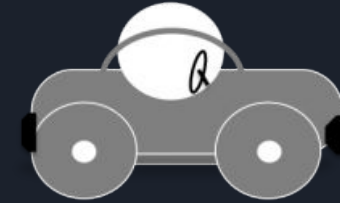
wheel



chassis



chassis + body



practical car



Customer's feeling →



transportation



improved control



bigger distance



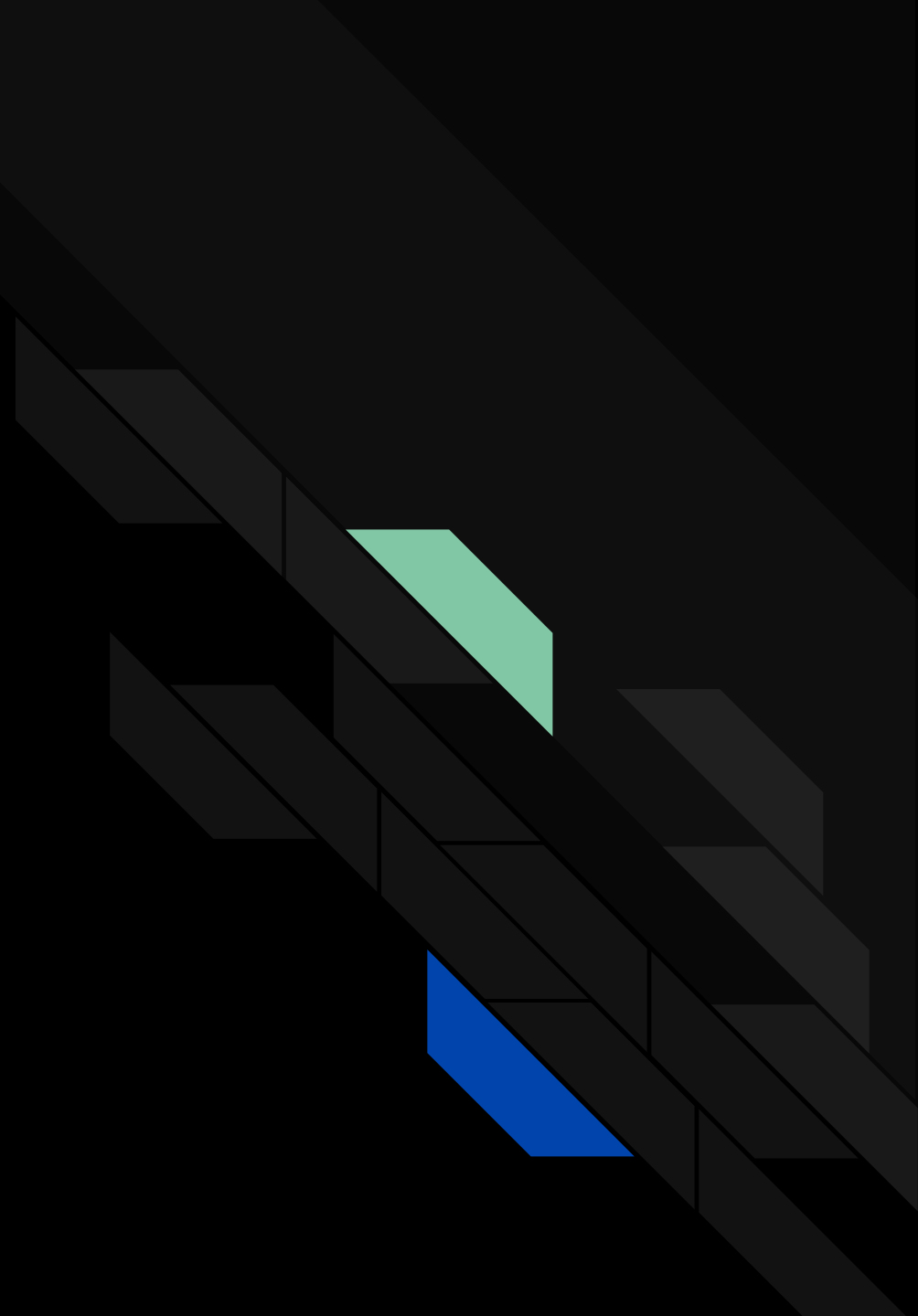
motorised



practical & fun  
= convertible car!



So, what can  
be the  
approach?





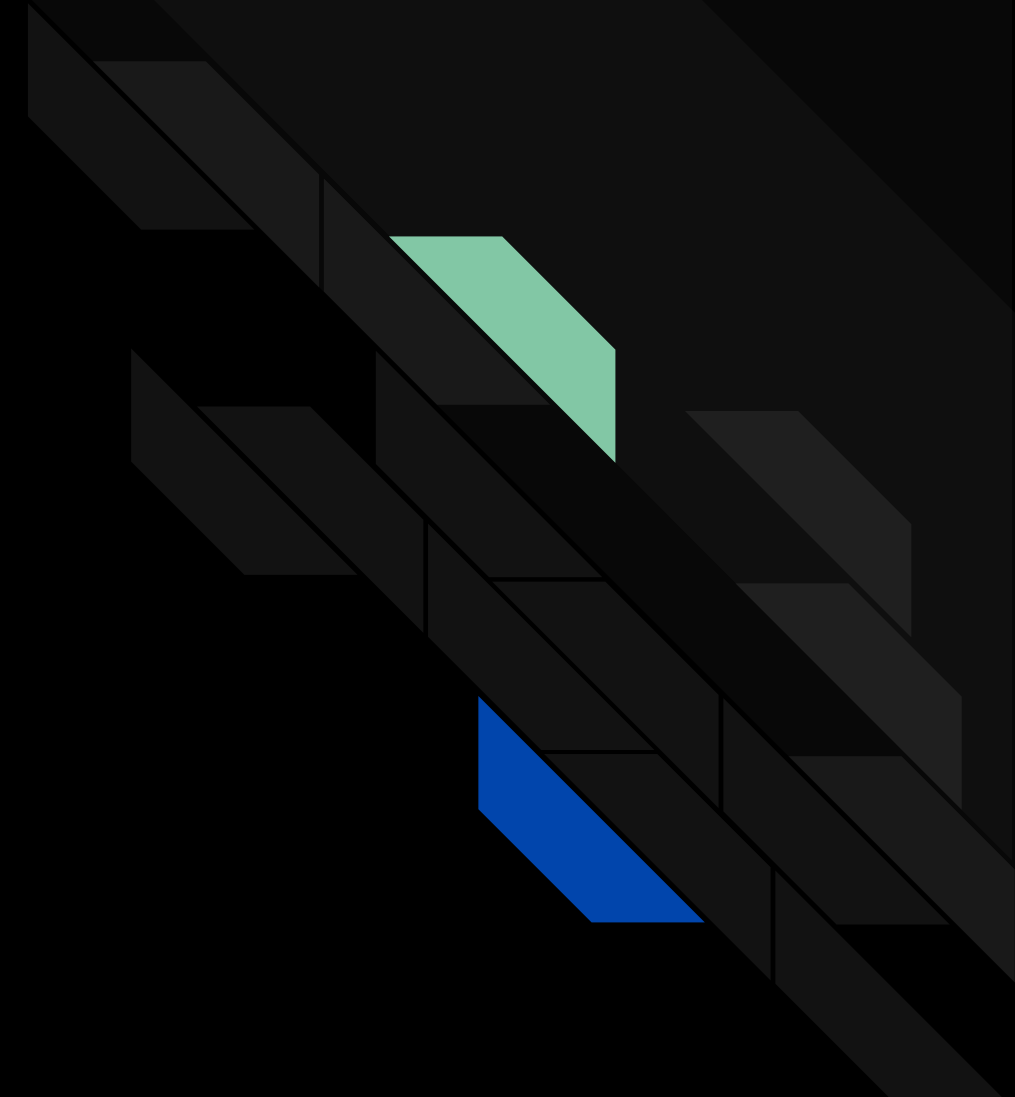
**Pareto Rule**

# Think Big, Start Small...



Minimum Viable Product (MVP) Concept

# The manifesto of Agile...





# Agile Manifesto

## Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.  
Through this work we have come to value:

**Individuals and interactions** over processes and tools  
**Working software** over comprehensive documentation  
**Customer collaboration** over contract negotiation  
**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck  
Mike Beedle  
Arie van Bennekum  
Alistair Cockburn  
Ward Cunningham  
Martin Fowler

James Grenning  
Jim Highsmith  
Andrew Hunt  
Ron Jeffries  
Jon Kern  
Brian Marick

Robert C. Martin  
Steve Mellor  
Ken Schwaber  
Jeff Sutherland  
Dave Thomas

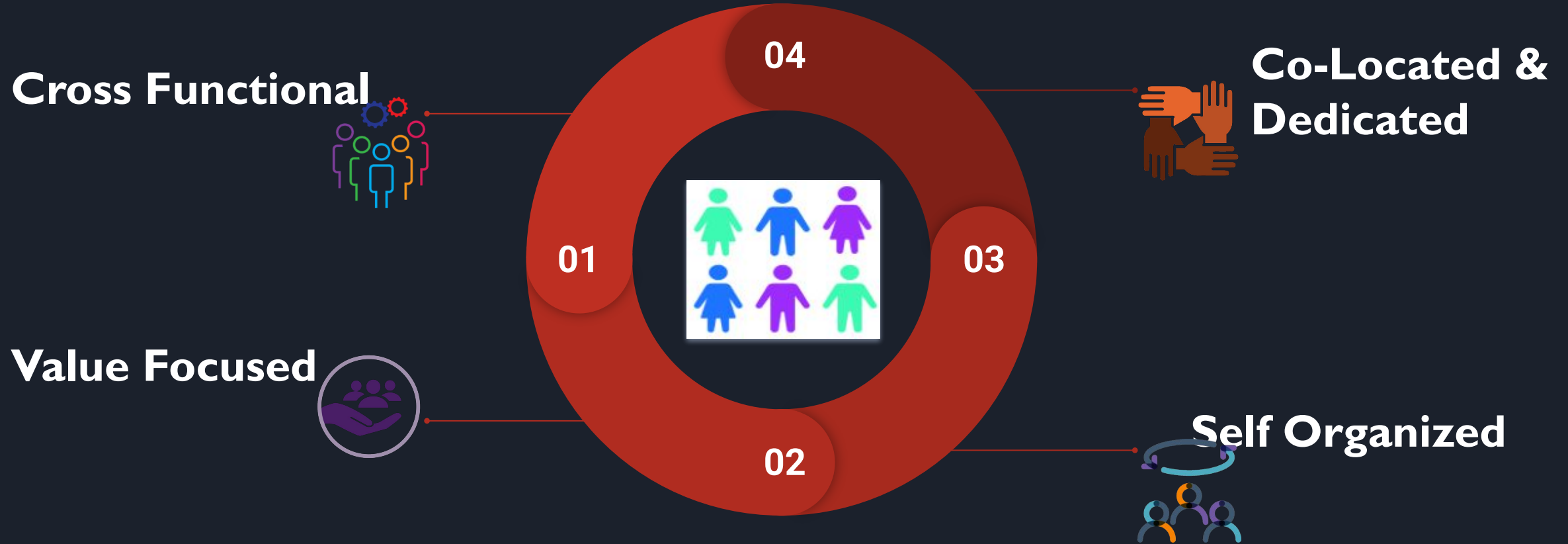




Agile is ability to “adapting to change” quickly and flexibly in order to improve business results and customer satisfaction.



# Agile Teams



# Silo Organization Vs. Agile Organization



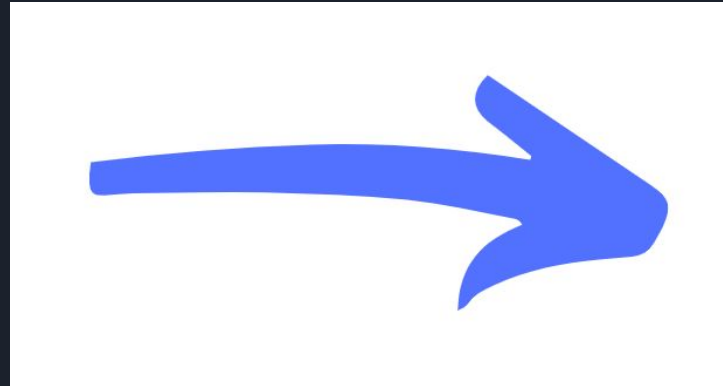
Business Team



Backend Team



App Team

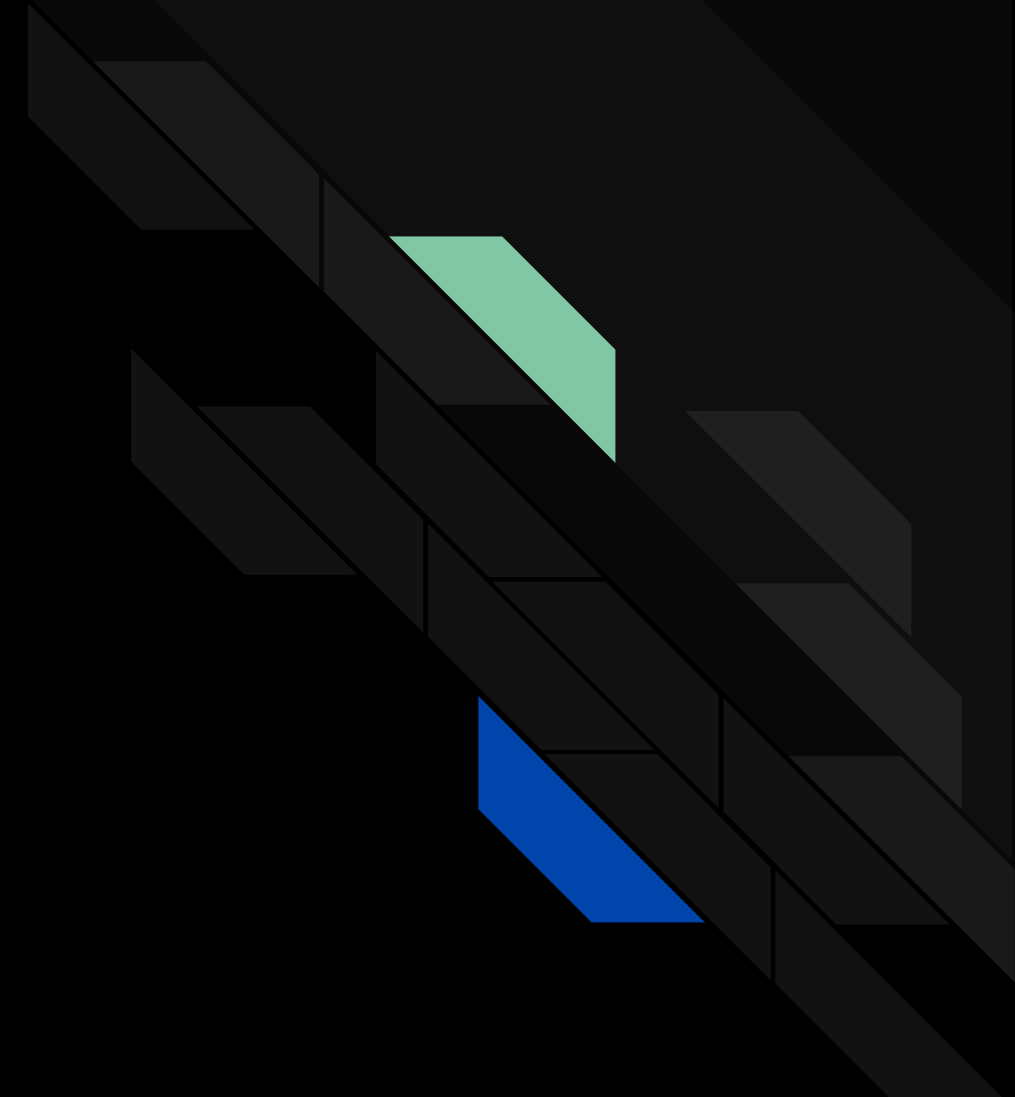


Feature Team



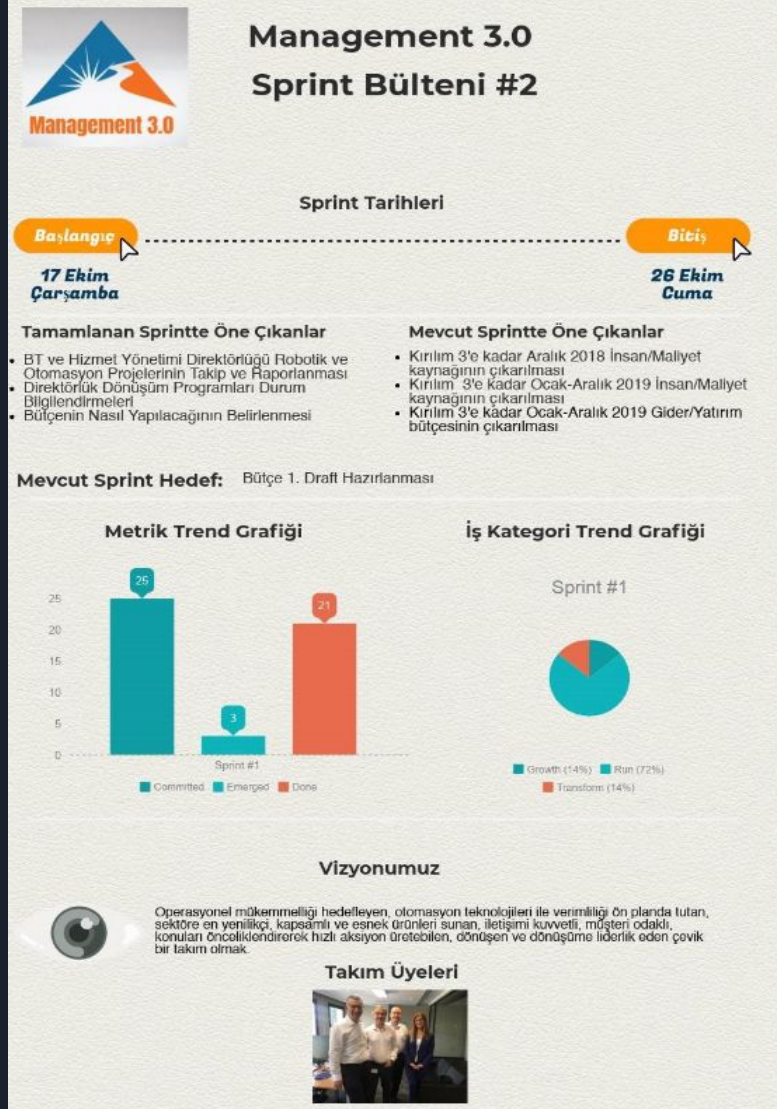
Feature Team

# Agile case studies...



# Agile Team Examples

## Management Teams



## HR Teams



## Marketing Teams



## Software Development Teams



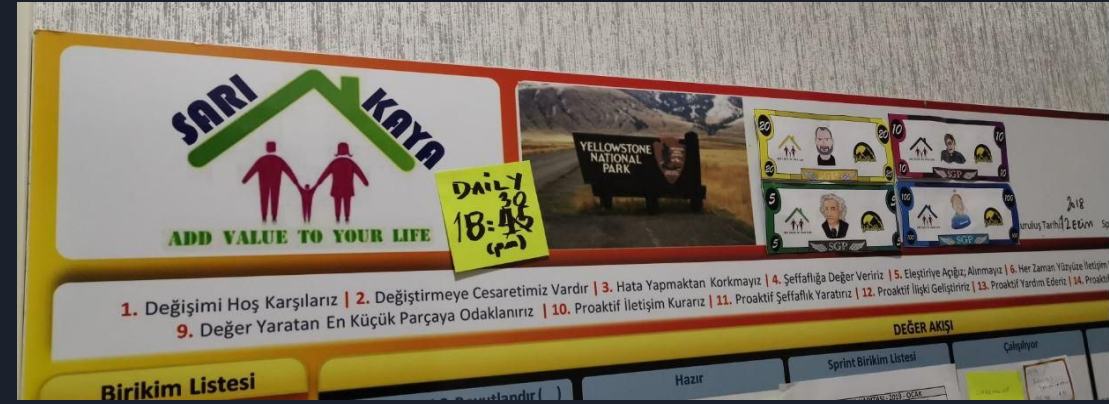


# The Markets Using Agile Approaches

## Scrum Team - @ Dentist Polyclinic



## Agile Team - @ Family



## Agile Team -@ Construction



<https://www.linkedin.com/in/erkan-sarikaya-a624193/detail/recent-activity/shares/>  
<https://www.picuki.com/media/1684276063156223187>

# Agile Company Examples

Google

ING 



Zappos.com 

Uber

ZARA

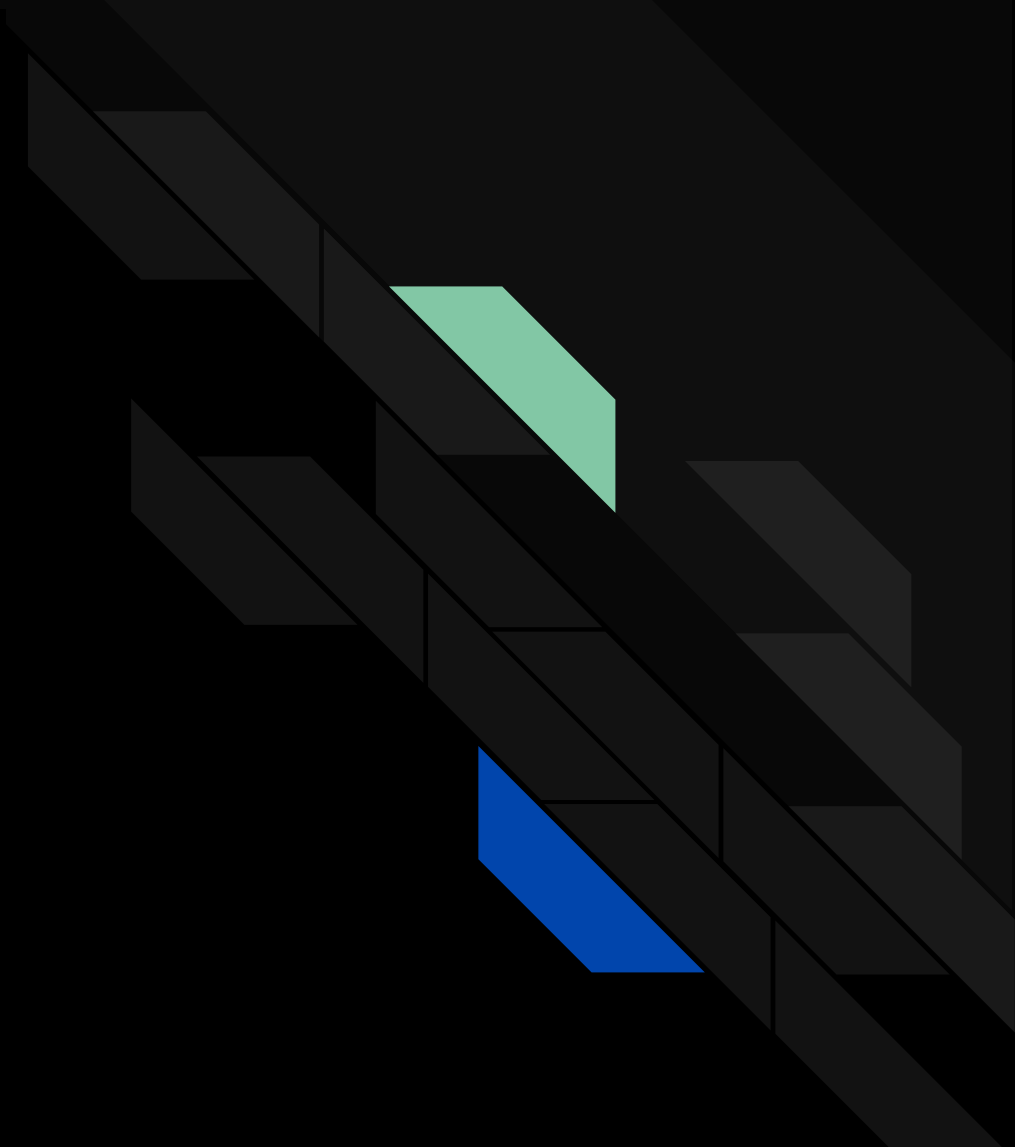
NETFLIX

 Spotify®

  
airbnb

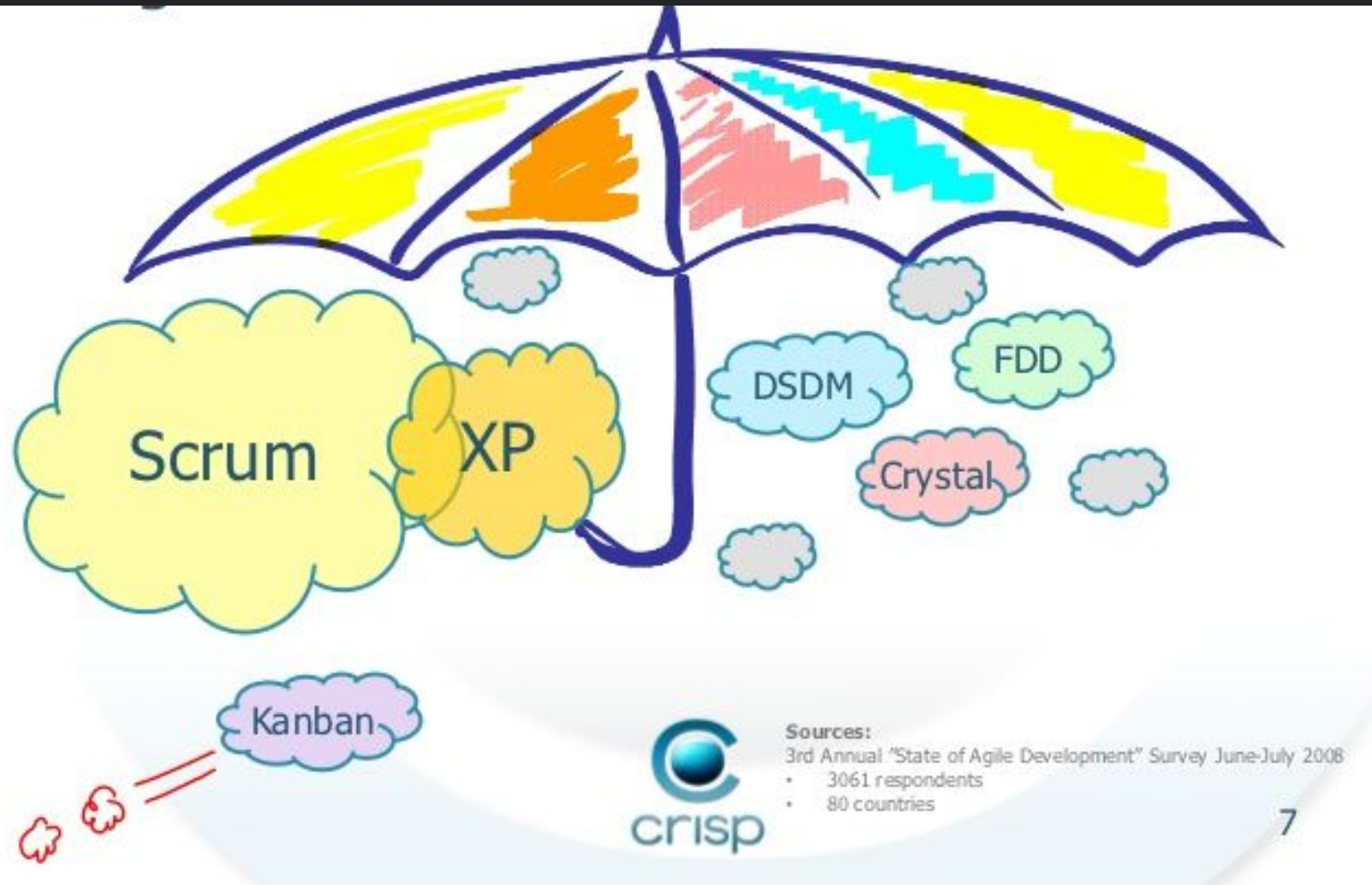
amazon 

Agile domains,  
techniques,  
frameworks...

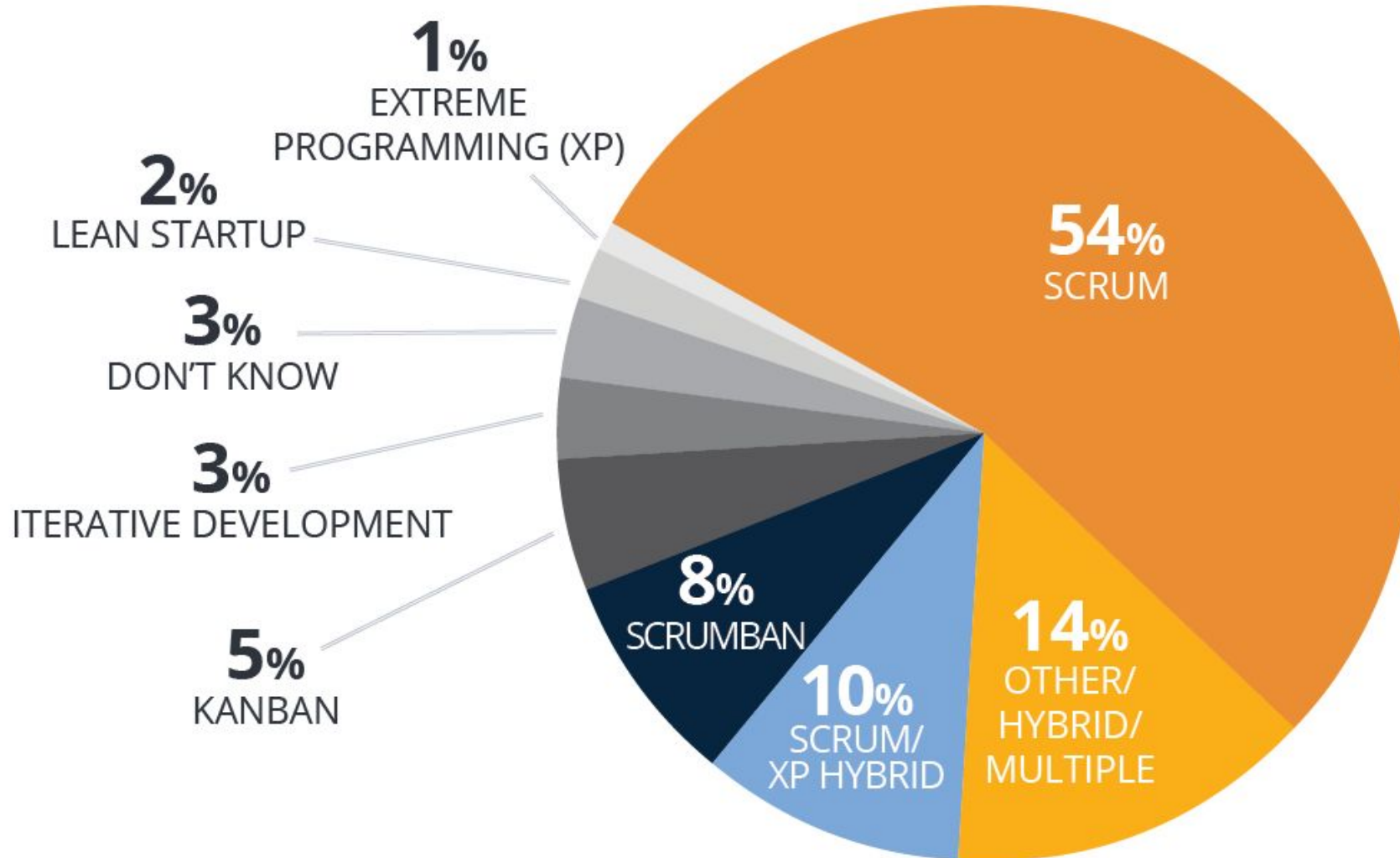




# Agile Umbrella

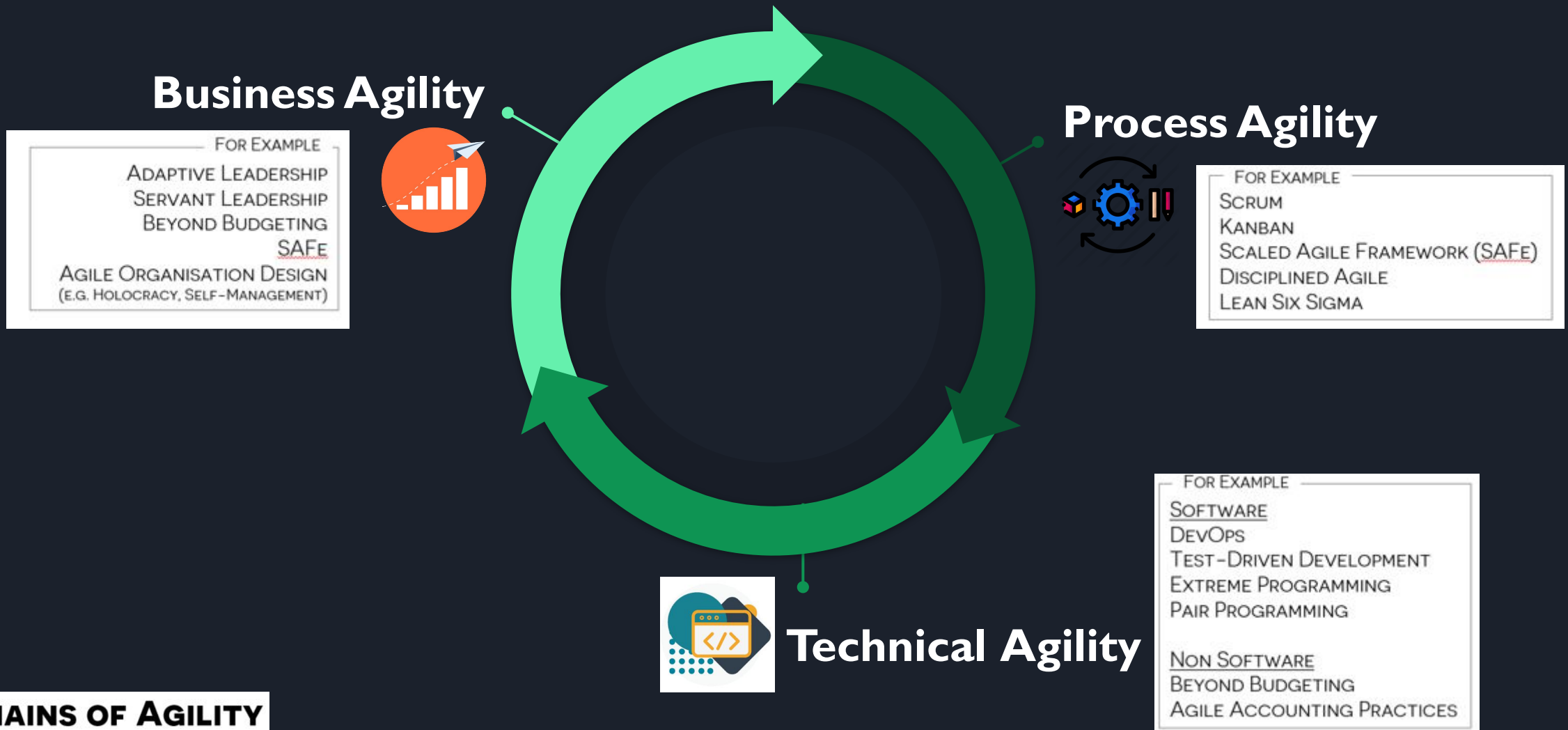


# Agile Methodologies Used



Scrum and Scrum/XP Hybrid (%64) continue to be the most common agile methodologies used

# Domains of Agility



Thanks... 