

# Idea Development Method, Applying Systems Design Thinking in a Very Small Entity

By Tommy Langen

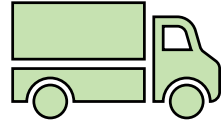
14. April 2021

# Agenda

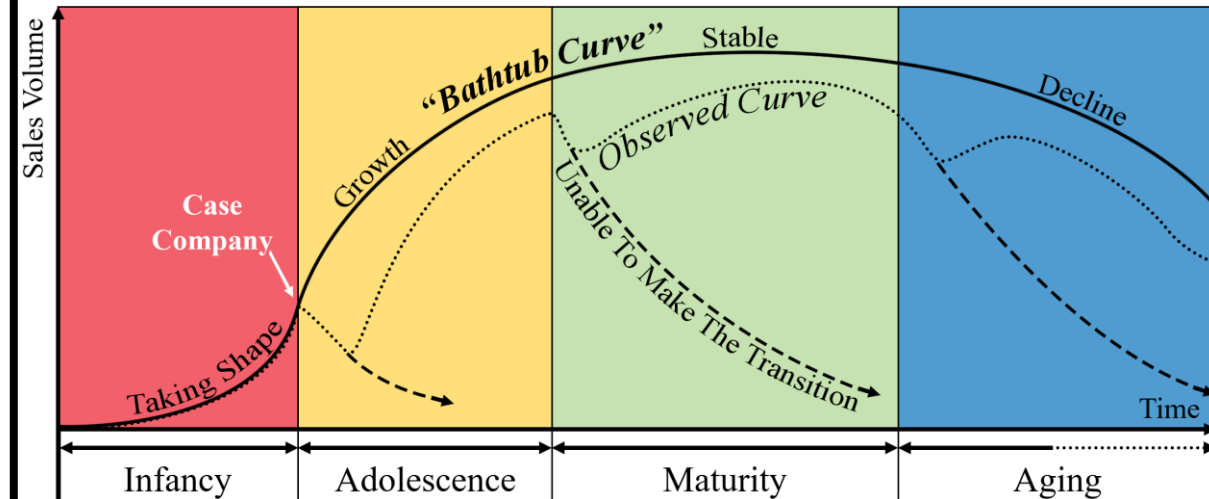
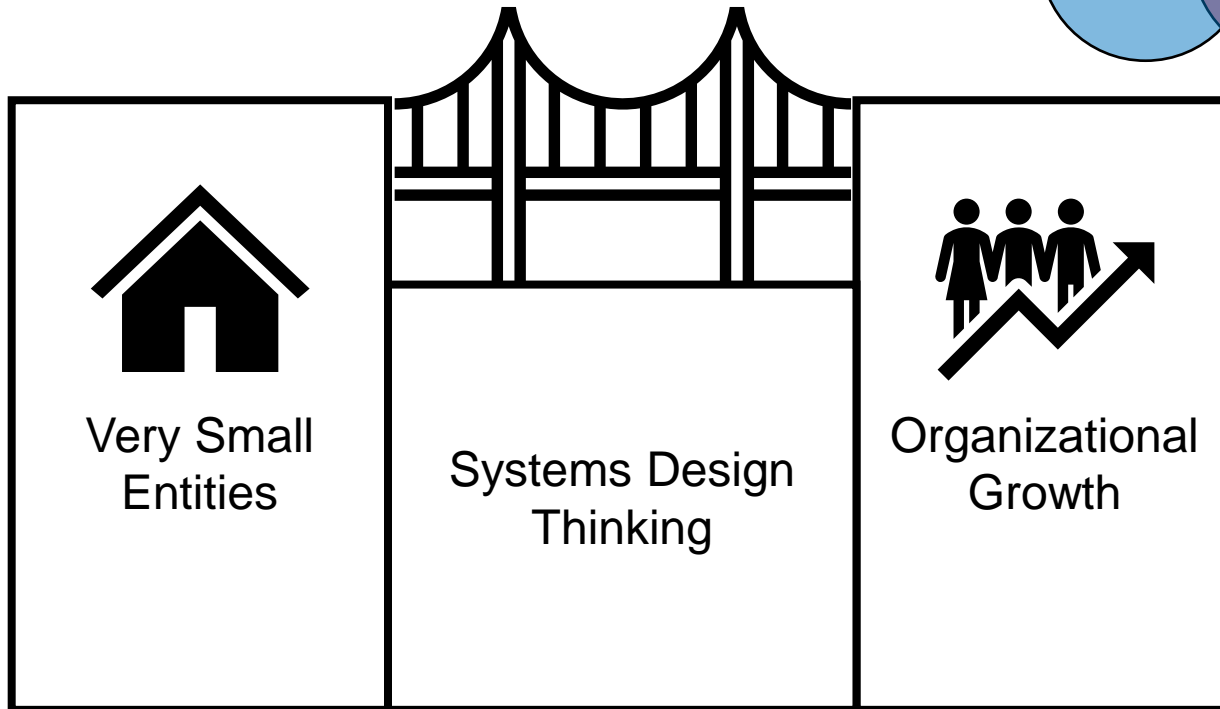
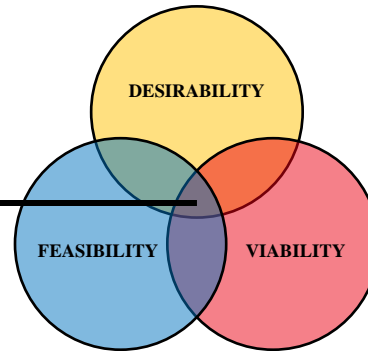
	Problem Statement
	Research Overview
	Case company
	Idea Development Method
	Findings
	Results
	Summary

# Problem Statement

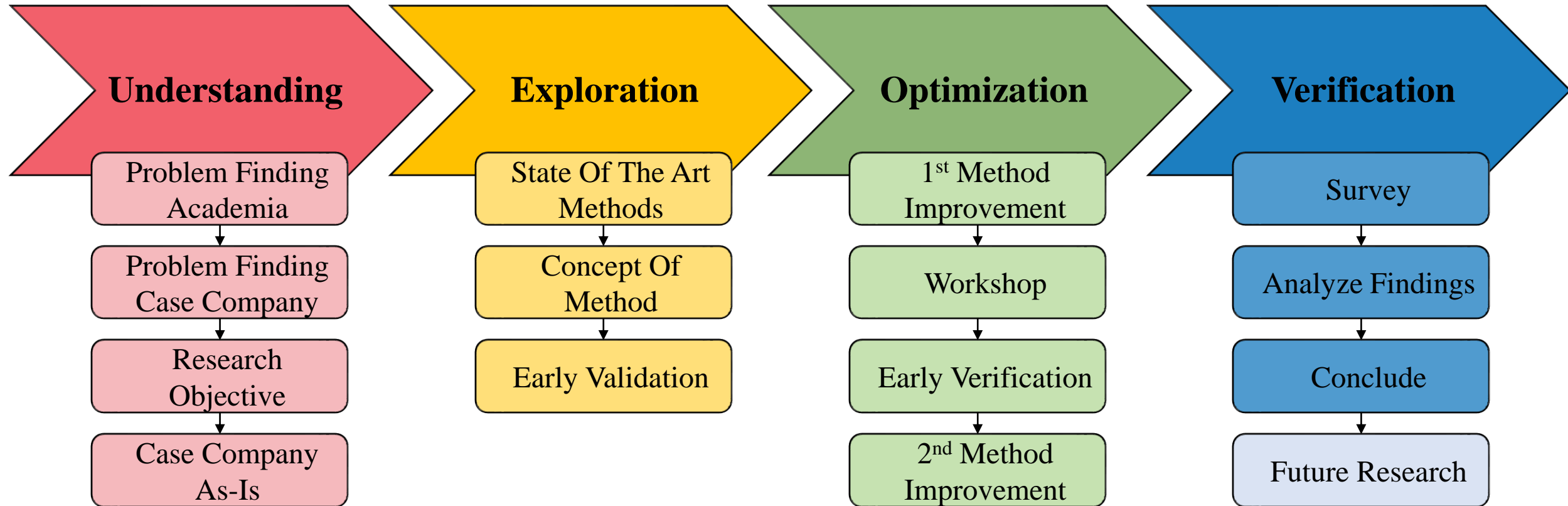
New  
Product  
Development

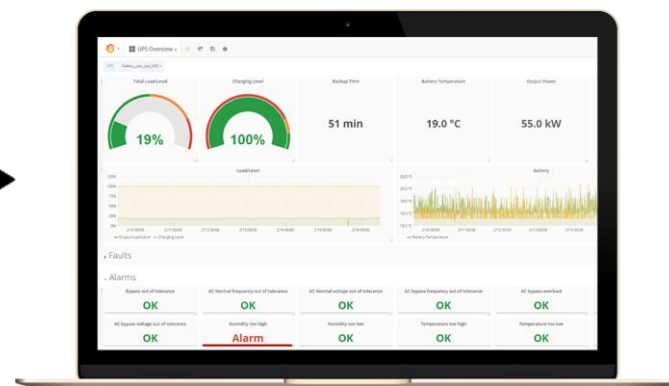
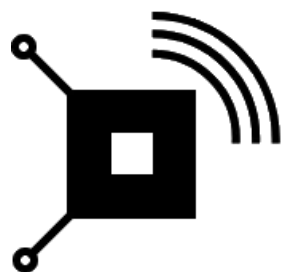


Innovation

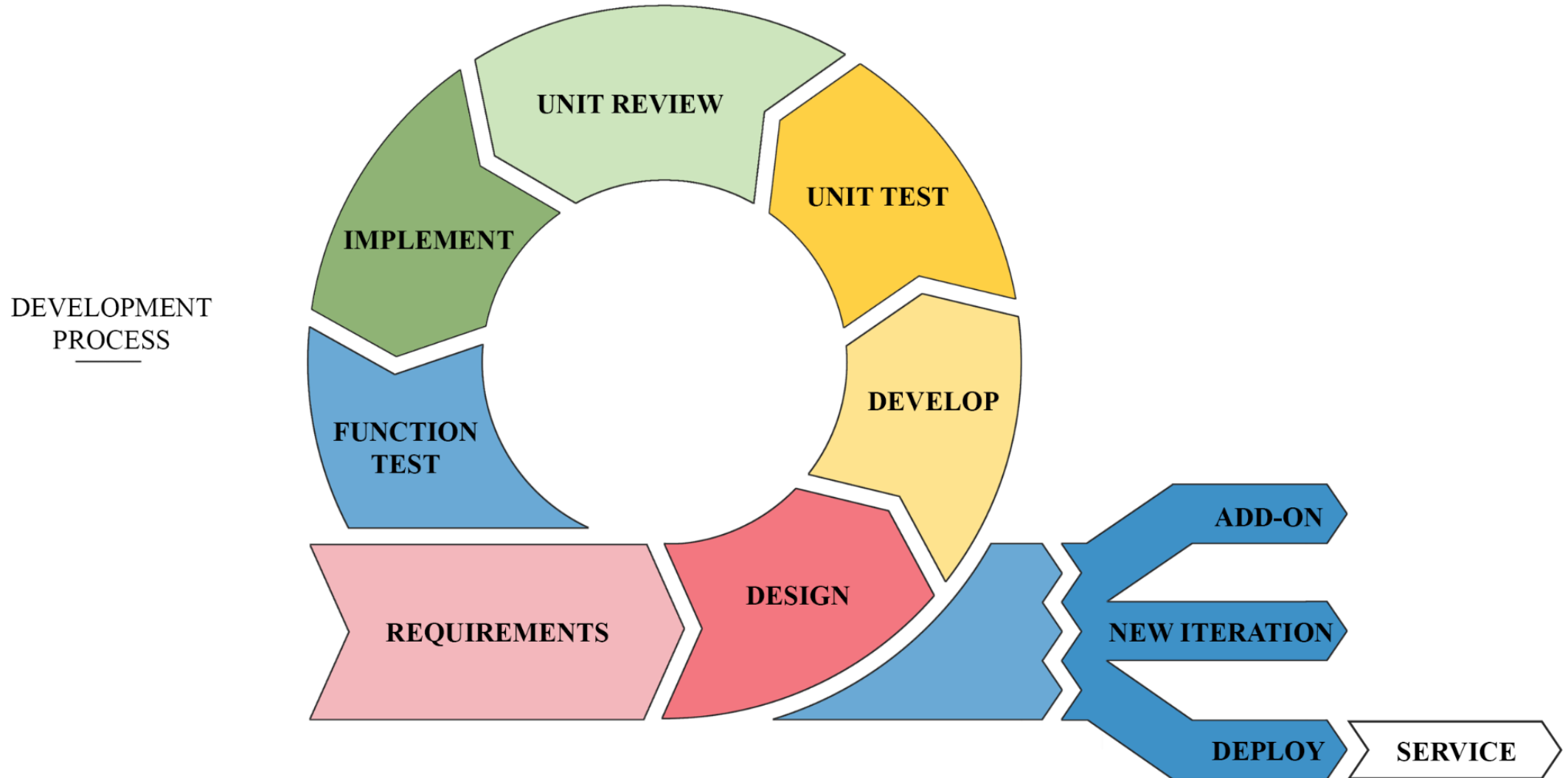


# Research Overview

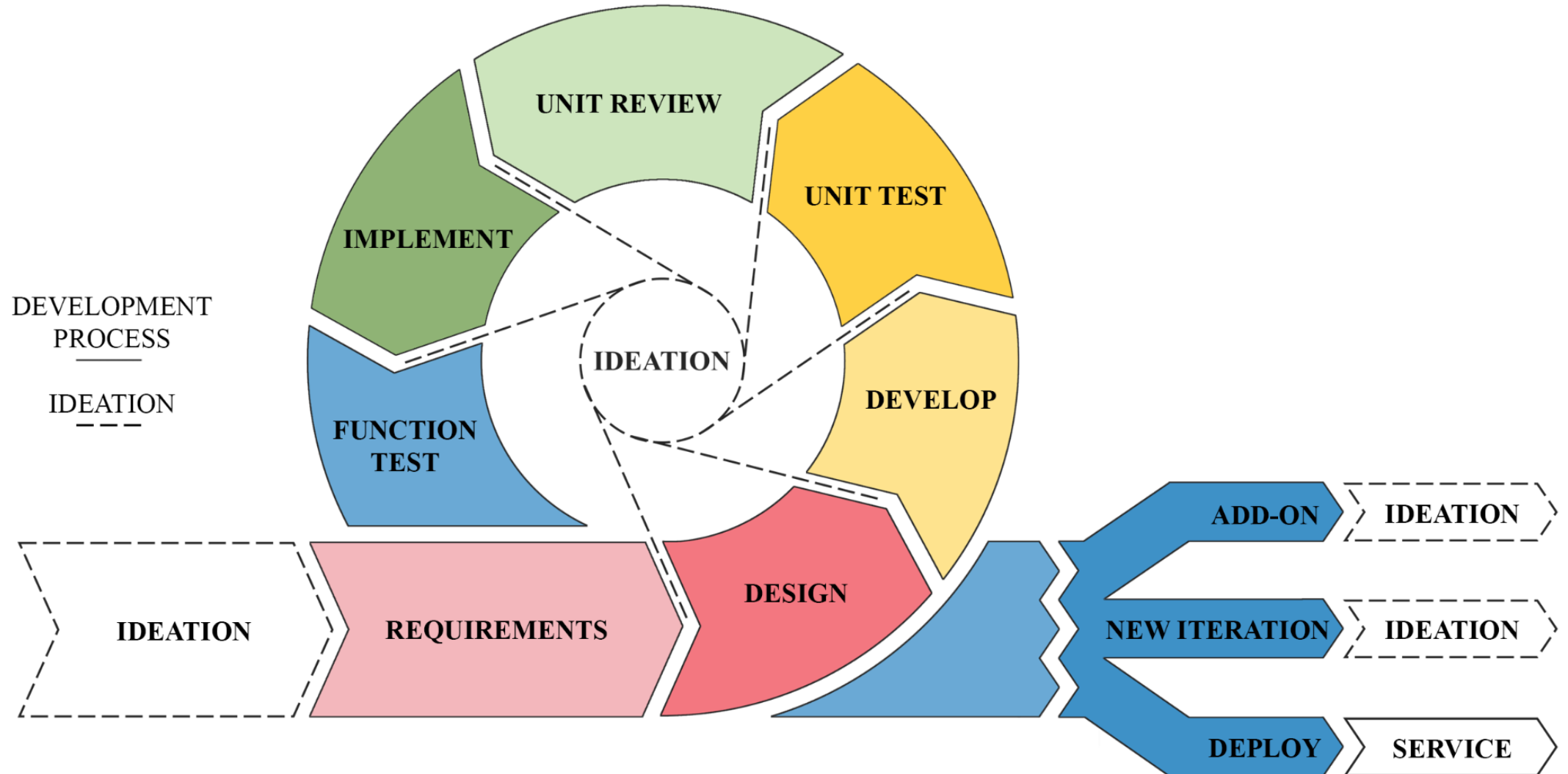




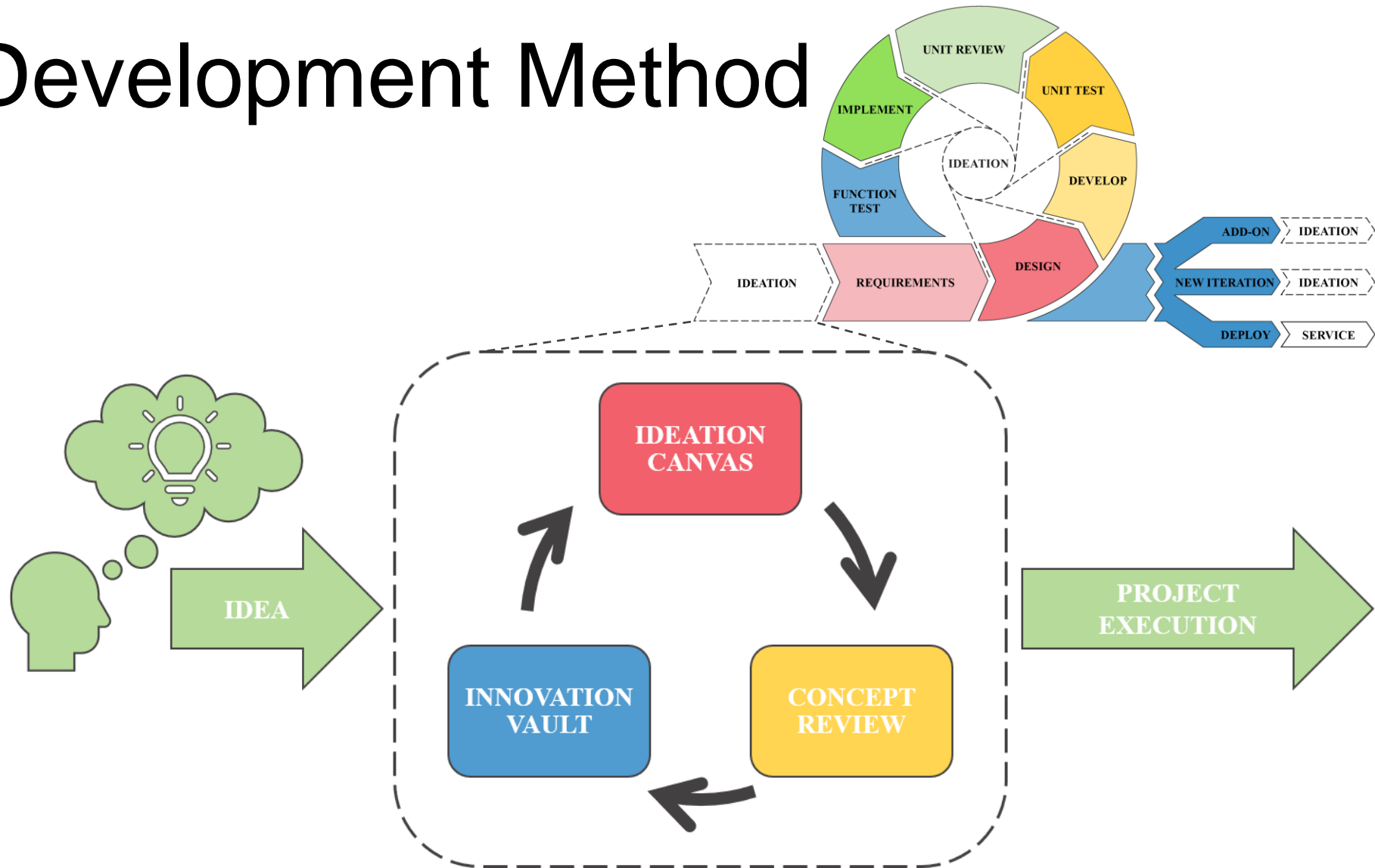
# Company Development Process



# Idea Development Creation

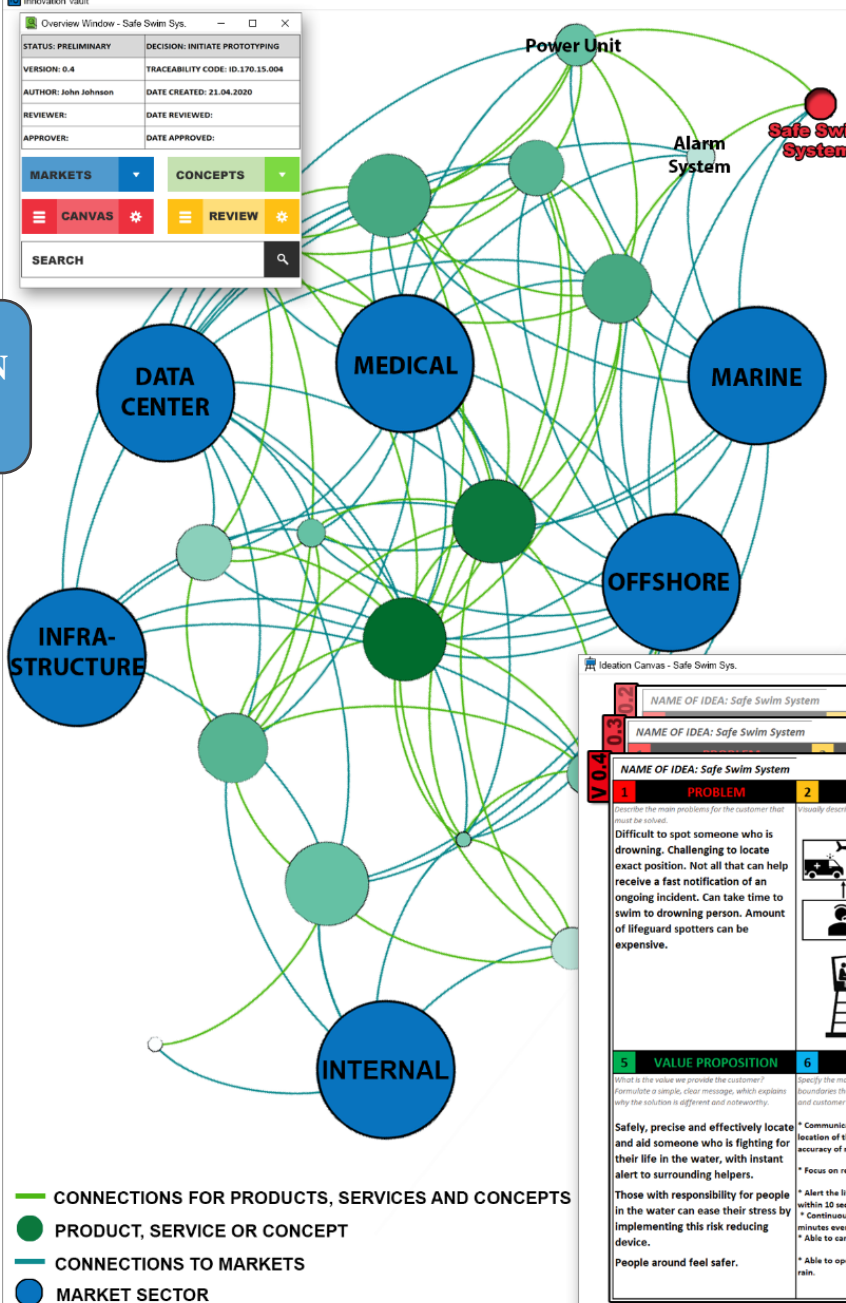


# Idea Development Method





# INNOVATION VAULT



### Concept Review Sheet - Safe Swim Sys.

NAME OF IDEA: Safe Swim System

TRACEABILITY CODE: ID.170.15.004

List of attributes	Description	Assumption (Drop down list)	Score, 0-7	Normalized Weight	SUM
Problem	Small or large problem.	Nice to have	3	0,1	0,3
Customer	Few or many markets.	Some high paying customers	5	0,22	1,1
Value Proposition	Is it valuable to the customer?	Brings some value to the customer	3	0,23	0,69
Novelty	Level of neurness.	New to the world, never seen before	7	0,05	0,35
Customer Scalability	Amount of rework for next customer.	Barely any rework needed for next customer	5	0,1	0,5
Development	Degree of investment in development	Complex Software Development and Complex Hardware Development	0	0,05	0
Technical Scalability	Additional product and service directions.	Easy to add on new functionalities	4	0,1	0,4
Scoping of concept	How defined the concept is.	The concept need more work on the definition of scope	3	0,1	0,3
Time	Long or short development time	Two years	1	0,05	0,05
SUM			31	1	3,69

This innovation is: **Very High Risk , High Reward**

Higher is better

## CONCEPT REVIEW

### Ideation Canvas - Safe Swim Sys.

NAME OF IDEA: Safe Swim System

TRACEABILITY CODE: ID.170.15.004

1	2	3	4
<b>PROBLEM</b> Describe the main problems for the customer that must be solved. Difficult to spot someone who is drowning. Challenging to locate exact position. Not all that can help receive a fast notification of an ongoing incident. Can take time to swim to drowning person. Amount of lifeguard spotters can be expensive.	<b>SOLUTION</b> Visually describe the solution to the problems. 	<b>CUSTOMERS</b> Let your target customers, groups and/or markets to who we create value for: Responsibilities for Public beaches, Shipyards, Oilplatforms, Cruiseships, Swimming competitions, Firedepartments, Search & Rescue organizations.	<b>STAKEHOLDERS</b> Select important external and internal people with interest in this solution. External: People who swim, Lifeguards, SAR-teams, Emergency services, Swimming instructors Internal: Project team, Project director, Sales & Marketing, Manufacturing Engineer, Test Engineer.
<b>5 VALUE PROPOSITION</b> What is the value we provide the customer? Summarize a simple, clear message, which explains why the solution is different and noteworthy. Safely, precise and effectively locate and aid someone who is fighting for their life in the water, with instant alert to surrounding helpers. Those with responsibility for people in the water can ease their stress by implementing this risk reducing device. People around feel safer.	<b>6 SPECIFICATIONS</b> Specify the main system requirements and boundaries that is required to fulfill the functional and customer needs. * Communicate to the Emergency Service the location of the drowning swimmer, with an accuracy of maximum 5 meter in diameter. * Focus on reliability and quality, over cost. * Alert the lifeguard of drowning swimmer, within 10 seconds. * Continuously operative minimum of 700 minutes every day. * Able to carry and deploy a lifebuoy ring. * Able to operate in strong breeze and heavy rain.	<b>7 MISC. NOTES</b> Other informations that is found important. The system might be useful in other applications as well, with little rework. Such as survey of hard to reach places. Use for locating missing people. Technology might not be ready yet.	<b>8 NEXT STEP</b> Actions to do for the next next development step. Establish initial project team. Market research. Create a plan and a budget. Buy a drone and other prototype items.

STATUS: PRELIMINARY  
 VERSION: 0.4  
 AUTHOR: John Johnson  
 REVIEWER:  
 APPROVER:

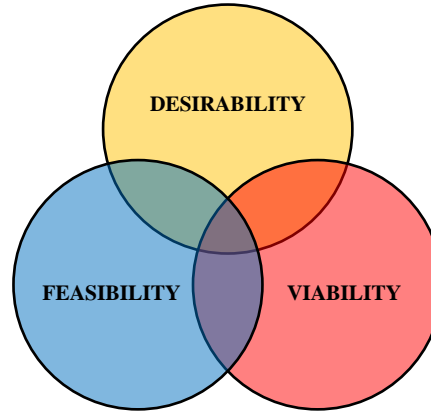
DECISION: INITIATE PROTOTYPING  
 TRACEABILITY CODE: ID.170.15.004  
 DATE CREATED: 21.04.2020  
 DATE REVIEWED:  
 DATE APPROVED:

## IDEATION CANVAS

# Discovery, Optimization and Improvement

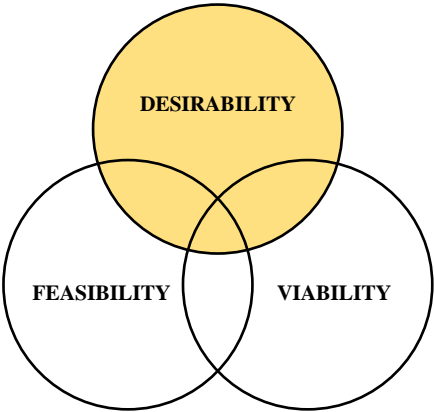
- Systems overview
- Resource- and user-friendly
- Formalization
- Communication

# Survey



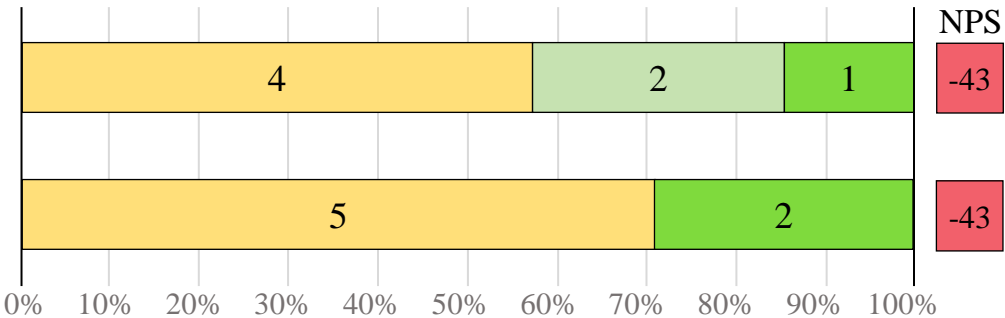
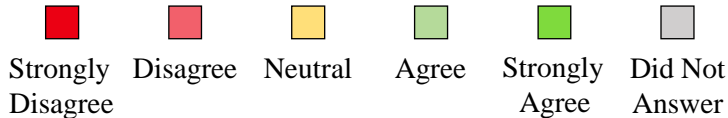
- 10-question survey
- 60 % of employees

# Desirability

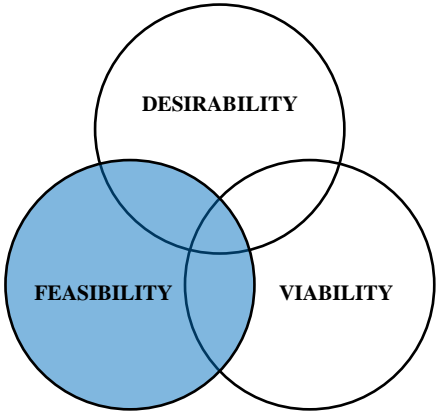


1. The process and its tools are user-friendly.

2. This process does not require much resources/time to complete.



# Feasibility

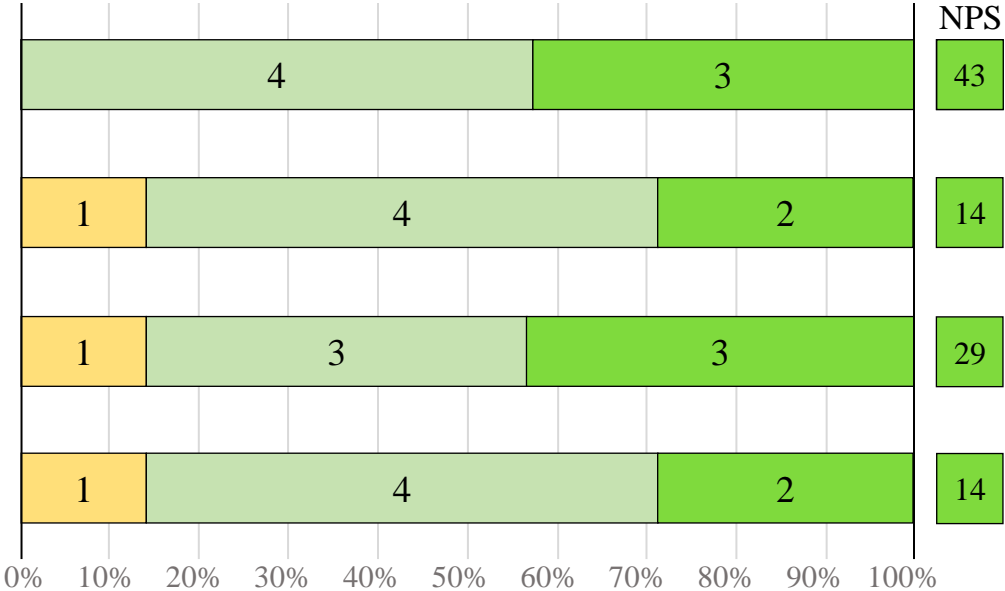
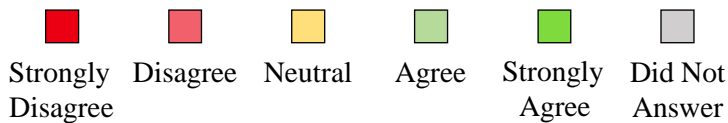


3. Presentation and communication of ideas will improve with this method.

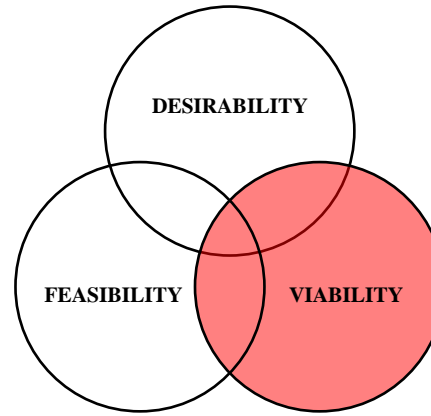
4. This method can be used before, during and/or after a project to improve new and existing ideas.

5. It is possible to incorporate this method into this company.

6. I believe this method has scalability opportunities.



# Viability

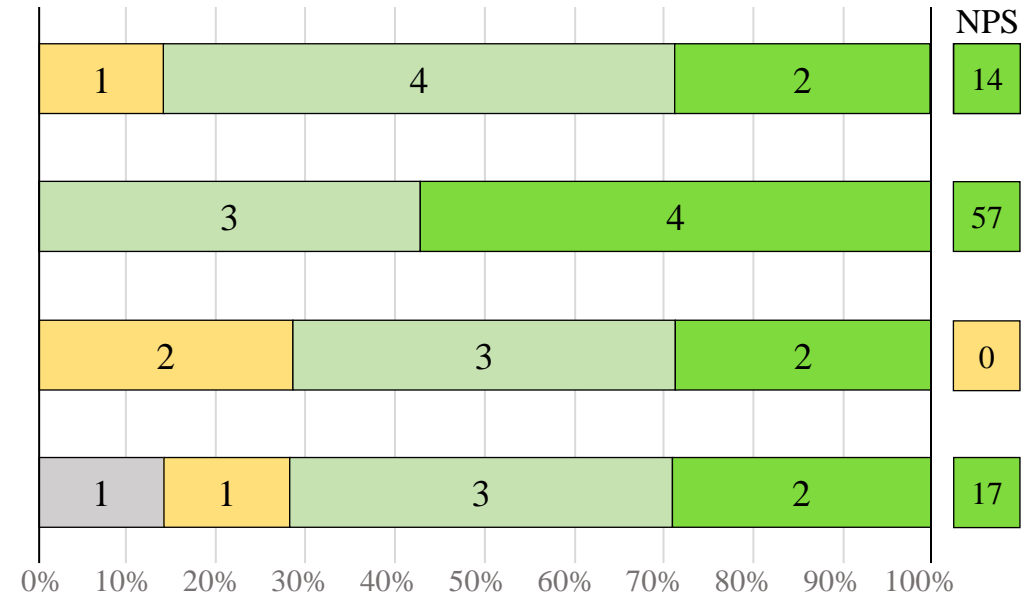
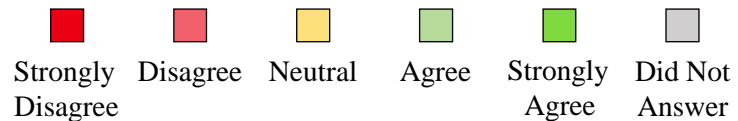


7. This method will help develop ideas.

8. This method makes it easier to prioritize which ideas to develop further.

9. This method improves the understanding of mutual benefits between different products, services, and ideas in the company.

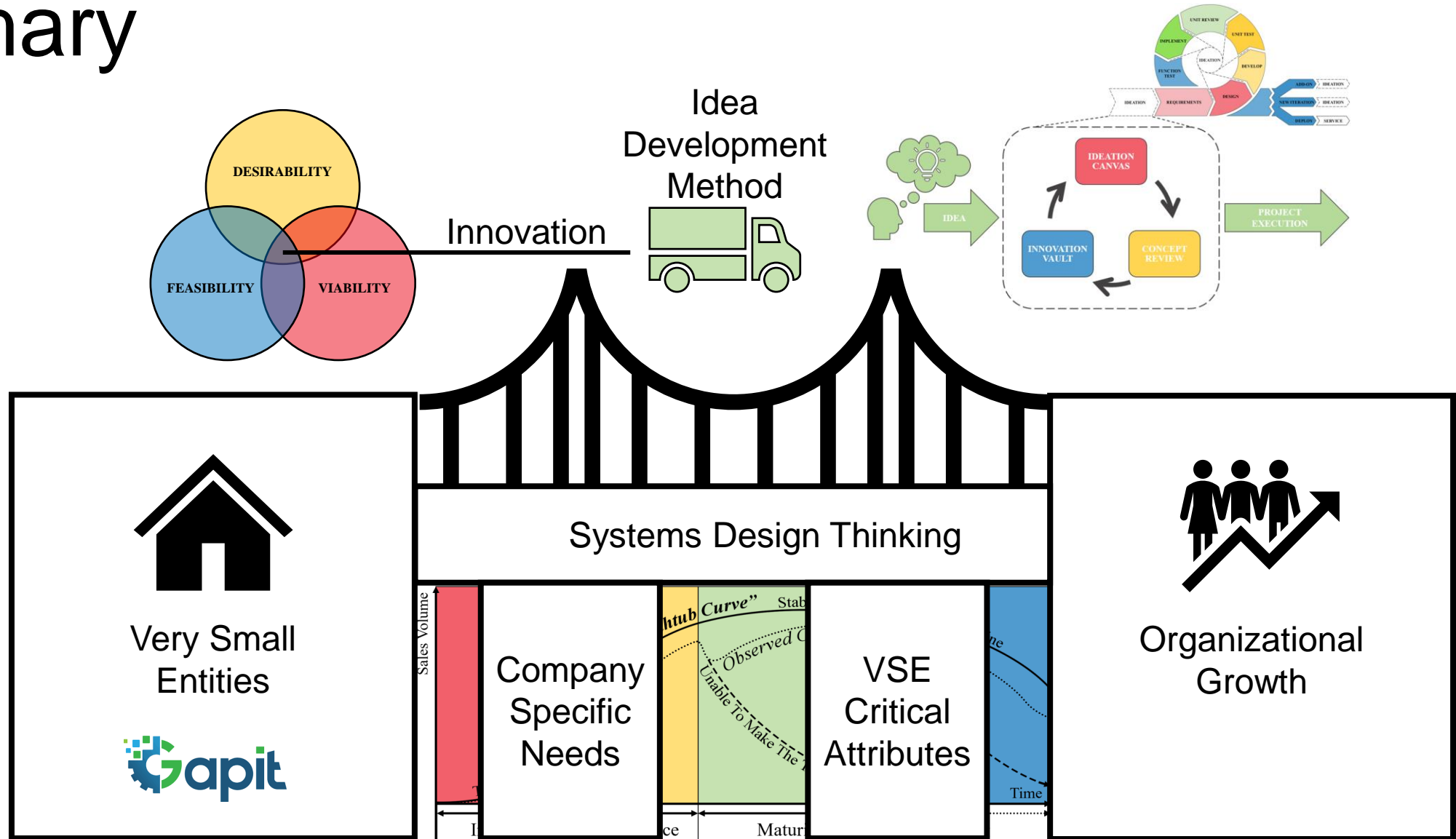
10. These tools will help to understand both the technical and market related aspects of ideas.



# Discussion

- Systems Design Thinking in the Ideation Phase
- Systems Design Thinking in a Very Small Entity

# Summary





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# Thank you

- Questions
- Contact Information



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