



Master in Innovation and Research for Sustainability

Evaluation and Management of R&I Projects

Module I: Introduction to R&D+I Management

Lecture 3: Part 1. Applying R&D+I Management

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2025

Part 3

*How to establish a collaborative
Innovation in practice*

Keep it simple (but not simplistic)

COLLABORATIVE MINDSET

04 Implement innovation practices

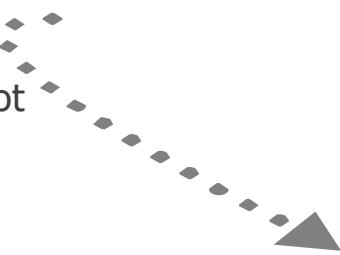
(Embrace Design-Thinking | Lean | Agile | Pilot
and test new technologies & solutions)

05 Embrace Ecosystems in a collaborative way

(Internal & External)

06 Have cross functional & Diverse teams

(Credibility)

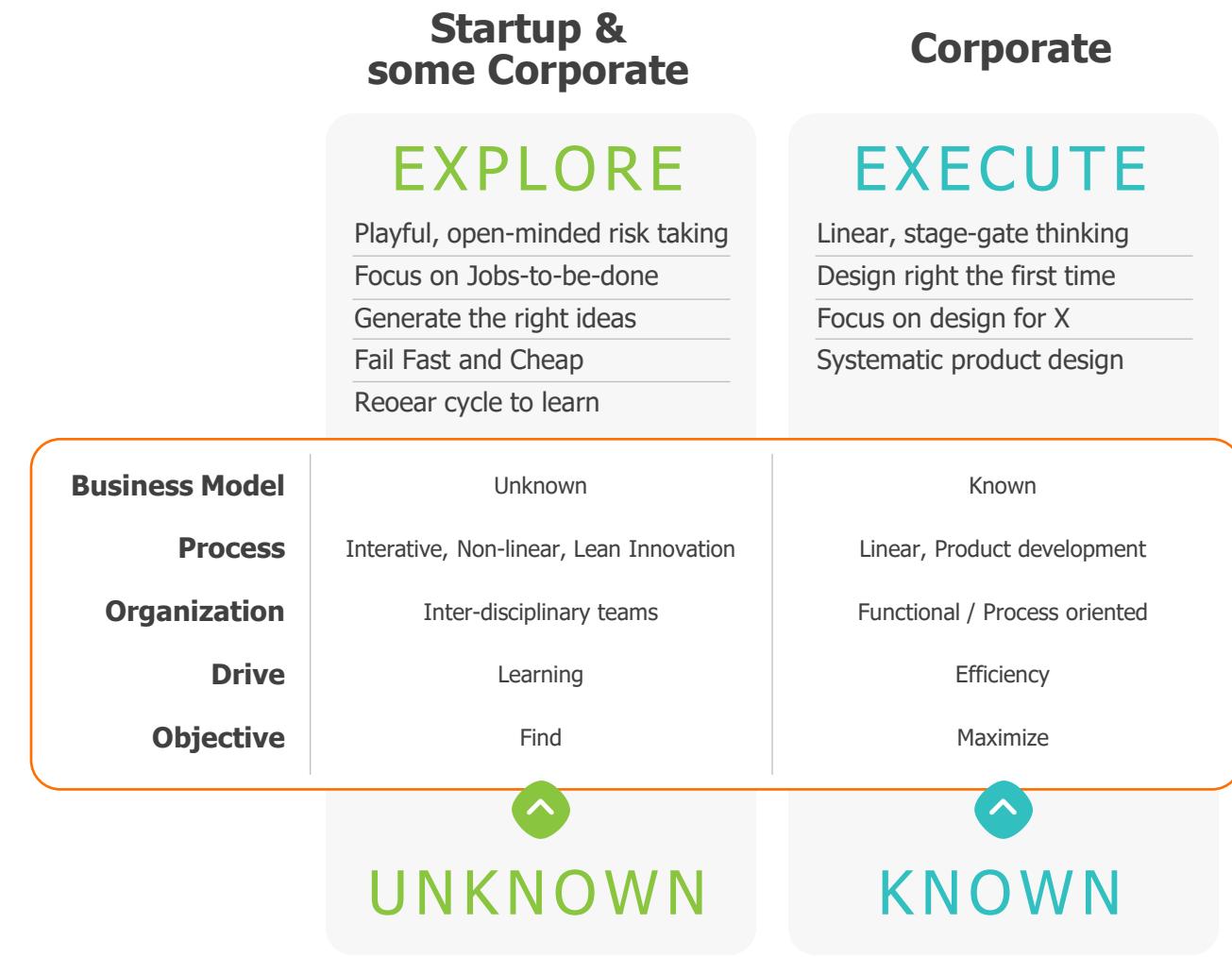


We'll use these as examples

Teachers with more than 20y of
experience in corporate
innovation doing a lot of useful
mistakes 😊

4. To implement Innovation Practices...

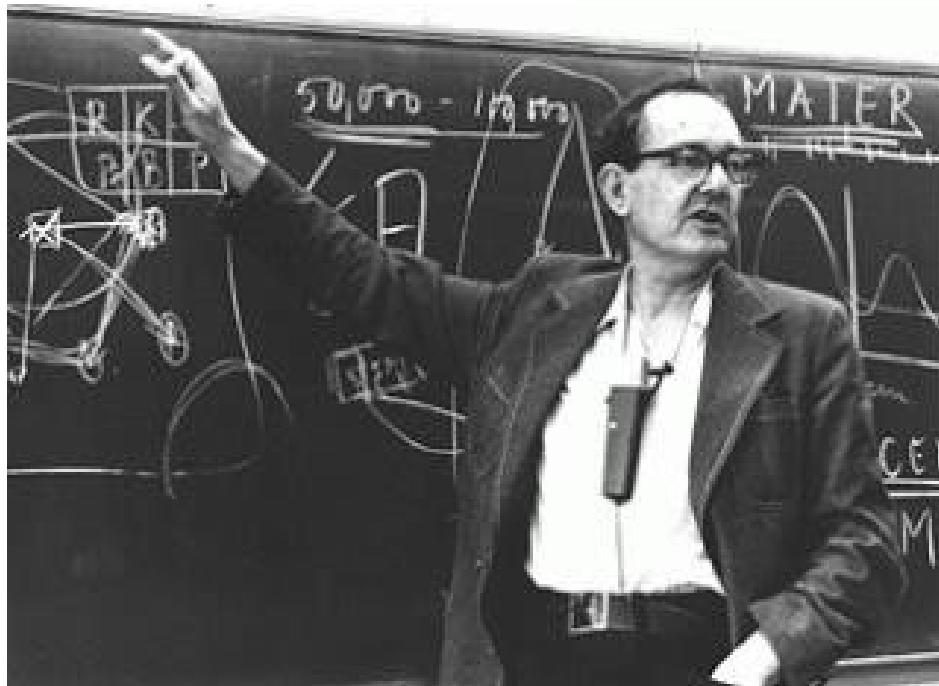
You need to recognize the importance of the cultural differences early in the process... and adapt the practices to the strategic objectives of the company and then **choose a Framework**



Different ways of working...

- Culture**
(just do it vs ask for permission) > RETAILERS
- Risk**
(aggressive vs prudent) > ACADEMIA
- Horizon**
(just do it vs ask for permission) > FAMILY-OWNED COMPANY
- Ways of thinking**
(creative vs strategic) > INDUSTRY
- Different rhythms** > STARTUPS

... you need to understand the culture and...



The purpose of the organization is to eliminate uncertainty ...

So that they can execute and capture value

... aligned the practices with what you want to be

Example

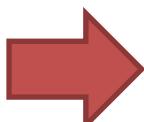
Go back to your YOUR THESIS

Speed of Learning

***Is the Real
Competitive
Advantage***



***Moving from a Know it all
Culture***



***To a learning
Culture***

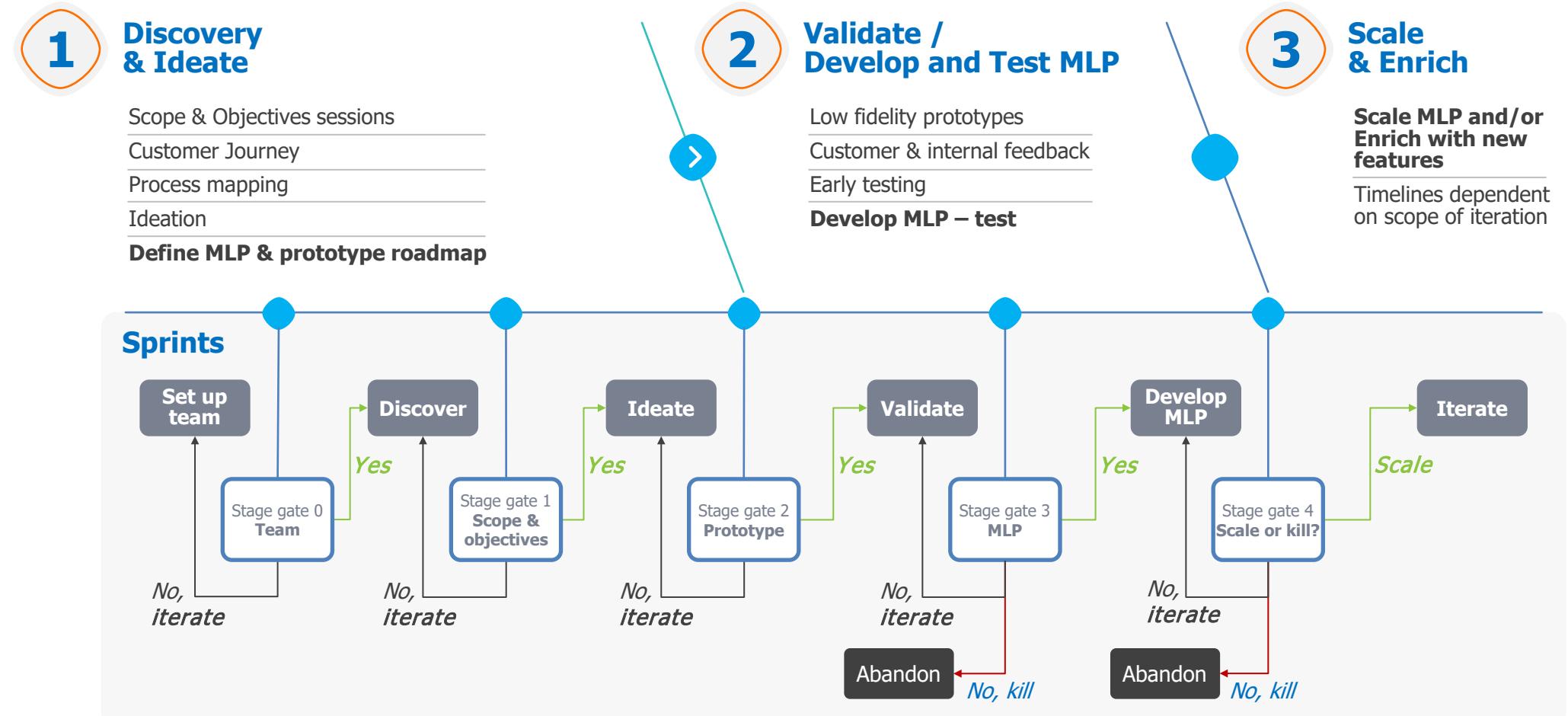
4. Choose a Framework and...

USE STATE GATES AS GOVERNANCE CHECK POINTS

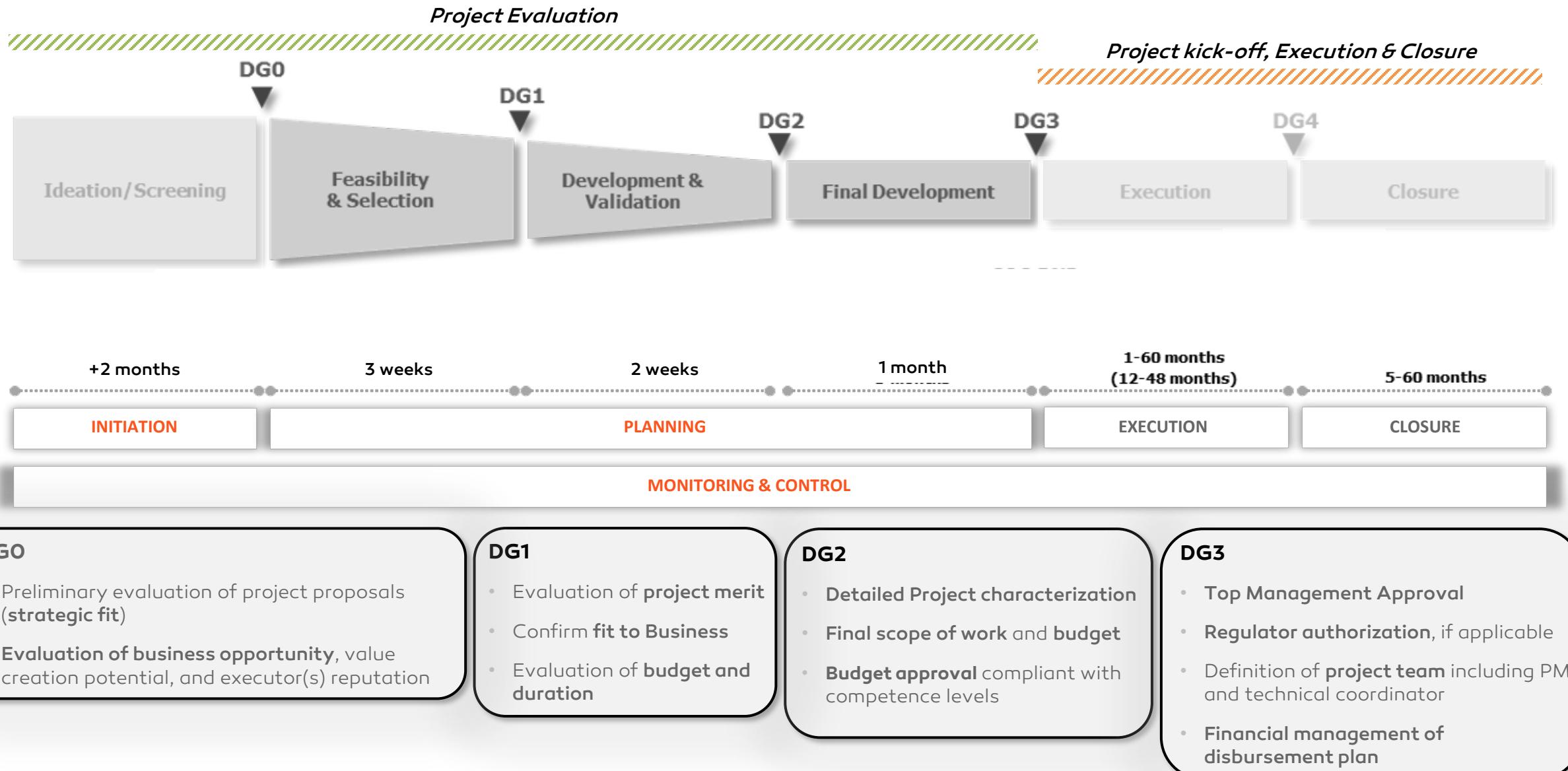
HOW DO WE WORK?



No silos policy



4. Choose a Framework and...



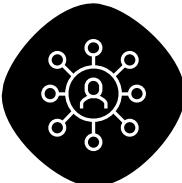
4. ...IMPLEMENT Systematic Practices...

Inspire

Conferences to position the company as key player

Innovation open day

Innovation talks

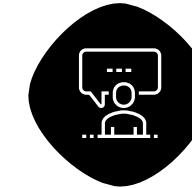
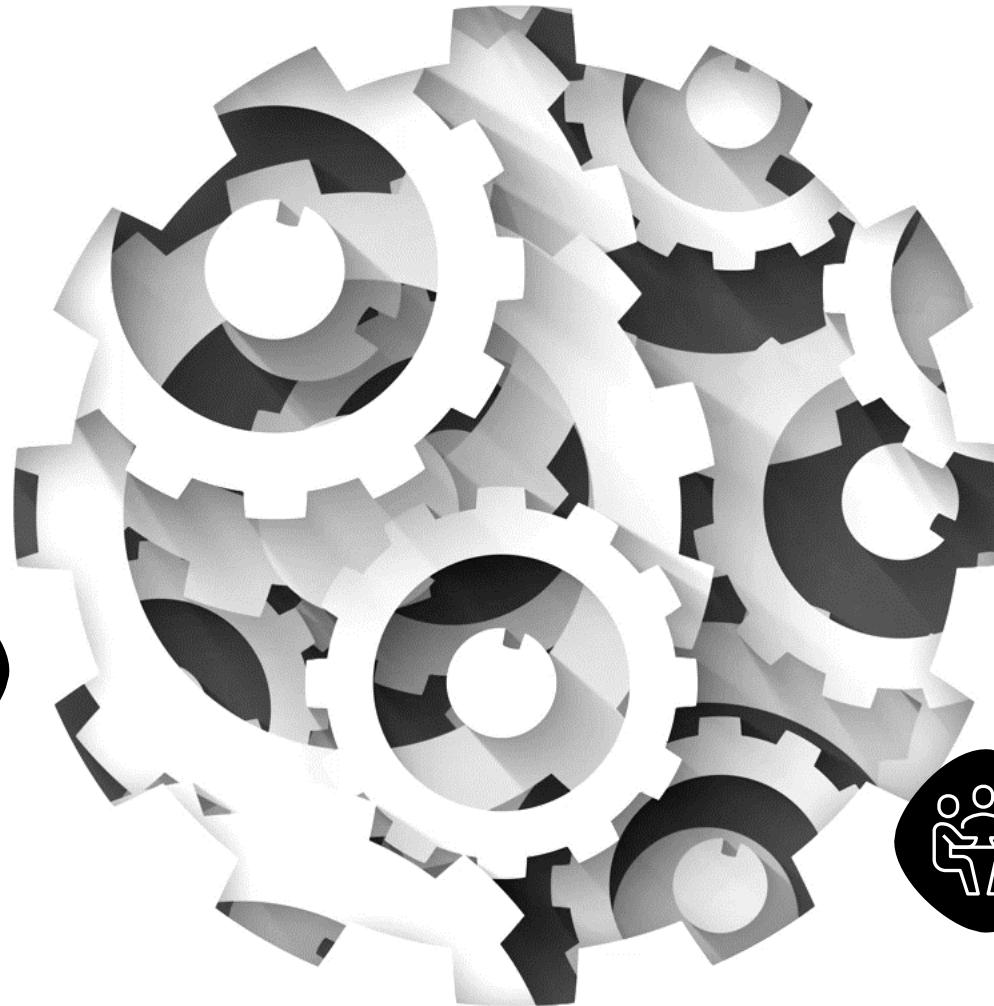


Engage

Partner with Academia

Innovation coaches network

Beta testers network to test before a product is finally released



Align & Communicate

Dare to share moments

Newsletters Monthly newsletter



Listen

Open innovation Launch initiative (or participate) with specific challenges

Bootcamps Explore and collect insights on the innovation initiatives



Train the trainer

Design sprint training

4. ... but do *NOT* forget to measure

Examples of measuring R&D Culture include:

- Employee perception of your organization's innovativeness. Collecting survey data from employees can help put a hard number score against this.**
- Timesheet data. If the objective is to open the culture of R&D+I, analyze the relative amount of time spent on R&D+I activities with partners vs. overall operations.**
- Rank-and-file involvement in R&D+I. Compare the number of initiatives in the R&D+I pipeline that came from employees with those that came from management.**

*Financial and R&D+I Cultural
Accounting Are Not the Same*

5. To implement to practices DO NOT forget to Embrace Ecosystems

Active scouting with the most relevant players of the sector to identify opportunities that may add sustainable value to the company



<https://eit.europa.eu/news-events/events/eit-innoenergy-business-booster-2022>
<https://www.slush.org/events/helsinki/>

Participation in acceleration programs with the main players of the innovation eco<system – incubators, accelerators, venture capital firms, universities, corporate partners...

<https://www.shell.com/energy-and-innovation/entrepreneurs-and-start-ups/shell-gamechanger.html>

[<<<<<](https://h2xglobal.com/2023/03/07/aws-clean-energy-accelerator-3-0/)



SandBox, a digital twin to test & validate new tech solutions
In or out of the company



Internal incubator, a platform/space to allow employees to validate their business model and test their solutions within the company



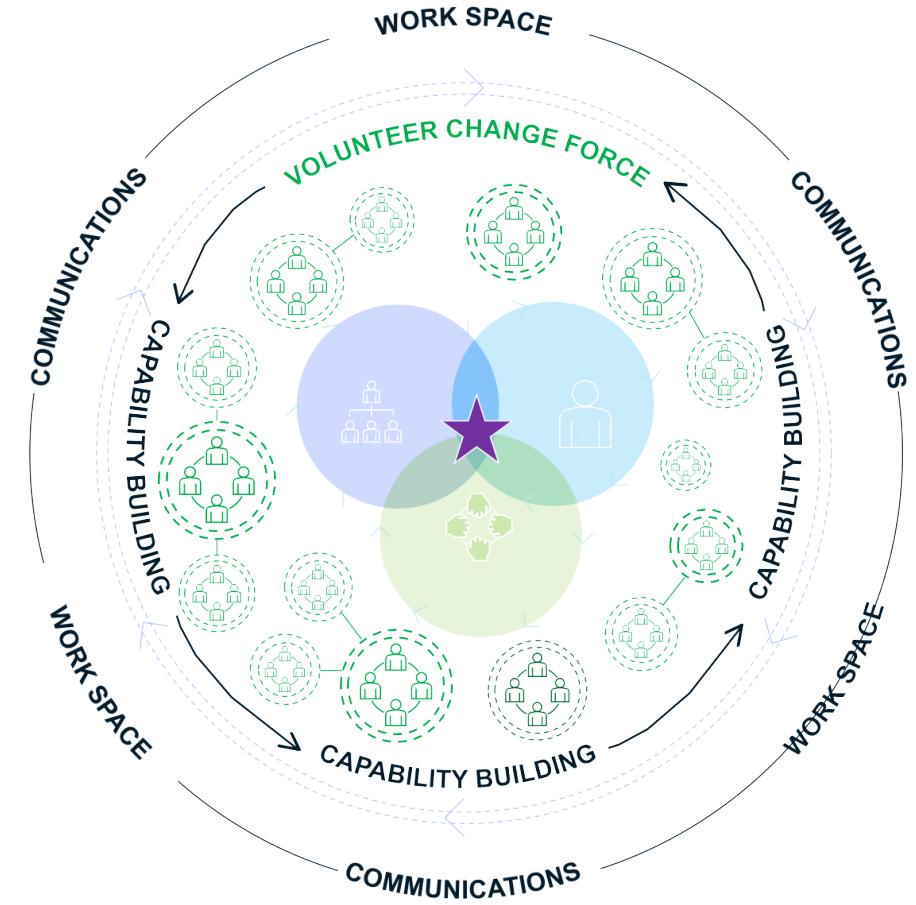
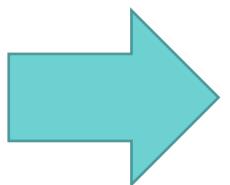
Ericsson One

Stockholm
Incubator and accelerator with focus on Ericsson's employees
Deadline: <nl>

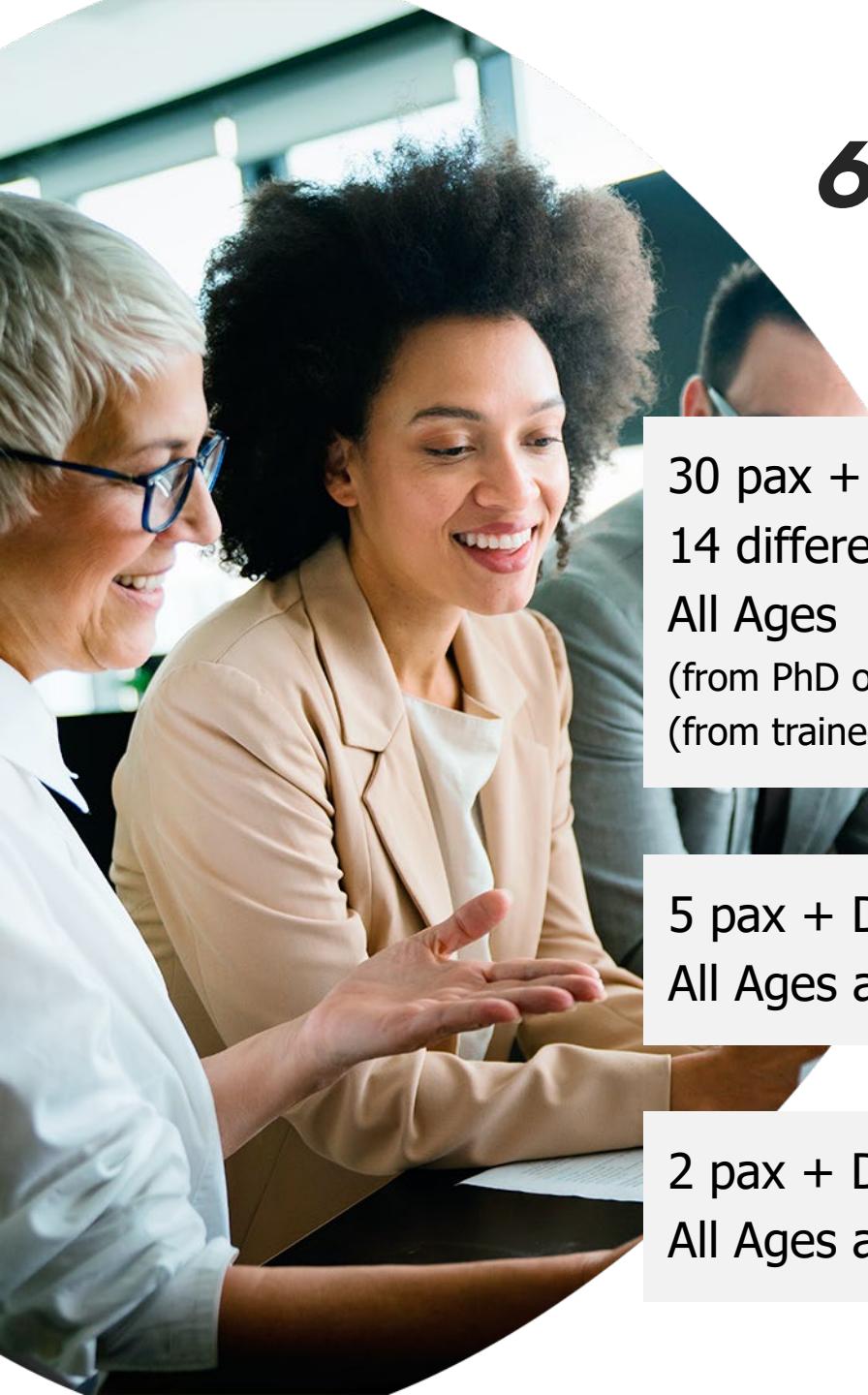
<https://www.ericsson.com/en/ericsson-one>

6. How Do I Lead?

**Uncertainty Best Managed w/
Temporary Structure
Maybe it is not enough**



Diverse, dedicated Cross Knowledge team



6. The Team

30 pax + Centralized
14 different backgrounds
All Ages
(from PhD of Geology to Psychology)
(from trainees to 35y in the company)

GALP

5 pax + Decentralized
All Ages and different backgrounds

Worten

2 pax + Decentralized
All Ages and different backgrounds

JdM

Innovation kind of players

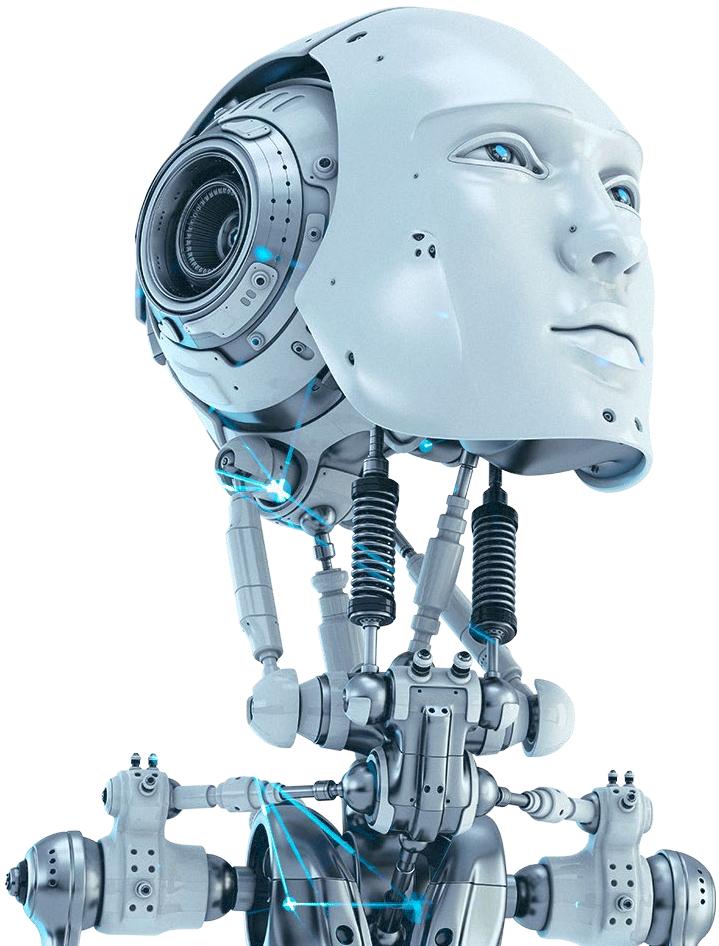
As a team we always look for **complement each other**

Diversity of background & years of experience bring **diversity of thinking**

We bring your experience, but we are not stuck in what we have done in the past – **capacity to adapt & learn** are key to our role today & for the next one

We are a generalist **more than an expert that needs to understand** the many moving parts of the organization (from Sales to Technology), be aware of the outside world and ask for help

Key Takeaways



› Align

The objectives (short & long) with the different stakeholders & get the right sponsorship
Define KPIs (OKRs) and make them transparent for all stakeholders

› Focus

You need to define the areas & how you do research to innovate
Decide the evaluation process and make it transparent for everybody

› Engage

Identify the key persons & partners and bring them to the process

› Demistify

Identify barriers to change and transform them into opportunities

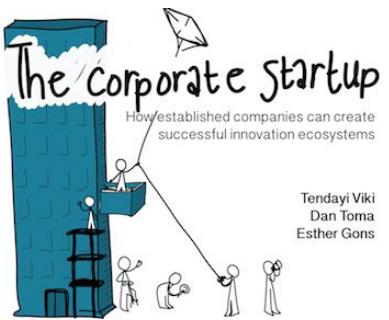
› Communicate

Understand the language and adapt the speech
Find new ways for constantly share the path (talks, newsletters, podcast...)

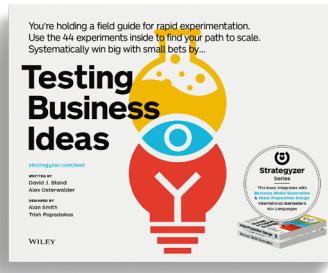
Closing

Highly Curated Reading List

Because you can't read everything all at once



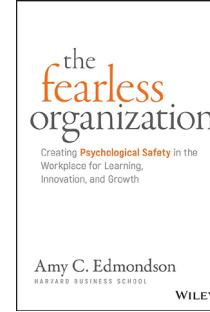
Give you a zoomed out picture of Innovation and how to establish it in an organization



Shows you in a very practical way, the tools and techniques to test your ideas



Introduces you to expanding your innovation beyond your own capabilities



Teaches you how to nurture the type of organization and culture that can sustain all the previous activities

Module II Plan



R&D+I Project Fundamentals: From Conception to Market

👉 **Lecture 3. Part 2: R&D+I Project Fundamentals: From Conception to Market**

- **Project Initiation: Scope definition and scientific and technical merit**
- **Project Planning: Strategy development, identifying challenges, and risk assessment**

👉 **Lecture 4: Applying R&D+I Management**

- **Developing R&D+I Capabilities: Techniques to enhance innovation**
- **Implementing R&D+I: Strategies for effective teamwork and innovation**

Module II Plan



R&D+I Project Fundamentals: From Conception to Market

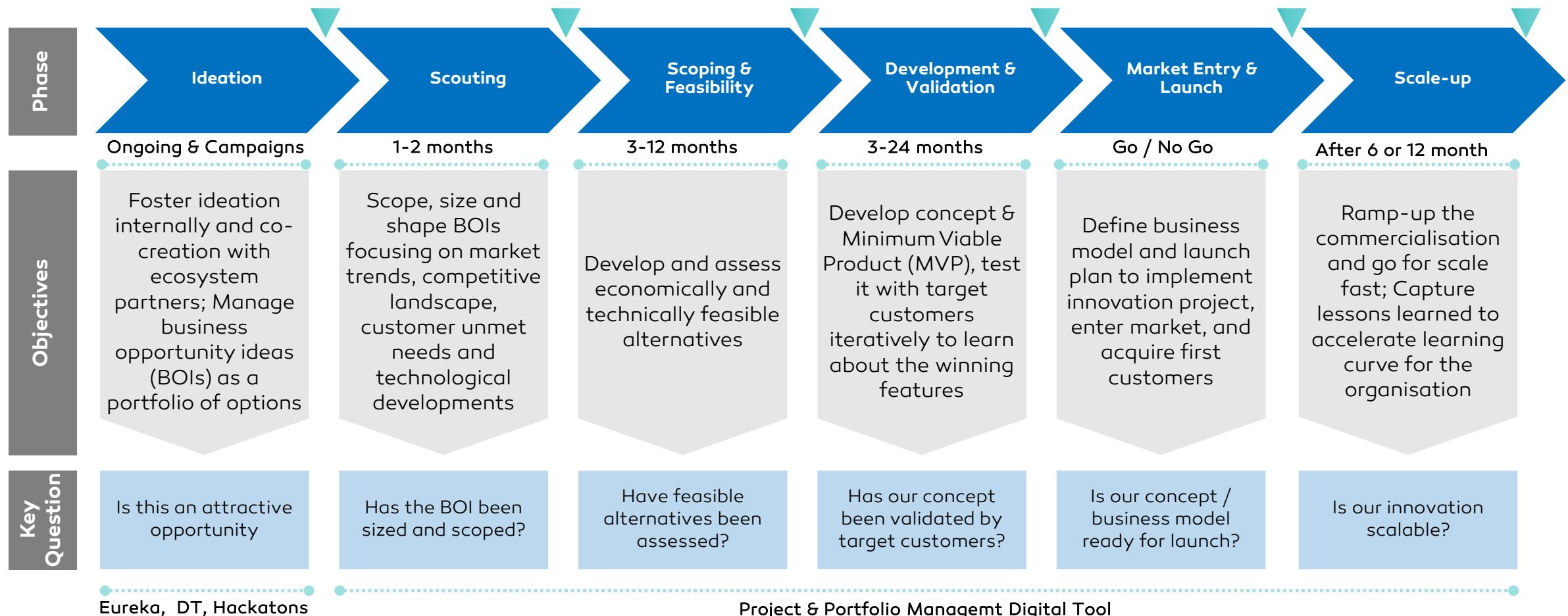
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- **Project Initiation: Scope definition and scientific and technical merit**
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👉 **Lecture 4: Applying R&D+I Management**

- **Developing R&D+I Capabilities: Techniques to enhance innovation**
- **Implementing R&D+I: Strategies for effective teamwork and innovation**

R&D+I Project Fundamentals: From Conception to Market...



Legend: * Lessons Learned; Note: The duration of each phase is indicative. The time of each phase will depend on the specific needs and the availability of resources dedicated to each project.

Ideation: description & key questions

Ideation phase	Description: Key activity to foster the development of attractive business opportunity ideas (BOIs) internally and promote co-creation with ecosystem partners; BOIs should be managed as a portfolio of options	Deliverables: Business Opportunity Ideas (BOI), including supporting evidence
<u>Market</u>	<ul style="list-style-type: none">• What is the target market and why is it attractive?• What is the Customer's Unmet Need, Job-to-be-done?	
<u>Offering</u>	<ul style="list-style-type: none">• What is the potential solution to address the identified challenge or business opportunity?• What are the potential Business Model and Route to Market?	
<u>Business Case</u>	<ul style="list-style-type: none">• What are the expected Opportunity Size?• Why us?	
<u>Project Management</u>	<ul style="list-style-type: none">• How aligned is the Business Opportunity Idea with our strategy?• What is the realistic time to market to realize the innovation project?	

Business Opportunity Idea (BOI) Form

Title/ Headline		Submitted by/ Date	
Target customer	Target customer unmet need / Job-to-be-done		Target (attainable) market
Potential offering / USP	Fit with the company	Intellectual property	Preliminary size of opportunity
Regulatory framework		Possible partners	Main competitors
Project management considerations			

Battery Swapping – real example

Focus Area:

Commercial Transformation



Status



ongoing

Impact



high

Fit to Gap



high

Effort



high

Objectives

Vision: Explore a lead to collaborate in a joint shared micromobility offer with a leading player in the battery swapping market

Project objectives:

1. Test technology (hardware and software) and promote developments that improve its efficiency and usage.
2. Test usage experience and identify optimizations.
3. Quantify operation costs and savings for end-user.
4. Gather data and analyse KPIs throughout the PoC.
5. Collect inputs for business model and for scale-up decision.

Upon proving the merits of the Project and the economic viability, the Parties recognize that in their interest to evaluate a potential commercial partnership for deploying a battery swapping offer in Iberia.

Deliverables

- Business Opportunity Identification.
- Feasibility Study.
- PoC 1st Phase Evaluation Report.
- PoC Final Report and Lessons Learned.
- Business Model Inputs for Scale-Up Decision.

Status | Results | Challenges

Status – Scaled-up

Results – PoC was concluded successfully | Scaling-up | Demo in Duarte Pacheco for potential new client (Lime)

Challenges - Contract for new operation in Zaragoza still pending



Partners



Internal X-functional team

Innovation: xxx

Electric Mobility: xxx

Marketing & Omnichannel: xxx

November 2021
Lead identified in MOVE 21

1Q 2022
Presentation to the BU and internal alignment
Discussions with Swobbee on potential collaboration terms
Identify micromobility partners in Iberia

2Q 2022
Business case analysis
PoC proposal
PoC preparation

3Q 2022
Contract Pilot Agreement
Installation and Commissioning
PoC kick-off

4Q 2022
PoC Execution
Monitoring and Reporting
KPIs Evaluation

1H 2023
Pilot extension (Porto, Almada, Zaragoza)
Handover to BU

Pilot Budget
xxxxk EUR



Battery Swapping

Focus Area:

Commercial

Status



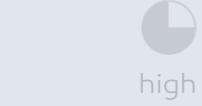
Impact



Fit to Galp



Effort



Internal - Unprotected

FAST COMPANY

Objectives

Explore a lead to collaborate with micromobility offer with battery swapping market

Project objectives:

1. Test technology (hardware and software) that improve its efficiency and usage.
2. Test usage experience and identify opportunities.
3. Quantify operation costs and savings for delivery riders.
4. Gather data and analyse KPIs through pilot.
5. Collect inputs for business model and further expansion.

Upon proving the merits of the Project to the City of New York and its partners, the parties recognize that in their interest to explore a potential partnership for deploying a battery swapping solution.

Deliverables

- Business Opportunity Identification.
- Feasibility Study.
- PoC 1st Phase Evaluation Report.
- PoC Final Report and Lessons Learned.
- Business Model Inputs for Scale-Up Decision.

Status | Results | Challenges

Status – Scaled-up

Results – PoC was concluded successfully | Scaling up

Challenges - Contract for new operation in Zaragoza is pending

02-29-24

E-bike batteries started 267 fires in New York City last year. These swapping stations are designed to help

The city just launched a new pilot to help delivery riders avoid charging batteries at home.



[Photos: Swobbee, Nirmal Rajendharkumar/Unsplash]

Timeline

- November 2021: Lead identified in MOVE 21
- 1Q 2022: Presentation to the BU and internal alignment
- 2Q 2022: Discussions with Swobbee on potential collaboration terms
- 3Q 2022: Identify micromobility partners in Iberia
- 4Q 2022: Business case analysis, PoC proposal, PoC preparation
- 1H 2023: Contract Pilot Agreement, Installation and Commissioning, PoC kick-off, Pilot extension (Porto, Almada, Zaragoza), Handover to BU

Pilot Budget
10k EUR



Ex1. Group discussion: Your Business Opportunity Idea

Let's break into groups of 5 and discuss:

1. Introduction to BOI (2 minutes):

Brief presentation on what a BOI Form is and its significance in business planning and entrepreneurship.

2. Idea Generation (15 minutes):

Each group should brainstorm to come up with a unique business idea on flavor water. It could be a product, service, or a solution to a problem they have identified.

3. Research and Discussion (10 minutes):

Groups should conduct basic research to understand the market for their idea, potential competitors, and target audience. They can use internet resources, industry reports, or case studies.

3. BOI Form Development (20 minutes):

Using the BOI Form template, each group fills out the following sections for their business idea:

Idea Description: A clear and concise description of the product or service | **Potential offering / USP:** What makes this idea unique and valuable to customers? | **Target Market:** Who are the potential customers? | **Competition Analysis:** Who are the main competitors, and how does this idea differ? | **Preliminary size of opportunity or Impact:** What positive impact will this business have (social, environmental, economic)?

4. Presentation (2 minutes):

1 Slide of the BOI Form + 2minutes pitch for each group