



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 that 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**

Startup & some Corporate

EXPLORE

Playful, open-minded risk taking
Focus on Jobs-to-be-done
Generate the right ideas
Fail Fast and Cheap
Relearn cycle to learn

Corporate

EXECUTE

Linear, stage-gate thinking
Design right the first time
Focus on design for X
Systematic product design

Business Model

Unknown

Known

Process

Iterative, Non-linear, Lean Innovation

Linear, Product development

Organization

Inter-disciplinary teams

Functional / Process oriented

Drive

Learning

Efficiency

Objective

Find

Maximize

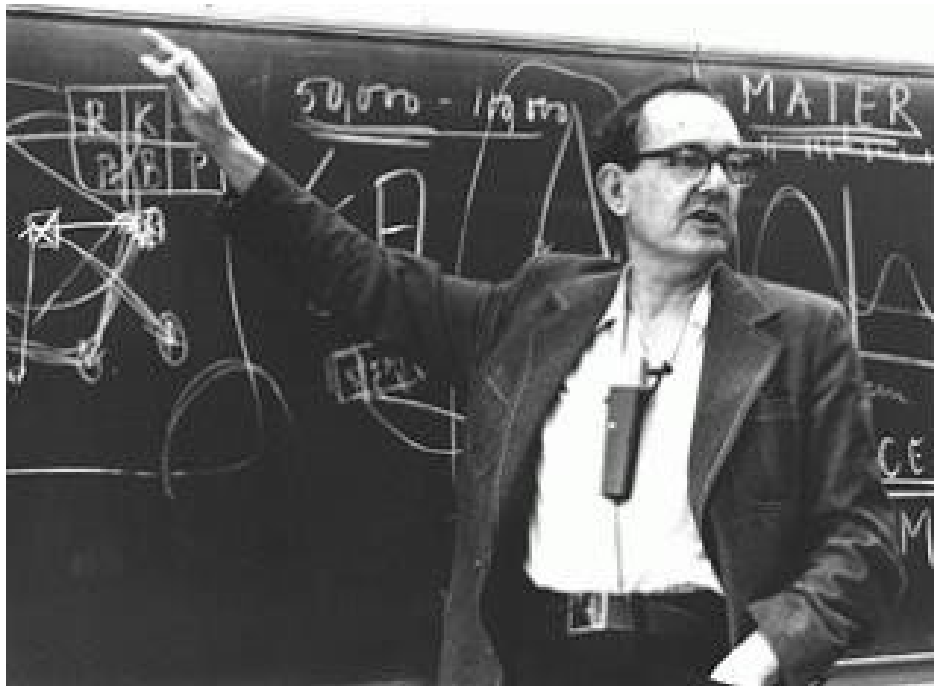
UNKNOWN

KNOWN

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***

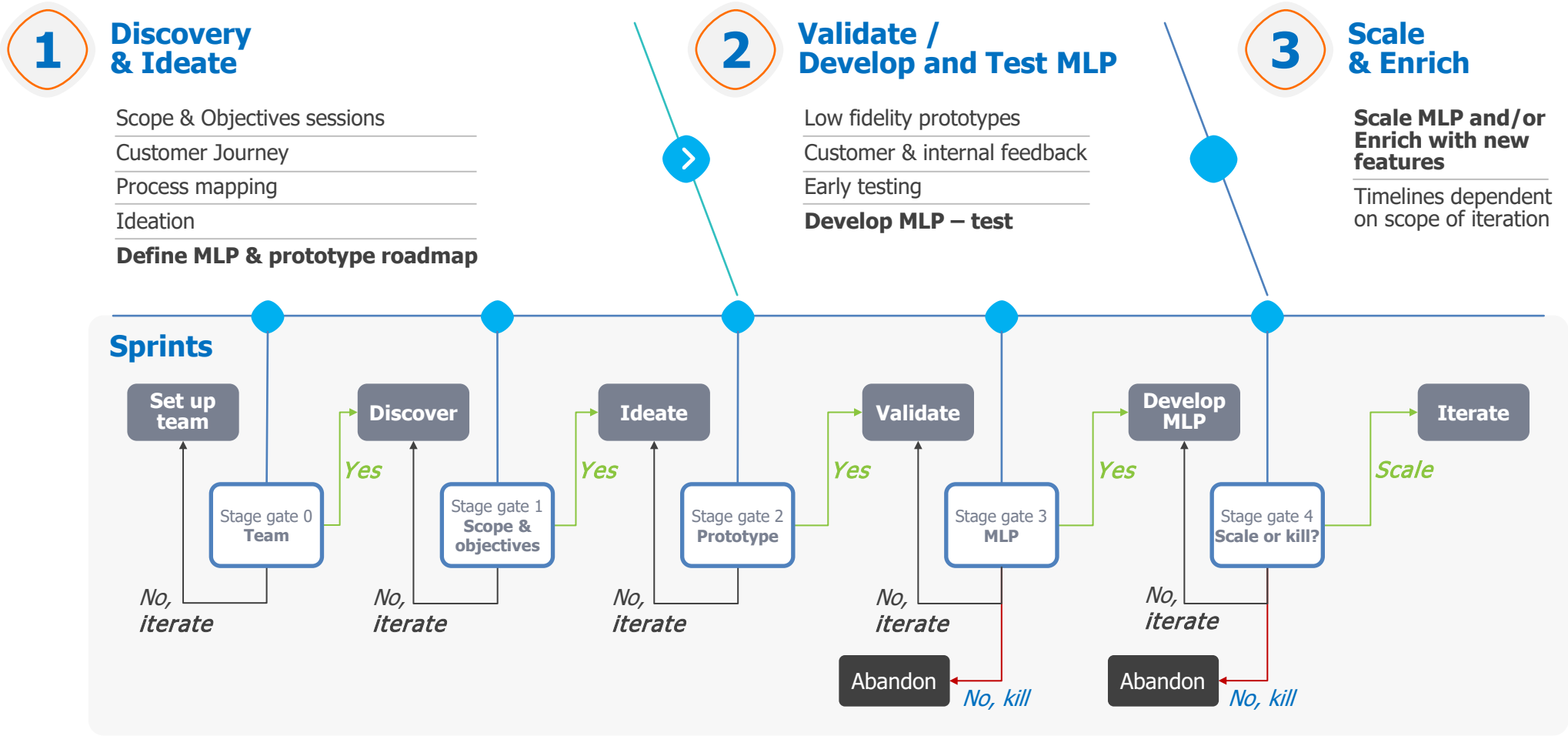


***To a learning
Culture***

4. Choose a Framework and...

USE STATE GATES AS GOVERNANCE CHECK POINTS

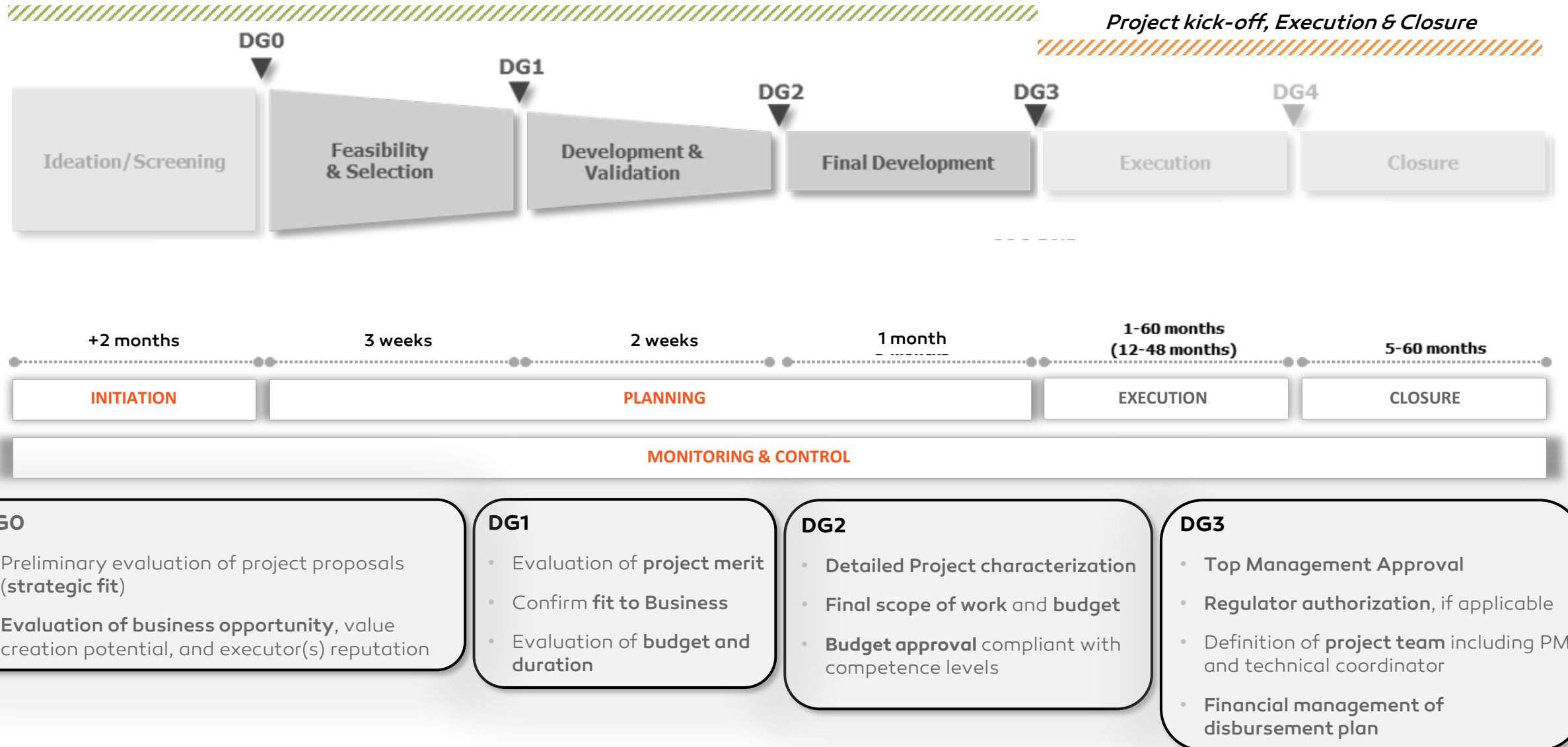
HOW DO WE WORK?



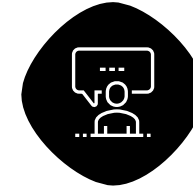
No silos policy

4. Choose a Framework and...

Project Evaluation



4. ...IMPLEMENT *Systematic Practices*...



Align & Communicate

Dare to share moments

Newsletters
Monthly newsletter



Listen

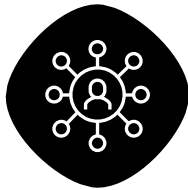
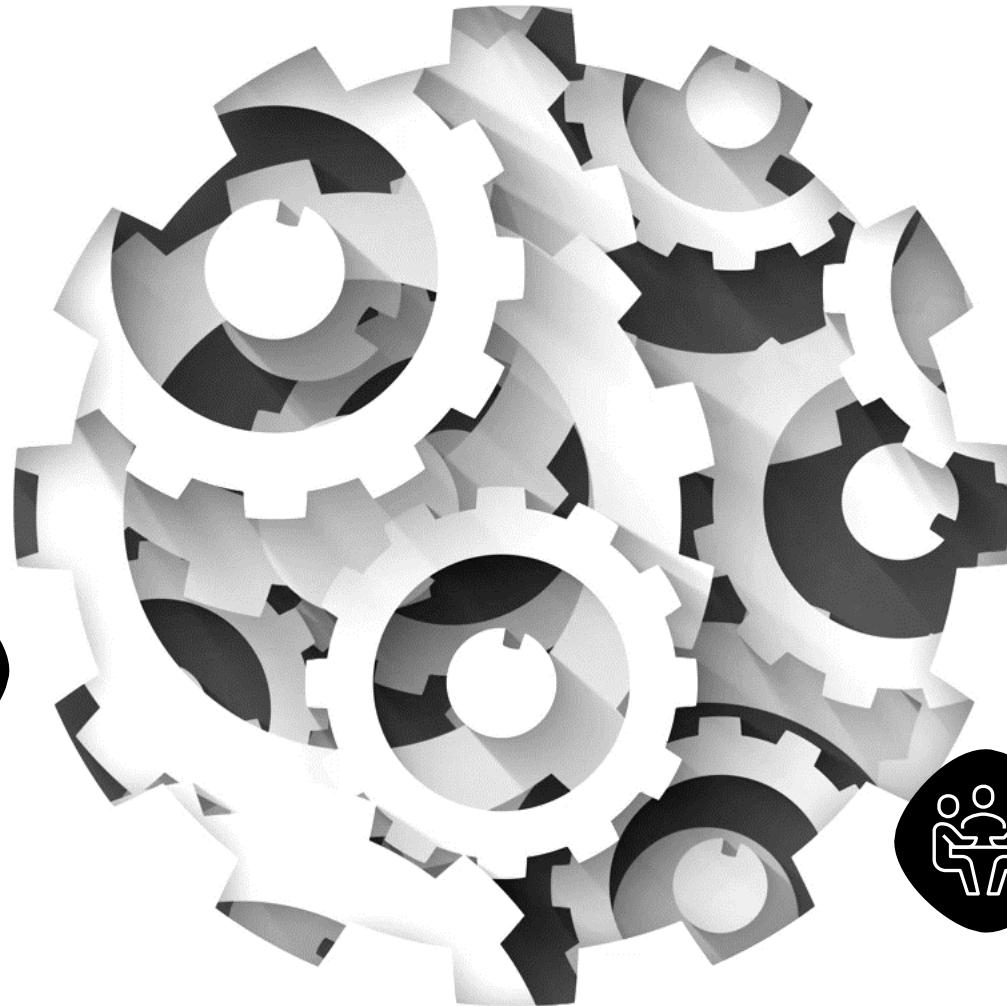
Open innovation
Launch initiative (or participate) with specific challenges

Bootcamps
Explore and collect insights on the innovation initiatives



Train the trainer

Design sprint training



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

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



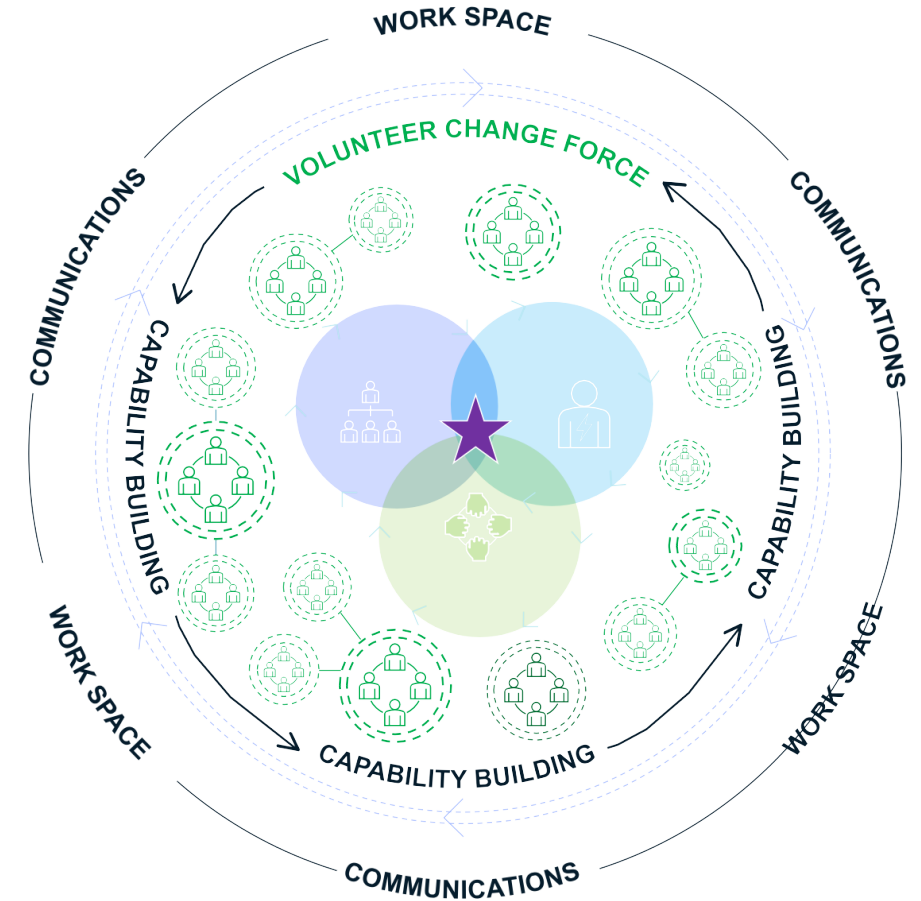
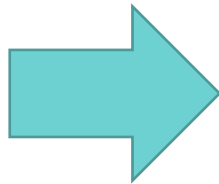
Ericsson One

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

<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

GALP

(from PhD of Geology to Psychology)
(from trainees to 35y in the company)

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

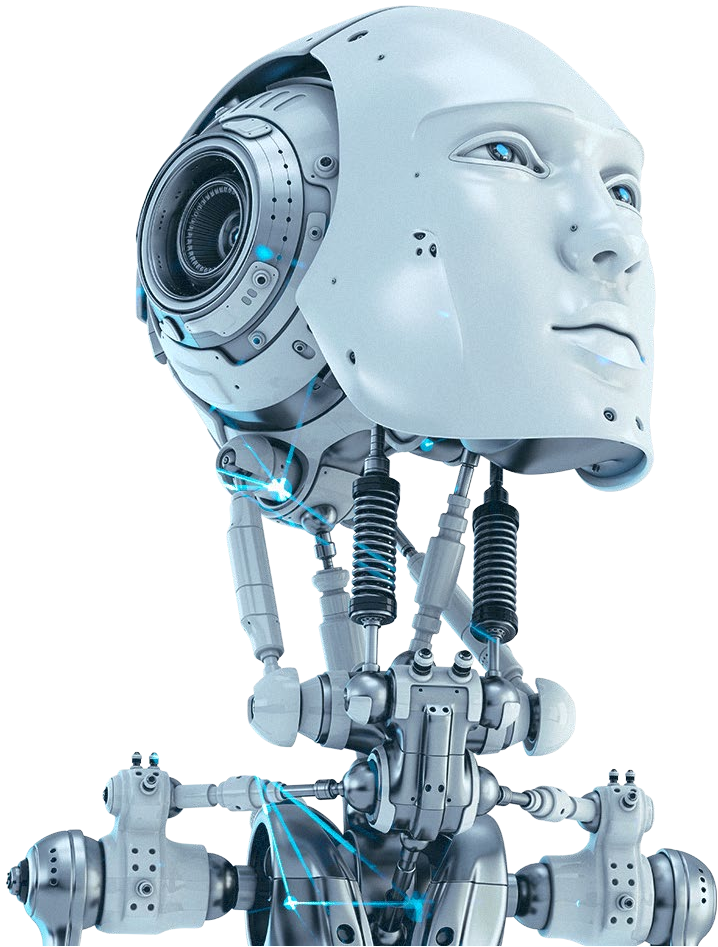
Identify the key persons & partners and bring them to the process

> 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



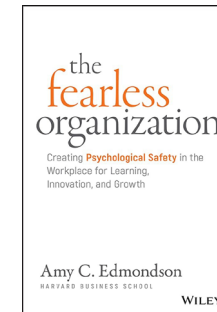
Give you a zoomed out picture of Innovation and how to establish it in an organization



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

👉 **Lecture 3. Part 2: R&D+I Project Fundamentals:**

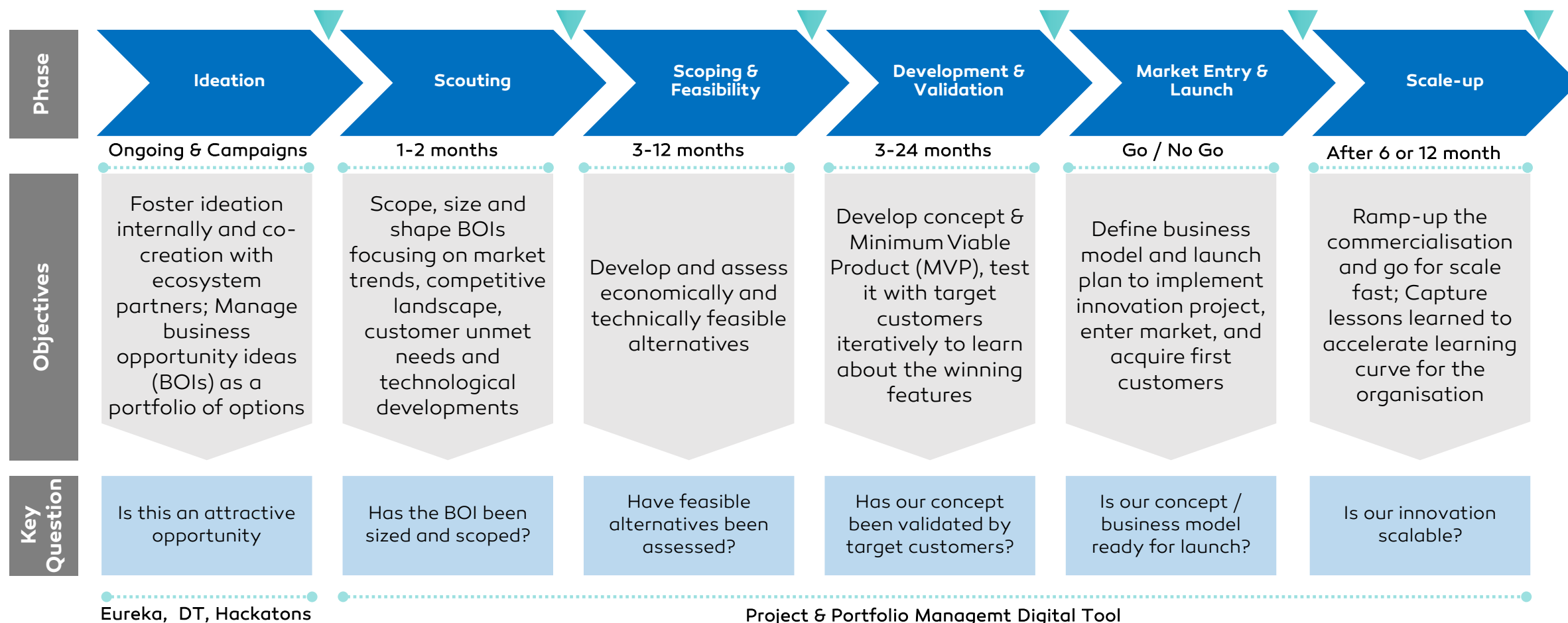
From Conception to Market

- 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**

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

Market

- What is the target market and why is it attractive?
- What is the Customer's Unmet Need, Job-to-be-done?

Offering

- What is the potential solution to address the identified challenge or business opportunity?
- What are the potential Business Model and Route to Market?

Business Case

- What are the expected Opportunity Size?
 - Why us?

Project Management

- 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 Galp

high

Effort

high

Internal - Unprotected

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.

Partners



Internal X-functional team

Innovation: xxx

Electric Mobility: xxx

Marketing & Omnichannel: xxx



Timeline

- 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

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

Pilot Budget
xxxk EUR



Battery Swapping

Objectives

Vision: Explore a lead to collaborate with Swobbee on a 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 for improvement.
3. Quantify operation costs and savings for the pilot.
4. Gather data and analyse KPIs throughout the pilot.
5. Collect inputs for business model and financial projections.

Upon proving the merits of the Project and the partnership, the Parties recognize that in their interest to explore a partnership for deploying a battery swapping pilot.

Deliverables

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

Status | Results | Challenges

Status – Scaled-up

Results – PoC was concluded successfully | Scaling up in progress

Challenges - Contract for new operation in Zaragoza is still pending

Focus Area:

Commercial

Status

Impact

Fit to Galp

Effort

Internal - Unprotected

FAST COMPANY

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]

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

Pilot Budget
10k EUR

galp

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