



Beyond the Legacy of Deep Demonstration Slovenia

11 September 2025

Initiated by the EIT





Welcome





Objectives of the event & Agenda

- Share knowledge, insights, and challenges working with circularity in the Slovenian Deep Demo from the previous five years
- Collaborate to explore new circular and business opportunities to go beyond the DD in Slovenia and the world



2.30 – 3.00

Welcome & intro

Overview of Slovenia
DD achievements



3.00 – 4.15

Testimonies on DD &
circularity in Slovenia

Presentations & questions



4.15 – 5.15

Opportunities for a
future circularity path
in Slovenia

Group exercise



5.15 – 6.00

Closure & Networking





Join Europe's Leading Climate Innovation Community



This action is supported by the European
Institute of Innovation and Technology (EIT).

A body of the European Union



17/09/2025



Delivering Impact

In 15 years of work, Climate KIC has brought together solutions, learnings from implementation, venture creation, policy, education and investment to make systems change happen at pace and scale.

Our role is to develop, catalyse and orchestrate. We convene, join the dots, test and enable learning, create the conditions for adoption and scale. Through carefully constructed portfolios, Deep Demonstrations, partnerships with local and national governments, entrepreneurship and venture building, we deliver measurable impact across Europe and beyond.

Start-ups accelerated

6000

Climate leaders trained through our learning and entrepreneurship programs

50k

Funding attracted for our portfolio companies

€6.1bn

Annual CO₂eq avoided emissions through our innovation projects

13MT

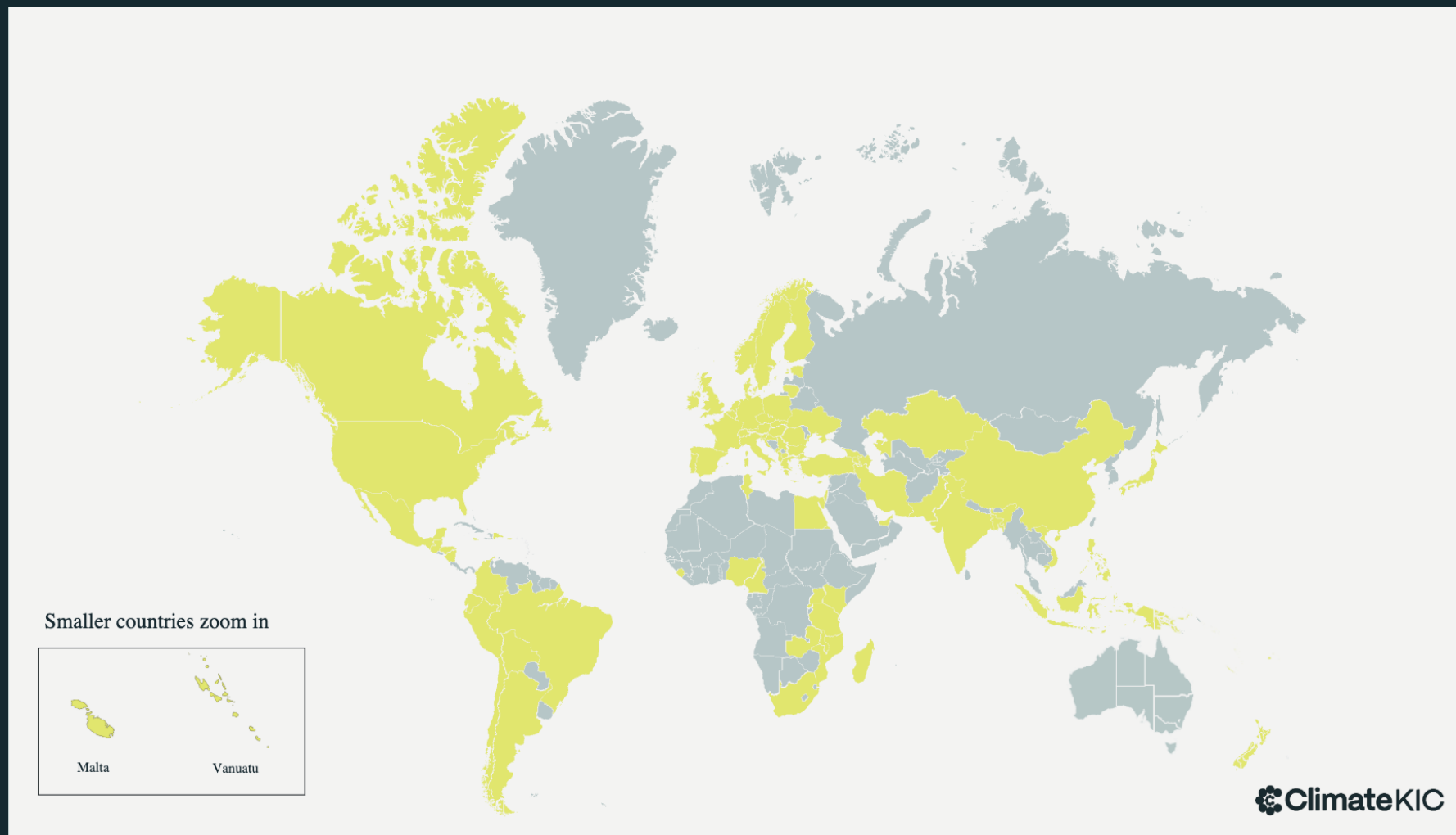
10k

New jobs created through our portfolio companies



Climate KIC Global Reach

Community Numbers



+6,000

Alumni & young professionals



+2000

Community Platform users



+100

Associated Experts

Initiated by the EIT





Climate KIC: A Knowledge Innovation Community

Climate KIC is the leading climate innovation foundation in the world to partner with UN & EU institutions, National- Regional-, & Local Governments & Cities.

We are Europe's leading climate innovation community.

We provide networking, learning and collaboration opportunities on climate innovation & action.

Companies
Universities
NGOs
Governments
Regions & Cities
Innovators
Frontrunners
Young professionals
**All Are
Welcome!**

COUNTRIES REPRESENTED
IN OUR COMMUNITY

147





Climate KIC Community member benefits

Climate KIC's Community is Europe's leading climate innovation community dedicated to help public & private stakeholders to adapt to the changing climate and to grow and scale green solutions and opportunities.

As a member you will get access to:

- **Networking and visibility** with likeminded, in Europe's leading climate innovation community, and gain access to research development, adaptation-, market & policy insights
- **Learn from and build capacity** with experts, leaders and practitioners through tailored activities
- **Collaborate and innovate** with key stakeholders from universities, companies and public sector officials

Starting at only
€500





Network & Visibility

Online events – open for all

Join us for our monthly online talk and networking session open for both community members and external interested parties.

- **Regenerative Leadership and futures.**
With Unearthodox – On October 15.
- **The Road to COP30.**
On November 4.
- **2025 in review – what to expect of 2026?**
On December 11.





Build Capacity & Learn

Deep Dive – Online Members Only

Join us for an online deep dives when we explore the role of public-private stakeholders online and identify new business opportunities through various specific topics.

- **Going beyond ESG – Building agile, resilient organisations for the next industrial era**

On September 23.

- **Advancing public-private green partnerships – the case of Cities.**

On October 29.

For all relevant stakeholders and parties of interest – but it is a members only online event.





Collaborate & Innovate

In our Community collaboration labs (CoLabs) we engage public and private stakeholders cross value chains, researchers and innovators in our effort to connect climate demand with innovative solutions and opportunities.

- Relevant Industry leaders / representatives
- Finance & capital sector representatives
- Climate entrepreneurs and innovators
- Researchers & university representatives



Beyond the legacy of Climate KICs Circular Deep Demonstration in Slovenia

Thursday 11 September
Ljubljana, Slovenia



Accelerating regional potential within green & blue economy

Thursday 2 October
Cagliari, Italy



Community-led housing & sustainable transitions: The case of Barcelona

Friday 10 October
Barcelona, Spain



Advancing green private-public partnerships:

Tuesday 22 October
Warsaw, Poland





Join Climate KIC Community today

Let's elevate your circular work, innovation and solutions together



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Community Relations & Partnership Manager

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Initiated by the EIT





Deep Demonstration of a Circular, Regenerative and Low-Carbon Economy in Slovenia



REPUBLIC OF SLOVENIA
MINISTRY OF PUBLIC ADMINISTRATION



Co-funded by the
European Union



REPUBLIC OF SLOVENIA
MINISTRY OF THE ENVIRONMENT,
CLIMATE AND ENERGY



Programme vision

Slovenia is becoming a European leader in transforming and decarbonising its economy and society.

It is promoting the circular transition of all communities through a national approach based on regional and local needs.

This will lead to a resilient and prosperous Slovenian society where well-being is enhanced, and greenhouse gas emissions are significantly reduced.





Programme goals

Establish a frame of reference for Slovenia's circular economy portfolio

Support the decarbonisation of the key value chains of the Slovenian economy

Systemically engage a wider range of stakeholders in decision-making and policy processes

Spark innovation and the development of new systemic solutions in entrepreneurship, education, policy and finance

Enable cross-sectoral collaboration to overcome organisational silos and identify interlinked priority areas

Support local stakeholders to extract learnings and intelligence to ultimately make transformative decisions





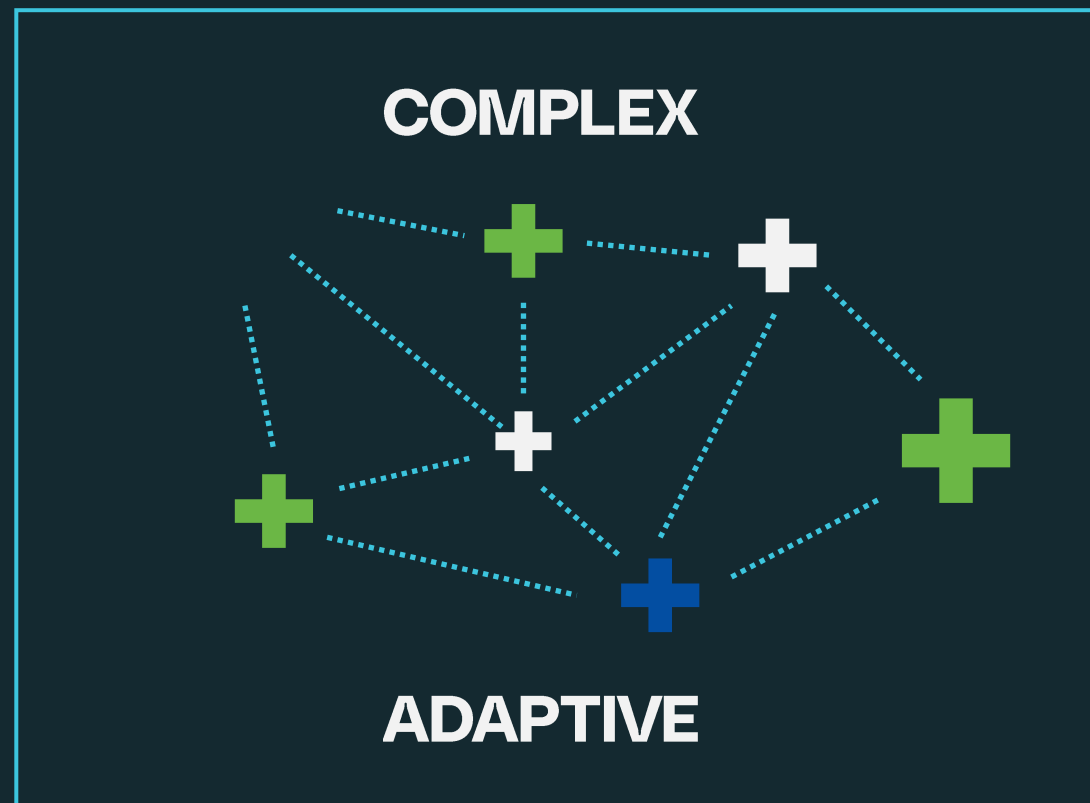
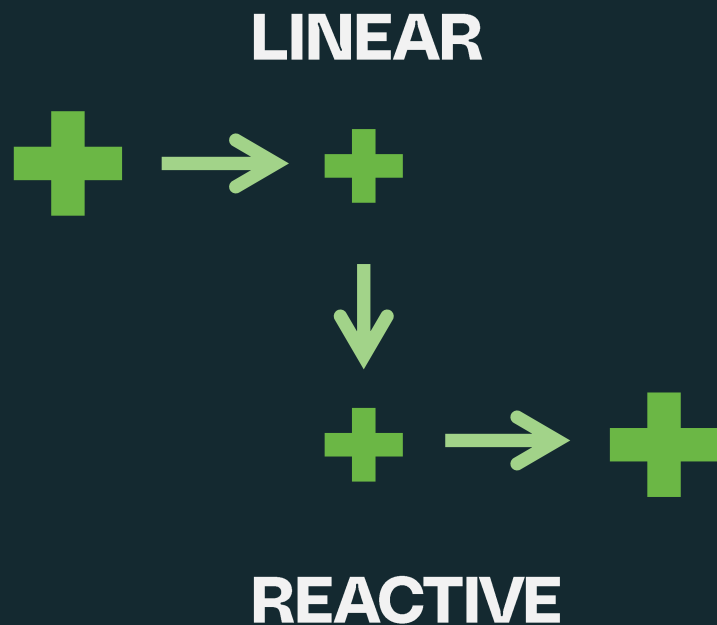
Key stakeholders





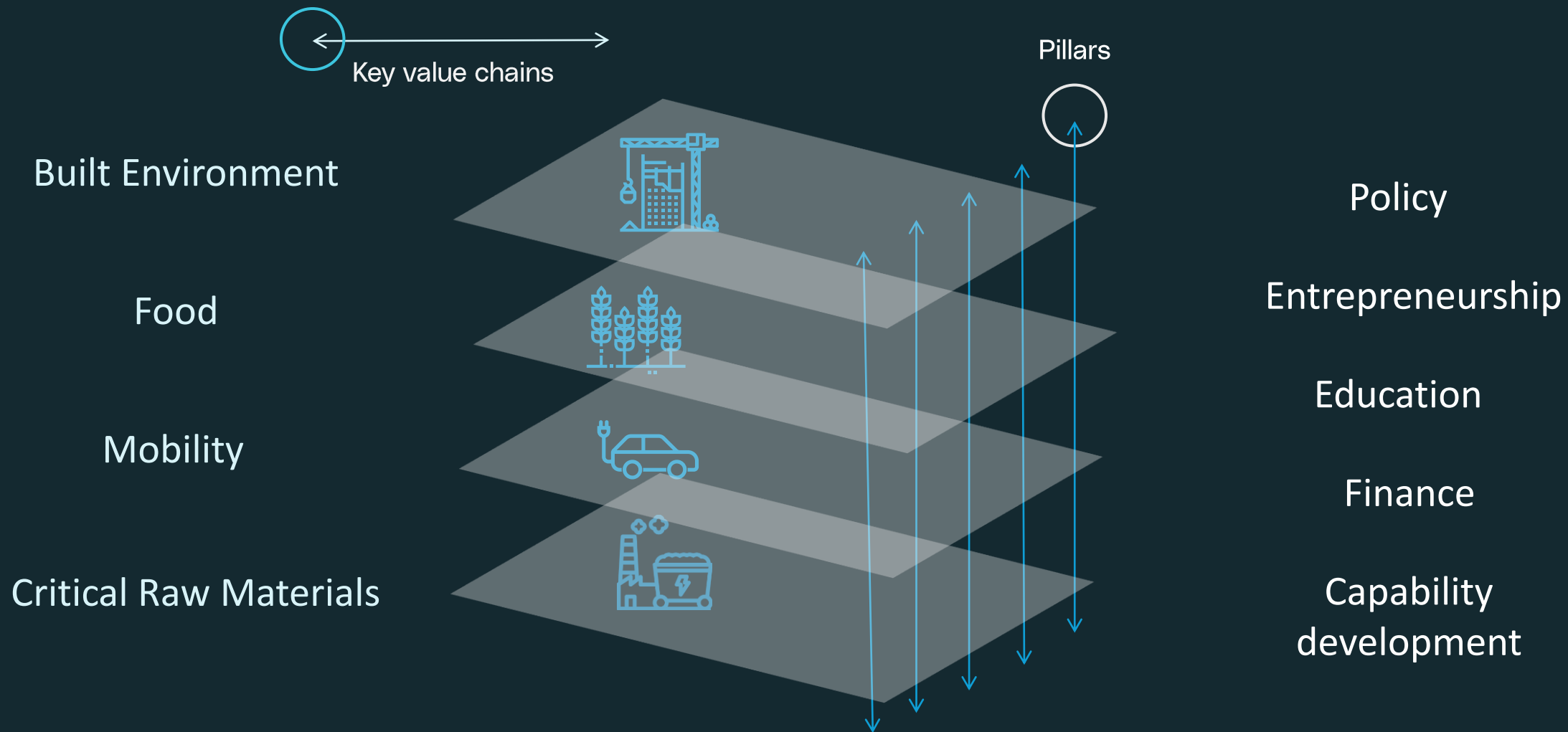
Systemic transition

How can Slovenia achieve a cohesive transition to a **resilient circular model** that can reduce future economic, environmental and social costs, while **creating local value**?





Portfolio approach





Key transformation pillars



POLICY INNOVATION

Developing a Policy Lab through piloting targeted experiments in the selected value chains in collaboration with the Ministry of Public Administration



ENTREPRENEURSHIP

Ecosystem development activities in value chains in cooperation with Government, the Slovenian Enterprise Fund and SPIRIT.



EDUCATION AND SCIENCE

Supporting the transformation of the education system through integrating the circular economy aspect, co-designing pilot activities, creating mechanisms for impact measurement



FINANCIAL ARCHITECTURE

Unlocking and aligning funding opportunities from public and private instruments through developing a funding strategy and capital and investment plan



CAPABILITY DEVELOPMENT

An analysis of the required and missing capacities, building a body of basic skills to operate in a systemic process and assess the impact of new competencies and capacity





Key stats

3 Portfolios & 2 pilots
of innovative
interventions designed

11 actions taken based
on DD learnings
22 stories of change

14 connections made
with other countries,
regions, cities and
programmes for
learning exchange

6 Policy challenges
explored
18 civil servants
participating

22,304 tonnes of CO2
equivalents per year
avoided thanks to the
climate impact of the
13 start-ups
participating in the DD

More than 40
workshops incl. 26
capacity building
sessions and
workshops, involving
more than
400 stakeholders





Key moments





Key achievements



Adoption of a
portfolio
management
approach at MVZI



Upgrade call
criteria of MGTS
to include
circularity
elements



13 start ups
validated adding
credibility for growth

22.3 KT CO2 avoided



Establishment of a
Policy Lab at MJU



3 changes in the
Agriculture and
Food laws based on
learnings from the
portfolio

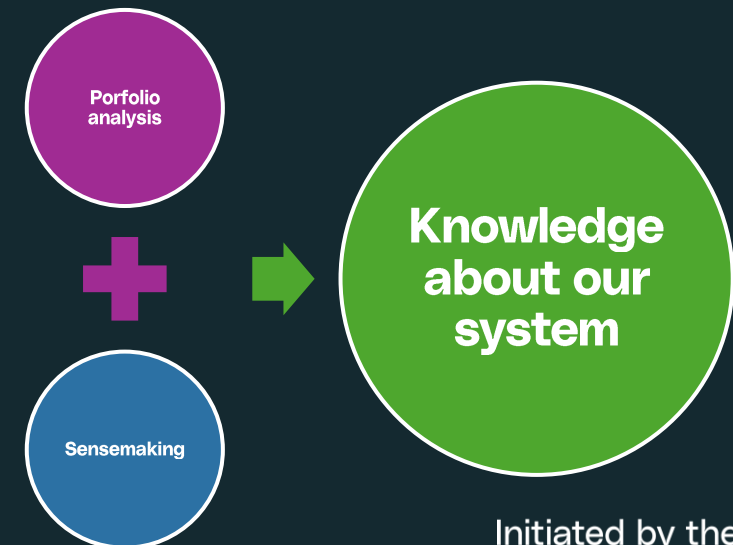




Higher Education example of using portfolio approach

- Analyzing 38 projects implemented under the Resilient and Recovery Fund (RRF) in more systemic way to complement classical evaluation
- Creating framework to assess progress in that particular program
- Analyzing whole set of interventions not individual projects – to learn about our system as a whole
- Changed approach to what is the role of the Ministry
- Included knowledge from different sources (monitoring, workshop during conferences, reports from universities, OECD work)

We decided to treat all the projects financed by RRF as a portfolio and observe them to learn about the best way of shaping future policy instruments



Knowledge from RRF can neutralise implementation gap

THEORY

Documents

Strategies

Assumptions

Notions (sometimes empty)

Oversimplifications

Hypothesis

Goals/Visions

Offers new type of observation:

Map of the system

Map of stakeholders

Portfolio of actions
Pilot projects

Creating space for experiments

Theory of change is part of that

Focused on measuring impact

Making sure knowledge from that process is accessible

Creating new ways of acting (managing, organizing knowledge, disseminating)

PRACTICE

Reality

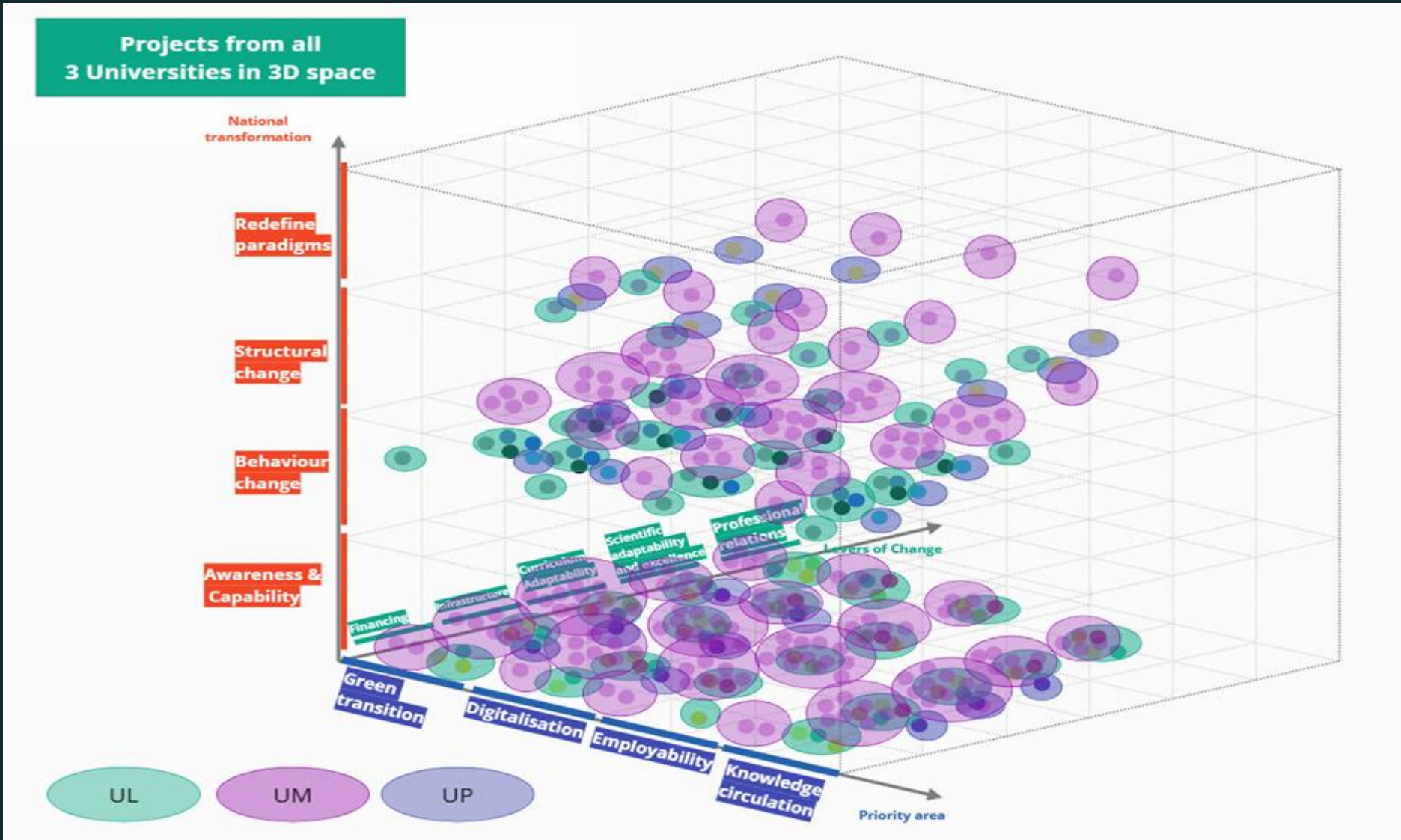
Complexity

Experience

Variety of signals

Many interconnected actors

Showing results from portfolio



Systemic work on mobility



Timeline and Deliverables

Vision, Goals and Portfolio

1 Vision

Where do we want to go and what do we need to change?

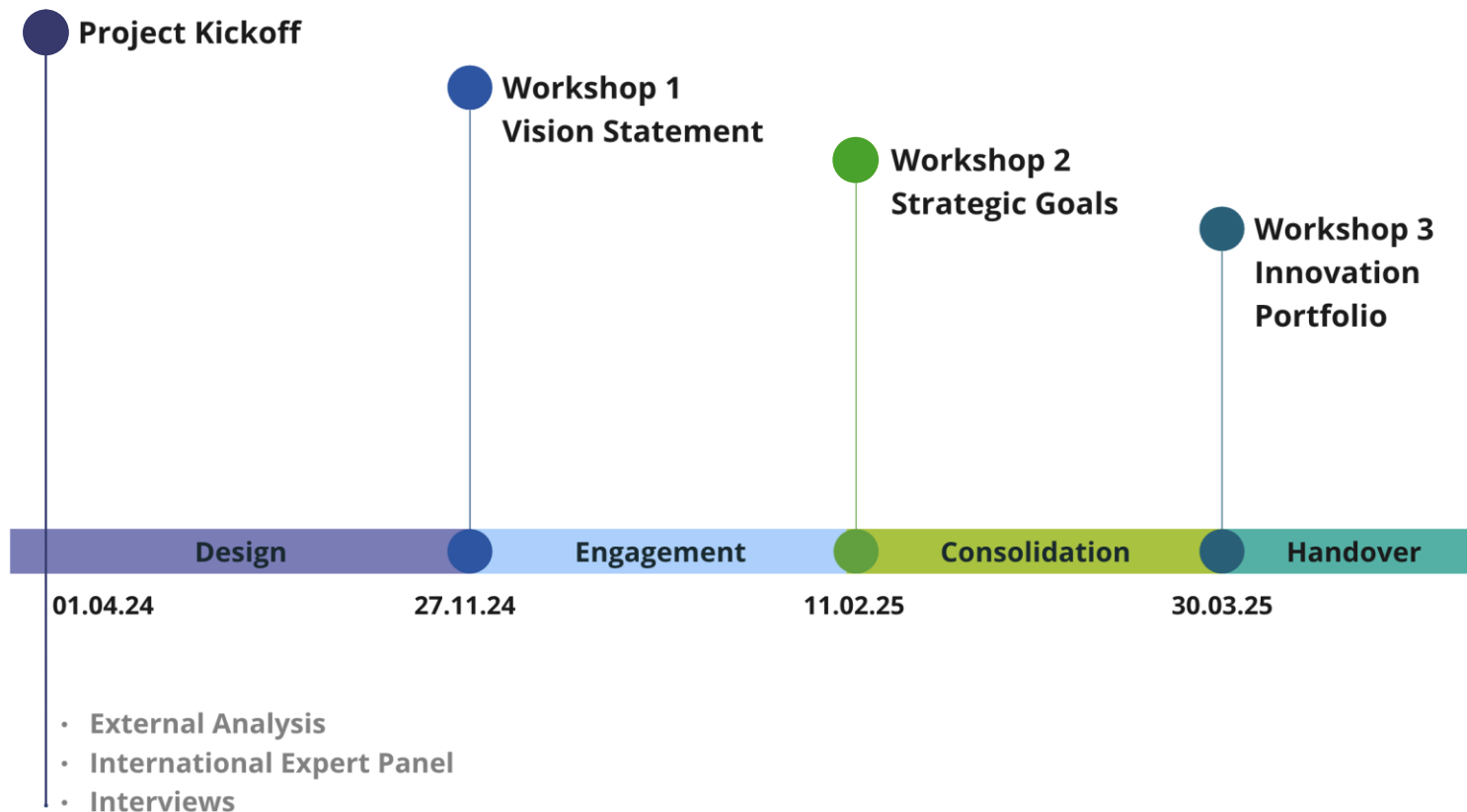
115 Goals

What does success look like & what is required?

1 Portfolio of Innovation Actions

3 innovation & 1 policy lab project

Where can we innovate now to derisk implementation?



3 Innovation Actions

Vitruvius, Multiverse, Local Defaults

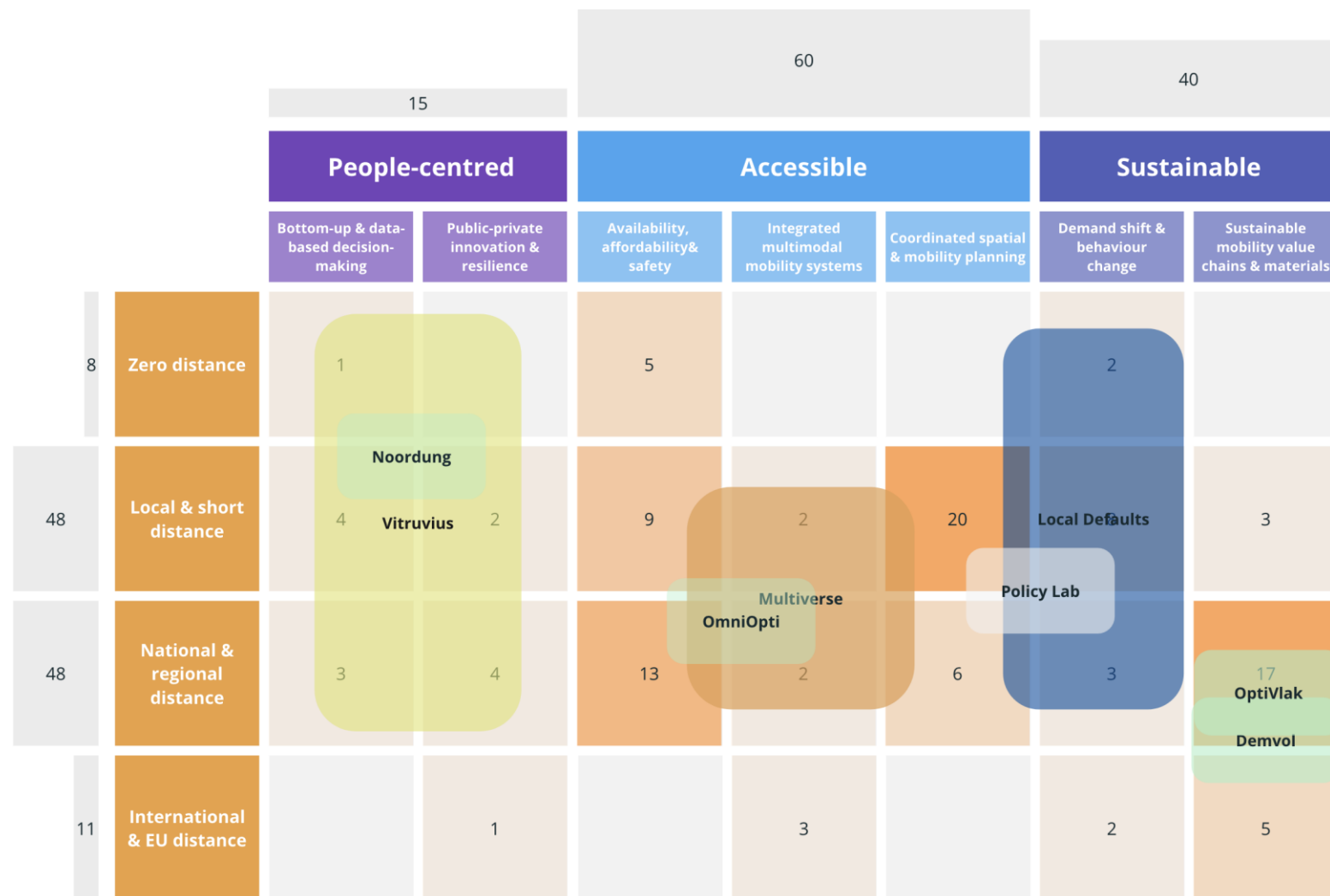
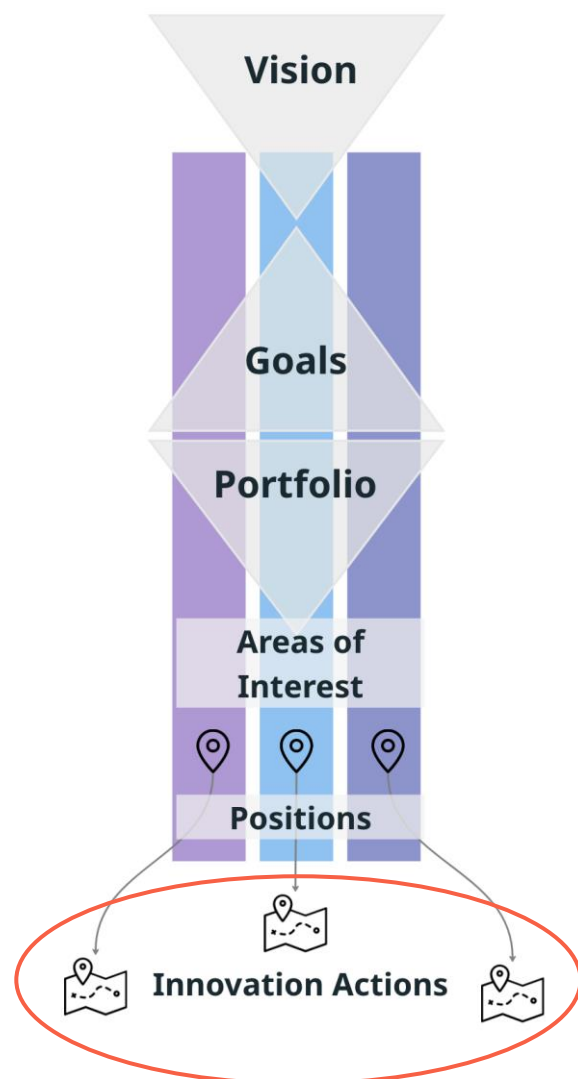


Image: Visualisation of the innovation projects localisation Vitruvius, Multiverse and Local Defaults.
For completion purposes it also includes **Policy Impact Lab** and **Climate Impact Assessment for Start-ups**.



Some failures

Exploration and on-the-ground research

Building some critical institutions (with so much good will)

Activation of portfolio
– not perceived as useful





Testimonies





Testimonies

- Cogreen – Built environment start-up
- Institute for Innovation and Development University of Ljubljana – Built environment innovation
- Noorduung – Mobility start-up
- Institut Josef Stefan – CRM REE pilot
- MJU – Policy Lab
- Circular Criteria – SPS





REPUBLIC OF SLOVENIA
MINISTRY OF THE ENVIRONMENT,
CLIMATE AND ENERGY



REPUBLIC OF SLOVENIA
MINISTRY OF THE ECONOMY,
TOURISM AND SPORT

NET-ZERO EMISSIONS 2050 & COGREEN CONTRIBUTION

*Circular Slovenia: Systems innovation for the
transition to a circular, regenerative and low-
carbon economy*

WHO IS COGREEN - INTEGRATED HEMP BUILDING SOLUTIONS ?

Innovation:

- Green circular business models
- Sustainable low emission building products (BIO modularity)
- Sustainable building service

Construction & engineering

„We are co - shaping sustainable future in EU construction sector . „

Value chain:

- New system approaches(education-science-industry)
- BIO circular economy
- Climate action

Global vision on sustainable, resilient society

Entrepreneurship



SLOVENIAN DEEP DEMONSTRATION 2018 -2025

KEY CHALLENGES:

- Mindset change and pragmatic systematic approach
- Lack of legal foundation for innovations
- Challenging financial schemes
- New standards - Major upgrade needed for new, recycled products or materials



SLOVENIAN DEEP DEMONSTRATION 2018 -2025

LESSONS LEARNED:

- Developing innovation = 200 % commitment, boldness and some time 😊
- Transform yourself to help transform environment
- Right people or community will find you to support your sustainable vision



SLOVENIAN DEEP DEMONSTRATION 2018 -2025

IMPACT FROM INNITIATIVE TO COGREEN:

- Understanding depth and importance of value chain
- Knowing that we are supported on our ideas brings more effort on our innovation
- Crossectoral connectivity brings big added value on creating new platforms and solving challenges
- It boosted us in developing new innovations in BIO construction
- Working with innitiative showed us the way to validate our innovation and its climate impact.

VALIDATION REPORT

CoGreen
2023 AB0016



COGREEN DEEP DEMONSTRATION GLIMPSE 2017 -2025

Construction



R&D



Prefabricated Hempcrete Panel

Innovation





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TOURISM AND SPORT

THANK YOU FOR YOUR ATTENTION!

WEB: - <https://cogreen.si/> ;

- <https://www.hemp2cogreen.eu/>

FACEBOOK:

<https://www.facebook.com/CogreenKonopljinaHisa>

LINKEDIN:

<https://www.linkedin.com/company/75867027/admin/dashboard/>



Some views on SI deep demo build environment

Jure Vetršek

Institute for Innovation and Development of University of Ljubljana
Department for Efficiency and Built Environment

Ljubljana 11.9.2025

What we do

We are dealing with topics of DD

E.g.: building renovation (organization)



Circularity



Industrialization



What came from DD?

Topics we are dealing with are complex and demand trans disciplinary teams.

DD brought us together and showed how this is even possible

We started to talk.





IRI UL

Hvala





Critical Raw Materials Laboratory (CRM LAB)

A Strategic Pillar for Circular and
Sovereign Rare Earth Value
Chains in the EU

Benjamin Podmiljšak
Jozef Stefan Institute

Europe faces a strategic challenge: dependence on critical raw materials, especially rare earths (RE).

Because of the European Green Deal:

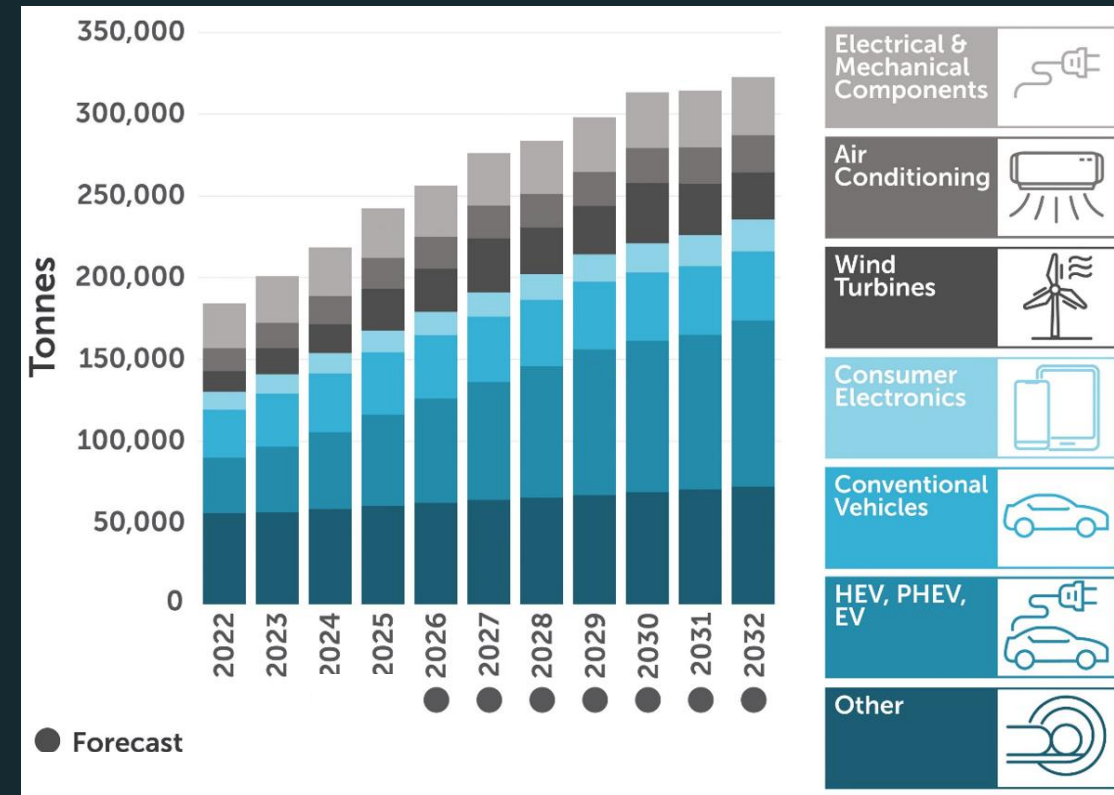
- 55% reduction of car emissions by 2030
- Zero emissions from new cars by 2035
- 42.5% renewable energy capacity

Current production of rare-earth-based magnets in Europe:

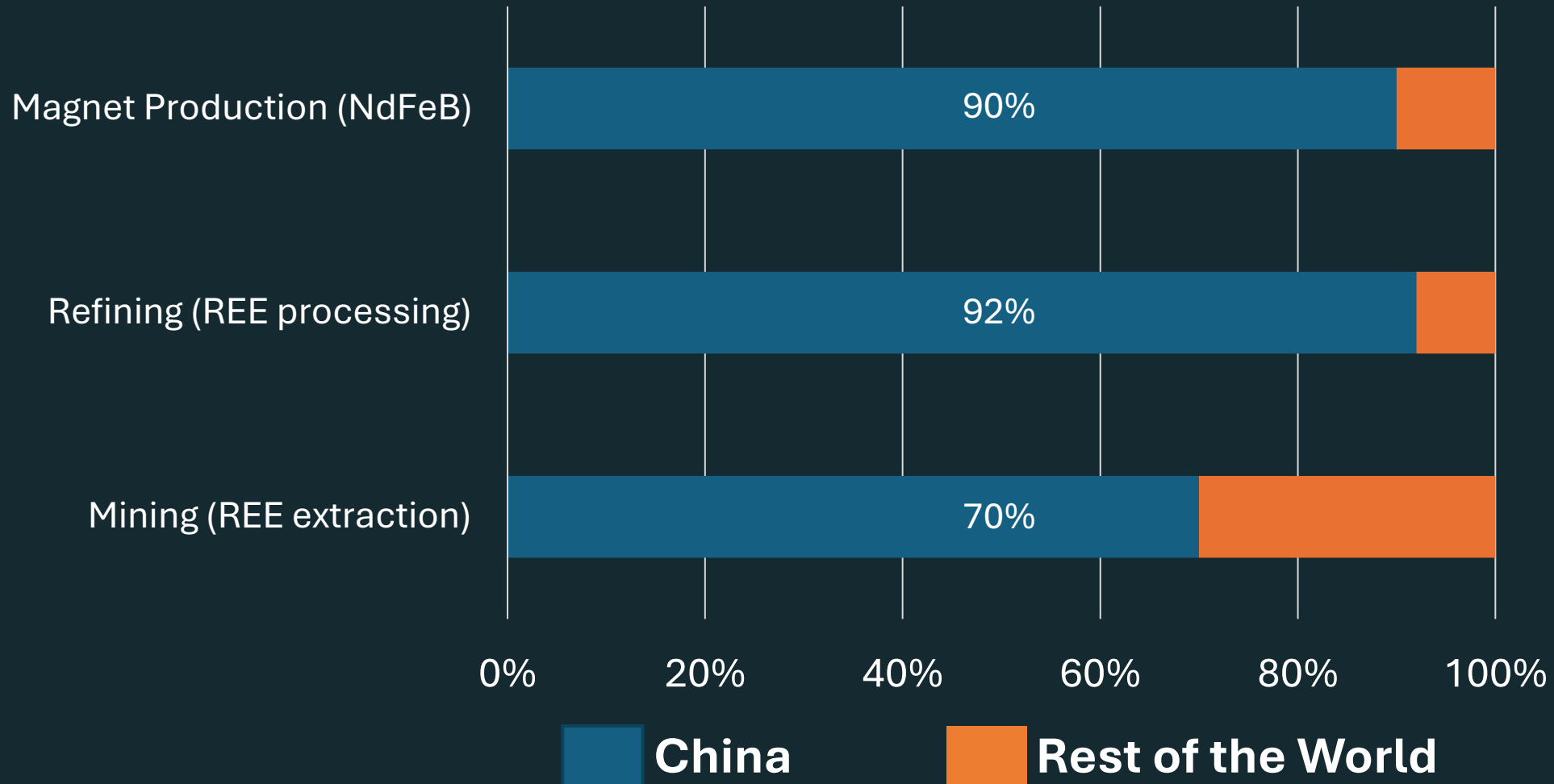
- 1,000–2,000 tons annually (less than 1% of global production)

EU demand for rare earth metals used in wind turbines and electric vehicles

- Expected to increase **5–6 times by 2030**
- And **6–7 times by 2050**



China's Dominance in the Rare Earth Supply Chain



2030 - EU BENCHMARKS FOR STRATEGIC RAW MATERIALS



EU EXTRACTION

At least **10%** of the EU's annual consumption for extraction



EU PROCESSING

At least **40%** of the EU's annual consumption for processing



EU RECYCLING

At least **25%** of the EU's annual consumption for recycling



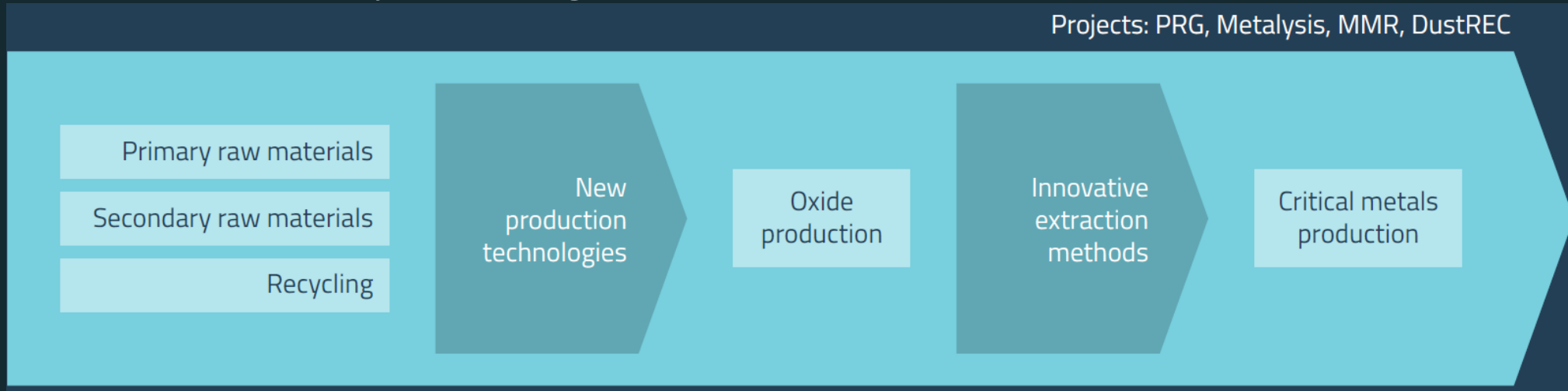
EXTERNAL SOURCES

Not more than **65%** of the EU's annual consumption of **each strategic raw material at any relevant stage of processing** from a single third country

Critical Raw Materials Laboratory – (CRM Lab)

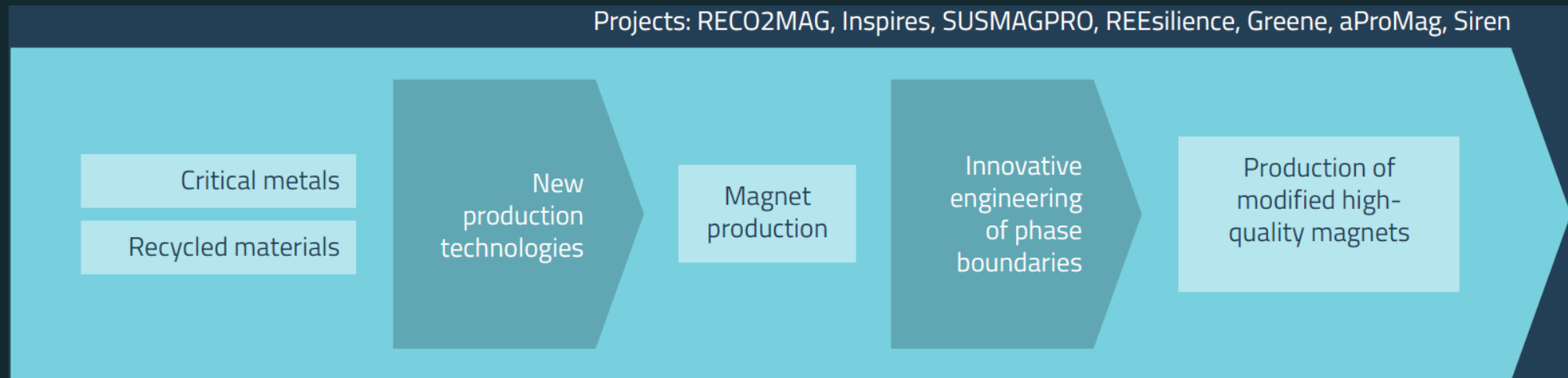
1. Extraction and processing of critical raw materials

Projects: PRG, Metalysis, MMR, DustREC



2. Advanced technologies for recycling and magnet production

Projects: RECO2MAG, Inspires, SUSMAGPRO, REEsilience, Greene, aProMag, Siren



The CRM LAB – Excellence in Design and Function

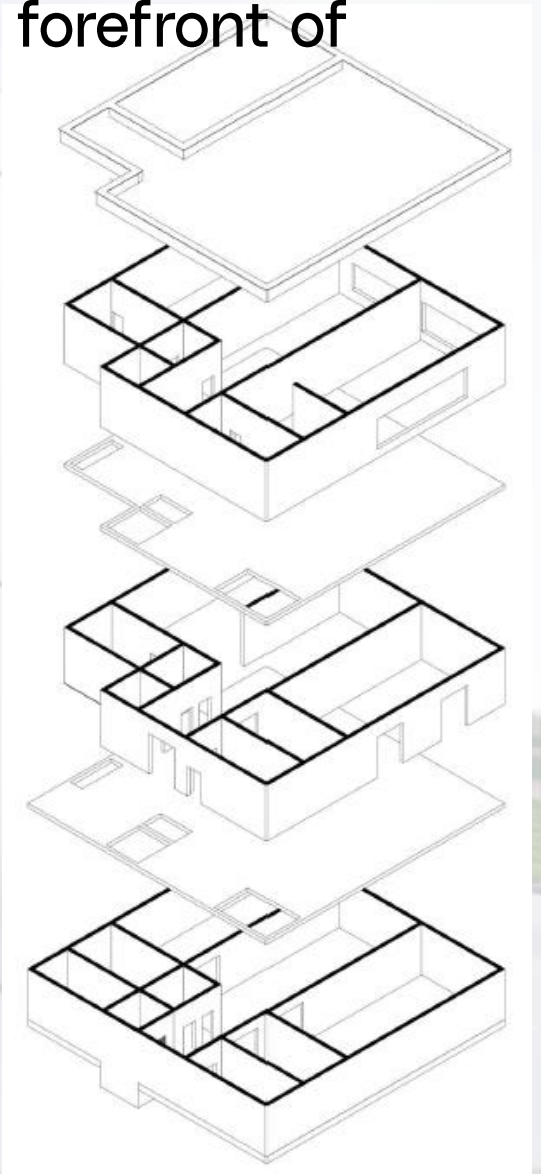
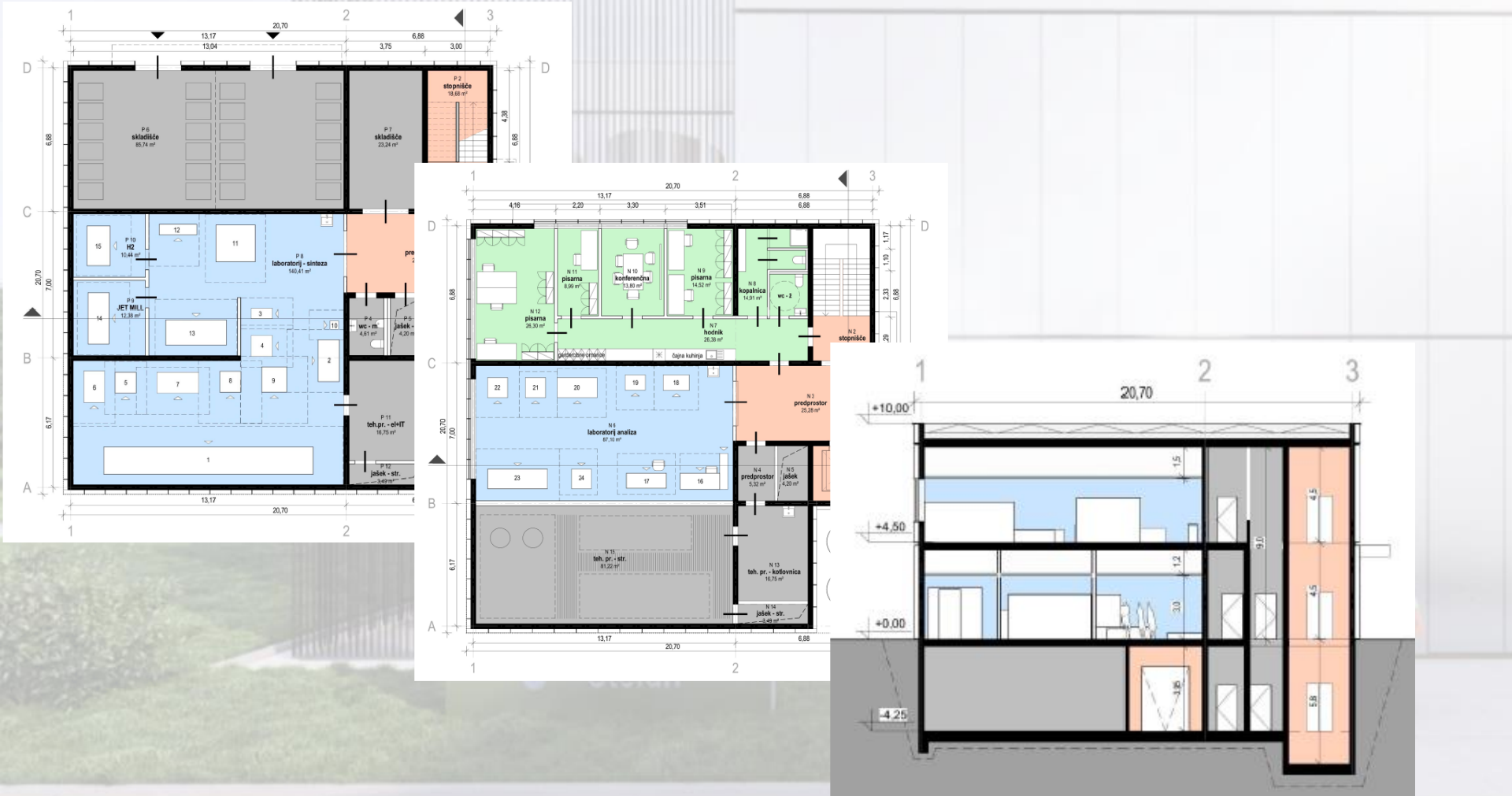
State-of-the-art infrastructure

Designed with the highest security standards and specialized equipment to ensure safe handling of critical raw materials.



Strategic contribution

Aligned with the Critical Raw Materials Act, the European Green Deal, and the Net-Zero Industrial Plan, positioning Slovenia and the EU at the forefront of sustainable and secure raw material supply.



Involved Stakeholders

Critical Raw Materials Mining Companies:

| | | | |
|--|----------------------------------|--|---|
| Firering Holdings Limited | Côte d'Ivoire | Ore deposits in Côte d'Ivoire and Zambia | Focus: lithium, tantalum, and niobium |
| IDERA Mineral Resources Exploration, d. o. o. | Serbia | Mines and ore deposits in Tanzania and Mali | Focus: gold, silver, copper, and other metals |
| MMR | Democratic Republic of the Congo | Mines and ore deposits in the Democratic Republic of the Congo | Focus: rare earth elements, tantalum, niobium, tin, wolfram |



Companies processing critical raw materials and producing, recycling, and using rare earth permanent magnets:

| | | |
|---------------------------------|----------|---|
| Magneti Ljubljana, d. d. | Slovenia | Producer of sintered and bonded magnets, including rare earth-based permanent magnets |
| Kolektor, d. d. | Slovenia | Producer of rare earth-based bonded magnets |
| Domel, d. o. o. | Slovenia | Electromotor producer |
| Zeos, d. o. o. | Slovenia | Collecting and processing of electronic waste |
| Rimac Automobili | Croatia | Prestigious electric vehicle producer |
| TALUM, d. d. | Slovenia | Producer of primary aluminium (currently inactive) and aluminium products |
| ORANO | France | Company specializing in the nuclear fuel cycle |

What We Need to Realize the CRM LAB Project

1. Political Support

- Recognition of CRM LAB as a strategic national & EU priority
- Fast-track permits & supportive regulatory environment

2. Financial Commitment

- Remaining €8.5 million investment (total €10M, €1.5M already secured)
- Co-funding from EU programs, national government, and industry partners

3. Strategic Partnerships

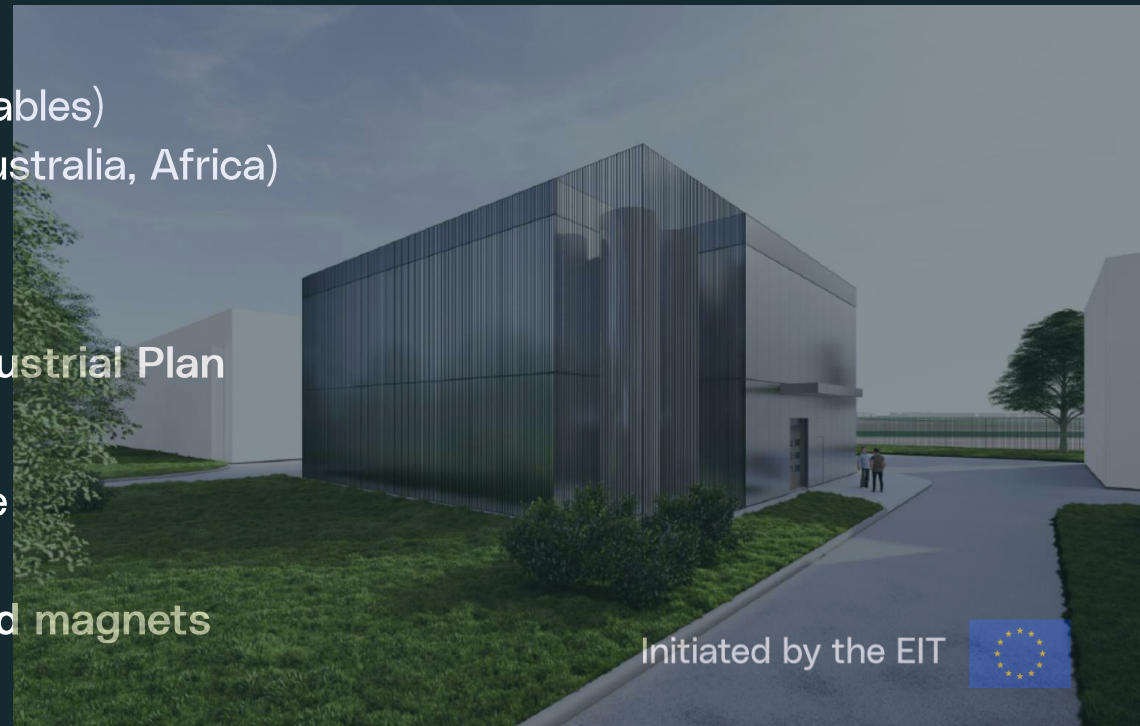
- Collaboration with European industry (magnets, EVs, renewables)
- International agreements with reliable suppliers (Canada, Australia, Africa)

4. Policy Alignment

- Integration with the Critical Raw Materials Act
- Contribution to the European Green Deal and Net-Zero Industrial Plan

5. Long-Term Vision

- Support for training programs to develop a skilled workforce
- Commitment to recycling and circular economy goals
- Establishing Slovenia as a European hub for rare earths and magnets





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Department for Nanostructured Materials

Department of Inorganic Chemistry and Technology



**Critical
laborato**

Reflections on Deep Demonstration Slovenia: Experiences, Challenges and Lessons Learned

WHO WE ARE & WHY WE JOINED

SLOVENE ENTERPRISE FUND

- national financial fund supporting SMEs, start-ups and scale-ups
- 30+ years on the market
- guarantees, microloans, seed & growth capital, grants, vouchers, accelerators, etc.
- implementing body of the Ministry of Economy, Tourism and Sport

BECOMING PART OF DEEP DEMONSTRATION (2022)

- pragmatic approach → wanted **concrete & useful outcomes**
- Focus on:
 1. **Start-ups & sustainability** → Climate Impact Framework pilot
 2. **Integrating sustainability into our financial instruments** → developing evaluation criteria for SMEs' circularity performance



CHALLENGES, LESSONS & IMPACT

KEY CHALLENGES

- quick fixes don't work
- need alignment and coherence (we all address the same target group – businesses)
- leadership & commitment from policy makers is crucial

LESSONS LEARNED

- systemic change takes time & collaboration
- balance between top-down leadership & bottom-up practical tools
- shared understanding & common framework are essential

IMPACT ON THE FUND

- from ,add on' to systemic integration
- higher awareness within our institution

OUTLOOK

- Slovenia still needs **systematic processes** for circularity in policy-making
- Idea from the DDP Slovenia → **ongoing stakeholder working group**:
 - analysing the current situation (gaps, bottlenecks?)
 - preparing concrete **proposals for future measures** to better integrate circularity into policies and instruments
- For success: **leadership**, mandate & **political will**

CONTACT US

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Website: www.podjetniskisklad.si





Opportunities for future circularity path in Slovenia





Emerging portfolio opportunities for Slovenia's circular future

CRM & FOOD

Circularity of Phosphorus supply chain to meet food security needs and reduce geopolitical dependencies

CRM & MOBILITY

REE recycling in magnets for micro electric mobility

BE, CRM, MOBILITY

Digital material passports to support circularity and recycling

ACROSS

Circular criteria and change of procurement policies within government

ACROSS

Portfolio use for Cohesion Fund Orchestration (ie. need to orchestrate a multitude of policy and fund instruments in Slovenia)





Phosphorus circularity

Circularity of the Phosphorus supply chain to meet food security needs and reduce geopolitical dependencies



- **90% of mined phosphorus is used in agriculture**
- **Phosphorus is a critical raw material with NO SUBSTITUTE in agriculture**
- **Current phosphorus supply is highly concentrated in a few countries**
- **Almost 100% import dependency in the EU**





REE recycling in magnets

REE recycling
in magnets to be
used for micro electric
mobility engines



- Permanent magnets account for ~90% of REE use in clean technologies
- China controls ~87% of global refined REE supply and over 90% of magnet production
- Recycling REE magnets could reduce import dependency, secure supply for the EU, and lower environmental footprint

Digital Material passports



- A need for Transparency & Traceability
- Buildings are material banks
- Less than 40% of e-waste in the EU is formally recycled
- Digital Product Passports are being made mandatory





Circular criteria and procurement change

Circular criteria and change of procurement policies within government

CONTRACT

- Public procurement ~14% of EU GDP (€2 trillion annually).
- Market-shaping power
- Lead by example: Public authorities can set the standard, creating ripple effects across industries and private procurement
- Green Public Procurement (GPP) is already promoted by the EU, but uptake is uneven





Discussion on opportunities

- How would you make that opportunity come to life?
- What are the key challenges to make it happen?
- What are some of the enablers we should leverage to overcome these challenges?
- Who should we involve?
- What can we do to have businesses on board?
- How would you – as an individual or organisation – participate?





Reflections & Closure





Membership that pays for itself – Multiple times over

Networking & Visibility: Save time and money compared to finding partners through fairs and conferences.

Capacity Building & Learning: Access trainings and masterclasses that would normally cost €1,000+ elsewhere.

Market & Policy Insights: Gain Brussels and EU funding insights without hiring consultants.

Collaboration Opportunities: Join projects and pilots that would otherwise be closed networks.

👉 Our memberships are kept deliberately low and unlocks services and opportunities worth many times more than the annual fee – all in one place, at a fraction of the cost.

Featuring Slovenian D
Optiform





Climate KIC is Committed to the Circular Agenda

Climate KIC Community will continue to focus on circularity going forward.

1. We are building a sub-community for SMEs, researchers, public servants working with circularity
2. In the years to come we will convene our circular subcommunity online & in person events
3. We are starting already on September 23. For our second Community Deep Dive.



The poster features a dark blue background with a large, stylized white arrow pointing right. Inside the arrow, there is a photograph of a woman in a white lab coat looking at a tablet. The text is white and orange. Logos for Climate KIC Community, EIT, and the European Union are at the top. A calendar icon and a Zoom icon are used to indicate the date and platform. A prominent orange button is at the bottom.

  This action is supported by the European Institute of Innovation and Technology (EIT)
A body of the European Union 

Community DEEP DIVE

Beyond ESG
Building agile, resilient organisations for the next industrial era

 TUESDAY 23 SEPTEMBER 2025, 15:00 CET

 ZOOM

[Click here to register](#)

*Featuring Slovenian Deep Demo startup: Gaber Terseglav,
CEO Optifarm*





Join Climate KIC Community today

Let's elevate your circular work, innovation and solutions together



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