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# Spaces for Innovation Spaces for Entrepreneurship

*Interreg Europe Policy Learning Platform*

31 May 2023

Rethinking Local Policies, Ghent, Belgium

Follow us on social media:





Marc Pattinson



Rene Tõnnisson



Elena Ferrario

# WELCOME!



Arnault Morisson



Laura Varisco

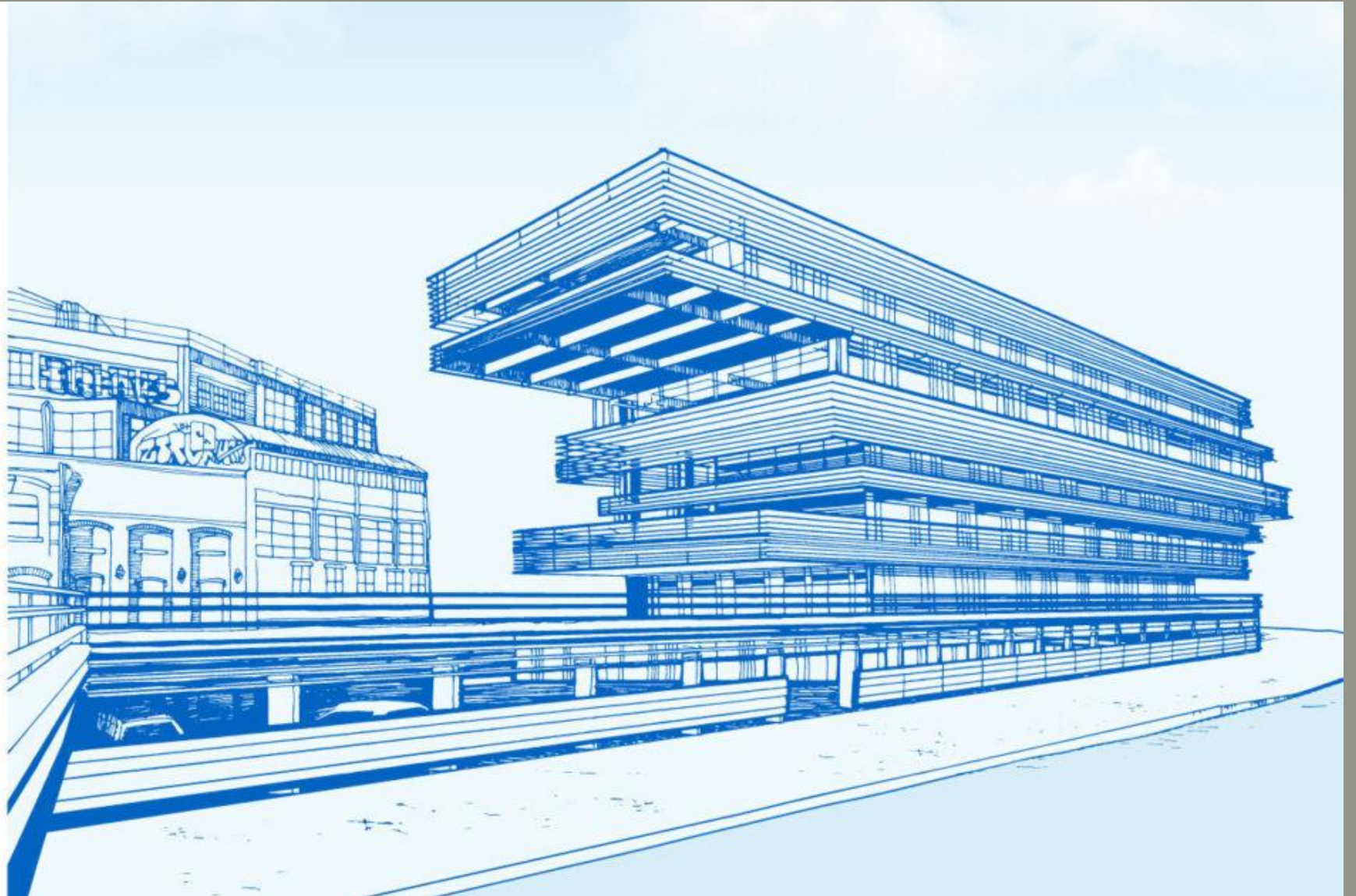


Mart Veliste



Eugénie Suplisson

# Site visits – Spaces for Innovation



# Site visits – Spaces for Entrepreneurship



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# Fab Labs and Makerspaces

## Flexible policy tools for place-based challenges

Marc Pattinson and Arnault Morisson  
René Tönnisson and Mart Veliste  
*Thematic Experts / Interreg Europe Policy Learning Platform*

31 May 2023

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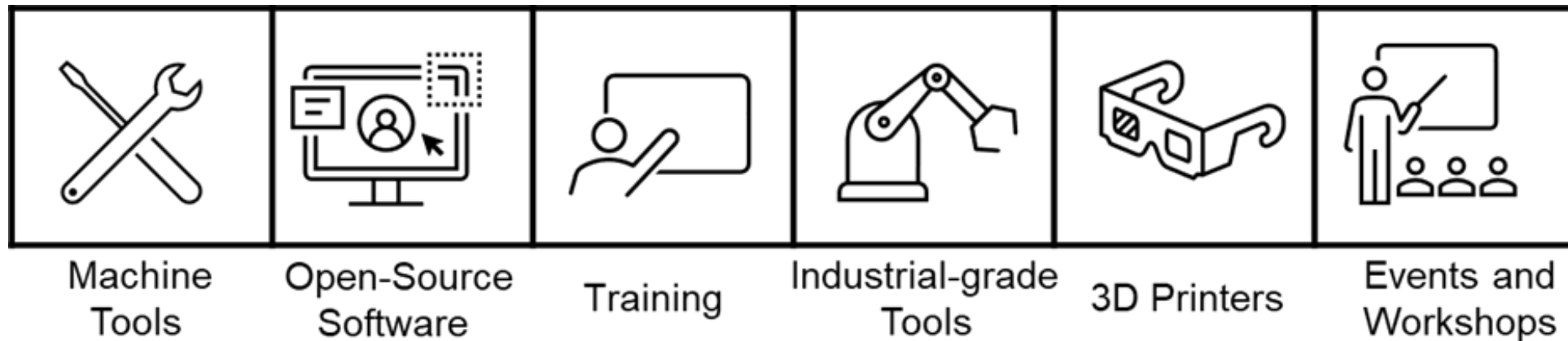




# Fab Labs and Makerspaces

## Introduction

- A **Fab Lab or digital fabrication laboratory**, is a place to play, to create, to learn, to mentor, to invent: a place for learning and innovation. They provide access to the environment, the skills, the materials and the advanced technology to allow anyone anywhere to make (almost) anything (**fabfoundation**).





# Fab Labs and Makerspaces

## Introduction

### Fab Labs and Makerspaces are flexible policy tools.

They can respond to multiple policy challenges:

- To promote STEAM
- To promote entrepreneurship
- To promote university-industry collaboration
- To address local societal challenges
- To facilitate prototyping for SMEs
- To promote interactions among quadruple helix stakeholders
- To promote learning new skills....

They can target different stakeholders:

- Students (schools and universities)
- Entrepreneurs
- SMEs
- Public sector...



# Spaces for Innovation and Entrepreneurship



## Spaces for innovation

Explore the importance of five types of spaces for innovation for local and regional development in this policy brief!

**Policy brief**

02 December 2022 | By Platform



## Digital innovation hubs and demonstrators

Explore this policy brief to learn about digital innovation hubs and how they can foster competitiveness and contribute to a sustainable and digital Europe.

**Policy brief**

25 October 2022 | By Platform





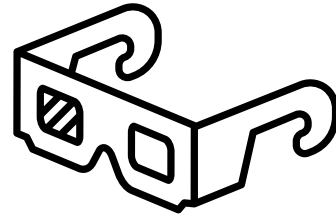
# Fab Labs and Makerspaces – flexible policy tools for place-based challenges



**Laura Veart,**

Birmingham City  
University, United  
Kingdom

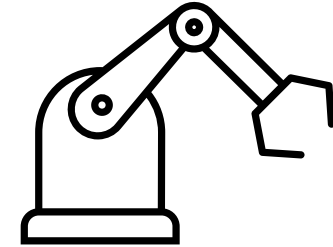
**URBAN M**



**Łukasz Bonarek,**

Podkarpackie Center for  
Innovation ProtoLab,  
Poland

**FOUNDATION**



**Marco Alves,**

Tagus Valley,  
Portugal

**AGRI RENAISSANCE**



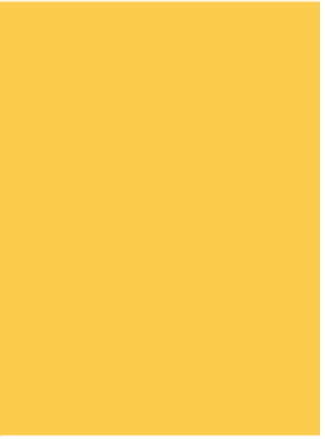
Laura Veart,

Birmingham City  
University, United  
Kingdom

**URBAN M**

# Project Overview

- The objective of the Urban Manufacturing Project is to ensure that collaborative maker spaces thrive
- This was achieved by identifying best practice, testing policy approaches and supporting our cities/regions in creating receptive conditions
- Our aim was to demonstrate the impact that cooperative facilities can have on innovation and establish a European network of advocates



# How to change policies

STEP 1: Policy learning events and study visits

STEP 2: Peer reviews using Design Thinking techniques

- Constructive reflection was built into the project in the form of the peer reviews
- The STEAMhouse Team applied a design-led thinking approach to the each city challenge over the one-day peer review (challenge definition, ideas generation, prototyping and testing)
- Cities were paired with another city to mentor each other
- The peer review process helped cities identify what steps were required to boost the city's innovation capacity.

# Case-study: Zagreb

- Zagreb had always supported development of crafts and SMEs through different means, from adopting programmes for fostering development, providing grants to crafts and SMEs to establishing Zagreb Innovation Centre (ZICER),
- “The concept of 'maker spaces' was not very well known in Zagreb or even in Croatia when the city decided to join the project, although there were some good examples”
- “The city was looking for new ideas and ways of promoting entrepreneurship, connecting crafts with new technologies, implementing new practices, supporting new products. The participation in UrbanM project has brought Zagreb all that: gaining information and learning from different partners' experiences. “

# Case-study: Birmingham

- Birmingham changed the emphasis of the ESIF call. They embedded the wording:
- “Facilities for rapid product/service design and prototyping accessible to small and medium sized enterprises, including social enterprises – such as collaborative ‘maker space’.”
- The call for proposals supports bids encouraging fab lab/maker space activity, resulting in:
  - The reduction of barriers to innovation by de-risking SME investment costs;
  - Access to high quality machinery and equipment for development and prototyping for small businesses
  - Creation of a maker space network for the Birmingham area

# Case-Study: Ecosystem development

- Through the Urban M project **Lisbon** supported collaborative processes and activities within Lisbon's Urban Making Ecosystem, they are currently expanding their makerspace capacity in the city
- In the city of **San Sebastian** they have enhanced the use of makerspaces, ensuring makerspaces are better connected with their local stakeholders and, therefore, making and prototyping are increasingly included in their DNA
- In **Vilnius** they developed measures to foster an environment favorable for the development of creative maker-spaces, ensuring effective tools for a long-term development of creative eco-system are established in the city



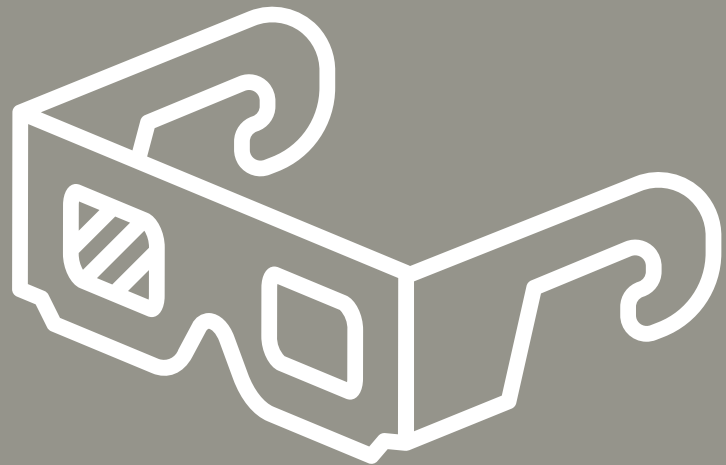


Video Up!



Thank you!

Any questions?



Łukasz Bonarek,

Podkarpackie Center  
for Innovation  
ProtoLab, Poland

**FOUNDATION**

**POLAND CATCHING-UP REGIONS**

TWORZENIE REGIONALNEGO CENTRUM TRANSFERU TECHNOLOGII:  
PODKARPACKIE CENTRUM INNOWACJI

Public Disclosure Authorized

Tekst jednolity:

**AKT ZAŁOŻYCIELSKI SPÓŁKI  
PODKARPACKIE CENTRUM INNOWACJI  
SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ**

§ 1

Pan Lucjan Kuźniar oraz Pan Stanisław Kruczek działając w imieniu i na rzecz Województwa Podkarpackiego oświadczają, że na podstawie niniejszego aktu założycielskiego Województwo Podkarpackie, zawiązuje spółkę z ograniczoną odpowiedzialnością, zwaną dalej Spółką-----

**I. INFORMACJE OGÓLNE**

§ 2

- Spółka działać będzie pod firmą: Podkarpackie Centrum Innowacji Spółka z ograniczoną odpowiedzialnością. -----
- Spółka może używać skrótu firmy: PCI Sp. z o.o. -----

§ 3

- Siedzibą Spółki jest Rzeszów. -----
- Spółka może działać na terytorium Rzeczypospolitej Polskiej oraz za granicą. -----
- Spółka może tworzyć filie, zakłady, oddziały i przedstawicielstwa w kraju i za granicą. -----
- Spółka może tworzyć i likwidować oddziały, filie, agencje, zakłady, przedsiębiorstwa i przedstawicielstwa oraz inne jednostki organizacyjne na terytorium Rzeczypospolitej Polskiej oraz poza jej granicami. -----
- Spółka może tworzyć inne spółki lub przedsiębiorstwa z polskimi i zagranicznymi podmiotami gospodarczymi oraz przystępować do spółek i innych organizacji prowadzących działalność gospodarczą w Rzeczypospolitej

Fundusze Europejskie Program Regionalny

Unia Europejska Europejski Fundusz Rozwoju Regionalnego

15.12.2017

Potwierdzenie wystawione przez:  
Urząd Marszałkowski Województwa Podkarpackiego  
Departament Wspierania Przedsiębiorczości  
Oddział wyboru projektów w zakresie wsparcia innowacyjności i rozwoju gospodarczego osi priorytetowej I RPO - WP XI

**POTWIERDZENIE WPŁYWU WNIOSKU**

potwierdza rejestrację wniosku o dofinansowanie projektu

Podkarpackie Centrum Innowacji

złożonego przez

Podkarpackie Centrum Innowacji spółka z ograniczoną odpowiedzialnością (w organizacji)

w ramach naboru dla działania: RPPK.01.02.00-IZ-00-18-007/17

uruchomionego w dniach: 2017-12-13 - 2017-12-15

Wniosek został zarejestrowany w Lokalnym Systemie Informatycznym do obsługi Regionalnego Programu Operacyjnego Województwa Podkarpackiego na lata 2014-2020 pod numerem RPPK.01.02.00-18-0085/17.

Suma kontrolna wniosku: a168 7945 b7fd b1b9

Status wniosku: Złożony

W dalszej korespondencji prosimy powoływać się na wskazany numer.

Wpływ dnia: 15.12.2017

/podpis i pieczęć przyjmującego/

**URZĄD MARSZAŁKOWSKI  
WOJEWÓDZTWA PODKARPACKIEGO**  
al. Łukasza Cieplińskiego 4  
35-030 RZESZÓW  
NIP 813-19-17-389, skr. poczt. 17  
tel. 017 8501700, fax 017 8501703

**POLAND CATCHING-UP REGIONS**

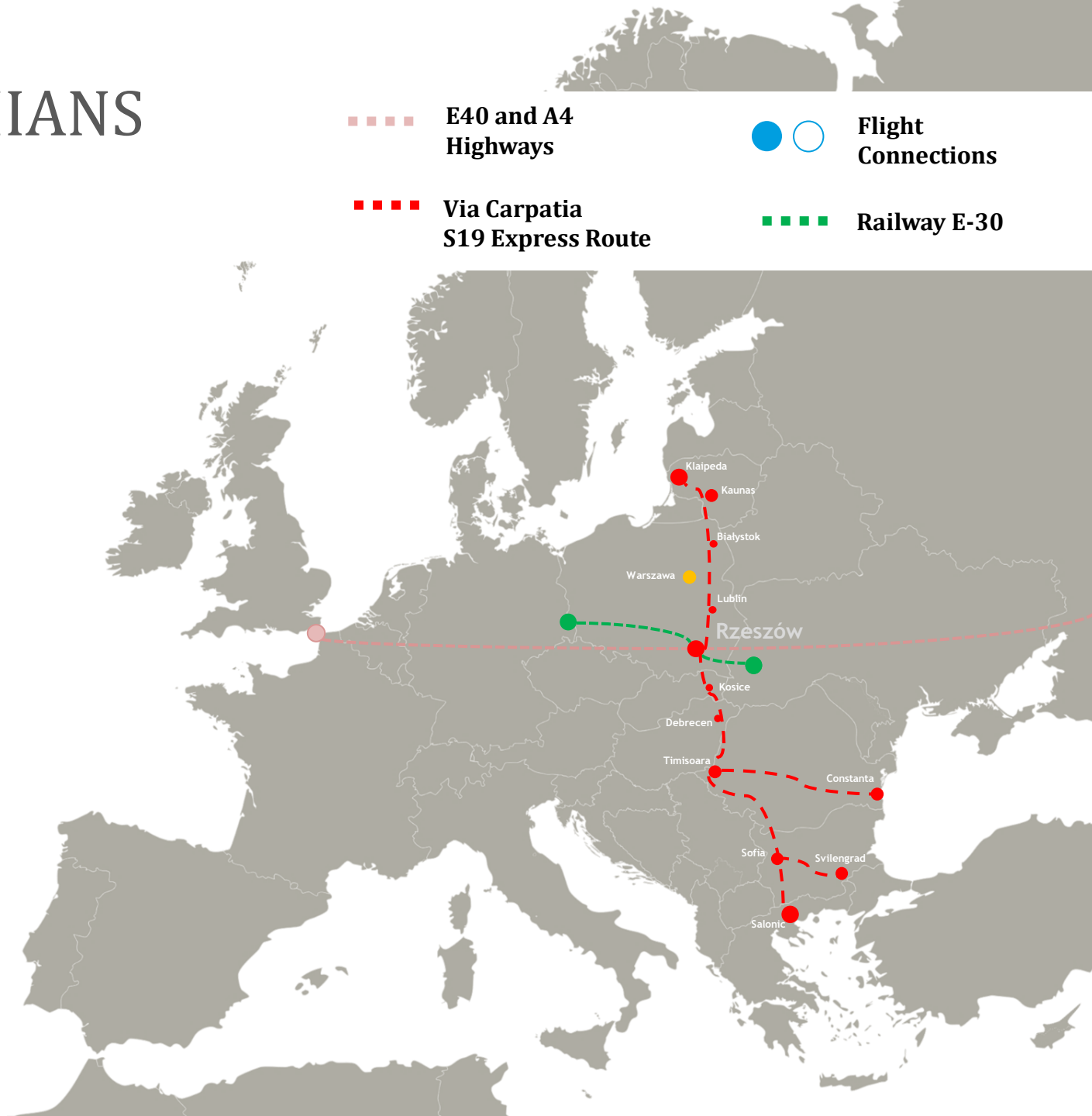
PODKARPACKIE CENTER FOR INNOVATION

Public Disclosure Authorized

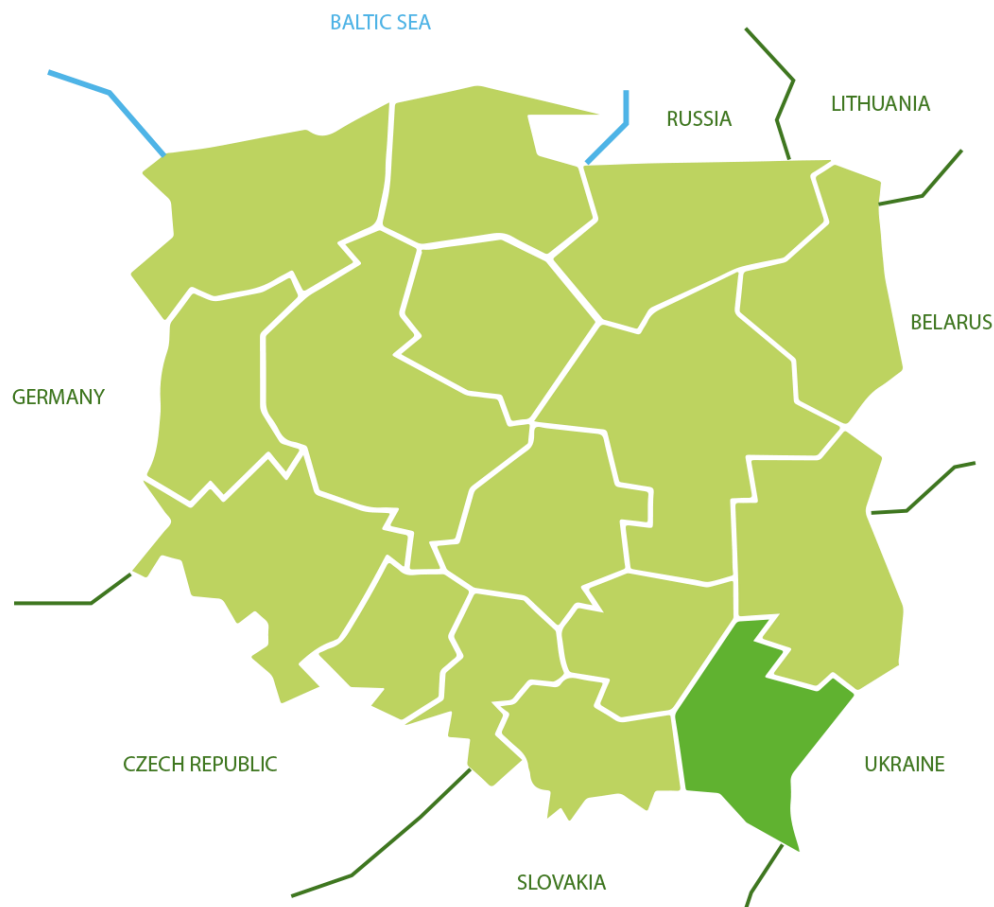


# EUROPE OF THE CARPATHIANS INITIATIVE

- International Airport Rzeszów-Jasionka,
- Located at the crossroads of all major international and national transport routes:
  - International road No E40 (France-Kazakhstan),
  - International road No 19 (planned to link seven EU countries: from Greece to Lithuania),
  - Main railway line E-30 (Pan-European East-West Transport Corridor),
- 4 railway and 5 road border-crossing points with Ukraine and Slovakia.



# PODKARPACKIE REGION



- area: 17 846 km<sup>2</sup>
- over 2 100 000 inhabitants
- about 40% of inhabitants in a productive age
- capital city: Rzeszów
- over 2 100 commercial companies with foreign capital out of which 90 are medium and large ones
- borders with Slovakia and Ukraine (eastern border of the EU)
- Gross Domestic Product in 2021 (current prices) – PLN 89,832 million



# PODKARPACIE INNOVATION CENTER



## R&D PROJECTS

- in the early stages development of promising research projects



## CONTRACTED RESEARCH

- implementation of scientific and research projects with a view to successfully introducing to the market innovations created in research units in Podkarpacie



## PROTOLAB

- open trainings, workshops and events, as well as a meeting place for the start-up environment, bringing together mentors from various fields.







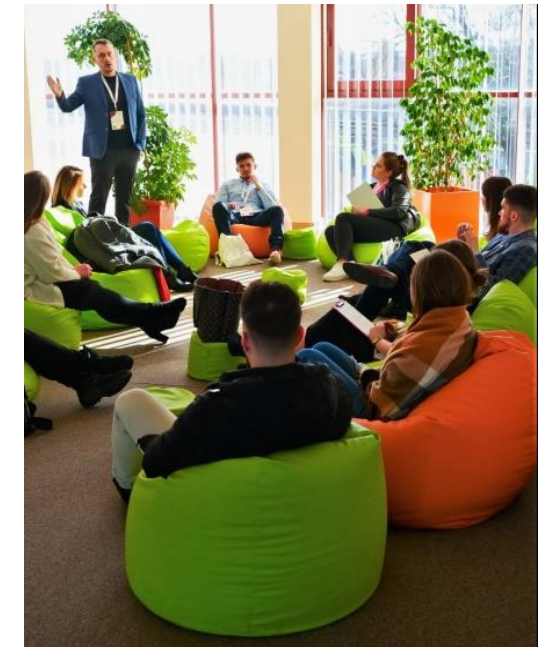
# ProtoLab

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# ENVIRONMENT ANIMATION

- Technical and soft skills training
- Hackathons
- Training and mentoring for organized groups
- Expert meetings
- Technology debates
- Technology and thematic boot camps
- Scientific and technological conferences
- E-sports tournaments
- open days and integration meetings



# ProtoLab SPECIAL PROGRAMS

## ProtoLab Academy

### Clients:

collage students, scndary school students, young scientist aged 17-30, living or studing in the Podkarpackie Voviodeship

### Soft skills:

- Creativity workshop
- Leadership skills
- Self-presentation, pitching, public speaking

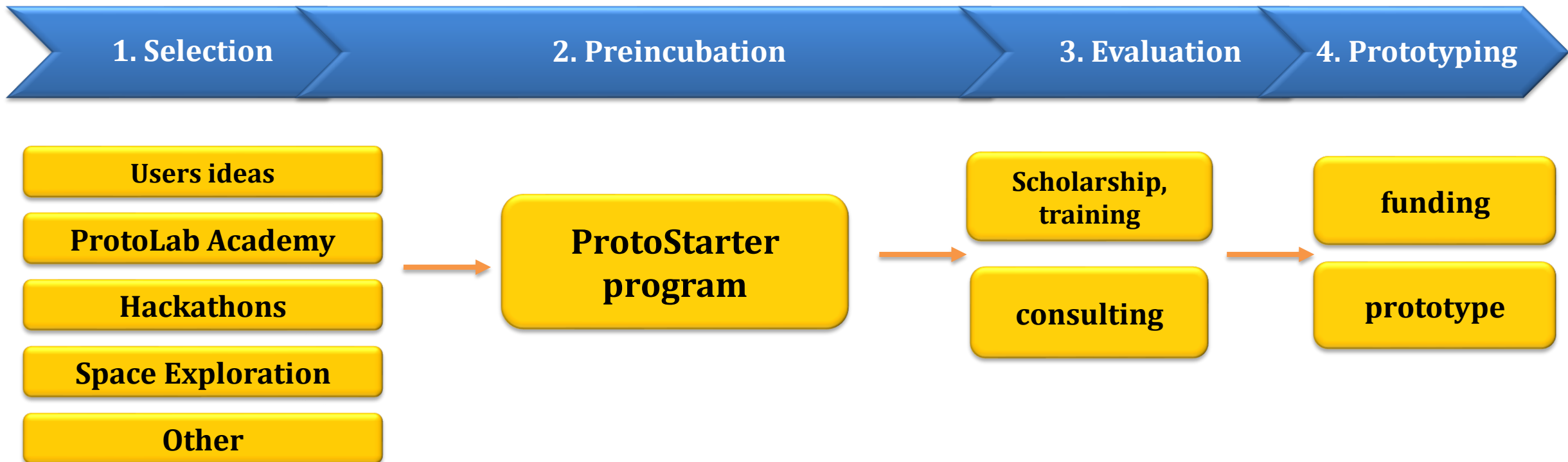
### Business skills:

- Business model canvas
- Market research and competition analysis
- Project budget
- Lean startup
- Marketing managment
- Project managment
- Commercial agreements- negotiations, risks



# ProtoLab SPECIAL PROGRAMS

## ProtoLab ProtoStarter

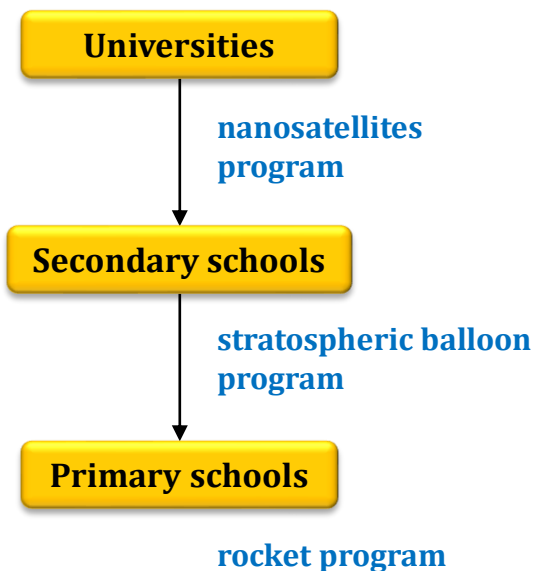


# ProtoLab SPECIAL PROGRAMS

## PCI Space Exploration



Meetings with employees and representatives of the space industry



Mars Habitat Project



Mars Exploration Suit



Labs on Nanosatellites



Outer Surface Exploration Equipment

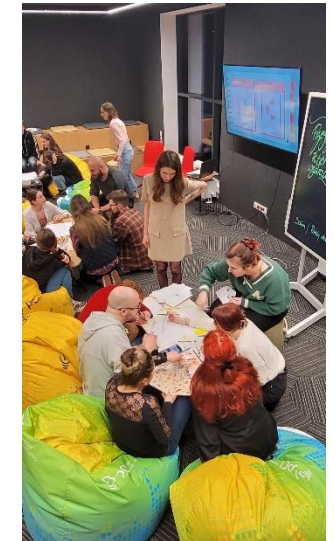


Mars&Moon Constitutions

# SUBCARPATHIAN NASA SPACE APPS CHALLENGE 2022

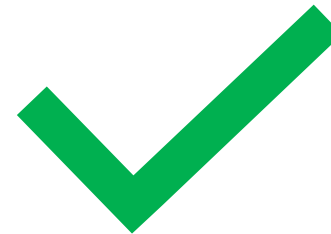


# ProtoLab – MAKERSPACE & CREATIVE COMMUNITY





ProtoLab





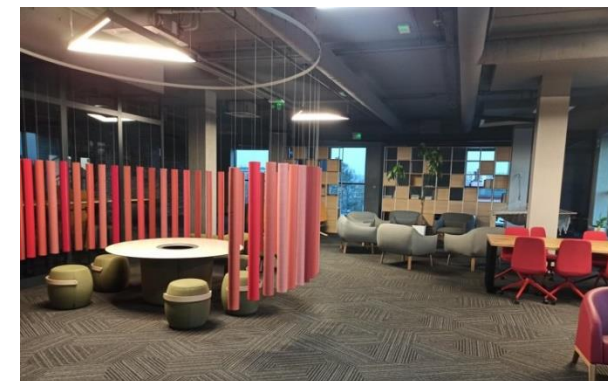
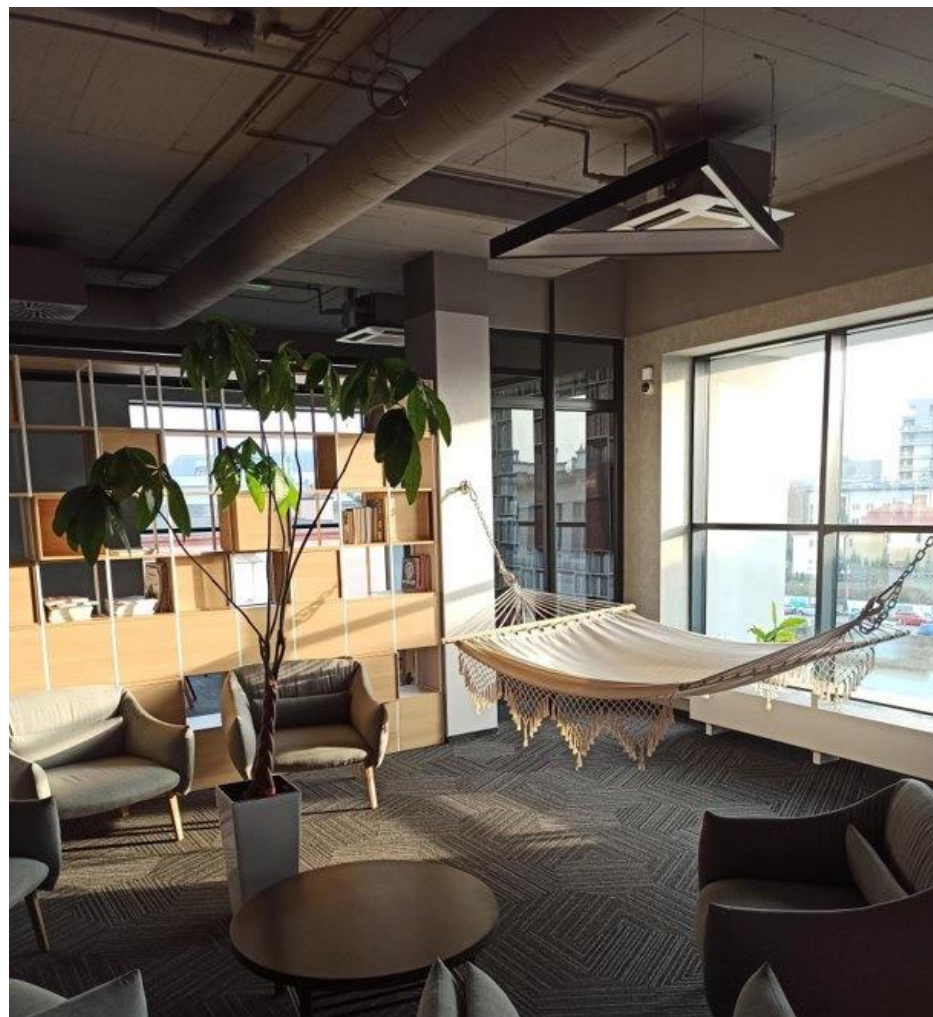
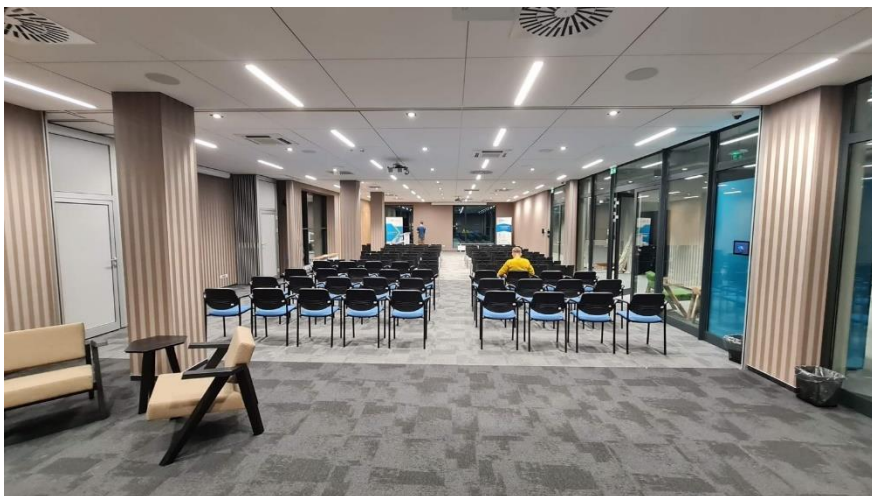
# ProtoLab CO-CREATION VALUE CHAIN

# 4C

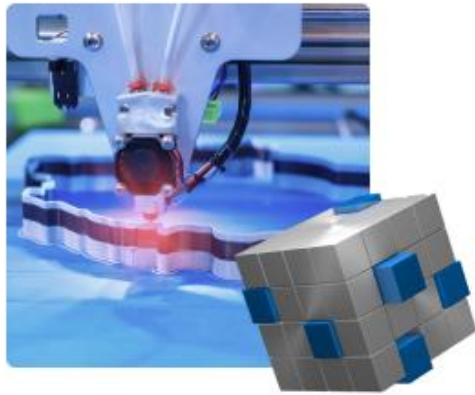
## Philosophy of Protolab



# PCI ProtoLab



# PCI ProtoLab MAKERSAPCE



**Rapid prototyping**



**Media, graphics, VR**



**Modelling workshop**



**BioGreen Lab**

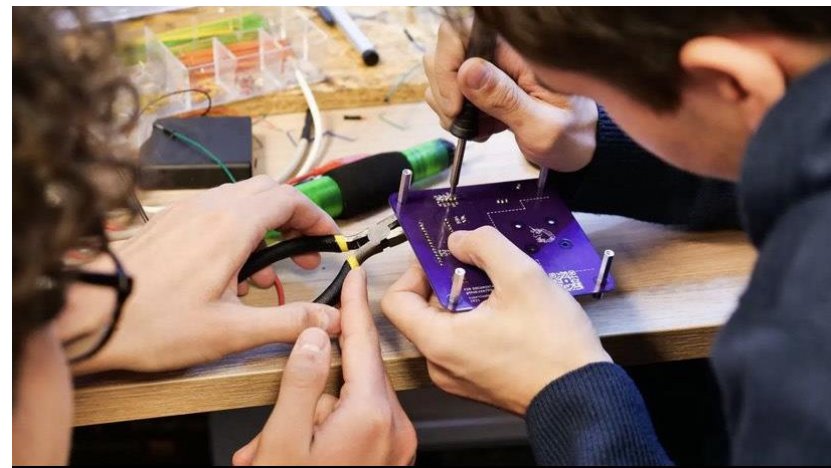
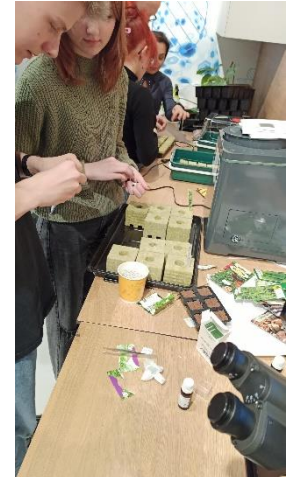
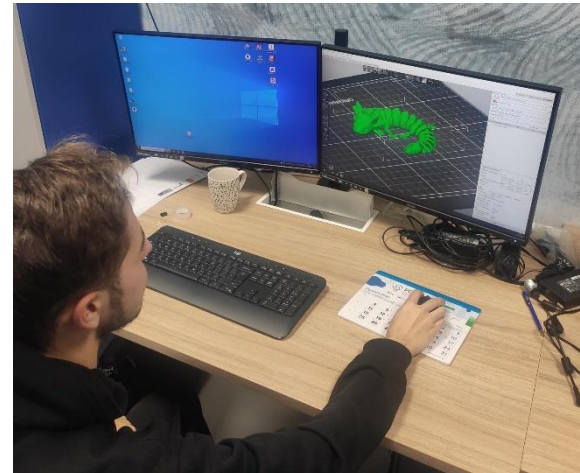


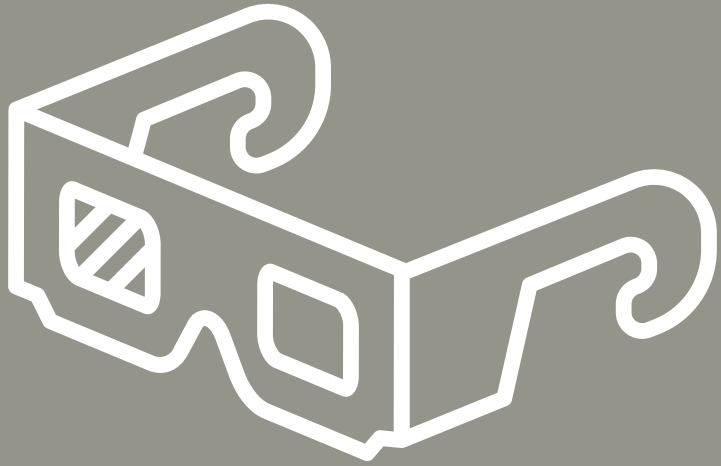
**Hackerspace - electronics and microcontrollers**



**Textiles & wearables**

# PROJECTS



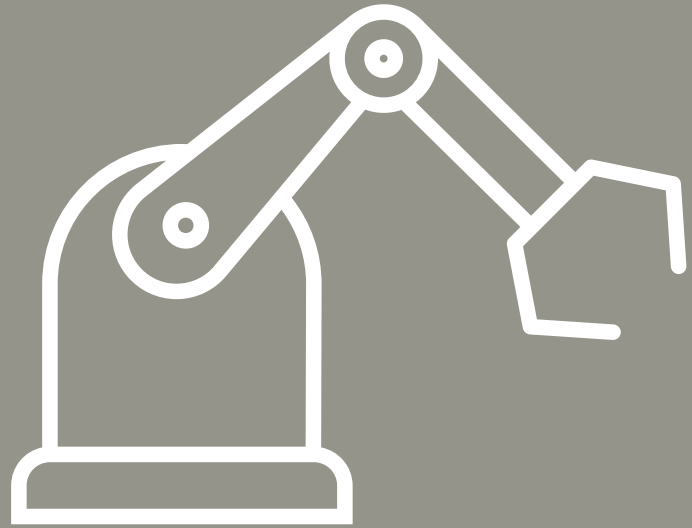


Thank you!

Any questions?

Łukasz Bonarek, Podkarpackie Center for Innovation ProtoLab, Poland

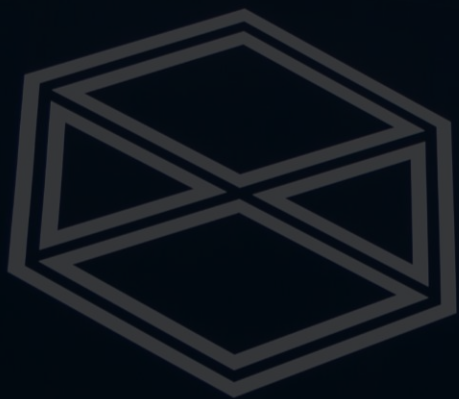
**FOUNDATION**



Marco Alves,

Tagus Valley, Portugal

**AGRI RENAISSANCE**



**TAGUS  
VALLEY**

PARQUE TECNOLÓGICO  
DO VALE DO TEJO

**TAGUSVALLEY**  
SCIENCE AND  
TECHNOLOGY PARK



**INOV.POINT**



**INOV.LINEA**



**LINE.IPT**



**INOV.CODE**



TAGUS  
VALLEY

INOVLINEA  
TECNOLOGÍAS ALIMENTARES

# INOV.LINEA

## AGRIFOOD UNIT FOR KNOWLEDGE PRODUCTION AND TRANSFER





# AREAS OF EXPERTISE

**AGRIFOOD | CIRCULAR ECONOMY | BIOECONOMY**



APPLIED RESEARCH



SERVICES

- . Pilot scale and industrial scale-up (TRL's 6 to 9)
- . Innovative or emerging conservation and process technologies

# OUR SERVICES

**NEW PRODUCT DESIGN  
AND DEVELOPMENT**



**AROMATIZED  
OLIVE OIL DITERRA**

**SUPPORT TO MARKET  
ENTRY CONSULTANCY**



**CANNED FISH  
BEM AMANHADO**

**SHARED PRODUCTIVE  
PILOT UNIT:  
FOOD AB LAB**



**EGG CANDY  
REBUÇADO DE OVO**

## FOOD FAB LAB SHARED FACILITY

Allows start up business projects, production of small series and experimental lots

Access to **pilot plant** with industrial licensing

Testing at **pilot scale** and/or **manufacture** for market entry

TRL's 7 to 9



INDUSTRIAL PLANT



FREEZE-DRYING  
TECHNOLOGY



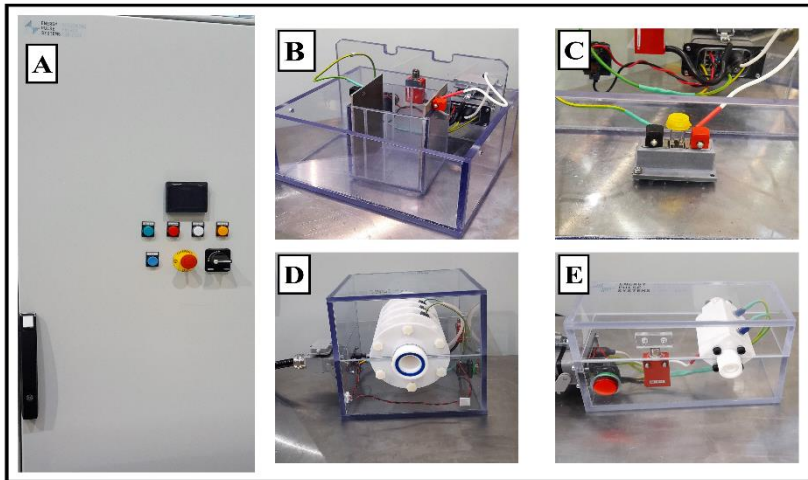
OHMIC HEATING PLANT

# FOOD FAB LAB SHARED FACILITY

Allows start up business projects, production of small series and experimental lots

**Conventional and emerging technologies**

**Single or multiple use**



PEF equipment (A) and static PEF processing chambers (B), cuvette (C) and continuous 10 mm diameter (D) and 40 mm diameter (E).



# FOOD FAB LAB Has as a diverse portfolio of clients ranging all territory (Data series: 2016 to 2020)



**Start Up Fumeiro do Mar**  
**52%**



**University**  
**Leiria Polytechnic Institute**  
**9%**



**SME Quinta da Mó**  
**39%**

**CONTACTS (total): 75**  
**SERVICES (total): 31**  
**CLIENTS (total): 23**

# RECOMMENDATIONS

# A. INVOLVE ALL STAKEHOLDERS ON FOOD FAB LAB PLANNING



AGRI-FOOD COMPANIES



LEGAL & FISCAL ENTITIES



TECHNICAL TEAM



MUNICIPAL GOVERNMENT



OTHERS

## B. EXPLORE NATIVE SPECIES



FIG



ARBUTUS



QUINCE



WINE







# TAKE AWAY MESSAGE

## FOOD FAB LAB

a **Shared Productive Unit**

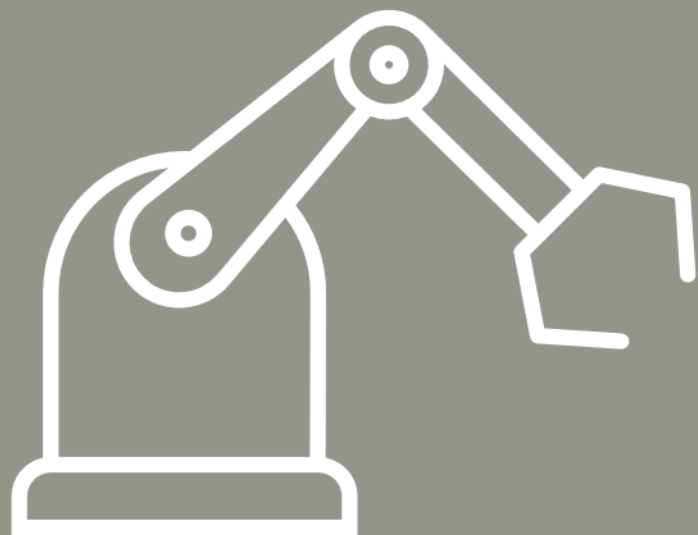
that can contribute

for the **Economic Development**

through **Knowledge Transfer**

and **New Products Development**

towards a **Circular Economy Society**



Thank you!

Any questions?



# Moderated Panel Discussion and Q&A

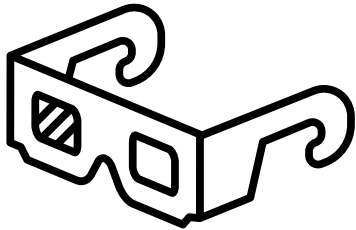


CLOSING REMARKS



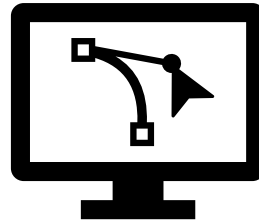
# Matchmaking and ZOOM IN Sessions

Feel free to join us tomorrow!



**ZOOM IN Session on Fab  
Labs**

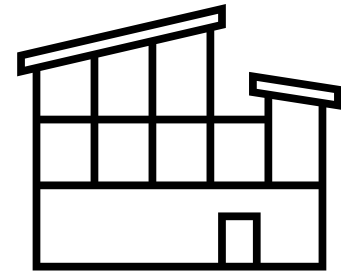
13:30 - 14:45



**From S3 priority  
selection to actions –**

**Province of East  
Flanders, Belgium**

13:30 - 14:45



**Spaces for innovation –  
Municipality of Keratsini –  
Drapetsona, Greece**

15:15 – 16:30

**Interreg  
Europe**



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