

Moving **PL**astics and **mA**chine **iN**dustry towards **C**ircularity (Acronim: **Plan-C**; ID: DRP0200194)

Interreg Danube Region Programme co-financed by European Union

Design Thinking Workshop to transform the plastics industry to circularity - Romania-

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September 19th 2024

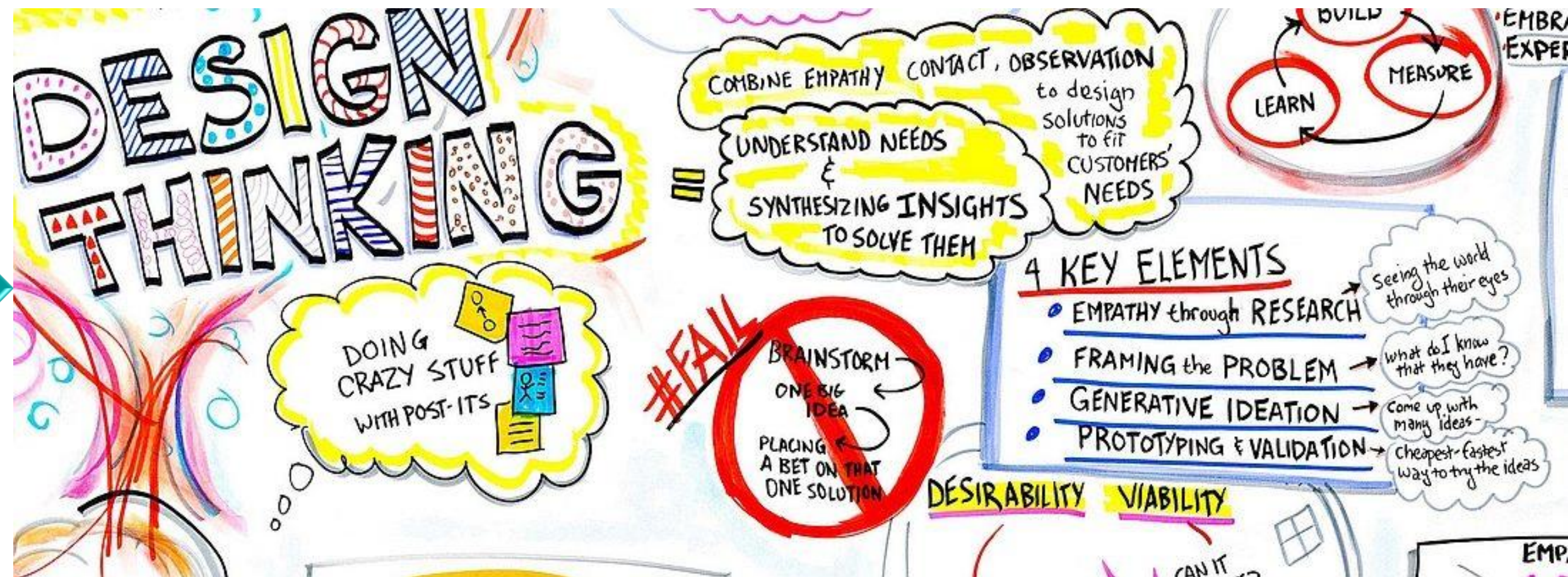
Institutul de Chimie Macromoleculară "Petru Poni"
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Aim:

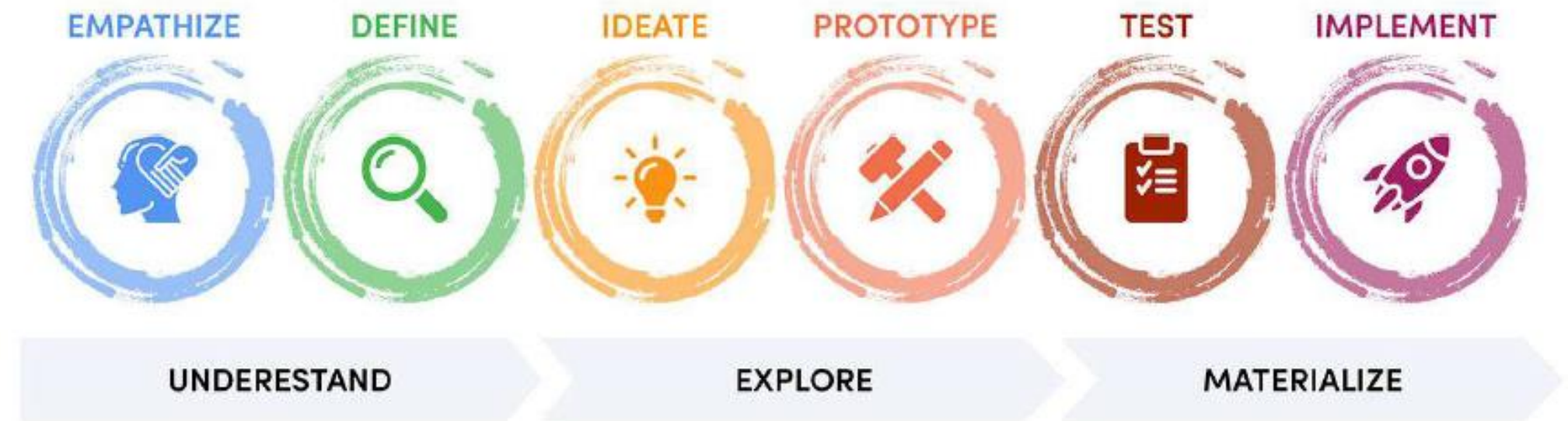
apply the Design Thinking methodology to identify challenges and develop innovative solutions for improving circularity in the plastics industry

Marius Alexa, CEO



General Objectives:

1. Introduction to Design Thinking: familiarization with the Design Thinking methodology => innovative approach for identifying and addressing specific challenges within the industry



CIRCULAR ECONOMY



LINEAR ECONOMY



2. Finding Circular Solutions: focus on creating sustainable solutions applicable to the plastics industry

3. Engagement of Experts, Stakeholders, Regional Decision-Makers: facilitation of dialogue and collaboration (e.g. academia, chemical industry, environmental agencies, SMEs ...)

Specific Objectives:



Understanding Circular Economy Principles:

- insights into the principles of the circular economy and how they can be applied in the plastics industry to minimize waste and enhance recycling efficiency



Applying Design Thinking Methodology:

- use of the Design Thinking methodology to generate innovative solutions for major challenges (e.g. lack of recycling infrastructure, the use of non-recyclable plastics...)



Promoting Collaboration Among Participants:

- foster collaboration among participants from various industrial sectors to identify solutions that are applicable in real and specific contexts



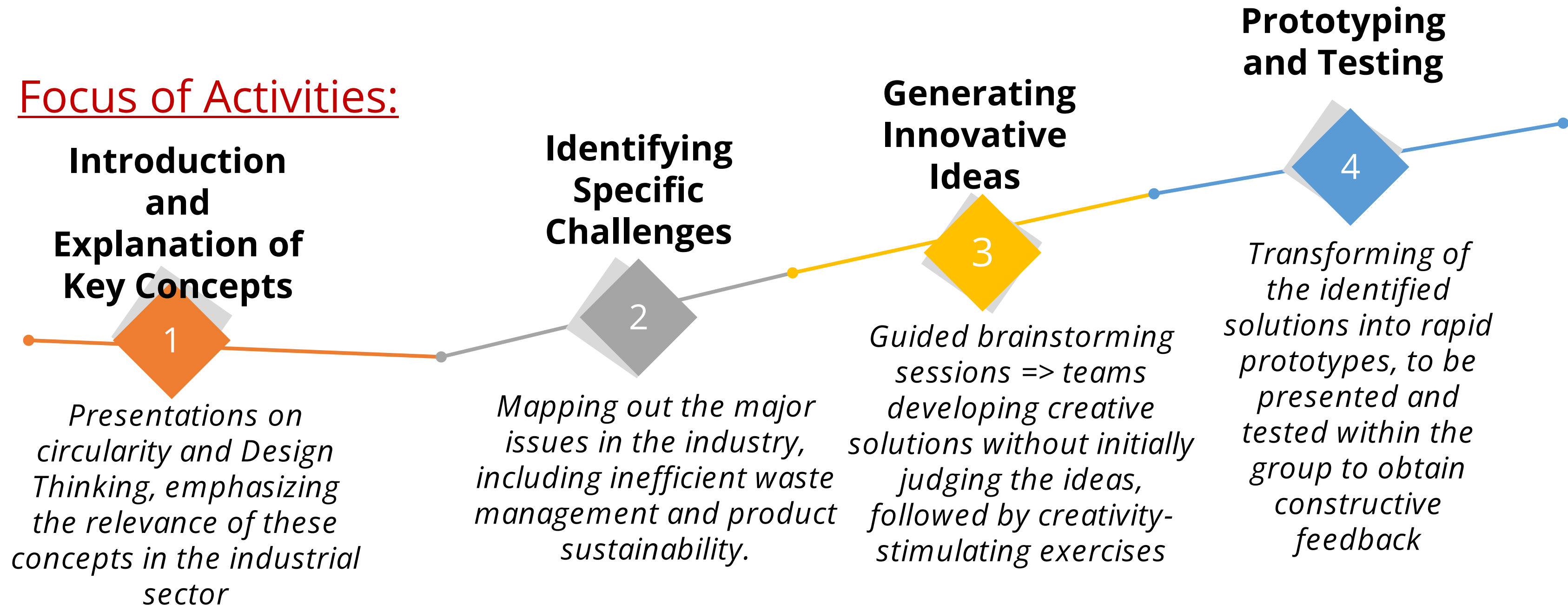
Developing Rapid Prototypes:

- development of prototypes that can be tested and validated for feasibility, environmental impact, and potential implementation within the industry

Target groups: Representatives facing challenges related to plastic usage and interested in implementing sustainable solutions in their production processes:

- ✓ Plastic packaging manufacturers
- ✓ Recyclers and recycling service providers
- ✓ Supply chain and logistics representatives
- ✓ Environmental consultants and experts

Focus of Activities:



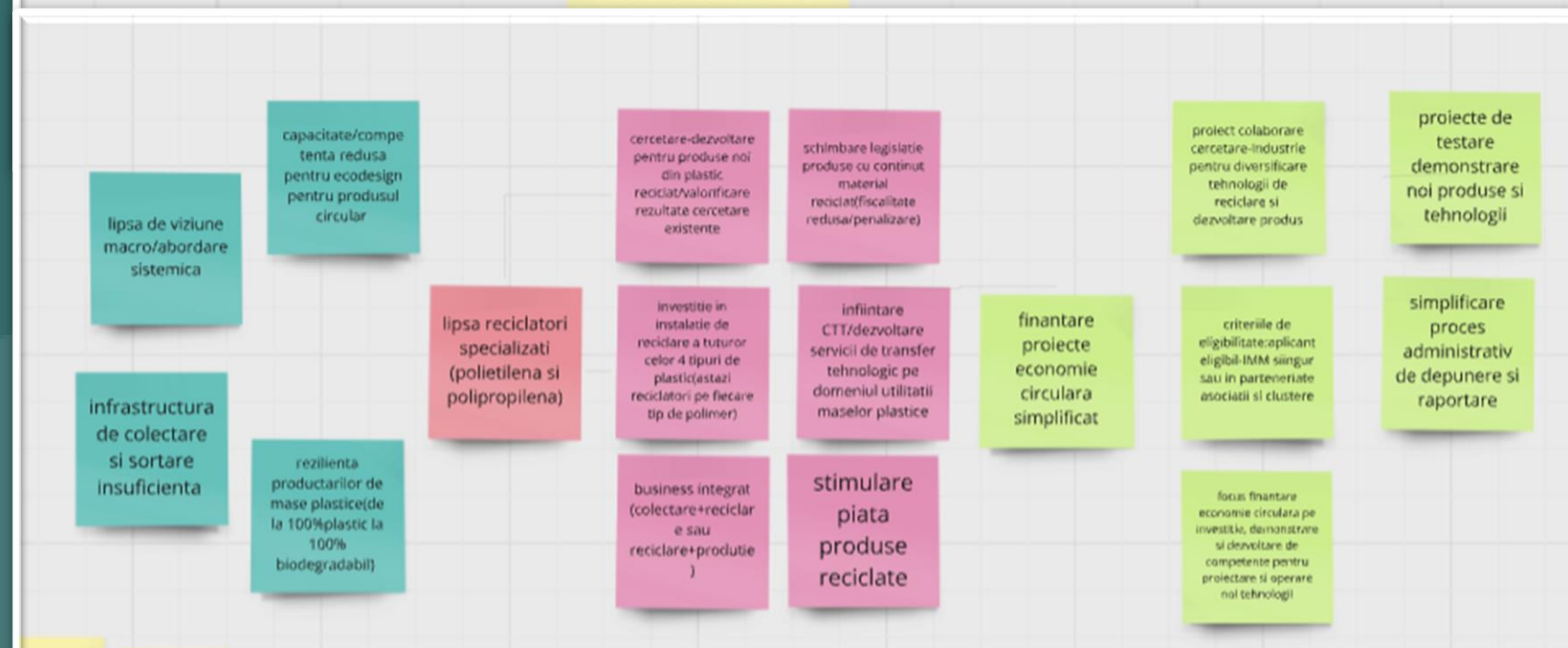
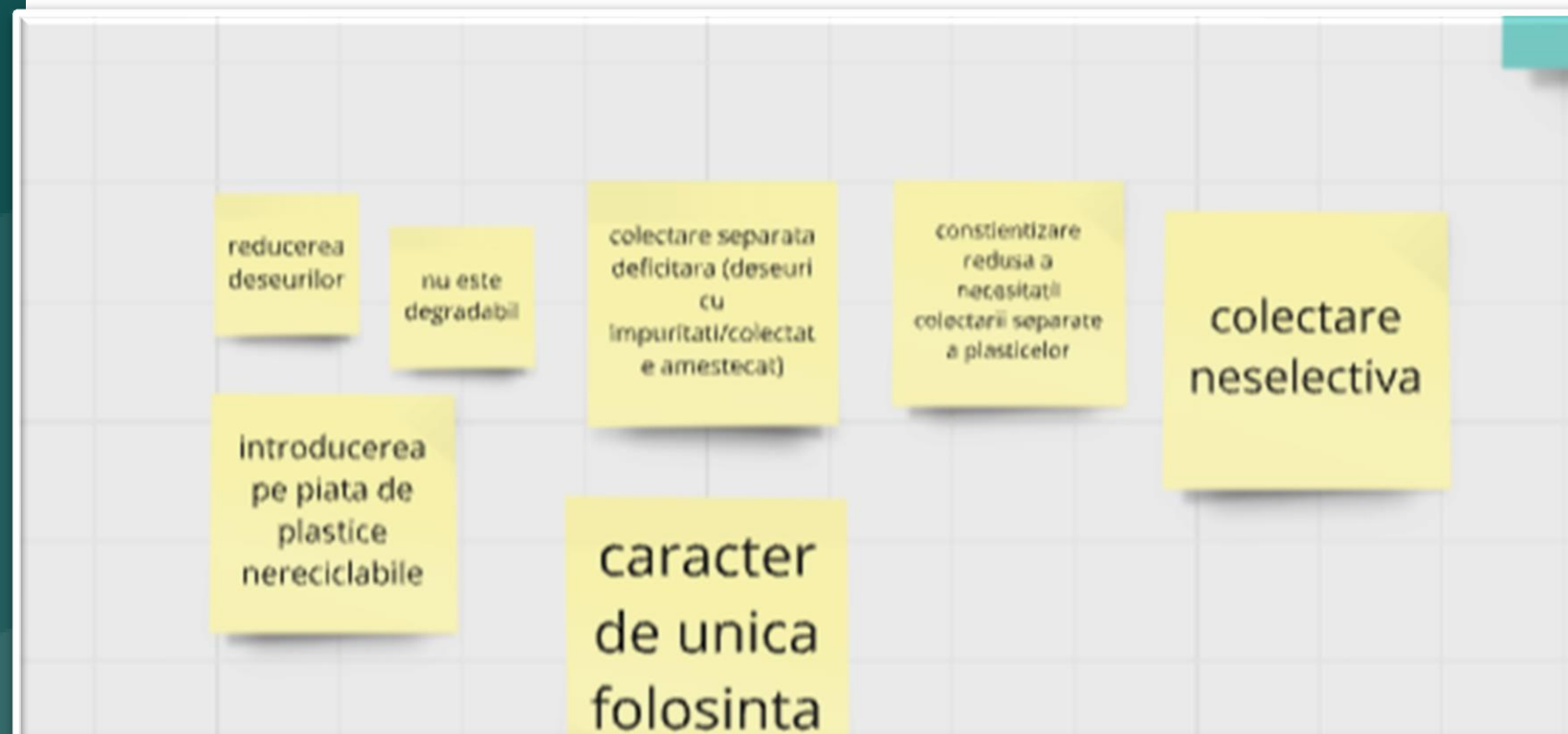
Identifying Specific Challenges

2

Miro Platform

- ✓ *real-time visualization of ideas*
- ✓ *facilitating interactive collaboration among participants*
- ✓ *allowing teams to map their challenges, generate ideas, and prototype solutions in a visual and dynamic manner.*

miro



The teams mapped out the main issues related to plastic collection and recycling:

- **Non-selective collection of plastic waste**
- **Single-Use Products**
- **Waste Reduction**
- **Non-Recyclable Plastics:**
- **Low Awareness**
- **Insufficient Collection and Sorting Infrastructure:**
- **Insufficient Research and Development for New Recycled Plastic Products**
- **Limited Capacity for Ecodesign**
- **Insufficient Legislative Change and Economic Incentives**
- **Funding for Circular Economy Projects**

Generating Innovative Ideas

3

Key Points Identified:

Large Volume of Plastic Waste Ends Up in Landfills: The main problem identified by participants is the immense quantity of plastic waste that ends up in landfills => lack of recycling infrastructure and efficient waste management practices.

- ✓ **Awareness Campaigns for Selective Collection**
- ✓ **Expansion of the Deposit-Return System (SGR) for All Plastic**
- ✓ **Support for Recyclers**
- ✓ **Redesign for Extended Reuse Life**
- ✓ **Research and Innovation for Biodegradable Plastics**



Prototyping and Testing

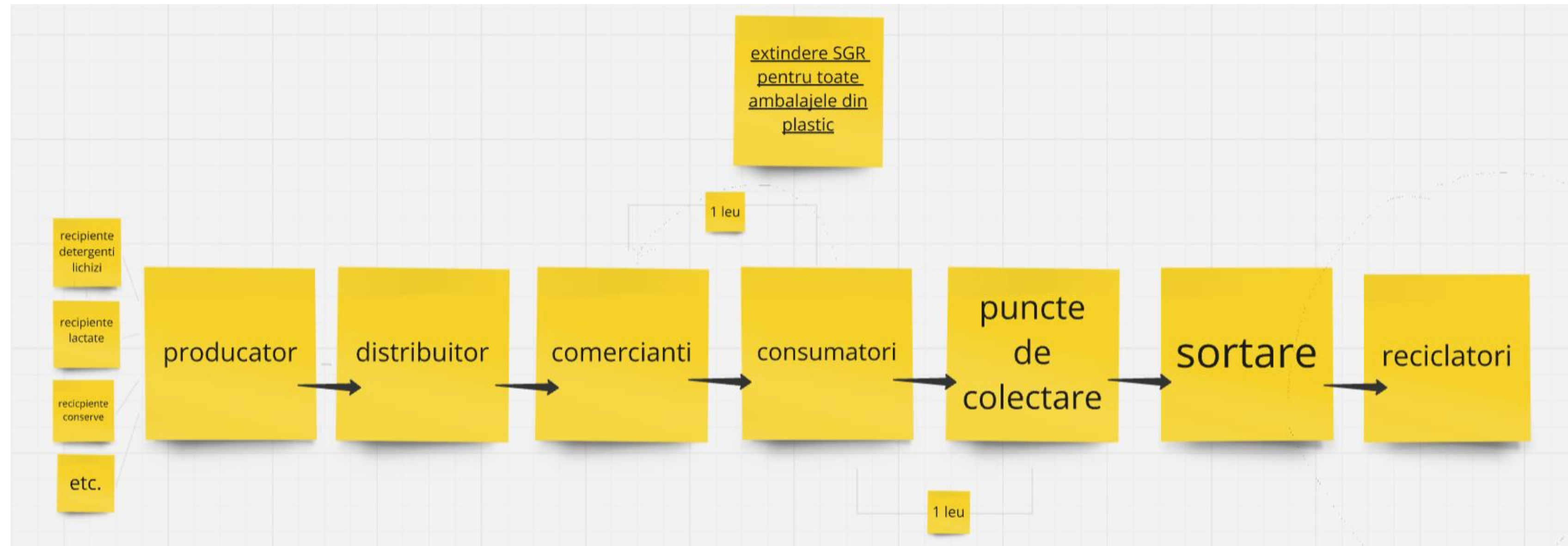
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Prototyping - essential step in the Design Thinking methodology:

It allows for early testing of ideas: provide a physical or visual representation of the proposed solutions, enabling teams to quickly check their viability and identify any obstacles before implementation.

It facilitates collaboration and feedback: opportunity to communicate their ideas more effectively to other participants and obtain constructive feedback to improve their solutions.

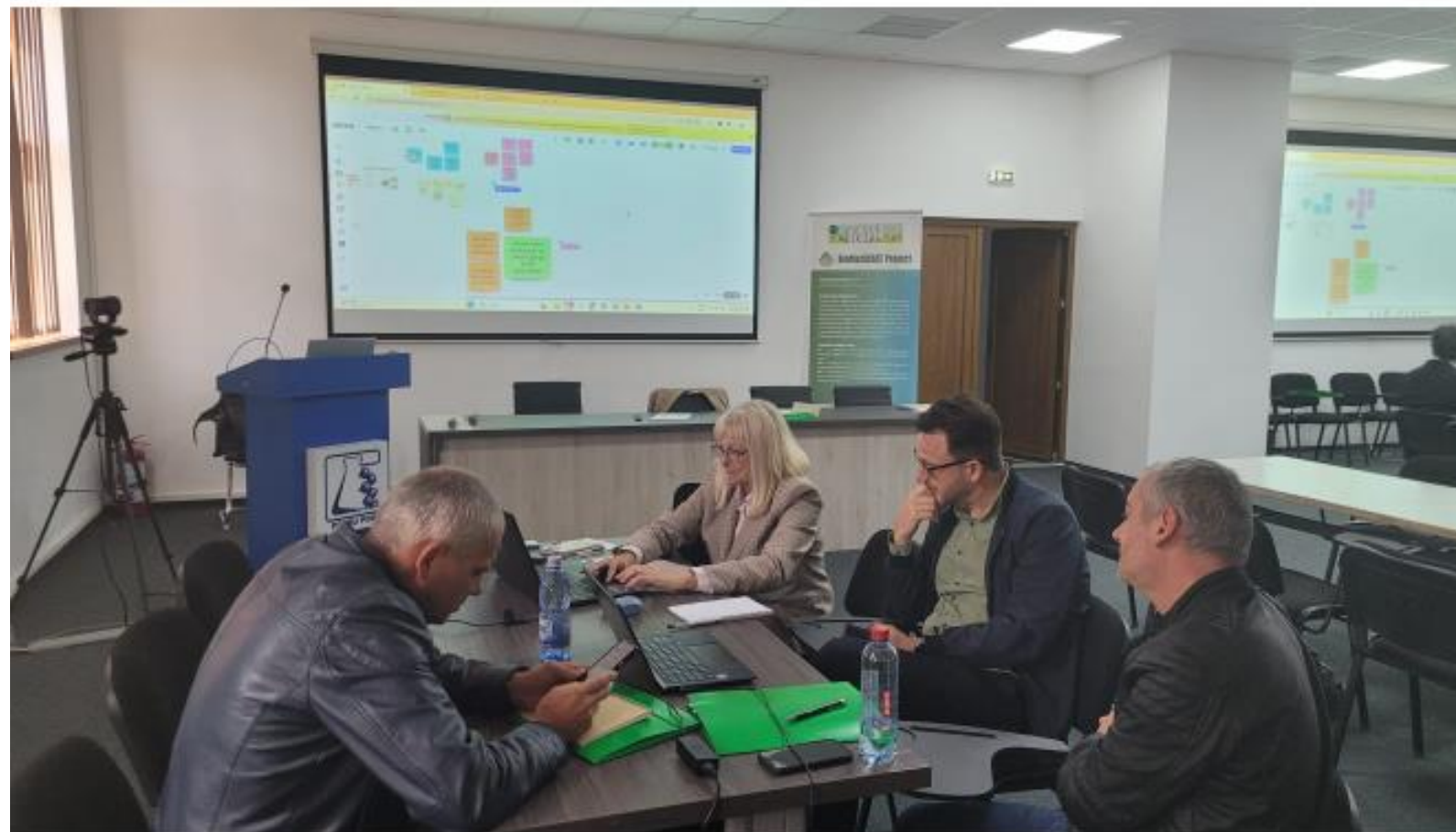
Reduces risks and optimizes resources: testing solutions in the form of prototypes can save time and resources, allowing for adjustments before their large-scale implementation.



Results of the Workshop:

Participants proposed and developed viable solutions for circularity in the plastics industry, including:

- ✓ • Fiscal facilities and incentives for companies that adopt circular technologies and recyclable plastics.
- ✓ • Improving recycling infrastructure through investments and public-private partnerships.
- ✓ • Regional collaborations for the large-scale implementation of solutions, supporting innovation and adaptation to environmental regulations.



Impact and Conclusions:

The workshop had a significant impact on the participants, providing them not only with theoretical knowledge about the circular economy but also with practical tools to find applicable solutions to the challenges in the plastics industry.

Through the active participation of experts, stakeholders, and policymakers, the groundwork was laid for implementing concrete initiatives, such as:

- ✓ **Piloting projects to expand the Deposit Return System** at local or national levels.
- ✓ **Developing educational and awareness programs** aimed at the general public and companies to promote the importance of selective collection and the use of recycled plastic.
- ✓ **Partnerships between companies and authorities** for investments in recycling infrastructure and research and development

The feedback received was extremely positive, with participants emphasizing the utility of the Design Thinking method for addressing complex challenges and promoting innovation.

Thank you for your attention!

**Interreg
Danube Region**



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Plan-C Website:

www.interreg-danube.eu/projects/Plan-C

LinkedIn:

www.linkedin.com/company/plan-c-moving-plastics-and-machine-industry-towards-circularity



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