

BOOTCAMP WANDERFUL.STREAM

USING DESIGN THINKING METHODS AND TOOLS HELP
FINDING SOLUTIONS FOR SMES' WASTE
VALORIZATION CHALLENGES IN THE EUREGIO



The Wonderful.stream project

The European Interreg project Wonderful.stream (2020-2023) focuses on the valorization of waste streams from SME's. In this project, seven partners from the Meuse-Rhine Euroregion have pooled their knowledge, strengths and resources to jointly support small and medium-sized enterprises in their transition to a circular economy.

Wonderful.stream offers companies free guidance and support in valorizing waste valorization and residue streams and initiates and facilitates the co-creation of circular prototypes together with technologists, designers and business developers in innovation tracks.

Along with working with professional experts, the project included students from STEAM disciplines (that refers to the fields of Science, Technology, Engineering, Arts and Mathematics). The students contributed to identifying waste valorization during bootcamps that were organized throughout all partner regions.

A bootcamp consists of three working days during which companies, designers and students from various backgrounds work in teams on concrete challenges. The aim of the bootcamps is to provide early waste valorization concepts that could then be developed within the framework of Wonderful.stream innovation tracks.

This report contains summary information on the design thinking methods and tools used during the bootcamp by the students.

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Circular economy and design methods

The linear economy is based on the "take-make-waste" model, which relies on the over-use of raw materials and loss of value. This model is unsustainable and short-sighted as it is, and we have already exceeded the planet's limits. The circular economy approach offers a far more coherent approach to business development. Circular businesses understand how to decouple economic growth from the increasing use of virgin materials.

Design, its method and mindset, are some of the most powerful ways of creating a better-functioning world and society. Design enables us to grasp and even solve many complex problems.

The use of design methods and design thinking enables companies to better understand customers and their needs. It's also a tool that helps develop products and services from a comprehensive, global perspective.

The bootcamp

A bootcamp is a consecutive three-day acceleration program in the circular economy, with a focus on waste valorization. It is intended for SMEs that want to find solutions for their problems with waste valorization and STEAM students who want to learn design thinking methods and tools while working on these challenges.

During the bootcamp, the focus must be on generating circular innovation concepts that can be applied at the scale of the participating companies, rather than on business development or the formulation of speculative scenarios.



The methodology

To meet the objective of generating circular concepts for the valorization of corporate waste by the end of the bootcamp, the Wonderful.stream partners teamed up with the Yellow Window design agency to develop a scenario for the three-day bootcamp. This scenario featured all the design thinking tools selected according to the objectives of each work session.

1. FRAMEWORK

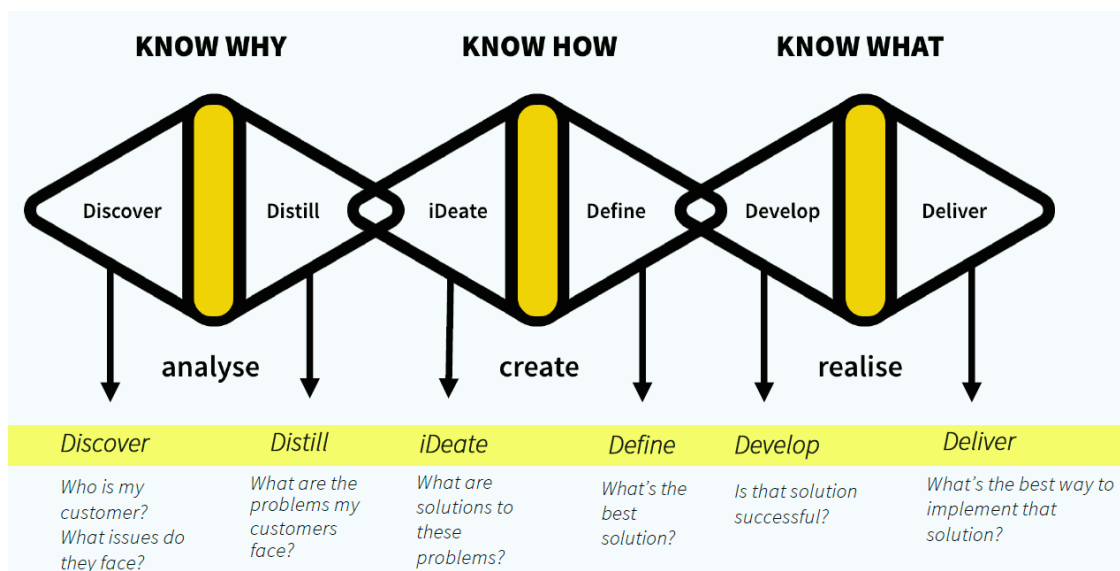
- Intensive three-day session using design thinking tools and methods to transform ideas into concrete solutions.
- Multidisciplinary teams composed of STEAM students supervised by designers and experts in technology and business development working on SME's challenges in each region.

2. APPROACH

- Co-creation, participation, and consideration of all involved parties, to allow fresh and relevant ideas and solutions to emerge and ensure their future development.
- Apply participative methods to design solutions for waste valorization challenges, involving users and stakeholders throughout the entire SME value chain.

3. METHOD

Triple diamond process based on a sequence of divergence and convergence phases using design thinking tools.





Design thinking tools

Specific design thinking tools were specifically curated for each day and purpose (eg. Innovation journey map, user profiles, personas, ...) during the three-day bootcamp

DAY 1

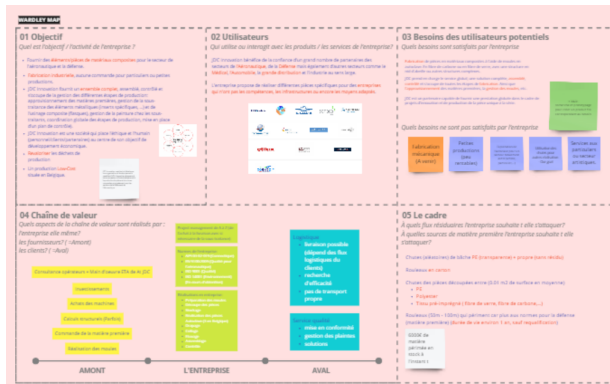
ANALYSIS AND RESEARCH PHASE

> KNOW WHY <

01. UNDERSTAND THE CONTEXT- FRAMING & UNDERSTANDING THE SYSTEMS

Analysis of the company's context at value chain level, to identify and understand the company's processes, players (internal and external) and problems.

Tool selected for the bootcamp: **Wardley Map**



02. DEFINING OBSTACLES AND OPPORTUNITIES TO IDENTIFY CHALLENGES

Identification of the elements that can be supports (opportunities/leads/helps) and the elements of resistance (obstacles/difficulties) and classify them upstream (suppliers), at company level and downstream (customers).

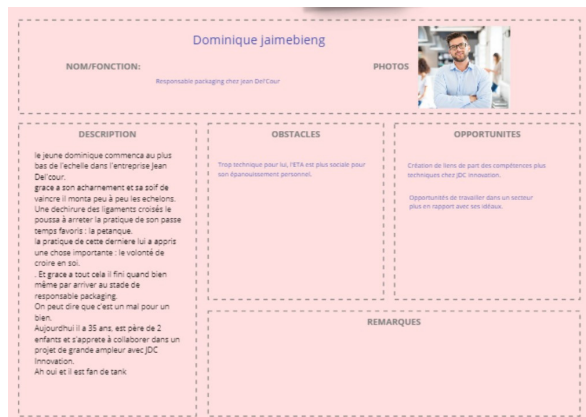
Tool selected for the bootcamp: **Stakholder map**



03. UNDERSTANDING NEEDS, GOALS, WEAKNESSES AND OPPORTUNITIES

Understanding and defining the needs, goals, weaknesses and motivations of company players.

Tool selected for the bootcamp: **Persona**



04. ANALYSIS OF THE ISSUES TO EXPLORE INITIAL DIRECTIONS / AVENUES / SOLUTIONS

Exploration of the possible solutions based on issues, limits and opportunities.

Tool selected for the bootcamp: **Lotus Blossom**



DAY 2

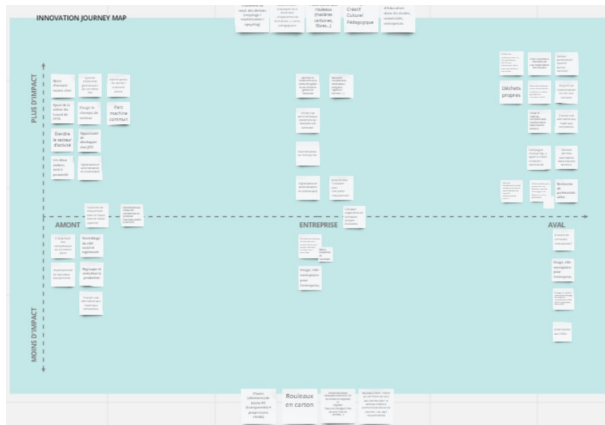
CO-CREATION PHASE

> KNOW HOW <

01. DEFINING ISSUES AND SOLUTIONS

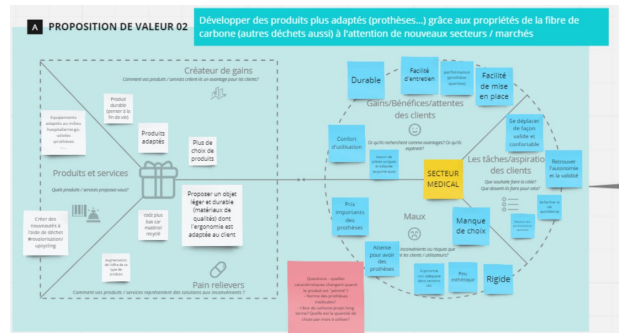
Detailed analysis to explore initial directions towards solutions/concepts. Transcribe solutions in terms of impact (potential in perceived value).

Tool selected for the bootcamp: **Innovation Journey Map**



02. VERIFICATION OF OPPORTUNITIES AND VIABILITY OF CONCEPTS / DIRECTIONS

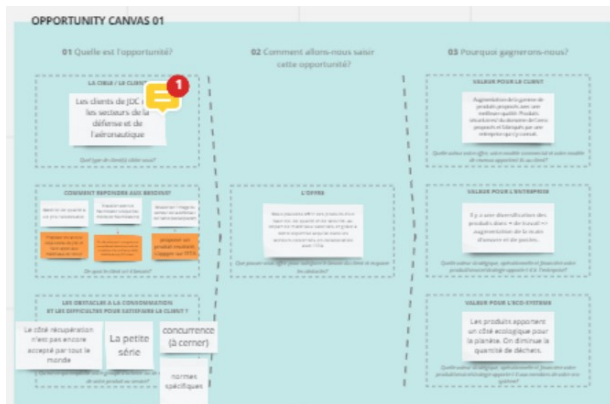
Tool selected for the bootcamp: **Stakeholder Value Proposition and Opportunity Check**



03. OPPORTUNITY CANVAS

Selection and analysis of identified concepts to confirm opportunities.

Tool selected for the bootcamp: **Opportunity Canvas**



04. TESTING, FEEDBACK AND VISUALIZATION

Verification and validation of concepts with companies to select those to be tested on day 3 of the bootcamp.

Selection of 2 concepts that will be developed and pitched during day 3 of the bootcamp.

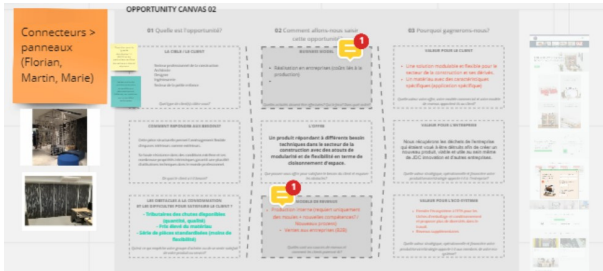


DAY 3

PROTOTYPING PHASE > KNOW WHAT <

01. DETAILED OPPORTUNITY CANVAS

Detailed work on the Opportunity Canvas, completing the Business Model and Revenue Model sections.



02. PITCH SESSIONS

Presentation of concepts developed over the 3 days to a panel of circular economy experts for feedback and preparation for the innovation tracks.



The jury's evaluation criteria:

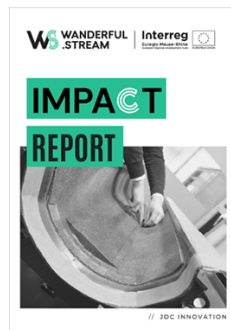
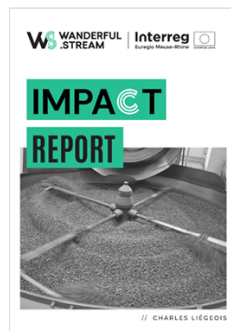
- Presentation (clarity, structure, aesthetics, etc.)
- Originality of concept
- Impact on the circular economy in the Euregio

The jury will select the best concept.



From bootcamp to Innovation Track

The best concepts were selected, with the approval of the participating companies, to be validated during innovation tracks. A team of professional experts in design, business and technology were selected by the Wanderful.stream team to carry on the concepts developed by the STEAM students during the bootcamp. The results of the innovation tracks can be discovered in the **Impact Reports** :





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Interreg

Euregio Meuse-Rhine

European Regional Development Fund



Interreg EMR transcends borders by enabling collaboration between regional areas in different countries. We are investing in projects on innovation, the economy, social inclusion and training, and territorial cohesion. By encouraging cross-border collaboration, we strengthen the economic and social fabric in the border region between Belgium, Germany, and the Netherlands.

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