

PROTOTYPING



BACKGROUND AND CONTEXT

Prototyping is a key step in the knowledge valorisation process, bridging the gap between abstract ideas and tangible innovations. This session introduces participants to prototyping as a means of early validation, iterative improvement, and communication of value. With support from an external expert, teams explore how to visualise their concepts and make them testable and shareable.

OBJECTIVE

To introduce participants to fundamental prototyping methods and support them in transforming their innovation ideas into tangible or visual representations. The process aims to improve the feasibility, user orientation, and communicability of their projects by guiding teams through the early stages of prototype design with the tailored input of an external expert.

TARGET AUDIENCE

- ◆ Project teams that participated in ideation and mentoring sessions
- ◆ Early-stage innovators seeking to move from concept to testable format
- ◆ Researchers and professionals interested in visualising and validating their ideas

METHODOLOGY AND CONTENT

This module is implemented through a series of practical sessions focused on transforming project ideas into tangible, visual, or interactive prototypes. Guided by an external expert in innovation and design, participants engage in an iterative process of creation, testing, and refinement.

The methodology combines:

- ◆ **Expert-led collective sessions:**
These sessions introduce key principles of prototyping, showcase examples of different formats (e.g. sketches, wireframes, mock-ups, storyboards), and provide guidance on how to choose the most appropriate approach depending on the nature of each project.
- ◆ **Individualised team work sessions:**
Each project team receives tailored support from the expert to develop

their prototype based on their concept, goals, and maturity level. This includes feedback rounds, visual coaching, and discussions on how to best express their solution's value and usability.

- ◆ **Iterative refinement:**

Across multiple sessions, teams improve their prototypes by integrating feedback, exploring new visual strategies, and preparing for future communication or validation with stakeholders.

This blended methodology ensures that all teams progress at their own pace while benefiting from expert insights and a structured approach to prototyping as a core step in the innovation journey.

OUTCOMES OF THE SESSION SKILLS AND COMPETENCES ADDRESSED

▶ KEY OUTCOMES

- ◆ Each team **develops** a tangible or visual prototype of their project
- ◆ Increased capacity to **communicate** the concept to stakeholders, funders, or users
- ◆ Improved problem-solution alignment and refinement of the value proposition through expert feedback

▶ SKILLS AND COMPETENCES ADDRESSED

- ◆ **Creativity** – Participants **transform** abstract ideas into visual or functional prototypes, requiring imaginative thinking and experimentation.
- ◆ **Strategic thinking** – Prototyping **helps** teams define priorities, align features with user needs, and clarify the core mission of their innovation.
- ◆ **Critical thinking** – Teams **continuously evaluate** feasibility, utility, and relevance while building initial versions of their solutions.
- ◆ **Interact professionally** – Participants **collaborate** with an expert mentor and peers, articulating ideas, giving/receiving feedback, and improving outcomes.
- ◆ **Practical insights** – Through iterative exercises, teams **gain** hands-on understanding of translating concepts into usable formats (e.g. sketches, mock-ups, user flows).
- ◆ **Systemic thinking** – The session **encourages** thinking beyond the prototype: integration into the ecosystem, user adoption, and pathways to implementation.

- ◆ **Adaptability** – Teams **respond** flexibly to mentor suggestions, design challenges, and technological or resource constraints.
- ◆ **Promote open innovation** – Prototyping is **positioned** as a collaborative and testable stage that **invites** co-creation with users and stakeholders.
- ◆ **Decision making** – Participants **select** what to prototype, what tools to use, and how to communicate their solution's value.
- ◆ **Work in teams** – Participants **work** together to develop the prototype.

The session marks a transition from idea development to tangible project articulation, reinforcing KALEIDOS' mission to bridge Open Science and innovation impact.



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