

PARTICIPATIVE *AND CREATIVE* **PROCESSES**



#1 **CHALLENGE IDENTIFICATION,** *PROBLEM FRAMING* **/FRAMING PITCH** **/UX TRAINING**

BACKGROUND AND CONTEXT

This session is part of the broader framework of the KALEIDOS project, which supports universities in their transition toward an innovation management model grounded in Open Science principles. It has been designed to address the growing need for participatory knowledge valorisation practices that can respond to systemic societal challenges, with a special focus on ageing, the central theme of this workshop.

This session contributes to the creation of practical, inclusive, and ecosystem-based solutions, reinforcing the overall mission of KALEIDOS to foster social impact through research valorisation.

OBJECTIVE

This hands-on session, aims to introduce participatory, user-centred innovation methods; build competences in Open Science and knowledge valorisation; and foster the co-creation of innovative, feasible, and socially relevant solutions to address ageing-related challenges.

TARGET AUDIENCE

Early-stage and experienced researchers, innovation managers, and academic professionals from universities and research institutions involved in knowledge valorisation.

METHODOLOGY AND CONTENT

The session follows an experiential and participatory methodology, rooted in co-creation and user-centred innovation principles. The session is structured around collaborative group work, blending theoretical insights with interactive exercises to foster critical thinking, creativity, and real-world problem-solving.

Participants begin by identifying and framing challenges related to ageing. The session opens with an introduction to problem framing, highlighting its importance

in clarifying complex societal issues. Several methods and tools are introduced to guide the process:

- Stakeholder and empathy mapping to visualise the needs, expectations, and tensions of all actors involved.
- ◆ The “five whys” technique to explore root causes beyond superficial symptoms.
- ◆ The “how might we” (HMW) method to transform insights into open, actionable questions that inspire innovation.

Participants then work in multidisciplinary teams within virtual breakout rooms to explore potential solutions. This phase includes a brainstorming session, where they contribute both new ideas and ongoing projects relevant to the ageing challenge.

Next comes analysis and voting, helping teams prioritise the most promising ideas based on technical feasibility, user needs, and innovation potential.

Once selected, ideas undergo a benchmarking exercise, where participants examine existing solutions in the field of ageing to identify differentiation opportunities and refine their concepts.

The session concludes with a collective sharing space, in which teams present their proposals and receive feedback through a “social rain” of contributions from peers and facilitators.

This approach ensures that participants not only gain practical tools and collaborative techniques, but also internalise a mindset of mission-oriented, socially impactful innovation.

MATERIALS NEEDED

The session has been designed to be adaptable to both online and face-to-face formats, with a set of tools and materials tailored to foster participation, creativity, and collaboration in each context. The [slides used during the session 1](#) can be found on the KALEIDOS website.

► FOR FACE-TO-FACE SESSIONS

- ◆ Sticky notes and flip charts for stakeholder mapping, empathy maps, idea clustering, and voting.
- ◆ Markers, pens, coloured dots or stickers for visual ideation and prioritisation activities.
- ◆ Printed templates for exercises

- ◆ Projector or screen for presenting theoretical content and guiding instructions.

▶ FOR ONLINE SESSIONS

- ◆ Videoconferencing platform with breakout room functionality (e.g., Zoom, MS Teams) to enable small group work.
- ◆ Digital whiteboards (e.g., Miro, Mural, Jamboard) for stakeholder mapping, idea clustering, and interactive brainstorming.
- ◆ Shared cloud-based documents or slides (e.g., Google Docs, Slides) to document group outputs and facilitate collaboration.
- ◆ Screen sharing and chat functions to support facilitator-led instruction and peer interaction.

▶ COMMON MATERIALS FOR BOTH FORMATS

- ◆ Facilitation guidelines and exercise templates, adapted to each dynamic.
- ◆ Access to internet-connected devices (laptops or tablets).
- ◆ Benchmarking resources, including example links or datasets for online research on existing solutions.
- ◆ Session agenda and challenge briefing documents to align participants with goals and context.

EXERCISES FOR FACE-TO-FACE AND ONLINE SESSIONS

All exercises implemented during the session were designed to be flexible and fully adaptable to both in-person and online environments, ensuring consistent learning outcomes regardless of format. Each activity was structured to facilitate active participation, collaboration, and the co-creation of knowledge, whether through physical materials in a room or digital tools in virtual spaces.

- ◆ **Idea brainstorming**
Teams generate a wide range of solution ideas—new or existing—responding to the selected HMW questions.
- ◆ **Idea clustering and prioritisation**
Teams group, analyse, and vote on the most promising ones based on feasibility, innovation potential, and user relevance.
- ◆ **Benchmarking activity**
Participants research similar initiatives or existing solutions in the field of ageing to assess uniqueness and added value of their own ideas.
- ◆ **Social rain of contributions**
Final presentation and feedback round where each team shares its proposal and receives comments, questions, and suggestions from other groups and facilitators.

SKILLS AND COMPETENCES ADDRESSED

Throughout the session, participants can strengthen the following skills competences:

- ♦ **Systemic thinking** - Participants explored challenges such as ageing by mapping interrelated causes, actors, and structures across societal ecosystems.
- ♦ **Critical thinking** - The “5 Whys” and stakeholder analysis techniques helped participants examine underlying causes, not just visible symptoms.
- ♦ **Strategic thinking** - Participants aligned problem framing with high-impact areas and realistic innovation opportunities.
- ♦ **Empathy** - Empathy mapping encouraged a user-centred mindset, highlighting the needs, motivations, and tensions of affected groups.
- ♦ **Creativity** - Through open-ended reframing methods like “How Might We...?”, teams generated novel ways to approach social challenges.
- ♦ **Promote open innovation** - The co-creation format reflected quadruple helix collaboration and the early inclusion of diverse perspectives in innovation processes.
- ♦ **Interact professionally** - Participants practiced active listening, consensus-building, and respectful idea exchange in team settings.
- ♦ **Work in teams** - Small-group exercises fostered shared problem analysis, idea development, and co-responsibility—essential for interdisciplinary collaboration.
- ♦ **Conduct interdisciplinary research** – Team members took the first steps to be able to address societal challenges by conducting interdisciplinary research.

#2_ SOLUTION BRAINSTORMING

/IMPACT, FEASIBILITY SOLUTION

EVALUATION AND SELECTION

MENTORS FEEDBACK

BACKGROUND AND CONTEXT

This session builds on the previous challenge-framing workshop and forms part of the KALEIDOS Ideas Generation Programme, which guides participants through the complete cycle of co-creation—from problem definition to solution development.

OBJECTIVE

To support participants in transforming initial ideas into validated, feasible, and impactful innovation proposals through collaborative brainstorming, technical and strategic evaluation, and early-stage prototyping.

TARGET AUDIENCE

Early-stage and experienced researchers, innovation managers, and academic professionals from universities and research institutions involved in knowledge valorisation.

METHODOLOGY AND CONTENT

This session **follows** a structured, collaborative methodology inspired by design thinking, **guiding** participants from the initial solution proposals developed in Session 1 **toward** impactful, feasible, and user-oriented innovation concepts. The process is **divided** into a series of progressive phases, each **supported** by visual templates and co-creation tools that **facilitate** team alignment and idea development.

The core methodology **combines** team-based ideation, peer review, benchmarking, and early-stage prototyping:

► 1. REFRAMING AND DEVELOPING INITIAL PROPOSALS

Building on the ideas generated in the previous session, teams use the *Initial Project Folder* template—a colourful, visual canvas—to structure their proposals. This includes:

- ◆ Definition of the core problem
- ◆ Analysis of current solutions

- ◆ Articulation of the team's unique idea and initial branding
- ◆ Identification of added value, technological basis, and potential market
- ◆ Mapping of strategic partnerships and potential funding channels

This structured canvas helps standardise team outputs and makes innovation elements visible and comparable.

▶ 2. VISUAL PROTOTYPING

Teams create low-fidelity prototypes using a variety of formats, such as:

- ◆ Iconographic sketches
- ◆ Infographic designs
- ◆ AI-generated visual elements
- ◆ Basic app or web mock-ups

The use of pre-designed visual templates **encourages** experimentation and creativity, regardless of participants' design experience.

▶ 3. GROUP PRESENTATION AND FEEDBACK

Each group presents its idea and prototype in a central plenary session. Participants provide quick and constructive feedback using the “*social rain*” method. In addition, mentors and facilitators offer strategic guidance to refine proposals and identify paths forward.

This methodology ensures that participants not only explore their ideas conceptually but also translate them into tangible, communicable formats, gaining critical insights into their feasibility, potential impact, and alignment with ecosystem needs.

MATERIALS NEEDED

As with the previous session, this workshop has been designed to be fully adaptable to both online and face-to-face formats, ensuring consistency in participant engagement and learning outcomes regardless of the delivery setting. The [slides used during session 2](#) can be found on the KALEIDOS website.

To support the collaborative and creative nature of the session, the following materials can be used:

- ◆ Initial project folder templates (digital or printed), including sections for problem definition, value proposition, technology, partnerships, and funding.
- ◆ Visual prototyping resources, such as icon sets, infographic elements, sketching tools, or mock-up generators.
- ◆ Facilitation slides and guiding questions, to structure team discussions and maintain session flow.

Whether in person or online, the setup promoted active teamwork, creativity and strategic thinking, with materials that were simple, visual, and intuitive to use.

EXERCISES FOR FACE-TO-FACE AND ONLINE SESSIONS

The exercises in this session were carefully designed to be fully adaptable to both face-to-face and online delivery, ensuring that all participants could engage meaningfully in the innovation process regardless of the format. Activities were structured to promote collaborative thinking, visual synthesis, evaluation, and prototyping, using shared templates and facilitation tools.

► 1. PROJECT FRAMING WITH THE INITIAL PROJECT FOLDER

Each team worked with a structured visual template to define and articulate their innovation proposal. This canvas guided participants through key aspects such as

- ◆ Problem definition and current solutions
- ◆ Proposal description and added value
- ◆ Technologies used, potential users, and funding opportunities
- ◆ Strategic partnerships and next steps

► 2. VISUAL PROTOTYPING

Each team produced a low-fidelity prototype of their selected idea. Formats included:

- ◆ Iconographic sketches or infographics
- ◆ App or web mock-ups
- ◆ AI-g
- ◆ enerated visuals or concept videos

► 3. COLLECTIVE SHARING AND MENTORS' FEEDBACK

Teams presented their ideas and visual prototypes in a central plenary session. Participants offered peer input through a "social rain of contributions", while mentors provided expert guidance for refinement.

OUTCOMES OF THE SESSION AND SKILLS AND COMPETENCES ADDRESSED

This session enabled the maturation and visual prototyping of selected innovation ideas, building on the proposals generated in Session 1. Through a collaborative process of refinement, evaluation, and feedback, participants transformed early-stage concepts into structured, feasible, and impactful solutions, supported by clear value propositions and preliminary visual representations.

► KEY OUTCOMES

- ♦ Selection and consolidation of one innovation idea per team.
- ♦ Completion of the "Initial Project Folder" template, covering key elements such as problem framing, technological foundation, stakeholder engagement, added value, and funding pathways.
- ♦ Development of initial prototypes using visual tools, graphic sketches, and basic app/web mock-ups.

► SKILLS AND COMPETENCES ADDRESSED

The session directly contributed to the development of several transversal and role-specific competences:

- ♦ **Creativity** - Participants used divergent thinking to expand on initial ideas, applying brainstorming and ideation tools to generate multiple innovative solutions.
- ♦ **Strategic thinking** - Through feasibility and impact assessments, teams identified which ideas aligned best with user needs, resources, and societal value.
- ♦ **Critical thinking** - Peer and mentor feedback challenged assumptions, leading participants to refine, combine, or discard ideas based on evidence and relevance.
- ♦ **Decision making** - Teams selected their final idea using weighted criteria, balancing desirability, viability, and technical feasibility.
- ♦ **Interact professionally** - The session fostered respectful collaboration, peer evaluation, and constructive interaction with mentors in an interdisciplinary context.

- ♦ **Work in teams** – Participants co-developed ideas in small groups, negotiated direction, and achieved consensus around shared innovation goals.
- ♦ **Conduct interdisciplinary research** – Team members took the first steps to be able to address societal challenges by conducting interdisciplinary research.
- ♦ **Increase impact of science on policy and society** – Evaluation criteria explicitly addressed potential social benefit, aligning solutions with broader mission-oriented innovation principles.
- ♦ **Empathy** – Solutions were assessed through the lens of real user challenges, requiring participants to remain attentive to stakeholder perspectives.



**Funded by
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