SMAR3TS

Staff Mobility to Action Resilient, Restorative, and Regenerative Transitions & Societies

Funded by
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I3X – Guiding Principles

SMAR3TS

- Innovate3X-Igniting Impactful Initiatives, or I3X, should aim to accelerate the understanding/scoping of a challenge (technological, market, societal etc), and the emergence/development of possible solutions. This can be interpreted as e.g. increased technological or societal readiness, once the I3X is completed.
- I3X should have a sufficient scale and scope (i.e. not being too narrowly-defined), and should require multi/cross/inter/trans disciplinary capabilities.
- I3X should align to the core concepts of SMAR3TS – Resilience, Restoration, Regeneration (either R or all Rs).
- I3X should align to (at least) one WP – WPs are the main coordination mechanism of the project, hence I3X should be connected to WPs.
- Any partner can initiate an I3X. Yet, shaping the I3X should be done collectively, and in collaboration with WP leader and SMAR3TS Team.
- At this stage, we are looking for initial I3X, which will be further defined during the Kick Off Meeting – and where engagement across the consortium will be assessed.
- Overall, it is expected that each I3X will lead and enable about 10 person-months of secondment, across the consortium (i.e. not only between the initiator of the I3X and possible contributors), possibly more.
- I3X will serve as guiding instruments for secondments, as well as for events (i.e. hackathons, workshops, showcase)

I3X – About the initiator

Name of Organization: Babeș- Bolyai University, Romania
Research Group/Department: Research Group in the Fields of Entrepreneurship, Psychology, and Technology
Country: Romania

1. Background info

Babeș-Bolyai University, established in 1581, is a research-intensive university with more than 40,000 students across 23 faculties. Its research spans interdisciplinary areas such as artificial intelligence, smart and connected industries, and environmental sustainability. Its **UBB Student i-Lab** further supports students in turning ideas into ventures through resources and mentorship.

3. Expertise and available technologies within SMAR3TS project

Expertise *of your research group/department and available technologies:*

- **Entrepreneurship & Business Development** (Guidance in business model design, validation, and scaling, Mentorship from industry professionals and alumni entrepreneurs)
- **Digital Marketing & Analytics (**Market research, customer segmentation, and digital strategy)
- **Sustainability & Circular Economy** (integration of sustainable business practices and eco-innovation)
- **New Product Development (**Ideation, prototyping, and MVP testing Application of design thinking and lean startup methodologies)
- **Cross-disciplinary Collaboration (**Creation of mixed teams from business, tech, and creative domains for hackathons and projects)
- **Technological Assets (**Prototyping tools for product and service development, AI tutoring platform for real-time validation and project guidance)

2. Research Group/Company Department

Short description: The **UBB Student i-Lab** is a student incubator at Babeș-Bolyai University in Cluj-Napoca, acting as a strategic hub for entrepreneurship, digital innovation, sustainability, and circular economy initiatives. Since its inception, it has emphasized internationalization, hosting specialists each semester who bring the latest practices in entrepreneurship education to students.

Research group / department: Entrepreneurship, Management, Psychology and Technology
The UBB Student i-Lab connects students, industry, and researchers to co-create innovative business models and sustainable solutions, fostering cross-disciplinary collaboration and supporting prototyping with AI-driven guidance.

Contact info**:** Assoc. Prof. and CEO of the UBB Student i-Lab Catalina Crisan, catalina.crisan@econ.ubbcluj.ro

4. Examples of strategically relevant Innovate3X Initiatives

The following initiatives illustrate how the UBB Student i-Lab can implement concrete, high-impact innovation actions to foster entrepreneurship, sustainability, and circular economy solutions:

1. Entrepreneurial Education and Transferable Tools

Role of UBB Student i-Lab: Co-creates educational modules, workshops, and methodologies that integrate research, innovation, and entrepreneurship. **Focus:** Interdisciplinary collaboration; applied entrepreneurial learning; transfer of research outcomes into practical solutions. **Strategic value:** Ensures learning outcomes from incubator projects are transferable across SMAR3TS partner institutions, supporting sustainable, scalable, and interdisciplinary impact**4. Well-Being and Resilience**

Role of UBB Student i-Lab: Facilitates collaboration between students, researchers, startups, and health/nutrition stakeholders to support interdisciplinary initiatives. **Focus:** Youth mental health; emotion regulation and self-regulation; behavioral aspects of nutrition; technology-based and interdisciplinary interventions. **Strategic value:** Strengthens collaboration between psychology, nutrition science, and innovation ecosystems to develop evidence-based interventions that improve young people's mental health and well-being.

-> See continuation on the next page

I3X – About the initiator

Name of Organization: Babeș-Bolyai University, UBB Student i-Lab
Research Group/Department: Research Group in the field of Entrepreneurship Psychology and Tech
Country: Romania

4. Examples of strategically relevant Innovate-3X Initiatives

3. Food-Waste-to-Food Innovation Hub

Role of UBB Student i-Lab: Connects startups, students, researchers, companies, and public stakeholders to develop solutions addressing food waste.

Focus: Innovation support; collaboration and knowledge exchange; entrepreneurial development; pilot projects and experimentation in food upcycling.

Strategic value: Accelerates circular economy solutions, supports startups working on food upcycling, and strengthens partnerships between academia, industry, and local communities.

4. Circular Economy and Sustainable Fashion Role of UBB Student i-Lab: Facilitates collaboration between students, startups, researchers, and institutes promoting the circular economy to advance sustainable practices in the textile sector**.**

Focus: Textile recycling and upcycling; circular business models; sustainable fashion innovation; environmental and social impact.

Strategic value: Strengthens regional circular economy initiatives, reduces textile waste, and fosters sustainable, innovative practices in the fashion industry through academic-industry partnerships and ecosystem engagement**.**

5. Resilience in Energy and Mobility Role of UBB Student i-Lab: Supports student-led projects and prototypes addressing sustainable energy alternatives and low-impact mobility solutions, connecting academic research with real-world applications.

Focus: Renewable energy solutions; energy efficiency; low-carbon mobility; pilot testing and experimentation**.**

Strategic value: Provides market-ready solutions for SMEs and communities, accelerates the adoption of sustainable technologies, and bridges research with industry implementation.

I3X – Alignment to R3 and to WPs

SMAR3TS domains:

1) ***Specify here:*** *one or several SMAR3TS domains that are relevant to the work of your organization/research and innovation team.*

This Innovate-3X initiative aligns with the **Nutrition, Mobility, Energy, and Housing** Work Packages, as the UBB Student i-Lab incubator supports a wide range of business concepts and, through its network, provides access to relevant academic, industry, and community stakeholders.

2) ***Specify here:*** *alignment of the work of your organization/research and innovation team with one or several SMAR3TS focus areas on Resilience, Restoration, and Regeneration. Share examples.*

This I3X aims to contribute to:

Resilience: Strengthening entrepreneurial ecosystems by helping startups and student ventures adapt to climate, economic, and social challenges through digital tools, mentorship, collaborative innovation, and AI-awareness initiatives.

Restoration: Supporting ventures that reduce environmental impact and emissions in their business models, promoting sustainable production, services, and circular practices.

Regeneration: Building regional capacity for scalable, low-carbon, and equitable business solutions that create long-term economic, social, and environmental value.

I3X Description

1) Innovate3X: AI-driven solutions to R3 challenges across sectors of nutrition, mobility, housing and energy

1. Description of Current Stage

Across **the city of Cluj-Napoca (Romania)**, startups and entrepreneurial initiatives are developing solutions in sustainable food, circular economy, logistics, and materials, including packaging, food-waste recovery, and digital supply-chain tools, responding to challenges from rapid urbanization. However, these efforts remain fragmented, operating in separate pilot projects and institutional silos.

Most solutions are early-stage, and few are integrated into city-wide systems that deliver climate resilience, nutritional security, and circularity. System-level integration, governance, business models, and policy alignment are still limited.

Cluj-Napoca has strong infrastructure, industrial capacity, and a large student pool, yet these assets are not fully coordinated. Students can drive change by gaining knowledge, best practices, and hands-on experience through UBB Student i-Lab.

This I3X initiative connects startups, students, and local actors to **collaboratively develop** regional pilots and scalable business models that can be replicated internationally under SMAR3TS, fostering resilient, restorative, and regenerative entrepreneurial ecosystems while encouraging students toward responsible entrepreneurship.

2. Necessary skills and capabilities, across disciplines:

To engage with this work, it would be beneficial for future secondees to have knowledge/experience in one or several of the following areas:

- **Entrepreneurial mindset and innovation adoption:** Understanding how individuals and teams adopt, scale, and implement ventures responsibly.
- **Learning and skill development:** Methods for training, mentoring, and building socio-emotional competencies in students and entrepreneurs.
- **Stakeholder engagement and ecosystem building:** Collaborating with students, startups, educators, and communities to co-create evidence-based, impact-driven solutions.
- **Behavioral psychology and social innovation:** How human behavior, decision-making, and habits influence sustainability, resilience, and health outcomes.
- **Mental health and well-being:** Interventions that promote emotional regulation, stress management, and adaptive coping strategies.
- **Digital behavioral tools:** Apps, platforms, or AI-based systems to support behavior change, health, and sustainable practices.
- **Sustainability and resilience assessment:** Evaluating the social, psychological, and behavioral impact of interventions.

3. Examples of challenges that need to be addressed

Specify here: *Please outline which challenges remain unresolved. You may answer in bullet points.*

- **High vulnerability of ventures to climate and energy shocks:** Startups and student ventures in Cluj-Napoca face risks from extreme weather, energy disruptions, and geopolitical events, affecting resilience and growth.
- **Fragmented innovation and support ecosystems:** Production, services, logistics, and circular business practices are poorly integrated across the city, limiting efficiency, scalability, and knowledge exchange.
- **Mental health challenges:** Student ventures and startups face the need to integrate solutions that support emotional and mental well-being of teams and communities but struggle to test, implement, and scale them.
- **Nutrition-related challenges:** Ventures addressing sustainable food systems, healthy diets, and nutrition innovations face difficulties in piloting, scaling, and integrating solutions into local and regional ecosystems.
- **Resource inefficiency and waste:** Food, materials, and by-products are underutilized due to inefficient collection, processing, and valorization, limiting opportunities for circular business models.
- **Dependence on fragile supply chains:** Local startups often rely on long, global, or just-in-time supply chains, increasing vulnerability to disruptions..
- **Limited coordination and data:** Lack of shared platforms, digital tools, and governance coordination across Cluj-Napoca hinders collaboration, scaling, and crisis preparedness.