D3.2. Test and Protocol Design of 20+ Test Cases

Prototyping the implementation of the scheme, according to the methodology, the actors involved, the defined objectives and the expected results.

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PU = Public
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Executive Summary

This deliverable, *D3.2. Test and Protocol Design of 20+ Test Cases*, presents the methodological framework, prototyping approach, and implementation strategy for the 20 seeds developed within the *Interaction Seeds* project. By fostering 20 impactful interactions across Europe, the project establishes a transdisciplinary network uniting stakeholders from industry, technology, science, arts, and society. It facilitates knowledge valorisation through art-based practices that effectively communicate research and co-create solutions with citizens.

These seeds represent innovative interdisciplinary experiments that foster cross-sectoral collaboration between Cultural and Creative Industries (CCIs), traditional industries, academia, public authorities, and citizens. Each seed has been carefully designed and structured using a customized Business Model Canvas (BMC) tool, ensuring strategic alignment with societal challenges, stakeholder engagement, and impact-driven outcomes.

The InteractionSeeds Model Canavs developed in this deliverable provides a structured approach to each seed, integrating key components such as:

- Societal Challenge: Addressing critical societal issues, including sustainability, digital transformation, inclusivity, and well-being.
- Needs & Value Proposition: Identifying the tangible and intangible needs of target beneficiaries and defining how each seed generates value through artistic, technological, and social innovations.
- Artistic Approach: Embedding Art-Design Thinking as a core methodology rather than a mere implementation tool, fostering creativity, cross-fertilization, and meaningful stakeholder interaction.
- Technology & Innovation Level: Leveraging emerging technologies (e.g., immersive experiences, AI, AR/VR, NFTs) to enhance engagement and maximize impact.
- Stakeholder Engagement & Impact: Ensuring the participation of all actors in the Quintuple Helix Model (CCIs, industry, academia, public institutions, and civil society) to create sustainable, replicable, and scalable solutions.

The 20 seeds developed within this framework focus on key thematic areas such as:

- Sustainability & Circular Economy (e.g., *Building Sufficiency*, *Learning from Biodiversity*)
- Digital & Technological Innovation (e.g., *Immersive Lab about SDG*, *Escape Room*, *Genrikartez*)

- Cultural & Social Inclusion (e.g., *Welcome to Our Elderly Future*, *Urdaibai and PARCC Biodiversity*)
- Art-Industry Collaboration (e.g*., Climate Swipe App*, *O-KIDIA Serious Games*, *Tango Scan Monetization for Podcasts*)

Each seed follows a test-and-learn methodology, integrating Living Lab principles, stakeholder co-creation, and iterative prototyping to refine the proposed solutions. The deliverable also provides recommendations to maximize impact, emphasizing scalability, stakeholder involvement, cross-sectoral synergies, and long-term sustainability.

By adopting this structured and strategic approach, the *Interaction Seeds* project sets a precedent for collaborative innovation, demonstrating how CCIs can act as catalysts for societal transformation and bridge gaps between technology, sustainability, and cultural engagement

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Acronym	Description
SMEs	Small and Medium Companies
CCIs	Cultural and Creative Industries
BMC	Business Model Canvas
ArtSS	Art-Science-Society
SDGs	Sustainable Development Goals

1 Introduction

The deliverable *Test and Protocol Design: Prototyping the Implementation of the Scheme* is a pivotal step in the InteractionSeeds project, setting the stage for testing and validating innovative approaches to connect research, arts, and society. By designing and implementing protocols for over 20 Art-Science-Society interactions, this document outlines how knowledge valorisation can be achieved through art-based methodologies, ensuring that scientific insights become more accessible, impactful, and relevant to citizens.

The implementation is organised into distinct phases to ensure a structured and efficient process. During the first phase, from months 4 to 6 (M4-M6), the project confirms the initial matching between research and innovation (R&I) stakeholders and the first set of ten identified Seeds[1], defined as replicable artistic methods or interactions bridging science and society through art. These Seeds represent promising opportunities for collaboration to address a challenge within the domains that the project focuses on, specifically in Health, Climate Action and Environment, Trust in the Digital Age, and Democratic Change. If a match appears not feasible, new R&I stakeholders or cases are identified and reassigned to other art-based approach assessed under WP1.

The second phase, spanning months 7 to 10 (M7-M10), focuses on identifying and matching at least ten additional seeds, broadening the scope and diversity of interactions. Meanwhile, cultural and local specific features are integrated into all seeds from months 3 to 13 (M3-M13), ensuring that each interaction reflects the specific context and needs of its community. Finally, the detailed design and definition of the protocols occur in two stages: months 2 to 6 (M2-M6) for the initial tests and months 10 to 14 (M10-M14) for subsequent iterations.

To guide these activities, InteractionSeeds employs embedded Art-Design Thinking methodologies (already explained in in D2.1 and D3.1), tailored to the nature of each interaction. These methodologies adapt depending on whether the chosen interaction is:
- event-driven (centered around activities or performances)
- asset-driven (focused on tangible resources or installations), or
- tool-driven (emphasising instruments or frameworks).
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[1] InteractionSeeds defines a **seed** as a documented replicable artistic method or interactions bridging science and society through art.

The process is underpinned by three key principles:

- Cross-fertilization processes, which bring together diverse stakeholders—scientists, artists, industries, and citizens—to collaboratively address specific challenges and co-create solutions.
- Living Lab methodology, an innovative framework that places users at the heart of co-creation activities, allowing for real-world testing in authentic contexts. Living Labs prioritize open collaboration and innovation, drawing from the collective expertise of all participants, including end-users.
- Learning in action, which bridges the gap between theoretical knowledge and its practical application, equipping participants with the tools and mindset to innovate in real-world settings.

The Living Lab approach is particularly significant as it aligns with contemporary trends in innovation, such as the shift from passive consumers to active co-creators (prosumers), the demand for faster time-to-market, and the increasing globalization of markets driven by technology. By situating activities in real-world contexts—rather than isolated laboratory settings—Living Labs ensure that the solutions developed are practical, inclusive, and ready for immediate impact. These labs also address key areas of societal importance, including culture and creativity, smart cities, social inclusion, education, and energy.

2 Exploring the Living Lab Business Model: Initial insights from InteractionSeeds

The InteractionSeeds Model Canvas developed within WP3 serves as a foundational framework for structuring and sustaining Art-Science-Society Interactions as dynamic, multi-stakeholder innovation ecosystems. Innovation ecosystems such as Living Labs thrive on partnerships, collaboration, and the active participation of diverse stakeholders. By aligning these principles with strategic planning tools like the Business Model Canvas or Mission Model Canvas, this deliverable ensures that InteractionSeeds cases are equipped to adapt to varying contexts, maximize their impact, and maintain operational sustainability.

2.1. Partnership model: from where interactions start

Partnerships are at the heart of Innovation Environments and Living Labs as they provide the collaborative infrastructure necessary for innovation. Establishing partnerships across a wide spectrum of sectors enhances resource availability, diversifies expertise, and ensures long-term viability. Innovation Environments such as Living Labs typically adopt one or a combination of these partnership models:

- **Citizen-driven partnership model:** Collaborations with municipal organizations focus on societal benefits, often engaging directly with communities to address local challenges.

- **Local authority-driven partnership model:** Partnerships with municipal or city authorities ensure alignment with regional development strategies and regulatory requirements.

- **Industry-driven partnership model:** Engagements with private sector actors, such as device manufacturers or digital service providers, foster innovation aligned with market needs.

- **Intermediary (widespread) partnership model:** This comprehensive approach seeks to involve as many partner types as possible, combining the strengths of citizen, industry, and state-level partnerships.

- **State-level cluster partnership model:** Partnerships with national-level clusters or networks allow for the integration of broader resources and policy-driven incentives.

2.2. Stakeholders' roles in Innovation Environments

As stressed in *Deliverable D2.2 Stakeholders mapping and engagement*, Innovation Environments depend on an ecosystem of diverse stakeholders, corresponding to the quintuple helix model, including users, industry experts, researchers, and public authorities. Key partnerships typically form between public entities, CCI professionals, universities or research institutions, and private companies, such as SMEs or R&I developers, and engage with the civil society for a more human-centred approach.

- **Public entities:** These include municipal authorities and state-owned enterprises, which create regulatory frameworks and incentivise pilot projects. They indeed provide real-world context by contributing their knowledge and experiences of a problem in a particular area. Their involvement ensures the integration of policy-driven goals with practical innovation and fosters links between Arts-Industry-Citizens. Local authorities are particularly interested in the trust in the digital and AI, in understanding and adapting to climate change,

in the sustainability of consumption of goods, in fostering inclusion, and in upskilling the workforce.

- **Cultural and creative sector:** CCI professionals and artists' mission is to inspire and experiment. With their unique set of skills, competencies and talents, arts and cultural institutions take up the role of intermediation facilitating the connection between various stakeholder groups. They provide innovation environments with societal and cultural interaction schemes, that have proven their value and that have a potential for replicability beyond their geographic range.

- **Academic and Research Institutions:** These provide the foundational knowledge and methodological rigor necessary for co-creation and testing. They provide methodological support for the living lab processes and test innovation before implementation between Industry, Society and Culture and Creativity. They provide evidence-based considerations in the decision-making process and adjust the customisation of testing strategies according to regulatory requirements, objectives, and resources of the living lab.

- **Private companies:** SMEs and tech developers bring agility and market-oriented solutions, which are essential for scaling innovations. They provide a communication platform between users and project initiators. They may request funding from the project to develop technology as solutions to be tested in the living lab.

- **Societal actors:** Citizens play a crucial role in identifying societal needs, testing solutions, providing feedback for evaluation and ensuring that innovations align with real-world challenges. Civil society organizations act as intermediaries, fostering participatory processes and amplifying community voices in decision-making. They contribute to contextual understanding of living lab by expressing their values, goals and needs regarding a particular situation.

2.3. Strategic business model approaches - Why use Business Model Canvas?

Proposing tools to facilitate the collaboration between stakeholders from the quadruple helix is essential. This need was especially highlighted during the conference "Shaping Europe's future: Knowledge Valorisation of Social Sciences, Humanities, and Arts for societal impact and human-centred innovation" (Brussels, November 2024), where SSHA organisations mentioned the lack of tools dedicated to facilitate knowledge valorisation.

The Business Model Canvas (BMC) provides a structured yet flexible, scalable and replicable framework to design and evaluate the operational and strategic components of Innovation Environments. It allows for the classification and integration of key service offerings, fostering collaboration, and ensuring that all stakeholders' contributions and needs are systematically addressed.

3 Adapting the Model Canvas to Mission-Oriented Services and Stakeholder Engagement

When an organisation or partnership prioritises mission fulfilment over revenue as its primary success metric, the BMC can be adapted to better align with its objectives. Building on the BMC as a foundation for Living Labs and incorporating elements from the Mission Model Canvas, a tailored framework has been developed for *InteractionSeeds*.

This adapted canvas focuses on securing stakeholder buy-in, defining key priorities, and establishing operational strategies for each case while addressing specific challenges. It ensures that *InteractionSeeds cases* remain flexible and effective across domains such as health, culture, climate change adaptation, the digital age, and education.

This adaptation is essential to allow different types of stakeholders to understand the Model Canvas. To justify this adaptation, we can take the case of the Knowledge Transfer Facilitator at HUD Fund, University of Slovenia, who shared a non-modified BMC to the local SSHA researchers to facilitate knowledge valorisation. However, this Model Canva was not understood and therefore not used. The modification brought by GAIA allow to enlarge the spectrum of the traditional BMC, making it relevant in more mission-oriented projects, and therefore making it relevant for SSHA and CCIs in particular.

Serving as a key enabler of the *InteractionSeeds* project's mission to connect research, the arts, and society, this canvas is explored in detail in the next sections.

3.1 First Model Canvas developed

The Model Canvas applied to *InteractionSeeds* is a strategic tool that visualizes key components required to foster cross-fertilisation between artistic-cultural perspectives and other agents of the quadruple helix (industry, academia, government, and citizens). The focus of this methodology is to create innovative, sustainable, and community-

driven solutions that address societal challenges through collaboration. Below, the essential segments of the canvas are explored in detail, providing a structured approach for each test case.

Key partners	Key Resources	Value propositions	Relationship with stakeholders	Beneficiaries
· Industry (SMEs, industrial technologies providers, researchers etc.: in majority members of the clusters partners: Build:Inn). · Cultural and creative professionals and institutions: artists, designers (Petit Muller Studio), Regional Cultural agencies (Open Gela, aimed at urban regeneration). · Citizens (250+, participating in each of the 20+ test cases, with a special focus on students/youngsters and women).	· Research and Development: Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of predictive models. · Collaborations with Living Labs: Collaboration with living labs comes at a cost but is essential for real-world testing and feedback, contributing to the robustness of solutions.	· The innovative processes of the industry will be supported through creativity, co-creation, and new formats of all the stakeholders. · Promotion of digital and green transition through all the process, especially sustainability through the reuse of industrial materials in Fashion. · Strengthen and further develop existing or new schemes promoting arts-industrial technologies -citizens interactions that increase uptake of new technologies and innovative solutions through better societal understanding and acceptance.	A double focus will be put on (i) communicating towards SMEs representative organisations that are vector of the project replicability and will be targeted as the repository main users, (ii) horizontal communication towards relevant European and national institutions and related initiatives.	· Industry representatives (SME workers and managers, R&I stakeholders, sustainability experts, industrial technology providers, designers, manufacturers, entrepreneurs and members of the clusters partners) · Culture and creativity sector representatives (artists, designers, marketers and entrepreneurs) · Societal actors: citizens, groups of people (communities), organizations, or institutions with representativeness in a certain territory or society. · Researchers (universities/ companies/ research centres). · Public sector authorities (city councils, CCIs public organisms and programs focused on CCIs (Cultural and Creative Industries), society and SME and R&I development.
Key Activities · Dynamics that promote and facilitate the innovation in the design and manufacturing process of products of Fashion industry. · Raising awareness of the high environmental impact of the fashion industry and the need to reuse materials and opt for sustainable models.	**Mission** · Generate a social impact through the presentation of success stories in sustainable fashion. · Strengthening fashion innovation through circularity and CO2 reduction. · To enable the local fashion industry to make the ecological transition demanded by the international context and thus increase its competitiveness.		**Channels** · Technological platforms: Web platforms facilitate data collection and analysis, ensuring efficient and secure management. · Living Labs: Collaborating with Living Labs enables testing in authentic environments, validating the feasibility and relevance of solutions. · Alliances in the area of Culture, Creativity, R&D and Industry (SMEs): Integrating into the value chain of the aforementioned sectors ensures the effective implementation of seeds.	

Impact (social, economic and environmental)
- Research and Development: Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of predictive models.
- Collaborations with Living Labs: Collaboration with living labs comes at a cost but is essential for real-world testing and feedback, contributing to the robustness of solutions.
- Sustainable solutions in construction industry.

Figure 1 First Business Model Canvas model proposed in InteractionSeeds.

Key partners

The success of each seed depends on strategic partnerships with stakeholders who provide resources, expertise, and access to markets. Partnerships focus on fostering creativity, addressing societal challenges, and supporting sustainability. Key partners include:

- Municipal and regional authorities to ensure alignment with societal goals.
- Industry representatives, including SMEs, R&I developers, and cluster partners, who bring technological and market expertise.
- Cultural and creative sector actors such as artists, designers, and marketers, offering innovative perspectives.
- Academic and research institutions contributing evidence-based methodologies.
- NGOs, societal organizations, and local communities providing real-world insights and needs.

Key activities

To deliver their value propositions, seeds must engage in targeted activities, including:

- Producing exhibitions, performances, or cultural events.
- Facilitating community workshops and co-creation sessions.

- Testing and validating solutions through real-world engagement.
- Developing content that bridges art, industry, and societal concerns.

Mission

The mission of each seed aligns with the overarching goals of *InteractionSeeds*. Examples include:

- Driving societal change by merging art with industry.
- Promoting the preservation and innovation of cultural heritage.
- Enabling cross-sector dialogue to tackle sustainability and inclusivity.

Value propositions

Seeds offer unique contributions, such as:

- Facilitating hybridization activities that combine artistic creativity and industrial processes.
- Supporting sustainable cultural practices that are replicable across regions.
- Creating immersive experiences that strengthen community ties and appreciation for CCIs.

Relationship with stakeholders

Strong and dynamic stakeholder relationships are key to success. Interaction types include:

- **Community-driven approaches:** Encouraging grassroots participation and co-creation.
- **Personalized interactions:** Direct engagement through workshops, interviews, and focus groups.
- **Digital platforms:** Expanding reach and accessibility through online channels.

Key resources

Essential resources for each seed include:

- Artistic talent and creative professionals.
- Access to venues, cultural artifacts, and digital tools.
- Funding and technical expertise for experimentation and testing.

Channels

Seeds engage beneficiaries through:

- Physical spaces like galleries, workshops, and live events.
- Digital platforms for streaming, social media engagement, and online exhibitions.
- Collaborative partnerships with cultural institutions and industry stakeholders.

Beneficiaries

Target beneficiaries include:

- Citizens and communities directly participating in or benefiting from activities.
- SMEs, cultural professionals, and industry actors seeking innovative practices.

- Educational institutions and societal organizations engaged in the co-creation process.
  Each test case aims to involve an average of 13 citizens to maximize community impact.

Impact (social, environmental, cultural)

- **Social impact:**
- Engagement: Active citizen participation in co-creation and innovation.
- Inclusion: Involving marginalized and underserved communities.
- Awareness: Raising awareness about societal challenges (e.g., climate change, sustainability).
- Empowerment: Encouraging citizens to take responsibility and actively contribute to societal issues.

Cultural impact:

- Preservation: Safeguarding and revitalizing cultural heritage through innovation.
- Artistic innovation: Fostering creative experimentation and new cultural products.
- Public engagement: Organising cultural events that involve local communities in artistic expression.
- Cross-cultural collaboration: Encouraging the sharing of cultural practices and knowledge across regions.

Economic impact:

- Support for SMEs: Assisting small and medium enterprises in market development and product testing.
- Job creation: Promoting skill-building and new employment opportunities in various sectors.
- Art-based innovation: Generating new market opportunities by integrating art into industrial processes.
- Entrepreneurship: Supporting start-ups and entrepreneurs with business development and funding opportunities.

3.2 Evolution of the Model Canvas during the InteractionSeeds project

The **Business Model Canvas Tool** provides a structured approach to designing, testing, and refining each **interaction (seed)** by integrating artistic, technological, and societal dimensions. However, translating this framework into real-world actions requires facilitation and coordination. This is where the **ArtSS Facilitator** becomes essential.

An Art-Science-Society Facilitator (ArtSS facilitator) is essential in these cross-fertilisation efforts, guiding these interactions to maintain a productive exchange of ideas and alignment towards common goals (please refer to *D3.1 Cultural and local connections' criteria*).

Figure 2 Adapted Business Model Canvas designed and implemented by Interaction Seeds

The adapted canvas serves as a tool to identify and integrate contributions from each partner more effectively and anticipate the impact of Art-Science-Society interactions proposed. It also helps determine which additional stakeholders need to be engaged for stronger buy-in and support. Beyond that, it acts as both a logistical and internal structuring tool, ensuring that key messages are clearly framed during meetings and stakeholder engagement sessions.

The **Art-Science-Society Facilitator (ArtSS Facilitator)** plays a critical role in implementing and operationalizing the **Business Model Canvas Tool** within the **Interaction Seeds** project. The following explanations show the importance of the ArtSS Facilitator in the BMC tool designed by Interaction Seeds.

Societal Challenge

Each seed addresses specific societal challenges, such as:

- Bridging gaps between traditional industries and Cultural & Creative Industries (CCIs).
- Promoting sustainable consumption and ecological transitions.
- Enhancing societal cohesion through shared artistic experiences. By focusing on these issues, seeds help align industry, culture, and society in addressing urgent problems.

ArtSS Facilitator as a Bridge

- The **ArtSS Facilitator** ensures that each seed directly addresses societal challenges, such as bridging gaps between traditional industries and **Cultural & Creative Industries (CCIs)**, fostering sustainable consumption, and promoting societal cohesion.
- By engaging key stakeholders through **co-creation sessions and workshops**, the facilitator ensures that the social challenge remains central to the seed's development and implementation.

Needs

Seeds are designed to respond to both tangible and intangible needs, such as:

- Incorporating artistic and cultural perspectives into industrial processes.
- Offering communities avenues for active cultural participation.
- Providing industry actors with innovative tools and practices to engage society.

ArtSS Facilitator as an Enabler

- The **ArtSS Facilitator** identifies and aligns the tangible and intangible needs of industries, communities, and creative professionals.
- Through participatory methods, such as **prototyping activities**, they translate these needs into concrete actions, ensuring that artistic and cultural perspectives are integrated into industrial and technological processes.

Artistic Approach

A holistic cultural-artistic methodology is embedded in every seed, ensuring that:

- Art and culture are central to the problem-solving process.
- Stakeholders co-create solutions through collaborative artistic practices.
- Outputs reflect the diversity and richness of local and cultural contexts.

ArtSS Facilitator as a Curator of Co-Creation

- The facilitator **curates and guides artistic methodologies** to ensure that art and culture are not merely add-ons but **core drivers of innovation** within the seeds.
- They **moderate interdisciplinary collaborations**, ensuring that **designers, manufacturers, cultural managers, and technologists** work together effectively.
- This approach helps tailor outputs to **local cultural and societal contexts**, reinforcing **place-based innovation**

Technology-Innovation Level

Seeds incorporate diverse levels of innovation, including:

- **Social innovation:** Fostering inclusivity and active citizen engagement.
- **Environmental innovation:** Encouraging sustainable practices and reducing emissions.
- **Cultural innovation:** Bridging traditional and contemporary artistic expressions.

ArtSS Facilitator as a Connector

- Innovation in the seeds takes different forms (**social, environmental, and cultural**). The **ArtSS Facilitator** acts as a connector, ensuring that technological innovations align with social and cultural goals.
- They organize **multi-stakeholder discussions**, helping tech experts, policymakers, and creatives work toward **inclusive and sustainable solutions**.

Impact (social, environmental, cultural)

Quantitative Impact:

- Reduction in environmental footprints, such as emissions or waste.
- Number of individuals engaged, trained, or educated.
- Uptake of sustainable practices by industries and communities.

Qualitative Impact:

- Improved perceptions of traditional industries through artistic intervention.
- Strengthened community bonds and increased cultural participation.
- Preservation and revitalization of cultural traditions for future generations.

ArtSS Facilitator as a Catalyst

- The **ArtSS Facilitator** plays a crucial role in defining **impact measurement strategies**, ensuring that both **quantitative** (e.g., emissions reduction, participation metrics) and **qualitative** (e.g., strengthened community bonds, enhanced perception of industries) impacts are captured.
- By facilitating **feedback loops**, they ensure continuous learning and adaptation, making sure the seeds evolve based on stakeholder experiences and needs.

While the **InteractionSeeds Model Canvas Tool** defines the **strategic framework** for each seed, the **ArtSS Facilitator** ensures that this framework is **effectively applied** in real-world settings. Their role is to **translate theoretical models into actionable, co-created solutions**, ensuring meaningful engagement, innovative experimentation, and long-term impact.

4 InteractionSeeds Model Canvases of the first batch of seeds

4.1. General overview

From the literature review done as part of WP1 activities and from the first discussions among the consortium and with local stakeholders, we have identified that numerous events function as seeds; however, rather than viewing an event as an isolated initiative, it should be considered as part of a broader **medium-to-long-term strategy** that aligns with the **value proposition of the InteractionSeeds Model Canvas**. Ensuring continuity through complementary activities strengthens impact and fosters sustainable engagement. Additionally, the integration of **traditional industries and Cultural & Creative Industries (CCIs)** should be understood as a **reciprocal process** that drives **cross-fertilization** rather than a one-directional exchange.

Among interactions that will be implemented during the project under WP4, participation of SMEs is limited, highlighting the need for dedicated raising-awareness campaigns and engagement strategies.

Furthermore, one should note that the **artistic perspective** should not be reduced to a **mere tool** for interactions implementation but should function as a **core methodology**, underpinned by **Art-Design Thinking** and facilitated by an Innovation Environment **approach**. The role of an **Art-Science-Society facilitator** becomes essential in bridging **traditional industries and CCIs**, ensuring meaningful interaction and co-creation.

In the next sections, canvas developed by each partner to implement Art-Science-Society interactions in their local ecosystem are presented.

4.2. CluBE's InteractionSeeds MCs

4.2.1. Climate Swipe App: Empowering Citizens, Inspiring Actions

Key partners	Societal challenge	Technology Infrastructure:	Relationship with stakeholders	Beneficiaries
1. University of Western Macedonia 2. Region of Western Macedonia 3. Municipality of Kozani 4. CluBE's members from the quantiple helix 5. Kozani's Chamber of commerce	Currently, dialogue between local authorities and citizens has a lot of burdens. This app encourages dialogue and gives the floor to citizens to express themselves, their ideas and concerns.	1. Development of the Climate Swipe app in Greek. 2. Server infrastructure for hosting the app and managing user data securely. 3. Technical support for app maintenance and updates. 4. Compliance with data protection regulations (e.g., GDPR). 5. Training sessions for municipal staff on how to effectively use the Climate Swipe tool. 6. Capacity building workshops for moderators and administrators on managing online discussions and fostering constructive dialogue. 7. Engagement strategies to encourage widespread adoption and participation among diverse demographic groups. 8. Collaboration with local community organizations and influencers to amplify outreach efforts.	The interaction will encourage dialogue between citizens of all ages, research community, industry and local authorities.	- Citizens - Municipality of Kozani -NGO's associated with Kozani's neutrality goals -Local authorities -Local stakeholders(examples)
	Needs Implementation of already existing practices in order to achieve the climate neutrality moving a step forward to the same goal, a better future for the city of Kozani.	**Artistic approach** Local artists taking photos relevant to energy, mobility waste and nature in order to improve the artistic approach of the ap	**Value propositions** 1. Educate citizens to be more critical and active about the climate change and climate neutrality. 2. Implement strategies to encourage the adoption of climate – friendly practices. 3. A platform for citizens to actively engage with municipal authorities on climate actions, fostering a sense of empowerment and ownership in local sustainability initiatives. 4. Enabling direct communication	

			between citizens and municipal officials 5. Through feedback and discussions on the Climate Swipe platform, municipalities gain valuable insights into citizens' concerns, preferences, and ideas for addressing local climate challenges, allowing for the development of targeted and context-specific climate solutions. 6. The platform raises awareness about climate issues and encourages behavioral changes towards sustainable lifestyles.
Key Activities -**Translate the app and adapt it to Kozani's needs and characteristics** -**Transform the challenges into realistic ones in the case of Kozani** -**Promote the app** -**Workshop where the app is being introduced**	**Mission** - Link youngsters and citizens with the bioeconomy and climate neutrality. - Build bridges between citizens (youth, children), educational and local authorities. -Broaden the audience who are familiarized with climate neutrality and bioeconomy. -Give realistic challenges to actually local everyday life routines into a bio-friendly and climate neutral way	**Technology-innovation level** Low since it was affected by an already existed app. Also the questions are based on local research for the local needs of Kozani.	**Channels** Inform local authorities, stakeholders & interested parties. Internal communication channels: team platforms, shared cloud storage systems, transfer nodes, seed repository. External communication channels: social media, newsletters, press releases, magazines, local newspapers, etc. -Technological platforms: Web platforms facilitate data collection and analysis, ensuring efficient and secure management. -Alliances in the area of Culture, Creativity, R&D and Industry (SMEs)
Impact (social, economic and environmental) • **Increased Citizen Awareness and Engagement.** • **Improved Policy Design and Implementation.** • **Measurable Reduction in Carbon Footprint.**			

Table 1 Climate Swipe Model Canvas (CluBE).

5.2.2. Raising awareness on Artificial Intelligence in a rural area

Key partners	Key resources	Value propositions	Relationship with stakeholders	Beneficiaries
-University of Western Macedonia -3rd High School Kozani -Vroom (Technological SME) -GoAlive (local Youth Club) -OENEF (Local Youth Club) -Open Care Center for the elderly (Kozani) -Magazine Parembasi (Creative actor) -Artistic School -Kozain -Foklore and Natural History Museum of Kozani -Municipality of Kozani -Region of Western Macedonia	-Equipped place ready to host events -Technical Staff ready to help participants and support the utilisation of equipment (main role to facilitate AI use) -European Union's policies (for good practices i.e. STEAM policy) (emphasis on policies related to cultural heritage)	1. Familiarisation of youngsters, employees, children, elderly with the new digital era and the AI tools 2. Raising awareness to use AI systems in a more secure way 3. Educate citizens to be more critical when it comes to compare the information provided (Fake News, AI developed pictures, plagiarism) 4. Use of AI and digital tools in the everyday life (automatisation systems) 5. AI's role in arts, culture and heritage making the cultural heritage and arts easy to come close to, through digital application 6. Use of AI in the cultural and creative sector 7. Connect AI, arts and Kozani's heritage along with Kozani's long term mining activities 8. Inform AI about Kozani's cultural heritage 9. Strongly communicate the workshops to better inform and promote the use of AI in Kozani, and Kozani's cultural heritage	The interaction will create a relation between researchers and students (and perhaps other actors, such as artists, start-ups/CSOs)to facilitate the understanding of this complex issue	- citizens - youth - Schoolchildren - employees - industry - local authorities - local stakeholders - elderly
Key activities 3 different workshops -Schoolchildren Museum visit drawing and taking pictures of the monuments that they like, going back to the House of AI, where AI familiarization activities will take place – discussion about Kozani's cultural heritage. -Employees Cover technical gaps regarding AI tools, misinformation, plagiarism and AI in creativity -Elderly	**Mission** -Broaden the audience who are familiarised with AI systems. -Link AI tools with art & cultural heritage of Kozani -Build bridges between citizens (youth, employees, children and the elderly), industries, educational and art institutions. -Cover knowledge gaps regarding AI use and digital tools safe usage -Promotion of Kozani's cultural heritage		**Channels** -Inform local authorities, stakeholders & interested parties. *Internal communication channels: team platforms, shared cloud storage systems, transfer nodes, seed repository. *External communication channels: social media, newsletters, press releases, magazines, local newspapers, etc. -Technological platforms: Web platforms facilitate data collection and analysis,	

Discuss with AI and transfer knowledge to AI chatbots about Kozani's history and cultural heritage. Conduct interviews between the elderly and the schoolchildren to discuss upon views and experience.	-Use of AI tools in the creative sector connect with Kozani's decarbonization phase		ensuring efficient and secure management. -Alliances in the area of Culture, Creativity, R&D and Industry (SMEs)	

Impact (social, economic and environmental sustainability)
-Exploitation of the workshops: with the results obtained in each workshop, a portfolio of marketable products/services will be created to promote the Arts-Industry-Society-Digital era relationship.   -Consulting: Offering consulting services to organisations for the improvement of team well-being and organisational processes. Involves offering expertise in the implementation of customised interventions.   -Sustainable practices that support the respectful use of AI, the consideration of fairly paid creative jobs and the implementation of green practices in the event.

Table 2 Raising awareness on Artificial Intelligence in a rural area Model Canvas (CluBE).

Replicability potential and recommendations for long-term impact

Engaging **innovative SMEs** that specialize in **AI and cultural heritage** could provide valuable insights and technological solutions, fostering a stronger connection between **technology and cultural preservation**. The artistic dimension plays a crucial role in defining the **mission of the seed**, particularly in relation to **cultural heritage**. Additionally, linking the initiative to **cultural heritage and sustainability** opens opportunities for synergies with **sustainable tourism** and the development of **marketable products and services** that promote local culture.

5.3. RISE's InteractionSeeds MCs

5.3.1. Digital Clean-up Day

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-**Industry** (SMEs, researchers and R&D in an innovation cluster buildings in Stockholm and Gothenburg). -**Public sector** (municipalities) Cultural and creative professionals and institutions: designers and artists. -**Citizens** (250+, participating in each of the 20+ test cases, with a special focus on students/youngsters and women).	The societal challenge addressed is raising awareness of digital footprint and the energy and climate impact of unused digital resources for digitally-focused organizations. **Needs** Audiences and beneficiaries require awareness of their digital footprint and its environmental impact using creative methods to	-**Improve planetary and human health** in a context marked by the excessive use of technology. -**Support the digital cleanup process** through artistic interventions, fostering creativity and co-creation among all stakeholders to enhance mental health and digital well-being. -**Raise awareness and sensitise** society, industry, public administration and educational institutions to the benefits of reducing the use of technology. -**Linking artistic approaches** to increase business productivity	Physical meeting where the participants could get an introduction to the Digital Cleanup and interact face-to-face. Lasting impression of digital trash and it impact on energy. Through the artistic experience provided people. Will understand the relation between files, mails and energy savings. If the artistic method is fun, humoristic and interesting it is a bigger chance that the idea Will stay with people.	We were appealing specific organisational members that included managers, administrative staff, R&I stakeholders, IT support people) -Planet -Electricity savings -Battery life -Wellbeing and less fragmentation -Reduce of mental & digital hoarding and collecting. -Academia -R&I Stakeholders -Companies

				-Public sector
	enhance mental health in the workplace, and sustainable practices for technology use.	and improve organisational culture.		-Cultural sector Potential to have inclusion of students and women, depending on attendance.
Key activities -The activity is based on a customized version of the digital cleanup day instructions but turned into an in-person experience. This turns the digital cleanup day into an experiential activity, rather than the task-oriented original version. -Raising awareness of the environmental impact of digital waste and encouraging sustainable practices through creative, in-person experiences, video works, and prepared informational material.	**Mission** -To raise awareness of digital footprint and the energy and climate impact of unused digital resources for digitally focused organizations. -To foster a more mindful approach to digital work environments and promoting societal change across sectors through artistic interventions	**Artistic approach** We created an artistic video that was meant to inspire and accompany the participants during the event: https://vimeo.com/1020985103 **Technology-innovation level** The innovation is mainly targeted at environmental sustainability: to decrease energy used by our devices.	**Key resources** -Access to venues where participants can gather, -Digital devices, which the participants bring with them to the event **Channels** -Target group can be reached through internal digital communication channels or direct personal contacts in the implementing organisation. -It can also be through project networks if implemented in a more distributed organisation. -The online version can also be disseminated through personal contacts and networks. -Extrernal communication channels: social media, newsletters, press releases, magazines, local newspapers, etc. -Participants can then organize their own follow up events and the method can "go viral".	

Impact (social, economic and environmental sustainability)

We expect the DC to have a positive impact on:

-Sustainable practices that support the respectful use of technology, the consideration of mental-health and the wellbeing of the planet, and the implementation of green practices in the event.

-Digital cleanup leads to reduced energy use, meaning economic benefits for stekeholders running the activity.

-Social impact on mental health and improved digital work environment.

-At least 46 GB deleted in total according to those participants that filled in the survey at the end of the event.

Table 3 Digital Clean-up Day Model Canvas (RISE)

Replicability potential and recommendations for long-term impact

The Digital Clean-up Day presents a strong replicability potential, which should be emphasized in the value proposition to highlight its scalability and long-term impact. Expanding its reach could reinforce its relevance across different sectors and communities. A key area for improvement is the involvement of industry and SMEs, which are currently underrepresented. Engaging these stakeholders would strengthen the initiative by fostering cross-sector collaboration and ensuring practical applications beyond individual participation. Additionally, stakeholder engagement strategies should be refined to effectively target students and women, ensuring their active participation. This could be achieved through tailored communication strategies, designed to address their specific needs and motivations, thereby fostering inclusivity and broader societal impact.

5.3.2. Collaborative approaches for Societal issues

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-**Cultural and creative professionals and institutions:** Stockholm School of Entrepreurship (SSES), Folketshus -**Citizens: university students** from 6 different universities and institues and from different disciplines, including art students.	Survival of cultural and academic sectors in urban spaces. The challenge is how the creative sector, research and educational stakeholders can co-benefit from the presence of cultural institutions. **Needs** Engage students to collaboratively work with the cultural and academic sectors towards new possiblities.	-We will test co-creation in new formats between academia and culture sector. -Participating stakeholders will develop new methodologies that they can replicate. -Students get in touch with real problems and make their studies concrete. -The solutions will be developed from different perspectives (disciplines, age groups, sectors)	The interaction will create a relation between cultural sector and student to facilitate the understanding of a complex challenge.	-**Culture and creativity sector** representatives: Folkets Hus -**Societal actors**: Stockholm School of entrepreneurship -**Public sector authorities:** Stockholm University -**Academia:** Royal college of Music -Konstfack **University** of Arts, Crafts and Design
Key activities Formulate the challenge for students to address with Folkethus and SSES Collaborate with SSES to design weekend workshop format and practicalities Design and facilitate the workshop	**Mission** -To foster the cooperation between education, entrepreneurship, local CCIs around societal challenges for the cultural sector. -Build a bridge of knowledge transfer between different social	**Artistic approach** The seed will develop a process that uses creative methods for students to work with. The problem owner for the challenge is one faced by and was formed in collaobration with the culture industry partner.	**Key resources** -Workshop designers (RISE designers, designing the process) -Cultural sector participant (Folkets Hus, bringing the challenge, provide their perspective). -Schools and students (SSES and their students). -Depending on the challenge: digital tools and	

actors through student proposals. -Allow art and entrepreneurship students to explore the challenges of the CCS		materials for modelling solutions	
	Technology-innovation level The seed will develop co-creation format. A design innovation is the workshop process and methodology.	**Channels** -Digital Channels: websites of InteractionSeeds and all participants will be used to advertise on the event. -SESS use internal channels to attract student participants.	

Impact (social, economic and environmental sustainability)
-Ideas generated can have impact if taken up by participating CCIs or in further work in academia.
-The format can be replicated elsewhere and have impact for other local stakeholders.

Table 4 Collaborative approaches for societal issues Model Canvas (RISE)

5.4. MATERALIA's InteractionSeeds MCs

5.4.1. The Skills of the Future: Equipping Tomorrow's Workforce for a Circular Economy and Decarbonisation of Hard-to-Abate Industries with Insights from Cultural and Creative Industries

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-**Industrial companies from Industry:** Solvay, ARCELOR Mittal. -**Universities** Université de Lorraine, University of Strasbourg. -**Cities:** City of Metz or Nancy. -**Greenovate! Europe members:** Clusters, SMEs, consulting companies, research centres. -**Creative companies or artists** coming from an incubator called BLIIIDA.	-**Skill development for sustainability:** Addressing the skills gap for the circular economy and decarbonization aligns with broader goals of creating a sustainable and inclusive workforce. -**Decarbonization of hard-to-abate industries:** These sectors are critical to achieving global sustainability targets, requiring systemic changes and new competencies. -**Community engagement:** The involvement of cities and creative incubators reflects a commitment to local empowerment and inclusive innovation. -**Cross-sector collaboration:** Fostering	**R&I stakeholders:** Collaborate with various stakeholders, including companies, students, and policymakers, to identify and define future skills needed for the circular economy and the decarbonization of hard-to-abate industries. **Unique benefits** -**Exchange among participants** from various backgrounds for rich and varied discussions. -**Skill Development:** Identification of key skills that participants will need to develop to be prepared for future challenges. -**Transition pathways in terms of skills** development for decarbonisation and circular economy proposed	The interactions will create connections among stakeholders are not usually in the same place, at the same time. The event should not only open the stakeholders mind to a topic relevant to all of them, but also results into linkages or potential collaboration opportunities	R&I stakeholders SMEs RTOs Universities (Labs,) Students Start-ups, Incubators, Cluster organisations Policy makers

	communication and mutual understanding among diverse stakeholders (industry, academia, CCIs) to bridge the gap between technology and societal needs.	**-Highlight the importance of creativity and cultural influences** in driving innovation. The benefits would come from a working session **-Expected outcome #1:** Identification of Key Future Skills **-Expected outcome #2:** Strategies for Skill Development **-Expected outcome #3:** Cross-fertilisation between CCIs and Traditional Industries	
	Needs -Identification and development of key future skills for sustainability and decarbonization. -Platforms for cross-sector collaboration and knowledge exchange. -Integration of creativity and culture to enrich discussions and inspire innovation. -Spaces, facilitators, and resources for hosting interactive and multidisciplinary events.		
Key activities -Presentation by an Industry expert on: the current industrial landscape and skills -Presentation by an expert from the field of leadership, creativity, or business ethics. -An artist who paints throughout the presentations to provide an artistic overview of the presentations, this same artist would paint a second canvas with the expected outcomes coming from the working sessions. -Working session on expected outcomes -Networking among all the stakeholders who participate to the event	**Mission** "To foster a sustainable future for industry by identifying and cultivating the essential skills for the circular economy and the decarbonisation of hard-to-abate industries, through collaboration with companies, students, and policymakers."	**Artistic approach** **-Integration of Creativity**: The inclusion of an artist to create a visual representation of the presentations and outcomes provides a creative lens to interpret technical and conceptual ideas. This approach emphasizes the intersection of art, industry, and innovation, promoting the role of cultural influences in driving forward-thinking discussions. **-Cross-fertilisation**: By involving creative companies and cultural players (via the incubator BLIIIDA), the activity fosters synergy between traditional industries and the cultural-creative industries (CCIs).	**Key resources** -A venue to host the event with technical staff available -Speakers and facilitators
		Technology-innovation level **-Focus on Future Skills:** The activity leverages innovation to anticipate and define the skills needed for the circular economy and decarbonization efforts. **-Collaborative R&I approach:** Engagement with universities, clusters, and research centers ensures that technological and industrial developments align with skill development and sustainable practices**.**	**Channels** Materalia's communication campaign **Social media channels:** LinkedIn Newsletter Website

		-Use of innovative formats: Including an artistic narrative in a technical discussion exemplifies creative thinking in how stakeholders interact and lean.		
Impact (social, economic and environmental sustainability) Participate in shaping future skills for the circular economy and decarbonisation by collaborating with diverse stakeholders. Gain strategic insights for skill development. Foster cross-industry innovation by integrating creative and cultural competencies into sustainable solutions.				

Table 5 The Skills of the Future: Equipping Tomorrow's Workforce for a Circular Economy and Decarbonisation of Hard-to-Abate Industries with Insights from Cultural and Creative Industries.

Replicability potential and recommendations for long-term impact

Through the implementation of the seeds, an additional service could be developed for Materalia companies, tailored to a topic that resonates with them. Leveraging the cluster's capacities would be instrumental in shaping this service, ensuring it aligns with industry needs and encourages deeper engagement.

Defining the focus topics requires addressing key industry challenges. This involves considering:

- What are the main challenges faced by the company?
- How can they become more sustainable?
- How can CCIs and the construction industry cross-fertilize? One approach could be the creative promotion of recyclable materials, such as polymers, fostering sustainability through artistic interventions.

The Art-Design Thinking perspective can play a crucial role in bridging business and society, facilitating mutual understanding and creating meaningful exchanges. In this context, knowledge valorization emerges as a key element in mediating interactions between different stakeholders.

Furthermore, the same methodology and approach can be effectively replicated in the mediation between students and industry, ensuring continuity in the project's impact and fostering new forms of collaboration.

5.5. DOWEL's InteractionSeeds MC

5.5.1. Seagrass beds and coastal resilience

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
Host of the event: Nice Côte d'Azur - location to be confirmed **Science:** scientists from NaturDive association + other scientists TBD **Citizens:** citizens, with focus on schools (through the existing 'Educational Marine Areas') **CCIs:** for now we rely on the photographers from NaturDive. We'll explore if we can add further artistic content (e.g. with a local art association) – Movie developed by NaturDive.	Seagrass beds play a vital role in supporting coastal resilience and providing ecosystem services throughout the Mediterranean Sea. However, they are severely impacted by human activities, and the public often lacks awareness of how they function and the importance of protecting them—such as leaving Posidonia seagrass blankets undisturbed on the shore during winter.	-Promotion of coastal resilience and biodiversity in the region. -Raising of awareness of the importance of nature-based solutions and in particular seagrass beds among citizens, municipalities and industry - Showing the beauty of seagrass beds.	Physical meeting where the participants could get an introduction to the Digital Cleanup and interact face-to-face. Lasting impression of digital trash and it impact on energy. Through the artistic experience provided people. Will understand the relation between files, mails and energy savings. If the artistic method is fun, humoristic and interesting it is a bigger chance that the idea Will stay with people.	- **School students and citizens** who take part in the event; - **Public authority: Nice Cote d'Azur:** the interaction can be followed-up by a photo exhibition at the 'House of Environment' or in other locations. This event makes the connection to the UN Ocean Conference which will take place in June 2025 in Nice and contributes to all the activities organised by NCA ahead of the conference. - **Researchers (incl. from NaturDive)**: will gain visibility and will be able to share their knowledge with a new public and with more impact. - **Artist:** will include nature at the center of their project, not only the people. Could develop new schemes, using several senses. – Central experience. -**The coastal environment and in particular seagrass** beds and the species they support.
	Needs -Raise awareness. -Increase acceptance. -Convince citizens to engage in their protection (e.g. through beach cleaning, or – for those who have boats – avoid anchoring in seagrass beds).			
Key activities The interaction is for now planned as a 1 day event: -360 immersive video with VR headset – can also be used in other occasions with schools. -Photo exhibition combining scientific content with' photography – could be displayed longer + will be reused for external exhibitions -Presentation by NaturDive. -TBC: live painting with an art association.	**Mission** The interaction aims to show the beauty and fragility of seagrass beds, and their importance for our natural heritage and coastal resilience, by combining art (photos, videos, sculptures) and science. The objective is to increase the acceptance by citizens of seagrass beds as a fantastic nature-based solution, but also involve them in its protection.	**Artistic approach** Combines **art and science** to create an emotional and intellectual connection with the audience. Uses **immersive media (VR, video, photos, sculptures)** to showcase the beauty and fragility of seagrass beds. Turns the educational aspect into an **experiential activity**, promoting awareness and engagement through creativity.	**Key resources** - Hosting site, technological and creative tools (immersive video and VR headsets), distribution channels (alliances with an art association; University; Nice Côte d'Azur and NaturDive). •Scientific knowledge - Communication strategies to attract citizens to the event • Personnel: photographers and content creators, scientists/ biologists, NGO workers, artists, municipalities, etc.	

		Technology-innovation level	Channels	
		-Integrates **immersive video and VR technology** to provide a compelling, interactive experience. -Innovates the "digital cleanup day" by transitioning it from a digital task into a **physical, community-centered activity**. -Leverages **digital channels and social media** for outreach and awareness.	Direct contacts to involve the required partners (meetings/calls) Digital channels: social media, NaturDive website, website of concerned local authorities Paper magazine: to be explored (could be advertised in local newspaper like Nice Matin)	

Impact (social, economic and environmental sustainability)
The interaction wants to raise awareness about the seagrass beds but also be a call for action and build a sense of shared responsibility, so that citizens and tourists want to protect it by e.g. collecting waste on the beach, anchor on sand instead of Posidonia, etc. This will improve the ecosystem services offered by Posidonia: nursery and habitat for fish, CO2 storage, protection of the shores, and will also reinforce the sense of belonging of local communities. By granting the rights to the images and developing an educational kit, Na**turDive** will enable the local authority and museums to offer a mobile exhibition to raise awareness among a greater number of local residents.

Table 6 Seagrass beds and coastal resilience Business Model Canvas (DOWEL)

Replicability potential and recommendations for long-term impact

Fostering SME involvement could enhance cross-sectoral exchange. Efforts should be made to encourage bidirectional collaboration between Arts/Culture and Industry, ensuring that both sectors benefit from shared expertise, creative input, and innovative solutions. Developing targeted engagement strategies will help create meaningful interactions that maximize the impact of these exchanges.

5.5.2. Students' AI literacy through Poetry-Slam Workshops

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-R&I stakeholder: Nice university, Otesia (Observatory of technological, economic and social impacts of AI) and Maison de l'IA (House of AI) **-Cultural and creative professionals and institutions:** CidiSol, which is local slam association **-Citizens:** two school classes (between 11/14 YO). These classes are special for youngsters with strong difficulties.	Youngsters, especially with difficulties, face many challenges: personal ones (expressing what they are going through/ their feelings, low self-esteem) and "social" ones (e.g. discerning the truth when reading things on the internet). Professors on their sides, have difficulties in keeping up with technological upgrades and novelties, and in understanding their students. Finally, artists may face anxiety in the face of how AI may redefine their jobs, and the impact it	-Connect two classes with AI experts in order to facilitate their understanding of it -Facilitate slam trainings to encourage scholars creativity and expression - Provide careful guidance and critical reflection to teachers on AI technologies integration into education -Share the results of this interaction with AI ethics and impact experts	A strong and trusting relation will be built between the slam artist, the professor and the class, to allow free expression and prevent any shame feelings regarding others or in comparison with the AI. Another trusting relationship needs to be built between the AI expert, the professor and the slam artist to ensure that the artist and professor don't feel threatened by the use of AI.	Two school classes OTESIA Slam artist

Key activities	Mission	Artistic approach	Key resources
may have on the creative sector. **Needs** Audiences and beneficiaries require awareness of their digital footprint and its environmental impact using creative methods to enhance mental health in the workplace, and sustainable practices for technology use.			
Key activities -**Visit of the House of AI** on the 10th of December by the two classes to learn more on what is AI, from a technological perspective -**Organisation of five slam trainings per class.** The first training will involve an expert from Otesia to explain the difference between what ChatGPT does, and creativity. Scholars will choose the topic of their slam and create a first version with ChatGPT. The three following sessions will allow them to modify their first slams in adding more personality and their own emotions to represents their authenticity. The final workshop will be common for the two classes and allow scholars to declame (present) their slams.	**Mission** -Support a wider understanding of what is and how to use AI in an ethical way -Provide new tools to youngsters to develop their creativity	**Artistic approach** Ten slam trainings will be organised for this seed (five in each class) to allow students to take a step back on what is proposed by AI and create texts that really resonate with their own selfs. **Technology-innovation level** The development of generative AI generates many questions on its use and the impact it can have on a vulnerable public. This interaction will support future technology developments by bringing a more human-centric point of view.	**Key resources** Visit of the House of AI Slam artist interventions **Channels** • Local news • Scientific conference/ paper (tbc)

Impact (social, economic and environmental sustainability)
The main objective of the interaction is to reinforce the understanding of what generative AI is, and how humans can use it in a creative and active way. It will also improve the students/ professor/ artist self-confidence in understanding their own value and authenticity. The progress made towards these objectives will be measured through different interactions: at the first meeting with the artist and the professor, during the visit of the House of AI and the first training with the students. After the last training and the declamation, students will be asked how they feel about their work, and the distance put with the first version of their slams generated with ChatGPT. The experience will also be shared with researchers in Education, to improve current knowledge and practices in this research field.

Table 7 Students' AI literacy through Poetry-Slam Workshops Model Canvas (DOWEL)

Replicability potential and recommendations for long-term impact

To ensure a comprehensive and inclusive approach, it would be beneficial to engage with industry (particularly SMEs) to foster a richer exchange of knowledge and perspectives.

5.6. GAIA's BMCs

5.6.1. Gernikartez: Smart-Spaces for reduced stress and Well-Being

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-**Industry** (SMEs, industrial technologies providers, researchers etc.: in majority members of the clusters partners). -**Cultural and creative professionals and institutions** (artists, designers, Regional Cultural agencies in Urdaibai and Biscay, Gernika Kultur Etxea, the University of Mondragon). -**Citizens:** older population and young people in particular will be targeted. Special importance will be given to the dynamisation of the citizenship of Gernika and Urdaibai.	-Stress reduction: Addressing the growing need to alleviate stress in society through cultural engagement. -Well-being enhancement: Promoting mental health and overall well-being by fostering access to creative sectors like literature, music, and cinema. -Access to cultural content: Ensuring that cultural activities are accessible through modern digital platforms and innovative formats such as NFTs. -Co-creation with stakeholders: Encouraging collaboration between citizens, creators, and institutions to build content that supports societal well-being. **Needs** **Lack of scientific indicators**: Filling the gap in evidence that demonstrates the mental health benefits of cultural and creative sectors. **Innovative cultural promotion**: Need to use modern technologies (podcasts, digital platforms, NFTs) to make cultural content more engaging and accessible. **Stress management tools**: Need for creative solutions to address increasing societal stress and provide alternative methods for relaxation and well-being.	-The innovative processes of the industry will be supported through creativity, co-creation, and new formats of all the stakeholders. -The combination of limitations imposed by the characteristics of the territory and its use as opportunities for the business fabric of the region. -The particular management model in Living Lab format that makes it possible to turn hidden opportunities into a smart growth model. -Promotion of digital and green transition through all the process. -Strengthen and further develop existing or new schemes promoting arts-industrial technologies -citizens interactions that increase uptake of new technologies and innovative solutions through better societal understanding and acceptance. -Adoption of a more human-centred and creative approaches in Industry. -Innovative tools for monetisation of the podcasts taking the example of Tango Scan.	-**Industry partners:** Collaborate on sustainable technologies and innovation. -**Cultural professionals/institutions:** Co-create cultural events to reduce stress and foster creativity. -**Citizens:** Engage through open innovation and community-driven transformation. -**Local businesses:** Support talent and anchor entrepreneurship locally. -**General public/media:** Raise awareness via podcasts and cultural storytelling.	-**Industry representatives** (SME workers and managers, R&I stakeholders, industrial technology providers, designers, manufacturers, entrepreneurs and members of the clusters partners) -**Culture and creativity** sector representatives (artists, designers, marketers and entrepeneurs) -**Societal actors:** citizens, groups of people (communities), organizations, or institutions with representativeness in a certain territory or society. -**Researchers** (universities/ companies/ research centres). -**Public sector authorities** (city councils, CCIs public organisms and programs focused on CCIs (Cultural and Creative Industries), society and SME and R&I development.

Key activities	Mission	Artistic approach	Key resources	
-Implementation of a testing laboratory for new technologies for sustainability. -Generation of an entrepreneurship and talent management strategy that allows business projects that arise from the territory and to be stablished in the territory Involvement of the population in the transformation process through open innovation dynamics. -Promotion of literature, music and cinema through specific events that support the reduction of stress via culture. -Monetisation of the podcasts taking into account the model of Tango Scan.	**Protect ecosystems state and biodiversity.** Improve ecosystem functioning and **promoting ecosystem services.** **Promote societal wellbeing and health.** **Support the development of a green economy** and sustainable land and water management. **Create new ways of monetisation** through the example of Tango Scan.	**Artistic approach** **Integrating literature, music, and cinema** into innovative formats like podcasts, videos, and NFTs. **Using co-creation dynamics** in Smart Spaces, where stakeholders collaborate to produce cultural content. **Blending art with technology**, distributing content through digital platforms like YouTube, SoundCloud, and Spotify to reach a broader audience. **Highlighting culture as a therapeutic tool**, aiming to prove its impact on stress reduction and well-being through artistic expression.	**Research and Development:** Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of predictive models. **Collaborations with Living Labs:** Collaboration with living labs comes at a cost but is essential for real-world testing and feedback, contributing to the robustness of solutions. **Dynamic data** provided by users enhanced information and simulations with beneficiaries.	
		Technology-innovation level **Podcasts with multimedia integration**: Using platforms like YouTube, SoundCloud, and Spotify to disseminate cultural content (literature, music, and cinema) in an engaging and accessible format. **NFTs (Non-Fungible Tokens)**: Introducing blockchain technology to create and launch NFTs, offering a unique way to monetize and share cultural content. **Smart Spaces for co-creation**: Designing interactive environments for stakeholders to collaborate on content creation, enhanced by technology. **Dynamic data and simulations**: Utilizing user-provided data to enhance content personalization. **Cross-platform digital content**: Creation and distribution of cultural content across various digital platforms to reach a wide audience and integrate with everyday technology.	**Channels** **-Living Labs:** Collaborating with Living Labs enables testing in authentic environments, validating the feasibility and relevance of solutions. **-Alliances in the area of Culture, Creativity, R&D and Industry (SMEs):** Integrating into the value chain of the aforementioned sectors ensures the effective implementation of seeds.. **-Communication platforms:** design and structuring **web co-creation sessions where the podcasts will be monetised**. Photography about the events of Literature, Music and Cinema. Recording (Audio and video) + edition of podcast of Literature, Music and Cinema. Creation of content in different platforms digital as **Youtube, SoundCloud and Spotify.** Launch and NFT's**. Creation of the channel Gernikartez** for podcasts' release.	

Impact (social, economic and environmental sustainability)

-Exploitation of the Living Labs: With the results obtained in each Living Lab, a portfolio of marketable services will be created to promote the Arts-Industry-Society relationship.

-**Consulting:** Offering consulting services to organisations for the improvement of team well-being and organisational processes. Involves offering expertise in the implementation of customised interventions.
-**Socially sustainable practices** that support workplace well-being.

Table 8 Gernikartez Model Canvas (GAIA)

Replicability potential and recommendations for long term impact

To ensure economic sustainability of such project, the monetization strategy should be diversified. While NFTs and podcast monetization offer innovative funding models, additional mechanisms such as membership-based access, crowdfunding, or partnerships with cultural institutions could provide long-term financial viability.

A multi-stakeholder collaboration strategy should be developed to engage SMEs, local businesses, and industry leaders, fostering cross-sector partnerships that drive innovation, well-being, and sustainability. Additionally, involving public authorities and policymakers in discussions on arts-based stress reduction could lead to policy-level adoption of cultural well-being initiatives.

To measure and refine impact, establishing key performance indicators (KPIs), such as audience engagement, stress reduction metrics, and digital reach, will ensure that the initiative is scalable and adaptable. These insights will help refine future strategies and reinforce the role of cultural industries in mental health and societal well-being.

5.6.2. Inclusive and culturally rooted Energy Communities

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-**Industry** (SMEs, industrial technologies providers, energy providers, researchers, Materally, etc.: in majority members of the clusters partners). -**Cultural and creative professionals and institutions:** Lego designers and facilitators, designers focused on reuse, Regional Casa de Cultura-Kulturetxea, San Fidel school, City Council of Gernika and Forua. -**Citizens:** the promoting entity (Ikastola San Fidel) and citizens, businesses and SMEs, located within 500 meters of the facility and who join the association as members.	-**Sustainable energy:** Promoting renewable energy through solar panel installations, reducing CO2 emissions by 885 tons annually. -**Education and creativity:** Engaging students in sustainability through LEGO-based projects turned into NFTs, connecting energy education with creativity. -**Material reuse:** Emphasizing sustainable design and the reuse of construction materials. -**Long-term impact:** A 25-year project with potential replicability in other areas. -**Social innovation:** Linking culture, education, and energy in	-The innovative processes of the industry will be supported through creativity, co-creation, and new formats of all the stakeholders. -The combination of limitations imposed by the characteristics of the territory and its use as opportunities for the business fabric of the region. The particular management model in Living Lab format that makes it possible to turn hidden opportunities into a smart growth model. -Promotion of digital and green transition through all the process. -Strengthen and further develop existing or new schemes promoting arts-industrial technologies -citizens interactions that increase uptake of new technologies and	-**Local Community Engagement:** Collaborating with residents and businesses to create a local energy community that benefits everyone, including 150 homes and shops. -**Educational Institutions:** Partnering with schools like Colegio San Fidel to integrate sustainability education into the curriculum and engage students in hands-on projects. -**Public Sector Collaboration:** Working with public buildings such as the Santanape sports center to ensure the renewable energy supply benefits community infrastructure.	-**Industry representatives** (SME workers and managers, R&I stakeholders, industrial technology and energy providers, designers, manufacturers, entrepreneurs and members of the clusters partners). -**Culture and creativity sector representatives:** artists, designers, marketers and entrepreneurs. -**Societal actors:** 1 educational centre, 150 homes & businesses and app. 770 occupants. Some profiling of the 150 members of the energy community:

a living lab, contributing to the New European Bauhaus initiative.

innovative solutions through better societal understanding and acceptance.
-Adoption of a more human-centred and creative approaches in Industry.

-Cultural and Creative Industries (CCIs): Involving designers and artists to transform students' LEGO structures into NFTs, fostering collaboration between education and the creative sector.
-Government and Regulatory Bodies: Aligning with local and European initiatives, such as the New European Bauhaus, to secure support and recognition for innovative projects.
-Research and Development: like Edinor or the University of the Basque Country.

- 61,25% women
- 38,75% men
- 59-year average

-Researchers: the University of Basque Country.
-Public sector authorities: city council of Gernika and Forua, CCIs public organisms and programs focused on CCIs (BDCC), Regional Casa de Cultura-Kulturetxea, society and SME and R&I development.

Needs
-Renewable energy infrastructure: Need for solar panels to establish local energy communities.
-Sustainability education: Need for engaging programs that combine renewable energy awareness with creative activities.
-CO2 emissions reduction: Urgent need to lower carbon footprints.
-Sustainable construction practices: Need for methodologies that promote material reuse.
-Long-term monitoring: Need for ongoing evaluation of project benefits over 25 years.
-Cultural and social innovation: Need to connect cultural industries, education, and sustainability.
-Scalability: Need for replicable models for implementation in other regions.

Key activities
-Gernika TEK will use the local energy community at the Colegio San Fidel. To do this, the educational center plans to install a total of 200 solar panels on its roof, which will allow renewable energy to be supplied not only to the school, but also to the infrastructure around the school: 150 homes, shops as well as public buildings such as the Santanape sports center. LEGO will be used among students, which will turn into NFTs.
-International Summer Course on Energy Communities:

Mission
-Strengthening the relationship between culture, society and energy communities through Lego construction (design), an artistic performance with local artists, a small workshop of crafts (Summer Course) and the co-creation of a Living Lab through the whole Quintuple Helix.
-The **reduction of of 885 tons of C02 emission**.
-The scaling-up of the seed in larger areas (the biosphere of Urdaibai)

Artistic approach
-Creative education: Utilizing LEGO as a medium for students to design structures, fostering creativity while educating them about renewable energy and sustainability.
-Artistic transformation: Turning students' LEGO creations into NFTs, bridging the gap between art and technology and providing a modern platform for expression.
-Community engagement through art: Encouraging collaboration between students, artists, and designers to create meaningful projects that connect the community to the

Key resources
-The connection between CCIs, environmental sustainabiliy, local Indsutry, Public Administration and Education will result in the co-creation of an Energy Living Lab where students will specifically create Lego structures that designers will turn into NFTS**.**
-The infrastructures of San Fidel School: solar panels, 500 meters of faiclities.
-The support of the City Council, which can provide specific sites to hold more activities related to the

Empowerment through Sustainable Energies and the reuse of materials, combined with artistic activities (performance and crafts).	working with other municipalities (Forua) to build a positive energy neighbourhood also implementing Natura Based Solutions. -The launch of a **Summer Course**, organised with the University of the Basque Country, to continue disseminating the project. -The **creation of NFTS** resulted from the Lego structures. **-The promotion of design approaches for reusing materials** linked to construction.	concepts of renewable energy and sustainability. **Technology-innovation level** **-Renewable energy technology**: Implementation of solar panel systems to establish a local energy community. **-Digital creativity**: Use of NFTs to transform students' LEGO designs into digital assets, blending art with technology.I **-Interactive learning**: Incorporation of hands-on projects that engage students in sustainability through creative activities. **-Sustainable design methodologies**: Development of practices for reusing materials in construction and project implementation. **-Cross-disciplinary collaboration**: Integration of art, education, and sustainability, fostering innovative approaches to community engagement and environmental awareness.	project, and economic support. **Channels** **-Technological platforms:** Web platform and the creation of NFTS. **-Living Labs:** Collaborating with Living Labs enables testing in authentic environments, validating the feasibility and relevance of solutions. **-Alliances in the area of Culture, Creativity, R&D and Industry (SMEs):** Integrating into the value chain of the aforementioned sectors ensures the effective implementation of seeds. **-Co-oganization of the International Summer School.** **-Collaboration with Openlab EU Project** and with the Public University of the Basque Country to work on CCI solutions to sensitize local citizens on energy efficiency	
Impact (social, economic and environmental sustainability) Results obtained from the Exploitation of the Living Labs: with the results obtained in each Living Lab, a portfolio of marketable services will be created to promote the Arts-Industry-Society relationship. Surveys from citizens and the monitoring of energy consumption will help us to create an impact assessment. The San Fidel Tek APP allows partners to monitor consumption and use of the facility. R&D projects aimed at new aggregation solutions, demand management and flexibility.				

Table 9 Energy Communities Business Model Canvas (GAIA)

6 InteractionSeeds Model Canvases of the second batch of seeds

6.1. General overview

To maximize the impact of the seeds, it is essential to actively engage all actors within the quintuple helix of each ecosystem. This requires strong local

communication and dissemination strategies, along with a compelling value proposition that encourages participation. Additionally, adopting a medium- to long-term perspective when selecting and adapting seeds ensures their lasting impact within local ecosystems and lays the groundwork for continuous innovation. The InteractionSeeds canvases for the second batch of seeds, set to take place in 2025, are introduced in the following sections. These canvases may continue to evolve as implementation approaches. To further enhance their impact, recommendations for strengthening both their concepts and execution have been provided by GAIA.

6.2. CluBE's InteractionSeeds MCs

6.2.1. Nature Mind

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
The Department of Public Health at the University of West Attica, which provides the scientific framework and analysis of the impact on stress reduction environmental educators, yoga instructor (Thomas Korelas- local SME), and local cultural organisations (CluBE), who bring expertise in mindfulness, wellness, and community arts. The Nymfaios local Museum and local cultural associations will provide the cultural and artistic aspect, with their active participation and inputs.	The scheme addresses urban stress and the disconnection from nature, aiming to reconnect educators with natural spaces to reduce stress and inspire educational strategies to furter promote them to the school children, incorporating nature and mindfulness into daily life as stress management tools. **Needs** The program meets the need for stress reduction methods in modern urban lifestyles, highlighting the therapeutic role of nature and artistic expression. It also addresses the demand for creative, holistic educational tools that integrate wellness practices into the curriculum. Educators and participants seek practical, artistic ways to engage students in mindfulness and nature-based practices.	The scheme combines yoga and mindfulness with artistic reflection, allowing educators to experience and understand the mental health benefits of nature while creating educational resources like booklets full of artistic and crateful tools for their students. The inclusion of scientific assessments reinforces the credibility and impact of the wellness benefits. This research will support how wellness can be achieved through physical (yoga) practices in nature, while also focusing on mental openness, combining mindful sessions.	Relationships with stakeholders are community oriented. Direct feedback and discussion with participants, facilitated workshops, and personalized artistic guidance foster supportive community bonds. Also, the yoga instructor provides sports education by professional coaches, teachers or coaches to teams or individuals, as an SME.	Beneficiaries include environmental educators as primary participants, alongside students who will indirectly benefit from educators' newfound insights and wellness practices. Additionally, the research community and the Department of Public Health benefit from the data collected during the program, contributing valuable insights into the stress-reducing effects of nature-based activities and the role of mindfulness in mental health. The yoga instructor, who plays a vital role in delivering the mindfulness component, also benefits from professional growth and the opportunity to contribute to educational and health-focused research, reaching new audiences interested in wellness and mental health within educational contexts.
Key activities Yoga and mindfulness sessions in nature, supported by artistic expression workshops post-session. Educators engage in	**Mission** To empower environmental educators with evidence-based wellness tools and artistic	**Artistic approach** The approach is holistic, integrating yoga, mindfulness, and post-session creative expression (like drawing or	**Key resources** The project requires natural settings for sessions, (Nymfaio Village) trained yoga instructors, (Thomas	

reflection, capturing personal insights or creating art pieces (e.g., drawings or poetic verses) inspired by the mindfulness experience. Data collection through surveys and reflections allows for scientific analysis on the stress-reducing effects of these activities, conducted by the Department of Public Health.	methods that reduce stress and support mental health through connection to nature. Moreover, this scheme aims to provide personal well-being, equipping them to bring these benefits into their classrooms. Demonstrating the mental health benefits of nature-based activities through a holistic, scientifically-backed approach. Measure and analyze the effects of these practices on stress levels, creating a foundational study that underscores the importance of nature for mental wellness.	verse-writing) as connected forms of self-discovery and relaxation. This enables educators to create meaningful, personal art inspired by their experiences, which they can later incorporate into their teaching practices as tools.	Korelas) access to art materials. Tools like questionnaires, apps, or digital forms to gather participants' feedback and measure stress reduction before and after sessions, supporting data collection for the Department of Public Health. Outdoor Equipment – Items like yoga mats, blankets, and seating to facilitate comfortable outdoor sessions.	
		Technology-innovation level Innovative approaches to wellness, combining scientific research on stress reduction with nature-based and art-driven practices. The Department of Public Health will conduct research on the mental health benefits of nature-based activities, specifically analysing the effects of yoga and mindfulness on reducing urban stress.	**Channels** The program reaches participants through **in-person workshops and digital sharing platforms**, including educational networks and potentially live-streamed wellness content. Results may be shared with the broader community via university-hosted webinars, educational conferences, or social media.	

Impact (social, economic and environmental sustainability)

This scheme will measure stress reduction in participants through pre- and post-session feedback and number of educators adopting wellness-focused teaching practices. Assessing shifts in educators' perspectives on mental health and their approaches to sharing these benefits with students, promoting a sustainable wellness culture within educational settings. This research has the potential to influence broader educational and public health approaches to wellness.

Table 10 Nature Mind Model Canvas (CluBE)

Recommendations to Maximize Impact

The Business Model Canvas (BMC) is highly detailed and effectively aligned with the artistic approach, demonstrating a strong Art-Design Thinking methodology to address a scientific challenge in mental health. The focus on measuring stress reduction through yoga, contact with nature, and self-expression activities—such as poetic writing and drawing—reinforces the connection between art, well-being, and scientific research.

To further enhance the artistic dimension, consider integrating the Nymfaios local Museum and the local cultural associations mentioned in the BMC into the implementation process. Their involvement could provide additional cultural depth, community engagement, and a broader artistic framework, making the seed even more impactful.

6.2.2. Lazarines: Weaving Tradition, Art, and Climate Resilience

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
Local cultural associations (Cultural Association of Ioakeim Lioulias), schools, and community groups in Kozani dedicated to preserving traditional events. Collaboration with folklore experts, musicians, and dance instructors is essential to ensure the accuracy and vitality of the cultural elements. Partnerships with environmental organisations (CluBE) support the integration of sustainability messages. Also, the University of Western Macedonia as well as the UNESCO Researchers, will provide academic and research expertise to the event.	This scheme responds to the need for cultural preservation and climate change awareness. In a time of increasing environmental challenges, Lazarines represents how to connect people to nature's cycles and encourage community resilience. By highlighting the regenerative aspects of the event, it fosters a deeper connection to environmental stewardship within the community.	-Sharing insights into sustainability while participants engage in creative expression. -Bringing people together while fostering a collective appreciation for ecological issues through living expressions of culture and co-creation. -Enhancing artistic experiences for communities. -Environmental awareness, connecting people to both their roots and the modern need for climate resilience -Community gains an opportunity to engage deeply with traditions while learning about the role of resilience and sustainability in safeguarding their heritage.	The interaction aims to have positive impacts for both attendees and stakeholders, enhancing community connections and promoting sustainable practices. Relationships with stakeholders are community-centered and collaborative. Elders pass down traditions directly to the younger generation, while environmental groups provide support through climate awareness talks. The event relies on a personal, hands-on approach that emphasizes trust and community unity.	-Industry representatives (SME workers and managers, R&I stakeholders, sustainability experts) -Culture and creativity sector representatives (artists, dancers, cultural organisations) -Societal actors: citizens, groups of people (communities), organizations, or institutions with representativeness in a certain territory or society. -Public sector authorities (city councils, CCIs public organisms and programs focused on CCIs (Cultural and Creative Industries), society and SME and R&I development. -Schools and educational institutions research community and folklore specialists -Environmental organisations
	Needs Need to interlink cultural heritage and environmental education within traditional frameworks. Community members seek to preserve the Lazarines customs as a means of reinforcing local identity and cohesion. Additionally, there is a need to connect cultural heritage with modern challenges, making the customs relevant to the fight against climate change.			
Key activities The event's primary activities center on forklore dances, songs, and performances led by women and girls in Kozani, celebrating the Lazarines customs. Additional activities include educational workshops for young participants, public exhibitions of traditional costumes and musical instruments, and community discussions on	**Mission** Celebrate and preserve the rich cultural traditions of the Kozani community by highlighting the rituals and practices associated with nature's regeneration. By integrating awareness of climate resilience, the event emphasizes the importance of cultural heritage in addressing	**Artistic approach** -Living expressions of Culture through rituals, dances and songs. -Interactive art installations -Folklore dances, music, rituals, performances	**Key resources** -Location for the event -Experts for the dances -Experts to coordinate the workshop -Workshops materials -Traditional costumes, musical instruments, and dance spaces -Environmental education materials	

climate resilience, using the event as a cultural bridge to highlight environmental awareness.	contemporary issues. It aims to strengthen community bonds, promote sustainability, and pass down cultural practices to younger generations.	**Technology-innovation level** Innovative educational approaches by embedding climate change themes into cultural heritage practices. Through digital recordings, live-streamed performances, and awareness campaigns on social media, it reaches wider audiences, especially youth, allowing the traditions to evolve with current technology while addressing sustainability.	**Channels** Alliances in the area of Culture, Creativity, R&D and Industry (SMEs)- Digital platforms through social media for promotion.	
Impact (social, economic and environmental sustainability) Awareness raising, community engagement, cultural expression, youth engagement Support for local artists/dancers, community investment, sustainable practices promotion Community engagement in environmental initiatives, cultural preservation increased awareness of climate resilience, and renewed intergenerational connections				

Table 11 Lazarines Business Model Canvas (CluBE)

Recommendations to Maximize Impact

To strengthen the communication and dissemination strategy, it is important to clearly specify the channels that will be used. This should include not only digital platforms such as websites and mailing lists but also collaborative spaces that can provide greater visibility for the seed. Establishing links with universities or other relevant institutions can help enhance outreach and engagement.

Additionally, a more detailed identification of the beneficiaries is needed

6.3. RISE's InteractionSeeds MCs

6.3.1. Building Sufficiency

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Public sector (municipalities): Venice municipality -Cultural and creative professionals and institutions: carpenter and artist: Finn Ahlgren - Citizens We expect X participants, with X students/youngsters and X women participating	The societal challenge addressed teaching people the importance of carpentry and through that, understand and question how the world is put together by people. **Needs** Enhance the capacity of people to build a sustainable world and to re-use materials to cater for their needs.	-Improve the climate in a context marked by the excessive use of materials. -Support the process through artistic interventions, fostering creativity among stakeholders to enhance environmental and aesthetic awareness.	Physical workshops where the participants could get an introduction to the method, mentoring and build furniture or interior design objects.	-Schools, citizens for broader and more diverse engagement. -Cultural associations/museums that can attract citizens.

Key activities	Mission	Artistic approach	Key resources	
-The activity is based on a format developed by the main artist, Finn Ahlgren. Through the concept Raw carpentry (building furniture with minimal amount of resources and tools) participants learn how to build with discarded wood, free of aesthetic boundaries, only focusing on function. -Raising awareness of the environmental impact of waste and encouraging sustainable practices through creative, in-person experiences,, and material.	This seed was inspired by Girls Garage - https://girlsgarage.org/ - a nonprofit design and construction school with classes (carpentry, welding, architecture, and activist art) for girls and gender-expansive youth. -To raise awareness of re-use of materials, and knowledge, confidence and skills in handicraft (carpentry). -To foster a more mindful approach to the environment and promoting societal change across sectors through artistic interventions.	Raw carpentry originates from the designer and artist Enzo Mari ("Autoprogettazione"). The core idea is to teach people the importance of carpentry and through that, understand and question how the world is put together by people	-Access to venues where participants can gather -Used wood materials -Simple tools to work the wood -A mentor that has knowledge about the raw carpentry method	
		Technology-innovation level The innovation is mainly targeted at environmental sustainability and circularity.	**Channels** Advertisement through the existing channels of NGOs and schools to gather participants.	

Impact (social, economic and environmental sustainability)
-Raising awareness of the environmental impact of waste and encouraging sustainable practices through creative, in-person experiences,, and material.
-Teaching skills and empowerment and for participants to understand and question how the world is put together by people.

Table 12 Building Sufficiency Model Canvas (RISE)

Recommendations to maximize the impact

To strengthen the Building Sufficiency seed, it is essential to expand community outreach by fostering inclusive participation, ensuring a diverse mix of students, women, and underrepresented groups. Partnering with local schools, NGOs, and cultural institutions can help attract a broader audience and embed raw carpentry practices into educational programs for long-term sustainability.

To ensure replicability, the seed should develop open-access learning materials, such as video tutorials, DIY guides, and online toolkits, allowing participants to continue applying raw carpentry techniques beyond the workshops. Additionally, engaging local businesses—such as furniture makers or sustainability-driven enterprises—could create economic opportunities by integrating upcycled materials into commercial or community projects.

Further integration of artistic interventions can amplify the seed's impact. By organizing public exhibitions or installations showcasing the furniture and objects created, participants can engage with the wider community, fostering appreciation for functional design and sustainability.

Finally, embedding impact measurement tools—such as participant feedback, skill progression tracking, and material reuse metrics—would help assess the project's effectiveness and refine future iterations.

6.3.2. Future Sound of Cities

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Municipality: Helsingborg Stad, Urban planning department. **-Cultural and creative professionals and institutions:** artist implementing the sound experience, design-researchers co-developing the prototype, stakeholder engagement. **-Industry: Local businesses** **-Citizens:** Local citizens in the area where the prototype is deployed.	Advancing cities towards climate-neutrality, mainly through decrease**d** car-dependence. The challenge is to gain acceptance for this future vision from citizens. **Needs** In a participatory way, imagine and work towards a potential alternative urban future and the possibilities and benefits it brings.	**-Sound design** is an overlooked medium in the quality of life of urban cities and in co-creation of urban futures. **-Artistic methods** activate a different register of participants imagination formal or visual proposals. **-Participatory design** methods using sound based artistic methods allow a more engaged involvement of citizens and local businesses in collaborative urban future making.	The municipality will be involved as the recipient of the results of the prototype. Citizens and local businesses will be able to participate on-site. Results can also be made online allowing stakeholders to access them and possibly contribute further.	**-Industry representatives**: Local businesses. **-Culture and creativity sector** representatives: Sound artist, design-researchers from RISE. **-Societal actors:** citizens of local area, visitors to local area. **-Public sector authorities**: Helsingborg Stad Urban Planning Department.
Key activities -Develop a sound-based prototype for imagining and co-creation urban futures. -Raising awareness of the impact on environment and quality of life of car dependence. -Imagine alternative urban futures in co-creation process with local citizens and businesses.	**Mission** **Carbon-free cities** though reduction of car dependence **15m city** through walkable and livable neighbourhoods **Citizen participation** in collaborative future-making and urban planning	**Artistic approach** The seed will develop a sound-based interactive prototype together with a sound artist that enables citizens to experience the sounds of alternative future urban spaces. A participatory design process is also included where citizens and local stakeholders co-create futures.	**Key resources** **-Sound artist:** To develop the location-specific interactive prototype **-Collaboration with Municipality:** To engage with local businesses and citizens	
		Technology-innovation level The seed will develop a prototype that can be used in the co-creation process and that could be developed further. A design innovation is also the participatory process itself and the method used.	**Channels** **Physical prototype:** To be installed and used on-site in urban areas **Digital communication:** The participation will be announced and documented using existing online channels of participating stakeholders. **Stakeholder networks:** From the municipality, networks of climate-neutral cities.	

Impact (social, economic and environmental sustainability)
Research and Development: New method and experiment with sound-based artistic methods for collaborative urban future making.
Citizen participation: Number of citizens engaged, and urban future proposals generated.
Local SMEs engaged in the participatory process and aware of the outcomes of the process.

Table 13 Future Sounds of Cities Model Canvas (RISE)

Recommendations to Maximize Impact

To strengthen the definition of needs, it is important to specify those that arise directly from the social challenge. For instance, the need to establish participatory spaces where different local ecosystem actors can collaborate in responding to sustainability challenges. Clearly outlining these needs will ensure that the seed effectively addresses the identified gaps.

Regarding communication channels, it is essential to consider collaborative platforms that can support the dissemination and visibility of the seed. An example could be leveraging platforms connected to the municipality of Helsingborg, facilitating engagement with relevant local actors.

Additionally, to improve beneficiary identification, providing specific names where possible will enhance clarity and focus. For example, referencing the Helsingborg Stad Urban Planning Department would make the engagement strategy more concrete. Ensuring that all seeds incorporate stakeholders from the Quadruple Helix—including academia, public authorities, industry, and citizens—is crucial to fostering cross-sector collaboration and long-term impact.

6.3.3. Welcome to our elderly future

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Cultural and creative professionals and institutions: Performance artist, Photographer, Universeum Science Museum -Citizens Visitors to the museum (Includes families and school groups, university students)	There will be an increased elderly population in the future, which we need to start preparing for today. Citizens of today need to imagine what they would like this future to be and think about how to build steps towards it.	-Performance art is used to engage museum visitors in a fun way for a difficult topic. -Exhibit staging to create a dramatic setting and create atmosphere in a public space -Citizen engagement through inviting visitors to the museum to interact with the exhibit		-Visitors of the museum come from various industries, private and public organisations -Culture and creativity sector representatives Performance artist. photographer, design-researchers from RISE -Societal actors Universeum Science Museum, visitors to museum including families and school groups, university students
	Needs A way to engage citizens and young people to get them to think about what they would like in the future, and how they can contribute to build towards that future			
Key activities -Design of pop-up exhibit to fit the available space in collaboration with photographer to stage the scene and the lighting	**Mission** -Future of elderly care that is inclusive and caters to the needs of all	**Artistic approach** The seed will collaborate with a performance artist to host museum visitors. The seed also collaborates with a photographer to set up the	**Key resources** -Performance artist to host the pop-up event and exhibit	

-Collaborate with performance artist to prepare for the pop-up event and interactions with visitors. -Set up and build of exhibit on and off location -Pop-up event and exhibit hosted by performance artist	-Citizen participation in collaborative future-making and imagination	lighting and staging of the exhibit	-Photographer to stage the pop-up setting, and take photos to use in the exhibit. -Museum to provide the location and visitors (Universeum) -Content to exhibit (RISE Design Researchers)
		Technology-innovation level ⬜ The seed will develop a process to work with a performance artist and photographer to host and stage a pop-up event and exhibit within existing exhibition spaces..	**Channels** -Digital channels: RISE network -Universeum channels to promote the pop-up exhibi

Impact (social, economic and environmental sustainability)
-Method for museums to work with pop-up events and exhibits for citizen engagement
-Citizen engagement of museum visitors

Table 14 Welcome to our Elderly Future model canvas (RISE)

Recommendations to maximize the impact

To maximize the impact of Welcome to Our Elderly Future, it is essential to deepen citizen engagement by integrating interactive elements that encourage active participation rather than passive observation. Visitors could contribute their visions of an ideal elderly future through written reflections, recorded messages, or interactive installations, fostering a more immersive and thought-provoking experience.

Expanding the pop-up format beyond the museum by staging it in public spaces, universities, or cultural events would increase accessibility and broaden the conversation about the future of elderly care. Developing digital extensions, such as an online archive or virtual gallery, could allow wider audiences to engage with the topic beyond the physical exhibit.

To ensure long-term impact, the seed should explore collaborations with policy-makers, urban planners, and social service providers, using insights from visitor interactions to inform policy discussions and innovation in elderly care. Additionally, documenting the project's findings through a publication, documentary, or educational toolkit could make the approach replicable in other museum or cultural settings.

6.4. DOWEL's InteractionSeeds MCs

6.4.1. Water Protection and empowering women in tech

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Host of the event: tbd **-Main actors:** Eau d'azur (local water management authority + Suez), NGO or Uni ? **-Artists:** Choregrapher (Dance group or school to be identified) **-External support:** photographers and videasts from Play Azur Prod + influencers for a wider dissemination **-Participants:** citizens, with focus on schools **-Industries and SMEs:** SMEs from tourism sector (have a dedicated communication way – create a specific relationship) + parfumers and pharmaceutics. (if cross-fertilisation)	Water is at the heart of many sectors (agriculture, industry, energy), and better management is essential to preserve the availability and quality of this resource in the face of growing pressures (pollution, overexploitation, effects of climate change). Raising public awareness of these issues is essential to encourage responsible and sustainable behaviour. **Needs** -Raise awareness of citizens -Increase acceptance of new facility and construction works that are needed to integrate water management in wider environmental plan -Recruit new workforce and talents	-Unique collaboration between students, water professionals and choreographers to incite to new behaviours. -Develop new collaboration with Papetee: peer-learning. -Nice and Eau d'azur as a lighthouse for integrated energy and water management / sustainable innovation.	-A close partnership will be developed with Eau d'Azur, which already implements a lot of actions related to water protection. Our role is to bring in more stakeholders as well as artistic content, to maximise impact. -Co-creation dynamics.	-Culture and creativity sector representatives will include nature at the center of their project, not only the people. Could develop new schemes, using several senses. Central experience -Societal actors: citizens (general public) and undergraduate student -**Researchers** (Nice Côte D'azur and geosciences master's degree/ companies such Suez Environment/ research centres to be defined). -**Public sector authorities:** Nice metropolitain area and Eau d'Azur will gain positive image and more visibility with regards to the innovation they brought in their management system – -The **local water bodies** and our costal environment.

Key activities	Mission	Artistic approach	Key resources	
-The interaction can be planned in one day or in several time (up to 3) -Workshop with student to choose a local water body and identify the challenges -Development of the choregraphy -Presentation of the choregraohy on the seashore -Video making & social media	This interaction aims to raise awareness among the general public of the issues surrounding water cycles and develop a sense of shared responsibility for protecting our water resources, At a local scale (Nice and Papettee), it is intended to promote the new water-related professions, particularly among women (high school/higher education).	Global Water Dances as a model for collaboration between students and water stakeholders. The approach offers teachers and students the opportunity to create choreographic performances around local water-related issues, such as pollution and conservation. Students learn to use movement to express their relationship with water and incite change. Various desktop research and danse creations workshops will encourage discussion and promote local solutions. It will allow to appeal to the general public	-A venue and the street -Document to present the topic during the first meeting - designed by the water protection company. -Social media platforms, camera and audio-visual material to live stream and record the performance -Money to fund the choreographer and video producer -The key partners.	

		Technology-innovation level	Channels	
		Focus on innovative water-energy processes that are at TRL 8 and SRL 5.	**Direct contacts** to involve the required partners **Digital channels:** Partners and InteractionSeeds websites to advertise on the event. Video capsules for social networks **Paper magazine :** local press (Nice Matin, etc.) **Alliances in the area of Culture, Creativity** (University of Nice / Mind4CI foundation etc)	

Impact (social, economic and environmental sustainability)
Research and Development: Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of water management system and reduced energy consumption. Collaborations: this interaction aims to develop synergies between Nice and the Polynesian community Economic impact: Recruiting and upskilling future workforce. Energy payback.

Table 15 Water Protection Business Model Canvas (DOWEL)

Recommendations to Maximize Impact

To effectively incorporate the industrial aspect, it is important to strengthen collaboration with social and business partners, particularly with the large water management company mentioned. Their involvement can provide technical expertise, resources, and a direct link to industry, enhancing the seed's impact in the water management sector.

Additionally, raising awareness through dance presents a powerful method to engage citizens, especially university students and professionals, in understanding the importance of water conservation. This artistic approach not only fosters emotional and experiential learning but also ensures a broader societal reach. Furthermore, highlighting the democratic dimension of water access can be a key message to engage public authorities, reinforcing the need for policy action and governance improvements.

6.4.2. Museums for all

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Host: Museum (Villa Arson) in Nice -Participants: neurotypical and neuroatypical children from ages 7 to 12. -Actors: Artist mediating scientific content presented by start-up O-Kidia that designs serious games for diagnosing neuroatypical children. Also, école de Condé	-Artist fees and their ability/skills to interact and deal with neuroatypical children -Headsets and the rent costs -O-KIDIA researcher's transport -Museum's facilities and materiel	The issue: During the museums' shared activities, neuroatypical children (and also adults) face difficulty regulating and expressing emotions and have anxiety and stress, especially at the beginning of the project when they have not yet mastered all the contextual elements.	There Will be 2 to 3 online meetings are planned to take place with all the stakeholders for this scheme in order to get aligned on the content, the sequence and the logistics preparation of the event. ● Villa Arson: direct	-Neurodiverse children (autism, ADHD, Asperger, …..) who will get to learn about art in a safe space. -The museums for adopting a framework that will support them to be inclusive. -The artists who will get exposure and an opportunity to use their

space design students will participate in the inclusive design challenge. NatureDive association will provide the VR hedsets and support to use the headsets.

-External support: Incubateurs PCA board

-The FRench American Museum Exchange FRAMEwork: compendium of museum-based programs and practices for working with neurodiverse populations.

-Research and Development: Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of predictive models.

-Artistic facilitation of the scientific content by Villa Arson alumni Artist

-Expertise in orthopedagogy to raise awareness and communicate about the disorders in a correct way.

-Supportive educators from école de Condé to facilitate the work **with the design students**

Needs

Provide neuroatypical and neurotypical children with a great learning experience under relaxed conditions and perform an enjoyable artistic and cultural activities.

The solution: Applying a proven framework based on research to support museums' mission to be inclusive through an artistic and innovative approach relying on tested technologies.

The advantage: Provide neuroatypical and neurotypical children with a great learning experience under relaxed conditions and perform an enjoyable digital art activity.

communication through emails and online meetings

- O-KIDIA: direct communication through emails and online meetings

- Artist: the artist is contacted through Villa Arson and its alumni network

- Pop06: Direct communication through emails and fase to fase meetings. Pop 06 will invite families with neuroatypical children to join the event and know more about O-KIDIA's technologies

- École de Condé: direct communication through emails and online meetings. École de Condé Will be in direct contact with Villa Arson to synchronize on the scenography for the inclusive space challenge

workshop leadership skills.

-O-KIDIA who will promote their innovations

-The Condé design school students who will have the opportunity to share their innovations when it comes to inclusive space design with different parties.

Key activities

-Raising awareness workshop on the 11 April 2025 with students from école de Condé to learn about neurodiversity and prepare for the design challenge. A VR simulation-autism immersive experience will also take place and a 2-hour workshop with the students led by the Pop 06 to discuss with the students the needs and how to assist neuroatypical children

-Event day on the 20 June 2025 staring at 18h30:

Mission

-Encourage museums to be inclusive and open for neuroatypical children.

-Raise awareness about neurodivergence and showcasing what it feels like to be neuroatypical through innovative technologies and artistic performance.

-Share good practices and offer a complete framework to provide the best learning experience for neuroatypical children

Artistic approach

An artistic mediation of the scientific conference is planned in order for the artist to convey the information to a larger public by the means of an art form (tbd).

A unique space design challenge focused on museums will be held at Villa Arson. During the event, innovative solutions proposed by students will be showcased alongside artwork created by Villa Arson's own students, all within a

Key resources

-Research and Development: Continuous investment in R&D is necessary to stay at the forefront of technology and ensure continuous improvement of predictive models.

-Artistic facilitation of the scientific content by Villa Arson alumni Artist

-Expertise in orthopedagogy to raise awareness and

-A workshop/ mini-conference with O-KIDIA to learn about neurodivergence and newest technologies used for pre-diagnosis. This conference is mediated by a live artistic performance. -VR headsets will be available to attendies to experience what it feels like to be dyslexic. -An inclusive design challenge will be organised with the space design students that exposed their work within a Villa Arson exposition in a beautiful scenography	using digital tools with an artistic approach. -Familiarize museum staff with the framework. To be able to welcome neuroatypical lpeople and children.	thoughtfully designed scenography	communicate about the disorders in a correct way. **-Supportive educators from école de Condé** to facilitate the work with the design students	
		Technology-innovation level O-KIDIA's solutions are built on a digital platform, enabling assessments based on games in an ecological context. In fact, O-Kidia draws on the latest advances in technology, gamification and neuroscience to make assessment and follow-up more relevant and accessible to as many people as possible.	**Channels** **Direct contact** With all the key partners that will participate in the interaction. -Pop 06 Will help find the parents of neuroatypical and neurotypical that need guidance and information to invite to the evento. -Villa Arson Will support in contacting the city of Nice to dessiminate the evento through its channels -O-KIDIA Will help with inviting targeted associations to the event. -Press officers of the Museums for All project partners and also their network -Nice Municipality website **Digital channels** To promote the event on the Project's website and social media. It Will be promoted also via the Dowel Linkedin page and the stakholders LinkedIn pages Digital press: Nice Matin Newsletters: Web Times media (Sophia Antipolis newsletter)	

Impact (social, economic and environmental sustainability)

- Research and Development: O-KIDIA will present their technologies and tools for pre-diagnosis to the public and will be able to convince parents and their kids to participate in their events during which they run the tests using their tools to pre-diagnose the children.
- Collaborations with Living Labs: Collaboration with living labs comes at a cost but is essential for real-world testing and feedback, contributing to the robustness of solutions.
- Sustainable solutions in construction industry.

Table 16 Museums for All Business Model Canvas (DOWEL)

Recommendations to Maximize Impact

The inclusion of the serious games start-up, O-KIDIA, highlights the crucial role that SMEs can play in addressing societal and cultural challenges. This collaboration exemplifies a

cross-fertilization process between the technological industry and the cultural sector, particularly in the context of museums, showcasing how digital innovation can enhance cultural engagement.

Additionally, organizing a performance outside the traditional museum space is an effective strategy to foster direct citizen participation. By bringing artistic expression into public or unconventional spaces, the initiative can create new engagement opportunities, making cultural experiences more accessible and inclusive.

6.4.3 Learning from Biodiversity

Key partners	Social challenge	Value propositions	Relationship with stakeholders	Beneficiaries
-Parc National du Mercantour: the National Parc of the Mercantour is the last promontory of the Alpine arc to the south, before its sudden plunge into the Mediterranean Sea. Together with the Alpi Marittime protected area on the Italian side, they form a unique ecological entity. The Parc has for mission to increase knowledge, protect and raise awareness on the local biodiversity. To do so, it has both a scientific committee and an Awareness Raising service. Both will be involved.- **The artist:** The RB-Arts School of Visual Arts or Manga artist	More and more newcomers are turning to the mountains to enjoy the sceneries and some fresh air. These newcomers aren't trained on the local biodiversity protection nor on security topics, and they may have behaviour that endanger themselves and the local biodiversity. **Needs** To protect the Parc National du Mercantour, every visitor should be aware of how to behave in the Parc	Attractive communication through the arts in strategic places, to draw attention on the biodiversity challenges and needs and ensure visitors of the Parc are more mindful during their visits in the Parc.	The National Parc, the artist and DOWEL as a facilitator Will work hand in hand to develop the Project and install everything for the busiest summer months. Managers of the different mountains huts (acting as altitude restaurants in the summer) Will also be kept in the loop. Visitors Will connect to a digital challenge, and Will be able to learn more by connecting with the local scientists.	-Visitors: all visitors from the Parc will benefit from the latest knowledge developed by the local scientists. The signs will improve their experience of the Parc, allowing them to notice wonders they wouldn't have noticed by themselves. -The Parc National du Mercantour: the Parc will benefit from a more knowledgeable and respectful approach of the visitors to the Parc. The digital challenges Will also allow the Parc to Benefit from a database to conduct potential future citizen science projects.

Key activities	Mission	Artistic approach	Key resources	
A large part of the newcomers to the Parc are Young adults, drawn to nature after COVID-19 and the recent growth of adventure and nature's movies. To address this young audience, the interaction will work with a mangaka to design explanatory signs and engage visitors in an digital challenges	-Clearly communicate the good practices to protect the local biodiversirty to the largest population visiting the Parc. -Engage local stakeholders and visitors to responsibilise them -Draw attention to the Parc wonders through the arts	The artistic approach will focus on Manga drawing, to attract the attention of the younger generation. **Technology-innovation level** The work of the scientific committee of the Parc Will be valorised through the interaction.	Work conducted by the scientific committee of the Parc National du Mercantour **Channels** -Signs along the hikes in the Parc -Informations on the National Parc's website -Communication through the local newspaper Nice Matin -Potential communication through the Nice Côte d'Azur University	

Impact (social, economic and environmental sustainability)
- Environmental impact: every summer, some local biodiversity is endangered by uninformed touristic activities of the visitors. This interaction aims at limiting this impact.

- Social impact: Furthermore, the information displayed on the signs will also target good practices regarding safety. Indeed, more and more visitors come unprepared and need to be rescued for their lack of material and preparation. A better dissemination of the Parc's activities will reduce this societal and economic impact.

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Table 17 Learning from Biodiversity MC (DOWEL)

Recommendations to Maximize Impact

To strengthen the Learning from Biodiversity seed, it is essential to reinforce its long-term engagement strategy beyond seasonal activities. While the use of manga drawings is an innovative approach to attract young visitors, integrating interactive storytelling and gamification could deepen engagement and encourage responsible behavior.

Collaboration with local schools, universities, and outdoor clubs could expand outreach, ensuring that knowledge about biodiversity protection and safety reaches potential visitors before they arrive at the Parc. Additionally, involving mountain hut managers as ambassadors for biodiversity education could create a direct and personal communication channel with visitors.

To enhance scientific valorization, the digital challenge could be expanded into a citizen science initiative, allowing visitors to contribute real-time biodiversity observations that support conservation efforts. Strengthening the data-sharing mechanisms between the Parc's scientific committee and public authorities could also help shape future environmental policies.

A multi-platform communication strategy should be developed, including social media, augmented reality elements on-site, and collaborations with influencers in the outdoor and sustainability sectors. Additionally, ensuring accessibility through multiple languages would broaden the reach of the initiative.

6.5. GAIA's InteractionSeeds MCs

6.5.1. Art for Nature: Uniting Communities for Biodiversity and Sustainability in Urdaibai PARCC

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
Industry (SMEs, environmental technology providers, scientific researchers etc.). -Cultural and creative professionals and institutions: -**PARCC Contemporary Art Center (Labenne)** – Collaborating on the cross-border exhibition and	Raising awareness about biodiversity and environmental conservation through art, while engaging students, women, and local communities in cross-border collaboration and ecological education, fostering inclusivity and	-Environmental awareness through art, making biodiversity concepts accessible. -Cross-border cultural exchange, fostering international collaboration. -Hands-on learning for students through fieldwork in natural reserves.	-**Targeted Communication with SMEs:** Establishing direct channels with SME representative organizations to share project outcomes and ensure they effectively utilize the artistic and ecological resources	-**Industry Representatives:** Local SME workers and managers, sustainability experts, and industrial technology providers from Urdaibai and Labenne, gaining insights into eco-friendly practices.

contributing to the cultural and artistic aspect of the project.

-**Marenne Adour Cote Sud - MACS** – A community entity involved in coordinating with the PARCC Contemporary Art Center for the cross-border collaboration.

-**Citizens:** Urdaibai Reserve Local City Councils of Busturialdea: Bermeo, Forua, Gernika-Lumo.

-**University of the Basque Country:** Faculty of Fines Arts

environmental responsibility.

Needs

-**Educational resources** to understand biodiversity and the role of moss ecosystems.

-**Platforms for cross-border collaboration** between cultural, artistic, and ecological communities.

-**Opportunities for engagement** for students, women, and local citizens in art and environmental conservation.

-**Awareness-raising tools** to communicate the ecological importance of moss through art.

-**Support for cross-border mobility** and fieldwork for hands-on learning and artistic creation.

-Community engagement involving students, women, and local citizens in conservation efforts.

-Innovative use of art to promote sustainability and environmental stewardship.

developed, enhancing the project's replicability.

-**Horizontal communication with institutions:** Engaging with European and national institutions to share insights and best practices, fostering collaboration that promotes environmental awareness and cultural exchange on a broader scale.

-**Culture and Creativity Sector Representatives:** Artists, designers, and marketers from both regions who will create art highlighting the ecological importance of moss and biodiversity.

-**Societal Actors:** Residents and community groups in Urdaibai and surrounding areas engaging in project activities, fostering environmental awareness.

-**Researchers:** Academic institutions (University of the Basque Country) and research centers contributing scientific data on moss ecosystems to enhance the project's ecological focus.

-**Public Sector Authorities:** City councils and public organizations in Urdaibai and Labenne.

Key activities

- **Visit from the sudents to the Udaibai Area with local experts on biodiversity, majors and land owners to learn from the challenges of area and look for inspiring areas**
- **3 workshops held in February, April and June involving all the key players**
- Choose 2 ambassadors among students (30 in total) to make and stage in MACS to learn from the biodiversity there and look for inspiration
- 2 expositions of the work implemented by students in June (MACS) and

Mission

-To **raise environmental awareness** and **promote biodiversity conservation** through the integration of **art and education**,

-while fostering **cross-border collaboration** and **community engagement**.

-It aims to highlight the ecological significance of moss ecosystems and involve **students, artists, and local communities.**

Artistic approach

Interdisciplinary collaboration of visual arts and music to explore moss and biodiversity.

Community involvement ensures diverse perspectives in artistic expressions.

Art is grounded in **scientific understanding** of ecosystems, enhancing ecological education.

Emphasis on **public engagement** through accessible exhibitions and soundscapes.

Cultural exchange fosters sharing of artistic practices and narratives across borders.

Key resources

-**Human resources**: Artists, students, and cultural professionals involved in creative and educational activities.

-**Ecological knowledge**: Scientific research on moss ecosystems from partners like the Urdaibai Reserve.

-**Artistic materials**: Sustainable supplies for artworks and soundscapes.

-**Digital tools**: Platforms for collaboration and potential interactive exhibition technologies.

-**Community networks**: Connections with local communities and institutions for outreach and engagement.

Technology-innovation level

-**Artistic innovation** through modern techniques in drawing and sound design for immersive experiences.

-Use of **digital platforms** for collaboration and communication among stakeholders.

Channels

-**Technological platforms:** Web platforms facilitate data collection and analysis.

-**Living Labs:** enables testing in authentic environments, validating the feasibility and relevance of solutions.

September (Urdaibai)		-**Research integration** ensures artistic creations are rooted in scientific understanding of moss ecosystems. -Exploration of **eco-friendly practices** in materials and exhibition processes. -Development of **interactive exhibitions**, potentially using technologies like augmented reality to engage the public.	-**Alliances in the area of Culture, Creativity, R&D and Industry (SMEs)-**	
Impact (social, economic and environmental sustainability)				
Social impact: Increased Environmental Awareness: Raises awareness of biodiversity and the importance of moss ecosystems; community Engagement: Fosters social cohesion and collective action among citizens, artists, and students; cultural Exchange: Enhances ties and understanding between Urdaibai and Labenne, enriching local culture. **Economic impact:** Support for Local SMEs integrates sustainability practices, potentially boosting local businesses; Job Creation: Generates opportunities in the cultural and creative sectors through artistic initiatives. **Environmental impact:** Biodiversity Conservation: Promotes conservation efforts for moss and local ecosystems; Sustainable Practices: Encourages the use of eco-friendly materials in art and exhibitions; Knowledge Dissemination: Enhances understanding of local biodiversity through scientific research integration.				

Table 18 Urdaibai PARCC Model Canvas (GAIA)

Recommendations to maximize the impact

The integration of art and science is a unique aspect of this initiative, and leveraging interactive exhibitions, augmented reality, or immersive storytelling could amplify the public's connection with moss ecosystems. Additionally, involving local schools and universities in ongoing activities could ensure sustained impact by embedding ecological education into curricula.

To maximize the cross-border collaboration, facilitating mobility programs for artists and students beyond the existing exchange would enhance knowledge sharing and strengthen cultural ties between Urdaibai and Labenne. Encouraging joint artistic productions that merge visual arts and soundscapes with ecological research could result in a more engaging experience for the public.

A strong communication and dissemination plan is needed to expand outreach. Utilizing social media, local media outlets, and partnerships with environmental influencers could attract wider participation. Creating open-access educational resources based on the findings of the project would also enhance its replicability and inspire similar initiatives in other biodiversity reserves.

Finally, incorporating impact measurement tools—such as visitor engagement analytics, environmental monitoring, and SME involvement tracking—will help assess the project's success and inform future iterations.

6.5.2. Immersive Experiences in SDG

Key partners	Societal challenge	Value propositions	Relationship with stakeholders	Beneficiaries
Industry: SMEs, virtual technology providers (Virtual4), immersive experience companies (Virtual4), scientific researchers, etc. **Cultural and creative professionals:** digital content creators (A Film to Kill for, Media Attack, Virtual 4), freelance digital and audiovisual artists. **Academia:** educational centres that are interested in fostering immersive experiences through art among students, research centres and universities that study the intersection between art and technology. **Citizen organisations:** innovation laboratories for citizens (IA & Robotics Lab).	Bridging the digital divide by making immersive technologies accessible to diverse communities. It promotes education and skill development for Industry 4.0, addressing disparities in access to technology-driven training. The project fosters cultural inclusivity by integrating artistic perspectives into technological sectors and ensures community engagement in sustainability and cultural preservation. **Needs** -**Access to immersive technology** for underserved communities and sectors to bridge the digital divide. -**Multidisciplinary collaboration** between artists, technologists, and industry professionals to create meaningful content. -**Training programs** to equip educators, professionals, and workers with new skills for Industry 4.0. -**Community engagement strategies** to ensure local involvement and cultural relevance in content creation. -**Sustainability-focused initiatives** to integrate environmental themes and promote long-term societal impact.	-**Accessibility:** The project aims to bridge the digital divide by providing access to immersive technologies, such as virtual and augmented reality. - **SDG Awareness:** The objective is to show to the citizens the importance of the SDG through a gamified solution -**Art and cultural integration:** The initiative promotes cultural enrichment by blending artistic perspectives with technological advancements and fostering local content creators. -**Innovative artistic expressions** through technology, since it combines art and technology to create groundbreaking immersive experiences that redefine artistic expression. -**Social and sustainability awareness:** through the integration of themes related to ecological conservation, cultural heritage, and community engagement.	**Targeted communication with SMEs:** Establishing direct channels with SME representative organizations to share project outcomes and ensure they effectively utilize the artistic and ecological resources developed, enhancing the project's replicability. **Horizontal communication with institutions:** Engaging with European and national institutions to share insights and best practices, fostering collaboration that promotes environmental awareness and cultural exchange on a broader scale.	-**Industry representatives:** Local SME workers and managers, immersive technology experts, industrial technology providers, virtualization companies, etc. -**Culture and Creativity sector representatives:** Artists, designers, content creators and CCIs professionals that are interested in the intersection between art and technology. -**Societal actors:** cultural organisations with special focus on technological impact on society (Konekta – La perrera), innovation laboratories (IA & Robotics Lab), schools (teachers and students), etc. -**Researchers:** Academic institutions (the Technology and Fine Arts Department of the University of the Basque Country) and research centers interested in immersive experiences. -**Public sector authorities:** City councils and public organizations linked to CCIs, innovation and education, etc.
Key activities -**Immersive room installation:** Setting up a dedicated space for immersive experiences, equipped with advanced	**Mission** -**Transformative experiences**: To create immersive experiences that blend art and technology.	**Artistic approach** -**Interdisciplinary collaboration:** it emphasizes collaboration between artists, technologists, and industry experts.	**Key resources** -**Human resources**: A diverse team comprising artists, technologists and immersive experience managers.	

technologies like virtual and augmented reality systems. **-Content development:** Collaborating with multidisciplinary teams of artists, technologists, and creators to produce high-quality digital content that reflects cultural narratives and environmental themes. **-Community engagement initiatives:** Facilitating events, exhibitions, and discussions to engage local communities in the seed. **-Workshops and training programs:** Organizing training sessions and workshops for educators, professionals, and community members to familiarize them with immersive technologies and their applications.	**-Community engagement**: To foster active participation from local communities, encouraging collaboration and cultural exchange. **-Interdisciplinary collaboration**: To bring together artists, technologists, and industry experts to innovate and enhance the artistic process of immersive experiences. **-Empowerment and education**: To empower individuals through creative exploration and skill development, preparing them for future challenges in a rapidly evolving world.	**-Experimentation and innovation:** Artists are invited to explore new ways of storytelling, using immersive tools to create dynamic and interactive experiences. **-Sensory engagement**: The artistic approach focuses on creating multi-sensory experiences. **-Community-centric creation**: The project involves community members in the artistic process, allowing them to contribute their voices and perspectives.	**-Technological knowledge:** especially in virtual worlds, RV, AR and ER. **-Artistic materials**: Supplies for creating artworks, soundscapes, and interactive installations. **-Digital tools**: Advanced platforms for collaboration, such as virtual reality (VR) and augmented reality (AR) technologies, as well as software for creating interactive content. **-Community networks**: Established connections with local communities, educational institutions, cultural organizations, and industry clusters for outreach and engagement.	
		Technology-innovation level **-Advanced Immersive Technologies**: The project utilizes state-of-the-art Virtual Reality (VR), Augmented Reality (AR) and Extended Reality (ER). **-Multidisciplinary approach: it** encourages the integration of diverse technologies, such as AI for content generation and data visualization tool **-R&D:** This includes experimenting with new software, hardware, and artistic techniques to enhance the quality and impact of the immersive offerings.	**Channels** **-Technological platforms:** Web platforms facilitate data collection and analysis. **-Living Labs:** enables testing in authentic environments, validating the feasibility and relevance of solutions. **-Alliances in the area of Culture, Creativity, R&D and Industry (SMEs).**	

Impact (social, economic and environmental sustainability)

Social impact: it promotes digital and technological accessibility to infrastructures and experiences of a high level of innovation.

Economic impact: it supports economically technology providers, content creators and digital artists, while fostering the development of immersive experiences and infrastructures in the region of the Basque Country.

Environmental impact: it demonstrates how advanced technologies can reduce environmental impact through the digitalisation of experiences and artworks.

Table 19. Immersive Experiences Model Canvas (GAIA)

Recommendations to Maximize Impact

To strengthen the Immersive Lab about SDG seed, it is crucial to enhance accessibility and inclusivity, ensuring that immersive technologies reach underserved communities. Expanding collaborations with local educational institutions and public programs can

help provide broader access and foster long-term engagement beyond initial training workshops.

A key opportunity lies in developing industry partnerships to integrate immersive storytelling into real-world applications. Encouraging SMEs and local businesses to adopt virtual and augmented reality solutions could boost their digital transition while reinforcing the economic sustainability of the project.

Additionally, embedding gamification elements within the SDG awareness campaigns would enhance citizen engagement, making sustainability education more interactive and impactful. Expanding multi-sensory experiences, such as haptic feedback or spatial soundscapes, could create more immersive and emotionally resonant experiences.

To maximize cross-sector collaboration, the project should explore joint research initiatives with universities and innovation hubs, fostering knowledge exchange on the intersection of art, technology, and sustainability. Creating open-source digital assets or educational toolkits could also enhance replicability and knowledge dissemination.

6.5.4. Escape to Nature: Discover, Learn, and Protect Biodiversity

Key partners	Social challenge	Value propositions	Relationship with stakeholders	Beneficiaries
Academia: **-EUSKAMPUS FOUNDATION:** Fosters collaboration between universities and companies for cross-border research projects. **Industry:** **-GAIA:** Offers technical solutions and Living Lab expertise. **-INNOVATEKBI:** Supports all experiments with technological and methodological input. **-Eskilara S. Koop:** Develops environmental experiments, focusing on gait monitoring systems. **Government:** -Municipality of Forua: Participates in land provision and environmental monitoring experiments. **Civil Society:** **-San Fidel School:** Hosts experiments involving greenhouses and environmental monitoring. **-Basque LL (Living Lab):** Involves local communities in	By combining education, entertainment, and cultural immersion, the escape room aims to: **-Bridge the knowledge gap about hidden vegetation and its ecological significance.** **-Promote environmental** stewardship by empowering participants to reflect on their roles in conserving biodiversity. **-Foster a sense of community** and collaboration around sustainability initiatives, emphasizing the collective responsibility to protect natural ecosystems. **Needs** **-Educational content development**: Creation of accurate, engaging materials on hidden vegetation and biodiversity,	**-Bilingual accessibility:** Providing the experience in Spanish and Basque to ensure inclusivity and connection with the local culture. **Engagement across age groups:** **-Adapting activities to suit participants of all ages**, with options for younger audiences accompanied by adults. **-Offering a multi-generational experience** that fosters shared learning and enjoyment**.** **Memorable takeaways** **-Offering participants symbolic keepsakes** related to the theme, such as seeds or botanical illustrations, to reinforce their connection with nature. **-Sharing fun facts and insights** at the conclusion of the activity to leave a lasting educational impression. **Promotion of environmental awareness** **-Using the escape room as a platform to inspire** appreciation for hidden vegetation and ecosystems. **-Encouraging participants** to reflect on their role in	**Targeted communication with SMEs:** Establishing direct channels with SME representative organizations to share project outcomes and ensure they effectively utilize the artistic and ecological resources developed, enhancing the project's replicability. **Horizontal communication with institutions:** Engaging with European and national institutions to share insights and best practices, fostering collaboration that promotes environmental awareness and cultural exchange on a broader scale.	**-Local communities:** Residents of Forua and surrounding areas benefit from improved environmental monitoring, sustainable energy solutions, and the reduction of carbon footprints. **-Educational institutions:** Schools like San Fidel School and universities gain from the hands-on experiences and research opportunities related to sustainability and environmental monitoring. **Environmental stakeholders:** Communities, researchers, and organizations involved in conservation, sustainability, and climate change benefit from the data, insights, and solutions generated through the project's environmental experiments and

experimental environmental solutions.	collaboration with experts. **-Collaboration with local stakeholders**: Partnerships with local environmental groups, schools, and artists to enhance the experience and community involvement. **-Environmental sustainability**: Use of eco-friendly materials and sustainable practices in operations. **-Technological support**: Development of interactive tools and bilingual infrastructure.	biodiversity conservation and sustainable practices.		renewable energy initiatives. **-Local governments:** The Municipality of Forua and other local governments benefit from enhanced infrastructure, improved environmental practices, and the engagement of citizens in sustainability efforts. **-Industry partners:** SMEs, research organizations, and technology providers benefit from the opportunity to test, implement, and showcase innovative solutions in real-world environments, fostering future collaborations and market opportunities.
Key activities **Immersive narrative experiences** **-Designing and delivering a compelling storyline** centered on uncovering the secrets of hidden vegetation in natural environments, particularly in Urdaibai. **-Creating challenges that blend environmental themes** with engaging puzzles to immerse participants fully. **Team-based gameplay** -Facilitating cooperative problem-solving within teams of 2–8 participants. **-Offering a dynamic experience** where teamwork and creative thinking are key to completing the challenges. Nature-themed challenges and puzzles **-Curating tasks that highlight plant biodiversity**, such as identifying rare species, solving tactile puzzles, and interpreting interactive maps. **-Integrating scientific and ecological knowledge** into the gameplay to promote learning through fun. **Hands-on learning activities** **-Encouraging participants to engage** with natural elements and analog tools, such as magnifying glasses and plant replicas, to solve challenges.	**Mission** **-Engage participants** in an immersive, educational experience. **-Raise awareness** about the hidden beauty and ecological importance of vegetation, especially in Urdaibai. **-Combine interactive puzzles** with cultural and artistic elements to enhance the learning experience. **-Foster a deeper understanding of biodiversit**y and environmental conservation. -Inspire collective action for environmental stewardship. **-Collaborate with local stakeholders** to strengthen community involvement. **-Promote sustainable practices** through an engaging and memorable experience. **-Create a community-driven model** for environmental education and conservation.	**Artistic approach** **-Integration of nature and art**: The escape room blends natural elements with artistic expressions, using visual art, music and sensorial experiences to highlight the beauty of hidden vegetation and ecosystems. **-Creative storytelling**: The puzzles and tasks are framed within a narrative that intertwines environmental themes with cultural heritage, offering a deeper connection to the region's natural and artistic history. **-Sensory engagement**: Artistic elements are designed to engage participants through multiple senses, such as sight, sound, and movement, encouraging a holistic experience that enhances learning and immersion. **-Art as a catalyst for reflection**: Art is used not just for entertainment, but as a tool for reflection, prompting participants to consider the environmental messages and actions they can take to contribute to sustainability. **-Community-centered creativity**: The artistic approach encourages collective creation, where participants work together to solve challenges while being inspired by local	**Key resources** **-Local knowledge and expertise**: Collaboration with environmental experts, artists, and cultural institutions in Urdaibai to ensure accurate educational content and authentic cultural experiences. **-Space and infrastructure**: The physical location(s) for the escape room, including any venues in Urdaibai (e.g., San Fidel school or other local spaces) that provide the environment for the experience. **-Artistic materials and props**: Materials for creating the immersive puzzles, art installations, and performances (e.g., sets, costumes, and props for the artistic activities). **-Technological tools**: Interactive technologies such as augmented reality (AR), mobile apps, or digital devices used to enhance the educational and immersive aspects of the escape room. **-Bilingual content**: Development of materials and facilitation in both Spanish and Basque to ensure accessibility for all participants.	

-**Incorporating educational components** about ecosystems and the importance of biodiversity conservation**.**		culture, arts, and the natural surroundings of Urdaibai.	-**Educational content and resources**: Curated information and research on local ecosystems, hidden vegetation, and sustainability practices to be shared through the escape room experience.	
		Technology-innovation level -**Interactive digital tools**: The use of **tablets**, **QR codes**, and **web platforms** for real-time feedback and enhanced participant interaction during the experience. -**Augmented Reality (AR)**: Potential integration of AR features to provide immersive environmental storytelling, showcasing hidden elements of nature. -**Sustainability integration**: Innovative focus on sustainability through a **Living Lab** approach, testing solutions for environmental education in a real-world setting.	**Channels** -**Web platforms**: A dedicated **website** for bookings and collecting participant feedback through forms or surveys. -**Living Labs**: Testing environmental puzzles and educational content at **San Fidel School** or **local parks** in Urdaibai. -**Alliances**: Collaboration with **Gernika Kultur Etxea** for artistic content and **local SMEs** for eco-friendly materials. -**Social media**: Promotion on **Instagram**, engaging participants with updates and sustainability tips. -**On-site digital tools**: Use of **tablets** or **QR codes** for feedback during the escape room experience. -**Workshops and events**: Organizing creative sessions with **local artists** and **environmental experts** to develop content.	
Impact (social, economic and environmental sustainability) **Social impact**: it could generate social impact by engaging over 500 participants annually, fostering community bonding and cultural appreciation. **Economic impact:** it boosts local businesses related to sustainability, technology and CCIs (local scape room creators, digital content creators and visual artists) and stimulates local SMEs and institutions, fostering long-term tourism and sustainability. **Environmental impact**: it might reduce CO2 emissions and promote sustainable behaviors, with participants gaining a deeper connection to nature.				

Table 20. Scape Room Business Model Canvas (GAIA)

Recommendations to Maximize Impact

To enhance the impact of the Scape Room seed, it is essential to strengthen its educational and community-driven approach. Expanding collaborations with local schools, universities, and environmental organizations could create a long-term learning ecosystem, ensuring continued engagement with biodiversity conservation themes beyond the immersive experience.

Integrating augmented reality (AR) and digital storytelling elements into the escape room could provide interactive layers of engagement, allowing participants to explore hidden ecosystems in Urdaibai in a more immersive and dynamic way. Additionally, incorporating citizen science initiatives, such as biodiversity monitoring challenges, could deepen the educational value while generating real-world data for conservation efforts.

A strong stakeholder involvement strategy should focus on SME engagement in sustainability and cultural tourism. Establishing partnerships with eco-friendly material providers, local artists, and digital content creators would reinforce the project's commitment to sustainability and local economic development.

To scale and replicate the initiative, an open-source model or educational toolkit could be developed, allowing other regions and institutions to adapt the escape room concept for their own environmental education initiatives. Additionally, exploring international collaborations with other biodiversity-focused escape rooms or immersive experiences could further expand its impact and visibility.

A multichannel communication strategy—including social media, local media partnerships, and workshops—will ensure greater public awareness. Developing bilingual digital content in Spanish and Basque will also make the experience more inclusive and widely accessible.

7 SWOT analysis & risk mitigation plan

7.1 SWOT analysis of InteractionSeeds protocols

The SWOT analysis examines the Strengths, Weaknesses, Opportunities, and Threats associated with InteractionSeeds protocols (model canvas) applied to all the project cases, keeping in mind that InteractionSeeds aims to foster cross-fertilisation between the artistic-cultural perspectives and the agents of the quadruple helix (industry, academia, public bodies, and citizens), creating or promoting innovative, sustainable, and community-driven solutions to societal challenges. Weakness and Threads identified are then considered in the risk mitigation plan.

7.2. Strengths

7.2.1. Cross-disciplinary collaboration

The project successfully integrates art and culture with industry, academia, government, and citizens. The quintuple helix approach fosters innovation through diverse perspectives and resources.

Use of Art-Design Thinking methodology ensures a creative and holistic approach to problem-solving.

7.2.2. Cultural and societal impact

The project's focus on societal challenges and provides a strong foundation for addressing contemporary societal issues like climate neutrality, biodiversity protection, well-being, social cohesion, and cultural preservation.

Emphasis on community engagement and participatory art, make the project highly inclusive and impactful at the local level.

7.2.3. Sustainability and long-term focus

The project envisions medium-to-long-term impact, ensuring the solutions are not just short-term events but long-lasting changes in local ecosystems and communities.

Sustainability is a core theme, both in the artistic approaches and in addressing environmental challenges.

7.2.4. Replicability and scalability

Seeds like Digital Clean-up Day and Global Water Dance have great replicability potential, which allows the model to be adapted and scaled to other regions or sectors. The project's flexibility in adopting new cultural and technological innovations enhances scalability.

7.3. Weaknesses

7.3.1. Insufficient involvement of SMEs

Overall, from all interactions developed, a significant gap identified is the lack of involvement of SMEs. This limits the potential for cross-sectoral innovation and valorisation, as the involvement of smaller industries is crucial for practical, real-world application.

This absence of SMEs may hinder the project's ability to bring about tangible changes in industrial sectors through collaboration with the cultural and creative industries (CCIs).

7.3.2. Need for greater visibility in communication strategies

While communication efforts are being implemented locally by project partners, there is a lack of a clearly documented, overarching strategy for engaging the broader community in the model canvas. Although digital platforms are referenced, a more structured approach to outreach and dissemination could enhance protocol design and impacts of partners' interactions.

7.4. Opportunities

7.4.1. Increased collaboration with traditional industries

There is a clear opportunity to bridge the gap between the cultural and creative sectors (CCIs) and traditional industries through cross-fertilisation. Seeds can play a pivotal role in facilitating this integration, particularly in sectors such as sustainability, construction, and digital technologies.

Relying on the Art-Design Thinking perspective can foster mutual understanding and shared value creation between business and society.

7.4.2. Leveraging digital and immersive technologies

The use of immersive technologies and digital platforms opens new possibilities for engaging audiences beyond physical spaces. It can enhance cultural experiences and increase global reach while remaining locally grounded.

Immersive and interactive artistic experiences can attract diverse audiences, including youth and professionals from industries like tech and sustainability.

7.4.3. Scaling proven successes

The project is built on well-established interaction approaches, with several seeds—such as CluBE and RISE—already demonstrating effective methodologies (e.g., participatory climate change apps, digital clean-ups). Given their repeated success, there is now an opportunity to systematically scale these initiatives to new regions and contexts, ensuring broader impact while maintaining cultural relevance.

7.5. Threats

7.5.1. Cultural and economic barriers

The project could face resistance from traditional industries or local stakeholders who may be reluctant to integrate art and culture into their operations or agendas. Some may view this approach as non-essential or disruptive to existing practices.

The economic climate may also create challenges in securing funding or resources, particularly for projects that require long-term commitment.

7.5.2. Over-complexity and resource limitations

The complexity of managing cross-disciplinary teams and multiple stakeholders could lead to coordination challenges and resource strain. The integration of multiple sectors might cause delays or inefficiencies, especially if partners' interests diverge.

Lack of resources or capacity within some stakeholder groups (e.g., small cultural institutions, local governments) might limit the ability to fully implement the seeds' activities.

7.5.3. Uncertain long-term engagement

Long-term sustainability of community-driven initiatives can be challenging. While initial engagement might be high, there is a risk that interest could wane if clear continuity plans and sustained funding are not established from the start.

Stakeholder fatigue could also arise if the project fails to maintain momentum or does not continuously meet the needs and expectations of beneficiaries.

7.5.4. Environmental and technological concerns

The environmental impact of some technological tools (e.g., digital media, immersive technologies) should be carefully assessed. Overuse of electronic devices or energy-intensive processes might conflict with the project's commitment to sustainability.

Additionally, technological solutions might alienate communities that lack access or experience with new technologies, leading to exclusion.

7.6 Risk Mitigation Plan for a successful adaptation and implementation of ArtSS interactions

The following Risk Mitigation Plan outlines the steps to manage and mitigate potential risks associated with the InteractionSeeds project in accordance with the European Commission's guidelines for European projects. The plan addresses key risks that may affect the implementation, sustainability, and impact of the project, ensuring that actions are in place to proactively manage uncertainties.

7.6.1. Risk identification and classification

The primary risks have been identified based on the **SWOT analysis** and categorized according to their likelihood and impact on the project. Each risk has been assessed and classified in terms of its severity (high, medium, low), and the mitigation strategy is designed accordingly.

7.6.2. Risk register

Risk	Description	Likelihood	Impact	Risk Level	Mitigation Strategy
Lack of SME Involvement	Limited participation from Small and Medium Enterprises (SMEs) in the cross-fertilisation process between industries and CCIs.	Medium	High	High	1. **Outreach**: Develop tailored engagement strategies for SMEs, leveraging **local industry networks**, **chambers of commerce**, and **business incubators**. 2. **SME incentives**: Offer incentives for SMEs to participate, such as **sponsorship opportunities** or **co-financing** options.
Coordination Complexities	The complexity of managing cross-sectoral teams with diverse interests may cause delays or inefficiencies.	Medium	Medium	Medium	1. **Dedicated Project Manager**: Assign a project manager responsible for coordination and managing risks related to timing, budget, and collaboration. 2. **Clear Governance Structure**: Establish a **clear governance structure** with defined roles, responsibilities, and decision-making procedures.
Resistance from Traditional Sectors	Resistance from traditional industries to adopt artistic or cultural approaches in their processes.	Low	High	Medium	1. **Educational Workshops**: Organize workshops and seminars to **demonstrate the value** of integrating art into traditional sectors. 2. **Pilot Initiatives**: Start with **pilot projects** to showcase the tangible benefits, and create case studies to demonstrate success.
Digital Accessibility Issues	Barriers in access to digital platforms, especially for older populations or communities with limited digital literacy.	Medium	Medium	Medium	1. **Digital Literacy Programs**: Offer **training sessions** and **technical support** to stakeholders with limited digital access. 2. **Multi-Platform Approach**: Ensure that key content is accessible through both **physical** and **digital channels** to cater to different audience needs.
Uncertainty in Long-Term Engagement	Lack of sustained engagement from citizens and stakeholders beyond the initial phases of the project.	High	Medium	High	1. **Community Ownership**: Foster a sense of **ownership** among local communities by involving them in **decision-making processes**. 2. **Sustainable Funding Model**: Develop a **financial sustainability**

					plan that includes diversified funding sources, such as **public-private partnerships** and **crowdfunding**.
Technological Impact	The environmental impact of immersive technologies and digital media on sustainability goals.	Low	Medium	Medium	1. **Environmental Audits**: Perform regular **environmental audits** to measure the **carbon footprint** of technological tools and adapt to more sustainable practices. 2. **Energy-Efficient Solutions**: Prioritize the use of **energy-efficient technologies** and explore alternatives for reducing digital waste.
Financial Risks	Budget overruns, delays in disbursement, or unforeseen expenses that jeopardize seeds implementation.	Medium	High	High	1. **Contingency Budget**: Include a **contingency budget** (typically 5-10% of the total budget) to cover unforeseen costs. 2. **Regular Financial Monitoring**: Implement **monthly financial reviews** and budget adjustments to ensure that expenditures remain within the approved limits. 3. Seek for additional funding through sponsorhips, regional funding, local programs fostering engagement in sciences or artistic and cultural education.
Cultural and Economic Barriers	Local communities may resist the integration of culture and art into industry practices.	Medium	Medium	Medium	1. **Cultural Sensitivity**: Ensure all cultural activities are aligned with **local values** and **traditions** to foster acceptance. 2. **Economic Incentives**: Show the potential **economic benefits** for local communities by integrating creative industries into traditional sectors

Table 21. Risk register

7.8.3. Risk response strategies

To address the identified risks, the following response strategies are applied across the project and monitored within WP4:

1. **Risk Transfer**: In cases where the risk involves external entities, such as financial issues or technological dependencies, it will be transferred to the relevant parties (e.g., insurance providers, technology vendors).

2. **Risk avoidance**: For risks that can be avoided (e.g., resistance from traditional industries), proactive steps such as education and awareness campaigns and pilot projects are undertaken to demonstrate the value of integration.

3. **Risk mitigation**: Most of the identified risks are managed through a combination of contingency planning, communication, and stakeholder engagement. This will ensure that the project can adapt and overcome potential challenges without compromising its goals.

7.9 Monitoring and review

The success of the risk mitigation plan is monitored within WP4 through:

1. **Regular risk assessments**: The risk register is reviewed every quarter to assess the effectiveness of mitigation strategies and update risks as the project evolves.

2. **Stakeholder feedback**: Continuous stakeholder engagement and feedback will be collected to identify emerging risks and address them proactively.

3. **Performance indicators**: Key performance indicators (KPIs) have been established to monitor project progress and identify any potential risk signals early in the project lifecycle.

4. **Lessons learned**: After seeds implementation, a comprehensive return of experience session will be shared with all partners and stakeholders to help improve future project implementations under similar conditions.

8 Conclusions

This deliverable has outlined the test and protocol design for the 20 seeds, providing a structured framework for their implementation through the InteractionSeeds Model Canvas **tool** and a methodology centered on **cross-sector collaboration, artistic approaches, and sustainability**.

The 20 seeds developed in this deliverable highlight several key findings. First, **cross-sector collaboration** is essential, as demonstrated by the success of the seeds that integrate **CCIs, industry, academia, public authorities, and citizens** to drive innovation and foster societal engagement. The combination of **artistic methodologies and emerging technologies**, such as immersive experiences, raw carpentry, NFTs, and AR/VR, **has proven to be an effective strategy for engaging communities, fostering creativity, and promoting sustainability**. Additionally, the seeds show that **long-term impact requires adaptability**, as initiatives focusing on education, digital transformation, and sustainability must be designed for replicability and flexibility to evolve beyond their initial test phase. Another critical insight is that **stakeholder involvement must be continuous**, with the most successful seeds emphasizing **iterative feedback loops and active co-creation**. This approach, which will be further explored in WP4 and WP5, will help refine implementation models and ensure ongoing engagement across sectors.

As the project moves forward, the practical **testing and adaptation of these seeds** will be carried out in **WP4**, ensuring that risks, site-specific conditions, and stakeholder dynamics are carefully monitored during real-world implementations.

Additionally, the **long-term sustainability and impact** of the seeds will be reinforced through **WP5**, which will lead the **communication, dissemination, and exploitation strategy**. By engaging key stakeholder networks, **SME representative organizations, and European clusters**, WP5 will ensure that the knowledge and methodologies developed in this deliverable contribute to the **scalability, replicability, and long-term adoption** of the project's outcomes.