D4.2 Recommendations for the replicability of InteractionSeeds schemes

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Executive Summary

The InteractionSeeds project explored how artistic approaches can enhance citizen engagement in research, innovation, and public policy contexts. Across twenty interactions, and the integration of diverse art disciplines (such as sound art, design, poetry, and immersive media), implemented in four different ecosystems, the project demonstrated that art is not an accessory but a catalyst for dialogue, understanding, and co-creation. This deliverable brings together the insights, tools, methodologies, and recommendations developed during the project in order to support R&I organisations wishing to replicate or expand art–science–society collaborations.

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1. Introduction

1.1. InteractionSeeds objectives

The InteractionSeeds project seeks to promote science beyond academic labs, foster critical thinking, question technological assumptions, and explore innovative paths for societal progress. Recognising the unique skills that artistic and cultural organisations bring to these ambitions, **the project aims to foster the integration of art to facilitate deeper understanding and connections** with the world through various expressive forms. Artistic processes and the various art disciplines, when applied to research, inspire solutions for a sustainable, inclusive, and aesthetically enriched future.

Over two years, twenty art-science-society interactions have been implemented in four different ecosystems. These implementations **involved creating or replicating art-centred or cultural interactions** such as visual arts, music and sound art, immersive media, literature, design, and performances **that actively engaged with the public**. This approach provides **a replicable framework for making research and innovation (R&I) insights accessible to citizens, integrating art at the heart of collaborative projects** to communicate scientific knowledge and foster co-creation.

An '**interaction scheme'** is defined as an interactive activity that takes the form of e.g. one or a series of artistic or creative activity. The way it is carried out can vary across context but at the very core of the replication is the idea behind the scheme, the methodology and mindset used for carrying it out and the accompanying knowledge transfer.

1.2. Purpose of the deliverable

Deliverable D4.2 aims to establish recommendations for the replicability and adaptation of InteractionSeeds schemes in various geographical context and settings, domains and targeting various target groups. **Developed as a guide, first intended for the R&I community, it summarises key guidelines to develop and implement participatory processes and public engagement methods through artistic approaches.**

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2. Why art?

2.1 Unique values of art

Many research and innovation projects still struggle to reach diverse audiences, engage citizens beyond consultation, or translate complex ideas into experiences people can relate to. Artistic engagement complements scientific and technical knowledge by raising meaningful participation and activating senses, emotions, and imagination. Through lived experience, it enables people to relate to complex or abstract issues such as AI, climate change, or urban futures.

One should keep in mind that artists also work with **tacit knowledge**, knowledge that is personal, embodied, and gained through experience. This form of knowledge is crucial in innovation, as it helps transform intuitions or emerging ideas into something shareable and communicable.

Artists often connect ideas that appear contradictory or disconnected through practice-based exploration. By experimenting with form, material, space, sound, and narrative, they use metaphorical and associative thinking to translate complex ideas into tangible and shareable experiences.

This ability to bridge different worlds is essential not only for artistic creation but also for fostering creative problem-solving in research, design, policy, and industry.

As artistic engagement remains unfamiliar to many R&I stakeholders, it is important to clarify what it does, and does not, represent in practice. **The figure below summarises this distinction.**

WHAT IS ARTISTIC ENGAGEMENT ?

IT IS NOT	IT IS
• A single communication tools or a mere « **decoration** » • An artist creating or performing his/her own piece • **Exclusive** to specific groups or **overly conceptual** • **Detached** from place and people • A **single event or activity** • **Peripheral** to R&I or economic development • **Unpaid or undervalued** artistic labor	• **A creative and lasting process** that invite people to observe, feel, reflect and co-create meaning about a space or an issue. • **A source of knowledge:** Arts and culture, from visual arts to music and design, **complement technical approaches for reimagining alternative futures** by fostering civic identity and mobilising collective action through perception, emotion, and imagination • It surfaces **hidden needs, emotions, memories** • It **cultivates "Futures literacy**" needed to redesign systems' form, by enabling a renewed sense of purpose, trust and inclusion.

Figure 1 What artistic engagement represents

Through InteractionSeeds, a broad palette of arts disciplines was mobilised and helped unlock new forms of dialogue, surface hidden needs, and build trust between citizens, researchers, local authorities, and industry. **Table 1 summarises unique values art provides.**

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Table 1 Art unique values

Art Values	How it complements R&I?	How it is approached in InteractionSeeds?
Art awakens attention and sensory awareness	Artistic approaches activate senses, emotions, and embodied knowledge. It enables people to *feel* an issue before they fully understand it cognitively.	Soundwalks, immersive storytelling, and VR simulations reveal overlooked sensory and emotional dimensions that conventional engagement rarely captures.
Art makes complexity tangible and relatable	Many scientific and sustainability challenges are invisible, abstract, or highly technical. Artistic practices can make these complexities tangible, through images, narratives, performances, or embodied experiences.	Photo exhibitions, performance and role play enable citizens to grasp issues such as AI literacy, adaptation to climate change, ageing and neurodiversity, that otherwise remain distant.
Art creates spaces where everyone can participate	Grounded in openness and dialogue, the arts lower barriers and create safe, inclusive entry points for engagement. Participants do not need prior scientific knowledge and are able to freely express themselves.	Artistic approaches such as drawing, crafting, poetry-slam workshops, collective mural-making, sound exploration enable to reveal feelings, memories, and lived experiences that traditional surveys cannot.
Art builds trust and shifts power dynamics	Artistic formats foster horizontal relationships between researchers, policymakers, citizens, and industry actors. Shared creative experiences help balance power relations, humanise experts, and legitimise non-expert voices. This leads to richer dialogue, more authentic participation, and deeper collective ownership of the issues at stake.	Facilitation of design challenges, inspired from traditional hackathons, combined with hands-on sessions and public exhibitions encourage dialogue between various types of stakeholders.
Art helps imagine futures beyond the status quo	Futures thinking can be difficult when discussions are limited to technical constraints or near-	Role play, soundwalk, games and immersive experiences, poetry-slam facilitate conversations

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	term planning. Artistic and speculative approaches open up an imaginative space. They allow communities to develop critical thinking, envision alternative futures, question assumptions, and explore possibilities that policy or engineering alone might not consider.	about ageing, sustainable cities, and responsible AI and allow to move beyond problem-solving into future-shaping.

2.2 Various Art Forms for various Engagement Purpose

Each art form offers a different way of engaging people, making citizen engagement not only powerful but also flexible and adaptable to diverse contexts, audiences, and knowledge creation flow[1] or valorisation phase, from awareness raising to co-creation and stewardship as presented in Figure 2.

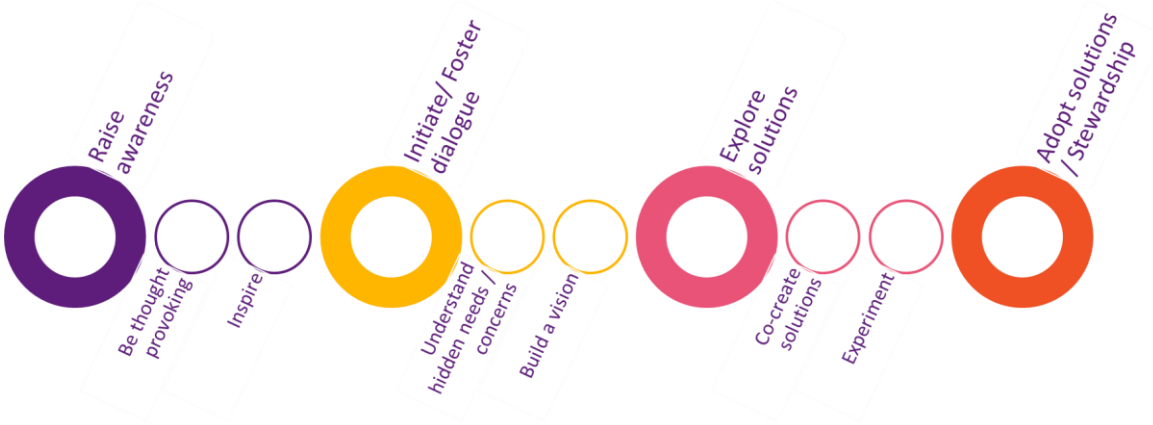

Figure 2 Purpose of citizen engagement along knowledge valorisation lifecycle

Table 2 provides an overview of the 16 art forms tested and implemented in InteractionSeeds, explaining how it fosters engagement and what could be potential variations.

[1] https://research-and-innovation.ec.europa.eu/research-area/industrial-research-and-innovation/eu valorisation-policy_en

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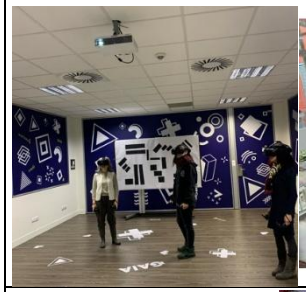
Table 2 Overview of art forms implemented in InteractionSeeds for various engagement purposes

Artistic engagement approach	How it fosters engagement?
Photos exhibitions & image-based reflections  	Photo exhibitions give visibility to lived experiences, place-based issues, or community narratives.  **Variation**: Image-based reflection helps uncover perceptions, values, and hidden needs that may not emerge through verbal discussion.  **Related success stories:** Nature-based Solutions for coastal resilience; Our Elderly Future; House of AI-Kozani Edition; Mizeolia: Art to raise awareness on soil biodiversity; Climate Swipe app
Visual storytelling and Comics 	Comics and illustrated narratives simplify complex ideas through humour, metaphor, and character-driven stories. They help audiences project themselves into situations and reflect on future possibilities.  **Variation 1**: Short comics can also be adapted into short video formats using motion-design techniques to increase visibility on social media and reach younger audiences. A manga-style aesthetic is particularly effective for engaging this generation.  **Variation 2**: Citizens/Stakeholders could also take the role of the storyteller to explore user scenarios in a creative format. By developing their own short scripts they connect emotionally with ideas.  **Related success stories:** Encouraging sustainable practices for the Mercantour National Park
Mural / Collective Painting 	Large-scale collective art builds a shared identity and sense of place. It enables participants to visualise their community / common values, challenges, or futures together, strengthening cohesion and ownership.  **Related success stories:** 100% all-girl scientific SummerCamp

Immersive experience (VR/AR, multisensory installations)  		Immersive environments make abstract concepts tangible by simulating alternative scenarios, future worlds, or invisible systems. They provoke strong emotional reactions, deepen understanding, and support empathy-based dialogue.  **Variation**: A facilitator can guide the VR experience, explain its purpose, and host debrief, fostering dialogue and shared reflection while helping participants feel comfortable and confident engaging with the technology.  **Related success stories**: Nature-based Solutions for coastal resilience; Inclusive Museums: Addressing Neurodivergence in Cultural Spaces; Immersive Experiences for Sustainability & Industry 4.0
Traditions, Rituals & Carnival 		Local traditions activate cultural memory and belonging, making engagement more inclusive and emotionally grounded. Carnival-like formats allow people to temporarily step outside norms and envision alternative realities  **Related success stories:** Lazarines of Krokos; House of AI-Kozani Edition; Inclusive and culturally rooted energy communities
	**Role-Playing & Improvisation (Theatrical Thinking and Immersive acting)**	Performance-based techniques (e.g., acting out scenarios) allow to explore different perspectives. The participant being a performer itself, it encourages empathy, reveals hidden constraints, and promotes rapid idea iteration. It also makes concepts tangible and emotionally resonant. Such approaches can enhance experimentation by allowing users and designers to act out interactions in simulated environments.  **Related success stories:** Welcome to our elderly future; Inclusive Museums: Addressing Neurodivergence in Cultural Spaces; Collaborative approaches for societal issues
Gaming 		Games create safe spaces to experiment with choices, explore future scenarios, and understand complex systems. They encourage collaboration, creativity, and systems thinking.  **Related success stories:** Escape room KLIMA

Mood Films & Audiovisual stimulation

This approach refers to the use of sound and visual element to visualize and test ideas or to imagine future solutions, dystopian/utopian scenarios, or alternative realities. From rough video sketches or simple animations with music and voiceovers narratives, to short cinematic pieces, it allows to enhance perception and to convey the emotion, aesthetics, and values of an idea. This approach drives social awareness on contemporary challenges and sparks discussion about how to refine or pivot it.

Variation 1: The sound and music can also be used separately to engage a multi-sensory ideation process that goes beyond visual elements. It enhances cognitive function and improves mood, creating an environment that promotes deeper focus and creative problem-solving.

Variation 2: Combined with conventional design-thinking tools, it helps participants better understand the causes and develop innovative solutions.

Related success stories: Digital Clean-Up day; Smart-Spaces for reduced stress and Well-Being (The Taste of Electronic Music)

Museum visit

A museum visit introduces participants to diverse forms of art and design, stimulating creativity and plastic thinking. More than just an observational experience, it becomes an interactive space where art, science, and society converge.

Variation 1: Combined with conventional design-thinking tools, it helps participants to propose innovative solutions.

Variation 2: Through exploratory walks in museums, focus on colours or sounds, re-enactments, and media production projects, museums transform passive observation into active engagement. It helps participants connect historical values, beliefs, and traditions to contemporary educational, scientific, and societal challenges.

Related success stories: Collaborative approaches for societal issues; Reducing stress through nature & creativity

Performing dance & music

Dance offers a unique avenue for fostering creativity, adaptability, and critical thinking by disrupting routine patterns and encouraging alternative perspectives. By engaging in bodily movement, participants explore intuitive and holistic problem-solving, integrating physical expression with cognitive processes. For example, when designing public spaces, participants can use dance and movement to examine how people interact with their environment, leading to more innovative and human-centred solutions.

Variation 1: Musical elements such as rhythm, harmony, or dissonance can symbolise tensions, aspirations, or transformations within a community or ecosystem. Integrated into an R&I context, music can help reveal emotional states, cultural identities, or values that are not easily verbalised.

Variation 2: Music performance, whether live, participatory, site-specific, or improvised, creates an immediate emotional connection that can open people to deeper reflection. It can also support sensemaking by providing a non-verbal language to explore complex issues, imagine futures, and collectively navigate uncertainty.

Related success stories: Inclusive and culturally-rooted Energy Communities

Soundwalk & soundscape

A soundwalk is a guided walk that focuses on listening to the environment, all the sounds around us, and the atmosphere they create. Unlike walking with headphones, participants are invited to slow down and open their ears to the city's natural soundscape. It's a way to experience, based on many points of views.

Variation: After the walk, participants could share their experiences of the walk, what was pleasant or unpleasant as well as memories of sounds in the city and how urban soundscapes evolve over time. It would lead to broader conversations about the changing environment of cities and the future soundscapes.

Related success stories: Future sounds of cities

Poetry, Spoken Word & Slam

Poetic forms help participants articulate emotions, fears, hopes, and tacit knowledge. They turn complex or sensitive topics into expressive, relatable narratives that build empathy and collective understanding.

Variation: An artist could read some poems related to the topic of a scientific conference to help the audience connect emotionally and understand complex knowledge. Such facilitation build confidence and enable to open dialogue

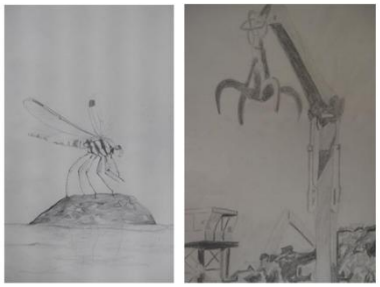
Related success stories: Rhyms and algorithms: teaching artificial intelligence through slam poetry workshops; Inclusive Museums: Addressing Neurodivergence in Cultural Spaces

Craft arts

Craft invites hands-on participation and slows down attention, fostering care, trust, and intergenerational exchange. Working with materials helps people relate to sustainability topics through embodied practice.

Related success stories: Lazarines of Krokos; House of AI-Kozani Edition; Inclusive and culturally-rooted energy communities; Reducing stress through nature & creativity

Drawing/Painting



Drawing and painting help participants externalize thoughts, emotions, and perceptions. These visual forms are accessible for all skill levels and support imagination, metaphorical thinking, and non-verbal expression. They are powerful for visioning future scenarios, reflecting on experiences, and collaboratively shaping ideas.

Related success stories: Inclusive and culturally-rooted energy communities; Reducing stress through nature & creativity; Mizelioa: Art to Raise Awareness of Soil Biodiversity

Design & prototyping 	Participants co-create small-scale models or mock-ups of spaces using simple materials. This makes spatial ideas concrete, reveals constraints, and supports collective problem-solving. It helps participants move from abstract discussion to embodied imagining of how a place could evolve, supporting iterative design and testing. **Related success stories:** Inclusive museums	
Sewing 	Hands-on textile activities (sewing, stitching, upcycling) allow participants to express ideas through material experimentation. The slow, tactile nature of sewing encourages reflection, storytelling, and collective making. It helps gather personal memories, builds group cohesion, and makes abstract topics tangible through crafted artefacts. **Related success stories:** Power in the remake	

3. How to replicate InteractionSeeds engagement approaches?

3.1. Evaluate the maturity of citizen engagement processes through art

Building upon the experience gained in InteractionSeeds, a Citizen Engagement self-assessment tool has been developed to evaluate the maturity of the processes used within a project to engage with citizens and stakeholders. The tool questions the way Art is integrated in those processes and therefore enables the identification of pathways to improve citizens engagement, and to strengthen the integration of artistic approaches in a project.

This tool is intended for different types of organisations running a project[2] involving citizens:

- **R&I stakeholders**: researchers who wants to share their research results with citizens and turn these results into meaningful product or services for society; teams in charge of knowledge valorisation;
- **Facilitators:** i.e. intermediaries (clusters, consultancy companies, innovation managers, etc.) supporting local authorities and R&I communities in their citizen engagement processes.

The InteractionSeeds Self-Assessment Tool evaluates the following 3 dimensions:
Maturity in Citizen Engagement, evaluating the role of citizens in a project, the methodological capacities, how participant feedback is integrated and to which extent impacts are monitored.
Maturity in turning research results into new solutions, knowledge and skills. In this dimension, interdisciplinarity models, value creation, accessibility to findings and skills transfer are evaluated.
Maturity in the integration of arts, evaluating the strategic role of art, organisational support and to which extent the artist is engaged with communities.

Each dimension of the tool is assessed through a set of criteria that reflect key aspects of meaningful citizen engagement, knowledge valorisation, and the integration of artistic approaches. These criteria translate complex engagement processes into

[2] By project we mean a set of activities or an intervention limited in scope and time (from a few days to a few years) - but the tool is rather flexible in relation to the size and duration of the project you want to cover.

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observable practices, such as how citizens are involved, how collaboration is structured, how results are shared, or how artists contribute over time.

Topic	Question	Maturity level 0 (lowest)	Maturity level 1	Maturity level 2	Maturity level 3 (highest)	Which maturity level better applies to your project at the start ?	Which maturity level better applies to your project at the halfway stage ?	Which maturity level better applies to your project at the end ?
3. Maturity in the integration of the arts								
Strategic Role of Art	How are the arts integrated in your project?	0. No form of art is used in the project	1. The project integrates visual arts as communication and outreach tools (to better communicate, trigger emotions)	2. The project values different form of art for creative reflection (e.g. challenge way of thinking, inspire contributions, call to action)	3. The project continuously embeds artistic perspectives in citizens engagement and knowledge valorisation (e.g. to encourage and maintain active participation, build lasting trust and co-creation processes)	0	1	2
	How does your project leverage on art to target specific groups? (e.g. underepresented, vulnerable or disadvantaged groups)	0. Our project does not target specific vulnerable or underepresented group	1. Our project targets specific underepresented or vulnerable groups but without artistic approaches	2. Our project integrates artistic approaches to give a voice to underepresented or vulnerable groups	3. Our project integrates artistic approaches to actively engage underepresented or vulnerable groups in all the stages of co-creation processes	0	1	2
Organizational Support	Does your project have funding, and internal skills to support the integration of art?	0. The project has no dedicated resources	1. The project has funding for occasional external artistic facilitation	2. The project has funding and collaborate with trained facilitators, culture officers or curators to integrate art in the participatory processes	3. In addition to 2, our project carries out impact monitoring & evaluation of the integration of art.	0	1	2
	How does your project attract artists?	0. The project does not involve any artist	1. The project finds artists through expressions of interest	2. The projects works with a network of experienced artists, with the support of facilitators and/or curators	3. The project collaborates with an expanding network of artists and supports their continuous upskilling in relation to citizens engagement or knowledge dissemination, with the support of facilitators and/or	0	1	2
Artist Engagement	How qualitative and diverse are the collaborations with artists, in your project?	0. The project does not involve any artist	1. Artists are contracted through punctual commissions (i.e. the artist aligns to the provided specifications)	2. Our project implements a co-production with artists, with discussions, continuous ideation and experimentation during the whole project, and capacity-building	3. In addition to 2, our project also defines an exit strategy or follow-up programme to continue the collaboration	0	1	3

Figure 3 Screenshot of the self-assessment tool - Maturity in the integration of arts

For each criterion, projects are assessed across **four maturity levels**, from 0 (lowest) to 3 (highest). These levels do not represent "good" or "bad" performance, but rather **stages of development** that many projects move through progressively:

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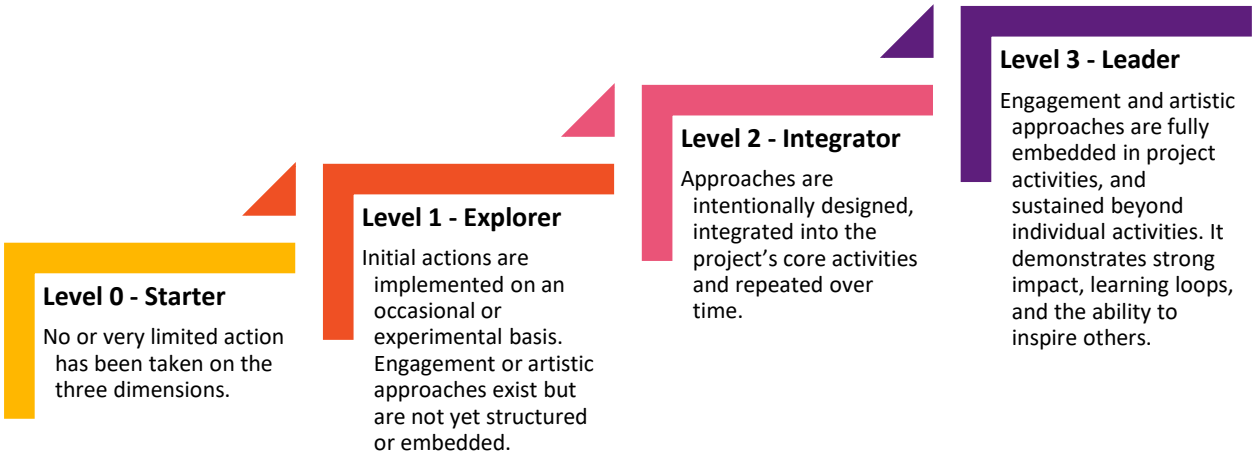

Figure 4 The four maturity levels of the Citizens Engagement Self-Assessment tool

The self-assessment tool can be filled in **at different times over the project duration** (start, midway, and end), making it both a **diagnostic and a learning tool**. By visualising strengths and gaps across criteria and dimensions, project teams are helped to identify priority areas for improvement and to select the most relevant pathways for progression.

The recommendations presented in the following sections build directly on these maturity levels. They are designed to support projects in moving from one level to the next, step by step, while adapting to their specific context, resources, and ambitions.

3.2 Progression pathways in citizen engagement

Citizen engagement refers to the active participation of individuals and communities in governance processes, encompassing decision-making, implementation, and monitoring. Below recommendations to start and progressively move to the « Leader » level.

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From Starter to Explorer

Typical situation
The project is considering, or just starting to test, new approaches to engage with citizens.
What limits further impact
• The purpose and added value of citizen engagement are not yet clearly defined or shared within the project team, limiting commitment and meaningful action.
Key recommendations to move to the next level
• Clarify the purpose of engagement by linking it to concrete R&I needs: Are you seeking to raise awareness, open dialogue, learn from lived experience, or inform future solutions? • Implement a robust local communication strategy to attract participants effectively. • Present your work in a non-technical way, focusing on the why and potential societal impacts, in order to raise interest and inspire. • Map your local ecosystem beyond your usual domain: identify supportive stakeholders such as community groups, educators, or informal networks that could act as entry points or trusted intermediaries. • Start with a small and low-risk engagement activity to test formats, build confidence and learn by doing.

From Explorer to Integrator

Typical situation
Project actively involve citizens through workshops or consultations but engagement remains episodic, and citizens rarely influence implementation or follow-up.
What limits further impact
• Engagement activities are not embedded across the full project cycle and quite often, only in one stage. • Feedback is collected but not systematically reintegrated and there is no follow-up. • Facilitation relies on a small number of individuals.
Key recommendations to move to the next level
• Allocate time and resources for internal reflection and learning loops. • Design citizen engagement as a process, not a one-off activity. Involve citizens at multiple stages (needs identification, ideation, testing, etc.) and be open on the outcomes. • Facilitate an environment conducive to networking and relationship-building among participants, fostering potential collaborations and a more cohesive community interested in the subject. • Combine artistic approaches with facilitation expertise to deepen participation and engage communities that are usually hard to reach. To do so, build a network with art schools and local cultural & artistic associations.
Illustration from InteractionSeeds

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- In the *Future sounds of cities*, feedback from citizens directly informed urban planning iterations.
- In *Lazarines*, storytelling and hands-on activities, opened dialogue and created a safe intergenerational space for women and girls to reflect on how traditions get affected by climate change and evolve over time.

From Integrator to Leader

Typical situation
Project actively involves citizens in co-creation activities at different stages. Innovative approaches are used to foster engagement and inform project development.
What limits further impact
• Engagement and R&I processes remain framed within established institutional or methodological tracks, limiting openness and creativity. • There is no structured follow-up with engaged communities: R&I actors do not monitor medium to long-term impact and resulting actions, while citizens lack visibility on how their input influenced project developments.
Key recommendations to progress to the next level
• Involve citizens or users in the strategic management of the project and in the deployment and maintenance of solutions. They can help identify new goals, new sites for replications and additional stakeholders. • Be self-reflective and get out of established tracks in your engagement processes. Creative and artistic approaches help reframe questions, reveal blind spots and open new perspectives. • Don't always expect tangible results, the process is an outcome in itself: leadership-level engagement recognises trust-building, learning, and sustained relationships as key impacts, even when results are not immediately tangible.
Illustration from InteractionSeeds
• In Es*cape room KLIMA*, gaming and immersive co-creation engage citizens in complex decision-making scenarios and foster collective problem-solving. • *Power in the remake* shows how artistic reinterpretation creates long-term dialogue, enabling communities to reflect on power, agency, and change beyond a single intervention.

3.3 Progression pathways in knowledge valorisation

Knowledge valorisation ensures that data, research results and inventions are transformed into sustainable products, processes and services that bring economic value and benefit society. From collaboration models to educational culture, find below the recommendations to progress in your journey.

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From Starter to Explorer

Typical situation
The project is framed in one discipline or involves only R&I stakeholders and doesn't aim to transfer knowledge or skills in addition to its tangible results.
What limits further impact
• Results are only presented to peers within the same discipline. • The subject is only looked at from one perspective and does not necessarily consider user needs, goals, and values to get the right solution
Key recommendations to progress to the next level
• Refine the citizens/users needs and concerns. This step is crucial for ensuring that (1) the solutions developed address real and significant issues and (2) that the engagement activities make sense to your targets. • Engage with various sectors and stakeholders, start dialogue and consider perspectives from different disciplines to create a broader understanding of a subject and develop new ideas and solutions. • Translate and align research results with societal challenges to strengthen relevance and facilitate public support. Provide practical examples and hands-on case studies to engage non-experts and ensure meaningful impact. • Disseminate knowledge into workshops and lectures organised by initiatives / schools from different disciplines.

From Explorer to Integrator

Typical situation
Several technical or scientific disciplines are involved in the project, but work independently.
What limits further impact
• The socio-economic dimension of grand societal problems is not considered in the design, development and implementation of the research, and of new technologies. • Valorisation of research results is limited to dissemination actions to a reduced target group.
Key recommendations to progress to the next level
• Leverage local networks and institutions to build trust and mobilise both stakeholders and resources. • Start with small objectives, allow time for mutual understanding, and involve all partners equally in co-creation and decision-making so that their expertise and perspectives shape the project. • Foster a creative environment thanks to techniques such as mind mapping, sketching, prototyping, etc., where unconventional ideas can emerge and be refined into viable concepts. • Embrace friction in the encounter between the various disciplines and allow it to trigger critical reflection on current practices and concepts.

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- Translate results into meaningful solutions for your local ecosystem and present the expected societal impacts.

Illustration from InteractionSeeds

- In the *Inclusive Museum*, experts from multiple domains were brought together with the general public, combining unique insights for more holistic accessibility approaches and encouraging interdisciplinary collaboration.
- The *House of AI – Kozani Edition*, featured different targeted workshops, each designed to enhance understanding of AI's benefits and practical applications across different sectors and populations.

From Integrator to Leader

Typical situation

The project successfully translates research results into usable knowledge, tools, or services and promotes learning through regular activities. Interdisciplinary collaboration is in place, and research outcomes are accessible beyond the academic sphere.

What limits further impact

- Knowledge valorisation remains project-bound, with limited spillover into broader ecosystems or long-term learning structures.
- Collaboration across disciplines exists, but partners may still operate within parallel logics rather than fully integrating perspectives.
- Learning and skills development are facilitated, but beneficiaries are not yet empowered to become knowledge carriers or multipliers themselves.

Key recommendations to progress to the next level

- Embed transdisciplinarity from the outset by involving artists, designers, engineers, researchers, and societal actors early in the problem framing, not only in solution development.
- Design knowledge valorisation as an ecosystem, enabling students, citizens, professionals, and institutions to co-produce, adapt, and reuse knowledge across contexts and over time.
- Shift from dissemination to empowerment by creating conditions for participants to transfer skills, reinterpret findings, and initiate new applications beyond the project's original scope.

Illustration from InteractionSeeds

- Early convergence of artists, engineers, designers, and creators in *Immersive Experiences for Sustainability & Industry 4.0* leads to the co-creation of immersive formats, making complex concepts tangible and reflecting diverse needs and priorities.
- *Collaborative approaches for societal issues*, shows how inviting students from diverse disciplines empowers them, fosters multidimensional perspectives and strengthens collective capacity to address economic and societal challenges faced by cultural and educational institutions in Sweden.

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3.4 Progression pathways in the integration of art

As argued in chapter 2, integrating art in R&I and knowledge valorisation processes represents a strong opportunity to challenge the way of thinking, engage new stakeholders, initiate dialogue, reveal hidden challenges and explore new solutions Building upon InteractionSeeds learnings, several recommendations are formulated below to foster collaboration between artists and R&I communities.

From Starter to Explorer

Typical situation
The project does not yet integrate artistic approaches. Communication and engagement rely mainly on technical language, reports, or standard dissemination formats. If art is present, it is incidental or limited to aesthetic decoration without a clear engagement purpose.
What limits further impact
• Art is perceived as optional, decorative, or incompatible with research and innovation processes. • Teams lack awareness of how artistic approaches can support public engagement and knowledge valorisation processes. • No dedicated budget, skills, or organisational support exist to involve artists.
Key recommendations to progress to the next level
• Identify when artistic intervention may fit in your project timeline and, possibly, consider combining projects to add value without compromising individual project development. • Rely on your network to get inspired and identify artists or actors from the Creative and Cultural Industries (CCIs), experienced in participatory approaches, with whom you could collaborate. • Engage artists early, especially when the problem or direction is still open, rather than only once objectives and outputs are fully defined. • Try not to duplicate: don't use exactly the same ideas and perspectives as you may have seen in other interventions. Instead, be adaptable. Keep in mind that to start exploring Art-Science collaborations, engagement activities don't have to be expensive or long art-residency programmes. • Artists/CCIs can help you find the funding, drive the collaboration with various stakeholders and engage with citizen groups / local communities.

From Explorer to Integrator

Typical situation
Artistic approaches mainly contribute towards outreach and visibility (e.g. visuals, videos, exhibitions) to make project messages more attractive and emotionally engaging. Artists are commissioned for punctual outputs, often late in the project lifecycle.

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What limits further impact
• Art remains instrumentalised as a communication tool rather than a means for dialogue, reflection, or sense-making. • Artists are not involved early enough to influence problem framing or engagement design. • Artistic interventions are disconnected from citizen feedback loops and knowledge valorisation processes.
Key recommendations to progress to the next level
• Organise early discussion to identify good fit in the working relationship, set expectations from both sides and identify common goals. First, artists are not subcontractors or service providers, avoid having a close idea in a specific budget. Second, it's not just about art or science or society, it's about all of these. • Be involved in local cultural events more regularly, building a network and integrating scientific/technical aspects in cultural interventions. • Artistic work cannot be subject to the same measures, results and impacts as R&I. • Recognise the work of the artist / CCI : don't ask to work for free / exposure only and be mindful of the hours of work it takes for artistic ideas to emerge. • Trust the process in itself and be open to the outcome as art creates knowledge, even if not immediately tangible. • Embrace the friction in the encounter between artists and R&I and allow it to trigger critical reflection on current practices and concepts.
Illustration from InteractionSeeds
• *Sustainable communities* shows how artistic approaches enable to move beyond awareness-raising by helping residents visualise energy flows, express concerns, and discuss everyday energy practices, supporting more informed and inclusive dialogue around local energy transitions. • In *NbS for Coastal Resilience* artistic practices were embedded throughout the engagement process, with artists working alongside scientists and local authorities. It moved beyond using art for communication by providing immersive experiences to help citizens sense, experience, and reflect on their relationship with coastal environments, informing discussions on risk, adaptation, and place-based values.

From Integrator to Leader

Typical situation
The project values artistic approaches for creative reflection, inspiration, and citizen engagement. Artists collaborate with researchers and facilitators during key phases, and artistic methods help question assumptions, surface emotions, and stimulate participation.
What limits further impact
• Artistic engagement is still episodic rather than continuously embedded across the project lifecycle.

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• Organisational structures do not yet support long-term collaboration with artists or impact monitoring of artistic interventions. • Artists may engage with communities at selected moments, but without sustained follow-up or shared ownership of outcomes.
Key recommendations to progress to the next level
• Plan time for trust, exploration and ideation from the outset and embed artistic engagement across the full project lifecycle, until the exit strategy, not only at key milestones. • Collect measurable evidence of success to validate the value of the approach and get organisational buy-in and legitimise artistic engagement within R&I structures. Measure baselines before the engagement and identify KPIs that are local rather than project-based. • Elaborate open, flexible partnerships to encourage long-term collaboration and fair collaboration models, ensuring shared ownership, and opportunities for follow-up or continuation beyond the project. • Expand your network of artists and supports their continuous upskilling in relation to your project disciplines, with the support of facilitators and/or curators.
Illustration from InteractionSeeds
• In the *Artistic visions of soil and biodiversity* and *Welcome to Our Elderly Future*, artists were fully embedded as strategic partners, helping communities, researchers, and public actors co-create shared imaginaries, question long-term environmental and societal values, and sustain collective engagement beyond a single intervention.

4. Additional tools to support replication

To support the replication and adaptation of art–science engagement approaches, InteractionSeeds has developed a set of complementary tools designed for R&I stakeholders, facilitators, cultural organisations, and public authorities. These tools are meant to be used either together or independently, depending on the maturity, context, and objectives of a project.

1. Get inspired thanks to the InteractionSeeds Repository

The repository brings together a curated collection of artistic engagement methods, implemented in different contexts and ecosystems. It allows users to explore a diversity of art forms, engagement objectives, and implementation conditions, helping them getting inspired by approaches that are relevant to their own challenges. By documenting methods in a structured and accessible way, the repository supports inspiration, adaptation, and transfer across ecosystems and domains.

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2. Explore the InteractionSeeds Success Stories to find out more!

The success stories document the 20 InteractionSeeds interventions, highlighting what was implemented and how participants were engaged, documenting what artistic approaches were developed, the observed impacts and tips for replication. These stories help practitioners understand how art–science engagement can be adapted to different scales, themes, and local ecosystems.

3. Map your ecosystem to identify local champions

To support citizen engagement at local level, stakeholders to be involved are of different natures: R&I stakeholders (who would bring the scientific part of the interaction), artists and the creative and cultural industries, intermediaries who support R&I and industry competitiveness (and who can support the process of setting-up an interaction), local authorities and NGOs.

Do not hesitate to rely on InteractionSeeds stakeholder mapping approach, available in deliverable D2.2.

4. Frame your ideas through The Art–Science Engagement Model Canvas

The model canvas is a practical design tool that helps project teams structure and reflect on their art–science engagement strategy. It supports the definition of objectives, target groups, roles of artists and other stakeholders, engagement methods, resources, and expected impacts.

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<table>
<tr>
<td>Key partners
• 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).</td>
<td>Social challenge
What social challenge is faced by stakeholders and/or beneficiaries?

Needs
What do the stakeholders and/or beneficiaries need within the scope of the social challenge?</td>
<td>Value propositions
• 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.

Artistic approach
How is a holistic artistic approach integrated into your seed?

Technology-innovation level
What is the level of technology or innovation development applied to your seed?</td>
<td>Relationship with stakeholders
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.

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.
• 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.

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)-</td>
<td>Beneficiaries
• 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 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.</td>
</tr>
<tr>
<td>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.</td>
<td>Mission
• Generate a social impact through the presentation of success stories in sustainable fashion.
• Strengthening fashion innovation through circularity and C02 reduction.
• To enable the local fashion industry to make the ecological transition demanded by the international context and thus increase its competitiveness.</td>
<td colspan="3"></td>
</tr>
<tr>
<td colspan="5">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.</td>
</tr>
</table>

Figure 5 Adapted Business Model Canvas designed and implemented by Interaction Seeds

The canvas can be used at the beginning of a project to design an engagement approach, during implementation to support alignment among partners, or as a reflective tool to adjust and improve ongoing activities.

Examples of applications and adaptation are available in D3.2 Test and protocol design.

5. **Evaluate yourself with the Self-Assessment Tool introduced above.**

5. Policy recommendations

To fully harness the potential of art–science collaboration to tackle global challenges and societal transformations, targeted policy support is needed at European, national, and regional levels.

At EU level, **Horizon Europe work programme and the 10th framework programme** could explicitly evolve from the integration of Social Sciences and Humanities (SSH) toward the integration of **SSH–Arts**. Introducing dedicated wording in relevant calls would help legitimise artistic engagement as a strategic component of research, innovation, and citizen engagement, rather than an optional add-on.

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Artists and cultural actors also need **better support mechanisms to join research and innovation consortia**. This includes guidance, matchmaking, and capacity-building adapted to their professional skillsets. European initiatives such as the **EIC Culture and Creativity** could play a key role in empowering artists, supporting their participation in R&I projects, and strengthening their ability to collaborate across sectors.

In addition, a **Coordination and Support Action (CSA)** focused on peer learning and community building would be highly valuable. Working in connection with **Living Labs**, such a CSA could help consolidate evidence, share practices, and showcase how cultural organisations, CCIs, artists, researchers, public authorities, and industry collaborate across disciplines and territories.

At **national and regional levels**, policymakers could support the creation of **platforms mapping cultural and creative actors alongside R&I and industrial stakeholders** engaged in art–science–society collaboration. Simplifying and adapting public procedures would further facilitate cross-sector partnerships, experimentation, and the long-term embedding of artistic engagement in innovation ecosystems.

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