





D2.3 Innovation Direction and Trends Overview and Recommendations

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Deliverable Summary

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Project Summary

SPECTRA project (Stimulating Performance of Ecosystems in Creative Territories and Regional Actors) embodies the collaborative vision of 8 partners (including 3 associate partners) representing 4 regional ecosystems – an emerging innovator region in Bulgaria (North-Central-BG), moderate innovator region in Ireland (Northern and Western), together with lead innovator regions in Denmark (Hovedstaden) and Germany (Berlin).

SPECTRA will put in place key ingredients required to equip the emerging innovator and moderate innovator regions with a more responsive, resilient ecosystem, capable of growing and developing coordinated responses to many challenges creative industries are facing to achieve the National and European goals. It will harness and multiply the power of individual ecosystem initiatives to create a collaboration driven innovation network - resulting in enhanced, more inter-connected, diverse, gender-responsive, competitive, and sustainable ecosystems.

Additionally, SPECTRA will include activities directed at the creative innovation eco-system stakeholders that will encourage development of joint strategies and amplify collaboration. They will benefit extensively from the advanced business support models developed to fast-track start-ups, produce scale-ups, avail of best practice, new systems, structures, and tools, as well as data-driven & carbon-reducing challenge-based innovation methods, case studies, role models, cross-sectoral and intra-territorial learning - creating an excess of 300 new linkages.

In addition to addressing the relevant project call and work programme contexts, the National, Regional and EU Policy framework and its associated strategies and objectives, the overall concept for SPECTRA has been conceived around formulating coordination and support measures based on the preliminary needs analysis of the 3 key primary audiences: ecosystems as a whole (as catalysts for businesses to thrive and drivers of innovation), SMEs, start-ups and scale-ups (entrepreneurs/solution providers and key beneficiaries), and other ecosystem stakeholders (public organisations, HEIs, researchers, clusters, incubators, accelerators, etc.).

All 3 audiences are perceived beneficiaries of the SPECTRA outcomes, with the proposed project removing obstacles to achieving expected impacts (further elaborated on below, including other target audiences).

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Contents

DELIV	ERABLE SUMMARY	
	CT SUMMARY	
	NTS	
1 DE	LIVERABLE DESCRIPTION	5
2 INI	NOVATION TRENDS	7
2.1	CROSS-SECTORAL COLLABORATION	7
2.2	HUMAN-CENTRIC APPROACHES	9
2.3	INTEGRATION OF THE GREEN AND DIGITAL TRANSITION	11
2.4	Co-Creation and Societal Inclusion	13
3 CO	ONCLUSION AND RECOMMENDATIONS	16

1 Deliverable Description

One of the primary objectives of the SPECTRA project is to enable, through its activities, systemic transfer of knowledge, experience, and expertise from lead innovators to moderate and emerging innovator regions, on a cross-border, cross-disciplinary basis, addressing the following challenges:

- Lack of active drivers bringing stakeholders together despite numerous agents and supports available to support collaboration and networking, full breadth of the ecosystem is not being fully exploited either at the local level or beyond and opportunities exist to increase the relevance of, and connections to, other innovation partners.
- Divergence in ecosystem maturity, policy environment and inter-connectivity.
- Asymmetry of knowledge, experience, and expertise among the ecosystems.

The SPECTRA interventions under Work Package 2 (WP2) 'Capacity Building of Moderate and Emerging Innovator Territories' target the emerging and modest ecosystems directly, with the aim to engage more with emerging innovation directions and trends, and advanced methods, tools, systems, and structures, enable them to become more resilient to disruption, such as caused by the COVID19 pandemic, to develop capability to turn them into opportunities and develop new solutions to the challenges they face in their environment, as well as to:

- ensure socio-environmental issues are addressed at a very early stage in activities and are an essential cornerstone of strategy for growth.
- become more proactive and skilled in driving innovation, becoming the instigator of new technological solutions ('bottom-up' approach).
- engage more in multi-stakeholder discovery process and co-creation.
- become more connected to other ecosystems and other stakeholders in the ecosystem, to expand sharing of knowledge and expertise.

These activities provide for strategies to overcome barriers in addressing these challenges and opportunities, including:

- Lack of knowledge on how to effectively engage with emerging innovation directions and trends – which trends and technologies are most relevant, in what way and for what purpose – having weak association/appreciation of how they need to integrate with the complex requirements of the ecosystem and the entrepreneurs.
- Weak mechanisms and processes via which businesses can engage in collaboration and innovation with external partners and other ecosystems.
- Fragmented eco-system, especially on the cross-border/transnational basis, when considering key players, weak open innovation frameworks engaging the quadruple helix
- Perception that some existing solutions are 'solutions looking for a problem' rather than solving a genuine need/challenge & common challenges exist without appropriate solutions being available.
- low level of connectivity and 'intra-operability' between ecosystems.

SPECTRA also recognises that intentional ecosystem-strengthening initiatives still represent an exploratory space with regard to evidence base on what does and what doesn't work. Providing more space for ecosystem actors to lead the design, implementation and evaluation of these interventions will help to clarify some of the critical success factors. Hypotheses and assumptions will be tested in this SPECTRA approach, before good practices can be confidently defined, and further collaborate to understand where and how different actors are contributing to systems strengthening.

This deliverable linked to task T2.3 'Creative Industry 5.0 - Defining strategy: Innovation Direction & Trends'. In order for the creative industries to continue to bring prosperity to Europe, it must now become the accelerator and enabler of change and innovation in a human-centric way that can support and empower, among other, the covenants of the green and digital transition, and the transformative impact on society.

Findings are summarised in this report, together with recommendations and widely disseminated for knowledge enhancement of stakeholders as well as replication. They will also be used as inputs into the joint activities envisaged on WP5 and WP6.

The deliverable, in addition to research of trends, reflects on:

- approaches to business support
- Integration of solutions in a way that maximises value.
- Appropriate knowledge and interventions.
- Understanding of linkages of various ecosystem actors and activities
- Identification of suitable role-models and peer communities.

This task sought to identify relevant innovation directions and trends to incorporate into the growth and strategic vision of the ecosystem development. This includes consideration of the future need for co-creation processes with all relevant stakeholders.

2 Innovation Trends

2.1 Cross-sectoral Collaboration

Artists, Designers & Business in Cross-Sector Collaboration: A Report on The Untapped Potential for Systemic Change Kouzmine-Karavaïeff, Johanna & Hameed, Khawar (2022) raises awareness of the immense potential of cross-sector collaboration between artists, designers, and the corporate sector.

Companies face challenges in a world of increasing volatility, uncertainty, complexity, and ambiguity (VUCA), and they must overcome these challenges to survive and thrive. They need to be equipped and prepared with the skills and capability to do this. Cross-sector collaboration between artists, designers and the corporate world could, if formalised, professionalised, and orchestrated answer to the needs and problems in these areas.

The report makes seventeen recommendations that can help to engineer changes in how cross-sector collaboration in these sectors is approached and practiced.

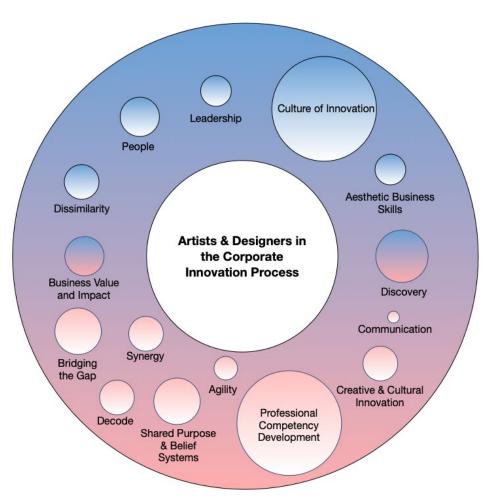


Figure 1. Fifteen emergent themes - Artists, Designers & Business in Cross-Sector Collaboration: A Report on The Untapped Potential for Systemic Change¹.

¹ Available from: https://www.researchgate.net/figure/Fifteen-emergent-themes-Artists-Designers-Business-In-Cross-Sector-Collaboration-A_fig1_360826440 [accessed 30 Sep, 2023]

A Culture of Innovation emerged as the theme with the highest as an area of central focus and concern in the business/corporate context. This was followed by People, then Dissimilarity. The Culture of Innovation theme is about having a culture that fuels innovation. Culture is the feeling, the ambiance, the spoken and the unspoken in an organisation, company or a community that drives the behaviour of the people in it. It is what people within each ecosystem have in common with each other and how they identify with each other. The report outlines that the culture of innovation says 'yes' to new, multifaceted practices that will make a difference between getting by or getting successful.

The report further highlights as a key finding that the Creative and cultural innovation is centred around human-centric innovation that deeply embeds the value of free creative thinking and multidimensional perspectives possessed by those in the creative sectors – such as musicians, artists, designers, and other performers and fundamentally grounded in the belief that cross-disciplinary and cross-sectoral collaboration can result in significant value for the innovation process in organisations.

One of the key recommendations is development of a framework that embodies the core values, principles, and key dimensions of the discourse of cross-sector collaboration, as a cocreative process which structures & converges thinking and works towards creating clarity, common understanding, and agreement of language that can be understood and used by all parties with representation from a wide range of stakeholders. The framework should act as a macrolevel point of reference and guidance for implementation actions.

Such approaches are also recognized, for example, by Creative Europe, which has put in place a cross-sectoral strand to encourage such collaboration. The purpose of the Cross-sectoral strand² is to reinforce collaboration between different cultural and creative sectors (CCS) in order to help them address the common challenges they face and find innovative solutions. These are examples of its main priorities:

- to support cross-sectoral transnational policy cooperation, promoting the visibility of the programme and support the transferability of results.
- to encourage innovative approaches to content creation, access, distribution, and promotion across CCS and with other sectors.

This is further embodied in the encouragement of investment into Creative Innovation Labs. Following the pilot actions "bridging culture and audiovisual content through digital", the new scheme "Innovation Labs" supports the development of innovative tools, models and solutions applicable in the audiovisual and other cultural and creative sectors. Expected results include:

- Improving the competitiveness of the European audiovisual and other cultural and creative sectors through cross sector collaboration.
- Increasing knowledge transfer between different sectors of creative industries.
- Increasing the visibility, availability and diversity of European content in the digital age.
- Improving business models and use of data.

Klein, M.; Spychalska-Wojtkiewicz, M. Cross-Sector Partnerships for Innovation and Growth: Can Creative Industries Support Traditional Sector Innovations?³ examines the relationships and

² https://culture.ec.europa.eu/creative-europe/cross-sectoral-strand

³ Sustainability 2020, 12, 10122, https://doi.org/10.3390/su122310122

interaction between creative and traditional industries, noting that there are still many obstacles and challenges, including need for enhanced policy and supports are needed. For example, guidelines to establish a cross-sectorial process for the efficient transfer of innovation knowledge between two sectors (thereby establishing a strong platform of international cooperation for innovations in the region). Dedicated support is needed for this kind of cooperation and a recommendation was given that this could be done at a regional level which, in turn, could significantly contribute to bolstering innovation at the regional level. It further suggests that modern cross-sectoral partnerships policy should also be designed to help creative industries work as a stimulant, an agent of transformation steering a new enlightenment and collective will.

The newly established EIT Culture & Creativity⁴ also puts cross-innovation and cross-fertilization of different sectors and areas, ideas, and players at the forefront. Together with the EIT and eight other Innovation Communities they promote and support the collaboration of education, business, and research dimensions and organisations – called the Knowledge Triangle Integration – and they extend it to the public authorities and civil society. Diversity, culture & creativity are considered by the KIC to be central enablers for the next generation of innovators to address global challenges. Ambitions for cross-collaboration include unlocking latent value from a multitude of small cultural and creative stakeholders through technology transfer, improved cross-sectoral collaboration, and their effective integration in production value networks.

In conclusion, cross-sectoral collaboration is recognized as a key driver for innovation, and especially with creative industries as enabler, as a key trend for innovation.

2.2 Human-centric Approaches

Industry 5.0 refers to robot and smart machines working alongside people with added resilience and sustainability goals included. Where Industry 4.0 focused on technologies such as the Internet of Things and big data, Industry 5.0 seeks to add human, environmental and social aspects back into the equation⁵. The European definition also stipulates that Industry 5.0 places the wellbeing of the worker at the centre of the production process and uses new technologies to provide prosperity beyond jobs and growth while respecting the production limits of the planet. It complements the existing "Industry 4.0" approach by specifically putting research and innovation at the service of the transition to a sustainable, human-centric, and resilient European industry. It sets out that innovation must not only focus on technology but also integrate human values.

Given that this has been the direction for the innovation related to the industrial context, it also bears impact on what the Creative Industries 5.0 – based on human-centric approach could look like. Some thought-leaders postulate that human creativity is the critical differentiator in the world of digital and automation. Andy Baldwin, EY reflecting on innovation trends stated that 'When humans have a vision, they apply technology in innovative ways to achieve that vision. Humans are at their most creative when they tap into their inner purpose and intent and deploy their skills of empathy. Technological tools have neither an inherent sense of purpose nor empathetic skills – they require humans to infuse them with these characteristics. So, it is only

⁴ Knowledge and Innovation Community designed to strengthen and transform Europe's Cultural and Creative Sectors and Industries (CCSI) by connecting creatives and organisations to Europe's largest innovation network. https://eit-culture-creativity.eu/

⁵https://www.twi-global.com/technical-knowledge/faqs/industry-5-o#:~:text=through%2oIndustry%204.o.-,Conclusion,aspects%2oback%2ointo%2othe%2oequation.

with human input that technological tools can convey the emotion that will enable them to connect more deeply with users.'

Creative Denmark states that Innovation is all about human needs. The Danish tradition of human-centred creativity is vital for developing impactful design, intelligent business models, optimisation of products, and meaningful experiences. This thinking is supported by the notion that humans crave something out of the ordinary, something new and that we need aesthetics, experiences, and user focus to create successful innovation.

UK Research & Innovation expresses a similar thinking around approach to innovation based on a human-centric strategy stating that systemic societal issues require a cross-disciplinary approach and can benefit enormously from the human-centred R&I brought by creative industries. For example, Bristol + Bath Creative R&D's Digital Placemaking⁶ looked at how technology and creativity can work together to enhance the way people experience place, and Future Screens NI 'Rewriting the Narrative'⁷ addressed social isolation through connection with artists and makers.

The human-centric approach in this context is further fortified with design thinking, which has risen in significance over the last few years and is still considered a leading light for ensuring empathy is weaved into innovation.

The principles of design thinking center on the people you're designing for, so a design thinking framework is inherently human-centric. Empathy lies at the heart of a human-centered design process, which focuses on discovering their wants and needs. This process employs a set of practices and tools that anyone designing a product or service can employ, learning to think like a designer using a set of principles for approaching creative problem-solving. Incorporating various perspectives, it merges technological possibilities with an understanding of what people need and want⁸.

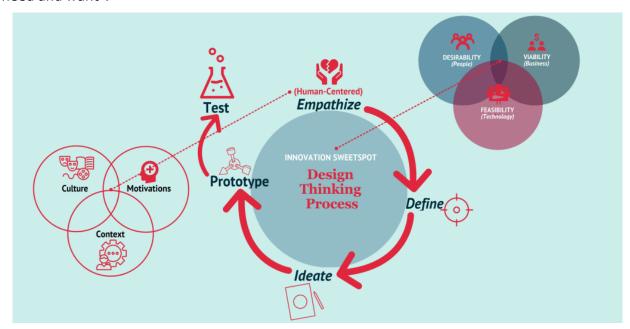


Figure 2: Human Centric (Design) Approach in a Nutshell⁹

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⁶ https://www.bathspa.ac.uk/research-and-enterprise/research-centres/centre-for-cultural-and-creative-industries/bristol-bath-creative-rd/

⁷ https://northernirelandscreen.co.uk/news/funding/rewriting-narrative-funding-call/

⁸ https://chameleoncollective.com/human-centered-design-innovation/

⁹ https://fourweekmba.com/human-centered-design/

Touted benefits include:

- Unearthing human-centered design brings forth unorthodox solutions that no one has yet thought of.
- Helping navigate human biases.
- Garnering valuable (and new) insights about how a product, service, or proposed change will work.
- Creating a sense of psychological safety that encourages risk-taking, broadening the scope of what is achievable.
- Speeding up the idea generation process faster and more streamlined way while often resulting in more effective solutions.
- Integrating diverse perspectives to address problems holistically (a new depth of thinking, encouraging disparate fields to converge).

Research on design thinking concluded that it activates the development of knowledge, skills and abilities, as its use of a qualitatively different methodical device raises the creative potential to a higher level¹⁰.

2.3 Integration of the Green and Digital Transition

This is an area extremely relevant to innovation, as recognized by the European Commission in its policy and investment area. The cultural and creative industries (CCIs) are an important source of growth and job creation in the European economy. Moreover, the CCIs play a key role in shaping culture, values and perceptions across the European Union and beyond. At the same time, the CCIs are characterised by a large and diverse number of chiefly small and micro enterprises, as well as by hefty differences across geographical and sectorial divides.

The ongoing digital transition brings great opportunities for the CCIs, but also serious threats. It is thought that to take full advantage of the many opportunities offered by the digital transition, and avoid the pitfalls, requires capacities and competencies that many of Europe's CCIs currently lack. Devising effective and cost-efficient measures to support CCIs to embrace and make full use of digital technologies for competitiveness and sustainability is one of the goals.

CCIs encompass a wide variety of sub-sectors. This includes architecture, archives, libraries and museums, artistic crafts, audiovisual (including film, television, video games and multimedia), tangible and intangible cultural heritage, design (including fashion design), festivals, music, literature, performing arts, (including theatre and dance), books and publishing, radio, and visual arts. The ecosystem's cross-sectoral impact (spill-over effects) cannot be understated. For instance, it is stated that CCIs play a great part in driving innovation and creativity in other industries and that they can be crucial in driving sustainable change in communities and achieving the EU Green Deal at the local level¹¹.

This is expanded on by the strategic inclusion of this dimension in the innovation goals of the recently established EIT KIC CCSI, which aims to harness the unique position of the Cultural and Creative Sectors and Industries to facilitate Europe's Green, Digital and Social transitions¹².

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¹⁰ https://iopscience.iop.org/article/10.1088/1757-899X/459/1/012096/pdf

¹¹ https://single-market-economy.ec.europa.eu/sectors/cultural-and-creative-industries_en

¹² https://eit-culture-creativity.eu/about-us/

Interreg Europe Policy Platform has further highlighted a case for the utilization of CCSI as a key driver for innovation to achieve an equitable green and digital transition. It provided an exploration of how to foster the transformation of the cultural and creative industries in the context of the twin – digital and green – transformation of the economy, which included:

- Ecosystem-based approaches CCIs and smart specialisation
- Role and positioning of creative hubs
- Digital transformation of the CCIs
- Interaction of the CCIs with other economic sectors.

Key learnings included:

- Digital technologies have a strong potential for leveraging the impact of CCIs Digital technologies can strongly enrich the content of cultural services and offers. They provide the opportunity to reduce the dependence of CCIs on e.g., site-based activities. This is especially relevant for cultural activities.
- CCIs have the potential to foster innovation across all industrial sectors CCIs have fertile natural connections to the tourism sector and many initiatives are focusing on the uptake of digital technologies in the CCIs, bringing together cultural and digital operators. However, the advantages of promoting CCIs as innovation drivers for almost any other sectors have been clearly demonstrated. Today, the CCIs are more and more connected with green industries, gastronomy, health, etc. Voices of Culture, for example, have highlighted the potential of innovation induced by CCSI could help address the energy challenges. Culture and creativity offer a source of innovation for climate change mitigation, hold the key to reshaping behaviours and living practices meaningfully and at scale, in the face of climate change effects. They highlighted the opportunity to harness the power of cultural activities and the CCSI in service of human transformation, accelerating the green transition and, in the immediate context, contributing to address the energy crisis and resulting energy poverty.
- Multilevel governance models are recommended to leverage the impact of CCIs Strong CCI-based ecosystems require multilevel governance models bringing together public and private actors. CCIs need global and political leadership. It is therefore important to involve different levels of governance when designing strategies for the CCIs local and regional to define relevant policies. This takes time and requires a long-term perspective, as well as continuous monitoring and evaluation of the governance model and the impact of the policies.
- Local micro-systems are key for making an impact due to their specificities, the potential of the CCIs for generating economic and non-economic impact, e.g., social cohesion, cultural and social welfare, is best tapped into on the local level. Community engagement and territorial identity are key success factors.

This emphasis on sustainability and digital innovation approaches in CCSI has also been embraced by the latest generation of Horizon Europe projects. The EKIP [project aims to establish a partner and network-driven policy recommendation engine by promoting open innovation as the standard while fostering the continuous formulation and adoption of policy development recommendations for Europe's diverse Cultural & Creative Industries (CCIs). EKIP recognizes that ecosystems of large and small companies, institutions, organisations, researchers, and citizens are needed to develop and try new concepts, attract investors, and get

new companies and businesses up and running more quickly as well as the challenge that good support mechanisms for networks and open ecosystems are lacking. The European Cultural and Creative Industries Innovation Policy Platform aims to change this.

An example where EKIP's innovation policy engine can be used is to facilitate the new directive of digital product passports. As a part of the EU Green Deal, all products in the EU must be traceable and inform how they meet criteria for responsible and sustainable production. Here, the EKIP policy engine could suggest how local innovation ecosystems can use policies to support the development of new textiles and clothing that have ID tags with information. This enables circular processes and recycling in new ways, supporting the green transformation in EU.

Following on from this, OECD further recognizes the potential of CCSI innovation to impact digital and green agendas. It states that the cultural and creative sectors can support the green transition in three keyways. Firstly, the sectors themselves can address the impact that their activities have on sustainability issues, for example by addressing sustainability issues in the fast fashion industry, or the use of plastics at live events. Secondly, CCS can contribute to the green transition in other areas of the economy, for example through design services which incorporate more sustainable materials. Thirdly, CCS have an important role to play in raising awareness and shaping narratives around the sustainability agenda through the work they produce, such as documentaries, music, novels etc.

The overall sentiment is that the Creative industries are slowly making their way into mainstream European research and that the sector could make a big contribution to the green and digital transitions, but it still needs better access to EU R&D and to be routinely involved in multidisciplinary research projects¹³. As a next step, the creative industries) and innovation emanating from this sector) could be enabled to contribute to the large-scale research missions in health and climate.

It is recognized that the enablement of new innovation trends in this arena requires also a build-up in skills. UNCTAD¹⁴ concluded that creative and circular production patterns require new sets of skills from the labor force, collaboration between stakeholders in supply chains as well as new and adapted regulations, market structures in international trade, distribution systems and transfer of innovation and technology. Going beyond the concepts, unlocking the opportunities of a creative and circular economy calls for a complex change. This system-wide approach will generate an increase in the demand for knowledge-driven and labour-intensive activities to think and act creatively. A high potential for a positive change suggests these activities may be further channeled towards environment and climate friendly manufacturing of goods and services, focusing the creative potential on the 2030 Agenda. These changes present new opportunities for youth with research, entrepreneurship, employment and education, and skills development.

2.4 Co-Creation and Societal Inclusion

Co-creation: involving everyone in innovation, from giant brainstorming sessions to prototyping, and crowdsourcing to marketing is becoming increasingly important across all sectors with growing inclusivity and contribution to the creative process in ways that stimulate

13

¹³ https://sciencebusiness.net/news/creative-industries-are-slowly-making-their-way-mainstream-european-research

¹⁴ https://www.un.org/sites/un2.un.org/files/orange_economy_14_march.pdf

innovation. Co-creation unlocks new perspectives, provides open collaboration and participation, increases idea and opportunity generation, reduces the costs and risks associated with development, builds community and teams, strengthens authenticity, trust, and transparency, while creating joint value¹⁵.

Some tout co-creation as a new approach to the development of products in CCSI, such as videogames, films, television, music and other creative services. They define it as a manifestation of open innovation paradigm where the firm collaborates with customers in new service development (NSD) activities¹⁶.

However, co-creation has been increasingly used also as a tool for inclusivity, ensuring social inclusion, within the context of tackling wider societal, economic, and other challenges, for example with the framework of Responsible Research and Innovation (RRI).

The European Commission defines Responsible Research and Innovation (RRI) as an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation. A major premise of the RRI approach is that different societal actors (researchers, policy makers, civil society organisations, individual citizens, businesses, etc.) work together throughout the entire research and innovation cycle with the intention to attain better alignment of both processes and outcomes with the values, needs and expectations of society. Thus, RRI is a powerful "bridging" concept on the interfaces among science and society and takes up elements of "open innovation" and crowd sourcing¹⁷.





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GENDER EQUALITY

Promoting equal economic independence for women and men, closing the gender pay gap, advancing gender balance in decision making and ending gender based violence.



ETHICS

Promoting the highest standards of ethics and integrity in the performance and governance of research and innovation.



SCIENCE EDUCATION

Making science education and careers attractive for young people, targeting to to drastically improve science and technology-literacy in our society.



GOVERNANCE

Any form of coordination designed to foster and mainstream RRI within an organisation or in the interaction with other stakeholders, following the principles of inclusiveness, transparency, reflectitivty and adaptability.

Figure 3: RRI comprises 6 Thematic Elements

To date RRI has been associated with the above-mentioned set of societal actors, policy makers, research and education communities, business and industry, and civil society — either at a macro-level (coinciding with the scope of policy development) or at a micro-level of individual organisations. However, the potential at the level of territorial ecosystems and within the context of CCSI has not yet been explored sufficiently.

A supportive ecosystem is an integral part of the framework conditions to facilitate innovation based on co-creation and inclusivity. Supportive public policies providing vision, strategy for

14

¹⁵ https://www.imagethink.net/7-benefits-of-co-creation/

¹⁶ https://research.manchester.ac.uk/en/studentTheses/co-creation-innovation-and-new-service-development-the-case-of-th

¹⁷ https://www.rri-leaders.eu/about-rri/

creative integration in industry sectors constitute the backbone of a dynamic innovative and competitive economy. Incentives and support tools are put in place to spur creatives spill-overs in industry while institutional and regulatory framework provide a 'safety net' for small players to engage safely into cross sector collaborations. Creative hubs, incubators, accelerators, and clusters are key players to support and allow the insertion of new players in the ecosystem18.

An attempt to incorporate these approaches has been made by the Arts and Humanities Research council in the UK. AHRC Creative Communities share a vision for inclusive innovation through co-created, collaborative research and development (R&D). AHRC have profiled case study examples of how and why cross-sector partners and communities in R&D can enhance the quality and resilience, reach and sustainability of innovation and funding opportunities for greater collaboration with communities to meet R&D and Levelling Up missions¹⁹. Its new evidence base informs recommendations for a shift in funding policy away from individualised competition and towards cross-sector collaboration, funding opportunities for the generation and management of better data by funders, for further evidence capture and sharing of the multiple 'values' culture brings to the economy and society, and for the creation of new routes into research for non-academic collaborators to truly create a research culture that is by all, and for all. Co-creation is not a 'one-size fits all' solution to tackling shared issues and must be applied thoughtfully, but it can be difficult for existing systems and processes to meet these needs. While co-creation can help to empower communities, it can also worsen inequalities if context is not properly considered. Investing in overcoming these barriers – by rethinking funding, partnerships, and models of R&D – is crucial to harnessing the innovative potential of arts and humanities R&D today.

The importance of this innovation inter-section is further underlined by the investment for the Higer Education Institutes in this area. Uppsala University is now pooling its expertise in research support, innovation and collaboration on the collaboration platform Uppsala Cocreation Community for Culture and Creativity. The aim is to develop and inspire research collaboration on the importance of culture and creativity for a sustainable social transition, and to make it easier for actors outside academia to make contact with researchers, share new expertise and create new opportunities for collaboration. The Uppsala Co-creation Community for Culture and Creativity platform is also a meeting place for encouraging discussions about how research in the humanities and social sciences can infuse social developments with aesthetic, social and cultural values²⁰.

As with other innovation trends, this one is also recognized by the new EIT KIC CCSI. The creation of the Policy Club, meant as a peer-to-peer learning and co-creation community of policy makers, aims at understanding on how to innovate, how to go beyond established mindsets, and ultimately how to unleash the potential of culture on many different dimensions and from various unexpected angles. One main goals of the peer learning community of policy makers is then creating the synergies enabled by collective intelligence, so that policy makers are not only representatives of cities and regions but vital units of a new community of practice²¹.

15

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¹⁸ https://keanet.eu/wp-content/uploads/Impulse-paper-on-the-role-of-CCIs-in-innovating-European-industry_integrated.pdf

¹⁹ https://www.ukri.org/blog/creative-communities-co-creating-inclusive-innovation/

²⁰ https://www.uu.se/en/research/strong-research-environments-and-research-areas/kic---knowledge-and-innovation-communities/eit-culture-and-creativity/uppsala-co-creation-community-for-culture-and-creativity

²¹ https://eit-culture-creativity.eu/at-least-one-foot-on-the-ground/

3 Conclusion and Recommendations

While this report seeks to provide a comprehensive overview of the overarching innovation directions and trends, these do not intend to represent an exhaustive list. They also do not exist in silos and are not intended to be considered in isolation from each other, there are many intersections between the directions and trends, and they are indeed intertwined, as well as meant to be applied with agility in mind, tailored to the challenge and ecosystem, communities, and opportunities at hand.

It is clear from the undertaken research that CCSI have a significant role to play in innovation in multiple sectors, and in facilitating inclusivity, while also contributing to the strengthening of the ecosystems, as demonstrated. Further reading and exploration of these topics is encouraged – further experimentation, piloting and demonstrative work is required to improve knowledge and learning in multiple areas.

As a reflection, our analysis leads us to following recommendations along the key highlighted topics:

- Relevance to the approaches to business support co-creation has been rarely employed in the design of business support (which tend to be top-down, even though based on research such as surveys and interviews), and fostering inclusivity of lesser represented cohorts, such as for example female innovators, could yield an interesting pathway to enhanced supports, while, for example, considering how to better integrate green and digital themes.
- Relevance to the Integration of solutions in a way that maximises value the cross-sectoral approach is of interest in helping incorporate knowledge and ideas in the innovation process coming from a variety of sectors, while utilizing creativity. Some examples already exist in this space and more knowledge could be built by replicating some of the successes already achieved.
- Relevance to the appropriate knowledge and interventions as highlighted above, cross–fertilisation through e.g., co-creation and cross-sectoral collaboration, has the ability to enhance existing knowledge while also building new knowledge. Capturing this, and enabling knowledge transfer, should be a cornerstone of any initiative, and part of the strategic plan for implementation.
- Relevance to the understanding of linkages of various ecosystem actors and activities the innovation trends analysed encourage greater inclusion, be in in terms of having a greater variety of stakeholders involvement, as well as focusing on greater social inclusion (for example, youth, or migrants). Networks play an important role here, and strategies to build trust and solid communication, as well as harnessing tools that can help build a more comprehensive and cohesive community of innovators.
- Relevance to identification of suitable role-models and peer communities expanding on the recommendation relevant to the ecosystem and linkages, role models play an important role, helping stakeholders to visualize success, help understand complex ideas and concepts and accelerate innovation processes. Informal support networks, such as peer communities are an important mechanism that can help facilitate trust, buy-in, and motivation to follow-through on implementation of ideas and support innovation.







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