

SPECTRA

STIMULATING PERFORMANCE IN CREATIVE
TERRITORIES AND REGIONAL ACTORS



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D3.2 Play & Learn- Serious Games Recommendations

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Deliverable Summary

Deliverable:

D3.2 Play & Learn/Serious Games Recommendations

Due date:

30/09/2023

Actual submission date:

30/09/2023

Project start date:

01/12/2022

Duration:

24 Months (till 30th November 2024)

Work Package concerned:

WP3

Work package leader:

Creative Business Network (CBN)

Dissemination level:

PUBLIC (PU)

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Revision history:

21/09/2023 First Draft

29/09/2023 Second Draft

30/09/2023 Final Version

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).

SPECTRA is funded through EISMEA.I – Innovation Ecosystems, SMP/Entrepreneurship and Consumers strand, EU and place-based Innovation Ecosystems Call HORIZON-EIE-2022-CONNECT-01-01: Towards more inclusive networks and initiatives in European innovation ecosystems, under Horizon Europe Lump Sum GRANT AGREEMENT No. 101097000.

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1 Deliverable Description

Work Package 3 of the SPECTRA project (WP3 - Tools, Systems, Methods & Structures for an Amplified Ecosystem), includes key objectives for the project partners to:

- Acquire and exchange new knowledge, skills, methods, tools, systems, and structures that can be utilised by moderate and emerging regions to strengthen their respective ecosystems.
- Utilize experimental approaches to stimulate collaboration, cocreation and learning.
- Engage with, and learn from, successful CBN ecosystem & network building practices and model for regional ecosystem development.

Task 3.2 within this Work Package focuses on the methodology of Play & Learn: Serious games and gamification towards more inclusive ecosystems.

Play & learn can be defined as creative and imaginative ways to transfer knowledge (e.g., cities as playgrounds, playful universities etc.). Creative Business Network have devised a methodology where learning meets playing, as a way to generate impact, helping start-ups, companies and institutions working on education, games and learning to grow and implement innovative projects in the creative sector.

SPECTRA partners have tested this methodology within a serious game setting to tackle the issue of more inclusive, diverse ecosystem growth. The output of this gamified experience is presented in this report and will be shared widely within the participating ecosystems and beyond.

Finally, this deliverable gives some recommendations to the project partners in terms of a follow-up post-project, with the overall goal of strengthening their respective ecosystems.

This work contributes to the European Added Value:

- Enhanced understanding of what approaches, mechanisms and actions lead to improved ecosystems, which are complex and multifaceted - including new data.
- Supported networking among innovation actors across local ecosystems, notably building on EU-level initiatives.
- Guided bottom-up, place-based approaches of smart specialization and investments and initiatives for reinforcing innovation ecosystems.
- Fostered synergies between different EU, as well as national and regional programmes.
- Enhanced local innovation networks and connectivity within Europe.

2 About Play & Learn/Serious Games

2.1 Background & Field of Application

The concept of “Play and Learn” has gained significant traction and expertise within the Creative Business Network (CBN) over the last decade. The organization has accumulated experience and success in offering Capacity Building activities centred around the idea of lifelong learning through playful solutions. At its core, “Play and Learn” represents a paradigm shift in how education and innovation can be approached, creating an environment where learning is engaging, interactive and enjoyable.

CBN is one of the pioneers and champions of the “Play and Learn” philosophy which places playful learning experiences at the front of educational and innovative approaches. CBN’s commitment to this concept has allowed it to become an “Expert-Catalyst” in the playful learning. Throughout the numerous sessions, events, and conferences, CBN has not only owned its expertise but also established itself as a key influencer and facilitator in promoting playful learning solutions.

The “Play and Learn” concept possesses a versatile and broad field of application, making it applicable in various sectors and settings. This could be tailored made Corporate Innovation Programs, where “Play and Learn” can be customized to fit the needs of corporate entities looking to innovate. By influencing playfulness into their innovation processes, organizations can stimulate creativity and employee centred approach towards their problem solving. This approach helps business ideate and come with groundbreaking solutions.



Figure 1; Example of Play and Learn Application by CBN

Another field of application for “Play and Learn” concept is Acceleration of Early-Stage Start-Ups. Start-Ups can benefit greatly of this approach where they can develop customers centred products and services, while maintaining playful and engaging tone.

“Play and Learn” is a valuable tool as well for high-education institutions. By enriching traditional educational approaches by incorporating interactive and engaging elements into the study

programs. Students are more likely to grasp complex concepts and retain knowledge when they are actively involved in the learning process.

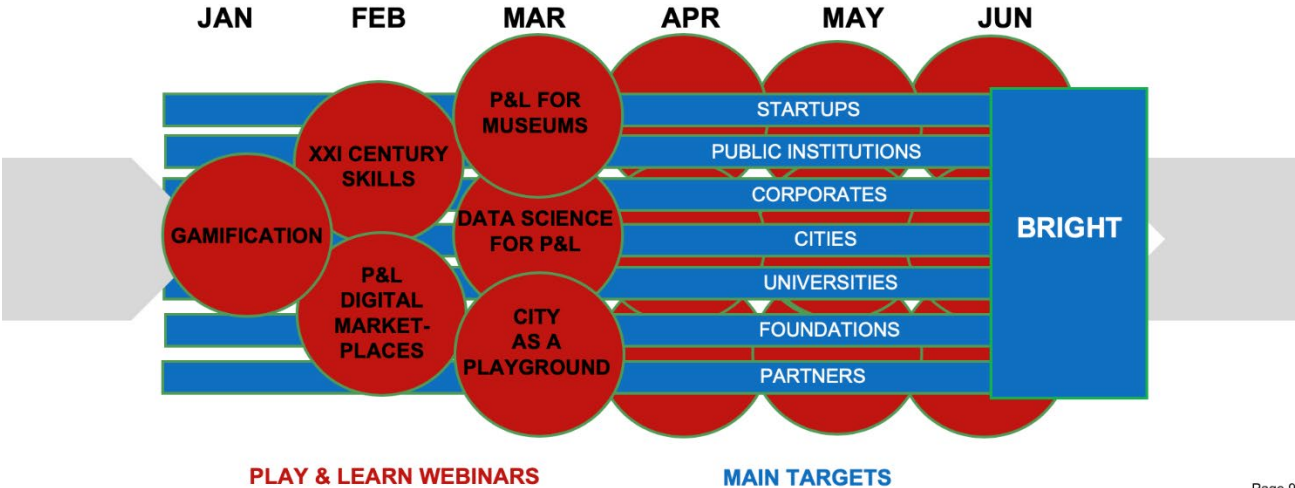
Public sector bodies, governments and other citizen centred organizations can leverage “Play and Learn” concepts to foster Public Sector Innovation. By adopting playful strategies, public institutions can engage citizens in co-creating solutions and improving public services.

2.2 Structure and Methodologies

CBN has a strategic approach in structuring the “Play and Learn” concepts, focusing on the overall goals and objectives. This could be, for example, a tailor-made programme for large organization innovation agenda – corporate innovation, different target groups – as conference participants, or training and capacity building for creative entrepreneurs.



Example of topic strategy



Picture 1. Example strategic approach with tailored made “Play and Learn” webinars programs as value creation for different target groups – participants of the BRIGHT – conference.

The “Play and Learn” concept has many methodologies. At CBN we rely on our experts – members to share those and here are some that have been used in the past:

- **Gamification.** This methodology involves incorporating game elements: points, rewards, challenges, and competition, into non-game contexts, such as education or training. This makes learning more engaging and motivating, encouraging participants to achieve objectives while having fun.
- **Discovery and Exploration.** Encouraging exploration and hands-on discovery of the physical world through interactive experiences and experiments. This method is particularly effective for science and nature related learnings.
- **Creative Arts.** Engaging in creative arts, such as dance, music, drama or just art, encourages creativity and self-expression. These activities can be integrated into different areas and subjects to enhance learning.

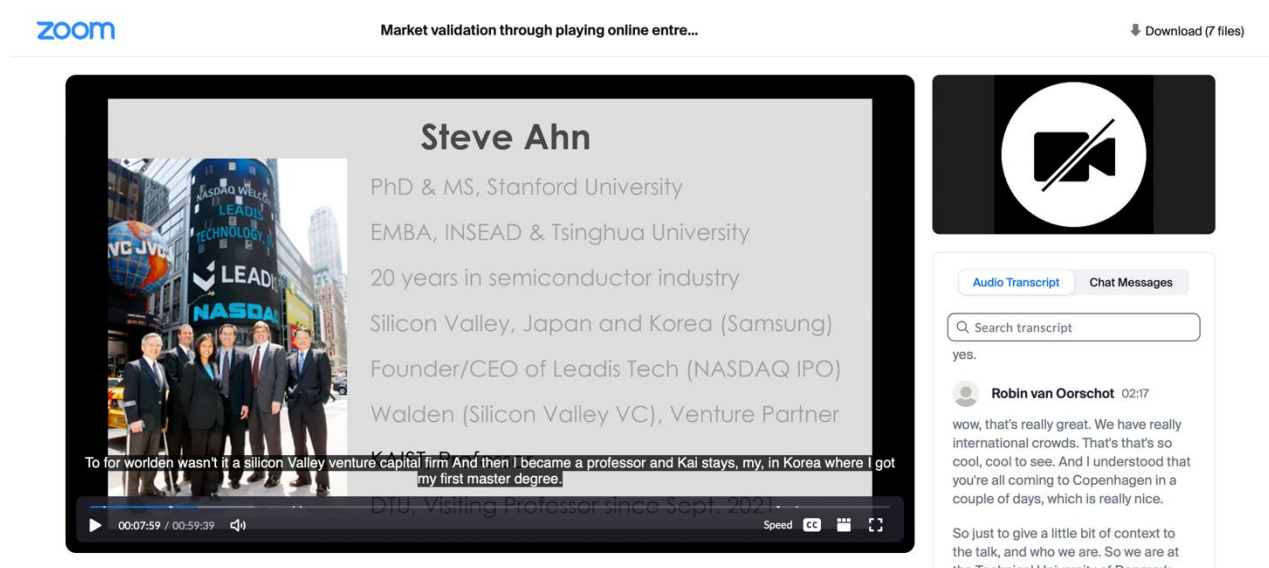
- **Role-Play.** This methodology allows participants to step into different roles to explore real-world situations. Role-playing fosters empathy, decision-making, and problem-solving skills as participants navigate scenarios and make choices.

2.3 Benefits and Impact

Benefits are many of the Play and Learn concept. CBN through the many 'Play and Learn' capacity building events, programs and conferences has created benefits for hundreds of stakeholders of the CCSI, both creative entrepreneurs and as well large private and public organizations. One of the main benefits of the 'Play and Learn' concepts is the capability to *motivate* its participants. Gamified elements and interactive experiences in play-based learning motivate learners to actively participate and achieve learning objectives.

Play also encourages *creativity*, creative thinking and problem-solving, helping learners develop innovative solutions to challenges. Developing *critical thinking* skills is another benefit for participants in Play and Learn activities. Play-based activities often involve decision-making, analysis, and evaluation, fostering critical thinking skills.

Improving memory, physical, and as well emotional development are also benefits from the Play and Learn concept. Interactive and sensory rich play helps learners remember information more effectively. Also, certain forms of play such as outdoor activities contribute to physical development and health. Also, children that play get the chance to explore and understand their emotions, promoting emotional intelligence and self-regulation.



Picture 2. Screen shot from the CBA National winners as part of CBS Global Finals session on the topic: "Market Validation by playing online entrepreneurial games" by professor Steve Ahn and Professor Robin van Oorschot.

Innovation and Entrepreneurial skills enhancement through Play and Learn can be easily achieved too. Playful approaches to problem solving can lead to innovative solutions and ideas. How Play and Learn can support entrepreneurial skills enhancement is great example this year (2023) the Creative Business Academy (CBA) held a session as a part of the skills enhancement of the Creative Business Cup (CBC) global finals training program for creative entrepreneurs. Here the participants, through Play and Learn, managed to learn about market validation.

Adaptability and Inclusivity are also benefits from the Play and Learn concept. Play based learning encourages adaptability as learners explore different scenarios and problem-solving strategies. Play can be adapted to accommodate learners with various needs and abilities, promoting inclusivity in training.

The impact of the Play and Learn concept extends across various dimensions from skills development and academic achievement to community engagement and social well-being. Play and learn have a wider role in shaping people's and society for a more for prosperous, adaptable, and creative future.

The CBN extended portfolio of Play and Learn activities, not only have significant impact on individuals and Start-Ups but also have left regional and global footmark. Over the years CBN have organized Play and Learn events focusing on different parts of the world, different target groups that have made such an impact on the overall significance of playful learning.



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This Is CBN News

Learning Innovation and Play & Learn in Africa



Thu, April 15, 2021

Picture 3. From the CBN session on Learning Innovation and Play & Learn in Africa

By creating global Play and Learn events targeting different parts of the world, CBN not only enhance learning outcomes, creativity, innovation, and engagement, but also plays a significant role enabling these regions global competence, community building and economic impact. Playful Start-Ups and innovative solutions in the Play and Learn field can have a positive economic impact by driving economic growth and creating jobs.

3 SPECTRA Play & Learn Experiment

3.1 Workshop Methodology and Expertise

On September 12th, 2023, CBN's Innovation Expert Lead and EU Programs and Project Lead, Marjan Nikolovski, in collaboration with Play and Learn Expert Kim Holfod, hosted a Play and Learn session on the topic: "Serious games and gamification towards more inclusive ecosystems." During this session, the SPECTRA consortia partners had an opportunity to experience the Play and Learn concept and engage in playful learning to enhance the inclusivity and diversity of regional innovation ecosystems.



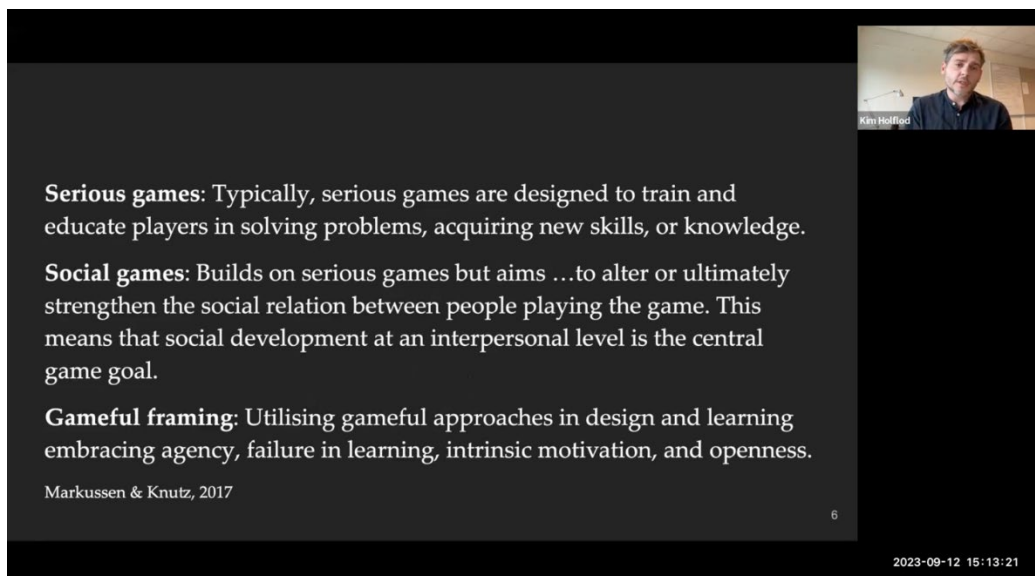
Figure 2: Kim Holfod, Expert on Play and Learn Methodologies

Kim Holfod, a PhD in Education Studies with a dissertation on playful approaches in higher education, holds a Master of Arts and a Master of ICT and Learning. He currently serves as assistant professor at University College Copenhagen and postdoctoral researcher at Aarhus University. Kim is actively involved in the EU Horizon project 'EPIC-WE' as a task lead and hub lead, and he is also part of Playful Learning Praxis Research in Denmark, focusing on design-based research, playful design, higher education, and boundary-crossing co-creation. EPIC-WE introduces cultural game jams, culture- and value-sensitive game-making and games through and for culture as a novel approach to empower young people as co-creators of European culture and shapers of their own futures in society, cultural institutions (CHIs) and creative industries (CIs).

The session began with Kim Holfod introducing the Play and Learn concept by covering playful thinking, different concepts, theoretical and practical examples. To align the session with inclusivity objectives for the growth of the SPECTRA innovation regional eco-systems goals, he employed two main methods:

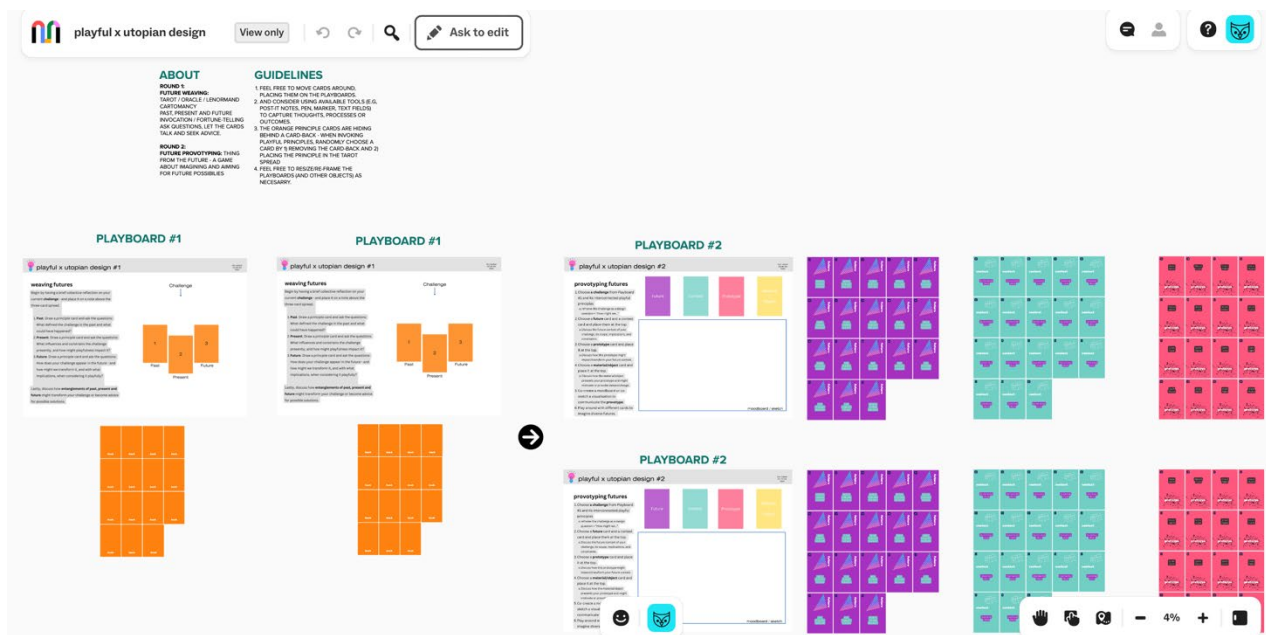
1. Weaving futures. This method involves drawing on cartomancy, such as tarot, lenormand, and oracle cards, for a collective interpretation of cards to understand challenges.
2. Futures provotyping. Participants used 'The Thing from the Future' (2014) framework for utopian design and provotyping to envision novel futures and potential actions. Provotype

is a design artefact — digital or physical — whose main goal is to provoke discussion among diverse types of users and stakeholders.



Picture 4. Screen shot from the introductory part of the Play and Learn session for the SPECTRA consortia partners.

The session was divided into two main parts following these methods, with inspiration from playful higher education, gameful pedagogies, and utopian future-making. With this he created two digital playboards, where playboard one was focusing on reflecting on the past, present, and future with playful principles through cartonomy. Playboard two had focus on speculating a range of possible futures through objects-to-imagine-with and provoking/discussing utopias or dystopias. Here the SPECTRA consortia partners had a real-time opportunity to play these two games under Kim Holflod's instruction and guidance.



Picture 4. Screen shot of the digital mural with the two digital playboards from the SPECTRA consortia Play and Learn session of September 12th 2023.

3.2 Main Takeaway Points

The Play and Learn workshop provided SPECTRA consortia partners with the chance to explore playfulness, imaginative futures, new areas of capacity building, and boundary-breaking education.

Several key takeaway points deserve highlighting:

Introduction to Playful and Imaginative Space.

Participants were introduced to playful thinking concepts offering both theoretical foundation and practical inspiration. They were also encouraged to interact with a digital shared mural - a collective space for playful exploration. By moving digital cards, the aim was to foster an exploratory collaborative experience that gave positive results as collective sharing and reflection.

Bringing Innovation and Entrepreneurship principles through play.

By introducing Weaving Futures method by cartomancy (cards with innovation and entrepreneurship principals), the SPECTRA consortia began to reflect on the past, current, and future project work through the prism of innovation and entrepreneurship principles. This included accepting failure as a learning process, breaking traditional hierarchies and enabling experimentation. These principles directly support the overall SPECTRA goal of enhancing and synergizing regional innovation eco-systems.

Imagining Utopia Futures and starting Provoking Discussions.

Through Future Prototyping, participants had the opportunity not only to imagine how the innovation eco-systems would look when the objectives were met but also to challenge themselves with current and future project work.

A Great Toolkit for Cross-National and Regional Growth.

The future Prototyping and utopia scenarios offered insights of where we imagine our regional CCSI innovation eco-systems to be. These are relevant learnings, not only for SPECTRA partners cross-national collaboration, but a Great Toolkit of what could be the next challenge, for all relevant stakeholders of each CCSI Innovation eco-system, respectively.

4 Recommendations

To enable inclusivity and growth in the SPECTRA regional innovation eco-systems collaboration, by Play and Learn concept, the following recommendation needs to be considered:

Playful learning as integrated part of the regional innovation ecosystem capacity building programs.

SPECTRA partners should consider integrating the Play and Learn concept into capacity building programs within their respective regions. Through collaboration with educational partners, they need to work to enhance traditional learning methods with interactive and engaging elements. By publishing guidelines of best practices for trainers they can effectively incorporate Play and Learn methodologies into their educational strategies.

Impact measurement and Framing.

The SPECTRA partners should establish clear metrics and evaluation criteria to measure the impact of Play and Learn initiatives. This will help in quantifying the benefits and demonstrating the effectiveness of these approaches. They also need to document success stories and case studies from this and other projects to showcase the tangible outcome of applying Play and Learn methodologies. These stories need to be shared as a success story with key stakeholders within their CCSI's region.

Weaving Futures and Future Prototyping as CCSI regional strategy toolkit.

SPECTRA partners need to incorporate these methodologies into their strategic planning. These approaches can help envision and shape future objectives, fostering innovation and creativity. By organizing workshops that challenge the status quo and explore utopia innovative futures, they can redefine goals and strategies.

Cross-regional and regional CCSI innovation eco-systems' collaboration.

By exploring partnerships with businesses, Start-Ups, Public sector organization and other educational institution, to apply playful learning in various contexts, both on cross-regional and regional level, the innovation ecosystems can benefit in enhancement of growth inclusivity and diversity.

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