Prototyping Innovation Policies with(in) cities

“When Deep Tech Meets Artistic Creation”

Innovation Area:

Deep Tech

Saint-Étienne, France



How does "prototyping..." work?

This City Case Description is the outcome of a policy prototyping exercise within a city ecosystem. Once the ekip research team has explored a policy area and its connection to cultural and creative industries (CCIs) and innovation, we ask: what would this mean in a local city context?

Together with local stakeholders, we test how a draft policy recommendation might stimulate innovation. Using Portfolio Sensemaking, stakeholders simulate an innovation portfolio, analyse the strengths and gaps of the local support system, and identify what resources are needed to realise the portfolio.

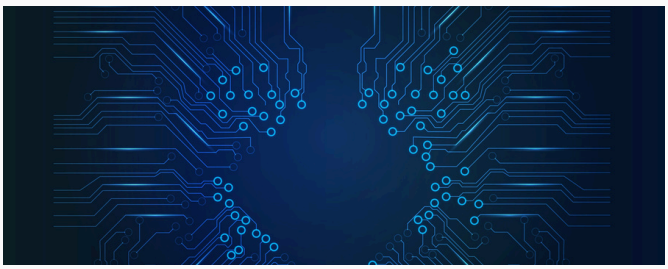
Saint-Étienne Context

& AREA OF FOCUS

Rooted in a strong industrial heritage, Saint-Étienne has gradually reinvented itself and, since 2010, has been recognised as a UNESCO Creative City. This distinction has stimulated the growth of the cultural and creative industries in the region, supported by a network of performance venues historically linked to the working class and its popular entertainment culture.

At the same time, the city seeks to highlight its strengths in emerging technologies thanks to the presence of higher-education institutions and an ecosystem of innovative companies. Today, Saint-Étienne aims to build bridges between these two forces: artistic creativity and technological innovation. The ambition is to evolve cultural practices, enhance the city's attractiveness, remain competitive in an international context, and explore new forms of artistic expression and mediation.





WHAT DEEP TECH AND THE ARTS CAN GAIN FROM EACH OTHER

Deep-tech, including artificial intelligence, robotics, biotechnology and quantum computing, is increasingly transforming the cultural and creative sectors. Throughout history, technological breakthroughs have continuously reshaped artistic practices. Today, this relationship has reached a new scale: deep technologies are no longer simply tools that support artistic production but have become creative materials, transforming the ways artists create, interact, and redefine the very notion of an artwork. This evolving dialogue offers valuable opportunities for both sectors. Beyond occasional collaborations between artists, designers, scientists, and engineers, there is growing interest in fostering continuous co-design processes, bringing together cultural professionals and deep-tech innovators from the earliest stages of project development. Such interdisciplinary exchanges encourage critical, experimental, and human-centred perspectives on emerging technologies, helping to address their ethical, social, and cultural implications while making their often-invisible impacts more tangible. At the same time, deep-tech opens new creative territories, enabling unprecedented aesthetic forms, modes of expression, and experiences for audiences.

Portfolio sensemaking

NEW SPACES FOR EMERGING COLLABORATIONS

The intersection of deep-tech and artistic creation offers a fertile ground for innovation, where continuous collaboration between artists, designers, engineers, and researchers can generate new ideas, critical perspectives, and meaningful societal impact. Although such collaborations require bridging different professional cultures, methodologies, and expectations, they can be fostered through co-design practices, interdisciplinary training, and dedicated spaces for experimentation. This workshop was conceived as an opportunity to explore this dialogue and demonstrate how the convergence of art and deep-tech can inspire new ways of creating, thinking, and innovating.

> *"Crossing the paths of deep-tech stakeholders and artistic creators can foster fertile and innovative collaborations."*
>
> Carole Garnier, Saint-Etienne Metropole



The three portfolios

Portfolio 1

FUNDING & ECONOMIC SUSTAINABILITY

Main idea/ Scope:

There is a need to build a more coherent, diversified and sustainable funding ecosystem to support projects at the intersection of deep-tech and artistic creation. Participants highlighted the importance of an enabling regulatory and fiscal framework, better coordination of existing support schemes, and the development of funding opportunities at regional, national and European levels. Strengthening connections between artists, researchers, investors, businesses and public authorities —particularly through dedicated networking events—was identified as a key driver for fostering interdisciplinary projects, attracting investment and ensuring the long-term economic sustainability of creative innovation.



- Reduce the fragmentation of funding schemes by improving coordination and visibility across support mechanisms.
- Strengthen the visibility and retention of French creative and scientific talent to reinforce national innovation capacity and attract investment.
- Organise regular matchmaking events bringing together artists, researchers, investors, producers and distributors (e.g. four regional thematic events per year).

Portfolio 2

BUILDING A COMMON LANGUAGE & FOSTERING MUTUAL UNDERSTANDING

Main idea and Scope:



One of the main challenges identified is the need to build a common language and stronger connections between the deep-tech and artistic communities. Beyond differences in terminology, methodologies and working timescales, participants emphasized the importance of fostering mutual understanding. Building a shared culture through communication tools, mediation mechanisms (such as a common glossary) and dedicated networks was seen as essential to facilitate future interdisciplinary initiatives. Higher education institutions also have a key role to play in raising awareness among future researchers, artists and designers and encouraging cross-sector understanding from the earliest stages of education.

- Develop more flexible funding calls tailored to hybrid deep-tech and artistic projects.
- Establish intermediary networks and mediation structures that promote mutual understanding between researchers, artists and innovation stakeholders.
- Develop shared communication tools (e.g. a common glossary) to improve understanding across disciplines.
- Encourage higher education institutions to raise awareness of both ecosystems and foster cross-sector knowledge among future researchers, artists and designers.

Portfolio 3

CREATING OPPORTUNITIES FOR EXCHANGE AND INTERACTION

Main idea and Scope:

Participants highlighted the importance of creating dedicated spaces and opportunities for in-person interaction between the deep-tech and artistic communities. While digital platforms can facilitate networking, face-to-face exchanges remain essential for building trust, fostering mutual inspiration and initiating interdisciplinary collaborations. Hybrid venues, collaborative events (festivals, workshops, hackathons) and interdisciplinary projects were identified as key mechanisms for bringing together researchers, artists, businesses and public stakeholders. Expanding these opportunities would support the emergence of innovative projects, facilitate the transfer of research into creative applications and strengthen the innovation ecosystem at regional, national and European levels.



- Encourage the participation of artists in deep-tech ecosystems (e.g. through a "1% for Art" initiative within deep-tech startups) and promote greater representation of both researchers and artists at professional events.
- Create dedicated funding schemes to support researchers' participation in artistic and innovation events beyond their laboratories, recognising outreach and cross-sector engagement as part of research activity.
- Multiply opportunities for in-person interdisciplinary interaction throughout education and professional life by developing joint projects between engineering and design students and by integrating cross-sector workshops, roundtables and working groups into existing events.

Who was there?

A BROAD MIX OF STAKEHOLDERS CO-CREATED THIS CASE

CCI ORGANISATIONS

IDISCOVR, EMOTOUCH, Mathilde Reynaud, PIC, CHAT3D, Scenocosme



BUSINESSES

Minalogic, Incubateur USE'In, Pulsalys,

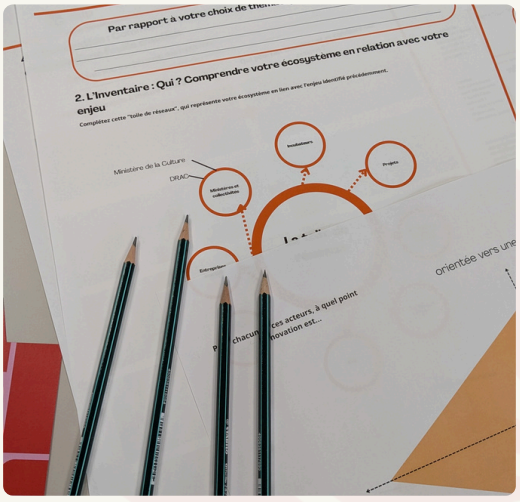
ACADEMIA

ENISE, École Supérieure d'Art et Design de Saint-Etienne, Erasmus Mundus Digicrea



LOCAL AUTHORITIES

Saint-Etienne Métropole, DRAC, Région Auvergne-Rhône-Alpes

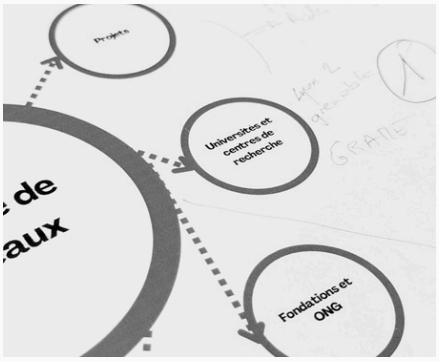


Analysis

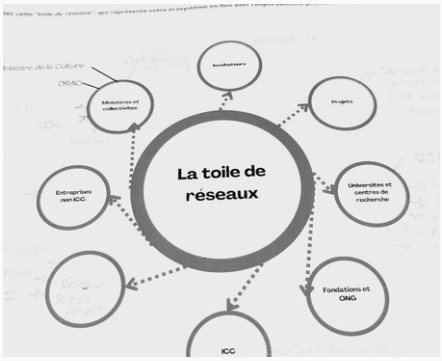
THE LOCAL INNOVATION SUPPORT SYSTEM

The discussions highlighted that the Saint-Étienne–Lyon region already benefits from a strong and diverse innovation ecosystem capable of supporting collaborations between deep-tech and artistic creation. This ecosystem brings together higher education institutions, research laboratories, competitiveness clusters, incubators, fablabs, creative hubs, professional networks, public funding programmes (France 2030, Bpifrance, Regional Council, DRAC and European programmes), as well as a vibrant network of companies operating in the cultural and creative industries.

However, the main challenge is not the lack of support structures, but rather their coordination and accessibility. Participants stressed the need to build a more connected and visible ecosystem through regular networking opportunities, dedicated collaborative spaces, mediation mechanisms and better coordinated funding pathways. Strengthening these connections would facilitate interdisciplinary collaboration, increase the visibility of innovative projects and position the Saint-Étienne–Lyon region as a leading innovation hub at the intersection of research, technology and artistic creation.







Conclusions

& RECOMMENDATIONS

1. Simplifying Access to Funding to Foster Innovation

Financial support is available at regional, national and European levels, but funding schemes remain fragmented and difficult to access for hybrid projects combining deep-tech and artistic creation. Project leaders expressed a clear need for greater guidance, improved visibility of funding opportunities and better support in navigating the funding landscape.

Recommendation: Establish a dedicated funding pathway for projects at the intersection of artistic creation and deep-tech by coordinating existing funding mechanisms, developing targeted calls for projects and providing tailored support for project development and funding applications.

2. Developing a Shared Culture Across Communities

Differences in terminology, timescales, working methods and professional cultures remain major barriers to collaboration between artists, researchers and businesses. Participants emphasized that meaningful human interaction and effective mediation are essential prerequisites for building long-term interdisciplinary partnerships.

Recommendation: Develop permanent mediation mechanisms—such as cross-disciplinary residencies, workshops, training programmes, a shared glossary and collaborative platforms—to foster a common language, strengthen mutual understanding and support the emergence of interdisciplinary projects.

3. Creating Opportunities for Collaboration Between Researchers and Artists

Creating dedicated opportunities for researchers, artists and businesses to meet is essential for developing projects at the intersection of deep-tech and artistic creation. Participants identified hybrid spaces, collaborative events and networking initiatives as key enablers of mutual understanding, experimentation and the development of long-term interdisciplinary collaborations.

Recommendation: Establish a regular programme of collaborative activities—including workshops, hackathons, residencies and festivals—while supporting researchers' mobility to artistic and innovation events. Pilot new collaboration mechanisms, such as a "1% for Art" initiative within deep-tech startups, to encourage sustained interaction between the research and creative sectors.

4. Strengthening Creative and Technological Sovereignty

Participants emphasized the need to better promote the talents, expertise and innovations developed within France. In an increasingly competitive international environment, strengthening the national innovation ecosystem requires creating conditions that retain skilled professionals, attract investment and ensure that public funding generates lasting value for the French deep-tech and creative sectors.

Recommendation: Develop measures that strengthen the territorial anchoring of talent and projects by encouraging local collaborations, reinforcing the visibility and recognition of French expertise, and directing public and private investment towards initiatives led by national and regional stakeholders.

Overall Conclusions

- Facilitate collaboration between the deep-tech and artistic communities through improved mutual understanding, dedicated networking opportunities and coordinated funding mechanisms.
- Simplify access to funding and supporting early-stage experimentation are essential to transform interdisciplinary collaborations into economically sustainable and scalable projects.
- Build a shared culture—through face-to-face interactions, mediation and the development of a common language—is a prerequisite for long-term collaboration between researchers, artists and industry.
- Empower public authorities to drive this transformation by providing strategic leadership, coordinating stakeholders and creating the conditions for a thriving innovation ecosystem.

What happened next?

The workshop provided a foundation for future reflection and highlighted priority areas for action. It provide participants from diverse backgrounds with a dedicated space and time to advance systems and explore solutions to cross-sector challenges.
Future discussions could benefit from a stronger focus on concrete collaboration opportunities, involving a broader range of stakeholders and showcasing successful interdisciplinary projects. Participants also highlighted the value of inviting coordinators of funded collaborative projects to share their experiences, challenges and best practices, helping to inspire new initiatives and facilitate access to existing funding opportunities.

Existing flagship events (*Nuit de la Recherche* or *Saint-Etienne International Design Biennale*) across the region could provide valuable opportunities to bring together researchers, artists, businesses and public stakeholders around shared challenges and collaborative initiatives. Building on these established platforms, rather than creating entirely new formats, would help maintain momentum, foster interdisciplinary exchanges and increase the visibility of emerging projects. In parallel, efforts should focus on progressively engaging a broader range of regional stakeholders—particularly local authorities—to strengthen the ecosystem and ensure the long-term impact of these initiatives.



Saint-Etienne International Design Biennale 2025



Nuit de la Recherche (European Researchers' Night)

> ***Public policies can open up these spaces and moments of encounter, creating the conditions for hybridisation and innovation.***
>
> Carole Garnier, Saint-Etienne Metropole

Our methods

THE INNOVATION PORTFOLIO POLICY CANVAS

The Prototyping Workshop Methodology and the Innovation Portfolio Policy Canvas guide local stakeholders to analyse their local ecosystem, make an inventory of actors and resources, identify and create a potential innovation portfolio and analyse their local innovation support system.

THE OPSI MODEL

The OPSI-model (Open Public Sector Innovation OECD) is adapted to analyze the innovation character of the policy area. Participants explore whether the policy involves new legislative measures or is more exploratory in nature, allowing for a deeper understanding of how the policy might influence the local ecosystem

THE LIEPT MODEL

The Lund Innovation Ecosystem Portfolio Tracking (LIEPT) model is a tool that provides a framework for tracking changes in innovation portfolios in ecosystems where impact and growth happen not in one organisation but in many. This relies on collaborative efforts by many stakeholders.

What is ekip

The ekip partnership funded by the European Commission consists of 5 universities, 4 consultancies, 4 creative and cultural organisations and 4 cities. Together we develop innovation policies for the cultural and creative industries in Europe. We do that in various ways: through research, consultations and interaction with people in the sector at policy labs and focus groups and assessments in city ecosystems.

Want to know more? Want to do it in your city?

Would you like to explore the topic of deep-tech further? Visit the ekip website, where you'll find relevant policy posters, presentations, videos, and articles.

You can even host your own session in your city! It's an empowering and insightful way to bring together local stakeholders across sectors and disciplines for a focused discussion on a topic of shared importance. The ekip method and approach are open for anyone to use including a Facilitator's Guide and templates available in the ekip Knowledge Bank under *Tools and Methods*.

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Disclaimer:
Each City Case Description reflects the views of workshop participants. It is a perspective from one city context, intended to inspire and ignite action

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