

GENERAL OUTCOMES

CCIs and INNOVATION CONTRAST PROJECT

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1. THE CCIS AND INNOVATION CONTRAST PROJECT

The CCIs and INNOVATION CONTRAST project is developed by the Department of Culture and Language Policy of the Basque Government, with the participation of key local actors such as the Basque Observatory of Culture (BOC).

These sessions with international experts are part of the efforts to create spaces for the exchange of good practices and knowledge development. This initiative tries to deal with the following detected issues:

- 1) Low performance of the Basque Country in terms of indicators of innovation in the cultural and creative industries (CCIs) sector.
- 2) Lack of application of the major European statistical frameworks at the regional level, where few data is collected for the innovation measurement indicators

In accordance with these issues, the following objectives are proposed for the project:

GENERAL OBJECTIVE

- The general objective of these sessions is to obtain knowledge that enables the development of policies and initiatives to support innovation in the cultural and creative sector (CCS).

SPECIFIC OBJECTIVES

- Agree on the conceptual framework of innovation in the CCIs sector: what is and what is not innovation in this sector?
- Identify successful cases at the international level.

We would like to acknowledge the participation of the stakeholders involved in this project:

- the agents participating in the RIS3 Euskadi Creativa 2020-2021 group;
- the experts participating in the 3 international working groups during the first semester of 2021;
- and all participants in the Open Conference in November 2021 in Bilbao.

Without their participation and valuable contributions, the development of this project would not have been possible. Eskerrik asko.

2. CONCEPTUAL FRAMEWORK



The Department of Culture and Language Policy of the Basque Government is promoting a work route within the framework of RIS3 around Cultural and Creative Industries (CCIs) as an area of opportunity.

A process of reflection began in 2019 around the **conceptualisation and exploitation (via indicators) of R&D&I in the Basque cultural and creative sector**. The reason to undertake this is the R&D&I deficit reflected in data for these sectors in comparison with the three strategic priorities (Advanced Manufacturing, Energy and Life Sciences - Health) and two of the four areas of opportunity (Food and Urban Habitat) included in the RIS3. According to data from Innobasque collected in the document Bases of the Plan for Science, Technology and Innovation (PCTI) 2030, the cultural and creative industries represented 0.7% of the whole of R&D investments in the Basque Country in 2017. In comparison with 2014- 2017, it is the only field to experience a negative evolution (-9.4%), which contrast with the increase of 10.0% in investments in R&D in the whole of the RIS3 fields.

To this specific situation of the cultural and creative sectors (CCSs) is added the deficit presented by Europe faced with other contexts and which justifies the European commitment to R&D&I which is at the base of the new programme, Horizon Europe. Specifically, it is indicated that in spite of 20% of R&D globally and 1/3 of all high-quality scientific publications coming from Europe, investment in R&D by European companies reaches 1.3% of GDP, compared to 2% in the USA, 2.6% in Japan and 3.3% in South Korea.

Starting out from this double problem, the development working process for a conceptual framework for the application of R&D&I in the CCSs has the following objectives:

- **RAISE AWARENESS** of innovation taking place in the CCIs, according to approved and standardised measuring criteria for the group of sectors.
- **SHOWCASE** the uniqueness of the CCIs, identifying aspects characterising cultural innovation, which are not reflected in the frameworks established for the group of sectors and which make them unique.

During 2020, we have compared reflections with the Piloting Group about the CCI niche of opportunity, within RIS3 Euskadi Creativa, devoted to R&D&I and participation by associations, companies in the sector, technological centres, universities, CCI infrastructures, public institutions, clusters and Innobasque.

As a result of this process, a conceptual framework report was elaborated by the Basque Observatory of Culture (BOC), which combined the reflection regarding business innovation and the development of a culturally-based social innovation model. The aims of this report were:

- Compiling information regarding R&D&I involving initiatives and programmes that sustain it at European and regional level.
- Identifying the characteristics pertaining to CCSs with regard to R&D&I and translating them to an analysis model of their specifics.
- Synthesising the main recommendation around the conceptualisations of innovation and R&D.
- Opening the debate around the measuring of R&D&I in accordance with the existing indicators at European and regional scale.

This conceptual framework was the basis for the discussions held during the CCIs and Innovation Contrast working process, whose outcomes are described in this document.

This process was organized in three different working groups, bringing together experts on the following topics:

- Working Group 1: Innovation
- Working Group 2: R&D
- Working Group 3: Measurement of R&D&I

3. TOPICS TO DEBATE



The structure for these sessions has been divided into three different Working Groups in order to approach three main topics: innovation, R&D and measurement of R&D&I.

● **WG1: INNOVATION**

The main issues to be developed are the following:

- Agree on whether a model based on common criteria to all sectors is useful to characterise and identify innovative cultural and creative projects.
- Identify which aspects of added value characteristic of cultural and creative projects are associated with innovation.
- Agree on the indispensable criteria in an innovation model for these sectors, to be gathered as a foundation document.
- Provide guidance on the features of innovative CCS projects to be considered in an expanded version of the model.

● **WG2: R&D**

The key question is whether it is possible to reach a minimum consensus around:

- Whether the basic criteria used to define R&D are sufficient to identify it in cultural and creative projects.
- Whether it is appropriate to add criteria to help discerning what is and what is not R&D in the cultural and creative sectors.
- How to apply institutional criteria when selecting R&D projects, considering that
- the context in which it is carried out can be decisive.
- Which institutional areas should be taken into account beyond research centres and universities?

● **WG3: MEASUREMENT OF R&D&I**

The reflection is focused on how the measurement of R&D&I is being considered in other contexts in the following terms:

- Whether existing sources of information are adequate to collect data on innovation and R&D in the CCS or whether it is appropriate to consider generating new operations for this purpose.
- Whether it is feasible to apply existing indicators taking into account the features of the CCS.
- Whether it is possible to identify those that are a priori more difficult and how it is being solved in other contexts.
- Whether, in addition to the standards, other specific indicators are being used for the measurement of R&D&I in the CCS and which ones these are.

4. OVERALL METHODOLOGY

To discuss on the above-mentioned topics, a **two-fold process** was designed. A **first stage** was an **internal work** one, involving international and local experts – organised in the **three WGs** – in a knowledge exchange process that combines synchronic, online meetings with diachronic work through digital tools. A **second moment** in this process is the **Open Conference** celebrated in Bilbao, as a face-to-face event, on 11th and 12th November 2021.

● WORKING GROUPS (WGs) OF EXPERTS

All three WGs followed the same structure: three synchronic, online meetings, and diachronic work through digital tools between meetings.

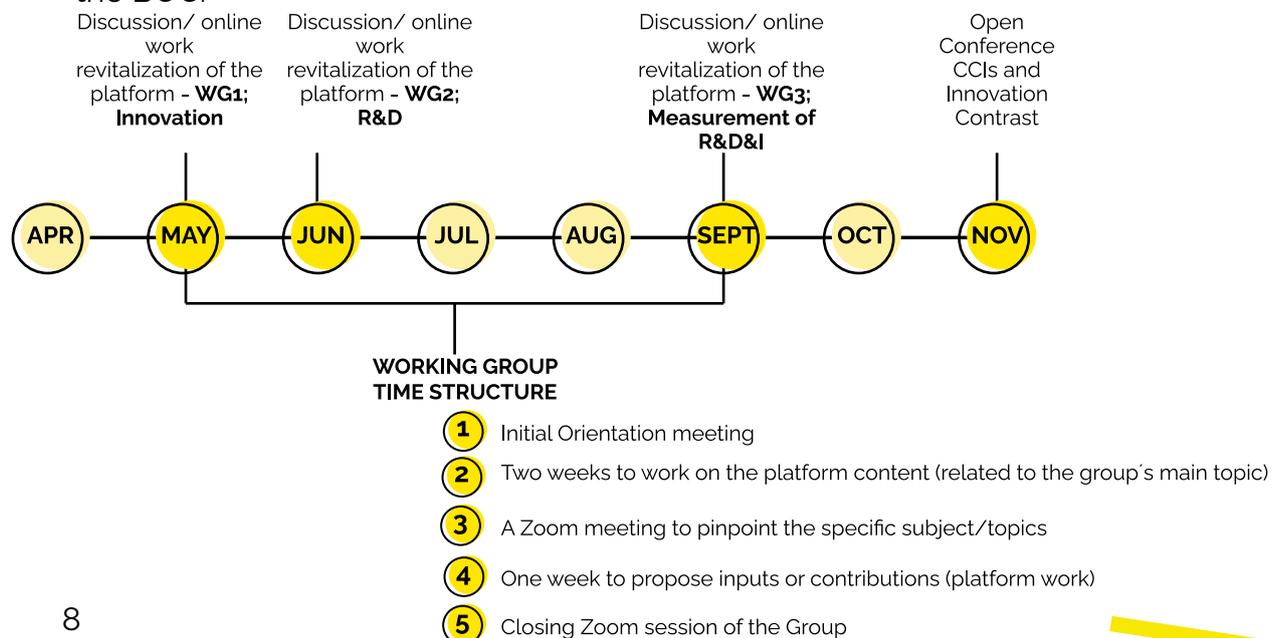
A **first session** for each WG was focused on the explanation of the concepts to be dealt with during the sessions, particularly in relation to the conceptual framework developed by the Basque Observatory of Culture (BOC).

After this first session a **week of contributions** started, through online platforms, where all the experts had the opportunity to further discuss on the topic following the questions proposed by the Scientific Coordinator.

A **second session** for each WG allowed going deeper into the topic, by recapping the contributions through the online platforms and engaging in further debates.

During another **week of contributions**, the possibility to continue the debate was given.

Finally, the sessions came to an end with a **closure session**. This session was an opportunity to summarize the contributions and draw conclusions, specifically in relation to the conceptual framework originally proposed by the BOC.



5. WG1: INNOVATION

● 5.1 Innovation concept

WG1 provided a space for a broader reflection on the concept of innovation in the CCS.

One of the ideas raised, connecting to R&D and also R&D&i, was the fact that innovation in CCl is intrinsically different to that happening in other contexts or sectors, namely as in the CCS often does not follow a linear process, and also because human-centric innovation is predominant here, compared to other sectors where innovation is strongly linked to technology.

Besides differences from other sectors, the difficulty of dealing with CCS as a unified, homogeneous whole when talking about innovation, was also pointed out.

The concept of open innovation and the need to give room to unexpected or unplanned results were also widely discussed as key for the specific case of CCS.

A great deal of comments by experts focused on the idea that "innovation cannot be done in silos", quoting Johanna Suo. In accordance with this, experts insisted on the importance to acknowledge the role of different actors when it comes to innovation in the CCS, in line with the proposal of the quadruple helix.

The need to upskill and re-skill, as well to enhance professionalization and the enlargement of companies within the CCS, were referred to as pre-conditions for innovation in CCl, but also as a challenge for its capitalization and transfer to future generations.

● 5.2 Models

After a broader discussion on the topic of innovation, the reflection focused on the objectives of innovation as proposed in the Oslo Manual, and on the three-dimensional model of the value of culture designed by the BOC and included in the conceptual framework.

For the objectives, what is provided below is the proposal of modification of the model by the scientific coordinator, which builds on the comments by the experts and the debates during the process of this WG.

With regard to the three-dimensional model of the value of culture, the changes to the originally proposed model – which also build on the experts' views – are explained, followed by the analysis of a closing exercise with experts, to identify the connections between the different values/dimensions and the helices in the quadruple helix model.

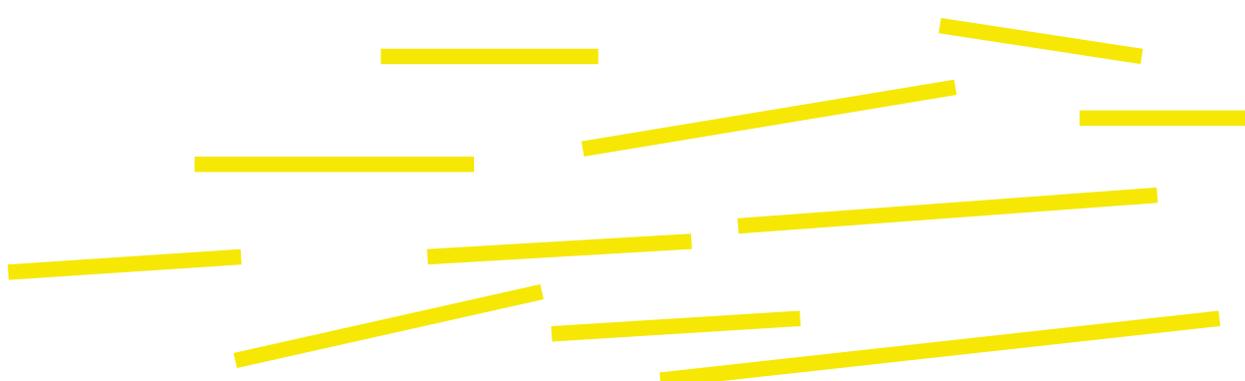
5.2.1 Objectives

The definition of innovation has been evolving over time as society's perception is changing over time about what it needs, wants and/or accepts as a "new idea successfully implemented" (innovation in general).

Today it is mainstream that innovations are not innovation if society does not understand their relevance for well-being and the SDGs. Hidden innovations are no innovations any longer. Also, brilliant experimental ideas can be innovations, even if successfully implemented only once or even by accident by unintended users. Today society also agrees that we cannot leave even one innovation behind, from no one, even if it is regional or rural version of an earlier global innovation, a vintage-innovation.

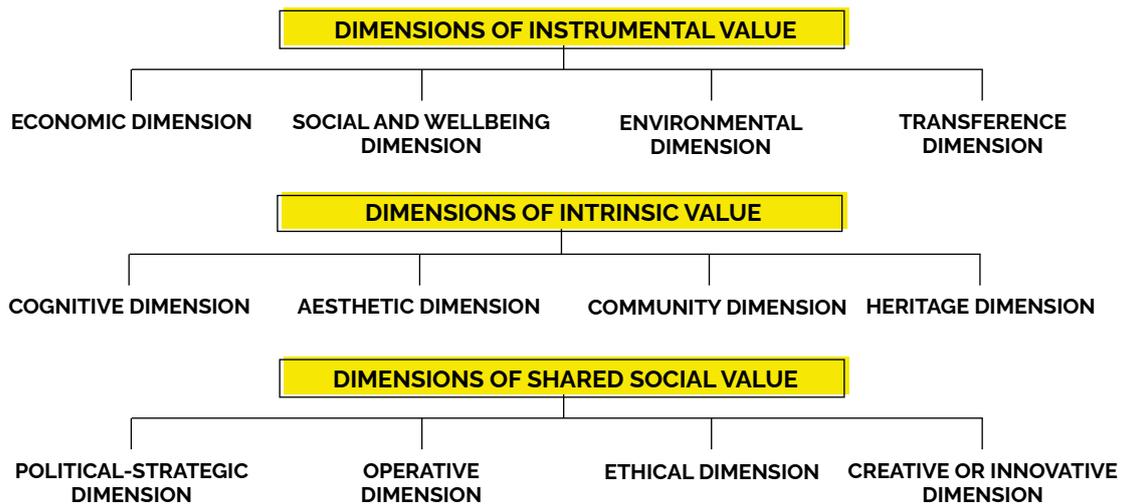
The proposals below are done in the spirit to mirror the new consensus in society, that is to evolve the objectives of innovation for an inclusive society in the digital age within planetary boundaries (SDGs).

NOVELTY OR IMPROVEMENT	UTILITY-IMPLEMENTATION	CREATE VALUE	INCENTIVIZE OR RELEVANCE
<ul style="list-style-type: none"> • The Standard: A new product or process must be generated or a significant change with regard to that existing must be produced. • <i>The New Understanding:</i> <ol style="list-style-type: none"> 1) <i>The newness of a product is contingent to its specific surrounding and places, not just globally.</i> 2) <i>Change is contingent to user groups, especially including mental or physically impaired persons.</i> 	<ul style="list-style-type: none"> • The Standard: If it is a product, it must have been made available to potential users; if it is a process, it must have been used in the unit. • <i>The New Understanding:</i> <ol style="list-style-type: none"> 1) <i>Implementation is given if the product or process reached access in public audiences, even if pre-commercial (Museums, Festivals, Open Innovation).</i> 2) <i>Implementation is given if the product or process reached certifying activities, even if pre-commercial (Jury, Curators).</i> 	<p>Three-Dimensional Model of Values.</p>	<ul style="list-style-type: none"> • The Standard: "available to users" • <i>The New Understanding: Novelty, Implementation or Value Creation must not create negative (side-)effects endangering a carbon-free Europe by 2050. shall in the best case create support in reaching the SDGs quicker. shall in the best case create awareness how it supports reaching the SDGs by outreach beyond the innovator communities.</i>

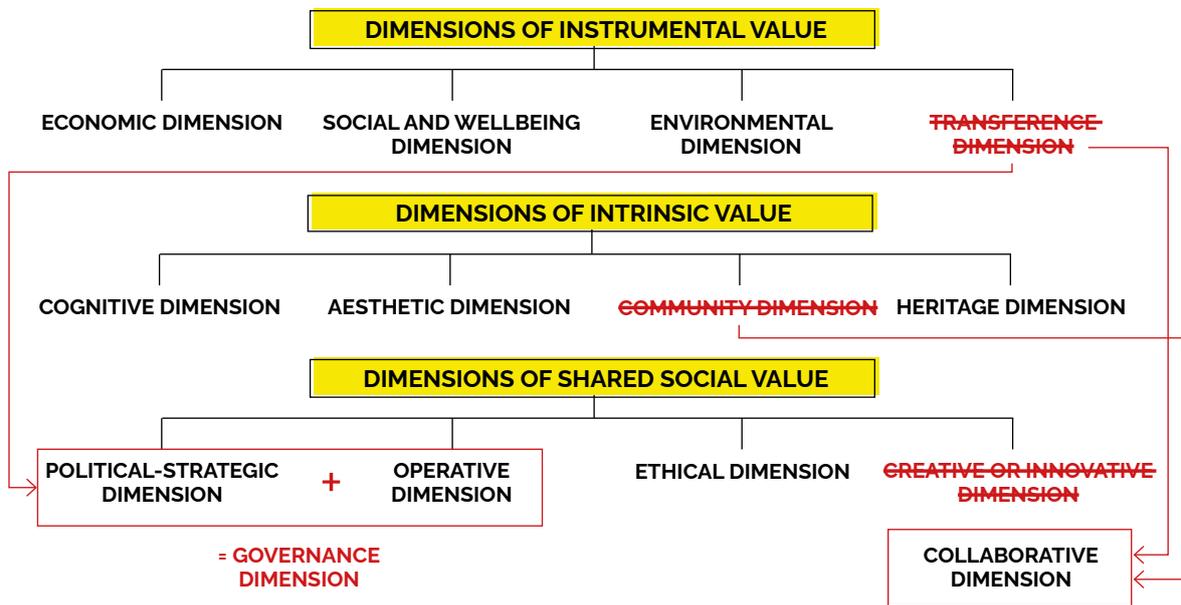


5.2.2 The three-dimensional model of value

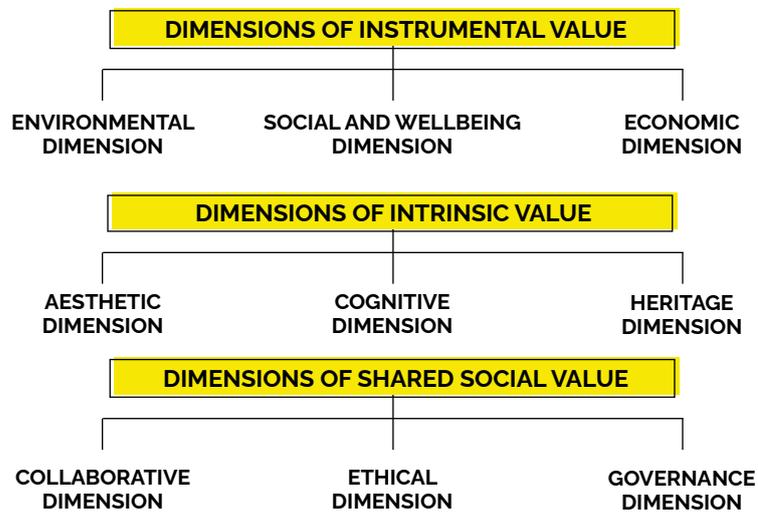
The conceptual framework developed by the BOC included a model with three different values of culture, each of which contained four different dimensions, as follows:



Following the debates in WG1, and with the aim of simplifying the model a bit, the changes marked in the next figure were proposed. More specifically, it was considered important to create a new "Collaborative dimension" within social value, which would replace the creative or innovative one, and include the transference (instrumental value) and community (intrinsic value) dimensions. Another modification to the model was the elimination of the adjective "shared" in the "shared social value", as it is considered redundant. Finally, the political-strategic and operative dimensions were merged into a new "Governance dimension" within the social value.



The model resulting after the application of the changes above looks as shown in the next figure.



As a final exercise to further test the validity of the renewed model, experts were asked to put the different dimensions within the different types of value of culture – i.e. instrumental, intrinsic, and social values – in relation with the helices in the quadruple helix model – that is to say, university, government, industry and civil society. A matrix was built for this purpose and connections were marked by experts using the collaborative tool MURAL. The results of this exercise are presented here.

Regarding the **instrumental value**:

- For the university, the social and wellbeing dimensions seem to be the most relevant, while the economic dimension would be the least significant.
- In this particular case, government has been considered equally important for the three different dimensions, which indicates that governments take part with the same intensity at the environmental, social and economic dimensions.
- The strongest connection is found in the binomial of industry and the economic dimension.
- Last but not least, no importance has been given to the economic dimension in relation to civil society. Not surprisingly, civil society is strongly related to the social and wellbeing dimension.

INSTRUMENTAL VALUE	University	Government	Industry	Civil Society
Environmental dimension	2	5	4	4
Social and Wellbeing dimension	3	5	3	6
Economic dimension	1	5	7	0

Note: Numbers in this table and the ones that follow refer to the experts who marked the connection between the dimension and the helix in the collaborative Mural exercise.

In what refers to the intrinsic value of culture:

- By evaluating the relation between the university and the intrinsic value, it can be seen that the cognitive dimension is the prevailing one, followed by the aesthetic dimension.
- With regard to government, heritage dimension seems to be the most relevant. In this sense, governments are considered as a key factor for the preservation and promotion of heritage.
- It is also widely agreed that industry has no relation with the heritage dimension, but it is more closely related to the cognitive dimension.
- For the civil society, the heritage dimension takes prominence closely followed by the aesthetic dimension. So, society is considered fundamental for the transmission, promotion and preservation of the tangible and intangible heritage.

INTRINSIC VALUE	University	Government	Industry	Civil Society
Aesthetic dimension	6	2	3	4
Cognitive dimension	7	1	5	2
Heritage dimension	5	6	0	5

Finally, regarding the social value of culture:

- For university, it is broadly agreed that the collaborative dimension – which is the result of the combination of the former creative and transference dimensions – is key. In this context, it is considered that universities play a crucial role in the transmission of knowledge and the support for the development of creativity within society.
- Government is seen to be connected to a similar extent to all three dimensions.
- Ethical dimension is, in view of experts in the group, the most strongly connected with the industry.
- The predominant choice for the governance dimension links it with civil society. This new dimension, resulting from merging the former politic-strategic and operational dimensions, has a lot to do with the power of governments to improve the public service policies and capacity of coordination with a focus on society as a whole.

SOCIAL VALUE	University	Government	Industry	Civil Society
Collaborative dimension	4	5	4	6
Ethical dimension	2	6	6	1
Governance dimension	2	6	1	8

After concluding this exercise, several opinions were expressed. As a result of the debate, some felt that regarding the intrinsic value and, more specifically, the aesthetic dimension, industry should have been on the lead followed by the academic world. In addition, some were surprised that the university is seen as the 'primary owner' of the aesthetic dimension. Along these lines, some believe that intrinsic value should be more related to social matters, and therefore, to the social society. It was also expressed that the model might be understood as a co-production, where each and every factor and dimension are of equal importance.

● 5.3 WG1 - Conclusions

This first working group has come to an end and we had the opportunity to widely discuss on innovation in the cultural and creative sectors. These sessions served as a process to acknowledge the importance of innovation in the CCS, as well as enlarge the conceptualization of Oslo.

Some general conclusions that may be drawn from all the sessions of WG1 are the following:

- Oslo objectives are valid and applicable to the CCS, but they need to be re-thought for the specific context, for instance, acknowledging the territorial contingent nature of newness.
- The objectives of innovation need to be further developed for an inclusive society in the digital age within planetary boundaries.
- The new proposal for the three-dimensional model of the value of culture seems to accommodate all cases of innovation in the CCS, with some dimensions being stronger than others in each specific case.
- This model has allowed to explore the connections between the different dimensions and the helices of the quadruple helix model, revealing some surprising connections (or lack of them) that would deserve further attention.
- There seems to be wide consensus on the need for co-production and the involvement of a wide range of actors when talking about innovation in the CCS. The quadruple helix – university, government, industry and civil society – may be considered valid to look at innovation from this perspective.

CCIs and Innovation Contrast is an open working process which will allow to better understand the specificities of CCIs in relation to innovation and to create spaces for the exchange of good practices and knowledge development.

While this first group has contributed to deeply explore the issue of innovation in CCIs, it must be highlighted that this work is one of the three pieces of the puzzle. Now it is time to move forward and explore the key topics proposed for the other two WGs: R&D and measurement of R&D&I. This is a linear process, in which not only each WGs is fed by the previous one, but which will also allow for revision of previous conclusions at the end of the process, once the work of all WGs is completed and specially at the occasion of the Open Conference which will close this process in November 2021.

● 5.4 WG1 - Participants

Scientific Coordinator

Bernd Fesel, Director of the European Creative Business Network (ECBN)

Local Coordinators:

Alaitz Landaluze, General Coordinator of Innovation Policies at Innobasque

Josean Urdangarín, Basque Government's Department of Culture and Language Policy

Experts:

Iranzu Guijarro and Ricardo Antón, KARRASKAN: Innovation in culture, culture of innovation.

Camila de Epalza Azqueta, EU Policy Officer. Delegation of the Basque Country to the EU.

Gotzon Bernaola, General Coordinator of Business Innovation at Innobasque.

Sabin Goitia, Strategic Projects Coordinator at Beaz Bizkaia.

Marielle Hendriks, director of Erfgoedhuis Zuid-Holland (Heritage House).

Nerea Luis, PhD in Computer Science and Co-founder of T3chFest.

Ruth Mayoral, Responsible for Tailor-made Programmes at Euskampus Fundazioa.

Juan Pastor Bustamante, Deputy Director of Innova&acción.

Pau Rausell, PhD and lecturer in the Department of Applied Economics at the Universitat de València.

Begoña Rodriguez, director of Basque Culinary Centre Innovation.

Johanna Suo, Ifa Laboratory.

6. WG2: R&D

6.1 Reflections on R&D

Frascati criteria

By Pier Luigi Sacco

It can be clearly seen that the reflection regarding R&D is very challenging:

There is one position that is very clearly expressed: **there is no need of new criteria**, but maybe rather a guide for CClIs regarding these criteria in the sector.

This is a perfectly legitimate and possibly even defensible position, that in the end the Frascati criteria work well, that there is nothing really specific in the CClIs. The real problem is that people in the artistic field are simply not accustomed to work with these criteria. So, what we need, in some sense, is to popularize them, but there are also different perspectives that implicitly emerge from other comments.

A very important point raised by one of the participants is: **“the role of CClIs in R&D; instrumental or intrinsic value”**. This is a crucial point, because, when we speak of R&D, we are speaking in terms of instrumentality. What we know and what we want is that there is some sort of target objective, for example, developing a new product, developing a new technology. And all that we do is instrumental to this particular purpose, but the root of artistic creativity is the idea, that there is an intrinsic value to ideas. So, the real point is: **how can we reconcile the stronger intrinsic motivation right there is behind artistic creation with the instrumental push that derives from R&D activities?** What do the criteria tell us in terms of this particular relationship? That is a difficult question, and this relates rather than to the new in itself, to the creative part. The main point is that **there can be a creativity that is instrumentally targeting one particular goal and there is a creativity that can be undirected.**

The point is that in this definition of what is creative, we should probably also include a **more detailed understanding of the interplay between the intrinsic versus instrumental dimension of creativity and the relative role in R&D.**

In terms of newness, there are important remarks, for instance regarding the new forms of funding and sharing. For example, we can think of what is

happening today in terms of cultural commissioning, thanks to platforms like Patreon, that are clearly changing the way in which creation is deployed and creative processes are developed. An example of new forms of sharing is Artoteka, as a platform for the loan of artistic work by local artists that can be considered as an example of how you can create new ways of dissemination of artistic production through already existing mechanisms as loans.

For example, NFT are changing dramatically the panorama of the visual arts production and also from the point of view of values, the fact that you are completely shaking from the bottom the mechanisms of value creation in the artistic field. The idea of **authorship** and the use of **block chain technologies** open up a new space. So, this is probably an example that should be dig deeper in terms of understanding in which regard the newness is important in the artistic innovation dimension.

Then, there were also other important comments, like, for example, newness or relevance related to the selected target of focus. This is a further expansion of the idea that the newness is really defined in terms of the reference community and the relevance for the reference community. It is also related to **new business** models especially in the case of culture, because business models can make the difference. Today we need in the artistic field business models that reconcile the increasing difficulty of **enforcing intellectual property with the necessity of monetise creativity**. New business models that allow artists to survive on the market while at the same time not strictly enforcing intellectual property, that is something that is becoming increasingly difficult.

From the point of view of creativity, there are dimensions of creativity that are related to **new ways of cultural management**. There is also the transversal balance of Conexiones improbables, as improbable as a project that actually cross-cuts through the defined dimensions from this point of view. There is also the idea of the crisscrossing of the artistic led perspective on R&D with already existing and widely adopted overarching paradigms like design thinking. It is interesting to see, from this point of view, to what extent driven creativity and creativity as connected to the design thinking paradigm can cross-fertilize themselves in terms of an art focused R&D process.

It is important to mention that sometimes artistic creativity is really about making strange questions or questions that seem unrelated to the object.

There is a willingness to transgress what is the script of the R&D projects, by exploring things that seem completely unrelated, but sometimes this also leads to surprising discoveries and perspectives. Creativity is not only for creating a new item of products, but also new forms to work with processes that already exist. This is very much related to a notion of innovation that is innovation of meaning. Sometimes it is not just a product of process. And that has been not incidentally, the innovation of meaning idea as immersed in design studies.

The purpose with which a certain type of object is used or a process is developed can be completely changed, for example, by a certain type of innovation that has to do more with behaviours and aptitudes, and this is where probably the creative dimension of art-driven innovation can emerge in terms of uncertainty.

Sometimes, they even date back to the oral culture, which is a pretty literal culture that has a very deep foundation, deeply rooted behavioural processes and even biologically programmed aspects of human behaviour. From this point of view, for example, a new interaction between the state-of-the-art technologies and the very old that deeply seated the behavioural programs and routines that we have as humans, is a very exciting part of our R&D, which is related to the arts and clearly is deeply uncertain. We do not have a clear idea where this can land, but it is one of the most important and relevant avenues. **The behavioural technological interface in R&D and artistic-driven R&D research can be of a special interest.** At the same time, measuring this uncertainty in the artistic field can be complex and problematic, how to measure it as compared to more traditional R&D approaches.

This kind of uncertainty can be very difficult to measure in the sometimes poorly structured R&D processes like the ones that prevail in the artistic field. There is also the issue of the **feasibility** of the application of proven technologies in different contexts as imposed by the creative process. That is very uncertain but, at the same time, one of the most interesting aspects of artistic creativity is **repurposing already existing technologies**, not necessarily developed artistic field for completely different uses. In terms of digital media platforms in the artistic field, for example, the development of memetics is a clear example of how this repurposing can happen.

In terms of systematicity, it is very important to stress the human interfaces and information systems. Clearly, this is one of the aspects that in terms

of **systematicity** is going to play a major role in the future. And the **man-machine interaction** is probably one of the most fertile grounds for future artistic driven R&D, so, from this point of view, this is clearly one of the pillars of future systematicity.

What kind of a culture driven, artistic driven, open innovation can we conceive? This is one of the most important future streams in terms of a systematic dimension of our driven innovation, and this should be underlined, and it is also very important to find systematised processes of methodologies. Sometimes these activities in the artistic field are poorly funded. There is more emphasis on the pilot experience, on the pilot development, but not so much in terms of the scalability and the generalizability, which is, of course, much more popular and common in the traditional technological context. It is really important to consider this as a one of the key defining feature of future strategies of artistic driven R&D.

Finally, in terms of **transferability**, the cross-fertilization or cross-collaboration is at the core, but in a more structural way. This also relates to the cross-pollination that was already pointed out in the creative dimension. So, it is extremely important from this point of view that the transferability is considerable in terms of the relationships that already exist between the artistic dimension and other dimensions. **Sometimes it is not just transferring, but understanding how certain different sectors, artistic and unartistic, are already related to one another in defining the new forms of R&D.**

On another hand, the **networks and clusters** are key. The spatial dimension through which we exercise this transfer and this reproducibility is also related to networks and clusters, which are also localized repositories of knowledge and expertise. They are key, because you cannot simply transfer things in terms of publishing a project or a blueprint or simply giving a manual of structure. Sometimes transferability has to do with direct experience and direct learning by doing. So, from this point of view, it is crucial to stress that **transferability is also related to the localized repositories of expertise to implement it through networks and clusters.**

The **intellectual property** is a way to defend, but also sometimes it is a way to block this transferability and reproducibility, especially today, when we live in a world in which collective creation and the collective authorship is becoming more and more common. Intellectual property and its relation

to transferability reproducibility from this point of view is an open and very problematic point.

What does reproducible mean in our specific context? Reproducibility from this point of view can mean different things. This is something that probably should merit some more definition and conceptual work on the CCS than in more traditional technological contexts. It is also very important to reason in terms of **social inclusion** when we speak of transferability; for example, Cyberkinetics of the poor as an example of how you can today unleash collective ingenuity and imagination in the context in which people are socially economically deprived and also a reason why, for example, Africa today is becoming such an interesting place for exploring new R&D related to the projects in the artistic field. Sometimes if you are in situation of need, you can become particularly inventive. In this regard **it is very important to understand transferability from the point of view of different socio-economic conditions.**

Sometimes it is important to distinguish the fact that some **creative ideas, if systematically applied, can become R&D.**

Service activities

By Josean Urdangarín

Reflecting on the **service activities**, we can observe that some believe that basic research is understood as a knowledge based on context. Examples like research residences and European projects have been carried out. Other proposed comments were about actors: universities and artists. In this regard, opinions based on the importance of collaboration of universities and art schools arose. We can find a lot of basic research, not in academic life, but also by of artist. It is interesting to highlight that blockchain is a new way to legitimate R&D through trust, through the trust given by a diverse group of actors or stakeholders.

Then, for applied research, several examples were linked to this service activity. Institutions and programs such as *Artoteka*, *Conexiones Improbables* and the *San Sebastian Research Center*, among others. We have also the EU framework programmes and the Next Heritage project, or *Galleries of Puntabegoña*, whose work is related to conservation and assessment of heritage, but based on technological research.

Another issue developed was the attention to experimental development in funding. There was also a comment regarding experimental development from a more democratic perspective, made by museums, art centres, artists collaborating, cross-sectorial... This is also related to some of the themes of the online debate: the institutional criteria and the need to open the focus regarding what kind of centres can go also in the process in the experimental development.

It seems that according to the contributions made, it would be interesting to advance in the definition of the organizations or agents that appear in R + D projects. The list of agents could be expanded in relation to the most limiting one in Frascati, always in the CCIs domain.

It also seems that although there are some overlaps between types of R + D, it would be necessary to delve deeper into the relationship of basic research in relation to art, and try to make its results more visible. In the research in arts area the issue of the intrinsic value versus the Instrumental value of the CCIs emerges more clearly.

● 6.2 Examples in relation to Frascati criteria

The following cases of R&D in the cultural and creative sectors were presented. Experts tried to determine, for each specific criterion, if it was clearly applicable to the specific case (in green) or not (in orange). In addition, they were requested to identify the type of R&D service activity corresponding to each example, as well as to present the different governance elements – who the project was promoted by, who it is for, and who was it funded by.

6.2.1 Estudios Durero

Created in 1998, **Estudios Durero** is a Basque company working in the graphic arts sector, with a wide experience, from manual and analogic technologies in the beginning, to the digital transformation, that has totally changed this sector.

Today, Estudios Durero is a tech-leading company, working with the best tools and technologies developed around the world, and with a deep knowledge and expertise in the treatment and reproduction of images. A consolidated and innovative company, in a constant transformation, researching in materials, made up of a multidisciplinary team of 60 people with different skills: graphic design, commercial, communication, industrial design, management, assembling, handling, image preparation, print techniques, tailoring, programming, web development, etc. Diversity as a force to develop big projects, from the very beginning.

Regarding Arts, Estudios Durero has its own **Art Laboratory**, where new forms of graphic production are imagined, created and developed, applying different techniques of digital reproduction, different finishes, packaging and also creating new formats.

A place for creation, a space of collaboration and research to share with artists, photographers, art galleries and museums such as the Museum of Fine Art of Bilbao, the Prado Museum and the Guggenheim Museum, among others, giving them a wide range of applications for their artistic expressions, with products such as:

- **DIDU:** methodology created by Estudios Durero to reproduce images in relief enriched with tactile and accessibility features. In its principal application, Didu has managed to open the doors of prestigious museums throughout the world to the blind and people with impaired vision.

- **Dibond + Laquer:** technique that allows to protect the printing, strengthen colour intensity and harmonize the effect of light on the images, preserving in this way their vivacity and strength.
- **Fine Art:** high resolution digital printing with pigmented inks on top quality materials, such as the prestigious Habnemühle range, Traditional paper manufacturing free of acid and extremely resistant to ageing.
- **Stereoscopic:** stereoscopic photographs from the beginning of the last century, recovered, digitalised and reproduced via digital processes. Images from the past, that can be seen in 3D, using special glasses.
- **Chromaluxe Art:** maximum quality, resistance and durability for graphic reproduction. Specially designed for photography and art work given its top-quality finish.
- **D-dos:** system of lettering in relief, a technique that increases accessible signalling possibilities.
- **TAKO** – Art and photography in a different format: a tako is a piece of wood measuring 20x20 and 4 cm thick with a graphic work printed on it. Conceptually it is an art-object, a photograph or a graphic image "entakada".

And many others concerning digitalisation, retouch and photographic and artwork reproduction and printing., including the edition of art boxes and books.

This laboratory complies applied research, experimental development and innovation activities. Concerning R&D:

- **NEW:** this criterion is fulfilled as the laboratory is a space of collaboration with artists, where new forms of graphic production are imagined, created and developed. Research in materials is also a key factor of this laboratory.
- **CREATIVE:** in the collaborative process with clients (co-creation) and its multidisciplinary approach to develop tailored projects
- **UNCERTAIN:** some kind of uncertainty could be foreseen in some of the projects (as Didu, development of own methodology), but in most of the cases, the uncertain criterion is doubtful. The main objective of Estudios Durero, as a private company, is to develop the best solution for a need or problem in graphic production coming from the art world.
- **SYSTEMATIC:** the art laboratory is one of the business lines of Estudios Durero, and therefore, a formal activity for the company.
- **TRANSFERABLE/REPRODUCIBLE:** collaboration as one of the key factors for developing new projects and its concrete result in physic/digital format, makes the knowledge generated in them, transferable and reproducible.

CRITERIA					R&D SERVICE ACTIVITIES	GOVERNANCE		
New	Creative	Uncertain	Systematic	Transferable and/or reproducible		Promoted by	For	Partners
●	●	●	●	●	Applied and experimental development	Estudios Durero	Artists, Museums, Art Centres...	Private

- The criterion is clearly applicable to this specific case.
- The application of the criterion to this specific case is not clear.

6.2.2 Next Heritage Project

This example tries to deal with methodologies and technologies for a new relationship between public and cultural heritage.

Next Heritage proposes solutions to needs of collective interest. Their principal aim is to provide support for the generation of innovative solutions to specific problems of social relevance.

The project shares the different stimuli of the Faro Convention and the idea of enhancing cultural heritage as a practice aimed at highlighting the value of cultural heritage as a social identity, in particular towards future generations, through its identification, study, interpretation, protection, conservation and presentation. Drawing inspiration from this innovative vision, the Next Heritage project intends to experiment with the use of transmedia narratives aimed at enhancement, participation and sustainable social and economic development.

The experimentation of the project, which will be developed with reference to the Archaeological Park of Egnazia, is aimed at sharing agile methodologies and technological solutions useful for the production of transmedia contents and experiences for scientific dissemination, teaching and social communication for the enhancement of heritage cultural, material and immaterial, capable of satisfying qualitative and economic objectives as well. Specifically, the methodologies, techniques and technologies of transmedia narration will be used to develop a model of emotional interaction that at the same time facilitates learning and involvement, aiming at building a dynamic relationship between heritage and users.

They think of participatory and creative transmedia narration as a tool (agile, widespread and accessible to all) to facilitate the representation and sharing of the cultural identity of a territory to disseminate knowledge to a wide and diversified audience, to improve the audience of the places of culture, even those not affected by mass flows, and more generally to develop the sense of belonging and the active participation of citizens.

Their transmedia narratives will have the focus on the acropolis of Egnazia, and will integrate the digital storytelling format with laboratory experiences designed to stimulate the participation and contribution of schools and visitors and with information panels capable of adding, in situ, key elements of the narrative universe and stimulating the most virtuous connections to deepen knowledge, together with "traditional" editorial products.

CRITERIA					R&D SERVICE ACTIVITIES	GOVERNANCE		
New	Creative	Uncertain	Systematic	Transferable and/ or reproducible		Promoted by	For	Partners
●	●	●	●	●	Applied and experimental development	Applicazioni di Ingegneria ed Informatica s.r.l. (capofila) AGORASOPHIA Edutainment s.p.a. Altair s.r.l. Università degli Studi di Foggia Università degli Studi di Bari	Polo Museale della Puglia Italia Nostra Onlus (Puglia)	Public

- The criterion is clearly applicable to this specific case.
- The application of the criterion to this specific case is not clear.

6.2.3 Itsas Museoa (app)

The **Itsas Museoa** is the final user of this R&D of experimental development. This is developed and promoted by The Basque Country with Innovation public programme, **KSI Berritzaile**. This project is composed of two companies: one of them is the museum itself and K6, which is a cultural company that usually design and develop exhibitions for the Museum and works around communication. Regarding the partners, they are private companies, including the Foundation of the museum that work with **Tecnalia** in this part of the of the new developer of the state of art.

The project was addressed to detect what is a classifier. These classifiers refer to some tools that give information about visitor's emotions; if they are happy, worried, concentrated... just for redefining these exhibitions and spaces.

To develop this project, it was needed gadgets like small watches, just for detect the pulse or the measurement of the of the hands, or some locators for detect in which area are working the visitors just to obtain this information that they can transfer. This information, could be the technological results of this project and could help to define these classifiers. This process was quite complex and it generated diverse results.

Regarding the Frascati criteria, Itsas Museoa is linked to it as follows:

NEW: This project is something new and it is starting to be developed in some areas such as aerospace or aeronautic, but in this case was something totally new.

CREATIVE: in every step of the R&D services is needed creativity. In this case, just to put some gadgets into visitors and to obtain information.

UNCERTAIN: this achieved information is transformed in something uncertain, something to be further developed.

SYSTEMATIC: this used technology can be used in different processes, generating a systematic approach.

TRANSFERABLE/REPRODUCIBLE: the obtained information by the gadgets, can be transferred to other exhibitions to develop a new service, adapting these exhibitions spaces.

The important point to have into consideration is to follow some general lines or rules to define if something could be further developed. In this specific case, regarding the R&D service activities, this example is experimental development

CRITERIA					R&D SERVICE ACTIVITIES	GOVERNANCE		
New	Creative	Uncertain	Systematic	Transferable and/or reproducible		Promoted by	For	Partners
●	●	●	●	●	Experimental development	Basque Country (KSI Berritzaile. Innovation Program)	CCS	Private

- The criterion is clearly applicable to this specific case.
- The application of the criterion to this specific case is not clear.

6.2.4 Mekarteak

Mekarteak is an artistic and research project that takes the map drawn up by the artist Juan Luis Moraza as a reference to generate an updated map of contemporary art in the Basque Country. Mekarteak is developed by the AKMEKA research group of the University of the Basque Country.

In 2007, the Guggenheim Museum in Bilbao commissioned Juan Luis Moraza to draw up this map. For its preparation, Juan Luis Moraza distributed a questionnaire among local artists, and classified them through a system of peaks and valleys along a representation of the geography of the Basque Country.

The problem is that it only represented those plastic artists with a consolidated trajectory, while leaving many other artists, languages and artist sensibilities, on the valleys or on the sidelines.

Mekarteak arises as a cartography of cartographies, from data extracted from various sources in the territory with the aim of updating and enlarging the first map of Moraza, and giving it a more democratic or horizontal sense, by not using a representation based on peaks and valleys.

According to the Frascati criteria:

- **NEW:** Mekarteak is a new artistic and research project, in the sense that it proposes a revision, update and enlargement of the map based on the identification and integration of new maps.
- **CREATIVE:** it is a creative project, especially due to the methodology used by the researchers to access the various data sources: each member of Mekarteak invited an expert from the Basque artistic and cultural field to provide a new map. In this way, different maps were added, until creating a multi-format map composed of documents, texts, photographs, exhibition posters, drawings, videos, ...
- **UNCERTAIN:** it can be also considered an uncertain project, due to collaborator's participation: they did not know what kind of map they would provide.

- **SYSTEMATIC:** the research process itself, closely related to artistic practice, can transform the methodology. The criteria of the uncertain and the systemic are continually mixed in the development of this project.
- **TRANSFERABLE/REPRODUCIBLE:** with the maps provided by the researchers and collaborators, they produced two hundred boxes, containing a presentation of the project, the different maps and documents. And an exhibition was also held. The development of exhibitions, for example, is considered an indication of quality in the reproduction and transfer of knowledge. In addition, during the opening day, they deliver the boxes of Mekarteak project to all interested people.

<https://mekarteak.wordpress.com/>

CRITERIA					R&D SERVICE ACTIVITIES	GOVERNANCE		
New	Creative	Uncertain	Systematic	Transferable and/ or reproducible		Promoted by	For	Partners
●	●	●	●	●	Experimental development	UPV-AKMEKA Research group	Artists and researchers	UPV / EHU

- The criterion is clearly applicable to this specific case.
- The application of the criterion to this specific case is not clear.

6.2.5 Bertsolaritza (BCBL)

This is an example chosen together with the Basque Observatory of Culture (BOC). This selected example is about the **bertsolaritza** and the Basque Centre of Cognition, Brain and Language.

This Centre is an interdisciplinary Research Centre for the study of cognition brain and language and is jointly founded and composed by **Innobasque**, **Ikerbasque**, Basque University and the Government of Gipuzkoa

The research activity aims to unravel the neurocognitive mechanisms involved in the acquisition, comprehension and production of language, with special emphasis on bilingualism and multilingualism.

In addition, regarding the governance sphere, this project is promoted by the Basque Centre of Cognition and the Bertsozale Association. It has to be explained that "**bertsolariak**" are improvisers of verses in the Basque language. They dedicate themselves to compose and singing verses in Basque language immediately improvising their verses following a specific rhyme and established rules.

The project is the first study on the brain capacity of **bertsolariak** in this Basque Centre of Cognition. The hypothesis is that bertsolariak keep words in a special way in memory, or they may even bring them in a more effective way when they need them. This video summarizes the aforementioned concepts: <https://www.youtube.com/watch?v=tkhVf6TEGAs>

Regarding the Frascati criteria, we can define this project as:

- **NEW:** this criterion regards to the newness of the use of laboratory research for this project and the space of cooperation with *bertsolariak*. In this sense, they are developing a wide range of new research areas.

- **CREATIVE:** this project is creative regarding the collaboration with different target groups.
- **UNCERTAIN:** this specific example refers to new research domains, based on hypotheses to be tested.
- **SYSTEMATIC:** The project methodology is systematic, organized and clearly defined.
- **TRANSFERABLE/REPRODUCIBLE:** On the one hand, the results are traceable, comparable and repeatable, and on the other, from this centre they are already undergoing transfer processes with other centres locally and internationally.

In terms of R&D activity service, this example can be considered as a basic research and is promoted by public (mostly) and private partners.

CRITERIA					R&D SERVICE ACTIVITIES	GOVERNANCE		
New	Creative	Uncertain	Systematic	Transferable and/or reproducible		Promoted by	For	Partners
●	●	●	●	●	Basic	Basque Center on Cognition, Brain and Language Bertsotzale Elkartea	Researchers	Public (mostly) and private

- The criterion is clearly applicable to this specific case.
- The application of the criterion to this specific case is not clear.

● 6.3 WG2 Conclusions

These conclusions are built based on the contributions by Michela Magas, Pier Luigi Sacco, Josean Undargarin and Yosha Wijngaarden, made during the closing session of this working group.

When we involve culture and creativity in R&D, one of the tendencies that we have is to be very analytical about the process and what we tend to do is use for instance data, and all sorts of systems to analyse what is happening and try and evaluate it. What very often is overlooked, is that what creativity brings to the process is the ability to really discover the new affordances of the systems and other technologies that are being researched at that point.

If we reverse our starting point and we start to see how we can get the creative people who are involved, how they use the system and how they change, how the system is used, and also how they themselves evolved very quickly, faculties new kinds of faculties by being creative with how they use new tools. This can lead to really big breakthroughs. It is something very closely linked to **future skills**, and this is a really important new area, where the creative practitioners and people who have a tendency to be creative with tools develop new talents and faculties, new ways of using things.

Affordances is becoming a centre criterion in cognitive neuroscience and in design. It is about what are the possibilities that are generated by a certain type of design, by a certain type of device. That is where many cases creativity dimension makes the difference, because it lets people discover completely different affordances that could be imagined looking at things from a straightforward point of view.

All these aforementioned issues are related to **developing a more fit approach** to describing what is the value added in the specific nature of artistically driven R&D projects.

Some of the **cases explained** previously, are showing this difficulty of framing them into simple little boxes, so, the affordance perspective, is very useful in this regard.

Regarding the affordances of technology, **human affordances** with the new circumstances are also crucial. Before someone invented a piano, it could not be possible to have a pianist virtuoso, so, every time a new piece of technology is developed, someone can develop virtuosity and some people have more talent in this context and suddenly it is discovered that people who never thought would have any talent, suddenly have a talent and this is hugely enabling for people. So, it's not just technological affordances, it's human affordances. In this sense, this issue is also linked to opening up new ways to deploying existing talents but also, unrecognized talents which professionals themselves are not completely self-aware.

When we refer to CCI and Innovation, the tends to be not always a lot of attention to the creativity comes in. What does a creative application of a certain technology bring to a certain project? or how can creativity help us to solve a problem?

Several points drawn from these sessions were related to the increasing interest of a non-creative Industries in getting more creative. From this point of view this mingling could really strengthen our understanding of how we can **transform creative processes into more R&D oriented processes.**

What it was seen in the in the five case studies we examined is that there is a lot of R&D activity in the artistic field that has to do with attitudes and behaviours. Focusing on the example of **Estudios Durero**, there is a strong emphasis towards co-creation. In this sense, you can be Innovative in a designing, a new way of interacting, and not simply exchanging information, but really designing your product with your customers. It can be done in other fields, but what is interesting in this case is that we are co-designing a creative process. One side of R&D could be experimenting with viable ways of co-creating creation, it has close relation with the creative dimension that shifts from an individual perspective to a collective perspective.

In the particular case of **Next Heritage Project**, it is seen that the innovation has to do with the structure of the relationship between community and heritage and the governance models. Especially in the field of Heritage, governance models can be the object of R&D processes, because the governance is the most critical dimension in the sustainability of heritage today. The Faro Declaration created in notion of Heritage Community to

address this governance in a way that could be conducted to countless forms of social innovation that could lead to social R&D.

On the other hand, in the case of **Itsas Museoa**, it is clearly seen that it is using already existing technological developments to redesign the experience of Museum visit and to generate a new stream. This is really about recombining and remixing creatively existing technologists to design experience models.

In the example of **Mekarteak** it is really interesting the fact that it is an artistic process about the kind of things that are expect to see on art exhibitions, but these, links to a notion of community development and how can be developed an innovative process to create a new basis for creative ecosystem in the Basque country.

Finally, **bertsolaritza**, a great project in cognitive neuroscience that has a very clear implication to the artistic and creative dimension and also to technological, scientific and even industrial dimension. This is also really poetic, because it can really illuminate our understanding or certain creative linguistic processes.

To wrap up this second group, it was a very diverse set of experiences which really means that probably we are not 100% able to understand properly what is the specific over driven R&D at the moment, **it is needed more thought and probably better categories**. This does not mean that we have to ditch the Frascati criteria, but it is obviously needed an intelligent **rethinking of how and why creative and artistic processes make a contribution to the R&D ecosystem today**. Nowadays, we are just at the verge of the launch of a new KIC on cultural creative industries. We are not giving clear solutions and we are probably giving more doubts and questions but, at the same time, these sessions have been extremely useful and have motivated to better understand how we can deploy the potential of cultural and creative processes in the R&D system.

● 6.4 WG2 - Participants

Scientific Coordinator

Pier Luigi Sacco, Senior Advisor at the OECD Centre for Entrepreneurship, SMEs, Regions & Cities.

Local Coordinators:

Ruth Mayoral, Responsible for Tailor-made Programmes at Euskampus Fundazioa.

Experts:

Gotzon Bernaola, General Coordinator of Business Innovation at Innobasque.

Camila de Epalza Azqueta, EU Policy Officer. Delegation of the Basque Country to the EU.

Xavier Fina, Founder and Director of ICC Consultores Culturales.

Sabin Goitia, Strategic Projects Coordinator at Beaz Bizkaia.

Roberto Gómez de la Iglesia, General Manager of Conexiones improbables.

Begoña Guzmán Sánchez, UNESCO Etxea.

Cinzia Lagioia, Director of the Puglia Creative District.

Aintzane Larrabeiti, Basque Observatory of Culture.

Mariate Linaza, Institutional Development and Promotion Director at Vicomtech.

Michela Magas, Chair of the Industry Commons Foundation.

Ruben Otero, Director of TECNALIA Research & Innovation.

Oihane Sánchez, PhD in Contemporary Art Research (2020) and collaborator of the AKMEKA.

Jesus María Santamaría, Senior Researcher at TECNALIA.

Renzo Turatto, responsible of the OECD Leed Venice office.

Josean Urdangarín, Basque Government's Department of Culture and Language Policy.

Yosha Wijngaarden, Assistant professor of cultural policy at Radboud University Nijmegen, the Netherlands

7. WG3: MEASUREMENT OF R&D&I

7.1 Discussion regarding the measurement of R&D&I

In preparation for the second session of WG3, the coordinators of this third group discussed the concept of innovation and measurement of R&D&I with a focus on the pilot study to be further developed. In this way, different issues came to the fore, which were brought to light in the session of thematic approach of WG3 on the 20th of September. These issues are listed below:

- Emerging **scepticism from the debate on the capacity of existing indicators** to represent the situation of innovation on the CCI outside the general frame. They don't explain dynamics or what's happening
- **Need for specific research** to better understand what is the contribution and meaning of the CCIs.
- Need to go back to the purpose: **what are indicators for?**
- Two different approaches can be considered for the **pilot research**: statistical approach or policy-centred approach.
- If the issue is **statistical comparison of existing indicators**, let's deepen on their meaning, the way we collect the data, etc.
- Two directions of the **policy-centred approach**:
 - o Policies addressed directly to CCIs, which are able to reinforce the sector acting on the **single entrepreneurs or activities**: → Micro-economic, anthropological approach (interviewing individuals to know how they are working, what is missing in the territory, etc.)
 - o Policies addressed to **build a creative milieu**, to build the conditions for the entrepreneurs to innovate: → Purpose is to find out which are the conditions for creativity, the social context provided for those who change the sector in some way, what is to be added, etc.

- Both directions require a micro-analysis on companies, activities and entrepreneurs. We propose that the 2nd direction will be taken through examples (40) in the pilot study. Preliminary conclusions will be presented in November.
- A third important direction refers to **impact evaluation** (cultural, social, economic): not directly policy-oriented, but necessary to understand the general dimensions
- **Policies** are the end goal, but how do we get there? Is policy the final step of another kind exercise or the focus of this exercise and also the pilot study? In other words, if we talk about conditions – which are key – there are two different possible approaches, which are probably to be combined:
 - **Statistical work** with the statistical office.
 - In the pilot study, we could see if conditions for creativity are met according to individuals/companies, and the **draw policy recommendations** out of these conclusions. In other words, we could check if the **theoretical framework** – built based on existing literature about conditions for creativity – corresponds with **empirical reality** of companies and creative individuals, with a policy goal in mind.
- The objective is to better understand what are the conditions for innovation, from a qualitative perspective, though new indicators might be derived from modelling.
- The **conditions** to adapt indicators are different by **territory** and **specific contexts** but also by thematic area of interest (e.g. community well-being, etc.).
- Consider a certain number of companies: are the **theoretical taxonomies** of WG1 and WG2 working for them? To what extent do they fit in the **criteria** for innovation and R&D? We may find that they fit to a certain extent. Research shall not apply a very rigid taxonomy. We should be ready that borders of this taxonomy are blurry.

- This “fogginess” is fine and it is always like that (see the case of the “Cultural and Creative Cities Monitor”), but it poses an **operational challenge**, to be able to **operationalise concepts**, as well as to explain ourselves (e.g., our understanding of community well-being) when approaching creative companies/individuals.
- It would be good to verify the hypothesis that **CCIs are underrepresented in innovation indicators**, but also that **CCIs are innovators**. If we manage to have a **sample to verify these hypotheses**, this would be very powerful in terms of communication, as well as of policy – as politicians in the end want numbers.
- **CCIs are innovative hypothesis**: we should look at it with 2 different sights:
 - **internal**: innovation in the conception of their products/services/processes, or in the way they access to the markets or manage their organizations/resources.
 - **external**: as drivers of innovation for other companies/sectors. This one is very important in order to highlight the **strategic role of CCIs in innovation**, and fill the gap of underrepresentation of this sector in general studies.
- **Policy making**: we should try to integrate 2 different approaches: **cultural policies and economic development policies**. In general terms, each of them, use to have different objectives and are carried out by different departments/areas. Which could be the best way or could we identify best practices of integrating them in order to get better solutions and conditions for a creative milieu?

Even if EIS/RIS/CIS are not valid to measure innovation in the CCS, can we use these instruments to analyse if there is any **relation between innovation and CCI relevance**? In our case, we are more interested in the regional scope, so looking to the most innovative regions in Europe, can we analyse which is the **structure and the role of the CCS** in these regions? Do they have **specific policies** for CCIs?

● 7.2 Proposal of the pre-pilot study

In the course of the development of WG3, it has gradually been possible to detail the pre-pilot survey to be further developed within these months. The WG3 allowed the possibility to enrich the concept, methodology and the features to be used for this survey.

Regions participating in the pilot study are the following:

- Flanders, Belgium
- Piemonte, Italy
- North Rhine-Westphalia (NRW), Germany
- Catalunya, Spain
- Euskadi, Spain

The proposed **working draft for the selection criteria** for the pilot innovation study are set out below:

Innovation, in a broad sense, is necessary for the evolution of the cultural and creative sectors and their competitiveness. Innovations can be of technological and artistic nature. Innovations also include the development and experimentation of new practices or models, as well as the transfer of innovative practices between different regions or sectors. Other areas of innovation can include a social dimension such as audience engagement/development or impact in the community.

In order to select the required 10 innovative cultural and creative companies or projects, they should include a diverse mix of:

- Cultural and creative projects / companies (including profit and non-profit)
- Companies of different sizes (individual / small / medium?)
- Companies / projects of different age (?)

In addition, they should:

- Lead / be involved in the production of different types of innovation outputs
- Include at least 1-2 examples of cross-sectoral innovation (in cooperation with the sector or having impact on other sectors)
- Include at least 2 examples of community-based innovation
- Include at least 3 examples of awarded innovation output (awards, labels, titles, funds, etc.)

We propose the **criteria elements** below:

DIVERSITY	Sectors
	Size of the organization
	Stakeholders
	Age of the company / project
	Educational and professional background of the team / staff
	Educational and professional background of the manager / project lead
	Financial structure (public, public-private, etc.)
TYPE OF INNOVATION	Artistic or Product innovation/ Methodology or Process innovation
	Intra sectorial /Cross sectorial
	Technological innovation/Social innovation
RECOGNITION	Awards
	Key players

- **Diversity:** The selection of cultural and creative companies and projects must be diverse. The overall selection must include organisations from different sectors and sizes, from consolidated cultural and creative companies to individual artistic projects (carried out by one person). Another way to be diverse is about the stakeholders or agents involved in the project.
- **Types of innovation:** organisations or individuals that are innovative in their process, in their final product or service; or are innovative for using new technologies or for their social objectives; or may be innovative in their own field or sector or being drivers of innovation for other sectors.
- **Public recognition:** organisations or individuals that have obtained an award or designation in innovation or represent their sector at a national and European level and advocate on their behalf on key sectoral issues.

Sectors included in the Basque Country:

- **Cultural sectors:** Cultural Heritage, Performing Arts, Visual Arts, Music, Publishing, Audiovisual
- **Creative sectors:** Architecture, Advertising, Design, Fashion, Video games, Language Industry, Gastronomy, Craftsmanship, Digital Content.

Survey proposal

- **Identifying elements** (Region, sector, size, leader organisation, beginning and end of the project)
- **Description of the innovative project** (objectives and challenges, type of innovation, partners or stakeholders, budget and public funds...)

General analysis of the regional ecosystem *(questions that can be answered by the 4 regional coordinators)*

1. What elements of your region would you highlight in terms of demography, education, urbanism, culture, heritage, environment...? We can use a scale to measure GNP or RSI policies
2. What's the presence of technology in your region? What are the areas of work where technology has a significant role?
3. Can you describe the business network in your region? Which are the predominant types of enterprises?
4. ...

Analysis of innovation in the local context *(questions that will be answered by the agents)*

1. What are the public policies in your region that support innovation? Are you aware of any?
2. Have you participated or are you aware of any training and learning opportunities that encourage innovation and entrepreneurship in your region?
3. Are there any platforms or facilities in your region that act as creative incubators, therefore allowing an encouraging atmosphere for innovation and entrepreneurship?
4. Have you obtained public funding before? What type? For what project or programme?
5. What's the percentage of resources (human and financial) that are assigned to research and development? And what are the resources assigned to innovation? Could you give us some figures?

Analysis of the project innovation *(questions that will be answered by the agents)*

Could you describe the type of **innovation** the organisation drives?

- **Internal innovation:** within the same company or organisation
- **External innovation:** application and exploitation of innovation practices by third parties (whether they are other companies, institutions or the community). It is directly linked to concepts such as open innovation or collaborative innovation.
- **Artistic, product or Service innovation**
- **Methodological or Process innovation**
- **Technological innovation or social innovation or both**

Another way of doing could be to let them describe what they would describe as innovative and after then try to put their experience into categories. To make sure the answers are not too much biased, we should ask everybody the same questions, such as:

- What would you define innovative in your company / project?
- What need does this innovation answer to? / Why did you introduce this innovation?
- How did you introduce this innovation? (Describe the history / process)
- How would you describe the results?

Analysis of the project impact *(questions that will be answered by the agents)*

Can you explain the type of **impact** the organisation made in the region? Would you diagnose its impact as technological, environmental, social, economic, employment development, or any other type of repercussion?

- **Economical:** can you evaluate the profitability of the organisation, their generation of sustainable **employment** (especially after the pandemic) and their economic return obtained through their project's intellectual property?
- **Social:** can you evaluate the impact of the organisation and the projects run by the organisation on **social cohesion or inclusion** (inclusion when at risk of exclusion, accessibility, generation of a sense of belonging and the capacity of the project to reflect social diversity). Can you evaluate its impact on **education and community engagement** (development of a further interest and sensibility of the participants with regard to creative expressions and initiatives).

- **Environmental:** can you evaluate the organisation's use of resources, their prevention of pollution and their contribution to awareness of **environmental values?**

Existing surveys to measure innovation

Are you familiar with the *European Innovation Scoreboard*? Have you filled out its questionnaire?

(We can include a link to a sample questionnaire here) so we can ask the following question:

Do you think these indicators are adequate to measure innovation in ICC's? Which ones work and which ones would you change?

Other possible questions to be asked during the semi-structured interview

Since the answers will be collected within a semi-structured interview, rather than a traditional questionnaire, another possibility could be adding during the conversation some notes about:

- a) Leadership: type of leadership and brief story of the leaders: cursus studiorum, other activities, milestones, turning points...
- b) Ideal references: Philosophers, Entrepreneurs, Artists, Historical Personalities;
- c) Innovation and territory: local, regional, national, international, possibility of exporting the model in another context;
- d) To which needs (individual or social) is innovation addressed? Old ones? New ones? Future ones?
- e) Which are the main targets?
- f) Personnel: number, quality, strategic skills and competences, etc...;
- g) Attention to the SDGs and sustainability: how, to what extent?
- h) What could be very important that is missing in your own territory? Is it something that could be the object of public policies?
- i) What are the real needs of your activity? Are they satisfied? Is it necessary some direct or indirect public aid?

Note: For the conclusions of WG3, please refer to the contribution by Valentina Montalto and Luca dal Pozzolo, on "Contextualization of the Measurement of R&D&I within the CCl's at an internal level", during the Open Conference CCl's and Innovation Contrast.

● 7.3 WG3 – Participants

Scientific Coordinator

Luca dal Pozzolo, Co-founder and responsible for Research of Fitzcarraldo Foundation.

Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission.

Local Coordinators:

Sabin Goitia, Strategic Projects Coordinator at Beaz Bizkaia.

Experts:

Claudia Burger, Policy Insights Manager for the Creative Industries Policy & Evidence Centre (PEC).

Annalisa Cicerchia, Culture economist and Senior Researcher at ISTAT - Italian National Institute of Statistics.

Paola Dubini, Senior faculty member of the SDA Bocconi Strategic and Entrepreneurial Management Department.

Annie Tubadji, Assistant Professor in Economics, Swansea University.

Carlo Vuijlsteke, Senior Project Manager / Coordinator Districts of Creativity Network.

Gotzon Bernaola, General Coordinator of Business Innovation at Innobasque.

Ibone Eguia, Predoctoral Researcher at Orkestra.

Mikel Etxeberria, Basque Observatory of Culture (BOC).

Xavier Fina, Founder and Director of ICC Consultores Culturales.

Iñaki Ganzarain, Project manager at Innobasque.

Aintzane Larrabeiti, Basque Observatory of Culture (BOC).

Jabier Retegi, Orkestra & Mondragon Unibertsitatea.

Sandra Rodríguez, Consulting Project Coordinator at ICC consultors.

Josean Urdangarín, Basque Government's Department of Culture and Language Policy.

8. OPEN CONFERENCE CCIs AND INNOVATION CONTRAST

The Open Conference CCIs and Innovation Contrast took place in Bilbao on the 11th and 12th November 2021, in the Guggenheim Museum. Organized by the Department of Culture and Language Policy of the Basque Government, the event was attended by invited international experts and counted with the participation of key local actors. The Open Conference allowed to build on the discussions started during the WGs and served as an ending to the process of discussion on the topics on Innovation, R&D and the Measurement of R&D&I within the CCIs.

The different contributions made by local and international experts during the Open Conference are presented here below, following the order in which they were presented.

DAY 1: 11TH NOVEMBER 2021

9:00-9:30

RECEPTION AND REGISTRATION

9:30-10:15

WELCOME AND OPENING OF THE CONFERENCE

Aitziber Atorrasagasti, Director of Cultural Promotion. Basque Government.

Miren Artaraz, Director of University Policy and Coordination. Basque Government.

Gotzon Bernaola, General Coordinator of Business Innovation at Innobasque.

Leyre Madariaga, Director of Digital Transformation and Entrepreneurship. Basque Government.

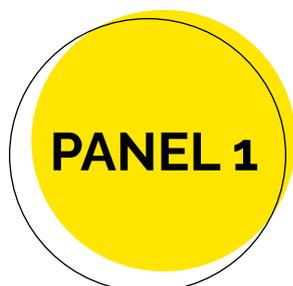
Cristina Ortega, Scientific Coordinator of the Conference. Member of the Basque Council of Culture.

10:15-12:45

THE CONCEPT OF INNOVATION IN THE CULTURAL AND CREATIVE SECTOR

10:15-11:00

THE CONCEPT OF INNOVATION IN CCIs:
SETTING THE BASIS



Sabin Goitia, Strategic Projects Coordinator at Beaz Bizkaia

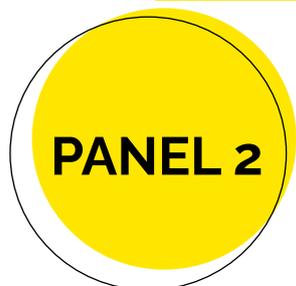
Alaitz Landaluze, General Coordinator of Innovation Policies at Innobasque

Bernd Fesel, Director of the European Creative Business Network (ECBN)

11:00-11:45

INNOVATION IN CCIs: WIDER PERSPECTIVES

Moderator



Camila de Epalza Azqueta, EU Policy Officer. Delegation of the Basque Country to the EU

Juan Pastor Bustamante, Deputy Director of Innova&acción.

Iranzu Guijarro, KARRASKAN: Innovation in culture, culture of innovation

Cinzia Lagioia, Director of the Puglia Creative District.

11:45-12:15

BREAK

12:15-12:45

Q&A: THE CONCEPT OF INNOVATION IN THE CULTURAL AND CREATIVE SECTOR

Bernd Fesel, Director of the European Creative Business Network (ECBN)

Sabin Goitia, Strategic Projects Coordinator at Beaz Bizkaia

Alaitz Landaluze, General Coordinator of Innovation Policies at Innobasque

Camila de Epalza Azqueta, EU Policy Officer. Delegation of the Basque Country to the EU

12:45-14:30

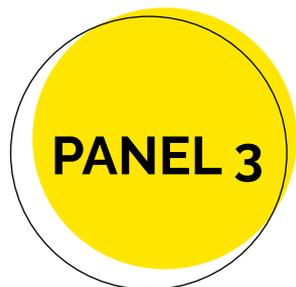
LUNCH TIME (Gran Hotel Domine Bilbao)

14:30-16:30

REFLECTIONS ON R&D WITHIN CCIs

14:30-15:15

THE CONCEPT OF R&D IN CCIs: SETTING THE BASIS



Ruth Mayoral, Responsible for Tailor-made Programmes at Euskampus Fundazioa

Oihane Sánchez, PhD in Contemporary Art Research (2020) and collaborator of the AKMEKA

Pier Luigi Sacco, Senior Advisor at the OECD Centre for Entrepreneurship, SMEs, Regions & Cities

15:15-16:00

R&D IN CCIs: WIDER PERSPECTIVES

Moderator

Aintzane Larrabeiti, Basque Observatory of Culture.



Michela Magas, Chair of the Industry Commons Foundation

Yosha Wijngaarden, Assistant professor of cultural policy at Radboud University Nijmegen, the Netherlands

Roberto Gómez de la Iglesia, General Manager of Conexiones improbables

16:00-16:30

Q&A: REFLECTIONS ON R&D WITHIN CCIs

Pier Luigi Sacco, Senior Advisor at the OECD Centre for Entrepreneurship, SMEs, Regions & Cities

Ruth Mayoral, Responsible for Tailor-Cut Programmes at Euskampus Fundazioa

Oihane Sánchez, PhD in Contemporary Art Research (2020) and collaborator of the AKMEKA

DAY 2: 12TH NOVEMBER 2021

9:00-9:30

RECEPTION / REGISTRATION

9:30-12:45

THE MEASUREMENT OF R&D&I AND INDICATORS IN THE CULTURAL AND CREATIVE SPHERE

9:30-10:15

THE CONCEPT OF THE MEASUREMENT AND INDICATORS IN CCIs, SETTING THE BASIS



PANEL 5

Josean Urdangarín, Basque Government's Department of Culture and Language Policy

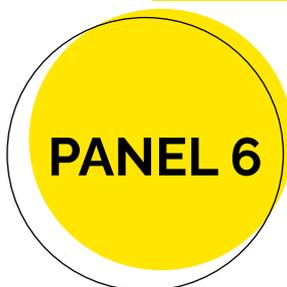
Luca dal Pozzolo, Co-founder and responsible for Research of Fitzcarraldo Foundation.

Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission.

10:15-11:00

MEASUREMENT OF R&D&I AND INDICATORS IN CCIs, WIDER PERSPECTIVES

Moderator



PANEL 6

Xavier Fina, Founder and Director of ICC Consultores Culturales.

Annalisa Cicerchia, Culture economist and Senior Researcher at ISTAT - Italian National Institute of Statistics.

Jabier Retegi, Orkestra & Mondragon Unibertsitatea & **Mikel Etxeberria**, Basque Cultural Observatory

Renzo Turatto, responsible of the OECD Lead Venice office.

11:00-11:30

BREAK

11:30-12:15

PRESENTATION OF THE PRE-PILOT STUDY: INDICATORS TO MEASURE INNOVATION IN THE CCIs

Moderator



Josean Urdangarín, Basque Government's Department of Culture and Language Policy

Sandra Rodríguez, Consulting Project Coordinator at ICC consultors.

Luca dal Pozzolo, Co-founder and responsible for Research of Fitzcarraldo Foundation

Carlo Vuijsteke, Senior Project Manager / Coordinator Districts of Creativity Network.

12:15-12:45

Q&A: THE MEASUREMENT OF R&D&I IN THE CULTURAL AND CREATIVE SPHERE

Luca dal Pozzolo, Co-founder and responsible for Research of Fitzcarraldo Foundation.

Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission.

Josean Urdangarín, Basque Government's Department of Culture and Language Policy

Xavier Fina, Founder and Director of ICC Consultores Culturales.

Aintzane Larrabeiti, Basque Observatory of Culture.

12:45-13:15

NEW EUROPEAN BAUHAUS - SHAPING MORE BEAUTIFUL, SUSTAINABLE AND INCLUSIVE FORMS OF LIVING TOGETHER

Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission.

Camila de Epalza Azqueta, EU Policy Officer. Delegation of the Basque Country to the EU

13:15-13:30

CLOSURE OF THE CONFERENCE

Andoni Iturbe, Deputy Minister of Culture. Basque Government.

● INDEX

Innovation

- **Contextualization of innovation within CCIs at an international level.** Bernd Fesel, Director of the European Creative Business Network (ECBN).
- **Innovation from creative talent and knowledge.** Juan Pastor, Deputy Director of Innova&cción.
- **Co-production and the involvement of a wide range of actors.** Iranzu Guijarro, KARRASKAN: Innovation in culture, culture of innovation.
- **Innovation in the cultural enterprises in Puglia (Italy) and the context of private-public partnership.** Cinzia Lagioia, Director of the Puglia Creative District.

R&D

- **Contextualization of R&D within CCIs at an international level.** Pier Luigi Sacco, Senior Advisor at the OECD Centre for Entrepreneurship, SMEs, Regions & Cities.
- **Complex problem-solving processes through creative R&D.** Michela Magas, Chair of the Industry Commons Foundation
- **Transferability and the transformation of non-creative into creative.** Yosha Wijngaarden, assistant professor of cultural policy at Radboud University Nijmegen, the Netherlands
- **Transferability and cross-fertilization/cross-collaboration.** Roberto Gómez de la Iglesia, General Manager of Conexiones improbables

Measurement of R&D&I

- **Contextualization of the measurement of R&D&I within the CCIs at an international level.** Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission and Luca dal Pozzolo, Co-founder and responsible for Research of Fitzcarraldo Foundation.
- **Need for the availability of data that are more applied to the reality of R&D&I especially in CCIs.** Annalisa Cicerchia, Culture economist and Senior Researcher at ISTAT - Italian National Institute of Statistics.
- **The redefinition of the R&D&I perimeter and the competitiveness report being developed jointly by the BOC and Orkestra.** Mikel Etxeberria, Basque Observatory of Culture (BOC) and Jabier Retegi, Orkestra & Mondragon Unibertsitatea
- **R&D&I from a market perspective and the importance of cross-referencing R&D&I with other CCI sectors.** Renzo Turatto, responsible of the OECD Leed Venice office.

● INNOVATION

CONTEXTUALIZATION OF INNOVATION WITHIN CCIs AT AN INTERNATIONAL LEVEL

Bernd Fesel, Director of the European Creative Business Network (ECBN)

It is important to raise awareness that innovation is a moving target, and it will stay a moving target. A new mix of innovations and new types of innovators can be found nowadays. In our decade, digital innovation is really a new concept of innovation. Measuring innovation is now the task – how do we measure all those new innovations?

Innovating the concept of innovation – The urgent need

To embark on this task, it seems pertinent to start out with a gold standard, a global gold standard of measuring evaluation and evaluating innovation in place since 1992. This gold standard has been produced by the OECD and it is called the Oslo Manual, and it has been updated several times, 2018 was the very last one.

As it was recalled in the CCIs and Innovation Contrast project, innovation is defined as a product or process, or combination of both, new and improved, that differs significantly from previous products and processes and that has been made available to potential users. This is fairly abstract.

In addition to this definition, the Oslo Manual also defines innovation activities, certain big types, which are research and innovation activities which account for in the budget of companies; such as engineering, designing creative activities, branding, marketing, activities related to intellectual property, development of software databases, acquisition or leasing of tangible assets, innovation management activities... So those agreements in the Oslo manual encompass several pages of a set of regulations, which we agreed on voluntarily, by which standards to accept that something novel is successfully implemented into our world.

What means our world, is it the region?, the nation?, is it global? For whom? What is implemented, for what use? Is it commercial and non-commercial? Is it also an immaterial asset which has been implemented? And how to measure this? Innovation may also refer to the novelties which are not just economically applied, but also socially applied, but how to measure those? In the past years, we see across Europe the need to investigate those new measurements.

Innovating the concept of innovation – A new consensus

A new consensus arrives step by step.

Innovation happens at festivals, but festivals are innovations in themselves, which lead to social change – like Woodstock among many others. While this is obvious maybe to the musician, the traditional policymaker probably would have not thought of Woodstock festival as a target for innovation policy. Innovation happens also in museums with artistic, temporary, non-repeatable performances. Innovation happens also in libraries, and libraries are also innovations in themselves, but libraries also induce innovation in cities, communities and economies. However, those innovations will for sure pop-up in another place, maybe even in another decade, and for sure, most likely also in other sectors. So, how to measure all this? Makers of innovation also single persons, not only organizations.

For instance, we can observe the case of Marina Abramovic. She might not speak of herself as an innovator and innovation funders in New York, most likely, would not look to Marina to support her as one of the leading innovators globally. How do we bring those two worlds together? This must be done by having a giant language of measuring and of accounting to each other's values.

SMEs are often overlooked as makers of innovations. Focus is usually on the global innovators, which are with the most visible brands, but those hidden innovators are the majority. That is why there is a new focus exactly on this in the new funding period of Horizon Europe that has just started, to drive forward SMEs as innovators. This was also supported by the opening of a European Innovation Platform supported by EU Commissioner Gabriel and one of the well-known MEPs in European Parliament pushing creative industries, Dr. Christian Ehler.

Innovating the concept of innovation – The new approach

Regarding the standards set by the Oslo Manual, and more specifically its criteria of novelty, a product or process must be generated or significantly changed with regard to an existing one. Therefore, a new and wider understanding of newness of a product could and must include contingency to its surroundings and place – it cannot be globally all encompassing. What might be new to the Basque Country might be a standard in Tokyo, and what might be new to Shanghai, it might be really standard to a small village in Brazil. Even in this global world, we do not have total foresight – we must be humble and have a contingency acceptance on novelty. Otherwise, we will not be able to close the innovation gap in Eastern and Southeast Europe. Some things might be new to Krakow or Budapest, while might be not to New York. Would that exclude funding them in Budapest? No, it should not. Change is contingent, also to specific user groups, including mentally and physically impaired personalities. Innovation is not only a concept for the

mainstream of our society, but we must also think what is specifically due to certain groups, what is novel to include them more into our society.

The second criteria is utility-implementation. The product must have been made available to potential users. Our enlarged proposal here would be to say that implementation is given if the product or process has reached access in a public audience – even in the pre-commercial stage, at museums, festivals, open innovation labs, etc. This would be understood as the product/process made available to a potential audience, even if not necessarily to a user. This difference is quite important, specially when making it available to, for example, children and many others who are not specifically using it, but might still use it later – e.g. five years later. In some cases, innovations might just be too early – e.g. the case of Facebook, which did not make any money at the beginning because people were not prepared yet for it. Let's talk of audience instead of potential users. A second proposal to enlarge the notion of utility-implementation is to understand that implementation is given if the product or process reached certifying activities, even if pre-commercial – e.g. jury, curators.

The third criteria is incentivize or relevance. The standard today says “available to users”, so we would see this more encompassing and looking into the relevance of what is available to users. What are possible side effects, can we really afford to make innovations available to users if they are harmful to a resilient and green economy, if they do not comply to carbon free and carbon neutral? Can we afford that today any longer? So, we must add this definition by a dimension of relevance.

Looking into the fourth dimension, the value, of course, usually this might have been understood as the economic value and even the OCDE see since many years that it is not only about the economic value, but going beyond this into social innovation, organizational innovations – many dimensions attributed to value but still, it stays on an instrumental dimension of value. In our debates, it was considered that an intrinsic dimension of value needs to be added, as well as a social dimension of value in order to measure it in the future. And here it is important to highlight specifically the aesthetic dimension in the field of the intrinsic value and the collaborative dimension within dimensions of shared social value. Those values are also much ingrained in the news innovations promoted by the EU within the New European Bauhaus.

A very last point to be highlighted is the governance dimension. For innovation to take place, it needs certain regulations, and those are not only abstract tax regulations, but also administrative regulations in administrations, in public bodies, but also in private companies. This is an important value to add: to be open to governance regulations to enable all those other dimensions we aim for looking at innovations.

In practice meaning...?

What does it mean in practice, to come down again from abstract debates of criteria? We will see that public institutions in culture, SMEs and many other organizations would be more accepted on eye-level with public institutions, which are now receiving easily a 100% funding to promote innovations. We could look beyond the instrumental contributions to implementation beyond economic numbers. We could look beyond the quarterly implementations, the rush driven by stock market reports and the short-sighted view that innovation has to be very quick. We need to look beyond the idea that "anything is good as long as it is implemented". The algorithms which have been implemented in our digital world but celebrated as innovations for economic platforms, for economic business models, stock market loves them, but they brought about danger to our democracy, hate speech and many other negative results.

Impact of CCLs-innovation

If we look at the predominant task we have, for the next decades, to build Europe as a carbon neutral continent, by 2050, we will see that we have to re-invent houses just as much as industrial buildings. We have to re-invent fashion along new raw materials, supply and production chains. We have to re-invent green film, music and content production. And we must safeguard cultural heritage from climate disruption. So, culture and creativity are really a daily part of change for climate and it cannot be avoided.

You can go to your work without a car, but you cannot do this without culture and creative industries. As soon as you dress, as soon as you read a newspaper in the morning, as soon as you take your cup of tea, you take design in your hands. So culture and creativity are part of our daily life and can therefore play a vital role in the change for climate. Global partners can be found at the Creative Climate Leadership led by Julie's Bicycle.

Three examples of impact might be highlighted.

The New Bauhaus is a creative and interdisciplinary initiative convening a space of encounter to design future ways of living, situated at the crossroads between art, culture, social inclusion, science, and technology. In terms of impact, this intersection of disciplines leads to new economic models. That is one of the vast impacts of it and it is not just an impact on aesthetics, it is not just an impact on the new way of life or reducing carbon footprint of certain productions, but it will revolutionize the economy on a wider scale. In a nutshell, it is about "re-use by design" – i.e. there is no waste any longer. Speaking of it scientifically, we would call it the circular economy. The City Hall Venlo is just such an example, an example taken from the very good site of the European Union, which is showcasing examples quickly all over the place in Europe. Even more important might be that this message is not just a message in science, not just a message with experts, as we have seen

for 10 years. The concept of circular economy for sure is not new, re-use by design has been promoted by Ellen MacArthur Foundation in London and by many experts for many years, but now, it as has really reached the top level of policy.

“I want NextGenerationEU to kickstart a European renovation wave and make Union a leader in the circular economy. But this is not just an environmental or economic project: it needs to be a new cultural project for Europe” (EU president Von der Layen).

Those high ambitions of policymakers need to relate to indicators to account for it and to make it accountable.

Another example is green fashion. It is much more than just fashion. The whole market of the fashion industry comes up to the staggering amount of three thousand billion dollars a year, making up two percent of the world economic gross domestic product. So, while this economic dimension is clear, what is the dimension of innovation? One of the global leaders in innovation in this field is H&M. They have their own website called “beyond”. The topic of circularity is here on top of the agenda, and they bring together creative minds across sectors just as our indicators try to encompass much larger than before.

But it also goes beyond cost innovation, it goes into our belonging and living in cities. Change fashion will change the retail of fashion, and this will change also the feeling look of our cities. Entertainment in cities is often shopping entertainment, combined with cultural highlights such as the Guggenheim Museum, an excellent example at a global level. This is likely to change when also retail in fashion and in green fashion will change.

Finally, it is crucial to mention the effects from the climate crisis. We might wonder what has flooding of our cities to do with culture, creative industries and even with indicators. One of the leading architects also active in the New European Bauhaus, has been commissioned to answer the question, not how do you live post-flood, but how do you live with continuous flooding? He invented the Big U, a new concept of flood prevention where the rooms for floods are living spaces, but also social spaces, and this was so successful, it was then invited to redesign the Bay Area in San Francisco, with a project called the Bay Area Challenge to elevate the city. The clue behind this is that these innovations are not purely technical. They are first of all social innovations, it is not just architectural innovation, it is much more radically inclusive innovation. So, innovation across sectors, crossing sectors on purpose, driven by the creative industries is what we see as major change makers in so many areas with impacts on your individual life, but also on global markets.

INNOVATION FROM CREATIVE TALENT AND KNOWLEDGE

Juan Pastor, Deputy Director of Innova&acción.

Both the Oslo and Frascati Manuals, at the time they were developed, did not think about the cultural and creative industries. Nowadays, we are in a very interesting point of reflection as we are trying to connect with these manuals. Therefore, the idea needs to follow a more systemic approach rather than a cartesian one. This systemic approach means that the cultural and creative industries, beyond their current size and dimension, have to speak on a level playing field with the rest of the economic sectors. This is possible due to the existence of a professional quality that enables us to easily participate on R&D processes in all sectors. Actually, we should not think only in terms of the cultural and creative industries but also in terms of creative economy to its greater extent. By thinking of creative economy we mean broadening the mindset where creativity could contribute to the innovation of the rest of the sectors. Thus, we must generate ecosystems where the cultural and creative industries, companies and professionals from this sector could help others to innovate.

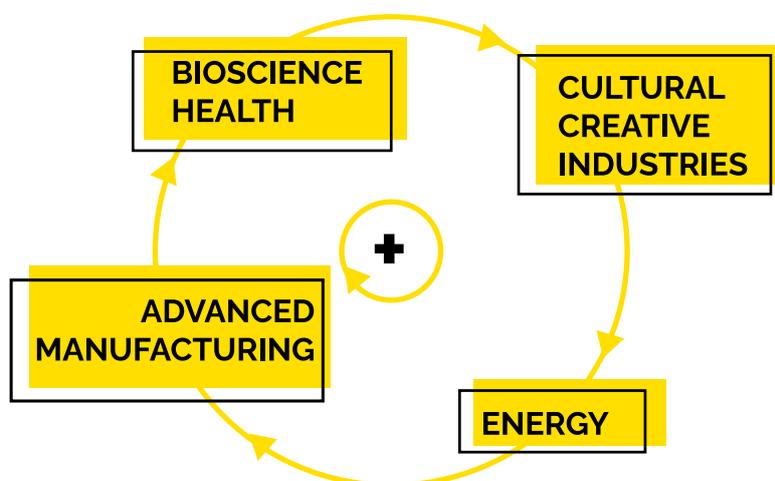
The time has come for other sectors to realize that crafts can help to innovate. This could be possible if there is a real ecosystem where all actors operate at the same level. An interesting proposal would be for all R&D departments and research centers to include professionals from the cultural and creative industries. This is not a cross-innovation approach, but a true innovation approach. That is, it is essential for us to promote the inclusion of professionals from the cultural and creative industries to work or collaborate in R&D departments of any company or research center across all sectors. This may seem complicated, and indeed it would be, if these professionals were assigned directly within these departments which often have their own languages. Innova&Acción, through a project together with World Design Capital Valencia 2022, has realized that when professionals in the cultural and creative industries are prepared in business strategy and systemic thinking, their contributions to innovation grow significantly. However, it is also necessary to train the R&D departments of companies and technology centers in creativity, because it is a concept that until now has clashed a lot with innovation. Creativity must be applied to innovation, rather than being two concepts that clash or are different. The fact that creativity is something in which professionals in innovation departments are trained is something that arose through this initiative in collaboration with World Design Capital Valencia 2022. The following question was raised: why don't we turn designers into innovation specialists? Not only designers who are external to a company and who collaborate occasionally, but the company's

own internal designers, who often have a very tactical perception or role, i.e., they are requested to do tasks that are very tactical, but they do not get involved in the business strategy. As for the results, on the one hand, there has been an empowerment of designers, because they have realized that when they know about business strategy and have a more systemic vision of the company, their contribution is much greater and, on the other hand, from the R&D departments that used to see designers as those who produced the final presentation, the application or the rendering of the product, etc.

Therefore, the main idea behind is to turn cultural and creative industries professionals into innovation experts who will contribute to companies in the cultural and creative industries and across all sectors. The actual problem now is the need to consolidate the companies in the cultural and creative industries, rather than make them grow, we need to reinforce them. This process is also linked to the reinforcement of professionals, and in this regard the training centers linked to the cultural and creative industries have to reflect and all the areas related to business have to become much more prominent.

The second reflection is that it is essential to think about the territory, because it is not possible to develop a creative and cultural ecosystem without reflecting about the importance and the link that the territory represents.

Regarding the concept of the cultural and creative district, it can be the articulator of the connection between the cultural and creative industries and all the economic sectors within a territory and, in this particular case, of the Basque Country. Ultimately, the cultural and creative district has that ecosystem approach, the systemic approach, and this connector approach between the cultural and creative industries and the rest of the economic sectors with the aim to consolidate and strengthen.



CO-PRODUCTION AND THE INVOLVEMENT OF A WIDE RANGE OF ACTORS

Iranzu Guijarro, KARRASKAN: Innovation in culture, culture of innovation

Throughout the process of CCI and Innovation Contrast, from KARRASKAN, they have been contributing with several points to the thematic of innovation and co-production. Focusing on the social and/or cultural aspects, this R&D&I logic is much more diffuse and on many occasions the phases unfold in a discontinuous order. It could be said that these phases are intermingled and discontinuous. Perhaps in the hard sciences and technologies it may still make some sense to follow a linear logic (Basic Research > Applied Research > Experimental Development > Innovation). It would be essential to transform the framework and the imaginary of how R&D&I is understood, as well as the ways in which plans are designed, networks are configured or resources for research and innovation are distributed. Policies and programs to support R&D&I still tend to forcibly separate research from innovation and the agents that operate in each phase. Perhaps these policies and programs should focus on the more diffuse, hybrid and non-formal logics that operate in the social and cultural spheres. Moreover, at a time when innovation, beyond the forward-looking approach of constant renewal, should be an invitation to listen, improve, deepen, reuse and transfer, starting from what already exists.

The multilevel and complex challenges that we face in all areas of life require new approaches that are more relational, dialogical, and transdisciplinary, more adaptable to different contexts and situations, with greater flows and feedback between areas, agents and processes of research and innovation. This requires moving towards a more open and collaborative logic of research, experimentation, and value generation, more co-production. A logic of multi-agent co-production that demands a necessary and urgent expansion and diversification of the agents considered as part of the R&D&I ecosystem. This is something that is gradually changing thanks to the Quintuple Helix approach and the incorporation of much more transversal approaches, where both agents and disciplines are understood and related as interdependent counterparts. The logic of co-production implies being aware that a single agent cannot/must not fulfill by itself all the criteria that define R&D&I as such (novel/relevant, creative, uncertain, systematic, and transferable/reproducible), but instead it is necessary to create teams that complement each other and provide feedback. Teams based on relationships of trust, recognition, and reciprocity (banishing paternalistic, instrumental and/or dependent relationships), where the different experiences and roles that are added to address each challenge are valued, based on the use of multiple intelligences and collective intelligence.

The Quintuple Helix approach (and the role of social and cultural agents) is proving to be decisive when attempting to break the established logics of the prevailing R&D&I systems. It is enabling the development of an innovation ecosystem, which must cultivate significant relationships and cross-cutting alliances between different agents for its development, in a more open and transversal basis, both co-responsible and proportional (in terms of responsibilities, rights, competences...). The Quintuple Helix means overcoming the Triple Helix model of innovation (public administration + university and research centers + business); first by expanding with the Quadruple Helix to add the competencies, knowledge, and levers from civil society (organized and non-organized citizenship); and also by incorporating the Fifth Helix, that is, the conditions and particularities of the context, the habitat, as a means to generate and unfold R&D&I. In this scenario, it is important not to distribute roles among the different helixes, but to encourage much more flow, interaction, and mixed-hybrid relationships. In this sense, it is essential to deploy the full potential of the fourth helix, because it is the new one that could perhaps introduce - if we are open to allow it - more disruptive changes in the way of approaching R&D&I processes and of seeking and perhaps achieving other types of results. In this relationship between R&D&I with civil society (where we would include many of the creators and cultural agents) it can be proposed a staircase with three steps, where the third one would be the step truly oriented to the co-production of R&D&I with a Quintuple Helix approach:

- **SOCIALIZE:** To make a pedagogical and dissemination effort so that citizens become more aware and responsible and adopt certain innovations more easily. Positioning on this first step is insufficient because, instead of opening the current R&D&I system to complementary and feedback relationships with other agents, it keeps it (either consciously or unconsciously) in a paternalistic position, within its comfort zone, perpetuating its privileges.
- **PARTICIPATE:** Depositing part of the research in social agents and citizens, for instance to be able to expand and diversify it in terms of number of samples and tests, application sites, etc. Here, relationships of greater recognition begin to emerge, but in general they are still very instrumental situations towards civil society (as research assistants or as cases of analysis).
- **COPRODUCE:** To recognize that there are certain areas or situations in which innovation (and even research as a conscious and formal practice), starts from grassroots agents, from the citizens themselves, from the professionals most connected with the context and with specific knowledge and practices. Moreover, this is especially the case in areas related to the social sciences, humanities, and arts, where much research

and innovation emerges from the fabric itself, in an emergent and situated manner (as is clearly seen in the fields of citizen innovation or community culture). For this reason, it is on this stage where it is believed that there would be a relationship of greater mutual recognition that would make the co-production of R&D&I possible. To this purpose, the agents of the fourth helix must be considered as subjects who research and innovate, to whom this function must be recognized, provided with resources, and accompanied in the search for sophistication and excellence in their research (throughout the process, but especially in systematization and transfer). In this regard, citizen laboratories, creation factories and/or mediation programmes can play an important role as intermediate devices that foster the conditions for the co-production of R&D&I, building bridges between different types of agents, combining technical and expert knowledge with amateur, experiential, and existential knowledge.

The logic of a co-produced R&D&I -from this Quintuple Helix approach and opening up to the social and cultural spheres, in addition to a philosophical and subjective change in how R&D&I is understood, implies important changes at the operational level, in procedures, tools and forms of recording, evaluating and transferring both processes and results. This affects both the ways of establishing and measuring objectives and the types of agents involved, as well as the ways of designing plans, configuring networks, and distributing resources. All this means that this broad field of creation, the arts and culture, cannot be included from a logic of automatic translation, circumstantial urgency, or exceptional permissiveness, but rather implies a redefinition of the paradigm of R&D&I and its system: a new, mixed and mutant system, the result of the blending of agents, knowledge and practices, of celebrating diversity and deepening complexity, and of overcoming inertia and conventions. A system that must also be co-produced, including all the agents affected in its redesign. A new system that could be the result of apparently slight adjustments, such as, for example, the modification of the title of the initial report from which this article derives, changing from "Conceptual framework for the application of R&D&I in the Cultural and Creative Sectors" to, for example, "Transformation of the conceptual framework of R&D&I based on contributions from the Cultural and Creative Sectors".

INNOVATION IN THE CULTURAL ENTERPRISES IN PUGLIA (ITALY) AND THE CONTEXT OF PRIVATE-PUBLIC PARTNERSHIP

Cinzia Lagioia, Director of the Puglia Creative District

It is important to raise awareness that innovation is a moving target, and it will. Since 2012, the region of Puglia (Italy), has decided to put the creative economy at the center of the local development policy considering culture and creativity as one of the assets for the local development. In accordance with this vision and the regional law on the productive districts, the region has recognized the cluster Puglia Creativa, a network of cultural and creative industries in the regional territories. Based on this approach, the region has decided to include creative economy into Smart Specialization Strategy 2020 considering one of the challenges for the region, the creative, digital, and inclusive communities. This means that the region addresses to this sector the same measures to support the research and innovation that the region applies for the other traditional productive sector. In this sense, Innonetwork and Innolabs are the measures that the region addresses for research and innovation development.

On the one hand, Innonetwork is the measure for developing public and private clustering action for the research. The strategy of Innonetwork is to create a collaborative environment among research, industry, and technological startups. The approach is to connect the three main areas of the Smart Specialization Strategy: sustainable manufacturing, human and environment health, and digital, creative and inclusive communities, with five social challenges, among which creative industry and cultural development.

The projects were intended to use the key enabling technology, for example, micro and nano electronics, advanced materials with advanced technology that were characterized by high intensity of knowledge and highly qualified workers. The Innonetwork call defined a list of research priorities for each sector and for our challenges, for creative industries and cultural development, it defined this priority: boosting the connection between our sector and traditional productive sectors; creating a new system of production and promotion of cultural and creative products; developing new languages for the cultural creative products – using transmedia and multimedia languages, for example, and of course developing a new tool for the validation and restoration of heritage.

The results are not great, because only three projects of the 50 approved were focused on creative industries and cultural development. This might be partly explained by the fact that the creative cultural industry and the research environment were not ready to undertake this challenge, but it may also be derived from this experience that it is not possible approach this sector with the same approach used for the other sectors.

An interesting project approved within Innonetwork is CHER (Cultural Heritage Engineering Revolution). The partnership of this project was promoted by the cluster Puglia Creative. CHER is a new modular and integrated digital storytelling for immersive fruition of cultural content and cultural goods, thanks to the interactivity and the movement of virtual reality, but also able to enhance the audience engagement thanks to a gamification system. It is an agreed integrated model among the music, image, contents, games... using different type of technology for the fruition.

On the other hand, Innolabs is a measure that promotes pilot projects to finance a new market of innovation. The approach is based on a quadruple helix paradigm, so involving academic, government and, of course, the industry with an open innovation approach. One of its key elements is to create support, a collaborative system in the epistemic and professional communities.

The methodology is based on four phases. The first phase is planning, when the needs and the idea are defined. Then, we move to the phase of concept design in which the ideas are discussed with the stakeholders and co-created with the final customer. Later, the prototype design phase comes when the new technology is tested. Then, there is the final solution, in which the prototype meets the customer experience and businesses opportunity are identified.

The project had to deal with a map of needs that were collected in a regional platform by the final customers. So, all the projects had to deal with these needs. In this case, the results were very satisfying because 14 of the 57 approved projects were focused on culture, tourism and creating a digital economy.

Another case study, in this case within Innolabs, is MYA. The need was to find the innovative solution to manage the life cycle of cultural events. A cultural event is composed of several complex phases involving a lot of subjects, a lot of human resources, a lot of materials and services. The result of this project is a new technological solution for the management of a cultural event. It is a prototype that is suitable for different categories of events and customers.

In the future, Puglia has decided to continue addressing the challenge of developing creative, digital, and inclusive communities, but adapting to the current context in Europe and at the regional level, with three pillars for policy: Green Deal, resilience of cities and territories, wellness and health and the fundamental role of cultural and creativity in this.

● R&D

CONTEXTUALIZATION OF R&D WITHIN CCIs AT AN INTERNATIONAL LEVEL

Pier Luigi Sacco, Senior Advisor at the OECD Centre for Entrepreneurship, SMEs, Regions & Cities

According to the Frascati Manual, research and experimental development comprise creative, systematic work undertaken in order to increase the stock of knowledge -including knowledge of humankind, culture, and society- and to devise new applications of available knowledge. What is interesting about this definition is that, first of all, the fact that creative and systematic aspects are on the same level; so that the drive to be creative, and to be systematic are equally recognized in their importance. The second point is that the focus is on available knowledge, not just on the knowledge created through the process. So, R&D also concerns repurposing already existing knowledge and not only creating knowledge from scratch and going through the stream of knowledge production from start to finish. These two aspects are very important because they are basic steps beyond the definition from the previous edition of the Frascati Manual.

What are the basic definitions that are given by the Manual as to basic research, applied research and experimental development? First, basic research, according to the Manual, is all kinds of experimental and theoretical work that is primarily undertaken to acquire new knowledge which must have a foundational character and has to do with observable phenomena. In the basic research perspective, we do not have any particular application or usage in mind, so it is research for research's sake. Applied research is still original investigation undertaken to acquire knowledge, but it is now primarily directed towards a specific practical aim, so it is a more instrumental dimension of research. Experimental development, finally, is about systematic work, drawing on the already gained knowledge from all previous research, but also practical experience generating additional knowledge which however, in this case, is harnessed to generate new products or processes, or to improve new existing products and processes. These are rather common-sense definitions, not particularly innovative, which basically receive the established conventional wisdom. But it is important to stress that this is the perspective in which the Manual places itself.

What are at this point the five criteria that the Manual chooses to define what R&D is? This is something that has been established, not thinking of the specific reality of cultural and creative processes, but within a very general view of what R&D is. And of course, this is one of the most interesting but also complicated aspects of translating this into the cultural and creative

context. The five criteria are: activities that are novel, in the sense that they are aimed at new findings. Also, they must be *creative*, not simply *novel*: original concepts that are not something obvious. They must be *uncertain* in the sense that outcomes, costs, and time allocation are not a priori known, because is the complexity of the process that makes it impossible to plan everything in advance, otherwise there is basically nothing to discover. It has to be *systematic*, and as we said such systematic character is as important as the creative dimension. Systematic means that it must be the object of planned and budgeted activity, and it must be *transferable* and/or reproducible, and have the potential for transferring results in other spheres in which this can be interesting, so it cannot simply remain within the process of R&D. This is particularly important because if you would only consider the creative dimension but without systematicity, you are jeopardizing the most important dimension of R&D that goes beyond creative activity in itself. In this case, the systematic character is that you must combine the creative dimension with planning and control, and striking a balance between these two dimensions is not easy.

There are complex boundaries between what can be considered R&D according to these criteria and what should not be considered as such:

- **Innovation:** drawing a line between innovation and R&D is especially challenging in principle.
- **Design:** what is the relationship between design activities and R&D? In some sense, it should be obvious, but consider for example the notion of design thinking, which is completely process-based and is related to the exploration of meaning-making and cognitive attitudes: clearly there are many interconnections with R&D.
- **Product development,** which is something that sits at the stage immediately beyond R&D in principle but, where can you draw the line exactly between the phase of experimental development and that of product development, which becomes the way in which you land the product into the market? Again, it seems very often seamlessly connected to the whole process of innovation.
- **Software development,** especially for certain types of innovation, is something very difficult to distinguish as a separate dimension, because software development is often not just about the implementation of the concept but plays a key role in the development itself, even at a foundational stage.
- **Scientific and technological activities:** what is the specific sphere of relationship between scientific and technological activities that can be considered as part of the R&D in basic and applied research, and

all the side and related activities that have to do with the delivery and implementation of certain types of research?

- **Artistic creation:** what is the relationship between artistic creation in its most general sense and the specific application that artistic creation receives in the field of R&D?
- **Pre-production development:** it is very important to understand that it is obvious today that R&D is seamlessly connected to practically everything else. Drawing the line is particularly difficult, and especially drawing the line in the culture and the creative field can be complicated because there are some interesting and not obvious differences between the traditional notion of R&D and the way in which it is received in culture itself.

What is the main problem?

In the Frascati Manual, there is an explicit recognition of the arts and culture as a field for R&D, in addition to science and technology. However, we should be aware of the fact that despite this recognition, the whole conceptual framework that is behind the Frascati Manual has been modelled on science and technology. Historically, science and technology have been the focus of interest in terms of R&D processes, the fact that the arts and culture are recognized as a significant part is a late conquest, but nevertheless the latest one. In this regard, it is inevitable that most of the conceptual background and the conceptual articulation of this notion is modelled not on the specificities of the artistic processes, but the other way round. The point is that the specificity of artistic and cultural creation in the current formulation play a little explicit role, so they are simply conceptual extensions through analogy, but they are not an essential factor of this approach.

In artistic and cultural creation, creators not necessarily feel at ease in this kind of framework and in many cases, there has been some sort of expression of criticism of the relatively limitative or unnatural character of these criteria. So, it is important to understand that although we have reached a significant milestone in terms of placing arts and culture within this process, the way in which it is further deployed is still open and problematic.

There are basically two alternative approaches. According to the first approach, the Frascati criteria is what we could call the conservative approach, as they are just as good for the cultural and creative sector as they are for other sectors – their application to the cultural and creative world is just another instance among many analogous ones. If this is the case, we conclude that R&D processes in the cultural and creative fields have nothing special in themselves. If this is also true, the difficulty that cultural and creative professionals are experimenting has nothing to do with the kind of approach to R&D that is chosen, but simply with the fact that culture and creative professionals are not familiar enough with this particular

environment and set of rules. And by making them more familiar with them, and more proficient in their application through learning by doing, we will have a natural coalescence of this particular field of activity, that is culture and creative-driven R&D, in the bigger family of R&D processes. Is this right or wrong? We cannot say at this stage. It is a legitimate opinion, which also finds some support. The other possibility, however, is that there is a basic specificity of R&D in the culture and creative sector, which stems from the tension between the intrinsic and instrumental value dimension of culture and creative production. Because R&D has an instrumental nature, you want to arrive at a specific result, and this is exactly the reason why we have the experimental development phase at the end of the cycle. You have phases where you are mostly focused on the idea as in basic research, but it is important that, in a R&D perspective, you end the cycle by arriving at the experimental development stage. If you simply stop at basic research, it is not R&D, so it is extremely important to consider that you must go through the full cycle to really have an R&D process in the traditional science and technology field. When you translate this idea into the artistic field, you must consider the fact that you have to go through the full cycle. But from the point of view of artistic creation, you are not merely moved by the necessity to arrive at the end of the cycle: you are also doing this for intrinsic reasons, that have to do with expression and stipulation of meaning. The fact that, for example, such expression or stipulation of meaning evolves through the cycle in ways that can cause a clash between the original creative motivation and the instrumental R&D goals could then become problematic.

So, the fact that there is a tension between the instrumental and intrinsic dimension is related to a characteristic that is not easily captured through the analogy with science and technology. If this is the case, if the second vision is the relevant one, we have a need to strike a balance between the intrinsic motivation and focus on artistic creation, and the instrumental focus. How can you do this? If an artist or creative professional is interested in R&D, they must be aware that such processes imply a commitment to be consistent through the full cycle, where, unlike what happens in purely creative processes, they do not maintain a not negotiable right to have the last word on their own creation. When starting a R&D process, creative professionals must be aware that the negotiability of their creative ideas becomes an intrinsic component of the process, and this is the reason why the logic of artistic creation that is pursued within a R&D process implies a different perspective than that commonly held in purely creative, non-goal-directed processes.

So, creativity can be targeting a specific instrumental goal, or creativity can be completely undirected. When participating in a process of creative and artistic R&D, creatives are positioning themselves at a level that, in principle, corresponds to applied research in the traditional science and technology

chain, therefore giving importance to the goal of arriving at the third phase of experimental development. You need to keep in mind the instrumentality of the goal as part of your initial briefing, because you can harness an undirected creativity that is analogous to basic research, but even basic research contemplates at least in principle the possibility to be further developed to be eventually conducive to some form of technological development. In the case of creativity, sometimes you have creators who are rather unwilling to commit or to negotiate a development that can substantially transform their idea for the sake of its exploitability in R&D terms. They want to maintain the full creative control on the idea, and this is very complicated in the context of an artistically and creatively driven R&D process. So, when considering the tension between these two aspects of creativity – unconstrained vs. goal-directed – we must consider that the analogy between basic research and undirected creativity as precursors of applied research/creativity is a good one only if undirected creativity, as the analog of basic research, is at least potentially open to (and negotiable in view of) possible developments that are functional to its deployment in the R&D cycle.

How do these notions of creativity relate to the experimental development phase? Is the experimental development phase in the case of culture and creative production already considered from the beginning and built into the creative process, or is it an issue that only emerges afterwards? There is not a formula or recipe, but we have to understand that this kind of questions that are basically no brainers from the point of view of the science and technology cycle become extremely important when considering the specific realm of cultural and creative production.

It is crucial to unpack this general notion of creativity as a sort of umbrella notion into many, specific interrelated dimensions because in terms of R&D processes different, specific notions of creativity, if not properly accounted for and considered in their specificity, could lead to countless misunderstandings and controversy in the cultural and artistic field.

What are the problems that have emerged in terms of the five criteria in the discussion in the working group?

As to newness, it is clear today that there are some aspects that may be inevitably disruptive in the cultural and creative field that cannot be ignored in terms of the newness criterion. For instance, consider NFTs as a source of radical rethinking of cultural creation processes. This is clearly a source of newness, but the point is how much can we integrate the new possibilities encompassed by the NFT into a viable idea of R&D related to culture and creative production. In this case, there is a very powerful drive in terms of new possibilities of marketability, creativity, and inclusion, but is this kind of newness able to further stimulate already existing creative processes or is it basically reshaping the notion of what newness is in terms of technological standards that are quickly taking over the field? This is an example of how

problematic it can be the arrival of a new technology in this particular sector. In traditional science and technology fields, the arrival of a new technology would be welcomed with enthusiasm in view of the new possibilities that it opens. But in the cultural and creative field, reception is inevitably more critical and the first question that is raised is: what kind of newness this is, and how it influences creative processes? What kind of effects it has in terms of the basic motivation for, and purpose of, creation?

Blockchain technologies are also creating an interesting tension between individual and collective forms of authorship. In a sense, these technologies are turning the possibility of transforming what was so far basically related to viral circulation or reproduction of content that destroys the idea of authorship, back into the old idea of individual authorship. But it is really the application that is becoming the relevant one for this one kind of technology or is this a way to certify new forms of collective authorship that can be recognized exactly like the ones that have been so far functioning for individual authorship?

From this point of view, basic dilemmas that have to do, for example, with the status of creative processes today, like individual versus collective authorship, are absolutely central into the future debate in terms of what newness is in the field of culture and creative production. What is new may depend upon the reference community. Whether something is new or not in terms of certain scientific and technological standards can be established relatively easily by means of shared criteria. But what is new or not in terms of creation of meaning is something that is crucially depending on the community of reference. It is extremely important to understand that in this particular field, if we simply mechanically apply the criteria of newness and relevance that are typical in science and technology, we very easily get lost and make little progress. Whereas the specificity in terms of what newness is as related to a community can be extremely powerful in the moment in which, for example, the community embraces the perspective of newness not in absolute terms, i.e., coming up with an idea that nobody ever had before, but contextual newness, applying a specific, possibly already existing creative idea in a certain social and cultural setting where it can make a big difference – as it happens so often in the case of open innovation processes.

The role of intellectual property in design processes, and monetization of creativity as a source of new ideas, approaches and business models, is also being a driver of newness that is not simply related to content, but, to the very simple fact of becoming able to monetize the production of certain types of content that are generally left unexploited. This may be the case, for example, in regimes of cultural production that do not follow the logic of cultural and creative industries but are instead driven by community-based forms of financing like crowdfunding, or in the case of patronage mechanisms where funding is not related to marketability of creative content.

Successfully establishing crowdfunding or more generally crowdsourcing schemes in relation to certain forms of production may be a form of newness in itself. It is fundamental to understand that the criteria of newness, when applied consistently to the cultural and creative field, becomes extremely subtle. So even when accepting the Frascati definition here, making it work meaningfully in the specific context of culture and creative production is not straightforward.

As to creativity, the interaction between the creative object and the creative process, for instance finding ways of managing this dialogue effectively, can become in itself a source of creativity. For example applying creative ideas to management processes or vice versa applying management ideas to creative processes generates new forms of mutual contamination between different worlds. Bringing management ideas in the creative field would not be considered particularly innovative in most other sectors, but since the cultural and creative field has historically evolved considering managerial thinking a sort of contamination or dilution of the integrity of creative processes, being able to establish a fruitful bridge here may generate new sources of creativity that are difficult to frame into the traditional conceptual framework. And nevertheless they may be very fruitful in the specific context of cultural and creative production. This brings with it the notion of crisscrossing the R&D driven notion of artistic creativity and other approaches, for example, like design thinking. So, what kind of cross-fertilization can be created today between this new effort of culture and creative production to think in terms of R&D, and cultural and creative processes that are somehow complementary to it, and that are taking a different, more traditional perspective? How can we open now possibilities to generate new forms of cross-contamination between these two spheres? Again, finding ways to enable such dialogue is a new form of creativity in itself, maybe it is not the first that comes to mind but nevertheless it is likely to become increasingly important in the future.

The point is also that the essence of artistic creativity is often posing strange questions, and exploring where they bring us, which means that in many cases, the added value of artistic and creative professionals in the process is the fact that they bring in weird points of view that engineers and scientists would never consider. So, this is particularly interesting, and how this is integrated into the traditional process is a great possibility. Generally, in the Frascati Manual, we only consider innovation of product or process, but for artistic and cultural creativity it is also very important to consider innovation of meaning, as defined in research in the last decades. This new, basic area of innovation is increasingly important in knowledge-intensive societies, and will likely be an important future addition to the new editions of the Frascati Manual.

An incredibly interesting and promising area for creativity in this specific sense is the behavioral or attitudinal change that is generated by artistic R&D. The

fact that the innovation could be not in the production of a new technology or new product, but in bringing about a certain type of behavioral change that can have a huge importance in terms of social or economic impact of society – think for example of environmentally related behavioral change, as promoted by the New European Bauhaus project. This is a dimension of creativity that is very specific to cultural and creative production and can become extremely important. The interface between the behavioral and the technological can therefore become a strong and distinguished field of operation of cultural and creative R&D.

Considering uncertainty, it is difficult to assess and to measure uncertainty in R&D processes that are generally poorly structured to function in this particular regard, so, here there is a shortcoming that probably has to be fixed in terms of making R&D artistic-related processes more amenable to a consistent measurement in terms of their uncertainty dimension. Generally, there is a tendency in the artistic and cultural field to navigate and to adjust the strategy moment by moment, reacting to what happens rather than anticipating it. A shift of mentality is needed; uncertainty is strongly related to feasibility, whereas creators tend to focus on possibility. If something is possible is fascinating, and sometimes feasibility comes second, once possibilities have become intriguing and engaging enough. In R&D, we have to close the cycle, and this source of possibility, which is not nailed down to feasibility, is a source of uncertainty that may become problematic in this particular context. Uncertainties are also related to the importance of repurposing existing products and technologies because, in many cases, and especially when there is an innovation of meaning, it is extremely difficult to work out a reliable planning and budgeting. But the outcome, if the project is successful, can be huge in economic terms: so, how can we develop reliable assessment and measurement techniques for these structurally uncertain situations? The difficulty of planning and anticipating these forms of repurposing and the creative redevelopment is however a serious one because, in artistic R&D, such uncertainty is the core of the process and not a peripheral dimension.

The consequence of all this is that, much more than in traditional scientific and technological research, in these cycles you often tend to end up with something completely different from what you searched for. So, it is very difficult to commission a specific form of artistic and cultural R&D to simply yield a certain type of result. Sometimes the interesting things are ones that you end up finding but that you were not searching for. And also the digital scenario, with the incredible acceleration of bottom-up cultural participation is a further factor of acceleration of the social dynamics and of amplification of related uncertainty.

From the systematicity point of view, one of the aspects that have to do with the systematic character of R&D has to do with the unique perspective that,

for example, the artistic R&D can give on an increasingly relevant issue like man-machine interaction and the understanding of its deep implications, a field in which there is already a number of cases of very good artistic R&D projects. This, of course, also means that from the systematic point of view, how can we integrate, for example, these innovation processes into open innovation processes and, more generally, into processes that have to do with social planning, urban planning, or economic planning: can we integrate all these aspects into a full-fledged perspective of systemic innovation for all future policies? How can we systematize this? This is more difficult than for science and technology, but nevertheless it is indispensable if we want artistic R&D to be taken seriously. This also means overcoming the excess of emphasis that we tend to place today on the pilot experiment dimension, which is analogous to what we said before in terms of being fascinated by the possibility, to move towards feasibility; there is too little emphasis upon reproducibility, scalability, and generalizability. This also requires a different attitude, also from the point of view of funding, for example, in terms of smart specialization strategies in Europe. It turns out that culture-related smart specialization choices in the European regions is extremely popular, the third most frequent of all the possible specializations, but almost the least funded category. So there is still an enormous gulf between the statement of interest and possibility, and the actual choice to commit resources. This is a major weakness.

Finally, for transferability, it will be increasingly crucial to favor cross-fertilization and cross-collaboration and making it structural across processes, and across sectors that are not generally classified as cultural and creative, but that are amenable to cross-fertilization with cultural and creative ones. We need to better understand the already existing relationships between these sectors and capitalizing on the idea of culture and creative crossovers as it is being crystallized by the New European Agenda for Culture that offers an incredible blueprint to move in this direction. This also means that if we want to transfer these particular experiences and ideas, we have to understand how cultural and creative R&D is today networked spatially, so the role of space and territory in patterns of creation of new clusters that are crosscutting through different sectors, creative and cultural, and not creative nor cultural. And to understand what kind of role intellectual property can have in such transferability, because generally we tend to think that intellectual properties is a guarantee for capitalization and transferability. But today, also with an eye to processes of collective creation, which are characterized by the free remixing of existing content, we must ask ourselves: is intellectual property facilitating or hampering R&D processes?

What is reproducible in the first place in the cultural field? What do we mean by reproduction in this specific field? To whom are we transferring? The fact that there is still a large chunk of society that is so marginalized with respect

to transfer of this kind of results is a problem, so social inclusion even more than in other sectors is a crucial point in the cultural sector. Is this transferability something that must be necessarily intentional or unintentional? But if it is unintentional, we can have forms of transferability that have not been planned? We have to reckon that this is a problematic and complex scenario.

To conclude, what are the aspects that we have to consider to make the next step from the point of view of the strategic role in R&D of culture and creative sectors? First, we have to internalize this role of creativity in R&D processes much better than we do now. There is still a massive under recognition of this potential in the traditional ecosystem of R&D processes. The notion that is extremely important to consider from the cultural and creative point of view is affordance as a central socio-cognitive notion, not simply to leverage the value of culturally driven processes, but really to understand that it is not just about technological affordances but human affordances, not simply what we can do more but what we can think as a possibility that we couldn't think before. The notion of affordance relates to a deep cognitive dimension that sometimes enables the cultural perspective to expand dramatically the possibilities of non-cultural technologies. So, it is extremely important to capitalize this value. And in particular the role that the sector may have in highlighting new affordances of specific technologies, so that culture can be disruptive and transformational for non-cultural and creative sectors as traditionally defined. The potential role can be huge, but we need to mainstream this into a shared approach to R&D.

Much of a future potential has to do, of course, with these new affordances, but also with the new transformational skills that have to be developed to implement these new kinds of processes. Do we have all the competencies that are needed to have a full-fledged model of artistic and culturally driven R&D? Probably not, so there is also a huge demand for this point of view for educational institutions in terms of creating these new skills and in terms of the professional development of such skills.

This means a better understanding of how to define and measure the value of artistic cultural intervention in R&D processes because the conceptual paradigm for measurement of value added in this sector is still shaky and it is important to further the transition from generally creative to R&D oriented processes and defining and mainstreaming new creative professional figures that are particularly focused on this perspective.

We do not have simple solutions; in many cases, we have doubts and open problems, but tackling such problems with a clear focus will probably be the key to the next step of the mainstreaming of cultural production into R&D processes.

COMPLEX PROBLEM-SOLVING PROCESSES THROUGH CREATIVE R&D

Michela Magas, Chair of the Industry Commons Foundation

Creative R&D can be a means for complex problem-solving processes. Some of the key elements for this to materialise are described here: from the first point, on setting up experimental laboratories for creative collaboration in R&D, to toolkits, routes to success stories or connection to the New European Bauhaus initiative, among others.

Setting up experimental laboratories for creative collaboration in R&D:

- Mission-oriented: The best results are driven by **Moonshots** – complex problems require ambitious approaches and grand perspectives.
- Focusing on empowerment: Human empowerment starts with **Radical Inclusion** – a consideration that does not divide people into categories but instead starts from points where we converge.
- Novel affordances: Placing **new tools** in the hands of creatives results in an explosion of ideas.
- Cross-disciplinary: brilliant minds from different disciplines get fascinated and inspired by discovering **each other's knowledge**.

CCIs R&D processes:

- Creative experimentation: new affordances are best discovered by setting up **imaginative scenarios and speculative narratives**.
- Collaborative prototyping: Knowledge exchange is transferred through **hands-on engagement** with problem solving.
- Technology as experience: Challenging the “3-minute product pitch”, the outcomes
- must be **performed** to experience the true effect of interaction and technology on human beings and on the environment.
- IP tracking in real time: Breakthrough moments are **identified and attributed** to creators to ensure a sense of ownership of the idea.

Toolkits, methods, and guidelines:

- Creative **technology transfer toolkits** lower the entry barrier for the CCIs and stimulate ideas with novel affordances (APIs – application programming interfaces; GUIs – graphic user interfaces; TUIs – tangible user interfaces)

- A series of **testbeds** offer a methodology for seeding and scaling of collaborative works (Creative testbed – seeding ideas; Industry testbed – collaborative prototyping; Market testbed – feasibility with early adopters)
- **Intellectual property tracking** acts as enabler (Background / proprietary IP – from industry partners; Research / technology transfer IP – converts background IP into more versatile and modular tools with novel affordances ready for new ideas; Innovation IP – the layer of breakthrough ideas that is typically added by the CCIs)
- MARLs – **Market Adoption Readiness Levels** – provide a set of parameters to measure early adoption and potential cultural, societal or economic value (Level of risk; Number of early adopters; Early TRL data yield: to ascertain cultural, societal or economic adoption value potential; Technology Readiness Levels)

Routes to success stories:

- **Multiple routes to outcomes** – cultural, research, industry and entrepreneurship
- **Reducing lead times** on cultural, societal or proprietary deployment
- **Diverse sources of funding** for scaling and follow-up

Scaling the impact of CCIs R&D across industrial domains:

- Industry Commons: Placing the **CCIs at the centre of cross-domain industry innovation**
- Technology Transfer Toolkit: CCIs as **facilitator of technology transfer** and seeding of novel ideas
- IP Stack: Adding the CCIs creativity and ingenuity as an **innovation layer of IP** on top of industrial and research IP
- Market Adoption Readiness: CCIs innovation breakthroughs in the gaps between industrial domains and **close to emerging markets**

Connect the CCIs activities to the New European Bauhaus initiative:

- Experimental labs driven by grand challenges and UN SDGs
- Grassroots solutions for the Green Deal
- Radically inclusive – the beauty emerges out of a sense of community and co-creation
- More than human – ecosystemic approaches

TRANSFERABILITY AND THE TRANSFORMATION OF NON-CREATIVE INTO CREATIVE

Yosha Wijngaarden, assistant professor of cultural policy at Radboud University Nijmegen, the Netherlands

Place, innovation and creativity have historically shared a strong relationship, dating back to the late 19th century. Co-location is thought to decrease transaction costs and stimulates knowledge flows through firm linkages and interfirm contact, as well by the growing literature on tacit knowledge. Tacit knowledge refers to learning by doing, social learning and the exchange of knowledge not available through codified channels. Important here is the assumption that tacit learning is dependent upon relational conditions, including face-to-face interactions, networking, trust and cultural proximity, each of which are facilitated and promoted by spatial proximity. Especially the creative industries have demonstrated a particular appetite for agglomeration. First through 'loft living' – in the words of Sharon Zukin – in the urban fringes, but now also in the many industrial buildings turned 'creative hubs' (either through top-down or bottom-up placemaking).

These places are thought to foster innovation, but how do they do so? Building upon more than 50 interviews with creative workers, two surveys and ethnographic research in 'creative hubs' in the Netherlands, I will present three concrete recommendations. First, focus on **interaction, not in collaboration**. Innovation is often thought to be induced by collaboration. Yet, what my research shows, actual collaboration is relatively uncommon. Freelancers and firms mature enough to be able to afford a workplace within a creative hub often already have an established external network. Starting new collaboration is often considered a time intensive endeavor and is therefore not pursued on a daily basis. However, informal interactions showed to be a fertile form of communication, affording the exchange of practical and tacit knowledge. Such forms of knowledge are often less available through other means of communication yet are thought to play an important role in the development of creative ideas. Second, **stimulate diversity**. To benefit most from such interactions, and line with the classic work of Jane Jacobs, diversity is important in both growing a broad set of local knowledge. But, besides the advantages in knowledge exchange, diversity also helps in developing a reputation advantage for users of such spaces. Primarily artistic creatives, for example, might seek out more professional others in order to look more successful, whereas more commercial users benefit from the 'artistic dividend' of the artists. Third, **offer flexibility, but also stability**. Creative workers tend to value autonomy, and both R&D and innovation require 'out of the box' thinking. Flexibility, e.g., in the usage or adaptability of space, both provides the means to come up and implement new ideas. Nevertheless, though such spaces often are of a temporary (or uncertain) nature, providing stability is important, as investing in new ways of working requires the trust that such investments will not be nullified before fully coming to fruition.

TRANSFERABILITY AND CROSS-FERTILIZATION / CROSS-COLLABORATION

Roberto Gómez de la Iglesia, General Manager of Conexiones improbables

The evolution of innovation and economic models over the last 40 or 50 years, from the productive economy, the service economy, the knowledge economy, to the experience economy and the creative economy (which is still an evolution of the experience economy), shows how there have been certain determining factors of transformation.

These factors of transformation have sometimes had to do with information and information systems, with the conversion of information into knowledge, and so on. But especially in the last decade, arts, culture and creativity have become key factors for the transformation of our economic and social models, along with two other fundamental elements, sustainability and digitalisation.

At the same time, there is an evolution of innovation models. From purely productive innovation, from that product economy that evolves towards a service economy at a given moment, or from a very marked scientific-technological innovation over a long period, we are moving towards the idea of social innovation, which is not an area of innovation in itself, but a type of innovation that also permeates scientific-technological innovation and productive innovation.

As for the relationship between arts, culture and creativity on the one hand, and research, development and innovation on the other, it is not easy to define and clarify in all its dimensions, as we have seen in this process. The pre-determined schemes, usually pressed for other fields, are not always valid and applicable to us.

It is interesting to note how we have managed, throughout the different stages of reflection, that we all understand that beyond R&D within the arts and on the arts there are more realities, differentiating the object from the subject of research/innovation.

When we talk about research and development on the arts, the subject can be inside or outside this field and the object is the arts themselves. We could incorporate the "for" the arts, which goes hand in hand, because there is a default view that arts, culture and creativity are not part of a first level field of knowledge generation, as science and technology could be. This is the first problem in going further. If we do not consider this field as a field of knowledge equal and complementary to science or technology, any proposal we make in terms of innovation is going to be ineffective with respect to the arts.

Moreover, when we say "from" the arts, it means that the subject that activates the innovation is the arts, while the object is found in other fields. Whereas when it comes to the concept "with" the arts, object and subject are combined in both fields. This is what has been slow to be understood and is currently receiving more attention. This does not detract from the value of research in and about the arts, nor from the importance of the more purely exploratory processes in the arts. In fact, those of us who work primarily in processes of cross-fertilisation need all exploratory processes in the field of the arts to exist and be reinforced, because our interest is not to turn the artist into a consultant, but to allow the artist to remain an artist. Therefore, what interests us is that exploratory capacity to work on the limits, on the peripheries so characteristic of the art world, and to apply it to other contexts; to be able to raise new questions in the search for new answers.

As Wagensberg said: "Changing the answer is evolution, changing the question is revolution". That sentence is very important as the arts must help us to find new questions for new answers. This seemed impossible a long time ago. Today we are witnessing how we are beginning to perceive other forms of relationship. Obviously, when we talk about the relationship of the arts with other contexts, we are not only talking about probable relationships or obvious connections, such as the traditional ones of sponsorship or patronage, those linked to communication (which are very important to promote, but which in reality have always existed, since the arts have always been linked to the field of communication and continue to be elements and supports for communication), or even those linked to team building. Going beyond these relationships is what *Conexiones Improbables* does: hybridizing in order to innovate and working on the innovation of the ways in which organizations innovate.

After all, innovation is exploratory and unpredictable and this is one of the first things we need to understand, so it already clashes with some of the logic of Oslo and Frascati.

The creative sector is not the only sector that has creativity, as creativity exists in other sectors or fields such as engineering, but this is a particularly creativity-intensive sector. However, as an example, when looking at the European Innovation Index, there is not a single creativity indicator to measure the degree of innovation of regions and countries. This is one of the next challenges to be addressed.

Focusing on *Conexiones improbables*, we developed a meta-methodology of open and collaborative innovation, with an artistic and cultural base. Being a meta-methodology means that it is a methodological umbrella where artists, creators and thinkers have the capacity to influence with their own methodologies in the generation of different innovation processes, through co-research, co-creation or other work processes. Logically, the context has a strong influence on the approach to the methodological mix. *Conexiones*

improbables is also an international platform for hybrid and transdisciplinary projects for change, and we are currently carrying out projects in different countries and within a community of people and organizations passionate about disruptive innovation. We do a different kind of consultancy, which promotes processes of exploration and co-creation in different contexts, oriented towards innovation, collaboration and transformation of people, organizations, and territories. This is achieved through the introduction of logics, methodologies, models of thought or professionals from the arts, culture and creativity in organizations. From the more than 400 projects that have been carried out so far from Conexiones Improbables, we can see the importance of the role of the artist and the creator, how he/she acts as a researcher (since we consider artists to be researchers with a methodology different from the scientific one), how he/she is a good creative catalyst, a good communicator, a good analyst of complex systems, and this is what he/she incorporates into these innovation processes. Four examples of this would be:

- **Creative pill: BIOEF + Tanttaka:** <https://conexionesimprobables.es/v2/New-social-open-innovation-methodology-with-Bioef-Cancer-Osakidetza-Conexiones-improbables-eng>
- **Long Connexion: Orbea + Cocreable:** <https://conexionesimprobables.es/v2/New-business-open-innovation-methodology-with-Orbea-Conexiones-improbables-eng>
- **Long Connexion: Banco Santander Brasil + PKMN (Enorme Estudio):** <https://conexionesimprobables.es/v2/New-business-open-innovation-methodology-with-Banco-Santander-Brasil---Pkmn-Conexiones-eng>
- **AuzoLabs: Landa Soirtzailea 2020:** <https://conexionesimprobables.es/v2/Landa-Soirtzailea-Gipuzkoa-2020-eng>

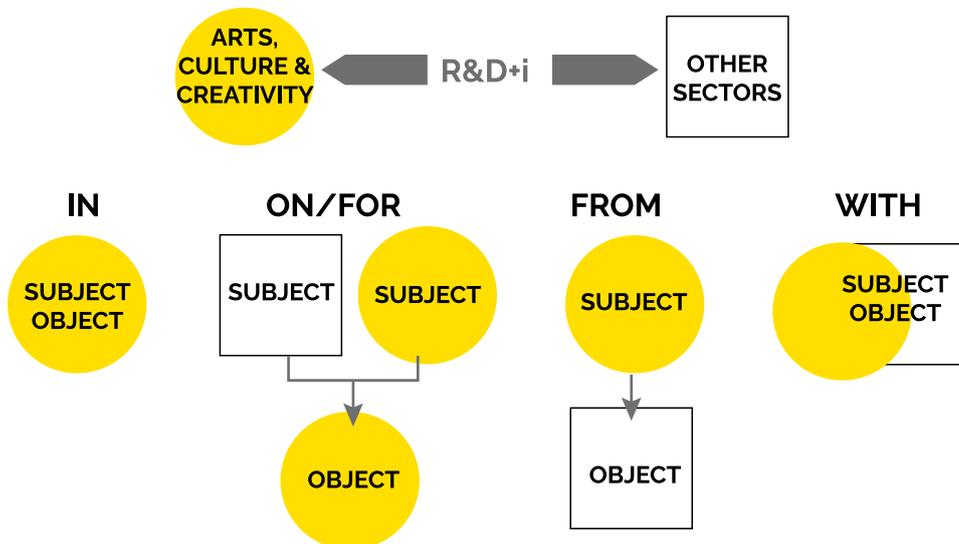
In essence, we must break down the barriers between disciplines, on how to move from disciplinarity to multidisciplinarity, from multidisciplinarity to interdisciplinarity, from interdisciplinarity to transdisciplinarity and from transdisciplinarity to postdisciplinarity. This is the path we are on.

We also have to know how to strengthen the creative sectors per se, which is fundamental, but at the same time turn them into drivers of innovation in other sectors. We don't want to be just a tool, we want to be part of the design of the innovation system in our country. We believe that we have the right to claim to be part of it.

Finally, Improbable Connections, as a partner of the New European Bauhaus, launched a series of conversations under the title "What would Gropius do

a century later", (<https://conexionesimprobables.es/v2/New-European-Bauhaus-Conexiones-improbables--Cycle-of-Conversations-eng>) with the support of the Department of Culture of the Basque Government. What would he do a century later? Would he be an architect, a maker, a philosopher, an activist? Creativity cannot answer only one of these questions, and the New European Bauhaus speaks of sustainability, inclusion, and beauty. Creativity is not only for beauty, as it goes far beyond aestheticisation. Creativity is a fundamental element today for the transformation of the social and economic model. Because in order to innovate in the sense of "what", it is necessary to innovate in the sense of "how".

im **About arts, culture and cross-fertilisation**



● MEASUREMENT OF R&D&I

CONTEXTUALIZATION OF THE MEASUREMENT OF R&D&I WITHIN THE CCIs AT AN INTERNATIONAL LEVEL

Valentina Montalto, Policy Analyst on Cultural Economy & Creative Cities at the Joint Research Centre (JRC) of the European Commission and **Luca dal Pozzolo**, Co-founder and responsible for Research of Fitzcarraldo Foundation

The Oslo Manual definition is no 'bad' or 'wrong' in any way. Still, it does not fully reflect the role that CCS can play in the economy and society at large. This is why the previous working groups have developed an extensive conceptual framework that tries to systematize the diverse source of values generated by CCS.

How can we measure such value? The Basque government has wisely proposed to start from existing innovation indicators, and particularly from the European Innovation Scoreboard (EIS), with a view to (i) understand how the broad definition of innovation is operationally defined and measured; (ii) identify knowledge / measurement gaps on which we should focus when trying to measure innovation in / from CCS.

What did we learn from the analysis of the EIS indicators?

- The EIS' conceptual framework (innovation framework conditions, investment in innovation and innovation activities) could well apply to the analysis of innovation in / from CCS as it enables capturing a complex and multifaceted concept through the measurement of different underlying dimensions (conditions, investment, activities).
- Most indicators might well capture, in general terms, the innovation performance of European countries and regional neighbours, but, in their current formulation, may fail at grasping the CCS' specific contribution to innovation.
- This is due to three main factors, according to the consulted experts;
 - the context-specific nature of innovation and CCS definitions (for instance, differently from most CCS definitions, the Basque region includes the language industry)
 - the lack of awareness, especially among CCS, about what can be considered 'innovative' (as these sectors are used to work creatively, they may fail at recognizing innovative work, thus lagging behind sectors due to definitional / awareness issues rather than their actual approach to work)

- o the highly diverse and fragmented nature of CCS: while industrialized sub-sectors of CCS may be captured relatively well by innovation datasets (e.g. audiovisual, video games, fashion), CCS are in general structurally very different from other economic sectors. In particular, the project-based nature of work, the extremely small size of companies, the diverse nature of actors (private, public, not for profit) as well as the free-lance status of most cultural and creative workers make it unlikely for most CCS to be captured either by official statistics or surveys using a representative sample of the general workforce / business population.
- Similar learning points come from the development of the Cultural and Creative Cities Monitor, that we developed at the Joint Research Centre to measure and benchmark the performance of 190 cities in 30 European countries:

As for EIS, the Monitor uses a composite indicator approach to measure a multidimensional concept (culture and creativity in cities)

It looks at outputs, not dynamic processes, thus trying to develop proxies rather than exhaustive measures of culture

Comparability is always an issue, but reference points may help: here we grouped cities in 5 different groups of peers based on similar population size, GDP and employment to facilitate benchmarking and peer learning

Integration of existing data sources may help face resource constraints

Qualitative information provide better insights (a 'Did you know that...?' section for each city is provided)

- How to go about it, then? The exchange helped us identify three possible working directions:

One would be to enlarge the innovation survey samples to make sure they are representative of CCS or at least of some sub-sectors (although this requires a deep knowledge of the reference CCS population, which is often not the case again due to CCS' structural conditions).

The other would entail qualitative work to first validate the innovation theoretical framework identified by the previous working groups, and only then develop related innovation metrics. In other words, there is a need to answer questions such as: what are the specific innovation framework conditions for CCS? Who invests in innovation? How can CCS' innovation activities be classified? Is the work of small community-based projects or the culture-led regeneration of a former industrial space innovative? Or can the invention of a new digital dissemination format by a music band be considered innovation? Is it possible to find an agreement on what is and what is not innovation in CCS? If so, how to raise awareness among CCS and, most importantly, policy makers shaping innovation policies and support

programmes? And how to shape new policies to support a wider concept of innovation that looks beyond commercial / industrial / business types of innovation? (Work direction chosen)

The third would combine the two, with a view to have quantitative data about innovation in / from CCS and at the same understand how to expand, theoretically and empirically, our knowledge and understanding of innovation in CCS.

The need for a qualitative approach: some key points

Innovation in CCI context; two structural difficulties:

- 1) Defining a precise perimeter of CCIs
 - 2) Innovation as a positional concept, according to specific territorial context and moment.
- The complexity emerging from these conditions is non-reducible, a structural feature of post-modern society. No more possibilities to think at a research process as a building yard, achieving precision and knowledge assembling solid bricks. Things – and bricks – change state of matter, vanishing, becoming gas.
 - This implies that while using existing statistic indicators, useful for comparisons and building research hypothesis, we need a complementary qualitative approach: this is why is so important the pilot research and the following research process of the Basque Observatory of Culture (BOC). It is necessary to have a clue about innovations inside the CCIs, to understand the micro-physic of processes in order to design tools to sustain and support innovation.
 - In this frame it is crucial to take into consideration the time validity of any result, of any reflections: by definition innovation lasts an instant, and research results follows this timing.
 - Observing is no more enough: to understand what's happening in the real time it is compulsory to be "exposed" to innovation, to be inside the change, to be involved in...
 - As a consequence, there is no eagle eye's view, no privileged perspective that allows to see the whole landscape. We may adopt the frog's point of view, inside the pond, with all the deformed perspectives related to far and near things, seen floating on the water surface. But in the real time, being a part of it.
 - To achieve a less local and subjective knowledge it's a key factor being in a network of European/international institutions, involved in this change, exposed to innovation, comparing theoretical frames, designing specific tools of intervention, and – last but not least – measuring effectiveness of tools and policies.

NEED FOR THE AVAILABILITY OF DATA THAT ARE MORE APPLIED TO THE REALITY OF R&D&I, ESPECIALLY IN CCIs

Annalisa Cicerchia, Culture economist and Senior Researcher at ISTAT
- Italian National Institute of Statistics

CCIs and Innovation – Why we should measure? What should we measure?

We have been witnessing since the end of last century the growing strategic relevance of the CCIs. This topic has been approached as the most typical contribution of Europe itself to the global economy.

There is still a need to support policies with robust evidence. I do not believe any longer in evidence-based policy. However, we could be content if we attain evidence-informed policies at least. At the European level, and at national level, policy makers are increasingly burdening the sector with their expectations. We are not only burdened with the responsibility of making the sector lively and productive and to provide jobs and qualified occupations and so on, but also with other burdens, like promoting urban renewal, promoting spillovers in the general economy, promoting our cities to be more welcoming, etc. The result is a growing set of expectations and an enormous pressure on the sector, especially under the label of innovation.

The CCIs sector is indeed rapidly evolving, although in a not homogenous and regular way. Shocks like the digital revolution or the pandemic have imprinted changes that were hard to foreseen and have had repercussions that we could not anticipate. Especially in the area of innovation, the response to the pandemic has indeed ignited some innovation processes, but in some other areas the CCIs sector froze, waiting for the storm to pass.

Another crucial point to consider is how the information demand is rapidly evolving. There is an increasing demand posed by non-technical users – they need fast, reliable, comprehensible, understandable, communicative, easily accessed information. We are challenged to provide that kind of information.

Moreover, we are dissatisfied with the existing data and information. As seen in the case of the Cultural and Creative Cities Monitor, we are often constrained by the need to work with the existing datasets, sources that have not been designed for this sector and have not been thought for tracking innovation, especially in the forms and in the areas that we are interested now to discover.

Measurement needs and constraints

We need to improve the relevance of the data and information that we get. We need a finer conceptual detail. We need to adapt the conceptual definition to the typical characteristics of this sector. We can accept no longer indicators and measurements that have been blueprinted from the manufacturing sector.

There is also an issue of coverage, as we need a finer territorial detail and we need to grasp the individual point of the individual enterprise on their territory, but we also need to reconstruct its context, its milieu, which are so relevant for explaining how the CCIs thrive and are innovative or not.

We need a timely adjustment to change. Sometimes change is so profound and so rapid, and we need to adjust in time, and waiting for the repetition of old forms is impossible. Time series are very useful, but they can also become a sort of a cage, and we need to be both able to link one series to the previous, but also flexible in the way we collect information.

Parallel to that, we need to ensure harmonization and comparability and we must be aware that the statistical and economic capacity of countries, regions and cities are not the same.

In relation to constrains, we should consider differences in definitions and strategies. Every place, every city, and region in Europe, conceive the CCIs and the innovation process within them in different ways and develops different strategies, so we must consider those differences, and we must try to find a meaningful common area.

We should admit that resources are not adequate. In this particular area, there is no investment in targeted data collection. This is something that should no longer accept, and we cannot go on squeezing out the juice of other datasets, other archives, or information systems trying to accommodate our needs. We need to go some steps forward in that direction. On the other hand, we should also avoid increasing the statistical burden on enterprises that are already compelled to respond to a variety of inquiries, surveys and so on. We should contain as much as possible the statistical burden, making it compatible with the need to expand and renew our statistical sources.

Finer conceptual detail

We need to rethink our conventional approaches to the value chains, which are still strongly linked to manufacturing sectors:

- Inputs
- Creation
- Production
- Processes
- Outputs and products
- Delivery
- Abilities

- Knowledge
- Technologies

Other areas to cover are:

On content:

- How to incorporate different points of view, like gender, religious beliefs, abilities (design 4 all).

On quality:

- Sustainability.
- Technology and AI
- Personalization

On context:

- Community
- Territoriality

On capabilities:

- Project capability
- Design-Thinking
- Project governance

Integration as a reasonable solution

Integration is probably the most effective and practical way of tackling our question.

- Integration of statistical sources (enlarged and extended surveys, registers, administrative sources, big data);
- Integration of objective and subjective quantitative information
- Integration of qualitative information (cases, stories, narratives, etc.) with quantitative information
- Integration of point-data with context data.
- Integration of pilot studies with a progressive enlargement and extension of surveys

THE REDEFINITION OF THE R&D&I PERIMETER AND THE COMPETITIVENESS REPORT BEING DEVELOPED JOINTLY BY THE BOC AND ORKESTRA

Mikel Etxeberria, Basque Observatory of Culture (BOC) and **Jabier Retegi**, Orkestra & Mondragon Unibertsitatea

In this joint project, Mikel Etxeberria and Jabier Retegi studied the Cultural and Creative Industries (CCIs) in line with the rest of the Basque Country's economic sectors, with the aim of developing a comprehensive strategic approach and boosting their competitiveness.

In a first phase, the task of defining the perimeter of the CCIs to be analyzed was undertaken, given that the various delimitations offered by different bodies do not entirely coincide.

Finally, 70 branches of activity according to the CNAE-2009 classification, 56 occupations according to the CNO-2011 classification and 131 products and services according to the CPA-2008 classification have been included in the perimeter.

This delimitation of the perimeter will be constantly evaluated, and improvements derived from both the evolution of the sector and the development of internationally agreed methodologies will be incorporated.

Therefore, this review of the perimeter, besides being an analytical tool to guide research on CCIs and a framework to orient public policies and decision-making on CCIs, also provides a new framework for measuring the progress of competitiveness models at the service of inclusive and sustainable wellbeing.

In a second phase, the economic dimension of CCIs and their integration into the industrial fabric of the Basque Country has been analyzed.

Analyzing the evolution of the CCIs over the last decade, both the number of companies in the cultural and creative industries shows a fall between 2010 and 2015 and a subsequent recovery, but without reaching the initial levels.

CCIs have been analyzed from two complementary points of view; 1) the value chain perspective and 2) the perspective of the nature of the activities that compose them.

The value chain perspective reflects the existing relationship (economic flows, products, services, knowledge) between the activities that aim to produce a good or service with creative and/or cultural content. This perspective is important to understand the supply and demand of creative and cultural products or services and the economic activity that this generates in cascade.

The perspective of the nature of the activities (or by branches of activity) provides an ordering of cultural and creative activities according to the similarity of the type of activities (manufacturing, IT, education, etc.) and allows them to be grouped into clusters that share common needs (among others, technological, organizational, associative for the promotion of exports, etc.) for their development and, therefore, can lead to homogeneous policies.

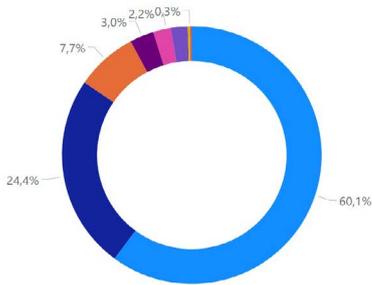
CCIs ARE COMPOSED OF VERY SMALL FIRMS

60% of cultural firms and more than 70% of creative firms have a self-employed legal entity.

The average size of the companies is 2,9 employees for cultural sector and 1,4 employees for creative sector.

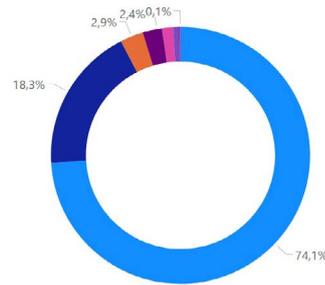
Retegi, J., Eguía, I., Carrillo, F., Oleaga, M., Vázquez, R. - Orkestra - Basque Institute of Competitiveness

% OF CULTURAL COMPANIES by TYPES OF LEGAL ENTITIES



Source: DIRAE, Eustat

% OF CREATIVE COMPANIES by TYPES OF LEGAL ENTITIES



TYPES OF LEGAL ENTITIES

- Self-employed
- S.L. (Limited company)
- Others
- Comunidad de bienes (Community of
- S. Cooperative
- S.A. (Limited Company by shares)
- Religious autonomous organisation
- Local corporation

R&D&I FROM A MARKET PERSPECTIVE AND THE IMPORTANCE OF CROSS-REFERENCING R&D&I WITH OTHER CCIs SECTORS

Renzo Turatto, Conresco Srl

Looking at the research and development activities in CCIs, we can distinguish two main areas. There are CCIs doing R&D which can be defined as compliant with the Frascati criteria. But there are also CCIs doing some research activities which are not exactly R&D, as defined by Frascati criteria, although they are nonetheless novel, creative, uncertain.

This type of activity is partially compliant with the Frascati criteria and thus it cannot be defined R&D *stricto sensu*. Even so, it seems reasonable to say it holds an intrinsic value for innovation and creativity.

Considering the growing relevance that CCIs development policies have had in the last years, as well as uncertain results and the uncertain impacts they have had, this sectorial segmentation looks significant.

No doubt: policies for CCIs development are necessary. But to make them effective and efficient it's important to design adaptive instruments to suit the different needs companies experience.

Even if there are few systematic evaluations on CCIs policies, expert opinions seem to confirm this conclusion, inasmuch as they are aligned in saying that the launch and implementation of these policies has been largely affected by deadweight effects.

The necessity to better fine tune CCIs policy is also confirmed by cultural and creative sector economics.

First, CCIs sector differs from other sectors as a consequence of its boundary definition: whereas in other sectors aggregation is based on output homogeneity, what distinguishes companies belonging to the CCIs sector is the same input they use in production: cultural and artistic competencies. But this reduces the possibility to develop market analyses aimed at this sector as far as analytics usually applied for sectorial analysis are demand/production driven, while here the aggregation is based on input not on output.

In addition, we need to consider the "Baumol-Bowen dilemma" and the potential effects it has on CCIs economics. Differently from other sectors, to produce art and culture is rewarding in itself. This affects standard market incentives toward company efficiency and explains why CCIs sector transparency is affected by inefficiency allure and structural uncertainty.

All this considered, it's not surprising that in analyzing the CCIs sector we observe a picture characterized by small and micro enterprises, which do not invest enough and suffer when accessing financial markets.

For a company to assess financial markets, size represents a key element. In the case of investments, the first thing investors want to know is if it is good enough, i.e. if expected values are higher than invested money, plus interest rate. This information For CCIs is structurally uncertain: firstly, due to the sector's definition, demand prospects are unclear and there is a lack of benchmarks in terms of size, organization, and role in the market; secondly, the entire sector suffers from an augmented risk of inefficiency.

Of course, this doesn't mean that the CCIs sector is poorly profitable. In theory, it could be well worth investing in. But this doesn't happen. Because of the poor and asymmetrical information, investors play safe: they do not enter and do not invest in the CCIs sector.

All this highlights how important it is to have more reliable data on CCIs and to continue analysing CCIs sector areas and dynamics. Equally important for this 's development is the production of new indicators to help market investors better identify high priority investment as market niches, cluster, value chains, etc..

Finally, it is worth remembering that in addition to reliable macro-data, it would be important for this sector's development to define a methodology to collect-assess-distribute data on individual companies belonging to the CCIs sector.

Thanks to data like these it would be possible to define sectorial rating standards and methodologies to help institutional and market investors focus on those companies with market perspectives.

9. CONCLUSIONS

During the working process of the CCIs and Innovation Contrast Project, it became very evident, once more, that CCIs are an engine and driving force for innovation. Innovation is about change, knowledge and value and, even if *soft* innovation prevails in CCIs, we must continue promoting innovation in CCIs through the last generation technologies based on data that are applied to other sectors.

Both innovation that is nurtured by other sectors and that which happens within cultural and creative sectors themselves need to be object of further development. During this working process and the final Open Conference, experts pointed out the following lines of work:

1. CROSS. Several points drawn from these sessions were related to **the increasing interest of non-creative industries in getting more creative**. It will be increasingly crucial to favor cross-fertilization and cross-collaboration and making it structural across processes and across sectors that are not generally classified as cultural and creative, but that are amenable to cross-fertilization with cultural and creative ones. We need to better understand the already existing relationships between these sectors.

2. COMMON LANGUAGE. It is important to raise awareness that innovation is a moving target, and it will stay a moving target. **A solid conceptual framework is needed that builds on a wide notion of value**, beyond purely economic value. The development of a common language to measure innovation is urgent. Oslo objectives are valid and applicable to the CCIs, but they need to be re-thought for the specific context.

3. DIMENSIONS AND HELIXES. The new proposal of **the three-dimensional model of the value of culture seems to accommodate all cases of innovation in the CCS**. This model has allowed to explore the connections between the different dimensions and the helices of the quadruple helix model. It is essential to deploy the full potential of the fourth helix, because it is the new one that could perhaps introduce more disruptive changes in the way of approaching innovation processes and of seeking other types of results. The incorporation of the quintuple helix – that is to say, the conditions and particularities of the context, the habitat– to generate and unfold innovation is a step forward. In this scenario, it is important to encourage flow, interaction, and mixed-hybrid relationships.

4. INNOVATING INNOVATION. To continue moving forward in the joint construction, already in motion, of **a new consensus about the concept of innovation itself**. In this new consensus, diversity is a strong value. Diversity lies not only in the what, but also in the how, why, to innovate in the what, it is necessary to innovate in the how.

5. CLIMATE CHANGE. Attention needs to be paid also to the **role of innovation in CCI in the fight against climate change**. Culture and creativity are part of every gesture in daily life and, therefore, part of the problem as well as of the solution.

6. TWO ALTERNATIVES IN R&D. It can be clearly seen that the reflection regarding R&D is very challenging. There are basically two alternative approaches.

- a. According to the conservative approach, **the Frascati criteria are just as good for the cultural and creative sector as they are for other sectors**. In the case, the difficulty that cultural and creative professionals are experimenting is because they are not familiar enough with this particular environment and set of rules.
- b. The other possibility is that **there is a basic specificity of R&D in the culture and creative sector**, which stems from the **tension between the intrinsic and instrumental value** dimension of culture and creative production. This is a very important point raised in the Conference. So, the real question is: how can we reconcile the stronger intrinsic motivation right there is behind artistic creation with the instrumental push that derives from R&D activities? The main point is that there can be a creativity that is instrumentally targeting one particular goal and there is a creativity that can be undirected. Exploring this relationship more deeply can lead to new scenarios.

7. NEXT STEPS IN R&D. There are two main aspects that we have to consider to make the next step from the point of view of the strategic role in R&D of culture and creative sectors:

- a. First, there is still a **massive under-recognition of this potential in the traditional ecosystem of R&D processes**. The notion that is important to consider is affordance as a central socio-cognitive notion that sometimes enables the cultural perspective to expand dramatically the possibilities of non-cultural technologies. It is extremely important to capitalize this value. Culture can be disruptive and transformational for non-cultural and creative sectors as traditionally defined. The potential role can be huge, but we need to mainstream this into a shared approach to R&D.
- b. Much of a future potential has to do also with **the new transformational skills that have to be developed** to implement these new kinds of processes. There is also a huge demand for this point of view for educational institutions in terms of creating these new skills and in terms of the professional development of such skills.

8. SPECIFIC RESEARCH. The need for specific research to better understand what the contribution and meaning of the CCIs is. The existing definitions (Oslo and Frascati manuals) and indicators (EIS) are no 'bad' or 'wrong' in any way. Still, they do not fully reflect the role that CCS can play in the economy and society at large. This is due to three main factors: the context-specific nature of innovation and CCS definitions; the lack of awareness among CCS about what can be considered 'innovative'; and the highly diverse and fragmented nature of CCS.

9. INSIDE THE CHANGE. Innovation is a positional concept, according to specific territorial context and moment. The complexity emerging from these conditions implies that, while using existing statistic indicators, useful for comparisons and building research hypothesis, we need a complementary qualitative approach. It is necessary to have a clue about innovations inside the CCIs, to understand the micro-physic of processes in order to design tools to sustain and support innovation. Observing is no more enough, there is no eagle eye's view, no privileged perspective that allows to see the whole landscape. To understand what is happening in the real time **it is compulsory to be "exposed" to innovation, to be involved and inside the change.**

10. NETWORK. To achieve a less local and subjective knowledge it is a key factor being in a network of European/international institutions, involved in this change, exposed to innovation, comparing theoretical frames, designing specific tools of intervention, and – last but not least – measuring effectiveness of tools and policies. That is why it is necessary to launch of **a pilot study,** from a qualitative approach, to be developed during the first half of 2022 in 5 European regions with a view to understand how the broad definition of innovation is operationally defined and measured; and to identify knowledge / measurement gaps on which we should focus when trying to measure innovation in / from CCS.

10. CCIs AND INNOVATION CONTRAST PROJECT PARTICIPANTS

SCIENTIFIC COORDINATORS:

LUCA DAL
POZZOLO



Luca Dal Pozzolo, 1956, Architect, co-founder and responsible for Research of Fitzcarraldo Foundation, from 1998 Director of Piedmont Cultural Observatory. He teaches in Bologna Economic Faculty, (Regional Cultural Policies) and in Lugano, Master in Advanced Studies in Cultural Management. He published many articles and books on cultural economics, museums and Heritage, design and project within historic centres, and cultural issues connected with urban regeneration.

BERND
FESEL



Bernd Fesel studied Economics and Philosophy in Heidelberg and Bonn and graduated with an economist degree. He is visiting professor at the University of Bonn, University of Arts Berlin and currently at the Institute for Culture and Media Management, KMM Hamburg. In 1990 he started his career in the art market, becoming 1997 Managing Director of the German and then the European Gallery Association. He also served as speaker of the German Arts Council. In 2003 he founded the Office for Culture and Economy and served as advisor f.e. of the German UNESCO Commission and German Federal Foreign Office. He initiated the first national conference on creative industries in Berlin from 2004 to 2009, which was co-organized with the Friedrich-Naumann-Foundation. Then he served as vice director at the European Capital of Culture RUHR.2010, since 2011 as senior advisor at the European Centre for creative economy, a legacy of RUHR.2010. Bernd Fesel has been speaker in Hearings of the European Parliament (2017 on Brexit) and conferences across Europe, special focus is on the spillover effects of the arts and creative industries. He was board member of the European network on cultural management and policy (ENCATC) in Brussels from 2015 to 2017 and is since 2016 director of the European Creative Business Network (ECBN) in Rotterdam.

VALENTINA
MONTALTO



Valentina Montalto is a Culture and Creative Sectors (CCS) specialist. She currently works at the Joint Research Centre (JRC) of the European Commission in Ispra (VA), in Italy, as researcher and policy analyst dealing with culture for urban development. Counting on a ten-year work experience in an international environment, Valentina has also dealt with European policies on CCS, cultural statistics, indicators development and impact assessment of cultural investments in cities (for ex. in European Capitals of Culture). At the JRC, she has recently contributed to the development of the first ever 2017 edition of the Cultural and Creative Cities Monitor, a new benchmarking tool that measures the performance of 168 European cities on culture and related dimensions. She previously worked as project manager at KEA (www.keanet.eu), a Brussels-based research and advisory company specialised in CCS.

PIER LUIGI
SACCO



Senior Advisor at the OECD Center for Entrepreneurship, SMEs, Regions, and Cities and Professor of Cultural Economics, IULM University Milan. He is also Senior Researcher at the metaLAB (at) Harvard and at the Bruno Kessler Foundation, Trento. He has been Visiting Professor, Visiting Scholar and Faculty Associate at the Berkman-Klein Center for Internet and Society, Harvard University, and Special Adviser of the EU Commissioner to Education, Culture, Youth and Sport. He works and consults internationally in the fields of culture-led local development and is often invited as keynote speaker in major cultural policy conferences worldwide.

LOCAL COORDINATORS

SABIN GOITIA



Sabin Goitia has a degree in Industrial Engineering, and has spent most of his professional career in the public sector, within the field of economic promotion, helping to create and strengthen the regional business fabric through the development of innovative projects. In the period 2018-2020, he was Advisor for Cultural and Creative Industries for the Basque Government, and therefore, one of the driving forces behind the project to define R&D&I in the cultural and creative sector in the Basque Country.

ALAITZ
LANDALUZE



Alaitz Landaluze is a telecommunications engineer and has developed her professional career both in private companies and in the public sector. She is currently the General Coordinator of Innovation Policies at Innobasque, a unit from which Innobasque supports the Lehendakaritza and different departments of the Basque Government in the design and development of R&D and innovation strategies, programmes and projects. Among others, her area manages the technical secretariat of the Science, Technology and Innovation Plan Euskadi 2030, in its design and evaluation, and has been collaborating with the Department of Culture since 2015, advising on different initiatives to support innovation.

RUTH
MAYORAL



Manager of Tailored Programmes at Euskampus Fundazioa. Responsible for the elaboration and implementation of programmes that favour transversal cooperation among agents, and the transfer of competences between the University and the social and economic fabric of our Region. Specifically, in charge of the operation of the Basque Cluster for Engineering, Science and Technology (4gune) and the Basque Cluster for Cultural and Creative Industries (KSIgune). PhD. in Sociology focused specifically on urban transformation and the potential of local trials from creativity for the reorientation of these transformations.

JOSEAN
URDANGARIN



Josean Urdangarin Arrizabalaga works in the Direction of Cultural Promotion in the Basque Government's Department of Culture and Language Policy. The holder of a degree in Basque Philology, he worked as a manager and head of Language Planning from 1989 to 2002, engaged in the fields of qualitative and quantitative research and areas related to status planning for the Basque language. Thereafter, he became involved in the work of drafting and developing cultural policies in Euskal Herria (Basque Culture Plan), coordinating both institutions and different sectors. At present, his fields of activity are related to Creadis3 project, as policy researcher and the definition of Cultural and Creative Industries Policies in the Basque Country.

INTERNATIONAL EXPERTS

CLAUDIA
BURGER



Claudia is Policy Insights Manager for the Creative Industries Policy & Evidence Centre (PEC) where she produces briefing notes and insights for the consortium and wider network. She is based at the Creative Industries Federation. Previously, Claudia was part of the Advisory & Impact team at Bates Wells where she worked with charities, social enterprises and commercial organisations, from a variety of sectors. She worked on a broad range of projects there, from analysing UK government data sets to researching the impact that radio can have on women's education in Ethiopia. Claudia has a degree in History and Politics from the University of Sheffield and is a Chartered Accountant.

ANNALISA
CICERCHIA



Annalisa Cicerchia (Rome, Italy) is an economist of culture, with extensive field research experience. She has been working on the impact of policies and interventions on and for culture since the early 1980s, in the Navajo Nation in the USA and in the Aswan region of Egypt. At the Planning Studies Centre, then at the Institute for Economic Planning Studies and later at the Institute for Economic Studies and Analysis, she devoted herself to strategic planning and evaluation for the cultural sector, with a particular focus on the databases needed to underpin decisions and to accompany their implementation. She is currently a senior researcher at the Italian National Institute of Statistics. She has worked as an expert in design and evaluation of culture-based development programmes in Syria, Egypt, Lebanon, Kosovo and has several research projects on culture at European scale, within the Culture, Cost, Creative Europe, Horizon 2020 programmes. He is part of the pool of experts providing capacity building services for the European Capitals of Culture. Since 1999 he has been teaching at the University of Rome Tor Vergata; he teaches and is part of research groups at the University of Roma Tre, the University of Bolzano and at the Italian National School of Administration. Her main topics are participation and cultural practice, economics and management of cultural organisations, the contribution of culture to sustainable development, the relationship between well-being, health and cultural and artistic practice, and cultural welfare.

PAOLA
DUBINI



Associate Professor of Business Administration. (01/09/2013-31/08/2016). Responsible of courses about content industries at CLEACC and ACME and Senior faculty member of the SDA Bocconi Strategic and Entrepreneurial Management Department. Visiting professor in Models of organization of cultural institutions at IMT Institute for Advanced Studies Lucca - PhD in Management and Development of Cultural Heritage. From 2010 to 2016 Director of the Bachelor of Economics for the Arts, Culture and Communication - CLEACC From 2009 to 2013 Director of ASK (Art, Science and Knowledge), research center on cultural and economic issues. Fellow of DIR Claudio Dematté SDA Bocconi Research Center. Coordinator of the Management Section of the Master for Publishers, offered by Università degli Studi di Milano, together with Mondadori Foundation and the Italian Publishers Association. From 2001 to 2013, adjoint Professor at Università degli Studi di Milano, Faculty of Literature and Philosophy. Visiting scholar at Stern School of Business - New York University (1988), Wharton School University of Pennsylvania (1991) and Visiting faculty at University of St. Gallen (2004-2006), EDHEC Business School Nice (2006-2008), EMLYON Business School (2001-2016).

MARIELLE
HENDRIKS



Marielle Hendriks is currently director of Erfgoedhuis Zuid-Holland (Heritage House) in Delft, the provincial institute that supports everyone who is committed professionally or voluntarily to a thriving heritage sector, and of the Monumentenwacht Zuid-Holland, a technical advise division that supports owners of monuments. By effectively joining forces with other parties within and outside the province, including within the educational, social, nature and energy sectors, Erfgoed Huis is committed to innovation and renewal. Focus points are digitalization of heritage collections, heritage volunteers, heritage education and making monuments more sustainable for the future. Until 2018 Hendriks was director of the Boekman Foundation, a national knowledge center for art, culture and policy in Amsterdam and, among other things, the driving force behind the Arts Index Nederland and the international Compendium of Cultural Policy and Trends. She also worked at the Museum of Fine Arts in Boston and at the cultural department of the municipality of Issy-les-Moulineaux (Paris). She studied Arts Administration at Utrecht University.

CINZIA
LA GIOIA



Cinzia Lagioia, director of Puglia Creativa District with proven experience in the design and management of projects financed by European structural funds and European territorial cooperation programs. She is also a senior consultant and teacher for strategic planning of local development in a systemic perspective in the fields of culture and creativity, environment and legality.

MICHELA
MAGAS



Michela Magas is an innovation catalyst who bridges the worlds of science and art, design and technology, and academic research and industry, with a track record of over 25 years of innovation. She is innovation advisor to the European Commission and the G7 leaders, Member of President von der Leyen's High Level Round Table for the New European Bauhaus, and Chair of the Industry Commons Foundation. In 2017 she was awarded European Woman Innovator of the Year and in 2016 she was presented with an Innovation Luminary Award for Creative Innovation. She is the founder and CEO of MTF Labs, a global community platform of around 8000 creative innovators and scientific researchers. Over 20 years she ran Stromatolite Design Lab in London with global clients such as Apple, Nike and Nokia, and prior to that was Art Editor at the *Financial Times*.

JOHANNA
SUO



Johanna specialises in cultural strategy, culture in external relations and cooperation, transfer of skills & perspectives from creative sectors to business sectors, creative economy development and innovation. She is a cultural entrepreneur, researcher and cultural strategist with twenty years of experience from the culture sector. She has been a speaker at various conferences in the US, in Japan & Europe and presented sessions at the 2017 & 2018 European Business Summit on culture as strategy and on and the importance of creativity at the heart of business success. Today Johanna works as consultant at her own firm ifa laboratory, she has also co-founded the innovation consultancy partnership Artisans of Innovation. Currently she undertakes pilot research on the role of artists and designers in corporate innovation.

ANNIE
TUBADJI



Annie Tubadji is an Assistant Professor in Economics, Swansea University. She is a cultural economist teaching economics and research methods. Annie's main areas of expertise are New Cultural Economics (NCE) and Regional Economics. She focuses on the cultural bias in economic choice as a function of the interaction between the micro and macro levels. Annie is an active researcher, publishing and presenting her research at leading academic publication outlets and international academic and policy-making oriented events.

RENZO
TURATTO



Renzo Turatto, cofounder and CEO of Conresco Srl. He studied Political Science at the University of Padua and had an MBA at the "Enrico Mattei" Business School. He started his career at the Agip Petroli as financial and labour market analyst. In early nineties he moved to the Ministry of economy as component of the Public investment assessment unit. After he had served as Managing Authority and Head of Department for Budget and economic programming of the Calabria Region, in 2008 he moved to the Presidency of the Council of Ministers as Head of the Department for Digital Administration and Innovation. Later, from 2012 and 2016, he was Professor of Technical innovation and e-government at the National School for Public Administration. More recently he has also acted as responsible of the OECD-Leed Venice office. Closely intertwined with his professional career he has developed academic activities as lecturer and author of books and articles.

CARLO
VUIJLSTEKE



Carlo Vuijlsteke has a professional background of more than twenty years in the cultural and creative sectors. He started off working in the music sector for the Flanders Music Centre and is now a senior project manager at Flanders District of Creativity (www.flandersdc.be). Flanders DC is a non-profit organisation setup by the government and supports, promotes and connects the creative industries in the Flanders region of Belgium. He has been involved in numerous projects to support entrepreneurship in the creative industries and has coached several companies in their growth strategy. He is also the coordinator of the international Districts of Creativity Network (www.districtsofcreativity.org) which unites 13 innovative regions around the world. Together they share and develop good practices on how to stimulate creativity, innovation and entrepreneurship in a region, with a specific focus on cross-overs with the creative industries.

YOSHA
WIJNGAARDEN



Yosha Wijngaarden is assistant professor of media studies and cultural policy at Radboud University Nijmegen (The Netherlands). In 2019, she defended her PhD thesis "places of co-working: situating innovation in the creative industries" at Erasmus University Rotterdam (also in The Netherlands). Yosha currently is involved in research projects on the earning capacity and income position of the creative sector in The Netherlands, and on the challenges and potential of co-operative creative work during and after Covid-19.

LOCAL EXPERTS

IRANZU
GUIJARRO
AND RICARDO
ANTÓN



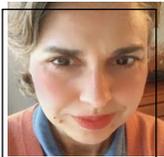
Iranzu Guijarro and Ricardo Antón work at ColaBoraBora designing collaborative environments, processes and services aimed at social, strategic and organisational innovation. They are also part of the KARRASKAN network, focused on innovation in culture and the culture of innovation in the Basque Country.

GOTZON
BERNAOLA



Director of Public Innovation at Innobasque - Basque Innovation Agency. His experience is focused on innovation, and in the implementation of innovative governance models in collaboration with the agents of the territory. The design of public innovation plans, tools to support public innovation, and promotion of inter-institutional collaboration projects are his functions. Since 2019 he has been responsible, together with Culture and Linguistic Policy, and Economic Development, Sustainability and Environment Departments, of the design and implementation of the Basque District of Culture & Creativity, whose main objective is to promote competitiveness and economic strengthening of the Cultural and Creative Industries (ICC) sector in the Basque Country, reinforcing and compacting the sector in the territory.

CAMILA DE
EPALZA
AZQUETA



EU Policy Officer at the Basque Government Delegation to the EU and RICC/Regional Initiative for Culture and Creativity Network co-leader. Camila de Epalza Azqueta, who specialises in International Relations and European Affairs, is European Union Policy Officer at the Basque Government Delegation to the EU and RICC/Regional Initiative for Culture and Creativity Network co-leader. Camila is Policy Officer and the focal point at the Basque Government Delegation to the EU, in different areas: EU cultural policy, culture and creativity potential for local and regional development, education and competencies and development cooperation, align with the Smart Specialisation Strategy (EU innovation agenda). Her main task in those areas is to open up opportunities and build bridges between the European agenda and stakeholders and Basque institutions, socio-economic and cultural agents, and vice versa. Working in partnership with other regions is co-leading the RICC/Regional Initiative for Culture and Creativity network, the only platform in Brussels that brings together regions, in the field of culture and creativity and innovation. Camila is also part of the coordination team of the INTERREG Europe project, led by the Basque Government.

IBONE EGUIA



Ibone works as a Predoctoral Researcher at Orkestra in projects related to the Analysis of the Competitiveness of the Basque Cultural Fabric. She holds a degree in Economics from the University of the Basque Country. She later completed the BEINT program of the Basque Government in which she obtained a Postgraduate Degree in Business Internationalization, through which she worked as a Market Analyst at the Economic and Commercial Office of the Spanish Embassy in Portugal. Her interest in culture in its broadest sense and the conviction of the value of culture as a strategy for territorial development led her to pursue a Master in Cultural Management at the Universitat Oberta de Catalunya, which allowed her to work as a Cultural Manager at Universal Music Portugal and at the Cultural Counseling of the Spanish Embassy in Portugal.

MIKEL
ETXEBERRIA
AGIRRESAROBÉ



In the field of culture and as a technician assigned to the Department of Culture and Language Policy of the Basque Government he has worked for several years in the areas of "Creation Factories" and "Performing Arts" (dance). He has got the title of Expert in Transmission of Basque Culture by the University of Mondragon and, recently, he is appointed head of the Basque Observatory of Culture (BOC). Coming from scientific training -degree in Veterinary Science from the Complutense University of Madrid- Mikel previously worked in the field of health, specialized in audits of HACCP systems (Hazard Analysis and Critical Control Points). From this double affiliation, he advocates the overcoming of the dichotomy between humanistic culture and scientific culture in the name of the so-called Third Culture.

XAVIER FINA



Xavier Fina Ribó holds a degree in philosophy and a master's degree in cultural management. He is founder and director of ICC Consultores Culturales. Professor and Head of the Promotion and Management Department at the Higher school of music of Catalunya (ESMUC). Content manager for the Basque Observatory of Culture (BOC) since its creation (2006). He teaches different post-graduate and master's degrees, and national and international courses. He has acted as academic coordinator of the Cultural Management Master's at the University of Barcelona, and professor of cultural policies at the Autonomous University of Barcelona. He formed part of a work team which, under the direction of commissioner Mr Josep Maria Bricall, was in charge of preparing the project for the Council of Culture and Art of Catalunya. He has several different publications on cultural policies, strategic planning and culture economy.

IÑAKI
GANZARAIN



He holds a degree in Business Administration and Management and a degree in Computer Engineering from the University of Deusto. In 2017 he completed the Microeconomics of Competitiveness (MOC) course, obtaining second place in the global competition organised by Harvard Business School. He started his professional career in consulting, mainly supporting the design and implementation of strategies and plans linked or related to science, technology and innovation policy. He also worked on projects for technology supply agents. Since joining Innobasque almost six years ago, he has been a member of the technical secretariat team of the Science, Technology and Innovation Plan (PCTI), supporting the Lehendakaritza of the Basque Government in its definition, implementation and evaluation. Among the functions he performs is the monitoring and evaluation of the Basque Science, Technology and Innovation System. Its work is largely based on the use of R&D and innovation indicators.

ROBERTO
GOMEZ DE LA
IGLESIA



General Manager of Conexiones improbables. Economist, international consultant, manager and cultural mediator, he works in Creative Economy as General Manager of Conexiones improbables: hybridise to innovate (official partner of the New European Bauhaus). He is co-author and director of Kultursistema, a methodology for the mapping, analysis and interpretation of cultural and creative ecosystems. He was the promoter, founder and director – for 25 years (1984-2009) – of Grupo Xabide, where he managed hundreds of cultural, communication and public awareness programmes on developing the social economy and promoting entrepreneurship and innovation. Between 2004-09, he also conceptualised and directed Divergentes and Disonancias, art and business innovation platforms. Since 2000 he teaches Communication and Cultural Innovation in the Master's course on Cultural Management at the Complutense University of Madrid (ICCMU). He teaches as well at the University of Córdoba (Argentina), at the University of Piura (Perú) and at the University of Santiago de Compostela (España). In addition, he is a guest lecturer at several universities and professional organisations, mainly in Spain and Latin America, and has authored various publications and articles on cultural management, creative industries, communication, social economy and open innovation. He is currently part of two European projects (FAST45 and STEAM Process), of the New European Bauhaus and is a member of the Culture and City experts group of the Inter-American Development Bank.

BEGOÑA
GUZMÁN
SÁNCHEZ



Cultural project manager, History graduate, specialist in cultural heritage management, intercultural education and social mediation. She has developed her professional career in the field of heritage and culture for development, i.e. culture as a pillar of sustainable development and a driver for social transformation. She has experience in the private sector, the third sector and the United Nations agency with a specific mandate in culture, UNESCO.

AINZANE
LARRABEITI



Aintzane Larrabeiti Philosophy Degree (Deusto University), Master's in Cultural Management (DU). Her professional degree bears on culture, both in public administration and at the university and private companies. She has worked as a consultant in areas related to cultural policy, strategic planning, entertainment education, quality management and human resources. She has acted as coordinator of technical assistance at the Basque Observatory of Culture (BOC) (2006-2010). She has been collaborating with ICC Consultors since 2006, a company she joined in 2012.

MARIATE
LINAZA



She studied Industrial Engineering, majoring in Electricity, at the Higher School of Engineers at the University of Navarre, and obtained her PhD in Industrial Engineering from the Higher School of Engineers at the University of Navarre. While she is currently Director of Institutional Promotion and Development, she has directed the eTourism and Heritage Department, where she collaborated in different regional, national and international projects related to Creative and Cultural Industries, developing advanced technologies for content management, experience recommendations, analysis of feeling of comments on social media and advanced interaction through Augmented Reality technologies. She is the author of many publications and has spoken at international forums and conferences.

NEREA
LUIS



Nerea Luis has a PhD in Computer Science, is Co-founder of T3chFest and works as Artificial Intelligence Engineer at Sngular. She is a technology communicator and speaker at technical events. She was awarded the Women Techmaker Scholar in 2016 by Google. She belongs to "Los 100 de Cotec". She was awarded by the Royal House with the decoration to the Order of Civil Merit and Top 100 women leaders in Spain. In 2020 she has been included in Forbes' 21 changemakers.

RUBEN
OTERO



Rubén Otero holds a degree in Business Management and Administration from the University of the Basque Country. He has also completed a master's degree in e-Business from Deusto University (Eside). He holds an expert degree in Management and Technology from Deusto Business School. He is Manager of the eServices Business Department in the ICT Division at Tecnalía Research and Innovation. This business department is comprised of 40 experts whose mission is to digitally transform organisations by incorporating technologies related to advanced interaction (augmented reality and virtual reality) and wearable architectures (wearables, IoT, etc.). He has over fifteen years of experience in the scientific-technological field related to the digital transformation of organisations. He has also consulted for Governments, conducted competitiveness studies and designed and rolled out driving initiatives in the digital field.

JUAN
PASTOR



More than 20 years of experience in creativity, innovation and the creative sector. He has held management positions in private enterprise, public administration and the third sector. Deputy Director of Innova&acción. This is the innovation and creativity space of the Polytechnic Foundation of the Valencian Community. Graduate in Education Sciences from the Complutense University of Madrid. He is a member of the teaching team at the Escuela de Organización Industrial (EOI), honorary professor at the Universidad Autónoma de Madrid in the expert degree of Applied Creativity. He has worked for the Spanish Cooperation Agency (AECID) and the Inter-American Development Bank (IDB) on training, diagnosis and strategy for the development of the Creative Economy in Latin America. He has developed projects within the Public Administration for: Ministry of Industry, PromPerú, Government of Navarra, Generalitat Valenciana, Government of Extremadura, Xunta de Galicia, Junta de Andalucía, Government of Aragón, Comunidad de Madrid, Madrid City Council, Cáceres City Council, Cabildo de Gran Canaria. He has worked as a consultant for companies such as: Telefónica, Iberdrola, Renfe, Repsol, Banesto, Abengoa, JTI, Santillana, SM ... Juan has been selected as an expert in the Creative Industry in Spanish as part of "los 100 de COTEC", an initiative promoted by the COTEC Foundation. He has published: "Vitamina creativa para mentes inquietas" by Ópera Prima Editorial and "Creatividad e innovación: factores clave para la gestión e internacionalización", published by ICEX.

PAU
RAUSELL



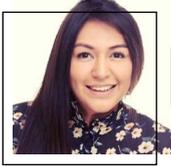
Pau Rausell Köster (Gandia, 1966). Pau Rausell is an economist, PhD and lecturer in the Department of Applied Economics at the Universitat de València. Since 1997 he has been Director of the Research Area in Economics Applied to Culture (ECONCULT) in the same department. His incursions into the Economics of Culture have led to a renewed and fruitful vision of the analysis of culture, both at regional and national level. He has published numerous books and articles on culture, creativity and communication. Is the main researcher in the H2020 projects DESIGNSCAPES and consortium leader in MESOC.

JABIER
RETEGI



Jabier Retegi, senior research associate at Orkestra, holds a PhD in Engineering from UPC, an Engineering degree in Industrial Organization and a Master in Applied Sciences (M.Sc.A.) both from the Polytechnic School of Montréal and a Mechanical Engineering degree from MU. In the industrial field, Jabier Retegi has been Industrial Director, R&D&I Director and Strategic Alliances Director in different periods. He has also been a member of the Standing Committee of the Mondragon Corporation and the Advisory Board of several companies such as Ikerlan, CIC Energigune or CECED (European Committee of Domestic Equipment Manufacturers). He has also developed his activities in the academic field where he has been Professor of the Department of Industrial Organization (Lean Production Area), Director of Continuing Education and General Director of the Polytechnic School of MU as well as Member of the Board of Directors of Mondragon Unibertsitatea. He is currently combining his professional work in Orkestra-Basque Institute of Competitiveness and in Mondragon Unibertsitatea as Professor and Head of industry-related projects. He carries out consulting projects in various fields related to industry, such as the link between business and industrial strategy, the relationship between companies and value chains, supplier development programs, industrial management, R&D and innovation.

SANDRA
RODRIGUEZ



She holds a degree in Humanities from the Universitat Autònoma de Barcelona and a specialization in Cultural Management. Her professional career has developed in the cultural sector in different areas, as an artistic programmer at festivals in the city of Dublin, and also in the field of community cultural management at Dublin City Council. In addition to her knowledge and skills as a cultural manager, she has experience in administrative and financial management, organization and coordination of events, customer service and reception.

OIHANE
SANCHEZ



Lecturer at the University of the Basque Country/Euskal Herriko Unibertsitatea. She holds a PhD in Contemporary Art Research from the same university and is a member of the AKMEKA Consolidated Research Group (UPV/EHU). She has made international stays at the University of Guanajuato, Mexico (2018) and at the Center for Basque Studies at the University of Nevada (2015). She has received several grants and awards in the field of Plastic Arts, such as the creation grants from the Biscay Provincial Council/Bizkaiko Foru Aldundia (2015), Ertibil (Muestra Itinerante de Artes Visuales de Bizkaia, 2017, 2021), the production grant from the BilbaoArte Foundation (2021) and a grant in the Creation-Production category awarded by the Basque Government/Eusko Jurlaritz. She has participated in both group and solo exhibitions, and has taken part in various festivals and artistic programmes. She has edited publications such as "Especulaciones sobre/para una producción artística sostenible" (Grant in the area of plastic and visual arts from the Basque Government, 2020) and "Bilbao Détournement. Catálogo de espacios y prácticas artístico-culturales" (DFB/BFA, 2016), as well as published articles in specialised magazines.

JESUS MARÍA
SANTAMARIA
YUGUEROS



He holds a degree in Physical Sciences from the University of the Basque Country (1986). With over 30 years of experience on R+D+i projects, he first worked at the technological centre Robotiker, and is now at TECNALIA, where he acts as principal investigator and manager of international R+D+I initiatives in the ICT division. Throughout this time, he has participated in, and managed, several R+D projects related to process control and supervision systems, digital contents, infomobility, smart cities, logistics and transport and application of information technologies and communications for the digital transformation of companies. He is co-author of the book *Estudios de Prospectiva Tecnológica: Horizonte 2005*, conducted by the ROBOTIKER Foundation, where he participated as director of the working group "Process Supervision and Control". He gained a great deal of experience in European projects during the last Framework Programmes, FP7 and Horizon 2020. He is currently a member of the Board of Directors of NEM (New European Media), the European technological platform for creative and cultural industries, and member of an expert group on interactive technologies that consults for the European Commission.

SCIENTIFIC AND TECHNICAL SECRETARIAT

CRISTINA
ORTEGA



Cristina Ortega Nuere is Chief Scientific and Operating Officer of World Leisure Organization since January 2016. She combines her principal professional activity with teaching at master level at the Universitat Oberta of Catalunya. Doctor in Leisure and Human Development, with a Master degree in Cultural Management, she graduated from the Faculty of Arts and Philosophy from the University of Deusto, Spain, and completed her studies in London, Middlesex and at Westminster University. She has combined her academic activity as researcher and professor for over two decades at the University of Deusto -over 50 research projects, dozens of publications and editor-in-chief of several scientific journals- with other institutional responsibilities. She was for 4 years the President of ENCATC, the leading European Network of Cultural Management and Policy, and the Chair of ENCATC's Policy Group Monitors of Culture, made up of over 40 cultural observatories worldwide. She is a specialist in the evaluation of cultural projects and became a Jury Member of the European Capitals of Culture. In the Basque Country, she has been a member of the Basque Council of Culture and an Expert Evaluator of the Basque Observatory of Culture (BOC) for 10 years. She usually participates as a speaker in international scientific conferences worldwide and she is the author of the reference book *Observatorios Culturales. Creación de Mapas de Infraestructuras y Eventos* (Barcelona: Ariel, 2010), where she developed a cultural infrastructures and events utility model that has been applied in different cities and countries. Her last publication is CCI's in the Basque Country. A journey through the development of the Basque Cultural and Creative Industries. Her area of specialization is leisure and culture, policies and evaluation.

ISABEL
VERDET



Isabel Verdet Peris obtained her PhD thesis on Leisure, Culture and Communication for Human Development at the Institute of Leisure Studies (University of Deusto, Bilbao) in 2018. Graduated in Journalism and Translation and Interpreting by the University of Valencia (Spain), she holds a joint master's degree in Euroculture Erasmus Mundus Master of Arts, by the University of Deusto (Spain) and Georg-August Universität Göttingen (Germany). She has written several academic articles and worked as a research assistant in several international projects in the field of cultural management and policy, and the cultural and creative industries in particular. In the past, Isabel worked as a communication officer in several NGOs, as well as an assistant editor for academic publications. She currently works as Research and Publications Coordinator at the Cultural Consultancy 3Walks and the World Leisure Organization, WLO. Through 3Walks, Isabel combines these works with the provision of services for other international networks, such as ENCATC, the European network on cultural management and policy, where she works as a Research project Officer, and the European Creative Businesses Network, ECBN. As a result of this educational and professional path, Isabel's main skills have to do with academic editing, research, evaluation of activities and report writing, which add to a long experience working in international projects and environments. Email: isabel.verdet@3walks.com

ARKAITZ CELAÁ
ANGULO



Arkaitz Celaá holds a degree in Tourism Management from the Polytechnic University of Valencia and in his final year he specialised in natural and cultural heritage. At the same university, he has been a presenter at the international tourism day conferences and has collaborated in different events with the topic of tourism. He is also a certified tour guide. After completing his university studies, he studied a Master's degree in Management of Cultural and Creative Industries at the European University Miguel de Cervantes. After that, he studied a technical course in marketing and cultural communication. His recent research has been linked to culture and its value. His first research study focused on the value of culture through the Guggenheim effect, and the second one, on the value of culture through Basque Radical Rock. He currently works in 3Walks as a project manager in matters related to the Cultural and Creative Sector. Email: arkaitz.celaa@3walks.com

