GENERAL OUTCOMES

CCIs and INNOVATION CONTRAST

2021

EUSKO JAURLARITZA
GOBIERNO VASCO

KULTURA ETA HIZKUNTZA POLITIKA SAILA

DEPARTAMENTO DE CULTURA Y POLÍTICA LINGÜÍSTICA

Scan here to access the English, Spanish and Basque version of this document..
Also available at: https://www.euskadi.eus/contraste-iccs-e-innovacion/web01-a2kulind/es/

INDEX

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 Cultural Observatory (BCO).

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 (CCI) 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 CCI sector: what is and what is not innovation in this sector?
- Identify successful cases at the international level.

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 (CCI) 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 CCI, according to approved and standardised measuring criteria for the group of sectors.
- **SHOWCASE** the uniqueness of the CCI, 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, 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 Cultural Observatory, 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 Cultural Observatory (BCO).

After this first session a **week of contributions** started, through SharePoint and Teams 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 BCO.

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 CCIs 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 CCIs, 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 BCO 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).

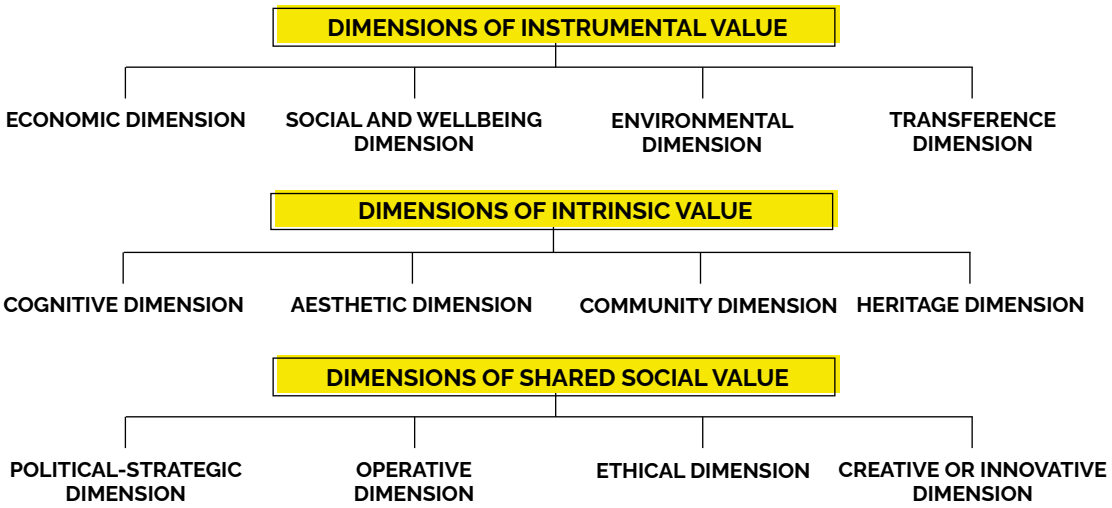
Today it is mainstream that innovations are not innovation if society does not understand their relevance for well-being and the SDGs. Hidden innovations are no innovations any longer. Also, brilliant experimental ideas can be innovations, even if successfully implemented only once or even by accident 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).

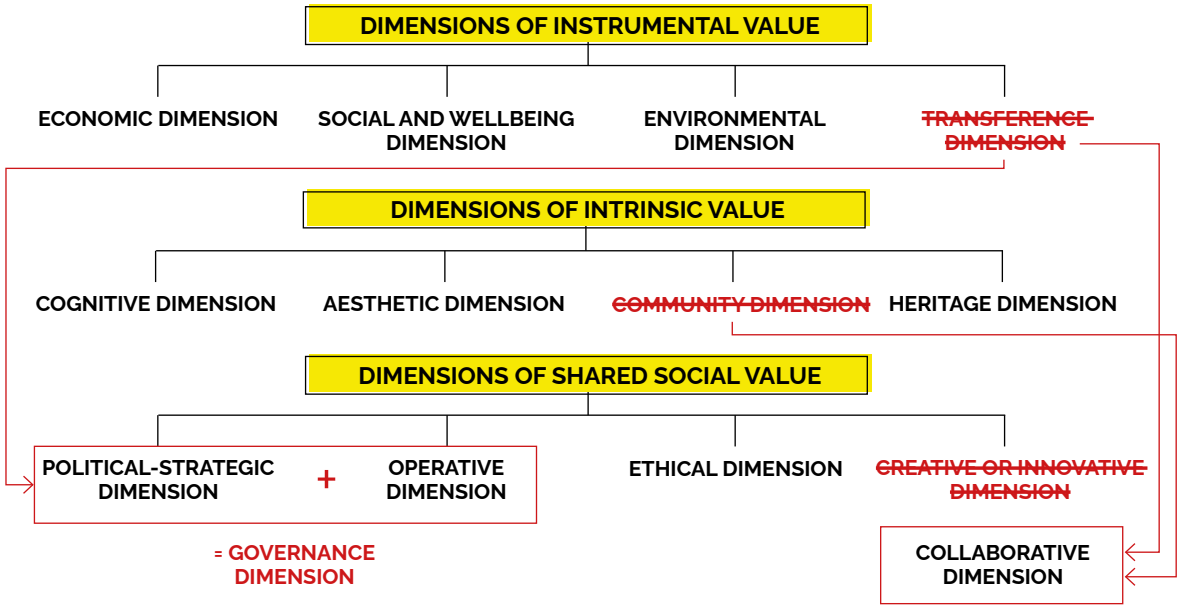
NOVELTY OR IMPROVEMENT	UTILITY-IMPLEMENTATION	CREATE VALUE	INCENTIVIZE OR RELEVANCE
• The Standard: A new product or process must be generated or a significant change with regard to that existing must be produced. • *The New Understanding:* *1) The newness of a product is contingent to its specific surrounding and places, not just globally.* *2) Change is contingent to user groups, especially including mental or physically impaired persons.*	• 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. • *The New Understanding:* *1) Implementation is given if the product or process reached access in public audiences, even if pre-commercial (Museums, Festivals, Open Innovation).* *2) Implementation is given if the product or process reached certifying activities, even if pre-commercial (Jury, Curators).*	Three-Dimensional Model of Values.	• The Standard: "available to users" • *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.*

5.2.2 The three-dimensional model of value

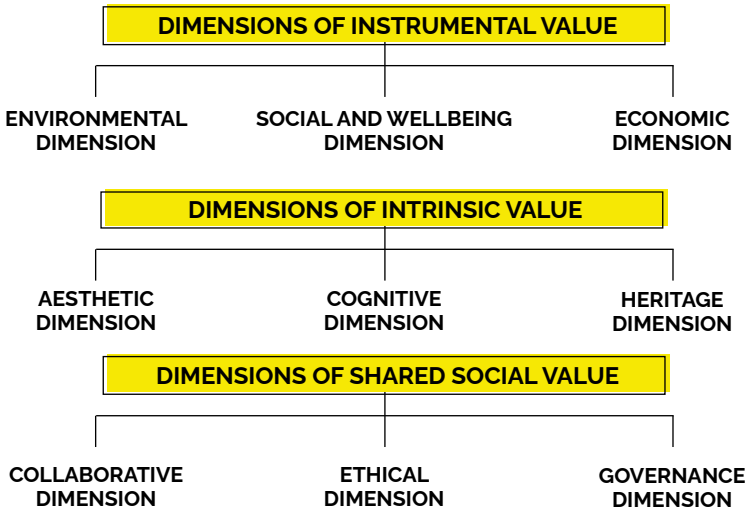
The conceptual framework developed by the BCO included a model with three different values of culture, each of which contained four different dimensions, as follows:



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.

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 CCIs regarding these criteria in the sector.

This is a perfectly legitimate and possibly even defendable position, that in the end the Frascati criteria work well, that there is nothing really specific in the CCIs. 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 CCI 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 against 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-lading 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 form 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 cultural Observatory. 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 stablished 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 Bertsozale 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 Conclusions

These conclusions are built based on the contributions by Michaela Magas, Pier Luigi Sacco, Josean Undargarín 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 CCIs 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 kick 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.

These conclusions are built based on the contributions by Michaela Magas, Pier Luigi Sacco, Josean Undargarín 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 CCIs 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 kick 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.

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 CCIs 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:**
    - 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.)
    - 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 r**elation 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 CCI?

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.

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?

Please note that this is a draft proposal for the pre-pilot study that, at the moment of the elaboration of this document, is being enriched by the research team thanks to the experts' feedback.

8. CCIs AND INNOVATION CONTRAST 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

Counting on a +12-year experience in international working environments, Valentina Montalto has dealt with European and city-level policies and indicators to foster and measure the economic and social dimension of the Cultural and Creative Sectors. Valentina currently works at the Joint Research Centre of the European Commission where she leads the Cultural and Creative Cities Monitor project, a benchmarking tool that measures the performance of 19 European cities on culture-related dimensions using both quantitative and qualitative data. On YouTube her TEDx talk *How important is culture in our cities?*

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 Urdangarín 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 - CLEACCFrom 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-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 a Senior Lecturer in Economics. 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 Concresco 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). At this moment, she works on earnings in the creative industries and new earning models, such as self-organization and alternative financing.

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 AGIRRESAROBE

Mikel Etxeberria Agirresarobe is the Head of the Basque Cultural Observatory. In the field of culture, and as a technician assigned to the Department of Culture and Linguistic Policy of the Basque Government, he has developed his activity in the areas of "Creation Factories" and "Performing Arts". He holds an expert degree in "Transmission of Basque Culture" from Mondragon University

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 Culture Observatory 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 oh 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

Begoña Guzmán Sánchez is a cultural project manager with a degree in History, specialising in cultural heritage management, intercultural education and social mediation. She has developed her professional career in the field of heritage and culture as a pillar of sustainable development and a driving force for social transformation. She has experience in the private sector, the third sector and was a consultant for the UNESCO Office in Havana, Cuba (2011-2015). She is currently the Head of Culture for Social Transformation at UNESCO Etxea - UNESCO Association of the Basque Country.

AINTZANE LARRABEITI

My professional career is linked to culture, both in public administration, in private companies and in academia. Always in fields such as research or analysis, management and cultural policies. In the last 15 years my work is closely linked to the Basque Observatory of Culture. I am dedicated to quantitative and qualitative research in ICC Consultors.

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 Tecnalia 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 is Director of Programa de Consolidación de proyectos empresariales del Basque District of culture and creativity

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.

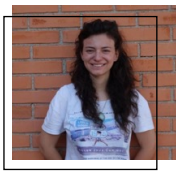
JABIER RETEGI

Jabier Retegi combines his professional work at Orkestra-Basque Institute of Competitiveness as Senior Associated Researcher and at Mondragon Unibertsitatea as a lecturer and person in charge of projects related to industry, in fields such as business strategy, the relationship between business and value chains, organization management, research and development and innovation. He holds a PhD in Engineering from the Universitat Politècnica de Catalunya. He is also an Engineer specialized in Industrial Organisation and Master in Applied Sciences (M.Sc. A.) both from the École Polytechnique de Montréal (Québec).

SANDRA RODRIGUEZ

She holds a Degree in Humanities from the Universitat Autònoma de Barcelona and a specialization in Community Cultural Management. Her career has developed in the cultural sector in different areas: from her last job as Engagement Manager at Dublin City Council Culture Company in Ireland, her role as a member of the team responsible for designing the programme of the company's cultural facilities, such as a cultural centre and a museum, up to her freelance work as an arts programmer at different festivals in the city of Dublin. At present, she is working as a consulting project coordinator for ICC Consultors Culturals with the focus on the CCIs and Innovation Contrast project.

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 Jaurlaritza. 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 Cultural Observatory 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


BY NC ND