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CONCEPTUAL FRAMEWORK

FOR THE APPLICATION OF R&D&I IN THE CULTURAL AND CREATIVE SECTORS

FINAL REPORT
January 2021

CONTENTS



CONTEXT

Chap. 2 | p. 5

Reference manuals

Chap. 3.1 | pág. 12

Common
guidelines

INNOVATION

Adapted
model

Chap. 4 | p. 18

General
criteria

R & D

R&D projects
in CCs

Chap. 5 | p. 33

Specificities CCS

Chap. 3.2 | p. 14

MEASUREMENT OF R&D&I

Chap. 6 | p. 38

1 BACKGROUND

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 GT2 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.

This report is, as we said, the result of the reflective work carried out internally and debated in the Working Group. The contributions have been incorporated throughout the process of comparing the two reports, one devoted to reflection regarding business innovation; and the other, to developing a culturally-based social innovation model. Having reached this point, we are able to meld those two perspectives together, granting them a framework of unified meaning that is presented in this document. It has been prepared with the intention of:

- 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.

The result will be the object of analysis with experts in R&D&I in CCI, both from the theoretical and measurement points of view, at an international work conference held in 2021.

2 CONTEXT OF R&D&I AND THE CULTURAL AND CREATIVE SECTORS

This chapter synthesises the main agendas, both international and Basque, that will guide the support policies for R&D&I over the coming decade and which must respond to economic, social and environmental transitions already existing before the pandemic, but which have been accentuated in the post-COVID setting.

2.1. Framework agendas and their roll-out in the Basque Country

AGENDA 2030: SUSTAINABLE DEVELOPMENT GOALS

Agenda 2030 of the **Sustainable Development Goals (SDG)**, approved on 25 September 2015 by the UN General Assembly, outline a plan of action in favour of people, the planet and prosperity. They are unique in urging all countries, whatever their wealth, to adopt measures to promote prosperity while protecting the planet. They recognise that initiatives to end poverty must go hand-in-hand with strategies favouring economic growth and tackling a series of social needs.

17 objectives are proposed, with 169 integrated and indivisible goals tackling, mainly, the economic, social and environmental spheres, recognising the eradication of poverty as the great challenge to achieve a sustainable future. The SDG seek to end poverty in all its forms, reduce inequality and fight against guaranteed climate change and, at the same time, ensure that "no one is left behind." In short, it is a "universal, cross-sectional, integrated, indivisible

and transformational guide" to provide orientation for economic, social and environmental development during the next 10 years, independently of where one lives. SDG 9, *Industry, innovation and infrastructure* proposes that investment in infrastructures and innovation are the engines of growth and economic development.



The Basque Country's position with regard to Agenda 2030 is recorded in the document **AGENDA EUSKADI BASQUE COUNTRY 2030**, presented in April 2018. It shows the effort to align the public policies of the Basque Country with this universal Agenda, and to raise awareness of their contribution to the implementation of Agenda 2030 and the achievement of the Sustainable Development Goals.

HORIZON EUROPE: RESEARCH AND INNOVATION AGENDA

Until 2020, the research and innovation programme of the EU is **Horizon 2020**, the financial instrument endowed with a budget of 80,000 million euros designed to implement the emblematic initiative "**Innovation Union**", in response to the European challenge of adopting a more strategic approach towards innovation. The three main **objectives** of the EU's research and innovation policies in that period were open innovation, open science and opening up to the world.

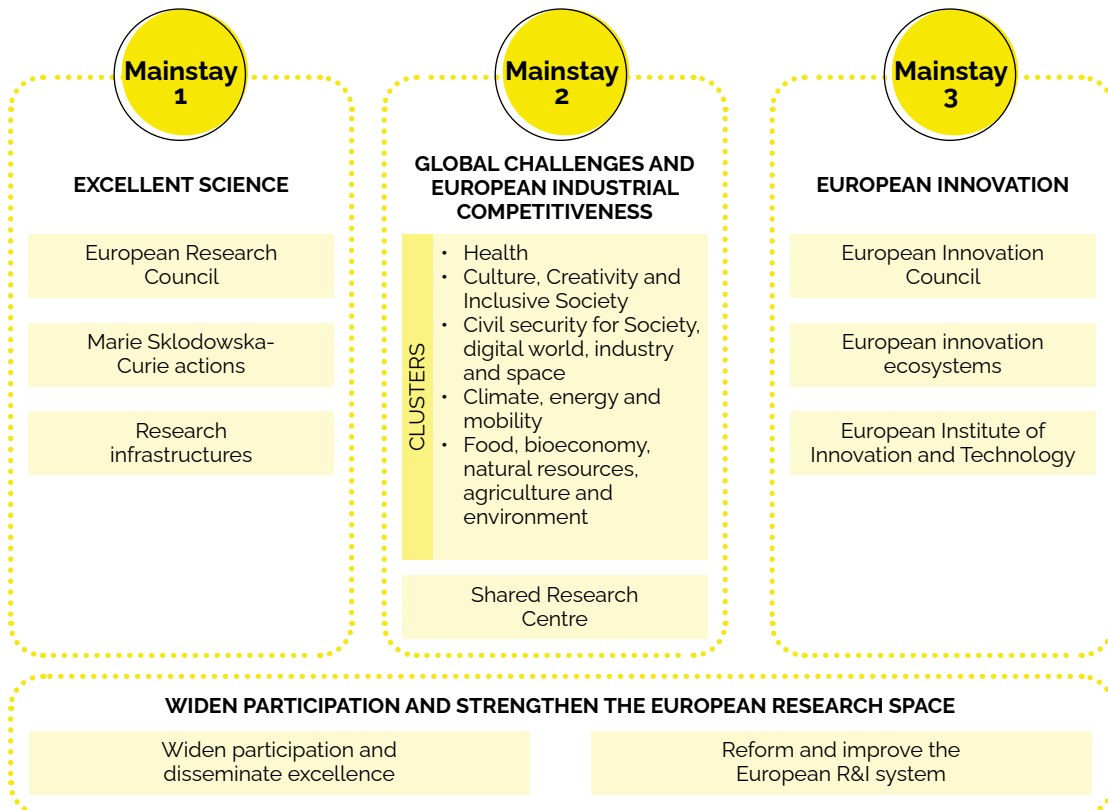
In April 2019, after reaching an agreement between the European Parliament and Council, the Commission's proposal was approved for the next investment programme for research and innovation 2021-2027, called **Horizon Europe** Research and Innovation Framework Programme, which is endowed with 100,000 million euros.

The vision is to build a sustainable future, fair and prosperous for people and the planet, based on European values. This

involves fighting against climate change (35% budget objective); contributing to the achievement of the Sustainable Development Goals; and boosting competition and growth in the Union.

The proposal is sustained by the idea that Europe can determine its future by means of research and innovation, focussed on **ecological, social and economic transitions** and on connected **social challenges**; taking advantage of its strong points in the scientific terrain to become a leader in **avant-garde and disruptive innovation**; fixing **ambitious objectives** in matters that concern everyone (skills, for example); and giving priority to **state-of-the-art research and innovation projects**.

The preliminary structure of the programme is supported by **three mainstays**: (1) Excellent science; (2) Global challenges and European industrial competitiveness and (3) Innovative Europe. There is a cross-sectional aim to widen participation and strengthen the European research space.



The main new elements and axes of the Horizon Europe programme are:

- The European Innovation Council: to support avant-garde or disruptive innovations having the potential for expansion which are too risky for private investors.
- Research and innovation missions: a set of cross-disciplinary actions aimed at fostering a better relationship between research and innovation with the needs of society and the citizenry, with great awareness and impact on society and the formulation of policy.
- The concept of open science: to improve dissemination and exploitation of the results of research and innovation, as well as to support the active participation of society.

What specifically involves the CCSs is recorded in Mainstay 2, with the creation of 6 clusters to respond to global challenges and European industrial competitiveness. This is **the first time that these sectors have widely integrated in the EU's research programme.**

- Health
- Culture, creativity and inclusive society
- Civil security for society
- Digital world, industry and space
- Climate, energy and mobility
- Food, bioeconomy, natural resources, agriculture and environment

Christian Ehler, one of the rapporteurs of the programme stated that, "it is one of the biggest sectors in the European economy." The approach consists of developing a completely new instrument, a research collaboration space around culture and creativity. The priorities of the **"Culture, creativity and inclusive society" cluster, will respond to the following challenges:** democracy and governance; cultural heritage; and social and economic transformations.



The framework for development of R&D&I in the Basque Country in the Science, Technology and Innovation Plan. The new **PCTI EUSKADI 2030**, whose strategic and economic bases are known, will replace the one that has been in force during the period 2015-2020 and is aligned with the Horizon Europe framework programme. Its objective is to situate the Basque Country among the most advanced European regions in terms of innovation, contributing to the solution of social challenges: health, employment, digitisation, climate change and gender equality, in line with 2030 SDG. It is related to policies of economic development, education, health, environment, housing, agriculture and agriculture.

In the PCTI 2030, the following pending challenges are identified:

- To increase investment in R&D, to reduce the gap with regards to the EU-28 average generated by the impact of the economic crisis of 2008.
- To boost business investments in R&D.
- To overcome the weakness of small and medium-sized businesses in innovation. The Basque Country is placed in 132nd position among 238 European regions, according to the *Regional Innovation Scoreboard 2019*.
- To empower women in science and technology, especially in the business field. In 2018, their presence in the whole of R&D staff reached 35.9%.





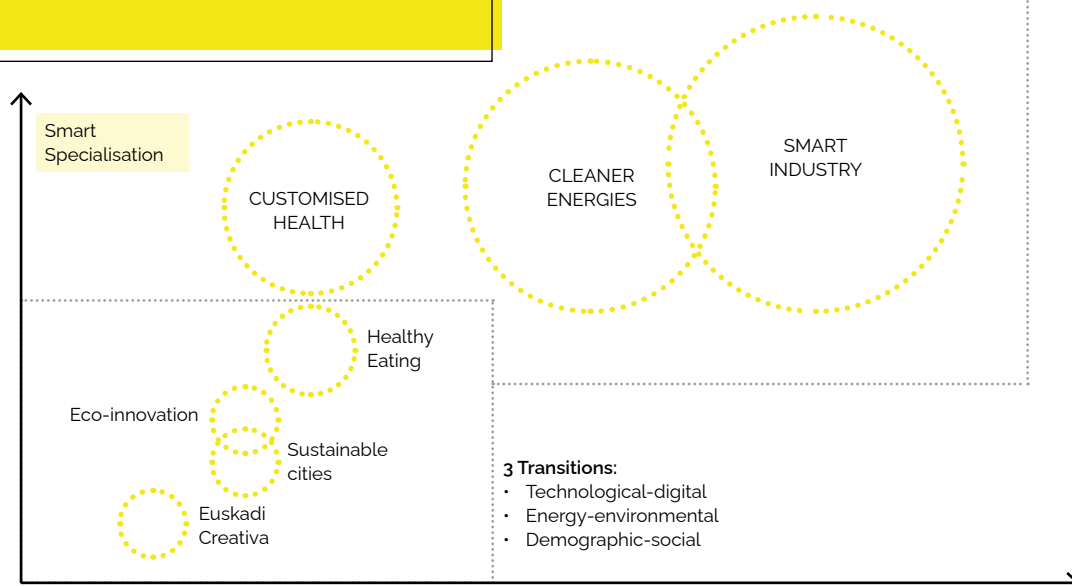
RIS3 EUSKADI is a strategy for territorial economic transformation concentrating the available resources on a limited set of R&D and innovation priorities. The definition of the areas of smart specialisation, carried out within the framework of PCTI 2020, as well as the application of European criteria and methodologies, took three vectors into account: business skills, scientific-technical skills and market opportunities. Its revision has given rise to three strategic priorities, granting continuity to the four territories of opportunities defined in the previous plan, among which is Euskadi Creativa [Creative Basque Country], in which a Basque District for Culture and Creativity will be promoted, facilitating an environment and economy of creation, experimentation and innovation based on the transformation of knowledge, technology and creativity, promoting the CCI sector. In addition, three Collaborative Tractor Initiatives are included, in line with the missions of Horizon Europe, with the aim of strengthening a greater integration between the remaining social initiatives and the RIS3 strategy, as well as greater collaboration between the fields of specialisation.

THE SMART SPECIALISATION STRATEGY (RIS3)

Conceived within the reformed cohesion policy of the European Commission, **smart specialisation** is an approach based on territory characterised by the identification of strategic areas of intervention based on both analysis of strengths and potential of the economy as well as an analytical process of business and scientific-technical skills, with wide-ranging participation from the interested parties. It looks outwards and proposes a wide vision of innovation, not limited to approaches based on technology. The development of smart specialisation strategies must involve the participation of national or regional management authorities and of the interested parties, such as universities and other higher education institutions, industry and social agents.

CROSS-SECTORIAL TRACTOR INITIATIVES (*)

- Healthy Ageing
- Electric Mobility
- Circular Economy



Source: Presidential HQ, Basque Government



2.2. Trends and challenges after the pandemic

PRE-COVID-19 TRENDS

Before the pandemic, the **2019 Innobasque Prospective** report identified three mega-trends which would have a clear impact in the Basque Country; as well as the rise of China on the global scene:



DEMOGRAPHIC AND SOCIAL CHANGES

Demographic and social changes, with a trend towards stagnation and the ageing of the population, in a global context of growth and intensification of migration caused by conflicts, inequalities and climate change. The demographic panorama will also be increasingly urban. These changes open the opportunity to innovate in order to tackle the entire health cycle, which affects the public health system and social services.



CLIMATE CHANGE

Climate change, caused by the development model characterised by an excessive extraction of resources and generation of waste, will have an effect on ecosystems and biodiversity and will affect human wellbeing. With this framework, the opportunity is proposed of advancing towards a sustainable development model based on the circular economy concept.



TECHNOLOGICAL-DIGITAL REVOLUTION

The technological-digital revolution, characterised by being global, fast and the depth and interrelation of the changes it engenders. Data has become a highly valuable raw material, which promotes new business models and will generate deep changes in value chains. Also outstanding is the convergence of technologies (bio, nano, info and cogno) and hybridisation between disciplines (sectoral, of knowledge and physical-virtual) which transform both economies and societies. It is important to underline the need to advance towards digital transformation, placing the focus on users, unlike digitisation, in which technology is the essential factor.

In addition to those shown, the following were also identified as opportunities:



DISRUPTIVE INNOVATION

Disruptive innovation, which generates new business models and will become necessary for competitiveness given the changes in habits in users and organisations. Incremental innovation, although important, is not enough to respond to the new context.



TECHNOLOGICAL CONVERGENCE AND THE HYBRIDISATION OF DISCIPLINES

Technological convergence and the hybridisation of disciplines, necessary for the development of new products and services and to access new markets.

POST-COVID-19 SITUATION

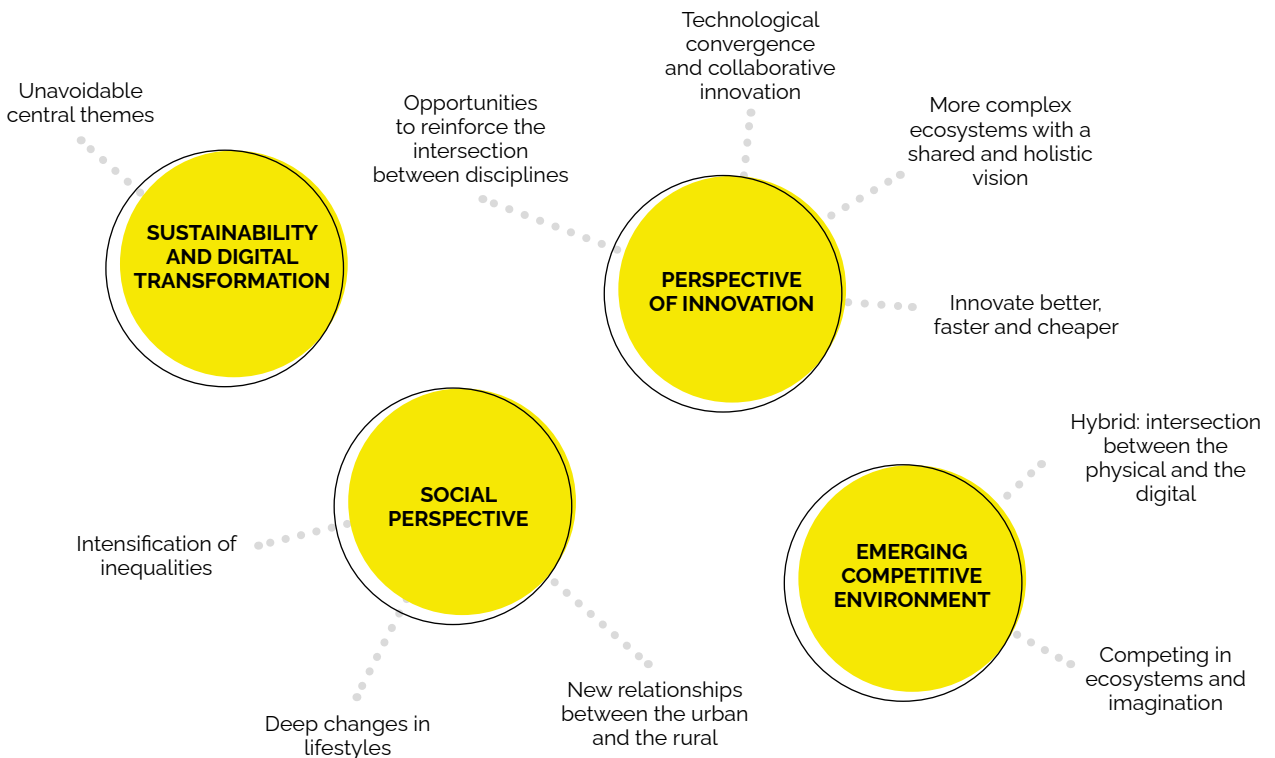
Innobasque has also published a **Prospective Report 2020**, in which there is an analysis of the changes caused by the pandemic and the impact they will have on innovation. It underlines that the trends identified before the pandemic remain valid, but their forms of impact have changed.

- **Sustainability** and **digital transformation** have, if possible, more weight as central themes on which recovery can be based. They are unavoidable questions after the pandemic.
- From the **social perspective**, health and its link with the environment have become the top worry; inequalities have intensified (economic, educational, gender), profound changes are taking place in lifestyles and new relationships are being sketched between the urban and the rural.
- From the **perspective of innovation**, opportunities are opened to strengthen the intersection between

disciplines, technological convergence, collaborative innovation, creating more complex ecosystems, but with a shared and holistic vision. Innovation will be more dynamic and frugal: better, quicker and cheaper innovation.

- The **emerging competitive** environment will be **hybrid**, characterised by the intersection between the physical and the digital; it will be necessary to compete in value proposal, not so much in size or scale; to compete in ecosystems, blurring the separations between sectors and value chains; and to compete in imagination, advancing towards a radical or disruptive innovation.

In CCSs, the pandemic is having a very significant negative impact, fundamentally derived from the effects of the ceasing of live activity, which is essential in these sectors, and because of the pre-existing structural deficits, such as precarious employment and insufficient digital transition in sectors strongly affected by digitisation, and which the pandemic has helped to accelerate.



2.3. The Basque Government's commitments around R&D&I and the cultural and creative sectors

BERPIZTU PROGRAMME

The **Economic and Social Reconstruction Programme of the Basque Country** aims to reactivate the economy, and thus create employment. It is aligned with *Next Generation Europe* and responds to the three global transitions (digital, green and inclusive). With a commitment to SDG, it means a country-wide approach to sustainable growth and human development.

In the axis oriented towards economic reactivation, in addition to political line 2 whose aim is to boost research, innovation and digital transformation, the policies involving the CCSs are framed within line 6, reactivation of trade, the tourism industry and culture. There is a line of action called Cultural Industries. Euskadi Creativa, whose aim is to boost creation in a Basque Creative District and improve the competitiveness and excellence of the cultural and creative industries, seeking synergies and collaborations with tourism and trade, as well as joint R&D&I initiatives with the remaining priority areas of the Euskadi RIS3 Strategy.

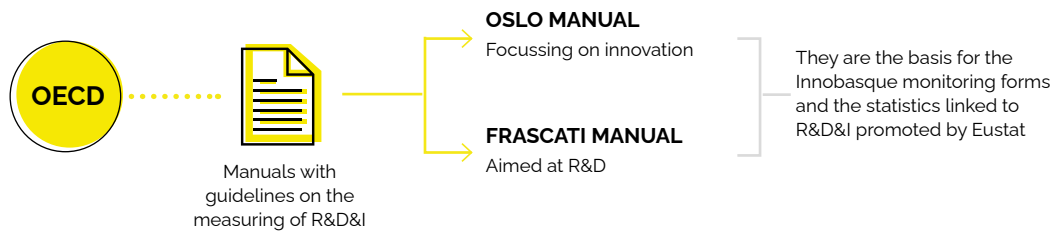
PLAN CULTURE 19/22 Y LEGISLATURE XII

The prepared **Plan Culture 19/22** is a strategic document defining the main lines of the cultural policies for that period. The programme where innovation is treated directly is situated in the axis devoted to Creation and Production, although its philosophy also impregnates the offer and living memory. Commitment 3, aimed at strengthening CCI, fully assumes the commitment to innovation. This new field of intervention demands innovative policies to be developed with other agents (Departments of Industry and Economic Development; Innobasque; The Basque Science, Technology and Innovation Network, clusters from other sectors, etc.), which means an open concept of understanding collaboration and governance. In addition to the initiatives focussing on structuring governance for CCI, and strengthening the organisation of the sector, that expressly devoted to promoting innovation in the CCI sector is highlighted. There are programmes already underway, like KSI Berritzaile, promoting innovation in these areas and which are going to be updated. Another commitment towards innovation is the new *Basque District of Culture and Creativity* which aims to unify the innovative policies of the sector.

In the new Government legislature (XII), the Minister for Culture underlined in the Basque Parliament his commitment to **innovation** and **digitisation** in culture, as well as with the Cultural and Creative Industries by means of the creation of the **BDCC** (Basque District for Culture and Creativity).

3 THEORETICAL FRAMEWORK AROUND R&D&I IN THE CCSs

3.1. Reference manuals for measuring R&D&I



The OECD publishes two manuals with guidelines on the measuring of R&D&I: the *Oslo Manual*, focussing on innovation, and the *Frascati Manual*, aimed at R&D. Although they are not legally binding documents, both provide an agreed viewpoint with common language to debate, compile and interpret R&D&I data. Thus, they are exhaustive guides for the collection and interpretation of statistical information. They are based on the classifications of the National Accounts Systems. Therefore, they provide definitions of the activities considered to be innovation and R&D, and propose recommendations and indicators for monitoring. They are the basis for the Innobasque monitoring forms and the statistics linked to R&D&I promoted by Eustat. The first step, therefore, is to distinguish the innovation and the R&D because, although both fall within the generic framework of innovation, they have specific differences.

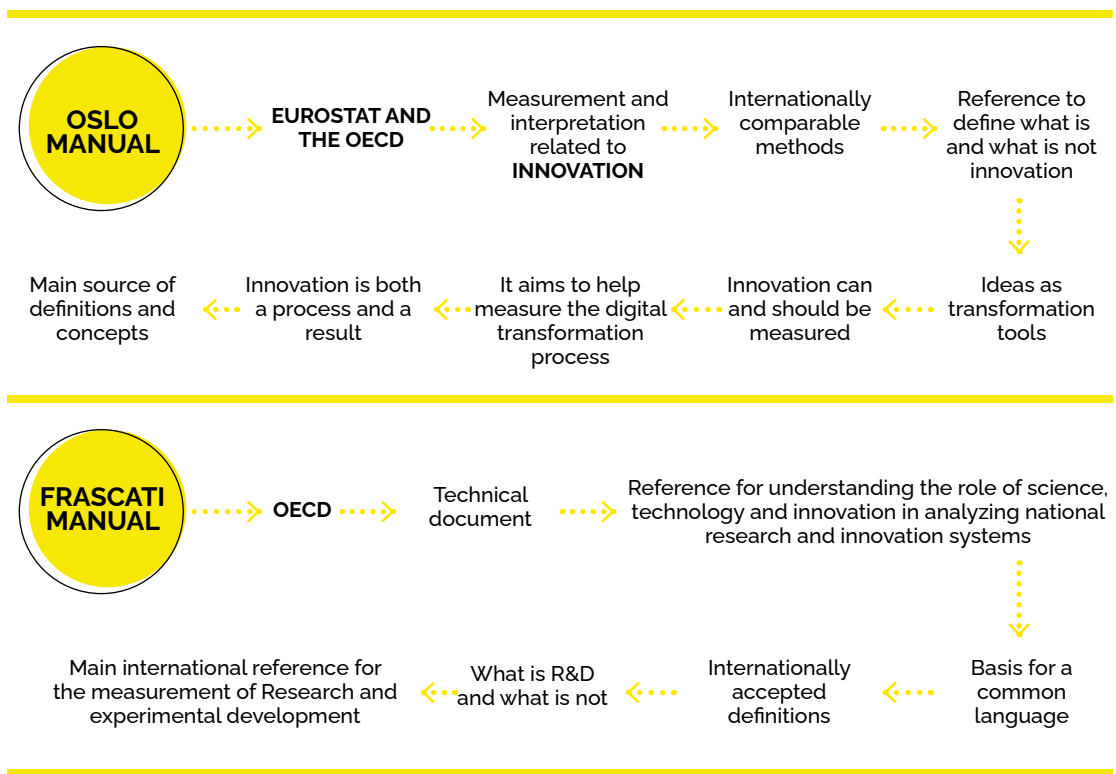
The **Oslo Manual**, jointly developed by Eurostat and the OECD, is aimed at the measuring and interpretation of data relating to innovation according to methods which are comparable at international scale. It is the main reference to mark out what is and what is not innovation. In its introduction,

it states that policies are focussed on what is easy to measure and insists on the urgent need to discover how ideas are developed and how they can be converted into **transformational tools** of organisations, markets, countries and society. The manual **is based on the idea that innovation can and must be measured**. It takes into account the main trends, like the role of global value chains; the emergence of new information technologies and their influence on new business models; the growing importance of capital based on knowledge (and the measuring of intangibles), as well as the advances achieved in understanding the processes of innovation and their economic impact. It aims to contribute to measuring the process of digital transformation.

The Manual has been evolving in tandem with the concept itself of innovation, since its first edition in 1992, focussing on technological innovation and production, until the latest, published in 2018, in which it is proposed that innovation is as much a process as a result. Its relevance lies in the fact that it is the main source of definitions and concepts used, both in public policies at international level and for research on innovation.

With regard to the **Frascati Manual**, although it is basically a technical document, it is considered a reference point to understand the role played by science, technology and innovation when it comes to analysing national systems of research and innovation. It provided the basis for the availability of a common language with which to talk about R&D and their results. In addition, by means of the contribution of definitions accepted at international level for R&D and classifications of the activities that make them up, it contributes to the intergovernmental discussions on good practices for science and technology policies.

In its latest edition, published in 2015, it focuses especially on identifying the limits between what is R&D and what is not. Although it is not a legally binding document, it suggests guidelines that have been widely debated and agreed by experts, that propose recommendations on definitions and methods of compiling statistics and that make the manual the main international reference point for the measuring of research and experimental development.



3.2. CCSs: specifics with regard to R&D&I

The common characteristics of cultural and creative activities are those based on symbolic values and/or artistic expressions. They include both activities aimed at the market or not, for-profit or not-for-profit, and those carried out by any type of producer agent and structure (individuals, government, organisations, companies, groups, amateurs or professionals).

The three definitions used as the basis for the **delimitation of the Cultural and Creative Industries** are the following:

DCMS

Those industries which have their origin in creativity, skill and individual talents and which have a potential to create wealth and employment through the generation and exploitation of intellectual property

UN/UNCTAD

The 'creative industries' can be defined as the cycles of creation, production and distribution of goods and services which use creativity and intellectual capital as primary materials. They comprise a set of activities based on knowledge and which produce intellectual goods and services or tangible artistic goods and creative content, economic value and market objectives

EUROPEAN UNION

Those which use culture as material and have a cultural dimension, although their production is mainly functional

The debate around the definition of the CCSs is open and permanently under review. More instrumental or functional visions, such as those described, exist alongside others more cultural in themselves, such as that proposed by UNESCO in 2009:

UNESCO

Those sectors of organised activity which have the main aim of production or reproduction, promotion, dissemination and/or marketing of goods, services and activities of cultural, artistic or heritage-based content

The CCSs are characterised by their **intrinsic capacity to innovate**, given that they are fields of creation, reinvention and constant renewal. This dynamic ought to facilitate a commitment to innovation in its products, in its processes, in its organisation and in the management of resources.

In 2019, important steps were made to make it take up a central position in the European agenda. Thus, in September, the European Parliament Committee for Culture presented the report, **Culture and creative sectors in the European Union**. It is a prospective document in which it describes the key aspects for its future development and identifies changes and opportunities that present themselves to these sectors over the coming years. It analyses the main factors affecting the development of CCSs, from technological aspects and digitisation to environmental aspects, via the new global order or European politics specific to them.

As for data, in the report, it states that between 2008 and 2016, companies in these sectors experienced positive growth of 4.3%, bringing them to around 10% of the total of the business services sector. According to Eurostat data, this

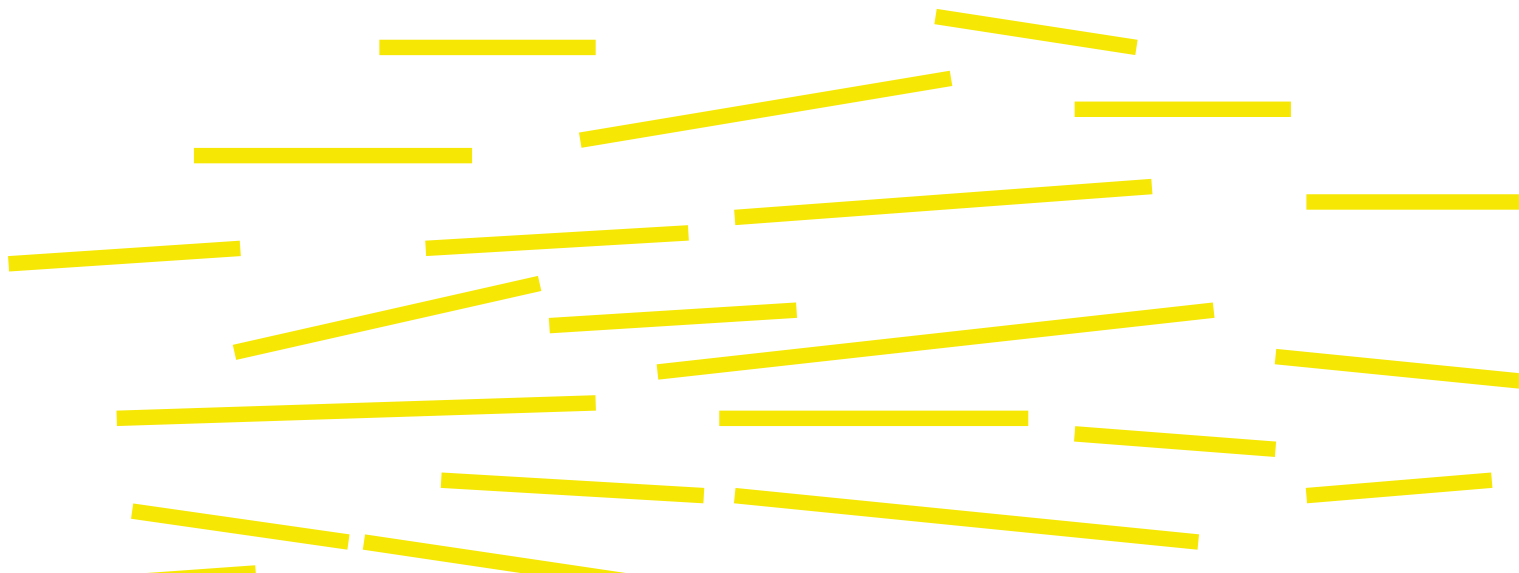
increase affects the majority of sub-sectors belonging to the CCSs. With regard to this example, these sectors make up more than 6.7 million jobs in 2016. The compound annual growth rate (CAGR) in the period 2008-2016 in this sectors is given as more than 2%, with the audiovisual and multimedia sectors, the visual arts, heritage and archives standing out.

The section of the report devoted to resilience and innovation states that, despite the negative effects of the financial and economic crisis of the last decade, CCSs have shown their intrinsic capacity to innovate. The basis of the activities of the CCSs is development and exploitation of new ideas and intellectual property from the generation of new content. To create them, their value chain depends on other sub-sectors. This multi-sectoral characteristic opens up long-term growth perspectives. They also assert that their capacity to create new products, services and organisational models also influences many other sectors such as consumer electronics, telecommunications services, tourism, education and health, showing their multi-sectoral nature.

But, in addition to this **intrinsic potential for innovation and as catalysts of innovation in other sectors**, the recently published **Letter of Rome**, underlines the importance culture holds in the expression of values, a shared and renewable resource which places us in contact with one another, with which we learn what can unite us and how to

tackle differences in a shared space. It is also the way in which people **transform experience into meaning**. Everything we do beyond simply surviving. A framework of meaning. In any case, we must underline that the cultural is not innovative per se. Not all cultural projects or products are innovative because they are cultural, but rather for their capacity for personal and social transformation.

The basis that relates culture with innovation is the idea of its **addition of value** with regard to public good. Its objective and process make the difference. The way in which cultural expressions make up the shared heritage and have an effect on the context. The Basque Observatory of Culture (OVC-KEB-BOC) devoted a study to analysing the **public value of culture**. In it, based on the idea developed by John Holden, a multidimensional evaluation model is proposed, starting from three axes and dimensions: The **intrinsic** value of cultural experiences; the **instrumental** value derived from the economic, social benefits and those around wellbeing; environmental and in the transference generated by cultural projects; the **shared social** value, (called institutional in Holden's model), related to the work processes, methods and structures that the cultural organisations generate to create value. It is an approach that considers the creation of value as a strategy, more than a result, and which fits in with the three challenges approached in the future **Culture, Creativity and Inclusive Society Cluster** of the Horizon Europe framework.





INTRINSIC VALUE

Lies in the capacity and potential of culture to affect us

CULTURAL HERITAGE



INSTRUMENTAL VALUES

Refers to the capacity of culture to achieve economic, social or environmental objectives

SOCIAL AND ECONOMIC TRANSFORMATIONS



SHARED SOCIAL VALUE

The processes, methods and structures of work that organisations implement to create value

DEMOCRACY AND GOVERNANCE



INTRINSIC VALUE

Lies in the capacity and potential of culture to affect us. It refers to the set of values linked to subjective experiences of culture from the intellectual, emotional and spiritual point of view, conceived as a shared fund of knowledge that links us, the result of the set of specific experiences via which its sense, meaning and transformational capacity can be prepared.

It has a direct relationship with the challenge known as **cultural heritage** in the European Cluster, understood as the expression of ways of life that society has developed starting out from shared values, traditions and beliefs and the different influences to which it has been exposed and has absorbed over time. It gives a sense of belonging to people and anchors our societies in the past while allowing them to project towards the future. From this perspective, Europe is a vibrant and unique place to tackle future challenges based on its creativity, research, sustainable cultural tourism and avant-garde technologies. In this field, they indicate that the implementation of these research activities will give better cultural heritage access, understanding and commitment as a result. They support the appearance of a sense of belonging based on the shared roots and riches of European cultural diversity. The results contribute to European integration by providing improved access, wider and

more equal, to culture and the arts. General knowledge will support the emergence of new forms of cultural expression, at the crossroads between different creative sectors. It will strengthen the governance of institutions and European cultural networks. They improve protection, making it more efficient for the European cultural heritage, increasing standards of quality for conservation and restoration. Investigation and innovation will provide solutions to make the EU a world leader in conservation technologies, management, digitisation and conservation of assets of the digital heritage. The supported activities will provide research and innovation to develop sustainable and inclusive cultural tourism in Europe. They also increase capacities for the protection of the cultural heritage at risk and the rolling out of preventive measures against illegal trade in cultural goods. Thus, it helps to preserve languages in danger of extinction. Finally, it will support sustained growth and the creation of employment by means of the contribution of a European industrial policy for cultural and creative industries, including design.





INSTRUMENTAL VALUE

Refers to the capacity of culture to achieve economic, social or environmental objectives. This type of value tends to be captured in economic impact studies or social return studies which document the importance of investing in culture by its externalities or instrumental capacities. The easiest aspects of value to be quantified will be located in the axis of instrumental value.

It is the axis that aligns with the second of the challenges of the Cluster, aimed towards **social and economic transformations**. The implementation of these research activities will contribute to an integral European strategy for inclusive growth, ensuring that no one is left behind, including by means of

the accumulation and preservation of human capital faced with existing risks. Equally, it will improve productivity and social and economic resilience. The activities will support the governance of migration and the integration of migrants and immigrant-derived populations. They will also contribute to migration and mobility policies in the EU, both internal and external. General knowledge will be incorporated into the design of institutions in line with the above-mentioned objectives and will facilitate the evaluation of the needs and results of policies in the field of social and economic transformations.

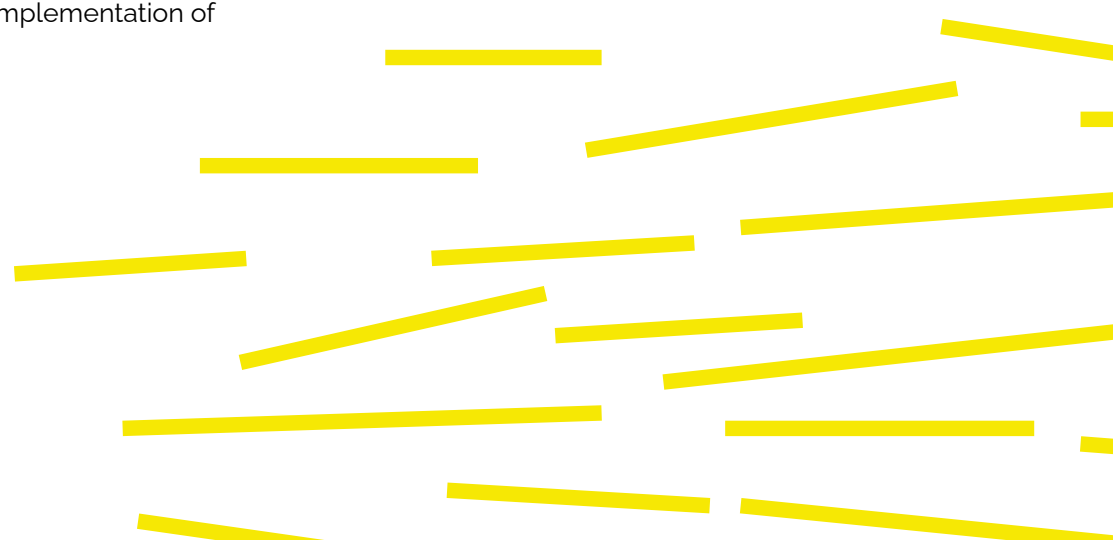


SHARED SOCIAL VALUE

Has to do with the processes, methods and structures of work that organisations implement to create value. It is created (or destroyed) by their relationships with the citizenry; it depends on their practices and attitudes towards work, and it is rooted in the public service ethos. An institution can achieve public goods such as generating confidence and mutual respect between citizens, improving the public area and providing a context for sociability and the enjoyment of shared experiences. Shared social values consider the role of cultural organisations not simply as mediators between politicians and the public, but as agents active in the creation or destruction of shared values.

This axis responds to the challenges of the Cluster, aimed at **democracy and governance**. In this regard, it is indicated that the implementation of

research activities will help to revitalise and modernise democratic governance. The objective is to develop political and institutional innovations, to widen political participation, social dialogue, civic commitment and gender equality. They also improve transparency, efficiency and the formulation of public policies, accountability and legitimacy and will also improve confidence in democratic institutions, safeguarding freedoms and the rule of law, and will protect democracy from multidimensional threats. At medium and short-term, knowledge, data, scientifically solid recommendations and generated innovations will improve decision-making in all relevant aspects for democratic governance.



4 INNOVATION: GENERAL VISION AND MODEL FROM THE SPECIFICS OF THE CCSs

4.1. Common guidance for all sectors

DEFINITION OF THE OSLO MANUAL

An innovation is a product or process (or the combination of both), new or improved, that differs significantly from (previous) products or processes of the unit that has been made available to potential users (product) or put in use by the unit (process).

Although the concept of innovation is intrinsically subjective, its application is fairly objective and comparable when applying shared references for **novelty** and **utility**, and by requiring a **significant** difference to be considered as such.

Business innovation activities include all development, financial and trade activities undertaken by a business whose objective is to provide an innovation for the business as a result. They identify **eight types** of innovation activity:

- R&D activities;
- engineering, design and creative activities;
- marketing and brand value;
- activities related to intellectual property;
- training and staff skills activities;
- development of software and databases;
- acquisition of leasing or tangible assets;
- innovation management activities.

A **business innovation** is a new or improved business product or process (or a combination of both) which differs significantly from the previous products or processes by the company and that has been placed on the market or put into use by the business.

RESPONSIBLE ACTORS

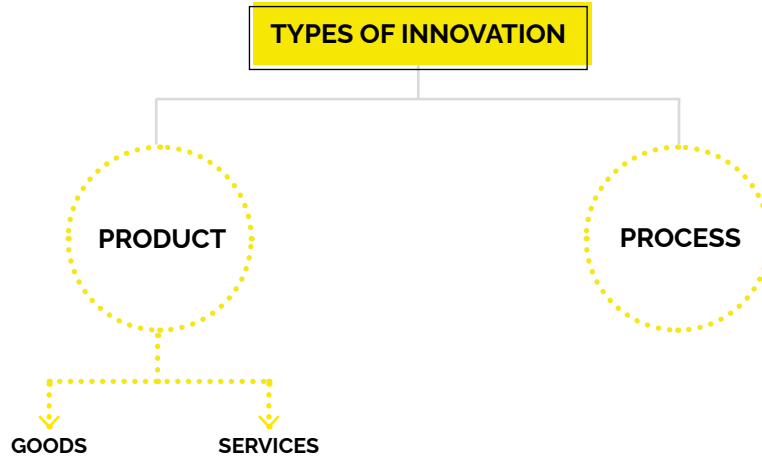
The generic term "unit" is used to refer to the actor responsible for the innovation, which can be **any institutional unit in any sector**. Innovation is a dynamic and generalised activity which takes place in all sectors of an economy. It is not the exclusive prerogative of the business sector. Other types of organisations and individuals also make changes in products and processes and produce, compile and distribute new relevant knowledge of innovation.

Matters to bear in mind:

- Innovation is more than a new idea or an invention. An innovation requires **implementation**, whether for an active use or to be available for the use of other parties, businesses, individuals or organisations. The economic and social impacts of inventions and ideas depend on dissemination and acceptance of related innovations.
- Creation of value. From the point of view of its consideration as an economic activity, innovation requires resources that could be used for other ends. The existence of opportunity costs implies that an intention exists to create value (or preserve it) in some way. Therefore, **value is an implicit objective in innovation, but it cannot be guaranteed ex-ante** because the results of innovation are uncertain and heterogeneous.

TYPES OF BUSINESS INNOVATION

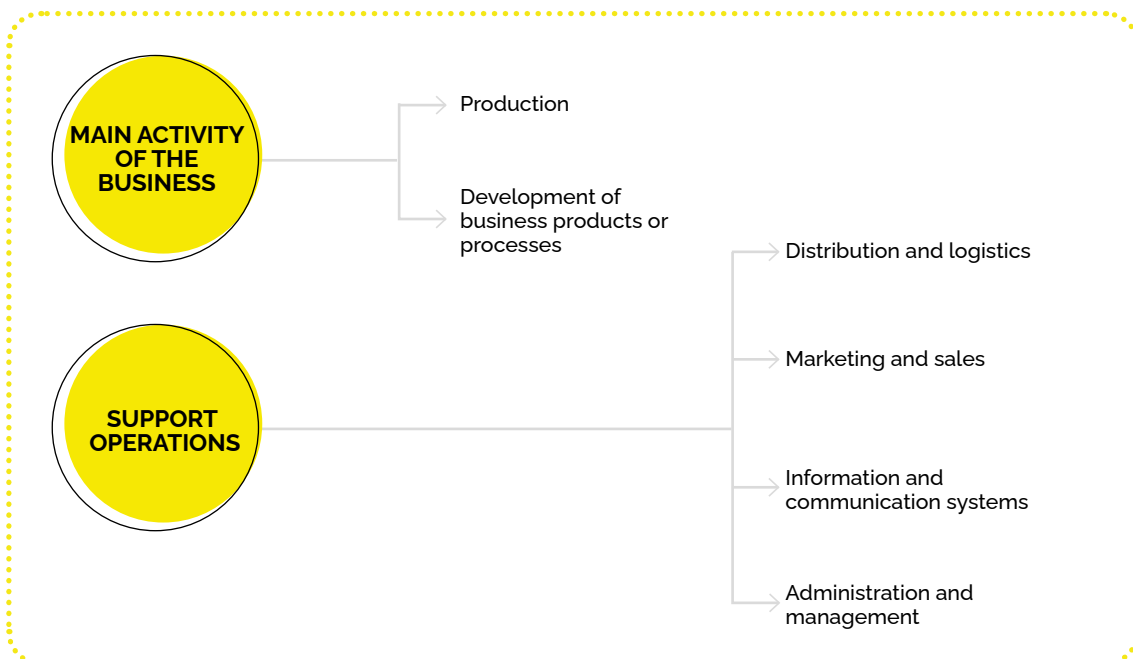
The Manual identifies **two main types** of innovation: innovations of **products** and innovations of **processes**.



The basic definitions of a product and the innovation of processes are as follows:

- A **product** innovation is a **new or improved good or service** which differs significantly from previous goods and services of the business and which has been put on the market.

- An innovation of processes is a new or improved process for one or more business function that differs significantly from the previous processes of the firm and that the firm has put into use. Process innovations refer to six different functions of the business, as identified in business management literature.



The taxonomy of the functions proposed by the Manual are related reasonably well to the categories of processes, marketing and organisational innovations in the previous edition.

OBJECTIVE OF INNOVATION

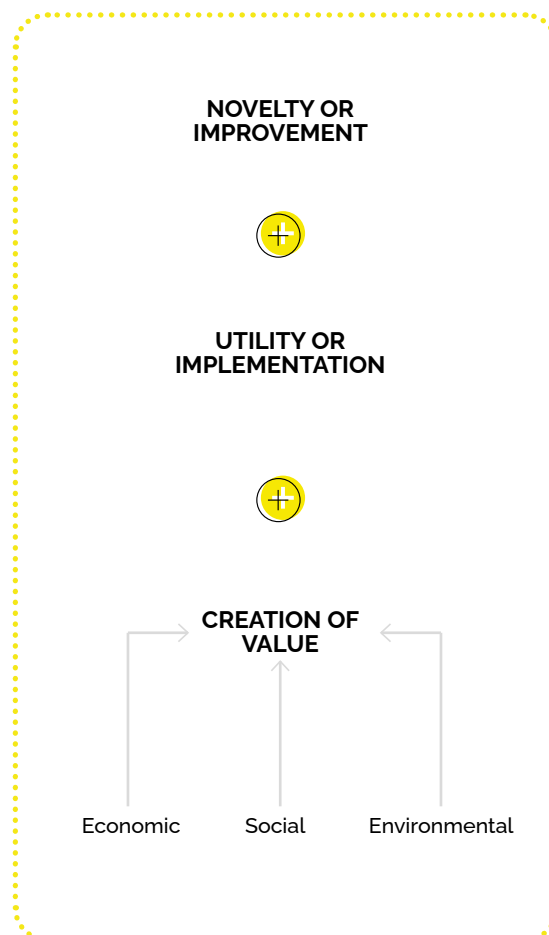
Goods are objects for which a current or potential demand exists and for which **property rights** can be established. The property allows the goods (and the rights of said goods) to be transferred via market transactions.

Services are the result of an activity that changes the **conditions or the users or facilitates the exchange** of products, including financial assets. For them to be produced, they must be provided to whoever is going to use them. They are intangible activities that are produced and consumed simultaneously and which change conditions (for example, physical, psychological, etc.) of the people who use them. Their participation by means of their time, availability, attention, information transmission or effort is often a necessary condition which leads to co-production of services on the part of people who use them and the company. The attributes or the experience of a service can, therefore, depend on the contribution of people. Changes in the condition of those who use them include:

- Changes in the **condition of the goods**: the producer works directly on the goods which are the property of people who use them, transporting them, cleaning them, repairing them or transforming them in some other way.
- Changes in the **physical condition of a person**: the producer transports a person or provides accommodation, medical treatment or surgery, changes the appearance of their hair, etc.
- Changes in the **psychological condition of a person**: the producer offers education, information, advice, entertainment, experience or similar services, potentially but not necessarily "face-to-face". These services can be delivered digitally.

The limit between a good and a service can be difficult to identify and is subject to constant changes. The provision of goods can change to models based on services and vice versa. Also, some products can combine features of goods and services, for example, knowledge capture products (as identified in the CNS) related to the supply, storage, custody, communication and dissemination of information that users can copy, share and access repeatedly. Digital technologies have contributed to increasing the variety of information and knowledge products available, as well as the ways in which production and consumption take place in all sectors.

With regard to the identification of innovative products, it is the sum of the following criteria that allows them to be identified.



The main difficulty in CCSs lies in the demonstration with evidence of their contribution of **value** in its three vectors: economic, social and environmental.



ECONOMIC VALUE

Understood to mean the project's capacity to generate profits by means of the implementation of the project. From this point of view, the examples of measuring value are tied to the increase in **invoicing** and the **profitability** of the company; the impact on **employment**, and the economic return obtained through the project's **intellectual property**.



SOCIAL VALUE

Understood to mean the set of factors contributing to increasing the project's social return. Among them, it is worth highlighting those which affect **social cohesion and inclusion** (inclusion when at risk of exclusion, adaptation to the difficulties of access related to physical, psychiatric or sensory conditions of the participants, the generation of a sense of belonging and the capacity of the project to reflect social diversity); in **education and autonomous development** of people (skills and development of creative and interpretive capacity and increase in sensibility with regard to artistic expressions); in **governance and participation** (new participation and democratic culture models, promoting voluntary work, promotion models for social economy and solidarity in management); in **employment** (quality in employment, possibilities of professional development, equality in employment).



ENVIRONMENTAL VALUE

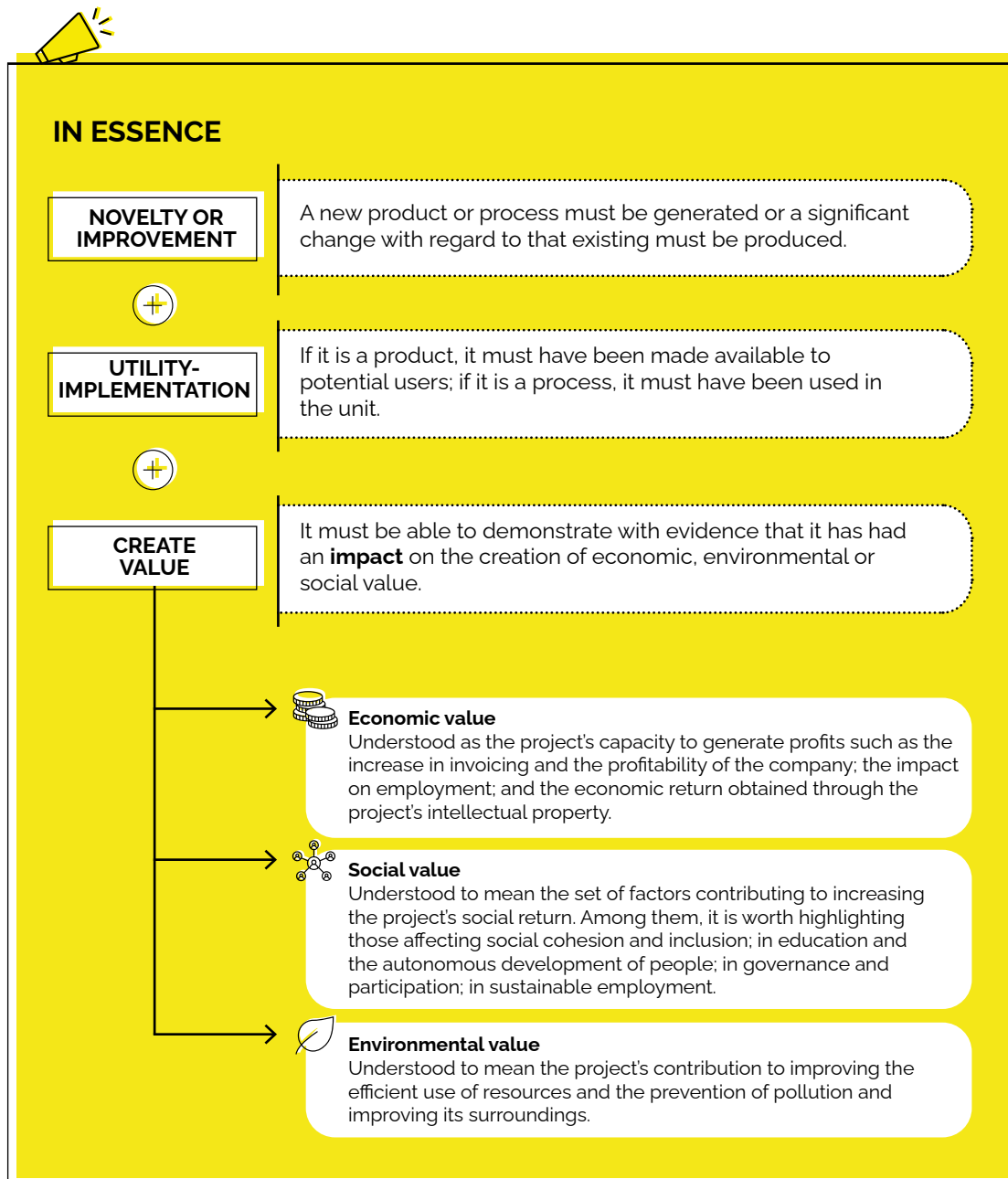
Understood to mean the project's contribution to improving the **efficient use of resources** and the prevention of pollution and generating **sustainable models** for its surroundings. Cultural and creative models have a large capacity to generate transformations in the physical surroundings where they take place. Thus, some examples of value in this regard are related to the improvement of environmental management, with the increase in the quality of life through urban regeneration, the use of spaces that facilitate new centralities, the improvement of knowledge, preservation and recognising the value of the natural surroundings and the contribution to awareness of environmental values.

Another of the key questions consists of the distinction between **products and services**, especially when they are digital. It is a question which greatly affects cultural and creative fields, to which digital transformation poses some crucial challenges. In this change, the contents are found between an analogue world in which the rules are well-established, and a digital world, which is very changeable and lacks settled rules. The ways of exploiting content have changed and different sectors have entered the cultural, such as telecommunications service providers and information technology.

The interest of these fields comes from the value of both content (understood generally, as processed information adapted to users and their preferences which could be music, films, books or other things) and the media that permit access. The content could be a good (a film); the second, access to that good (a streaming platform). Going deeper, when access is provided under demand in exchange for a tariff, the content will be similar to a good if the consumers can share it or sell it to others after the purchase, but they are similar to a service if the consumer rights are limited by a

licence restricting their exchange or sale. In the case of cultural content, reflection leads to all product subject to digital pressure ending up transformed into a

service offer which allows access and efficient use of the content in any place, context and format.



4.2. Innovation in CCSs: a model adapted to their uniqueness

By using a three-dimensional model of the public value of culture, the following dimensions can be identified:

VERTEX 1 (INTRINSIC VALUE): CULTURE AND CREATIVITY AS TOOL FOR EXPERIENCE WITH MEANING

The nucleus and trigger of everything else is experience. An experience which, as well as having an impact or being memorable, makes sense in people's lives. Thus, the key is in analysing the meaning of this experience whose value lies in the meeting of a person (or several people) and a cultural or creative object, whether this is tangible or intangible.

Among the impacts extended in time and of an accumulative nature caused by cultural experiences, the following can be highlighted:

- Sense of belonging.
- Increase in cultural and creative capacity.
- Increase in the capacity for empathy.
- Wide view of the world.

Cultural experiences generate very diverse types of impact, among which we can highlight:

- **Dimensión cognitiva.** Refers to intellectual growth generated by cultural and creative experiences. They

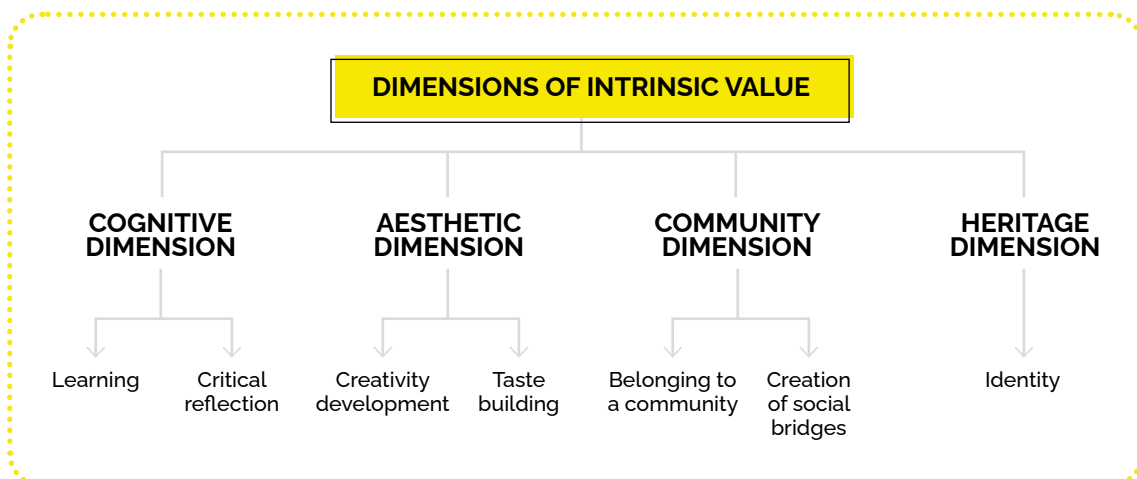
are a stimulus for knowledge. Two levels can be observed:

- Learning: It involves growth, it generates knowledge and develops curiosity.
- Critical reflection: it caused a fresh approach to our postures or ideas, widening our view of the world.

- **Aesthetic dimension.** We refer to artistic education, to creation and consolidate taste, to have our own critical viewpoint. This means knowing art forms, appreciating them, acquiring skills and techniques to use them, developing interpretative capacity to know how to read and decode works, and be able to issue aesthetic judgements. To be able to distinguish two types of value:

- Creativity development. Related to the acquisition of knowledge and skills. Some authors link them to innovation, imagination, the exploration of new art forms.
- Taste building. This refers to educating the eyes or ears. It is related to the beauty, quality and excellence of the work.

- **Community dimension.** Cultural and creative experiences are an important part of shared community living experiences, of shared emotion. They usually take place in surroundings shared with other people. The



sensations and ideas produced are discussed with other people, other opinions are heard, which already means there is a social impact. This generates a double effect:

- Belonging to a community. A social tie with the community itself. It's a way of distinguishing oneself, both in a positive way, generating social cohesion, and in a negative way, favouring exclusion.
- Creation of social bridges. By means of knowledge of other people and distant communities, which means an opening-up to new relationships.

○ **Heritage dimension.** The preservation, knowledge and appreciation of heritage promotes the identification of the citizenry with their shared legacy, whether material or immaterial. There is a transmission of concepts, of ideas, of meanings and of symbols. It allows one to discover and rediscover in one's history at the same time as generating heritage interest for foreign visitors. Thus, its care is a premise for collective identification with that legacy, as well as for respecting it and valuing it. Linked values are associated with:

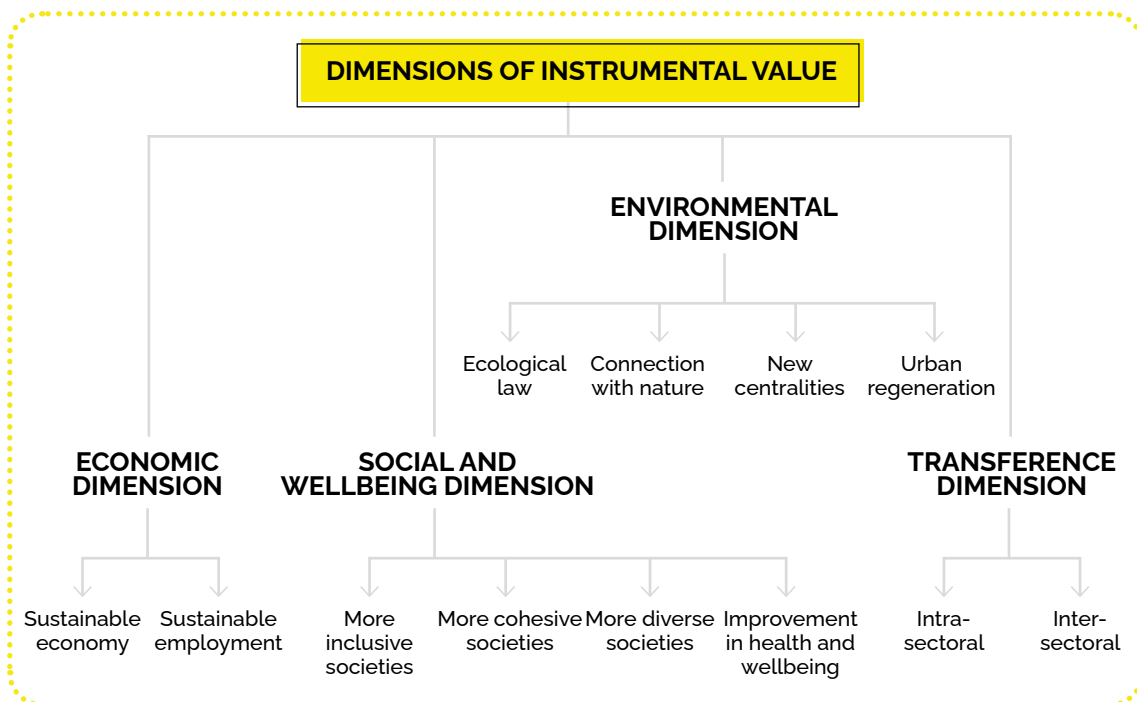
- Identity. In the sense of identification with that shared legacy. Usually accompanied by feelings of pride towards one's own things.

VERTEX 2 (INSTRUMENTAL VALUE): THE EXTERNALITIES OF CULTURE AND CREATIVITY

Next, we start again with the dimensions arising from culture and creativity conceived as an instrument for extrinsic objectives. It remains in harmony with the approach of contributing value of the innovation for sectors as a whole, but seen and adapted to the cross-sectional capacities of the cultural and creative sectors. Transference is added to the economic, social and environmental perspectives.

○ **Economic dimension.** Beyond the usual economic impacts which aim to generate economy, employment and wealth, from the point of view of the value of cultural and creative projects, the accent must be placed on the impact it will have on society in terms of equal sharing of that wealth and the creation of dignified employment. The pandemic has exacerbated the extremely precarious employment situation of many collectives related to the CCSs. From this perspective, innovative projects are linked to:

- Sustainable economy: through the promotion of competitive projects transcending profit at any price.



- Sustainable employment: with projects involving an improvement in the social-labour reality of the environment with projects generating quality work opportunities and equality of opportunities.

● **Social dimension.** This is a question of measuring the benefits that the cultural or creative manifestation contributes to the citizenry as a whole and to people's wellbeing. This reading starts from the idea that culture is a public good that contributes benefits to the citizenry and therefore the social development it produces is a core element of cultural and creative action. Cultural and creative processes have the capacity to create new social links, contributing to the consolidation of more inclusive, cohesive and diverse societies. In addition, research shows the positive effect of cultural practices on people's health and wellbeing in a field of growing research and action. There is a positive correlation between the carrying out of cultural activities and wellbeing and life satisfaction. This translates as:

- More inclusive societies. Cultural and creative practices provide platforms helping the reduction of risks of social exclusion by generating relationship and knowledge spaces allowing the consolidation of inclusive social networks.
- More cohesive societies. Collective cultural and creative action strengthens the sense of belonging. Networks and complicities are woven starting from the fact of sharing experiences, and trends towards social isolation are compensated for.
- More diverse societies. Culture and creativity are an unbiased engine of development, constructed from the starting point of respect for diversity. In this regard, they will only be sustainable if they are able to reflect current social diversity.
- Improvement in health and wellbeing. Cultural and creative practice has direct positive effects on the improvement of health in collectives with special needs (mental health, ageing, degenerative illnesses, etc.), and on the improvement of life satisfaction.

● **Environmental dimension.** The territory refers to the radius of influence of cultural and creative projects and is the result of an interaction between the environment and the activity. In the 90s, culture began to play an important role with regard to community development and urban regeneration, acquiring a relevant role in urban policies. Thus, it has been installed as the backbone of the new urban planning, given that it promotes more human and inclusive cities and contributes to improving the quality of urban and natural areas.

- Ecological law. Culture and creativity are, by definition, a channel for the transmission of values. It is necessary to implement strategically ecological planning that dictates new environmentally-friendly criteria in line with the concept of circular economy, which proposes a new model of production and consumption in which the value of products, materials and resources is maintained in the economy for as long as possible, in which the generation of waste is minimised and that which cannot be avoided is used to the greatest extent possible. The incorporation of this philosophy in cultural and creative practices can contribute to the assimilation of the logics of respect for the environment, to the organisation of economic activities, and to the rational use of the territory and its resources. The aim is to make the territorial vocation congruent with its productive potentials and, of course, to think about sustainable architecture and urban planning.
- Connection with nature. Culture and creativity play a key role in the reinterpretation of the landscape and the processes of identification with nature. To take care of the natural environment, one must first understand the culture-nature binomial with regard to strict interdependence. Cultural and creative activities associated with the natural environment boost the valuation and therefore the preservation and knowledge of them.
- New centralities. These are symbolic spaces which attract cultural and creative activity (equipment, projects,



creation), with implications for the mobility of the citizenry, and they contribute to the improvement of their environment, showcasing the area and strengthening its social tissue.

- Urban regeneration. The development of projects or the implementation of cultural and creative services in certain urban areas can act as an engine for transformation, rehabilitation and improvement of the quality of life of deteriorated and/or disadvantaged areas. It involves a recovery of public space as a place to socialise and greater connectivity between surrounding neighbourhoods.

● **Transference dimension.** Transference is defined as the set of activities aimed at the dissemination of knowledge, experience and skills, with the aim of facilitating the use, application and exploitation of innovation on the part of third parties, whether they are other companies, institutions or the community. This is one of the key criteria in R&D, but one must also consider it as one of the utilities or benefits of innovation. It goes beyond dissemination, given that it aims to share and incorporate the value generated by the innovation of third parties. It is directly linked to concepts such as open innovation or collaborative innovation. It is worth approaching from two perspectives:

- Intra-sectoral, when collaboration formulae are approached with an aim to share and apply the value generated by the innovation between agents from the same sector.
- Inter-sectoral, when the capacity to create new products, services and organisational models also coincides in other areas, showcasing the cross-sectional catalysing effect of the CCSs.

VERTEX 3 (SHARED SOCIAL VALUE): THE IDEA OF PUBLIC VALUE

Culture and creativity are spaces where public, private and community logic live side-by-side, a stage without clear

borders between them, complex from the institutional view, where new ways of doing things are needed, as are new means of collaboration. The third of these axes refers to the framework of the relationship between cultural and creative institutions and the citizenry, understood as active agents in the creation of shared values. It affects the procedural, but goes beyond their role as service providers. That beyond has to do with the trust generated and the legitimacy they are capable of achieving.

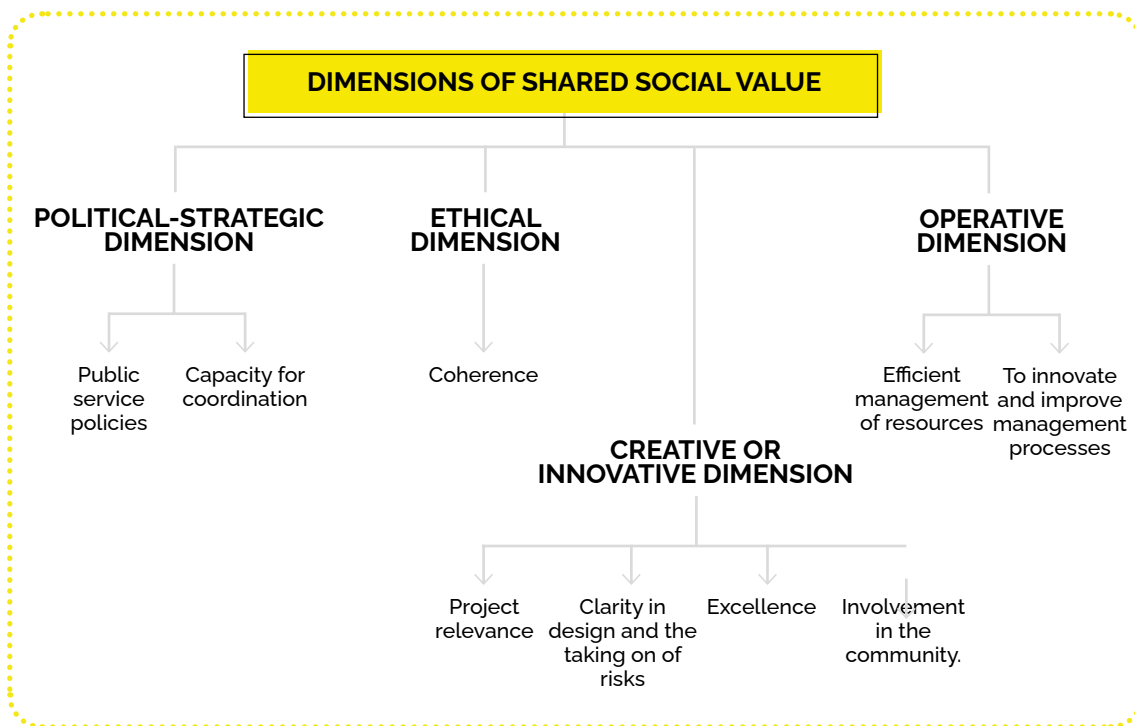
Thus, it concerns the public, who expect transparency, openness and to be able to actively participate in cultural and creative organisations; professionals from these sectors, with regard to motivation and the meaning of their work. But also the conditions in which they carry out their work, with quality and dignity. Lastly, those responsible for policies, who must take on the concept of public value as the main guide for their actions.

The shared social value adapted to cultural and creative organisations is related to the following dimensions:

● **Political-strategic dimension.**

This refers to the capacity to affect the generation and assignment of services within the community and the coordination of objectives, resources and actions between diverse actors in the community. Public institutions cannot respond alone to social transformations. It is necessary to promote public policies responding to the needs of society based on involvement and collaboration between administrations and the citizenry. It means a transformation of the public and a shared responsibility based on governance. It considers two types of value:

- Public service policies. Design of policies guaranteeing cultural rights of people in conditions of equality.
- Capacity for coordination. It involves the development of spaces for dialogue and debate facilitating shared responsibility through pacts and agreements.



● **Ethical dimension.** This refers to the ethical beliefs, values and commitments of the actors involved, with regard to the social preferences of the community. It is the way to achieve legitimacy, credibility and trust. Without them, there is no public value, even if good services are provided. The central element within this dimension is:

- Coherence. Between what is said and what is done, between the mission of the institution and the carrying out of programmes. Ethics seeps into everything. It is perceived through the prestige and trust achieved within the community.

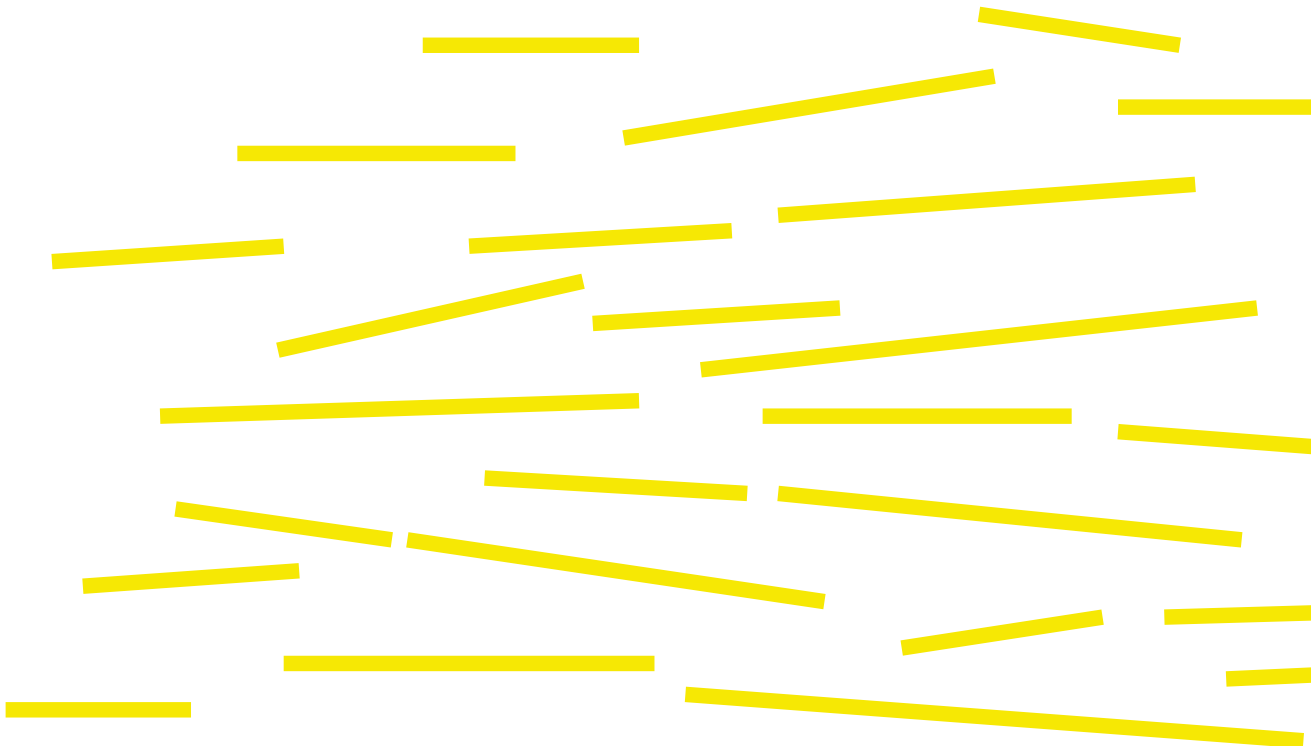
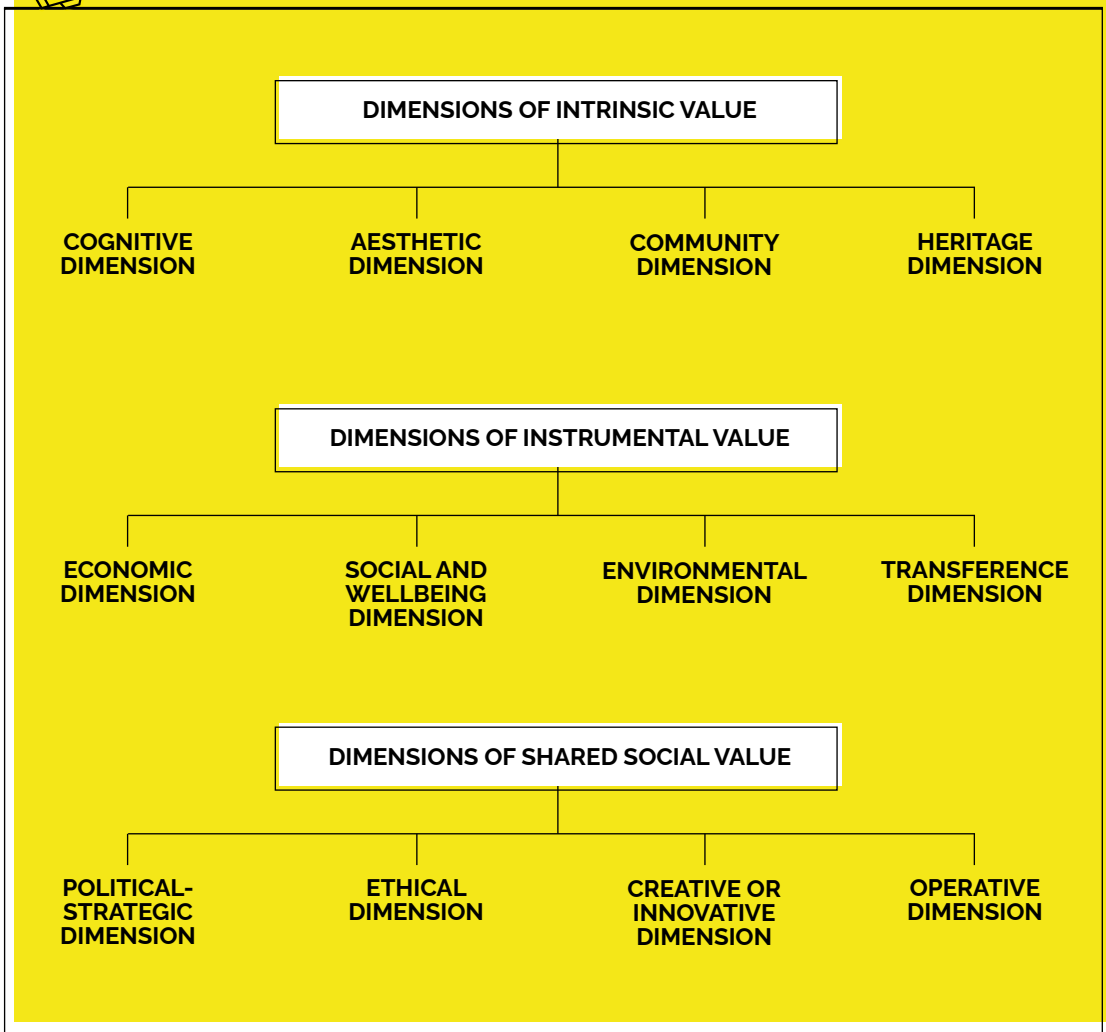
● **Creative or innovative dimension.** Shared social value must look at the ability to conceive and carry out excellent projects involving people in impactful and meaningful experiences. It has to do with the capacity to take on risks, to carry out innovative programmes that are relevant for the community and to weave networks, both in the cultural and creative field and in other sectors. It is linked to the following aspects:

- Project relevance. Being based on the detection of community needs, interests and aspirations.
- Clarity in design and the taking on of risks. The capacity to define objectives and expected results; the taking on of risks in programme design.

- Excellence. It refers to the technical and artistic capacity of organisations to carry out impactful projects both in their own field and in other sectors.
- Involvement in the community. Organisational capacity to generate context and establish feedback mechanisms in the carrying out of significant programmes.

● **Operative dimension.** This is the provision of quality public services. It requires competent institutions with legal, financial, material and human capacity to provide excellent service. It aims to increase people's well-being and quality of life through processes to improve public services by incorporating the citizenry's vision in the design itself of the services. It is based on concepts like transparency and accountability, innovating management through the incorporation of new tools and processes. It assumes two aspects:

- Efficient management of resources. It aims to guarantee the necessary resources for the carrying out of the policies and obtaining the best result possible with them.
- To innovate and improve management processes. Speed in the taking of decisions, adapting to the context, incorporating new instruments, always based on the assessment of the programmes.



4.3. Relationship between innovation activities and the proposed model

INNOVATION ACTIVITIES AND CCSs

The first question when dealing with innovation in these fields is the close link between the so-called **innovation activities** and these sectors, especially those classed as creative. As was analysed in the previous section, of the seven types of innovation activities, three belong to CCSs: engineering, design and other creative activities; marketing and brand value; and activities related to intellectual property. It is worth separately mentioning video games, in which software innovation activity carried out for other sectors is highlighted, in 3D technology matters, interaction, special effects or, for example, augmented reality apps used in the medicine field.

Design is, in fact, one of the sectors included in the CCI. It can be defined as a process that goes beyond the creation of objects, images or spaces, and is linked to processes and, above all, to problem solving and innovation processes. It is a sector that exists as far as it is of use to other sectors, its *raison d'être* is to provide solutions to problems of different types. This instrumental and process character is the basis of the concept of *Design Thinking*, one of the latest lines of design development as innovation methodology. Thus, it can be conceived as the sum of sub-sectors (graphic design, industrial and product design, etc.), or from the level of integration of design in the decisions and actions carried out by the companies or agents that implement it. In any case, its innovation roots are as undoubted as its intersection as a sector within the framework of the Creative Industries.

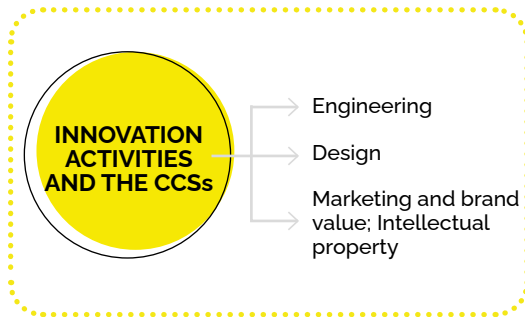
Marketing and brand creation activities also have a direct relationship with the so-called Advertising sector, one of those which form part of the current concept of the Creative Industries. They include market research methods, product advertising, promotion of products at fairs or exhibitions and the development

of marketing strategies. They also include brand advertising, although they are not linked to products, as well as public relations activities contributing to the reputation and brand value of the company. Advertising shares with the set of CCI their link with cultural expressions (it gives rise, in fact, to cultural expressions) and the fact that usage value is symbolic (not objective).

In third place, activities related to **intellectual property** include the protection or exploitation of knowledge, often created by means of R&D, software development and engineering, design and other creative jobs. Although not exclusive to CCSs, a good example of its direct link with them is that, in the Anglo-Saxon environment, they are defined as those whose basis is the development and exploitation of new ideas and intellectual property from the generation of new content.

Intellectual property protects original literary, artistic or scientific creations expressed in any medium, such as books, writings, musical compositions, dramatic works, choreographies, audiovisual works, sculptures, pictorial works, plans, models, maps, photographs, computer programs and databases. It also protects artistic interpretations, phonograms, audiovisual recordings and radio broadcasts. Intellectual property rights also grant recognition to creators the financial payment due them for the realisation of their works and services. It is also an incentive for creation and investment in works and services which benefit society as a whole.

Legislation on intellectual property distinguishes between two types of rights: moral and the law of economic rights of individuals [*no direct equivalent in English*]. Moral rights last throughout the life of the author and sometimes after his/her death, they have no economic content and are non-transferable. They demand an acknowledgement (mention) of the



author and allow him/her to object to any deformity, mutilation or other alteration of the work or any attack on the same which causes harm to his/her honour or reputation. In addition, there are the economic rights of individuals, tied to the reproduction, public communication, distribution and transformation of the work, which belong to the author but are transferable.

It must be borne in mind that exploitation rights are a vital part of the financing of creativity. Copyright is regulated and protected with the aim of recognising and providing incentives for investment, whether in time or money, in the creation, production, distribution or exhibition of artistic works and products. Both recognition of the creators of the work and their financial remuneration and the existence of different exceptions are implicit. The economic interest resides in exploitation rights and, more specifically, in **exclusive rights**. The latter requires the authorisation of the author or his/her successors, and they can be transferred. These include: reproduction rights (these relate to the fixing of the work in a medium from which it can be communicated or copied); transformation rights (the adaptation of the work, its translation or other alterations, resulting in a derivative or composite work with new authorship); distribution rights (the making available to the public of a work, whether original, as a fixed or transformed copy, whether by sale, rental or lending, even if

no economic benefit is obtained); rights of public communication (this only involves its exhibition, not its reproduction).

On the other hand, **the right to remuneration**, an ambiguous set of practices, not closed or defined, or even harmonised at European or international level, must also be borne in mind. For example, in Spain there is the right to remuneration for private copies, which applies to the reproduction of copies for private use without the authorisation of the owner of the reproduction rights.

The change in the conditions of access to content brought about by the digital environment and the ensuing debate between the right of access and intellectual property rights led to the coexistence of different positions: from copyright, the strictest position, which defends that all rights are reserved and that any type of use requires the express authorisation of the holder of the exploitation rights; copyleft, which was born under the premise that knowledge should circulate freely, defends that some rights are reserved and is based on the author's sovereign decision to let his/her work "loose" without renouncing his/her work or the moral rights he/she has over it, authorising some uses of his/her works such as copying, distribution and public communication under certain assumptions and conditions, through tools such as Creative Commons licences; or the position that defends the public domain, advocating the disappearance of intellectual property, based on the right of access to culture.

The fundamental issue at stake is the reconciliation between access to information and commercial exploitation arising from the reciprocal limitation of the basic rights and principles enshrined in the Universal Convention on Human Rights.

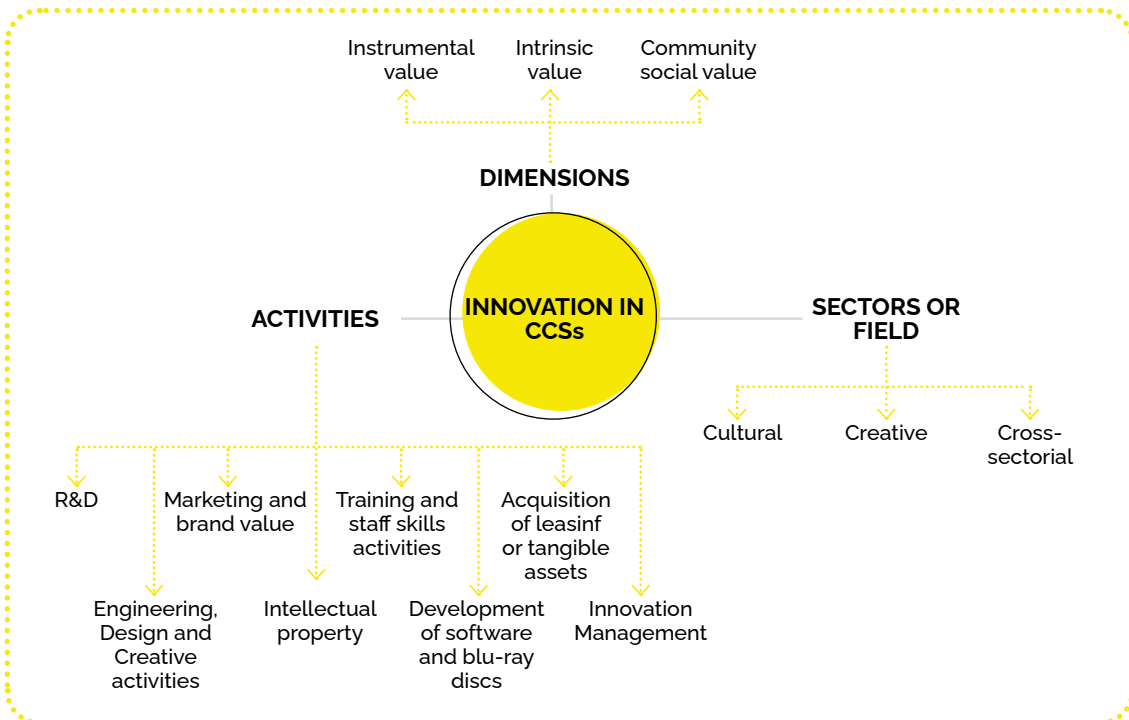
RELATION BETWEEN INNOVATION ACTIVITIES AND DIMENSIONS OF CULTURAL AND CREATIVE INNOVATION

In this section, we propose a plan of the existing ties between the two perspectives. It is a theoretical exercise of the fusion of the two approaches made throughout the report, one from the logic of innovation for the set of sectors, and the other one from the logic of the characteristics of cultural and creative innovation. Its value is, in this regard, limited due to the analysis of specific experiences where it can be analysed how they affect each of the activities or dimensions. In the analysis report of CCSs that is being prepared parallel to this conceptualisation document, this exercise is done on real cases.

Innovation can be applied to products (goods or services) or to processes. For their part, innovation activities can be carried out in core functions (those that define and characterise them) of the company or organisation or in auxiliary functions (those necessary for the carrying out of the main activity).

From the view of innovation from the CCSs, the intrinsic value would be the core element of the project, it's raison d'être, its main function in terms of business management. The instrumental value would be more closely linked to impacts. And the shared social value would be more related to values and processes.

As has been listed, some of the innovation activities are located at the heart of CCSs (creative activities, intellectual property, including software development if it is a video game company) so they would be a full part of the intrinsic value. R&D can be applied in any dimension, although due to its complexity and cost it makes sense for it to affect mainly aspects increasing the intrinsic value, due to its orientation to generate knowledge and meaningful experiences. Activities related to the indirect impacts and benefits of brand value creation are related to the instrumental value, except in cases involving an organisation from the advertising sector. Questions such as the training of staff, ethical values transmitted by the project and innovation management are related to the dimensions of shared social value because they have to do with processes and people.





IN ESSENCE

Cultural and creative innovation covers three elements of value that characterise it:

INTRINSIC VALUE

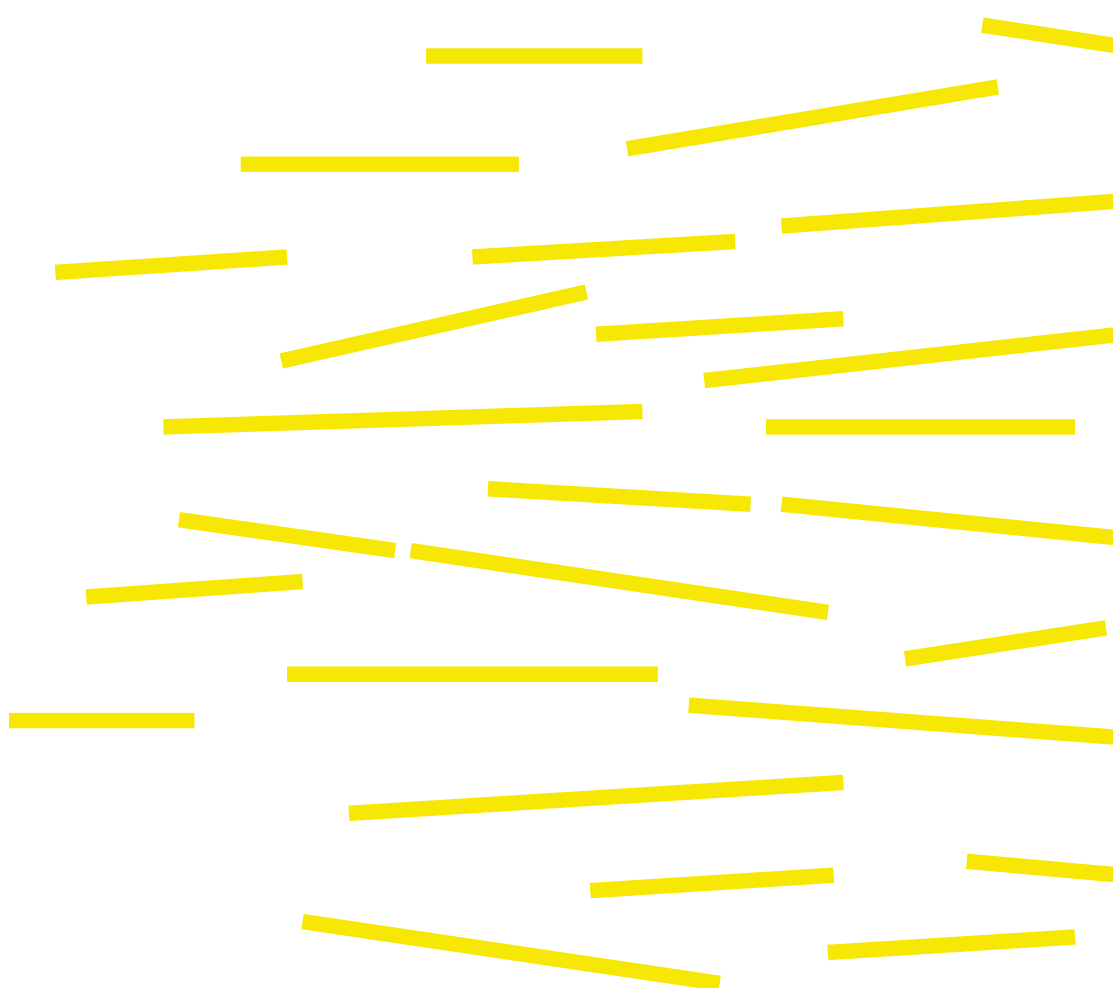
The intrinsic value of cultural and creative experiences with meaning, responding to the challenges linked to the transformational capacity of culture.

INSTRUMENTAL VALUE

The instrumental value accruing to its capacity to generate benefits responding to the challenges generated by social and economic transformations.

SHARED SOCIAL VALUE

The shared social value, which is related to the processes, method and structures of the work of organisations implanted to create value and respond to the challenges around democracy and governance.



5 R&D: CRITERIA AND APPLICATIONS IN CCSs

This chapter follows the guidelines proposed by the *Frascati Manual* to define Experimental Research and Development (R&D) and its components: basic research, applied research and experimental development. These definitions have been in force for more than five decades and are designed to facilitate and standardise the measurement and collection of R&D data. In the latest edition (2015), one of the new features is the emphasis given to R&D in the social sciences, humanities and arts, which implies a reflection not so much on its definition, which is maintained like in the remaining fields of knowledge, but on its limits. The difference lies in identifying clearly what is and what is not R&D, in relation to:

Innovation: as explained in the previous section, R&D is part of innovative activities, but it can, or cannot, be part of innovation. To clarify the borderline cases it will be necessary to apply it in one case and then another case.

Humanities and the arts: the identification of the limits has added difficulties compared with other fields like science, in that the distinction between basic research, applied research and experimental development is, a priori, clearer.

These debates require that the verification of whether a project is R&D or not must be carried out case by case, depending on whether they fulfil the requirements describes as follows.

5.1. General criteria

DEFINITION

R&D (research and experimental development) comprises creative and systematic work carried out with the aim of increasing the volume of knowledge (including knowledge of humanity, culture and society) and devising new applications from the available knowledge.

RESPONSIBLE ACTORS

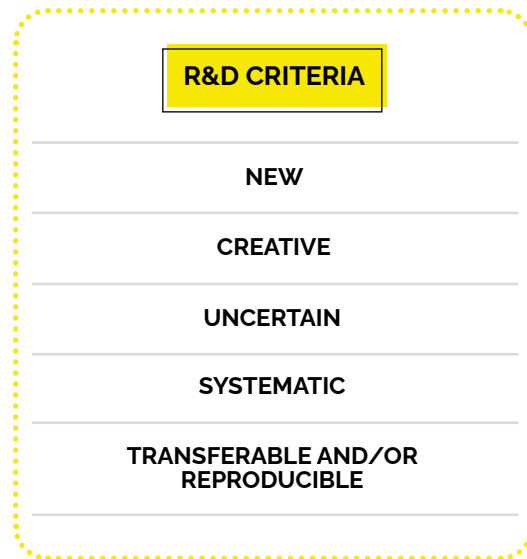
Research centres and universities, technological centres and business R&D centres and relevant agents of the sector.

BASIC CRITERIA

R&D is the formal creation of knowledge, it is always focussed towards new discoveries, based on original concepts (and their interpretation) or hypotheses. The final result is largely unknown, it is planned and budgeted for and is aimed at the production of results that could be transferred freely or traded on the marketplace. So that an activity can be considered R&D, it must fulfil **five basic criteria**: the activity must be **new, creative, uncertain, systematic, and transferable and/or reproducible**.

- **New**: unlike innovation, in which the idea is to generate new or improved processes as a result of the application of knowledge, the focus of R&D is aimed at the creation of new concepts, ideas and advances in knowledge.
- **Creative**: creativity is inherent to R&D, which excludes any change that is routine, repetitive or obvious. In this regard, in the Manual, it states that one of the areas needing more attention when it comes to evaluation is the arts, precisely because of its intrinsic creative component, and it insists that the key will be checking that it fulfils the rest of the criteria.
- **Uncertain**: R&D implies uncertainty as far as results, deadlines and costs are concerned. This is one of the criteria that serve to discern what is and what is not R&D. This is the case of projects linked to design. Although they might be innovative, if there is no uncertainty, they will not be R&D.
- **Systematic**: it is a formal activity which is carried out in accordance with a plan and in which both the process and the result are registered.
- **Transferable/Reproducible**: the transference of new knowledge that has been generated by an R&D project is another of the criteria to consider. It guarantees the use of that knowledge, even when the result is negative and the possibility that other research teams might reproduce it. It stresses

that R&D results cannot be tacit, making codification, registering and dissemination of that knowledge vital.



TYPES OF R&D ACTIVITIES

- **Basic research** consists of experimental or theoretical work undertaken primarily to obtain new knowledge about the fundamentals of observable phenomena and facts, without the intention of giving them any particular application or use. It can be pure basic research (not seeking economic or social benefits and not aiming to apply the results to practical problems) or guided research (when it is expected to serve as a basis for solving problems or opening up opportunities, current or future).
- **Applied research** also consists of original work carried out to acquire new knowledge, but it is primarily directed towards a specific practical aim. It develops ideas and turns them into something operative. The knowledge that it generates can be protected with intellectual property instruments.
- **Experimental development** is systematic work based on existing knowledge obtained from research or practical experience, aimed at producing new products or processes, or improving existing products or processes. It is important not to muddle it up with product development.

There are many information and knowledge flows in the R&D system, so the order in which the types of activities appear does not imply that they are consecutive. Their relationship is dynamic and need not be linear. It is possible that basic research directly generates new products and processes and vice versa, that experimental development generates basic research. The key criteria to differentiate between them is the expected use of their results. To this, two more indicators can be added: the deadline and the range of potential application of the results (the more basic it is, the wider the range).

To measure the degree of technological maturity, it is commonly accepted to use the **TRL** (Technology Readiness Level). This concept comes from NASA, but later it became widely applied to any project, from its original idea to its commercial launch. Its interest lies in its ability to indicate the level of maturity found in a technology. It consists of 9 levels and each one characterises the progress in the development of a technology, from the idea (level 1) up to its complete launch on the market (level 9).

TRLs provide relevant information to establish the starting point for the project and the expected results, and can be used to develop the valuation framework even more to assess not only the results, but also the specific impacts. In fact, the European Commission, in its programmes such as Horizon 2020, asks for an indication of the TRL of the project, and its financing and technology programmes are structured according to its levels.

R&D AND SERVICE ACTIVITIES

As discussed in the Manual, defining the limits of R&D in service sector activities is complicated for two main reasons: firstly, it is difficult to identify projects that include service-specific R&D that is not embedded in any knowledge capture-based goods or products; and secondly, the delineation between R&D and other innovation activities is not always clear.

To identify the R&D result in the service activities is more complicated than those in the production of goods. R&D covers both fields: that related to technology and that linked to social sciences, the humanities and the arts, including that which is related to knowledge about behaviour and organisations. This last concept is particularly important in the case of service sector activities. Given that these types of R&D can be combined in a project, it is important to clearly mark the boundaries of the different types of R&D in each case. There is a risk of underestimating the content if only sticking to R&D related to technology. In addition, in service sector companies, R&D is not always as formally organised as in goods-producing companies (with a department and research staff specifically dedicated to R&D). In short, like in the service sector, the concept of R&D is less precise, it is necessary to establish criteria to help to identify it.

Criteria to identify R&D in services:

- Existence of links with public research laboratories.
- The involvement of staff with doctorates and PhD students.
- The publication of the results of investigations in scientific magazines, the organisation of scientific conferences or participation in scientific reviews.

5.2. R&D projects in CCSs

One of the keys to identifying R&D is to use clear criteria like the obtaining of an **appreciably new** element or the treatment of **uncertainty**, as well and applying **original research** techniques.

In the contexts of CCSs, beyond the research activities that may take place in any sector, the busiest terrain is artistic and creative practice. Sticking to R&D can certainly be limiting because they go beyond the generation of new forms of knowledge. But R&D can exist in artistic projects. To determine it, it must be checked in detail, given that the limits are anything but clear. It is often easier to identify in the negative than in the positive; thus the obvious, the routine, the familiar, the repetitive, can never be R&D. The difficulty lies in the fact that art and research share elements such as enquiry, exploration, risk and uncertainty about the result, the search for questions rather than answers, experimentation, the novelty inherent in creation, the fact of working on the unknown, etc. And the clue to discern between one and the other is the fulfilment of the five criteria. Always starting from the base that it will be necessary to analyse case by case those projects arousing doubts.

There is a section in the Manual devoted to the relationship between R&D and artistic creation. They propose a distinction between:

- Research **about** art. Basic or applied research is part of the majority of artistic studies (musicology, history of art, etc.). In fact, public research institutions may participate in research areas linked to culture and creation, as some relevant research infrastructures are often associated with arts institutions such as museums, specialised libraries or archives, for example. This type of research is an intrinsic part of cultural or educational policies (when dealing with higher educational centres like Musikene or Dantzeri, or higher schools of architecture or design).

- Research **for** art. It consists of the development of goods and services to satisfy the needs for expression of artists. Examples include companies specialised in producing new electronic musical instruments for a group of performers, and organisations (mainly universities and technical institutes) also have a role to play in exploring new technologies for the performing arts. There are research projects along these lines in Europe. Until now, this type of research has not had explicit and specific support instruments, so it could be the object of support in future R&D policies in CCSs.

- **Artistic expression facing research.** This would be the perspective of research from art. The Manual resolves the matter arguing that artistic expression seeks new forms of expression more than knowledge. It adds that neither does it fulfil the criteria of being transferable. A critical analysis of the matter leads to placing these statements in doubt, at least in a radical manner. It is obvious that, in the same way that novelty in itself does not imply innovation, artistic expressions, even when they involve research processes, do not necessarily have to be R&D. However, neither can it be dismissed a priori without evidence to prove it. To this end, they propose that an "institutional" approach should be adopted and only artistic practice that is considered as R&D by accredited research institutions should be considered as R&D, following the arguments presented above. The key will be to confirm whether, in addition to artistic expressions, they contribute new forms of knowledge, if they are systematised and if they can be transferred.

In CCSs, in addition to the application of the five criteria of R&D, the **institutional criterion** is recommended. To summarise, one must be aware of the following additional directives:

- The **context of execution** (institutional criterion). Research carried out in the framework of a university, by the Basque Science and Technology Network, or other research bodies with their different specificities, or in an officially recognised specialised cultural institution (museums, art centres, libraries, archives, production centres, etc.) may be included in R&D. This does not mean that only research projects carried out in these institutions can be considered as R&D in the cultural and creative fields, but rather that, in principle, the research activity hosted by these types of institutions could be R&D.

- The adoption of **recognised procedures**. Research must be formalised. In this regard, the quality regulation UNE 166002 of R&D&I quality management could be a reference point. Research activities must be identifiable and their results made available to the scientific community through publication in scientific or specialised journals.

- The **TRL** which determines the degree of maturity of a technology, and provides relevant information to establish the project's starting point and expected results



IN ESSENCE

So that an activity can be considered R&D, it must fulfil five basic criteria: the activity must be new, creative, uncertain, systematic, and transferable and/or reproducible.

R&D IN ARTISTIC AND CREATIVE PROJECTS

The difficulty of establishing the clear perimeter between R&D and art requires the detailed analysis of each artistic project to check how it meets the basic criteria, especially its appreciable novelty and the treatment of uncertainty, as well as the application of original research techniques.

INSTITUTIONAL CRITERION

The context in which it is carried out as a crucial element. Research carried out within the framework of a university or officially recognised institution (including museums, libraries, etc.) could be included in R&D.

FORMALISATION

Research activities must be identifiable and their results made available to the scientific community through publication in scientific journals.

TRL

Which determines the degree of maturity of a technology, and provides relevant information to establish the project's starting point and expected results.

6 MEASUREMENT OF R&D&I

This chapter begins by identifying the existing sources of information in the Autonomous Community of the Basque Country, promoted by Eustat for the measurement and monitoring of Innovation and R&D and, secondly, analyses the indicators used on a European scale to measure innovation performance.

6.1. Sources of information on R&D&I

INNOVATION SURVEY (EUSTAT-EUROSTAT)

The main objective of the statistics is to gain knowledge of the effort made by the different sectors of the economy in innovation, as well as to obtain a series of indicators that allow us to compare the level achieved in the Autonomous Community of the Basque Country with the rest of the countries surrounding us. Among other characteristics, the amount of expenditure on innovative activities and its distribution among different activities, the economic impact of innovation, public funding and factors hindering innovation are obtained.

It is an annual sample survey, conducted on a panel of establishments and is carried out following the guidelines of the *Oslo Manual*, distinguishing between product or process innovation, abandoned or unsuccessful innovation and ongoing innovation, in addition to the eight innovation activities specified in the Manual.

The data disseminated correspond to the branches of activity of the CNAE-2009 [*National Classification of Economic Activities*], in accordance with the A38 grouping. As we know, the CCSs are scattered in several groups of said grouping, so the grouped information does not respond to the reality of the

perimeters that make them up. For greater detail regarding their situation, one approach could be a specific analysis of the CNAEs identified by the Observatory as belong to or related to the CCSs.

STATISTICS ABOUT R&D TECHNOLOGICAL DEVELOPMENT AND SCIENTIFIC RESEARCH (EUSTAT-EUROSTAT)

Collects activities aimed at scientific research, where the resources are computed (human and material) that are used in this type of activity by companies, universities and other centres dependent on public organisms who carry out R&D activities.

Its main objective is to gain knowledge of the effort made by the different sectors of the economy of the Basque Country in research tasks, by measuring the human and material resources used, as well as the patents and utility models registered by companies or individuals resident in the Autonomous Community of the Basque Country, with the aim of providing an indicator of the results obtained in research. Also obtained are a series of indicators allowing us to compare the level reached by the resources placed at risk in R&D in the Autonomous Community of the Basque Country, with the rest of the countries in our area ("Main Science and Technology Indicators" OECD). It

also describes the main characteristics of the research work carried out by means of functional classifications such as the type of research carried out, the socio-economic objective, the products researched, etc.

This is an annual operation of a census nature, involving all companies, centres dependent on Public Bodies and universities in the Autonomous Community of the Basque Country with R&D activities.

The main indicators are internal R&D expenditure and staff expenditure, according to the origin of the funds (companies and private non-profit institutions; public administration and higher education) and by scientific disciplines (exact sciences, engineering, medical, agricultural and social sciences). As for the branches of activity of the businesses, grouped into 19 sectors, the

only two groups in which cultural and creative businesses could be located are other business activities and other services, although this would have to be verified given the reduced universe of these two groups. In short, without a detailed study of which CCSs being taken into account, it is not possible to know the degree of coverage they have in the R&D indicators that are prepared.

6.2. Indicators of R&D&I

The main indicator for measuring innovation performance is the *Innovation Scoreboard*, which is applied at European, country and regional level. Its importance lies in the comparability it allows and in the detail of indicators (27) that make it up.

EUROPEAN INNOVATION SCOREBOARD (EIS)

The indicator used to assess the performance of innovation in Europe is the European Innovation Scoreboard. The main objective of the **European Innovation Scoreboard** –EIS– is to carry out an analysis comparing the performance in innovation of the member states of the EU-27 and to discover the strengths and weaknesses of research and innovation systems. It is structured in four main blocks (framework conditions; investments; innovation activities; impacts), deployed in ten dimensions, for

a total of 27 indicators. Starting out from these indicators, an index is calculated reflecting the weight of each of these dimensions.

1. Framework conditions: capture the main performance boosters for innovation and cover three dimension of innovation.

- 1.1 Human Resources measures the availability of highly qualified and educated workforce.
- 1.2 Attractive research systems: measures the international competitiveness of the scientific network.
- 1.3 Environment open to innovation: measures the implementation of high-speed broadband networks and the entrepreneurship boosted by this opportunity.

INDICATORS OF BLOCK 1

1.1 Human resources	1.1.1 Newly graduated PhDs (‰ group 25-34 years)
	1.1.2 Percentage of population between 25 and 34 years of age with tertiary education
	1.1.3 Percentage of population from 25 to 64 years old participating in lifelong learning
1.2 Attractive research systems	1.2.1 International scientific co-publications per million inhabitants
	1.2.2 Scientific publications among the top 10% most cited internationally as a percentage of the total of scientific publications in the country
	1.2.3 PhDs from outside the EU as a percentage of the total number of PhDs in the country
1.3 Environment open to innovation	1.3.1 Broadband penetration
	1.3.2 Entrepreneurship boosted by the opportunities (motivational index)

2. Investment: they capture public and private investment in research and innovation and cover two dimensions: financing and support and firm investments.

2.1 Financing and Support: measures the availability of financing for innovation projects and the support of governments towards research and innovation activities.

2.2 Business Investments: includes investment in both R&D and non-R&D and in ITC skills training;

INDICATORS OF BLOCK 2

2.1. Financing and Support	2.1.1 Public expenditure on R&D as % of GDP
	2.1.2 Venture capital as % of GDP
2.2 Business Investments	2.2.1 Private expenditure on R&D as % of GDP
	2.2.2 Expenditure on non-R&D innovation as % of the total business figure
	2.2.3 Provision of training for businesses to develop or update the ITC skills of their staff



3. Innovation activities: they capture the innovation efforts at the company level, covering three dimensions: innovators, links and intellectual activities.

- 3.1 Innovators: measures the number of small and medium-sized businesses that have introduced innovations in the market or within their organisations, considering both technological and non-technological innovations and internal innovation.
- 3.2 Links: measures the collaboration efforts between innovative companies and also in the public sector.
- 3.3 Intellectual assets: This dimension captures the different forms of Intellectual Property Rights generated as income in innovation processes.

INDICATORS OF BLOCK 3	
3.1. Innovators	3.1.1 Small and medium-sized businesses who are innovators in product or process as % of small and medium-sized businesses
	3.1.2 Small and medium-sized businesses who are in marketing or organisation as % of small and medium-sized businesses
	3.1.3 Small and medium-sized businesses with internal innovation as % of small and medium-sized businesses
3.2 Links	3.2.1 Small and medium-sized businesses who collaborate with others as % of small and medium-sized businesses
	3.2.2 Public-private co-publications per million inhabitants
	3.2.3 Private co-financing of public expenditure on R&D
3.3 Intellectual assets	3.3.1 PCT patent applications per billion of GDP (in PPP euros)
	3.3.2 EU commercial brands per billion of GDP (in PPP euros)
	3.3.3 EU designs per billion of GDP (in PPP euros)

4. Impacts: these illustrate how innovation translates into benefits for the economy as a whole: impacts on employment and effects on sales.

- 4.1 Impacts on employment: gathers the economic success of innovation on employment.
- 4.2. Impacts on sales: gathers the economic success on sales due to innovation activities.

INDICATORS OF BLOCK 4	
4.1 Impacts on employment	4.1.1 Employment in knowledge-intensive activities as a % of total employment
	4.1.2 Employment in companies in innovative rapid growth sectors
4.2 Impacts on sales	4.2.1 Exports of medium and high technology products
	4.2.2 Exports of high knowledge level services as % of the total of service exports
	4.2.3 Sales of innovative products new to the market and to the company as % of business amount

Based on the score achieved on the composite indicator, countries are grouped into four categories: innovation leaders (score above 125% of the European average), high innovation countries (between 95% and 125% of the average), moderate innovation countries (between 50% and 95% of the average) and low innovation countries (less than 50% of the average).

REGIONAL INNOVATION SCOREBOARD (RIS)

It maintains the structure of the EIS with regard to blocks, but there are 17

indicators, mainly due to the fact that there are no data available at regional scale. In certain indicators, the indicator is maintained with small adaptations.

It is the basis of analysis on R&D&I used by Innobasque in their **Innovation Reports** and the data gathered in the PCTI.

In the adjoining table, both panels are compared to show their similarities and differences.

	EIS	RIS
1.1 Human resources	Newly graduated PhDs (% group 25-34 years)	There is no data at regional level
	Percentage of population between 25 and 34 years of age with tertiary education	Age limits restricted to 30-34
	Percentage of population from 25 to 64 years old participating in lifelong learning	The same
1.2 Attractive research systems	International scientific co-publications per million inhabitants	The same
	Scientific publications among the top 10% most cited internationally as a percentage of the total of scientific publications in the country	The same
	PhDs from outside the EU as a percentage of the total number of PhDs in the country	There is no data at regional level
1.3 Environment open to innovation	Broadband penetration	There is no data at regional level
	Entrepreneurship boosted by the opportunities (motivational index)	There is no data at regional level
2.1 Financing and Support	Public expenditure on R&D as % of GDP	The same
	Venture capital as % of GDP	There is no data at regional level
2.2 Business Investments	Private expenditure on R&D as % of GDP	The same
	Expenditure on non-R&D innovation as % of the total business figure	Only for small and medium-sized businesses
	Provision of training for businesses to develop or update the ITC skills of their staff	There is no data at regional level



	EIS	RIS
3.1 Innovators	Small and medium-sized businesses who are innovators in product or process as % of small and medium-sized businesses	The same
	Small and medium-sized businesses who are in marketing or organisation as % of small and medium-sized businesses	The same
	Small and medium-sized businesses with internal innovation as % of small and medium-sized businesses	The same
3.2 Links	Small and medium-sized businesses who collaborate with others as % of small and medium-sized businesses	The same
	Public-private co-publications per million inhabitants	The same
	Private co-financing of public expenditure on R&D	There is no data at regional level
3.3 Intellectual assets	PCT patent applications per billion of GDP (in PPP euros)	The same
	EU commercial brands per billion of GDP (in PPP euros)	The same
	EU designs per billion of GDP (in PPP euros)	The same
4.1. Impacts on employment	Employment in knowledge-intensive activities as a % of total employment	In manufacturing sectors of high and medium level technology and in knowledge-intensive services
	Employment in companies in innovative rapid growth sectors	There is no data at regional level
4.2 Impacts on sales	Exports of medium and high technology products	There is no data at regional level
	Exports of high knowledge level services as % of the total of service exports	There is no data at regional level
	Sales of innovative products new to the market and to the company as % of business amount	Only for small and medium-sized businesses

7 THE NEED FOR PUBLIC INVESTMENT

As defended in the title of the new Horizon Europe programme, it is necessary to invest to shape our future. This is necessary because, despite world-class research and strong industries, Europe is failing to achieve a leading position in innovation and entrepreneurship. And without them, it is impossible to respond to ecological and economic transitions and the challenges that go with them.

The **need for public investment in research and innovation** is fully justified by their capacity to boost productivity, economic growth and employment. While economies are based more and more on knowledge and are more intensive in intangible assets, the importance of research and innovation increases. They are also crucial to tackle social challenges and improve wellbeing. They contribute to improving wellbeing, to fighting against climate change and to building more inclusive societies. Therefore, they generate economic as well as social impacts.

The deficiencies of the market are directly related to the need for investment in research and innovation. High risks, sunk costs, market uncertainty, the distance between the cost and the price one is willing to pay or the low market valuation of the existing supply, the lack of full appropriability of the results or the lack of availability of funds lead to investment below the socially desirable level. Market agents often do not take into account the positive externalities that affect other agents and tend to develop a level of research and innovation activities that is too low from the point of view of society. To maximise the impacts generated by the creation and dissemination of knowledge, public financing is necessary in research and innovation. In this regard, a public-private partnership should also be promoted for this financing. On their part, the speed of change, the increased complexity of innovations and

a greater concentration of benefits on key innovators affect the ability to disseminate innovation among companies, sectors and countries, and hence the impacts of investments. In short, the role of public funding seems more important than ever and it must address research needs while supporting market-creating innovation and striking a balance between cooperation and competition.

The benefits of public funding for research and innovation have been widely studied and are generally positive, although their measurement is certainly complex due to the intangible and changing nature of innovation. However, indicators, as objective as possible, must be included to quantify impact. In addition, maximising the impacts of public funding for research and innovation will increasingly depend on the existence or establishment of well-functioning markets and smart regulations that avoid market fragmentation, and also the production of skilled human capital and adequate access to finance.

As for the need for public investment in CCSs, the first thing we need to clarify is that cultural policies have a dual nature. On the one hand, they are sectoral policies whose aim is to contribute to their sustainability and development as business and professional activity. On the other hand, they are public vocation policies, aimed at responding to collective needs and the general interest. They complement each other: as far as mature and solid sectors exist, they can respond to the majority of cultural challenges. But the weight of public intervention is not symmetrical between sectors and is related to the limited financial viability of cultural activities about whose value there is a collective acknowledgement. In the case of heritage (museums, archives and libraries), the weight of the public is crucial. In other fields, such as programming and exhibition, it also has a majority position (especially in performing arts). Others have a more industrial

vocation, following logics more related to the market.

In any case, CCI have a particular feature. Despite their vocation to be considered from business logic, we cannot forget their symbolic character and value load beyond the economic. This is made obvious when negotiating free trade contracts, when "cultural exception" is defended, according to which, culture cannot be treated as just another piece of merchandise. The exception is based on a defence of cultural diversity in its wider sense.

Another of the considerations to be taken into account in public cultural policies in the Autonomous Community of the Basque Country is the need for complementary support so that the cultural offer in the Basque language can be competitive, bearing in mind that it is an expression of diversity and that its market is reduced. In this regard, public policies must act as compensatory elements in the market.

Therefore, public investment is necessary where the market does not reach because of the risk involved in investment, where it does not reach the socially desirable level, where it is not possible to apply the rules of free trade, where profit is not quantifiable in strictly economic terms and value is generated over very long periods, where the market is fragmented and suffers from deregulation, and where access to financing is difficult. If it is justified both in the cases of innovation and R&D on one hand, and in the cultural and creative sectors. When it comes to applying innovation and R&D to the latter field, there is a strong case for dedicated public support. It is the terrain of the experimental, of uncertainty, of risk, of unknowns. But there are economic, social and environmental reasons linked to cultural and creative value that show the need for public support.



8 BY WAY OF CONCLUSION

Having set out the arguments, what remains is to draw up the challenges to be met by R&D&I in the CCSs and to propose an operational definition of what are considered innovative and R&D projects in the CCSs, so that they can be tested, validated and applied in the coming years. In addition, questions are posed about which it is necessary to decide to carry out an innovation support strategy by the Department of Culture and Language Policy. In fact, they are key to allowing the design of future support policies for innovation conceived for cultural and creative sectors.

CHALLENGES IN A CRITICAL CONTEXT

Innovation is a necessary strategy to respond to the social and economic challenges society is facing at the moment. If global sustainability and digital transformation agendas are believed to be unavoidable, the position and contribution in these matters that can be taken up and made by CCSs must be a priority.

The interest in promoting more inclusive and cohesive societies, existing in all agendas, is a point in favour of cultural and creative projects because of their potential for personal and social transformation.

With regard to commitment from the perspective of innovation due to the disruptive, the hybrid, the collaborative, the intersection between disciplines, imagination, dynamism, and even frugality, these aspects are very close to the characteristic dynamics of culture and creativity.

DEFINITIONS OF INNOVATIVE AND R&D PROJECTS IN THE CULTURAL AND CREATIVE SECTORS

Innovative projects: those promoted by agents of the cultural and creative sectors, aimed at generating a **new or improved** products (goods or services)

or processes, which are differentiated because they introduce a **significant change** with respect to existing ones, and because they have been **made available** to potential users (products) or put into use (processes). There can be projects combining new products and processes. It must be possible to demonstrate with **evidence** that it has had an impact on the creation of economic, environmental or social value.

Cultural and creative innovation covers three elements of value that characterise it:

- The **intrinsic value** of cultural and creative experiences with meaning, responding to the challenges linked to the transformational capacity of culture.
- The **instrumental value** accruing to its capacity to generate benefits responding to the challenges generated by social and economic transformations.
- The **shared social value**, which is related to the processes, method and structures of the work of organisations implanted to create value and respond to the challenges around democracy and governance.

R&D projects: for a cultural or creative project to be considered R&D, it must have the aim of increasing knowledge and fulfilling five basic criteria: it must be new, creative, uncertain, systematic and transferable and/or reproducible. R&D in CCSs needs to use clear criteria like the obtaining of an appreciably new element or the treatment of uncertainty, as well as applying original research techniques. In these sectors, in addition to the application of the five criteria of R&D, the **institutional criterion** is recommended. To summarise, one must be aware of the following additional directives:

- The **context of execution** (institutional criterion). Research carried out within the framework of a university or officially recognised institution (museums, art centres, libraries, archives, etc.) could be included in R&D.

- The adoption of **recognised procedures**. Research must be formalised. Research activities must be identifiable and their results made available to the scientific community through publication in scientific or specialised journals.
- To determine the **TRL** which identifies the degree of maturity of a technology, and provides relevant information to establish the project's starting point and expected results.

DIFFERENTIATED TREATMENT OF INNOVATION AND R&D IN FUTURE SUPPORT PROGRAMMES

Although R&D forms part of innovation activities, it should be separated in future lines of support for a practical reason: the need to frame it in an institutional "researcher" context that helps to identify R&D projects from other research activities related to cultural and creative activity that are being promoted by cultural policies (and educational policies, in the case of higher artistic education). At the moment, there is no specific basic research site for CCI, apart from university research groups that may be developing projects about CCI. In this regard, information being obtained by the ksiGUNE Knowledge Hub will allow the discovery of research groups in the Autonomous Community of the Basque Country.

One could think of creating a network of knowledge agents (Basque Network of Cultural and Creative Agents), with the participation of private agents, research groups, the Basque Science, Technology and Innovation Network and Creation Centres such as Azkuna, Tabakalera, specialised Production Centres such as Harrobia, or some of the consolidated Creation Factories that form part of the Sorgune programme, aimed at promoting an R&D programme "for" creation.

If one chose the route of opening a specific programme devoted to R&D in the cultural and creative sectors in collaboration with existing knowledge networks in this field, it would be necessary to begin a process of

comparison with agents capable of forming part of that future network.

AGENTS, PROJECTS AND VALUE GENERATION

The cultural and creative tissue is unique. Its structural features are determined by being a sector where public logic resides alongside a private logic and a community logic. We find ourselves with a context in which cultural activities whose viability in the free market is problematic, to which it is not appropriate to apply industrial methods of production and which require financing and complementary support, co-exist alongside others who develop in the market, who aim to obtain financial profitability and aim to make a profit (the CCI, strictly speaking). The third sector or non-profit private sector is also deeply rooted in the cultural sector and is essential in some of the CCSs. This diversity is also reflected in the different profiles of agents who benefit from the current forms of aid related to innovation (KSI Berritzaile, Bitartez, Sorgune y Nuevos Públicos [*New Audiences*] programmes).

A different type of value creation linked to innovation applies to each of the logics referred to. For-profit agents associate value creation with economic benefit (primarily turnover and employment); non-profit agents generate public benefit and social value. For the former, the centrality of frameworks such as the SDG in their agendas, and the growing importance of social co-responsibility, will contribute to their increasing awareness of social and environmental values. In the case of non-profit agents, they must incorporate elements of value related to economic and environmental matters.

It is worth remembering the importance that the new European framework grants culture and creation as means of propulsion for inclusive growth. Equally, in the Culture Plan 2022, one of the premises is the centrality of culture as a key element in the configuration and social cohesion of society. Thus, economic value and social value must be considered in future policies to support innovation in CCSs. Reflection leads to distinguishing them according to the diverse profiles of

agents and projects they aim to promote. It is also worth opening the debate regarding the introduction of innovation support which creates environmental value in CCSs. Until now, they have not been considered explicitly from the cultural policies of our surroundings. All the more reason to propose it at a time when it is being included in global and local political agendas, and when its social importance is growing.

SUPPORT TOOLS OR FORMULAE

The loss-making nature of some of CCSs has led to the predominant model of aid from public administrations being of a direct type, mainly through subsidies, either competitive, direct or nominative. The argument on which they are based is their capacity to contribute benefits to the population as a whole. But there are other forms of direct support which can be considered in future support policies for innovation in these sectors. One of them is the cheque or voucher policy. They are small credit facilities offered by governments to small businesses and entrepreneurs to buy services from suppliers. They are being applied to introduce innovations into the company. Cheque innovation programmes are usually promoted to boost innovation in products, services or processes and applied investigation by means of collaboration between companies, research centres and government. A good example of the innovation voucher is the technological line of the KSI Berritzale programme, aimed at technological transference, with the target of guaranteeing the relationship between technological centres and companies.

Cheques or vouchers provide the right to payment for a free service, normally related to the incorporation of innovation in the company. It is a monetary subsidy formula in the shape of expenditure vouchers to be invested in innovative services offered by institutions or specialised companies. They are usually cashed in for specialised services related to business innovation and development: marketing, management, design, intellectual property rights, R&D, etc. The European Commission recommends them

as an instrument reducing access barriers to aid.

Another of the possible formulae are refundable contributions, financial aid in the shape of co-financing, allowing the company to obtain financing for a cultural project. They are an innovative commitment allowing the company to have liquidity to undertake a cultural project which provides the double help of a subsidy plus a loan. The aid is returned within a deadline adjusted to the financial necessities of the project and taking into account the success or failure of the proposal. As the cultural project begins the period of exploitation, the return of the contribution begins, without interest. The problem is that if the contribution cannot be returned, it becomes a de facto non-competitive subsidy.

In any case, there are other indirect support formulae, whether through financial instruments of debt or capital, through guarantees or through fiscal incentives. Among the instruments to finance capital, risk capital is one of the most widely used formulae to finance high-risk and highly profitable business. It must be taken into account that small and medium-size businesses in general lack the capacity to manage innovation processes from the birth of the idea to its marketing due to their risk. On the other hand, CCSs are highly innovative, but they do not always have the vision to make that innovation profitable.

In short, in addition to direct subsidies, there are possibilities to apply diverse innovation support instruments in the cultural and creative sectors.

MEASUREMENT OF R&D&I

There are internationally approved sources of information and indicators to measure the performance of innovation in sectors as a whole. They are the ones used for comparison between different territories and which serve as a basis for diagnostics carried out by specialised bodies such as Innobasque. They are also used to analyse competitive capacity in these matters in economic sectors as a whole.

If there is a desire for CCSs to be better represented in these data, the first step is to analyse cultural and creative activities included in existing statistics, and their respective weight with regard to the remaining sectors, as well as the synthetic indicators EIS and RIS. In this regard, it is essential to collaborate with Eustat.

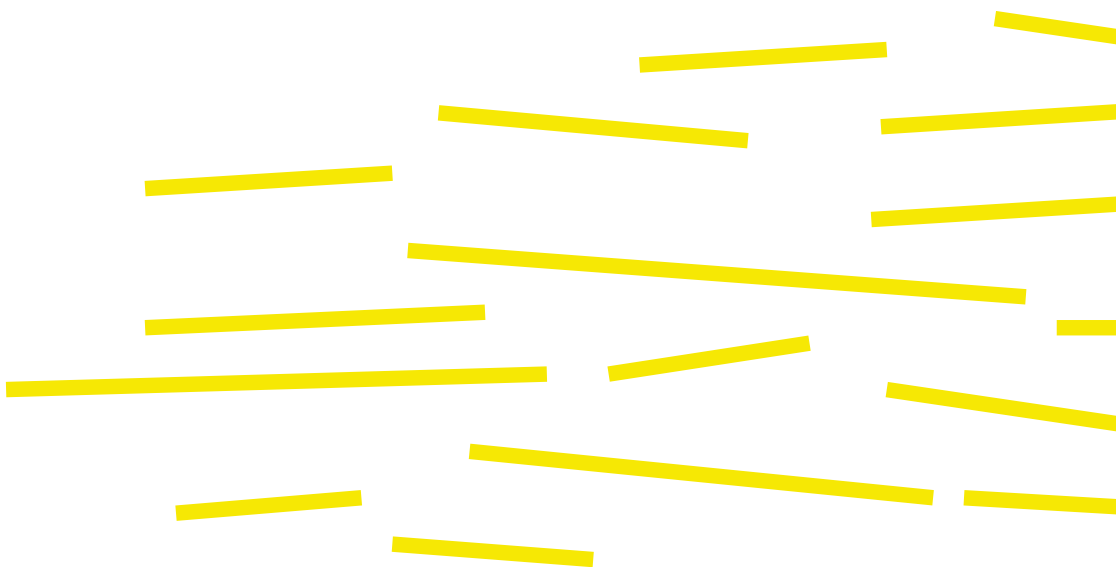
But, in addition, there are other complementary routes to obtain data about R&D&I. One of them is already underway with the work carried out by the Knowledge Hub, which will provide data on the research groups with links to the CCSs in the Basque training offer.

For its part, for a greater knowledge of the impact of innovation in CCSs, the possibility could be explored of adding questions relating to R&D&I in the statistics promoted by the Basque Observatory of Culture.

NEXT STAGES

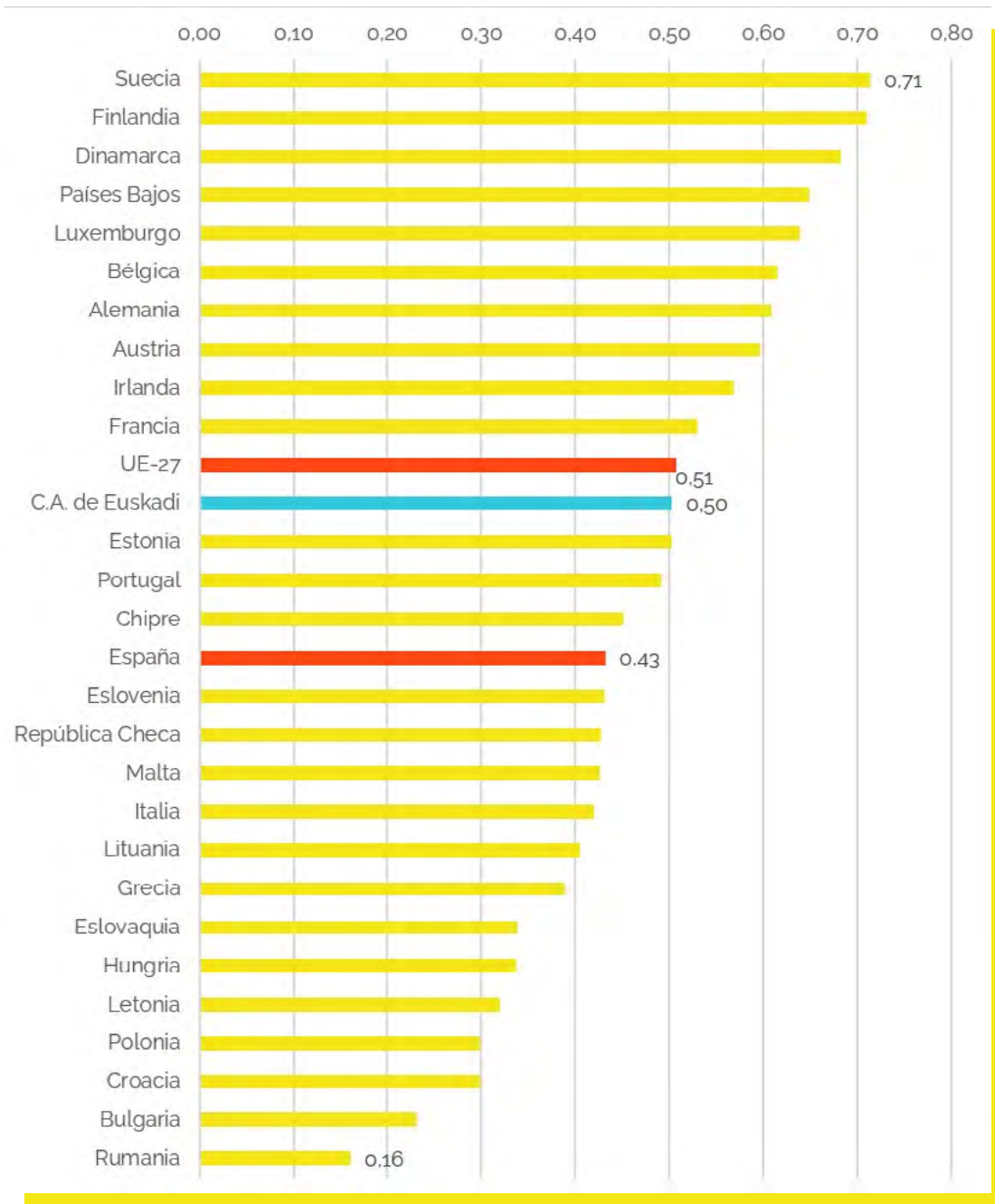
After the work of conceptualisation carried out, the next steps which will give continuity to this report have the objective of designing a proposal of incorporation of R&D&I in the CCSs. Given the novelty of the application of R&D&I in the cultural and creative sectors, actions must be carried out prudently and progressively. Thus, two complementary and parallel work routes have been undertaken:

- Organising a conference to compare the R&D&I proposals in the cultural and creative sectors with international experts (2021). If it is necessary to validate any new project with all the agents it affects, when it is a question of opening up a line of work that has been little explored until now, the work of sharing and comparing with specialists becomes an essential step to ensure that the path taken is the right one.
- Applying progressively the concept of R&D&I in two cross-departmental open calls of the Directorate of Promotion of Culture (2020-2022). The knowledge applied to the real basis of the two programmes will make it possible to check whether the reflection being carried out can be transferred to the reality of Basque CCSs, in order to make the necessary adjustments and to assess the results.



ANNEXE 1: EIS INDICATORS. COMPARED SITUATION OF THE BASQUE COUNTRY

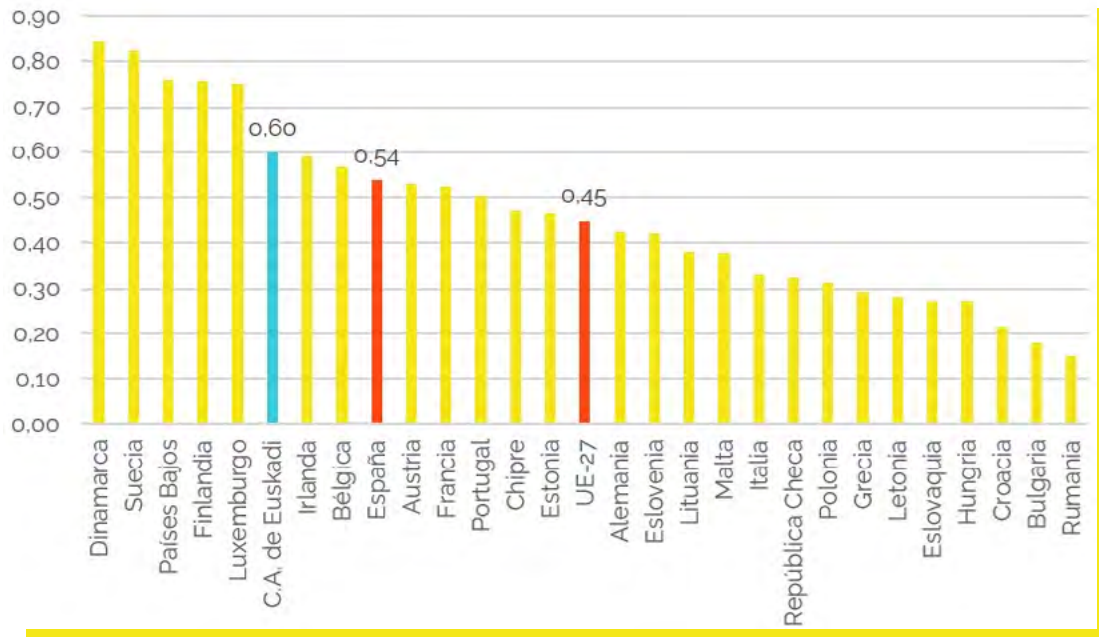
EIS 2020 global ranking



Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Framework conditions

Composite index of framework conditions



Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Indicators of block 1

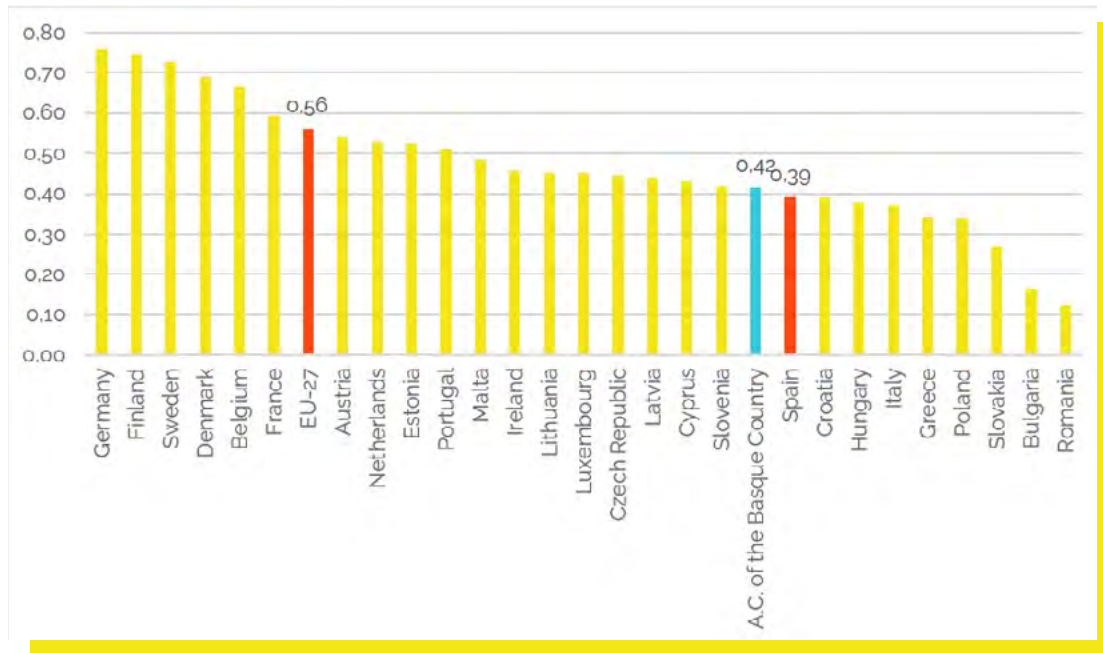
		Basque Country	UE-27
1.1 Human resources	1.1.1 Newly graduated PhDs (% group 25-34 years)	3.47	1.94
	1.1.2 Percentage of population between 25 and 34 years of age with tertiary education	50.40	39.20
	1.1.3 Percentage of population from 25 to 64 years old participating in lifelong learning	10.60	8.50
1.2 Attractive research systems	1.2.1 International scientific co-publications per million inhabitants	1633.9	1092.5
	1.2.2 Scientific publications among the top 10% most cited internationally as a percentage of the total of scientific publications in the country	10.21	10.03
	1.2.3 PhDs from outside the EU as a percentage of the total number of PhDs in the country	33.71	17.83
1.3 Environment open to innovation	1.3.1 Broadband penetration	34	23
	1.3.2 Entrepreneurship boosted by the opportunities (motivational index)	1.93	3.57

Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Comparison with the EU-27 legend:
Green = Upper value;
Orange = Approximate value;
Blue = Lower value

Investments

Composite index of investments



Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Indicators of block 2

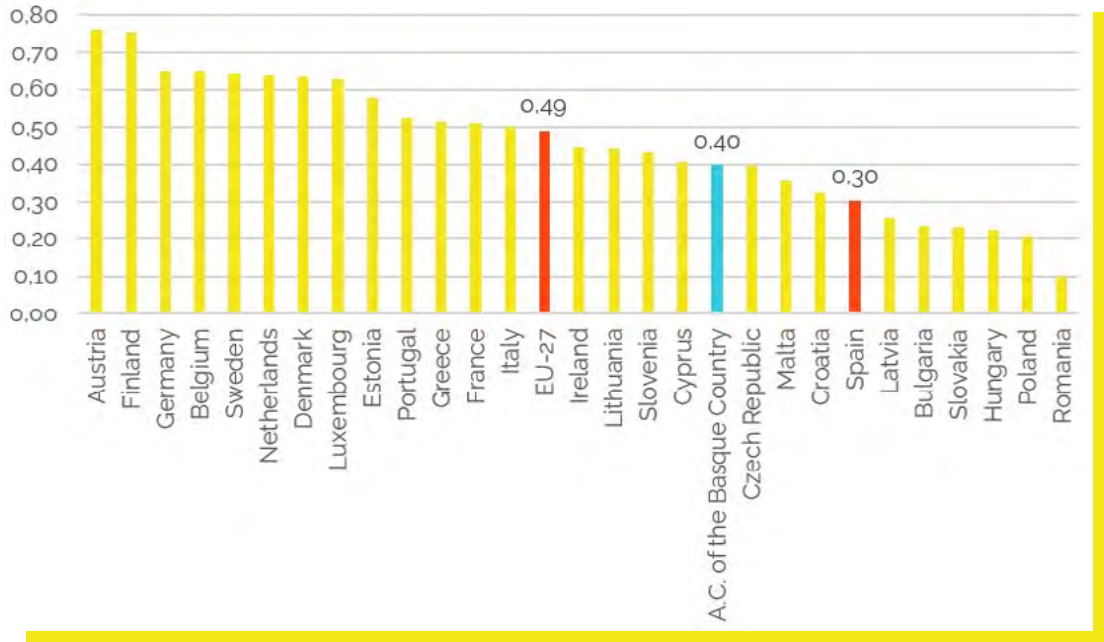
		Basque Country	EU-27
2.1. Financing and Support	2.1.1 Public expenditure on R&D as % of GDP	0.45	0.72
	2.1.2 Venture capital as % of GDP	0.06	0.12
2.2 Business Investments	2.2.1 Private expenditure on R&D as % of GDP	1.40	1.45
	2.2.2 Expenditure on non-R&D innovation as % of the total business figure	0.61	0.86
	2.2.3 Provision of training for businesses to develop or update the ITC skills of their staff	24.2	23

Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Comparison with the EU-27 legend:
 Green = Upper value;
 Orange = Approximate value;
 Blue = Lower value

Innovation activities

Composite index of innovation activities



Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Indicators of block 3

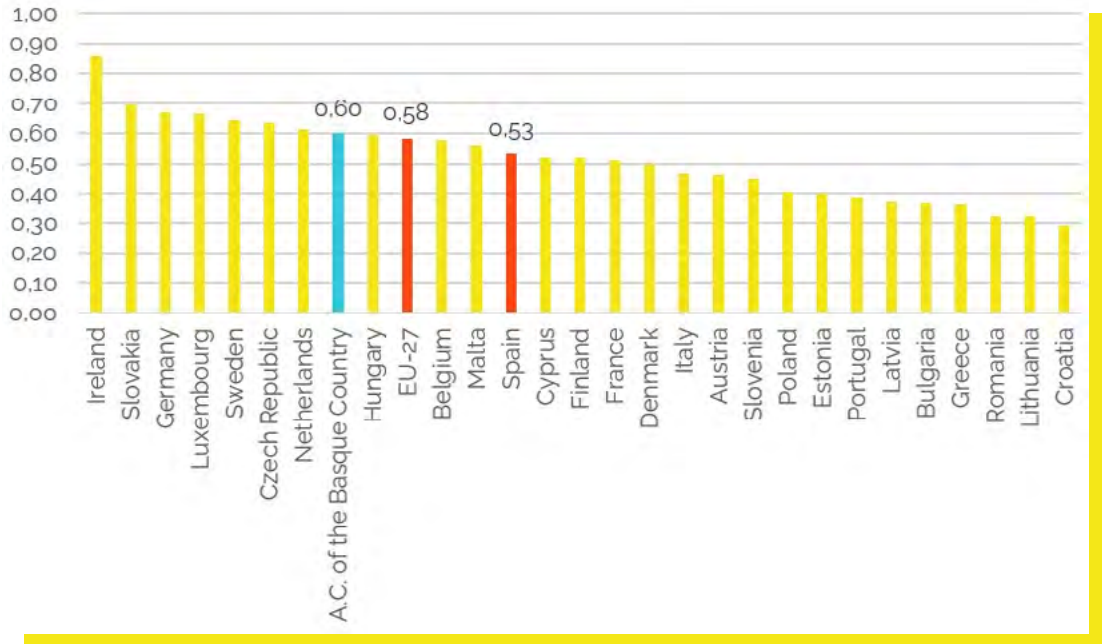
		Basque Country	UE-27
3.1. Innovators	3.1.1 Small and medium-sized businesses who are innovators in product or process as % of small and medium-sized businesses	39.94	33.84
	3.1.2 Small and medium-sized businesses who are in marketing or organisation as % of small and medium-sized businesses	20.60	35.01
	3.1.3 Small and medium-sized businesses with internal innovation as % of small and medium-sized businesses	32.14	28.61
3.2 Links	3.2.1 Small and medium-sized businesses who collaborate with others as % of small and medium-sized businesses	13.54	9.32
	3.2.2 Public-private co-publications per million inhabitants	-	91.44
	3.2.3 Private co-financing of public expenditure on R&D	0.02	0.05
3.3 Intellectual assets	3.3.1 PCT patent applications per billion of GDP (in PPP euros)	1.25	3.39
	3.3.2 EU commercial brands per billion of GDP (in PPP euros)	5.77	8.21
	3.3.3 EU designs per billion of GDP (in PPP euros)	1.55	4.05

Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Comparison with the EU-27 legend:
 Green = Upper value;
 Orange = Approximate value;
 Blue = Lower value

Impacts

Composite index of impacts



Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Indicators of block 4

		Basque Country	EU-27
4.1. Impacts on employment	4.1.1 Employment in knowledge-intensive activities as a % of total employment	12,40	13,70
	4.1.2 Employment in companies in innovative rapid growth sectors	6,69	5,15
4.2 Impacts on sales	4.2.1 Exports of medium and high technology products	55,35	57,14
	4.2.2 Exports of high knowledge level services as % of the total of service exports	39,62	68,40
	4.2.3 Sales of innovative products new to the market and to the company as % of business amount	19,06	12,51

Source: Own preparation of data from Eustat's EIS Panel of Innovation Indicators

Comparison with the EU-27 legend:
 Green = Upper value;
 Orange = Approximate value;
 Blue = Lower value



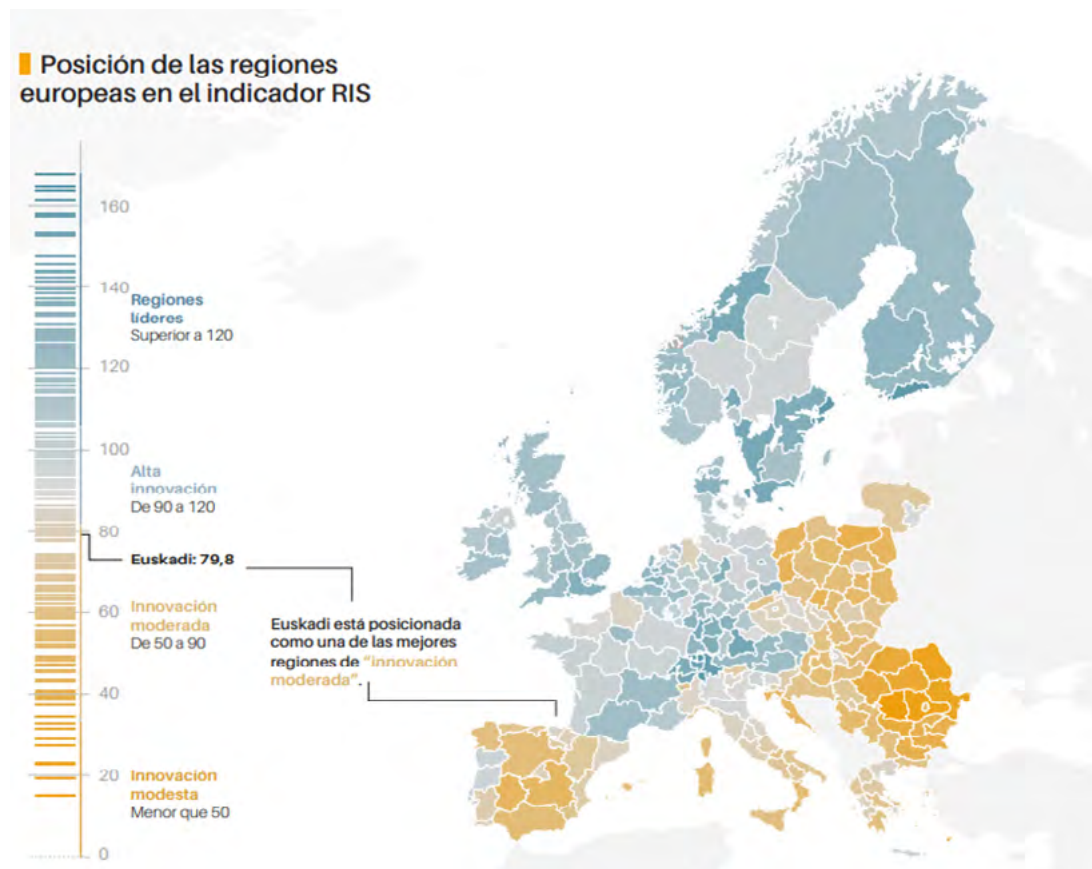
ANNEXE 2: RIS INDICATORS. COMPARED SITUATION OF THE BASQUE COUNTRY

RIS indicator with reference to the value of the EU-28 in 2011 as 100 (%)



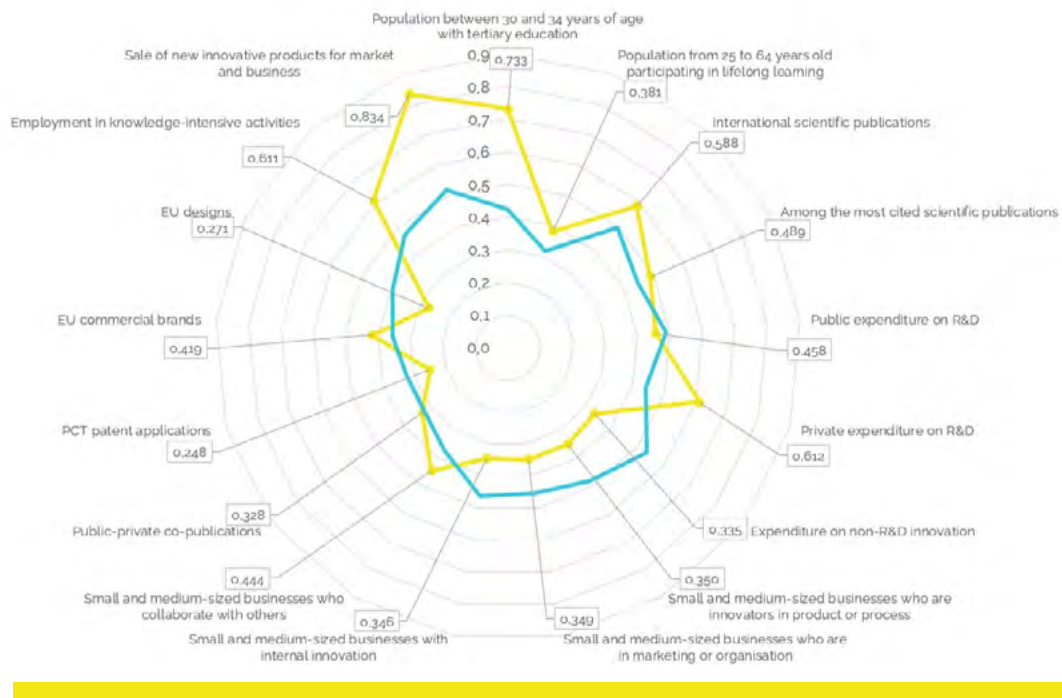
Source: Own preparation from data from the *Regional Innovation Scoreboard 2019*

Compared position of the RIS indicator



Source: "Innobasque Innovation Report 2020. Keys for recovery based on innovation"

Compared RIS profile of the Basque Country (normalised score of each indicator)



Source: Own preparation from data from the *Regional Innovation Scoreboard 2019*

Yellow = Basque Country
Blue = European regions average

