Towards Design and Creativity in the European Work Programmes

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Abstract

The paper investigates the growing adoption of design approach and its tools and the emergent inclusion of design and creativity in the new funding programs of the European Commission. It is assumed as a progressive process, with specific milestones, that move towards cross-disciplinarity between different sectors, and integrate citizens' inclusion in the innovation pathways at different scales. The contribution presents the turning points in the introduction of participatory methodologies and design as a multidisciplinary and transversal medium to foster a multi-stakeholders dialogue.

The rethinking opportunity generated by the COVID-19 emergency has been seized by the European Commission, which put in evidence the relation between design and R&I processes, to foster cross-innovation and multiple knowledge, blurring the boundaries between creation, distribution and reception, with a special eye on culture and creativity.

Keywords

Design and creativity
Transition processes
Co-design
Research and innovation

Introduction: Co-Design as a EU Practice

The pervasive changes in social, economic and ecological domains have been accelerated by the revolutionary power of COVID-19, influencing multi-level and multi-scale processes and dynamics, with a strong reflection on policies and tools to support innovation, growth and sustainability considering the centrality of human dimension.

The user experience, adaptive, personalised and co-designed, becomes fundamental to guarantee sustainability, equity, an improvement in people's lives, and an orientation towards responsible production dynamics (Gaziulusoy et al., 2021; Marotta et al., 2021).

The rethinking opportunity generated by the COVID-19 emergency has been seized by the European Commission (EC) in the strategic program of the European Green Deal action plan (2019), which represents an integral part of the Commission's strategy to implement the 2030 Agenda and the UN Sustainable Development Goals. By developing growth strategies and policies, to support a "just" transition Fig. 1 (repairing the damage of the past and creating new power/interest relationships for the future), the EC has expressed the need to identify a competent movement to lead part of this transition through the New European Bauhaus (NEB).

The initiative, by linking the Green Deal to the lives of citizens, represents the evidence of a more radical change of thinking, transforming the rules of the game in terms of redistribution of resources, strengthening the role of the citizen as an individual and as part of a collective system, producing new visions in the economic processes of production and consumption, through the integration of inclusive and creative multi-cultural spaces and a rethinking of the labour system. A bridge is therefore promoted between the fields of science and technology and the fields of art and culture, to combine design, sustainability, accessibility as key pillars of the transition towards a more sustainable future. Fig. 2

Fig. 2
 Key factors for the EU Green Deal Just transition process.

The whole NEB initiative is conceived as a process of co-creation, which should involve both *design experts* and *design non-experts* (Manzini, 2015). Through the use of digital platforms, meetings are planned to collect and integrate new ideas from artists, students, academics and other innovators to define the needs and challenges emerging in the real application of the Green Deal revolution.

Tools such as “conversation kit” and the collection of inspiring examples have been set up to foster knowledge exchange and to speed up networking processes.

Moreover, the definition of the first Horizon Europe’s Strategic Plan and its missions has been conducted through a participatory method, involving stakeholders and citizens’ perspectives through a dedicated strategy (Democratic Society, 2018). Two sets of co-design activities, a web-based consultation (which have collected 6806 answers) and the Research and Innovation Days¹ (4000 stakeholders) took place between June 2019 and October 2019. The co-design phases’ results have been used for the main settings of Research and Innovation programming, giving more space for creativity and allowing exploration “out of the box”, facilitating the discussions between researchers and European legal and socio-economic backgrounds. This results are summarised in the HEU’s Strategic Plan 2021–2024², in the content of the Work Programme, while retaining sufficient flexibility to respond rapidly to emerging and unexpected challenges.

The emergent importance to consider the surrounding environment and the citizen dimension has been interpreted by Mariya Gabriel, European Commissioner for Innovation, Research, Culture, Education and Youth, during the launch of the new HEU programme for the period 2021–2027, as “our neighbourhoods, our heritage, the spaces we share and the lifestyles we develop”. The role of research in this dynamic has certainly undergone a phase of self-analysis, acknowledging that the research results were somehow disconnected from the external context and not necessarily accepted by the society. The assumption that the just transition needs an unprecedented collaboration between different sources of knowledge, will lead to new relationships, technologies, types of affective culture and ways of organising the world (Wark 2015). For example, the role of design in the promotion of sustainability solutions and the contribution of culture to finding solutions to the climate crisis are reinforced, opening up the discussion to critical fields of design, architecture and planning, but also to advocates of transition cities, environmental activists, and ordinary people, to co-design changes to practice, to shape cultures, to build low-carbon and post-carbon futures (White, 2019; Sampsa et al., 2019).

The paper aims to give evidence to the growing adoption of design approach and the emergent inclusion of design and creativity in the new funding programs of the EC. The evidence-based method adopted follows two main steps:

- 1 to develop a semantic analysis on the progressive inclusion of “design” and “creativity” in the European programmes and policies. This analysis is coupled by the identification of the specific milestones that marked an advance in the introduction of design cultures in the development of European programmes up to the Green Deal and the NEB;
- 2 to focus on the cross-disciplinarity between design cultures, different sectors and citizens inclusion in the innovation pathways at different scales.

Moving Towards Design and Creativity in the European Research and Innovation Framework Programmes³

In this paper, the word “design” refers to broad definitions related to the design discipline (Papanek, 1971; Germak, 2008; Celaschi et al., 2019), not to the generic use of the verb “to design” as used in current English.

The role of design in the definition of innovation policies has been growing since 2010 (Whicher, 2015) but it is within the H2020 programme, particularly in the 2018-2020 Work Programme, that the presence of this discipline has emerged, and then consolidated in the draft documents of Horizon Europe. The relevance of design within R&I processes has been recognised by the EC since FP7⁴: the definition of “innovation” proposed by the flagship initiative “Innovation Union” (EC, 2011), already included the words “creativity” and “design”, supporting the idea that the concept of innovation was not related only to technology, but also to other

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This paragraph has been drafted with the collaboration of Alessia Franchini, University of Bologna. European research advisor, expert of EU funding programmes in the field of socio-economic sciences, humanities and cultural cooperation. <https://www.unibo.it/it/ateneo/organizzazione/amministrazione-generale/4082/4099/index.html>

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<https://cordis.europa.eu/about/archives>

spheres, such as the social sphere, the sphere of public services, etc, that needed to be supported by co-design practices.

During the 2018–2020 Work Programme, co-design, intended as a set of participatory methodologies mediated through the tools of design discipline (Meroni et al., 2018), has represented a medium tool to merge the technical expertise with the needs of end-users and stakeholders, facilitating their involvement into the innovation process. The inclusion of co-design practices into the development of innovation actions, fostered by the public sector, is relevant because it strengthens inclusion in R&I processes (Rizzo et al., 2020).

The evolution of the role of design in the definition of innovation policies is related with the use of design terminology in official EC documents.

The first methodological step adopted in this investigation is a semantic analysis of the calls related to a selection of work programmes in H2020 and HEU⁵, carried out in order to investigate the adoption of design-specific terminology and its evolution over the years. The selection is based on thematic areas in which the discipline of design has progressively acquired value. The analysis includes the H2020 2016–2017 Work Programme, because it presents an important paradigm shift: from “science in society” to “science with and for society”⁶, as evidence of the pervasive presence of the “co-creation concept”.

The investigation is carried out by processing the texts of the calls using a text analysis tool, comparing the percentage of repetitions of specific keywords and finally visualizing the quantitative results. In particular, the repetition of words related to the term “design” and to terms “creative” and “creativity” has been observed.

Concerning the term “design”, it can be noted Fig. 3 that there has been a progressive increase in its use in HEU, where it is on average more present than in the calls belonging to H2020.

Although the term “design” may also refer to the concept of “project development”, thus not limited to a specific disciplinary context, we believe that preferring this term over more general synonyms may indicate a disciplinary influence, also demonstrated, as previously mentioned, by an increasing disciplinary relevance within the European R&I context.

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We have considered into the analysis the following documents of Horizon 2020:
- WP 2016-2017 (H2020 16-17 Societies)
 - WP 2018-2020 (H2020 18-20 Intro)
 - WP 2018-2020 (H2020 18-20 SFWS)
 - WP 2018-2020 (H2020 18-20 Societies)
 - (H2020 18-20 Green Deal)

Concerning the Horizon Europe program the analysis has been made on the drafts published on Science Business website <https://sciencebusiness.net/framework-programmes/horizon-papers>, considering: Horizon Europe 21-22 Clusters 1-6.

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https://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-swfs_en.pdf

Fig. 3
Analysis of the term “design”

Concerning the terms “creative” and “creativity” Fig. 4, their presence is mainly linked to certain thematic fields: it can be noticed a much greater repetition in the Green Deal call and in the Cluster 2 of HEU, showing that the concept of creativity is becoming central to the concept of empowerment of communities and society, but remains relatively excluded into other thematic fields. However, despite the fact that in most HEU calls there is no relevant repetition of the terms analysed, in almost all calls there is at least one section related to community involvement, indicating that interest in co-design practices is growing.

The next paragraphs investigate further the connection between creativity, community involvement and design as a medium between different knowledge sourcers, and the further research branches that this renewed interest can generate.

Cross-Innovation, Multiple Knowledge and the Interaction With Cultural and Creative Sectors⁷

Nowadays, within a broader urge to design social and sustainable advancement, more and more innovation is driven by other factors, such as the capacity to adapt to new circumstances, to co-create solutions with end-users, to design new organizational and cross-sectoral workflows. Creativity has been identified among the major drivers, as a fundamental step towards a disruptive way of thinking, crucial to accelerating change.

Now more than ever, culture and creativity have such a transversal centrality: an oxymoron stressing their role in Cluster 2 of HEU, entirely dedicated to CCI and Cultural Heritage. The transversality of HEU funding programme is underlined by the EC recommendation to adopt a cultural crossover with all the other

7 This paragraph has been drafted with the collaboration of Alessia Franchini, University of Bologna. European research advisor, expert of EU funding programmes in the field of socio-economic sciences, humanities and cultural cooperation. <https://www.unibo.it/it/ateneo/organizzazione/amministrazione-generale/4082/4099/index.html>

Fig. 4 Analysis of terms “Creative” and “Creativity” (https://docs.google.com/spreadsheets/d/1xAP-Kj4djtmcF_QBPmxUPg-PwAHF046iGM99OwL-f4ODq4/edit#gid=0)

clusters⁸ to enhance innovation. The recognition of the Cultural and Creative Sector (CCS) had a turning point in 2015, when the project S+T+ARTS⁹ was launched to foster alliances between science, technology and the arts (Meeker, 1978), to effectively implement a European approach to technological innovation centered on human dimension. This holistic approach followed up the findings of previous activities funded by the EC, namely ICT&Art 2012, FET-ART, ICT ART CONNECT 2013 and ICT ART CONNECT study. Its results demonstrated the worldwide need of hybrid collaborations among STEM (Science, Technology, Engineering, Mathematics) disciplines and Social Science and Humanities (SSH) and their relevance. In 2018, the World Economic Forum defined the importance of STEAM (+ Arts) focusing on the importance of cultural experiences in young people's education pathways, to be more confident about their aspirations, and more tolerant of social and cultural differences.

Many disciplines can intervene in today's innovation challenges: such as in building more intersectional and inclusive methods, or in understanding how to deal with minorities, or in understanding how a cultural context can affect a given solution. This approach has been fully absorbed in the EC current vision, (already expressed in in the 2018 European Agenda for Culture¹⁰). Finally, culture has started to be considered as an economic driver (KEA, 2009; KEA 2012; EU Green Paper, 2010) and a key asset at the top of every kind of value chain (Sacco, 2011). The importance of combining culture and creativity with areas such as social cohesion, integration, wellbeing is found today in many EU Work Programmes' topics, for example in those concerning cultural institutions and pandemics. Today the question is no longer: "How do I make museums survive?" but it is also "How do I ensure that museums and cultural institutions become community-actors of a so-called new renaissance?" exploring not only the economic and social outcomes, but also the experiences and the wellbeing of people, in favor of the idea of cultural welfare (Fancourt & Finn, 2019). Culture and creativity are the areas where the idea of social inclusion can be achieved, where new social actions and community involvement can be developed, overpassing the mindset gaps about the concept that the wellbeing of communities (especially vulnerable and marginalized) goes also through cultural aspects.

Therefore, the recovery of European economies after the COVID crisis will be partly monopolized by cross-sectoral innovation and cooperation with CCS, accelerating innovation among different sectors, with a special eye on culture and creativity. As stated in the last study of the European Parliament¹¹, even though CCS businesses are certainly very familiar with intra-sectoral collaborations, the acceleration given by the crisis is an emerging opportunity.

Within the context of Flagship initiatives previously mentioned¹², creativity and design are officially acknowledged to be a peculiarity of our continent. That was a turning point in the introduction of participatory methodologies as a transversal medium to foster an intercultural dialogue. The adoption of co-design and open science practices supports the will of empowering the social fabric as the basis of democracy, but also to reconcile the relationship between society and science, rebuilding a good scientific dissemination.

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https://ec.europa.eu/info/sites/info/files/research_and_innovation/knowledge_publications_tools_and_data/documents/ec_rtd_fact-sheet-culture-creativity-inclusivity_2019.pdf

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<https://www.starts.eu/about-2/>

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<https://ec.europa.eu/culture/document/new-european-agenda-culture-swd2018-267-fina>

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Cultural and creative sectors in post- COVID-19 Europe. Crisis effects and policy recommendations. Policy Department for Structural and Cohesion Policies Directorate-General for Internal Policies, February 2021.

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<https://eur-lex.europa.eu/legal-content/EN/TEXT/HTML/?uri=CELEX:52010DC0546&from=EN>

The diffusion of open access publications, social media and citizen science practices represents an opportunity to open up research and innovation to society by reaching large sectors of the public and at the same time strengthening scientific literacy. In the Europe point of view, there is an urgent need to make research results and innovative solutions more “visible”, increasing trust and legitimacy, and foster their uptake and acceptance, involving citizens at a deeper level, giving legitimacy to the funding of European projects, as well as countering the phenomena of fragmentation of society and lack of trust.

New initiatives have been developed and tested, to re-design the trust through co-design methods, creative sharing and engaging communities, enabling new tools to respond proactively to societal challenges (OECD, 2019). Part of these tools put in evidence the socio-cognitive effects in terms of attitudes toward innovation and change deriving from people’s participation in cultural activities (KEA, 2006, 2012 and 2015; Nesta 2008, TFCC, 2015), blurring the boundaries between creation, distribution and reception.

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https://en.unesco.org/creativity/sites/creativity/files/artistic_freedom_pdf_web.pdf
- 14
<https://www.una-europa.eu>
- 15
<https://eit.europa.eu/library/press-release-eit-turns-up-volume-creative-cultural-industries>

Conclusions and Future Research Branches

Cross-fertilisation is paving a new way towards social innovation, where the impact of culture and creativity goes beyond economic value alone, aiming to tackle significant societal issues: inclusion, health, environmental sustainability, digital transition, citizen science, etc Fig. 5.

Fig. 5
 Cross-fertilisation
 between CCS and other
 sectors

The connection between innovation and the involvement of end-users and stakeholders has also become part of this new paradigm. Research and innovation are no longer produced behind the doors of academia or strictly bonded to scientists' environments, but now they have turned into an open process producing results from different sources of knowledge, from a variety of actors with social, cultural and professional backgrounds (Magas, 2020). CCS have been demonstrating an increasing role in this process through their consolidated citizen centered approach, but also with a progressive acknowledgement in the pandemic period of the value and benefits that culture and creativity might usefully provide. CCS have proven an incredible flexibility and adaptation to changes (NESTA, 2020), designing and adopting remote systems, innovative technological solutions, offering meaningful experiences, despite physical distancing or lockdown.

Culture and creativity are now considered a pillar in the innovation discourse, as "it still focuses too much on science, technology and economic growth; it misses out in many cases on the importance of social innovation and aesthetic values. A broader notion of innovation is required in innovation policy" (Magas, 2020). CCS's genial capacity to adapt and acquire know-how and new tools revolves around its freedom of experimentation¹³, crowning culture and creativity as the key drivers leading Europe to increase competitiveness and smart growth.

In this framework, design cultures and their imaginative capacity can support the creation of possible futures, making tangible and closer to the people the complexity requested by the Green Deal and the NEB initiatives. The prototyping approach promoted by the design practices, can be assumed as a continuous process of updating and assessment of the products and services' efficiency and adaptability, with the aim to derive insights connected to the contemporary challenges, but also generating debates and scientific advancement, dynamic tools, mixing technologies and humanities, nurturing a wide collaboration among different actors. The Advanced Design Unit (ADU) of the University of Bologna is part of this process towards cross-innovation, participating in local NEB initiatives in the city of Bologna and with a direct involvement as member of UNA EUROPA Research Alliance¹⁴ in the action promoted by the European Institute for Technology and Innovation (EIT) to power European CCS by launching the new creative and cultural industries' Knowledge and Innovation Community¹⁵ (KIC). ADU's vision is to implement cross-sector dynamics in its education curricula and to contribute with its studies and research to support the European competitiveness in the CCI sector.

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