

# DESIGNSCAPES



## *White Paper on Design Enabled Innovation in Europe*



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## White Paper on Design Enabled Innovation in Europe

DESIGNSCAPES. Design-enabled Innovation in Urban Environments

<https://designscapes.eu/>

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# DESIGNSCAPES

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## White Paper on Design enabled Innovation in Europe

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# GLOSSARY

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Acronym	Definition
AI	Artificial Intelligence
CSA	Coordination and Support Action
Del	Design enabled Innovation
EIC	European Innovation Council
EIP	European Innovation Partnership
EIT	European Institute of Innovation and Technology
ERDF	European Regional Development Fund
ESIF	European Structural and Investment Funds
ESF	European Social Fund
EU	European Union
H2020	Horizon 2020
HEI	Higher Education Institution
ICT	Information and Communication Technology
IP	Intellectual Property
KIC	Knowledge and Innovation Community
MS	Member State
R&D	Research and Development
SCC	Smart Cities and Communities
SDG	Sustainable Development Goal
SME	Small and Medium Enterprise
ToC	Table of Contents
UN	United Nations



# EXECUTIVE SUMMARY

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Design can express culture, develop novel concepts and new products, underpin business growth, facilitate social innovation, humanise technology, and support and guide systemic change to deliver a better life.

It has been a decade since the time when the EU first recognised design as the source of innovation and included it in the core themes of Europe 2020 flagship initiative Innovation Union<sup>1</sup>. In the last ten years, both the design discipline and the policy environment have changed considerably. Therefore, it is urgent for EU policy makers to adopt a new dynamic and update existing design innovation policies to meet new challenges in today's new and complex policy environment.

This White Paper proposes a next generation of EU design innovation policies with a focus on the shift from traditional design-driven innovation to Design enabled Innovation (Del), with a view to harnessing the full potential of design to trigger systemic change in a broader socio-technical level to address pressing global challenges today.

## **Towards a new transformative paradigm**

Del stresses the utilisation of design skills and approaches to enhance value creation by shaping a shared view of key issues and challenges, while producing new functions, uses and meanings through a multi-disciplinary, multi-level and networked process of change.

The core of the Del approach is to strengthen the co-creation capacity of citizens / users in the process of all types of innovation through co-design between expert design and diffuse design. It emphasises design as an infrastructuring mechanism that facilitates the involvement of design experts and users in all phases of the maturity of niche innovations, ultimately supporting a long-term systemic change.

## **Mapping Del initiatives across Europe**

In Europe, Del initiatives are generally dispersed but also geographically concentrated in some countries and regions,

especially in Western and Northern Europe with the highest concentration and in the Mediterranean Europe with the widest distribution. They are characterised largely by project-oriented small teams, moderate costs, focus on product and organisational innovations, local market targets, and addressing urban, economic and environmental topics. In addition, businesses (SMEs in particular), people, civil society organisations, academia and local government bodies are five key players of Del initiatives.

In spite of the rich opportunities, such as quality design resources and facilities, and in terms of democratic engagement and civic participation, however, many European countries and regions are facing the main challenge to turn Del into an innovative advantage because of a series of market, environmental, institutional and technological barriers.

## **The urban environment fosters Del**

Cities are the most significant environment in which innovations take place. To promote Del, policy makers should exploit the overall design innovation potential of European cities. To achieve this goal, EU design innovation policy should be re-shaped in line with current EU agenda and action, including, but not limited to, the Urban Agenda for the EU and the New European Bauhaus Initiative. This further requires policy makers to take necessary measures to enhance cities' capacities for Del. By so doing, three key actions should be taken, including: (i) fostering innovation dynamics in niche markets within cities; (ii) strengthening the scalability of innovation within and beyond city boundaries; and (iii) developing mission-oriented innovation policies to solve targeted global challenges and urban problems.

## **Shaping a broad-based design innovation policy**

The new EU design policy should aim to exploit the generative potential of urban environments in the highest possible number of European cities to encourage the uptake and upscale of Del by existing businesses, civil society organisations, academic institutions, public administration and other urban stakeholders, ultimately enhancing the design innovation capacities of European cities to achieve sustainable development goals through successful response to pressing global challenges.

<sup>1</sup> . Whicher, A., & Swiatek, P. (2015), Service Design Policy Trends 2015-2020: The European Commission's influence on design-driven innovation. Touchpoint 7(1), 16-21.

This means that a new design innovation policy needs broadening in five aspects, including:

- **Broadening the scope of design beyond form-giving and aesthetic-orientation.**
- **Broadening the scope of design-driven innovation beyond aesthetic and soft innovation.**
- **Broadening the agents of innovation beyond the business and SMEs.**
- **Broadening policy goal beyond productivity and firm performance.**
- **Broadening policy action beyond individual and organizational levels.**

### **Policy recommendations**

Based on the above assumptions, this White Paper proposes 4 strategies, 9 priorities and 33 actions, as follows:

#### **I. The awareness-raising strategy**

##### ***Priority 1. Improve understanding of design and Del***

1. Supporting both theoretical and empirical research to deepen and broaden the knowledge of emerging areas of design discipline, new approaches and toolkits, including service design, strategic design, transition design, and Del, with particular emphasis on interdisciplinary and multidisciplinary perspectives that integrate technological, environmental and institutional dimensions into the design study.
2. Establishing a single, openly accessible information-sharing platform/repository to collect, disseminate and communicate the results and outcomes of existing and future design related initiatives and projects, with the objective to facilitate the sharing and transfer of design knowledge and good practices within and beyond Europe.
3. Developing a reliable indicator system for measuring and evaluating both economic value and social benefits of design, which can be integrated into existing EU statistical instruments such as the European Innovation Scoreboard.
4. Setting up Design Innovation Observatories as an effective benchmarking tool to support design policy

making and policy monitoring at different levels of government.

##### ***Priority 2. Foster a holistic design culture in European cities***

5. Promoting a new STEAMD (Science, Technology, Engineering, Arts, Mathematics and Design) educational trajectory in order to push design education into the primary and secondary school curricula, thereby cultivating design literacy and diffuse design ability of citizens from an early age.
6. Encouraging not only the use of design within firms and other types of public and not for profit organisations, but also the integration of design in their organisational cultures by creating open and collaborative working environments, participatory and co-creative organisational approaches, as well as user-proximity networks.
7. Injecting the design conception into urban governance systems by developing differentiated and progressive design-engagement strategies ranging from utilising design to solve discrete problems, to internalising design in the local administrative infrastructures, to involving design in decision making processes, which depend on the acceptance of design in each city.
8. Increasing public investment in design facilities, such as design schools, design museums, and creative centres, as well as in a broader range of creative facilitators, such as innovation hubs, maker places, and living labs, in the city to enhance the visibility and involvement of design in the daily lives of citizens and in urban development.

##### ***Priority 3. Recognise design as a new policy competency***

9. Shaping a design and innovation prone mindset in policy makers and civil servants by recognising policy design as a key professional competency for public administration.
10. Institutionalising and routinising the involvement of design in policy making by setting up a specialised design department and chief design officer in the administrative architecture of municipality governments.

## **II. The provision enhancement strategy**

### ***Priority 4. Achieve excellence in European design education to attract, train and feed design talents***

11. National competent authorities should encourage and support design schools, universities and other relevant educational institutions to innovate training programmes in such a way that can reflect the latest developments of design discipline, new approaches, emergent skills, and proven toolkits as well as to offer need-based professional courses placing special emphasis on design management and design leadership to meet an increasing demand for Del.
12. Enhancing support for international exchange and mobility of design students, professors, and researchers in higher education, as well as young professional designers, to support cross-regional knowledge transfer in Del, through existing EU mobility programmes such as Erasmus+ and the Marie Skłodowska-Curie actions.
13. Supporting the establishment of European university alliances for design education as a thematic pilot within the existing European Universities Initiative to strengthen cross-regional and inter-university collaboration and cooperation in design teaching and research, with a view to incubating several world-class centres and clusters for design education in Europe.
14. Attracting and retaining the best design and creative talents from around the world in order to maintain Europe's leadership position in the fields of design and design innovation practices by offering unique benefits of working and living conditions and applying supportive visa systems for highly skilled designers and creative entrepreneurs.

### ***Priority 5. Build functional urban design innovation ecosystems***

15. Shaping and reinforcing the social role of designers as key actors of change by encouraging and supporting design firms and studios as well as self-employed designers to actively carry out business and social innovation, and to engage in innovation processes in business, third sector and public administration.

16. Building a well-functioning design service market and promote intermediate agencies to improve design supply and demand matchmaking mechanisms that can facilitate collaborative innovation between the design sector, SMEs, public and civil society organisations.
17. Establishing design innovation partnerships between government, industry, universities and civil society to enhance cross-sectoral collaboration to promote and adopt design-driven approaches in a wide range of urban innovation initiatives.

### ***Priority 6. Prioritise the integration of design and technology***

18. Strengthening technology inclusive education and training programmes aiming at designers to foster digital innovation capacities in the design sector.
19. Supporting integral and synergistic development of design industry and high-tech industries to unlock the enabling potential of design in science-based and technology-push innovation.
20. Tapping the potential of design to drive Europe's digital transformation and human centric Artificial Intelligence by integrating a design-driven approach into the EU digital and AI strategies.
21. Exploring new models and approaches to design-enabled, technology-push business innovation and entrepreneurship with customer-centric platform economy as a pilot wherein design plays a key role in enhancing digital experience.

## **III. The incentive compensation strategy**

### ***Priority 7. Increasing design-oriented funding opportunities, resources and rewards***

22. Continuing and expanding financial support for pilot projects on Del through existing EU funding programmes, such as Horizon Europe, Erasmus+, European Social and Investment Funds, and the Digital Europe Programme.

23. Offering citizens, enterprises and other public sector organisations various subsidies and grants for design leadership training programmes, design management advisory services, pilot collaborations between the design sector and academia on the one hand, business, government and third sector on the other.
24. Establishing a Europe-wide Design enabled Innovation award to recognise, reward, and promote good practices of Del.
25. Encouraging and effectively guiding government departments and agencies to involve external design experts in assisting civic participation in public policy making in the form of procurement of services to improve the level and quality of democratic engagement in urban governance systems.

***Priority 8. Integrate Del into the vision and roadmap of urban development***

26. Crafting and clearly articulating awareness raising strategies that highlight the value and benefits of design and its potential contribution to UN's Sustainable Development Goals in EU cities.
27. Supporting European cities to join global design network initiatives, like the UNESCO Cities of Design Network and the Creative Cities Network, and to bid for the World Design Capital initiative, to strengthen both global visibility of local design innovation dynamics and the local awareness and support pushed by global initiatives.
28. Establishing publicly funded design promotion and consultancy agencies to provide information and knowledge, vocational and skills training, design innovation consulting, policy design advisory, and other think tank services focusing on the application of design and broad-based innovation approach in social policies, political agendas, economic strategies, cultural initiatives, and technology roadmaps.
29. Leveraging the city's existing innovation infrastructures, including living labs and innovation incubators, to promote and improve public participation in design actions.

30. Developing government programmes and incentives to support a variety of design-led initiatives and projects that are consistent with public policy agendas and strategic priorities at different levels of government.

**IV. The recognition confirmation strategy**

***Priority 9. Improve design protection and incentive mechanisms to balance market and societal benefits of Del***

31. Broadening the concept of design rights beyond the visual appearance to extend the existing intellectual property protection mechanisms to design products and methods to fully safeguard profitable benefits resulting from the engagement of design in the innovation process.
32. Exploring and actively experimenting other formal and informal appropriation mechanisms to maximise and consolidate the societal benefits of Del, with a special focus on design actions generated by participatory processes.
33. Establishing and improving appropriation mechanisms for innovation benefits by extending the application of Intellectual Property (IP) protection systems to the Del in order to fully safeguard bottom line returns of innovation activities while maximising their social benefits.

In conclusion, **the next steps** to be taken by governments at all levels should be to **inject design policy and support into the EU funding programming period for 2021-2027.**

- At **EU level**, design should be supported as an EU level vertical policy priority, and an alternative way is enhancing the broad coherence of thematic policies by an extended injection of design. Recommended programmes include Erasmus+ and Horizon Europe, particularly its third pillar, with EIC, the Innovation Ecosystems, EIT and its KICs, and possibly the Digital Europe Programme.
- At **EUMS level**, design as a vertical policy target may experience some more difficulties in delivering

a harmonised EU approach, however this scenario would still be preferable to the 'policy as usual' option; alternatively, more emphasis could be placed on education and VET reforms (including for capacity building of the public sector). Recommended programmes include national funds, and ESIF national operational programmes.

- At **regional level**, little difference would probably make the decision to move the core of policy initiatives therein. In case of vertical priority setting, the issue of financial and human resources could become more binding, but the intra-regional disparities are likely to be lowered (e.g., between cities of a same region). In case of horizontal prioritisation, an increased policy capacity and quality of governance would probably be the main outcome. Recommended programmes include regional funds, Interreg 2021-2027, and ESIF regional operational programmes.
- At **city level**, design should be supported through both vertical and horizontal priority settings, as this is where most impacts are foreseen. Recommended programmes are own funds, ESIF, and private resources (leveraged by the use of instruments such as the DESIGNSCAPES open calls, the results of which are being presented in chapter 2 of this White Paper).

## Conclusion

In Europe, in the last decade, design as an innovation driver has been well recognised in EU policies to promote growth and competition at different levels of government. Despite an increasing awareness on design and design

innovation across Europe, there are still gaps and some misunderstandings in the use of design to trigger innovation depending on the firm, sector and country. Particularly, SMEs, public sector organisations, and public administrative agencies miss out on the potential to use design as a source for improving efficiency and stimulating growth. These gaps are due both to uneven development of the design sector among countries within the Union and different enabling environments of cities where firms and organisations are located.

To tackle these structural obstacles and seize the opportunities presented by Del, Europe's design policy and support should go beyond traditional industrial policy for innovation. That is because design not only drives firm innovation and performance but also can enable systemic change and transition towards a green, inclusive and sustainable society. **Cities are innovation hubs that create favourable conditions for Del to materialise.** Policy makers should fully consider and harness this capacity when developing and implementing design innovation policies. To achieve a broad-based perspective of innovation policy, it is key to enhance the Del capacity of European urban environments.

# INTRODUCTION

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Over a decade since the flagship initiative Innovation Union recognised design for innovation and growth as one of the pillars of the EU growth strategy. The Union has developed and implemented a series of design policy actions, including design action plan, initiatives, and projects<sup>2</sup>, to promote design-driven innovation at EU level and some €10 million have been invested in design awareness-raising and capacity-building activities through various EU funding programs. In the same period, 15 of 27 EU Member States have developed their own design policies either at national or regional levels<sup>3</sup>, with large-scale and territorial-wide investment in the design sector and design-intensive business through different initiatives and projects oriented to training, consulting, funding and inter-sectoral collaboration etc. The goals of these policies and actions are mainly manifested in raising design awareness outside of the design sector, disseminating design knowledge to create functional markets for design services, and promoting design-driven innovation to activate business and growth potentials.

Despite a significant increase in design awareness throughout Europe, our research reveals that design innovation capability in SMEs, civil society organisations, and local government bodies remains weak<sup>4</sup>. This mirrors the evidence from the Eurobarometer 2015 and 2016 surveys<sup>5</sup>, showing only 12 to 13% of EU enterprises make strategic use of design within their business models and just an additional 18% adopt design related methods and tools within their production and value generation. Additionally, there is also a notable gap between big cities and small and medium-

sized towns – i.e., the majority of design-led initiatives in Europe are geographically concentrated in big cities whilst small and medium-sized cities are rarely presented in the spectrum of Del.

At the same time, the world we live in has also changed dramatically, in both global and domestic contexts, leading to the new, complex policy climate different from the one in which the current design policy was created ten years ago. Main changes are embodied in the following aspects:

- **The importance of design has been recognised globally.** World leading economies, including China, India, Malaysia, Singapore, South Korea, and the US, are increasingly focusing on design and elevating design innovation to a strategic level and “design policy race arm”<sup>6</sup> comes to the fore, meanwhile the World Design Organisation is leading to shape a global framework of design policy aiming to achieve a range of Sustainable Development Goals (SDGs) beyond the simple business objective of local economy progress and industrial competitiveness normally found in most national and regional policies.
- **The shape and transition of EU strategies and priorities in the new programming period have created a broader arena for design to play a potential role.** These policy frameworks and directions include, but not limited to: (1) The Urban Agenda for the EU<sup>7</sup>, established by the Pact of Amsterdam on 30 May 2016, which highlights the enabling role of culture and heritage in sustainable urban development; (2) The New Strategic Agenda 2019-2024<sup>8</sup>, adopted by the European Council on 20 June 2019, setting our four central themes for action in the current programming period to address new global challenges of climate emergency, geopolitical shifts, and the global digital revolution;

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2. Main design policy actions include, but not limited to, establishing European Design Leadership Board, developing Action Plan for Design-driven [SWD(2013) 380], launching European Design Innovation Initiative (2011-2013) and Design for Innovation Initiatives (2014-2017), and fund a number of projects such as IDeALL, EuroDesign, SEE platform, EHDM, DeEP, Design4Europe, and DESIGNSCAPES, etc.

3. BEDA. (2018). European Design Report 2.0. Available at: [https://www.interregeurope.eu/fileadmin/user\\_upload/tx\\_tevprojects/library/file\\_1543245130.pdf](https://www.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1543245130.pdf)

4. Li, C., & Rausell Köster, P. (2020). Exploring the Opportunities and Challenges of European Design Policy to Enable Innovation. The Case of Designscapes Project. Sustainability, 12(12), 5132.

5. <http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm>

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6. Hobday, M., Boddington, A., & Grantham, A. (2012). Policies for design and policies for innovation: Contrasting perspectives and remaining challenges. Technovation, 32(5), 272-281.

7. [https://ec.europa.eu/regional\\_policy/en/policy/themes/urban-development/agenda/](https://ec.europa.eu/regional_policy/en/policy/themes/urban-development/agenda/)

8. <https://www.consilium.europa.eu/en/eu-strategic-agenda-2019-2024/>

(3) the New European Bauhaus Initiative<sup>9</sup>, launched by President von Der Leyen on 19 January 2021, proposing a new design-led participatory approach to ideate, deliver and spread innovative solutions to Green Deal among European cities.

- **Challenges of global public health emergencies.** The sudden and global outbreak of the COVID-19 pandemic and its associated sanitary measures have fundamentally changed the way in which people live and work since the early 2020 and shaped a “new normal”<sup>10</sup>, both in terms of sustainable response to further emergency risk and more digital dependency in work and life in the post-pandemic period. This also implies that people, firms and governments have been pushed towards the technology tipping point, and interpersonal patterns, business models, and governance have been transformed digitally forever.

How to overcome the shortcomings of current design policies and respond to the new policy context and environment is a main challenge and new task currently facing European governments and relevant policy makers at all levels. After ten years, it is time to adopt a new dynamic and raise the issue of updating EU design policy to meet the new challenges of the times. Next generation of EU design policy should focus on the shift of the design innovation paradigm that can fully harness the big potential of design to trigger systemic change in a broader socio-technological dimension, rather than just the improvement of bottom-line benefits at organisational and individual levels.

Meanwhile, urban environments play the key role in this process – they are hubs for Del and testing ground where regime transition is stirred; finally, a system cannot be transformed in isolation from its urban context. This means that new design policy should consciously leverage the generative potential of cities to encourage the uptake, upscaling and replication of Del by existing enterprises, start-up companies, public authorities and agencies, as well as other urban stakeholders, with a focus on prioritising Del capacity of European cities. By doing so, Europe can remain competitive with other countries in the design arena meanwhile being a reference for the shaping of global framework of design policy.

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9. [https://europa.eu/new-european-bauhaus/index\\_en](https://europa.eu/new-european-bauhaus/index_en)

10. World Health Organisation. (2020). COVID-19: “new normal”. Available at: <https://www.who.int/westernpacific/emergencies/covid-19/information/covid-19-new-normal>

This White Paper has been produced as Deliverable 4.3 of the H2020 project DESIGNSCAPES, mainly targeting policymakers and legislators in the field of culture, creativity, design, innovation, entrepreneurship and urban planning. It builds on the Green Paper on Del in Urban Environments<sup>11</sup>, firstly published on 16 May 2019, and has been significantly developed to reflect the public consultation feedback on the Green Paper as well as latest results of the project. This White Paper is structured by six chapters, as follows:

- Following this introduction, the second chapter aims to propose a new innovation concept with detailed explanations of the integrated relation between design and innovation, a design-enabled approach and systemic change, and the role of co-creation in Del.
- The third chapter focuses on empirical evidence of design-enabled innovation extracted from the DESIGNSCAPES project, including the geographical distribution and organisational characteristics of key players of innovation initiatives and projects, and challenges, opportunities and obstacles to undertaking an overview of the Del.
- The fourth chapter concentrates on the urban dimension of Del, providing an explanation of the rational, feasibility and key actions towards enhancing the Del capacity of European cities.
- The fifth chapter contains further recommendations for the next generation of EU design innovation policy, highlighting the need for a broad-based innovation vision and the portfolio of strategies, priorities and actions. These recommendations are based on both the DESIGNSCAPES project’s results and the feedback received during expert and stakeholder consultation on earlier versions of this White Paper.
- The last chapter sets up some next steps that should be undertaken by governments at EU, EUMS, regional and city levels.

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11. Available at: <https://docs.google.com/document/d/1GhFy1YK8ZRFtNVIYKgSt5SnUpDwMNT2JLOWPVJplbk/edit#>

# DEI AS A NEW TRANSFORMATIVE PARADIGM

## *No innovation without design*

There is an increasing understanding that design is not just a vocational activity regarding form-giving, but a creative problem-solving process to deliver satisfying solutions. Some widely cited definitions, for instance, describe design as the course of action aimed at changing existing situations into preferred ones<sup>12</sup>, or the generation of new objects and new knowledge<sup>13</sup>, or the resolution of paradoxes between discourses in a design related situation<sup>14</sup>. All these examples illustrate that design is more than a purely aesthetic activity but, creating value by solving ill-defined or wicked problems<sup>15</sup>.

Design is not the preserve of professional designers, and both professional designers and ordinary people can be “designers”. According to design scholar Manzini<sup>16</sup>, there exists two types of design capability: **diffuse design** and **expert design**. The former is the natural human ability to solve problems by the combination of critical sense, creativity and practical sense, while the latter emerges from the work of design professionals endowed with specific design knowledge, approaches and skills.

Considering that innovation is essentially a problem-solving process and design is largely diffused and widely applied to solve everyday problems, it can be said that there’s no innovation without design. This means that the role of design is not limited to driving aesthetic and meaning innovation as was previously thought, but instead it also has the potential to enable the search for technological products and process innovations or breakthrough technological solutions that people prefer to use by linking design to research and development (R&D).

12. Simon, H. A. (1996). *The Sciences of the Artificial*, 3rd edition.

13. Hatchuel, A., & Weil, B. (2009). C-K design theory: an advanced formulation. *Research in Engineering Design*, 19(4), 181–192.

14. Dorst, K. (2006). Design problems and design paradoxes. *Design Issues*, 22(3), 4–17.

15. Rittel, H., & Webber, M. (1984). Planning Problems are Wicked Problems. In N. Cross (Ed.), *Developments in Design Methodology* (pp. 135–144). Wiley.

16. Manzini, E. (2015). Design in the transition phase: a new design culture for the emerging design. *Design Philosophy Papers*, 13(1), 57–62.

## *The Del approach. Scaling innovation towards systemic change*

There is a body of evidence exhibiting that design not only helps firms to achieve greater success in the marketplace but also supports innovation by public organisations and public administration as well as social innovation. For example, co-creative, collaboration-based policymaking successfully supported 87 new policy measures, with contributions from more than 300 people of different backgrounds and perspectives for the platform economy in the city of Barcelona<sup>17</sup> (see Text Box 1), and participatory public service design empowered South Korean public authorities to achieve the Government 3.0 goal<sup>18</sup>. In a nutshell, design can contribute to innovation of all kinds.

Despite a growing number of innovation initiatives across European sectors that place design at the heart of innovation to address global challenges, the full potential of design is not being fully exploited in Europe yet. This is partially because current design policy still concentrates on traditional design-driven innovation approaches that overemphasised aesthetic changes or meaning generation in marketing and business model innovation while ignoring design as a possible systemic approach to enabling innovation and societal changes in a broader societal context.

To overcome this, a Del approach has been developed as a new innovation paradigm that stresses design skills and approaches in action and can enhance value creation by shaping a shared view of key issues and challenges, while producing new functions, uses and meanings through a multi-disciplinary, multi-level and networked process of change<sup>19</sup>.

17. Fuster-Morell M., Senabre-Hidalgo. E. (2020): Co-creation applied to public policy: a case study on collaborative policies for the platform economy in the city of Barcelona, CoDesign.

18. Government 3.0 is a new generation of government technology infrastructure and service that stress public participation in policymaking See: Baek, S., & Kim, S. (2018). Participatory Public Service Design by Gov.3.0 Design Group. *Sustainability*, 10(1), 245.

19. Concilio, G., & Tosoni, I. (2019). Introduction. In G. Concilio, & I. Tosoni (Eds.), *Innovation capacity and the city. The enabling role of design* (pp. 1-14). Cham, Switzerland: Springer.

This approach involves four key features<sup>20</sup>:

- It is a human-centred activity by incorporating users into different phases of the innovation process.
- It makes use of specific operational tools to research, contextualise, model, test and re-design.
- It bridges multi-disciplinary knowledge of scientific, synthetic, symbolic and managerial bases.
- It is a holistic approach encompassing different aspects of innovation, like functionality, meaning, cost, diversity, accessibility etc.

While all innovation involve the design actions as discussed above, Del differs from other innovations in that it consciously activates and harnesses the potential of design to support the problem-solving process. From this perspective, Del is not just innovation in branding, design and service, nor is it social innovation; rather, it emphasised design as an integrated process of value creation with a view to seeking innovative solutions to different problems and challenges.

This also reflects the actual spectrum of Europe's Del today. Our research reveals that more than fourth-fifths of design-led initiatives have focused on technological innovations by using design to support the new product and service development, and a further 11% on process innovation, aiming to improve the existing process and to find technical solutions to various urban problems; while organisational innovations in the form of new public participation and co-creation methods, and marketing innovations, at 21% and 3% respectively, are relatively under-represented in reality (see exhibit 3).

Del should aim at systemic changes to tackle urgent global challenges. Global challenges, such as green growth, climate changes, resource depletion and digital transformation, are always rooted in social-technical structure and activities, with a mix of causes in social, economic, political and cultural spheres. To tackle these challenges, transition systemic change is therefore needed.

Systemic change requires cumulative momentum for long-term transformation within and between three levels of niche,

regime, and landscapes, and finally leading to new socio-technical regimes replacing the mainstream ones. From the multi-level perspective of system innovation<sup>21</sup>, the regime transition follows a certain pathway (see exhibit 1): niche innovations constitute internal impetus and momentum for changes, while landscape changes destabilise the existing socio-technical regime by putting pressures on it, thus creating opportunities for niche innovations to grow strong enough to compete with and finally substitute the mainstream socio-technical trajectory.

To trigger the socio-technical regime transition, successful innovation must go through four maturity phases of inception, development, transition, and systemic change.

- **The inception phase** refers to the generation of novelties in niches to frame problems embedded in the existing regime and landscape.
- **The development phase** comprises the prototyping and commercialisation of the novelties in small market niches.
- **The transition phase** concentrates on the diffusion and upscaling of niche innovation in a broader context or in a broader market.
- **The systemic change phase** is the final stage of innovation, where the said innovation develops into the dominant socio-technical trajectory to replace vested ones.

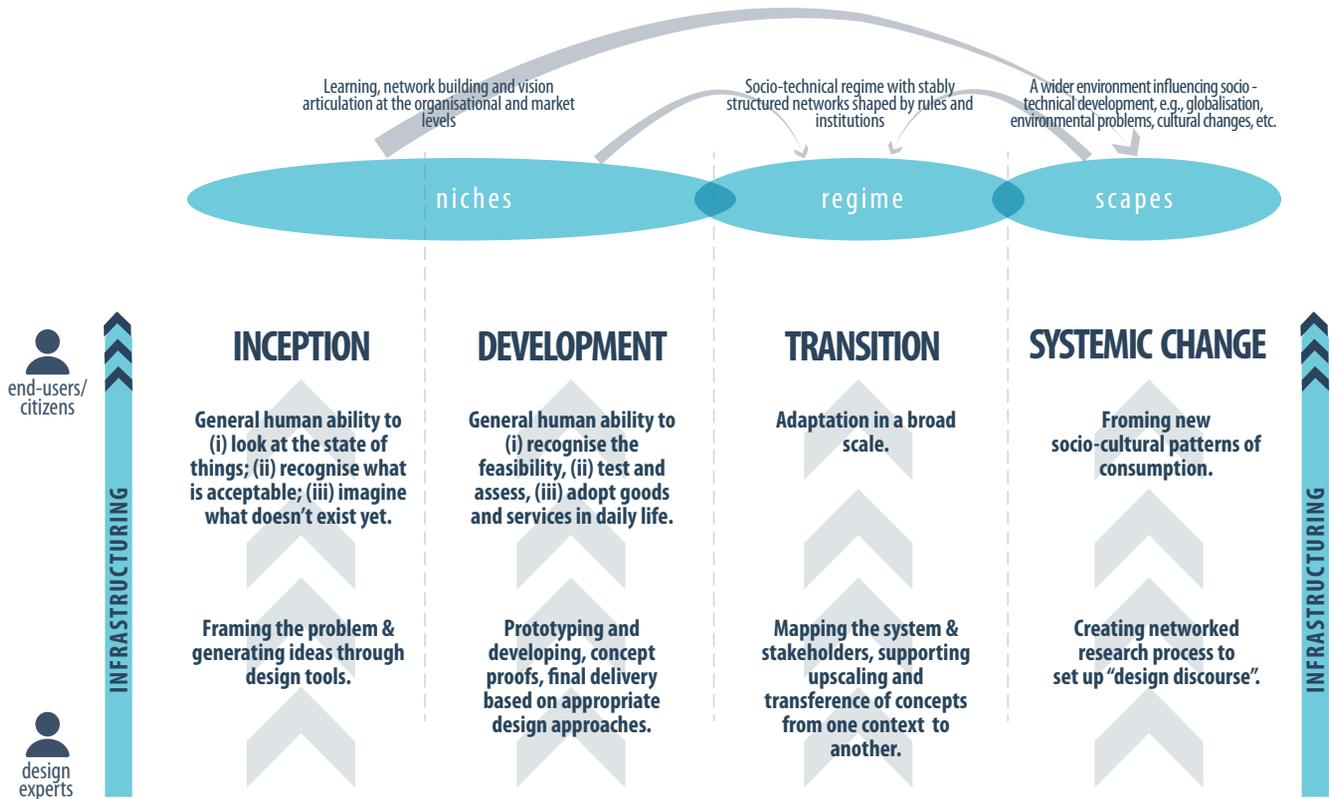
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20. Abbasi, M., Cullen, J., Li, C., Molinari, F., Morelli, N., Rausell, P., ... Dam, K. V. (2019). A Triplet Under Focus: Innovation, Design and the City. In G. Concilio, & I. Tosoni (Eds.), *Innovation capacity and the city. The enabling role of design* (pp. 15-41). Springer.

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21. Geels, F. W., & Schot, J. (2007). Typology of transition pathways. *Research Policy*, 36(3), 399-417.

**Exhibit 1. Design as an infrastructuring mechanism to scale innovation towards systems change**



Source: Abbasi et al. (2019) A Triplet Under Focus: Innovation, Design and the City. In G. Concilio, & I. Tosoni (Eds.), Innovation capacity and the city. The enabling role of design (pp. 15 - 41). Springer. Elaborated by the authors.

### Co-creation at the core

Design can drive system innovation. The Del approach places co-creation with users and citizens at the heart of innovation process, by emphasising design as an **infrastructuring mechanism** that establishes supportive collaborative working conditions for smooth and efficient co-creation with a variety of disciplines and stakeholders, including both diffuse design and expert design. Engaging people in co-creation can make full use of users/citizens experience, perspective and knowledge to jointly frame problems, generate ideas, develop prototypes, and deliver final solutions that reflect user expectation and needs, ultimately creating values for them.

To harness design to its maximum potential, co-creation activities should be integrated into the maturity process of innovation, which further requires a close interaction and co-design between users/citizens and design experts in different phases of innovation, as shown in exhibit 2.

This does not imply that transition and systemic change can be “designed”. As a matter of fact, the real regime transition or the systems change is an evolutionary process that is out of designer’s (and any single stakeholder’s) control, so the action of design experts mainly consists in “provoking” or “facilitating” promising changes.

There is no “one size fits all” model for co-creation – when, where, how, with whom, and for what to co-create always vary depending on the objective and mission of each project and environment it is involved in. But our study found that Del initiatives equipped with an interdisciplinary team involving both design experts and non-design professionals are more likely to succeed than those developed exclusively by highly specialised design experts, or by an active participation of citizens and non-design experts<sup>22</sup>. It is, therefore, assumed that co-design between expert design and diffuse design is necessary for the effective way of co-creation with users, thus ensuring the success of Del.

22. See DESIGNSCAPES deliverable D2.3 Evaluation Report 2019.

**Exhibit 2. The role of citizens/users and design experts in the phases of innovation**

Phase	Role of citizens/users	Role of design experts
<b>The inception phase</b>	Users/citizens utilise a natural human ability to design, to observe things as they are, to recognise what is acceptable and to imagine what is not	Design experts co-design with them to frame problems and generate ideas through design tools.
<b>The development phase</b>	Users/citizens recognise the feasibility, test and assess the prototype, as well as adopt goods and services in their daily life.	Design experts are responsible for prototyping and developing concept proofs, as well as final delivery based on appropriate design approach.
<b>The transition phase</b>	Users/citizens contribute to the process by adopting innovation on a broad scale.	Design experts take in charge of mapping the innovation system and its stakeholders, supporting upscaling and transference of concepts from one context to another
<b>The systemic change phase</b>	Users/citizens form new socio-cultural trends and patterns by sharing and disseminating new meaning of things	Design experts create networked research infrastructure and process to set up new design discourse

Source: Concilio et al. (2019). Innovation and Design, In G. Concilio, & I. Tosoni (Eds.), Innovation capacity and the city. The enabling role of design (pp. 61 - 82). Springer. Elaborated by the authors.

### **Text box 1. Co-creation enables collaborative policies for the platform economy in the city of Barcelona**

With rapid development of the platform economy throughout the world, the city of Barcelona as one of the most popular tourism destinations had been facing a series of global challenges resulting from potential negative impacts of main collaborative platforms. To tackle these challenges, the City Council of Barcelona carried out a co-creation collaboration-based policymaking process, in collaboration with industry, academia and civil participants, to develop a diagnosis of the platform economy and react to its impact on the city during November 2015 and January 2019.

The governance structure of the policy co-creation process was comprised of four main components working autonomously, including:

- An interdepartmental group at the City Council level to coordinate the institutional view regarding the platform economy among the different departments involved.
- A joint initiative BarCola (Barcelona Collaboration) created as a working group between the municipal administration and 15 representatives of the actors and key local agents from the platform ecosystem of the city.
- An “unconference format” policy lab Procomuns, collaboratively generating and discussing proposals for new policies among local initiatives and relevant actors like international experts, policy leaders and civil society.
- Public consultation through Decidim.Barcelona, an online participatory platform for Barcelona residents.

The whole co-creation process involved over 400 representatives in democratic policymaking, resulting in 122 platform economy policy proposals, 87 of which were eventually adopted by the City Council and implemented within the next three years, representing a high acceptance rate of 71%.

More importantly, this initiative launched by the city of Barcelona has given birth to the Sharing Cities Action initiative (<http://www.sharingcitiesaction.net>) involving more than 60 global cities for co-design platform economy policies since 2019, thus exerting a long-run and global impact on new policy innovation format at the methodological level.

Source: Fuster-Morell M., Senabre-Hidalgo. E. (2020): Co-creation applied to public policy: a case study on collaborative policies for the platform economy in the city of Barcelona. CoDesign.

# DEI ACROSS EUROPE. LESSONS LEARNT FROM DESIGNSCAPES CALLS

## Mapping Del initiatives

Today design has permeated all walks of life and every corner of the world, but Del activities are quite hidden due to the lack of systematic research. During July 2018 and March 2020, the DESIGNSCAPES project carried out a three-stage open call for feasibility studies, prototypes and scalability proofs of Del. A total of 487 proposals were received from across Europe, 101 of which were eventually supported by the EU CSA funding scheme, coming from 58 cities in 20 European countries<sup>23</sup>. They are a window open into a better understanding of Europe's Del.

Overall, these Del initiatives are generally dispersed but geographically concentrated in several countries and regions. Western Europe and Northern Italy are the areas with the highest concentration, while Southern Europe, especially along the Mediterranean coast, has the widest distribution of initiatives. Denmark is the most active of the Nordic countries in the implementation of Del and Slovenia and Bulgaria are two hotspots of Eastern Europe.

As far as organisational features of the initiatives are concerned, design-led initiatives in Europe have following organisational characteristics:

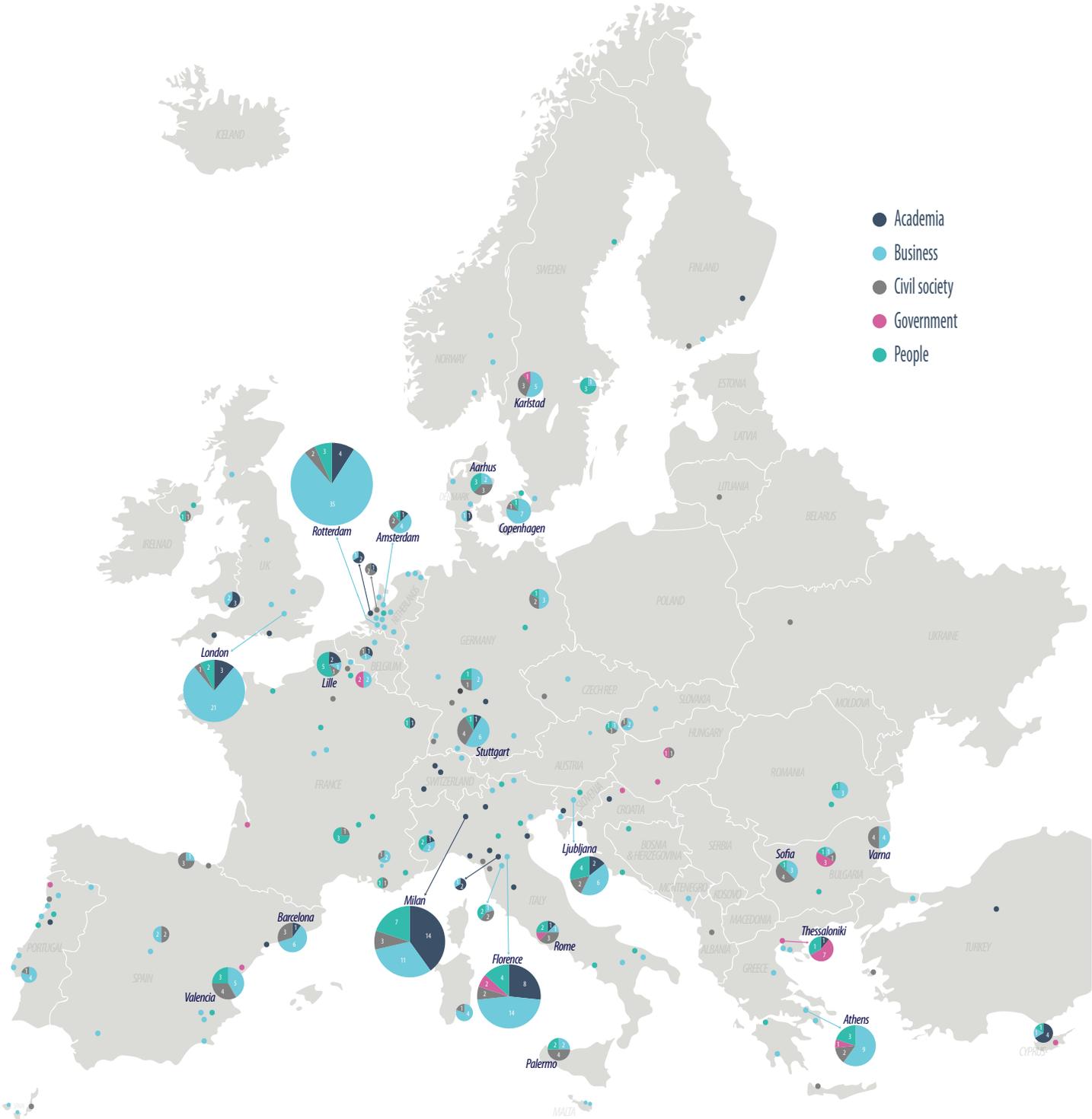
- **Project-oriented small team.** More than half of the Del projects were executed by small teams of 3-5 people, followed by medium-sized teams of 6-10 people, accounting for a quarter of them. Despite significant visibility at the feasibility stage, the number of micro-teams (1-2 staff) were increasingly reduced as an innovation matures, especially at the scalability phase where their numbers were almost negligible. Large teams (10+ people) were under-represented at all stages of innovation.
- **Moderate cost but increasing as innovations mature.** Although capital budgeting was of very wide diversity ranging from €5,000 up to €50,000 at the

feasibility study stage, the majority of initiatives needed a moderate investment between €20,000 and €50,000 at prototyping and scalability stages, respectively, just followed by a small share needing a larger budget over 50,000 euros.

- **Addressing urban, socio-economic and environmental topics.** Over 25% of all proposals gave priorities to a range of urban issues from urban renewal and renovation to the optimisation of public spaces, smart cities and mobility, and affordable housing; while 20% of them focused on socio-economic themes like new business models, social enterprising, employment creation, wealth distribution and equity. And the environmental sustainability focus, including the fight to CO2 emissions and disaster and emergency management, accounted for 16% of the whole sample. In addition, other minority topics included community identity and solidarity (13%), culture and gender (8%), health and well-being (7%), the inclusion of vulnerable groups (7%), values and democracy (3%).
- **Focus on product innovation and organisational innovation.** About 65% of initiatives aimed at new product and service development, followed by organisational innovation (21%), process innovation (11%), and marketing innovation (3%). This makes evident that design is more than a creative input or an aesthetic output for marketing innovation and other soft aspects of business but an important innovative approach to support technological and organisational innovation.
- **Targeting the local market.** Half of the initiatives were implemented with an aim of solving local problems or reaching local markets, while the other half was shared by innovations in national and global markets, as well as in-house innovations of participant organisations, in equal proportions.

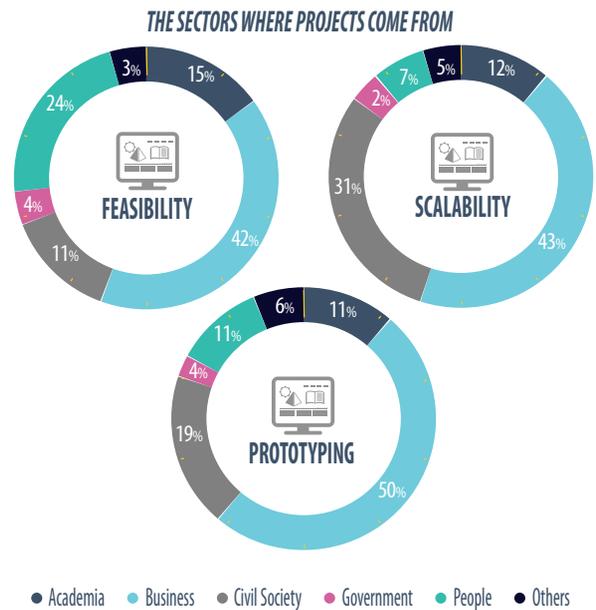
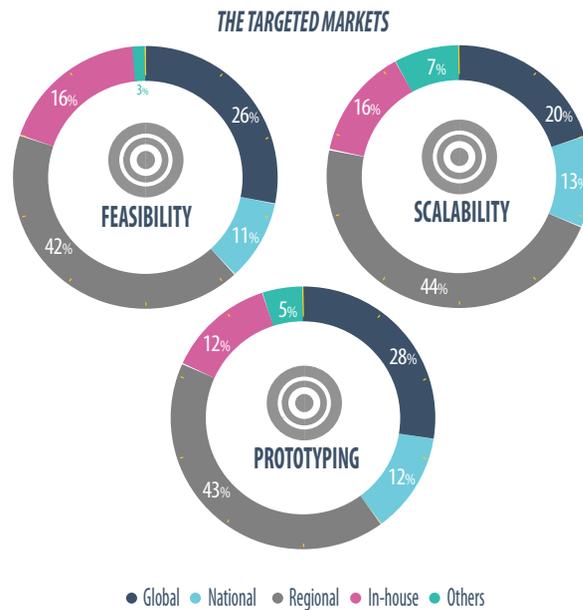
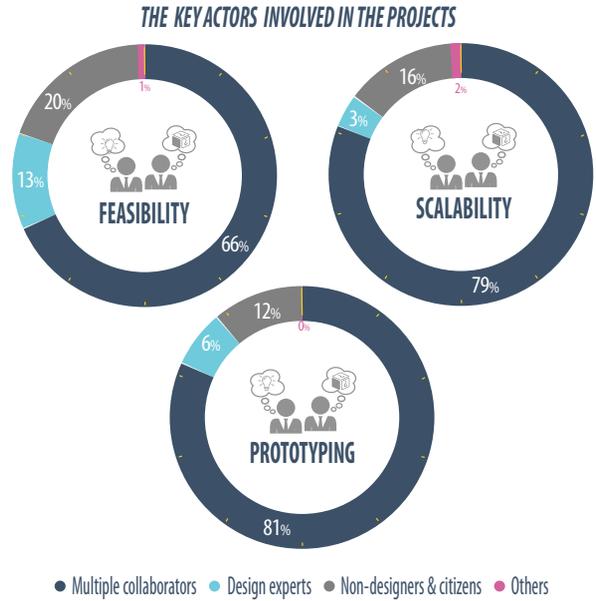
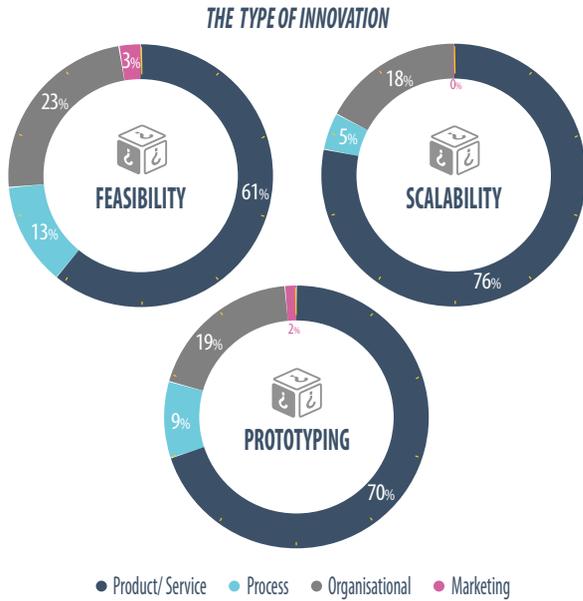
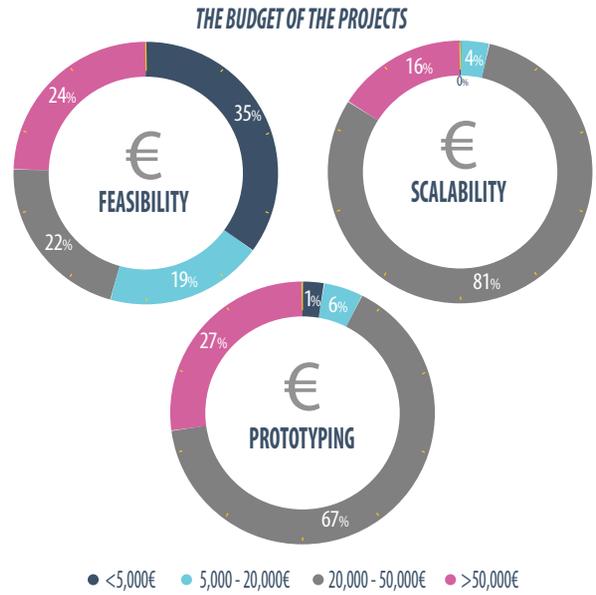
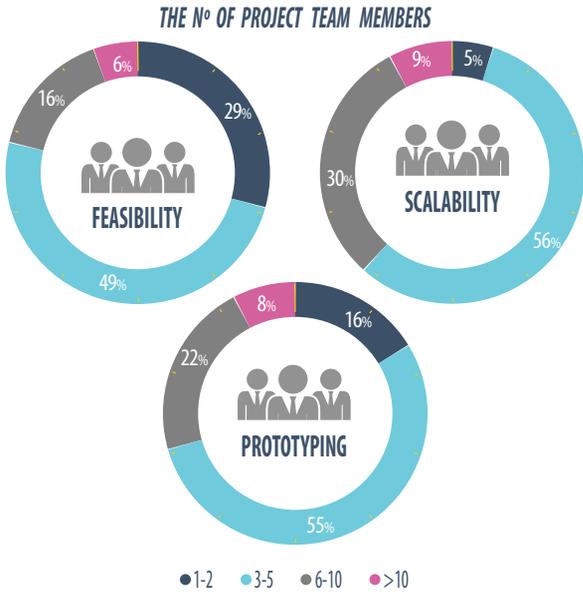
<sup>23</sup>. These countries include 16 EUMS (Austria, Belgium, Bulgaria, Cyprus, Denmark, Finland, France, Germany, Greece, Italy, Malta, Portugal, Slovakia, Spain, Sweden, Netherlands), as well as Albania, Norway, Switzerland and the UK.

Exhibit 3. The geographical distribution of Del initiatives in terms of the number and sector



Source: The DESIGNSCAPES project.

Exhibit 4. Organisational characteristics of Del initiatives



Source: The DESIGNSCAPES project.

## Key players of Del

There were five key players of European Del, which could be identified in business actors, including SMEs, individual innovators, civil society organisations, academia, and local government bodies.

**Business** was the most significant sector in the DESIGNSCAPES community with SMEs being active in using design approaches and skills to drive innovation, and almost one in two design-supported innovators coming from that sector. Among them, more than 90% of firms were micro-enterprises (with fewer than 10 employees) and a further 10% were small enterprises (with 10 to 26 employees). Despite being for-profit organisations, 73% of firm innovations were undertaken in pursuit of market benefits while creating social and public value, with only 3% of them focusing on purely economic profits<sup>24</sup>, while social enterprises for social innovation constituted 23% of all players in the sector.

**Individual innovators or a collection of persons not affiliated with any organisation** were the second largest group of design-enabled innovators, constituting 18% of all applicants. The majority of them are design experts with significant design skills and experience whilst people with none or limited design experience only account for 15% of the group. In this group, half the applicants aimed at business-oriented innovation but also considering the communitarian value of it and another half concentrated mainly on social innovation or public sector innovation. With an evident lack of scalability capacity, these practices were concentrated mainly on the initial stage of innovation, thereby focusing on problem framing and idea generation but hardly delivering final solutions to the market.

**Civil society** is also a growing force for innovation, representing 16% of our pilot sample of Del. Grassroots and civil society organisations of all kinds have the natural advantage of being familiar with social mobilisation and bottom-up public participation practices; therefore, they are the mainstay of social innovation and also public sector innovation. Contrary to individual innovators, the innovative strengths of civil society organisations in the DESIGNSCAPES community were mainly embodied in the development and transition phases of innovation, with evidence showing that

31% of scalability proof projects and 19% of prototyping projects came from this sector.

**Academia** has obviously been another important player in this field. About 13% of all the proposals were presented by professors and students from related areas such as design, business, engineering, innovation, public policy studies etc. Their innovations concentrate primarily on technology and knowledge transfer in the fields of healthcare, sustainable and smart mobility, urban space quality, etc.

Last but not least, **local government bodies** also are unmissable players despite the fact that they only consisted of 4% of all Del initiatives. The main focuses of these innovations have been on urban regeneration, public service supply, social inclusion, and sustainable local development, with the main purpose of trying out the adoption of the public participation approach in the local policy making process. Respectively, civil servants have a weaker capability of design and innovation compared to other players.

Furthermore, the participation of the above five players varied from region to region. Most of Del initiatives in Western and Northern Europe as well as northern Italy (in particular the Lombardy region) were implemented by SMEs and individual/grouped entrepreneurs; Southern Europe could witness a more diversity, with many innovation practices being of social innovation and public sector innovation nature, run by civil society organisations and academia; Eastern Europe had a relatively higher proportion of public administration innovation led by local governments compared to other parts of Europe.

<sup>24</sup>. As the Designscapes open call incorporates “co-design” and “social inclusion” into the evaluation criteria, there is a high risk of reporting bias, whereby applicants, especially the business sector, overestimated the social value orientation of their initiatives and underestimated the pursuit of profit.

## Opportunities, challenges and obstacles

Europe is not only home to a number of world-class design and creative hubs such as London, Paris, Milan and Helsinki, it is also rich in quality design resources and facilities, including a well-established design training system (with some 1,079 design schools and universities licensing approximately 23,000 graduates per year), a vibrant design and creative economy (with nearly 4 million professional designers contributing €223 billion in annual turnover), and widely adopted design policy and support initiatives (15 of the then 28 EU Member States had design policies at different levels)<sup>25</sup>. In addition, democratic engagement and civic participation have been on the public agenda in many, although not all, of the European countries and regions, and social activism in European societies is increasing. All these are favourable conditions for the flourish of Del practices across Europe.

The major challenge faced by Europe is, consequently, how to turn these design resources into an innovative advantage. In many regions and cities, business links and collaborative partnership between the local design community and the outside world are still weak. Design has not received sufficient attention from companies and policy authorities either. Multiple players like business, academia, civil society, government and the general public may have had a strong awareness of Del but lack the necessary knowledge, skills and experience, so they undertake innovation mostly by engaging design experts in projects where professional designers take on the role of facilitators supporting co-design and co-creation activities, **hence the specific challenge for them is how to effectively integrate design into existing business models, innovation processes and administration tasks.**

On the other hand, design experts not only play the role of facilitators in Del, but most importantly, they are innovators on their own in many cases. According to our data from participation in the DESIGNSCAPES calls, design entrepreneurs, including design studios and self-employed designers, as well as design academics like professors and students in design, architecture, urban planning, IT engineering etc., have made up 20% of design-led initiatives. Despite specialising in a variety of design capabilities, they are constrained to sustainable business models, the development and scalability of projects, and design-oriented funding opportunity. Accordingly, **the specific challenge they face is how to enhance the upscaling innovation, rather than integrating design into innovation.**

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25. BEDA. (2018). European Design Report 2.0. Available at: [https://www.interregeurope.eu/fileadmin/user\\_upload/tx\\_tevprojects/library/file\\_1543245130.pdf](https://www.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1543245130.pdf)

Complexity and uncertainty make innovation a high-risk activity. The success of innovation depends on both internal factors related to the areas of knowledge, organisation, production, and performance, and a range of external factors in the spheres of environment, markets, institutions, and technology. Based on the SWOT analysis of design-enabled innovation (see Exhibit 5), it is revealed that European society has witnessed an overall growth in the demand for design and the awareness of Del, but design-enabled innovation capacity remains weak, both due to insufficient mobilisation, integration and managerial capability to leverage design for the implementation of innovation at project level, and a range of barriers involved in market, environmental, institutional, and technological domains, which can be summarised as follows.

### Market barrier

The fierce competition is the biggest obstacle faced by all players to successfully commercialise their innovation. New products and services driven by a design approach do not have a definite advantage in terms of price and differentiation, compared to similar products and services without the involvement of design. Design enabled social innovators also have to compete with peers for scarce public funds and resources. This is particularly notable in the early stages of Del due to the time and money spent, as well as other consumer behaviour factors such as user stickiness and resistance to change. The existing innovation appropriation mechanisms including patents, trademarks, copyrights, and design rights are not applicable to Del partially because the engagement of design in value creation is hidden and hardly measured in terms of existing methods, and partially because, being based on co-creation, Del would probably be difficult to patent or lock in a copyright or trademark mechanism.

### Environmental barrier

The lack of public awareness of and interests in specific societal problems such as digital and ecological transition, collective wellbeing and safety, government transparency, higher democratic engagement etc. is another general barrier highlighted by all types of innovation players. In many regions and cities, additionally, the community-engaging approaches have not been well injected into the local governance systems yet; hence, citizens can hardly be engaged in co-creation activities without sufficient support of the local community. But the current globally sanitary emergency, especially the COVID-19 pandemic, is creating new opportunities to raise increasing awareness and interest in specific problem areas, like health, safety and well-being, informed opinion and learning, as well as law and order, with a better view of the need for radical social change, therefore shaping a renewed attitude of people and societies towards transitional/systemic change.

### Institutional barrier

Overall, administrative and legal problems constitute inescapable barriers that many pilot cases suffered from. Legal constraints on various emerging issues like the diffusion of block chain-based platforms and the protection of human beings from misuse of Artificial Intelligence under the existing regulatory systems, as well as uncertainty in future policies concerning education and public spending, mostly resulting from frequent changes of government and administration in some countries, have prevented business and people from bold innovation and entrepreneurship in related fields. Besides, burdensome and inefficient bureaucratic procedures also hinder innovation in the business and public sectors alike.

### Technological barrier

Technology is a double-edged sword. The advances of technology have greatly expanded the boundaries of innovation to improve and scale up existing products and services as well as enhance the breadth, depth and intensity of co-creation through e.g. virtual collaborative spaces, particularly during the Pandemic period. But on the negative side, our societies also have shown a higher requirement of knowledge and capacities, which needs to keep pace with the development of technologies to tackle today's challenges. Unfortunately, many innovators are not equipped with sufficient technology and capability and therefore, fail to reap the benefits and opportunities resulting from the progress of technology.

Exhibit 5. SWOT analysis of Del initiatives in Europe



Source: Li, C., & Rausell-Köster, P. (2020). Exploring the Opportunities and Challenges of European Design Policy to Enable Innovation. The Case of Designscapes Project. Sustainability, 12(12), 5132.

# FOSTERING DEI IN URBAN ENVIRONMENTS

## *The urban relevance*

Cities are main places where people gather to live, work and interact with each other. In Europe, three-quarters of the population lives in urban areas and European cities generate more than 80% of all economic growth according to some estimates. From this perspective, sustainable urban development determines to the great extent the future of Europe.

Cities are also the most significant environment in which innovations take place. Most innovations are geographically concentrated in and around big cities and metropolitan areas, which can offer all the intellectual, technological, creative and capital resources for innovation. There is a body of evidence exhibiting that urban factors such as urban markets, assets, networks and institutions can help innovation take place<sup>26</sup>, let alone make a city's creative class prosper as a determinant factor for design-intensive activities and innovation.

This is further evidenced by the geographical concentration of DEI initiatives in Europe. Our study on the applicants of Designscapes open call has demonstrated<sup>27</sup> that over one-fifth of design-led initiatives are concentrated in four world-class design and creative centres of Milan, Rotterdam, Florence, and London; while a considerable number of other initiatives are mainly located in major national and regional cities, such as Ljubljana (SI), Athens (EL), Valencia (ES), Copenhagen (DK), Palermo (IT), Amsterdam (NL), Lille (FR), Stuttgart (DE), and Varna (BG), etc. This suggests that DEI is a place-based innovation phenomenon.

Tackling global challenges also needs taking the urban environments into consideration. Today's challenges including green growth, climate changes and digital transitions often have different manifestations from city to city, while main urban problems, such as ageing, social exclusion, and

unemployment, always share some certain global features. Solving these problems therefore requires both a global vision and local intelligence that allow to translate common understanding of the problems into local contexts and develop different identity practices according to urban environments. Citizens also play a crucial role in identifying and actively intervening in urban challenges by offering new perspectives and solutions that only collective creativity can generate to the extent required.

Cities are primary innovation systems where design agents, firms, users, policymakers, citizens, and other urban stakeholders interact under specific institutional circumstances. A well-functioning innovation system therefore rests on favourable urban environments that are determined by the following dimensions of institutional capacity, cultural vibe, environmental awareness, social activism and integration, and entrepreneurial culture<sup>28</sup>.

- **Institutional capacity** of a city can support innovation processes through designing supportive policies, creating innovation-oriented contexts, and capturing and synergising insurgent innovation.
- **Cultural vibe** can stimulate and incubate creativity and innovation capability of a city by attracting design and creative talents and creating opportunity for citizens to participate in creative and intellectual production.
- **Environmental awareness** can activate citizens and firms in improving urban performance towards sustainability by widening the awareness of citizens about environmental crises.
- The urban climate of **social activism and integration** is the basis of the tolerance of diversity and mutual trust among inhabitants, determining the degree of breadth, depth and intensity of public participation in co-creation for citizen autonomy, self-organisation, and participatory behaviours.

26. Athey, G., Nathan, M., Webber, C., & Mahroum, S. (2008). Innovation and the city. *Innovation*, 10(2–3), 156–169.

27. The results are mainly based on the applicants received rather than accepted because our goal is to map the distribution of DEI initiatives rather than their quality. It is hypothesised that the more dynamic the innovation enabled by design, the more applicants from that city.

28. Concilio, G., Li, C., Rausell, P., & Tosoni, I. (2019). Cities as enablers of innovation. In G. Concilio & I. Tosoni (Eds.), *Innovation Capacity and the City. The Enabling Role of Design* (pp. 43–60). PoliMI SpringerBriefs.

- **Entrepreneurial culture** affects the extent to which a city's entrepreneurs are willing to engage in high-risk, high-reward innovation, and the ability of a city's business infrastructure and resources to support innovative entrepreneurship.

### ***Harnessing the innovation potential of European cities***

Despite the close relationship between cities and innovation, the current EU design policy remains a narrow industrial policy aimed at increasing the innovation and competitiveness of firms based on the effective use of country-specific design resources, without taking into account neither the urban dimension nor systemic innovation. As a result, existing Del initiatives are too geographically concentrated and most cities, particularly small and medium-sized towns that make up 56% of Europe's population<sup>29</sup>, fail to capture the innovation opportunities presented with the latest development of design theory and practices<sup>30</sup>.

Additionally, most design-led initiatives are niche innovations that lack sufficient replication and scaling capability to achieve broader changes in the regime. In other words, the overall design innovation potential of European cities is not fully exploited now. Harnessing the innovation potential for European cities requires to put the city at the heart of design policy making.

Urban-oriented innovation policies for sustainable, inclusive and smart growth are not new in the EU policy framework.

- In July 2012, the European Commission launched the European Innovation Partnership on Smart Cities and Communities (EIP-SCC) with a total budget of €365 million to develop innovative solutions to the major environmental, societal and health challenges facing European cities through strategic partnerships between cities, industry, small business, banks and research actors.
- In May 2016, the European Commission set out the Urban

29. Servillo, L., Atkinson, R., & Hamdouch, A. (2017). Small and Medium-Sized Towns in Europe: Conceptual, Methodological and Policy Issues. *Tijdschrift voor Economische en Sociale Geografie*, 365-379.

30. Barrado-Timón, D.; Palacios, A.; Hidalgo-Giralt, C. (2020). Medium and Small Cities, Culture and the Economy of Culture. A Review of the Approach to the Case of Spain in Light of International Scientific Scholarship" *Sustainability* 12, no. 18: 7321.

Agenda for the EU with the Pact of Amsterdam, aiming to create a more integrated and coordinated approach to harness the potential and contribution of urban areas to stimulate growth, liveability and innovation, and to identify and successfully address social challenges. At the same time, there is an increasing emphasis on designing sustainable and inclusive urban development in the current EU agenda.

- The New European Bauhaus, launched by President von der Leyen on 14 October 2020, is a new EU initiative that attempts to seek a more sustainable, inclusive and high-quality urban living environment for Europe's future in a more creative, participatory, and design-led way. The New European Bauhaus Initiative is being implemented through three phases of design, delivery, and dissemination, with the aim of generating, delivering, and diffusing innovative methods, solutions and prototypes that can be shared, replicated and scaled up in different EU Member States to better tackle EU Green Deal Goal.

All these examples explain that there is no need to create any new policy label or trademark like "design-enabled city" of its kind to highlight the significance of Del in urban contexts, instead; European policy makers should align current EU agenda and actions to the development of a next generation of design policy, including but not limited to the Urban Agenda for the EU and the New European Bauhaus Initiative, so as to disseminate and integrate design approaches and skills at the policy level beyond traditional individual and organisational levels.

### ***Enhancing cities' capacity for Del***

The ultimate goal of activating the innovation potential of cities is to enhance their capacity for Del. To this end, three key actions should be emphasised in the new, broad-based policy innovation scenario.

#### ***More***

The first is to ***foster innovation dynamics in the niche market of cities***. Although innovation capacity cannot be measured by the simple aggregation of niche innovations, the large number of niche innovations can generate diverse and competing ideas and solutions, which create preconditions for the functioning of diversification and selection mechanism of innovation to pick out promising solutions that can be further

scaled, diffused and replicated to achieve bigger changes in the socio-technical regime and urban system. A city with numerous and diverse innovation projects in niche market has more potential to undertake larger-scale systemic changes at the urban level. For this end, city managers and legislators should take the necessary steps both to strengthen design and innovation awareness and capability of grassroots innovators and to create supportive institutions and other external environments for the incubation and development of local innovation practices.

### **Beyond**

The second is to **strengthen the scalability of innovation within and beyond city boundaries**. The enhancement of the city's innovation capacity should focus on both the quantity and quality of innovation. High-quality Del has more potential for scalability so as to maximise both outreach and impact, while cities should facilitate the scaling of Del. Our research found out that collaboration is the key to the scalability of design-led initiatives. Cross-sector collaboration can drive the scaling out by adding more resources and novel approaches to improve the existing innovation solution on demand, while cross-territory collaboration can support the scaling up by increasing the number and scope of markets reached by innovation. In DESIGNSCAPES pilot cases, most projects chose to collaborate with local partners to scale innovation up through cross-country, cross-regional, and inter-city transfer. While these transfers are one-way only, the benefits from collaboration and scalability are two-ways. City managers must therefore not only support local innovators to "go out" to scale, but also welcome "come in" scaling of external innovators. The latter aspect is particularly important for small and medium-sized towns lacking ad hoc design resources, whose governments should, on the one hand, develop appropriate strategies to attract and utilise cross-border scaling of knowledge, creativity and innovation to fertilise their own Del dynamics and capacity, and on the other hand, support participatory process, open knowledge exchange, and mechanisms of "open government" to create enabling institutional structures to make the existing regimes open to scaling up, i.e., more open to institutional changes.

### **To**

The third key action is to **develop mission-oriented design innovation policy to solve targeted global challenges and urban problems**. Mission-oriented innovation policy stresses its alignment with grand but concrete challenges while at the

same time with targeting a specific outcome rather than steps in the innovation process<sup>31</sup>. By applying a mission-oriented approach, urban policymakers should develop targeted design support policies with clear mission statements. Missions can either be based on global (such as UN's SDG) or EU agendas or driven by regional or local initiatives. The key aspect is to ensure the implementation and development of DEI projects in line with specific directions that city authorities want to achieve. By doing so, niche innovators can be motivated and integrated to work together, but in parallel and separate ways, to seek a diversity of solutions to specific challenges and problems. To make this transformation come true, cities should encourage initiatives from all sectors with concentrated efforts towards achieving "big things". To this end, city governments should work closely with the business sector, civil society, academia, and citizens to ensure that urban innovation occurs in the direction of shared goals.

Systemic changes are always long-term and uncertain; enhanced urban capacity for Del can empower niche innovators and other urban stakeholders to develop strong enough to seize the window of opportunity to realise wider and profounder changes in the regimes and even landscapes in future. Furthermore, local governments play an irreplaceable role in fostering design-enabled innovation in urban environments, besides the joint efforts of the local design community, business sector, and universities. This implies that Del should be strengthened at policy level beyond individual and organisational levels, which in turn asks for the government to build policy design capacity by internalising design into the policy making process in addition to public administration innovation.

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31. Mazzucato, M. (2018). Mission-Oriented in the European Union. European Commission.

## **Text box 2. Valencia World Design Capital 2022 and its immediate impacts on local administrative system**

Valencia is the third largest city of Spain with good fame for its design-intensive industries like tile and furniture manufacture, but the city's design culture had long been under-appreciated in the society. As one of 14 DESIGNSCAPES snapshot cities, Valencia was selected as a testing ground for the implementation of the design-enabled approach to trigger changes both in the grassroots society and local policy arena. Sensitive to the challenges and problems faced by local stakeholders, the University of Valencia and other project partners have been proactively engaged in the debate regarding DEI for big changes in urban environments.

Inspired and fully supported by this EU H2020 project, local design community decided to translate the philosophy of DESIGNSCAPES into an ambitious initiative, aiming to leverage design enabled approach to realise a long run changes of the city with the first step of bidding for World Design Capital (WDC) 2022.

On 9 September 2019, the city of Valencia was selected WDC 2022 after winning the competition against other candidate cities. This success has greatly activated policy awareness and enthusiasm for design and DEI among local policymakers, allowing local governments to subsequently take a range of measures to adopt a design approach at the policy level, including:

- Employing design experts in the Special Commission for the Recovery and Reconstruction of the city hall, turning Valencia to become the first Spanish city to officially incorporate "design strategy" into the post-COVID reconstruction action plan.
- Creating a mixed experimental model that includes the figure of a Chief Design Officer and a Design Council in the local administrative infrastructure.
- Engaging strategic design branding services and processes to redefine the city's position in its transformation.
- Investing in the design sector and facilities to support DEI in the public administration.
- Leveraging design and communication approaches to raise awareness of global challenges.

The case of Valencia reveals a series of preconditions for successful promotion and advocacy of DEI at urban level, including the maturity of local design agencies involved, internal design innovation momentum fueled by the Designscares project, the reputation effect endorsed by the European project, the availability of design theory, approach and toolkits, local policy awareness of and interests in innovation-driven economy model, and environmental pressure from changing contexts like COVID-19. Besides, the key to success to create an opportunity/occasion where bottom-up initiative and top-down strategy can be meet and merged.

Source: Placing Design Policy on the Urban Agenda. València. Available at: [https://www.youtube.com/watch?v=\\_Vyudw23pFk&t=6s](https://www.youtube.com/watch?v=_Vyudw23pFk&t=6s)

# TOWARDS A NEXT GENERATION OF EU DESIGN POLICY

## *A broad-based design innovation policy*

The new EU design policy should aim to exploit the generative potential of urban environments in the highest possible number of European cities to encourage the uptake and upscale of Del by existing businesses, civil society organisations, academic institutions, public administration and other urban stakeholders, ultimately enhancing the design innovation capacity of European cities to achieve sustainable development goals through successful response to pressing global challenges.

Promoting Del as a key policy driver, the new design policy should be a broad-based innovation policy. A broad-based innovation policy, firstly raised by the European Commission<sup>32</sup> and further developed by international scholars and policymaking institutions to support regional and city development<sup>33</sup>, stresses that the traditional innovation policies were used to focus too narrowly on R&D and science-based innovation; they should therefore be expanded to practice-based innovation by translating investments in knowledge into products and services, as well as user-centred innovations by involving users and customers in the innovation process.

A broad-based design innovation policy should follow the same policy logic but focusing on the area of design innovation. Considering that current design policy in Europe is too narrowly based on a firm-oriented innovation paradigm, the new policy vision and stance should incorporate a Del paradigm so as to make full use of design potential for inclusive green growth to support societal sustainability. Innovation goes far beyond the availability of new ideas or the development of new technologies. It involves adaptation, modification and usually hybridisation with existing ideas and processes, and in all these processes of smart adoption, design can play a key role.

<sup>32</sup> Putting knowledge into practice: A broad-based innovation strategy for the EU. COM (2006) 502 final.

<sup>33</sup> OECD. (2020). Broad-based Innovation Policy for All Regions and Cities. OECD. Available at: <https://doi.org/10.1787/299731d2-en>

This means that the new policy perspective needs broadening in the following five aspects:

- **Broadening the scope of design beyond form-giving and aesthetic orientation.** Design should be recognised as a problem-solving approach and co-design should be promoted as a key design capability to support public participation and co-creation. And co-creation is a guarantee of a smart and smooth adoption.
- **Broadening the scope of design-driven innovation beyond aesthetic and soft innovation.** Design as an innovation enabler should be supported to drive a wider range of innovation, from technological innovation and business model innovation to social and urban innovation.
- **Broadening the agents of innovation beyond the business and SMEs.** In addition to the private sector, public and third sectors are also key players of Del that should be empowered.
- **Broadening policy goal beyond productivity and firm performance.** Leveraging design potential to address pressing global challenges and urban problems should be established as one of priorities of design policy
- **Broadening policy action beyond individual and organizational levels.** To trigger wider systemic changes, the level of design innovation policy should be highlighted, and policy design capacity of policymakers should be strengthened to support institutional changes.

This broadened scope of design policy do not mean the rejection or abandonment of traditional foci. Many of these new goals are still underexplored and therefore require close scrutiny, as well as trial-and-error testing. Integrating them into the new policy agenda can encourage further research, investments and exploitation on these fields, as well as strengthen cross-fertilisation among different actors, disciplines, sectors, and levels.

For this to happen, new design innovation policies need to ensure continuity of existing policy programmes and become ground-breaking. This requires coordinated policy-making that incorporates specific national and sectoral needs into policy formulation and implementation at different levels of government.

### ***Policy recommendations***

Following Schuster's approach<sup>34</sup> to public policy making by connecting specific targets to indented outcomes, four types of intervention strategies – i.e., the awareness-raising, the provision enhancement, the incentive compensation, and the recognition confirmation strategy – can be developed through the diagnosis of reality so as to detect and overcome dysfunctionality<sup>35</sup>. On the basis of these four strategies, further policy priorities and recommended actions have been tailored and developed based on the latest results of the project as well as expert consultancy.

#### **I. The awareness-raising strategy**

The awareness raising strategy aims to strengthen and consolidate the building of design awareness, with a clear orientation towards the stimulation of overall demand for design in society. This is largely based on a diagnosis of the reality that there is still a gap between countries and sectors in terms of knowledge and information on design values and design impacts. Therefore, all levels of government should continue to support targeted awareness-building activities by giving the priority to improving the better understanding of Del and to fostering a holistic design culture in European cities. The challenge is to provoke demand for design policies by disseminating the full range of potential impacts and contrasting their competitive advantages against alternative theories and practices of socio-economic transformation. A clear message behind this strategy is that government should make clear that design can be used as an enabler of innovation.

#### ***Priority 1. Improve understanding of design and Design enabled Innovation.***

1. Supporting both theoretical and empirical research

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<sup>34</sup> Schuster, M. (2003). Mapping State Cultural Policy. In M. Schuster (ed.) Mapping State Cultural Policy: The State of Washington. Chicago: The University of Chicago. pp 1-20.

<sup>35</sup> Rausell-Köster, P. (1999). Políticas y Sectores Culturales En La Comunidad Valenciana. Valencia: Tirant lo Blanch: Valencia.

to deepen and broaden the knowledge of emerging areas of design discipline, new approaches and toolkits, including service design, strategic design, transition design, and Del, with particular emphasis on interdisciplinary and multidisciplinary perspectives that integrate technological, environmental and institutional dimensions into the design study.

2. Establishing a single, openly accessible information-sharing platform/repository to collect, disseminate and communicate the results and outcomes of existing and future design related initiatives and projects, with the objective to facilitate the sharing and transfer of design knowledge and good practices within and beyond Europe.
3. Developing a reliable indicator system for measuring and evaluating both economic value and social benefits of design, which can be integrated into existing EU statistical instruments such as the European Innovation Scoreboard<sup>36</sup>.
4. Setting up Design Innovation Observatories as an effective benchmarking tool to support design policy making and policy monitoring at different levels of government.

#### ***Priority 2. Foster a holistic design culture in European cities***

5. Promoting a new STEAMD (Science, Technology, Engineering, Arts, Mathematics and Design) educational trajectory in order to push design education into the primary and secondary school curricula, thereby cultivating design literacy and diffuse design ability of citizens from an early age.
6. Encouraging not only the use of design within firms and other types of public and not for profit organisations, but also the integration of design in their organisational cultures by creating open and collaborative working environments, participatory and co-creative organisational approaches, as well as user-proximity networks.

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<sup>36</sup> There are different groups reflecting on the best ways to measure the economic and social dimension and impact of design, but we are still far from having homogeneous and contrasted methodologies. Perhaps it would be the moment to launch a specific Horizon Europe call to fix the issue.

7. Injecting the design conception into urban governance systems by developing differentiated and progressive design-engagement strategies ranging from utilising design to solve discrete problems, to internalising design in the local administrative infrastructures, to involving design in decision making processes, which depend on the acceptance of design in each city.
8. Increasing public investment in design facilities, such as design schools, design museums, and creative centres, as well as in a broader range of creative facilitators, such as innovation hubs, maker places, and living labs, in the city to enhance the visibility and involvement of design in the daily lives of citizens and in urban development.

### ***Priority 3. Recognise design as a new policy competency***

9. Shaping a design and innovation prone mindset in policy makers and civil servants by recognising policy design as a key professional competency for public administration.
10. Institutionalising and routinising the involvement of design in policy making by setting up a specialised design department and chief design officer in the administrative architecture of municipality governments.

## **II. The provision enhancement strategy**

The provision enhancement strategy aims to foster collective capacity to deliver Del. It is based on a diagnosis of reality that there's not a desired supply of design, either quantitatively or qualitatively, in the market owing to some certain constraints, such as market failure and the lack of government support. This means that related competent authorities, particularly regional and local governments, should take necessary measures to augment the supply of design through direct government intervention and affirmative actions, including strengthening design education and training system and building functioning urban design innovation ecosystem. In addition to this, governments should also recognise and harness the power of new technologies in the digital era, placing emphasis on the integral development of design and technology. Actions in this strategy should deliver an explicit message that government will do something important to support Del.

### ***Priority 4. Achieve excellence in European design education to attract, train and feed design talents.***

11. National competent authorities should encourage and support design schools, universities and other relevant educational institutions to innovate training programmes in such a way that can reflect the latest developments of design discipline, new approaches, emergent skills, and proven toolkits as well as to offer need-based professional courses placing special emphasis on design management and design leadership to meet an increasing demand for Del.
12. Enhancing support for international exchange and mobility of design students, professors, and researchers in higher education, as well as young professional designers, to support cross-regional knowledge transfer in Del, through existing EU mobility programmes such as Erasmus+ and the Marie Skłodowska-Curie actions.
13. Supporting the establishment of European university alliances for design education as a thematic pilot within the existing European Universities Initiative to strengthen cross-regional and inter-university collaboration and cooperation in design teaching and research, with a view to incubating several world-class centres and clusters for design education in Europe.
14. Attracting and retaining the best design and creative talents from around the world in order to maintain Europe's leadership position in the fields of design and design innovation practices by offering unique benefits of working and living conditions and applying supportive visa systems for highly skilled designers and creative entrepreneurs.

### ***Priority 5. Build functional urban design innovation ecosystems***

15. Shaping and reinforcing the social role of designers as key actors of change by encouraging and supporting design firms and studios as well as self-employed designers to actively carry out business and social innovation, and to engage in innovation processes in business, third sector and public administration.

16. Building a well-functioning design service market and promote intermediate agencies to improve design supply and demand matchmaking mechanisms that can facilitate collaborative innovation between the design sector, SMEs, public and civil society organisations.
17. Establishing design innovation partnerships between government, industry, universities and civil society to enhance cross-sectoral collaboration to promote and adopt design-driven approaches in a wide range of urban innovation initiatives.

**Priority 6. Prioritise the integration of design and technology**

18. Strengthening technology inclusive education and training programmes aiming at designers to foster digital innovation capacities in the design sector.
19. Supporting integral and synergistic development of design industry and high-tech industries to unlock the enabling potential of design in science-based and technology-push innovation.
20. Tapping the potential of design to drive Europe’s digital transformation and human centric Artificial Intelligence by integrating a design-driven approach into the EU digital and AI strategies.
21. Exploring new models and approaches to design-enabled, technology-push business innovation and entrepreneurship with customer-centric platform economy as a pilot wherein design plays a key role in enhancing digital experience.

**III. The incentive compensation strategy**

The incentive compensation strategy is targeted to increase the willingness of all sectors of society to engage in Del, which is mostly out of the reality that there exist a number of obstacles preventing practitioners from adopting design in the innovation process or undertaking design-led innovation and entrepreneurship. The key message should be delivered by governments that those who are engaged in Del will get rewards; otherwise, they will get no support. From

this perspective, the key emphasis should be placed on the increase in design-oriented funding opportunities, resources and rewards, as well as the integration of Del into the vision and roadmap of urban agenda.

**Priority 7. Increasing design-oriented funding opportunities, resources and rewards**

22. Continuing and expanding financial support for pilot projects on Del through existing EU funding programmes, such as Horizon Europe, Erasmus+, European Social and Investment Funds, and the Digital Europe Programme.
23. Offering citizens, enterprises and other public sector organisations various subsidies and grants for design leadership training programmes, design management advisory services, pilot collaborations between the design sector and academia on the one hand, business, government and third sector on the other.
24. Establishing a Europe-wide Design enabled Innovation award to recognise, reward, and promote good practices of Del.
25. Encouraging and effectively guiding government departments and agencies to involve external design experts in assisting civic participation in public policy making in the form of procurement of services to improve the level and quality of democratic engagement in urban governance systems.

**Priority 8. Integrate Del into the vision and roadmap of urban development**

26. Crafting and clearly articulating awareness raising strategies that highlight the value and benefits of design and its potential contribution to UN’s Sustainable Development Goals in EU cities.
27. Supporting European cities to join global design network initiatives, like the UNESCO Cities of Design Network and the Creative Cities Network, and to bid for the World Design Capital initiative, to strengthen both global visibility of local design innovation dynamics and the local awareness and support pushed by global initiatives.

28. Establishing publicly funded design promotion and consultancy agencies to provide information and knowledge, vocational and skills training, design innovation consulting, policy design advisory, and other think tank services focusing on the application of design and broad-based innovation approach in social policies, political agendas, economic strategies, cultural initiatives, and technology roadmaps.
29. Leveraging the city's existing innovation infrastructures, including living labs and innovation incubators, to promote and improve public participation in design actions.
30. Developing government programmes and incentives to support a variety of design-led initiatives and projects that are consistent with public policy agendas and strategic priorities at different levels of government.

#### **IV. The recognition confirmation strategy**

The recognition confirmation strategy aims to build a systemic ability that can reinforce the implementation of Del as an intrinsic need of individual and organizational actors. This relies on a diagnosis of the reality that there's a growing consensus on the necessity for design in society. Governments therefore need to establish a basic legal framework (e.g., IPR support and tax incentives) to safeguard both market and societal benefits of Del practices and corresponding

actions should manifest that the government will guarantee the right of innovators to use design.

#### ***Priority 9. Improve design protection and incentive mechanisms to balance market and societal benefits of Del***

31. Broadening the concept of design rights beyond the visual appearance to extend the existing intellectual property protection mechanisms to design products and methods to fully safeguard profitable benefits resulting from the engagement of design in the innovation process.
32. Exploring and actively experimenting other formal and informal appropriation mechanisms to maximise and consolidate the societal benefits of Del, with a special focus on design actions generated by participatory processes.
33. Establishing and improving appropriation mechanisms for innovation benefits by extending the application of Intellectual Property (IP) protection systems to the Del in order to fully safeguard bottom line returns of innovation activities while maximising their social benefits.

# NEXT STEPS: LINKING DESIGN POLICY TO THE EU FUNDING PROGRAMMES

To summarise our perspective, we see Del at the crossroad of technology trends, societal challenges, design principles and approaches, and the inspired and growingly mature behaviours of public and private innovators. This innovation materialises within “niches”, which have the power, under certain conditions, to influence and change the structures of our living environments. To make these changes come true, the European Commission, Member States, Regional governments, and local authorities should take appropriate and immediate actions to support design in wider areas of innovation and entrepreneurship, global sustainable development, and democratic policy making.

The next step to be taken by governments at all levels is therefore to **inject design policy and support into the EU funding programming period for 2021–2027** within the different instruments – from Horizon Europe to Erasmus+ to European Structural and Investment Funds (ESIF) – redesigned for this period. Within this framework, there are three policy options available to relevant competent authorities at the EU, MS, Regional, and City levels:

- Option 1: **design** is supported **as usual** with no change from the current scenario.
- Option 2: **design** is supported **as a vertical policy priority** – much in the same way as innovation or growth.
- Option 3: **design** is supported **as a horizontal policy priority** – similar to e.g. gender balance.

Following the scenario analysis for different policy levels, we have compared the above three policy options in terms of the possible risks/issues involved, the likely benefits/opportunities brought about, the specific instruments that might be leveraged, and the expected landing situation by the end of the next programming period. The corresponding conclusions can be summarised as follows:

## *At EU level*

Design should be supported as an **EU level vertical policy** priority out of many reasons. On the one hand, good progress in this direction would mean further developing a truly European concept - akin to the celebrated social model or to the user driven, open innovation paradigm. On the other hand, an EU level policy action might help overcome the problems related with poor Member State level policy coordination, leading to different speeds and shapes of national intervention. According to a 2014 survey by the Design Policy Monitor<sup>37</sup>, all EU-28 countries at that time had some design promotion activities in place. Design support programmes existed in 12 countries, 18 had at least one design centre in operation and 15 were explicitly including design in national policy, either as part of innovation policy or with a dedicated action plan. However, the geographical spread of such initiatives does not enhance their thematic convergence nor facilitates the determination of a critical mass of good practice examples cutting across the EU country borders.

As a B-plan we would also recommend **enhancing the interoperability, if not the broad coherence of national innovation policies by an extended injection of design**. This would at least contribute to increasing the awareness of value created and possibly the impacts, not disjoint from the renewal of training and skill qualification schemas.

**Recommended programmes:** Erasmus+ and Horizon Europe, particularly its third pillar, with EIC, the Innovation Ecosystems, EIT and its KICs, and possibly the Digital Europe Programme.

<sup>37</sup> See [https://www.ico-d.org/database/files/library/SEE\\_DPM\\_2015\\_Jan.pdf](https://www.ico-d.org/database/files/library/SEE_DPM_2015_Jan.pdf)

**Exhibit 6. Results of scenario analysis at EU level**

Policy options	Policy as usual	Design as a vertical priority	Design as a horizontal priority
<b>Risk/ Issues</b>	Different speeds of EU MS design policies, no diffusion of the broad-based perspective to innovation	Diversified starting conditions, limited learning attitude, ceremonial or temporary adoption of innovations	Little interoperability of MS innovation policies across countries and thematic domains
<b>Benefits/ opportunities</b>	Synergies with the Urban Agenda for the EU and the Smart Cities Marketplace	Synergies with the Innovation Ecosystems and EIT KICs	Synergies with higher education, VET & skill qualifications
<b>Instruments of leverage</b>	Soft coordination (eg. the Blueprint for cities and regions or the EIP-SCC)	Horizon Europe, EIC, EIT, Digital Europe Programme	Erasmus+, ESF, European Universities Initiative, EIT-HEI
<b>Scenario by 2027</b>	Lack of EU critical mass due to limited MS policy harmonisation	A truly EU concept in operation esp. in business	Increased awareness and impacts of design in society

### At EUMS level

Should the decision to make design a vertical policy target be conferred to the Member State level, we could probably expect the perpetuation of some national disparities, due to the different starting points and levels of maturity of EU countries, only partly offset by the different availability of financial resources from especially ESIF (European Structural and Investment Funds). However, this situation **would be preferable to the ‘policy as usual’ option**, which would also constitute a missed chance of multinational

cooperation. The B-plan would put even more emphasis on education and VET reforms, including for capacity building of the public sector, which is basically a Member State competence; but taking design as a cross-cutting priority would at least favour the harmonisation of thematic policies according to common principles.

**Recommended programmes:** national funds, ESIF national operational programmes.

**Exhibit 7. Results of scenario analysis at EUMS level**

Policy options	Policy as usual	Design as a vertical priority	Design as a horizontal priority
<b>Risk/ Issues</b>	Missed chance of deeper MS level cooperation	Difficult to achieve EU level policy harmonisation if not coordination	Uneven readiness of MS and low speed of thematic policy changes
<b>Benefits/ opportunities</b>	Resulting from the respective national policy mixes	Synergies with Smart Specialisation Strategies and Platforms	Synergies with VET and higher education, IPR and cultural policies
<b>Instruments of leverage</b>	Own funds, ad hoc national programmes	Own funds, ERDF national operational programmes	Own funds, ESF national operational programmes
<b>Scenario by 2027</b>	Low/uneven take up rates of design and maturity levels of policies in EU MS not grasping the broad-based perspective	National disparities in policy visions and performances possibly enhanced by independent actions	Competitive adoption of broad-based design innovation policies in EU countries

## At regional level

**Little difference** would probably make the decision to move the core of policy initiatives **to the regional level**. In case of ‘policy as usual’ option, we would expect to see low and unequal take up rates of design again until 2027. In case of vertical priority setting, the issue of financial and human resources could become more binding, but the intra-regional disparities are likely to be lowered (e.g.,

between cities of a same region). Moreover, at least in case of horizontal prioritisation, leveraging ESF resources and the growing experience of policy benchmarking would lead to an increased policy capacity and quality of governance.

**Recommended programmes:** own funds, Interreg 2021-2027, ESIF regional operational programmes.

*Exhibit 8. Results of scenario analysis at regional level*

Policy options	Policy as usual	Design as a vertical priority	Design as a horizontal priority
<b>Risk/ Issues</b>	Missed chance of thematic cooperation (or a very limited one) among EU Regions	Heterogeneous financial and human resources lead to diversified results and impacts	Uneven readiness of Regions and low speed of thematic policy changes
<b>Benefits/ opportunities</b>	Resulting from the respective regional policy mixes (and the national policy stance)	Synergies with Smart Specialisation Strategies and Platforms	Diffused capacity building and policy learning in the region
<b>Instruments of leverage</b>	Own funds, ad hoc regional programmes disentangled from the broad-based perspective	Own funds, ERDF regional operational programmes	Own funds, Interreg 2021-2027, ESF regional operational programmes
<b>Scenario by 2027</b>	Low/uneven take up rates of design and maturity levels of policies in EU Regions	Intra-regional disparities possibly lowered but unclear impact on inter-regional disparities	Competitive adoption of broad-based innovation policies in EU regions

## At city level

**The city level is where most impacts are foreseen**, depending on the future course of actions, at least because no particular measures or initiatives characterise the as-is situation. In the case of **vertical priority setting**, evidently the need for a critical mass of (human and financial) resources would be even more binding than in the case of regional policy. On the other hand, the benefits would be considerable, both in terms of gains from ‘design as infrastructure’ and possible synergies with Smart City plans and programmes. In case of **horizontal prioritisation**, the

challenge would be how to reconcile its ambitious goals with the probably low level of readiness that most City departments (and areas) would denote, at least initially. Then, however with the progress of time and action, the benefits would accrue, both in terms of capacity building and policy learning, and ultimately improved policy making.

**Recommended programmes:** own funds, ESIF, private resources (leveraged by the use of instruments such as the DESIGNSCAPES open calls).

**Exhibit 9. Results of scenario analysis at City level**

<b>Policy options</b>	<b>Policy as usual</b>	<b>Design as a vertical priority</b>	<b>Design as a horizontal priority</b>
<b>Risk/ Issues</b>	Missed opportunities to learn, innovate and grow	Innovation localised only where a critical mass of resources is already existing	Learning localised only where pre-existing conditions are more favourable
<b>Benefits/ opportunities</b>	No benefits from Del	Design as diffused infrastructure, synergies with Smart City plans	Capacity building and policy learning (possibly also in connection with UN SDGs)
<b>Instruments of leverage</b>	No formal action to implement Del	Own funds, ERDF, private resources in support of Del calls (similar to the CSA cascade funding mechanism operated by DESIGNSCAPES)	Own funds, ESF, private resources (including for educational and training purposes at local level) also from donor organisations
<b>Scenario by 2027</b>	No value created from Del	Business and societal value creation	Improved framework conditions for Del

### **Text box 3. The Valencia Declaration advocates design for urban innovation**

On 11 March 2020, a group of design scholars, practitioners and policy makers from around the world participated in the first Designscapes Policy Forum in the city of Valencia, Spain, and as one of the key outcomes of the conference, the Valencia Declaration was issued, aiming to advocate design for urban innovation.

The Declaration reaffirms design as a catalyst for innovation, a facilitator of sustainability, a supportive cultural and technological value-adding element, an agent of change, a contributor to resilience and risk management, and a facilitator of development.

The Declaration states that cities should play a key role as a testing ground environment for new solutions to global challenges, to be commercially developed at a later stage and/or to be the cradle of emerging and radically innovative practices.

The Declaration recommends focusing on the social relevance of design and harnessing the potential of cities to support design innovation as a tool for urban change.

The Declaration, therefore, identifies five priorities to strengthen the design innovation capacity of European cities, which include

- Design should become a new common good.
- Design should become a new policy competence.
- The European city as a launchpad for design innovation.
- Building design capacity for all.
- Each proposal for design innovation has its own optimal dimension.

In conclusion, the Declaration proposes an alliance of European cities to promote the use of design as a lever for innovation, widen the awareness of the impacts of design, develop appropriate policy frameworks, strengthen local skills and capacity, and undertake strategic city tasks. The goal of this alliance is to work on capacity building of public and private actors and to ensure design enabled innovation more and more purpose-driven: that is, give it a transitional value.

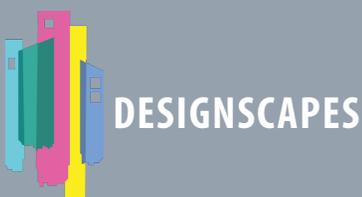
Source: The Valencia Declaration, 2020. Available at: <https://www.designscapes.eu/resources/>

DESIGNSCAPES aims to exploit the generative potential of urban environments in the highest possible number of European Cities; to encourage the uptake, further enhancement and up scaling of Del by existing enterprises, start-up companies, public authorities and agencies, as well as other urban stakeholders.

The rationale behind DESIGNSCAPES approach is that cities are looked upon as engines of innovation, to be fostered and stimulated appropriately. In many cases innovation activities are concentrated in spatial niches and result from individual or small network initiatives (social niches) in various domains (mobility, health, ICT, etc.). They are the outcome of the spatial concentration of the empowerment of citizens, looking for new tailored solutions addressing daily challenges.

From a policy perspective these initiatives, and Del in general, are viewed as one of the mechanisms barring an added value towards adaptive, qualitative and learning cities. However, more insight in the working of Del as a means and an outcome is needed, taking into account its contextual features, specificity and multiplicity. This can only be done by learning at three levels, namely individual, network and organizational levels, by connecting initiatives within and between cities, and by bringing practice, policy and research together.

Evidence-based policy-making will be strengthened by supporting learning processes of "what works"/ "what does not work" and under what conditions. This will contribute to more Del initiatives from the ground, new possibilities for up-scaling of small scale Del experiments, and new tools of policy making in the field, thereby accelerating Del for growth.



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