

DESIGN ENABLED INNOVATION IN URBAN ENVIRONMENTS a handbook

Edited by
Grazia Concilio
Talita Medina
Ilaria Tosoni



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EDITOR'S NOTE

This handbook has been developed based on the main outputs of the **DESIGNSCAPES** project, an H2020 CSA (Coordination and Support Action) funded by the European Commission under the Call entitled "User-driven innovation: value creation through Design enabled Innovation".

The Action started in June 2017 and involved 12 public and private organizations (mostly academia and local government associations) from 10 EU Member States, under the leadership of ANCI Toscana, the free association of Tuscan Municipalities.

The publication is based on Deliverable 6.6 Guide to Design enabled Innovation in Cities, and provides evidence of the main project results, including the voices of the various stakeholder groups identified, involved and addressed in the project, the main challenges, opportunities and policy recommendations for Design enabled Innovation (therefore Del) in cities across Europe, best practices and lessons learned in **DESIGNSCAPES** Cities, reflections from the experience of the Technical and Financial Support Instrument, a summary of the White Paper on Del and contents and outputs of **DESIGNSCAPES** Toolbox and Training Modules.

KEYWORDS CLOUD

Urbanscape City Design Design enabled Innovation
Innovation Purpose driven innovation
Transition
Design agency
Scaling European Union

READER'S COMPASS

The **handbook** presents an overview of Designscares outputs. In the following pages readers may find 3 types of contents:

Dark blue pages:

Concepts, descriptions, explorations

Light indigo bubbles:

The voice of the actors

Coloured side boxes:

Selection of exemplary outcomes from the winners of DESIGNSCAPES Call for Pilots, some representative design policies from our White Paper and a short overview of the design tools from our Toolbox.

Pilots

Policy Tips

Toolbox

Concepts, descriptions
and explorations

The voice of the actors

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MORE
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Debater



A JOURNEY TOWARDS DESIGN ENABLED INNOVATION

DESIGNSCAPES calls for a new paradigm and new approach towards innovation: innovation is the process through which answers to planetary struggles can be identified and transformed into products, services, policies, practices.

Innovation is invoked as the panacea solving the deadlocks and crises of our society. "Innovation is the answer" and everyone needs to look for it, make it real and

achieve it in any domain and action sphere.

DESIGNSCAPES considers innovation as such when it is able to effectively tackle planetary struggles and through which urban societies can accomplish their difficult and complex tasks.

Considering the breadth and relevance of the problems at hand, however, any innovation process needs to be framed in terms

A Journey Towards Design enabled Innovation

of the wider impacts targeted, determining the level at which innovation itself is engaged in the sustainability game.

Imagining, creating and developing these innovations requires the simultaneous consideration of different perspectives: of the user who may potentially adopt the new solution, of the organisation that will convey the product/service to the market, of the marketplace/ ecosystem that will link the various products and services to their users and other stakeholders, and finally of the entire society, which will take benefit from the established solution.

Sustainable innovation needs to overcome two big obstacles: the first refers to the resistance that the dominant culture or the prevailing economic model put

in place against any attempt at challenging their basic principles and mechanisms; the second obstacle refers to the hard and diffused changes in users' or citizens' behaviour that many disruptive solutions demand to scale up and ultimately be adopted.

In DESIGNSCAPES conceptual framework, **Design enabled Innovation** is a non-linear, multi-causal, multilevel and networked process of change aimed at producing new functions, uses and meanings while empowering values derived from a shared view on key social, economical, environmental challenges

Design enabled Innovation is the driver of alternative people and nature positive futures.

PILOTS

DESIGNSCAPES pilots were selected through **an open call designed to support 100 projects**. A total of 1.5 million euros have been funded to spark Design enabled Innovation by granting 50 feasibility studies, 40 prototypes and 10 scalability tests throughout Europe. The selected pilot projects were chosen as real-life testbeds of Design enabled Innovation tackling critical challenges facing contemporary European cities.

POLICY TIPS

DESIGNSCAPES Policy Tips are the key output of the project included in DESIGNSCAPES White Paper. The document is available to policymakers and legislators in the field of culture, creativity, design, innovation, entrepreneurship and urban planning. It builds on the crowd-sourced Green Paper on Design enabled Innovation in urban environments, first published in May 2019. It contains **recommendations for next generation EU Design enabled Innovation policy**.

TOOLBOX

DESIGNSCAPES Toolbox is **a collection of methods and tools** that can be easily and rapidly used and applied to various innovation processes. A resource kit for anyone who wants to apply design processes to unleash innovation potential in themselves, their team or their organization.

Urban Rigger © - Copenhagen, Denmark



1. INNOVATION AND THE CITY: EXPLORING THE URBANSCAPE

As a global community we are challenged by distressing crises and severe problems. We need to regain the ability to envision a common future and question current answers to persistent global issues.

Cities and urban environments are at the root of these crises, as generators of significant impacts and footprint and directly affected by those same outcomes.

Nevertheless, these pressing challenges rooted in urban life for individuals, families, civil societies, and governments can also be seen as potential drivers for innovation, diffused equity and inclusion, sustainability and nature positive lifestyles.

When it comes to incubating, driving, nourishing, and scaling up systemic and sustainable change, cities have no rivals.

Indeed, they can present totally

1. Innovation And The City: Exploring The Urbanscape

different societal, political, infrastructural, and organizational conditions, which can act either to maintain the status quo or to enable new value creation. The different urban dynamics can directly facilitate innovation and be open to it or create an environment resistant to change and incubation of new ideas.

The interaction of these conditions and features making a city inclined to or adverse towards innovation processes and networks defines the Urbanscape.

The Urbanscape provides a multidimensional description of the creative and generative climate of a city.

The Urbanscape describes the dynamics which make a city more or less fertile for nesting innovation processes. It originates in the complex, rich and powerful system of flows of information and relations, which embodies any city.

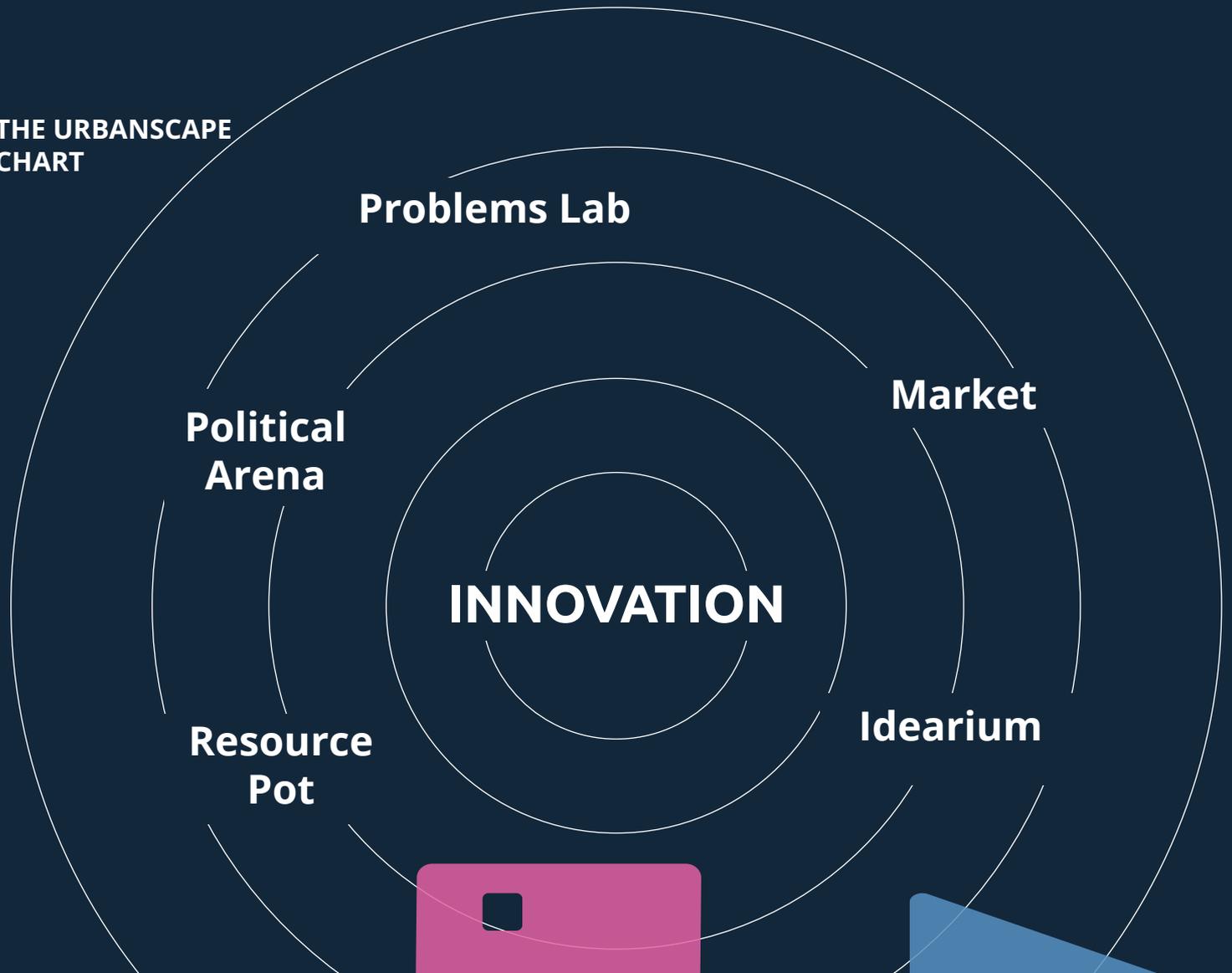
The Urbanscape therefore enables to understand and unveil the dynamics of creativity (the networks of flows that a city activates and is part of) in a urban context.

The Urbanscape is made of 5 dimensions describing the enabling dynamics of the innovation capacity of the city; these dimensions can be accessed through the interplay of multiple interfaces, which intercept innovation processes at an operational level mobilizing tangible and intangible resources and assets.

The Urbanscape chart illustrates the functioning of this turbulent environment. At the bottom the 5 key dimensions which are defined as follows:

Institutional capacity: The ability of institutions to perform their functions and the governance

**THE URBANSCAPE
CHART**



**Institutional
Capacity**

**Cultural
Vibe**

**Environmental
Awareness**

**Social
Activism
And
Integration**

**Entrepreneurial
Culture**

1. Innovation And The City: Exploring The Urbanscape

model and structure used to perform them.

Cultural vibe: The supply of cultural infrastructure and participation in cultural activity, which makes cities attractive to creative talent and stimulate cultural engagement.

Environmental awareness: Level of understanding of the need to improving urban performances towards sustainability and activating collective experimental initiative for new knowledge production

Social activism and integration: Attitude of taking an active part in events and movements and openness to diversity.

Entrepreneurial culture: The opportunity a city offers to understand in a multidimensional way the connections and communication processes that drive its business milieu.

At the top of the Urbanscape chart, the **5 urban interfaces**. They are the access points to key urban resources and networks, described as follows:

Resource Pot: Besides knowledge and ideas, cities offer access to various assets that can be critical inputs of the innovation process.

Problems Lab: The city as a problem lab is naturally design-oriented. The wicked (or ill-defined) nature of urban problems (Ritter and Webber 1973) can only be fully understood by attempting their solutions. This means constantly revolving from the problem definition to the solution area, creating cycles of experiential learning (Kolb and Fry 1974; Stradtemeier et al. 2010).

Idearium: Ability of a city to envision solutions to the high number of problems and the capacity to catalyse creative

AGROPLAZA

Co-ciudad | Transformación Ecológica Urbana

Agroplaza is an **urban model for the socio-ecological transformation of cities through participatory interventions** in their public spaces. It has been developed by Pezestudio.org since 2011 through Biotic City action-research projects.

Biotic City is a vision of the city towards **a collaborative development that places life and diversity at its core**. It consists in a city model built by transformative, creative, social, inclusive actions that come from community based movements mainly focused on citizen participation, feminism and ecology.

Agroplaza prototypes are adaptations of the designs developed by Pezestudio through more than twenty design and building collaborative processes attending the needs of different communities and spaces in different parts of the world (from Bilbao, Barcelona or Madrid to Reykjavik or Lima).

agroplazakirikino.wordpress.com/

facebook.com/pezestudio



1. Innovation And The City: Exploring The Urbanscape

energies, mainly by attracting skilled work-force. The idearium is the interface between local, situated networks and general thematic ones. The openness of the system towards inputs coming from the outside expands local innovation capacity.

Political arena: Any space-time opportunity for public debate regarding the common good.

Market: Markets work as suppliers of resources and selling opportunities for companies, they also act as demand generators. Stimuli to develop new products,

ideas and creative networks can originate from market trends (both successes and failures) and analysis.

In **DESIGNSCAPES** perspective the city is a gateway to connect to key networks: the institutional, cultural and entrepreneurial institutions (the regimes) and local communities (both as a potential target and a partner of the innovation endeavor). It is around the 5 interfaces (access points) to the city's dimensions that the initiatives develop their niche ecosystems. The openness and responsiveness of urban networks



It is necessary to take into account that it is not certain that the most effective and innovative ('path-breaking') solutions emerge from environments and processes strictly aimed at finding the solution to a specific problem (problem-driven, problem solving), precisely because of their character of strict finalization.

A commenter of the White Paper

"We think the whole networking thing is important, it is important to be able to move between different types of networks. So it is from clients and municipality, from high hierarchy and low hierarchy but also citizens... so you need to be able to move within these strategic partners, and tactical partners and partners who are hands-on and citizens; to need to move between them and have the freedom to do that."

A winner of the Open Call

BUILD FUNCTIONAL URBAN DESIGN INNOVATION ECOSYSTEMS

The Provision enhancement strategy

Shaping and reinforcing the **social role of designers** as a key actor of changes 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 the innovation process in business, public sector and public administration.

Building a well-functioning design service market and promoting intermediate agencies to improve design supply and demand matching mechanisms that can facilitate **collaborative innovation** between the design sector, SMEs and civil society organisations.

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.

1. Innovation And The City: Exploring The Urbanscape

to the stimuli of innovation niches displays the attitude of a city towards change (socio-technical, organizational, cultural, etc.).

To test the soundness of its concept, **DESIGNSCAPES** promoted a survey among 70 European innovators. When asked about the relevance of the 5 dimensions of the Urbanscape in their experience, the pool of initiatives named Social activism and integration as the most relevant dimension in relation to both the start-up phase and their future development. The climate of the city in terms of social cohesion and vitality of its social groups seems hence to be critical in creating the conditions for Design enabled Innovation to flourish and thrive. In addition to this, although in most cases in their story-telling the relationship to institutions is described as minimal or less strategic, when asked to consider institutional capacity in its main aspects, its

significance and potential becomes evident. This particular type of innovators seem therefore to be clearly focused on the relational aspects, which emerges in their operating patterns and approach to the urban dimension. In the experience of these innovators the city acts through its communities, social structures, networks, organizations and institutions.

The city can act as a facilitator, guide, stimulator, incubator, accelerator of generative connections and platform to anchor the processes of scaling.

STAKEHOLDERS MAP

Stakeholder map - or **actor network mapping** - is a tool to create a clear overview (visual or physical) of all stakeholders - i.e., the important people (key groups, for example shareholders/funders, users, customers, staff or partner organisations) and components playing a role in a service or project.

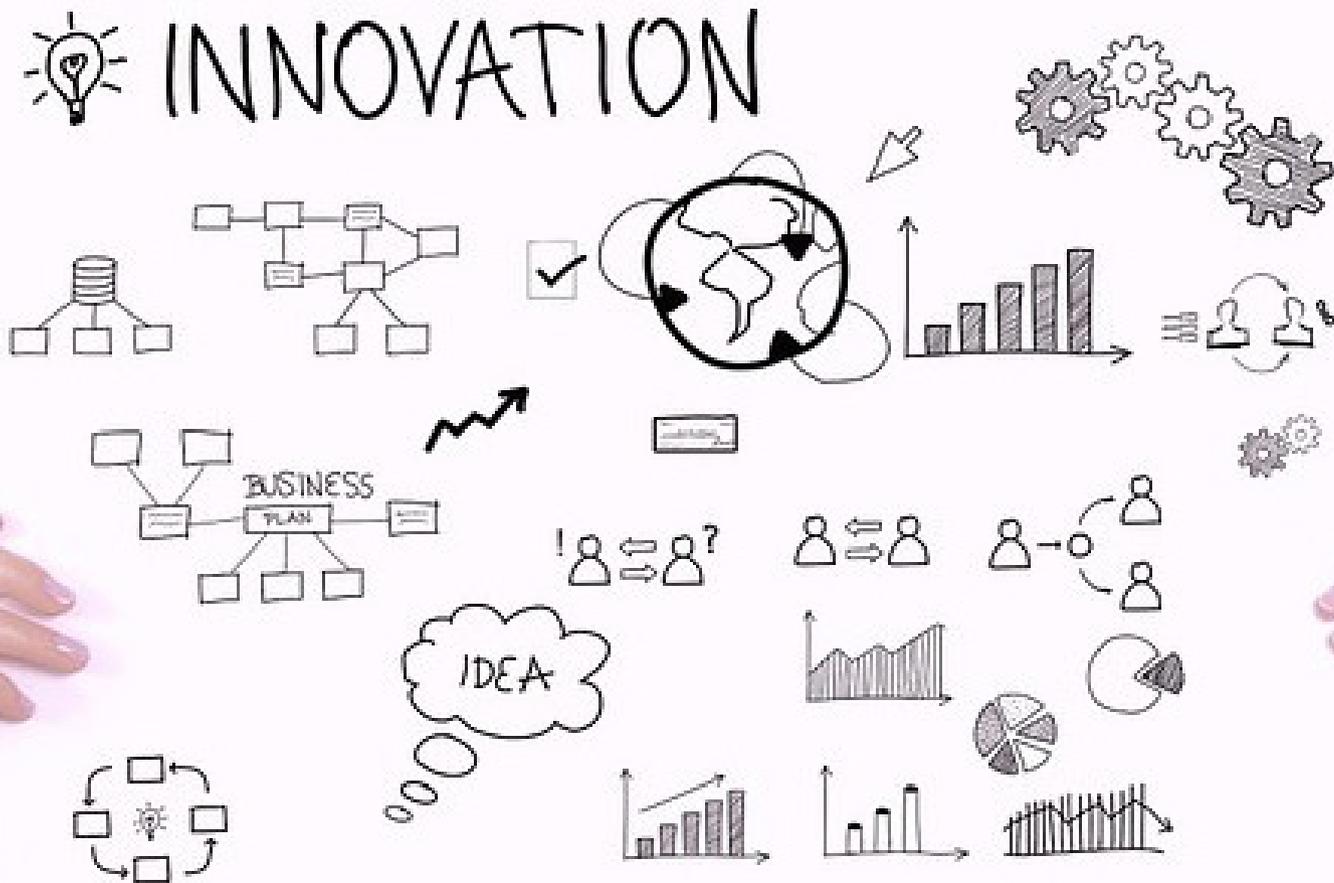
This tool is helpful to see relative positions of them and their relationships. It is **useful to understand the complex relationship between stakeholders in a service** or project and to explore possible hurdles (pain points) and opportunities.

Although many ways of visualising stakeholder maps exist, two main dominant styles can be identified: writing down the stakeholders in a table or drawing concentric circles and placing the actors organically.



Actionable stakeholder map used during a workshop (credits Fanny Giordano)

INNOVATION



2. DESIGN AGENCY: THE THIRD DIMENSION OF INNOVATION PROCESSES

Herbert Simon defines design as “[devising] courses of action aimed at changing existing situations into preferred ones” (Simon 1969: 129). Everyday problem-solving capability is therefore also a form of design. Devising and testing courses of action in everyday problem framing and solving relies on a “natural capacity” (Manzini 2015: 47) that is largely diffused and that is widely applied, which Ezio Manzini defines as diffuse design (Manzini 2015: 31). Hence

diffuse design can be seen as a general human capacity and activity, while expert design requires the work of learned design professionals.

Diffuse design can be described as an activity of selecting, aggregating, and integrating existing resources. A creative effort is required whenever new settings or courses of action are to be devised regarding both key individual and social problems.

2. Design Agency: the third dimension of innovation processes

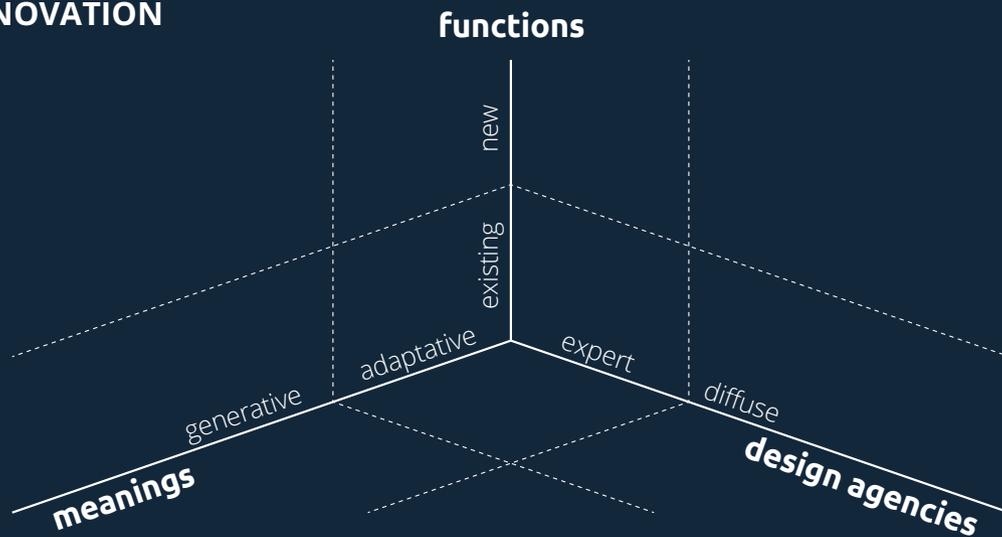
This activity employs intrinsic cognitive resources rather than design methodologies.

Expert design requires domain specific technical competences, which define the framework for value creation. Expert designers need to master ad hoc approaches and tools and develop a critical and creative attitude. The human aptitude towards design thinking is hence rooted and progressed into the practices and culture of design professionals.

Different approaches to design thinking are therefore connected to different types of design agencies.

To visualize this key perspective, **DESIGNSCAPES** integrated a third dimension to Verganti's model of design driven innovation (Verganti, 2009). **The model redefines the innovation space, including design agency and its distinction between "expert" and "diffuse" design.**

3D INNOVATION SPACE



Concilio, Tosoni ed. 2019
adapted from Verganti 2009

SWINGA

next generation sharing economy

Consumption in Karlstad and other European cities are highly unsustainable, with underused assets being an increasing problem. Other issues that many cities struggle with are inequality, segregation and loneliness. The overall aim of Swinga is to create **a platform where neighbours can connect and borrow underutilised small capital goods from each other or rent from a local company.** Swinga's mission is to halt overconsumption and strengthen helpfulness and community.

Being a multi-stakeholder cooperative, users are included in not only governance processes, but also in design and communication. The inclusive approach has resulted in several innovative features that distinguishes Swinga even more.

The possibility to rent from local companies is developed in the Designscares 2nd Call for Pilots - Prototyping phase. Companies that use the app will be charged a fee, which is the main income stream to ensure economic sustainability.

swinga.coop



Swinga © webpage

2. Design Agency: the third dimension of innovation processes

The 3D model enables to define the range of action of Design enabled Innovation and its main features:

- There is no innovation without design: **design enables innovation by creatively developing meanings** and combining them with available or new functions in order to develop the needed conditions for value creation.

- **Creativity** is not (only) an extraordinary undertaking but a **“way of life”**. It pertains everyday survival strategies, copying, pasting and adding activities, enacted by students across the world, and even the remix approach to music creation.

The concept of diffuse design exemplifies humans networking ability and its creative contribution to innovation processes as part of the networked structure of society.
In the 3D innovation area

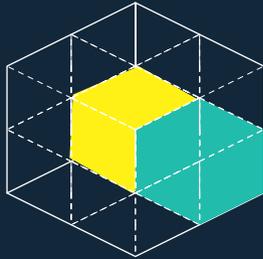
(Concilio & Tosoni, 2019) **enables to explore the spectrum of innovation** as the combination of the three key axes:

1. the axis of **functions**, describing a continuum between solutions using already existing technology/ functions/products and those developing radically new technology or uses;

2. the axis of **meaning**, where cases are located according to their capacity to deal with the symbolic and socio-cultural significance of their product in adaptive or generative terms;

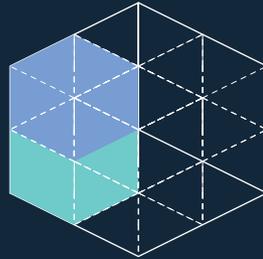
3. the axis of **design agency**, where cases are placed according to the type of design competences and expertise they are able to mobilize.

TYPES OF INNOVATION



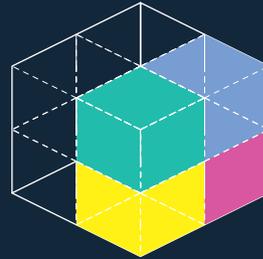
Incremental Innovation:

existing functions + adaptive meaning + expert and diffuse design agency



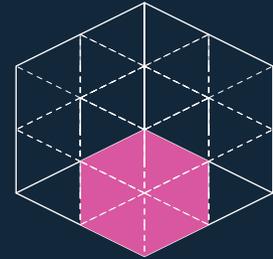
Verganti's Design Driven Innovation:

Functions: existing and new + Generative meaning + Expert design agency



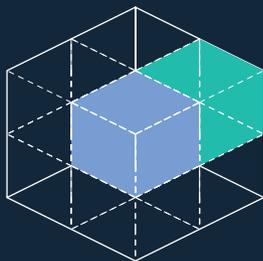
Open Innovation:

Functions: existing and new + Generative and adaptive meaning + Diffuse design agency



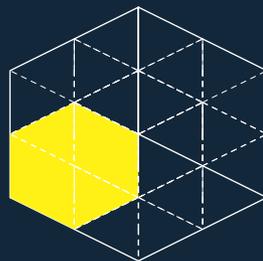
Social innovation:

existing functions + Generative meaning + Diffuse design agency



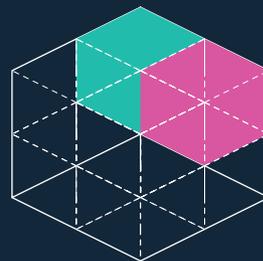
User-driven technological innovation:

new functions + adaptive and generative meaning + diffuse design agency



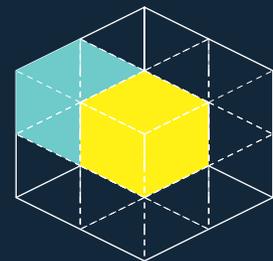
Value-driven innovation:

existing functions + generative meaning + expert design agency



Radical innovation:

new functions + adaptive meaning + expert and diffuse design agency



Disruptive innovation:

new functions + generative meaning + expert and diffuse design agency

Nomenclature of types of innovation
(Concilio, Medina, Tosoni, 2020)

2. Design Agency: the third dimension of innovation processes

The focus on agency and purpose (targeting key urban challenges) defines what **DESIGNSCAPES** calls Design enabled Innovation. A process of change, where **innovation arises from the purpose driven action of expert or everyday designers**, who knowingly empower shared values and meanings through the infrastructuring of new or available functions. Innovation processes are known to be intrinsically non-linear, multi-causal, multilevel and networked. When we consider the components of innovation processes we can observe the different combinations presented

in figure *Types of Innovation*. Nevertheless this neutral vision is not enough, to be meaningful in **DESIGNSCAPES' perspective, innovation needs to target key societal issues (be transition oriented)** and consider the whole spectrum of agency (go beyond co-creation to become fully inclusive and democratic). Design in all its forms is the tool enabling this synthesis.

"Design should not be confused with problem solving, it is more, as it relates to the creation of new meanings, this is also what Armand Hatchuel was saying building upon Herbert Simon's definition of design."

A participant in the Valencia Policy Forum

"Design as an enabler and catalyst of creativity and resources distributed in the communities for the realization of what they consider useful."

A design expert

Unsere Zukunft ©- Stuttgart, Germany

INTEGRATING DEI INTO THE VISION & ROADMAP OF URBAN DEVELOPMENT

The Incentive compensation strategy

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.

Supporting European cities to join global design network initiatives

like UNESCO Cities of Design Network and Creative Cities Networks, and to bid for World Design Capital initiative, to strengthen both global visibility of local design innovation dynamics and local awareness and support pushed by global initiatives.

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 policy, political agendas, economic strategies, cultural initiatives, and technology roadmaps.

Leveraging the city's existing innovation infrastructure, including living labs and innovation incubators, to promote and **improve public participation in design action.**

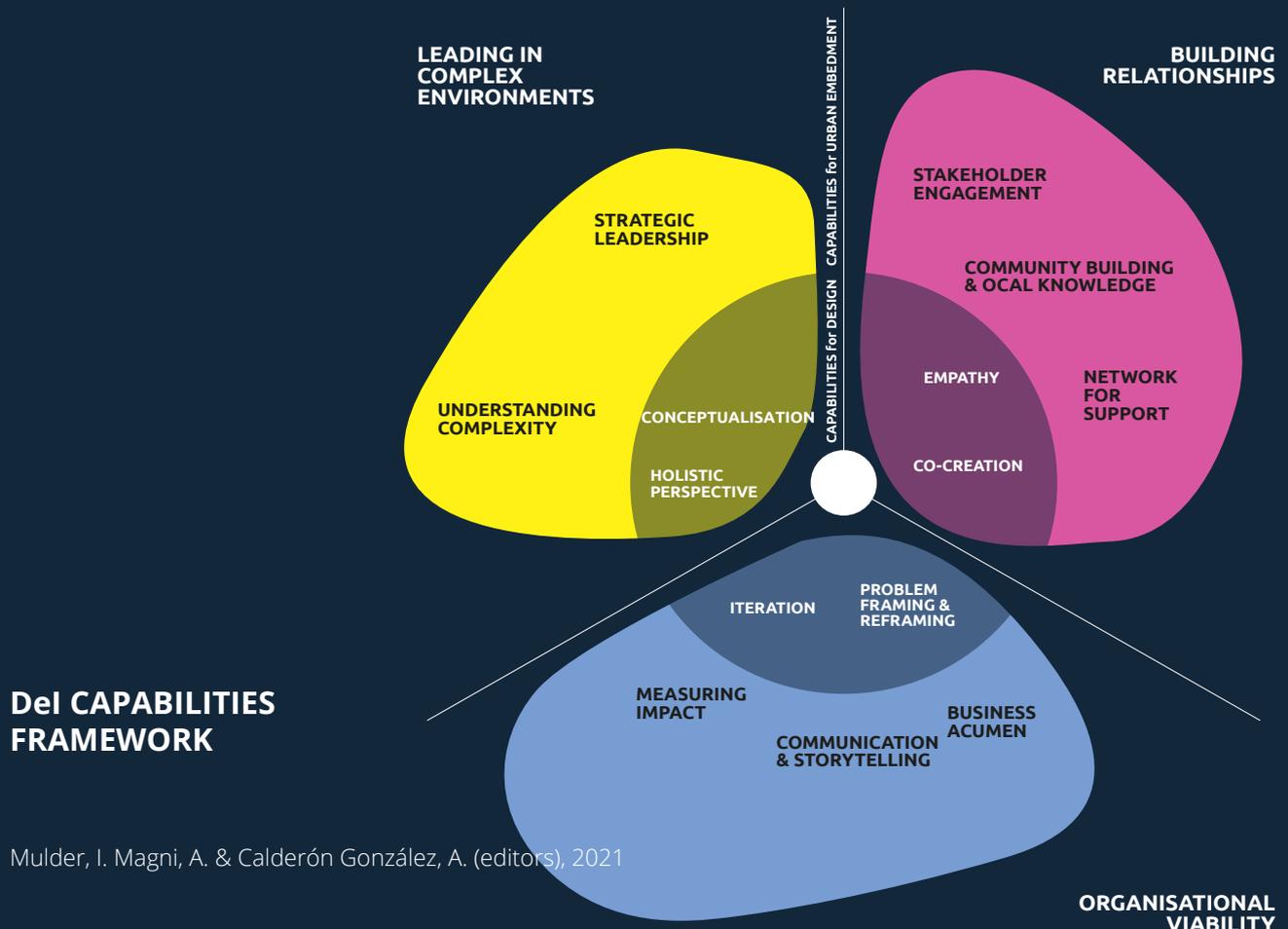
Developing **government programmes and incentives** to support a variety of design-led initiatives and projects that are consistent with public policy agenda and strategic priorities at different levels of government.

2. Design Agency: the third dimension of innovation processe

A Design enabled Innovation capability framework has been developed as foundational of the capacity building program activities in DESIGNSCAPES.

The framework **maps out the core capabilities** that we consider critical to support Design enabled Innovation.

Some of these capabilities are more related to design (e.g., visualizing an innovation idea), while other capabilities have relevance in creating the needed connections to scale and reach embedment in the urban context.



Mulder, I. Magni, A. & Calderón González, A. (editors), 2021

CULTURAL PROBES

A cultural probe is a qualitative approach to understand the user, **inspires the design functionally and aesthetically evokes the creative reaction of (potential) users** while supporting the creation of design material (Gaver et al.,1999). It is used to create a deeper understanding of the context of the users.

This technique is mostly used to **inspire ideas** in a design process and also serve to gather inspirational information about user's/ participant's values and thoughts in order to dig into the deeper details about concerns and desires. They are also used to **test user's responses to specific experiences**.

Probes are small packages that can include any sort of artifact along with evocative tasks, such as writing a diary, taking pictures, from postcards to notebooks or cameras to take pictures of relevant moments of their everyday life. The packages are given to participants to allow them to record specific events, feelings or interactions.



Materialisation process kit. (Source: Meyer et. al., 2019)

ITHACA Laundry © Athens, Greece



ITHACA
Mobile Laundry for the Homeless



www.ithacalaundry.gr
info@ithacalaundry.gr

3. INNOVATION AND TRANSFORMATIVE CAPACITY: TOWARDS SYSTEMIC CHANGE

DESIGNSCAPES is transition oriented at both the conceptual and the operational level. On the one hand, it deeply relies on transition theory, on the other, it promoted a call for pilots to fund a selection of **DESIGNSCAPES** initiatives clearly addressing innovation to key urban challenges through the adoption of design approaches. **The focus on challenges represents a key anchor to transition towards**

sustainability, which must be tuned to each distinctive Urbanscape. Innovation pathways are turbulent and unpredictable.

Design enabled Innovation does not progress in a linear way but revolves along erratic pathways reaching different stages of maturity. Moving towards systemic change, considered as the most advanced stage, implies complex **scaling dynamics, which reflect**

3. Innovation And Transformative Capacity: Towards Systemic Change

the different ways through which innovations interact with their Urbanscapes and the set of rules and norms governing its functioning.

Riddell and Moore (2015) have described three main processes of scaling, which can contribute jointly, although differently, to trigger systemic change (transition) **activating dynamics of tension, stress, and pressure:**

Scaling-out concerns impacts on greater numbers. It contributes to increase tension in the Urbanscape, as a growing number of adopters of a solution amplifies the misalignment between rules and norms and behaviors.

Scaling-up amplifies stress asking for change in norms and regulations, it impacts on policies design, recognizing that the roots of societal problems transcend local forces at work.

Scaling-deep refers to impacts on cultural roots and considers the powerful role of culture in shifting problem domains. It refers to mechanisms promoting alternative functioning for socio-technical regimes (formal and informal norms and process governance), knowing that change must be deeply rooted in people, relationships, communities, and their culture.

FULCRUM

Research Center for Material Culture in Transit

FULCRUM collects and archives knowledge about materials and techniques that are barely even mentioned in design literature and that could be applied in the context of Palermo as a reference and an inspiration for boosting the development of new enterprises.

Experimental furniture and an archive collecting natural materials and techniques used in crafts worldwide are the tangible result of the methodology applied, based on social interaction and driven by design thinking.

FULCRUM – Research Center for Material Culture in Transit developed **a design process that reimagines objects' manufacture in an urban environment**, bridging Sicilian culture and the one of migrants' through a co-design production cycle in structured co-creation workshops.

FULCRUM aims to create a network of centers that can welcome and **catalyze the know-how from marginalized cultures** and can express their potential and dignity, design productions giving shapes to material culture, and making possible the transfer of knowledge.

<https://assoziazionemarginal.it/FULCRUM>



Fulcrum © webpage

3. Innovation And Transformative Capacity: Towards Systemic Change

Nowadays innovation rhetoric hardly looks at scaling as the complex mechanism described above; it mainly considers processes of growth in size and popularity.

DESIGNSCAPES works to spread the awareness on transitional potential of scaling processes, where (positive) impacts potential is the key element.

In order to promote this vision, it developed an impact assessment process to verify the impact capacity of the initiatives funded through **DESIGNSCAPES'** call for pilots.

Impact capacity of Design enabled Innovation can be defined as the combination of three synergic factors: sustainability, scalability, and relevance.

Sustainability and scalability are integral to the transition

process. They reflect the capacity of a solution to be durable, robust, and taken on, while being socially empowering and environmentally responsive.

Sustainable means challenge driven, integrated, viable in the long-term and effective (in solving key problems).

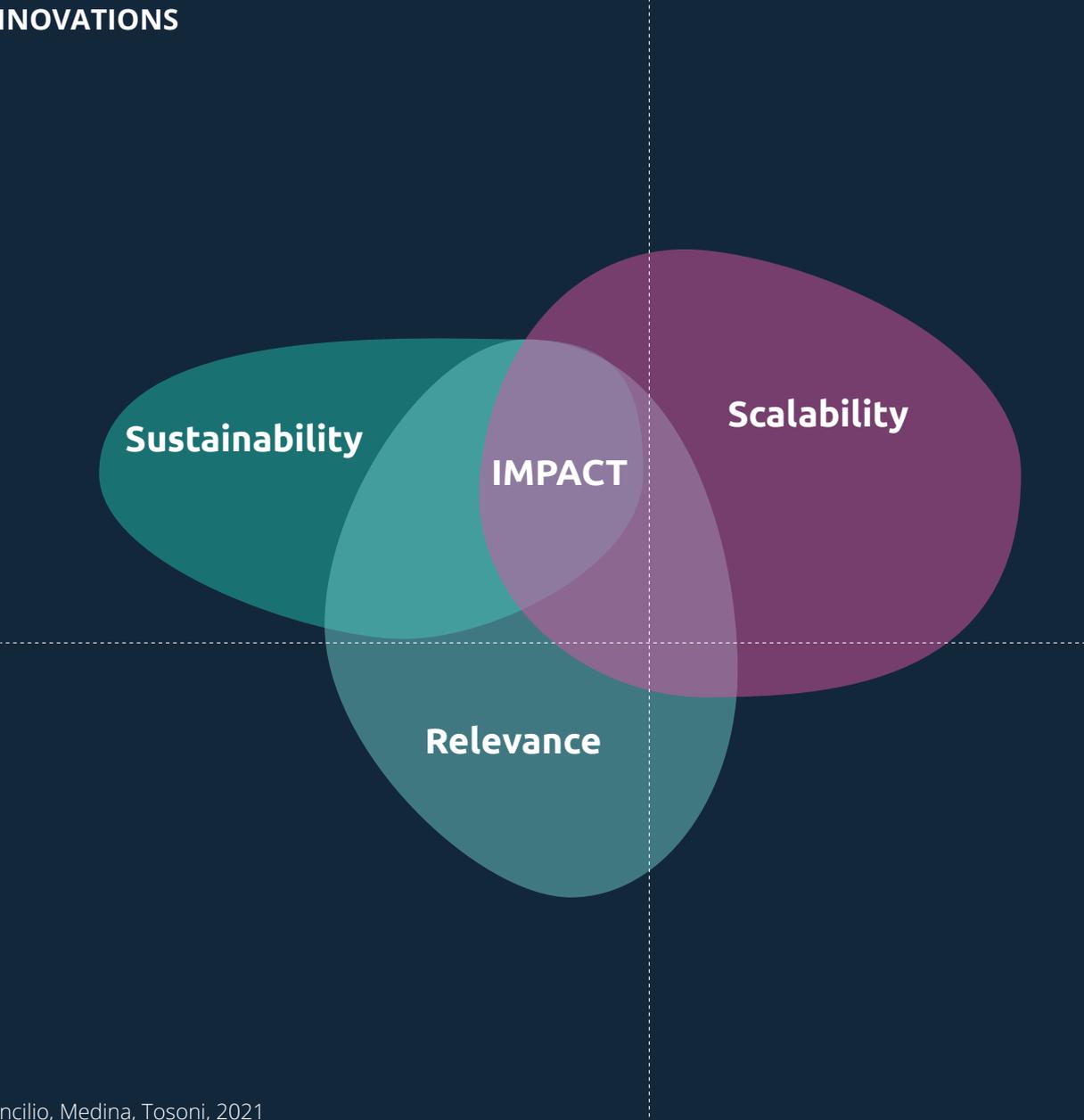
Scalable refers to the potential to trigger systemic change.

Relevance refers to the suitability of the solution in terms of quality of response to the challenge.

Key contemporary global challenges are nested in cities, therefore in order to evaluate the potential impact of a solution, it is necessary to consider both **the capacity of a solution to interpret and tackle urban problems and its capacity to connect to and exploit strategic urban resources in the innovation process.**

Relevance pertains therefore to the capacity of a Del to generate

**IMPACT CAPACITY OF
DESIGN ENABLED
INNOVATIONS**



Concilio, Medina, Tosoni, 2021

3. Innovation And Transformative Capacity: Towards Systemic Change

sound and effective solutions to key problems.

DESIGNSCAPES has identified 4 different levels of maturity of innovation (Concilio, Tosoni; 2019):

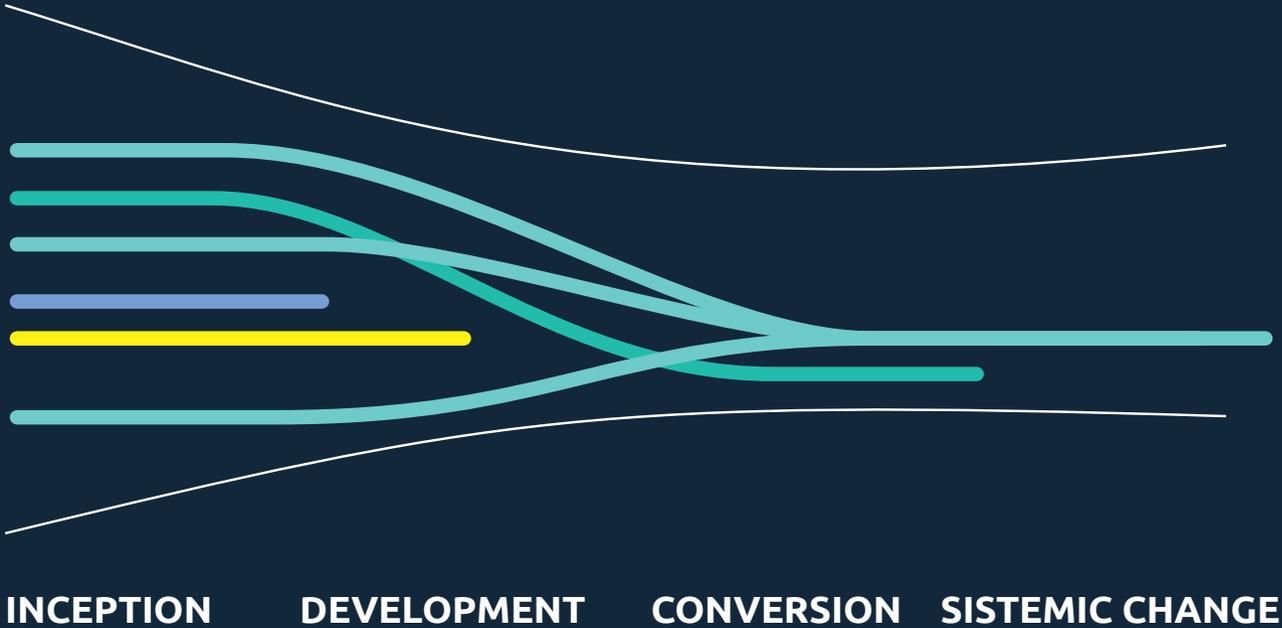
Inception: experimental research; marginal practices; identification of market/societal needs; embryonic ideas.

Development: from an idea to a product, service, project solution, consolidated practices, structured process of added value creation.

Conversion: scaling up and diffusion of the innovation in the native context and beyond; augmented adaptiveness of the solution and/or capability to substitute pre-existing socio-technical regimes.

Systemic change: It evolves from the intensive adoption of one or (more likely) several innovations, which can provoke simultaneous changes in the system (behavioural, cognitive, institutional, etc.) resulting, in the long-term, in a new long lasting scape configuration.

**STAGES OF INNOVATION
MATURITY**



adapted from Concilio, Tosoni, ed. 2019.

3. Innovation And Transformative Capacity: Towards Systemic Change

Learning and knowledge production are key factors affecting the maturity of innovations in their making.

How they contribute to transition is hard to be assessed, but some characteristics can be observed at different maturity levels of innovation coherently with what is described by the literature.

These mechanisms take place at different levels of socio-technical systems. In some cases they affect the interaction between levels (e.g. between institutions and innovation niches), in other cases they determine the depth of embedment of the innovation at each different level.

"...design thinking plays a role of translator in the connection between design and other sectors. Design thinking approach helps to translate design language to innovation and policy language, etc, and thus applied design knowledge and practices in other sectors through design thinking and co-creation process. In fact, when EU talks about design thinking, co-creation and diffuse design, it actually refers to design."

A member of the Valencia WDC 2022 Committee

"... I do see that it's very relevant and that it can have a lot of social impact. The social cost for us as a society, I think it can go down if we're really able to find the right ecosystem of these solutions."

A winner of the Open Call

Unsere Zukunft ©- Stuttgart, Germany

IMPROVE DESIGN PROTECTION & INCENTIVE MECHANISMS

The Recognition confirmation strategy

Improve design protection and incentive mechanisms to balance market and societal benefits of Del by:

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.

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.

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**.



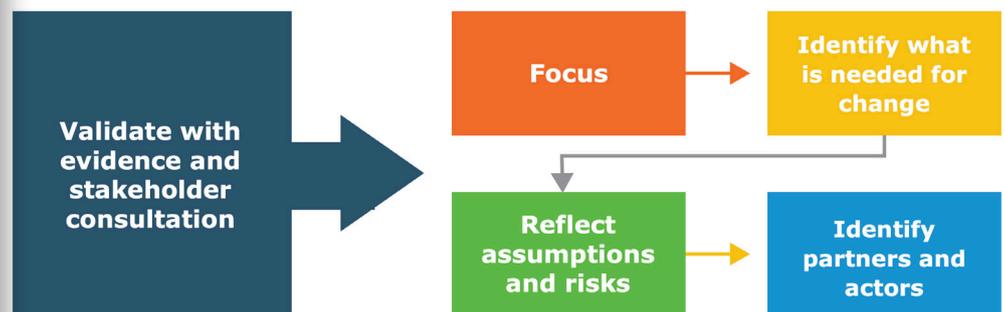
THEORY OF CHANGE

Theory of Change is a way of **mapping the 'change journey' of a project or innovation** so you can see the connections between the 'presenting problem' the project wants to solve, the expected impact on that problem at the end of the project and everything that's supposed to happen in between.

Theory of change is on the one hand a planning tool. It shows the 'intervention logic' of a project – the steps that need to be taken to realise a desired goal or impact, and the expected results of these steps.

In other words, a **Theory of Change shows the theorised 'causal pathways' between a project's objectives, its activities, and its expected outcomes and impacts**. It says: "if we take action X, then this will cause effect Y and this will eventually lead to outcome Z".

Theory of Change is therefore also a key evaluation tool. It tests the 'intervention logic' of a project and allows this to be modified or refined through the evaluation process.





4. FROM DESIGNSCAPES EXPERIENCE TO FUTURE EU STRATEGIES

DESIGNSCAPES proved that no creative idea is good from the start; quite the opposite, it can and must evolve through collective design (co-design) experiments to become an innovation that truly contributes to the needed changes in real-life socio-technical contexts.

Experiments are innate to design and drive innovation to coevolve with social and collective behaviours, thus gaining value

and synergising with other ideas and innovations concurrently, yet separately developed.

When conducted in urban environments, these experiments leverage the potential of diffuse design when it is activated as a collective capability.

Indeed, DESIGNSCAPES gave new relevance to the contribution of diffuse design to innovation, alongside expert design as equally relevant, although with a different

4. Perspectives And Opportunities Of Dei In Urban Environments

role and configuration.

The main tenet of diffuse design is that “everybody can be a designer of her/himself”. Nevertheless, the activation of this capability cannot be given for granted, nor does it naturally embed a collective or social perspective.

For this to happen, special conditions are to be built in our communities - calling for new and innovative “soft” infrastructural policies - to assure that everybody’s capability to be a designer of her/himself is - first - adequately developed and supported by the needed competencies and - second - enhanced to its potential and therefore transformed into a resource for innovation.

Finally, despite its crucial importance, diffuse design does not guarantee per se that innovation will have a social and collective value; for this to happen, it is crucial to add a mission (or

purpose) to innovation, as recent reflections have clearly pointed out, gaining popularity as the foundation of future R&D and innovation policies in Europe. Even so, however, multiple/ alternative destinations - and consequently, transition pathways - can be associated with any given mission. This implies that staying at mission level is not enough to influence the course of future actions, and ideally - though very complicated to realise - diffuse design capabilities should be mobilized also for the purpose of co-determining, at least to some extent, the specific direction to be taken by mission driven innovation.

To this purpose DESIGNSCAPES designed its Open Call for pilots already integrating the concept of mission/purpose driven innovation in it. Applicants were asked to focus their proposals describing them as answers to critical (urban) challenges. Participants could select those best fitting to their

ADOORABLE ACADEMY

Research Center for Material Culture in Transit

Adorable Academy is a project about the construction of a **local mediator engaged with raising cultural awareness and building capacity of the civil society** to enable local communities to take care of the cultural monuments. Which aims to stimulate, enable and improve the quality of participation and commitment by citizens and stakeholders - as a key factor for a successful urban revitalization- in protection and revitalization with the **focus on the historical significance and potential of immovable cultural heritage**. The open access document "Adorable guideline" is the story of the team's journey in a manual format.

As a new actor in the regeneration process, the Academy make an intensive use of design methods and tools to assist all stakeholders with co-creation workshops and published educational material and to collect data and preserve the city's memory, **acting as an incubator for experts to reactivate the underused and neglected cultural heritage** in the neighborhood Talyana in the city of Varna, Bulgaria.

[Facebook.com/aDOORable.Talyana](https://www.facebook.com/aDOORable.Talyana)



4. Perspectives And Opportunities Of Dei In Urban Environments

project.

The figure presents an overview of the applicants preferences. In order to operationalize the concept of mission/purpose driven innovation, the proposed challenges were grouped into 6 main clusters, to which have been associated lists of areas of potential intervention:

Climate Change and Environmental Footprint

- Sustainable and Smart Mobility
- Sustainable Energy
- Sustainable Food Supply Chain
- Reduction of Waste
- Sustainable Resource Management
- Zero Emissions
- Coping with Natural Disasters

Social Exclusion

- Coping with Migrants and Asylum Seekers
- Measures for the Ageing Society
- Opportunities for Youth
- Intergenerational Dialogue
- Wealth Distribution Equity
- Minorities Integration
- Spatial Integration
- Intercultural Integration
- Disabled People Integration

- Access to Education
- Affordable Healthy Food
- Gender Equality
- Affordable Housing

Economic Crisis

- Income Support Measures
- New Jobs
- Urban Transformation
- Alternative Finance
- Arts and Culture
- Social Enterprises
- New Economic Models (Sharing, Circular, Gig, Social Currency)
- New Business Models

Low Quality of Life

- Healthcare
- Sense of Safety and Security
- Urban Space Quality
- Personal Wellbeing

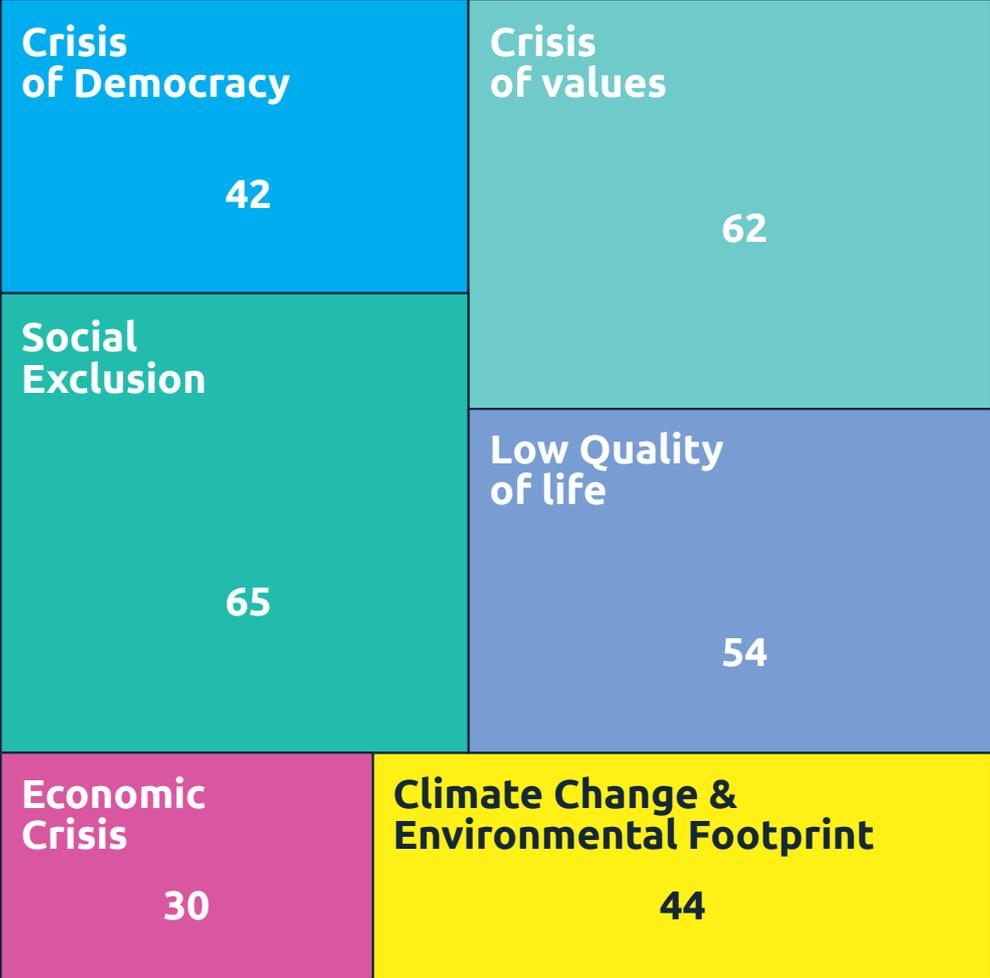
Crisis of Democracy

- Alternative Democratic Models
- People's Participation
- Institutional Responsiveness
- Transparency
- Media (Old and New)
- Access to Power Structures

Crisis of Values

- Solidarity and Collaboration
- Environmental Awareness

**CHART OF DESIGNSCAPES
RECIPIENTS' CHALLENGES**



Concilio, Medina, Tosoni, 2021.

4. Perspectives And Opportunities Of Dei In Urban Environments

Peace Values
Cultural Awareness
Sense of Belonging and Community
Identity
Respect of Diversity

The interconnected nature of nowadays global challenges is well reflected in the applicants choices, which mostly try to intercept and synergize the micro-scale of social inclusion of specific groups of citizens and the improvement of life's quality with the macro challenges related to sustainability, economic and democratic

empowerment and reinforcement of meanings and values. The pilots community as tangible testimonial of the strategic importance of this purpose driven approach to innovation (and therefore design) is the most significant legacy of DESIGNSCAPES.

"It's teaching people how design works and giving them the right tools and creating an environment that helps this type of innovation. To create change in the city it's not just making something and then going away, changing people is the most important part.

A participant in the DESIGNSCAPES Training Module

"Literature on policy mobility and inter-connected urbanism in general tends to be highly critical of policy transfer and standardization in the context of a globalised world (McCann and Ward, 2011; 2013), the relational paradigm it embraces might help shed light on the cognitive and organizational trajectories that underpin the emergence of innovation and design policies."

an Urban Innovation expert

Unsere Zukunft ©- Stuttgart, Germany

A NEW PERSPECTIVE FOR EU FUNDING PROGRAMMES

Design enabled Innovation matures at the crossroad of technology trends, societal challenges, design capabilities, and the inspired and growingly mature behaviour of public and private innovators.

The European Commission, Member States, regional governments, and local authorities should take actions to support design agency in wider areas of innovation and entrepreneurship tackling global sustainable development, social inclusion, and democratic policymaking. The next step to be taken is to

direct EU funding programming period for 2021–2027 and its different instruments – from Horizon Europe to Interreg Europe to European Structural and Investment Funds (ESIF) – **towards purpose driven innovation able to fully exploit the full range of design agency and capabilities broadening in the following five aspects:**

Scope of design: Design should be recognized as a problem-solving approach; co-design should be promoted as a key capability to support public participation; 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;

Agents of innovation: All agents have to be acknowledged beyond business and SMEs;

Policy goals: Design should be leveraged to address pressing global challenges and urban problems beyond productivity and firm performance;

Policy action: Policy design capacity should be strengthened to support institutional changes beyond individual and organizational levels to trigger wider systemic changes.

Les Canaux © - Paris, France



WISA CANVAS

This tool is concerned with the **specific processes of strategy articulation**, i.e. those processes in which strategy is more or less strictly and explicitly formalized. In practice, “strategy articulation” means that the key components of strategy are identified and described.

Strategy can be defined as achieving some balance between ends (goals), means (resources and capabilities) and ways in which resources and capabilities are mobilised to acquire greater impact.

WISA stands for “wider impact strategy articulation” and refers to the idea that this **canvas can support a question-driven process that can be used in a variety of contexts** – including not-for-profit applications.

The WISA Canvas can be particularly valuable to **map the specific resources available within an urban innovation project** and to think critically about how to mobilize them to reach the project’s goals.

The WISA Canvas
by Strategicthinkinghub.net

WISA Canvas		TEAM	DATE
<small>The WISA (Wider Impact Strategy Articulation) Framework is a question-driven process that can be used to look at a particular issue or challenge and help articulate related and relevant strategy. The framework sees strategy as: about achieving some balance between ends (goals), means (resources and capabilities) and ways in which resources and capabilities are mobilized as to acquire greater impact.</small>		NAME OF THE PROJECT	
ENDS / GOALS What is the issue/challenge/problem that you would like to address? Describe it also using some background data (e.g., market figures)	MEANS What are the core means (i.e., the financial, material and technical resources you can use and your capabilities to use these resources) that you can mobilize?		
WAYS How do you want to mobilize your resources and capabilities to reach your goals? Produce a list of coherent actions that you intend to carry out to reach your goals	IMPACT What is unique in your approach (e.g., different from existing competitors)? Why will the market opportunity be big or why will the societal impact be significant?		

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ABOUT DESIGNSCAPES

What is DESIGNSCAPES?

DESIGNSCAPES is an EU funded, H2020 Coordination and Support Action the primary aim of which was to document the generative potential of urban environments in encouraging the uptake, enhancement and up scaling of Design enabled Innovation by enterprises, start-ups and SMEs, public authorities and agencies, NGOs and other stakeholders.

What is Design enabled Innovation?

As documented in an Open Access Book of the DESIGNSCAPES project (see <https://www.springer.com/gp/book/9783030001223>), Design enabled Innovation points at forms of purpose/problem driven innovation that are triggered by design thinking, or by a diffuse, creative problem-solving ability.

Why the urban dimension?

The DESIGNSCAPES Book posits that many unsolved problems of modern Cities - related to global challenges such as climate change, natural disasters, migration, inequalities and segregation, aging population, democracy crisis etc. - can be approached with workable answers by Design enabled Innovation, which is particularly stimulated and enhanced by its being framed in an urban context.

What has DESIGNSCAPES accomplished?

We validated the assumption that Design enabled Innovation can successfully address urban challenges, and be fertilised by them, through co-creating an EU-wide collection of relevant case studies, in three main ways:

1. By drafting **14 City Snapshots** - brief overviews of how the urban dimension matters - in mid and large EU cities such as Athens, Copenhagen, Freiburg, Gabrovo, Guimaraes, Florence, Lisbon, London, Milan, Paris, Rotterdam, Sofia, Stuttgart and Valencia, complemented by 70 in-depth interviews with the promoters of local initiatives, which can be considered as positive examples of Design enabled Innovation;
2. By distributing an overall budget of **1.5 million Euros to 99+ new Design enabled Innovation initiatives** from the EU Member and Associated States via an Open Call for Pilots, in 3 consecutive yearly editions, between 2018 and 2021.
3. By developing an online **toolkit** available to policy makers, practitioners and citizens including:
 - A design toolbox (https://designscapes.eu/archive/wp-content/uploads/2020/07/DEF-D5.3--PDF-DESIGNSCAPES-TOOLBOX_2nd-iteration-FINAL-version.pdf) and the training sessions (<https://designscapes.eu/archive/news-events/>)
 - An online searchable **database** on Design enabled Innovation (<https://designscapes.eu/funded-initiatives>)
 - A **set of policy recommendations** collected in the Designscapes White Paper (<https://designscapes.eu/our-legacy/>)



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This handbook has been developed based on the main outputs of the DESIGNSCAPES project, an H2020 CSA (Coordination and Support Action) funded by the European Commission under the Call entitled "User-driven innovation:value creation through Design enabled Innovation".

The handbook introduces to the main challenges, opportunities and policy recommendations for Design enabled Innovation in cities across Europe. The key concepts are presented and exemplified by a selection of the pilot projects funded through DESIGNSCAPES open calls, the policy tips from DESIGNSCAPES White Paper on Design enabled Innovations and the design tools from DESIGNSCAPES Toolbox.

