UniverCities

Engaging Universities, Cities & People
Building City Ecosystems of Transformative Innovation

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Deusto
Cities Lab Katedra

UNIC

Funded by
the European Union

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ABBREVIATIONS AND ACRONYMS

EUR	Erasmus University Rotterdam
KAIA	Engaged Learning-Research-Action Method
KU	Koc University
RUB	Ruhr University Bochum
UCC	University College Cork
UD	University of Deusto
ULIEGE	University of Liege
UNIC	European University of Post-Industrial Cities
UNIZG	University of Zagreb
UOULU	University of Oulu

1. Engaging Universities, Cities and People

The present of cities, territories and communities is intimately linked to their universities. Today, cities are smart in terms of quantity, because of the technological development and innovation they are capable of applying (smart cities). In terms of quality (*calidad*), they are sustainable because of the science and knowledge they are able to generate (sustainable cities). And they become so, from a quality (*cualidad)* perspective, because of the degree of human development achieved by the people who live in them (wise cities). How can universities collaborate in achieving a smart, sustainable and wise and city.

Universities, through their professors, service staff and students, departments and faculties, educational project, teaching-learning model, with the sensible incorporation of information and communication technologies, establish a dialogue with the people who live in the city. Based on mutual trust, they collaborate in the certainty that lifelong learning will allow them to better face their life project, professional itinerary and civic commitment.

Education empowers citizens, providing them with values, skills and knowledge, favouring greater personal autonomy and greater capacity to participate in the development of the city they live in. The multiple intelligences of people and their cities are enhanced.

The growing internationalisation of universities, the effect of a continuous and globalised world, becomes an opportunity to enrich urban life with talented people from other corners of the planet. Citizens of the world who, feeling welcomed with hospitality, will make us known in their places of origin or will come to establish their life projects among us.

The education of our fellow citizens is the priority challenge for any city that wishes to achieve the status of a smart, sustainable and wise city. It requires investment in each and every citizen, in order for them to achieve their full development and dignity, thus becoming net contributors of intelligence to their community. It requires investment in educational platforms that, like universities, are capable of bringing out the best in each citizen. It implies facilitating their employability and, with it, the basic material conditions for the development of their life project. It involves personalised accompaniment, enabling training itineraries that raise them to their maximum potential, until they activate an entrepreneurial initiative of an environmental, economic, social and/or cultural nature, or that they form a co-responsible part of the project promoted by others.

Cities are smart, sustainable and wise because of the degree of human development achieved by the people who live in them.

Universities, through their researchers and technical support staff, teams and centres, knowledge generation model, research-development-transfer plan, engaged research projects, establish meeting points with institutions, companies, social entities and citizens, in the collaborative search for answers to the challenges of the city they inhabit. The aim is to establish this search in classrooms, laboratories, libraries, offices, congresses... but also in factories, association premises, public facilities, streets, media, social networks, neighbourhoods...

The generation of knowledge, engaged research or the dissemination of knowledge empowers people and organisations, making the cities in which they live socially smarter, more sustainable and wiser. The disciplinary, interdisciplinary and intersectoral approach to the challenges posed enriches, diversifies and broadens the answers, the alternatives to the complex issues affecting cities: ageing, climate change, migrations, inequalities, unemployment, urban peripheries, economic development, poverty, interculturality, connectivity, mobility, governance, housing, gender equality, multilingualism, public health...

The globalisation of the world implies the necessary internationalisation of knowledge in order to tackle it successfully: learning from others and their inspiring work, attracting talent capable of responding to resistant problems, collaborative networking...

Investment in knowledge generation is essential to lay the foundations for a smart, sustainable and wise city.

It involves training young researchers to become recognised experts and attracting others, established ones, who can help us on the road to excellence. It involves welcoming them into teams and centres with sufficient resources to meet the challenges ahead.

Cities are smart, sustainable and wise because of the science and knowledge they are able to generate, and because of the development and innovation they are able to implement in their reality.

1.1. Engaged Research Strategy

Engaged Research is an umbrella term for a wide range of rigorous research approaches and methodologies that share a common interest in collaborative and participative engagement with society. *Engaged Research* aims to improve, understand or investigate an issue of public interest or concern, including societal challenges where community partners are active collaborative participants in the research process. In this context, community members refer to a range of stakeholders, including public bodies, professional service and product users, policy makers, civil and civic society organisations, enterprises and business, and anonymous citizenship. (Foster, 2024; Lees, 2924; Mitra, 2023; Touboulic, McCarthy & Matthews, 2020).

Examples of *Engaged Research* can find across all disciplines using participatory research approaches, such as: participatory action research, applied research, learning research action, apprecitive inquiry, area based ecological studies, arts based research, asset mapping, citizen jury, citizen science, citizens' aseembly, civic science, challenge based research, co-creation, co-production, collaborative inquiry, collaborative service or product design, community action research, community development, community science, community service learning, consensus workshop, consultations, co-operative inquiry, crowd science, crowdsourcing, deep democracy, deliberative democracy, delphi method, design thinking, epidemiological studies, emancipatory research, feminist action research, focus groups, future forecasting, hackathon, ideation, indigenous methodologies, knowledge democracy, mapping, open innovation, opoen science, oral history, participatory methodologies, public patient involvement, re-imaging, secenarios, science shops, serious gaming, social innovation, univercity community partnership, world café, user design and many more.

As a result of the work of the participants in the EU Horizon UNIC4ER project, members of UNIC European Universities, the *European Declaration on Engaged Research* was approved in the city of Oulu, on 15 June 2022, by the representatives of these universities and the cities in which they are located.

The Declaration defines *Engaged Research* in a simple and practical way:

> We believe that universities and cities can model and lead a new agile paradigm of democratic research engagement with the world. For us, research and innovation are not something apart or separate from society, but are an integral and vital part of the life of our communities. Indeed, the European Research Area and its *Pact forResearch and Innovation in Europe*, promotes societal responsibility, that is, research & innovation co-created with citizens and societal partners, towards strengthening common values, trust and ownership of research. Engaged Research describes a wide range of rigorous research approaches and methodologies that share a common interest in collaborative engagement 'with' and 'within' society, and aims to improve, understand, or investigate issues of public interest where societal partners are active collaborative participants in the research process. We believe that active citizen and wider societal engagement in research and innovation, in all its dimensions, allows us to harness the full creativity of our societies to tackle problems as urgent as climate change, rising inequality and the challenge to establish more caring and just societies. (UNIC, 2022; EU, 2021)

It underpins its approach to *Engaged Research* with the following values:

> Engaged Research is manifestly impactful research for the public good that has a transformative social justice orientation. It recognises sustainability and the interconnectedness of our social-ecological systems. It consistently seeks emancipatory, intersectional and transdisciplinary understanding. It intentionally respects academic freedom and supports participation and co-creation across different knowledge traditions (expertise, practice, experience and wisdom), while promoting diversity, inclusion, empathy, equity and solidarity for the good of all. (UNIC, 2022)

It completes the Declaration with four principles and commitments to: democratic purpose, caring for all people, caring for place and caring for our Planet. Four commitments that underpin the work of UNIC and the work in this book.

Engaged Research Strategy is, fundamentally, a way of approaching research and improving engaged research projects. All research is susceptible to becoming engaged, taking into account the features implicit in its nature:

- Priority is given to taking into account the impact of the research on people, age groups, social groups and the places we live in.
- The greatest possible number of actors from the public, private and non-profit sectors are involved in the subject and the place where the research is being carried out.
- It takes into account the awareness, activation and involvement of anonymous citizens in the theme and in the research process.
- The aforementioned actors —institutions, companies, social entities and anonymous citizens— are involved in the design, development and evaluation of the research project.
- A trans-disciplinary approach is taken, incorporating as many areas of knowledge as possible in the approach to the research topic.
- A transversal view —environmental, economic, social and cultural— is incorporated into the research question.

- A glocal observation of the content of the research project is established, respecting the localisation in a specific environment without losing the global view with the worldwide implications of the subject.

- Technology is incorporated into research processes, always at the service of the common good and the well-being of people, without ignoring the intrinsic value of non-technological research.

Engaged Research Strategy emphasises the way in which research is carried out, the processes to be followed, assuming that, due to its research nature, it will safeguard the requirements of quality and excellence demanded by the International Scientific Community.

In the course of the EU Horizon UNIC4ER project, documents, instruments and pilot projects have been produced that are based on the concepts outlined here. The results of this project can be consulted on the website (https://unic.eu/en/research).

1.2. UniverCity Engagement Strategy

The process of engagement begins with research projects that connect researchers with the citizenry, leading institutions, companies and social entities, and anonymous citizens. It continues with the configuration of an *Engaged Research Strategy* that links research projects, research teams and stakeholders through structures and processes that guarantee greater efficiency and effectiveness. But it can be completed with a more comprehensive and integrated view of the relationship between the university and the city, territory or community in which it is located. (Bender, 2008; Bringle *et al.*, 3012; Conway *et al.*, 2009; Goddard *et al.*, 2016; Koekkoek *et al.*, 2021; Trippl *et al.*, 2015)

This approach covers the whole of university activity, both research activity and the generation of knowledge as well as teaching-learning activity, placing the emphasis on action, on incidence, on the environmental, economic, social and cultural impact that this activity generates in the environment.

Research takes on an 'engaged' profile from the moment that the people doing the research prioritise the search for the common good and the well-being of individuals, groups and collectives. They incorporate the problems and challenges of the place they live in and the Planet they live on into their research agenda. However, the roadmap can be extended to achieve a broader scope.

Engaged research projects can be consolidated by promoting an atmosphere of encounter, dialogue, deliberation and implementation of research projects. An atmosphere of fluid exchange of concerns, problems, challenges and questions with the actors of the community, the city and the territory.

From an atmosphere of transparency and trust, the appropriate environment can be created for the co-creative design of engaged research projects.

The multiplication of initiatives and projects can facilitate the generation of support structures that facilitate and speed up the processes. And it may be the case that advances in the organisation of structures and the systematisation of processes result in an *Engaged Research Strategy* that promotes, encourages and facilitates the implementation of research projects arising from collaboration and co-creation with other actors in the university's location.

A similar path can be taken by teaching and learning. The subjects of undergraduate, postgraduate and doctoral degrees are full of opportunities for the implementation of an '*engaged*' profile. The choice of subjects, the approach to subjects apparently unrelated to the reality of our environment, the use of methodologies such as problem/case/challengebase learning, the presence of non-academic actors in the classroom... are all instruments that favour an '*engaged*' profile.

The move towards *Engaged Learning* is achieved through the implementation of specialised programmes that focus on the characteristics and nature of engagement, such as internships, final degree projects, industrial doctoral programmes, classes sponsored by companies or institutions, laboratories, dual training, in-company training in companies, institutions and social entities… The range of *Engaged Learning* initiatives is as broad as the creativity of the community generated by the university and the other actors present in a city, territory or community.

The maturation of the *Engaged Learning* processes, with the accumulation of experience over time and the systematisation of both processes and support structures, can shape an *Engaged Learning Strategy*.

The convergence of both strategies, the one focused on research-knowledge and the one focused on teaching-learning, from a prioritisation of action, incidence and impact on the city, territory and community, can give rise to a *UniverCity Engagement Strategy*.

Figure 1: University, Engagement and City
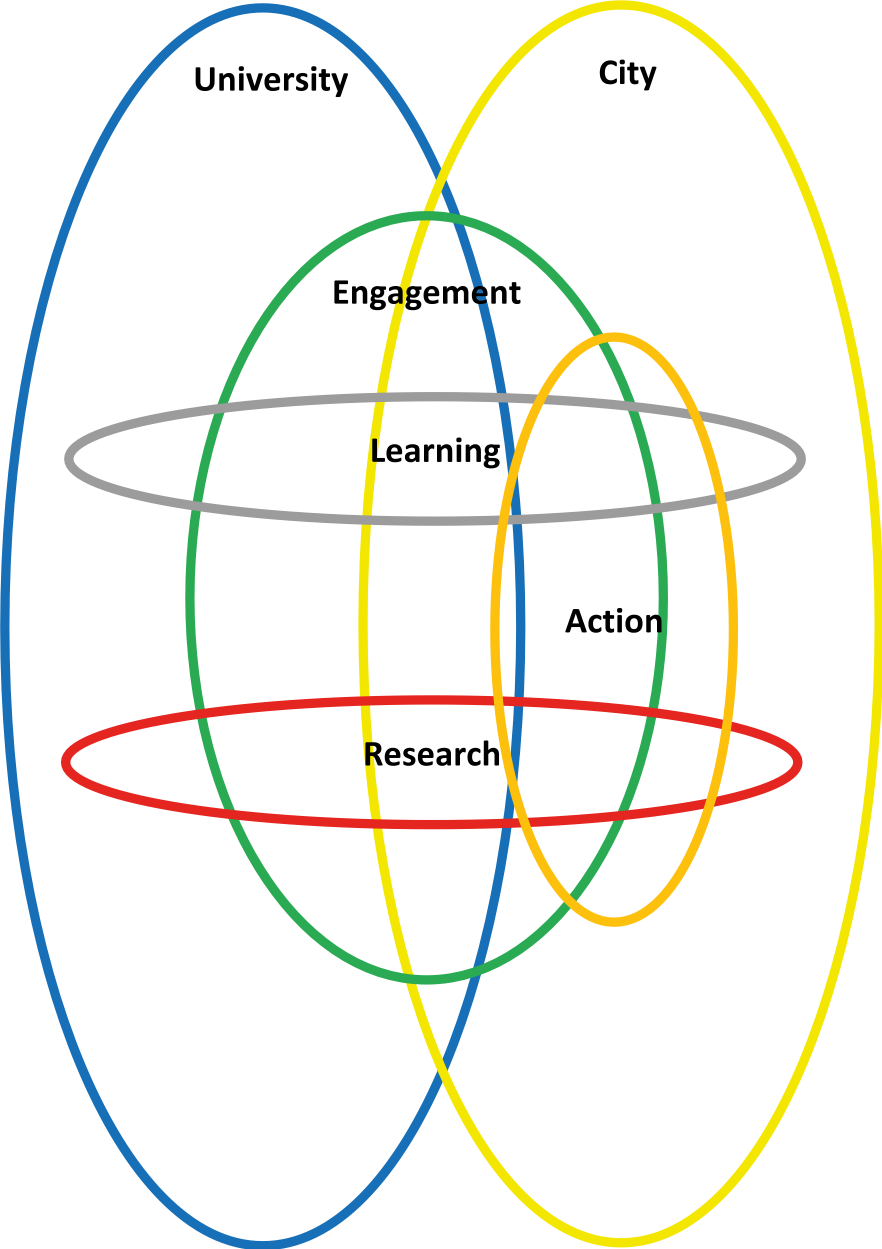
Source: Own elaboration

The figure above attempts to reflect the process of building a *University Engagement Strategy*. This strategy is based on parallel developments in the field of *Engaged Research* and *Learning Research*. It is set in motion with a roadmap in which the first and second university functions complement the pursuit of excellence and quality with the observation of impact and repercussion on the environment.

The quality of teaching and the excellence of research are completed with a permanent look at the implications that both have and will have on the people, groups and collectives with whom we interact as subjects of learning or as actors in research. And on the other hand, the environmental, economic, social and cultural impact that both the degrees and training programmes and the research projects generate or will generate in the city, the territory and the community. As reflected in the following figure.

Figure 2: Engagement look at University activity

Quality undergraduate, postgraduateand doctoral degrees

Problem-based teaching
Internships
Classrooms and laboratories
Dual training
Final degree project
Tutoring and guidance
Employability
Entrepreneurship
Continuing education
Lifelong learning
Cultural extension
School of citizenship
Case studies
Dissemination of knowledge
Application of knowledge
Action research

Knowledge generation and research excellence

UniverCity Engagement

Cocreating city, territory and community

Source: Own elaboration

Engaging Universities and People

Within the framework of the UNIC4ER Project - *The European University of Post-Industrial Cities; Towards a collaborative approach and structure towards engaged research*, one of the main concerns has focused on the way in which the research activity promoted by universities engages and affects the cities, territories and communities in which they are located.

In the process of consolidating a *UniverCity Engagement Strategy*, it is important to highlight the fundamental value of people, both those who hold positions of responsibility at the head of institutions, companies and social organizations present in the city, territory or community, and those people who anonymously live and travel through these cities. (Sennett, 2019).

In both cases, people, both referent citizens and anonymous citizens, are essential agents in the design, implementation and development of the *UniverCity Engagement Strategy* to be implemented in the emerging innovation ecosystems of the cities, territories and communities undergoing transformation.

This chapter focuses on the different profiles of people to be taken into account and on the recommendations to be considered when incorporating these citizen profiles in the governance of the *UniverCity Engagement Strategy* and in the governance of an *Ecosystem of Transformative Innovation* in the city, territory or community.

The emerging society, characterized by time acceleration and space globalization caused by the scientific-technological paradigm, presents significant imbalances that can only be counteracted by a *2030 Paradigm* (2030 Agenda, New Urban Agenda…) that seeks balance in environmental, economic, social, and cultural terms. The critical factor in its design and implementation lies in people, the citizens responsible for readjusting the four corners and balancing its content (Mathews, 2014).

People, whether leading citizens in charge of institutions, companies, or social entities or anonymous citizens managing their stocks, are the *pH factor* that keeps the solution in balance, avoiding reactions that increase or reduce *acidity.*

People are key in implementing said paradigm, transforming the present reality, and achieving more humane and sustainable development models. Listening to and activating people are two priority areas of work regarding reference people who occupy positions of responsibility in institutions, companies, or social entities and anonymous people who, in their dual role as applicants and activists, can complete the work of the former.

Figure 3: People as *pH factor*
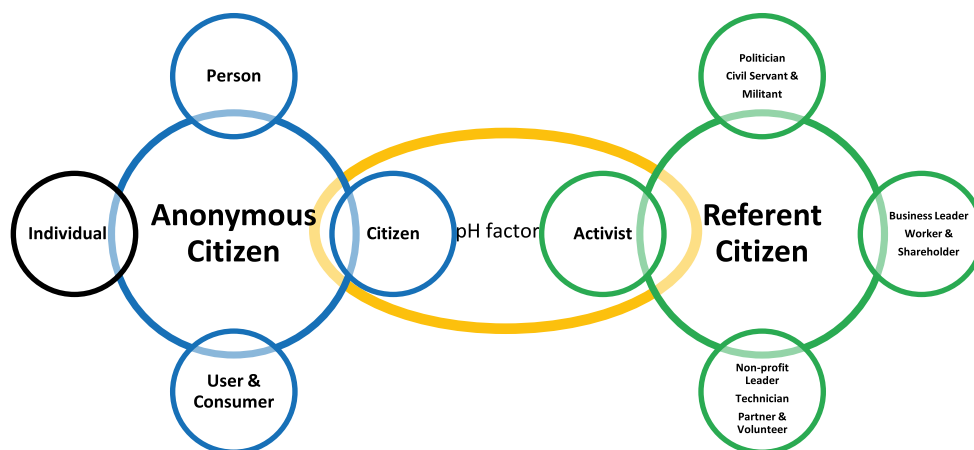
Source: Own elaboration

The *pH* is the index expressing a solution's acidity or alkalinity degree. Neutral *pH* has a value of 7. If the number is higher, the solution is basic. If it is lower, it is acidic. From our perspective, the resulting acronym *pH* merges the person (as a human being) with the citizen (equal in rights and duties, diverse in cultural identity). The *pH factor* implies the critical role that the person-citizen has as an active index in the dissolution of old paradigms.

The task is enormous and complex. It requires persistence and insistence and, above all, a deep democratic radicalization of structures and processes. We understand radicalization not as moving toward extreme, violent, or intolerant formulas but rather the return to the roots and essence, to the generation of spaces that involve anonymous citizens in the government of cities, territories, and communities. Democratic radicalization implies a return to the origins, to the frontispiece of the Universal Declaration of Human Rights. We must rethink the structures of institutions, companies, and social entities to open pores to capture the feelings of anonymous citizens around current problems and challenges, socialize the diagnosis, objectives, and actions that make up the 2030 Agenda, and open spaces for the activation of anonymous people in elaborating and implementing their own. Getting to work means valuing the people inhabiting our planet, its cities, territories, and communities, recognizing and welcoming their talent.

Anonymous Citizens

Anonymous citizens are individuals who seek to cover their basic needs. That same citizenship is made up of people who pursue their full development through the acquisition of knowledge and skills. Anonymous citizens manifest themselves as users of goods, products, services, and experiences in different spheres of their existence. Humans become consumers, buyers of what they need, and sellers of what they do not. Anonymous citizenship is exercised by being useful and in solidarity with others, with the family, the neighbourhood, the community, and society, through various commitments of variable intensities.

Individuals, people, users, consumers, and citizens that we claim to be aware and responsible in the activities derived from the exercise of each of the aforementioned profiles.

Table 1: Anonymous Citizens

PROFILE	PROFILE FEATURES	ASPECTS TO CONSIDER
INDIVIDUALS	Cover my basic needs (housing, supplies, food, health, social services, pension...)	Access to information services, guidance, consultation, advice, provision, aid...
PEOPLE	Develop myself personally and stay up to date (education, lifelong learning…)	Qualifications, courses, tutorials...
	Socialize (groups of friends, new friends, interpersonal relationships...)	Communication forums, meeting spaces…
USERS	Access goods, products, services and experiences that I need	Use of public, private and community goods and products
		Use of public, private and community services
		Living individual and community experiences
CONSUMERS	Sell what I no longer need Buy what I need (goods, products, services and experiences)	Access to thrift and barter shops
		Assignment or sale of my estate
		Proximity trade
		E-commerce / home delivery
CITIZENS	Exercise my rights and duties (civil, political, social, economic, cultural, environmental)	Rights and duties in everyday life
	Be useful and supportive of the family, neighborhood, community, and society (networks, platforms, volunteers, associations, NGOs, political parties, unions, entrepreneurship, business, institutions...)	Volunteering and associationism
		Business creation and entrepreneurship
		Participation in organizations and institutions

Source: Own elaboration

Individuals

Covering basic needs occupies many anonymous citizens' time, space, resources, and activities. The accommodation search, the rental or acquisition of a home, the provision of basic supplies for it (e.g., water, energy), sufficient food, health care, access to social services, pension for the individuals that make up the family unit... become fundamental lines of activity for any individual (Chinchilla, 2020).

The stabilization of a minimum threshold of access, use, and enjoyment of the mentioned goods and services is part of the daily evolution of every human being. The appearance of any type of fissure in access to them can lead to a vulnerability gap and future exclusion. The *2030 Paradigm* denounces the contents of said exclusion. It draws our attention to the vulnerability of the homeless, substandard housing, informal settlements, the privatization of access to water, energy poverty, malnutrition, hunger, food waste, lack of health, the deficit in universal access to the health system, the lack of protection of social services, or pensioners' poverty, and more.

The activation of citizenship, the *pH factor*, goes through the awareness of the state of the art regarding housing, food, health, social services, or pensions in the concentric rings in which our existence develops, from our closest medium to the most distant global realities. The experience of superabundant, comfortable, and even sufficient basic conditions should lead us to reflection, awareness, and individual activation of more empathetic and caring behaviours and attitudes. Likewise, to activate in the company of other people through collective commitments in protecting fundamental rights related to housing, hygiene, nutrition, health, or care.

People

Anonymous citizenship is made up of people, sociable human beings in need of group life with others. People who pursue their full development through lifelong learning accumulate significant and internalized experiences from which to find the best response to each challenge and problem life throws our way (Csikzentmihalyi, 1997).

People accumulate knowledge about the most varied aspects of their existence, from language or mathematics to the most sophisticated degree of specialization we can imagine. The work of people as a *pH factor* entails their empowerment from the double perspective of algorithms and *noemas*, hybridizing the knowledge of science and technology with letters and the arts.

People gain access to basic skills to function on a day-to-day basis, from a progressive discovery of their abilities to the growing ability to live in a group and even leadership and entrepreneurship in circumstances that require them (Gardner, 1999; Nuusbaum, 2002; Sen, 1985). The technique and technology necessary to dedicate as much time as possible to creative and higher value-added tasks, leaving intelligent machines to perform the most routine tasks and those with the least contribution to human existence. Universal digital literacy has become as essential as literacy around letters and numbers in past centuries. Openness to diversity is necessary for life in a world plural in origins, memories, heritage, identities, and cultural manifestations.

The conversion of people into a *pH factor* requires profiles empowered by fundamental and specialized knowledge and by skills that facilitate better self-knowledge and minimal self-esteem, fluid interpersonal communication, respectful coexistence in diversity, enabling digital literacy, entrepreneurship of every day and even leadership to stir in situations of uncertainty and anxiety.

User and consumers

Anonymous citizens become users to the extent that they use or acquire the goods, products, services, or experiences that other sectors, such as public, private for-profit, or non-profit associations, create for their use and consumption.

We can talk about a mediated initiative: Initiative because each citizen has the power to choose or reject the use and/or purchase of a good, product, service, or experience; and mediated, because free choice is conditioned by the limitations of economic, social, cultural, or environmental accessibility and because organized society exercises significant control through communication and seduction strategies.

We remember Touraine's pertinent warning from a few decades ago, at the height of modern industrial society, but which holds today with absolute validity:

The previous observations are correct, provided we add that the freedom of initiative and the ability to influence are increasingly distributed more unequally according to the professional and social level, in such a way that extreme confidence in the mass society leads to the recognition that the initiative can only exist in the upper layers of society. (Touraine, 1969: 210)

Users face problems of a certain complexity derived from their location at the end of a vast chain of sectors and agents, public and private. Consumerism, individualization, and resource use are the key issues to analyse. The acquisition or use, free of charge or paid, of goods, products, services, or experiences entails the development of a consumption practice. The tendency towards excessive consumption degenerates into rampant consumerism, turning a deaf ear to the voices that warn of the unsustainability of the capitalist model due to limited resources and to those that denounce the lack of solidarity and the exclusion of three-quarters of the planet.

The lack of criteria on the part of users, resulting from a lack of education in consumption values, leads to practices that cause a boomerang effect. This situation is reflected in the perverse effects generated and reflected in the chapter about environmental, social, cultural, and economic imbalances.

Another worrying phenomenon is the profound individualization in enjoying programs, goods, services, and experiences. With the establishment of associations of users and consumers, in the opposite direction, there is a growing separation of user interests due to the fragmentation of needs, uses, habits, practices, and consumption. Consequently, the defencelessness of anonymous citizens is more remarkable given the distance of conflicting interests between two individuals belonging to a similar social area and target audience.

Third, we discovered another problematic aspect related to resource use. On numerous occasions, we are faced with a lack of sufficient and adequate infrastructure, equipment, or services for the demanding population. The differences between the global north and south, not only between continents or states but also between regions, cities or neighbourhoods, regarding resource networks, are remarkable. Even in neighbourhoods and cities rich in resources, we detect a lack of culture in their use. There is a process of acquiring knowledge and skills, referenced in the previous section, which directly affects the real possibility of access to and optimal use of said equipment and resources by a significant percentage of anonymous citizens. The lack of knowledge about the existing public, social, and private offers and the absence of sufficient empowerment for access, choice, use, and valuation affect their full enjoyment.

The activation of users and consumers as a *pH factor* goes through the empowerment of people via knowledge, skills, motivations, and values that guide the use and consumption of goods, products, services, and experiences of a public, social, or private nature from criteria that pursue a more humane and sustainable development, in environmental, economic, social, and cultural terms, framed in more democratic policies and governance.

Citizens and activists

Together with their roles as users and consumers, people can activate their role as citizens with rights and duties and as activists involved in the protection, guarantee, and development of the rights of other human beings.

Anonymous citizenship underlines their citizen profile when aware of their rights and duties. Aware of their civil, political, economic, social, cultural, and ecological rights, they exercise them in every circumstance and condition deemed appropriate. Similarly, they internalize that all rights imply duties and are committed to the rights of others (Borja, 2003). We understand it is not enough to be aware of their citizenship status or to decide to exercise their rights and duties. In most corners of the planet, the emerging society denies citizenship status to many people in transit, migrants, asylum seekers, and refugees. It forces them to live experiences of illegality or alegality, where they cannot exercise citizenship with the one of origin lost and a new one not yet regularized at the destination.

Anonymous citizens become activists when they decide to live first-hand every experience they encounter (Csikzentmihalyi, 1997; Pine & Gilmore, 1999; Sundbo & Sorensen, 2013). They do so fully empowered in their rights as human beings and their duties concerning them as they live in society.

People satisfy their basic needs as individuals searching for private and shared solutions from a conscious exercise of their rights while complying with the duties that allow the rights of others to be fulfilled. People track their personal growth and development itineraries through learning and socialization, making multiple decisions around the spaces and people they interact, live, and build with, be they social relationships, friendships, family, couples... They protect their rights to learn and develop while lending themselves to completing duties that will make others grow. They choose options to use and consume goods, products, services, and experiences according to ethical and practical criteria respecting rights and duties responding to individual and/or collective welfare.

The activation of anonymous citizens as a *pH factor* goes through the universalization of citizenship without allowing grey areas of legality for those who already exist because they breathe and, therefore, find themselves on the difficult path of survival, growth, development, use, consumption, and activation. The activation of people aims to make citizens aware of their rights and duties. Activating the protection and guarantee of the rights and duties of the people surrounding us is also pursued.

Referent Citizens

People can abandon their anonymous profile at certain -short or long, circumstantial or central- stages of their life project. They can acquire profiles as referents who are only temporary and concrete being ('*estar*') that does not alter their anonymous future. Or they can acquire reference profiles that permeate their being ('*ser*'), in the essence that defines the person, turning even their private life into a public reference for anonymous citizens.

Among reference citizens, we find people who occupy institutional responsibilities, exercise politics, occupy positions of executive governments, or head legislative parliaments and Administrations of different levels of intervention. Together with them, civil servants who, after opposition or contest-opposition, have access to a position in the different Administrations. And accompanying the institutional representatives in the chamber of political parties and other para-political entities are militants likely to become referents at other times.

Leading private for-profit entities are people who become entrepreneurs. Along with them, others have access to management positions. Then, there are workers linked to varied fields of action within companies. Furthermore, some shareholders are co-responsible to a greater or lesser extent for the company's direction.

In the sector of non-profit entities, associations, foundations and NGOs are the people who represent them. Together with technicians hired for task performance and activity organization. And the presence of people who become members and others who generously donate part of their time, knowledge, skills and/or resources through volunteering.

Each reference citizen profile responds to differentiated features, performs different functions and tasks, and affects anonymous citizens to different degrees. Each of them has a different reason for being. They present levels of competence, with quotas of autonomy and dependency, regulated by laws and regulations. They manifest unequal capacities, the result of their function and task performance, as well as their interaction with the rest of the actors (Sen, 1985). In each case, they present considerations worth taking into account

Table 2: Referent Citizens

PROFILE	PROFILE FEATURES	ASPECTS TO CONSIDER
POLITICIANS	Consolidate the social and democratic rule of law Deepen the democratic nature of policies and governance	Oversight of actions
		Limitation of the number of public and trust positions
		Credibility, conduct, and ethical code
CIVIL SERVANTS	It considers human rights as the basis of all action and in the way of establishing the relationship with anonymous citizens, depository of popular sovereignty, and reference citizens	Activity constrained by procedure, other officials, and elective positions and designation
		"Functionalization" (accommodation)
		Learning throughout professional life
MILITANTS	Choose, accompany or support the public officials of your own party in the exercise of office Follow, control, and audit public officials belonging to ideological currents and own and opposing political parties	Weight of charismatic leadership
		Preparation for political relief
		Control and monitoring of own charges
BUSINESS LEADERS	Start up and maintain the viability of the business started Generate benefits to be distributed equitably among the business community itself, shareholders, workers and employed workers, and the society in which they are linked	Training for the exercise of the function
		Public image and business ethics
		Commitments in a new social contract
WORKERS	Generate wealth with their work to be distributed among the business community, shareholders, workers and employed workers, and the society in which they are linked Contribute new product, service or experience ideas, and intrapreneurship proposals that affect structures, organizational processes and results	Qualification
		Specialization and versatility
		Active agent in the company
SHAREHOLDERS	Influence, through the small or large volume of shares purchased in public offerings, in the future of business corporations, through the various types of investment funds	Orientation of investment funds of small and large shareholders
		Orientation of pension funds
		Orientation of sovereign wealth funds, especially of democratic States

PROFILE	PROFILE FEATURES	ASPECTS TO CONSIDER
NON PROFIT LEADERS	Play an essential role in a context of strengthening a more democratic governance in which the voice and action of the third sector increases its importance.	Complexity management
		Professionalism
		Discontinuity
TECHNICIANS	Bring to a successful conclusion the projects launched by non-profit entities, with the necessary knowledge and skills in each case	Vocation professionalization
		Perimeter of functions
		Progression
PARTNERS and VOLUNTEERS	Participate, on your own initiative and voluntarily, in an association, foundation or NGO, in a non-profit entity, in order to address a challenge, problem or need	Information flows
		Commitment level
		Pragmatism

Source: Own elaboration

Politicians

In the public sector, reference citizens are found as politicians in public office, civil servants, and as militants of political organizations.

Those agents who hold a position of responsibility within the public sector, either by direct popular election or designation as a position of trust from another public office, are considered politicians (Jiménez Asensio, 1997). Their function is to cover those objectives for which their positions were created within the Public Administration at each level of responsibility. Its political nature, achieved by direct electoral endorsement or through the elected office that has appointed it, implies the subordination to the control of its activity not only by the legislative and judicial apparatus but also by public opinion, where the media acquire special relevance. Among the issues raised by political leaders, the limitation of the number of existing positions, credibility, conduct, and corruption are of particular interest.

The limited number of public political officials is a recurring issue. Its limitations are rarely raised regarding its impact on processes and results, but rather, an alleged effort of public savings, not always rightly understood, is argued. Moreover, the volume of existing positions of trust is linked to how reliable officials' professional training and predisposition are. It is a question related to the number of political obligations acquired by the elected public office and their parties for those who gave part of their lives to public affairs, cutting or limiting their professional career.

The violation of credibility, conduct subject to an ethical code, and corruption affect not only individuals and the parties they represent but also the democratic system and its institutions. The lack of transparency and ethically deficient, irregular, corrupt, and criminal behaviours lead to a lack of trust and detachment in the people in charge of public institutions and representative democracy (Dahl, 1998).

Any of the issues raised are of special relevance for any intervention from the public sector in the objective of more democratic policies and governance. The adequacy of referent people in their political segment is an essential analysis and the correct diagnosis on the volume and the requirements they must acquire. The virtue is not found in reducing the system but in finding proportionality and rationally calibrating the volume of public positions to their assigned functions and tasks. Regarding the low level of credibility of the political class, it is possible to delve into

dignifying strategies, especially from direct contact with the anonymous citizenship and the rest of the referent citizens. Above all, it depends on developing ethical, rigorous, professional, and quality political work.

It goes without saying that political leaders, elected or appointed, play a fundamental role in consolidating the social and democratic rule of law and deepening the democratic nature of the policies and governance implemented. The democratic fragility of their profiles, or in the exercise of their functions, deteriorates the transparency and trust that enable anonymous and reference citizens to be complicit with improving the whole system.

Civil servants

The civil service represents the other face of the public administration. Officials access this condition through opposition, competition-opposition, or provisionally, through interim contracting formulas in the permanent debate on the criteria and selection processes. Their functions correspond to the held position within the administration's broad spectrum. For the times we live in, these roles have reduced versatility, flexibility, and mobility between areas, even at comparable job levels. Furthermore, this activity is excessively constrained by senior technical positions and by those elected or appointed political positions that, too often, discourage intrapreneurship and innovation.

One of the main problems that this sector is currently facing is the effect of civil service itself, a process of accommodation to a stable and lifelong contract situation, a disturbing phenomenon that, far from leading to greater motivation for job security and role stability, leads in many cases to apathy.

Times and spaces change, mismatches multiply, and their complexity increases. Updating and learning knowledge, skills, values, and motivations throughout life becomes imperative (Senge, 1999). Sometimes, in the civil service, we find a lack of training, motivation loss, or reduced sensitivity of their direct managers towards training since they do not consider it an added value in diagnosis, creation, design, or intervention.

However, the growing and exacting demand of anonymous citizens, together with the pressure from other referents, require higher quality standards in the provision of public services. Said pressure is exerted on the civil service, which must win at the waist by permanently opening to recycling and updating knowledge and skills: linguistic training, interpersonal and intercultural communication, application of innovative technologies, techniques and methodologies, programs and services of a new type…

The search for more democratic policies and governance is impossible without principles permeating the civil service's way of being. The first years of the Spanish Transition show the problems with the coexistence of democratic principles with a civil service still anchored in the Dictatorship's principles. The *2030 Paradigm* requires a deeply democratic civil service, not only in considering human rights as the basis of all action, but also in the way of establishing the relationship with the anonymous citizenry, depository of popular sovereignty, and the rest of the referent citizenship, legitimized in one function or another by the social and democratic State of law.

Militants

Behind the screens of institutions, a group of political organizations (e.g., parties, platforms, unions), comprised of a relevant number of active people, accompany the maturation, design, development, and accountability of their own and others' processes.

It can be in the election, accompaniment, or support of the public officials of the party itself in the exercise of office. It can also be in the monitoring, controlling, and supervising of public offices belonging to ideological currents and political parties, own and opposition.

The members of political organizations have possibly lost specific weight with the consolidation of democracy. They have seen how their economic contribution became testimonial in the coffers served by public subsidies linked to the electoral results and representativeness achieved. They have seen how the growing demand for politics shifted its weight towards the professional politician, who abandons any other economic activity that could reduce their availability or create spaces for potential conflicts of interest, reducing the influence of militants who devote a few evenings or weekends to the cause. They have succumbed to charismatic leadership and behind-the-scenes political marketing that reduces the scope for internal criticism within most parties.

However, its incidence in politics is relevant in a long-awaited scenario of periodic replacement of the political class, of introducing fresh air into positions of responsibility after limited periods of office. The decrease in the total volume of militants, the weakening of their weight in most parties, and the doubts generated about the level of internal democracy, among others, are issues that must be analysed and corrected wherever they are a verifiable reality of more democratic policies and governance.

Political militancy is not a minor element in the democratic deepening of policies and governance through which to advance in a more humane and sustainable development. Its role of accompaniment, monitoring, control, and relief of the political classes becomes an appropriate instrument in purifying possible excesses and deviations from the original intentions.

Business leaders

From the private for-profit sector, we can extract various profiles of the relevant citizens: business leaders, managers, workers, and shareholders.

Regarding the business community, its origin is in developing a venture according to one of the existing legal entities. Its basic and primary function is to start up and maintain business viability, benefiting the community of shareholders, employed workers, and the society in which they are linked.

Current legislation enables or regulates their action, which emanates from public institutions in commercial, labour, tax, civil, criminal matters, etc. Although there is also a sovereign court with influence over any business initiative, that is anonymous citizens' decision-making as consumers buying goods, products, services, or experiences.

When discussing some of the problems in the business community, we must highlight the ability to exercise their function, their public image, the need for increasing capitalization, and supervision by other agents.

Regarding the first matter, employers' difficulty in some areas to meet profile requirements is constant. The situation we are referring to concerns the distance between having a good idea and turning it into a good business.

The deterioration of the business leader's public image, given some leading referents' behaviours and attitudes due to their economic power and ability to influence, together with the rise of a favourable image of entrepreneurs, has not helped consolidate a more democratic businessman profile.

A more complex situation arises with the need for increasing capitalization in a global context. This trend towards the concentration of the production of goods, products, services, and experiences, a consequence of space globalization and time acceleration, substantially affects medium and small business structures with the consequent quality deterioration of our democratic system.

Finally, public control of private activity is experienced with concern from some business sectors. Nevertheless, under a justified demand for vital space for the development of business economic activity, deeply neoliberal conceptions have been harboured that, comfortable with the emerging society and oblivious to the profound imbalances and *globaldemics*, are inhibited in their commitments to a new social contract, which guarantees a welfare society in the search for more humane and sustainable development.

Workers

The figure of professionals as workers hired by a company to exercise specific functions is part of the faces that anonymous citizens can acquire to become referents for a few hours. Their work activity, transparent and permanent in past times, has almost vanished to give way to fleeting and expeditious professional transits. Hiring has adopted many formulas, transforming what was once secure into something less flexible and insecure into habit and constant practice. Company objectives, competition from other entities, and labour market behaviour set the limits of their actions.

In this context, the elements of friction that the employed person faces are numerous, but we would like to focus on three: qualification, specialization and polyvalence, and activation.

Regarding qualification, professionals require a higher level of knowledge and skills. In lower-skilled jobs, technology and digitization occupy these functions and tasks, with the consequent amortization of the position. These workers are displaced to workspaces with greater training demands. In jobs with higher qualifications, the continuous change in activities implies constant and forced access to new knowledge and skills. Role and task obsolescence can drag down highly skilled people who may have been unable to foresee the winds of change. We face the need for lifelong learning, permanent training, and recycling around general and specialized knowledge, and personal, interpersonal, and technological skills.

Specialization is presented as a requirement for the development of numerous functions and tasks. Polyvalence is also required in the context of permanent change in which we find ourselves. The contracted professionals face rapid accommodation to functional variations in ever shorter terms, demonstrating the ability to adapt as well as rigor in the new undertakings. This can happen even for people who have reached a maximum level of specialization and who can face a sudden cessation of their value via substitution.

Another aspect to review is the activation formulas for company workers and the need to consider employees as active agents within organizations. For decades, labour sociology, organizational psychology, labour laws, and microeconomics have proposed formulas that intend to overcome the conventional barrier between the traditional figure of the capitalist entrepreneur and that of the employee reduced by the labour force. For example, we can recover an emblematic issue of the magazine *Ekonomiaz*, edited by the Department of Economy of the Basque Government, which dedicated a monograph to this issue (1995). This number collected some of the most exciting contributions of the time, incorporating collaborations from prestigious authors like Meade, Kruse, or Laville and a vast repertoire of international and local case studies.

The proposed formulas ranged from profit sharing to greater involvement in strategic orientation through a greater presence in the management and production model.

In its desire to achieve a more humane and sustainable development, the *2030 Paradigm* requires the activation of workers, reference citizens to others given their ability to produce wealth with their work while contributing new product, service, or experience ideas, and propose intrapreneurship ideas that affect structures, organizational processes, and results.

Shareholders

Among reference citizens, there is an increasingly relevant profile in the emerging society: shareholders. *Fictional capitalism* (Verdú, 2006), around the stock market, the financial world, and investment funds, in fusion with the popular capitalism that extends its tentacles among millions of small shareholders worldwide, acquires a significant dimension in today's society. This capitalist model aims to make anonymous citizens feel that they can influence the future of gigantic corporations with a volume of shares purchased in public offerings.

The reality is quite another. The majority shareholders of these companies continue to be linked with their own individual and family names, recognized and recognizable. However, together with these people, investment funds related to groups of large, medium, and small shareholders appear.

Pension funds stand out among the investment funds linked to small shareholders (anonymous citizens as referents). A well-known case is the Federal Retirement Thrift, which manages the private pension of millions of US officials and 700,000 million euros in assets. Or the case of California teachers' investment fund, which is close to 300,000 million euros (Moreno, 2020). In other words, anonymous people who save small amounts throughout their lives in search of greater security and comfort in their retirement become referent citizens who, by delegation, allow decision-making that affects other anonymous people along the length and breadth of the planet. Decisions that seek greater profitability for investment involve loss of housing, workforce reduction, amortization of jobs due to digitization, job insecurity, production relocation, price speculation...

Another interesting approach to the issue comes from sovereign wealth funds, especially those linked to democratic states. Funds controlled and managed by States and their central banks but belonging to their citizens, as in the case of the Norwegian sovereign wealth fund, which has assets of more than one trillion euros.

From the small package of shares of a simple citizen to the immense sovereign fund, through investment funds of variable size made up of the savings of civil servants, pensioners, and professional associations... we are talking about the role of many supposedly anonymous people who, in their capacity as shareholders, become reference citizens for many people in the world.

In recent years, new colour spectrums of investment funds have appeared, such as bonds or green funds, which choose portfolio assets based on environmental criteria, with high profitability and social reputation, or bonds or blue funds, which are aimed at investing in sustainable activities related to oceans, seas, and rivers. Will we see orange bonds linked to human and sustainable cultural development or purple bonds linked to social development in the coming years?

The objectives established by the *2030 Paradigm* lead us to consider them part of the *pH factor* due to their potential to influence if they reach awareness, assume their co-responsibility, and activate their involvement in transformative innovation processes.

Non-profit leaders

The fabric of the third sector, non-profit entities, associations, foundations and NGOs, comprises many agents that we call partners, who work as managers, contracted people, and technicians.

The partners in leadership positions within the collegiate governing bodies of non-profits are elected by the entity's social mass from among its members. These are typically not coveted positions by partners due to obligations and non-remuneration. Partners control their performance through the sovereign assembly. Given the growing dependence on public subsidies and, to a lesser extent,

private sponsorship, these sectors' influence on the associative fabric has increased. Said control is not only limited to the use and management of what is subsidized or sponsored but can also filter down to the ideological or strategic level.

The people responsible for these entities face an endless series of concerns, of which we would like to collect three issues: complexity management, professionalism, and discontinuity.

The voluntary origin of the vast majority of those who hold positions of responsibility in associations has given them know-how from experiential learning, hit-and-miss dynamics, and, to a lesser extent, participation in rigorous, high-quality training processes. As time passes, the challenges of this group of committed people gain complexity and technical demands, including computer applications of administrative procedure, justifying expenses, and fundraising, demanding more and more mastery of content and techniques.

This causes a growing need for sufficient professionalism in doing things. To a certain extent, doing things well is no longer just a matter of goodwill, even for the associative world. The logical consequence is the demand for intensive and practical training processes for this profile of directors, with or without a desire for professionalization, but with all the requirements of professionalism in the exercise of the managerial position.

Another related circumstance is the discontinuity in the exercise of managerial tasks by the entity's social mass. Whether because of the natural evolution on an association's life cycle, with a greater or lesser number of years of accumulated history; because of the dropout rate typical of social commitments and militancy, with a limited number of affiliation years variable according to the types of associations; or because of the evolution in the chosen ways to exercise belonging with years of active militancy or mere moral and economic support. The effect is constantly starting over, which characterizes associative movements that lose their most prepared individuals in moments of necessary continuity, leaving a void that is not compensated even by the most mature substitution processes. Nevertheless, this factor can be mitigated with serious training processes and, endowed with perspective in time, can be seen as a positive instrument of activation and constant renewal.

Anonymous citizens at the head of non-profits become reference citizens for the rest of the people who make up the entity's social mass, the beneficiaries of their activity, and referents of other social, institutional, and business agents.

The implementation process of the *2030 Paradigm* grants a relevant role to these people in a context of strengthening a more democratic governance in which the voice and action of the third sector increase its importance.

Non-profit technicians

The growing complexity to which we continually refer implies, in the case of non-profit entities, the incorporation of people with sufficient knowledge and skills to successfully complete the projects launched. The people hired, technicians, are citizens of reference for the leaders of said organizations, beneficiaries, and anonymous citizenry as a whole.

Among the noteworthy issues in an exercise of consolidation and strengthening of their role. We want to highlight the professionalization of the vocation, the perimeter of its functions, and the progression.

Most people who work in the third sector share a deep vocational root. In a significant percentage, they access the task after years of militancy and/or belonging to the association. Even people with no relationship with the entity have a past as members of associations, foundations, or NGOs. And

in both cases, they coincide with official qualifications or training processes related to the field. However, the complexity of the times and spaces we live in entails the need to maintain a certain level of professionalization of the vocation. Without losing the intangible values that accompany the passion and emotion of the vocation, it is necessary to advance in the modernization required by the efficiency in the use of resources and limited time, as well as the effectiveness in obtaining results.

Another issue that we want to point out is the perimeter of technicians' functions in social entities. Activity performance moves between responsible people who can perform their functions without a contract or any remuneration and, therefore, with reduced presence and availability. On the other hand, the presence of the social mass, entity members, in addition to expressing their feelings and thoughts through the corresponding bodies, can maintain a specific interference in the future of daily activity. The recipients of the activity, who may or may not be among the entity's social mass, are regular interlocutors to technicians. And in the absence or delegation of management positions, dialogue with heads of institutions, companies, and other social entities may fall within their functions. The function perimeter becomes a delicate juggling exercise, supported by professional rigor and communication pedagogy in relationships with others.

Professional progression in all areas is a variable to consider, yet the risk of burnout and professional wear syndrome are more noticeable in most social entities' intervention areas. The pressure experienced working in sensitive areas, especially those in which vulnerability and exclusion gaps are worked on, entails very high personal and professional exhaustion. Learning processes focused on self-esteem and resilience can be valid instruments. Sabbatical periods or horizontal mobility to other areas in which receiving new stimuli, new challenges, can also help address unwanted situations.

The anonymous people who leave their homes to go work at any association, foundation, or NGOs are references for the recipients of their work, the managers of their organizations, the social mass that supports the entity, the institutions, and companies that finance the projects, and for other social entities with which it collaborates. The reference citizenship of the *2030 Paradigm* has the face of women and men who work in the third sector (Kern, 2020; Muxi, 2018).

Partners and volunteers

Anonymous citizens who become partners are people who, by their initiative and will, decide to participate in an association, foundation, NGO, or non-profit. Their primary function is to participate in tasks required by the group or in which members have a right to participate. Their activity is encouraged and conditioned by the association's philosophy, expressed in its ideology, and the group's rules, included in the statutes and internal regulations. We should keep sight of risky associative practices, e.g., sects, which should be specified through regulations.

It seems that the partner figure is in permanent crisis. We are witnessing a progressive abandonment of a model of militancy created in the sixties to make way for more open and flexible models influenced by a more punctual and focal idea of activism. These models are in catharsis. An increase in volunteering with a cause, concrete and limited in time, compared to militancy, committed to action and the organization and its permanence over time. *A la carte* memberships?

Amid this uncertainty, some issues, such as misinformation, the level of commitment, or pragmatism, emerge strongly.

A significant percentage of members, especially in entities of a certain volume, lack sufficient knowledge of the association as an organization, philosophy, and project. The absence of training and information protocols, as an introduction to the association's potential, causes a low degree of insertion in the group's opportunities and generates a certain disaffection due to ignorance.

Furthermore, the reality of commitment is in its low hours. Not so much because of the percentage of associated citizens, which has remained more or less stable in recent decades, with slight variations in the types of associations growing or shrinking, but rather in partners' depth of commitment to the project. The percentage of members actively participating in associations is even lower than the number of registered members. By way of example, in the world of political parties, even in those recently established, the percentage of participation of militants in decision-making processes is low, considering these are people who have taken a step forward regarding their commitment.

Finally, the wave of pragmatism that invades us is reflected in the profile and nature of the militancy chosen by the anonymous citizenry. Most of these participations are strongly subjected to people's particular interests, as victims or affected by institutional or business measures, in demand for public services, or as consumers and users of products and services. Although, at the other extreme, and as never before, we have witnessed the establishment of a cooperating and supportive association in recent decades: NGOs.

The involvement of the *pH factor*, the activation of anonymous people, and their conversion into reference persons also involve their activation as partners, militants, and volunteers in different non-profit entities.

Barriers and constrains

In the process of creating an *Engaged Research Strategy*, we have to take into account the people, their profiles and roles, present in the reality with which we intend to interact. The traits that accompany the roles analysed in the previous pages condition the scope of our action. The needs and demands of the anonymous citizens, together with the priorities and interests of the referent citizens of the city, territory or community in which we are implementing our *Engaged Research Strategy* can open an insurmountable gap or make our efforts converge around shared goals and objectives.

In the process of approaching our stakeholders, various barriers and constraints may appear explicitly or implicitly in our contact, initial dialogues, deliberation processes or subsequent design and implementation phases.

Some of these barriers have to do with objective aspects such as the individual or group nature of decision-making, the nature of the activity on which we focus our project, the time available, the characteristics of the space in which the project takes place or the resources of all kinds available.

Another block of barriers and limitations has its origin in subjective aspects. The different motivations (push factors) of the people involved, both from the university itself and from institutions, companies, social entities and anonymous citizens can generate spaces of convergence or insurmountable divergence. And, on the other hand, we found a great diversity of values that pull (pull factors) on these people. There may even be situations in which there is an open conflict of values, some of them openly hostile to the protection and guarantee of fundamental human rights.

Perceptions and opinions can mediate consensus on motivations and values. Personal histories or background prior to our presence can negatively or positively condition the unfolding of the proposal. The alternative reality generated by fake news and denialism can be extremely counterproductive to our objectives. Likewise, the conflict of interests or the search for antagonistic benefits can open gaps in the engaged research projects initiated.

Finally, we have to bear in mind that people think, regardless of their role and function. They have their own ideas, more or less elaborated, about the realities we are dealing with. But they also

feel and suffer, they carry emotions and feelings that can cloud reason or increase otherness and empathy in the circumstances they face. Let us not forget that people do, carry out their decisions, get things right or wrong, collaborate or counter-indicate. Consequently, regardless of their anonymous or referential character, they will be essential in the transforming action we undertake. And let us not forget that people can learn. We can incorporate new knowledge, competencies and values to share with the anonymous citizens and referents present in the projects, inhabitants and passers-by in the cities, territories and communities in which we implement an *Engaged Research Strategy.*

Figure 4: Barriers and constraints
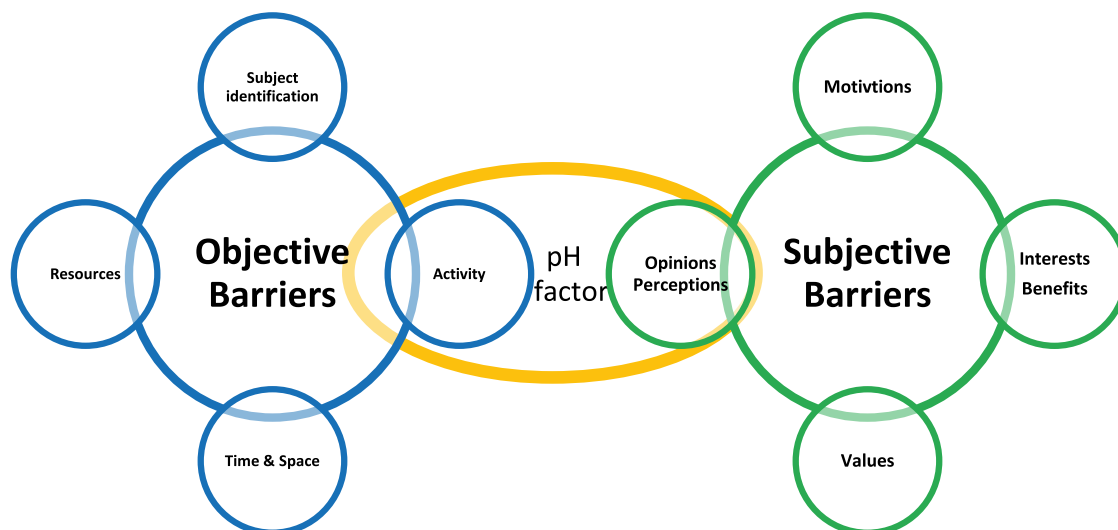
Source: Own elaboration

Objective barriers

The functions and tasks stated refer to the objective and subjective barriers encountered by each and every one of the actors due to their primary nature as people and their secondary condition as citizens of anonymous, institutional, business, or social reference. But, the objective of generating transformative innovation ecosystems in cities, territories and communities deserves the effort to remove objective and subjective barriers. It is an indispensable task in an urgent approximation to the long-awaited humane and sustainable development.

Objective barriers begin with subject identification. We have been speaking of the individual, of the person. But the social character of human beings imbricates them with others, forming couples, families, crews, groups, collectives, communities, societies... that acquire their own life in terms of criteria on the problems and challenges we face, as well as the mechanisms most suitable for resolution. The group conditions the person factor, small or large, in its position regarding the agendas, purposes, and contents. Empowerment, transparency, trust, and co-responsibility tasks, designed and oriented towards the person as the main recipient, must not avoid this condition: the complicity achieved bilaterally or with the groups in which it is integrated.

The activity in which to connect with the person acquires great relevance. Suppose the nature of the proposed activity does not coincide with the interests and preferences of the person questioned. In that case, it will be difficult to slide along the terrain that leads to higher levels of consciousness, activation, and activity. The challenges we face are numerous and diverse. This is a problem in itself, but also an opportunity. It is a compelling circumstance to gather people around the subject that causes more shock waves in their consciousness, daily life, or future projection. Complicity can come from activity.

Time is a limited resource and, consequently, valued by people. There are much more tasks to do than available time. There is an objective barrier around time. Despite reaching complicity individually or through the group and finding activity content that attracts their interest, the non-availability of time can break the process of incorporating individuals into the ecosystem. Hitting the required time is not an easy task. Dosing the level of progressive demand with gradual feedback of satisfactory experiences can be key. It is not easy to know how long it takes to activate the anonymous person. But we do know that a high level of temporary demand entails activation or future activity failure. It is about achieving complicity through a fair use of time.

Space can become a barrier (Elliard, 2015). From a different perspective, space plays a key role in the person's activation. The greater or lesser distance between the person's daily life and the place from which their presence is requested affects the personal predisposition to get involved with the problem, in one sense or the opposite. Sometimes, we manifest a greater sensitivity to what is close and indifference to what is far away. Or vice versa. Some circumstances in life make us see a brief gap as an insurmountable barrier or an appetizing challenge. Space characteristics its features, can also represent approximation or distance. Closed or open spaces, very cared for or in need, real or virtual... are aspects that facilitate or hinder the approach. Space occupies a place in the search for people's complicity.

The required resources can become an objective barrier. The challenge posed may require knowledge or skills that the person does not have and does not expect to achieve in a reasonable time reducing the chances of joining the ecosystem. In other contexts, the need to contribute financially stands in the way of their willingness to be part of the community. There may even be a lack of other material resources that people do not have, nor is it possible for them to have them in a reasonable time. In any case, the frustration caused by lack or limitations brought to the surface by our intervention can further drive subjects away. Resources favour complicity.

Subjective barriers

Subjective barriers are also present and will be present, in a more implicit way, even camouflaged behind those already mentioned. Motivations, the whys that move our lives, are among the subjective barriers. We come across a wide range of reasons why people decide to become active or remain indifferent to environmental problems. The whys that justify action or inhibition, their full involvement or indifference. At the root, we can find various motivations of anonymous citizens: extrinsic, e.g., recognition from others or the resulting benefits; intrinsic, e.g., self-realization and personal growth linked to the commitment acquired, always entailing greater involvement; positive, i.e., focused on the pleasure that the proposal generates; negative, i.e., when occupied in avoiding something unpleasant, punishment, humiliation, frustration or failure; basic, related to performance and result; daily, related to immediate gratification; focused on the individual, self-esteem, and self-concept; focused on the task, challenge, and the achievement of objectives. For one reason or another, beyond objective conditions, people engage with proposals or not, hence the importance of considering them. Motivations bring us closer to or further away from complicity.

Another subjective barrier is values. Values are principles, virtues, or qualities that characterize a person, which are greatly important for social groups, act as criteria for social behavior, and establish the reasons for people's actions. The observation of the traceability between values, norms, and behavior is highly relevant in the context in which we address the issue. The individualization of values or the setback in consensus around shared values can make it difficult to address common challenges. In addition, we pointed out the crisis of democratic values in moments of uncertainty and insecurity, fostered by populism and authoritarianism, along with other issues in the development of the proposed tasks, such as whether shared values or not; in decline or danger values; the values in progression; the social groups or collectives that are in each other's

drive, and the role of organized society and reference citizenship in the promotion of one value or the other. Values increase or decrease people's complicity with the proposed transformation (Silvestre *et al.*, 2020).

In the field of subjectivity, we can find other barriers around opinions, sensory and social perceptions, interests, or the benefits each pursues.

People who learn, think, feel and do

The people who transform the world, whether anonymous citizens or role models, have learned from successes and mistakes, have spent time thinking, have allowed themselves to be affected by feelings and emotions, and do things.

They have learned from their own experience, adding wisdom to the intelligences that make up their being. They have learned and continue to do so from birth to death. They do so in the classrooms of children's educational centres, permanent adult training or experience schools, institutes, professional training centres, universities, and many other places. They are impregnated with learning in their family and friends' environment. They internalize teaching and learning in non-formal educational environments linked to leisure, culture, sport, or recreation. They assimilate learning from informal environments such as the street, the media, the internet, or social networks (Carr, 2014; Morozov, 2011).

In all of them, there are moments in which knowledge flows. Through them, we access competencies, skills, and abilities and organize our scales of values. And with them, we strengthen or modify initial motivations.

People who transform the world from everyday life, institutional, business, or social commitment think. They wonder about the ultimate meaning of their presence, activity, and intervention in the world. They prioritize values, concepts, images, and proposals that help them interpret and understand how society works. They defend a more humane and sustainable model. They maintain a favourable attitude towards social, economic, environmental, and cultural transformation. They fight the imbalances and *globaldemics* of present time and space: climate change, concentration of wealth, inequalities, and xenophobia. They defend a profoundly democratic political model. They are committed to democratic governance between institutions, companies, entities, and citizens. Moreover, they act from these principles in the various areas of their existence as anonymous and reference citizens.

The people we are talking about allow feelings and emotions to take their place in daily life and the organizations in which they participate (Camps, 2011; Goleman, 1995; Gutiérrez-Rubí, 2019). They consider that otherness and empathy are necessary for active listening to the anonymous and reference people with whom they share the planet. Compassion in the face of the suffering and pain of others and indignation at the violation of human rights, be they civil, political, economic, social, cultural, or environmental, are good starting points. When acting and intervening, the combination of passion and temperance feeds the capacity for resilience in the face of so many objective and subjective barriers that will arise. Patience must accompany the intervention to avoid being overcome by difficulties and obstacles. The gratitude for those who preceded, accompanied, and will follow us will mix people and actions.

We are talking about people who transform the world, its cities, territories, and communities; above all, they do. They do things, big and small, according to the time and place, to the possible responsibility and scope in each circumstance. But they do. And they do differently, not just more or better. Their power and influence is based on moral authority, ancestry, and credibility achieved after years of transparent and trust-generating practice. They do with humility, recognizing their

limitations, condition, and personal fragility, as well as the impossibility of transforming everything. Taking care of processes, of how things are done, occupies the heart of their agenda. They do with others, through teamwork, the promotion of communities, and the generation of ecosystems. They do for others from a deep sense of solidarity.

Engaging Universities and Cities

Whether reference or anonymous, people need the community, city or territory to initiate learning, knowledge, and action that transform the emerging society. Existing inequities can only find a balance point if people working in the community share ideas, emotions, and learning that help formulate the structures, the most efficient and effective processes, and actions in the search for positive results and impacts for everyone.

People transition

The *2030 Paradigm* challenges us to achieve a more humane and sustainable development. This challenge requires more democratic policies and governance based on configuring more *Ecosystems of Transformative Innovation* in the environmental, economic, social, and cultural fields.

The future will be sustainable, or it will not. The Agendas describe the desired future. We need a change of mentality to face the paradigm shift. Institutions, companies, and social entities must gradually assume responsibilities and tasks in their achievement. People must participate in this change as applicants before organized society and as active agents in the transformation.

Engaged learning, research, and action projects are an adequate instrument in the search for a new social contract that joins reference and anonymous citizens in the challenge of sustainability and transformation.

Human beings participate in habitat predation or conservation. Citizens make exclusion and inequalities possible or take the side of equality and cohesion. Humans confirm the parameters of extreme competitiveness through our investment, spending, and consumption, or situate around other economies and cooperative finances and the common good. Citizens prop up racism and xenophobia or feed the wealth of creative diversity around democratic values.

The key factor in pending transformations is people. Its pH stabilizes the liquid solution in which we move as people with needs, sociable, developing users of space, time, and activity, consumers of goods, products, services, and experiences, citizens with rights and duties, and committed activists. From any profile and function, people show their ability or inability to influence the areas and challenges stated.

Along with the well-known transitions, we need to incorporate a specific one focused on human beings. A transition of people that implies the approach of learning and empowerment throughout life in knowledge, skills, motivations, and democratic values essential to successfully address the challenges of sustainable development.

Habit configuration in the use, analysis, and understanding of the information available in contexts of transparency from institutions, companies, and social entities. The generation of spaces for communication and dialogue of people with their institutions, business, and associative fabric in order to increase mutual trust. The implementation of co-creative processes that, over time, establish co-responsibility in results and create ecosystems of transformative innovation to face the ecological, economic, social, and cultural challenges.

The pending transition is people's way of thinking, feeling, learning, and doing. In order to ensure the proper functioning of our society, people must become the proper pH.

The search for a more humane and sustainable development, in which the human rights of all who inhabit our communities, cities, and territories are protected and guaranteed, requires the complicity of its protagonists, the people.

These citizens can actively collaborate —or not— in said development when trying to meet their basic needs, socialize and live in the community, develop as people, be valuable and supportive to family, community, and society, buying or selling goods, products, and services, and living memorable and significant experiences.

KAIA Method

Aiming to facilitate the *2030 Paradigm* implementation and its subsequent transformation, we present the KAIA Method responding to the challenges and imbalances ensuing from profound changes linked to time acceleration and space globalization, based on the progressive implementation of the scientific-technological paradigm. This method pursues the implementation of engaged learning, research, and action projects. (San Salvador, 2023)

KAIA refers to the method whose objective is (1) the development of *Ecosystems of Transformative Innovation*, (2) from the implementation of engaged learning, research, and action projects that, (3) allow the maturation of committed people with the transformation of the world, its cities, territories, and communities and, consequently, with (4) a more humane and sustainable development.

The acronym in Basque stands for learning, research, and action. The K has a double meaning: on the one hand, the result of the configuration of two oblique lines (learning and research) that affect another perpendicular line (action) and, on the other, the word community (*komunitatea*, *elkargoa*, in Basque). The acronym intends to reflect the purpose and content of the method in a synthetic way. It comes from the action-research method tradition, introducing learning to the process and incorporating the community as an element that integrates previous ones. The word *kaia* in Basque means 'port', according to the RAE's Spanish Language Dictionary: "a place sheltered from the wind on a sea or river shore where boats can stop and remain safe, with facilities to carry out repairs or operations of embarkation and disembarkation" [Own translation]. The port allegory is a framework to welcome, accompany, and promote citizenship, reference, and anonymous, conscious, responsible, activated, and active.

The KAIA Method is proposed as a practical method to encourage reference citizenry at the head of organized society (institutions, companies, and social entities) and anonymous citizens to become more aware, co-responsible, and committed through communities, understood as processes of transformation and implementation of the *2030 Paradigm*, from closeness and proximity, co-creation, and activation of people.

We start from the need to know better, to know first-hand how the people mentioned in Agendas live, aiming to favor their sustainable vital development, proposing the formation of communities to establish a listening process that allows their perspective to be incorporated into the dialogue and deliberation and to facilitate their involvement and activation. It seeks to identify their barriers, ideas, values, desires, motivations, priorities, and needs to confront them with Sustainable Development Goals so that they know that they affect and influence their future.

First, it is about better understanding the objective (training, housing, work, services, leisure...) and subjective barriers (motivations, values, perceptions...) that hinder promoting a more humane and sustainable, individual, and collective life project. Secondly, it is intended to influence reality by

generating objective and subjective conditions favorable to develop a more humane and sustainable life project, individual and collective. And, thirdly, it seeks to involve anonymous citizens, alien to the dynamics established by organized society (institutions, companies, and social entities). Their barriers, ideas, projects, and preferences will thus be more present in the decision-making that affects their future. More varied participation spaces will be made possible. The generation of participatory processes that improve the identification of alternatives, co-responsible co-creation of solutions, and involvement in their implementation are proposed around environmental, economic, social, and cultural sustainability challenges.

Engaged learning, research, and action projects

The dual purpose of the learning, research and action projects is, on the one hand, to involve reference and anonymous citizens in the *2030 Paradigm* and, on the other hand, to accompany citizens in the implementation of personal initiatives, individual and collective, around the environmental, economic, social, and cultural. We propose the formation of engaged learning, research and action projects to facilitate an initial diagnosis of the cities or territories that host them, a listening process that allows incorporating the concerns of anonymous and reference citizens, a process of dialogue and deliberation, and channels for citizen involvement in the *2030 Paradigm* implementation.

The implementation of learning, research, and action projects means welcoming, listening, discussing, deliberating, and activating reference and anonymous people who can transform the world, its cities, territories, and communities through the enforcement of *Ecosystems of Transformative Innovation* that enable a more humane and sustainable development, through more democratic policies and governance.

Both the preparation process and the first years of implementation of the *2030 Paradigm* have not managed to activate a sufficient percentage of public institutions, private companies, and social entity leaders to achieve the set goals. While this is relevant, a vast majority of anonymous citizens remain outside the Sustainable Development Goals, their achievement, and the appropriation of individual and collective responsibility. The percentage of people who state they are still unaware of the existence of the 2030 Agenda, the SDGs, the New Urban Agenda, and the rest of the agendas, their contents and scope, is very high. On the one hand, the anonymous citizenry and a significant part of the reference citizenry experience these Agendas as something alien and separate from their daily lives, the problems that concern them, and their daily challenges. On the other hand, most consider the Agendas and their objectives as the responsibility of those in charge of public institutions and, to a lesser extent, companies, and social entities. However, they do not feel compelled to participate and acquire commitments regarding challenges they do not understand as their own.

Organizations that summon

Each learning, research and action project can be promoted by one or more public institutions, private companies, and/or social entities aiming to reach the largest number of interested entities, with the complicity of universities. It can also be promoted by a person or a group, anonymous citizens who incorporate other people and organizations. This responds to the necessary multiplier effect, which is essential if we intend to reach a significant volume of immense minorities with the capacity to transform within the *2030 Paradigm.*

It regards that multiplier effect and that vocation to extend community implementation across the widest possible space in the shortest possible time. This book aims to reach the greatest number of people who transform the world, its cities, territories, and communities.

The engaged projects intend to activate reference and anonymous people who can transform the world and, through them, configure *Ecosystems of Transformative Innovation* based on more democratic models of governance marked by the horizon of a more humane and sustainable development.

It is a methodology to be implemented by political, business, and social leaders with the capacity and resources to launch said projects, as well as by anonymous citizens who may have limited resources but have enthusiasm and summoning capacity.

Summoned people

A learning, research, and action projects can be composed of a variable group of anonymous and reference people, guaranteeing dignified individual participation with sufficient and quality time to share thoughts, emotions, learning, and experiences around the challenges posed. The size of the project determines the welcoming character of the space and the distribution of available time, a democratic distribution of it, and a slow use to respect the different rhythms of expression.

This method's recipient, and the projects that derive from its progressive implementation, is the citizenry, reference citizenry that promotes and/or participates in projects from institutions, companies, and social entities, and anonymous citizenry that promotes and/or participates in said projects from their roles individuals, users, consumers, citizens, and activists.

They may be people of a similar or different age, gender, origin, or condition from the same city, territory, comnunity or different habitats. We can find interesting processes and results for the *2030 Paradigm* implementation in homogeneity or diversity. In a engaged project configuration committed to homogeneity, we can delve into the welfare of age (young people, seniors…) or social groups (women, migrants…) in relation to the *2030 Paradigm* objectives. When opting for diversity in project composition, the city, territory, or community has a chance to achieve greater territorial compactness, environmental balance, social cohesion, equitable distribution of wealth, and/or cultural diversity.

On-site, virtual, or hybrid spaces

Learning, research, and action projects can be developed on on-site, virtual, or hybrid formats according to the possibilities of promoting the organization and those participating. With the confinement experienced during the pandemic still fresh, we have enough lessons to timely assess when virtual, on-site, or hybrid options are more beneficial. It will depend on recipients' characteristics, level of digital literacy, skills for optimal technology use, and access to the necessary technological infrastructure. It will also depend on how we intuit that the reception process, the generation of trust, the preservation of the quality of the dialogue, and the care of the atmosphere for deliberation can be favored or hindered by technological intermediation.

We propose that the formats be used for what they are, as means, not as imponderables to which the idiosyncrasies of the human group configuring the project and the requirements that the processes and tasks to develop are subject to.

Al tempo giusto

There is no set time limit for a learning, research, and action project. The experience of the driving team and the organizing entity, the starting point of the summoned people, the environment in which it is embedded, and process maturation are arguments that condition the project's rate.

Although there is no rush to reach intermediate milestones, we should not fall into a discouraging slowdown due to ineffectiveness.

Each project must find its *tempo giusto*, the cadence that guarantees an adequate evolution from the initial diagnosis to making contact and welcoming, listening, dialogue, deliberation, and implementation.

One year can be a good time measure for processes that must incorporate all of the milestones we address on the following pages. It could be shortened by providing previous experiences of initial diagnoses, identified challenges, or proposals for concrete actions. The absence or presence of said elements will set the time limits for interventions.

Possibly, one of the ways to rebalance time acceleration is to demonstrate that the desirable acceleration in the search for and management of responses, as we have been able to experience with the pandemic, must be accompanied by a no less necessary slowdown when trying to leave no one behind (Eriksen, 2016; Honoré, 2004). The *2030 Paradigm* requires us to work in this dual use of time with moments for quick responses to problems that cannot wait any longer and moments for cunning action to face challenges that require listening, dialogue, and consensus.

Learning, research, and action projects can be developed on-site, virtual, or hybrid formats according to the possibilities of promoting the organization and those participating. With the confinement experienced during the pandemic still fresh, we have enough lessons to timely assess when virtual, on-site, or hybrid options are more beneficial. It will depend on recipients' characteristics, level of digital literacy, skills for optimal technology use, and access to the necessary technological infrastructure. It will also depend on how we intuit that the reception process, the generation of trust, the preservation of the quality of the dialogue, and the care of the atmosphere for deliberation can be favored or hindered by technological intermediation.

We propose that the formats be used for what they are, as means, not as imponderables to which the idiosyncrasies of the human group configuring the project and the requirements that the processes and tasks to develop are subject to.

Resources and financing

The endowment of basic resources for the learning, research, and action project is critical. Project financing can come from different sources: the summoning organizations' funds, be they public institutions, private companies, or social entities; calls for aid, subsidies, or patronage from other institutions, companies, or social entities with greater capacity and resources; and/or the economic implication of the conveners or participants based on crowdfunding formulas.

It seems relevant to underline the application of an austerity criterion in project start-up and development.

This criterion is not contrary to dignity, sufficient and adequate endowment. The initiative's credibility requires moving away from exaggerated waste, fireworks, and stage equipment, which wraps us in glossy paper while moving us away from what is substantial and authentic. From a conceptual point of view, the search for a more humane and sustainable development requires consideration in the formulation of the budget, investment, spending, and income chapters. From an operational point of view, searching for a multiplying effect forces us to reach the largest possible number of projects, for which we will need to reasonably distribute the always-limited resources. On the other hand, that same multiplier effect should not take us away from the authenticity and credibility of each project.

People dynamization

Revitalizing the learning, research, and action projects must be done by at least one facilitator, anonymous citizen, or person linked to the promoting organization. Although a work team is desirable, team formation is more appropriate with an egalitarian, multilingual, transnational, transgenerational, and transdisciplinary profile, reflecting the diverse reality in which we live. Said team can come from a group of anonymous citizens, the convening entity itself, or other collaborating entities that mobilize the project.

The dynamization process incorporates the structures, processes, and results of learning, research, knowledge generation, and action in an exercise of feedback and mutual impulse.

It vindicates process importance, the way we do things, not understood as a detachment from the hosting structure or towards the result that determines its degree of success, but rather as a call to attention to the relevance of transformation through shared learning, ideas, and feelings as a previous step to transformative action sustained in time and space.

For this reason, each phase of the process must be turned into a piece of goldsmithing, a piece of craftsmanship wrought with the care required by the condition and circumstance in each case, adequate and sufficient for the environment and context in which it is carried out. The dynamization process and the figure of the dynamizing person acquire a very relevant role.

The structures become support points for the constitution of the learning, research, and action projects. They can be structures housed in public institutions, private companies, or social entities regardless of their size, scope, implementation, and location, physical or virtual. But the specific features of each structure should not represent limits and exclusions: to the participation of diverse agents, to adequate reception and listening, to consider challenges, problems, and concerns of various origins even if they are not a priority for the organizing structure; to the subsequent implication of reference and anonymous persons participating in commitments addressed from other structures; or to the promotion of new initiatives outside the organizing structure. A characteristic feature of the method is that, faithful to the *2030 Paradigm*, we locate projects to get closer to people and their realities. However, we remain open to the acceleration and globalization of most world challenges.

Learning, research, and action

The learning structures, processes, and results contribute to the value of meeting different people, dialogue, listening, reflection, and access to the knowledge and experience of participants in the resulting method. Tools like learning platforms and wiki spaces enable the exchange of information, communication, mutual knowledge, co-creation, and complicity between different people.

Research contributes from the deepening of knowledge, the rigorous observation of reality, and the contrast with other realities. Qualitative and quantitative research tools allow us to generate better instruments for understanding the environment, analyze and formulate concepts, map agents and resources, collect and assess inspiring practices, and collect, analyze, and share data for deliberative processes.

The action supposes applying what has been learned and investigated in the concrete and specific reality. The instruments for action enable us to hold forums for governance, empowerment, contrast, dialogue, consensus, and deliberation and set up laboratories for the design and implementation of actions proposed in the previous learning and research processes in a limited urban and territorial environment from the shared leadership of various people and entities in a glocal perspective.

Processes to pamper

Milestones aim to implement a set of processes that help transform the learning styles, ways of thinking, feeling, and doing of the people who make up the learning, research, and action project, individually and collectively.

One of the processes pursues reference and anonymous citizens' empowerment through training supports and learning processes of a diverse nature. Its implementation brings us closer to having an equitable community under equal conditions to participate in the community from a minimum common denominator of knowledge, reinforcement of the necessary self-knowledge and socialization or digitalization skills, and the identification of democratic values, empathic and supportive motivations.

Another process involves transparency in the relationships between the participants, whether from convening entities, organized society, or anonymous citizenry, and implies the organization of a sufficient, quality, and accessible flow of information.

A third process is linked to the need to create a climate of trust among project members, which implies good interpersonal communication. The quality of communication, listening, and speaking between human beings is essential to consolidate sufficient trust

Figure 5: Learning, Research and Action Processes

Training	0.0	Empowerment
Information	1.0	Transparency
Comunication	2.0	Trust
Co-creation	3.0	Co-responsabily
Experience	4.0	Complicity
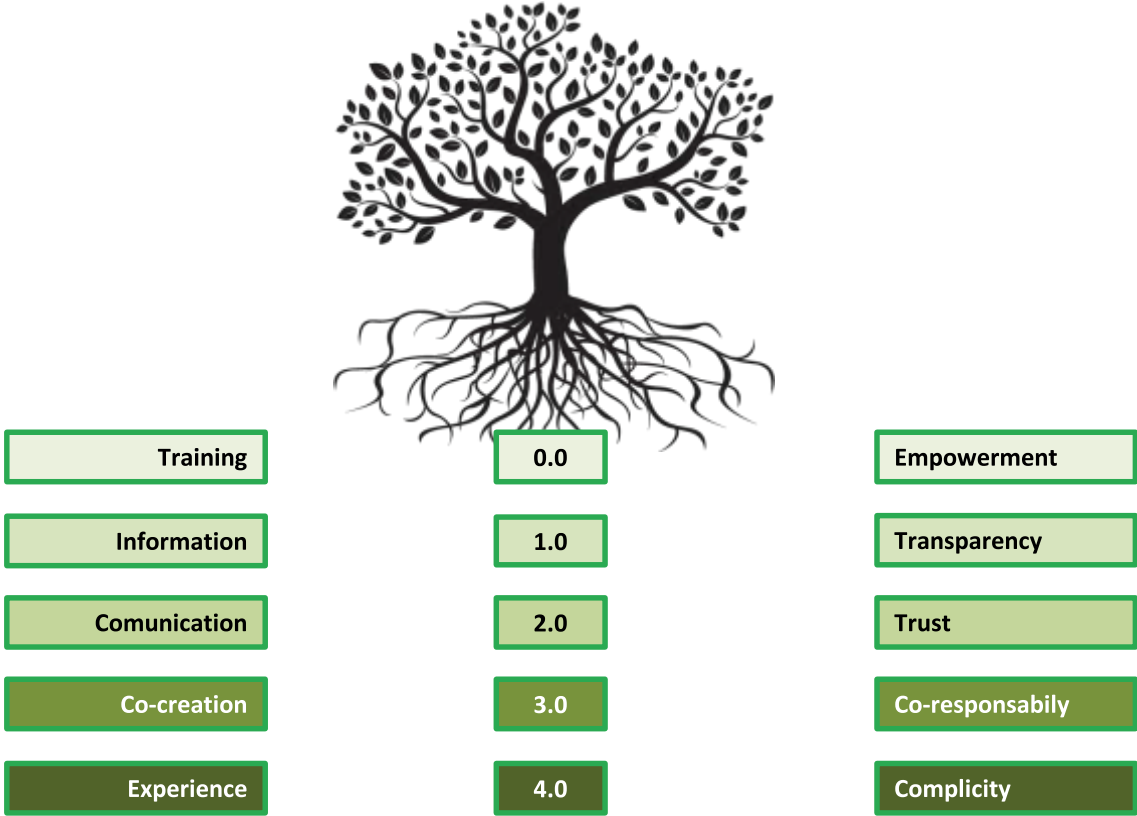
Source: Own elaboration

The fourth process to consider is co-creation, the creation resulting from the contributions of participating individuals that will enable co-responsibility with decisions, proposed initiatives, and results. Co-responsibility is a necessary condition on the path toward a new, more humane, sustainable, and democratic paradigm.

Finally, it proposes taking into account the accumulation of significant, authentic, and memorable experiences that consolidate humus of complicity among the participating people. They don't have to be entirely positive experiences. Even when some experience is adverse in their results or impact, it must ensure that they leave a positive trace of empowerment, transparency, trust, and co-responsibility in the lived process, allowing us to restart new processes and communities in search of unachieved results or impacts.

Training and empowerment

Firstly, it will be advisable to focus efforts on people empowerment through training, teaching-learning of knowledge, skills, values, and motivations.

It talks about completing one's own with skills for personal and social development that enable greater self-knowledge, balance, and emotional stability in the complex and stressful existence and coexistence that we have had to live, written, oral, and digital communication capacity considering diversity, teamwork, and collaborative leadership

It refers to reinforcing talent and spirit with democratic values illuminating our decision-making and actions for our benefit (rights) and others (duties). Considering teaching-learning processes around ecological, circular, cooperative, distributive, cohesive, and creative values... which are at the base of the *2030 Paradigm.*

It invite us to attend to the motivations of community participants and, respecting these motivations, enable their smooth transition to greater loads of otherness, empathy, and solidarity.

The formation of knowledge, skills, values, and motivations is a fundamental instrument in complex and uncertain settings. Empowerment is the necessary condition for emancipation and personal autonomy in this context.

Information and transparency

A second aspect to develop has to do with transparency. Achieving the *2030 Paradigm* requires a conscious anonymous citizenry and a transparent reference one. The permanent and updated flow of sufficient, authentic, and quality information is a *sine qua non*-requirement for a transformation of such magnitude.

Reference citizenship at the head of institutions, companies, and social entities will have to be naturally willing to make the necessary information available to anonymous citizens. Their activation, from the point of view of real knowledge of the problems and challenges posed and in the performance of efficient and effective actions, will enable transformation at different scales. Due to talent, reference citizens must have the knowledge and skills to fulfill their desire to become transparent references, not allowing ends, i.e., more democratic governance in achieving the *2030 Paradigm*, to be subordinated to the means, i.e., technology, and the interests of their demiurges. The accelerated and global advance of the scientific-technological paradigm has left the political paradigm responsible for decision-making behind. Present and future technology can anticipate the capacity of reference citizens at the forefront of the political and governance processes necessary to bring the *2030 Paradigm* to a successful end.

The scientific-technological advance can occur in the proposed coordinates of democratic radicalization or the progressive growth of populist and authoritarian expressions in a magma of attractive and colorful screens resulting from biased algorithms. Meanwhile, the noemas, the fragments of well-intentioned thought, seem incapable of prevailing over such seductive means. Thus, the people in charge of institutions, companies, and social entities must demonstrate a spirit

close to democratic values and a technologically literate talent to exercise transparency through the honest use of technology.

Anonymous citizens must have the necessary democratic spirit to demand sufficient transparency to understand the world and the optimal talent to manage information sources from a critical perspective skillfully. Their activism must be based on a sufficient threshold of quality, verified information to avoid generating more damage than has already been caused and to make the actions undertaken effective.

Information is a fundamental tool. Transparency is incorporated as an essential additive in progress towards the *2030 Paradigm*.

Trust and communication

Another aspect linked to transparency is the generation of trust. Having empowered and transparent people, be they anonymous or reference, does not guarantee trusting relationships, although it makes them possible. It will be necessary to consolidate a pedagogy of communication, a permanent habit, continued over time, of dialogue among reference and anonymous citizens and between the latter and former groups.

The established communication or initiated dialogue must have continuity over time. The art of listening must be worked exquisitely. Communication has been one of the most common shortcomings in the *2030 Paradigm* design and implementation. Even when communication has been widely incorporated, there have been deficiencies in the level and quality of listening.

On occasions, in organized processes, actors have been confined to the representation of organized society through reference citizens with almost no anonymous citizens. On other occasions, anonymous citizens did not guarantee active and comprehensive listening to arguments, feelings, lessons learned, and proposals made by ordinary people. In both cases, well-intentioned participatory processes with simple or sophisticated communication tools have not achieved active listening, a step before consolidating mutual trust.

Continuous dialogue over time, deep communication, and the balance between speaking and listening have been missing in most organizations, whether institutions, companies, or social entities. This lack of habit among the people of reference is probably the original absence of an adequate pattern in the relationship with anonymous citizenship. The rigid pyramidal structure and the verticality of the processes have prevented the multidirectional communication flows necessary for a better understanding of complexity and uncertainty. Inter-institutional dialogue is conditioned by the normative framework of competencies distribution, which clarifies functions and tasks but restricts the agile response to relocated emerging realities. Communication between institutions and companies, between these and social entities, and between institutions and the latter, has been circumscribed, on too many occasions, to a tug of war concerning the rules of the game and the distribution of tax, grants, and budget resources

Communication is an essential tool in the task undertaken. Trust is the breeding ground in which, due to good communication, meeting and convergence points increase in the face of so much divergence.

Co-creation and co-responsibility

The promotion of co-responsibility is another noteworthy aspect. The scenario drawn by the *2030 Paradigm* demands greater co-responsibility from all the actors. The development of the social, democratic, and legal State with its welfare society model has dramatically advanced and developed freedom and equality. However, it has also led to an inflation in the claim of rights unmet by duty

culture. It goes without saying that the autocratic and dictatorial option in their denial of freedoms, inability to reduce inequalities, and violating rights has failed to create a duty culture. The desire for a more humane and sustainable development requires citizens aware of their rights and duties, regardless of the starting point from which they are developing their existence.

To advance in co-responsibility and rebalancing rights and duties, the co-creation exercise, idea incubation, projects, and actions between different people must be deepened. The art of co-creating brings reference people together, those within organizations who are innovating. It brings together leading people from institutions, companies, and social entities sharing the desire to do something together.

The context of complexity and uncertainty, together with the *2030 Paradigm* scope of the objectives, calls for incorporating anonymous citizens into co-creation processes, either because of a reasoned involvement with the common good in an atmosphere of collective commitment or because of a primal sense of survival in given the dramatic scenario of a future in countdown.

The task is not simple. Anonymous citizens are far from the forums in which the *2030 Paradigm* was configured, in which the idea of more sustainable human development was concocted. This is rational due to the distance between the noemas, concepts, and words used by the enlightened classes that constitute the reference citizenry and the colloquial speech through which anonymous citizens express their problems. The distance is emotional due to the gap between the image of the technocratic coldness of reference citizens compared to the raw verbalization of feelings of ordinary people. The gap is educational because the former perceive themselves as supported by knowledge and skills aligned with the task, while the latter are seen as limited for survival. The barrier is practical, both insofar as reference citizens deal with works of ingenuity and anonymous citizens carry out day-to-day tasks.

The imbrication of both worlds in a common co-creative work around the fight against climate change, the concentration of wealth, inequalities, xenophobia, or populism can cause a double effect: a better understanding of reality by people at the head of institutions, companies, and social entities, and greater co-responsibility in the construction of possible futures by ordinary people.

Experience and complicity

It seeks to establish complicity between sectors and agents, reference, and anonymous people deep within the community. Complicity results from the accumulation of authentic, memorable, and significant experiences by community members.

The authenticity of the experience is generated in the contours of a warm welcome, active listening, presence in dialogue, consideration of the voices of others during deliberation, and balance during implementation. People consider authentic processes to be events without cheating, unexpected twists, unwanted misinterpretations of the community's story, or inexplicable course changes on what has been argued, debated, and decided.

The memorable nature of the experience has a lot to do with the climate generated by the organizing entity, the talent, and spirit of the people responsible for the dynamization, the warmth of the chosen space, the adequacy of the time used, the behavior of the participating people, the care of the accumulated processes, the results obtained and the impacts caused.

The more or less significant feature is linked to the experience's transcendence and relevance in the participants' biography. It has to do with the change that the community experience causes in each person and their way of learning, thinking, feeling, or doing. The pursued community transformation in cities or territories through emerging innovation ecosystems also manifests in the citizens who participate in it.

Acquiring this authentic, memorable, and significant triple trait dampens an experience's positive or negative character. Community experience can be negative regarding results or impacts and, nevertheless, preserve the three features. Similarly, the positive evaluation of an experience in terms of results or impact does not necessarily mean that it has been authentic, memorable, or significant.

Complicity is an investment in the future. It guarantees the strengthening of resilience among participants beyond results or impact. It enables participants to return to new calls for communities, the implementation of new forums based on pre-established diagnoses, and the organization of places for pending actions. Complicity has plenty of initial empowerment, transparency at the base, trust established throughout the process, and consolidation of co-responsibility among the participating people.

Milestones to develop

Each learning, research, and action project can be developed around four milestones in a circular, non-linear process, which does not imply the implementation of all the milestones and does not entail a fixed and consecutive order. Each milestone focuses on:

- Making contact with the landscape, organized society, reference, and anonymous people, especially with the summoning entity or entities and the people summoned.
- The host city or territory's initial diagnosis.
- Listening to the initial situation and participants' challenges, the shared challenges, as well as the reception and response given to each of them considering the *2030 Paradigm*.
- Dialogue and deliberation around the possible actions to be developed and the possible personal and collective involvement in the search for solutions.
- Initiative execution based on personal and community involvement.

Figure 6: KAIA Method. Engaged Learning-Research-Action
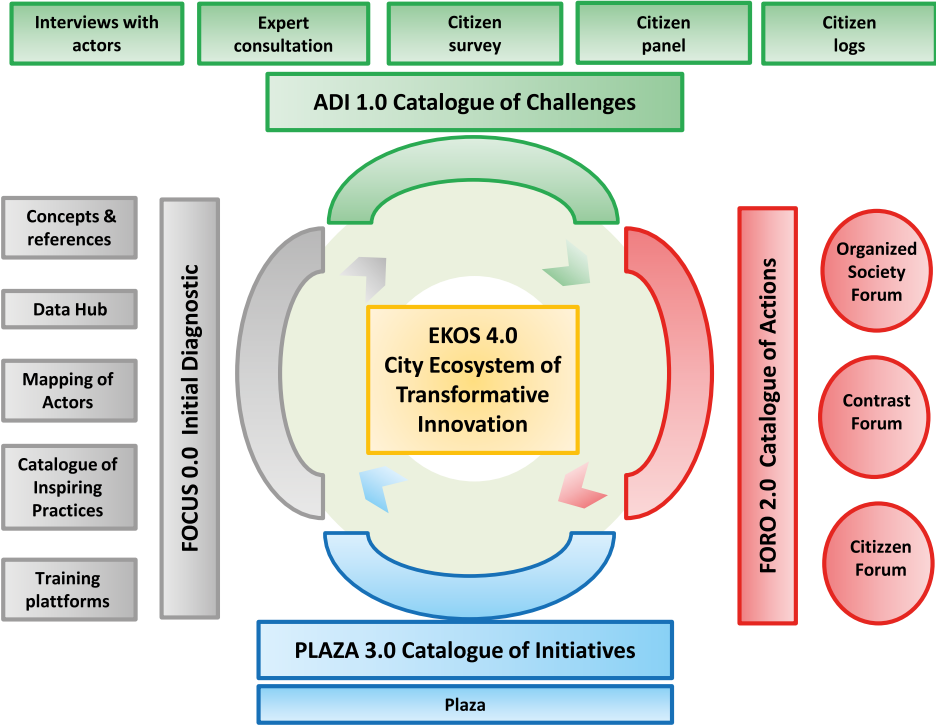
Source: Own elaboration

FOCUS 0.0 - Initial Diagnosis

It is a matter of establishing observation spaces to conduct an initial diagnosis that, as a starting point, allows to focus on the city or territory's situation in which the project is located and can apply some of these assessment and learning-research-action tools:

- Concepts and References: state of the art around the challenges contemplated in the *2030 Paradigm* that may emerge in the project.
- Training Platforms: agents and training processes, teaching-learning, formal, non-formal, and informal in the city, territory, or community that is being energized.
- Catalogue of Inspiring Practices: compilation of a systematized repertoire of the actions developed by institutions, companies, social entities, and citizens around the *2030 Paradigm* challenges.
- Mapping of Actors: cartography of the institutional, business, or social sectors and agents in the reference environment.
- Data Hub: preparation of a database and a control panel with the main indicators necessary describing the uses, practices, and consumption habits of citizens in a city, territory, or community.

ADI 1.0 - Catalogue of Challenges

The aim is to generate spaces for anonymous and reference people to listen aiming to identify challenges that are, individually and collectively, present in the generated project. Some of these learning-research -action tools can be applied:

- Citizen Survey: administrating questionnaires based on the initial diagnosis and the *2030 Paradigm* to a universe or representative sample of citizens of the city or territory, according to criteria of age, gender, origin, and condition.
- Citizen Panel: administrating questionnaires based on the initial diagnosis and the *2030 Paradigm* to a universe or a representative sample of heads of institutions, companies, and social entities, according to criteria of age, gender, origin, and condition.
- Citizen Logs: keeping reference or anonymous people's diaries, where they describe their experience (objective and subjective barriers) around the challenges posed, considering age, gender, origin, and condition criteria.
- Interviews with Actors: conducting interviews with representatives of organized society in institutions, companies, and social entities.
- Consultation with experts: interviewing relevant people in areas of knowledge related to the challenges posed.

FORUM 2.0 - Catalogue of Actions

Spaces for dialogue aiming to identify actions that, individually and collectively, are proposed within the generated project and where any of these learning-research-action tools can be applied:

- Governance Steering Group: organizing dialogue spaces for convening entity leaders with dynamization teams to implement actions related to project design, start-up, development, and evaluation.

- Citizen Forum: organizing dialogue spaces for people who have participated in any of the previous milestones and who volunteer to analyze the challenge posed and establish actions to be incorporated into the catalogue.

- Organized Society forum: organizing dialogue spaces for people who have participated in any previous milestones and volunteered from institutions, companies, or social entities to analyze the challenge posed and establish actions to be incorporated into the catalogue.

- Contrast Forum: organizing dialogue spaces for people who have participated in any of the previous milestones and who have volunteered from institutions, companies, and social entities, as well as anonymous citizens to analyze the challenge posed and establish actions to be incorporated into the catalogue.

PLAZA 3.0 – Catalogue of Initiatives

It seeks to promote deliberation spaces to identify initiatives that, individually and collectively, are proposed within the generated project, which can be implemented using any of these action-research-learning tools:

- Transformative Innovation Laboratory: organizing deliberation spaces where political leaders, institutional technicians, companies and social entities' representatives, and anonymous citizens participate, based on the catalogue of actions that establish a catalogue of susceptible initiatives, taking into account principles such as priority and feasibility.

EKOS 4.0 – Ecosystem of Transformative Innovation

It promotes implementation spaces to launch initiatives that, individually and collectively, and proposed within the generated project, can be developed using any of these action-learning-research-tools:

- Pilot Groups: organizing spaces where political leaders, institutional technicians, companies and social entities' representatives, and anonymous citizens based on the catalogue of initiatives focus on the deployment and implementation of one of them.

Not all milestones are necessary in all projectss. The accumulation of previous experiences can allow projects to start from different milestones and, therefore, at different developmental stages. Initial diagnoses of experiences close in time can be shared. Catalogues of challenges arising from recent processes can be optimized with new approaches. Catalogues of initiatives that could not be entirely addressed can be recovered. Pilot groups can be promoted based on catalogues of challenges and initiatives that have not been implemented in all possible areas. Pre-existing ecosystems can be optimized with a more cross-cutting, cross-sectoral approach... The circular approach of the proposed method considers projects as an asymmetric combination of learning, research, and action according to the future of the people who make it up, the organizations that promote them, and their host cities and territories.

Process evaluation, impact measurement, and accountability

Throughout this chapter, it is especially insisted on the relevance that the processes acquire in the spirit of the *2030 Paradigm*, in the different texts of the Agendas, in the emphasis placed on the way of doing as much or more than on what is done. Therefore, it seems logical to close the methodological proposal considering assessment processes, impact measurement, and the necessary accountability toward the people involved.

The results are the necessary evidence of the degree of quantitative, qualitative, and quality success of the initiative launched. Therefore, evaluation, impact measurement, and accountability tools are necessary to implement the proposed method. However, the search for results should not undermine the quality and quality associated with the processes, their dynamization, and the role of the person and the dynamic team.

Regarding evaluation processes, it is essential to pay attention to each proposed element: convening entity(ies), people summoned and present, spaces and formats used, time frames and management, resources and financing, dynamization, processes implemented, and milestones developed. We can assess each incorporated element quantitative, qualitative, and quality.

We can evaluate the number of convening people or entities, their characteristics, and the quality they have contributed to the process. The number of people or entities involved in project organization is a source of assessments to be incorporated into the final report. The institutional, business, associative, and/or citizen nature of each of the calling entities contributes qualitative and quality aspects to be taken into account in the evaluation. In the same way that the absences of one or more natures can condition or limit the scope of the process.

When conducting assessments, the volume, profile, and characteristics of summoned people are important. A large or small number of participants, homogeneous or diverse profiles, and a small or wide spectrum of individual traits and characteristics guide the evaluation toward one or another final consideration.

The choice of space and format (on-site, virtual, or hybrid) leads us to positive and negative considerations that must be collected in this evaluation phase. It is about assessing the incidence that the space and the chosen format have had in one way or another.

Regarding time, the place in the calendar or schedule of the community sessions and their duration and rhythm are aspects to consider now and in a possible extension or repetition.

We invited austerity and a certain self-limitation in terms of resources and financing. Evaluations must consider the relevance of the magnitude associated with project development, weighing a possible ostentatious excess or suffocating austerity.

Dynamization, considering the responsible person or team, is another obligatory approach to the project's future. The profile of the leaders accompanying the process should be the subject of reflection and assessment. The greater or lesser adequacy of the profiles used for participants and contents contemplated must be taken into account.

The dynamization processes proposed in this chapter (training, information, communication, co-creation, and experience) with their respective implications (empowerment, transparency, trust, co-responsibility, and complicity) must be addressed in activity reviews.

Reviewing the milestones and the quantitative or qualitative techniques used (e.g., mapping, catalogue, survey, interview, forum, plaza) provide relevant information on highs and lows throughout the process. The tools used do not work in the same way in all cases and do not have the same effect on the consolidation or weakening of the project.

In the previous sections, the evaluation report has a previous work of organized verification in the written, graphic, and audiovisual supports of what has been done; the collection of evidence via facts or testimonies from the people linked to the activity and participants.

The impact measurement of the learning, research, and action project responds to two different planes. The short plane focuses on determining the impact it has had on participants according to the baseline collected in a small survey in a digital form that speeds up the process and simplifies the

requirements. It is about finding out how sessions have affected learning styles the way of thinking, feeling, or doing. Testimonials can be collected on participants' perceptions about their degree of empowerment, the level of process transparency, the trust achieved, the sense of co-responsibility, and the feeling of complicity after the experience. Suppose the objective is the person as a key factor in transforming cities, territories, and communities. In that case, this first level of impact measurement focuses on anonymous and reference citizens linked to the community.

The long plane has to do with these people's incidence and will have in the city, territories, or community that welcome them. In this case, the measurement will encounter greater difficulties due to the extent of the analyzed reality. The measurement tool will search for traceability between identified challenges, proposed actions, and, finally, implemented initiatives. Going further, it will propose indicators that measure the environmental, economic, social, and/or cultural impact of the initiatives implemented, together with the evidence of the democratic deepening of policies and governance caused by the launched actions.

Accountability ends the process by debriefing results and assessments to the convening persons and/or organizations, anonymous and reference participants, and the institutions, companies, social entities, and citizens of the city, territory, or community in which the intervention was developed. It can be done face-to-face, virtually, or both with a variable duration appropriate to the objectives and recipients. Depending on the profile of recipients and organizations, there may be greater or lesser specifications. The experience should not end without adequate and sufficient accountability. Its absence or forgetfulness can harm the subsequent activation of people and organizations in similar processes. Accountability increases trust in the short term and complicity in the long term.

1.3. City Ecosystems of Transformative Innovation

The imbalances of the emerging society require a shift from the scientific-technological paradigm to the *2030 Paradigm*, from the dictates of intelligence to sustainability, in the search for adjustment and balance. People and communities of learning, research, and action impose wisdom dictates. The result is *Ecosystems of Transformative Innovation*, in which, the various sectors and agents (institutions, companies, social entities, and citizens) come together in novel structures, processes, actions, and results that modify the way of being human and of relating to one an, to other living beings and of being on the planet.

Adjustment and balance are necessary for ecosystems' design, implementation, and development. In command are people, reference and anonymous citizens who are empowered, transparent, trusting, co-responsible, and accomplices with the work undertaken.

Ecosystem

A system is a set of elements that, due to their interrelationships, cannot be explained by observing them in isolation. It is, therefore, a series of elements and the relationships established between them, turning the whole into something other than the mere sum of its parts. In the 1960s, systems became an important conceptual basis thanks to Ludwig von Bertalanffy and his general systems theory (2006). Its applicability allows us to understand disparate objects of study as systems, including cities, territories, and communities. Using the debate around the concept throughout recent history, we can conclude that every city, territory, or community is a system that interrelates social, cultural, economic, environmental, and political components.

Tansley coined the term ecosystem to refer exclusively to biological organisms and their environments (Tinsley, 1935; Golley, 1993). An organism or open system could not be understood

without the conditions of the environment in which it existed. Based on this limitation, we can understand cities, territories, and communities as living systems insofar as they are configured by the dynamics of the humans who inhabit them. Its understanding as a container organism for other organisms in relation to the natural ecological environment can allow us to affirm that the city and its environment, whatever the perspective adopted, make up a true ecosystem.

However, the artificial dimension of cities, typical of human invention, cannot be seen as a living being or an organism. The interactions between both organic and artificial dimensions inside the system and the environment produce unexpected reactions that allow the emergence of new systems, the fruit of system adaptations to the environment, and the fruit of the ecosystem (Madariaga, 2024).

Therefore, an ecosystem would consist of a system aimed at improving some aspect of the city, territory, or community in an environment that promotes these improvements while benefiting from them. In Rueda's words:

> Cities are urban ecosystems where human beings constitute their main component. Urban ecosystems are the most complex systems created by the human species. If it is intended to address its transformation holistically, we are forced to formulate synthetic models that affect the main components of urban systems (2021: 6). [Own translation].

In this sense, a conventional innovation ecosystem becomes a *Ecosystem of Transformative Innovation* when it favors synergies between innovations in the four components of the urban system.

In this way, innovation for economic development would directly impact social, cultural, and environmental development. At the same time, it would benefit from a truly transformative added value that would directly imply greater competitiveness of the leading initiatives in the international market. Conversely, social, ecological, or cultural innovations would count on economic innovation, technologically based or not, as a powerful ally capable of commercializing achievements.

An ecosystem can mutually stimulate economic, environmental, social, and cultural development. It can also promote the spontaneous appearance of innovative systems capable of improving the quality of life and welfare of the people who inhabit and transit a city, territory, or community.

Figure 7: Ecosystem of Transformative Innovation
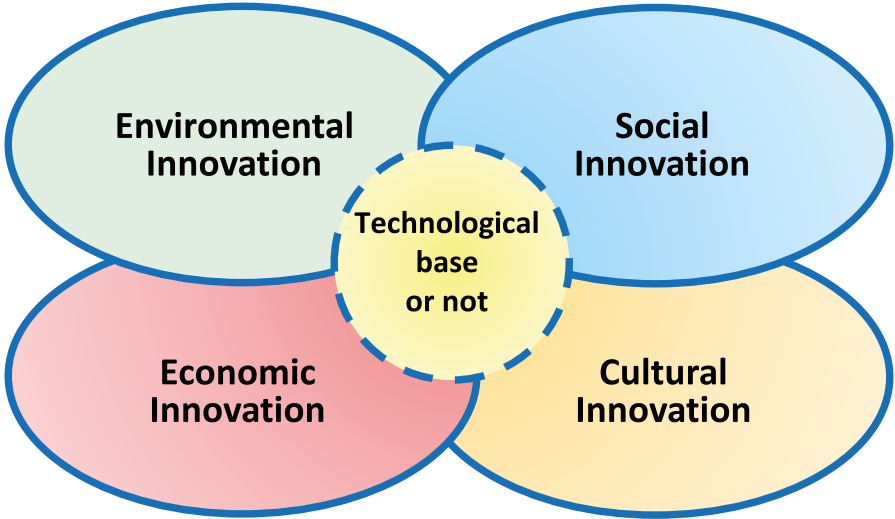
Source: Own elaboration

Innovation

Innovation, approached, understood, and contextualized in this emerging society, can be defined as the implementation and social appropriation of new ideas, processes, or products from the expansion, improvement or transformation of known realities in all spheres of existence.

In the current context, long chains of innovation have taken shape: learning from accumulated experience, research on the issues raised, knowledge generation as a basis for responses, knowledge transfer between agents, creating new alternative solutions, their development and implementation, using, and appropriating innovative proposals by society. The chain started with the learning process is completed when the innovation is recognized as such by others (Innerarity, 2011; Lundvall, 1985; Parrilli, 2010; Rogers, 1962).

The cities, territories, and communities that advance have been and can generate the necessary conditions to implement the chain of innovation (Porter, 1987). The more complete the number of links and the thicker each link, the more vigorous the innovation chain will be. A lifelong learning society is the best breeding ground to ferment innovation processes. A knowledge society makes generating and transferring knowledge an inexhaustible source of innovation. A creative society adds the force of transformation to the innovation sequence (Florida, 2004). An innovation society gets used to promoting, demanding, and appropriating the new developments implemented, providing feedback to start new ones.

The emerging society requires a wise and balanced government of complexity, in which innovation provides the necessary theoretical and practical wisdom for a correct time policy governing acceleration from a present and future time. For this, it is essential to consider the desynchronizations caused by the simultaneous and different degree experience of global and local time, which entail a wide pluralism of temporality (Innerarity, 2011: 219).

From the point of view of space, innovation can facilitate the governance of globalization from specific cities, territories, and communities (Hall, 1998; Innerarity, 2011; Lundvall, 2002). We need innovation systems that include network structures, co-creation processes, and the incremental, adaptive, and radically transformative results necessary in each case and circumstance. But we must be aware of the asymmetry between different locations given the advancement of technological innovation, the greater or lesser presence of flow spaces, and their impact on the spaces of places (Castells, 1996, 451).

This environment and context require harmonizing the complementary natures of environmental, economic, social, cultural, and political innovation, technological or non-technological, promoted by institutions, companies, social entities, and citizens within smart cities, territories, and communities. An alignment is necessary in a context of imbalance caused by the different speeds of innovation, with a worrying slowdown in social and cultural innovations in the face of uninterrupted technological innovation and, to a lesser extent, economic and environmental innovations (Innobasque, 2009: 9). In fact, the development of science and the accumulation of knowledge have enabled a high level of implementation of technological innovations, with economic and environmental consequences of extraordinary depth. However, to a large extent, social innovation not only has not developed the reverse path but has not even been able to respond adequately to the social impact of technological innovation. Politics, education, social services, social organization, or personal agenda have yet to develop as technological advances and their social impact would have required. The economy, for its part, has grown thanks to globalization and acceleration and the economic impact of technological innovation but in a socially and environmentally unbalanced model (Raworth, 2017). Innerarity expresses it clearly and concisely when stating that innovation without society produces socially undesired effects (2009: 25).

Transformation

In an environment of complexity, the search for answers and solutions must address innovation as its subject and object. The coherent integration of productivity, quality, and transformation objectives can greatly help to innovate in novelty strategies.

Innovation focused on productivity becomes incremental (Hamel, 2000), while focused on quantity is supported by a slight alteration of the known reality and a wide diffusion among citizens. An innovation focused on number and magnitude. Innovation understood in this way is necessary in those scenarios where society must move forward in maximum complexity. This approach to innovation affects the way of doing things in the wide range of technical and material innovations, reflected in structures and processes, but above all in the results (products, services, and programs). However, it does not adequately delve into the other spheres of good governance because it does not think sufficiently about alternative models; it does not consolidate experimentation as a profound source of learning and reflects citizen feelings reduced to superficial emotions at the service of a short and immediate term commodification (Camps, 2011 Goleman, 1995; Gutiérrez-Rubí, 2019).

Innovation focused on quality seeks a way forward in an adaptive vision, which deepens the modification and change of what is known. It is an innovation focused on the inherent properties of people and things. It is a valuable proposal for a society that demands quality in its uses and consumption. The way of doing things is once again affected, repeating the technical and material solutions of innovation, with a more significant role given to structures and processes in the quality search. Still, the way of thinking continues to be briefly developed as a generator of models other than those known. Neither does it delve into the learning style by not promoting significant experimentation that reinforces knowledge, skills, and values from which to approach innovation. Citizens' way of feeling is yet to be addressed deeply beyond a superficial emotionalization of experiences.

Innovation oriented toward transformation is shown to be close to the urgent needs of the new times and spaces. It delves into a radical approach based on creation and co-creation in shared creation processes based on participation, deliberation, and co-responsibility. This innovation is concerned with '*cualidad*' and focuses on transforming the intrinsic nature of things, especially if they do not answer the questions raised or are sources of new problems. The way things are configured around technical and material innovations is now subject to transformation. Fundamentally, innovation finds its field of implementation in the generation of alternative models (from other ways of thinking), the promotion of experimentation around the acquisition of skills and knowledge (other styles of learning), and the consideration of emotions, motivations, and values of people and citizens (other ways of feeling).

Figure 8: Approach to a Transformative Innovation
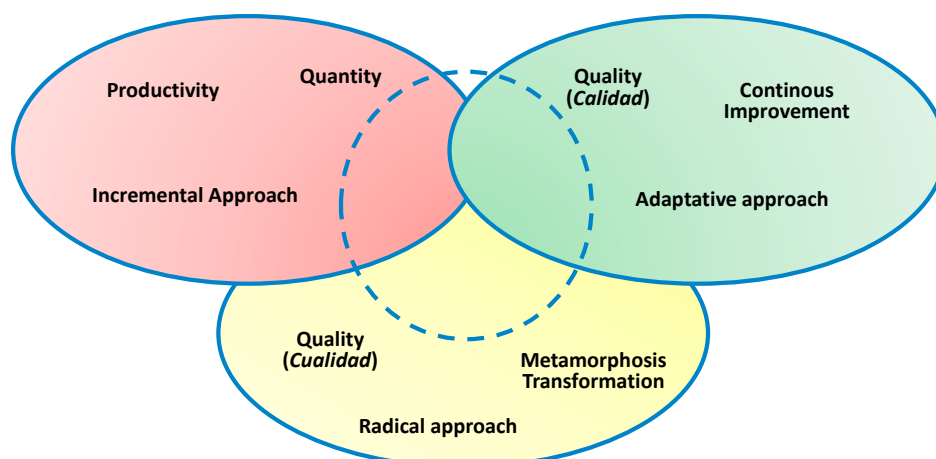
Source: Own elaboration

Smart, Green and Wise City Ecosystem

The city, territory, or community, as an intelligent ecosystem, incorporates technology-based innovation in as many areas of daily life as possible, from the environment to administration and governance, including mobility, economy, quality of life, and people (Arnal & Sarasa, 2020; Berggruen & Gardels, 2013; Vegara & Rivas, 2004). The European Union prioritizes six areas in all lines of work related to technological innovation and the digital transition.

The transtechnological governance of this ecosystem moves in the world of bits (information and communication technologies), atoms (nanotechnology), genes (biotechnology), and neurons (neurosciences, artificial intelligence).

As a green ecosystem, the city, territory, or community proposes its development in environmental, economic, social, and cultural terms. As we have been underlining, the UN focused attention on the first three areas, but UNESCO and other agents have incorporated culture as a source of sustainable development (Avila, 2018; UNESCO, 2016).

The four areas contemplated in transversal governance pursuing greener development of cities, territories, and communities are: environmental (management and sustainable use of land; universal supply and quality of water; air quality; circular waste model; energy transition; balance between centers and peripheries; neutral mobility model; optimization of connectivity...), social (education, health and universal social services; active and healthy ageing; youth emancipation; child protection; reconciliation in adulthood; enhancement of migration; women-men parity and equity; respect for different sexual identities; enhancement of functional diversity; reduction of vulnerability gaps and inequalities...), economic (competitiveness, cooperatives and coopetitiveness, knowledge economy, employability and generation of decent employment, proximity economy, economy of the common good and care; experience economy; glocalization, attractiveness and magnetism...), and cultural (identities; intercultural and interreligious dialogue; conservation and enhancement of heritage; leisure; creativity, learning and innovation...).

A transversal view of the city, territory, or community addresses reality integrally and jointly: territory, environment, population, economy, education, politics, culture, health... It reaches the other side by helping the city become glocal, capable of being from here while also from there. At the same time, it delves into the complexity of more humane and sustainable development.

When we observe the environmental development of the city, territory, or community, we pay attention to the integration of centers and peripheries, of spaces, but also of the people and groups that inhabit them. We rescue the quality and warmth of urban design. We evaluate the more or less harmonious, balanced, sustainable, and smart ways of uniting: territory planning, ordering, regeneration, and revitalization; open spaces, buildings, and homes; energy networks and systems; transport and mobility; communications, networks, and connectivity. From a trans perspective, we encourage implementing collaborative, adaptive, resilient, and acupuncture urban planning processes.

When we analyze the economic development of cities, territories, or communities, we look for people's desire for self-improvement, which enhances their attractiveness and magnetism (Davidson, 2017). It is a look that is associated with concepts such as diversification, specialization, and excellence; industrialization, advanced services, creative, and intangible industries (Florida, 2004; Landry, 2006; Matovic, 2020); competitiveness, productivity, and innovation; the generation of quality jobs; cooperatives, social and common good economy; internationalization, city diplomacy, city-branding, and global positioning; financing and taxation (Acuto, 2010; Curtis, 2010). Our trans perspective highlights personal and collective challenges, together with the necessary cooperation to overcome them.

When discussing a city's social development, we look for its soul: people and citizenship. No city without a soul exists and does not subsist torn apart. Cohesion finds an infinite number of cantons and recesses in which to build a city: gender equality; friendly character toward children, youth, adults, or the elderly; universal accessibility; social inclusion; the fight against poverty and the risk of exclusion (Cortina, 1997), employability (Frey & Osborne, 2013). The trans perspective is not satisfied with a united city; it strives to make it cohesive and active in promoting equity and justice.

When considering cultural development, we direct our gaze to the codes of values, identities, intercultural, and interreligious dialogue. We observe talent, creativity, learning models, and mechanisms for promoting innovation and entrepreneurship. We feel the need to know the degree of development of design, leisure, performing arts, music, sports events, visual arts, architecture, media, advertising and marketing, publishing and print media, digital media and content, sports, language industries, fashion, gastronomy, video games, recreation, tourism, or cultural heritage (Lipovetsky & Serroy, 2010). We feel compelled to provoke disruptive miscegenation from a trans perspective.

We propose developing transversal governance that favors comprehensive human and green development —environmental, economic, social, and cultural— around four values: circularity, co-competitiveness, cohesion, and creativity.

Circular cities, territories, and communities articulate planning and management models aware of the limited nature of spaces, resources, and energy. They can harmoniously integrate centers and peripheries, municipalities, and regions. They promote the regeneration of spaces accompanied by their social revitalization. They develop an adaptive urbanism of small and fine urban acupuncture, profoundly respectful of residents and welcoming to newcomers. Together, they embody a collaborative urbanism in dialogue with habitual and circumstantial users. They do not give up on intelligent urban design. Ecotechnology extends to smart buildings and sustainable homes, improving transport and internal mobility between neighborhoods inside and outside the city and the rest of the planet and developing communications, smart networks, and connectivity. All this aims to rehumanize space, recover the value of ecological balance, and evolve towards socially circular cities, making, in Castells' expression, the spaces of places (proximal) and flows (digital and virtual) converge.

Coopetitive cities, territories, and communities (Branderburger & Nalebuff, 1996) make diversification, specialization, and excellence distinctive signs in a world economy. They are committed to city reindustrialization, an intelligent industrialization complemented by advanced services in dialogue with creative industries. They promote ecosystems of innovation, employability, and entrepreneurship that promote companies' creation, productivity, and sustainability (Mazzucato, 2019). They are open to the internationalization and universalization of their products, services, and experiences. They find their sources of financing based on progressive, equitable, and supportive taxation and generate sufficient confidence for the purposeful entry of external capital. They understand the profound meaning of the new ways of doing things, such as those of the circular and common good economy, to initiate the necessary reorientation of their economic model (McDonough & Braungart, 2002). They make up a recognized city brand, not so much for its made-in character as for its made-by value but for its ability to observe the world and co-create with its people.

Cohesive cities, territories, and communities internalize that harmonious and comprehensive development cannot be achieved without preserving social cohesion. They sew a spider web of complicity that intertwines the glances of women and men; children, youth, adults, and seniors; locals, immigrants, visitors, and tourists; people with diverse capacities; excluded and invisible citizens (Nuusbaum, 2002; Sen, 1985). They are configured from the recognition and involvement of the immense minorities.

Cities, territories, and creative communities promote cultural and creative industries as a strategic sector of the aforementioned reindustrialization process (Florida, 2004; Landry, 2006; Matovic, 2020). But, in the same way, they understand the added value of creation, design, culture, and leisure if it is inserted into any production process or generation of service and experience. They have come to the firm conviction that leisure and culture are not an expense but an investment. An investment in the formation of creative, empowered citizens with the capacity to face new challenges through innovative responses. Lifelong learning processes to develop skills, acquire knowledge, and establish shared values have taken a leading role in this.

The city, territory, or community, as a wise ecosystem, promotes a governance model based on collaboration between sectors and agents and enables complicity between them based on satisfactory collaboration experiences, intending to achieve a more humane and sustainable development through intelligent use of primary or non-technological innovation (Von Hippel, 2005).

The four sectors and agents involved in the trans-sectoral governance of cities, territories, and communities are public institutions, private companies, and non-profit social entities, which comprise organized society, together with anonymous citizens not present in previous.

A cross-sector view of the city infers the relationships between institutions, companies, social entities, and citizens, identifying the relationship flows between them. Upon reaching the other side, it recognizes collaborative leadership models that, based on the particular interests of each sector, advance the common good, the happiness (*bienestar* and *well-being*) of the greatest possible number of people (Csikzentmihalyi, 1997) by delving into reinforced governance and democratic values.

The participation and involvement of the various age and social groups enable transgenerational governance to be more permeable to the needs and demands of the vast minorities.

Considering centers and peripheries in nature, the countryside, cities, and networks configures a transterritorial governance that is more sensitive to asymmetries and locations.

Cities, territories, and communities with a present and a future are active protagonists in a fast-paced and globalized world. They are poles concentrating talent, knowledge, development, and innovation. They promote transformation levers. But, fundamentally, they develop models of democratic governance: between the environment, the economy, society, and culture; between institutions, companies, social entities, and citizens; between age and social groups; between natural, rural, urban, and virtual spaces; and between TIC presence or absence with differentiated foci.

2. Mapping of Engaged Research, UniverCity Engagement and Ecosystems of Innovation

The *Maping of Engaged Research, UniverCity Engagement and Ecosystems of Innovation* is the result of collaborative work between researchers from the various universities of the UNIC European University. Universities and researchers that are part of the EU Horizon UNIC4ER project, focused on *Engaged Research*. It is a first approach to some examples of the engaged research projects developed by researchers and teams from these universities in the cities, territories and communities in which they are located.

Table 3: Partners contribution

Partner	Contribution
UD	Theoretical framework Leader of Task 4.1 and D4.1. T4.1 definition, methodology, survey questionnaire and data colletion process D4.1 compilation, analysys and diagnosis Recommendations
UOULU	WP4 leader Contributor to Task 4.1 Contributor to D4.1
EUR KU UOULU RUB UCC ULIÈGE UNIZG UD	Identification and description of existing Engaged Research Projects, Collaborative Structures, UniverCity Engagement and Ecosystems Review on Engaged Research Literature Review of D4.1 Draft

It is a preliminar exercise in identifying and analysing the effect that these *Engaged Research Strategies* have had and continue to have on the configuration of a *UniverCity Engagement Strategy* and a *City Ecosystem of Transformative Innovation*.

In the first case, as inspiring practices that articulate an *Engaged Research Strategy* and that are progressively integrated into a *UniverCity Engagement Strategy*. In the second case, as facilitating processes of collaborative relationships with public institutions, companies, social entities and citizens that are welcomed in already existing innovation ecosystems, of a diverse nature, and that will mature into a *Ecosystem of Transformative Innovation* of the city, territory or community in which they have an impact.

2.1. Work plan

In the UNIC4ER Strategy Forum in January 2022, UNIC4ER Task Force agreed that all UNIC4ER *Mapping*, questions and information requests, would be combined into a common survey or questionnaire using a common framework. Through this combined approach and using a common framework with different domains, it was agreed that UNIC4ER would develop a more coordinated and comprehensive mapping, and more robust baseline understanding of engaged research across the UNIC Consortium, which will then form the basis of a more informed UNIC4ER *Engaged Research Strategy* and *UniverCities Engagement Strategies*, and building process of *City Ecosystems of Transformative Innovation.*

Subsequently, it has been necessary to seek information for the purposes of deliverable reporting, joined to the common mapping tool.

2.2. Methodology

With the aim of establishing a *Mapping of the Engaged Research, the UniverCity Engagement and Ecosystems of Innovation* generated between the universities participating in UNIC and the environment in which they operate (city, territories and communities), it was introduced a tool that aims to identify and characterise them.

UNIC Taskforce members have been required to map existing engaged research projects, collaborative structures and ecosystems between their cities and universities. Identifying cases that support engaged research with societal partners.

They have been also required to map existing *Engaged Research* concepts, methodologies and inspiring practices literature review, to establish the state of the art in different languages with respect to the engaged research subject, published by researchers from the university itself, from other universities or from research, knowledge or innovation centres in their city, region and/or country.

This survey tries to capture key information on the ecosystems in their city, region and/or country. Some of the survey questions have answered by researchers. However, it has also demanded consultation with key people within the Offices of Research, External Relations, as well as PI's and societal stakeholders. It has been helpful if references and web-links provided where asked for. One interlocutor, for each UNIC University, has been responsible for filling in and sending the following questions.

Below we present the results of the *Mapping of the existing Engaged Research, UniverCity Engagement and Ecosystems of Innovation*, resulting from the process of identification, description, analysis and diagnosis of the collaboration structures and ecosystems generated between universities and the cities, territories and communities in which they are present.

The first part of questionnaire will content the description of the best inspiring engaged research collaborative structures and ecosystems in which the university itself, other universities and research centres, public bodies and institutions, enterprises, non-profit sector and/or citizens participate. These ecosystems can be local, regional or national.

The survey collects the most relevant inspiring cases related to engaged research structures and ecosystems. There is no fixed minimum or maximum number of cases per university. However, it includes a representative set of cases to provide a good overall picture of UNIC's ecosystem. It is repeated the questionnaire for each case of engaged research project, collaborative structure or ecosystem in the city, region and/or country.

In relation to the identification of examples of existing projects, engagement and ecosystems, we establish the following aspects:

- Collaborative Engaged Research, UniverCity Engagement or Ecosystem of Innovation name.

- Link (url).

- Area/department in charge.

- Brief Description.

- Brief Methodology Description.

- Universities and research centres involved (organisation name, department in charge, department, other departments involved, role in the collaborative structure or ecosystem: enabler, developer, utilizer, user / financier-investor-sponsor or sponsored…).

- City government and other public bodies involved (organisation name, department, other departments involved, role played in the collaborative structure or ecosystem: enabler, developer, utilizer, user / financier-investor-sponsor or sponsored…).

- Enterprises involved (organisation name, department, other departments involved, role played in the collaborative structure or ecosystem: enabler, developer, utilizer, user / financier-investor-sponsor or sponsored…).

- Non-profit organisations involved (organisation name, department, other departments involved, role played in the collaborative structure or ecosystem: enabler, developer, utilizer, user / financier-investor-sponsor or sponsored…).

- Citizens involved (socio-demographic characteristics, roles played in the collaborative structure or ecosystem: enabler, developer, utilizer, user / payer-donant or free access…).

Regarding the description of nature, structure, processes, objectives, and activity, it includes a series of questions:

Nature and structure

- Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?

- Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?

- How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?

- What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?

- Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?

Objectives, activity and processes

- Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization Strategy of the region?

- To which themes of the Urban Agenda for EU, the 2030 Agenda, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?

- Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)

- Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?

- Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this?

- What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could UNIC CityLabs add to the collaborative structure or ecosystem? How could UNIC CityLabs contribute to the development of citizen participation in the city? How could UNIC CityLabs contribute to the environmental, economic, social and cultural development of the city?

- Are there any other relevant issues that you would like to share in relation to this particular collaborative structure or ecosystem?

This *Mapping* aims to identify, describe, analyse and establish a preliminary diagnosis of existing collaborative structures and ecosystems in order to develop engaged research in cities, territories and communities.

The *Mapping* process starts with the process of identifying the collaborative structures generated, which are likely to reach the category of ecosystems, according to criteria, such as:

- The territorial scope of local, regional or national intervention.

- The unilateral, bilateral or multilateral agreement.

- The legal support or not of such agreement.

- The actors that are involved.

- The single-thematic or multi-thematic approach of the ecosystem activity.

- The EU funded project and/or ecosystem or not.

The criteria established, a priori, to describe the various cases identified, which could be included as ecosystems, are as follows:

LOCAL
ECOSYSTEM
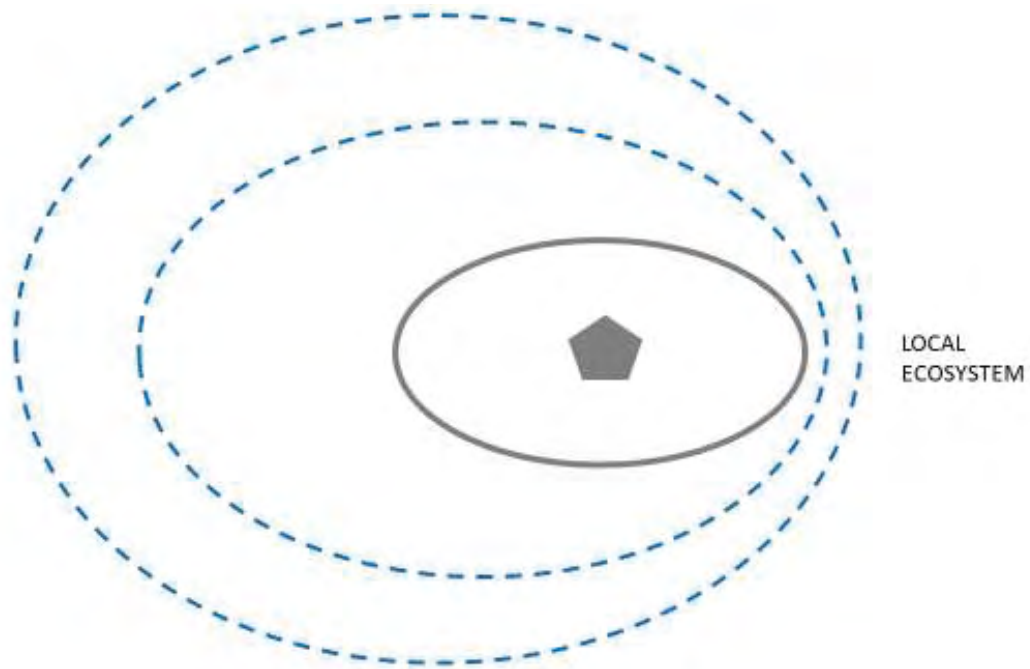
The ecosystem that focuses its activity on the scope of a municipality / city.

Source: Own elaboration, based on partners' documentation

Figure 10: Regional Ecosystem

REGIONAL
ECOSYSTEM
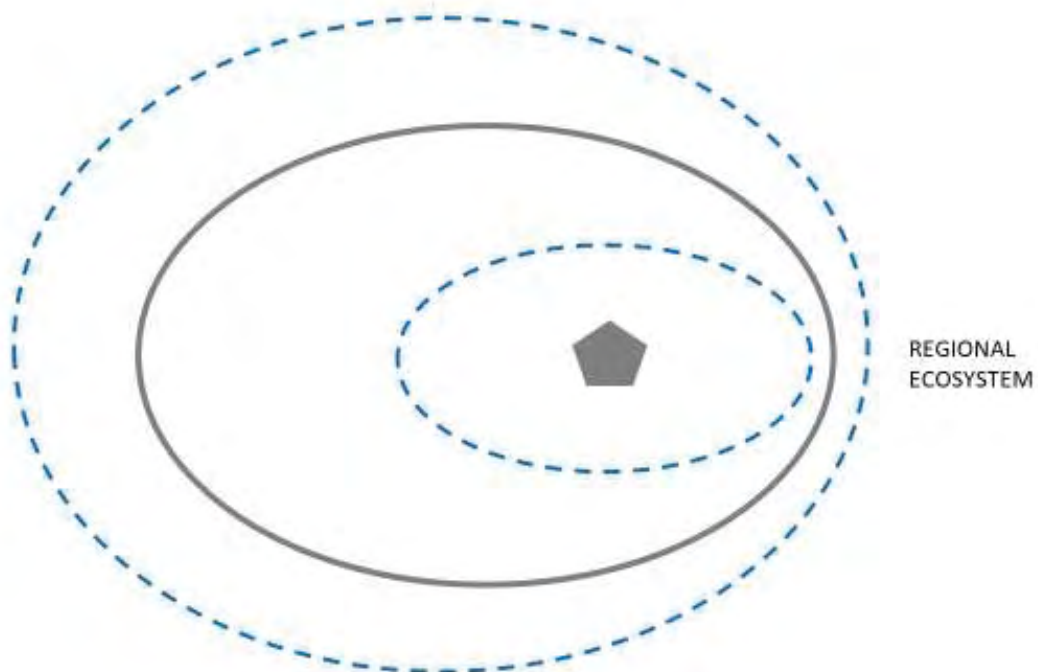
An ecosystem that focuses its activity on the scope of a region.

Source: Own elaboration, based on partners' documentation

Figure 11: National Ecosystem
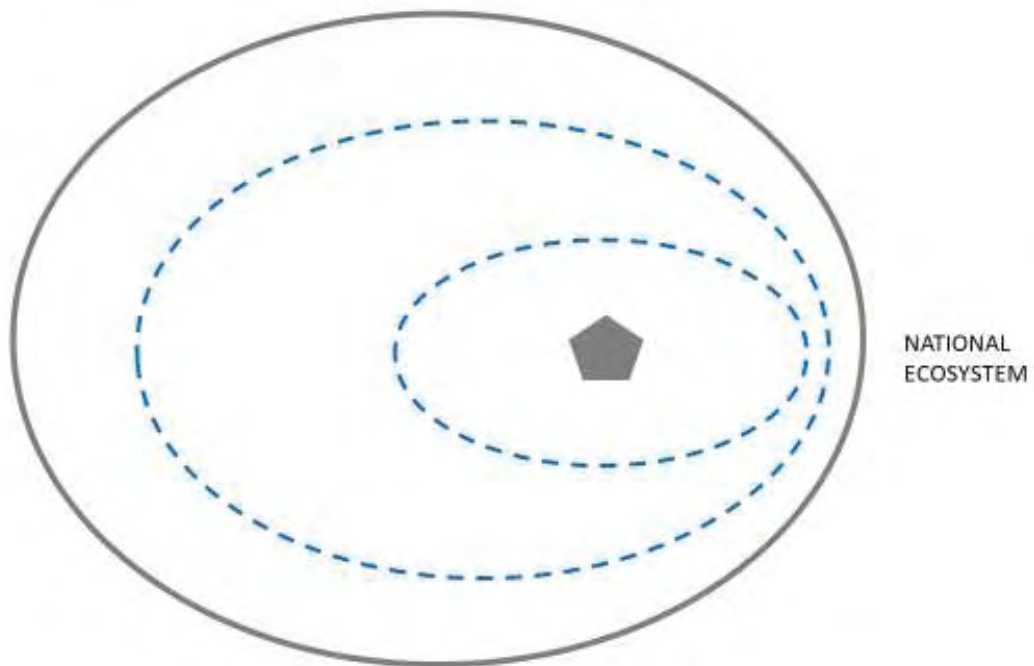
An ecosystem that focuses its activity at the level of a country/state.

Source: Own elaboration, based on partners' documentation

Figure 12: Unilateral Ecosystem
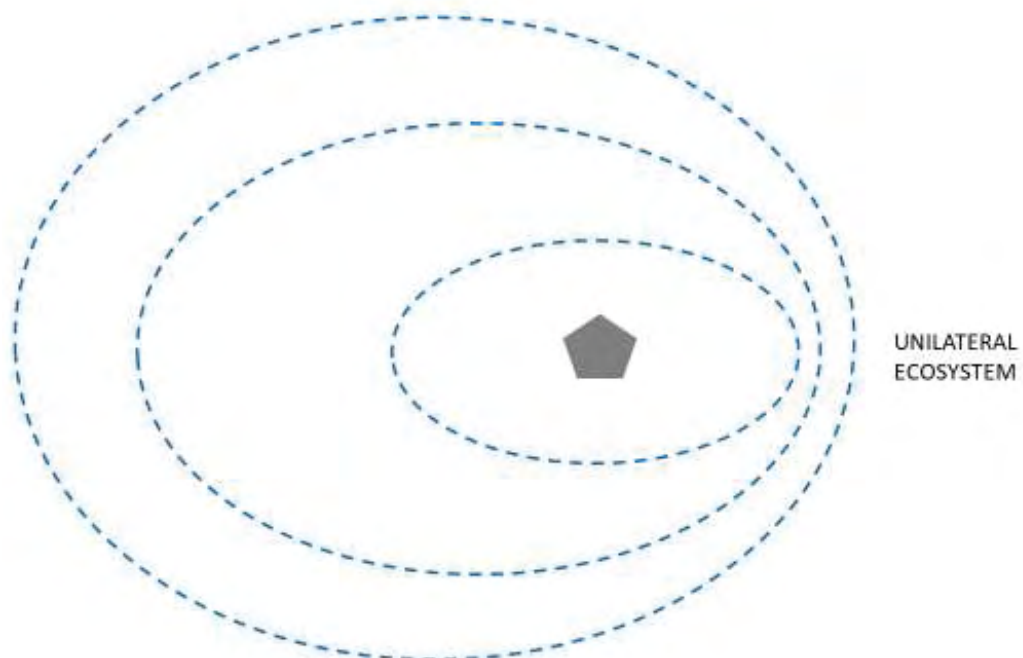
An ecosystem that starts from the initiative of the university's own management bodies and is led and developed by the university itself.

Source: Own elaboration, based on partners' documentation

Figure 13: Bilateral Ecosystem
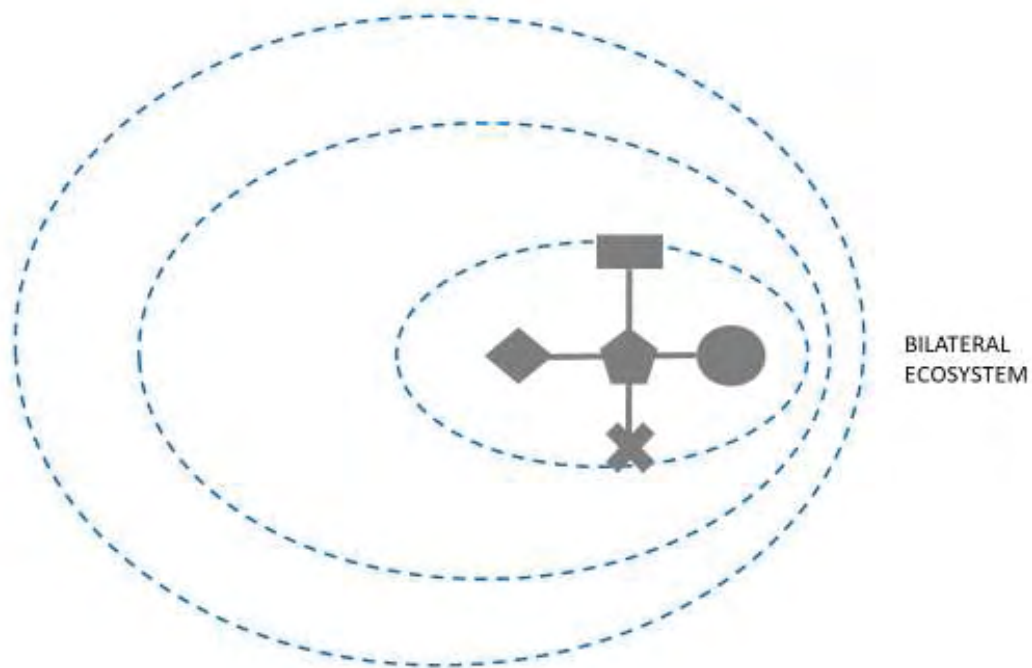
BILATERAL
ECOSYSTEM

An ecosystem that originates from the initiative of the governing bodies of the university itself and another university or research centre, a public institution, a public company or a non-profit organisation.

Source: Own elaboration, based on partners' documentation

Figure 14: Multilateral Ecosystem
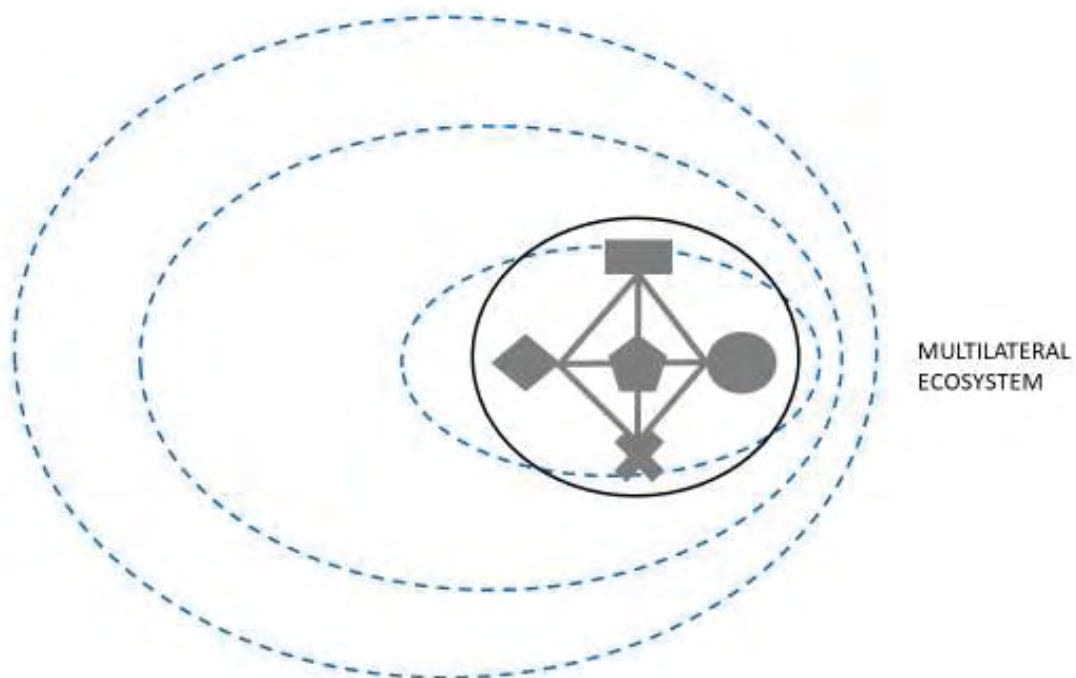
MULTILATERAL
ECOSYSTEM

An ecosystem that is based on the joint initiative of the university itself, other universities or research centres, public institutions, public companies and non-profit organisations.

Source: Own elaboration, based on partners' documentation

Figure 15: Legal Supported Ecosystem
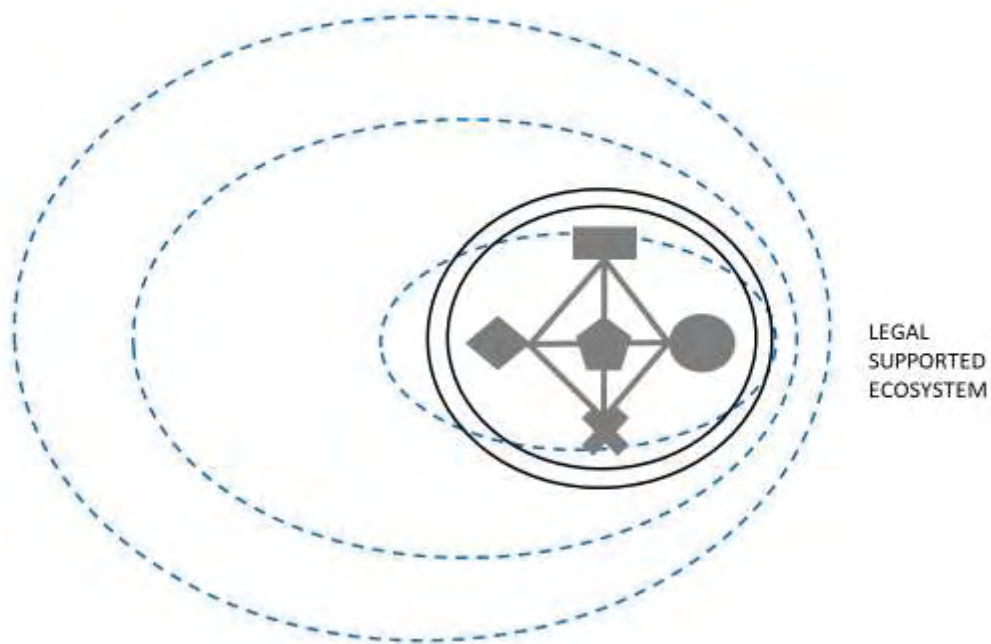
LEGAL
SUPPORTED
ECOSYSTEM

That ecosystem which, involving the university itself, other universities or research centres, public institutions, public companies and/or non-profit organisations, has a legal agreement that supports it and formal structures for direction, management, control, monitoring and evaluation.

Source: Own elaboration, based on partners' documentation

Figure 16: Non-Legal Supported Ecosystem
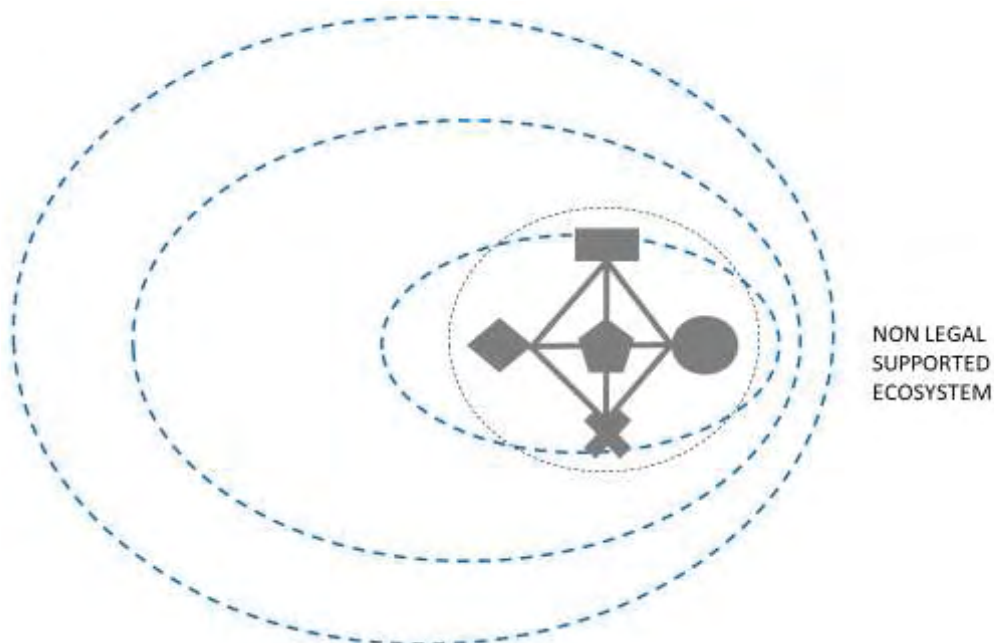
NON LEGAL
SUPPORTED
ECOSYSTEM

That ecosystem which, involving the university itself, other universities or research centres, public institutions, public companies and/or non-profit organisations, does not have a legal agreement that supports it and formal structures for direction, management, control, monitoring and evaluation.

Source: Own elaboration, based on partners' documentation

Figure 17: Mono Thematic Focused Ecosystem
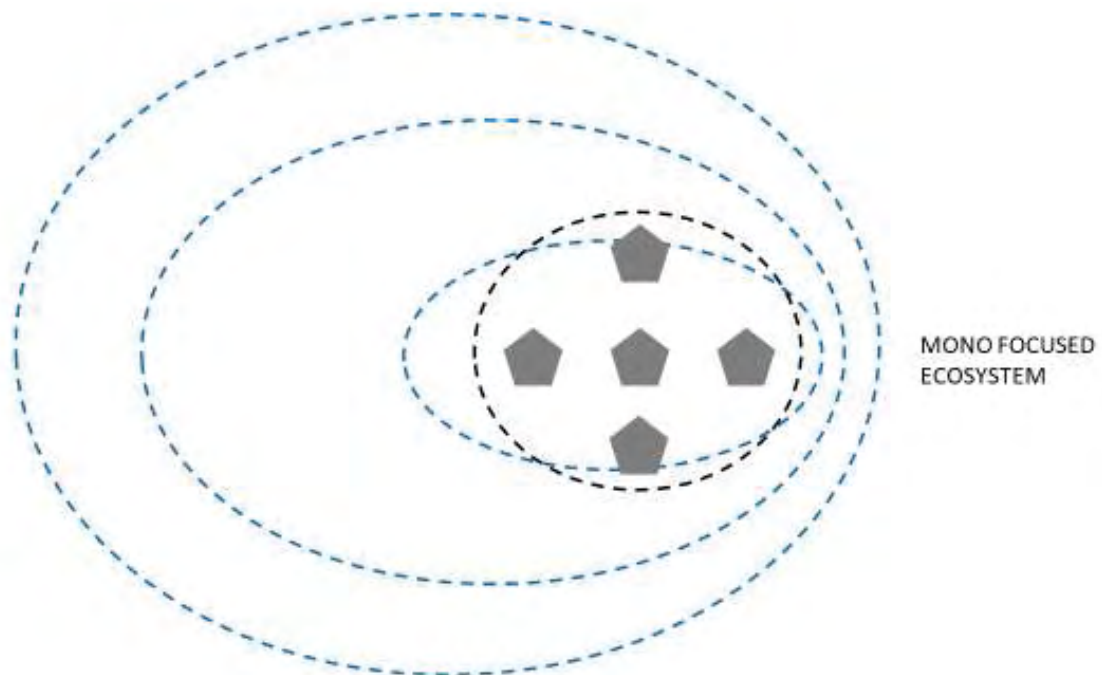
MONO FOCUSED
ECOSYSTEM

An ecosystem that focuses its activity on a single thematic focus: technology, health, migration, climate change, mobility, heritage, poverty, gender equality...

Source: Own elaboration, based on partners' documentation

Figure 18: Multi Thematic Focused Ecosystem
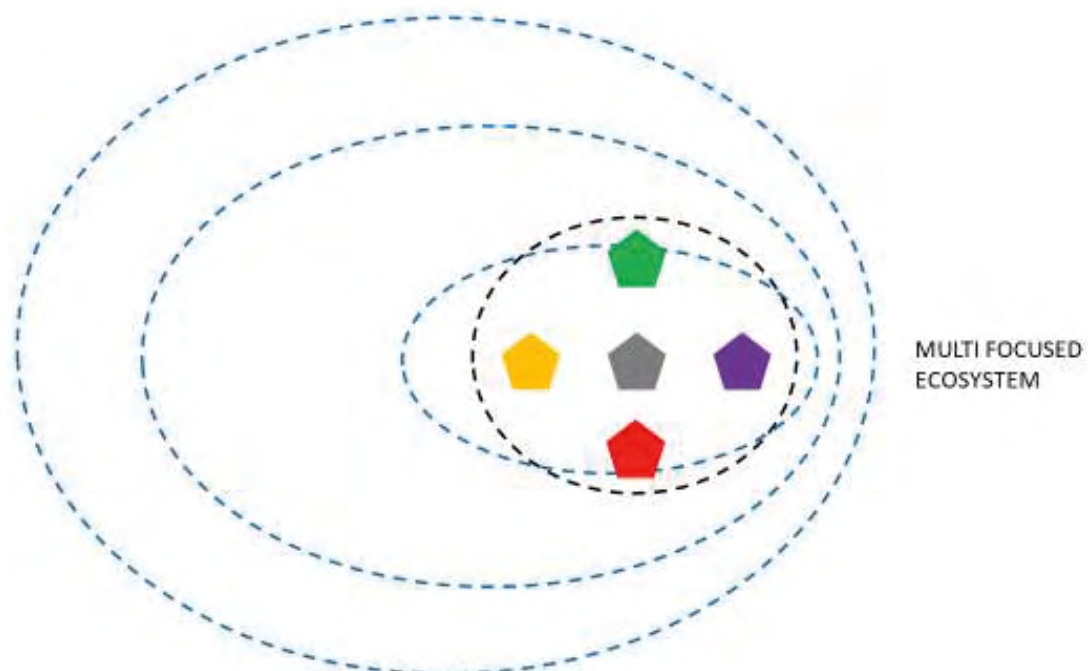
MULTI FOCUSED
ECOSYSTEM

The ecosystem that focuses its activity on several thematic areas: technology, health, migration, climate change, mobility, heritage, poverty, gender equality...

Source: Own elaboration, based on partners' documentation

EU FUNDED
PROJECT
AND/OR
ECOSYSTEM
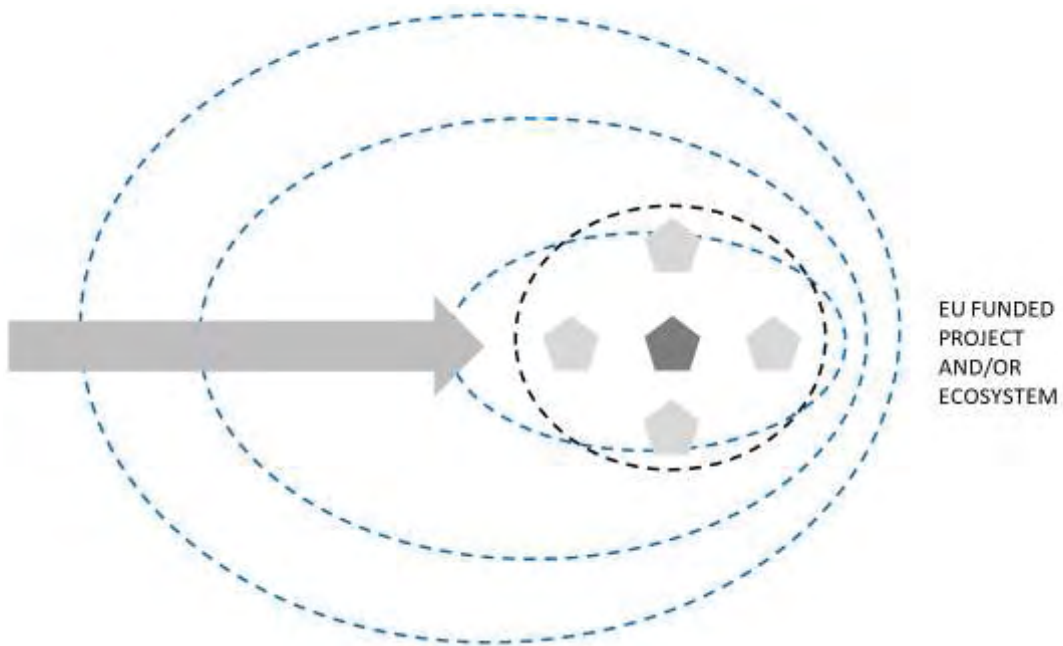
The ecosystem that is supported by EU funding in the development and implementation of itself or one of its projects.

Source: Own elaboration, based on partners' documentation

Figure 20: Non- EU Funded Project and/or Ecosystem

NON-EU FUNDED
PROJECT
AND/OR
ECOSYSTEM
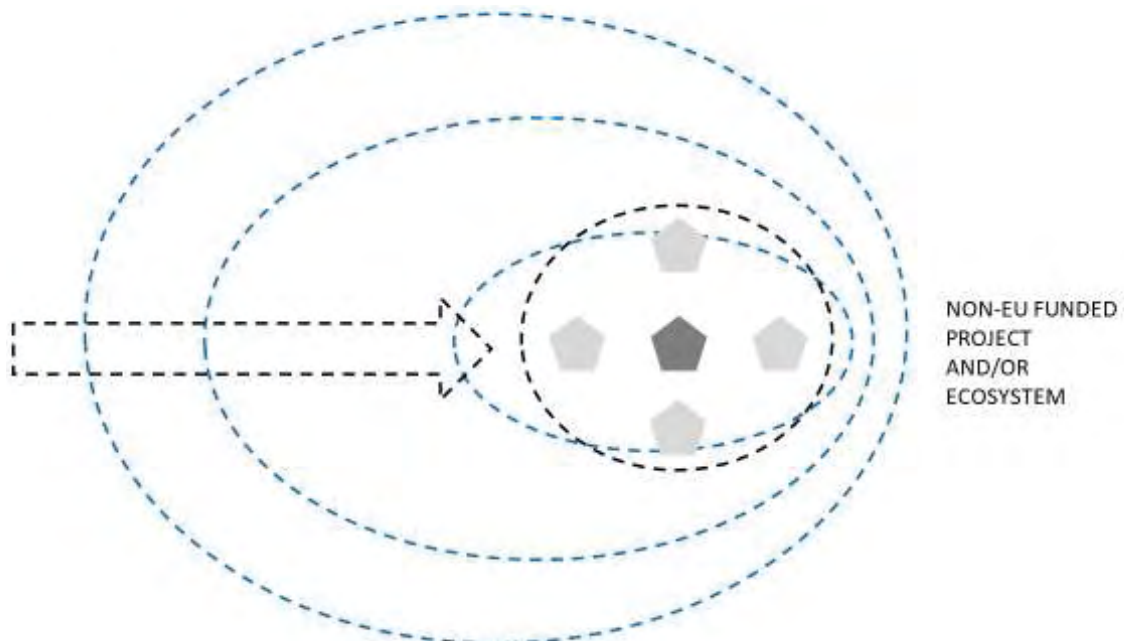
The ecosystem that does not have EU funding in the development and implementation of itself or any of its projects.

Source: Own elaboration, based on partners' documentation

In the following table, we present the set of cases identified by UNIC4ER member *UniverCity Engagement* contexts that we describe as ecosystems or sub-ecosystems/collaborative structures.

Table 4: Volume of identified collaborative structures and ecosystems

Total UniverCity Engagement and Ecosystems	Universities	Engagement Structures per University	Ecosystems per University
38	EUR	8	3
	KU	4	4
	OULU	5	3
	RUB	8	1
	UCC	2	2
	ULIEGE	5	5
	UNIZG	3	3
	UD	3	3

Source: Own elaboration, based on partners' documentation

63% of the projects referenced respond to the characteristics of integral innovation ecosystems.

2.3. Inspiring Practices

In the introduction, the main features of each one are highlighted in relation to: territorial scope, type of agreement, involved actors, legal support or not, single or multi-thematic approach, EU funded project or not. Subsequently, a small fact sheet is included with descriptive data and the agents involved. Finally, the response to a brief questionnaire on the nature, structure, objectives, activity and processes.

Table 5: Main features of each collaborative structure and ecosystem

Local / Regional / National Territorial Scope	
Uni / Bi / Multilateral Agreement	
Involved Actors **Universities / Public / Private / Non-profit / Citizens**	
Mono / Multi Focused	
Non / Leal Supported	
Non / Permanent Funded	

Source: Own elaboration, based on partners' documentation.

2.3.1. CONVERGENCE (EUR)

01 ECOSYSTEM	CONVERGENCE			
ERASMUS UNIVERSITY ROTTERDAM				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	
Regional		Public		Multi
	Multilateral	Private		
		Non-Profit		

Figure 21: Convergence (EUR)
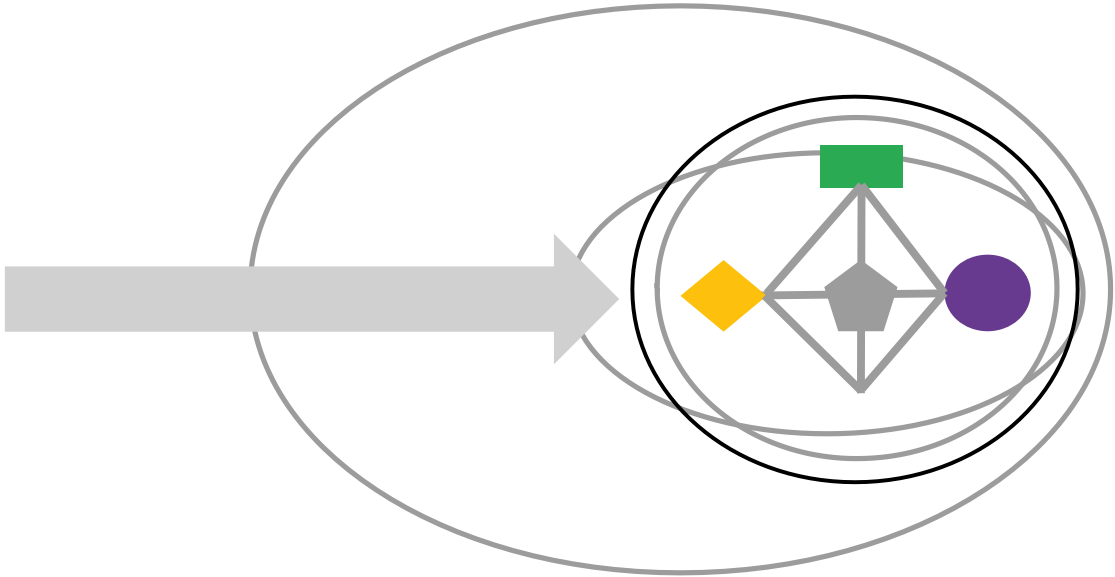
Source: Own elaboration, based on partners' documentation

01.01 SUB-ECOSYSTEM	CONVERGENCE – RESILIENT DELTA
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://convergence.nl/nl/resilient-delta https://www.eur.nl/en/about-eur/collaboration/partnerships/convergence-eur-erasmus-mc-tu-delft
Area/Department in Charge	*Erasmus University Rotterdam* Resilient Delta has its own project team. Some people officially work for EUR and some for TUD
Brief Description	TU Delft, Erasmus University Rotterdam and Erasmus MC joined forces and are integrating knowledge, expertise and methodology. Through convergence, we form novel frameworks that foster scientific discovery and technological innovation. Resilient Delta's mission is to design resilience solutions in the Rotterdam delta and to implement these solutions around the globe. Our aim is to develop an integrated approach to addressing the major societal issues that the Rotterdam region is increasingly confronted with, such as rising sea levels, poverty and inequality, air pollution, population density and major technological changes. The Resilient Delta Initiative aims to be a pioneer in designing solutions to the pressing societal issues related to the big transitions of our time. The convergence between the institutions involved, with their close physical proximity and complementary expertise, will allow for long-term resilience solutions for the urban problems and challenging geographical context of the delta.
Brief Methodology Description	Our theme "methodology" focuses on methodological solutions and transdisciplinary within Resilient Delta and for convergence. It answers questions such as: How to make scientists work together from different disciplines. How to integrate knowledge from non-academic partners?
Universities and Research Centres	• Hogeschool Rotterdam • Veldacademie
City Government and other Public Bodies	• Municipal Health Services • Local GP's • National Programme Rotterdam South • Province of South Holland • Municipality of Rotterdam
Enterprises	• MercerMarch • Zilveren-Kruis/Achmea • Randstad/Tempo Team • Verbond van verzekeraars • Heijmans • Ahoy
Non-profit Organisations	• Deltares • S.V. GIO
Citizens	

01.02 SUB-ECOSYSTEM	CONVERGENCE – HEALTH AND TECHNOLOGY
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://convergence.nl/health-technology/ https://www.eur.nl/en/about-eur/collaboration/partnerships/convergence-eur-erasmus-mc-tu-delft
Area/Department in Charge	*Erasmus University Rotterdam* Health and Technology has its own project team. Some people officially work for EUR and some for TUD
Brief Description	TU Delft, Erasmus University Rotterdam and Erasmus MC joined forces and are integrating knowledge, expertise and methodology. Through convergence, we form novel frameworks that foster scientific discovery and technological innovation. Through convergence, we will form novel frameworks that foster scientific discovery and technological innovation in the field of health and healthcare.
Brief Methodology Description	We are convinced that the healthcare challenges require a completely different approach than we have applied so far. We are going to tear down the boundaries between different disciplines and institutions. We will combine all our scientific strengths, knowledge and methods to realise a thriving ecosystem where researchers, students, society, government, entrepreneurs and industry achieve a stimulating and efficient cross-pollination between their ideas, procedures, instruments and products to create the future of health and healthcare. We will educate the next generation of professionals with interdisciplinary skills and competencies in this ecosystem, where they can interact, inspire, co-create, learn, and strengthen each other. Convergence for Health and Technology is ambitious to become a global leader in health and technology. We are striving for: Lifelong health, from pre-birth to end of life; Socioeconomic equality in health(care); Prevention and early diagnostics to proactively maintain health; Individually tailored precise medical treatment for all
Universities and Research Centres	• Hogeschool Rotterdam • Veldacademie
City Government and other Public Bodies	• Municipal Health Services • Local GP's • National Programme Rotterdam South • Province of South Holland • Municipality of Rotterdam
Enterprises	• MercerMarch • Zilveren-Kruis/Achmea • Randstad/Tempo Team • Verbond van verzekeraars • Heijmans • Ahoy
Non-profit Organisations	• Deltares • S.V. GIO
Citizens	

01.03 SUB-ECOSYSTEM	CONVERGENCE – ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://convergence.nl/health-technology/ https://www.eur.nl/en/about-eur/collaboration/partnerships/convergence-eur-erasmus-mc-tu-delft
Area/Department in Charge	*Erasmus University Rotterdam* Artificial Intelligence and Data Sciende has its own project team. Some people officially work for EUR and some for TUD
Brief Description	TU Delft, Erasmus University Rotterdam and Erasmus MC joined forces and are integrating knowledge, expertise and methodology. Through convergence, we form novel frameworks that foster scientific discovery and technological innovation. TU Delft, Erasmus University Rotterdam and Erasmus MC join forces in the Convergence. The urgent and complex societal challenges of our time ask for fundamentally new forms of cooperation, whereby the boundaries between institutes and disciplines are crossed to create new perspectives and solution
Brief Methodology Description	The digital transformation is irreversible and fast. It has changed much over the past decade. Artificial intelligence (AI) plays a key role in digitisation. AI has endless applications. It expectes to have a massive socio-economic impact, and it relates to many challenges we are facing. As part of the theme AI, Data & Digitalisation, we study together how we can contribute to these challenges in society and health care 'with' and 'in' AI, and how the global scientific world can take a permanent leading role in this field. If we do this together, and based on different disciplines, we can take huge strides. For that reason, the universities and the university medical centres in South Holland are joining forces in the knowledge cluster for 'AI, Data & Digitalisation'.
Universities and Research Centres	• Hogeschool Rotterdam • Veldacademie
City Government and other Public Bodies	• Municipal Health Services • Local GP's • National Programme Rotterdam South • Province of South Holland • Municipality of Rotterdam
Enterprises	• MercerMarch • Zilveren-Kruis/Achmea • Randstad/Tempo Team • Verbond van verzekeraars • Heijmans • Ahoy
Non-profit Organisations	• Deltares • S.V. GIO
Citizens	

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Not yet
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Yes, we initiated several kickstart projects
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
There is a general agreement between the 3 universities
Is what way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Co creation and collaboration in projects
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The resilient Delta team

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
We are working on that
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
There is a lot of overlap here: air quality, circular economy, climate adaptation, digital transition, energy transition, housing, inclusion of migrants and refugees, jobs and skills in the local economy, sustainable use of land and nature-based solutions, urban mobility, urban poverty…
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Yes
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Not yet
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
This is our wish, but at this moment, we have limited resources for that.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
Not clear, knowledge of UNIC too limited for that to define clearly

2.3.2. ERASMUS RESEARCH INITIATIVE (EUR)

02 ECOSYSTEM	ERASMUS RESEARCH INITIATIVE			
ERASMUS UNIVERSITY ROTTERDAM				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local	Unilaeral	Universities	Legal	
Regional				Multi

Figure 22: Erasmus Research Initiative (EUR)

Source: Own elaboration, based on partners' documentation

02.01 SUB-ECOSYSTEM	ERASMUS RESEARCH INITIATIVE – DYNAMICS OF INCLUSIVE PROSPERITY
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://www.eur.nl/en/research/erasmus-initiatives/dynamics-inclusive-prosperity
Area/Department in Charge	Erasmus University Rotterdam
Brief Description	The Erasmus Initiative 'Dynamics of Inclusive Prosperity' (DoIP) is a research collaboration around one of EUR's academic strengths. It was founded in 2017. It focuses on enabling as many people as possible to benefit from increasing prosperity, whilst minimising the negative consequences. Increased prosperity requires constant coordination of the changing needs and values of governments, businesses, citizens and entrepreneurs. In order to chart this dynamic field, scholars from Erasmus School of Law, Rotterdam School of Management and the Erasmus School of Philosophy entered into a multidisciplinary partnership.
Brief Methodology Description	Several projects run under the umbrella of DoIP. In each project scholars from at least two of the above mentioned three schools participate, e.g. from law and philosophy. A core team (the management team and the academic team) secures coherence between the projects. Projects typically run for several years and sometimes involve collaboration with external parties, such as other universities, municipalities or groups of companies. None of those external parties is a formal partner in DoIP as such. Some of the projects are externally funded, e.g. by the Dutch Research Council.
Universities and Research Centres	The initiative is funded by the Erasmus University Rotterdam's Executive Board and co-funded, in cash and in kind, by Rotterdam School of Management, Erasmus School of Law, and Erasmus School of Philosophy.
City Government and other Public Bodies	No external parties as formal partners in DoIP, only involvement at project level. The collaboration is based on specific research expertise across campus and the desire to bring it together in order to address grand societal challenges in an interdisciplinary way. In the case of DoIP that challenge is the realization of inclusive prosperity.
Enterprises	Through collaboration in projects. External parties are not formal partners in DoIP as a whole, nor in its governance structure.
Non-profit Organisations	
Citizens	

02.02 SUB-ECOSYSTEM	ERASMUS RESEARCH INITIATIVE – SMARTER CHOICES FOR BETTER HEALTH
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://www.eur.nl/onderzoek/erasmus-initiatives/smarter-choices-better-health
Area/Department in Charge	Erasmus University Rotterdam
Brief Description	SCBH is a collaborative research programme, dedicated to making health care better and more affordable. It was founded in 2017 together with the other Erasmus Initiatives DoIP and VCC.
Brief Methodology Description	Work is organised in four Action Lines. Structure per Action Line is very similar. Coherence between the Action Lines is strong. Work within Action Lines is performed in projects, which sometimes involve external parties, such as universities, insurance companies, health tech providers and patient groups.
Universities and Research Centres	Through collaboration in projects. External parties are not formal partners in DoIP as a whole, nor in its governance structure. Some of the projects are externally funded, e.g. by the Dutch Research Council or the EU.
City Government and other Public Bodies	
Enterprises	
Non-profit Organisations	
Citizens	

02.03 SUB-ECOSYSTEM	ERASMUS RESEARCH INITIATIVE – VITAL CITIES AND CITIZENS: CONTRIBUTE TO THE QUALITY OF CITY LIFE
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://www.eur.nl/en/research/erasmus-initiatives/vital-cities-and-citizens
Area/Department in Charge	Erasmus University Rotterdam
Brief Description	How can a city give space to diversity and make citizens feel like they belong? How do residents deal with changes within their environment? What role does smart technology play in the governance of a city? Additionally, what is needed for a city to be sustainable and just in the future? These questions are key in the Erasmus Initiative 'Vital Cities and Citizens.' The aim of the Erasmus Initiative 'Vital Cities and Citizens' is to strengthen the quality of life within cities. We want to achieve this by forming a network with municipalities, civil society organizations, initiatives, companies and the creative industry while sharing knowledge with each other on the basis of scientific research.
Brief Methodology Description	Several projects run under the umbrella of DoIP. In each project scholars from at least two of the above mentioned three schools participate, e.g. from law and philosophy. A core team (the management team and the academic team) secures coherence between the projects. Projects typically run for several years and sometimes involve collaboration with external parties, such as other universities, municipalities or groups of companies. None of those external parties is a formal partner in DoIP as such. Some of the projects are externally funded, e.g. by the Dutch Research Council.
Universities and Research Centres	Through collaboration in projects. External parties are not formal partners in DoIP as a whole, nor in its governance structure. Some of the projects are externally funded, e.g. by the Dutch Research Council or the EU.
City Government and other Public Bodies	
Enterprises	
Non-profit Organisations	
Citizens	

02.04 SUB-ECOSYSTEM	ERASMUS RESEARCH INITIATIVE – SOCIETAL IMPACT OF AI: AUGMENTED HUMANITY AND SOCIETY WITH ARTIFICIAL INTELLIGENCE
ERASMUS UNIVERSITY ROTTERDAM	
Link	https://www.eur.nl/en/research/erasmus-initiatives/societal-impact-ai
Area/Department in Charge	Erasmus University Rotterdam
Brief Description	Whether it's grocery shopping or dating, managing our work life, or streaming a show on Netflix—artificial intelligence (AI) has changed our daily lives tremendously, both on a personal and professional level. What does this mean, for individual citizens and society as a whole? What can we expect in the future and how can we use the potential of AI while keeping risks to a minimum? This Erasmus Initiative aims for innovative and interdisciplinary research and education in AI that places people and society centre stage. Together with key stakeholders we set the expectations for implementations of AI benefiting society. Through setting the expectations, we seek to engage the public with the rapidly evolving integration of AI in society. We focus on four key domains of our society, tackling cross-cutting hot topics such as urban AI, AI street art, sustainability, equal opportunities, diversity and inclusion.
Brief Methodology Description	Several projects run under the umbrella of DoIP. In each project scholars from at least two of the above mentioned three schools participate, e.g. from law and philosophy. A core team (the management team and the academic team) secures coherence between the projects. Projects typically run for several years and sometimes involve collaboration with external parties, such as other universities, municipalities or groups of companies. None of those external parties is a formal partner in DoIP as such. Some of the projects are externally funded, e.g. by the Dutch Research Council.
Universities and Research Centres	Through collaboration in projects. External parties are not formal partners in DoIP as a whole, nor in its governance structure. Some of the projects are externally funded, e.g. by the Dutch Research Council or the EU.
City Government and other Public Bodies	
Enterprises	
Non-profit Organisations	
Citizens	

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
It is an interdisciplinary research centre in which researchers meet to discuss their ideas and interact and learn from each other. We offer a platform to both members and interested external stakeholders to benefit from the skills and knowledge represented by our team members, but it is not a generic collaboration structure. It has a specific focus on certain themes related to Inclusive Prosperity.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
We are not a typical collaborative structure. The collaboration is based on specific research expertise across campus and the desire to bring it together in order to address grand societal challenges in an interdisciplinary way. In the case of DoIP that challenge is the realization of inclusive prosperity.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Commitment letter from the Executive Board guaranteeing multi-annual funding, together with a framework of requirements. Multi-annual plan that describes the main activities and includes a budget till the end of 2025.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Through collaboration in projects. External parties are not formal partners in DoIP as a whole, nor in its governance structure.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The Management Team of DoIP (4 people) together with the Academic Team (6 people).

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
DoIP is a dedicated programme with an emphasis on interdisciplinary research collaboration. It is not a generic structure for collaboration per se. Its focus resulted from an assessment of the core research strengths of EUR, not on a specialization of the region. Joint objectives with the city do not exist yet, but several contacts with representatives of the City of Rotterdam exist and the conversation with them about the role of the Erasmus Initiatives is ongoing.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Urban Agenda for the EU: circular economy, sustainable use of land and nature-based solutions, urban mobility, urban poverty SDGs: G1, G2, G4, G5, G6, G7, G8, G9, G11, G12, G15, G16 and G17
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Yes, the collaboration is primarily aimed at Research. See our website for more information about our focus topics.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Yes. Mostly through interviews.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
We aim to disseminate the knowledge accrued within the initiative. Via our social media channels as well as media appearances we reach an interested public, and we participate in the traditional academic discourse (publications, conference participation, speeches, etc.).
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
Several of our projects require citizen participation, mostly through interviews. Having a structure such as the UNIC CityLabs in place at EUR would be beneficial not only for our initiative, but also for other researchers. The CityLabs could support outreach to the citizen, offer an already existing locale for conducting interviews, so that researchers don't have to set up the structure for this themselves. UNIC CityLabs could contribute to the development of citizen participation in the city making sure that there is an already existing setup all researchers at the university can use.

2.3.3. DOT (EUR)

03 ECOSYSTEM	DIT - DESIGN IMPACT TRANSITION PLATFORM. STRATEGY2024			
ERASMUS UNIVERSITY ROTTERDAM				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local	Unilaeral	Universities		
Regional			Non Legal	Multi

Figure 23: DIT (EUR)
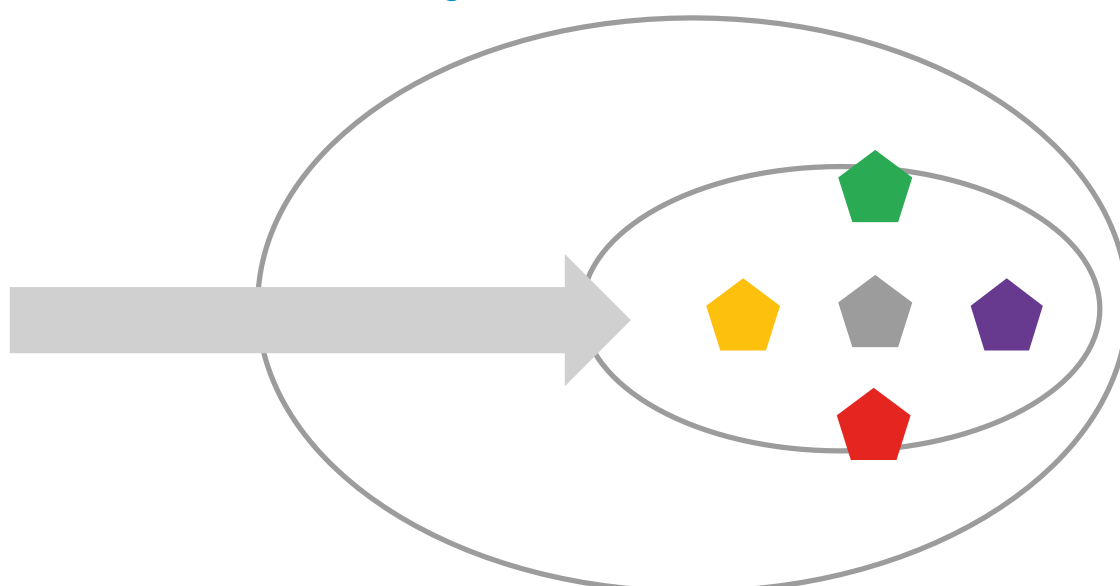
Source: Own elaboration, based on partners' documentation

03 ECOSYSTEM	DIT. DESIGN IMPACT TRANSITION PLATFORM. STRATEGY2024

ERASMUS UNIVERSITY ROTTERDAM

Link	https://www.eur.nl/en/about-eur/strategy-2024/strategy-practice/dit-platform
Area/Department in Charge	Erasmus University Rotterdam
Brief Description	As a platform, we bring together academics, students, non-academic staff and external stakeholders around complex and persistent societal challenges. We aim to build a strong and engaged community and a collaborative, experimental and design-based culture of trans-disciplinarity. DIT is at the heart of the EUR Strategy, living the Erasmian values of global citizenship, social commitment, an open and critical mind-set, cooperation and entrepreneurial spirit. Our team consists of dedicated Erasmians that work on building the DIT platform and transforming the university from the ground up. The core team consists of three quartermasters, plus an organisational lead and an academic lead, complemented by affiliated academics from various Schools and Institutes. You can always contact the core team if you have questions, remarks or if you want to contribute to the platform.
Brief Methodology Description	DIT works on three core domains: transformative research, transformative education and transformative engagement for impact, taking on the following roles: • *Challenging and confronting* existing disciplines and dogmas • *Signaling and showing* another way of working in academia • *Attracting and connecting* people across and beyond the academic world • *Facilitating and supporting* everyone who wants to be a part of this • *Developing and sharing* concepts and approaches on transformative academic work Building DIT together is an action research experiment in itself: we try to find out the best ways to organise and institutionalise transdisciplinary and engaged academic work for just and sustainable futures.
Universities and Research Centres	Erasmus University Rotterdam, Algemene Bestuursdienst, Strategy Office: department in charge. Other initiatives/departments: Erasmus Sustainability Hub : student initiative, Erasmus Data Collaboratory, RSM, Govern, , ESSB, Governance Design School / Govlab010, Institute of Social Studies, DRIFT,The Partnership Resource Centre, Erasmus Initiative, Centre for Eco-Transformation, Strategy2024 and all related initiatives. Leiden Delf Erasmus: Centre for Sustainability.
City Government and other Public Bodies Enterprises Non-profit Organisations Citizens	• Blue City Rotterdam: collaborator

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
The DIT platform is a platform located under the university's central strategy office. This means we operate in between and in collaboration with all schools and services at our university. We currently offer a Slack workspace as a communication channel, as well as a physical space, a newsletter via email and a Linkedin organisation profile. We also keep a list of people involved in our events and activities to be able to approach them again if we're organising something on the same topic.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
While DIT platform offers a platform to others who are interested in organising activities in relation to our core themes, we do take an active role in supporting/organising these activities. We have a core team consisting of three quartermasters, one organisational lead and one academic lead who make decisions on activities and divide supporting tasks.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
DIT is formalised as a strategy project in the university's Strategy for 2020-2024. There is no particular legal support for the platform
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
DIT platform is part of Erasmus University Rotterdam (EUR) and as such works closely together with other departments, schools and institutes at EUR.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The core team of DIT platform and the Strategy board at Erasmus university.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
No joint objectives have been defined in collaboration with the region.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
The Design Impact Transition platform empowers radically new ways to do research, education and engagement for a just and sustainable future. In relation to the goals and agendas mentioned, this means that we are mostly focused on supporting research and education on these topics, more so than focusing on specific elements of these in our activities. Indirectly research and education will be able to contribute to most elements of these lists, but below I included only the goals that most closely align with our main aim. In general, we tend to zoom out and consider what is necessary at our university for it to contribute positively on these topics instead of directly working on the topics. Urban Agenda for the EU: circular economy, climate adaptation, culture and cultural heritage, energy transition, innovative and responsible public procurement, urban mobility. SDGs: G4, G11, G16 and G17. New Urban Agenda: Social sustainability, economic sustainability, environmental sustainability
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
The DIT platform does not have RDI strategies or roadmaps.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
So far, we have not involved citizens, although in general our evens are open to them, we don't specifically reach out to them at this time.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
DIT platform is oriented at supporting and disseminating activities as well as setting up its own activities and projects. In doing this we work together with other initiatives on campus. For dissemination we have used various methods, consisting of: Slack, Email newsletters (our own as well as those of other initiatives and departments), Flyers, Linkedin, social media of partner organisations on campus (university-wide channels, student associations etc.), Intranet, UniLife app, directly reaching out to personal network contacts.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
So far, we have mostly collaborated with UNIC4ER, we have been talking about collaborations with other parts of the UNIC programme, including citylabs, but no plans have been developed yet. There are certainly opportunities for collaboration with citylabs, since DIT platform is looking to include student projects into the new transdisciplinary masters that we're developing and citylabs could also align with research activities at DIT or by the academics in our teams.

2.3.4. STRENGTHS (KU)

04 ECOSYSTEM	STRENGTHS – SCALING UP PSYCHOLOGICAL INTERVENTIONS WITH SYRIAN REFUGEES			
KOC UNIVERSITY				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	Mono
Regional				
National	Multilateral			
		Non-Profit		
		Citizenship		

Figure 24: Strengths (KU)
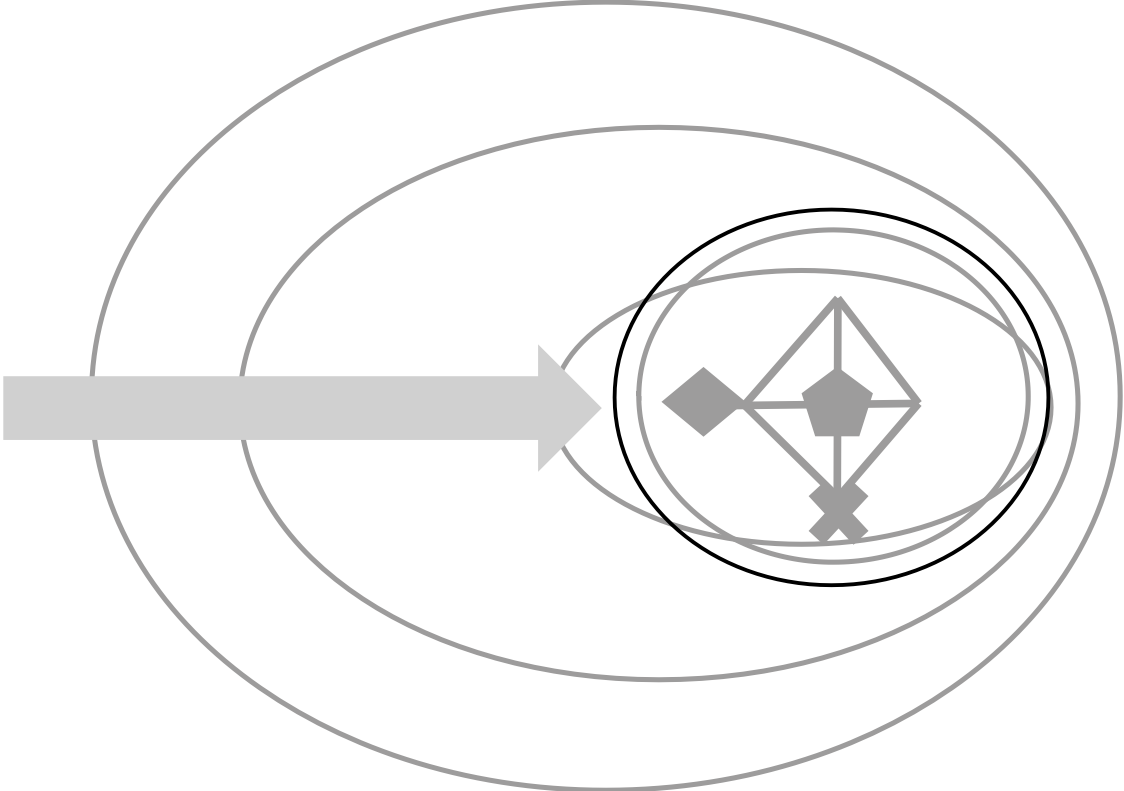
Source: Own elaboration, based on partners' documentation

04 ECOSYSTEM	STRENGTHS – SCALING UP PSYCHOLOGICAL INTERVENTIONS WITH SYRIAN REFUGEES
KOC UNIVERSITY	
Link	http://strengths-project.eu/en/strengths-home/
Area/Department in Charge	Psychology Department, Koc University
Brief Description	The STRENGTHS project aims to improve the responsiveness of mental health systems in Europe and Middle Eastern countries by integrating mental health services for adult and adolescent Syrian refugees into primary and community care systems. This will be achieved by translating and culturally adapting a psychological intervention (the Problem Management Plus – PM+) developed by the World Health Organization (WHO) to use with adult and child Syrian refugees. STRENGTHS will study the scale-up of these programmes for Syrian refugees with elevated levels of distress and reduced functioning.
Brief Methodology Description	A randomized controlled trial (RCT) was conducted with 369 Syrian refugees in Turkey. After providing informed consent, participants with high levels of psychological distress and functional impairment were randomly assigned to Group PM+/enhanced care as usual (Group PM+/E- CAU) or E-CAU only. Outcome assessments took place 1 week after the fifth session (post-assessment), 3 months after the fifth session and 12 months after baseline assessment. The primary outcome was psychological distress as measured by the Hopkins Symptom Checklist (HSCL-25). Secondary outcomes included functional impairment, post-traumatic stress symptoms, self-identified problems, and health system and productivity costs. A process evaluation was conducted to explore the feasibility, challenges and success of the intervention including participants, facilitators, policy makers and mental health professionals.
Universities and Research Centres	• Vrije Universiteit, Amsterdam, Department of Clinical, Neuro and Developmental Psychology (coordinator) • Koc University, Department of Psychology (partner) • Freie Universität Berlin, Division of Clinical Psychological Intervention (partner) • The Royal Tropical Institute, Department of Health (partner) • London School of Economics and Political Science, Care Policy and Evaluation Centre (CPEC) (partner) • London School of Hygiene and Tropical Medicine, Department of Health Services Research and Policy (partner) • University of New South Wales, The School of Psychology (partner) • University Hospital Zurich, The Department of Psychiatry and Psychotherapy (partner)
City Government and other Public Bodies	There were no city governments nor public bodies involved in the project. The consortium consisted of universities and non-governmental organizations which are listed below and above.
Enterprises	There were no enterprises involved in the project. The consortium consisted of universities and non-governmental organizations which are listed below and above.

Non-profit Organisations	• Mülteciler ve Sığınmacılar Yardımlaşma ve Dayanışma Derneği (Refugees and Asylum Seekers Assistance and Solidarity Association - RASASA) (partner) • International Medical Corps UK, IMC Regional Technical Unit – Middle East (IMC) (partner) • The United Nations High Commissioner for Refugees (UNHCR) (partner) • ARQ National Psychotrauma Centre (partner) • War Child Holland (partner) • i-psy (partner) • Danish Red Cross, IFRC Reference Centre for Psychosocial Support (DRC) (partner)
Citizens	The consortium of the project involved principal investigators from each partner, project assistants, PhD students, MA students, and other researchers. In addition, each partner that were responsible from the implementation worked with interviewers and facilitators who worked in the field. The number of the researchers involved in the project changes depending on which stage of the project we are in. Syrian refugees were also included in the project as participants and randomized to either control or treatment groups. The participants in the treatment group received psychological intervention (the Problem Management Plus) for free. The actual number of participants cannot be stated since the results are not published yet.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Although that is not the main aim of the project, the consortium does serve as a platform for involved researchers to communicate about the research findings, challenges related with the implementation, new developments etc. There are four main channels of communication: 1) E-mail chains, 2) Monthly consortium meetings via zoom, 4) Annual face-to-face consortium meetings, and 4) Dashboard for partners on http://strengths-project.eu/en/strengths-home/
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Although the main aim of the project was not to build a network of services, activity producers and developers, those networks were established to complete the project tasks. A few of those networks are provided below: The problem management plus (PM+) is a brief psychological intervention that is developed by WHO. The PM+ was adapted for Syrian refugees within the STRENGTHS project and a new, culturally adapted version of PM+ was developed. A network of researchers and experts was established for the adaptation process. A training of trainers was conducted for PM+. The trainers from partner organizations who have received this training provided facilitator training in their countries before the implementation process. A network of PM+ trainers was established for future trainings which is called the Community of Practice. Here is the link for further information on this network: https://strengths-project.eu/en/news-post/online-interview-about-pm/
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
The STRENGTHS project is funded by the EU Horizon 2020 and the consortium was formalized. A consortium agreement was signed by all partners.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
The consortium is consisted of universities and non-governmental organizations. The universities are mainly responsible from the development of research protocols, research methodology, making sure that the research protocols are being followed, coordination of the implementation and the analysis of the data. The non-governmental organizations are mainly responsible from adaptation (e.g., DRC coordinated the cultural adaptation process), training, and implementation (e.g. RASASA was responsible from conducting the interviews and the PM+ sessions were conducted in the main building of RASASA).
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
Vrije Universiteit, Amsterdam Department of Clinical, Neuro and Developmental Psychology is the coordinating partner and primarily in charge from the coordination of the project tasks and the consortium. Their tasks involve setting the objectives in collaboration with the partner organizations

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
The main objective of the project is to increase the responsiveness of health systems in Europe and those in the MENA countries surrounding Syria (including Turkey) which will increase health equity and accessibility of health systems in the light of future demands. Although the consortium did not directly aim to have an impact on the city life of İstanbul (which was where the study in Turkey was conducted), this aim of the project may be common with some of the objectives of the city (The Istanbul Metropolitan Municipality). The municipality published a report where they have listed their objectives for the future and two of those objectives were securing healthy lives and promoting well-being at all ages and reducing inequalities within and between countries. These objectives also include increasing equity and accessibility and these can be the joint objectives of the project and the city.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
The mission of STRENGTHS is to increase responsiveness of health systems across Europe and LMICs surrounding Syria to meet the needs of Syrian refugees. This mission is in line with one of the themes of the Urban Agenda for the EU which is the *inclusion of migrants and refugees*.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
The project itself is a research project which consisted of different work packages. Each work package had its own objectives and methodologies which may be considered as a roadmap. The explanation of each work package can be found from this link: http://strengths-project.eu/en/strengths-project/work-packages/ The Koc University was a part of the work package 5 which aimed to implement scaling-up of the evidence, based PM+ programmes successfully within community settings the Netherlands, Turkey and Switzerland in in terms of health-system performance, effectiveness, affordability and sustainability within health systems and identify barriers and facilitators to this end. Each partner was provided with a generic protocol that they were required to adapt to their own context. The adapted protocol for the implementation in Turkey was published as a protocol paper and the pdf version of this article is available online.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
The STRENGTHS project involved the target population (Syrian refugees who are under temporary protection) during the cultural adaptation process which can be considered as co-creation. In accordance with the DIME model (Design, Implementation, Monitoring and Evaluation), the rapid qualitative assessments was conducted with Syrian refugees. The researchers interested in being informed about the refugees' problems, coping strategies they use, their help-seeking behaviours and their initial impressions of PM+. The PM+ was adapted according to information gathered form these assessments.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this

The updates related with the project are constantly being disseminated among the consortium members via channels mentioned above (question 3). In addition, the research protocols and the results of the studies that were and are being conducted in partner countries are published in open access journals to provide free access to all. The published articles from the project can be found from this link:

http://strengths-project.eu/en/resources/publications/

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

One of the main aims of the STRENGTHS project was to disseminate the knowledge about the evidence-base for PM+ programmes and how to implement and sustain them. To achieve this aim and disseminate knowledge of PM+ gathered through the project, two main collaborative actions were taken. First, before the implementation process, a Theory of Change workshop was organized in Turkey, with the coordination of researchers from Turkey and LSHTM. The representatives from non-governmental organizations, public institutions and key stakeholders who are working with Syrian refugees in Turkey participated in the workshop and worked on how PM+ can be implemented and disseminated in Turkey. Secondly, some partners continued to provide PM+ trainings to public institutions and non-governmental organizations. For an example, Assoc. Prof. Ceren Acartürk provided two ToTs to MHPSS workers who working in different cities of Turkey. These trainings were organized with the collaboration of the Ministry of Health and the World Health Organization.

2.3.5. TSEN (KU)

05 ECOSYSTEM	TSEN - TURKISH SOCIAL ENTREPRENEURSHIP NETWORK			
KOC UNIVERSITY				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	Mono
Regional		Public		
National	Multilateral	Private		
		Non-Profit		

Figure 25: TSEN (KU)
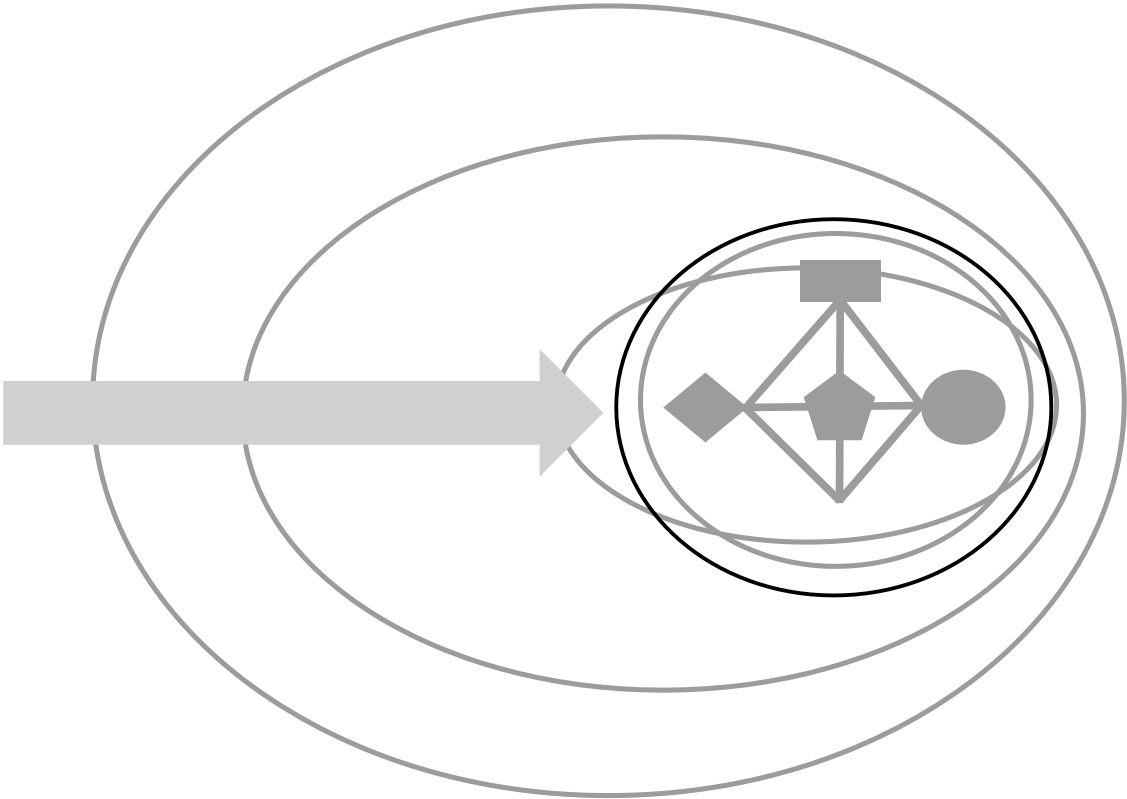
Source: Own elaboration, based on partners' documentation

05 ECOSYSTEM	TSEN - TURKISH SOCIAL ENTREPRENEURSHIP NETWORK
KOC UNIVERSITY	
Link	www.sosyalgirisimcilikagi.org; https://euclidnetwork.eu/euclid_members/as-the-turkey-social-entrepreneurship-network-tsen/
Area/Department in Charge	Koç University Social Impact Forum (KUSIF)
Brief Description	Turkey Social Entrepreneurship Network was initiated in 2018 as a two-year EU-funded project under the Partnerships and Networks Grant Program. TSEN Project was conducted by a consortium led by Vehbi Koç Foundation (VKV) and run by Koç University Social Impact Forum (KUSIF), Ashoka Turkey, Social Innovation Initiative, Association (Impact Hub İstanbul), Association for Innovative Solutions for, Sustainable Development (Mikado Consulting), TED University (IstasyonTEDU), Mozaik Foundation (Bosnia Herzegovina), and Social Enterprise UK (UK).
	The project had 7 associate partners İpekyolu Development Agency, Middle Black Sea Development Agency, Eastern Anatolia Development Agency, Ankara Development Agency, Bursa-Nilüfer Municipality, Abdullah Gül University in Kayseri, The Union of Chambers and Commodity Exchange of Türkiye (TOBB).
	The project transformed into a platform and an expanding network. TSEN became a member of the European Network for Social Enterprises (EUCLID in October 2020.) TSEN supports the inclusive, collaborative and data-driven development of the social entrepreneurship ecosystem in Turkey. Access to knowledge and reliable data is the key.
	The Consortium partners have a track record of successful collaboration in different lines of work such as grant projects, research studies, award/mentorship or training programmes, i.e., Baseline Report on the Social Entrepreneurship Ecosystem in Turkey or the report on the Legal Status of Social Enterprise in Turkey (carried out under the Building a Social Entrepreneurship Network in Turkey Project also known as the Turkey Social Entrepreneurship Network), research on the State of Social Enterprises in Turkey, and the most recent the European Social Entrepreneurship Monitor (ESEM Turkey). TSEN's new research is "Social Entrepreneurship in Turkey" will be implemented between January and June 2022 under another EU funded project led by the World Bank.
Brief Methodology Description	TSEN is a platform established by major universities, intermediaries such as incubators, networks and foundations in Turkey supporting the development of the social entrepreneurship ecosystem. TSEN works for the sustainability of social entrepreneurship data in Turkey and designs and implement engaged researches in the field of social entrepreneurship.
Universities and Research Centres	They are enabler and developers: • Koç University Social Impact Forum https://kusif.ku.edu.tr/en/ ; • TED University Istasyon TEDU https://istasyon.tedu.edu.tr/en/about/

City Government and other Public Bodies	They are financiers, utilizers and users:
	• Regional Development Agencies: İpekyolu Development Agency, Middle Black Sea Development Agency, Eastern Anatolia Development Agency, Ankara Development Agency,
	• Municipalities: Bursa-Nilüfer Municipality,
	• Universities: Abdullah Gül University in Kayseri,
	• The Union of Chambers and Commodity Exchange of Türkiye (TOBB).
Enterprises	Incubators and networks as enablers and developers: Impact Hub Istanbul, Impact Hub Ankara, Yekpare Social Enterprise Network, Mikado Sustainable Development Consultancy as a wellknown social enterprise in Turkey
Non-profit Organisations	They are enablers and developers:
	• Social Innovation Initiative,
	• Association of Solutions for Sustainable Development
	Financier and user: Vehbi Koç Foundation
Citizens	

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
It is a platform /network, not yet a legal status. The project transformed into a platform and an expanding network thanks to the fiscal sponsorship support of VKV and Impact Hub Istanbul and the voluntary contributions of the founding partners. TSEN became a member of the European Network for Social Enterprises (EUCLID in October 2020.)
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Yes, it is network of ecosystem actors in the field of social entrepreneurship in Turkey. TSEN provides networking, trainings and access to reliable knowledge and other ecosystem actors to collaborate.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
The network started as a project with the help of the funds allocated by the European Union and the Republic of Turkey under the Partnerships and Networks Grant Program from October 2018 to October 2020. TSEN Project was conducted by a consortium led by Vehbi Koç Foundation (VKV) and run by Koç University Social Impact Forum (KUSIF), Ashoka Turkey, Social Innovation Initiative Association (ImpactHub İstanbul), Association for Innovative Solutions for Sustainable Development (Mikado Consulting), TED University (İstasyon TEDÜ), Mozaik Foundation (Bosnia Herzegovina), and Social Enterprise UK (UK). The project continues with the fiscal sponsorship of VKV, the voluntary contributions of the founding partners, and works with the strategy of expanding the network to new stakeholders around Turkey. During 2018-2020 the partners implemented the project to develop TSEN. That is why they had formal agreement under the project. However, after the project ends, the main partners stayed together with a commitment of working together without a legal binding agreement of an MoU.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
This is how TSEN operates. Being inclusive is the priority. Bringing a holistic view and taking into account the variations in different models of dimensions of social entrepreneurship is critical in SE research. A horizontal and holistic approach supported by sound inter-institutional cooperation, and a flexible and inclusive policy framework to be able to harness the maximum potential available are therefore critical.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
NA

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
These organizations come together to support the inclusive, collaborative and data-driven development of the social entrepreneurship ecosystem in Turkey. Access to knowledge and reliable data is the key.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Social economy and social entrepreneurship
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Producing reliable data and become an anchor organization in the field of social entrepreneurship research for data sustainability is a priority for TSEN. Baseline Report on the Social Entrepreneurship Ecosystem in Turkey or the report on the Legal Status of Social Enterprise in Turkey (it carried out under the Building a Social Entrepreneurship Network in Turkey Project also known as the Turkey Social Entrepreneurship Network), research on the State of Social Enterprises in Turkey, and the most recent the European Social Entrepreneurship Monitor (ESEM Turkey). TSEN has conducted the only comprehensive research on the state of social enterprises in Turkey (2019) and the baseline research on the ecosystem (2020). But monitoring ongoing changes is key to understand the opportunities and challenges in the ecosystem, defining emerging gaps, creating strategies to address these gaps and effectively mobilize resources based on evidence. The ongoing research and analysis also serve to develop best practices and recommendations for creating further synergies among the stakeholders. TSEN's new research is "Social Entrepreneurship in Turkey" will be implemented between January and June 2022 under another EU funded project led by the World Bank. The study aims to contribute to enhancing the social entrepreneurial ecosystem in Turkey to become more inclusive and data-driven. Thus, this research will produce evidence showing the importance of social entrepreneurship for socio-economic development, including job creation and formal integration for SuTPs into the labor market. The study will generate different knowledge products that serve the needs of diverse actors including policy-makers, funders, support organisations, social enterprises etc. Information and the progress about the research can be reached from @secopturkiye and @sosyalgirisimtr
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
NA
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
Yes, it does, TSEN share and disseminate knowledge through its social media accounts @sosyalgirisimtr, newsletter and its digital platform: www.sosyalgirisimcilikagi.org
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.6. PARTICIPATORY FUTURES (KU)

06 ECOSYSTEM	PARTICIPATORY FUTURES OF INTERCULTURAL MEANINGFUL SOCIAL INTERACTIONS			
KOC UNIVERSITY				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities		Mono
			Non Legal	
	Multilateral			
		Non-Profit		
		Citizenship		

Figure 26: Participatory Futures (KU)
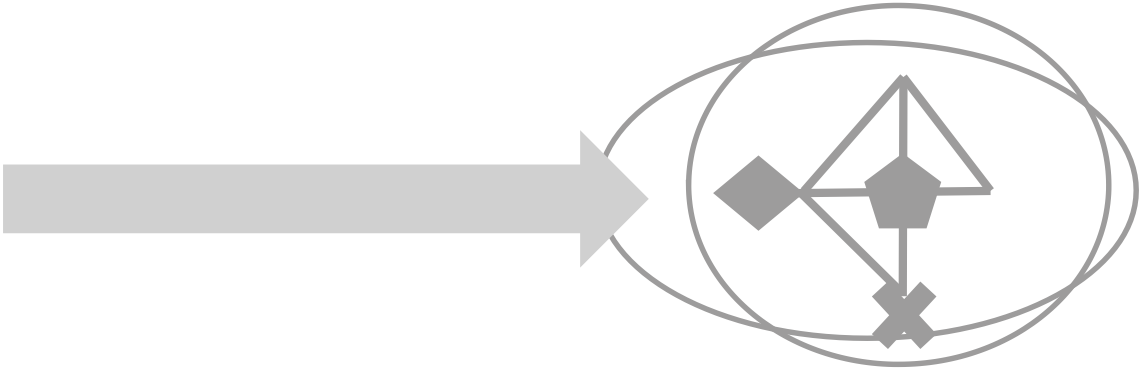
Source: Own elaboration, based on partners' documentation

06 ECOSYSTEM	PARTICIPATORY FUTURES OF INTERCULTURAL MEANINGFUL SOCIAL INTERACTION
KOC UNIVERSITY	
Link	https://www.unic.eu/hr/open-cases/learning-engaged-research-best-practice-seminar-part-iihttps://www.unic.eu/hr/open-cases/learning-engaged-research-best-practice-seminar-part-iii https://sites.google.com/ku.edu.tr/meaningfulsocialinteractions/home
Area/Department in Charge	KUARLab, GSSSH Koc University
Brief Description	This project is exploring how to promote meaningful social interactions between intercultural strangers in public places from a design perspective. Meaningful Intercultural interactions are proposed as a way to reduce conflict and prejudice among the members perceived as different. The project setting are public places as these are spaces inhabited by people from different social and cultural backgrounds, thus were more possibilities of encountering someone from a different social group. Therefore, in this project, we are exploring what does it mean to have meaningful interactions with intercultural strangers and what promotes or hinders so that we propose a frame to speculate future scenarios of design solutions that intercultural meaningful social interactions in public places of Istanbul.
Brief Methodology Description	Our approach to exploring the research question is participatory futures, which intersects participatory research, speculative inquiry to design futures-oriented research. We aim to characterize and frame MSI between intercultural strangers by building a shared understanding between and with participants. Also, a participatory futures approach would contribute to this research by facilitating participants' creativity and imagination to envision interventions that promote intercultural MSI as well as unanticipated and alternative futures concerning interculturality and social interactions. We believe it is relevant to build this knowledge with participants who are, in the end, the ones being involved or being avoided in social interactions. Hence, with a participatory futures approach, we can reach participant's perspectives, beliefs, feelings, and values related to such interactions, while it enables participants to envision a future that embraces and promotes MSI through conversations ignited with speculative scenarios.
Universities and Research Centres	Koç University, Kuarlab
City Government	
Enterprises	
Non-profit Organisations	Enablers: Istanbul&I, Yabangee
Citizens	We have conducted 4 studies with participants in total reaching 120 people between the ages of 19 and 55. From them 61 were international living in Istanbul 59 were Turkish people living in Istanbul. 101 could speak English besides another language and 19 were more comfortable participating in Turkish. All of them participated in the studies without receiving any form of economic reward nor did they pay for participating of the studies. All of them were reached through open calls shared through email, social media and in person through snow balling.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
No
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
No
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
No
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Through conducting participatory research and disseminating the knowledge created with participants.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
NA

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
NA
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Urban Agenda for the EU: inclusion of migrants and refugees SDGs: 10 New Urban Agenda: Social sustainability
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
No
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
NA
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
No
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.7. OVID-PM (KU)

07 ECOSYSTEM	COVID-PM			
KOC UNIVERSITY				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities		Mono
Regional			Non Legal	
National	Multilateral			

Figure 27: Covid-PM (KU)

Source: Own elaboration, based on partners' documentation

07 ECOSYSTEM	COVID-PM
KOC UNIVERSITY	
Link	https://pubmed.ncbi.nlm.nih.gov/34058581/
Area/Department in Charge	KUTTAM. KOC University Research Center for Translational Medicine
Brief Description	Coronavirus disease 2019 (COVID-19) is caused by the SARS-CoV-2 virus and has been affecting the world since the end of 2019. The disease led to significant mortality and morbidity in Turkey, since the first case was reported on March 11th, 2020. Studies suggest a positive association between air pollution and SARS-CoV-2 infection. The aim of the present study was to investigate the role of ambient particulate matters (PM), as potential carriers for SARS-CoV-2. Ambient PM samples in various size ranges were collected from 13 sites including urban and urban background locations and hospital gardens in 10 cities across Turkey between 13th of May and 14th of June 2020 to investigate the possible presence of SARS-CoV-2 RNA on ambient PM. A total of 203 daily samples were collected using various samplers. The N1 gene and RdRP gene expressions were analyzed for the presence of SARS-CoV-2, as suggested by the Centers for Disease Control and Prevention (CDC). According to real time (RT)-PCR and three-dimensional (3D) digital (d) PCR analysis, dual RdRP and N1 gene positivity were detected in 20 (9.8%) samples. The highest percentages of virus detection on PM samples were from hospital gardens in Tekirdağ, Zonguldak, and Istanbul, especially in PM2.5 mode. Findings of this study have suggested that SARS-CoV-2 may be transported by ambient particles, especially at sites close to the infection hot-spots. However, whether this has an impact on the spread of the virus infection remains to be determined.
Brief Methodology Description	In our study, ambient PM samples in various size ranges were collected from 13 sites including urban and urban background locations and hospital gardens in 10 cities across Turkey between 13th of May and 14th of June 2020 to investigate the possible presence of SARS-CoV-2 RNA on ambient PM. A total of 203 daily samples (TSP, n =80; PM2.5, n = 33; PM2.5–10, n = 23; PM10μm, n = 19; and 6 size segregated PM, n = 48) were collected using various samplers. The N1 gene and RdRP gene expressions were analyzed for the presence of SARS-CoV-2, as suggested by the Centers for Disease Control and Prevention (CDC). According to real time (RT)-PCR and three-dimensional (3D) digital (d) PCR analysis, which is a method that has high sensitivity with the strategy of counting a single molecule, and it also provides a high reliability and repeatability level, dual RdRP and N1 gene positivity were detected in 20 (9.8%) samples

Universities and Research Centres	• *Koç University Research Center for Translational Medicine (KUTTAM), Istanbul, Turkey*
	• *Department of Environmental Engineering, Faculty of Engineering, Bolu Abant Izzet Baysal University, Gölköy Campus, Bolu, Turkey*
	• *Koc University Research Center for Infectious Diseases, Department of Medical Microbiology, Koç University School of Medicine, Istanbul, Turkey*
	• *Department of Environmental Engineering, Engineering Faculty, Istanbul University-Cerrahpaşa, Avcılar, Istanbul, Turkey*
	• *Department of Environmental Engineering, Faculty of Engineering, Eskişehir Technical University, Eskişehir, Turkey*
	• *Department of Environmental Engineering, Civil Engineering Faculty, Yildiz Technical University, Esenler, Istanbul, Turkey*
	• *Department of Environmental Engineering, Dokuz Eylül University, Izmir, Turkey*
	• *Department of Environmental Engineering, Faculty of Engineering, Bursa Uludağ University, Bursa, Turkey*
	• *Department of Environmental Engineering, Çorlu Faculty of Engineering, Namık Kemal University, Tekirdağ, Turkey*
	• *Department of Environmental Engineering, Zonguldak Bülent Ecevit University, Zonguldak, Turkey*
	• *Department of Environmental Engineering, Necmettin Erbakan University, Konya, Turkey*
	• *Department of Environmental Engineering, Akdeniz University, Antalya, Turkey*
	• *Department of Environmental Engineering, Hacettepe University, Ankara, Turkey*
	• *Department of Environmental Engineering, Middle East Technical University, Ankara, Turkey*
	• *Department of Pulmonary Medicine, School of Medicine, Koç University, Istanbul, Turkey*
City Government and other Public Bodies	In the present study, a city government or an any public body has not a role. But we have a collaboration with city municipality in another projects.
Enterprises	In the present study, an enterprise has not a role.
Non-profit Organisations	The study was funded by Koç University Research Center for Translational Medicine (KUTTAM). In the other hand, in the present study, another non-profit organisation has not a role.
Citizens	Citizens other than those included in the study were not included in this study.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Yes, in fact, this collaboration we created was initially established as an interaction network created for a specific project. However, we want to preserve this cooperation network in other projects and increase the level of interaction. We use mobile WhatsApp group communication, telephone and mail to interact with this interaction network. We used platforms such as zoom and google meeting during the COVID pandemic in joint meetings.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
No, the collaborative network was not built for the mentioned purpose
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
The cooperation network has not yet been formalized and there is no legal agreement yet.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
In order to determine the position of the participant in the research network within the cooperation network, by examining the fields and studies that the participant will contribute to, the relevant units or the participants are contacted through verbal communication, using platforms such as telephone, mail, or zoom.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
We are not at a point yet to answer this question.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
This study initially aimed to develop a multidisciplinary cooperation network at the beginning of the pandemic, and together with the results obtained, an awareness on the research of the relationship between air pollution and infectious diseases, together with the partners involved in the study, created a potential for cooperation with components such as municipalities and non-governmental organizations. The joint objective is establishment of a scientific and social multidisciplinary network with existing and new stakeholders.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Our work relates to the following themes, objectives set out in the SDGs and Urban Agenda: air quality and climate adaptation
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Yes, this collaboration network is oriented towards new research projects. However, there is no roadmap yet, apart from a few ongoing and planned projects. Outside participation is always welcome. However, since it is a local formation, there is no document for participation yet.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
We are not at a point yet to answer this question
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
Yes, indeed, this cooperation network was established to continue other studies and activities. We are using mobile WhatsApp group communication, telephone and mail to interact with this interaction network. Additionally, we are using platforms such as zoom and google meeting during the COVID pandemic in joint meetings.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
A cooperation network has not yet been established with UNIC4ER. However, it may very well be possible for UNIC4ER to establish an environment that can bring us together with researchers with a profile suitable for our field of study at its partner universities, and to be at a facilitating point for the establishment of this network. In addition, it would be valuable if the projects to be created in the dynamic cooperation network that will be created can cooperate with the funder / funder organizations in the realization of the projects. It will be important for the establishment of international cooperation with universities within UNIC4ER that the exchange of students and faculty members between countries can be carried out as much as possible without dealing with bureaucratic processes.

UNIC City labs can provide online, virtual and face-to-face meetings and exchanges at the point of delivering the projects that the working network will produce and their outputs to academic, citizens and other stakeholders, as it aims. |

2.3.8. OULU INNOVATION ALLIANCE (UOULU)

08 ECOSYSTEM	OULU INNOVATION ALLIANCE			
UNIVERSITY OF OULU				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
National	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 28: Oulu Innovation Alliance (UOULU)
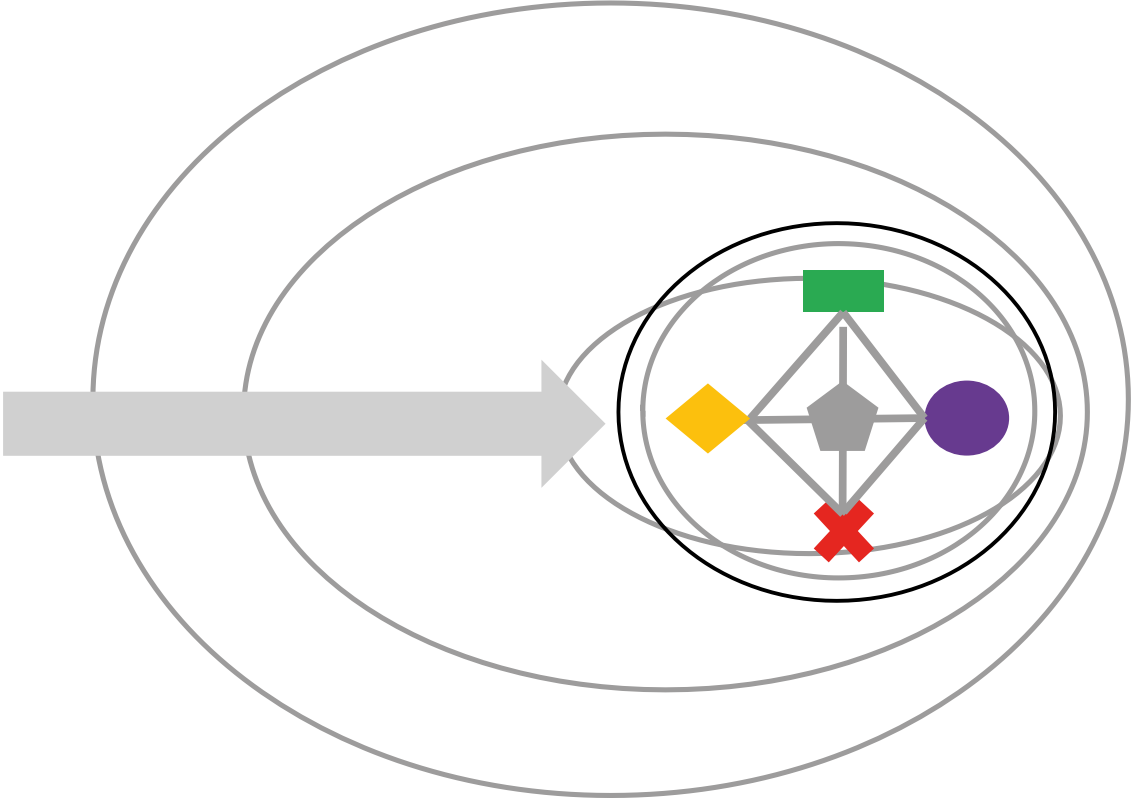
Source: Own elaboration, based on partners' documentation

08.01 SUB-ECOSYSTEM	OULU INNOVATION ALLIANCE - DIGITALISATION IN THE CHANGING URBAN ENVIRONMENT
UNIVERSITY OF OULU	
Link	https://www.businessoulu.com/en/frontpage-old/en/company-networks-2/oulu-innovation-alliance.html
Area/Department in Charge	Chair (operational executive group), Vice Rector for Cooperation (University of Oulu) Specialist, City Coordinator
Brief Description	Oulu Innovation Alliance (OIA) is a strategic coalition of organisations and an active roundtable of leaders who aim to promote innovations and sustainable growth both locally and globally. The goal of the Oulu Innovation Alliance ecosystem for *Digitalisation in the changing urban environment*, is to develop global market solutions and multipliable products for the everyday needs of residents and companies. The city and other parties support and speed up the development by offering piloting and city development environments as part of the Digital Oulu programme.
Brief Methodology Description	OIA offers versatile services for investors, students, companies, and researchers. OIA creates connections between business expertise and top research and organizes R&D&I (Research & Development & Innovation) projects. The key services are doing research projects together, finding research partners, help in getting financing, Living labs, start-up services and thesis cooperation with students.
Universities and Research Centres	Oulu Innovation Alliance's key research partners in the ecosystem for *Digitalisation in the changing urban environment* are: The University of Oulu, to promote free international level research and education, development and maintenance of research infrastructures, and develop utilization paths of research results. World's First 6G Research and Innovation Centre (https://www.6gflagship.com/), at the University of Oulu: Liaison Manager & Flagship Ecosystem Coordinator VTT Technical Research Centre of Finland Ltd as the biggest multitechnological applied research organization in Northern Europe, provides high-end technology solutions and innovation services. In OIA VTT (Data Space Solutions) produces new ideas, technology and innovations, develops new applications and knowledge for business, and infrastructure that support research and business activities.

City Government and other Public Bodies	Oulu Innovation Alliance's key partners from the city government and other public bodies in the ecosystem for *Digitalisation in the changing urban environment* are: • The City of Oulu, to implement business and innovation policy, including start-ups, growth, relocation, conferences, and operating environment development services. The city and other parties support and speed up the development by offering piloting and city development environments as part of the Digital Oulu program. The goal is to have the share of 20% innovative public procurement. • Oulun Digi Public Utility, to coordinate the digitalisation of the public services and utilization of ICT solutions, in tight collaboration with diverse urban sectors and public utilities. SmartCity Oulu provides an overview of the best innovation platforms https://smartcityoulu.com/en/platforms/ and solutions provided by the ecosystem https://smartcityoulu.com/en/solutions/ . • Business Oulu Public Utility, Innovation Services provides several business services (https://www.businessoulu.com/en/company-services/innovation-services.html) and service environments (https://www.businessoulu.com/en/company-services/online-services/service-environments.html) meant for companies, to test their technology prototypes or find educational visit contents. • Business Oulu Public Utility, Oulu Automotive Cluster, is currently the Program Director of the *Digitalisation in the changing urban environment* sub-ecosystem.
Enterprises	Company clusters and ecosystems create new business and growth for companies. There are numerous anchor companies, business ecosystems and networks.
Non-profit Organisations	NA
Citizens	SmartCity Oulu provides an overview of the best innovation platforms in the ecosystem https://smartcityoulu.com/en/platforms/ and solutions provided by the ecosystem https://smartcityoulu.com/en/solutions/ . Innovation Services provided by BusinessOulu (City of Oulu owned public utility) provides several business services (https://www.businessoulu.com/en/company-services/innovation-services.html) and service environments (https://www.businessoulu.com/en/company-services/online-services/service-environments.html), meant for companies, to test their technology prototypes or find educational visit contents. For instance, Patiolla.fi service provided by BusinessOulu is for better customer understanding. Patiolla.fi brings together product or service developers and potential users for co-creation. Patiolla.fi service enables to collect user experiences and needs as well as to test or co-innovate with users anywhere and anytime. Cases can be brought to the Patiolla.fi community and let enthusiastic people to solve the challenges on the digital platform.

08.02 SUB-ECOSYSTEM	OULU INNOVATION ALLIANCE - OULUHEALTH - DIGITAL SOLUTIONS FOR HEALTH AND WELL-BEING
UNIVERSITY OF OULU	
Link	https://www.businessoulu.com/en/frontpage-old/en/company-networks-2/oulu-innovation-alliance.html https://ouluhealth.fi/
Area/Department in Charge	• Chair (operational executive group), Vice Rector for Cooperation (University of Oulu) • Specialist, City Coordinator • OuluHealth Network Director
Brief Description	Oulu Innovation Alliance (OIA) is a strategic coalition of organisations and an active roundtable of leaders who aim to promote innovations and sustainable growth both locally and globally. The goal of the Oulu Innovation Alliance ecosystem for *Digital solutions for health and well-being – OuluHealth*, strives to transform healthcare on a global scale and, as a result, improve people's lives. Their main goals are to accelerate the implementation of health innovations, boost the health-tech business and create better solutions for the benefit of citizens. Oulu's competitive advantage lies especially in a seamless combination of health technology, life sciences, medicine and different aspects of engineering. The city is a forerunner in digital health and the second largest health technology center in Finland. The OuluHealth ecosystem is at the forefront of converging health and life science solutions with ICT. They are world leaders in new generation technologies, such as 5G/6G, IOT, AI, VR, AR and BigData.
Brief Methodology Description	OuluHealth provides support in: • Co-creating innovations: OuluHealth Labs is a co-creation platform that enables cooperation between health and social care providers, research and innovation organisations and companies. OuluHealth Labs consist of four test bed facilities, which provide an integrated development environment and end-users' feedback for every phase of a R&D process. • Business development: • Research: Centre for Health and Technology (CHT) supports research and innovation to solve challenges in data-driven health and wellbeing.

Universities and Research Centres	Oulu Innovation Alliance's key research partners in the ecosystem for *Digital solutions for health and well-being - OuluHealth* are: • The University of Oulu, to promote free international level research and education, development and maintenance of research infrastructures, and develop utilization paths of research results. As part of the University of Oulu, Biocenter Oulu and The Center for Health and Technology comprise the most important research centres. • Biocenter Oulu (BCO, www.oulu.fi/biocenter/) is a focus institute at the University of Oulu that supports high-quality research and coordinates multidisciplinary research activities on the University's strategic focus area "Life-long health". BCO provides academic and industrial customers with open access research infrastructure and services in life sciences with state-of-the-art technologies and trained experts. BCO research services are part of national Biocenter Finland research infrastructure network. • The Center for Health and Technology (www.oulu.fi/cht) is an innovation and knowledge platform managing research, development and innovation (RDI) activities at the OuluHealth ecosystem. CHT is dedicated to improving research and innovation impact in digital health and developing digital competencies to improve preventive, predictive and personalized health care. CHT is also leading the OuluHealth ecosystem's spearhead program "Data enabled solutions in preventive and supportive healthcare" and its cooperation (2021-2027) within Oulu Innovation Alliance operations. CHT facilitates OuluHealth RDI collaboration by building a bridge between researchers, companies, and healthcare professionals, and by identifying research and business challenges relevant to the healthcare sector. • The Oulu University of Applied Sciences (www.oamk.fi/en) is a strong multidisciplinary unit that educates approximately 9000 students. The university features 800 staff members, excellent teaching facilities, a variety of fields of study and exchange programmes as well as study projects. The Oulu University of Applied Sciences also provides the Oamk SimLab, a simulation environment for testing health products and services. • VTT Technical Research Centre of Finland Ltd (www.vttresearch.com) as the biggest multitechnological applied research organization in Northern Europe, provides high-end technology solutions and innovation services. In OIA VTT produces new ideas, technology and innovations, develops new applications and knowledge for business, and infrastructure that support research and business activities. • Medical Research Center oulu (MRC, www.oulu.fi/mrc/): A strategic research organisation of the Northern Ostrobothnia Hospital District and the University of Oulu. MRC Oulu offers a multidisciplinary research environment for clinical, translational and health care socioeconomic research. Currently MRC Oulu consists of several different research groups from the University of Oulu, Oulu University Hospital, and Oulu University Hospital ERVA-area.

City Government and other Public Bodies	Oulu Innovation Alliance's city government and other public body partners in the ecosystem for *Digital solutions for health and well-being - OuluHealth* are
	The City of Oulu is one of the health care providers to its 200 000 inhabitants. Oulu actively supports cooperation between different sectors to stimulate development and faster introduction of innovative solutions for the benefit of all citizens.
	Business Oulu Public Utility, to implement business and innovation policy, including start-ups, growth, relocation, conferences, and operating environment development services. This organization also handles the international marketing of Oulu and facilitates the OuluHealth ecosystem's collaboration.
	Oulu University Hospital (www.ppshp.fi), one of the five university hospitals in Finland, provides high-quality healthcare services to the entire northern Finland. This hospital utilizes cutting-edge equipment in all specialized branches of medicine and employs several thousand highly trained professionals. OYS is the first hospital to test the 5G-technology.
Enterprises	There is a high number of companies in the health and life science sector, with many high technology companies:
	https://issuu.com/businessoulu/docs/health_lifescience_in_oulu_5thedition_webuse
Non-profit Organisations	NA
Citizens	End-users' feedback is utilized for every phase of a R&D process.

08.03 SUB-ECOSYSTEM	OULU INNOVATION ALLIANCE - SUSTAINABLE CIRCULAR ECONOMY AND CLEAN SOLUTIONS
UNIVERSITY OF OULU	
Link	https://www.businessoulu.com/en/frontpage-old/en/company-networks-2/oulu-innovation-alliance.html
Area/Department in Charge	• Chair (operational executive group), Vice Rector for Cooperation (University of Oulu) • Specialist, City Coordinator
Brief Description	Oulu Innovation Alliance (OIA) is a strategic coalition of organisations and an active roundtable of leaders who aim to promote innovations and sustainable growth both locally and globally. The goal of the Oulu Innovation Alliance ecosystem for *Sustainable circular economy and clean solutions*, is to support transition through four spearhead programmes: next-generation energy products and services, new solutions for inorganic effluents, environmentally friendly steel production and related value chains, and development and commercialisation of water expertise. All the activities aim at carbon neutrality, and digitalisation creates possibilities for added value.
Brief Methodology Description	OIA offers versatile services for investors, students, companies, and researchers. OIA creates connections between business expertise and top research and organizes R&D&I (Research & Development & Innovation) projects. The key services are doing research projects together, finding research partners, help in getting financing, Living labs, start-up services and thesis cooperation with students.
Universities and Research Centres	Oulu Innovation Alliance's key research partners in the ecosystem for *Sustainable circular economy and clean solutions* are: • University of Oulu, to promote free international level research and education, development and maintenance of research infrastructures, and develop utilization paths of research results. • The Centre for Advanced Steels Research (CASR) at the University of Oulu was founded in 2006. CASR forms a national centre of expertise focusing on the process, physical and mechanical metallurgy, including control and information engineering and modelling. • VTT Technical Research Centre of Finland Ltd as the biggest multitechnological applied research organization in Northern Europe, provides high-end technology solutions and innovation services. In OIA VTT produces new ideas, technology and innovations, develops new applications and knowledge for business, and infrastructure that support research and business activities. • Oulu University of Applied Science, UAS, educates professionals for the needs of working life. The University has approximately 9,000 students and 800 staff. In OIA, Oulu University of Applied Sciences focuses on applying, transferring and developing professional expert knowledge. • Natural Resources Institute Finland promotes bioeconomy and sustainable use of natural resources. Researchers and specialists working at Luke provide new solutions towards the sustainable development of the Finnish bioeconomy and the promotion of new bio-based businesses. Together with its partners Luke will build a society based on bioeconomy.

City Government and other Public Bodies	Oulu Innovation Alliance's key partners from the city government and other public bodies in the ecosystem for *Sustainable circular economy and clean solutions* is he City of Oulu, to implement business and innovation policy, including start-ups, growth, relocation, conferences, and operating environment development services. The city and other parties support and speed up the development by offering piloting and city development environments as part of the Digital Oulu program. The goal is to have the share of 20% innovative public procurement.
Enterprises	Company clusters and ecosystems create new business and growth for companies. There are anchor companies, business ecosystems and networks, such as Water Ecosystem – a Finland-based alliance of 50+ companies.
Non-profit Organisations	Educational Consortium OSAO, responds to the competence needs of students and work life in Northern Finland. OSAO provides education services rooted in practical work life, anticipating the challenges of the future. The core principle of education activities is to serve the region's business community by providing a competent and trained labour force. Osekk continuously anticipates changes taking place in the business world, and its course selection is designed according to the region's needs.
Citizens	SmartCity Oulu provides an overview of the best innovation platforms in the ecosystem https://smartcityoulu.com/en/platforms/ and solutions provided by the ecosystem https://smartcityoulu.com/en/solutions/ . Innovation Services provided by BusinessOulu (City of Oulu owned public utility) provides several business services and service environments (https://www.businessoulu.com/en/company-services/online-services/service-environments.html), meant for companies, to test their technology prototypes or find educational visit contents. For instance, Patiolla.fi service provided by Business Oulu is for better customer understanding. Patiolla.fi brings together product or service developers and potential users for co-creation. Patiolla.fi service enables to collect user experiences and needs as well as to test or co-innovate with users anywhere and anytime. Cases can be brought to the Patiolla.fi community and let enthusiastic people to solve the challenges on the digital platform.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Oulu Innovation Alliance (OIA) is a strategic coalition of organisations and active roundtables of leaders. It has an established governance structure with strategic board, operational board and ecosystem boards, with regular meetings and monitoring.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
To assist the three Oulu Innovation Alliance ecosystems, there are cross-cutting programmes that provide a comprehensive, customer-centred network of services for innovation-driven, growth-oriented business. Availability of talented employees is secured by developing the collective portfolio of OIA operators. The start-up business ecosystem in Oulu is linked with other similar ecosystems. They support the growth of business based on OIA spearhead programmes, matchmaking between company needs and talented personnel, and talent attraction.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
SUB-ECOSYSTEM. DIGITALISATION IN THE CHANGING URBAN ENVIRONMENT Specific to the Digitalisation in the changing urban environment ecosystem, the Smart Campus program (https://smartcampus.fi/) is a new kind of platform and partnership model for innovation collaboration with small and medium-sized enterprises (SMEs). The program boosts the competitiveness of Finnish companies with the introduction of novel technologies. Their research, development and innovation (RDI) aims to accelerate the digitalisation of society to tackle grand global challenges and meet the United Nations Sustainable Development Goals (UN SDGs). Smart campuses pioneer new types of solutions and services that benefit widely the society, accelerate smart city development, and improve citizens' well being. The Smart Campus program builds on co-creation and multidisciplinarity. The program is a joint effort between the universities of Oulu and Tampere, Lappeenranta – Lahti University of Technology, universities of applied sciences in Oulu, Turku, Kajaani and Southeast Finland, and Centria University of Applied Sciences. The program is coordinated by the University of Oulu, and it is linked with the Allied ICT Finland network, which is formed by 31 Finnish universities, research institutes, and city business development units, and hundreds of companies. The Smart Campus program is funded by the Academy of Finland and is tightly connected to the 6G Flagship program, similarly funded by the Academy of Finland, which researches and develops future wireless networks, applications, and services. We combine visions of future technologies, latest service and platform developments, and educational offerings of Finnish higher education institutions. Our program builds on trailblazing 5G and 6G capabilities, artificial intelligence, IoT technologies, immersive technologies, and remote presence solutions. Data governance and an open research approach are cornerstones in our co-creation. Smart campuses share their research-based visions, world-leading technology development, and education competences with companies. The collaboration opens new paths from the latest research findings to global business. Companies can benefit from our research innovations and services in the creation of new services, technology platforms, testing, and business development. Research-based knowledge and co-creation also boosts competence building in companies.

Our aim is to significantly accelerate the digitalisation of small and medium-sized companies (SMEs) in particular. Even the smallest companies will have access to the Smart Campus's service offerings.

Together with companies, we pilot promising innovations and services in key industry areas including construction industry, transport and logistics, shipping, the chemical industry, and the service sectors.

SUB-ECOSYSTEM. OULUHEALTH - DIGITAL SOLUTIONS FOR HEALTH AND WELL-BEING

Digital solutions for health and well-being - OuluHealth ecosystem provides strong support for health & life science companies from the region, researchers, academic and health and social care providers:

https://ouluhealth.fi/services/

- Testing and co-creation: OuluHealth Labs (https://ouluhealth.fi/services/testing-co-creation/) is a co-creation platform that enables cooperation between health and social care providers, research and innovation organisations and companies. OuluHealth Labs consist of four test bed facilities, which provide an integrated development environment and end-users' feedback for every phase of a R&D process.

  — OYS Testlab to develop products or service in a hospital environment.

  — Oulu WelfareLab to develop product or service in social and healthcare centers and homes. This model has been co-created by social and healthcare services in the City of Oulu.

  — OAMK SimLab to develop product or service in simulated health and social environments.

  — Mittlab to develop product or service in the field of medical imaging.

- Business development

- Digital Health RDI

- The Borealis Biobank (https://www.ppshp.fi/Tutkimus-ja-opetus/Biopankki/Pages/Biobank-Borealis-briefly-in-English.aspx) was established by Northern Ostrobothnia Hospital District, the University of Oulu, NordLab, the hospital/healthcare districts of Lapland, Länsi-Pohja, Central Ostrobothnia and Kainuu. The Borealis Biobank offers various sample types and research services.

- Biobank Collection and Services accessible through the Finnish public biobanks, at Fingenious portal: (https://site.fingenious.fi/en/)

SUB-ECOSYSTEM. SUSTAINABLE CIRCULAR ECONOMY AND CLEAN SOLUTIONS

Specific to the Sustainable circular economy and clean solutions ecosystem, the Oulun Energia district heating network covering the entire urban area, offers a world class integrated energy system as a platform.

Ruskoniitty Centre for Circular Economy serves as a development platform and enables the development of circular economic business models.

What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?

The City of Oulu and the State (Ministry of Economic Affairs and Employment) have entered into an ecosystem agreement for the new EU funding period 2021–2027.

This agreement is aligned with the new strategy of Oulu Innovation Alliance and its ecosystems. This agreement is by nature a letter of intent that defines the will, objectives and priorities of the parties.

The current ecosystem agreement for the EU funding period 2021–2027 agreement is the third strategic agreement period among Oulu Innovation Alliance partners, the first one was launched in 2009.

Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?

SUB-ECOSYSTEM: DIGITALIZATION IN THE CHANGING URBAN ENVIRONMENT

The leaders of the spearhead programmes and their networks are:

- Future information networks: World's First 6G Research and Innovation Centre, University of Oulu, https://www.oulu.fi/6gflagship/

- Development platform for autonomous vehicles and devices: Oulu Automotive Cluster, https://automotive.oulu.com/

- Data analytics: Data Space Solutions, VTT Technical Research Centre of Finland, https://www.vttresearch.com/en/news-and-ideas/vtt-participates-team-data-spaces

SUB-ECOSYSTEM: OULUHEALTH - DIGITAL SOLUTIONS FOR HEALTH AND WELL-BEING

The leaders of the spearhead programmes and their networks are:

- Data enabled solutions in preventive and supportive healthcare: CHT – Center for Health and Technology, https://www.oulu.fi/en/university/faculties-and-units/faculty-medicine/centre-health-and-technology

- Better services for citizens through virtual service production, City of Oulu, https://www.ouka.fi/oulu/english

- Development of innovation and testing facilities for social and health care service providers: POPsote Innovation and Testing, https://popsote.fi/osahanke/innovaatiot/

- Kontinkangas wellness campus: Oulu university hospital / Future Hospital, https://oys2030.fi/en/future-hospital/

SUB-ECOSYSTEM: SUSTAINABLE CIRCULAR ECONOMY AND CLEAN SOLUTIONS

The leaders of the spearhead programmes and their networks are:

- Next-generation energy products and services: Natural Resources Institute Finland, https://www.luke.fi/en

- New solutions for inorganic effluents: University of Oulu, Environmental and Chemical Engineering, https://www.oulu.fi/en/university/faculties-and-units/faculty-technology/environmental-and-chemical-engineering

- Environmentally friendly steel production and related value chains: Center for Advanced Steel Research, https://www.oulu.fi/en/university/faculties-and-units/faculty-technology/centre-advanced-steels-research and University of Oulu, Industrial Engineering and Management, https://www.oulu.fi/en/university/faculties-and-units/faculty-technology/tuotantotalous

Development and commercialization of water expertise: Water ecosystem, https://www.water-solutions.org/

Objectives, activity and processes

Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?

Oulu Innovation Alliance ecosystem objectives have been created considering the international, national and regional innovation ecosystems.

The City of Oulu and the State (Ministry of Economic Affairs and Employment) have entered into an ecosystem agreement for the new EU funding period 2021–2027. This agreement is aligned with the new strategy of Oulu Innovation Alliance and its four ecosystems that base based on strategic fields (1) Digitalisation in the changing urban environment, 2) OuluHealth – Digital well-being and health solutions, 3) Sustainable circular economy & cleantech solutions, and a horizontal cross-cutting ecosystem: 4) Continuous learning, entrepreneurship and startups).

According to the national RDI roadmap, a high level of competence is the basis on which internationally competitive societal renewal can be built. Ecosystem agreements between the state and cities are an integral part of the roadmap and the partnership model is aimed at strengthening the public-private partnership RDI cooperation.

The Finnish government program outlines that separate agreements are created with university cities on the strategic allocation of public and private R&D funding to strengthen globally competitive ecosystems. Ecosystem agreements are part of government action, which aims to create the most functional experimental and innovation environment in the world by 2030. The strategic goal of the government program is to make Finland known as a pioneer in technological development, innovative procurement and experimental culture.

According to the national urban strategy, cities act as platforms for the development of know-how, innovation and entrepreneurship. The strategy recognizes that cities and the state together with universities, research institutes and the business community, create the conditions for world-class centers of excellence and innovation environments. The strategic priorities defined in the agreement correspond to the Ministry of Education and Culture strengths, identified and supported by higher education competencies.

Oulu Innovation Alliance's development targets have been set to be more concrete than before, to be at the forefront of doing business ecosystems and to bring digitalisation to various industries to help new, more sustainable solutions. The aim is to work together to tackle global ecological, economic and social sustainability challenges with the best ecosystems in Europe that deliver global added value from digitalisation. These ecosystems apply widely to the business, business, research and education, and public sectors throughout Northern Ostrobothnia (with the Oulu Region's smart specialisation strategy 2021-2014, https://www.pohjois-pohjanmaa.fi/wp-content/uploads/2021/02/SS_strategy_2021_2024.pdf) and Northern Finland. Meanwhile, the networks of actors and companies in the target sectors of the Oulu Innovation Alliance ecosystems are supranational, national and international. The choices in the target areas are based on 1) the deep expertise of the R&D actors related to the target areas (strategic choices of the parties, eg university profiling), 2) concrete long-term work done so far, 3) national and international networking, 4) strong connection to society and services and 5) already strong and identified emerging business ecosystems.

The vision of Oulu Innovation Alliance is to be the best European ecosystem to produce added global value with digitalization, and the main goals for the OIA ecosystem network are

- Company clusters and ecosystems create new business and growth for companies
- Spearheads to connect, develop and regenerate the expertise in the clusters
- Increased investments to the region
- Increased funding for research, development, and innovation
- Strong commitment of network parties on a practical level, plus an appealing and agile network for promising leads

SUB-ECOSYSTEM: DIGITALISATION IN THE CHANGING URBAN ENVIRONMENT

In more detail, the OIA ecosystem for Digitalisation in the changing urban environment has three joint spearhead programmes:

• Future information networks

• Development platform for autonomous vehicles and devices

• Data analytics

SUB-ECOSYSTEM: OULUHEALTH - DIGITAL SOLUTIONS FOR HEALTH AND WELL-BEING

In more detail, the OIA ecosystem for *Digital solutions for health and well-being - OuluHealth* has four joint spearhead programmes:

• Data enabled solutions in preventive and supportive healthcare

• Better services for citizens through virtual service production

• Development of innovation and testing facilities for social and health care services providers

• Kontinkangas wellness campus

SUB-ECOSYSTEM: SUSTAINABLE CIRCULAR ECONOMY AND CLEAN SOLUTIONS

In more detail, the OIA ecosystem for *Sustainable circular economy and clean solutions* has four joint spearhead programmes:

• Next generation energy products and services

• New solutions for inorganic effluents

• Environmentally friendly steel production and related value chains

• Development and commercialisation of water expertise

To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?

Urban Agenda for the EU: Digital transition, Innovative and responsible public procurement, Jobs and skills in the local economy; Urban mobility. Air quality, circular economy, Climate adaptation, Energy transition, Jobs and skills in the local economy, Sustainable use of land and nature-based solutions SDGs and the New Urban Agenda: SDG2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture; SDG3. Ensure healthy lives and promote well-being for all at all ages. SDG6. Ensure availability and sustainable management of water and sanitation for all, SDG7. Ensure access to affordable, reliable, sustainable and modern energy for all. SDG9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. SDG12. Ensure sustainable consumption and production patterns. SDG13. Take urgent action to combat climate change and its impacts. SDG15. Protects, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)

OIA creates connections between business expertise and top research and organizes R&D&I (Research & Development & Innovation) projects.

SUB-ECOSYSTEM: DIGITALISATION IN THE CHANGING URBAN ENVIRONMENT

Digitalisation in the changing urban environment ecosystem has a joint roadmap for years 2021-2027. Each partner has been allocated activities that are aligned with its operation and resources.

Project example: In the Smart Campus Oulu, the Smart Campus software (SW) team has been working intensively on a Smart Nursing Home Proof of Concept (PoC) since early summer 2021 (https://smartcampus.fi/smart-campus-oulu-poc-smart-nursing-home/). The use case is an ambient assisted living environment for elderly people where residents have their own rooms and caretakers are in the same premises to provide care when needed.

SUB-ECOSYSTEM: OULUHEALTH - DIGITAL SOLUTIONS FOR HEALTH AND WELL-BEING

OuluHealth participates in a number of projects supported by the European Structural Investment Funds as well as other EU programmes and policies in the areas of research, industrial policy, education and skills.

Project examples:

- https://www.oulu.fi/en/university/faculties-and-units/faculty-medicine/centre-health-and-technology/ouluhealth-ecosystem-collaboration-and-projects
- https://ouluhealth.fi/projects/

The main idea of OYS 2030 project (https://oys2030.fi/) is to modernise Oulu University Hospital (OYS) in such a way that it becomes the smartest hospital in the world, utilising the most advanced technologies and providing personalised and effective healthcare services. The Future Hospital project also brings business opportunities for health technology companies that provide innovative health solutions.

SUB-ECOSYSTEM: SUSTAINABLE CIRCULAR ECONOMY AND CLEAN SOLUTIONS

Sustainable circular economy and clean solutions has a joint roadmap for years 2021-2027. Each partner has been allocated activities that are aligned with its operation and resources.

Project example: MAKING-CITY – Energy efficient pathway for the city transformation (https://makingcity.eu/), is a Horizon 2020 project run 2018-2023. It aims to demonstrate the urban energy system transformation towards smart and low-carbon cities, based on the Positive Energy District (PED) concept. The PED operational models developed in MAKING-CITY will help European and other cities around the world to adopt a long-term City Vision 2050 for energy transition and sustainable urbanisation whilst turning citizens into actors of this transformation.

Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?

In the diverse platforms:

(https://smartcityoulu.com/en/platforms/) provided by the ecosystem, users and developers meet in a real-world operating environment in which solutions become functional.

Specific to the *Digital solutions for health and well-being – OuluHealth ecosystem,* in the spearhead programme *Better services for citizens through virtual service production*, citizens are engaged in service development, usability testing and testing new digital and data-based innovations through OuluHealth Labs to ensure the system's functionality and ease of use.

Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this

OIA creates connections between business expertise and top research and organizes R&D&I (Research & Development & Innovation) projects. The key services are doing research projects together, finding research partners, help in getting financing, Living labs, start-up services and thesis cooperation with students.

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

In general, innovation ecosystems have recently been extending their scopes towards societal development. As the scope of Oulu Innovation Alliance is business motivated, UNIC CityLabs complements the urban ecosystem and supports the human-centric urban development of the city.

UNIC CityLabs could provide opportunities to the local ecosystems to 1) identify societal needs in a research-based approach, 2) extend the current measures to engage citizens in urban development and 3) extend customer understanding in innovative solution development, with an international reach.

- For identifying societal challenges: students, citizens, academia and city stakeholders work together in UNIC CityLabs, in a research-based approach. The research-domain can provide versatile evidence-based approaches for knowledge management of the cities.

- For citizen engagement in urban development: New impact-by-design research methodologies can be used to extend the current measures of urban development. In UNIC CityLabs, innovative solutions can be generated with an international approach, as UNIC CityLabs can reach 225 000 students, 8000 doctoral researchers, 31 000 university staff members in ten countries.

- For better customer understanding in solution development: Patiolla.fi brings together product or service developers and potential users for co-creation. Patiolla.fi service enables to collect user experiences and needs as well as to test or co-innovate. UNIC CityLabs could extend Patiolla.fi service with an international reach, personnel and diverging methods.

CityLabs can be considered as research infrastructure that is available, among others, for Oulu Innovation Alliance *Digitalisation in the changing urban environment, Digitalsolutions for health and well-being and Sustainable circular economy and clean solutions* spearhead programme activities contributing to the State (Ministry of Economic Affairs and Employment) ecosystem agreement and Oulu Region's strategy for smart specialisation.

2.3.9. COLLABORATION UNIVERSITY-CITY (UOULU)

09 ECOSYSTEM	COLLABORATION BETWEEN THE UNIVERSITY OF OULU FACULTY OF EDUCATION AND THE CITY OF OULU EDUCATIONAL AND CULTURAL SERVICES			
UNIVERSITY OF OULU				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	Mono
		Public		
	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 29: Collaboration University-City (UOULU)
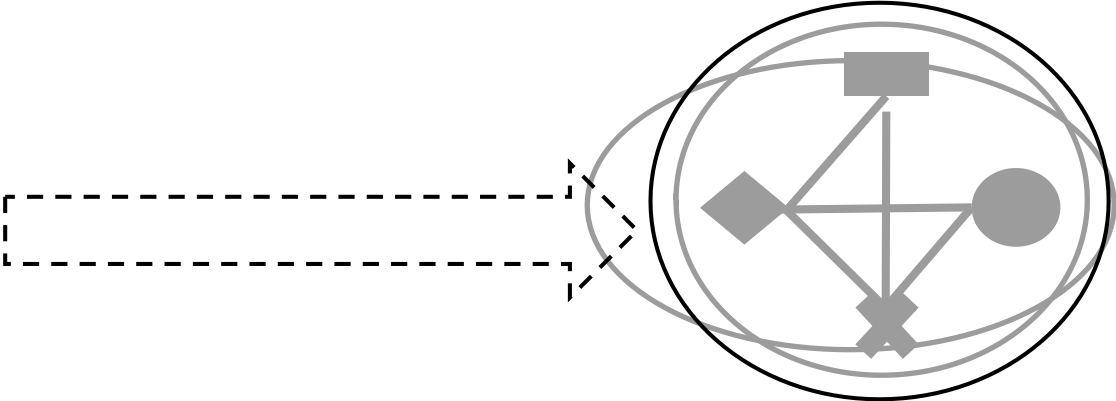
Source: Own elaboration, based on partners' documentation

09 ECOSYSTEM	COLLABORATION BETWEEN THE UNIVERSITY OF OULU FACULTY OF EDUCATION AND THE CITY OF OULU EDUCATIONAL AND CULTURAL SERVICES
UNIVERSITY OF OULU	
Link	https://www.luma.fi/en/centre/
Area/Department in Charge	• Education Dean, University of Oulu • Chief developer of Educational and Cultural Services. City of Oulu
Brief Description	University of Oulu Faculty of education and the City of Oulu Educational and Cultural Services have established a collaborative structure to develop activities to provide skills needed in the local economy.
Brief Methodology Description	University of Oulu Faculty of education and the City of Oulu Educational and Cultural Services meet regularly to discuss collaboration opportunities based on their complementary capabilities serving dedicated societal objectives and responsibilities.
Universities and Research Centres	The University of Oulu (Vice Rector for Education), Faculty of Education (Education Dean) educates citizens and teachers for various disciplines. Among other departments involved, the Faculty of Humanities (Finnish as a second language, University Lecturer) and the Extension School provide lifelong learning on Finnish language. LUMA Centre Finland is a science education network of Finnish universities (https://www.luma.fi/en/centre/). It aims to inspire and motivate children and youth into mathematics, science and technology (STEM). To achieve their goal, they develop new methods and activities of science and technology education based on research. The local LUMA Centre of the University of Oulu conducts research and development according to its individual practices. Depending on the project, researchers and developers can represent various fields of science. Additionally, the parties active in the LUMA Centres serve naturally as coordinators of research and development. Researchers and developers can transfer between projects, representing various fields of science and units of their university. Research and development can be conducted in both large-scale national and/or international projects and smaller projects, such as master's theses or doctoral dissertations.
City Government and other Public Bodies	The City of Oulu, Educational and Cultural services provides a boundary space to schools, students and teachers in all the stages of the future teachers' university studies. Departments involved are Early education, Basic education and youth services, and Upper secondary education. Multicultural center Villa Victor, Museum and Science Centre Luuppi and Oulu Museum of Art also collaborate with the University of Oulu. The City of Oulu is in charge of participant recruitment.
Enterprises	Yrityskylä (https://yrityskyla.fi/en/) and some companies provide the collaboration with learning environments and expertise. They have also participated to joint RDI projects.
Non-profit Organisations	The Trade Union of Education in Finland (OAJ) is loosely involved with the collaboration activities, in the case of collective labour agreements.
Citizens	Approximately 3000 school children / young, their 6000 parents, 300 teachers and rectors, and well as (yearly 200) University of Oulu students participate to the collaboration activities.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
The collaboration is organised as communication spaces: 1) The steering group includes Vice Rector for Education (University of Oulu) and Director of Educational and Cultural Services (City of Oulu) and 2) RUKKAS group. They utilize online platforms, shared files and have shared practices for communication and dissemination.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
The following national services are actively utilised: Yrityskylä (https://yrityskyla.fi/en/) provide the collaboration with learning environments and expertise. Yrityskylä is a Finnish learning concept which has been recognised as the world's best education innovation. Its story began in 2010. They offer all school children in grades six and nine positive experiences of working life, the economy and society and encourage entrepreneurship. To top it all off, Yrityskylä is based on a curriculum. Kuntarekry (https://www.kuntarekry.fi/) is a platform for jobs provided by cities and municipalities. Finnish as a second language teaching in the Oulu area is planned and implemented by the Faculty of Humanities Finnish language teaching, The Extension School at the university of Oulu and multicultural centre Villa Victor: https://www.oulu.fi/en/students/completing-studies/languages-and-communication/finnish-foreign-language
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
The Collaboration between the University of Oulu Faculty of Education and the City of Oulu Educational and Cultural Services has been formalised with a bilateral collaboration agreement (2018). By nature, it is an expression of the bilateral will to collaborate and includes no explicit responsibilities.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
University of Oulu provides open university courses to Upper secondary schools students free of charge. These studies can be later accepted as part of their corresponding university degree.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
University of Oulu Faculty of Education and the City of Oulu Educational and Cultural Services meet regularly as equal partners. Both organisations organise internally to provide a unanimous angle in the bilateral collaboration.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
The collaboration between the University of Oulu Faculty of education and the City of Oulu Educational and Cultural Services is aligned with the Oulu Region's Smart Specialization Strategy 2021-2024 that aims at dissemination of innovations by ensuring that education provision is up-to-date and ensuring the availability of skilled labour. The collaboration is based on a shared mission: Oulu is an attractive city of education. The joint roadmap includes the following categories: • Research and development collaborations • Educational and working life collaborations • Learning environments There has been over 30 joint collaboration models, for instance training programmes familiarizing the students in diverse city sectors to boost recruitment and build skilled labour, Finnish as a Second Language Learning, and Master degree theses commissioned by the Educational Services. The objectives are implemented by action points and progress is monitored by indicators.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
• Urban Agenda for the EU: Jobs and skills in the local economy. • SDGs and the New Urban Agenda: 4 Quality education, 8 Decent work and economic growth.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
RDI projects have related to entrepreneurship education (https://www.businessoulu.com/en/frontpage-old/en/company-networks-2/oulu-innovation-alliance.html) and *Oppiva ope* concept (https://opendigi.fi/2019/09/23/oppiva-ope-tasta-se-lahtee/) focusing on teachers' learning and digipedagogical skills.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Citizen science research projects on diverse target groups are conducted. The City of Oulu Educational and Cultural Services provide access to its units to collect data and application development.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
The collaboration shares and develops initiatives, projects and practices. New initiatives are brought into discussion, and the entity is scanned yearly in regard to the joint roadmap (living document).
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.10. ARCTIC (UOULU)

010 ECOSYSTEM	ARCTIC COLLABORATION OF THE UNIVERSITY OF OULU (INCLUDING UARCTIC THE UNIVERSITY OF THE ARCTIC)			
UNIVERSITY OF OULU				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
National	Multilateral	Private		

Figure 30: Arctic (UOULU)
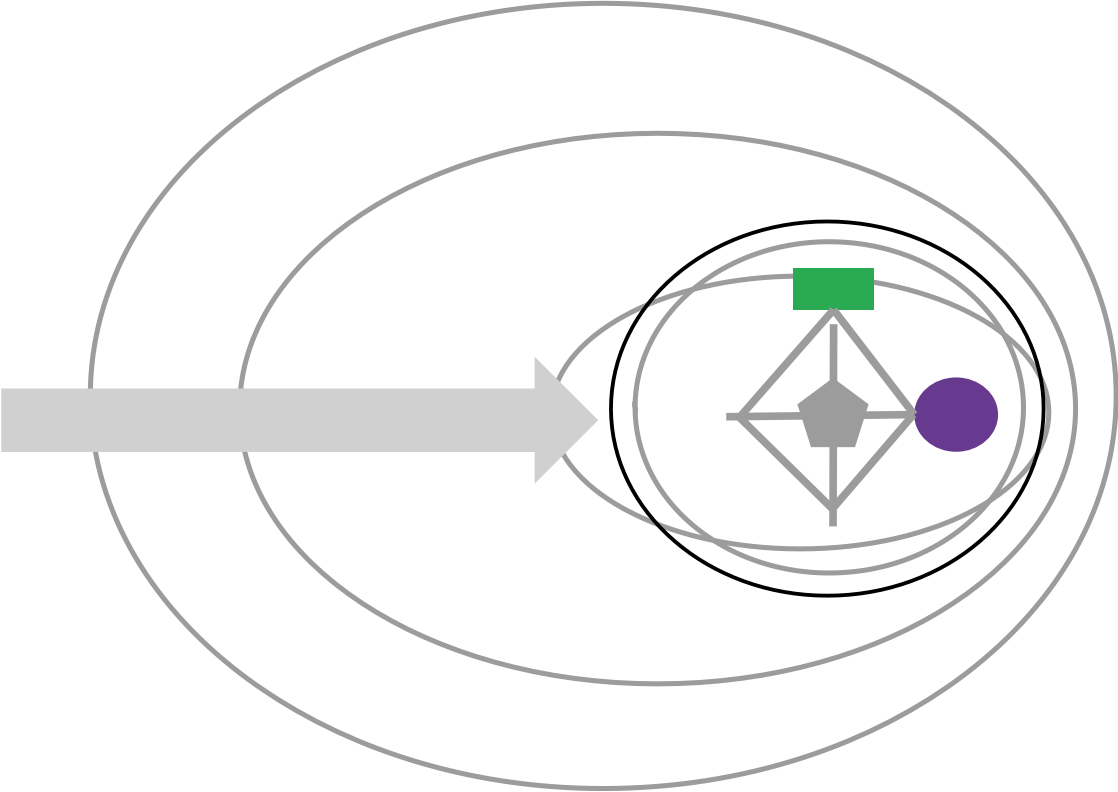
Source: Own elaboration, based on partners' documentation

10 ECOSYSTEM	ARCTIC COLLABORATION OF THE UNIVERSITY OF OULU (INCLUDING UARCTIC THE UNIVERSITY OF THE ARCTIC)
UNIVERSITY OF OULU	
Link	https://www.oulu.fi/en/research/our-arctic-agenda https://www.uarctic.org/
Area/Department in Charge	Thule Institute coordinates Arctic issues in the University of Oulu. The institute cooperates with national and international research and higher education institutes and is an active partner in several important Polar and Arctic networks. Additionally, the UArctic that is created through the Arctic Council, is committed to upholding its principles of sustainable development as well as the United Nations Sustainable Development Goals. UArctic is constituted as an international association based in Finland.
Brief Description	Sustainable future of Arctic areas requires joint efforts from different fields and regions. We work actively in networks that co-operate in matters related to Arctic education and research and offer connections to important national and international bodies and networks. The University of the Arctic (UArctic) is a network of universities, colleges, research institutes, and other organizations concerned with education and research in and about the North. UArctic builds and strengthens collective resources and infrastructures that enable member institutions to better serve their constituents and their regions.
Brief Methodology Description	Thule Institute cooperates and works with national and international research and higher education institutes, networks and organisations and in the Arctic Council working groups. Thule Institute is an active partner in several Polar and Arctic networks. The most important ones are: Arctic Council, European Polar Board (EPB), Finnish National Committee of Arctic and Antarctic Research, International Arctic Science Committee (IASC), and International Union of Circumpolar Health (IUCH). Partnering in national and international networks and organisations. Thule Institute takes part in national and international research strategy work, aimed at focusing research into areas that are important and topical from the point of view of society. Furthermore, UArctic enhance through cooperation in education, research, and outreach human capacity in the North, promote viable communities and sustainable economies, and forge global partnerships.
Universities and Research Centres	Arctic Five – consisting University of Oulu, University of Lapland, Arctic University of Norway UiT, Luleå Technical University and Umeå University. UArctic – 230 Universities: https://www.uarctic.org/member-profiles/
City Government and other Public Bodies	Arctic matters in Finland are coordinated nationally by Government and guided with an updated Arctic strategy published in 2021. According to the strategy, the whole of Finland is an Arctic country. Finland's Arctic interests and Arctic expertise affect the whole country. Additionally, Finland's arcticness supports and strengthens Finland's international Arctic country brand in international contexts. The strategy covers approximately two parliamentary terms and extends until 2030. Finland's strategy for Arctic Policy: https://julkaisut.valtioneuvosto.fi/handle/10024/163247

Enterprises	In Arctic context to ecological, cultural, social, political and economic sustainability are at core importance. Both raw materials, resources, routes, and side-streams are attracting businesses and the economic opportunities they offer (tourism, mining, energy production, fishing, reindeer herding etc.).
Non-profit Organisations	NA
Citizens	NA

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Arctic Science Summit Week ASSW: https://www.assw.info/ Arctic Frontiers: https://www.arcticfrontiers.com/ Arctic Circle: https://www.arcticcircle.org/ International Arctic Science Committee IASC: https://iasc.info/ UArctic Conference (bi-annual): https://research.uarctic.org/about-research/
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Conferences and other events.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Through institutional memberships.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Open calls etc.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
Each Arctic organisation / institution has their own governing body that facilitates objective setting.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?

Vision: A strong, engaged, informed, and dynamic North, creating better lives and environments for all northerners.

Mission: UArctic develops knowledge to address local and global challenges of relevance to Arctic peoples and societies by providing unique educational, research, and innovation opportunities through collaboration within a powerful network of member institutions.

- Values:

- Circumpolar: UArctic promotes northern voices and a circumpolar world view.

- Inclusive: UArctic embraces and respects cultural diversity, language plurality, and gender equality.

- Respectful: UArctic promotes relationships of respect, trust, and partnership, and embraces the perspectives and knowledge of northern Indigenous peoples.

- Collaborative: UArctic is committed to supporting participatory approaches to the production and sharing of knowledge.

- Open: UArctic is a university network without walls, committed to reducing all barriers to cooperation across borders, cultures, and academic systems, embracing transparency and openness.

- Influential: UArctic provides decision-makers with knowledge-based advice that supports sustainable development in the Arctic.

Impact:

1. Bring northern voices and knowledge to the global stage, increasing understanding and respect towards the region

2. Increase human competence and capacity in the North

3. Improve lives and communities for all northerners

4. Create a healthy environment that serves the North and the world over generation

University of Arctic (UArctic) collaboration is focused on the following themes:

- Ageing and Gender in the Arctic

- Arctic and Northern Governance

- Arctic Boreal Hub

- Arctic Economic Science

- Arctic Engineering

- Arctic Extractive Industries

- Arctic Geology

- Arctic in Asia and Asia in the Arctic

- Arctic Indigeneous Film

- Arctic Law

- Arctic Migration

- Arctic Plastic Pollution

- Arctic Safety and Security
- Arctic Space Hub
- Arctic Sustainable Arts and Design (ASAD)
- Arctic Sustainable Resources and Social Responsibility
- Arctic Gelecommunications and Networking
- Arctic Transport and Logistics
- Arctic Urban Planning and Design
- Arctic WASH
- Arthropods of the Tundra / NeAT
- BEBO – for the Future of Reindeer Husbandry
- Bioregional Planning for Resilient Rural Communities
- Children of the Arctic
- Circular Economy
- Circumpolar Archives, Folklore and Ethnography (CAFE)
- Climate Justice in the Arctic
- Collaborative Resource Management
- Communating Arctice Research
- Critical Arctic Studies
- Disasters and Natural Hazards
- Distance Education and e-Learning
- EALÁT Institute
- Gender in the Arctic Knowledge Production
- Geopolitics and Security
- Global Ecological and Economic Connections in Arctic and Sub-Arctic Grab Fisheries
- Health and Well-being in the Arcti
- Herbivory
- Institute for Arctic Policy
- Local-Scale Planning, Climate Change and Resilience
- Laera Institute for Circumpolar Education
- Managing Small and Medium Sized Enterprises in the North
- Model Arctic Council
- Northern Food Security
- Northern Nursing Education
- Northern Research Forum
- Northern Tourism
- Ocean Food Systems
- Permafrost

- POPs and Chemicals of Emerging Concern in the Asian Arctic

- Renewable Energy

- Science Diplomacy

- Smart Societies in the High North (SmartNorth)

- Social Work

- Sustainable Production and Foraging of Natural Products in the North

- Teacher Education for Social Justice and Diversity in Education

To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?

Urban Agenda for the EU: Jobs and skills in the local economy, Air quality, Circular economy, Climate adaptation, Sustainable use of land and nature-based solutions.

SDGs and the New Urban Agenda: 3 Ensure healthy lives and promote well-being for all at all ages, 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, 5 Achieve gender equality and empower all women and girls,7 Ensure access to affordable, reliable, sustainable and modern energy for all, 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, 10 Reduce in equality within and among countries, 13 Take urgent action to combat climate change and its impacts, 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development, 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss, 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)

EU Polar net: https://eu-polarnet.eu/

ICARP III Integrating Arctic Research - Roadmap for the Future : https://icarp.iasc.info/

Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?

Yes, participatory action research is the main form.

Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this

Conferences, other events and subscriptions to information newsletters etc.

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

Arctic collaboration of the University of Oulu brings arctic expertise to UNIC Engaged Research and UNIC City Labs Oulu.

2.3.11. ENGAGED RESEARCH PROJECTS (RUB)

11 ECOSYSTEM	RUHR UNIVERSITY BOCHUM ENGAGED RESEARCH PROJECTS			
RUHR UNIVERSITY BOCHUM				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
	Multilateral	Private		
		Non-Profit		

Figure 31: Engaged Research Projects (RUB)
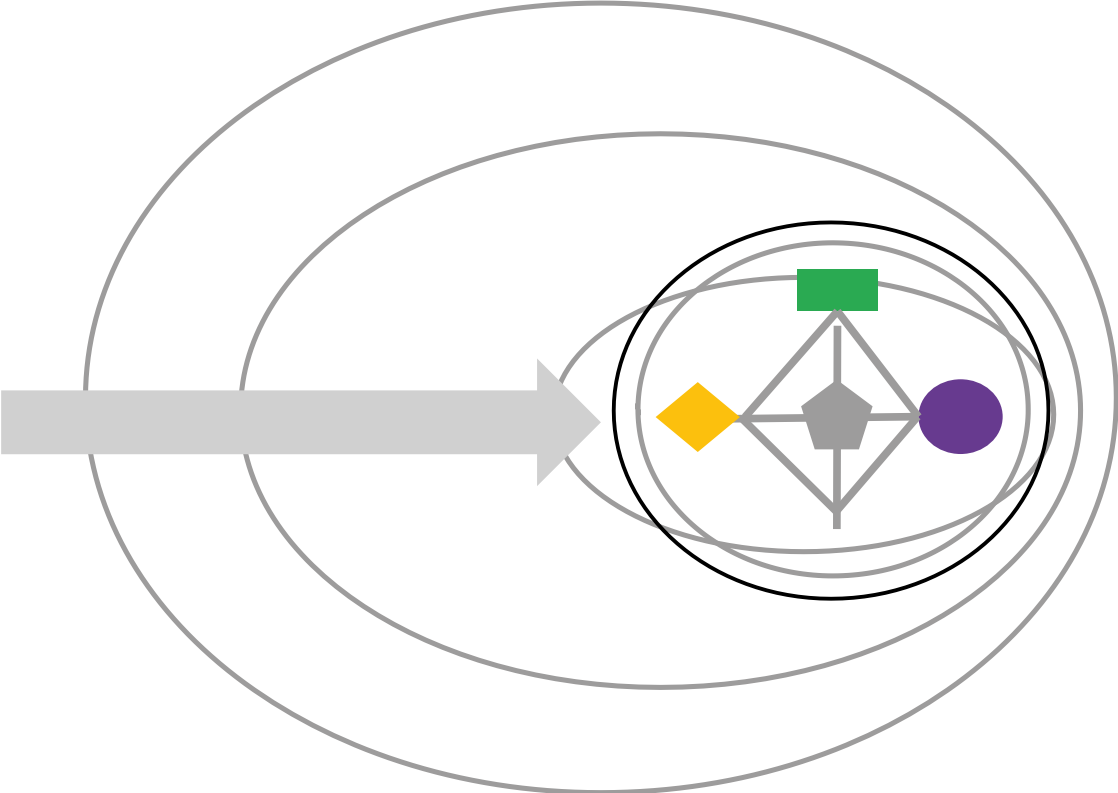
Source: Own elaboration, based on partners' documentation

11.01 SUB-ECOSYSTEM	CSI:DROP
RUHR UNIVERSITY BOCHUM	
Link	https://www.csidrop.ruhr-uni-bochum.de/
Area/Department in Charge	Alfried Krupp-Schülerlabor der Wissenschaften der Ruhr-Universität Bochum (RUB Bereich MINT Lehrstuhl für Siedlungswasserwirtschaft und Umwelttechnik der RUB Blue Square/ Dezernat Hochschulkommunikation der RUB
Brief Description	Green Cities & Sustainability; Health & Wellbeing
Brief Methodology Description	With CS:iDrop®, citizens of Bochum are invited to work together with scientists and municipal partners to investigate selected chemical parameters of their drinking water on the "last meter" using chemical methods and to communicate about it.
Universities and Research Centres	Alfried Krupp-Schülerlabor der Wissenschaften der Ruhr-Universität Bochum (RUB Bereich MINT Lehrstuhl für Siedlungswasserwirtschaft und Umwelttechnik der RUB Blue Square/ Dezernat Hochschulkommunikation der RUB
City Government and other Public Bodies	RuhrChemAlytic/Technische Berufsschule 1 Bochum Stadtwerke Bochum GmbH Bochum
Enterprises	Marketing GmbH openSenseMap.org der WWU Münster
Non-profit Organisations	Arbeitsgruppe Science of Citizen Science in Zusammenarbeit mit Bürger schaffen Wissen Patentanwälte
Citizens	Citizens of Bochum are invited to work together with scientists and municipal partners

11.02 SUB-ECOSYSTEM	CORONARCHIV
RUHR UNIVERSITY BOCHUM	
Link	https://coronarchiv.blogs.uni-hamburg.de/ https://www.ruhr-unibochum.de/gdph/forschung/coronarchiv.html.de
Area/Department in Charge	Faculty of History, History Education and Public History
Brief Description	The coronarchive is a freely accessible, open online portal that welcomes anyone's contribution. Its purpose is to collect, archive, contextualize and exhibit personal memories and memorabilia from the time of the coronavirus pandemic.
Brief Methodology Description	The archive can include anything that is available in a digital or digitizable format: texts (journals, letters, emails, poems, newspaper and magazine articles, shopping lists, reports, signs, warnings, regulations), photographs, drawings, illustrations, videos, chats, social media posts, voice messages, songs, lectures and anything else that is relevant. With the coronarchive a central contact point for the documentation of the present is created, which not only allows a retrospective view of the events of the year 2020, but is also available for future research.
Universities and Research Centres	Universität Hamburg, University Giessen
City Government and other Public Bodies	Körber Stiftung https://www.koerberstiftung.de/geschichts wettbewerb
Enterprises	Medizinhistorisches Museum Hamburg https://www.uke.de/klinikeninstitute/institute/geschichte-und-ethik-dermedizin/medizinhistorischesmuseum/index.html
Non-profit Organisations	Museum für Hamburgische Geschichte
Citizens	

11.03 SUB-ECOSYSTEM	#SOCIALMEDIAHISTORY
RUHR UNIVERSITY BOCHUM	
Link	https://www.ruhr-uni-bochum.de/gd-ph/forschung/socialmedia.html.en
Area/Department in Charge	Faculty of History, History Education and Public History
Brief Description	History takes place —also and especially— in social media! Public History Hamburg, the History Education at the Ruhr University Bochum and Kulturpixel e. V. are exploring together with citizens how history is told on Instagram and TikTok.
Brief Methodology Description	The project explores forms of visual and participatory historiography on the internet. Together, they will develop analytical tools and test their own practices of representation. The aim is to enable and promote multiperspective and fact-based historical narratives and a critical and reflexive participation in historical discourses in social media.
Universities and Research Centres	University of Hamburg
City Government and other Public Bodies	Kulturpixel e.V.
Enterprises	
Non-profit Organisations	
Citizens	

11.04 SUB-ECOSYSTEM	REWEG DEIN QUARTIER
RUHR UNIVERSITY BOCHUM	
Link	https://bewegdeinquartier.de/
Area/Department in Charge	Centrum für Umweltmanagement, Ressourcen und Energie (CURE) Ruhr University Bochum
Brief Description	The public space is the central arena of urban mobility. This is where visions for the future must be negotiated - in dialogue and experimentation together with local people. Beweg Dein Quartier wants to rethink mobility, open up spaces of opportunity, establish new habits and develop projects together with many people for better mobility in the future and more quality of life locally.
Brief Methodology Description	What are the goals of Beweg Dein Quartier? • To find out about the mobility behaviour of the users and their perception of the neighbourhood on site and to give impulses for behavioural changes through of new offers. • Together with residents, users, stakeholders and the administration, develop plans for the medium and long-term transformation of urban mobility in the neighbourhood. • Finally, convince other cities to replicate appropriate mobilisation and participation processes.
Universities and Research Centres	• Centrum für Umweltmanagement, Ressourcen und Energie (CURE) • Ruhr University Bochum
City Government and other Public Bodies	• Stadt Essen, Stadt Offenbach • Urbanista GmbH & Co. KG
Enterprises	
Non-profit Organisations	
Citizens	

11.05 SUB-ECOSYSTEM	HUMAINRE – KOMPETENZZENTRUM HUMAINE - TRANSFER-HUB DER METROPOLE RUHR FÜR DIE HUMANZENTRIERTE ARBEIT MIT KI
RUHR UNIVERSITY BOCHUM	
Link	https://humaine.info/
Area/Department in Charge	Lehrstuhl Arbeit, Personal und Führung, Institut für Arbeitswissenschaft an der RUB, Institut für Neuroinformatik, Lehrstuhl für Produktionssysteme, Institut für Kommunikationsakustik, Industrial Sales and Service Engineering, Lehrstuhl Wirtschaftspsychologie, Gemeinsame Arbeitsstelle RUB/IGM
Brief Description	Artificial Intelligence. Funded by the Federal Ministry of Education and Research. The project brings together researchers from ergonomics, neuroinformatics, engineering, psychology and social sciences with actors from various medium-sized companies and transfer specialists in the Ruhr area.
Brief Methodology Description	The competence center HUMAINE is a transfer hub of Metropole Ruhr for human-centered work with AI develops methods for the integration of artificial intelligence into work processes that serve to improve working and living conditions. The focus is on innovative methods at the interface between AI development and AI use.
Universities and Research Centres	HSG Bochum, Institut Arbeit und Qualifikation (University of Duisburg-Essen),
City Government and other Public Bodies	Bochum Wirtschaftsentwicklung, MedEcon Ruhr, Universitätsklinikum Knappschaftskranken haus Bochum, Ruhr:HUB, Handwerk NRW, IHK Mittleres Ruhrgebiet
Enterprises	
Non-profit Organisations	
Citizens	

11.06 SUB-ECOSYSTEM	LELINA – LERN UND ERLEBNISLABOR INDUSTRIENATUR
RUHR UNIVERSITY BOCHUM	
Link	https://www.lelina.ruhr/
Area/Department in Charge	Ruhr University Bochum, Geographisches Institut, AG Geographiedidaktik
Brief Description	Exploration of urban nature. LELINA is funded by the German Federal Agency for Nature Conservation with funds from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection. The aim is to get to know, appreciate and preserve the special urban nature of the Ruhr region. In this way, the learners' knowledge of nature and the environment is to be expanded, natural and social science connections are to be recognized and, at the same time, inclusion is to be lived, personality is to be promoted and the living and school environment is to be perceived, understood and co-designed.
Brief Methodology Description	In the LELINA project, five extracurricular learning and experience laboratories are being set up in the Metropole Ruhr in two steps. These will enable students of different school types and grades to explore industrial nature directly on site through research and discovery learning.
Universities and Research Centres	Bergische Universität Wuppertal
City Government and other Public Bodies	Regionalverband Ruhr, Biologische
Enterprises	Station Westliches
Non-profit Organisations	Ruhrgebiet e. V.
Citizens	

11.07 SUB-ECOSYSTEM	DIGITAL HEALTH FACTORY RUHR
RUHR UNIVERSITY BOCHUM	
Link	https://digital-health-factory.ruhr/
Area/Department in Charge	Ruhr University Bochum
Brief Description	Digital Urban Health In the regional context, there are a large number of individual and unconnected disease. Neighbourhood and facility specific digital health approaches that address these problems. However, it would be necessary to develop digital health in metropolitan areas in such a way that socio-spatially effective system solutions are combined with solutions that can be adapted to specific target groups and situations. It is thus a matter of linking (infra)structural, social and technological innovations in which digital solutions become effective as part of new care and business models.
Brief Methodology Description	To this end, the alliance is pursuing the development of a new type of production facility for digital solutions in urban healthcare with the Digital Health Factory Ruhr. With its three interacting workshops, it functions as a basis for cooperative project developments and digital business and care models. The workshops include the aggregation, availability and processing of health-related data (data workshop), the development of cooperative projects, care and business models based on this data (innovation workshop) as well as the participation and empowerment of potential users (learning workshop).
Universities and Research Centres	HSG Bochum, Fraunhofer (ISST), FachhochschuleDortmund, Institut Arbeit und Technik, University Witten/Herdecke,
City Government and other Public Bodies	MedEcon Ruhr, Regionalverband Ruhr, Arbeiterwohlfahrt Ruhr-Mitte, Stadt Dortmund,
Enterprises	Koordinierungsstelle "nordwärts", contec GmbH Bochum
Non-profit Organisations	
Citizens	

11.08 SUB-ECOSYSTEM	KOMET – KOMPETENZFELD METROPOLENFORSCHUNG
RUHR UNIVERSITY BOCHUM	
Link	https://metropolenforschung.uaruhr.de/
Area/Department in Charge	Ruhr-Universität Bochum, Geographisches Institut, Lehrstuhl für Urban & Metropolitan Studies
Brief Description	Metropolitan research. The Competence Field of Metropolitan Research (KoMet) forms the central platform for the integration of research, teaching and transfer regarding all aspects of metropolitan research throughout the University Alliance Ruhr. As an internationally recognized center for inter- and transdisciplinary metropolitan research, KoMet bundles the complementary competencies of the three partneruniversities (University of Duisburg-Essen, Ruhr University Bochum and TU Dortmund University) across all research cultures and faculties and to utilize the strength of the region through networking with research institutes and practical partners outside the university.
Brief Methodology Description	The thematic focus is structured along central societal challenges that can only be successfully addressed through inter- and transdisciplinary cooperation. Eight interdisciplinary research fields seek to develop and intensify research cooperations between the more than 150 participating researchers. In addition, students and young researchers are supported by innovative exchange and support formats in close connection to research and teaching as well as by joint and mutually opened courses within the University Alliance Ruhr.
Universities and Research Centres	Universität Duisburg-Essen, Technische Universität Dortmund
City Government and other Public Bodies	Emschergenossensch aft, Regionalverband Ruhr,
Enterprises	Verkehrsverbund Rhein-Ruhr
Non-profit Organisations	
Citizens	

Nature and structure	
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?	To date, there are no established ecosystems in the field of engaged research in which the Ruhr-Universität Bochum has developed structures for long-term cooperation together with the city of Bochum or other local stakeholders.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?	
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?	Both with regard to the existing broad implementation of student research projects within study programs and with regard to research projects which community partners are involved in, the partners involved change depending on the research topic. Examples of recent research projects involving community partners can be found in the attached overview.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?	
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?	

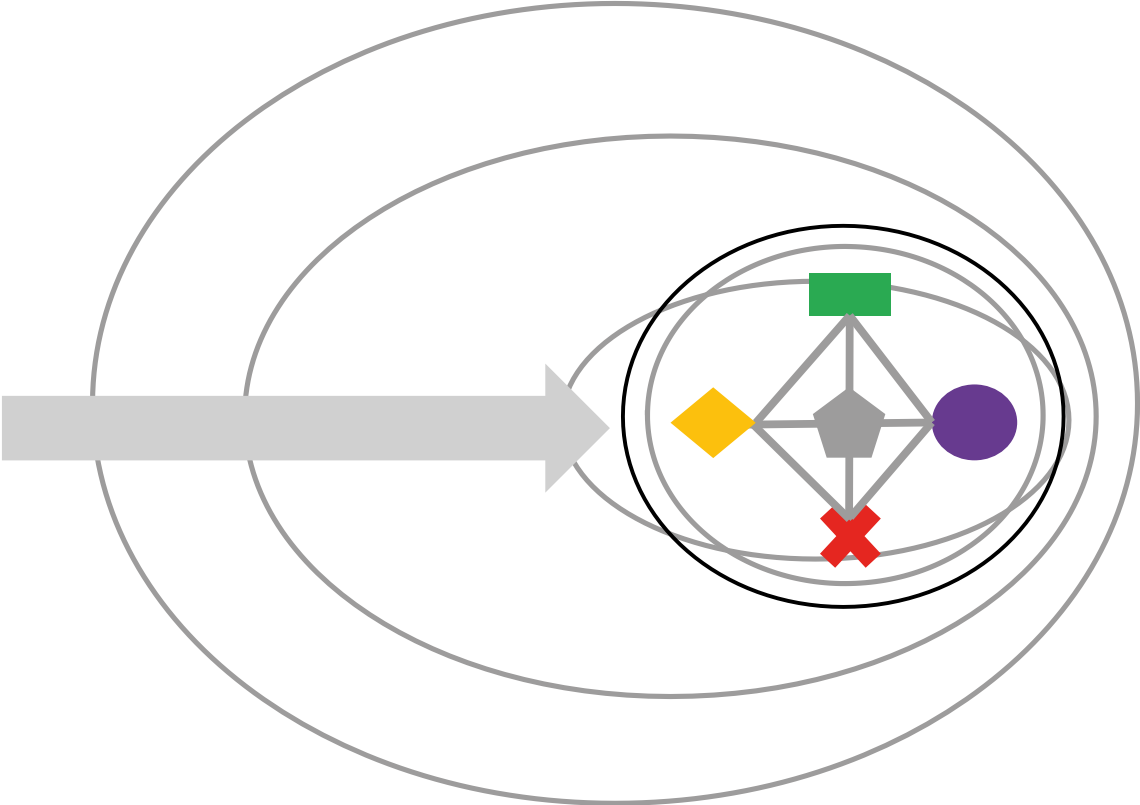| Objectives, activity and processes	
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?	This shows examples from various disciplines as well as different participation opportunities for non-university actors. The opportunities for participation range from the generation of data (e.g. by measuring water quality) to involvement in the development of solutions (e.g. with regard to the redesign of urban mobility in the neighbourhood) to the creation of content for scientific communication. In addition to the cities and the citizens, the municipal utilities, libraries, transport associations, the German Red Cross, Bochum Economic Development and the local chambers of industry and commerce are also involved. Thematically, the presented projects deal with the topics (according to the Urban Agenda for the EU) housing (CSi:drop), culture and cultural heritage (#SocialMediaHistory), urban mobility (Beweg Dein Quartier) or jobs and skills in the local economy (HUMAINE).
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?	
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)	
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?	
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this	
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?	Since we have no long-term oriented, topic related collaborative structure or ecosystem yet in place, the UNIC city labs may work as an facilitator to develop structures like this. As part of the UNIC CityLabs work package, several events have already been organised by the university and the city together with citizens and local stakeholders. Through the joint work of the university and the city, a process has been installed on how to find and define topics for upcoming CityLabs and how to implement the CityLabs together. In addition, there are fixed contact persons on both sides. These existing structures simplify the exchange between topic related structures and the city. In addition, through the implementation of the CityLabs, contacts are made with interested citizens as well as with relevant local actors. Next to this, there is also an agreement with the city of Bochum that the insights and solution ideas gained from the CityLabs will be passed on to the city's committee work. This agreement enables the CityLabs to have a direct influence on developments in Bochum.

	UNIC CityLabs offer a low-threshold opportunity for citizens and local stakeholders to exchange and network on socially relevant topics with the city and science, but also with each other. Due to the changing topics that are dealt with in the CityLabs, new and different groups of citizens and stakeholders can get involved in the discussions and the problem-solving process. The topics that are taken up in the CityLabs result on the one hand from the Urban Agenda for the EU and on the other hand from the current social challenges the city is facing. These include the topics of environmental, economic, social and cultural development. The three-stage process of the UNIC CityLabs provides for a CityLab at the end, in which suggestions are made as to how the previously elaborated solutions can be taken up by the city, local organisations, etc. and, if necessary, implemented (in part). Since the citizens are not only involved in the identification of societal challenges, but can also actively contribute to the development of possible solutions, they have the opportunity to participate concretely in the solution of challenges that can also influence their own lives and their own environment.

2.3.12. CAMPUS ENGAGE (UCC)

12 ECOSYSTEM	CAMPUS ENGAGE			
UNIVERSITY COLLEGE CORK				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
National	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 32: Campus Engage (UCC)

Source: Own elaboration, based on partners' documentation

12 ECOSYSTEM	CAMPUS ENGAGE
UNIVERSITY COLLEGE CORK	
Link	https://www.campusengage.ie/
Area/Department in Charge	Irish Universities Association
Brief Description	Campus Engage is dedicated to supporting Irish higher education institutions to embed, scale and promote civic and community engagement across staff and student teaching, learning and research.
Brief Methodology Description	Campus Engage is focused on the following areas of activity: • Engaged Research and Innovation for Societal Impact: research that aims to improve, understand or investigate an issue of public interest or concern, advanced with community partners rather than for them. • Planning for Impact: building a national Framework for measuring and evaluating the positive social impact of higher education civic and community engagement. • Community-based Teaching and Learning: accredited experiential community-based learning/ community-based research (service learning). • Student Volunteering: scaling student volunteering through our online 'tech for good' system studentvolunteer.ie For this engaged research mapping exercise, we will focus on the first two points; however, it should be noted that Campus Engage is part of a larger overarching framework designed to promote and support civic and community engagement (CCE) as a core function of Irish higher education and to integrate CCE as the third mission in Irish HEIs along with research and with teaching and learning.
Universities and Research Centres	Campus Engage is based within the Irish Universities Association (IUA) which is the voice of the university sector in Ireland. The IUA is committed to represent the interests of its member universities as key contributors to the economic, social and cultural well-being of Ireland. The IUA's priority is to ensure that the university education system is adequately resourced and prepared for the challenges of the future. Members of the IUA include University College Cork, University College Dublin, Trinity College Dublin, National University of Ireland Galway, University of Limerick, Maynooth University, Dublin City University and Technical University Dublin. In 2018, IUA member universities committed to a joint Charter to grow and develop the university education system for this and future generations of students. Details of this six-point plan can be found within the online document *Ireland's Further Talent – A Charter for Irish Universities*. Further, Irish universities are key centres of excellence in research and the IUA works closely with partners such as Science Foundation Ireland and the Irish Research Council, and with industry.

City Government and other Public Bodies	Campus Engage works with the following national research, funding and policy agencies to support our work across research, teaching and learning:
	• The Irish Higher Education Authority (HEA) leads the strategic development of the Irish higher education and research system with the objective of creating a coherent system of diverse institutions with distinct missions, which is responsive to the social, cultural and economic development of Ireland and its people and supports the achievement of national objectives. The HEA has a seat of the Campus Engage Steering Committee. The HEA is accountable to the Minister for Education and Skills for the achievement of national outcomes for the higher education sector. The HEA exercises a central oversight role in the higher education system and is the lead agency in the creation of a co-ordinated system of higher education institutions with clear and diverse roles appropriate to their strengths and national needs. HEA acts as a catalyst for change in the higher education system, requiring higher levels of performance while demonstrating an appropriate level of accountability, consistent with institutional autonomy and academic freedom.

• Irish Research Council whose mission is to enable and sustain a vibrant research community in Ireland by supporting excellent researchers in all disciplines from arts to zoology. The IRC is an associate agency of the Department of Education and Skills, under the aegis of the Higher Education Authority (HEA), and is mandated to fund excellent research within, and between, all disciplines, and in doing so to enhance Ireland's international reputation as a centre for research and learning.

• Science Foundation Ireland (SFI) which invests in academic researchers and research teams who are most likely to generate new knowledge, leading edge technologies and competitive enterprises in the fields of science, technology, engineering and maths (STEM). The Foundation also promotes and supports the study of, education in, and engagement with STEM and promotes an awareness and understanding of the value of STEM to society and, in particular, to the growth of the economy. SFI makes grants based upon the merit review of distinguished scientists. SFI also advances co-operative efforts among education, government, and industry that support its fields of emphasis and promotes Ireland's ensuing achievements around the world.

• The National Forum for the Enhancement of Teaching and Learning which was established to enhance the teaching and learning for all students in higher education. The National Forum engages with leaders, managers, teachers and students, it mobilises expertise and inputs from across the entire sector to extend and shape best practice in all institutes of higher education in Ireland. The National Forum also funds research designed to advance the frontiers of teaching and learning.

• The Health Research Board (HRB) is a state agency that supports research and provides evidence to prevent illness, improve health and transform patient care. The HRB's vision is "better health through excellent research, data and evidence" and their mission is "to support research that improves people's health, promotes evidence-informed care and creates solutions to societal challenges". The agency is funded mainly by the Department of Health and Board members are appointed by the Minister for Health.

• The Technological Higher Education Association is the voice of the technological higher education sector, advocating on behalf of and supporting our members in achieving their aims and objectives. The technological higher education sector in Ireland comprises 11 Institutes of Technology and one Technological University, geographically dispersed across Ireland. The sector offers a unique system of higher education, which allows students to progress from level 6 to level 10 of the National Framework of Qualifications. The Technological Higher Education Association is their representative body. |

City Government and other Public Bodies	Member HEI's independently engage and partner with their local and/or regional governments. The primary point of connection between UCC and the Cork City and County Councils is the UCC Office of Civic and Community Engagement (CCE) which is led by Dr. Martin Galvin which is part of the Office of the Vice President External Relations and Development. CCE enables and supports a diverse range of people and community groups to partner with UCC staff and students to carry out research on a wide range of societal challenges and sustainable development goals, with global citizenship as a core value and outcome. Further information can be found in the UCC Civic Engagement Plan. CCE acts as the UNIC CityLabs interface between UCC and the local government councils.

Additionally, the Campus Engage Network members work with a range of national, EU and international organisations. Please find below a list of some of the organisations currently working with Campus Engage:

- National Coordinating Centre for Public Engagement (NCCP) which aims to support cultural change in the HEI sector by supporting universities to increase the quantity and quality of their public engagement activity.

- The international Living Knowledge Network (LK) is set up for people interested in building partnerships for public access to research. Members use the network platform and its tools for documentation and to exchange information, ideas, experiences and expertise on community-based research and science and society relations in general. Living Knowledge focuses on strategic issues and is active within political settings. The network's activities range from strategic networking to training of individual skills and from information to mentoring of old and new practitioners in public engagement with research.

- Europe Engage was set up to develop a culture of civic engagement through service-learning within higher education in Europe is a 3-year project funded by the European Union with the purpose of identifying existing service-learning practice, promoting service-learning as a pedagogical approach, and creating a network in this region, where much remains to be done in terms of civic engagement and service-learning.

- The Talloires Network is an international association of institutions committed to strengthening the civic roles and social responsibilities of higher education. They work together to implement the recommendations of the Talloires Declaration and build a global movement of engaged universities.

- The International Consortium for Higher Education, Civic Responsibility, and Democracy (IC) which seeks to develop, explain and advance the contributions of higher education to democracy on college and university campuses, their local communities and the wider society. The Consortium works in collaboration with the Council of Europe (CoE)* and its Steering Committee on Educational Policy and Practice (CDPPE) with representatives of the 50 States party to the European Cultural Convention and is comprised of the United States (represented by a Steering Committee from the American Association of State Colleges and Universities, American Council on Education, Association of American Colleges and Universities, Campus Compact, Democracy Commitment and NASPA-Student Affairs Professionals in Higher Education, Australia (Engagement Australia), the United Kingdom (represented by the National Co-ordinating Centre for Public Engagement), and Ireland (Campus Engage Ireland).

City Government and other Public Bodies	• The Global University Network for Innovation (GUNi) is an international network created in 1999 by UNESCO, the United Nations University (UNU) and the Universitat Politècnica de Catalunya – BarcelonaTech (UPC), after UNESCO's World Conference on Higher Education (WCHE) in 1998, to give continuity to and facilitate the implementation of its main decisions. Ten years later in 2009, GUNi played a significant role in the second WCHE, following its mandate to further reflection and action frameworks to facilitate the exchange of value between higher education and society globally.
	• UNESCO Chairs in Community-based Research and Social Responsibility in Higher Education which grows out of and supports the UNESCO global lead to play "a key role in assisting countries to build knowledge societies". This recently created UNESCO Chair is co-located at the Community Development Programme in the School of Public Administration at the University of Victoria (UVic) in Canada and at the Society for Participatory Research in Asia (PRIA) located in New Delhi, India.
	• Australian Universities Community Engagement Alliance (AUCEA) is a not-for-profit organisation committed to fostering university-community engagement throughout Australia and the Asia Pacific region. We aim to achieve excellence in university-community engaged teaching and research, to further develop communities, and to shape our future citizens by working together – within and outside the higher education sector. We hope that the website will become an invaluable tool and useful resource for members to share learnings, to gain access to the latest information, and to showcase their success stories, as part of us working together. Join our quest to bring universities and communities closer together for the benefit of all.
	• Campus Compact which is a US based coalition of more than 1,100 college and university presidents – representing some 6 million students – dedicated to promoting community service, civic engagement, and service-learning in higher education.
	• The Carnegie Foundation for the Advancement of Teaching is an independent policy and research centre. Improving teaching and learning has always been Carnegie's motivation and heritage.
	• The Canadian Alliance for Community Service-Learning provides leadership and support for the development and enhancement of Community Service-Learning in Canada, connects with international networks, and promotes the benefits of this approach to universities, students, and community organizations. The Alliance is an informal organization which is led by a Steering Committee, and currently has a single staff person hosted at Carleton University in Ottawa who acts as Director.
Enterprises	We are not aware of specific examples of enterprise collaborations with Campus Engage. However, there is linkage between the Irish Universities Association and Enterprise Ireland's Industrial Research & Commercialisation Committee through the External Representation Working Group of the IUA Council. Irish universities are major drivers of research and innovation in Ireland and account for 20% of total annual national expenditure on R&D and represent 83% of all R&D expenditure in the higher education sector. The Higher Education Authority is also a partner of Campus Engage which produced the policy document Collaborating for Talent and Growth: Strategy for Higher Education-Enterprise Engagement 2015-2020. The strategy emphasises that our higher education system must continue to excel in enlightened, rounded development of people and in constantly striving to reach new frontiers in discovery and knowledge. In addition, however, the role of higher education in human capital development is underlined, in a country where our people are our greatest asset and where we aim to become a high-value, high-knowledge economy and society.

Non-profit Organisations	Campus Engage partnered with the following NGO's and CSO's in the development of an Introductory Guide for Community Groups and Organisations: • Fintan Maher is Director of Public Engagement at Trócaire. Responsibility for the strategic direction and success of Trócaire's public engagement, outreach, policy and advocacy and communications. Contact Fintan at fmaher@trocaire.ie • Des Mulligan is Regional Manager, West and North West Region for the Alzheimer's Society of Ireland. Contact Des at info@alzheimer.ie Campus Engage also partners with Deirdre Garvey, Chief Executive Officer, The Wheel which is Ireland's largest representative and support body for the community and voluntary sector and collaborated with Campus Engage in the development the Engaged Research Society and Higher Education report.
Citizens	Campus Engage Supported the Oversight of Citizen's Jury on Access to Health Information. The Irish Platform for Patient Organisations, Science and Industry (IPPOSI) has launched a nationwide campaign to identify 25 members of the public, broadly representative of the Irish population, willing to step up as members of a Citizens' Jury to deliberate on the matter of access to health information. Following careful deliberation by the jury, the aim is to arrive at a consensus on the issues raised, with recommendations delivered to Government in the context of new health information legislation as well as the creation of a national Electronic Health Record. The IPPOSI is a patient-led organisation that works with patients, government, industry, science and academia to put patients at the heart of health policy and innovation. IUA will be represented on the Oversight Committee by Head of Campus Engage, Kate Morris

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Campus Engage has a strong online presence via their website which provides organisational details, details work efforts while providing online resources and organisational news. Resources within hosted on this website are details in question 4 below. Campus Engage works directly with governmental and funding agencies as well as international partners detailed in question 7 in the general section above.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Yes, there is a network of services offered by Campus Engage as detailed in question 4 directly above. For example, two UCC staff were recently completed the for Engaged Research & Innovation for Societal Impact training and will now begin training staff within UCC. Staff from the 7 other IUA partner HEIs also had staff complete this training will likewise offer further trainings within their home institutions.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
On June 16, 2014, leaders of all Irish Universities; and Institutes of Technology from across Ireland came together in Dublin Castle to sign the Campus Engage Charter for Civic and Community Engagement. The signing of the Charter indicated a willingness to enhance further the links between higher education and society. Subsequently, the institutions have worked collaboratively to agree a Framework to measure civic and community engagement across the sector, which articulate and elaborate the ambitions of the Charter. Signatures included 23 Irish HEIs, the IUA, the HEA, the Institute of Technical Universities and the Department of Education and Skills.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
As detailed in question 9 in the general section, NGO's have contributed to the development of published resources. There is also considerable contribution from agencies in the development of trainings. For example, the recent Engaged Research & Innovation for Societal Impact training had contributions from the Higher Education Authority, the Irish Research Council, the Health Research Board, the Environmental Protection Agency, the Royal Irish Academy, Enterprise Ireland, Health Research Charities Ireland and the Technological Higher Education Association.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The Irish Universities Association and the Higher Education Authority and representatives from the 8 partner HEIs through the Campus Engage Steering Committee.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Campus Engage is a national organisation. Ireland is a small country with under 5.5 million people. It is highly centralised nationally with a weak system of local government. Therefore, the locus of much activity in Ireland is at the National Level and not City. Connections between UCC and Cork City Council are locally driven between the university and the city. However, the nationally agreed framework for cooperation with society, agreed by the universities under Campus Engage, provides a focus for city and university cooperation and collaboration, which includes Engaged Research, Engaged Learning, Volunteering and Partnerships. For example, Campus Engage recently published *Shared Future – Shared Goals: Progressing Government Policy with Engaged Research for Societal Impact* to support evidence-informed policy, practice, process change and innovations for societal impact. This Briefing considers how higher education researchers, policy makers, the public could work better together to address our most complex societal challenges – reaching emissions targets; building affordable homes for all; health service reforms; ending direct provision etc.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Campus Engage support would be EU Urban Agenda would occur via its direct alignment with the UN Sustainable Development Goals. As per the Urban Agenda for the EU Multi-level governance in action 2021 Update (p. 6): "Through its contribution to the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda, the Urban Agenda for the EU is also outward-looking and connected to global challenges" (p. 6). and "the international dimension represents an important cross-cutting issue within the Urban Agenda for the EU. Urban policies of the Member States need to collectively respond to global challenges at EU level and be in accordance with international agreements such as the UN 2030 Agenda's SDGs, the New Urban Agenda, and the Paris Agreement on Climate Change." (P. 27).
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
A primary focus area for Campus Engage is Engaged Research and Innovation for Societal Impact: research that aims to improve, understand or investigate an issue of public interest or concern, advanced with community partners rather than for them.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Including citizens in discussions over constitutional reform
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this

Campus Engage has a considerable [web based library of resources](#) including publications, tools, case studies, glossary of terms and trainings to support staff, students, civic and civil society organisations to embed, scale and promote engagement across campuses and local, national and international communities. Notable publications to support Engaged Research include:

- [Engaged Research Society and Higher Education](#)
- [Engaged Research Planning for Impact: society and higher education addressing grand societal challenges together 2022](#)
- [Engaged research principles and good practices 2022](#)
- [Engaged research framework 2022](#)
- [Government, society and higher education working together to address societal challenges: a briefing for senior civil servants and policymakers](#)
- [Engaged research for impact: a policy briefing for higher education institutions](#)
- [Engaged research for impact: a policy briefing for funding agencies](#)

The Campus Engage offered a 6-week Online Train the Trainer Course for [Engaged Research & Innovation for Societal Impact](#) from March to May of 2022. Campus Engage, the Irish Universities Association, the Higher Education Authority are partnering to advance training on engaged research and innovation for societal impact. The primary objective of this course is to grow the pool of Campus Engage Facilitators who can deliver the one-day workshop on Engaged Research for Societal Impact to researchers across Ireland. The aim of this CPD training was to build capacity for engaged research across Ireland though the dissemination of best practice. Engaged Research and Innovation for Societal Impact. Specific topics covered include:

- Engaged Research and Innovation for Societal Impact,
- Innovative Approaches to Realising Research Impact,
- Methodological Approaches for Engaging Diverse Stakeholders,
- Mobilising Research into Policy and Practice,
- Monitoring and Evaluating Research Outcomes,
- And Campus Engage Facilitator Training

Campus engage also offers other trainings such as the [Community Engaged Learning (CEL) course](#) is an introductory programme for teaching staff in higher education, which explores the basic concepts and practical steps on how to integrate CEL into any teaching curriculum. The course is built around a series of video tutorials, solo and group activities, a selection of academic and grey reading material, and online case studies with community partners, students and academics.

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

There is good potential to utilise the CityLabs structure and framework as a model of best practice for other HEIs within the IUA and Campus Engage via the UCC representative on the Campus Engage steering committee. However, it would appear prudent to fully activate the CityLab at a local level in Cork before proceeding with this course of action.

Campus Engage does provide documents in their resource library that target citizen groups such as [Campus-Community Partnerships: Communities and Higher Education Institutions working together for social change](#). This guide has been written by experienced community and higher education partners, with a decade of direct experience of campus-community engagement. The aim of this guide is to help the community find meaningful ways to access and partner with Higher Education Institutions (HEIs) in Ireland. There are also a wide variety of guides that focus on community engagement which could be helpful for civic and civil society organization to understand the process of engagement and to realise the strengths and limitations of working with academic researchers.

2.3.13. PPI IGNITE NETWORK @UCC (UCC)

13 ECOSYSTEM	PPI IGNITE NETWORK@UCC			
UNIVERSITY COLLEGE CORK				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	Mono
Regional		Public		
National	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 33: PPI Ignite Network@ UCC (UCC)
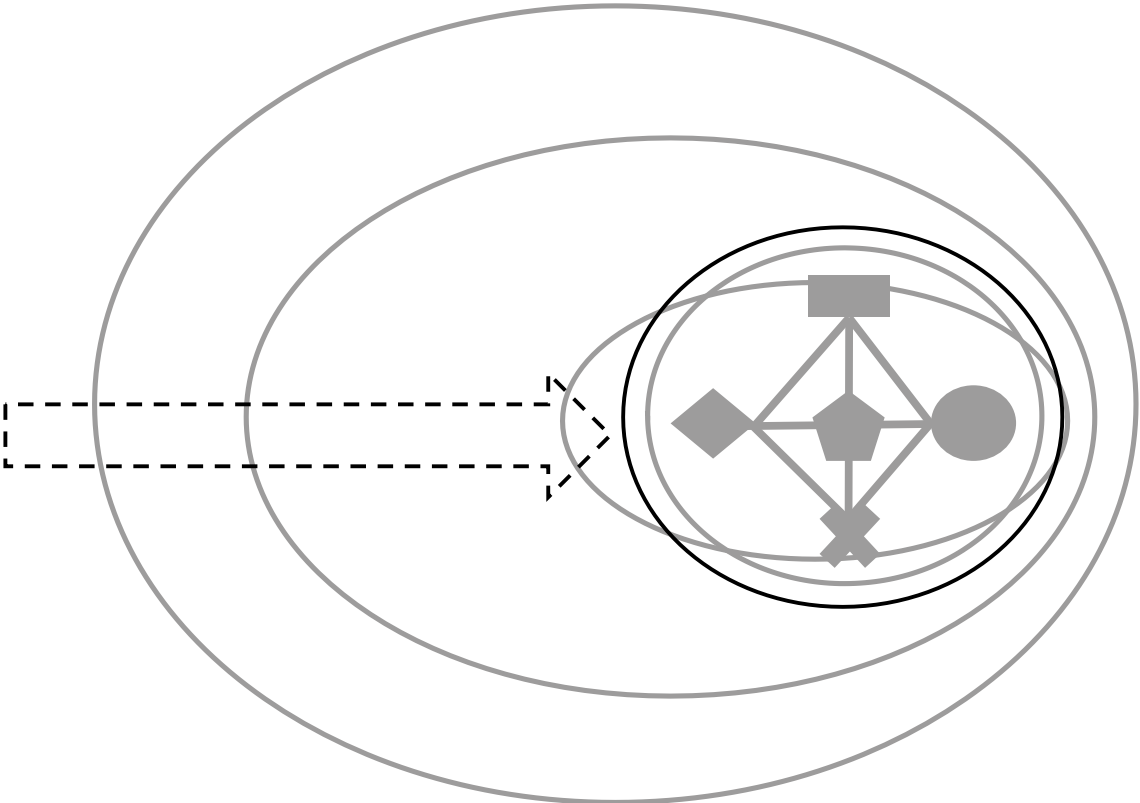
Source: Own elaboration, based on partners' documentation

13 ECOSYSTEM	PPI IGNITE NETWORK@UCC
UNIVERSITY COLLEGE CORK	
Link	https://www.ucc.ie/en/ppi-ignite/
Area/Department in Charge	UCC College of Medicine and Health. PPI Ignite Network@UCC is also part of a larger PPI Ignite network across Ireland led by the National University of Ireland Galway https://ppinetwork.ie/.
Brief Description	PPI Ignite Network@ UCC has a working group that comprises of 50+ individuals from across University College Cork who have an interest in Public and Patient Involvement. The purpose of the group is to address short-term operational activities and issues. E.g., advising on activities and events, overcoming challenges, information sharing. Membership is open and flexible. The PPI Ignite Network@ UCC is part of a nationwide system known as the PPI Ignite Network that promotes excellence and inspires innovation in public and patient involvement (PPI) in health and social care research across Ireland.
Brief Methodology Description	Public and Patient Involvement (PPI) can be described as research carried out 'with' or 'by' members of the public rather than 'to', 'about' or 'for' them. PPI is a mechanism for people to contribute to the research process, for example by identifying what research is important, checking that the language of materials for participants in a study is appropriate and understandable or participation in data analysis or in an oversight group for a study. PPI can also involve things like designing and refining the research plan, helping with the recruitment of participants and other aspects of the delivery of the study, and publicising the outputs. Input can be at any stage of the research cycle but will have the greatest impact if it comes early.
Universities and Research Centres	Nationwide PPI Ignite Network Lead Sites • NUI Galway (Lead HEI). Contact - Sean Finbarr Dinneen (Network Leader) sean.dinneen@nuigalway.ie or Murphy, Edel (Programme Manager) EDEL.MURPHY@NUIGALWAY.IE • University College Cork. Contact – Patricia Kearney (UCC Lead) patricia.kearney@ucc.ie • Royal College of Surgeons in Ireland (RCSI) University of Medicine and Health Sciences. Contact – Gianpiero Cavalleri (RCSI Lead) gcavalleri@rcsi.ie or Lorna Kerin lornakerin@rcsi.ie (PPI Manager) • Dublin City University. Contact – Veronica Lambert veronica.lambert@dcu.ie • Trinity College Dublin. Contact - Mary McCarron (TCU Lead) mccarrm@tcd.ie or Michael Foley MFOLEY3@tcd.ie • University College Dublin. Contact - Thilo Kroll (UCD Lead) thilo.kroll@ucd.ie or Emma Dorris emma.dorris@ucd.ie • University of Limerick. Contact - Una McInerney una.mcinerney@ul.ie or Jon Salsberg jon.salsberg@ul.ie Academic Partners • Queens University Belfast, U.K.. Contact - Eimear Barrett (QUB Lead) • Maynooth University. Contact – Noreen Lacey noreen.lacey@mu.ie or Deirdre Clayton deirdre.clayton@mu.ie

Universities and Research Centres	At the UCC Level • [APC Microbiome Ireland](#) - APC Microbiome Ireland is a world leading SFI research centre, with over 300 researchers and clinicians based in headquarters UCC and Teagasc as well as partner institutes MTU, NUIG, UCD, NIBRT, UL and TCD. APC nurtures a strong international network of academic, community and industry relationships and collaborates extensively with these stakeholders to explore how to harness and manipulate microbes for the good of human and planetary health • The [HRB Clinical Research facility at UCC](#) is co-funded by the Health Research Board and the College of Medicine and Health, University College Cork with the dual purpose of facilitating high quality conduct of Patient Focused Research in UCC and it's affiliated Hospitals in the South and South-West Hospital Group and mitigating all elements of risk in the conduct of such research to all parties involved. • [The Irish Centre for Maternal and Child Health Research](#) (INFANT) is Ireland's first translational research centre focused entirely on pregnancy, birth and early childhood. Founded on over a decade of awarding winning collaborative research and core funding from Science Foundation Ireland's (SFI), INFANT is now home to a truly diverse multidisciplinary team of close to 100 whose work encompasses a wide variety of closely integrated research themes, spanning bench to bed and cot-side. INFANT is hosted by University College Cork and co-located with clinical partners Cork University Hospital and Cork University Maternity Hospital
City Government and other Public Bodies	• [The Health Services Executive](#) (HSE) - runs all of the public health services with a workforce of over 100,000 people. The HSE manages services through a structure designed to put patients and clients at the centre of the organisation. The [HSE Code of Governance](#) provides an overview of the principles, policies, procedures and guidelines by which the HSE directs and controls its functions and manages its business, it is intended to guide the Directorate, leadership Team and all those working within the HSE and the agencies funded by the HSE, in performing their duties to the highest standards of accountability, integrity and propriety. • [Child and Family Agency](#) (TUSLA) is a dedicated State agency responsible for improving wellbeing and outcomes for children. It represents the most comprehensive reform of child protection, early intervention and family support services ever undertaken in Ireland. The Agency operates under the Child and Family Agency Act 2013, a progressive piece of legislation with children at its heart and families viewed as the foundation of a strong healthy community where children can flourish. Partnership and co-operation in the delivery of seamless services to children and families are also central to the Act. • [Structured Population and Health-Services Research Education](#) (SPHeRE) is Ireland's national research training programme for population health and health services research (PHHSR). The aim of SPHeRE is to create a national facility for students, regardless of their discipline or institution, qualifying at various academic levels for both academic and non-academic settings. Their vision is to provide an excellent education and training programme that delivers a sufficient quantity of high-quality population health and health service researchers, qualified at various academic levels for both academic and non-academic settings, thereby expanding the national skill base in PHHSR.

City Government and other Public Bodies	• The Health Research Board (HRB) is a state agency that supports research and provides evidence to prevent illness, improve health and transform patient care. The HRB's vision is "better health through excellent research, data and evidence" and their mission is "to support research that improves people's health, promotes evidence-informed care and creates solutions to societal challenges". The agency is funded mainly by the Department of Health and Board members are appointed by the Minister for Health. • Irish Research Council whose mission is to enable and sustain a vibrant research community in Ireland by supporting excellent researchers in all disciplines from arts to zoology. The IRC is an associate agency of the Department of Education and Skills, under the aegis of the Higher Education Authority (HEA), and is mandated to fund excellent research within, and between, all disciplines, and in doing so to enhance Ireland's international reputation as a centre for research and learning • Trials Methodological Health Research Board (TMRN) is connected to the HRB and is a new, collaborative initiative between a number of Irish and international higher education institutes and methodology centres. It has a mission is to strengthen the methodology and reporting of trials in health and social care in Ireland so that they become more relevant, accessible and influential for patients and other service users, practitioners, policy makers and the public. This is achieved through a programme of work relating to the methodology of trials and focused on (i) support (ii) training and education (iii) research and innovation and (iv) public engagement. • HSE Cork Kerry Mental Health Engagement Office The purpose of the Mental Health Engagement and Recovery Office (MHER) is to support developing and driving core service improvement programmes in mental health services.
Enterprises	None identified directly; however, the Irish Platform for Patient Organisations, Science and Industry (IPPOSI) includes industry partners and this organisation is detailed below in question 9. There also appears to be an External Advisory Panel at the national level and at UCC which could include the involvement of enterprise; however, webpages state these are currently being established.
Non-profit Organisations	At the National and UCC level: • The Irish Platform for Patient Organisations, Science and Industry (IPPOSI) is a patient-led organisation that works with patients, government, industry, science and academia to put patients at the heart of health innovation. IPPOSI considers itself as the collective voice of patients, science and industry in Ireland. They inspire and promote patient involvement in the treatment and decision-making processes that affect healthcare in Ireland. Patients and patients' organisations have a right to be involved in healthcare policymaking and we advocate for their inclusion in decision-making processes. IPPOSI works towards a future where all patients in Ireland will access the best available treatments, care practices and health technologies when they need it and where they need it. • International Collaboration for Participatory Health Research (ICPHR) - was established in 2009 to strengthen the role of Participatory Health Research (PHR) in intervention design and decision-making on health issues. The ICPHR is open to stakeholders from all countries interested in promoting the dissemination and further development of participatory health research approaches embedded in common values and principles. The work of the ICPHR is focused on bringing together systematically the knowledge and experience of PHR in different countries for the purpose of strengthening PHR regarding issues of quality, credibility, and impact on policy and practice.

Non-profit Organisations	• Campus Engage - is dedicated to supporting Irish higher education institutions to embed, scale and promote civic and community engagement across staff and student teaching, learning and research. • Health Research Charities Ireland (HRCI) is the national umbrella organisation of charities active in health and medical research, together representing over 1 million Irish patients. Through support and advocacy, HRCI represent the joint interests of our 40 members, working to improve health and prevent illness through research. Key activities include ensuring impactful health research through PPI; facilitating research funding; supporting members; and improving the research landscape. Specific to the UCC Level: • All Ireland Institute of Hospice and Palliative Care (AIIHPC) is a leading organisation with national and international influence driving excellence in palliative care. AIIHPC is a collaborative of hospices, health and social care organisations and universities on the island of Ireland. • The Cork City of Sanctuary (COS) movement is committed to making Cork a place of welcome, support and safety for Refugees, Asylum Seekers and Migrants and persons of migrant origin, where diversity is recognised and celebrated. Places of Sanctuary Ireland is a network of groups in towns, cities and local communities which share the objectives of promoting the integration, inclusion and welfare of refugees, asylum seekers and vulnerable migrants, by encouraging every sector of society to make a practical commitment to becoming places of welcome and safety. • Family Carers Ireland is the national charity supporting the 500,000 family carers across the country who care for loved ones such as children or adults with physical or intellectual disabilities, frail older people, those with palliative care needs or those living with chronic illnesses, mental ill-health or addiction. Our vision is an Ireland in which family carers are properly recognised, supported, and empowered.
Citizens	The Irish Platform for Patient Organisations, Science and Industry (IPPOSI) includes industry partners and this organisation is detailed below in question 9. There also appears to be an External as well as Public Advisory Panels at the national level and at UCC which could include citizen involvement; however, webpages state these are currently being established.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
PPI Ignite Network@ UCC utilises its website and social media to provide support for community & patient organisations and members of the public. A number of different training workshops and courses for individual PPI contributors and patient and community organisations.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?

PPI Ignite Network@ UCC has a working group that comprises of 50+ individuals from across University College Cork who have an interest in Public and Patient Involvement. Key projects under the PPI Ignite Network@ UCC umbrella are:

- CARERENGAGE - Family carers provide a vital, yet often invisible role in our society and healthcare system, the COVID-19 pandemic increased the burden for many carers by imposing further restrictions on already limited resources. They set about establishing research priorities for carers to help increase awareness of the community supports needed and help shape reform.

- Aspida - The program aspires to reduce stigma in individuals with chronic pain by developing an against-stigma, self-care program to be delivered to local communities and integrated into CPI's services. ASpida employs a unified behaviour change approach, called Psychological flexibility for Chronic Pain and patient-centred participatory activities. The program attempts to stop stigma by teaching individuals.

- ESPRIT - SPRIT is a research group with a shared vision to reduce the economic, societal and human burden of preventable disease, and to generate evidence to guide research translation. The overarching vision of ESPRIT is to create and translate evidence to improve health and healthcare.

- CUSTOMISE – The Comparing and Understanding Tailoring Methods for Implementation Strategies project aims to build knowledge and expertise in implementation science through research, collaboration, and training and to improve the uptake of research evidence in healthcare and to look at ways to address the evidence-to-practice gap.

- Diet and Health Research - research interests are nutritional epidemiology and public health nutrition. More specifically, the nutritional and environmental determinants of obesity and physical inactivity as risk factors for CVD

- Caring beyond COVID-19: IdeNtifying prioriTiEs foR FAmily CarErs through a Participatory Process (Interface) - Family carers provide a vital, yet often invisible role in our society and healthcare system, the COVID-19 pandemic increased the burden for many carers by imposing further restrictions on already limited resources. They set about establishing research priorities for carers to help increase awareness of the community supports needed and help shape reform.

How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?

Structures that formalise collaborative work and engaged research on PPI Ignite Network@UCC are still developing and would be supported by the following UCC offices and policies:

- UCC has a set of KPIs for External Engagement, linked to our University Strategy. These are monitored by our University Management Team and reviewed annually by our Governing Body's 'Strategy, Research & Innovation Committee', which is chaired by Dermot Breen. The VP Research and VP External Relations report to this group.

- UCC has a Quality Enhancement Policy Office and a Director who undertakes periodic reviews of university performance in key strategic areas including Research and Innovation and External Engagement. Submissions, reflecting on progress in key strategic areas, aligned with university KPI's are required each year.

- UCC participated in *The Institutional Evaluation Programme* (IEP), an independent service of the European University Association (EUA) that offers evaluations to support participating institutions in the continuing development of their strategic management and internal quality culture.

- UCC participates in the HEA Performance Compact reviews across the areas agreed with Government linked to university funding, inclusive of indicators regarding research and innovation for societal engagement.

- UCC Academic Council, Research and Innovation sub-committee (ACRIC) provides oversight of the Universities Research and Innovation Plan, advising the Vice President Research and Innovation.

- UCC has a Vice President for Research and Innovation, A Research Director, A Research Strategy Director and an Engaged Research Officer, providing implementation and monitoring support on a day-to-day basis.

- UCC has a Vice President External Relations, an Associate Vice President of European Relations & Public Affairs, and a Head of Civic & Community Engagement, providing support and oversight to external engagement activities.

- UCC participated in the Carnegie Foundation Community Engagement Classification (international pilot), which is the leading international classification for HEI societal engagement. The Carnegie categories provide an institutional framework to assess and benchmark ongoing progress.

- Aligned with the University 5 Year Planning Cycle, UCCs External Engagement Planning process reviews past progress and maps future targets.

What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?

A series of CPD and informational sessions available to the entire UCC research community also serve to provide pertinent training for PPI researchers and examples of these programmes are:

- A wide range of supports are provided at UCC specific to PPI researchers. E.g. PPI Ignite Network@ UCC hosts several online PPI courses Click here. Lunchtime Seminar: 'Centering and Embedding Family Carers in the Co-Production of Carer Research, Supports and Policy.' Web based PPI resources:Introduction to PPI

- Other CPD offered at UCC and by partners
  — UCC Research Skills Training Programme aimed at researchers across all disciplines and at all levels of their career. CPD description click here
  — Campus Engage National Engaged Research Training Programme.

Additionally, five case studies have been shared on the on the PPI Ignite@UCC website which includes the IDEAs study, Don't Mention the Diet!, the MySupport study, Interface and Against Stigma pain intervention approaches (ASpida).

Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?

PPI Ignite Network@UCC is administered within the UCC School of Public Health within College of Medicine and Health. It is also represented by the four colleges within UCC.

Objectives, activity and processes

Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?

The Cork City Development Plan (consultation draft document, Chapter 3) and the National Planning Framework for Ireland both refer to healthcare as an element supporting quality of life and that the significance of access to healthcare appears to have been realized during the Covid-19 global public health crisis. In 2012 Cork was designated a World Health Organisation (WHO) Healthy City and specific initiatives were undertaken in partnership with Healthy Cities and UCC and with the Young Social Innovators. There was also the realisation that a Healthy City is not merely a product of health sector activities but it is largely determined by policies and actions beyond the health sector. Hence efforts will be aimed at improving the health and well-being of people in the City and reduce health inequalities.

At the institutional level, Societal engagement, inclusive of PPI, is a core value at UCC and overtly expressed in Goal 3 Action 16 of UCC's Strategy 2017-2022 to "create value for our community through an international outlook and informed and creative engagement on local and global issues". UCC has university-wide Civic and Community Engagement Plan. It is a signatory to the Irish University Association's Civic and Community Engagement Charter. UCC is also a full Engaged Member of the Talloires Network and is a signatory of the Talloires Declaration on the Civic Roles & Social Responsibilities of Higher Education.

The UCC Research & Innovation Strategic Plan (2017-2022) expresses strategic actions for societal engagement which include "ensuring pathways from knowledge creation through research to impact and external engagement are optimized and recognized", and a commitment to "partner, at all levels, with Irish and international institutions to deliver excellence in research, commercialisation, entrepreneurship, creative practice, community engagement and knowledge transfer", particularly "incentives and support initiatives that enable our research community to proactively engage with government, professional organisations and community engagement initiatives".

At UCC, PPI consultation and evidence gathering is undertaken to inform strategy. UCC's four colleges, and several research centres, were integrally involved in the development of UCC's PPI Ignite proposal. A mapping of current PPI activity in UCC is assisting to progress the development of a transdisciplinary team of PPI researchers, including a strong partnership with the SPHeRE doctoral programme

At the institutional level, UCC's approach to societal engagement is based on extensive consultations, survey and focus groups with staff, students and community stakeholders, an international benchmarking exercise, and a review of international literature and best practices. In addition, UCC has conducted a self-assessment of its engagement activity, supported by the Carnegie Foundation Community Engagement Classification Ireland Project.

UCC has a Civic and Community Engagement Committee, chaired by the Vice President External Relations, and reporting to University Management Team which oversees delivery & accountability of its societal engagement activities. Via strategic planning process, societal engagement is integrated through local research institutes, units and centre strategies, operational priorities, and annual performance review processes. For example, UCC's SFI funded APC Microbiome Centres key aim "is to actively involve, serve and influence our stakeholders", and increase "capacity to conduct Engaged Research to generate quality, impactful research".

To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?

Although efforts of the Cork City and UCC establish align with the UN Sustainable Development Goals and specifically SDG-3 Good Health and Well Beings in this context, this is congruent with EU Urban Agenda policies on public health services and healthy cities. Further, SDG 3.9 which seeks to "substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination" is aligned with the preventative aspects of the EU Urban Agenda.

Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)

The PPI Ignite Network is committed to promoting excellence & inspiring innovation in health and social care research in Ireland. Public and patient involvement in research means that the public and patients are involved in planning and doing research from start to finish and help tell the public about the results of research. Additionally, the PPI Ignite Network aims to provide a shared voice for PPI across Ireland, aiming to change the research culture, an important contributor to improving health outcomes for the public.

Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?

PPI Ignite Network@UCC aims to build capacity for high quality PPI in UCC and amongst wider society. A key part of our work is to provide support and advice to patients and members of the public who are currently involved in research as PPI contributors or those who would like to be involved in research in the future. PI Ignite Network@UCC also run a number of different training workshops and courses for individual PPI contributors and patient and community organisations.

In response to the COVID-19 crisis UCC progressed a wide range of public engagement activities www.ucc.ie/en/civic/covid19/ among other things setting up an interdisciplinary Covid-19 research team of 100 researchers and providing responsive and trusted scientific information in the region, nationally and internationally.

UCC's Community Week provides a platform for community engagement, and it amplifies our civic mission engaging 200 external partners in 50 events held in Cork, nationally and across Europe in 2021.

Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this

- UNIC European University Best Practice Engaged Research Showcase, Excellence Framework and Bursary Scheme.
- Monthly UCC Principal Investigator (PI) Forum from the Office of the Vice President of Research and Innovation (OVPRI) for dissemination of information
- UCC's Institute for Social Science in the 21st Century (ISS21) brings together interdisciplinary teams to address key social and health issues providing a focal point for impactful social science research that benefits people, communities and organisations. The SHAPE (Society, Health and Political Economy) research cluster of ISS21 brings together researchers with interests in interdisciplinary approaches to issues relating to health, food and wellbeing, from a wide range of disciplines, including Applied Social Studies, Epidemiology and Public Health, General Practice, Geography, Medicine, Occupational Sciences and Occupational Therapies.

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

UNIC4ER at UCC and PPI Ignite Network@UCC are in the early stages of partnership since both programmes have officially launched within the past year. Two members of the UNIC4ER Taskforce have assisted in the programmes self-assessment. Additionally, UNIC4ER is looking to create an Engaged Research Committee as an umbrella group for different ER methodologies such as Public Patient Involvement (PPI). Both these UNIC4ER Taskforce also work with the CityLab project and will look to create opportunities for collaboration.

The CityLab Challenges around Health & Wellness and Aging provide intersection points between CityLabs and PPI Ignite Network@UCC. UCC staff, students and public partners are provided with specialised support mechanisms to undertake high-quality engagement activities e.g. UCC has established a *City-Lab* in Cork, an evidence-based co-creation initiative, where students, citizens, researchers and city stakeholders collaborate to identify and address societal challenges faced by post-industrial cities and their regions. Similar to Living Labs, the City-Lab model provides an interface (a method and a physical & virtual location) for university and societal collaboration.

UNIC CityLabs are physical and virtual meeting points where students, citizens, academia and city stakeholders work together to identify and solve societal challenges faced by post-industrial superdiverse cities. PPI by its very nature should integrate nicely into 2 of the 6 CityLab Challenge areas of Health and Wellness as well as Aging Cities. Further, these particular CityLab Challenges are cross cutting themes which intersect the environmental, economic, social and cultural development of the city's population and infrastructure. For example, many health-related issues and considerable premature mortality issues can travel contaminants and toxins in water, air and food as a casual factor. Socio-economic and cultural variables can affect accessibility to health care.

Individual research projects within the PPI Ignite Network@ UCC working group are the entities that are most likely to connect with CityLab Challenges; however, the very nature and function of Public and Patient Involvement itself could potentially connect with a CityLab related Community of Interest.

2.3.14. LIEGE LABVILLE (ULIEGE)

14. ECOSYSTEM	LIEGE LABVILLE			
UNIVERSITY OF LIEGE				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional	Bilateral	Public		Multi

Figure 34: Liege LabVille (ULIEGE)
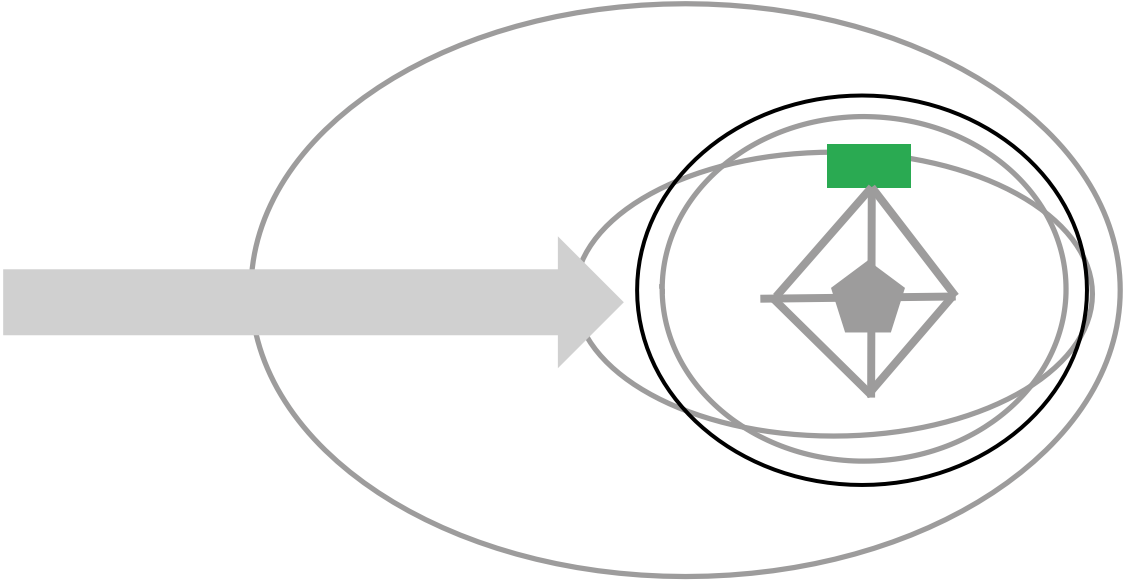
Source: Own elaboration, based on partners' documentation

14 ECOSYSTEM	LIEGE LABVILLE
UNIVERSITY OF LIEGE	
Link	https://www.liege.be/fr/vie-communale/services-communaux/urbanisme/liege-labville
Area/Department in Charge	Different Faculties but principally the ULiège Faculty of Architecture
Brief Description	Liège-LabVille is a joint initiative of the City of Liège and the University of Liège, to consolidate and expand their mutual support and working relationship.
Brief Methodology Description	Liège LabVille is a collaboration platform initiated in 2015. Its objective is to integrate all the public, academic, private and citizen actors who "make the city" and the Liège region. It opens sites for the University to reflect and discuss with the actors of the City about specific research in the field of architecture and landscape, urban planning, urban sociology and, more broadly, social and territorial development. It has a transdisciplinary and metropolitan approach. for a definition of the subjects to be treated, with a view to a co-construction of knowledge. , methods and demonstrators.
Universities and Research Centres	Different Faculties but principally the ULiège Faculty of Architecture, as a developer and utilizer.
City Government and other Public Bodies	City of Liège, Urban Development Department (Urbanisme), as a developer, enables and utilizer.
Enterprises	NA
Non-profit Organisations	NA
Citizens	NA

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Yes. Working group meetings.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
No
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Liège-LabVille is a formalised collaboration between the City of Liège and the University of Liège.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
The main strategy of the Liège-LabVille is to supports workshops, projects, and case study research involving public, academic, and private actors, as well as citizens.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The Urban planning Department is the main actor involved on the City's side and sets the objectives. The Faculty of Architecture is the main actor involved on the University's side and acts as a facilitator in the organization of the activities.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
The Liège-LabVille platform has been implemented within several City's Transversal Strategic Programmes (PST). The current PST is entitled "Liège 2025" and includes 137 priority actions and 12 metropolitan projects.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Liège-LabVille is rather transversal to several of the UA for the EU priorities including: housing, urban mobility, sustainable use of land, energy transition, culture and cultural heritage.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Liège-LabVille aims to support existing RDI projects and to open a shared space to debate the objectives and outcomes of such projects.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Yes. The co-creation of Transversal Strategic Programme (eg: Liège2025) is one of the models of co-creation with the direct involvement of citizens.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
Yes. Conferences and public communication, brochures and online sources.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.15. LIEGE CREATIVE (ULIEGE)

15 ECOSYSTEM	LIEGE CREATIVE			
UNIVERSITY OF LIEGE				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	Mono
Regional		Public		
	Multilateral	Private		
		Non-Profit		

Figure 35: Liege Creative (ULIEGE)
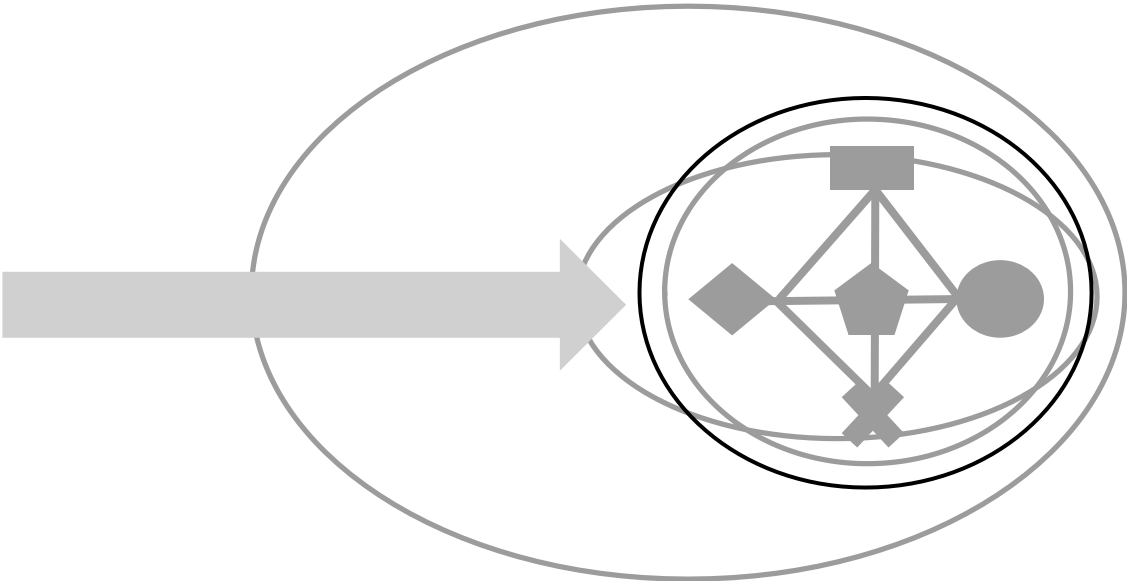
Source: Own elaboration, based on partners' documentation

15 ECOSYSTEM	LIEGE CREATIVE
UNIVERSITY OF LIEGE	
Link	https://www.liegecreative.be
Area/Department in Charge	Business-University Interface (Interface Entreprises-Université) https://www.recherche.uliege.be/cms/c_9115695/en/portail-recherche-innovation-entreprise
Brief Description	Liège CREATIVE is a forum created in 2011 bringing together the research, business and cultural sectors in order to stimulate creativity, innovation and entrepreneurship in the Liège region.
Brief Methodology Description	Liège CREATIVE is coordinated by ULiège's Business-University Interface, and relies on the decompartmentalisation and complementarity of skills as sources of creativity to stimulate innovative projects, and it is based on the principle of collective intelligence. It offers a permanent programme of conferences-meetings on themes related to the socio-economic development of the territory, and supports the creative and entrepreneurial spirit in order to facilitate the implementation of innovative projects.
Universities and Research Centres	Different Faculties but principally the ULiège Faculty of Architecture, as a developer and utilizer.
City Government and other Public Bodies	City of Liège, Urban Development Department (Urbanisme), as a developer, enables and utilizer.
Enterprises	Cultural Creative Industries of the City and Region
Non-profit Organisations	Activity in 2020-21 has involved in particular: Jobs@Skills, climACTES Summer University, ULiège Green Office of ULiège, GRE-Liège, the ImagéSanté Festival, Venturelab, the Nourrir Liège Festival.
Citizens	

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Yes. Conference and meetings. Liège CREATIVE works as a community of participants gathered around a central Forum based on the principles of collective intelligence. The main instruments are meeting, conferences and participatory workshops.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
The main instruments to develop activity and provide services are the Creative Hubs that Liège CREATIVE has set in different urban settings in the Liège Region (Plug-R is the active Creative Hub in the city of Liège).
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Liège CREATIVE is a formalised structure within the University of Liège and it is directly connected to the University's third strategic mission (citizen participation).
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Liège CREATIVE supports a series of activities at regular intervals throughout the year, to which academic and non-academic actors are invited to contribute. Particularly relevant is the objective to put academic actors in connection with business, private and public stakeholders in the city and Region.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
ULiège's Business-University Interface is the is the main actor involved in the coordination of Liège CREATIVE. All Faculties and research centres can contribute to set the objectives and key themes.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Liège CREATIVE stems from the City's and University's strategic objective to activate academic knowledge and expertise to the service of the community. The activity is based on the established operational principle of the European Creative Hubs Network. Liège CREATIVE also works within the Smart Specialization Strategy (S3) defined by the Walloon Government and wants to support research and innovation in its 5 Strategic Innovation Areas (DIS) : circular materials; innovations for enhanced health; innovations for agile and safe design and production methods; sustainable energy systems and housing; future agri-food chains and innovative environmental management.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Liège CREATIVE's objectives are transversal to almost all the priorities in the UA for EU. Particular emphasis is put on themes such as circular economy, climate adaptation, digital transition, energy transition, sustainable use of land and nature-based solutions, jobs and skills in the local economy, urban mobility.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Liège CREATIVE has implemented over 50 conferences/meetings and 34 collective participatory workshops involving over 50 partners.in 2020-21. See: https://www.liegecreative.be/rapport-dactivites-saison-10#les-synergies-et-partenariats-772
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Liège CREATIVE has an online platform with almost 10k subscribers among local citizens. 4 newsletters per year and a YouTube channel are the main communication tools. The core of the platform are collective intelligence sessions and participatory workshops which represent the main strategy to support co-creation and citizen participation.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
NA
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.16. LIEU NETWORK (ULIEGE)

16 ECOSYSTEM	LiEU NETWORK			
UNIVERSITY OF LIEGE				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
	Multilateral			
		Non-Profit		

Figure 36: LIEU Network (ULIEGE)
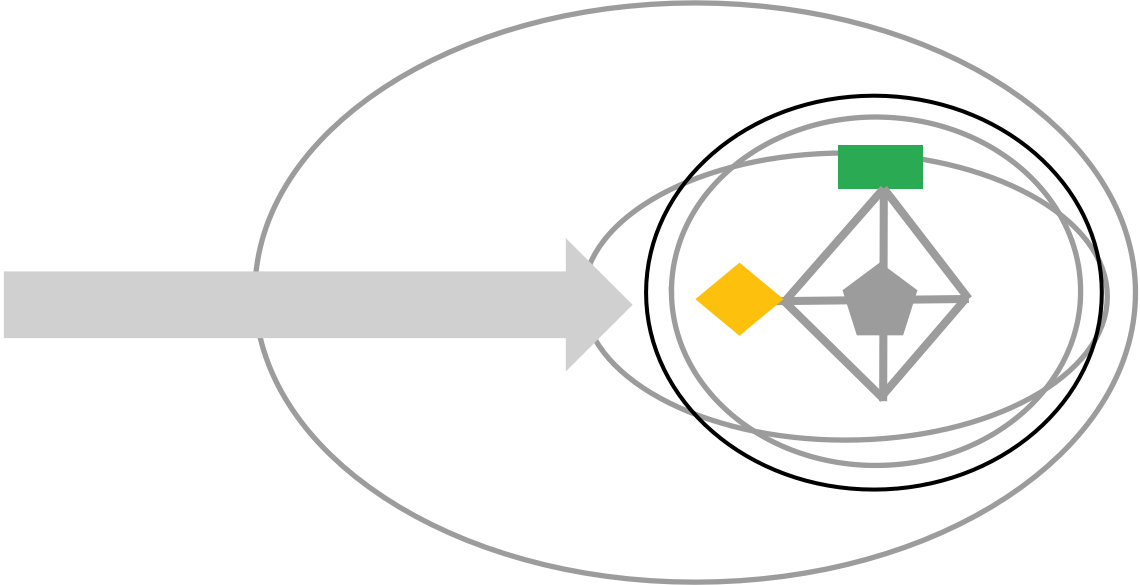
Source: Own elaboration, based on partners' documentation

16 ECOSYSTEM	LiEU NETWORK
UNIVERSITY OF LIEGE	
Link	https://reseaulieu.be
Area/Department in Charge	ULiège Research Administration
Brief Description	The LiEU Network brings together the knowledge transfer services (or "Knowledge Transfer Office", KTO) of the six universities of the Wallonia-Brussels Federation. It is structured to be a gateway for all projects and expertise of universities: it connects researchers and private or public partners with the aim to stimulate collaboration.
Brief Methodology Description	LiEU Network is a collaboration platform initiated in 2015. Its objective is to integrate all the public, academic, private and citizen actors who "make the city" and the Liège region. It opens sites for the University to reflect and discuss with the actors of the City about specific research in the field of architecture and landscape, urban planning, urban sociology and, more broadly, social and territorial development. It has a transdisciplinary and metropolitan approach. for a definition of the subjects to be treated, with a view to a co-construction of knowledge, methods and demonstrators.
Universities and Research Centres	All Belgium's French-speaking Universities, Faculties and Research Centres.
City Government and other Public Bodies	Walloon Public Service (Regional), Wallonia Export Investment, Wallonie-Bruxelles International, CRef Conseil des Recteurs.
Enterprises	NA
Non-profit Organisations	SOWALFIN, Union Wallonne des Entreprises, Wal-Tech, Digital Wallonia, Synhera.
Citizens	NA

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
LiEU is a network represented by about sixty experts distributed within the partner universities. These experts work in close connection with the university community and operate as contact person within the local Knowledge Transfer Offices.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Services provided include systematic information about scientific potential and innovation opportunities; detection of valuable research outputs and of the innovation needs of companies; support to activity taking researchers and socio-economic actors together; support to researchers and companies in their innovation projects with the aim to create spin-offs.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
NA
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
NA
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
Knowledge transfer service/office of partner Universities including ULiège.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
LiEU has the objectives to facilitate the access for public and private stakeholders (eg: industry partners) to university expertise and to support partnership between university and companies. Although these objectives are not directly connected to specific public strategies, they resonate with the University's third mission.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Transversal to all themes.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
NA
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
NA
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
LiEU provides stakeholders with an updated platform of researches and academic expertise. It also supports researchers to put their knowledge and skills in relevant markets and to develop business profiles.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.17. MSH (ULIEGE)

17 ECOSYSTEM	MSH – MAISON DES SCIENCES DE L'HOMME			
UNIVERSITY OF LIEGE				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
		Public		Multi
	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 37: MSHB (ULIEGE)

Source: Own elaboration, based on partners' documentation

17 ECOSYSTEM	MSH – MAISON DES SCIENCES DE L'HOMME
UNIVERSITY OF LIEGE	
Link	https://www.msh.uliege.be
Area/Department in Charge	MSH is a self-standing department at ULiège
Brief Description	MSH is a platform that supports the interaction and exchange between citizens and the networking of different city actors. It encourages dialogue between scientific and citizen expertise within the city across four main areas: City and territory; Democracy and representation; Science, technology and society; Economy, culture and social life.
Brief Methodology Description	MSH is a collaboration platform initiated in 2013. It organises meetings between academics/researchers, practitioners and civil society actors, with a focus on interdisciplinarity and local needs. It provides support to the university community to design submit project applications which focus on the connection with non-academic actors. It collects and examines requests for partnership projects from the city and other non-academic stakeholders.
Universities and Research Centres	All Faculties as utilizers.
City Government and other Public Bodies	City of Liège
Enterprises	NA
Non-profit Organisations	NA
Citizens	NA

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
MSH is a platform that supports and implements three main domains of activity. 1) Research: knowledge co-construction workshops, call for projects and cross-expertise laboratories. 2) Publications in collaboration with the Liège University Press. Events: a full agenda of scientific and dissemination activities and prizes.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
MSH delivers periodic newsletters and podcasts.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
MSH is a formalised body constituted in 2013 at the University of Liège.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
MSH is a provider of services that can be utilized by all University actors, also in cooperation with City actors and Civil Society organizations.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
MSH is a self-standing department at ULiège. Its activities and agenda are set in accordance with the University's research departments (central department, faculties and research units).

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
MSH objectives revolve around four main areas which are crucial in the City's plan for urban development. These areas are: City and territory, Democracy and representation, Science, technology and society, Economy, culture and social life
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
MSH's objectives and activity do not relate to one or more specific themes. All themes of the UA for the EU are potentially covered without limitations.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
NA
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
MSH is definitely a City actor. Its location and agenda allow for a constant participation of citizens.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
NA
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
MSH is the main facilitator and contact point for all university and city actors involved in UNIC CityLabs and was one of the main organizers of the 2021 CityLab Festival in Liège.

2.3.18. REJOUSCIENCES (UCC)

18 ECOSYSTEM	REJOUISCIENCES			
UNIVERSITY OF LIEGE				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	Mono
Regional		Public		
	Multilateral			
		Citizenship		

Figure 38: Rejouisciences (ULIEGE)
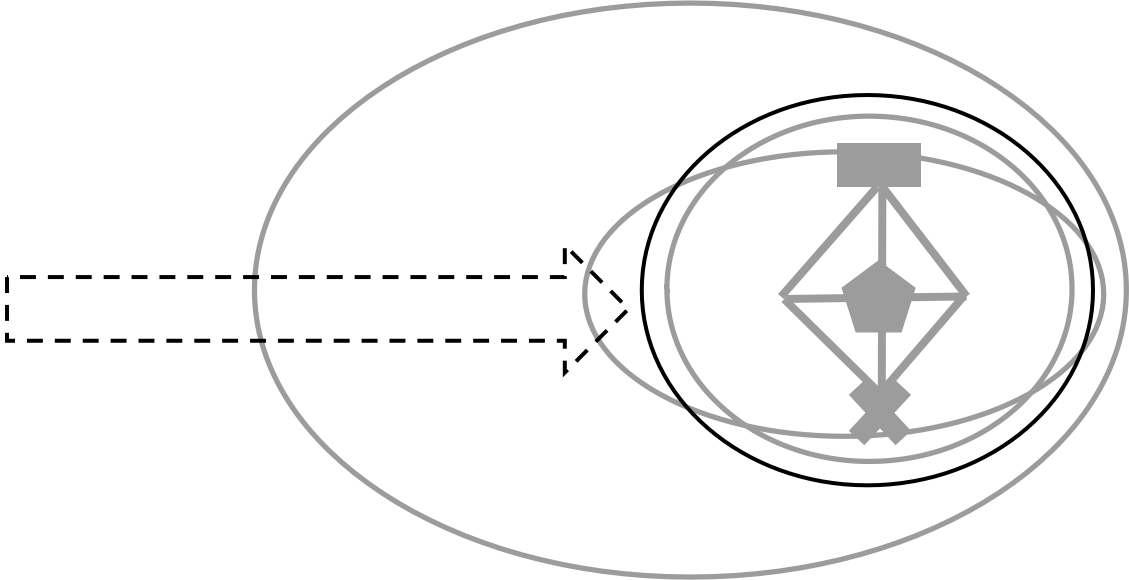
Source: Own elaboration, based on partners' documentation

18 ECOSYSTEM	REJOUISCIENCES
UNIVERSITY OF LIEGE	
Link	https://www.rejouisciences.uliege.be
Area/Department in Charge	Institute of Zoology
Brief Description	Réjouisciences is a support and coordination structure created in 2001 to stimulate society-level scientific and technological activity. It promotes scientific awareness and the access to scientific knowledge among young people and the general public, and it also supports careers in research and technological professions.
Brief Methodology Description	Réjouisciences designs, coordinates and promotes, with partners from ULiège and CSOs, scientific and technological activity targeting schools and teachers, the general public and citizens. It has a daily updated website, a monthly newsletter and a brochure which lists the scientific and technological initiatives of the University of Liège. It also relies on a Facebook account (/rejouisciences), a Twitter account (@rejouisciences) and an Instagram account.
Universities and Research Centres	All Faculties as utilizers.
City Government and other Public Bodies	The Fédération Wallonie-Bruxelles is a funding body of Réjouiscience.
Enterprises	
Non-profit Organisations	
Citizens	Target groups (users): general public and citizens, schools and teachers.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
NA
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
NA
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
NA
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
NA
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
NA

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
NA
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
NA
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
NA
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
NA
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
NA
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
NA

2.3.19. EIT HEALTH RIS – HUB CROATIA (UNIZG)

19 ECOSYSTEM	EIT HEALTH RIS – HUB CROATIA			
UNIVERSITY OF ZAGREB				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	Mono
Regional		Public		
National	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 39: EIT Health RIS – HUB Croatia (UNIZG)
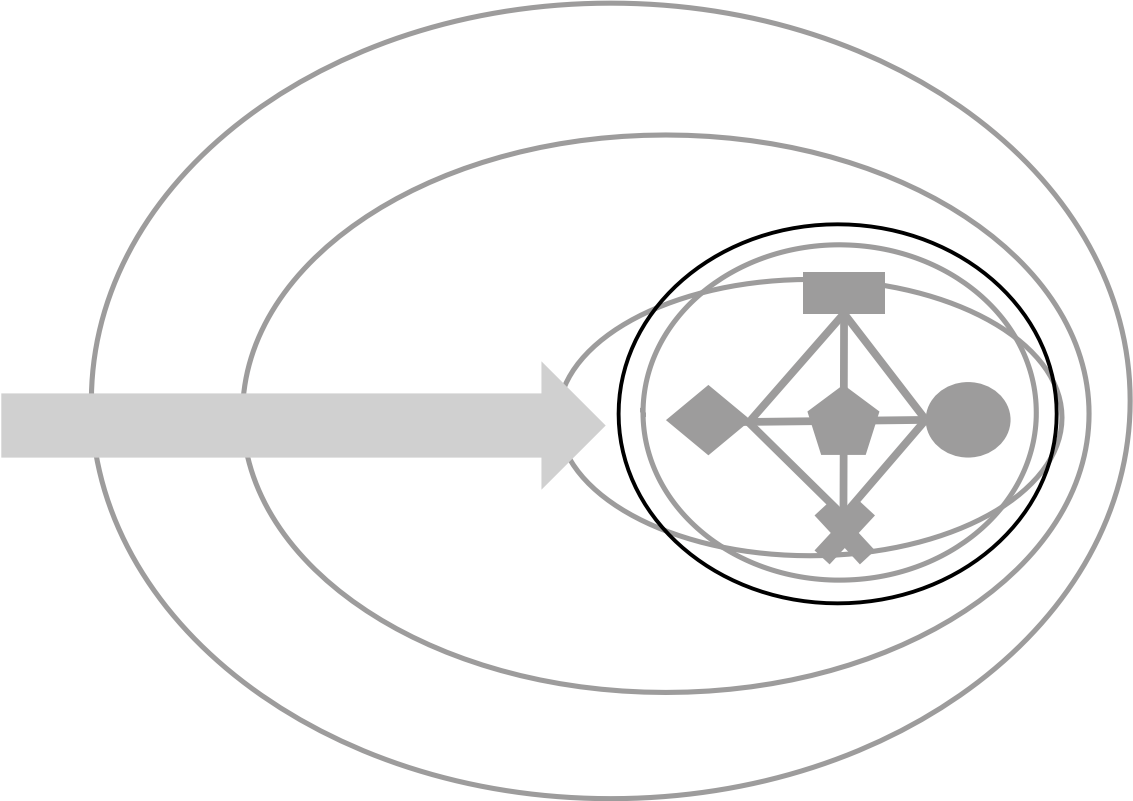
Source: Own elaboration, based on partners' documentation

19 ECOSYSTEM	EIT HEALTH RIS – HUB CROATIA
UNIVERSITY OF ZAGREB	
Link	http://cirtt.unizg.hr/en/about-us/projekti/eit-health/
Area/Department in Charge	Centre for Research, Development and Technology Transfer of University of Zagreb (CRDTT)
Brief Description	CRDTT as a EIT Regional Innovation Scheme (RIS) hub, develops the local innovation ecosystem with the help of EIT Health. It delivers solutions to enable European citizens to live longer, healthier lives by promoting innovation and connect the right people and the right topics across European borders, so that innovation can happen at the intersection of research, education, business and society – for the benefit of citizens.
Brief Methodology Description	RIS is EIT Community's outreach scheme that enables the transfer of good practices and know-how from the EIT's unique approach to boosting innovation: putting the patient/citizen at front and centre. Mostly used is Design thinking methodology aiming to solve complex problems in a creative and user-centric way. It is often used for EIT Health Innovation Days (iDays) - a student competition to tackle health challenges.
Universities and Research Centres	UNIZG CRDTT & Faculty of Electrical Engineering and Computing/Department of Electronic Systems and Information Processing; roles: enabler, developer, financier-supported by EIT Health
City Government and other Public Bodies	Department of Public Health Gerontology, Teaching Institute of Public Health (public body founded by City of Zagreb); role: utilizer
Enterprises	Ericsson Nikola Tesla; role: developer
Non-profit Organisations	Lean Startup Croatia; role: enabler
Citizens	Users of nursing homes and their family members; role: users

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Networking platform or knowledge and innovation community using hubs as a core instrument for joint activities.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Network of services: business development consulting (mentoring, coaching, funding
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Funded on yearly basis depending on successful delivery of KPIs set by EIT Health, followed by standard grant agreements.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Through different formats of interaction : info days, workshops, challenges, competitions, calls for proposals (EIT Health RIS Innovation Call, InnoStars Awards, EIT Health DRIVE, Early Health Technology Assessment, EIT Health Morning Talks…)
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
Main criteria in selecting objectives set by EIT Health is alingment with UNIZG and its constituent units strategic areas.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Objectives are being jointly articulated through active contribution of UNIZG in creation of City of Zagreb Development Strategy for period of 2021-2027, aligned with National development strategy up to 2030 and Smart Specialization Strategy 2021-2027, where quality of life or healthy living is one of the major goals.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
To Urban agenda for the EU : as whole since it seeks to improve the quality of life. SDG's Goal 3. Ensure healthy lives and promote well-being for all at all ages New Urban Agenda: Urban Health
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
It supports innovation projects through grant schemes like RIS Innovation Calls : funding proof of concept projects targeting EIT Health's six Focus Areas to be developed by local actors including both academic and non-academic partners in collaboration with EIT Health Hubs.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Yes, it is citizen/patient centred structure, models and methodologies as described iDays challenge: Challenges set : Bringing Care Home – Challenges of Active and Healthy Ageing from youth to old age focused to three problem statements defined in cooperation with relevant partners (academics, industry and public health care professionals) under the facilitation of the organizing team: • How could we make life easier for people with dementia? • How could we increase the availability of reliable health information? • How could we enable independent life with social inclusion? Core elements of iDay included persona & empathy map, as is scenario map & assumption setting, big ideas brainstorming session, to be journey map and vision-opportunity framework pitch. Partner institutions involved in programme contributed to definition and description of problem statements taking into account local community needs. The structure of engaged institutions reflected exchange of experiences within knowledge triangle since we had industry, academia and public healthcare representatives on the spot: Ericsson Nikola Tesla, Faculty of Electrical Engineering and Computing/Department of Electronic Systems and Information Processing and Department of Public Health Gerontology of Andrija Stampar Teaching Institute of Public Health. Furthermore, we have authentic users involvement throughout the workshop ensured by participation of nurses, social worker, users of nursing homes and family members, since our challenges were focused on aging and elderly people.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
Main idea is to exchange and disseminate good practices in healthcare innovation systems while promote healthcare innovation in countries with the modest and moderate innovation capacity.

What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?

Previously there was no collaboration between CityLabs and EIT Health RIS - Hub Croatia. However, there was a close collaboration between CityLabs and Health Cities Network (leaders also from Andrija Stampar Teaching Institute of Public Health) so there could be a potential for CityLabs to extent the collaboration between all parties. Since EIT Health RIS - Hub Croatia uses the same methodology as CityLabs (design thinking methodology), than we see a potential to extent the collaboration in designing solution with UNIC partners in a form of a Virtual meeting platform.

We see a possibility that CityLabs could get involved in previous stage in problem analysis. Local pop-up CityLabs are participatory and inclusive and could give an insight into problems that will be brought for developing solutions.

UNIC CityLabs could provide interdisciplinary and inclusive perspective (from the point of view of disadvantaged citizens' groups) and could advocate for implementing best solutions in front of local government.

2.3.20. BICRO BIOCENTRE (UNIZG)

20 ECOSYSTEM	BICRO BIOCENTRE LTD			
UNIVERSITY OF ZAGREB				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	Mono
Regional		Public		
National	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 40: Bicro Biocentre (UNIZG)
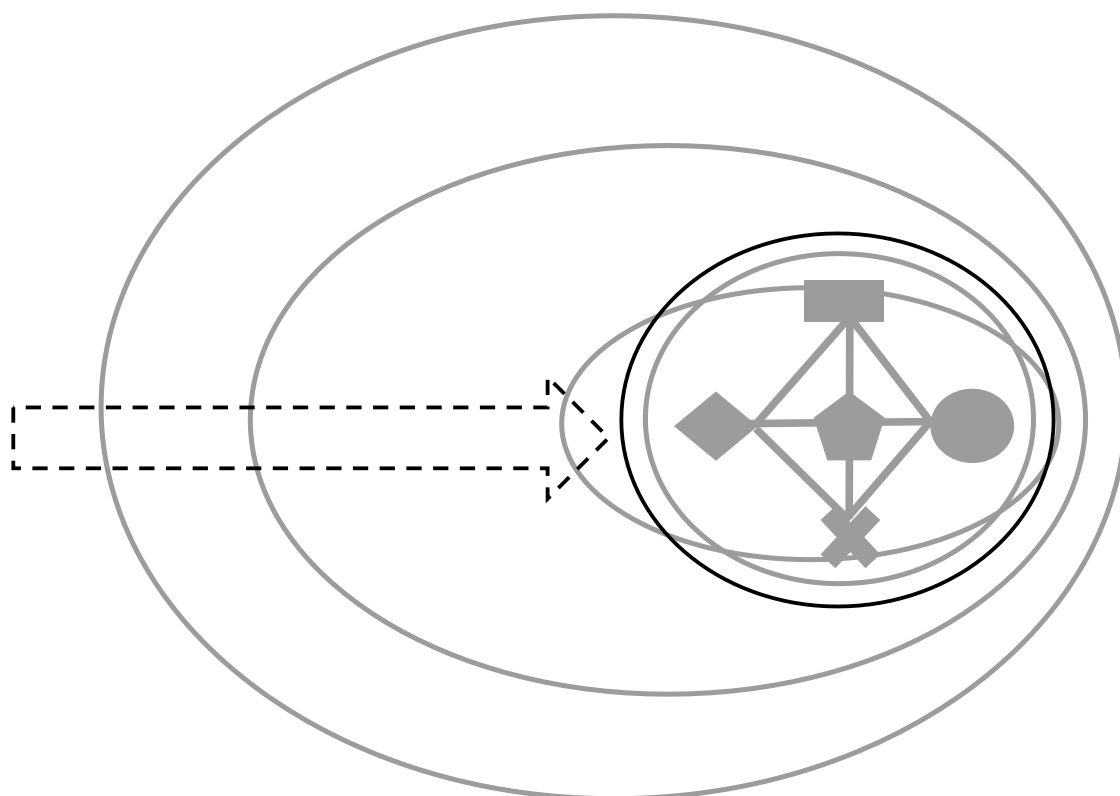
Source: Own elaboration, based on partners' documentation

20 ECOSYSTEM	BICRO BIOCENTRE LTD
UNIVERSITY OF ZAGREB	
Link	https://www.biocentre.hr/
Area/Department in Charge	Administration Department, BICRO BIOCentre Ltd.
Brief Description	The first biotech incubator in Croatia. As a contract research organization, it provides research and development support to the pharmaceutical, biotech and other types of companies. BIOCentre is also licensed as a scientific research institution.
Brief Methodology Description	BIOCentre bridges the gap between academic institutions and the industry by providing infrastructure for start-ups in the process of product development.
Universities and Research Centres	• University of Zagreb (co-founder) • University of Zagreb, Faculty of Pharmacy and Biochemistry (project partner) • University of Zagreb, School of Medicine (project partner) • University Josip Juraj Strossmayer - Osijek – Faculty of Food Technology and Biotechnology
City Government and other Public Bodies	• HAMAG-BICRO (co-founder) • Grad Zagreb (co-founder)
Enterprises	• Energy institute - Hrvoje Požar, user and colaborator • Genos Ltd., user • Genera Ltd. user • Sanagen, user
Non-profit Organisations	Zagreb Innovators Association, collaborator
Citizens	Individual scientists and experts, users, enablers

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
- BICRO BIOCentre operates through five different programs: - BIOIncubation and BIOFacility programs provide offices, laboratories, and consultancy for start-ups and established biotech companies.   - BIONetwork connects biotech companies, start-ups, universities and institutes, situated, either locally in Croatia, or abroad through networking.   - BIOTransfer and BIOEducation programs are connected to the Central Laboratory's specialized units: Microbiology, Cell biology, Downstream processing, Proteomics and Bioanalytical chemistry.   - BIOEducation is tailor-made for groups or individuals and provides hands-on training on topics like bioprocessing, protein and genetic engineering, analytical or preparative chromatography, molecular biology, proteomics.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
As described above.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Signed Memorandum of Understanding.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Through BIOEducation and BIONetworking programs as well as calls for proposals.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
All departments are involved equally.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Yes, Biocentre is oriented towards recognising and rewarding excellence, encouraging entrepreneurial spirit, individual initiative and creativity, and contributing to the wellbeing of the community. At BIOCentre, users can rent laboratories and gain access to essential equipment and facilities, all in one place. They can also receive the advice they require concerning company development and employee education. This will help their biotechnology companies to develop and become competitive as quickly as possible. BIOCentre enables and establishes network contacts with institutions, companies and individuals that are directly or indirectly connected with the biosciences.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
• SDG 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture • SDG 3. Ensure healthy lives and promote well-being for all at all ages • SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
Through the calls on various EU programs like Horizon, EUREKA etc.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Citizens are involved through the education and consultation possibilities. The main programs are oriented towards experts and scientists in the field of bioscience.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
Through the above mentioned programs.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
There hasn't been any previous collaboration between UNIC CityLabs and BICRO BIOCENTRE, Ltd. UNIC could add perspective of post-industrial challenges and transfer the reserach expertise to students from social sciences and humanities. UNIC CityLabs could provide a citizens' participaction in two segments: first in detecting local green issues (e.g. food security) with disadvantaged and diverse population. Second possibility is to provide a setting for transfering reserach findings and innovations to the society. UNIC CityLabs are an interdisciplinary and inclusive hub that could recognise central societal challenges, specifically in terms of health inequalities, environmental justice and talking about resilient city and green city in a way that involves the perspective of marginalised social groups (Roma population, people with disability, elderly, etc).

2.3.21. LAW CLINIC (UNIZG)

21 ECOSYSTEM	LAW CLINIC			
UNIVERSITY OF ZAGREB				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	Mono
Regional		Public		
	Multilateral	Private		
		Citizenship		

Figure 41: Law Clinic (UNIZG)
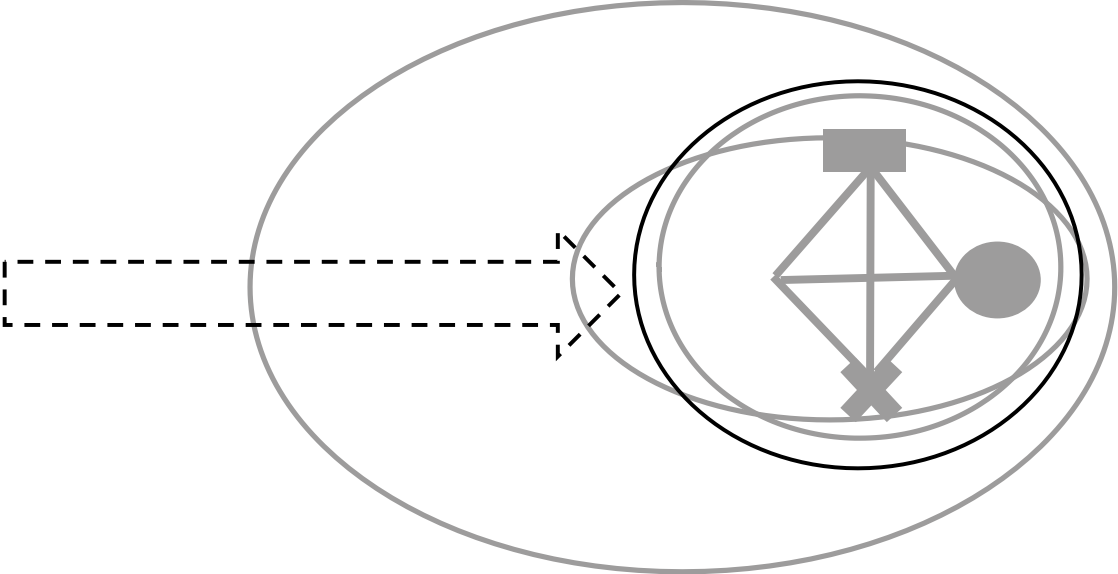
Source: Own elaboration, based on partners' documentation

21 ECOSYSTEM	LAW CLINIC
UNIVERSITY OF ZAGREB	
Link	https://klinika.pravo.hr/
Area/Department in Charge	University of Zagreb, Faculty of Law
Brief Description	The legal framework within which the Law Clinic operates is the Law on Free Legal Aid. The law divides legal aid into primary and secondary aid, depending on whether or not the provider of free legal aid is allowed to represent the client before the court. As a part of the Faculty of Law, the Law Clinic is authorized to provide only primary legal aid, i.e. the students who work there cannot represent clients before the court; what they can do is give out legal advice and general legal information, as well as provide help in drafting documents for use in administrative and other procedures. The Law Clinic is the biggest provider of free legal aid in Croatia.
Brief Methodology Description	Cases in the Law Clinic are handled both independently and collectively by 3rd, 4th and 5th year students, while being given guidance and case approval by academic mentors – lawyers, teaching and research assistants, as well as professors of the Faculty of Law, which mitigates fears of potential incompetence. All students are organized into groups specializing in particular areas of law, which are recognized to be of the greatest importance for the clients of the Clinic.
Universities and Research Centres	Faculty of Law organizes the clinic and enables it work. It also sponsors the work of the clinic.
City Government and other Public Bodies	City of Zagreb enables the work of the clinic by providing office space and supporting the clinic financially.
Enterprises	Multiple law offices, lawyers' partnerships and individual lawyers enable the work of the clinic by providing top-level expert legal advice and support to the students working in the clinic. Professional attorneys supervise the work of the students in providing quality legal advice to citizens who cannot afford it otherwise
Non-profit Organisations	
Citizens	Citizens who need free legal aid are the primary user of Clinic's services. They are provided with free legal advice by the students, in cooperation and under control of professional attorneys at law.

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
It is mostly a platform which seeks to connects citizens with service providers, in cooperation with enablers, through online and offline tools.
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
Network of services
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
There are cooperation agreements between the Clinic and its enablers (the City and the Croatian Bar Association). Structure and the work of the Clinic are formalised in its bylaws
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
The Clinic is a training ground for law students, who work closely with accomplished legal professionals, in implementing legal aid for the benefit of citizens
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
The Clinic is autonomous in its strategy design and implementation.

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Objectives are defined by the Faculty and the Clinic, but they fit into City's strategic documents
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Agenda for the EU: housing, inclusion of migrants and refugees, urban mobility, urban poverty
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
No
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Only to the extent that citizens receive services provided by the Clinic. Additionally, feedback from the citizens is relevant for optimizing the work of the Clinic and allocating resources.
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
This is secondary objective of the Clinic. In addition to direct free aid to individual citizens, it is also educating the public by means of wide dissemination of relevant materials. This is done through online means, as well by in site visits to local communities.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
Yes, UNIC CityLabs have previously collaborated with the Law Clinic during our CityLab session Green Zagreb in detecting issues connected with city renewal after the earthquake in 2020. UNIC CityLabs could be involved: a) in detecting how social exclusions is connected with the inequalities in access to legal assistance, b) it could promote the work of the Clinic through Virtual Meeting platform on UNIC level or c) it could provide an opportunity for developing specific legal assistance for the most disadvantaged social groups. UNIC CityLabs could discuss how social exclusions is connected with the inequalities in access to legal assistance or violation of basic social rights (prescribed in The European Social Charter). They could also provide solutions that will improve legal assistance for the most disadvantaged social groups making direct outreach towards the excluded citizens. UNIC CityLabs are promoting social inclusion and equality in a super-diverse society, particularly when post-industrial challenges produce social problems and social risks. CityLabs collaborate closely with local government and executive bodies within the city so they could advocate for new legislation and local strategies.

2.3.22. BASQUE SCIENCE,TECHNOLOGY & INNOVATION SYSTEM (UD)

22 ECOSYSTEM	BASQUE SCIENCE, TECHNOLOGY AND INNOVATION SYSTEM			
UNIVERSITY OF DEUSTO				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	
Regional		Public		Multi
	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 42: Basque Science, Technology, Innovation System (UD)

Source: Own elaboration, based on partners' documentation

22 ECOSYSTEM	BASQUE SCIENCE, TECHNOLOGY AND INNOVATION SYSTEM

UNIVERSITY OF DEUSTO

Link	https://www.euskadi.eus/basque-governmet/pcti-2030/ https://mapa.innobasque.eus/
Area/Department in Charge	Commissioner for Science, Technology and Innovation (Basque Government) In the University of Deusto: Vice-Rector for Research and Innovation
Brief Description	The Euskadi 2030 Science, Technology and Innovation Plan (2030 STIP) represents Basque Country´s strategic commitment to Research an Innovation. Its vision is that Euskadi should take its place among the most advanced regions of Europe in Innovation by 2030, with the objetive of improving our people´s standard of living and the quality of their jobs. This is a shared strategy, involving public bodies, companies, universities, research centres, technology centres and socioeconomic stakeholders. This STIP Euskadi 2030 reflects and represents the commitment of Basque society to ensuring a better future. Our commitment is to drive science, technology and innovation to speed up the transition to a digital, green and inclusive Euskadi.
Brief Methodology Description	The PCTI Euskadi 2020 defined and launched a governance model for the Basque Science, Technology and Innovation System that has been implemented and adapted over the last few years. This model is aligned with global trends and has a multilevel approach, capable of integrating the different public and private agents, and incorporates the levels of leadership, represented by the Basque Council for Science, Technology and Innovation, operational deployment and coordination, and technical deployment and participation in the strategy. This basis of governance will facilitate the management of the challenges that the Basque Country will face over the next ten years related to the triple technological-digital, energy-climate and health and social transition, as well as risk management in order to continue promoting sustainable economic growth through the establishment of alternative paths.
Universities and Research Centres	• University of Deusto • University of Basque Country • University of Mondragon • Basque Research & Technology Alliance • Technology Centers and Collaborative Research Centers • Basque Foundation for Science-Ikerbasque • Basque Innovation Agency-Innobasque • Jakiunde, Academy of Sciences, Arts and Letters
City Government and other Public Bodies	• Basque Government • Province Council of Gipuzkoa • Province Council of Bizkaia • Province Council of Araba • EUDEL. Association of Basque Municipalities
Enterprises	• Confederation and business associations • Clusters
Non-profit Organisations	• SAREEN SAREA – Third Social Sector Network • NGO platforms
Citizens	Citizens participate in the various projects and laboratories promoted by the agents of the Science, Technology and Innovation System

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
Different councils and committees. Steering Groups (Intelligent Industry, Cleaner Energies, Personalized Health, Healthy Food, Sustainable Cities, Eco-innovation and Creative Euskadi) are made up of agents of the triple helix (companies, universities, technology and research centers and the public administration). Transversal Driving Initiatives, understood as an instrument that will promote collaborative work between the RIS3 areas in specific strategic areas
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
The Innovation Fund, managed by Lehendakaritza, is a complementary instrument to the items that the Basque Government departments dedicate to supporting R&D&i, and its main objective is to boost the Basque System of Science, Technology and Innovation, promoting the deployment of the PCTI 2030 and the RIS3 Euskadi strategy.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Basque regional legislation, the PCTI 2030, the RIS3 strategy, financing funds and agreements of a diverse nature generate a stable framework of collaboration for the Basque System of Science, Technology and Innovation
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
The PCTI 2030 defined and launched a governance model for the Basque Science, Technology and Innovation System that has been implemented and adapted over the last few years. This model is aligned with global trends and has a multilevel approach, capable of integrating the different public and private agents, and incorporates the levels of leadership, represented by the Basque Council for Science, Technology and Innovation, operational deployment and coordination, and technical deployment and participation in the strategy. This basis of governance will facilitate the management of the challenges that the Basque Country will face over the next ten years related to the triple technological-digital, energy-climate and health and social transition, as well as risk management in order to continue promoting sustainable economic growth through the establishment of alternative paths.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
Commissioner for Science, Technology and Innovation (Basque Government) In the University of Deusto: Vice-Rector for Research and International Relations

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Both the Steering Group focused on sustainable cities, formed by agents of the triple helix (companies, universities, technology and research centers and public administration), as well as the Transversal Driving Initiatives, understood as an instrument that promotes collaborative work between the strategic area of sustainable cities of the S3, enable engaged city-university research
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
In this framework, the SDGs most closely related to the PCTI 2030 are the following: 3. Good Health and Well-Being 5. Gender Equality 7. Affordable and clean energy 8. Decent work and economic growth 9. Industry, innovation and infrastructure 11. Sustainable cities and communities 13. Climate action. The PCTI 2030 is an instrument that helps to materialise Euskadi's contribution to the Sustainable Development Goals, and in particular to SDG 9: Industry, Innovation and Infrastructure, which states that investment in infrastructure and innovation are fundamental drivers of growth and economic development.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
The PCTI 2030 (Basque Country 2030 Science, Technology and Innovation Plan) represents Basque Country´s strategic commitment to Research an Innovation. The PCTI 2030 defined and launched a governance model for the Basque Science, Technology and Innovation System
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
Citizens participate in the various projects and laboratories promoted by the agents of the Science, Technology and Innovation System
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
In addition to publications, it has an important presence in social networks and the media, as well as organising numerous forums, seminars and meetings.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
The experience accumulated in its projects and laboratories developed in the Basque Country can be of great interest to UNIC CityLabs.

2.3.23. BILBAO NEXT (UD)

23 ECOSYSTEM	BILBAO NEXT			
UNIVERSITY OF DEUSTO				
Territorial Scope	**Agreement**	**Involved Actors**	**Legal Support**	**Thematic Approach**
Local		Universities	Legal	
	Bilateral	Public		Multi
		Private		
		Non-Profit		
		Citizenship		

Figure 43: Bilbao Next (UD)

Source: Own elaboration, based on partners' documentation

23 ECOSYSTEM	BILBAO NEXT
UNIVERSITY OF DEUSTO	
Link	https://www.orkestra.deusto.es/en/research/research-labs-territorial-competitiveness/public-policy-lab/bilbao-next-lab-en https://balioenhiria.bilbao.eus/en/
Area/Department in Charge	• Bilbao City Council • Bilbao Ekintza • Deusto Foundation • University of Deusto
Brief Description	Since the start of its activities in 2013 its goal has been to facilitate the economic, environmental, social and cultural transformation of the city to foster a sustainable urban development. The University of Deusto and the Bilbao City Council are collaborating in order to implement it in different projects and laboratories.
Brief Methodology Description	Learning-research-action laboratories applied to various challenges of the city of Bilbao: economic development, mobility, demographic challenge. city of values, cultural and creative industries, citizen participation, strategic projects, smart city...
Universities and Research Centres	• ORKESTRA - Basque Institute of Competitiveness • Deusto Cities Lab Katedra • Deusto Tech • Others faculties and research centers
City Government and other Public Bodies	Different departments of the Bilbao City Council
Enterprises	Enterprises participation in laboratories and projects
Non-profit Organisations	No-profit organisations participation in laboratories and projects
Citizens	Citizen participation in laboratories and projects

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
The different Labs are the main mechanism to generate collaborative processes of engaged research with public institutions, companies, social entities and citizens, around critical issues
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
In addition to the aforementioned laboratories, it has been producing scientific and applied publications, training in city sustainable development and governance. Furthermore, it has been a Observaotory of Neighbourhoods that has allowed to explore and monitor the city.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Plurianual bilateral agreement
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
Succesful examples in public-private cooperation, works with a large number of networks, businesses, governments and institutions on numerous projects
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
• ORKESTRA - Basque Institute of Competitiveness • Deusto Cities Lab Katedra • Deusto Tech • Others faculties and research centers

| Objectives, activity and processes |
|---|
| Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region? |
| The Mandate Plan of the City Council includes the major city projects and the priority actions for the coming years. The University of Deusto accompanies the start-up of some of the priority projects and actions based on its engaged research.

For example, through a collaborative work process between institutions, social, cultural and sports entities, companies, the media, educational centers and citizens, it has accompanied the process of choosing a framework of shared values in Bilbao. 17 individual and collective values that are collected in a Charter of Values |
| To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate? |
| The Bilbao Charter of Values includes 17 values that establish a dialogue with the 17 SDGs, democratic values that pursue the sustainable environmental, economic, social and cultural development of the city |
| Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public) |
| Every year, the Framework Agreement establishes the lines of engaged research to develop, in the convergence of priorities of the City Council and the University |
| Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used? |
| Citizen active participation in laboratories and projects |
| Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this |
| In addition to publications, it has an important presence in social networks and the media, as well as organising numerous forums, seminars and meetings. |
| What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city? |
| The collaboration established between Deusto Cities Lab or Orkestra with UNIC CityLabs has led to the participation of representatives of the former in the latter's calls for proposals. The experience accumulated in its laboratories developed in cities and territories can be of great interest to UNIC CityLabs. |

2.3.24. ORKESTRA (UD)

24 ECOSYSTEM	ORKESTRA - BASQUE INSTITUTE OF COMPETITIVENESS			
UNIVERSITY OF DEUSTO				
Territorial Scope	Agreement	Involved Actors	Legal Support	Thematic Approach
Local		Universities	Legal	
Regional		Public		Multi
	Multilateral	Private		
		Non-Profit		
		Citizenship		

Figure 44: Orkestra (UD)
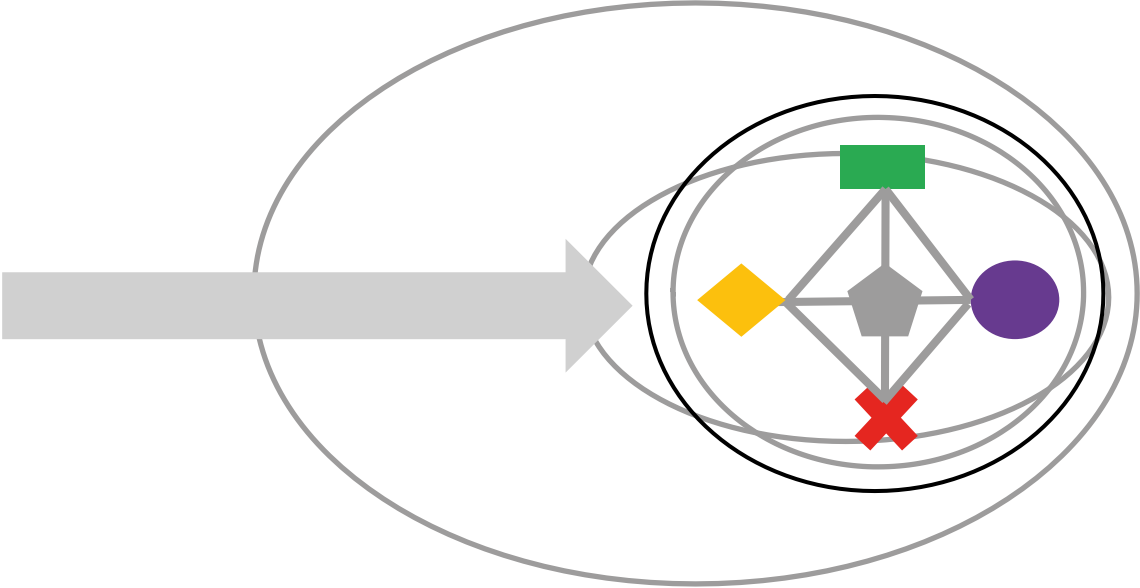
Source: Own elaboration, based on partners' documentation

24 ECOSYSTEM	ORKESTRA – BASQUE INSTITUTE OF COMPETITIVENESS
UNIVERSITY OF DEUSTO	
Link	https://www.orkestra.deusto.es/en/about-orkestra/basque-institute-competitiveness
Area/Department in Charge	ORKESTRA - Basque Institute of Competitiveness
Brief Description	Orkestra promotes competitiveness at the service of the inclusive and sustainable welfare of the Basque Country through a transformative research culture. Orkestra is a story of public and private cooperation. Promoted by the Basque Government within the University of Deusto, for the study of competitiveness and regional development through different lines of research, with three goals: • Contribute to the improvement of the Basque Country's competitiveness. • Promote the improvement of citizens' wellbeing. • Create knowledge of regional competitiveness. Formed in 2006, the Orkestra team promotes transformative research. This type of research is defined by analysis, reflection, evaluation and the proposal of actions, in a permanent form, aimed at providing innovative answers for the resolution of the challenges considered, while research knowledge is acquired.
Brief Methodology Description	Orkestra applies scientific methods to address real problems and contribute to the academic community through our research. All this aims to ensure that the knowledge we generate is useful for the key actors that contribute to the Basque Country's competitiveness.
Universities and Research Centres	• Institute for Strategy and Competitiveness Harvard University • Asociación Española de Business Angels (AEBAN) • European Business Angels Association (EBAN) • MOC Network • Inter-American Competitiveness Network (RIAC) • International Business Servitization • Regional Innovation Policy • The Competitiveness Institute (TCI) • Agder Research • Economics for Energy • Comité Español del Consejo Mundial de la Energía y Club Español de la Energía • University of Basque Country • Innobasque • Glasgow School of Art

City Government and other Public Bodies	Orkestra has the support of public bodies and private benchmark companies concerning **territorial competitiveness**, which endow this **transforming research** project with stability. These institutions fulfil an active role in the organisational structure of the Institute and provide essential collaboration in the carrying out of the Institute's projects and activities. • Basque Government • SPRI – Basque Business Development Agency • EVE Basque Energy Agency • Province Council of Gipuzkoa • Province Council of Bizkaia • Province Council of Araba • City Council of Bilbao Municipalities and county development agencies (Garapen) participate in laboratories and projects
Enterprises	• Petronor-Repsol • Iberdrola • BBK Foundation
Non-profit Organisations	Non-profit organisations participate in the laboratories and projects
Citizens	Citizen participation in laboratories and projects

Nature and structure
Is the collaborative structure or ecosystem organized as a platform, interaction channel and communication space? What kind of instruments does it use for this?
The TRANSFORMATIVE RESEARCH LABORATORIES FOR SUSTAINABLE REGIONAL COMPETITIVENESS are the main mechanism to generate collaborative processes of engaged research with public institutions, companies, social entities and citizens, around critical issues such as: • SMART BUSINESS LAB: Companies and entrepreneurial initiatives are the pillars on which territorial competitiveness is based. Through their economic and social contribution to the territory, they guarantee the wellbeing of citizens. The Smart Business Lab studies how companies adapt to the challenges they face in relation to digital transformation, innovation, internationalisation and financing, which affect their competitiveness and business models.   • WELBEING LAB: The work of analysis and transformative research carried out in this Lab focuses on conceptualising and measuring key aspects related to people's wellbeing and on understanding how the policies and strategic decisions taken and promoted by companies, government and other agents in the territory influence and serve as an instrument for making progress in its improvement.   • ENERGY AND ENVIRONMENT LAB: The transformation of the energy system is a key element in the fight against climate change. This involves technological, regulatory, industrial and behavioural changes in key economic agents. The Energy and Environment Lab generates knowledge on three challenges and their connection with the competitiveness of the Basque Country: the energy transition and its implications; sustainable mobility; and environmental management.   • PUBLIC POLICY LAB: This Lab focuses on the system of actors and governance relationships that underline the collective strategies driven to achieve sustainable territorial competitiveness. It researches and works together with other actors in the system to analyse and improve institutions, governance and public policies
Is it organised as a network of services, activity producers and developers? What kind of services and infrastructures does it offer for this?
In addition to the aforementioned laboratories, ORKESTRA has been producing the BASQUE COUNTRY COMPETITIVENESS REPORT for several years now, other scientific and applied publications, training in territorial competitiveness. Furthermore, it has five OBSERVATORIES that allow to explore and monitor: Regional competitiveness, vocational training, digital economy and society, financial and economic situation.
How the collaborative structure or ecosystem formalised? Is there any particular established legal support, such as a Memorandum of Understanding?
Orkestra is based on long-term agreements with the institutions and companies that finance the project.
What way does the collaborative structure or ecosystem involve universities, research centres, institutions, enterprises and/or non-profit organisations in the processes of training, information, communication, co-creation, innovation and implementation?
To this end, Orkestra, who since its beginnings has been an example of success in public-private cooperation, works with a large number of networks, businesses, governments and institutions on numerous projects. In this way, aside from being an agent of change to drive competitiveness in the Basque Country, it has become today an international model in the analysis of regional competitiveness in a global environment.
Which area or department is primarily in charge of setting the objectives for co-creation in the collaborative structure or ecosystem? Which area or department is the key facilitator for specifying the objectives?
ORKESTRA - Basque Institute of Competitiveness

Objectives, activity and processes
Does the collaborative structure or ecosystem have jointly articulated objectives among university and city, such as selected impacts or urban development topics (permanent or for a strategy period)? What are these joint objectives? Are based they on a Smart Specialization strategy of the region?
Orkestra has jointly articulated objectives between the university and the institutions. It has accompanied Basque institutions in the development of the RI3 Smart Specialisation Strategy for the Basque Country since 2014.
To which themes of the Urban Agenda for EU, the SDGs and the New Urban Agenda does the main objective of the ecosystem relate?
Among the SDGs, the labs work on: • SDG 1 End Poverty, • SDG 7 Affordable and Clean Energy, • SDG 13 Climate Action, • SDG 8 Decent Work and Economic Growth, • SDG 3 Health and Well-being, • SDG 9 Industry, Innovation and Infrastructure, • SDG 11 Sustainable Cities and Communities, • SDG 12 Responsible Production and Consumption • SDG 17 Partnerships to Achieve the Goals.
Is the ecosystem oriented to Research, Development and Innovation (RDI) projects? What kind of projects have implemented? Does the collaborative structure or ecosystem have existing RDI strategies or roadmaps? (If yes, for which topics. Please, include link to the document, if public)
In collaboration with these and many other relevant institutions, we promote transformative research projects on critical factors for competitiveness in areas such as public policy, welfare, entrepreneurship, digital economy and energy.
Does the collaborative structure or ecosystem involve citizens in the processes of training, information, communication, co-creation, innovation and implementation? What participation models, processes and methodologies are used?
The collaborative structure or ecosystem involves citizens in the processes of training, information, communication, co-creation, innovation and implementation through action-research methodologies linked to territorial development (IADT).
Is it oriented to share and disseminate the different initiatives, projects and/or activities? What kind of means does it use to do this
In addition to publications, it has an important presence in social networks and the media, as well as organising numerous forums, seminars and meetings.
What points of possible collaboration have already established between the collaborative structure or ecosystem and UNIC CityLabs? What could they add to the collaborative structure or ecosystem? How could they contribute to the development of citizen participation in the city? How could they contribute to the environmental, economic, social and cultural development of the city?
The collaboration established between Orkestra and UNIC CityLabs has led to the participation of representatives of the former in the latter's calls for proposals. The experience accumulated in its laboratories developed in cities and territories can be of great interest to UNIC CityLabs.

2.4. Preliminary Diagnosis

Table 6: Profiles of identified collaborative structures and ecosystems

Ecosystems				Domains			
Coll Str	Universities Coll Str & Ecosystems per Uni		EcoSys	Territorial Scope	Agreement	Involved Actors	Thematic Approach
38	EUR	8 3	24	Local 24	Unilateral 2	Universities 24	Mono 11
	KU	4 4				Public bodies 19	
	UOULU	5 3					
	RUB	8 1		Regional 20	Bilateral 2	Enterprises 16	Multi 13
	UCC	2 2					
	ULIEGE	5 5					
	UNIZG	3 3		National 9	Multilateral 20	Non-Profit 17	
	UD	3 3				Citizens 14	
Legal Support: 21 **EU Funded Projects: 17**				**Non-Legal Support: 3** **Non-EU Funded Projects: 7**			

Source: Own elaboration, based on partners' documentation

- 63% of the projects referenced respond to the characteristics of integral innovation ecosystems.
- Of the 24 innovation ecosystems, 100% are local in scope, 83.3% extend to the regional level and 37.4% reach the national/state level.
- 83.3% are the result of a multilateral agreement, while 8.3% are the result of bilateral agreements and another 8.3% are unilateral university initiatives.
- Universities are present in 100% of the ecosystems, 79% involve public institutions, 70.7% involve the third sector, 66.5% involve the business sector and 58.2% involve the public.
- 54% are multi-thematic in nature and 46% are single-thematic.
- 87.4% of the ecosystems have legal support and 12.6% do not have a predetermined normative framework.
- 70.7% of the ecosystems analysed have EU funding, while 29.3% do not.

Table 7: Domain 1. Territorial Scope

Territorial Scope	Ecosystems
Local The ecosystem that focuses its activity on the scope of a municipality / city. Local impact only.	• Participatory Futures of Intercultural Interactions (KU) • Collaboration on Education (UOULU) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Bilbao Next (UD)
Regional In addition to local impact. An ecosystem that focuses its activity on the scope of a region.	• Convergence (EUR) • Erasmus Research Initiative (EUR) • DIT Design Impact Transition Platform (EUR) • Engaged Research Projects (RUB) • Liege LabVille (ULIEGE) • Liege Creative (ULIEGE) • LiEU Network (ULIEGE) • Rejousciences (ULIEGE) • Law Clinic (UNIZG) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
National In addition to local and regional advocacy. An ecosystem that focuses its activity at the level of a country/state.	• Strenghts (KU) • TSEN (KU) • Covid-PM (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (OULU) • Campus Engage (UCC) • PPI Ignite Network (UCC) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG)

Note: All the ecosystems identified are locally active, but some have a wider regional and/or national impact.

Table 8: Domain 2. Agreement

Agreement	Ecosystems
Unilateral An ecosystem that starts from the initiative of the university's own management bodies and is led and developed by the university itself.	• Erasmus Research Initiative (EUR) • DIT Design Impact Transition Platform (EUR)
Bilateral An ecosystem that originates from the initiative of the governing bodies of the university itself and another university or research centre, a public institution, a public company or a non-profit organisation.	• Liege LabVille (ULIEGE) • Bilbao Next (UD)
Multilateral An ecosystem that is based on the joint initiative of the university itself, other universities or research centres, public institutions, public companies and non-profit organisations.	• Convergence (EUR) • Engaged Research Projects (RUB) • Liege Creative (ULIEGE) • LiEU Network (ULIEGE) • Rejousciences (ULIEGE) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)Participatory Futures of Intercultural Interactions (KU) • Collaboration on Education (UOULU) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Law Clinic (UNIZG) • Strenghts (KU) • TSEN (KU) • Covid-PM (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Campus Engage (UCC) • PPI Ignite Network (UCC) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG)

Source: Own elaboration, based on partners' documentation

Table 9: Domain 3. Involved Actors

Involved Actors	Ecosystems
Universities That ecosystem which involves the university itself and other universities or research centres.	• Convergence (EUR) • Erasmus Research Initiative (EUR) • DIT Design Impact Transition Platform (EUR) • Strenghts (KU) • TSEN (KU) • Covid-PM (KU) • Participatory Futures of Intercultural Interactions (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Collaboration on Education (UOULU) • Engaged Research Projects (RUB) • Campus Engage (UCC) • PPI Ignite Network (UCC) • Liege LabVille (ULIEGE) • Liege Creative (ULIEGE) • LiEU Network (ULIEGE) • Rejousciences (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Law Clinic (UNIZG) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
Public Bodies That ecosystem which involves the university itself and public institutions	• Convergence (EUR) • TSEN (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Collaboration on Education (UOULU) • Engaged Research Projects (RUB) • LiEU Network (ULIEGE) • Campus Engage (UCC) • PPI Ignite Network (UCC) • Liege LabVille (ULIEGE) • Liege Creative (ULIEGE) • Rejousciences (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Law Clinic (UNIZG) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)

Enterprises That ecosystem which involves the university itself and private companies	• Convergence (EUR) • TSEN (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Collaboration on Education (UOULU) • Engaged Research Projects (RUB) • Campus Engage (UCC) • PPI Ignite Network (UCC) • Liege Creative (ULIEGE) • LiEU Network (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Law Clinic (UNIZG) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
Non Profit That ecosystem which involves the university itself and non-profit organisations	• Convergence (EUR) • Strenghts (KU) • TSEN (KU) • Participatory Futures of Intercultural Interactions (KU) • Oulu Innovation Alliance (UOULU) • Collaboration on Education (UOULU) • Engaged Research Projects (RUB) • Campus Engage (UCC) • PPI Ignite Network (UCC) • Liege Creative (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)

Citizens	
That ecosystem which involves the university itself and citizens	• Strenghts (KU)
	• Participatory Futures of Intercultural Interactions (KU)
	• Oulu Innovation Alliance (UOULU)
	• Collaboration on Education (UOULU)
	• Campus Engage (UCC)
	• PPI Ignite Network (UCC)
	• Rejousciences (ULIEGE)
	• MSC-Maison des Sciences de l'Homme (ULIEGE)
	• Law Clinic (UNIZG)
	• EIT Health RIS- HUB Croatia (UNIZG)
	• Bicro Biocentre LTD (UNIZG)
	• Bilbao Next (UD)
	• Basque Science, Technology and Innovation System (UD)
	• Orkestra-Basque Institute of Competitiveness (UD)

Source: Own elaboration, based on partners' documentation

Table 10: Domain 4. Thematic Approach

Thematic Approach	Ecosystems
Mono An ecosystem that focuses its activity on a single thematic focus: technology, health, migration, climate change, mobility, heritage, poverty, gender equality...	• Strenghts (KU) • TSEN (KU) • Covid-PM (KU) • Participatory Futures of Intercultural Interactions (KU) • Collaboration on Education (UOULU) • PPI Ignite Network (UCC) • Liege Creative (ULIEGE) • Rejousciences (ULIEGE) • Law Clinic (UNIZG) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG)
Multi The ecosystem that focuses its activity on several thematic areas: technology, health, migration, climate change, mobility, heritage, poverty, gender equality...	• Convergence (EUR) • Erasmus Research Initiative (EUR) • DIT Design Impact Transition Platform (EUR) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Engaged Research Projects (RUB) • Campus Engage (UCC) • Liege LabVille (ULIEGE) • LiEU Network (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)

Source: Own elaboration, based on partners' documentation

Table 11: Domain 5. (Non-) Legal Support

Legal Support	Ecosystems
Legal Support That ecosystem which, involving the university itself, other universities or research centres, public institutions, public companies and/or non-profit organisations, has a legal agreement that supports it and formal structures for direction, management, control, monitoring and evaluation.	• Convergence (EUR) • Erasmus Research Initiative (EUR) • Strenghts (KU) • TSEN (KU) • Oulu Innovation Alliance (UOULU) • ARCTIC (UOULU) • Collaboration on Education (UOULU) • Engaged Research Projects (RUB) • Campus Engage (UCC) • PPI Ignite Network (UCC) • Liege LabVille (ULIEGE) • Liege Creative (ULIEGE) • LiEU Network (ULIEGE) • Rejousciences (ULIEGE) • MSC-Maison des Sciences de l'Homme (ULIEGE) • Law Clinic (UNIZG) • EIT Health RIS- HUB Croatia (UNIZG) • Bicro Biocentre LTD (UNIZG) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
Non-Legal Support That ecosystem which, involving the university itself, other universities or research centres, public institutions, public companies and/or non-profit organisations, does not have a legal agreement that supports it and formal structures for direction, management, control, monitoring and evaluation.	DIT Design Impact Transition Platform (EUR) Participatory Futures of Intercultural Interactions (KU) Covid-PM (KU)

Source: Own elaboration, based on partners' documentation

Table 12: Domain 6. EU Funded Projects and/or Ecosystems

EU Funded Projects	Ecosystems
Horizon 2020 / Horizon Europe	• Convergence (EUR) • Erasmus Research Initiative (EUR) • DIT Design Impact Transition Platform (EUR) • Strenghts (KU) • Oulu Innovation Alliance (UOULU) • Engaged Research Projects (RUB) • LiEU Network (ULIEGE) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
European Regional Development Fund	• Liege LabVille (ULIEGE) • Liege Creative (ULIEGE) • Bilbao Next (UD) • Basque Science, Technology and Innovation System (UD) • Orkestra-Basque Institute of Competitiveness (UD)
European Social Fund	• TSEN (KU) • Bicro Biocentre LTD (UNIZG)
EIT	• EIT Health RIS- HUB Croatia (UNIZG)
UE Erasmus +	• Campus Engage (UCC) • Bilbao Next (UD)
Polar Net	• ARCTIC (UOULU)

Source: Own elaboration, based on partners' documentation

3. Recommendations for a UniverCity Engagement Strategy

Once we have analysed the profiles of the people, anonymous citizens and references, included in the generic concept of stakeholders, we can establish a more nuanced and targeted *Engaged Research Strategy* that, integrated in a *UniverCity Engagement Strategy*, facilitates the generation of *Ecosystems of Transformative Innovation* in the cities, territories and communities in which we intend to have an impact with the activity of our universities.

Figure 45: Recommendations for a UniverCity Engagement Strategy
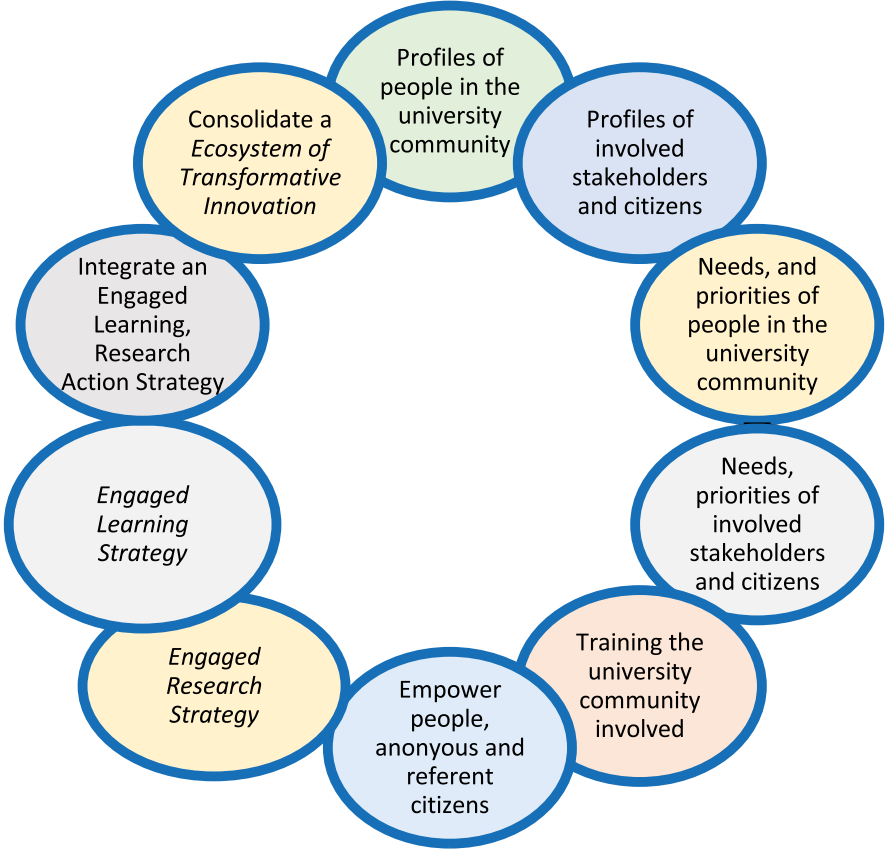
Source: Own elaboration

To speak of a *UniverCity Engagement Strategy* is, from our point of view, to speak of people who establish relationships, dialogue, deliberate and execute, in a collaborative and co-creative way, to generate a multiplier effect, based on their knowledge, skills and values, reducing the objective and subjective barriers that prevent the generation of Transformative Innovation Ecosystems.

As we have seen throughout the previous pages, these anonymous and referential people with whom we want to establish engagement, start from different contexts and circumstances, as a consequence of the roles and functions they have to perform. An efficient and effective *UniverCity Engagement Strategy*, attentive to generating consolidated processes and obtaining satisfactory results, must carry out a fine scouting exercise to identify the people with whom it is going to initiate processes of learning, research and transformative action.

RECOMMENDATION 1. Take into account the profiles of the people, citizens, who make up the university community in relation to a *UniverCity Engagement Strategy* (*ad intra*)

Before embarking on the external projection of a *UniverCity Engagement Strategy* from a university, it would be good to bear in mind that what has been said so far must be applied to the very nature and functioning of the academic institution. The people in the university community who are forming or will form part of this strategy participate, as the anonymous citizens and referents that they are, in many of the features, functions and barriers that we have analysed above.

Firstly, because they are anonymous citizens: human beings with their own background and experience as individuals, people, users, consumers and citizens. In addition, the public, private or non-profit nature of the university itself provides specific features that will condition the performance of the people in the university community involved.

The academic leadership of the *UniverCity Engagement Strategy* will take on a more political, business or social bias, depending on the nature of the university itself. Similarly, the profiles of researchers, teachers and managers will have a greater or lesser bias towards civil servants, workers or technicians, according to the nature of the university centre. Even undergraduate, postgraduate or doctoral students will be conditioned by the nature of the university that hosts them and the institutional, business or social aims that accompany them. And there is no doubt that a key element, such as the economic support of the strategy itself, will be subject to the public, business or social funding of the university itself, as well as to the specific funding channels established for the implementation of the strategy and its projects: taxes, public tenders, grants, aid, investment funds, patronage, membership fees, fundraising....

All of this can provide us with an initial state of the art that establishes the strengths and weaknesses of our own university in the establishment of the strategy or of the teams responsible for the projects.

RECOMMENDATION 2. Identify the profiles of stakeholders, citizens, involved in the implementation of the *UniverCity Engagement Strategy* (*ad extra*)

Throughout the book, we have stressed the importance of correctly labelling the people with whom we are going to interact in our engaged learning, research and action processes. First of all, all the people present in the process are anonymous citizens, they all respond to the roles of

individual, person, user, consumer and citizen throughout their daily lives. They are therefore called upon to perform various functions and fulfil certain objectives throughout the various stages of their lives and at different times of the day. Taking this into account conditions the focus of the *UniverCity Engagement Strategy* to be carried out.

But, in addition, a smaller percentage of people, throughout their lives, assume roles linked to the exercise of tasks in public institutions (politicians, civil servants, activists in political organisations...), in private companies (entrepreneurs, workers, shareholders...) or in non-profit organisations (social leaders, technicians, partners, volunteers...). Each of the roles and their functions will condition the way in which they interact with the *UniverCity Engagement Strategy* in general and the project in particular.

As result of all of the above, we will have a map of agents with a precise description of their nature, characteristics and functions, which will be very useful for the deployment of the strategy and the implementation of the projects.

RECOMMENDATION 3. Do not ignore the needs, demands, priorities and interests of the people in the university community involved —academic and management staff, researchers, teachers, technicians and students— (*ad intra*)

The design, launch and implementation of the *UniverCity Engagement Strategy* cannot ignore the needs and demands that, as anonymous citizens, accompany the members of the university community involved. Nor can it ignore the priorities and interests that these people, as referent citizens, pursue.

Every human being in the university community participates in the needs and demands that we have analysed in the first part of this document. Needs that, as individuals, they have in the search for health, accommodation, maintenance... Needs linked to their personal development, through education and training, as well as socialisation and recognition by the group and society. Needs that they intend to cover as users or consumers of goods, products, services and experiences. Demands it makes as a citizen in the exercise of its rights.

And the people who hold positions of academic responsibility, both in management and administration and in teaching and research, are concerned by the priorities identified as such. As well as by the interests associated with the exercise of these functions.

When setting the *UniverCity Engagement Strategy*, it is important to take into account the conditions and constraints of the people involved in the engagement processes.

RECOMMENDATION 4. Take into consideration the people of the city, territory and community, in their needs and demands as anonymous citizens, and in their priorities and interests as referent citizens (*ad extra*)

The *UniverCity Engagement Strategy* must take into account the needs and demands that, as an individual, person, user, consumer or citizen, occupy the agenda of the anonymous citizen. Likewise, it must assess the priorities and interests of the referent citizen, in accordance with the responsibilities acquired in his or her organisation, as a politician, civil servant, activist, businessman, worker, shareholder, social leader, technician or volunteer.

The correct call and reception of people, the origin and destination of the *UniverCity Engagement Strategy*, must establish a double process of listening: on the one hand, to the needs and demands of the anonymous citizens, the universe in which the strategy or sample to which the project is circumscribed is implemented; and on the other hand, to the priorities and interests of the reference citizens of the organisations present in the city, territory or community to which the strategy or project is addressed.

Issues such as covering basic needs, keeping up to date, socialising, accessing the use of services, being able to consume products or exercise my rights, can facilitate or strangle the development, in the short term, of specific engaged projects and programs, in the medium term, of the the *UniverCity Engagement Strategy* and, in the long term, of an *Ecosystem of Transformative Innovation*. In the same way that the priorities of consolidating the social and democratic rule of law, maintaining the viability and profits of a business, or tackling a problem linked to an age group, social group or thematic area, can strengthen or weaken the projects and programs, the strategy and the ecosystem.

RECOMMENDATION 5. Provide technical training to the members of the university community involved —academic and management staff, researchers, teachers, technicians and students— (*ad intra*)

The art of engagement requires a permanent updating of knowledge and skills. This involves considering the contents and methodologies to be deployed in an efficient and effective *UniverCity Engagement Strategy*, as well as in the projects and programs in which it materialises. Training must be completed both for researchers and teachers involved in the strategy as a whole and in the specific projects and programs, as well as for facilitators related to support actions of various kinds (financing, management, administration, digitisation, logistics, maintenance, etc.).

The *UniverCity Engagement Strategy* must be capillarised in the structures and processes of the university, for which it must be shared as a philosophy and way of understanding the relationship with the cities, territories and communities in which academic, research and teaching, activity is carried out, as well as with the people who live in and move through them.

Likewise, it must be specified in specific contents and competences of a diverse nature to be taken into account. The contents may incorporate approaches to the problems, challenges and solutions that arise around cities, territories and communities, as well as the lives of the people who live in them. Competences may focus on those that enable a better understanding of the individual and of communication and interpersonal relations, as well as those that refer to methodologies, techniques and tools linked to teaching-learning and research-konowledge processes.

RECOMMENDATION 6. Empower people, anonymous and referent citizens, as a *pH factor* in engaged processes (*ad extra*)

The *UniverCity Engagement Strategy*, as a whole, or a project or program, in particular, with a vocation for transformative innovation, must facilitate learning processes for the people, anonymous citizens and referents, involved. Knowledge and competences are needed to level out the significant asymmetries that we will find between anonymous citizens, on the one hand, and referent citizens, on the other. We will also detect imbalances between the different profiles of anonymous citizens, according to age, origin, gender or condition. And we will detect significant differences between the roles of referent citizens present. In the same way, we will observe

different scales of values, more or less affected by the democratic values set out in the Universal Declaration of Human Rights.

It seems appropriate to carry out this initial work of empowerment of the people involved, in order to better assemble people who are very different in their socio-demographic profile and with different roles in their double condition of anonymous citizens and referents. This initial work will make it possible to establish awareness-raising, activation and involvement methodologies based on listening, dialogue, deliberation and entrepreneurship, on equal terms.

The challenges contemplated in an engaged learning program or engaged research project require information sharing and prior training, for a better understanding and integration in the processes of analysis, diagnosis and decision-making.

RECOMMENDATION 7. Design an *Engaged Research Strategy*

The above processes linked both to identifying and taking into account the needs and priorities of the members of the university community involved and of the citizens, both referents and anonymous, of the city, territory or community in which they are involved, and to the training in knowledge, competences and values aimed at them, must converge in an *Engaged Research Strategy*.

The strategy articulates the structures and processes necessary to facilitate the development of the various projects arising from the dialogue between researchers and citizens, both referents and anonymous.

In this section, the organisation of a structure, the *Engaged Research Office*, which accompanies the actors in the processes of: (a) recruitment: supporting the generation of networks and relationships with the various actors, the design or recruitment of projects, training in knowledge, skills and values; (b) management: supporting the management of the projects generated, as well as the relationship with or without a stable legal framework between actors; (c) transfer: supporting the dissemination of results, evaluation of processes, measurement of impacts and accountability.

RECOMMENDATION 8. Articulate an *Engaged Learning Strategy*

The identification, taking into account the demands and interests, and the training of the university community, institutions, companies and social entities, as well as the anonymous citizens of the environment in which it operates, must converge in an *Engaged Learning Strategy*.

This strategy includes the structures and processes necessary to facilitate the development of the degrees and training programmes resulting from the engagement between the university community and the various stakeholders identified.

The accompaniment of the actors in the teaching-learning processes can be entrusted to an *Engaged Learning Office* in charge of: (a) design: supporting the presence in networks and relationships with the identified actors, the design or recruitment of degrees and programmes, training in knowledge, competences and values; (b) management: supporting the management of the degrees and programmes generated, as well as the legal framework and its regulatory implications; (c) communication: supporting the dissemination of degrees and programmes, quality assessment, impact measurement and accountability to stakeholders.

RECOMMENDATION 9. Integrate research, learning and action into a *UniverCity Engagement Strategy*

The *Engaged Research Strategy* or the *Engaged Learning Strategy* must be integrated in a more holistic and interdependent perspective, which includes, together with research activity, teaching-learning processes and social impact actions. All of this can be brought together in a *UniverCity Engagement Strategy*. This strategy investigates the needs, demands, priorities and interests of the people who live in and move around the city, as well as those who make up the university community. It welcomes the learning processes of both the university community and the citizens, both anonymous and referent, around new knowledge, competences and values.

In this way, the actions to be developed achieve a greater incidence and impact on the city, territory or community. The research and knowledge generation processes are complemented with the teaching and learning processes, achieving greater efficiency and effectiveness.

In the same way that the strategy designed and elaborated within the walls of the university is intertwined with the strategies arising from institutions, companies and non-profit organisations, as well as with the agendas of anonymous citizens, in a *UniverCity Engagement Strategy*, with a shared roadmap.

RECOMMENDATION 10. Encourage the consolidation of an *Ecosystem of Transformative Innovation* in the city, territory and/or community, based on the *UniverCity Engagement Strategy* and pre-existing ecosystems

The *UniverCity Engagement Strategy*, resulting from the integration of research-knowledge, teaching-learning and action-incidence, must focus the extensive list of ongoing projects towards the configuration of an *Ecosystem of Transformative Innovation* in the city, territory and/or community in which it acts.

A fine work of convergence of specialised research projects from different areas of knowledge, with greater or lesser links with their environment, towards a shared *Engaged Research Strategy* is initiated. And, based on this, a progressive approximation, *Engaged Learning Strategy*, is made with the teaching-learning programs and transfer actions. The result, the fruit of integration, will be a *UniverCity Engagement Strategy*.

In parallel, the engaged research projects, on the one hand, and the teaching-learning programs, on the other, are establishing dialogues, bilaterally or within the framework of the existing specialised ecosystems, with the institutions, companies, social entities and anonymous citizens present in their areas of action. From this point onwards, to advance in the configuration of an *Ecosystem of Transformative Innovation* in which to take advantage of the strength of transversality and cross-sectoriality, while optimising the always limited resources available. This ecosystem will be the result of the progressive integration of previously existing specialised ecosystems.

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UniverCities

Engaging Universities, Cities & People

Building City Ecosystems of Transformative Innovation

This book brings together the work carried out by a team of researchers from the member universities of UNIC European University of Post-Industrial Cities, within the framework of the EU Horizon UNIC4ER project, towards a collaborative approach and a committed research strategy.

It proposes the need to generate *City Ecosystems of Transformative Innovation*, in which universities collaborate with institutions, companies, social entities and anonymous citizens, to address the environmental, economic, social and cultural challenges of the cities, territories and communities in which they are located.

To this end, it is proposed to establish an *Engaged Research Strategy* that integrates the projects, structures and processes of engaged research. And it is proposed to evolve towards a *UniverCity Engagement Strategy* that incorporates engaged teaching-learning and engaged research-knowledge in an integrated and transformative action.

After the conceptual delimitation of the proposal, a *Mapping* of the most relevant inspiring practices generated around universities and the cities in which they are located is carried out. It concludes with a series of recommendations for the implementation of a *UniverCity Engagement Strategy* and the progressive configuration of a *City Ecosystem of Transformative Innovation*.