

Annex A1 to Rectoral Decree No. 287 of 28th December 2021

Fact sheet on the three lines of research of the City Science Office of Reggio Emilia

1. Common dimensions of the research path:

The research can be articulated with an initial general part dedicated to the analysis of models of research units 'city science office' or similar, activated by public administrations in other European cities focusing on the juridical-administrative nature, the activities carried out, the organizational architecture, the professional components involved and the relationship modalities with the local public body and with other possible territorial actors.

The PhD students will constitute the backbone of the City Science Office of Reggio Emilia (CSO-RE) and in this capacity will animate the Reggio Emilia Co-Lab, organizing workshops, co-design sessions, managing or participating with municipal officials and staff of the Open Urban Laboratory at the Cloisters of San Pietro in field activities in the neighborhoods of Reggio Emilia and within the City Science Initiative or other European projects related to CSO-RE.

For each of the key-research lines illustrated in point 2, approaches of open, collaborative, sustainable innovation will have to be taken into consideration, and the development potential of cooperative and social economic forms for these purposes will need to be analyzed, as well as the coherence of the proposed research projects with the objectives and international, European and national public policies for sustainable development, ecological transition, and the fight against climate change.

2. Specific dimensions for three lines of research

The research project should address at least one of the following three lines of research:

2a) Urban Social Innovation

The rethinking of personal services from a proximity perspective through forms of public-community-science partnerships that enable sustainable urban innovation, the pursuit of common goals and social impacts through collaboration with self-organized local communities in the production and/or management of goods, services, community infrastructure, with a Law & Policy approach and empirical analysis capabilities.

Public-private-community relations: The collaboration of the private (profit) sector and local communities in activities of general interest promoted by the local public administration.

A strategic theme for the Reggio Emilia Municipality concerns the modes of relations with the private sector (for profit) to maximize synergies and spin-offs in the city's neighborhoods for purposes of collective interest. In general, leaving aside the consideration of profiles related to competitive procedures governed primarily by the Public Contracts Code, the public administration in Italy is constantly faced with a heterogeneous regulatory framework and a



series of engagement tools entailing complex management. The modes of involvement of the private for-profit enterprises intends to act also or exclusively for the realization of purposes of general interest and can utilize a wide range of possibilities offered by the legislation in force¹ and the development of new administrative tools, as demonstrated by the case of municipal regulations regarding urban commons². This theme should also be contextualized by considering the emergence in the entrepreneurial and productive sector of forms that go beyond the traditional activities of corporate social responsibility, using metrics for the evaluation of impact or ESG and sustainability, to sustainable corporate governance that also recognizes in the production of public value the growing spread of non-profit utilities, public-private-community partnerships and benefit companies.

The Reggio Emilia Municipality has launched a 'Common Good Neighborhood' public policy dedicated to the development of collaborative processes in the neighborhoods and outlying areas of the city. Following an experimentation phase developed in the 2014-2019 five-year period, a path towards updating 'Common Good Neighborhood' has been planned with the new legislature by starting the revision of regulation on common goods and updating the work methods of work with the territory³. A cornerstone of the work is the collaborative protocol that includes the structuring of the process to be initiated in each neighborhood through work phases aimed at building a shared strategy and planning, based on a negotiated agreement of a public-private-community nature. In the 2014-2019 season, numerous empirical experiences have been implemented in the neighborhoods as collaborative projects developed between the public and forms of active citizenship purely oriented towards the non-profit sector. They have frequently shown a certain fragility in the medium to long term, inviting reflection on the consequent need for their strengthening through the introduction of actors from the private world to support and finance their work.

From a legal-administrative perspective, the issue consequently invites a series of questions concerning the definition of processes and legal-economic tools compatible with the current regulatory framework for the pursuit of general interest goals by private entities and the production of social, economic, ecological, cultural impact in different neighborhoods through a proper balance between profit and non-profit entities. This field of investigation thus requires an analysis and a recognition of the types of public policies and legal instruments already provided by the current legislation that are suitable for stimulating social innovation and sustainability through forms of partnership between public and private realities and the community, before

1 These include, by way of example, contracts for sponsorship, donations, the concession of use of space, the loaning of movable and immovable property and other similar devices.

2 The Common Goods regulations of Reggio Emilia currently in force provide for instruments of a pact-driven nature such as citizenship agreements. This regulatory framework is currently being revised with the possible provision of new instruments for the implementation of collaborative projects of a negotiated nature (neighborhood pacts, civic use with relative regulations of use); institutional (foundations, cooperatives, neighborhood associations) and other modalities (impact contracts, community budgets). The regulatory process will necessarily be followed by the construction of operational guidelines to detail the methods of use.

3 The relationship can be concretized through economic, instrumental, and human resources, services and material equipment.

then contemplating more in-depth analysis and experimental application within the 'Common Good Neighborhood' public policy.

2b) Urban Data Dashboard - digital

Digital innovation, with reference to collaborative technology solutions (e.g., smart neighborhoods, smart communities, etc.) to support the adoption of the urban co-governance protocol, with a Law & Tech approach and qualitative analysis capabilities.

Data science for urban law, policy and governance

The interpretation and integration of data in the construction and verification processes of policies and territorial projects developed by the public administration has now become essential. One strategic issue for the Reggio Emilia Municipality is the need to maximize the usability of data and indicators, promoting their accessibility, highlighting their correspondence with the strategic lines of work of the Authority and, consequently, increasing their applicability to support the construction processes of public policies.

The definition of standards and strategies for data management is fundamental for integrating the information available within the Public Administration and encouraging greater synergy between different policy areas, both in the reading of territorial needs and in the relative project responses. At the same time, the opportunities for territorial analysis can evolve significantly if the municipal information heritage is progressively enhanced through the integration of additional databases through collaboration with other territorial actors and citizens (citizen science). This dimension needs to be developed in synergy with the 'social innovation' line of research, which can also be facilitated with the help of the manager of the Open Urban Laboratory at the Cloisters of San Pietro⁴.

The process of the systematization and enhancement of data is closely related to the interpretation and synthesis of the wealth of information available to support the process of designing policies and planning actions through an evidence-based approach, as well as their verification in terms of impact on the territory. In this sense, the Reggio Emilia Municipality has already launched an internal 'Policy Observatory' dedicated to the collection and integrated reading of data. This tool supports the authority in the design of strategies and project actions in the area. Its application path has highlighted the need to strengthen the available databases, but above all to optimize their use, connecting it in a more integrated way with the processes of construction and revision of public policies, also through the development of analytical methodologies, indicators and other tools to be applied on applicative case studies.

From a legal-administrative perspective, the issue consequently calls for the need to define: a) guidelines for interoperability between organizational structures within the Municipality with standards and collection procedures; b) tools for collaboration with other territorial actors; c) a set of indicators to measure the impact produced, and methods and devices for interpreting data to be translated into policy making and planning processes with related administrative acts.

⁴ www.chiostrisanpietro.it/lab-in-chiostri/

2c) Urban and Environmental Ecological Transition

Sustainable innovation of the public and social housing sector, also through support for experimentation of housing energy communities, with a Law & Economics approach and quantitative analysis capabilities.

Energy communities for innovative and sustainable forms of housing and energy self-sufficient neighborhoods

The experimental prototyping of a legal-economic model for self-production and self-consumption of energy as an enabling tool for local communities⁵.

The research aims to support the implementation of models that encourage the transformation of Reggio Emilia, its neighborhoods, its blocks and its buildings into modules of self-production and self-consumption of goods and services, encouraging the activation of mechanisms for sharing self-produced value through collaborative governance, technological and digital tools at local level. The pursuit of this vision of self-sufficiency aims to make buildings, primarily those of economic enterprises and social housing, individually and in aggregate form, the center of new value chains in which residents and users of the city can activate dynamics of circular economy and collaborative self-production and self-consumption of energy from renewable sources, thus reducing the climate and environmental impact of energy services and their costs through collective action. This theme responds to the commitment of the city of Reggio Emilia to develop a policy aimed at making its neighborhoods climate neutral, smart and collaborative. With this objective the city intends to meet the challenges posed by the Horizon Europe "100 Climate Neutral and Smart Cities by 2030" Mission which promotes 100 European cities that intend to achieve climate neutrality by 2030, ahead of the 2050 target. The Mission supports them in the implementation of their paths using tools such as Climate City Contracts (CCC), strategic documents that each city can introduce to formulate shared objectives, strategies, governance, and financial tools for climate neutrality. The PhD research is part of this context and therefore intends to develop a path of pilot experimentation of models of energy sharing ("energy sharing") starting from the application of the directive of the European "Clean Energy Package", supporting the construction of a collaborative system of self-consumption of energy. The institutional legitimacy of energy communities in Europe in the context of the transposition of the updated REDII renewable energy directive also raises opportunities for the establishment of Positive Energy Districts (PEDs), "energy efficient and flexible urban areas or groups of technically connected buildings that produce zero net greenhouse gas emissions and actively manage a surplus of local or regional annual renewable energy production". It is thus important for Reggio Emilia to define processes and develop tools that enable a sustainable energy transition implemented through an investigation of regulatory, financial, legal, social, economic,

⁵ The research project will hinge on possible project paths for PINQUA and PNRR funds, as well as Horizon Europe, either activated or to be activated on the theme of innovative and sustainable housing in the most vulnerable neighborhoods of Reggio Emilia.



technological and impact perspectives for applications that range in scale from individual buildings to urban districts.

The educational objective of the PhD is therefore to offer a path of advanced study that combines theoretical and practical profiles in relation to regulatory issues and economic viability that affect energy services, from a national, EU, international and comparative perspective.

The activity may therefore lead to: 1) a study of the scientific literature on alternative modes of energy production and sharing and the legal framework of reference, to search for organizational forms that promote the self-sustainability and empowerment of local communities; 2) examination of the contribution of energy communities to the establishment of PEDs; 3) the collection of good practices and solutions and examination of the legal-economic models tested at European and national level; 4) co-designing the energy services in Reggio Emilia and the legal-economic pre-feasibility model of the same with the local communities, appropriately mapped; 5) field testing the model and the co-designed community services to validate the methodology and to overcome any legal and regulatory barriers that are identified; 6) propose forms of co-governance enabling aggregated services for citizens to accompany the establishment of a collective institution that may be defined in the course of experimentation; 7) study blockchain-based methodologies and mechanisms for remuneration of flexibility and community services other than energy services, through the use of local virtual currencies; 8) propose the use of mechanisms and tools to finance the energy transition (e.g. sustainable finance tools of the Sustainable Financial Strategy 2.0 and the Info Kit for Climate Neutral and Smart Cities of the European Commission); 9) evaluate the results of the prototype experimentation, taking into account Environmental, Social, Governance (ESG) metrics to measure the achievement of energy and social innovation goals in a medium to long term logic for subsequent applicability in other contexts.

The results of the PhD course will derive from the analysis of the theoretical models of reference and from the experimentation within practical cases in Reggio Emilia, in synergy with the administration, the users and the inhabitants of the city.