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Fair and Inclusive Transitions

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Analysis and Urban Trends
Mapping Projects and Stakeholders in the Twin Transition in Cork and Turin

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Introduction

The term **twin transition** indicates the need to simultaneously address two major societal changes, the ecological transition, and the digital transition, by integrating them into a single development path. The 'twin transition' integrated approach seeks to shape the future sustainably, taking into account the ecological and digital challenges, but also the associated socio-economic aspects to ensure an equitable and inclusive transition for all of society. Through the active involvement of people and organizations in the implementation of innovative processes**, social innovation** stands as a fundamental strategic resource to accompany the twin transition in its social dimension and in the structuring of new and more appropriate forms of governance. In fact, Social innovation processes ensure the involvement of the various segments of society, including the most fragile and disadvantaged, in the ongoing transformative processes. Ensuring the inclusion of everyone, including **the fragile and disadvantaged** (people with disabilities, ethnic or economically disadvantaged minorities, etc.) in the transition is not only an ethical imperative or an approach intended to mitigate risks of social instability but it is an investment in building a more cohesive and inclusive, competitive and sustainable society. In this sense, integration becomes a key pillar in building more resilient communities that can successfully meet the challenges that economic, social, and environmental transformations bring.

1. Framework and Analysis of the Cities Involved

Turin, with a population of 837,610 (ISTAT, 2023), has long been a symbol of Italian industrialization and home to important companies in the automotive sector. With the crisis of the industrial system, the city has been faced with major economic, social, and urban transformations related to the process of deindustrialization and the redirection and reorganization of its production system in the area of service innovation and in particular in the areas of technological innovation, scientific research, culture, and tourism. Unemployment, the growth of social inequality, and urban redevelopment related to the conversion of brownfields have been some of the most important challenges the City faced in recent decades. In addition, there are the environmental challenges related to the high level of air pollution caused by vehicle traffic, industrial and agricultural activities in the area, heating and climate change.

Although a number of actions and interventions have been carried out over the years to reduce urban air pollution[1], the levels of CO2 produced in the city are still high and well below the targets set by the European Green Deal to achieve climate neutrality by 2050.

Cork City is the second largest city in Ireland, with a population of 222,333 (2022). Cork City represents Ireland's second-largest economic engine and is an emerging national counterweight to Dublin, offering a diversified economic base with significant concentrations of activity in information and communications technology, science, international business services, corporate services, education, health, retail, cybersecurity, and nanotechnology. The wider city region is also home to an internationally significant pharmaceutical and biopharmaceutical sector, as well as strong energy, maritime, and agribusiness clusters. In addition to being the main centre for the Southern Region, Cork is home to some national institutions including University College Cork (UCC) and Munster Technological University (MTU). Cork City Council is the

[1] between 1991 and 2019, there was a decrease from a total of 4,469,786 to a total of 1,951,720 tonnes of CO2 produced, a 56% reduction in CO2 emissions (Source: PASEC)

local administrative body responsible for providing a wide range of services related to roads, traffic, planning, housing, economic and community development, environment, recreation services, fire services, and maintenance of the voter register. Cork City Council is managed and governed by two separate but interconnected arms: the Executive and the Elected Members. The Executive is responsible for providing the services mentioned above, while the Elected Members (Councillors), which number 31, chaired by the Mayor, have reserved functions, including formulating the council's budget and the City Development Plan.

2. Twin Transition Initiatives and Projects

In April 2022, Cork City and Turin were selected to participate in the European Union's **'Cities Mission'** initiative, thus joining **Europe's 100 Climate Neutral and Smart Cities.** This initiative aims to significantly accelerate the achievement of the **European Green Deal** goal of becoming a 'net zero' continent by 2050.

The participation of the two cities, led by public references together with a citywide coalition of stakeholders, including academia, industry, community groups, and citizens, will be structured through the creation and implementation of a new **multi-tiered local governance model: the 'Climate City Contract,'** which is expected to be finalized in 2024. The Climate City Contract will include an action plan and associated investment strategy that will facilitate and ensure the future development of Cork and Turin as inclusive, sustainable, compact, liveable and attractive cities, all tangible benefits of established climate action.

By positioning them among Europe's most sustainability-oriented cities, the Mission will open up additional opportunities in the coming years, these will offer specific connections and collaborations with other cities on issues of common interest. As City Missions, Cork and Turin will serve as testbeds for experimenting with new approaches and specific innovations that will help in achieving climate ambitions.

Both cities, in order to translate the goals outlined in the Climate City Contract into concrete action, have undertaken several significant new initiatives in recent months:

- ***Turin***

In 2022, Turin was selected as one of the candidates for the "Pilot City Program" call of Net Zero Cities[2], with the "**Let's GOv"** Project, thus initiating, a path directed at identifying strategic lines in the areas of energy efficiency, circular economy, green urban planning and sustainable mobility.

In the area of **energy efficiency**, the City has committed to a) increase production from renewable sources in urban settings; b) increase the energy efficiency of production sites/decarbonization; c) upgrade and innovate energy distribution networks; d) increase the flexibility of energy demand; and e) promote the engagement and greater awareness of citizens and consumers on energy use.

Among the first actions implemented in this area are the activities aimed at the creation and dissemination of Renewable Energy Communities (RECs), which allow to increase the production of energy from renewable sources and at the same time can contribute to solving energy poverty problems.

It is important to mention the initiatives financed by the PON Metro 2021-2027 funds and some ongoing projects such as CERTO (developed by the Energy Center of the Politecnico di Torino and CCIAA), which

[2] The European project supporting 53 cities in developing capable solutions to achieve climate neutrality in 2030.

proposes the union of several RECs into Territorial Energy Communities (CETs) and experiments with possible management models for the energy produced. Other initiatives promoted by the municipality of Turin and CCIAA have seen private entrepreneurs make land available for the creation of CERs, while IREN has initiated a reflection on the transformation of degraded areas into large-scale CERs.

In the field of **circular economy and waste management**, the City is working to promote educational paths towards a production and consumption model that implies borrowing and sharing, repairing and reusing, and recycling materials and products. It is doing this by raising awareness and empowering citizens on the issue, improving the separate waste collection system, stimulating innovation with specific funding on the circular economy (PN Metro Plus 2021-2027), and participating in European calls for tenders. There are several projects in progress such as, for example, Repopp, which has made it possible to save 122 tonnes of food in 2022, the Citizen Reuse Centre and the Free Trade Market in Via Ravenna, the collection of used oil activated by AMIAT[3], the FUSILLI project on Urban Food Planning and, the Torino city Lab (financed by the PN Metro Plus).

The city's green and rural infrastructures are fundamental in climate change adaptation and mitigation strategies, in safeguarding biodiversity, and in improving citizens' well-being and quality of life.

The objectives that the city has set for itself in this area are: enhancing the woodlands of the Turin hills, enhancing ecological corridors for biodiversity, greater protection of the structured tree heritage, increasing green spaces, adopting innovative NBS solutions, and implementing micro-interventions in heavy built-up areas.

The interventions planned in the area of mobility and transport concern: a) strategies for governing the demand for mobility; b) support and incentives for bicycle and pedestrian mobility; c) the strengthening of public means of collective transport and incentives for their use; e) the adoption of technological solutions for de-pollution and the adoption of clean technologies.

The city is aiming at a reduction in travel by private means, the encouragement of the use of less polluting means of transport and/or soft mobility (cycling and electric mobility), and a different and more sustainable management of mobility related to the supply of goods. To this end, the city is striving to promote active mobility and reduce car use through actions such as the extension of traffic-restricted zones, the pedestrianization of urban areas, 30 km/h roads, the introduction of taxes on the occupation of public land, pedestrian and bicycle mobility education, the securing of bicycle and pedestrian infrastructures, and the placement of new bicycle parking spaces. Parallel to this, efforts are being made to boost the local public transport system by improving its 24/7 functionality, ensuring its affordability, and improving the communication of available information (maps, real-time timetables, options, etc.). Initiatives such as car-free schools and the presence of mobility managers in schools have also been launched.

Finally, it is essential to ensure that digital and environmental innovations are supported by a path of social innovation that goes in the direction of an inclusive transition capable of ensuring a positive impact on the lives of disadvantaged people. The promotion of the social economy and the employment inclusion of disadvantaged people through customized pathways linked to different individual situations and contexts are essential in this sense. Even at this stage, social rights and basic services must be guaranteed by adequate policies capable of ensuring inclusiveness and accessibility to all citizens.

[3] still under completion

- ***Cork***

In establishing the basis for the development of the Climate City Contract, work so far has focused on a combination of several actions such as:

- ✓ Developing a baseline analysis of Cork's current emissions in the key sectors of **construction, industry, utilities, road transport, trade, agriculture, and waste management and treatment.**
- ✓ Consolidation of priority interests with local, national, and international stakeholders.
- ✓ Preparation of **a climate risk assessment study.**
- ✓ Implementation of an extensive survey on household habits and behaviour..
- ✓ The organisation of a series of sectoral **'Cork Climate Conversations'** to structure engagement with other public sector organisations, the business sector, and community representatives (through the Public Participation Network). These events were developed in collaboration with University College Cork's Civic Engagement Unit.
- ✓ Involvement of schools and the younger generation to ensure that their voices are heard.
- ✓ Launch of an €840,000 **Community Climate Action Fund**.

Currently, Cork City Council is developing a Local Authority Climate Action Plan to meet and exceed national emission reduction targets and develop resilience to the impacts of climate change. This **Climate Action Plan** will build on Cork City Council's 2019 Climate Change Adaptation Strategy, which included 66 actions in several areas. As part of the strategy, Cork City Council was the first local authority in Ireland to establish a climate action committee. Through this strategy, many innovative initiatives were introduced, including the refurbishment of public housing stock and the introduction of a fleet of electric vehicles for Cork City Council staff.

In the context of twin transition, Cork is leading significant initiatives for the digital and social transformation of the city. Cork City Council's Digital Service Provision program goes beyond just the online presence of services, embracing the full digitalisation of public services, digital infrastructure, and front-end and back-office transformation. The introduction of an online consultation portal and forms submission platform in 2020 facilitated access to 174 services for over 17,000 registered users in 2022, processing payments worth over €250,000.

In addition, Cork City Council was the first Irish public body to implement a **Chatbot** within its systems. Launched in 2023, this tool is designed to reduce the volume of customer service calls by giving citizens quick and continuous access to the information they want via the website 24/7. Currently, the City Council handles over **3,000 customer** service calls per week, and the Chatbot aims to reduce significantly this load. Direct involvement of citizens is encouraged through feedback surveys during the pilot phase, helping to refine the Chatbot according to needs and frequently asked questions.

In parallel, the Cyber-Social project with University College Cork's Cyber-Social Research Lab aims to understand the impact of digital technologies on everyday life through a three-year ethnographic study. Aiming to guide Cork's digital transition towards becoming a 'Smart City', this project aims to provide tangible evidence on how to socially and ethically integrate digital technologies into everyday life. Cork City's inclusive and socially informed approach, highlighted through initiatives such as the Cyber-Social project, reflects a commitment to a digitally just and socially equitable space.

3. Stakeholders involved

The ecosystem of local actors involved in twin transition projects in Turin reflects the integrated approach needed to tackle complex challenges and promote sustainable development. In fact, the Climate City Contract foresees the active involvement of a team of local actors, which includes: a dedicated working group within the city's offices and its various departments (they play an important role in multi-level governance and stakeholder engagement processes), local investee companies, academia, corporations (industrial unions), start-ups, the private sector and the banking system that play an important role as implementers, co-financiers and investors. To this end, the City has initiated a dialogue with the main institutions and strategic partners in the area including: Politecnico di Torino, Energy Center, University of Turin, GTT, IREN, SMAT, 5T, Piedmont Region, Metropolitan City of Turin, ATC, Industrial Union, the world of local banks, as well as the numerous actors of the local ecosystem present on the two platforms of Torino City Lab and Torino Social Impact.

A participatory process was also launched in July 2023 to which 45 companies and 15 representative bodies responded, including: representatives of Turin City Council, Turin University of Studies, Turin Polytechnic, Turin Industrial Union, Turin Chamber of Commerce, Environment Park, Fondazione Piemonte Innova, Iveco Group, COMAU, Intesa Sanpaolo, TIM, Wind Tre, MSC Cruises, Reply, Stellantis, Reale Mutua Assicurazioni, Lavazza, Telepass, DigiSky, IGPDecaux, Iren Group, Italgas, and numerous other companies, SMEs and start-ups in the area.

A fundamental role is reserved for the Third Sector, whose involvement is intended as a fundamental tool to ensure that the innovations implemented have a concrete impact on territories and communities, and that they are oriented towards the promotion of environmental, but also social sustainability. Precisely to ensure a synergy with the Third Sector, a dedicated working table was launched in October 2023.

Finally, the transformations linked to the twin transition are implemented through an innovative mode of action. In fact, the classic tools for entrusting services (calls for tenders) are not being followed, but co-programming and co-design processes have been activated, and public-private partnerships based on new project governance models, new protocols and new procedures have been created.

To ensure that Cork City can innovate effectively, it is necessary to create an innovation ecosystem that connects all stakeholders. Cork City aims to build a highly collaborative ecosystem, building on the progress made by conducting public consultations to inform the city's strategies, and the creation of representative industry cluster groups such as Cyber Ireland and Tech Industry Alliance to connect industry, public sector, and academic leaders to spread knowledge.

At the centre of this ecosystem will be the citizens of Cork City. Cork City has realised that citizen involvement is of huge importance and that citizen-led bottom-up approaches are the way forward. Cork City will continue to find new ways to encourage citizens in development and innovation, unlocking people's potential. Initiatives such as Cork City Council's Community Climate Action and the extensive consultation on the Community Local Economic Plan have laid the foundations as examples of good practice, and these frameworks will be continued and integrated into all future planning.

The creation of this innovative ecosystem, which actively involves citizens and integrates different stakeholders, will foster knowledge sharing, collaboration and co-creation of innovative solutions. By putting citizens at the centre of the process, Cork City can capitalise on the resources and ideas of its community, helping to build a more resilient, sustainable and innovation-driven city.

4. Future Challenges and Opportunities

There are several challenges that the two cities will face in the coming years to achieve climate neutrality while ensuring a fair and equitable social, cultural, and governance transition. As far as the goals that Turin and Cork have set for themselves are concerned, problems are beginning to emerge that could slow down some of the processes and actions underway.

On the circular economy front, there is still a lack of shared metrics of value based on which to structure and promote possible incentives for more practices. In the area of waste management, it would be necessary to make separate collection systems, ecocentres and the collection of special waste (WEEE, waste oil, etc.) more efficient, more accessible and more attainable. There is also a lack of data on the quality and quantity of separate waste collection that would allow the structuring of systems, services and waste policies that are more adequate and capable of responding to real territorial needs.

In the field of mobility, it is necessary to adopt a holistic approach capable of involving the community and promoting a cultural change not only with regard to means of transport (avoiding possible conflicts between different mobility users) but also in the way urban public spaces are conceived (and their role as common goods) and implementing concrete actions to make cities more sustainable and liveable.

Overall, one of the main challenges that the city will face is the creation of data collection systems that allow targeted interventions to be carried out and at the same time transformed into public information that is clear and accessible to all citizens. Allowing interested citizens to access this information would facilitate the increase of actions to achieve climate neutrality.

What is evident from both cities is the need to work with local communities to build pathways capable of accompanying cultural change and creating the basis for accommodating transformation processes of how the city and its community relate to the urban environmental ecosystem.

Conclusions

Turin is tackling the twin transition through a virtuous path from the technical, digital, environmental, and climatic points of view and, above all, through the construction of an innovative system of collaboration with the territory's actors. The path undertaken must, however, be carefully accompanied by actions aimed at balancing the innovations proposed and implemented with the real life of the communities living in the area, so that they do not instead lead to the emergence of new social, economic, and cultural inequalities. In this sense, the active and informed involvement of citizens in the design phase of interventions and/or micro-interventions, in their implementation and in monitoring the progress and results achieved is fundamental.

On the other hand, Cork's strategic vision as an innovative and sustainable city is well underway, driven by climate adaptation, air quality and digitalisation strategies. Cork aims to become a national test-bed for innovative ideas, contributing not only to its own development but also to that of Ireland. The process of green and digital transition is already underway, with lessons learnt that will guide further creative initiatives and innovative solutions.

In order to accompany the transformation and better understand its effects on the territory and the communities living it, it is, therefore, necessary to adopt communication tools and procedures capable of involving the citizens and educating them on a different vision of the urban ecosystem.

Greater political will is needed to: a) find and allocate specific resources on the subject, b) simplify procedures for temporary events and for the adoption of sustainable solutions in private and communal spaces, and c) unleash creative potential by strengthening mutual trust d) increase collaboration between the municipality and local actors, with particular attention to the third sector and the important role it plays in intercepting even the most disadvantaged and deprived sectors of society.

Finally, it is important to take into account the different regimes and speeds at which the twin transition travels. Technological innovations often find funding that facilitates their realisation and implementation at the territorial level, while innovations that concern the managerial, social, and cultural dimensions of the process, take place through slow paths and have fewer sources of funding. The city's commitment should be to bridge this gap so that the social dimension of the transition proceeds hand in hand with the technological and environmental dimensions. To this end, it is necessary to activate a cultural, social, economic, and administrative process capable of receiving, embracing, valorising, and enhancing the interventions carried out in the twin transition under all the mentioned perspectives.

In both cities, the future is intrinsically linked to the ability to integrate social, cultural and economic aspects into the twin transition, creating a sustainable and inclusive urban environment for citizens.

Methodological note and bibliography

This report is based on an in-depth analysis of documents produced by the cities of Cork and Turin, providing a comprehensive overview of projects active in the context of the twin transition. This detailed mapping of the initiatives undertaken in the key sectors of construction, industry, utilities, transport, trade, agriculture, and waste management provides a critical view of the actions taken to address the challenges of the transition.

The stakeholders involved in the two cities' projects over the years, both locally and internationally, were identified and evaluated. This analysis aims to highlight the importance of collaboration and involvement of the various stakeholders in defining the path of the transitions.

The political visions that guided the strategies adopted by the two cities and influenced the transitions pathway were critically analysed. This assessment provides an indication of the guidelines that have shaped the past and will continue to dictate the future, ensuring a proactive and sustainable vision in line with the long-term goals of the communities involved.

In conclusion, this analysis provides a comprehensive view of the dynamics of twin transitions in the cities of Cork and Turin, offering a solid basis for assessing and analysing progress and identifying areas for improvement and future opportunities.