

An Integrated Action Plan for
the Metropolitan City of Turin

BOOSTING TERRITORIAL INNOVATION AND ATTRACTIVENESS







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FOREWORD BY METROPOLITAN COUNCILOR *DIMITRI DE VITA*

The topic of the In Focus project – how to define local smart specialization strategies that are coherent and aligned with regional strategies – is particularly important for the Metropolitan City of Turin.

The Metropolitan city is indeed a new institution with a different and broader role compared to that of the former Province it has replaced. Particularly, the Metropolitan city has the task of promoting and coordinating economic and social development, by supporting innovative economic and research activities. This new role, as well as the mission and the model of territorial development that the new metropolitan institution intends to promote, has to be defined and built, and has to obtain a sufficient degree of legitimacy by both socio-economic actors and by other government institutions.

In this institutionalization process, the In Focus project has been particularly important for the definition of the identity and mission of the Metropolitan City and for the elaboration of its economic development policies, thanks, on the one hand, to the learning process and exchange of ideas and experiences at the international level and, on the other, to the active involvement of local stakeholders.

More generally, the In Focus project showed the importance of the role that cities and metropolitan cities can play in the elaboration and implementation

process of the Regional Research and Innovation Strategies for Smart Specialisation (RIS3). For instance, due to the proximity factor, they can actively contribute to the entrepreneurial discovery process, by mobilizing socio-economic actors and involving business-related stakeholders more easily than regional governments. Moreover, cities and metropolitan cities can actively contribute to better define and give more focus to the priority domains of innovation that have been shaped in a broadly way by regional strategies or they can play an important role in the implementation phase of RIS3, by making local policies and initiatives converge on such priority domains.

The aim of this Action Plan (IAP) is to establish a “two-way bridge” between RIS3-Piemonte and the development strategy of the Metropolitan city of Turin. On the one hand, the IAP identifies specific and concrete initiatives that can contribute to the implementation process of the RIS3 at the local level. On the other, it may influence and improve the Regional strategy, thanks to ideas and proposals from local stakeholders. Moreover, the initiatives promoting innovation ecosystem, entrepreneurial ecosystem, and business growth and territorial development included in the IAP are useful in order to enrich the Metropolitan Strategic Plan - a planning tool compulsory for each metropolitan cities, that covers a three-year period and has to be updated every year.

The collaboration started thanks to the In Focus project with the Cities of Bilbao, Plasencia, Porto,

Ostrava, Bordeaux Métropole, Grenoble-Alpes Métropole, Bucharest 3rd District, Bielsko-Biala Regional Development Agency and Frankfurt

Economic Development has been particularly fruitful and enriching for the Metropolitan City of Turin and I hope it could continue in the future.





In focus

SMART SPECIALISATION AT CITY LEVEL

EXECUTIVE SUMMARY

IN FOCUS: CONNECTING RIS3 WITH LOCAL STRATEGIES AND POLICIES

During the last three years, the Metropolitan City of Turin has been partner of the In Focus project. In Focus is funded by URBACT III, the European programme that aims to foster, through the exchange of knowledge and experience, the development of new ideas and new practical solutions to address the challenges related to sustainable urban development.

Ten cities of various different sizes across Europe joined forces within In Focus in order to develop urban policies that can identify and exploit new emerging sectoral opportunities in the framework of Smart Specialization Strategies (RIS3). The main goal of In Focus was to identify local policies and actions aimed at implementing the RIS3 from

top-down, and at the same time able to positively influence the regional strategy from the bottom-up. To achieve this, partners shared their own knowledge and experience and “captured” the advice of experts on issues like clusters policies, entrepreneurship, spaces for smart specialization and investment&knowledge attraction.

THE ADDED VALUE FOR THE METROPOLITAN CITY OF TURIN

This is a period of change for The Metropolitan City of Turin. In fact, it's a brand new local authority that has replaced, starting from January 1st 2015, the former Province of Turin. The (new) strategic mission of the Metropolitan City of Turin is that of being an engine of economic and social

development for local areas. It should also represent a flexible governing “tool” able to coordinate municipalities within the metropolitan area and cooperate with higher government levels in order to plan and implement effective public policies, according to the multi-level governance model.

In this process, the In Focus project has been particularly important for the definition of the identity and mission of the Metropolitan City of Turin and for the improvement of the local governance system in two directions: vertically, making a stronger bridge with the Piemonte Region and the RIS3, and horizontally, involving local stakeholders in order to enrich the public decision-making process.

Moreover, the In Focus project represented an opportunity to improve the economic development policies of the Metropolitan City and particularly to contribute to the elaboration and updating process of the Metropolitan Strategic Plan - that is a new compulsory planning tool that covers a three-year period has been updated every year. This has been made possible, on the one hand, thanks to the learning process and exchange of ideas and experiences at the international level and, on the other, thanks to the activation of local relevant stakeholders.

The metropolitan area of Turin is characterized by a long tradition of cooperation and collaboration between public actors and socio-economic actors. For example, the elaboration process of the Metropolitan Strategic Plan, to which the In Focus project contributed, has involved more than 60 socio-economic actors, in addition to all 316 municipalities that are part of the Metropolitan City.

More specifically, within the In Focus Project, the main stakeholders of the local innovation ecosystem were involved: local authorities (Region and Municipality), chamber of commerce, universities and research institutes, innovation and technology transfer centers, innovation poles and clusters, business incubators and accelerators, employers' organizations. Alongside these actors, who have been actively part of the "restricted" Urbact Local Group (ULG), several other local stakeholders,

interested in the issues dealt with from time to time, have participated in the meetings (associations, banks, private companies). The different points of view and the different interests represented in the meetings of the ULG have enriched the decision-making process, allowing a better identification of the critical issues and weaknesses of the local context and a better definition of the actions aimed at tackling these problems.

THE LOCAL INNOVATION ECOSYSTEM: THE MAIN WEAKNESSES TO TACKLE

The metropolitan area is characterized by the presence of a rich business environment, mostly composed by micro and small enterprises (94.8% of the enterprises has between 1 and 9 employees). Over the last 20 years, Turin has undergone deep economic and physical changes, with the result that today it is no longer a “one-company town” and its economy is characterized by a strong diversity and the increasing importance of sectors linked to the knowledge economy.

However, the fragmentation of the production system and the small size of the enterprises represent a significant limit for the implementation of innovative and internationalization strategies, which are essential to promote business and territory competitiveness.

Moreover, the recent economic crisis has shown the vulnerability of the metropolitan area to external shocks and demonstrated the structural weakness of the public welfare system, especially as regards social needs and unemployment. Regarding demographic dynamics, the metropolitan area is a "slow replacement area", characterized by a negative natural rate of population growth and a tendency to progressive ageing of the population.

The crisis has determined a persistent economic contraction, a loss of competitiveness of the productive system, a contraction of consumption, savings and investment and, ultimately, a general impoverishment that have had a particularly heavy impact on the welfare system. The worst situation is that of the labor market: the metropolitan city's

unemployment rate is quite high - it reached 10.4% in 2016 -, and the trend is particularly worrying for youth unemployment rate, which reached 26.1% for the 18-29 age group (Istat, 2017).

As concerns the local innovation ecosystem, the metropolitan area of Turin has an historical strength in the field of innovation in the Italian context and it is well positioned even compared to other European areas. According to the "Regional Innovation Scoreboard 2016", Piedmont is one of the two Italian Regions considered as "strong innovators". The relative strengths of the innovation ecosystem, which emerge from the comparison with the EU28 countries, are highlighted in employment in knowledge-intensive industrial sectors, in SMEs with product or process innovations and in small and medium-sized enterprises innovating in-house; while relative weaknesses can be found in low public spending on R&D, in the low efficiency of the tertiary education system and in the still weak tendency to collaboration between innovative small and medium-sized enterprises.

The local innovation ecosystem is well-articulated and shows the presence of a high number of actors: 2 Universities (University of Turin and Polytechnic of Turin), 4 high education institutions, 11 research centers, 2 science and technology parks, 2 technological districts, 2 business incubators and 4 innovation clusters (biotechnology and biomedical technologies, mechatronics and advanced production systems, ICT, sustainable buildings and hydrogen).

However, the presence of a multitude of public and private actors generates some coordination problems that may retard the creation of a true integrated and synergic system. Further weaknesses can be found in the low level of openness to outside, as concerns both the ability to attract business initiatives from other territories and the ability to connect to the international circuit, and, as already mentioned, in the small size of enterprises, which

A SET OF INTEGRATED AND SYNERGIC ACTIONS

results in difficulty in growing and scaling up.

The attempt of the IAP has been therefore that of identifying actions aimed at tackling these weaknesses, in the framework of two wider purposes:

- contributing to the implementation process of the RIS3 at the local level,
- contributing to the Metropolitan Strategic Planning process as concerns the identification of actions promoting innovation and economic growth.

The strategic goal is to enabling the Metropolitan City of Turin, making it more innovative and attractive for business and talent, through three "Pillars of action" that concern the support of the local innovation ecosystem, the strengthening of the entrepreneurial ecosystem and the promotion of business growth and territorial development.

Such pillars are composed by the following specific initiatives, identified within the Urbact Local Group:

1a) Open access to R&D centers and laboratories

Promoting the sharing and co-use of scientific laboratories and research infrastructures, reducing the fragmentation of investments and strengthening cooperation between companies, universities and public and private research centres

1b) Support for innovation in micro and small enterprises in RIS3 priority areas, through Design Thinking

Boosting innovation of micro and small enterprises and their growth in terms of business, encouraging the knowledge and use of the "Design Thinking" methodology, both by companies and by intermediaries and professional associations

2a) One single strategic direction for the local entrepreneurship ecosystem

Increasing the degree of interaction and co-operation among the actors of the ecosystem in order to improve the services offered to start-ups and potential investors

2b) Entrepreneurship education for young people

Stimulating the entrepreneurial skills and mindsets of young people, promoting a culture oriented to entrepreneurship, risk-taking, creativity and innovation

3a) Business networks among companies in RIS3 priority areas

Fostering business networks among SMEs operating in RIS3 priority areas, in order to tackle the dimensional problems of SMEs and improve their business competitiveness.

3b) Internationalization of micro and small enterprises in RIS3 priority areas

Supporting companies in their internationalization paths, offering them free consulting services provided by export specialists

3c) Promotion of investments in disused industrial areas

mapping the brownfield sites of the metropolitan area in order to provide an overview of localization opportunities for potential external investors



THE IN FOCUS PROJECT

The In Focus Project is co-financed by the ERDF under URBACT III, a European Programme that supports the improvement of knowledge on urban development. The project aims to create a European network of cities (Municipalities and Metropolitan Cities) working on the improvement of urban policies by identifying and exploiting new emerging sectoral opportunities and defining local development strategies that contribute to the implementation of the Regional Smart Specialization Strategies (RIS3) and may, in perspective, influence them.

The Project was conceived with the intent to bring together municipalities, supra-municipal bodies and territorial development organizations around the idea of a “network” of experiences and good practices – through integration of the social, economic and cultural spheres – aimed at improving urban policies and supporting the ability to identify and enhance opportunities for development and innovation through the RIS3 approach.

The Project was developed in two phases: the first phase lasted six months - from September 2015 to March 2016 - during which preparatory activities were carried out to illustrate the project idea and its aims to the stakeholders, collecting impressions and ideas in order to characterize the project and trace guidelines for the Metropolitan City of Turin. In this context, the Metropolitan City of Turin benefited from the assistance of the "Lead Expert" who has supported the representatives of the institution in the application process, helping to focus on the strengths and weaknesses to be enhanced and exploited in the project.



Furthermore, during the first phase, a fundamental activity was carried out aimed at enlarging the partnership, with the addition of five other important municipalities (Bielsko-Biala, Bordeaux, Frankfurt, Grenoble and Ostrava) to those that from the beginning supported the In Focus Project: the City of Bilbao (Lead Partner), Plasencia, Porto, Bucharest and the Metropolitan City of Turin.

Following the passing of an assessment step in May 2016, the project was admitted to the second phase, with the duration of 2 years (3 May 2016 - 3 May 2018), dedicated to the implementation of initiatives.

At the transnational level, 5 thematic workshops were organized, which were very interesting and useful for examining some key issues (connection among regional and urban strategies, cluster-based local development, local ecosystems for business creation, new work and services for businesses, attraction of investments and knowledge). The study visits, planned for each workshop, also allowed partners to get to know concretely the most significant experiences and some good practices of the cities who hosted the events.

The Metropolitan City of Turin has had the pleasure of hosting, in September 2017, one of these workshops dedicated to a theme particularly important for the territory: tools and actions to support local ecosystems for business creation. The workshop, entitled "Boosting the entrepreneurial local scene: maximizing the ecosystem approach", represented an important opportunity for discussion and exchange of ideas and experiences, from which have emerged advices and indications particularly significant for the Turin area.

In addition to the exchange of experiences and good practices, the second phase entailed the development by each partner, with the active support of the Urbact Local Group (ULG), of an

"Integrated Action Plan" (IAP), that contained a set of actions, consistent with the regional RIS3 and aimed at responding concretely to the "challenges" of the local context.

For the elaboration of this document, the peer review workshop held in Bucharest in June 2017 was particularly useful. The fact that each partner was asked to read in depth and comment in writing before the meeting the draft IAP elaborated by (at least) 3 other partners, ensured an informed and actually useful comparison; while the methodology followed during the workshop, based on role play, has favoured an effective learning process, thanks to the assumption of different points of view.

The activities carried out in parallel both at transnational level and at local level have therefore led each partner to the articulation of an economic development strategy based on urban innovation, in line with the strategic choices defined at regional level and, in perspective, with the ambition to influence them through a bottom-up process.

For the Metropolitan City of Turin this process was useful in order to contribute to his strategic plan. The In Focus Project has indeed represented an opportunity to improve the process of defining the Metropolitan Strategic Plan and, above all, a working methodology aimed at experimenting inclusive and collaborative methods for the implementation and updating of the Plan as regards clusters development, promotion of territorial development, support for new entrepreneurship, attraction of talents, tangible and intangible infrastructures to support innovation.

The In Focus Project has therefore certainly achieved its objectives: in the past two years spent "together" with the partners we have known their territorial realities, the development ideas they pursue, the innovation policies they want to

implement. Opportunities of comparison have been created to examine experiences that are profoundly different, but interesting and replicable for the development of the territorial context of the Metropolitan City of Turin.

All of this was made possible thanks to the

important role played by the lead partner, the City of Bilbao, who coordinated and accompanied the partners throughout the project, and thanks to the role of the experts, Miguel Rivas and Willem Van Winden, who offered the partners an essential technical and scientific support.



THE COLLABORATIVE MODEL

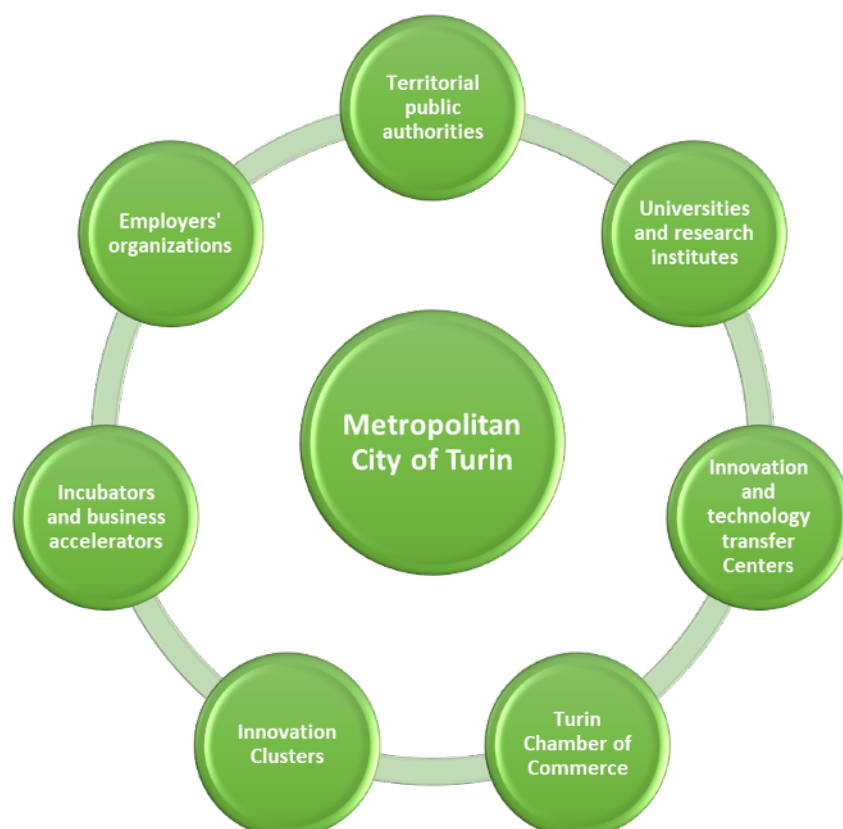
The involvement of local stakeholders has been a key element of the In Focus Project. In fact, the objective was to actively involve, on several occasions and in the various phases of implementation of the Project, the main actors that in various ways make up the local innovation ecosystem.

The Urbact Local Group (ULG) has been characterised by a twofold configuration:

- a "core group", consisting of a dozen local stakeholders who have a consolidated collaboration relationship with the Metropolitan City of Turin as concerns the planning and implementation of research, development and innovation policies (City of Turin, Piemonte Region, Turin Chamber of Commerce, BioPmed Innovation Cluster, Bioindustry Park, MESAP Innovation Cluster, ICT Innovation

Cluster, Business Incubator and Centre of technology transfer of the University of Turin - 2i3T, the Innovative Enterprise Incubator of the Polytechnic University of Turin - I3P and Urban Center);

- an "extended group", with a variable composition depending on the addressed topic, that saw the participation of various public and private actors engaged in the implementation of policies and initiatives in the field of research, development and innovation (Environment Park, SocialFare, Confindustria Canavese, Acea Pinerolese, Unione Industriale di Torino, Unioncamere Piemonte, Istituto Superiore Mario Boella, The Doers - Business Accelerator, Innovation Centre of Banca Intesa San Paolo, Experientia).



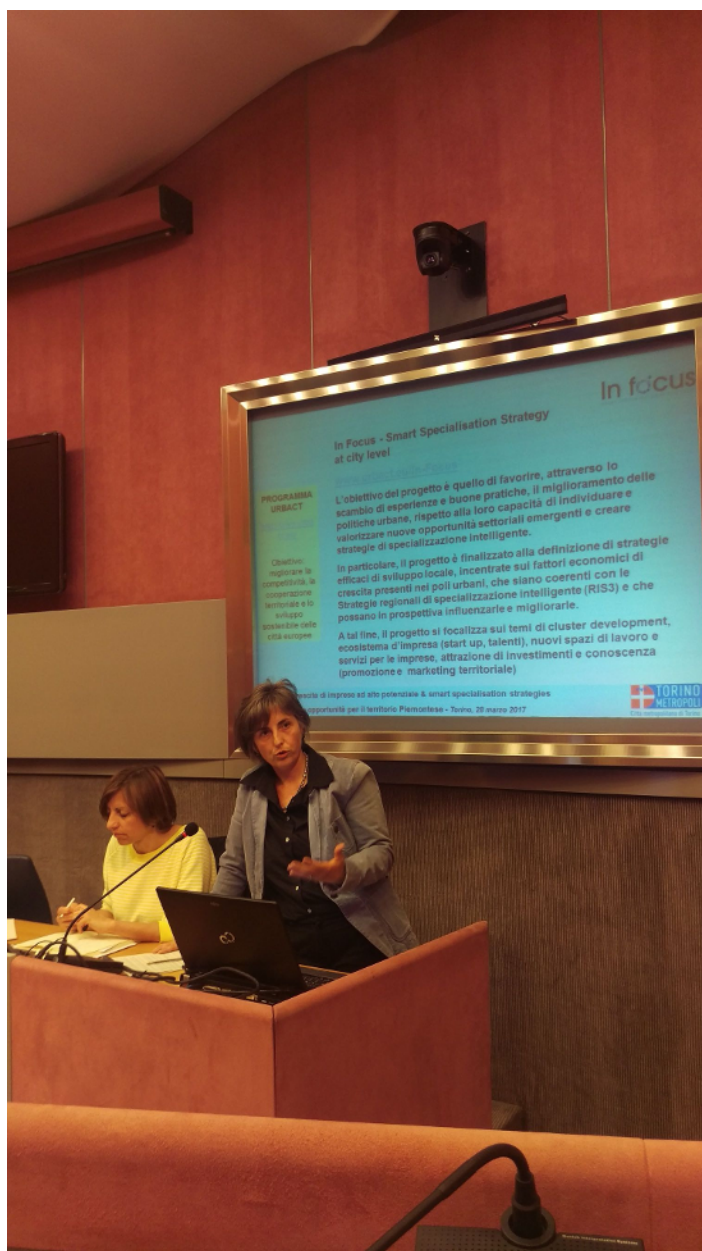
The ULG meetings were conceived as participatory occasions, organized as informal, friendly and collaborative events in which the participants had the opportunity, not constrained by formalized schemes, to exchange ideas, experiences, good practices, as well as find joint solutions, share decisions and codify the political priorities to be translated into the Integrated Action Plan (IAP).

After an initial analysis of the local context, which included the study of the strategies developed at European, national and regional level, a series of meetings were organised, with the aim of illustrating the purpose of the In Focus Project, identifying the main problems of the local innovation ecosystem and finding possible solutions. These meetings have allowed to bring out impressions, suggestions and useful indications to elaborate an IAP that fully considers the local needs.

After this initial consultation, all the feedbacks collected were systematised, in order to identify the main challenges, the operational priorities, the potential resources and the role of each ULG members within the IAP.

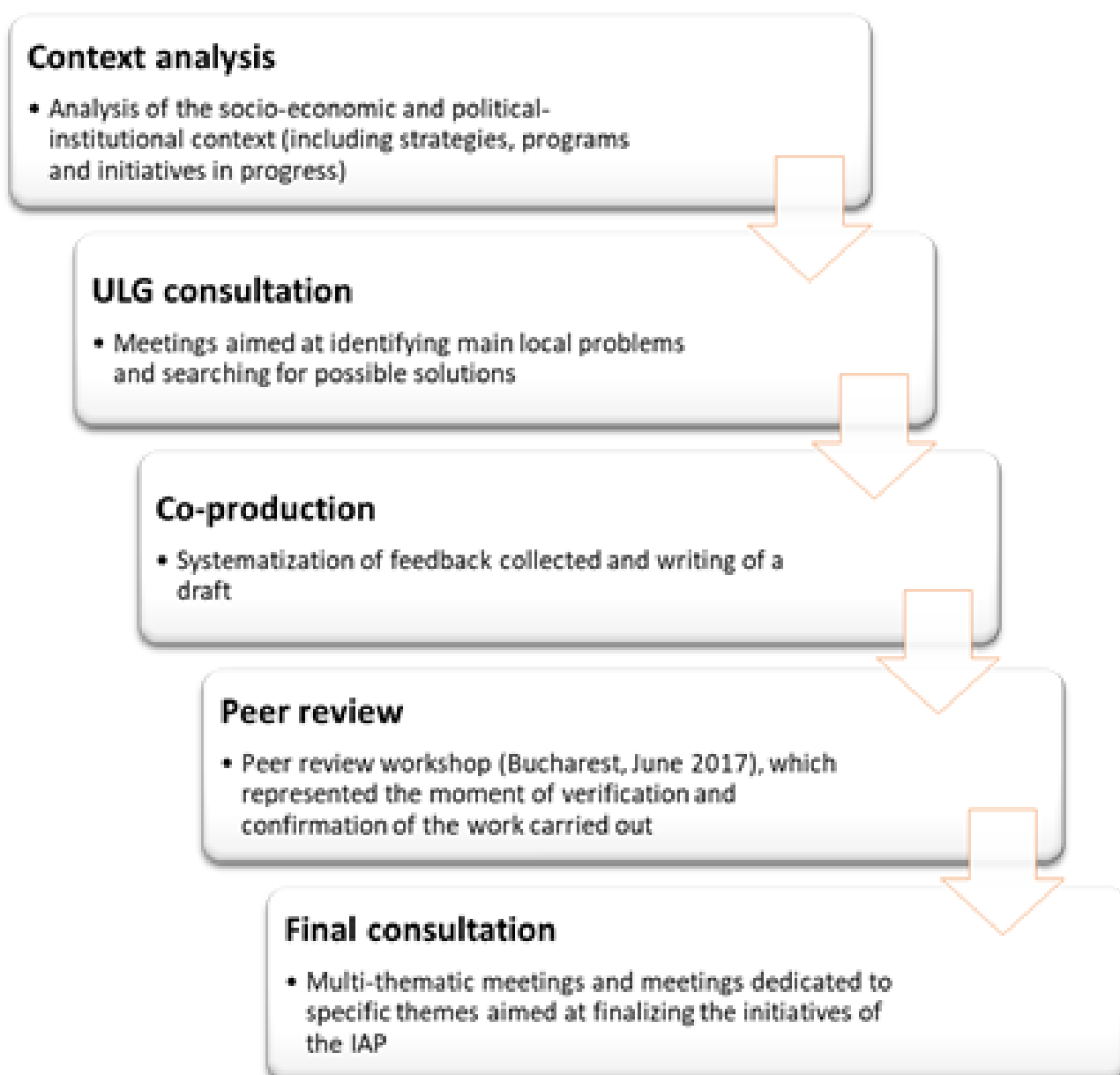
The first draft of the IAP was then shared with project partners during the peer review workshop held in Bucharest in June 2017, which represented the moment of verification and confirmation of the work done till then: the methodology adopted during the workshop was useful to bring out similarities, differences and the aspects to be corrected in order to improve the approach and initiatives contained in the IAP. The peer review workshop was, therefore, a fruitful opportunity to gather suggestions that has been particularly helpful, because they came from partners with different approaches and different points of view. The document resulting from the peer review process has been submitted to the ULG again.

During the following months, multi-thematic meetings were organized, as well as meetings dedicated to specific topics (business acceleration programs, clusters and innovation processes, design thinking as a tool for promoting business innovation) in which ULG members took part. Moreover, in order to define the initiatives included in the IAP with a greater level of detail, also some in-depth bilateral meetings with key stakeholders were organised.



The collaboration started with the members of the ULG will certainly continue after the formal conclusion of the In Focus Project, also thanks to the long lasting tradition of cooperation and collaboration among public actors and socio-economic actors that characterised the metropolitan area. A significant part of the activity of the Metropolitan City of Turin, and in particular of the Productive Activities and Territorial Development Office, consists precisely in involving local

stakeholders in integrated planning initiatives and shared socio-economic development projects. For example, the elaboration process of the Metropolitan Strategic Plan, which includes the In Focus Project, has involved, in addition to the 316 municipalities of the metropolitan area, the active participation of more than 60 socio-economic actors (and of the citizens - through an online questionnaire).



STAKEHOLDERS	FEATURES
2i3T	Business Incubator and Centre of technology transfer of the University of Turin
Acea Pinerolese industriale	Modern multi-utility that manages different services for municipalities, businesses and citizens, promoting innovative solutions in the fields of energy, environment and water
Bioindustry Park	Regional Technology Park that acts as a system integrator for the development of life sciences in Piemonte
Turin Chamber of Commerce	Autonomous body that operates on tasks of general interest for the Metropolitan City of Turin's business system
City of Turin - Innovation, European funds, Smart City Office	Organizational unit that deals with urban innovation and development programs
Confindustria Canavese	Employers' Organisation of the Canavese area
Environment Park	Science and technology park for the environment and accelerator of innovation for companies that aim to expand their market with eco-efficient solutions
Experientia	International consulting company specialized in user experience and service design
I3P	Innovative Enterprise Incubator of the Polytechnic of Turin
Innovation center of Banca Intesa San Paolo	Innovation center that deals with the monitoring and acceleration of innovative Italian and foreign start-ups
ISMB (Istituto Superiore Mario Boella)	Research Centre in the field of ICT and wireless technologies
BioPmed Innovation Cluster	Innovation cluster that associates 400 members among companies, research centers, universities and foundations active in the fields of human health and life sciences
ICT Innovation Cluster	Innovation cluster, coordinated by the Torino Wireless Foundation, which brings together about 250 members (companies, research organizations and public and private bodies) and aims at accelerating the growth processes of companies operating in the ICT sector
MESAP Innovation Cluster	Innovation cluster for Mechatronics and Advanced Production Systems, that aggregates about 260 actors (companies, universities and research centers)
Regione Piemonte - Competitiveness of regional system Department	Department in charge of the RIS3
SocialFare	Centre for Social Innovation with the mission to catalyse and generate solutions for the most pressing social challenges and accelerates social entrepreneurship
The Doers	Private company that carries out business acceleration programs
Unioncamere Piemonte	Association of the Chambers of Commerce of the Piemonte Region
Unione Industriale di Torino	Employers' Organisation of the Turin area
Urban Center	Public-private association with the mission to support, from a scientific and cultural point of view, the process of urban transformation of Turin and the metropolitan area



INSTITUTIONAL AND ECONOMIC BACKGROUND

METROPOLITAN CITY AS NEW LOCAL AUTHORITY

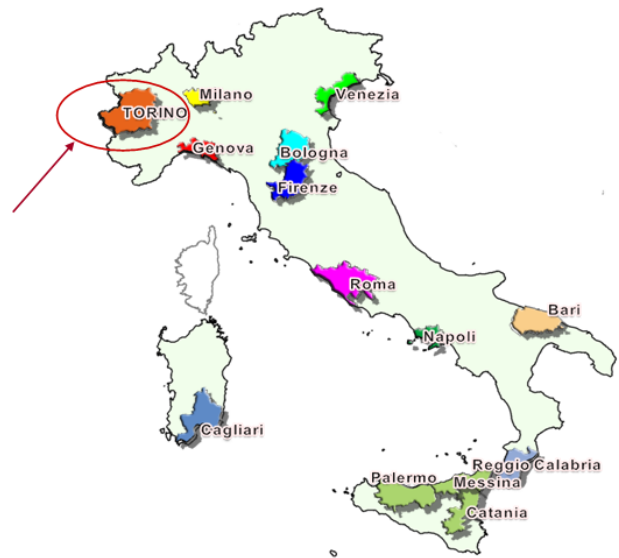
The Metropolitan City of Turin (NUTS3) is a territorial authority, established by Law 56/2014, which has replaced the Province of Turin, starting from January 1st 2015. It is located in Northwest Italy (NUTS1) and it is part of the Piemonte Region (NUTS2). It borders with South-East France and it is one of the largest Italian metropolitan areas in terms of size and population. Indeed, it covers a territory of 6.827 square kilometres (52% mountains areas, 21% hills areas, 27% plains) and has a population of around 2.247.780 inhabitants, of which 890,000 live in the City of Turin.

The Metropolitan city is characterised by a very high administrative fragmentation. It is in fact composed by a high number of municipalities (316), that are mostly small and very small towns: 80% of the municipalities has less than 5.000 inhabitants and 36% has less than 1.000 inhabitants.



Metropolitan cities are “second level” local authorities, governed by political bodies that are elected among mayors and councilors of the municipalities included in the metropolitan area: : the metropolitan mayor is the mayor of the provincial capital city (in our case, the Municipality of Turin), while the metropolitan council (legislative body) and the metropolitan conference (non-legislative assembly) are composed respectively by city councillors indirectly elected by the city councils of each municipality and by the mayors of all the municipalities included in the Metropolitan city.

The (new) strategic mission of Metropolitan cities is to be a driver for economic and social development for local areas and the country, capable of interpreting the new needs of the economy and society, manage flows and networks, and launch high-impact projects to promote the standing of Italian metropolitan areas within the network of global cities. Metropolitan Cities should be a flexible governing tool that can coordinate with individual municipalities within the metropolitan area, surrounding areas, regions and the national government, in order to program and plan within a vast area. Therefore, effective multi-level governance, horizontal and vertical, should be at the core of the activity of the Metropolitan Cities.



As regards specific competences, Metropolitan cities play a coordinating role for supra-municipal issues and are mainly responsible for socio-economic development at the supra-municipal level. Moreover, they have competence in the following areas:

- ▶ Strategic and general planning
- ▶ Environment (environmental protection, disaster prevention, pollution, fauna and flora protection, natural reserves and parks, energy resources and waste collection);
- ▶ Supra-municipal roads and traffic;
- ▶ Transports;
- ▶ Data collection and analysis;
- ▶ ICT and digitization;
- ▶ Technical and administrative assistance for municipalities; Civil protection.

Metropolitan cities can then agree upon different forms of collaboration with municipalities for the management of common services.

THE TRANSITION TO A MORE DIVERSIFIED AND INNOVATION DRIVEN ECONOMY

The metropolitan city area is characterized by the presence of a rich business environment. In most cases, these are micro and small activities: 94.8% of the enterprises has between 1 and 9 employees, while the companies with over 50 employees are only the 0.75% (percentages that are however similar to that of the rest of the country). Nearly half of the total employees (around 47%) is employed by micro-enterprises, followed by small enterprises (21%) and large enterprises (18%), while medium-sized firms account for only 14% of total employees (Istat, 2011).

Turin was considered for many years as a "one-company town" for the social and economic importance of his main company, FIAT (today Fiat Chrysler Automobiles, seventh world automotive manufacturer). Over the last 20 years, Turin has undergone deep economic and physical changes, with the result that today its economy is characterized by a strong diversity and by the increasing importance of sectors linked to the knowledge economy. In addition, the coexistence of conventional manufacturing activities with new trends led to the development of a range of new business services, closely connected to the dynamic needs of modern companies.

Nowadays, the main economic sectors, by share of employees, are manufacturing (30%), commerce (15%) and construction (8%). Despite the area maintains a strong industrial connotation, the importance of manufacturing sector has considerably decreased (it was equal to 39% in 2001), while the whole service sector employs 62% of the total employment. As concerns the main manufacturing subsectors, they are the automotive industry, the aerospace and the ICT. Other emerging and particularly innovative sectors are represented by biotechnologies, design and digital creativity.

In addition, over the last few years, the Metropolitan City of Turin has become an area with high touristic attraction potential and the 2006 Winter Olympics certainly acted as a catalyst in terms of the growth recorded by the region. In 2014, the number of tourists in the metropolitans area reached 5,885,623, of which 78% were Italian and 22% were foreigners. Compared to the previous year, there was an increase of 6%, a positive trend that seems to be confirmed even in the following years.

However, the recent economic crisis gave evidence of the region's vulnerability to external shocks and a structural difficulty of the public welfare system in facing unemployment and social needs linked to demographic change and ageing of population.

Looking at the labour market situation, the metropolitan city's unemployment rate is quite high - it reached 10.4% in 2016 -, and above the regional average (9.9%), while the employment rate is 63.9% (against a regional average of 64.4%). The data shows a particularly worrying trend for youth unemployment rate, which has reached 26.1% for the 18-29 age group (Istat, 2017).

As concerns demographic dynamics, the metropolitan area is a "slow replacement area", which is characterized by a natural rate of population growth of -0.24%, (given by the number of births minus the number of deaths on residents) and a tendency to progressive ageing of the population. In the metropolitan area, the percentage of population aged 65 and over increased from 11.4% in 1991 to 21.6% in 2012; over the same twenty years, the rate of residents aged under 25 decreased from 30.7% to 23.1% (Rapporto Rota, 2015).



STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

The context analysis and the evaluations developed in the planning documents of the Piemonte Region, including the RIS3 itself, highlight some of the characteristics of the metropolitan area in the perspective of a development based on the knowledge economy.

The most evident strengths lie in the qualification of human resources in the fields of scientific / technological disciplines, in the quality of research institutions, in the dynamism of the productive system in specializations with a high content of knowledge and technology. The companies of the metropolitan area have shown to have a positioning, in relation to the directions of innovation, which allows them to exploit both the opportunities in accessing foreign markets and in the development of new markets.

The innovative attitude of the manufacturing sector in the metropolitan area concerns not only the product but also the production process, thanks to the presence of organizational and management skills. The presence of these skills has made the production system active on issues related to the so-called "Industry 4.0", which will allow the manufacturing industry to compete globally, by combining traditional production know-how with the most advanced digital technologies.

From the set of data collected emerges a vocation for innovation in Piemonte, both in terms of size (investments and employees) and results, which helped to build a favourable environment for the development of new ideas, products and skills, in which beside traditional sectors new sectors with high growth potential emerged. In the context of the needs linked to the aging of the population in terms of health protection, the biotechnology and bio-medical sector represents, for example, an

industrial and technological area in which the metropolitan area sees the presence of excellent companies.

However, the metropolitan area, and more generally the Piemonte Region, show weaknesses especially in relation to the objectives of Europe2020: the crisis has in fact determined a persistent economic contraction with an aggravation of the competitiveness gap of the productive system, a contraction of consumption, savings and investment and, ultimately, a general impoverishment that could have a particularly heavy impact on the welfare system.

In this context, the Metropolitan City of Turin will have to focus on the enhancement of traditional specializations, such as the transport sector, the automotive sector and the aerospace sector, along the new innovative trajectories. The sector of instrumental goods, which combines traditional mechanical technologies with electronic innovations, will also have to face the challenge of a new manufacturing competitiveness, based on the "intelligent factory", in order to integrate productivity, quality and environmental sustainability.

<p>STRENGTHS</p>	<ul style="list-style-type: none"> - Good positioning of universities in national and international rankings. - High number of graduates in scientific / technological disciplines. - Number of employees in R&D above the national average. - High incidence of business spending on R&D. - High number of innovative companies compared to the national average. - Patent intensity in line with the EU average, particularly in the automotive and mechanical components companies. - Presence of technological platforms in scientific and production fields with a high content of knowledge and technology (aerospace, biotechnology, automotive, agri-food). - High capacity to export in sectors with dynamic global demand (over 37% of total exports). - Growth in exports in the automotive, automotive components, food, textile and clothing products and rubber and plastic products sectors. - Widespread experiences of social innovation that often pursue goals of wellbeing, health and prevention.
<p>WEAKNESSES</p>	<ul style="list-style-type: none"> - Low incidence of public R&D spending, down compared to the national and EU average. - Backward position of Piemonte in the competitiveness index of the European regions. - Downward evolutionary trend of exports in the last five years. - Low business awareness of the potential of ICTs in production processes. - Low diffusion of ultra-broadband compared to the EU average. - Low integration of policies and resources for environmental sustainability. - Absence of integration of intersectoral public policies with an impact on regional competitiveness. - Progressive aging of the population and reduction of the youth component. Reduction of public resources for health and welfare.
<p>OPPORTUNITIES</p>	<ul style="list-style-type: none"> - Demand for qualified skills in highly innovative sectors (ICTs, cleantech, etc.). - Horizon 2020. - Significant investments to support companies' ability to research and produce innovation, in close connection with the system of public and private Universities and Research Centers, in line with the priorities of the Europe 2020 Strategy. Broadband and ultra-broadband upgrading in line with EU objectives .
<p>THREATS</p>	<ul style="list-style-type: none"> - Low positioning in European innovation rankings. - Low ability to stimulate the emergence of new entrepreneurship. - Complexity of implementation processes and insufficient communication between the different levels involved in policy implementation. - Strong pressure on the welfare system and progressive weakening of the universalistic response capacity of the health service. - Progressive aging of the population and reduction of the youth component. High youth unemployment.

A RICH LOCAL INNOVATION ECOSYSTEM



As concerns more specifically the local research and innovation ecosystem, it is worth pointing out that the Piemonte Region, and in particular the Metropolitan area of Turin, has a historical strength in the Italian context from the point of view of innovation and it is well positioned even compared to other European areas. Piemonte ranks first in Italy for total R&D investments, equal to 2.27% of regional GDP in 2014, with an increase of 0.24% compared to the previous year (Istat 2016). It should be noted that the incidence of private sector R&D expenditure as a percentage of GDP was equal to 1.8% (Istat 2017).

Overall, in the decade 2005 - 2014 in Piemonte, in the face of a 4.6% GDP increase, R&D spending grew by over 35%. As highlighted above, another aspect that assimilates Piemonte to the most innovative European regions is the role of private companies, which support 80% of regional R&D expenditure (Rapporto Rota, 2017).

According to the "Regional Innovation Scoreboard 2016" which draws a ranking of European regions in terms of innovation, considering numerous variables, Italy is a "moderate innovator", while Piemonte is one of the only two Regions (together with Friuli-Venezia Giulia) that are considered as "strong innovators". As far as Piemonte is concerned, the relative strengths of the innovation ecosystem, which emerge from the comparison with the EU28 countries, are highlighted in employment in knowledge-intensive industrial sectors, in SMEs with product or innovation innovations, and SMEs innovating in-house; while relative weaknesses can be found in low public R&D expenditures, in the low efficiency of the tertiary education system and in the still weak tendency to collaboration between innovative small and medium-sized enterprises.

In 2016, Turin has ranked second at the prestigious competition of the European Capital of Innovation Awards (iCapital), organised by the European

Commission. It was selected for a number of integrated activities and tools promoted and developed by the Municipality, to encourage an open innovation culture. These initiatives include:

- **Torino Social Innovation**, the platform implemented and managed with the support of more than 40 partners to promote and encourage new entrepreneurial ideas in social innovation;

- **FaciliTo Giovani**, an initiative to support business, that received over 240 ideas from applicants and which, thanks to public funding, supported 54 business projects and the start-up of 32 companies;

- **Innova.TO**, the virtuous competition addressed exclusively to Municipality employees with the purpose of innovating the administration from the inside;

- **Open Incet**, the first Italian centre for “open innovation” where public and private actors collaborate to address social challenges;

- **Torino Living Lab**, the call open to enterprises which intend to test, in a real setting, solutions in the field of smart cities that require to be locally tested before being brought to the market.

Moreover, the innovation ecosystem is characterized by the presence of **2 Universities, 4 high education institutions, 11 public and private research centres, 2 Science and Technology Parks, 2 Technological Districts, 4 innovation clusters** and **3 business incubators**. The local ecosystem includes therefore, on the one hand, a widespread system of research and, on the other hand, the presence of technological knowledge spillovers, which allow the formation of new professional skills, that are necessary for the survival and growth of enterprises.



The 4 innovation clusters localized in the metropolitan area and promoted by the Piemonte region regards the following sectors:

Biotechnologies and biomedical: the cluster, named BioPmed, is dedicated to health care related product and services. It is coordinated by Bioindustry Park and based on a community of around 360 companies, 3 universities and different research centres, foundations and associations active in life sciences fields. It works to stimulate innovative activity by promoting intensive interactions, sharing

of facilities and exchange of knowledge and expertise and by contributing effectively to technology transfer, networking and information dissemination.

ICT: the ICT Innovation Cluster is coordinated by Fondazione Torino Wireless and it is a network of excellence which has more than 250 members (companies, universities and research institutes and other key actors in supporting innovation in the ICT sector). As a steering organization, Torino Wireless promotes company collaboration on innovative



projects, analyzes company needs in terms of specific innovation services and organizes networking activities to define the Pole's strategic agenda.

Mechatronic and advanced production system: the cluster is coordinated by Mesap and it has around 260 members (SMEs, large companies, RTD providers, universities), involved in the field of mechatronic and advanced production systems. The research strategies of the Pole concern: smart products (smart mechatronic applications for industrial and customer products), flex processes

(mechatronic and advanced production system applications for the flexibility of the production processes) and green products (mechatronic and advanced production system applications for the eco-compatibility and energy efficiency of the production processes).

Energy and clean technologies: the inter-provincial cluster, named Clever, is currently composed of more than 250 members (small and medium-sized enterprises, innovative start-ups, public and private research bodies and large enterprises). It operates in the technological areas of energy efficiency, rational

use of water resources, circular economy, sustainable mobility, clean solutions and climate change, supporting its members in the development of their innovation path, through the supply of services, technical and methodological support and dedicated infrastructures.

The four Innovation clusters can be considered as good practices in the European context: the Biotechnologies and biomedical technologies Innovation cluster obtained the 2016 Gold Cluster Management Excellence Label of the European Cluster Excellence Initiative (ECEI), the ICT Innovation cluster obtained the 2016 Silver Label, whereas the Mechatronics and advanced production

systems Innovation cluster and the Energy and clean technologies Innovation cluster (previously named Polight) gained the 2015 Bronze Label.

Moreover, the metropolitan area is characterized by the presence of a rich and articulated entrepreneurship ecosystem. The analysis carried out within the "Startup Metro Torino" project (2015), in which the Metropolitan city participated, identified 64 active actors in the ecosystem at the end of 2015.

Among the actors of the entrepreneurship ecosystem, the two business incubators promoted by the Polytechnic University and the University of Turin, of which the Metropolitan City of Turin is a partner, are particularly noteworthy:



I3P - Innovative Enterprise Incubator of the Polytechnic of Turin is the main university-based incubator in Italy, whose mission is to promote the creation of new science-based businesses with validated growth potential, either founded by university researchers or entrepreneurs from outside the university sphere. It provides open spaces and professional consulting services to start new business as well as a network of entrepreneurs, managers and investors.



2i3T – Innovative Incubator and Technology Transfer Center of University of Turin has the goal to develop the area's economy by commercially valorising the results of academic research and by creating, promoting and supporting new, knowledge-intensive businesses.

Both I3P and 2I3T are recognized as "best practice" at EU level. In addition, the Metropolitan City of Turin manages the MIP "Start your own business" program, an consultancy service for new companies and freelancers, that helps aspiring new entrepreneurs to develop a business plan through the analysis of the reference market and tutoring activities.

The analysis carried out within the "Startup Metro Torino" project showed that, compared to other Italian regions, the entrepreneurship ecosystem in Piemonte is characterized by a good number of actors involved in the support of business creation, but, at the same time, by some weaknesses:



- high level of fragmentation and a low degree of coordination;
- Low efficiency in promoting business mentality in students and young people in general ("the ecosystem plays an effective role in consolidating and spreading the collective meaning of doing business to the public of potential adult entrepreneurs. It is not enough effective in promoting the entrepreneurial mentality of young people and students, in a stage of growth that is fundamental for subsequent life and work choices ");
- Low level of openness to the outside, as concerns both the ability to attract business initiatives from other territories and the ability to connect to international circuits
- Small size of enterprises, which results in difficulty in growing and scaling up.

The Piedmont area, and especially the metropolitan area, represents therefore a favorable context for the development of knowledge and innovation. However, the presence of a multitude of public and private actors generates some coordination problems that may hinder the creation of a true integrated and synergic system. One of the objectives of this Action

Plan is therefore to foster a greater integration of the local ecosystem in order to ensure greater synergy between public policies, to pursue greater economies of scale, to encourage the exchange of information and know-how among the actors involved.

EVALUATION OF PREVIOUS POLICIES: SOME RECOMMENDATIONS

In order to elaborate an effective local development strategy, it is necessary to take into consideration what emerged from the evaluation process of previous policies and interventions.

Considering the implementation of the activities envisaged by the previous programming period of the European Structural Funds, the Evaluation Unit of Public Investments of the Piemonte Region (NUVAL) listed a series of particularly relevant indications for the definition of the next public policies in the regional area. Some of the recommendations have direct implications for the policies of the Metropolitan City of Turin:

- The excessive complexity of implementation processes and insufficient communication between the different government levels involved slow down the implementation of policies. The procedural difficulties, from the point of view of both the beneficiaries of the interventions and the public administration, remains a central issue: a further effort is needed to simplify the implementation processes, to coordinate and integrate the administrative action, to open direct channels of contact with the beneficiaries of the interventions.

- The insufficient development of networks, productions chains and aggregations of actors reduces the effectiveness of interventions. The importance of network creation finds in the Innovation clusters an element of particular importance for the direct promotion of cooperative research and innovation activities, for the positive results obtained with the interventions, but also for the establishment and strengthening of horizontal and vertical networks between local actors.

- The interventions on the R&D ecosystem have allowed significant investments to support the ability of companies to research and produce innovation, in



close connection with the system of public and private Universities and Research Centers. These investments will have to continue in the future, in coherence with the new programming lines and taking into account the results of policy evaluation, which highlighted the need for: a more rapid projects implementation, a stronger involvement of larger companies in project partnerships, a greater involvement of transnational business partners, a greater array of advanced and traditional services offered to enterprises, which are members of Innovation clusters, a consideration on the numbers and thematic areas of the clusters and on the fundamental role of the Universities.

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2007-2013 of Piemonte Region contains further indications to define public policies related to the Innovation clusters. These, in fact, have facilitated the development of innovative activities, the transfer of knowledge and the dissemination of technological relationships among the actors of the system, succeeding in highlighting the research needs of SMEs and involving SMEs in complex projects in collaboration with universities and research institutions. Furthermore, the experience of the Innovation clusters has increased companies' need for highly innovative R&D services aimed at improving specific skills and the propensity for innovation, allowing enterprises participating in projects to enter into contact with potential new partners and to create new relationships and business opportunities.

In consideration of the achieved results, some proposals were made to improve the policy:

- The managers of Innovation clusters may take an active part in the promotion of research activities that cross the regional territory, facilitating the establishment of cooperation agreements with other entities at national and international level .
- It seems appropriate to encourage an evolution of the services offered by the Innovation clusters in order to respond more adequately and effectively to the needs of businesses. The need for specific services for each productive chain emerges, as well as the need to create a cross-sector support that can simplify as much as possible all the reporting activity, that is often seen by companies as an obstacle as concerns both the access to the single initiatives and the access to the cluster itself.



VISION AND GOALS

Taking into consideration the weaknesses of the local context illustrated on the previous pages and the indications emerged from the evaluation of previous innovation policies, the elaboration process of the Integrated Action Plan has been developed with the goal of achieving two strategic macro-objectives:

- ***Contributing to the implementation process of RIS3 at the metropolitan level, through a bottom up approach, which is expected to provide causes for reflection, suggestions for the implementation and, more in general, a valuable contribution thanks to the experiences of the Metropolitan City of Turin;***

- ***Contributing to the elaboration process of the Metropolitan Strategic Plan, as concerns the identification of actions supporting innovation and economic growth.***

These macro-objectives represent therefore an attempt to meet the need to improve multilevel governance in two directions: vertically, creating a link with the RIS3 of the Piedmont Region, and horizontally, focusing on innovation and economic development issues to enrich the Metropolitan Strategic Plan.

SMART SPECIALISATION STRATEGY (RIS3) - PIEMONTE REGION

The Smart Specialization Strategy (RIS3) of Piemonte has opened a new season for the regional research and innovation policies, in the framework of the 2014-2020 Cohesion Policy and Europe 2020 Strategy.

Through an analysis of the regional context, with a more detailed picture of the research and innovation system, the strengths of the Piemonte production system and the most demanding social challenges were identified.

RIS3 has been developed on the basis of the following principles:

- referring to a broad concept of innovation,

- starting from the strengths and competitive advantages of the Region,
- involving stakeholders in the strategic planning process,
- concentrating actions on a limited number of priorities,
- identifying mechanisms for evaluating results and reviewing the strategy.

The objective of RIS3 is to transform and/or strengthen the sectors of the Piemonte industrial tradition, using innovation as a tool to draw new trajectories, create new knowledge, enhance new skills and respond to the challenges posed by changes in society.

The strategy focuses interventions on two priority areas of innovation:

- innovation of the production system;
- innovation for health, demographic changes and well-being.

The **Innovation of the production system** focuses on the excellences and distinctive sectors that characterized a region with a high level of industrialization and a strong manufacturing vocation and that have been identified as relevant for the implementation of the Strategy: **Aerospace, Automotive, Green Chemistry / Cleantech, Mechatronics**

and Made in (agrofood and textiles).

The **Innovation for health**, on the other hand, represents one of the main challenges that the Piemonte has to face in order to respond to the numerous needs that demographic changes and the progressive retreat of the welfare system brought out.

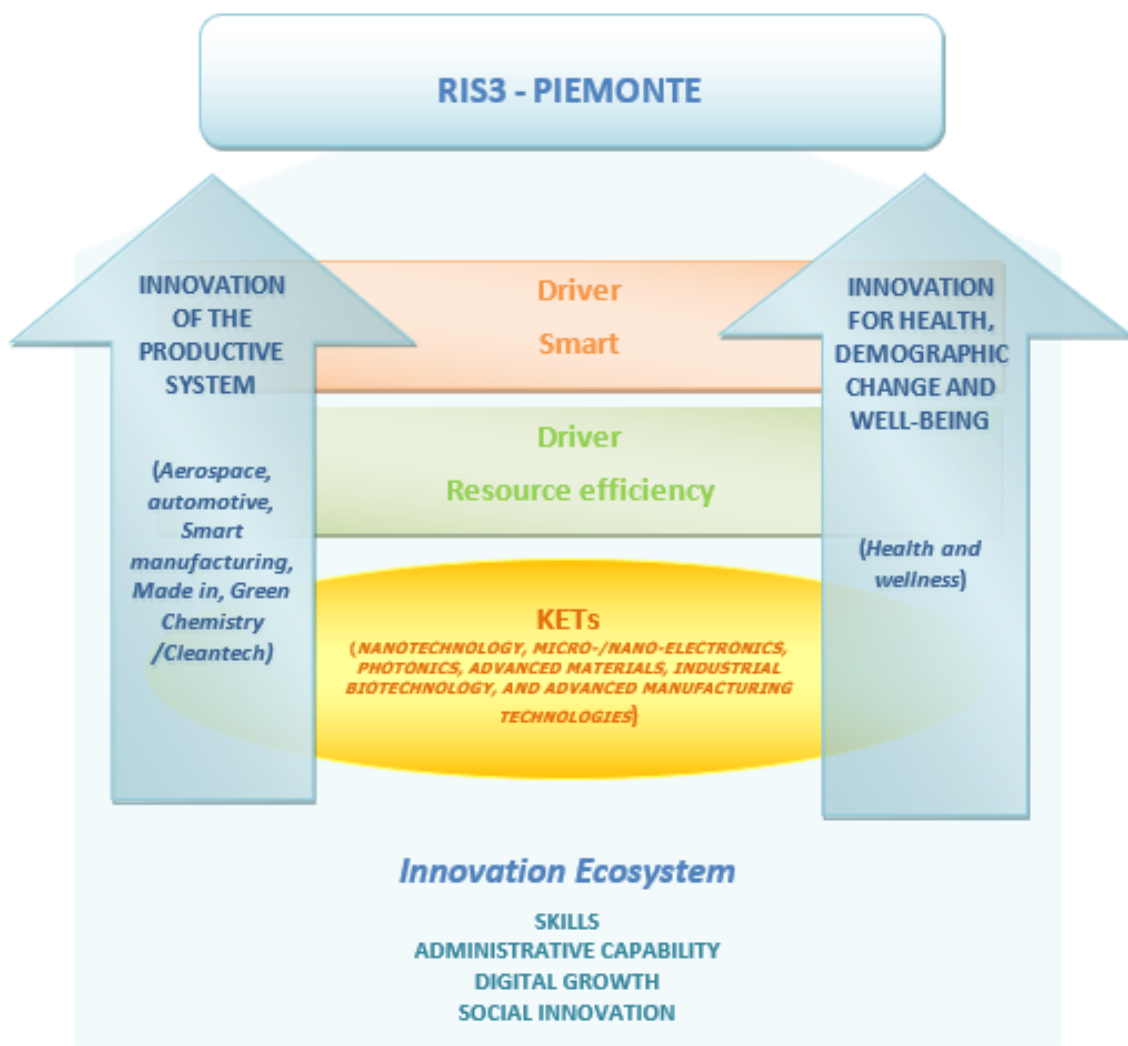
The Strategy is guided by two trajectories, **smart** and **resource efficiency**, which respond to the principles of smart growth, environmental and energy sustainability and

resource saving.

Enabling technologies (KETs) contribute to the implementation of the Strategy, as well as other factors that foster the development of the regional innovation ecosystem: digital growth (through the implementation of the Piemonte Digital Agenda); institutional and administrative capacity building (through the Administrative Reinforcement Plan); skills strengthening (through initiatives financed by the European Social Fund);

competitiveness of production systems and social innovation.

A central role in RIS3 is played by the **entrepreneurial discovery**, i.e. the bottom up process that pushes companies, research centres and universities to work together to identify the most promising areas of a territory, but also the weaknesses that can hinder innovation.



THE PLANNING PROCESS OF THE METROPOLITAN STRATEGIC PLAN

As required by law 56/2014, the Metropolitan City of Turin is currently designing a Metropolitan Strategic Plan. Such compulsory planning tool covers a three-year period and has to be updated every year. It has to “outline the policies for the promotion and coordination of economic and social development, also insuring backing and support for economic and research activities, which are innovative and consistently with the vocation of the city”.

The current draft of the Metropolitan Strategic Plan identifies strategies, objectives and actions concerning metropolitan governance, territorial cohesion and social inclusion, innovation and economic growth, education, tourism and culture, environmental quality and sustainable development.

It has been produced through a participatory process, that involved both public sector and socio-economic actors (regional

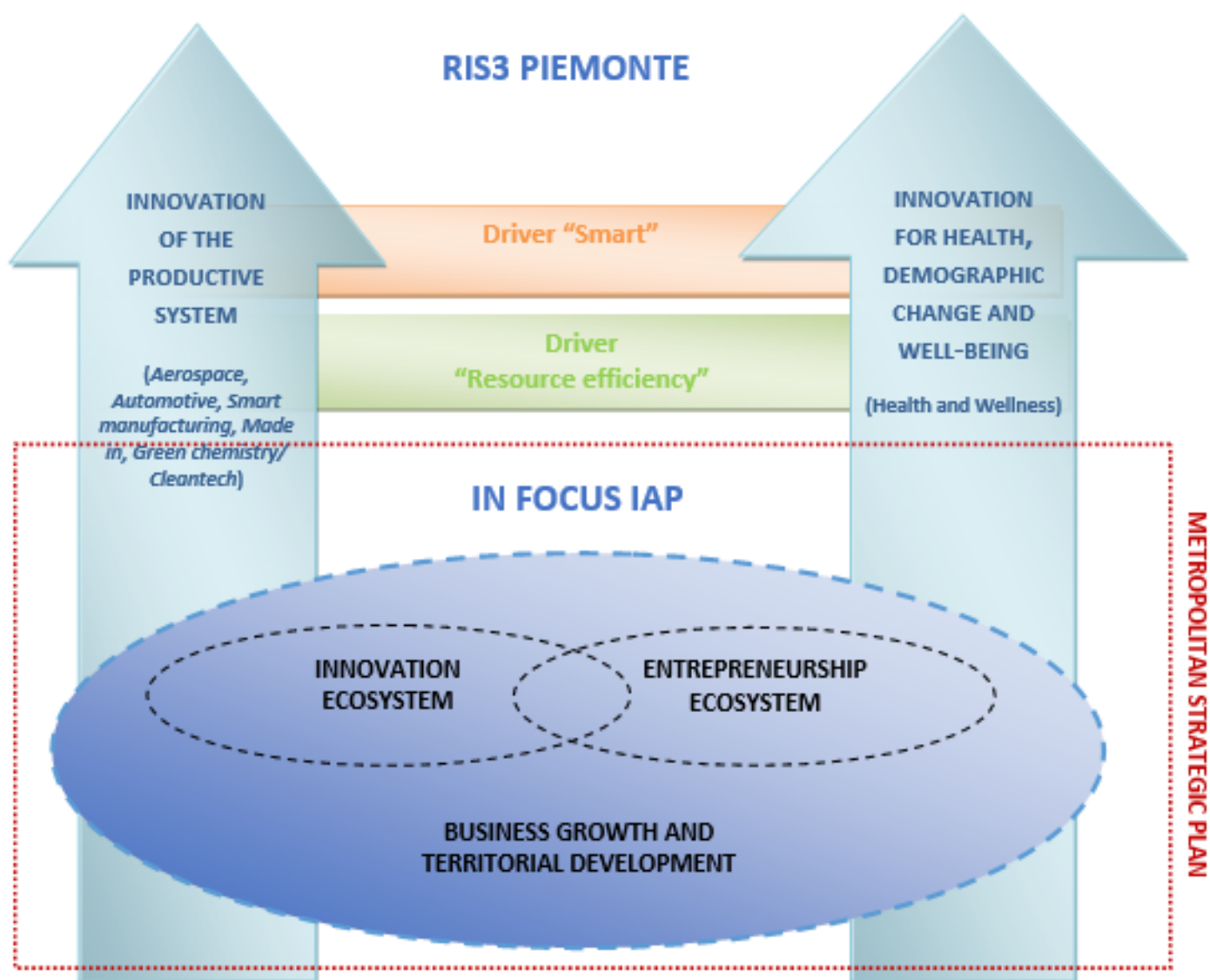
government, municipalities, chamber of commerce, trade unions, employers’ organisations, bank foundations, universities and research centres, environmental organizations), through public meetings organized in different municipalities as well as round-tables and focus groups dedicated to specific issues. Moreover, an online survey was conducted to solicit additional input and feedback from citizens.



photo by GIUSEPPE DAMBROSIO

The main purpose with which the present Integrated Action Plan was developed was therefore to identify a set of policies, integrated with RIS3-Piemonte, aimed at supporting processes of territorial innovation and local development. In this perspective, and within the wider framework of the

Metropolitan Strategic Plan, the IAP defines strategies and actions that are "horizontal" to the "vertical" priority areas of specialization identified by RIS3.





Within the planning framework described above, the strategic goal of the Integrated Action Plan is:

TO ENABLE THE METROPOLITAN CITY, MAKING IT MORE AND MORE INNOVATIVE AND ATTRACTIVE FOR BUSINESS AND TALENT

This objective is pursued through three "Pillars" of initiatives that concern the support to the local innovation ecosystem, the strengthening of the entrepreneurial ecosystem and the promotion of business growth and territorial development.

PILLAR 1 - SUPPORT TO THE LOCAL INNOVATION ECOSYSTEM

1a) Open access to R&D centers and laboratories

1b) Support for innovation in micro and small enterprises in RIS3 priority areas, through Design Thinking

PILLAR 2 - STRENGTHENING OF THE LOCAL ENTREPRENEURSHIP ECOSYSTEM

2a) One single strategic direction for the local entrepreneurship ecosystem

2b) Entrepreneurship education for young people

PILLAR 3 - BUSINESS GROWTH AND TERRITORIAL DEVELOPMENT

3a) Business networks among companies in RIS3

3b) Internationalization of micro and small enterprises in RIS3 priority areas

3c) Promotion of investments in disused industrial areas

ASSEMBLAGE OF INITIATIVES

PILLAR 1 - SUPPORT TO THE LOCAL INNOVATION ECOSYSTEM

INITIATIVE # 1a)	Open access to R&D centers and laboratories
Coordinator	University of Turin
Actors involved	Metropolitan City of Turin, Piemonte Region, City of Turin, Polytechnic University of Turin, Business Incubators (I3P, 2i3T), Innovation clusters
Actors to be involved yet	Public and private research centers, Bank foundations, enterprises
Potential financial resources	OP ERDF –Investment priority I.1a - Action I.1a.5.1 Metropolitan Strategic Plan
Specific objective	<p>The goal of the initiative is to reinforce the supply of research, development and innovation, by simplifying, on the one hand, the use and sharing of laboratories on the part of universities, public organizations, enterprises and citizens and, on the other hand, by promoting further investments in laboratories and equipment, which are functional for the development of research activities of interest to the business system.</p> <p>The ambition is to reduce the fragmentation and dispersion of public and private equipment and to stimulate open innovation, through the strengthening of collaboration between companies and public research facilities and the sharing of open access infrastructures, in close connection with the demand of companies.</p> <p>The long-term objective is to make the area more attractive, both for potential investors and highly qualified human resources.</p>
Explanation of the initiative	<p>Research, development and innovation activities require significant investments in very expensive and sophisticated laboratories and equipment, which are often subject to a process of rapid obsolescence. As a consequence, the initiative aims at promoting the sharing and co-use of scientific laboratories and research facilities by as many public and private users as possible, by optimizing and maximizing the use and development of existing research infrastructures or creating new ones in the priority areas of smart specialization identified by the RIS3.</p> <p>Therefore, joint or networking initiatives are promoted, also with the aim of facilitating the exchange of information, disseminating the scientific-technological culture, supporting the complementarity between different scientific fields, which are characterised by similar technologies and development trajectories. In line with the "related variety" approach, the initiative will support projects of collaboration and sharing of research infrastructures between companies. belonging to different but complementary sectors and technological fields, so as to make possible exchange and mutual learning.</p>

Phases	<p>A. Starting from the survey carried out by the Piemonte Region, mapping of research infrastructures, including the evaluation of the quality and functionality of existing laboratories and equipment, as well as the analysis of management costs and user access intensity;</p> <p>B. Data collection and analysis of the potential demand for research facilities by potential users;</p> <p>C. Definition of an operational and organizational sharing programme for existing research infrastructures (access modalities and times, technical support offer, management model, costs and fees);</p> <p>D. Promotion and creation of partnerships to promote the synergy of resources, as well as the increase of investments in the strategic areas identified by RIS3.</p>
Indicators	<ul style="list-style-type: none"> - Annual number of shared research infrastructures (laboratories and equipment) - Annual number of access to research infrastructures by external users

TIME-LINE INITIATIVE 1a)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
	B										
				C							
					D						

INITIATIVE # 1b) Support for innovation in micro and small enterprises in RIS3 priority areas, through <i>Design Thinking</i>	
Coordinator	SocialFare
Actors involved	Metropolitan City of Turin, City of Turin, Business Incubators (I3P, 2i3T), Turin Chamber of Commerce, Innovation clusters.
Potential financial resources	- Des Alpes Project - Metropolitan Strategic Plan
Specific objective	The aim is to support the innovation and growth of micro and small enterprises, by encouraging the knowledge and use of the "Design Thinking" methodology, both by companies and by intermediaries and business support organizations.
Explanation of the initiative	<p>The initiative consists in training the experts ("innovation coach") who will support micro and small enterprises in their innovation processes, using the Design Thinking methodology. This is a creative problem solving methodology used by facilitators that aims at inducing changes in business strategy, making enterprises more flexible to market and more attentive to customer's needs. To this end, the methodology does not focus on the problem but on its solution in order to improve customer satisfaction. Design Thinking is based on logic, imagination, intuition and systemic reasoning, to explore all possible solutions and finally reach the optimal one.</p> <p>After a pilot phase within the "Des Alpes" project (Interreg Alpine Space program), which aims at developing and testing a set of tools to support the innovation path of enterprises, the initiative will focus on training activities for those who are candidates to become "innovation coaches" and who will support the micro and small enterprises operating in the priority areas of innovation identified by RIS3.</p> <p>The initiative also aims at stimulating the process of "entrepreneurial discovery", i.e. the bottom up process that pushes businesses, research centers and universities to work together in order to identify the most promising sectors, but also the problems and weaknesses that can hinder innovation. In this perspective, the initiative combines technological and non-technological factors, activating business innovation processes based on collaborative approaches and encouraging the emergence of new decision-making methods.</p>

Phases	<p>First period:</p> <p>A. Creation of a DT virtual training centre (e-learning platform) for intermediaries; B. Extensive training sessions (online and frontal) addressed to selected intermediaries; C. Collection of comments, feedback and suggestions on training sessions; D. Elaboration of guidelines and methods on Design Thinking to be used by "innovation coaches".</p> <p>Second period:</p> <p>E. Training courses for "innovation coaches"; F. Training sessions/workshops on the Design Thinking methodology for micro and small enterprises operating in RIS3 priority innovation areas; Ad hoc consultancy services for micro and small businesses provided by "innovation coaches".</p>
Indicators	<ul style="list-style-type: none"> - Number of "innovation coaches" trained - Number of micro and small businesses involved

TIME-LINE INITIATIVE 1b)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
				B							
				C							
						D					
								E			
								F			
								G			



PILLAR 2 - STRENGTHENING OF THE LOCAL ENTREPRENEURSHIP ECOSYSTEM

INITIATIVE # 2a)	One single strategic direction for the local entrepreneurship ecosystem
Coordinator	Metropolitan City of Turin
Actors involved	City of Turin, Piemonte Region, Business Incubators (I3P, 2i3T), Turin Chamber of Commerce, University of Turin, Polytechnic University of Turin, SocialFare
Actors to be involved yet	All the relevant actors of the local ecosystem for business creation (Open Incet, Intesa Sanpaolo Innovation Center, private business incubators, etc.)
Potential financial resources	Metropolitan Strategic Plan
Specific objective	<p>The initiative aims at increasing the degree of interaction and cooperation between the actors actively involved in supporting business creation, and thus improving and enhancing the services offered to start-ups and potential investors.</p> <p>The long-term objective is to increase the growth rate of new enterprises, to ensure greater vitality to the local economy, to support innovation processes and, at the same time, to encourage the creation of new jobs, both directly, through the transformation of unemployed people into entrepreneurs, and indirectly, fostering the growth of employment within the new enterprises created by the beneficiaries of the support measures.</p>
Explanation of the initiative	<p>The Turin ecosystem for business creation is characterized by a high level of fragmentation: the actors that compose the ecosystem are, in fact, numerous, but poorly coordinated (few hubs and prevalence of institutional actors). It is therefore useful to implement a specific initiative aimed at increasing the degree of coordination between the actors of the ecosystem and the degree of integration and synergy between the various initiatives implemented. This action will focus on the integration of decision-making processes and existing initiatives, concentrating information in few safe, inter-operable and efficient points.</p>

Phases	<p>The initiative will follow the following implementation phases:</p> <p>A. Establishment of a "permanent coordination table" that includes the actors of the ecosystem. The working meetings of the table can be organized and facilitated by the Metropolitan City of Turin.</p> <p>B. Opening of a Welcome Desk for start-ups and more generally for those wishing to become entrepreneurs, for investors and corporate spin-offs interested in setting up their business in the metropolitan area of Turin. The Welcome Desk will carry out initial reception activities, providing the necessary information and directing users towards the services offered on the territory (information desks of the University, "MIP" business creation services, university incubators, etc...). The Welcome desk will thus represent the single access point to the ecosystem services and, at the same time, a point of exchange of information and good practices.</p> <p>C. Creation of an interactive web platform accessible to all citizens and managed by the actors of the ecosystem, with the goal, on the one hand, of integrating the various local initiatives and, on the other, of fostering and promoting the services offered by the ecosystem to a wider audience.</p> <p>To this end, the main tools will be represented by:</p> <ul style="list-style-type: none"> - a shared map of the actors of the ecosystem, showing "who does what". It will be the result of the initiatives already in progress, aimed at mapping the actors and services of the ecosystem; - an online "Start-up Agenda", giving information on events, seminars, training courses and projects related to start-ups implemented in the metropolitan area (such information are now provided by different sources, not integrated with each other). This tool would be useful in order to more widely disseminate and promote the events organized by the actors of the ecosystem and, at the same time, to avoid their overlapping.
Indicators	<ul style="list-style-type: none"> - Opening and activation of the Welcome Desk - Implementation of an interactive web platform

TIME-LINE INITIATIVE 2a)

		2018		2019			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A						
				B			
				C			

INITIATIVE # 2b) Entrepreneurship education for young people	
Coordinator	Business Incubator (2i3T)
Actors involved	Metropolitan City of Turin, Municipalities of the metropolitan area, Business Incubator - I3P, University of Turin, Polytechnic University of Turin, High schools
Potential financial resources	Human and organizational resources of the involved institutions
Specific objective	The initiative aims at stimulating and enhancing the entrepreneurial skills and mindset of young people, promoting a culture oriented to entrepreneurship, risk-taking, creativity and innovation. The long-term objective is to stimulate start-ups process and the growth of SMEs.
Explanation of the initiative	<p>The initiative consists in the elaboration and implementation of an activity programme addressed to high school students and university students and aimed at:</p> <ul style="list-style-type: none"> - developing the inclinations and personal skills underlying a business mentality and behaviour (creativity, spirit of initiative, risk-taking, autonomy, leadership, team spirit, etc.); - strengthening students' awareness of the opportunities offered by self-employment as a potential career option; - working on business plans, through the simulation of case studies aimed at solving problems typical of business management; - providing specific knowledge and skills on how to start a business and manage it successfully. These activities, carried out in collaboration with Universities and business incubators, high schools and local administrations, will be organized in seminars and workshops that will be conducted using innovative, informal and interactive learning approaches.

Phases	<p>A. Mapping of existing entrepreneurship education initiatives, addressed to secondary school students and university students;</p> <p>B. Establishment of a task force/coordination table (involving municipalities in the metropolitan area, secondary schools, universities, business incubators and other stakeholders) in order to design, in an effective way, entrepreneurship education paths that are integrated in secondary school and university programs;</p> <p>C. Definition of an integrated programme of activities, including seminars and workshops in classrooms, as well as tutoring activities by experts and professionals; Implementation of the activities addressed both to secondary school and university students;</p> <p>D. Implementation of the activities addressed both to secondary school and university students.</p>
Indicators	<ul style="list-style-type: none"> - Number of schools involved - Number of students participating in entrepreneurship education activities - Customer satisfaction survey addressed to the beneficiaries of the initiative

TIME-LINE INITIATIVE 2b)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
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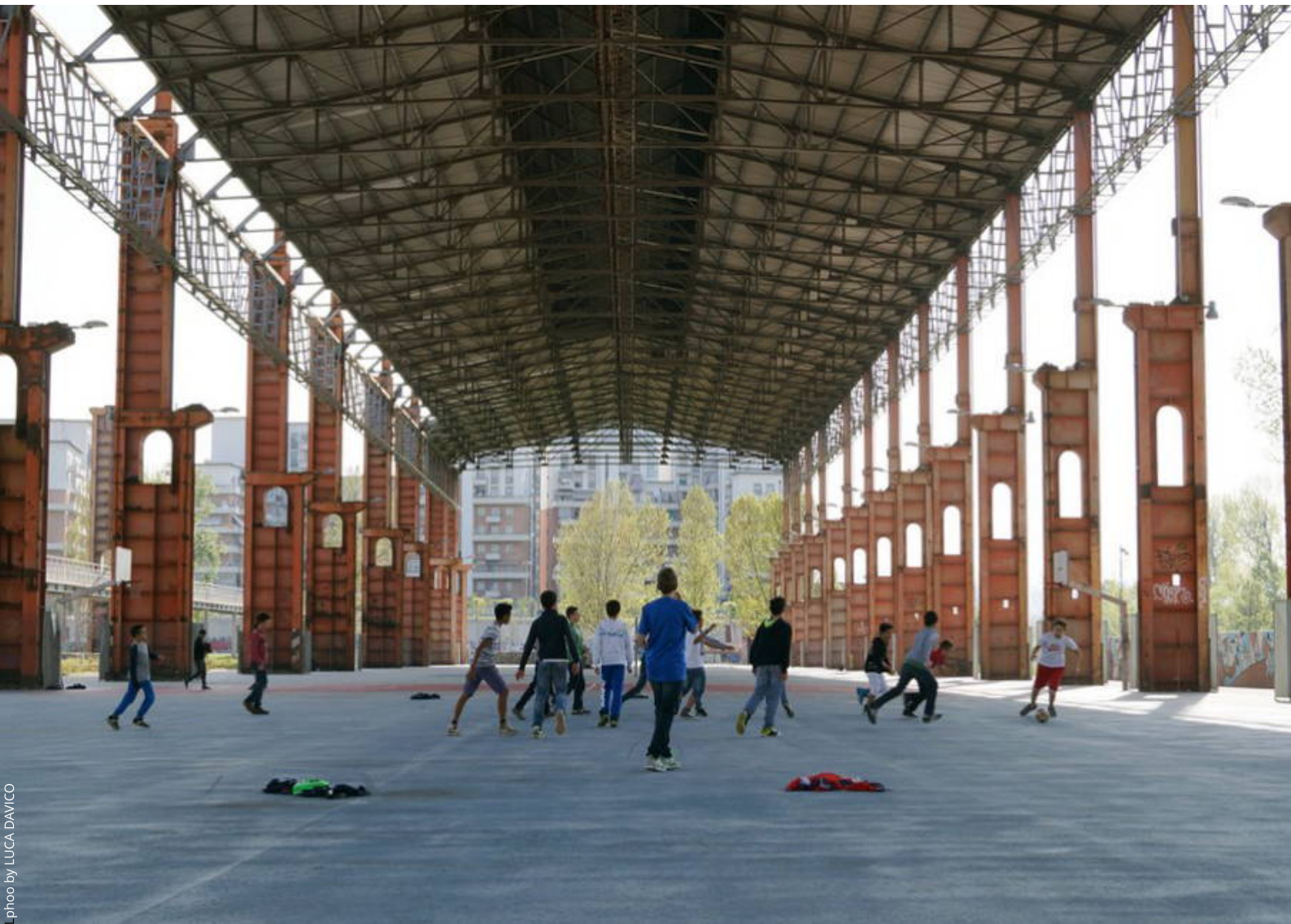


photo by LUCA DAVICO

PILLAR 3 - BUSINESS GROWTH AND TERRITORIAL DEVELOPMENT

INITIATIVE # 3a) Business networks among companies in RIS3 priority areas	
Coordinator	Metropolitan City of Turin
Actors involved	Turin Chamber of Commerce, Innovation clusters
Potential financial resources	Metropolitan Strategic Plan
Specific objective	The initiative is aimed at promoting the development of business networks between micro and small enterprises operating in RIS3 priority areas of innovation, in order to overcome the problems related to the small size of enterprises and to improve their competitiveness.
Explanation of the initiative	<p>The Turin productive system is characterized by a high fragmentation and by the small size of enterprises, which has increased as a consequence of the recent economic crisis and which represents a significant limit for the implementation of innovative strategies.</p> <p>In order to overcome the problems associated with the small size of the enterprises, the initiative promotes the creation of business networks, providing grants to micro and small enterprises that decide to collaborate through the legal tool of the "network contract". This instrument, envisaged by national legislation, is an agreement between two or more enterprises that decide to establish an organized and lasting collaborative relationship and to exchange technical and industrial information and knowledge, in order to increase their competitiveness and innovative capacity.</p> <p>The enterprises that sign a network contract obliged themselves to perform together one or more economic activities consistent with their corporate purpose, preserving their own autonomy and individuality (i.e. without establishing an organization such as a company or a consortium). National legislation provides a series of fiscal, financial and administrative advantages for business networks.</p> <p>The initiative intends to provide an additional incentive, consisting of a specific non-repayable grant, for the network contracts signed by enterprises operating in the priority areas of innovation identified by RIS3. In addition, there will be a reward for network contracts between companies belonging to different clusters and innovation poles, in order to activate virtuous inter-sectoral innovation processes. The ambition is indeed to stimulate, in coherence with the "related variety" approach, processes of "hybridisation" between enterprises that possess different, but contiguous and complementary knowledge and skills.</p>

Phases	<p>A. The first phase of the initiative consists in activities of territorial animation and in the organization of meetings and seminars addressed to enterprises, to present the characteristics and opportunities offered by the instrument of the network contract.</p> <p>B. The second phase (pre-eligibility) is open to enterprises that want to establish a business network and provides a free course of networking with the support of a facilitator group. At the end of the “facilitation path”, the business network will present a feasibility plan of its project, which will have to be validated.</p> <p>C. In the third phase (eligibility), business networks can submit their application for grant support. Only business networks that have successfully passed the previous pre-eligibility phase (obtaining the validation of the feasibility plan) and that in the meantime have been formally established will be able to access to this phase.</p>
Indicators	<ul style="list-style-type: none"> - Number of “business networks” contract - Number of "business networks" active after 5 years from the granting of the contribution

TIME-LINE INITIATIVE 3a)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
				B							
								C			

INITIATIVE # 3b) Internationalization of micro and small enterprises in RIS3 priority areas	
Coordinator	Metropolitan City of Turin
Actors involved	Turin Chamber of Commerce, Innovation clusters, Employers' organisations, CEIPiemonte
Potential financial resources	Metropolitan Strategic Plan
Specific objective	The initiative aims at promoting the internationalization of micro and small businesses in the priority areas of innovation identified by RIS3.
Explanation of the initiative	<p>The fragmentation of the local productive system and the small size of the enterprises represent a significant limit for the implementation of innovative and internationalization strategies, which are essential to promote the business and territory competitiveness. Micro and small enterprises struggle more with internal barriers (qualified personnel, linguistic knowledge, etc.) and external barriers (lack of adequate public support, information disequilibrium, trade barriers, etc.) than larger enterprises. The importance of the internationalization is confirmed by the fact that enterprises that best cope with crisis are those that are able to expand their business to international markets, exploiting global niches or tying in with global supply chains. Therefore, the initiative aims at supporting the international business development of micro and small enterprises by offering them the free services provided by a temporary "export specialist". These services will consist in designing a complete strategy for the development of the international propensity of companies, concerning, for instance, the evaluation of potential competitors, the identification of target markets and distribution channels, contact with potential clients and commercial intermediaries.</p>

Phases	<p>A. Analysis of the diffusion in the metropolitan territory of micro and small enterprises operating in the priority areas of innovation identified by the RIS3 and analysis of the main obstacles encountered in their internationalization pathways, in collaboration with employers' organizations;</p> <p>B. Activities of territorial animation and organization of information events on internationalization, aimed at presenting the initiative to enterprises;</p> <p>C. Creation of a list of "export specialist" to be identified through public procedure;</p> <p>D. Selection, through a public notice, of the micro and small enterprises that will benefit from the services provided by the "export specialist", for a period of at least 6 months;</p> <p>E. Organization of seminars and training sessions for beneficiary enterprises, as well as meetings with potential buyers and financiers.</p>
Indicators	<ul style="list-style-type: none"> - Number of enterprises involved in internationalization programs - Customer satisfaction survey aimed at enterprises benefiting from the initiative

TIME-LINE INITIATIVE 3b)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
	B										
	C										
	D										
	E										

INITIATIVE # 3c) Promotion of investments in disused industrial areas	
Coordinator	Metropolitan City of Turin
Actors involved	SiTI - Higher Institute on Territorial Systems for Innovation, Confindustria Piemonte, Turin Urban Center, Turin Chamber of Commerce, CEIPiemonte
Potential financial resources	Metropolitan Strategic Plan
Specific objective	The initiative aims at promoting and supporting the creation of new business activities in brownfields of the metropolitan area.
Explanation of the initiative	<p>The metropolitan area is characterized by the presence of many disused industrial areas (brownfields). The phenomenon of the abandonment of areas and buildings, linked to the manufacturing past of Turin, has intensified in the past years due to the economic and financial crisis that hit the territory and it has taken on such dimensions as to require the elaboration of specific policies for reuse, able to exploit the potential of these areas. Brownfields which cannot be restored to original natural conditions, represent in fact an important resource for revitalizing marginal and peripheral areas and for sustaining processes of environmental requalification and urban regeneration, reducing land consumption. In particular, the presence in the metropolitan area of many brownfields represents, if appropriately exploited, an important opportunity for attracting external investments, from national and international companies. One of the obstacles to the attraction of external investments is however represented by the lack of mechanisms that favour the match between the supply of abandoned areas and buildings and the demand for investment on such areas. As concerns supply, the last mapping activity of the disused sites located in the territory of the Metropolitan City of Turin dates back to 2010 and it does not take into account the abandonment processes that have taken place in recent years.</p> <p>The present initiative intends therefore to: update the map of brownfield sites located in the metropolitan area, available and suitable for the settlement of new production activities; provide an overview of location opportunities, with detail information on each area; select the most interesting areas and promote these areas to potential external investors.</p>

Phases	<p>A. Updating and increasing of the information assets on disused industrial areas in the metropolitan territory, through a geo-referenced mapping that considers all the relevant characteristics of sites and buildings (dimensions, perimeter, infrastructural facilities, etc...).</p> <p>B. Creation of a dedicated web platform, containing the information collected in the phase A, which allow users to query the database of all the identified areas and filter the results on the basis of different criteria (territorial, dimensional, infrastructural, ...).</p> <p>C. Identification, on the basis of shared evaluation criteria, of the 30 sites that present the most attractive features for potential external investors and companies. In particular, the choice will fall on the areas that show the greatest probability of development and endogenous requalification capacity, i.e. areas that have a high total value and low redevelopment costs, and that therefore present a clear convenience for private investors, without the need for public funding.</p> <p>D. Drafting of a multilingual dossier containing a profile for each selected area. This profile will report the location, images and all available information. The areas will also be grouped in clusters and for each of them the reference context, not only economic-productive but also social and cultural, will be described, in order to provide the potential investor with a complete information framework of the living environment in which he could set up his activity, that includes information on the education system, as well as on the recreational, gastronomic and cultural opportunities.</p> <p>E. Implementation of national and international communication and marketing activities, in collaboration with other local actors implementing investment attraction initiatives, in order to present and promote the dossier to potential investors.</p>
Indicators	<ul style="list-style-type: none"> - Square meters mapped - Creation of a geo-referenced map on a web platform

TIME-LINE INITIATIVE 3c)

		2018		2019				2020			
		3° trim	4° trim	1° trim	2° trim	3° trim	4° trim	1° trim	2° trim	3° trim	4° trim
Phases	A										
	B										
	C										
	D										
	E										

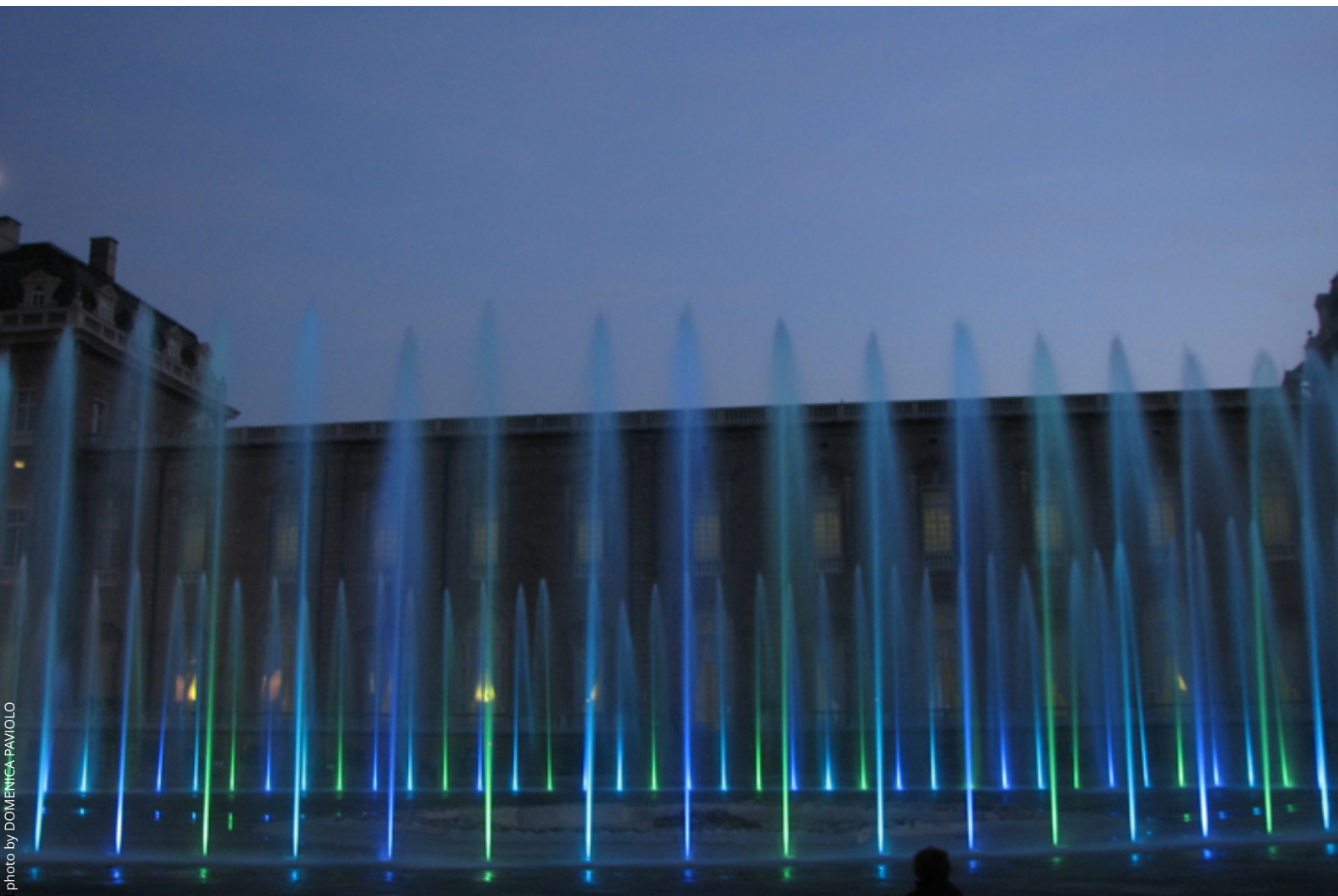


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