

Torino City Lab



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Introduction and organization

Torino City Lab is the new “Innovation Laboratory” opened and spread over the entire area of the city of Turin (Torino in Italian). It is an initiative promoted by the City of Torino to support companies in co-development and testing of frontier innovations on the territory of Turin. Relying on a supporting R&I ecosystem, the Lab is strongly inspired by an open innovation approach and less focused on co-creation, with quite a peculiar role to be played by the Municipality itself. Working on open calls as well spontaneous submission mechanism, it is focusing on autonomously driven and connected vehicles, Drones, IOT and 5G, Artificial intelligence and robotics, considering those frontier technologies at the service of quality of life, environmental and social sustainability at a city size. A specific initiative on smart mobility is reported in this case, called InTO. A final remarks section is provided.

Context

The city of Turin has been living relevant transformation over the last decades, from both an urban as well as socio-economic perspective.

A political agenda for social sustainability of urban transformation

Ilda Curti, former deputy mayor of the city, well describes such a transition. “In the mid-nineties the City of Turin started to cope with the issues of urban redevelopment and urban regeneration, implementing since then a set of policies, tools and processes in the framework of two key factors both exogenous and endogenous affecting the transformation of the city. On one hand, the crisis of Fordism which left more than six million square meters of dismissed industrial areas, forced the city to re-consider its identity after being a factory-city during all of the twentieth century. At the same time, it pushed to re-think about the large urban empty space left left (around 80% of urban areas in Turin). Moreover, investments for the 2006 Olympic Winter Games gave a further impetus to urban transformation. On the other hand, over the same period, an urban crisis appeared, involving the dense, built up and inner areas: historical neighborhoods became stereotypes of conflicts, and citizens’ demand for security broke in the local political agenda often with an adversative and demanding approach, particularly regarding the newcomers (migrants above all). In those years, therefore, many diverse, urban recovery and regeneration processes were launched in combination with integrated projects aiming to reinforce the social texture, (by the means of Urban Recovery Programs, Neighborhood Contracts and Local Development Actions)¹.

“The matter – according to the former deputy mayor – is about transforming with the city and not transforming the city. Providing tools to local communities, networking cultural and economic resources means to take the issue of social sustainability of urban transformation”.

At the very center of such a political agenda, lays the citizens’ trust on governance. “I believe that the authority of public and private governance, as well as the one of those who have a collective responsibility is crucial to put in the middle the long-term actions”, she said presenting the Turin regeneration program, currently on going.

Turin: a vision for an urban, open platform

The city of Turin was officially awarded with the second prize as European Capital of Innovation 2016 for its innovation capability, by triggering innovative processes and solutions as well as strengthening synergies within the innovation ecosystem distributed in the surrounding area.

Operating since 2018, born under the city Council led by Chiara Appendino and in tight cooperation with her alderwoman to innovation Paola Pisano, the new Torino City Lab can rely on a solid, supporting research and innovation ecosystem.

The vision of an open and innovative city, implemented at the municipality level through a number of integrated policies, activities and tools, has resulted to be a major “ingredient” of the ongoing urban transformation. Keeping its historical positioning on key sectors such as automotive, aerospace and finance, Turin has been progressively focusing on cutting-edge as well as social innovation approach. Given the broader Italian landscape, such a vision has resulted, over years, in a unique urban landscape, where frontier research, open innovation and social impact find quite a common, breeding ground.

In particular, the Turin ecosystem counts on several policy and innovation platforms which most of times are enabled by the Municipality and run in partnership with major urban stakeholders from the industrial, research, finance, SMEs as well as third sector ecosystem. Following a brief overview of the ecosystem: an open innovation model supporting social innovation start-ups and creating new market opportunities for urban innovations.

Torino Social Innovation is a public program, a set of strategies and instruments to support new young enterprises that are able to address social needs in different fields and to create a blended value for the society, both social and economic. The aim is sustaining young social entrepreneurs, their creativity, their digital competences, and their perception for social improvements. Torino Social Innovation has adopted the model of “open platform”, where public and private organizations act in partnership and jointly innovate. This partnership involves the Municipality of Turin and other 40 organizations, with the aim of creating an open ecosystem of actors and stimulating synergies among them and is the added value of TSI. First level partners contribute with managerial advisory in favor of social entrepreneurs that apply for the call Facilito Giovani (see below). Second level partners provide complimentary service, for example grants for the testing phase, grants for each job position created by social entrepreneurs that apply for Facilito Giovani, services of social housing at discounted fees.

Facilito Giovani is the service supplied by the Municipality of Turin, from 2014 to 2016, to sustain entrepreneurial projects targeted to solving the arising social needs. Facilito Giovani offered information, technical and financial support for proponents of innovative ideas that were able to create a blended value, both social and economic, in different fields, as education, quality of life, mobility, social inclusion, health. More than 650 000 euros were invested in supporting actions and 200 000 euros in professional advice.

Open Incet – The Center of Open Innovation resulted from a call launched by the Municipality of Turin with the aim of restructuring an old industrial building of 1400 square meters. Opened in 2015, this building is part of a wider area, named “Ex-Incet”, subjected to a process of urban requalification. It is a key element of the Torino Social Innovation platform, created with the purpose of increasing the effectiveness and the resilience of the local innovation ecosystem by complementing the existing innovation offer, attracting investments and establishing connections with other local innovation ecosystems at the transnational level. The Center focuses on idea generation, enterprise creation and growth, internationalization and network development.

The Turin social innovation approach has also been directed to public servants themselves. In 2014 - 2015 Innova.TO was launched: a virtuous competition addressed exclusively to Municipality employees with the purpose of innovating the administration from the inside. Some of the ideas and collected suggestions were thereafter implemented with the direct involvement of the proponents.

Most recently, new policy initiatives completed the Torino Social Innovation framework: Torino City Lab, that represents an evolution of the pre-existing Torino Living Lab (further analyzed in the following paragraph), Torino Social Impact and DecidiTO.

Torino Social Impact. City Lab for Change is a platform that aggregates companies, public and private institutions aiming to implement a strategy for the development of high-tech social entrepreneurship in the Turin metropolitan area. This initiative aims to make Turin the main European ecosystem for high-tech social entrepreneurship and impact investing.

DecidiTorino is the new Citizen Participation and Open Government application, promoted and managed by the municipality of Turin. Accessing DecidiTorino, citizens can propose, comment and vote on project proposals, join or start discussions, and contribute to certain projects the municipality is working on. The platform has been online since 2019.

In addition to the above, it is worth mentioning those major social innovation players which selected Turin as their headquarters, namely SocialFare, the first Centre for Social Innovation in Italy and Nesta Italia, a partnership between the global innovation foundation Nesta, and Compagnia di San Paolo, one of Italy's largest and oldest philanthropic foundations.

Innovative startups: room for improvement and a call for social impact

Regione Piemonte is placed at the 5th position for the number of so-called "innovative startups" on a national scale, counting on a total of 430 out of 8711 ². Vladimiro Rambaldi, President of Comitato Torino Finanza, presenting data from the last Report "Innovative Startups in Piemonte", clearly stated the need for the Region to intensify its effort, with a view for enabling the creation of new startups as well as attracting startups from the abroad.

In their recent paper "Managing ecosystems for social innovation: the case of Torino Social Impact", Falomi, De Giorgio (2018) made available an interesting picture based on data from the Osservatorio imprenditorialità sociale, Camera di commercio di Torino (2018), where the percentage of so called "Social – innovative startups" is represented over the total of "Innovative startups". Interesting enough Turin's ecosystem counts for the larger majority at the regional scale (75,1 % out of 430 innovative startups; 82,6% out of the 46 innovative social startups). Going further on the analysis of the "social impact entrepreneurship", data is available concerning a variety of organizations acting at the Province level (Turin) with a clear mission for social impact generation, regardless of their legal form. Considering the entire spectrum, from Bcorp to Volunteer association, the total of the so-called Social Impact Organizations currently counts over 2600 entities (Figure 1).



Figure 1 - Social Impact Organizations in Province of Turin³

Research & Innovation: an ecosystem on the move

Turin is the capital city of the Piemonte region, which is ranked first in R&D/GDP ratio, on a national scale.⁴ Within its regional territory Piemonte hosts a relevant ecosystem for research and technological transfer, counting 4 Universities with a total of 85 Departments, more than 200 high quality Research centres focusing on leading tech sectors, 380 laboratories, 2 Science & Technology Parks, 7 Innovation centres, numerous research foundations funded by prominent banks as well as accelerators and incubators. Since 2018, Piemonte has joined the Pilot action on industrial transition, with a view to testing new approaches to industrial transition and providing the European Commission with evidence to underpin post-2020 policies and programmes. Torino also hosts the first Digital Innovation Hub, set in 2017 within the Confindustria system, the association representing manufacturing and service companies in Italy. In 2018 the Competence Industry Manufacturing 4.0 Centre, led by Politecnico di Torino, has been granted with 10,5 million by the Minister for Economic development (MISE), with a focus on IoT, robotics, cyber-security, new materials, and energy efficiency. The city of Turin is involved in many innovative international and European projects, usually with the role of leader, like for example the UAM (Urban Air Mobility). The city is also part of the network 5GAA (5G Automotive association) and it is the first city accepted into the network (composed mainly of automotive and ICT companies).

A vital ecosystem seems then to be in place when it comes to research and innovation, nevertheless, as reported in the document ⁵, the regional ecosystem is not yet able to fully exploit it, given the PIL growth – which is slower than other Northern Italian regions- and data related to startups birth and survival rate.

Organization

Contact person: Paola Pisano, Alderwoman to Innovation, Municipality of Turin

Webpage: www.worinocitylab.it/en

Country: Italy

Name of the policy lab: Torino City Lab

Torino Living Lab is an initiative of the City of Turin created to promote, develop and test new innovative solutions in a real context.

“Make Turin the "place" where experiencing tomorrow is a task of today”

Torino City Lab is aimed at creating simplified conditions for companies interested in conducting testing in real conditions of innovative solutions for urban living. Promoted by the City of Turin, it involves a vast local partnership of subjects from public and private sectors interested in supporting and growing the local innovation ecosystem. It is meant to work as an open and widespread "laboratory of innovation" throughout the city area.

Its mission is to facilitate testing operations in real conditions of innovative solutions of public interest. Therefore, citizens, companies and public administrations explore and experiment together innovative products, technologies and services in a specific area of the city in order to test its functionality and utility for end users and assess the impacts on quality of life.

More specifically, Torino City Lab provides simplified access to public spaces and assets, including intangible assets (processes, services and data); expands and strengthens relationships within the local innovation eco-system, through an articulated partner system; allows enterprises to "scale the solutions", promoting them within networks and projects on a local, national and international scale.

Lastly, Torino City Lab aims to involve end users and citizens, promoting local challenges and supporting the active participation of interested communities through "Call for actions".

Strongly supported by the Municipality, Torino City Lab relies on a broader vision for the city: positioning Turin at the European and international level as a place where innovation is easier and is a shared challenge for the territory.

Therefore, attracting companies from Europe and the world to engage new trajectories of economic development in sectors with high added-value and to serve the citizens of tomorrow are prominent objectives of the Torino City Lab, whose work is explicitly based on values such as agility, transparency, openness and social impact.

The Municipality of Turin is leading the governance of the Torino City Lab open innovation model. Turin offers the entire city for the testing of innovative solutions, providing a system of physical, technological infrastructures, relations and know-how to experiment and then scale up the proposed innovations.

Enterprises working on cutting- edge innovation can either answer an open call from the Municipality or spontaneously submit their proposal for innovation to be tested within the city. Once enterprises and proposed solutions are selected by the Municipality, the City of Turin offers constant support to facilitate access and then facilitate the conduct of trials, in relations with Internal Services and Utilities.

By doing so, enterprises can test their innovation on the field, receiving direct feedback from final users (citizens) and consequently develop their business model thanks to the ecosystem support. Paola Pisano states “The main focus for the Municipality is to enable enterprise to transform their edging innovation into a service useful and impactful for citizens’ life”. “If the testing supports the adoption – she explains – and we do realize that the innovation is bringing a concrete benefit for the city, City of Turin becomes partner of the proposing enterprise, with a view to support the innovation scale –up and the exploitation on the national as well as the international market”.

In such a model, the “contracting authority” for the Lab activities and projects is the Municipality of Turin. Through the Torino City Lab, the City of Turin is surpassing the classic Smart City model in favor of a more open innovation-oriented platform-initiative. The ecosystem of the City, that supports the project (large industrial companies, utilities, universities and research world, representative associations), will also support the company with the experiments by providing skills and technological infrastructure when necessary.

In terms of business model, Paola Pisano explains that the Torino City Lab adopts a mix-funding model. “On one hand we do attract national funds, such as the Technology House project which will provide us with a grant of 7 million euro to work on this. On the other hand, we manage to get funds from venture and equity funds which constantly monitor innovation in our territory and if interested can directly invest in them. These investors have also been seen to push their innovative enterprises in applying for testing their solutions through the Torino City Lab”. A new category of partnership is in fact under development; it is called “International scaling partners” and includes different subjects like Networks of innovations from all around the world and Venture capitalists. Those partners are fundamental for the scalability and the diffusion of innovative activities tested with Torino City Lab. Therefore, every company which tests with Torino City Lab will have a direct contact with professional investors both in Italy and in the rest of the world with the chance to obtain funds and resources. Extremely relevant in the Torino City Lab’s business model is the option to transfer the tested solution to other cities around the world. In this case, the Municipality of Turin becomes business partner of the innovative enterprise that developed and tested the solution.

Building on its territorial know-how and industrial past, Turin is becoming an open laboratory of frontier innovation able to attract companies and skills to guide the development of the “City” of the future, specifically focusing on those areas of interest for the ecosystem.

With such a view, the Torino City Lab works on autonomously driven and connected vehicles, Drones, IOT and 5G, Artificial intelligence and robotics, considering those frontier technologies at the service of quality of life and environmental and social sustainability at the city size.

Coordinated by the alderwoman to Innovation of the Municipality of Turin, a team of eight persons runs the entire spectrum of TCL activities. “We do work on high tech projects, but adopt a crosscutting approach, therefore we need a variety of competences: from those

dealing with legal and bureaucratic issues to those dealing with business modelling and funds. With such a view, we are working on capacity building”, Pisano says.

The view is to provide at any moment a team of experts from the city able to help the company in applying for permits and authorizations in order to reduce the time to market and costs associated with the testing activity. Given the scope of Torino City Lab, there is at the moment no relevant quest for skills and professional profiles dealing with public engagement and citizen dialogue. To reinforce the Torino City Lab model, the City promoted official forms of collaboration and partnership with key stakeholders. The Torino City Lab partnership is composed of large companies and international scaling partners, with a view to consolidate aspects of technology foresight and facilitate the diffusion and scalability of the solutions admitted to testing. It is made up of public utilities, the entities that manage public services and assets and that therefore enable different sectors (energy, mobility, water, waste) and other fundamental stakeholders co-interested in experimentation activities such as research & development centers and organizations of civil society.

In particular, partners of the Lab network are (Figure 2):

- Main business/industrial partners (8): large companies that offer their help to consolidate aspects of technological foresight, as well as their infrastructures, network and visibility
 - Research and Innovation partners (20); e.g. universities and incubators, who can help develop the project and bring crucial insights;
 - Utilities (9); like energy, mobility, water and waste management. Their role is crucial to test innovations in specific sectors since they are responsible for the existing infrastructures.
 - International Scaling partners (2): including Entrepreneurship support organizations, to help scale the innovation from local to national and international.
- Finally, Torino City Lab is an active partner of Enoll - European network of City Labs.



Figure 2 - Partners of the Lab network

Processes and tools

Torino City Lab operating model

The Torino City Lab is based on a working model inspired by an open innovation approach. Companies can submit their proposal – with an always open call – through the website⁶. A dedicated team analyzes the feasibility of each proposal and proceeds with the issue of authorizations for testing. In order to ease and speed up the process, simplified procedures have been put in place. In parallel, the City Administration and/or other Torino City Lab partners can periodically launch specific “Call for challenges” linked to sectoral policies, territories and technologies.

Conceptualised as an evolution of the existing “Torino Living Lab” initiative, “Torino City Lab” model, as a permanent “Innovation Laboratory to allow the testing of frontier innovations”, is designed on three key features:

1. identification of a single-entry point within the Public Administration and definition of targeted simplified procedures and tools for testing authorizations
2. creation of a support ecosystem, including representatives of the business, public utilities and research
3. strategic use of public data and active participation of citizens.

On this basis, Torino City Lab can be described as the implementing environment of a peculiar innovation policy, which is aimed at boosting the three phases: i) Testing, ii) Adoption and iii) Scaling of innovations, within the context of daily life.

In the Testing phase, the city plays a role in attracting innovation in its own territory and facilitating a test in a real environment. The technological test is only a small part of this phase because the real test is interaction within the city (citizens, private, public players). Here the municipality through the Torino City Lab team plays a role in easing relations and interactions among different actors within the city ecosystem. The Adoption phase, in which the economic, technological, legislative and social models are defined, is followed by the Scaling phase where innovation must expand and prove its worth in terms of skills creation, new jobs and models.

Citizens are the testers

Interesting enough, the Torino City Lab model makes no provision for involving the citizens or other kind of “user” stakeholders except for in the testing phase. This is well explained by Paola Pisano: “we do not ask citizens which technology they would see implemented in the city. We study the technologies trends and then we work to attract and exploit them within our city. During our work we mainly deal with the most innovative enterprises and with our research and innovation network of partners”.

“From our decision- making point of view, us being the Municipality” - she further explains – “the issue is not whether we want, or we don’t want, to adopt a given innovation in our city.

Through the Torino City Lab model, we evaluate if it is feasible and impactful". With this regard, feedback and reactions from citizens during the testing phase are indeed quite relevant.

Once a proposal from an innovative enterprise has been selected, the testing phase within the city ecosystem can get started. The Municipality considers the testing phase as an explorative one, to test and gather insights on impact and benefits for the city ecosystem. The implementation phase as well as the collection and feedback from users is a direct task for the enterprise itself.

The city technological infrastructure: the right environment for testing innovations

The city of Turin offers to those innovators applying to Torino City Lab access to its innovative technological infrastructure, which includes: 5G network, multi-access edge computing, a cyber-security layer and a platform containing a set of open data called AperTO. The city's infrastructure includes also two physical areas specifically developed for testing autonomous driving vehicles (35 km of urban itinerary that includes different kinds of speed limits and obstacles such as traffic lights, roundabouts, pedestrian crossings) and for drone testing (a whole park of the city). Those two areas obtained special authorization by competent authorities and represent a unique solution in Italy for testing properly autonomous vehicles and drones.

InTO

General description

Website/Link: https://into.italdesign.it/index_en.html

Location: Turin

Initiative domain: Smart mobility

Duration: June 2019-ongoing

Name of the initiative: InTO

InTO is a service that improves travel on the metro by making any trip more comfortable for the user. At the moment, the technology is installed on all trains as well as inside a specific station (namely Re Umberto) and pairs a system for measuring the flow of passengers with LEDs that reveal which railcars are the least crowded for boarding. InTO was created to help with the balanced filling of all railcars on a single train by allowing passengers to find the least crowded railcars, thereby improving the quality of the journey.

Currently in the testing phase within the Turin Metro, InTO has been designed and implemented with three main objectives: i) reduce crowding on railcars, ii) encourage travel on railcars, and iii) make travel more comfortable on the metro.

The testing phase

Over the initial phase, from June to December 2019, the InTO system will be tested and made available to all travellers at the Re Umberto station metro stop. While the metro is travelling from the previous station to Re Umberto, InTO estimates the number of passengers on each railcar. Once at the Re Umberto Station, InTO uses coloured lights located on all doors to signal how full the given railcar is.

The service is dedicated to citizens who use the public transport provided by the Turin metro (GTT). Users can therefore choose the least crowded railcar and enjoy the trip. The basic idea is that the solution will have an impact on users experience and wellbeing, making their trip more comfortable and reducing the stress caused by overcrowding.

In terms of applied technologies, InTO is a system comprised of two main components: very advanced software, which calculates the percentage of passengers present on a railcar, and LED lights installed at the Re Umberto stop, which help passengers find the railcars with the most room.

InTO receives information gathered by surveillance cameras (without storing any images) and uses an algorithm to calculate how full each railcar is. In addition, based on archived data and data collected in real time, InTO is able to predict how many passengers will get off at the Re Umberto stop. The algorithm constantly updates this information by means of machine learning to perfect the outcome.

Governance

The project is the result of a collaboration between Italdesign, Città di Torino, GTT – Gruppo Torinese Trasporti and with the technical support of Funkwerkand and IGPDecaux.

Italdesign is the enterprise that developed the InTO solution and proposed it to the Torino City Lab. Once selected, following the above described process, the solution implementation is a precise task of Italdesign, on the basis of the specific agreement reached with the Municipality. Founded in Turin in 1968, Italdesign features more than 50 years of international experience in the mobility industry. Styling, engineering, pre-series, testing, validation and future mobility solutions are among the services. Italdesign has been providing to the OEMs worldwide. In 2018 Italdesign opened the new “Mobility Solutions” department dedicated to ideas and projects for smart cities and future mobility.

The experiment will last about one year from the time of the launch. Afterwards the Municipality of Turin will evaluate the impact and the benefits and decide whether to adopt the solution on an urban scale. At the same time, the Municipality of Turin and the entire Torino City Lab ecosystem can decide to support the InTO promotion and scale up on both national and international level, even building up a business partnership with the enterprise.

Stakeholders landscape

In the case of the InTO initiative, the Municipality of Turin can be considered the initiator of the entire process. The Municipality is in fact handling the spontaneous call system through the Torino City Lab. The Municipality is also the contracting authority. Municipality of Turin is

also involved throughout the entire testing phase, enabling the solution implementation and easing the interactions among the contracted enterprise and the actors involved from the Municipality and from the larger city ecosystem. The innovative enterprise Italdesign proposed the solution InTO, which was selected by the Torino City Lab. Italdesign is responsible for the conception and implementation of the testing phase as well as for the collection of feedback which will be then the basis for both iteration (eventually) and final evaluation phases.

In the testing – implementation phase the Torino City Lab ecosystem is actively involved, specifically the GTT – Gruppo Torinese Trasporti, responsible for city public transportation system, which has been the field for the testing phase.

Funkwerkand, supplier of innovative communication, information and security systems and IGPDecaux, leading player in Out Of Home Communication, have both provided technical support.

The citizens and all type of underground users have been the “testers”, during the InTO one year experimentation period.

Process structuring and engagement

InTO was born from the need to favor the balanced filling of all the carriages of the same train, allowing the final travelers to identify those less crowded and thus improve the quality of their journey.

Although designed for citizens, the InTO initiative is not co-designed with them. The process of selection, implementation, testing and eventually adoption is responding to b2b open innovation approach, where the Municipality asks for a cutting–edge innovation to be tested within its territory and Italdesign is selected for doing so through an open call mechanism.

Citizens, in their vest of final users, are directly involved in the role of testers, on an automatic basis, meaning that - as users of the Metro service - they cannot refrain from being part of the testing. Nevertheless, the algorithm behind InTO provides a service for citizens, guaranteeing their right to privacy: the images used by the security cameras are not stored but are used exclusively to count the number of people on board. A specific attention has been in place for communicating at best the initiative to the involved citizens and service users, both for making the solution testing as impactful as possible, as well as for informing to the maximum extent about the ongoing project.

Inside the Re Umberto station, LEDs have been installed above the doors that allow access on board the carriages; when the train arrives at the station, the LEDs light up to indicate the state of crowding of the wagon: green in the case of a free carriage, yellow in the case of a semi-full carriage and orange in the case of a full carriage Figure 3. Inside the stations an information campaign has been activated that explains to the travelers the objectives and the functioning of the project, also illustrated on the dedicated website⁷.

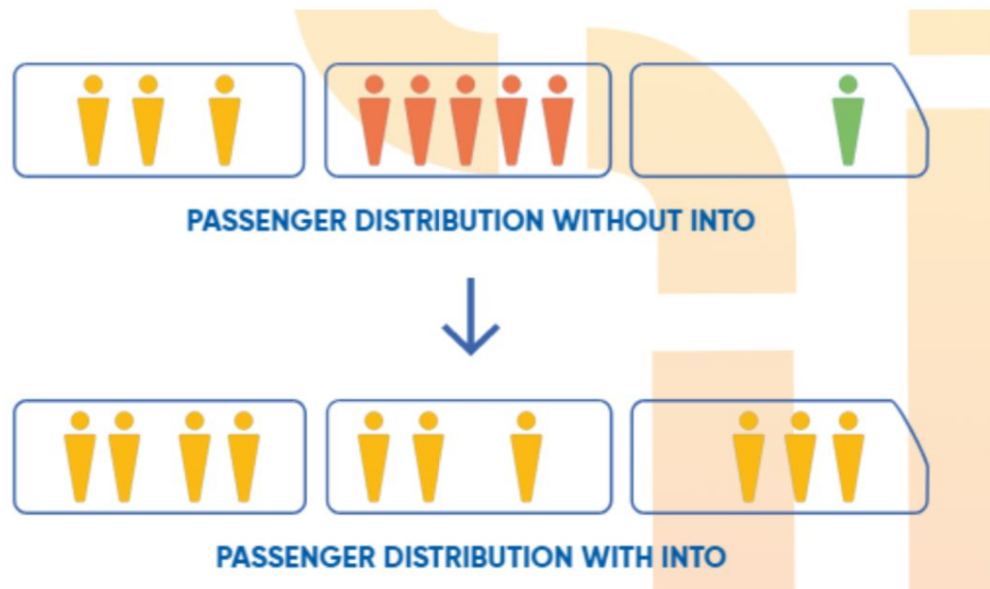


Figure 3 - InTO coloured lights system

It is not made provision for a real iteration, but rather users' feedback on the service functioning are taken into account by the Italdesign enterprise with a view to improving it.

The testing phase is planned to last one year. Afterwards, an evaluation in terms of impact and benefits will be taken up by the Municipality of Turin in order to decide whether the innovation can be transformed in a public city service.

As a result of the InTO initiative a set of new relationships within the research and innovation ecosystem have been set and will be there to last even once the testing phase will end. In particular, the Municipality and the Italdesign could be likely to become business partners with a view to scaling up the solution both at national as well as international level. As reported by the alderwoman Pisano, the Municipality of Turin is already in contact with major international capitals, such as London and New York to transfer and exploit the innovative solution within their own urban context.

Political influence (insights)

InTo is a concrete result of wider innovation policy, characterized by an open innovation approach on one side and a strong focus on cutting – edge innovations on the other. The mission of Torino City Lab finds itself in the middle, as the enabler for initiatives such as InTO to take place in the City of Turin.

The policy umbrella under which the initiative was born is definite and it has been there from the very genesis of the initiative and it has been translated into clear, well-set and shared rules and processes.

The scope of the urban innovation policy in Turin relies on a strong political vision and commitment. Both the Mayor, Chiara Appendino, as well the Alderwoman to innovation,

Paola Pisano, gave much visibility through public speaking to the Torino City Lab as well as to the single initiatives developed within its ecosystem, such as InTO. Not by chance, the alderwoman herself is directly involved in the work of the Torino City Lab.

The urban ecosystem and its governance at the city level, as enabled by Torino City Lab, seems to perfectly suit the innovation policy objectives promoting the use of the city as an open lab for cutting-edge innovations to be tested and then transformed into services, with a view to boost innovative business development and scaling up. Nevertheless, as explicitly expressed by Paola Pisano, the connection with national and international innovation programmes stay key to ensure both the sustainability and the full development of the foreseen opportunities.

It is indeed because of a clear political view and willingness that the Torino City Lab does not involve citizens and grass-roots organizations in its operating model. According to Paola Pisano, in fact, it is the responsibility of the policymaker together with the experts from the ecosystem to identify priorities and directions for investment in STI, specifically referring to cutting-edge innovations. “Citizens do not have the expertise and the knowledge to take part to the debate at this upstream level, while they are the best testers, as the impact evaluation will at the end be framed within their daily experience within the city”.

Media and communication

Italdesign, is also in charge of the communication for the InTO initiative. In addition to the Out of House communication effort, a digital communication strategy has been set and is currently under implementation. Regarding social media, an hashtag has been created with a view towards boosting the users’ engagement, namely #InTOProject and a dedicated story stream on the Italdesign Instagram account has been running.

On the Municipality side, a relevant communication effort is put on the communication side both on line, through a well curated website and social channels, namely Facebook, Twitter and LinkedIn, as well as on the press. Generally speaking such an effort resulted on a good visibility for the Torino City Lab and for the selected initiatives, both on the digital sphere as well as the more traditional press, mainly at the local level, with a direct involvement of the Mayor together with the alderwoman to innovation.

Cultural, behavioral, organizational (Insights)

Interesting insights on cultural and behavioral aspects came from an interview with the alderwoman to Innovation, Paola Pisano.

Generally speaking, the answer from the ecosystem has been so far a good one, from all kinds of involved stakeholders from the R&I sector. This has to be linked to the context features as above described: Turin R&I ecosystem has been evolving since years by now, involving different kinds of players, with a view for contamination among different issues and sectors.

Nevertheless, Pisano reveals how when it comes to innovation the general public answer is very rarely a positive one, as citizens tend to be conservative and precautionary. According to her this is something the public administration has the institutional responsibility to take the lead on, envisaging the directions to be taken and gradually involving citizens. Therefore, co-creation is not the word, rather citizens need to be guided to discover and experiment how cutting-edge innovation can have a concrete impact in their daily life within the city. It seems to be only partially a matter of trust, being mainly a matter of responsibility share.

Referring to the public officials, the alderwoman highlights that it is mainly a matter of shared vision and motivation. Public administration is by nature a hostile system when it comes to procedures, authorization and permissions. "My vision – she says – is to work within the public administration to make innovation in our city possible, by supporting enterprises and the entire ecosystem. To do so cooperation and active contribution from public officials is key". A certain "conservative" attitude from public officials seems to possibly be overcome by leveraging on a common vision and a shared consciousness of being pioneering, working with innovations not existing before, therefore being, by necessity, in the position for inventing new ways to do things. "Once this happens, people are keen to work better and even extra time, as it becomes their own mission. And I can say I clearly saw this happening within my team at the Torino City Lab", she ensured.

Insights on the co-creation process

Based on the interview had with Paola Pisano, alderwoman to innovation for the City of Turin, as well as on the conducted research activities on the Torino City Lab, remarkable insights to be shared seem to be the following.

The process results to be effective, but an alert seems to be there in place: always keep in mind that "new" things naturally meet barriers to be overcome. Innovation is about new things. New things call for new administrative, organizational and governance arrangements. Adjustment is always needed in the ongoing activities, and this is normally a task for the brave, those who are ready to challenge the system.

The process reinforces the research and innovation city ecosystem as an open platform.

Interesting enough this has a series of effects on the policymaking process not just for innovation per se but also on thematic sectors affected by the tested innovations. For example, the case of InTO in the case of smart mobility. This calls for a progressive enlargement of stakeholders joining the innovation urban ecosystem, under the guide of the Municipality.

The process is an interesting one in terms of new partnership and dialogue. Particularly, the relationship among public administration and innovative enterprise is reshaped, going further beyond the traditional procurement model, arriving to the option for becoming business partners on the international market.

Torino City Lab approach and processes seem to be so far well accepted by the ecosystem, provided that not real co-creation mechanisms are in place This is actually a clear political

choice, relying on a vision on how cutting–edge innovation should be approached from a policy point of view, as largely expressed within the case. The clear choice to not include citizens upstream of the R&I urban policy agenda makes the process more efficient, according to the alderwoman Pisano. Yet, an open question stays there, concerning the responsibility of the innovation process, as framed for the emerging RRI paradigm, introducing a challenging choice among such issues as expertise and vision versus consensus, acceptability and sense of ownership versus effectiveness.

Barriers could be identified in the administrative procedures, but the aim of the Torino City Lab is also to support innovative enterprises in smoothly dealing with them, relying on active cooperation from the public officials themselves. On this side, lack of literacy and a shared sense of ownership on the process and the driving vision could prevent public officials from taking up such a proactive approach.

Among those condition setting factors that have allowed the lab to successfully establish itself, it is definitely worth to mention the strong vision cultivated over years from the policy maker side and largely shared with the city. It is interesting to highlight that alderwoman Pisano expressly recognizes the work done from her predecessor, confident that her successor would do the same. In addition, Torino City Lab can count on a well- designed process and a working model enabling innovation testing as well as business development. In conclusion, but equally important, a success factor on the long term is probably Torino City Lab's overall approach, well described by Paola Pisano's words, as follows: "Disruptive innovations are difficult to regulate, and thus difficult to scale in urban environments. So, it is crucial for their growth that the Public Administration creates the right conditions in order to make them successful and impactful. Torino City Lab wants to do this by continuously testing what can validate the innovations, allowing for a quicker and easier implementation. The City strongly believes that only an active participation from the whole ecosystem can effectively make the innovation scale. This participation can only happen if companies start to think about engaging use cases of their innovations that can have a positive impact on society as a whole".

¹ www.comune.torino.it

² <https://www.to.camcom.it/osservatorio-sulle-imprese-innovative>

³ From: Osservatorio imprenditorialità sociale della Camera di Commercio di Torino, 2018

⁴ Istat, data at 2016

⁵ https://www.regione.piemonte.it/web/sites/default/files/media/documenti/2019-05/Monit_S3_10%2005_pub%20def.pdf

⁶ www.torinocitylab.it

⁷ into.italdesign.it