

# Mission-oriented scenarios: a new method for urban foresight

Claudio Marciano, Alex Fergnani and Alberto Robiati

## Abstract

**Purpose** – *The purpose of this study is to propose an innovative and efficient process in urban policy-making that combines a divergent and creative method with a convergent and strategic one. At the same time, the purpose is also to propose a useful innovation to enforce the usability of both methods. On the one hand, mission-oriented policies run the risk of being overly focused on the present and of not being able to develop preparedness in organization. On the other hand, scenario development has the reverse problem it often does not point out how to use scenario narratives to inform and devise short-term strategic actions.*

**Design/methodology/approach** – *The paper proposes an innovative methodological approach, the mission-oriented scenarios, which hybridizes Mazzucato's mission-oriented public policy framework with Jim Dator's Manoa school four futures method. The proposed methodological innovation emerges from a urban foresight academic-led project carried out in the context of the Metropolitan City of Turin, Italy, where a first application of the mission-oriented scenarios was tested on six different focal issues (from reindustrialization to cultural policies) and the scenario narratives were used as sources for the grounding of 12 missions and 48 strategic actions towards 2030.*

**Findings** – *Mission-oriented scenarios can contribute to the generation of more sustainable and inclusive urban public policies. This methodological proposal is based on an original mix of knowledge exchange procedures borrowed from methodological approaches with different backgrounds: the mission-oriented and the archetypal scenarios. Their conjunction could support the formulation of ambitious yet pragmatic policies, giving a plurality of actors the opportunity to act and establish fruitful and lasting partnerships.*

**Originality/value** – *The paper reconstructs one of the first urban foresight projects carried out in a major Italian city by two prestigious universities and exposes a methodological innovation resulting from reflection on the strengths and weaknesses of the project, which opens the door to the development of a new scenario technique.*

**Keywords** *Governance, Cities, Local government, Strategic planning, Scenario planning, Learning organizations*

**Paper type** *Research paper*

## 1. Introduction

The mission-oriented approach (Mazzucato, 2018a; Deleidi and Mazzucato, 2021) aims to make public policies more effective by promoting pragmatic, multi-sectoral and multidisciplinary governance. Its main characteristic is to facilitate and encourage private contributions to the achievement of public benefit missions and to concretize the objectives in specific models of inter-institutional strategic action. Organizations involved in innovation processes are, therefore, called to strengthen their capacity to aspire (Appadurai, 2004) and improve their preparedness (Fuerth, 2009).

To this end, foresight and, particularly, scenario methods provide a valuable source of techniques that can be supportive in expanding the projective and anticipatory capacity of mission-oriented public policies. Over time, scenarios have gone from being a tool for strengthening the strategic potential of certain apparatuses, such as the military (Bell, 1997),

(Information about the authors can be found at the end of this article.)

Received 29 June 2023  
Revised 15 December 2023  
Accepted 6 February 2024

© Claudio Marciano, Alex Fergnani and Alberto Robiati. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

The project "Turin 2030 – future proof" was financed by University of Turin and Politechnic of Turin. The publication of this article was supported by University of Genoa. The authors would like to thank Prof. Filippo Barbera and Prof. Roberta Lombardi for their theoretical contribution. The authors would like also Damiano Aliprandi, Irene Coletto, Stefano Colmo and Azzurra Spirito methodological and creative contribution.

to being a tool for economic planning, not only for states but also for large companies (Schwartz, 1996). Within foresight trans-discipline, dozens of techniques have been developed to explore probable futures, as in the case of Delphi (Barrett and Heale, 2002), but also to explore possible futures, as in the case of scenario planning techniques (Bishop *et al.*, 2007), or to support the construction of preferred futures, in the case of so-called normative scenarios (Glenn, 2009).

In particular, Jim Dator's Manoa School Four Futures Dator (1998, 2009, 2017, 2020) is a method in which exploratory and normative functions find a convergence: it is useful to investigate unexpected futures, to reinforce awareness of the risk/opportunities of current trends, but also to facilitate decision-making to project a certain organization's agency with respect to its preferred future (Cairns and Wright, 2018). At the same time, Manoa does not provide a specific framework for operationalizing scenarios into strategic actions, which can instead be derived from the mission-oriented approach.

The project "Turin 2030 – future proof" is an interesting case study because it applied the four archetypes and the mission-oriented approach in an integrated way on six different focal issues regarding the future of the city of Turin. This paper critically analyses the project and, starting from the strengths and weaknesses of the experience, proposes a methodological innovation – the "mission-oriented scenarios" – through the integration of some steps of Dator's four archetypes and Mazzucato's mission-oriented policies framework.

The results of Torino 2030 have already been described in a book (Barbera *et al.*, 2021). The article updates and completes the analysis proposed in the book, introducing the revision and systematization of the methodological innovation steps experimented during the execution of the project.

## 2. Previous research

Mission-oriented policies can be defined as systemic public policies that draw on frontier knowledge to attain specific goals, or "big science deployed to meet big problems" (Ergas, 1987). The mission oriented approach was born in the USA innovation policies with respect to essentially military and geopolitical goals, such as the Manhattan project and the NASA project for moon landing (Mowery, 2010; Nelson, 2011). However, this approach has proven to be partial and inadequate to tackle challenges such as those posed by wicked problems, where interests and visions on the objective to reach diverge, and solutions are not only referred to a specific techno-scientific findings (Foray *et al.*, 2009; Fagerberg, 2017). This is the reason for which Mazzucato (2018b, p. 1;) proposed a new approach in which public and private sectors "join forces": the public actor has the role of guiding innovation processes, in particular in defining their direction, but, it encourage the private and research sectors to find autonomously solutions and to benefit economically from them.

According to this new reformulation, missions should have some distinctive characteristics (Mazzucato and Semieniuk, 2017; Mazzucato, 2021):

- to be related to people's daily lives;
- to be operationalizable in sets of indicators, set a well-defined time horizon and involve public and private research and development;
- to provide opportunities for synergy between multiple economic sectors and multiple levels of government; and
- to encourage the construction of heterarchical organizational networks (Stark, 2011), where there is freedom to experiment with different methods to achieve the goal of public interest.

As a guide for policymaker, Mazzucato (2018b, p. 2) proposed a framework to operationalize the mission-oriented approach in four different analytical steps, which consists of identifying a

SDG, then a set of missions consistent with the SDG, the sectors and social actors directly involved by the missions and different kind of strategic actions to fulfil the mission. This framework, which initially was elaborated for be applied to the innovation policies of European Union, has been also used in the urban policies arena: In particular, in the programme Horizon Europe 2021–2027, five mission boards were established to develop visions and missions for the future of the Union, including a specific board on climate-neutral and smart cities.

In implementing the mission-oriented approach at multiple levels of public policy, references to foresight as a source of useful techniques and methods to strengthen the projective and anticipatory capacity of programming have been recurrent (van Asselt *et al.* 2014). Among the pioneers of this line of research is Ben Martin (2010) and the University of Sussex’s SPUR, which has focused on the role of foresight as a policy-making tool in the governance of scientific and technological change. Mazzucato and Perez (2015) explicitly referred to foresight as a resource for developing more forward-looking public policies based on missions. Rosa *et al.* (2021), when describing the results of two participatory foresight projects, highlighted the usefulness of implementing citizen visioning methods (future dialogue, narrative generation) to improve the quality of strategic planning by integrating expert knowledge and experience in everyday life. Bradfield *et al.* (2005) focused properly on the role of scenario techniques as a structured consultation process, which allows different stakeholders to collaborate on policy-making.

Specifically on the urban policies, an extensive literature has conceptualized and investigated the application of alternative futures methods for urban planning (Ratcliffe and Krawczyk, 2011), through the use of macro-historical analysis (Daffara, 2011), futures triangle and CLA (Inayatullah, 2011; Russo, 2015) and different kinds of scenarios methods, among which the Dator’s Manoa School Four Futures Dator (2009, 2017, 2020). This method was developed and used over the course of more than 30 years of applying strategic foresight methods in heterogeneous organizations and communities (Bezold, 2009). The peculiarity of this approach, particularly with respect to other scenario methods (Bishop *et al.*, 2007; Chermack, 2022), concerns the articulation of narratives. Instead of being generated “inductively”, scenario narratives are developed “deductively” by projecting the interrelated outcomes of driving forces (DFs) of change into four predetermined archetypal images of the futures – continue growth, collapse, discipline and transformations – which correspond to the four abstract imaginaries most frequently held by participants in futures and foresight interventions (Figure 1).

**Figure 1** The Manoa school four futures method



According to the guidance that [Dator \(1998, 2017, 2020\)](#) gives, and which other authors who have revised and updated the method also reconstruct ([Fergnani and Song, 2020](#)), the four archetypes process involves about eight different steps:

1. the community devising the futures exercise must make a shared analysis of its past;
2. reasoning about the risks and opportunities of the present;
3. focusing on a focal issue to which the futures exercise must respond;
4. identifying the DFs that are likely to have an impact over a long-term time horizon, 20–50 years;
5. “move” the DFs according to the direction envisioned by the four archetypes in order to establish a narrative for each;
6. identify among them the preferred vision of the future;
7. identify strategic actions to realize the vision; and
8. repeat the exercise periodically, to update the narratives and consequent action plans.

Several academic works have described the use of the scenario archetypes methods for policy connected with urban issues. [Daniels et al. \(2021\)](#) described the application of the scenario archetypes method with other methods (including Delphi), in Houston, with a long-term time horizon (2050) and with a focus on the impact of climate change, particularly extreme weather events that cause frequent flooding in the city. [Firoozpour et al. \(2021\)](#) applied the Manoa School Four Futures Method to local development policies of the Theran metropolitan area, extracting the main DFs from a qualitative analysis of historical and policy-related documents of the city, and sorting them with the six sectors approach grid. [Dubois and Dimanch \(2021\)](#) used the four archetypes to analyse the future implications of COVID-19 pandemic for entertainment dependent cities after the decline of touristic fluxes ([Dubois and Dimanch, 2021](#)).

The Turin 2030 project, which we illustrate in the following pages, differs from the these case studies in at least three aspects:

1. the process was led by researchers of two universities, University of Turin and Polytechnic of Turin, as part of a research project aimed at testing a foresight method for strategic urban design;
2. scenario development was not carried out by the authors of this article, but by mixed panels of researchers, institutional and business stakeholders, privileged observers and activists; and
3. the use of scenario archetypes was integrated with the steps of the mission-oriented approach, in particular in the definition of the focal issues, in the selection criteria of the participants, and in the strategic implementation of the narratives.

### 3. Context

Turin is the fourth largest metropolitan city in Italy by number of inhabitants (2.26 million in 2020). For decades, it was the *one town company* [1] of FIAT (now FCA), one of the largest automotive companies in the world. As early as 1981, the local manufacturing industry employed 442,701 workers, and the secondary sector employed about 50% of the workforce ([Berta et al., 2004](#)). During the past few decades, the outsourcing of manufacturing and tertiarization of the economy have affected Turin, progressively taking away from its original role as an industrial hub ([Bagnasco, 1986](#); [De Rossi and Durbiano, 2006](#)). In 2020, workers in the secondary sector decreased by 65% ([Barbera and Marciano, 2021](#)). Deindustrialization has left abandoned industrial plants and increasingly uninhabited working-class neighbourhoods.

These “urban voids”, while generating degradation and insecurity in some cases, have also functioned as attractors for urban regeneration processes.

From the late 1990s, the electoral continuity of the left wing city councils, and the consolidation of collaborative relationships between entrepreneurial, academic and political stakeholders, brought about the establishment of an urban coalition, which shared objectives and priorities for action. One of the most interesting outputs of this polycentric network are the three strategic plans (2000, 2006 and 2020) that the city has developed since the new millennium, accelerating Turin’s positioning as a hub for urban innovation. Indeed, the city’s new economy is distinguished by an increasingly relevant role of tourism, capital-intensive industries, major public events (e.g. the XX Winter Olympic Games in 2006), creative industries and universities (Barbera and Parisi, 2019). The outcome of these processes is an urban agenda defined by Belligni and Ravazzi (2019) as “polytechnic, polycentric, and pyrotechnic”, because while it shines in terms of originality and number of initiatives, it fails to intercept widespread social problems, such as youth unemployment, lack of inclusion of migrants and gentrification (Semi, 2015).

For the future, Turin is preparing to face wicked problems typical of advanced capitalist metropolitan contexts. In particular, it will have to manage an aging population, which in 2030 will see the over-65s make up 30% of the total; it will have to improve integration policies for migrants and the “second generations”, which will make up 40% of the population aged 18–35, also starting in 2030 (Barbera and Marciano, 2021). Finally, it will have to understand how to relocate its impressive heritage of disused industrial infrastructures for activities capable of creating income and maintaining an average urban gross domestic product higher than in the rest of the country.

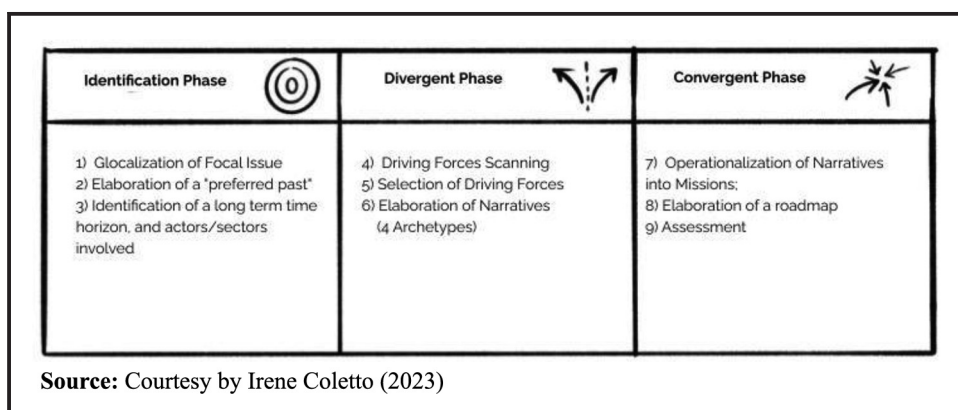
The project “Turin 2030” was born in this context of lights and shadows (Bagnasco et al., 2020), and is part of a debate on the future of the city, which in 2019 appeared “postponed”, according to the definition proposed by the analysts of the Giulio Einaudi Institute and which in the following years marked by the COVID-19 pandemic has become even more suspended and indefinite.

#### 4. Turin 2030 methodology

The project “Turin 2030” was carried out between June 2020 and September 2021. The main objective of the project was to develop, in a time horizon of 10 years, a set of strategic actions to be carried out in the urban policies of Turin.

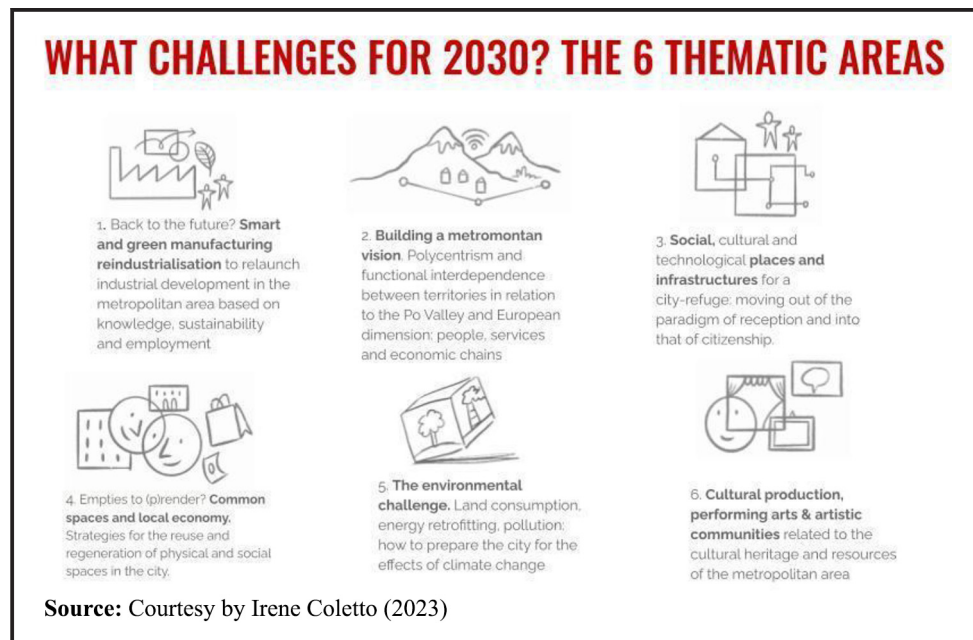
The project consisted in the following stages (Figure 2) of implementation:

**Figure 2** Working stages and main activities of the Turin 2030 project

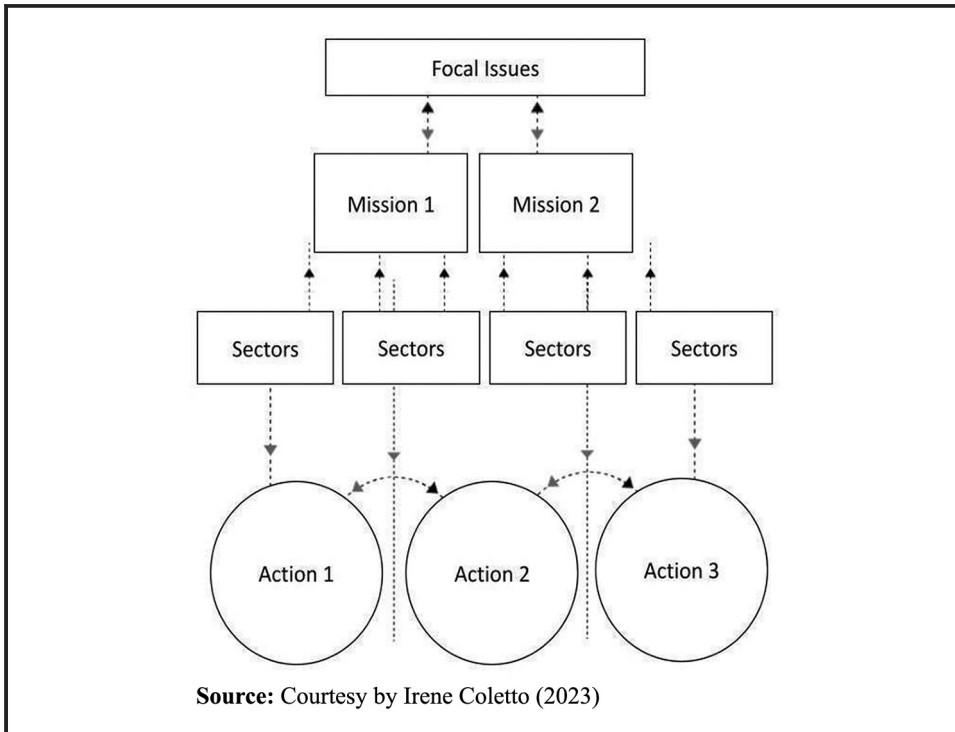


- **Generation:** The six focal issues (Figure 3) investigated by the project included the reindustrialization of the city from a green-smart perspective, the implementation of a unified governance strategy between the metropolitan city and inland mountainous areas, local welfare, urban regeneration of certain areas and environmental and cultural policies. They were chosen because they were relevant to the public debate on the future of Turin but also because they reflected the disciplinary areas of expertise of the researchers involved in the project's scientific committee. Finally, researchers and institutional and business stakeholders with expertise in the six fields were identified.
- **Exploration:** The second part of the project consisted in the organization of six public webinars held, each one, by four experts of international standing, with the task of carrying out a global *environmental scanning* in the field of the identified focal issues. At the same time, the editorial team conducted a qualitative analysis of the trends in the metropolitan city of Turin from the socio-economic, technological, environmental and political points of view, including flow data relating to the 20-year period 2000–2020.
- **Analysis:** At the end of each seminar, a workshop was organized with the same focal issue. The panels, in this case, were composed of 12 experts operating in the city of Turin, of which 50% were researchers in various disciplinary fields, and 50% stakeholders from the local business and political world. Basically, they experimented the Four Futures steps for each focal issues of the project and they elaborated narrations.
- **Strategy:** The scientific committee of the project used the following scheme (Figure 4), inspired by the one proposed by Mazzucato (2018a, p. 2), to strategize the narratives of scenarios. For each focal issue were pointed out two missions, which, always following the Mazzucato's model, operationalize the general challenge by identifying long-term objectives and expected results. Then, for each mission, were identified sectors, which are organizational fields characterized by actors with a specific agency power. The last level concerns the strategic actions, i.e. innovative projects geared towards achieving the objectives set by the missions, led by the sectors and stakeholders involved in the previous steps.

**Figure 3** Focal issues and keywords of the project Turin 2030



**Figure 4** Mission building scheme



Due to the restrictions imposed by the global pandemic, all phases of the project were held online, although the initial design called for a physical presence. Several web platforms (Zoom, Webex) and collaborative software (Miro) were used to allow for maximum visibility and interaction among participants.

## 5. Generating mission-oriented scenarios

The content of scenarios and strategic actions for each of the focal issues is available in the publication dedicated to the project results (Barbera and Marciano, 2021). In this section, we proceed to illustrate the operational and methodological limitations encountered in project implementation and to formulate our proposed methodological innovation, the mission-oriented scenarios.

### 5.1 Limitations of the project

The project had several limitations.

Firstly, it was strongly characterized by the leadership of the two universities, which reframed the project as a research rather than a public policy action. This approach silenced the main urban policy actor: the City of Turin. The results of the project, released a few weeks before the city's electoral round, contributed to the local political debate, yet there was no structured interlocution between the university and the municipality, nor was the voice of municipal administrators heard during scenario building.

A second critical element, which is structural with respect to the idea of carrying out a scenario application on a circumscribed territory, is that Turin is a very complex city, and to approach the understanding of its dynamics it is necessary to have a background on the political history of the place. This, inevitably, makes the results of the scenarios and mission outputs less relevant to readers not interested in the city's political reality.

A third limitation the project has encountered is that of resources. The workshops that identified the DFs, and formulated the keywords on the scenarios, engaged the panelists for a limited time. This was compounded by “forced” online interaction due to the pandemic, with most participants using digital collaborative tools for the first time.

A fourth critical element, on the other hand, relates to the micro-design of the process conducting the workshops and drafting the narratives took up a preponderant part of the project’s duration, whereas mission elaboration was concentrated in a small number of meetings: a better balance and even a shorter time distance between the two elaborations would perhaps have allowed for greater integration between the two phases (divergent-formulation of narratives, convergent-formulation of missions and strategic actions).

However, serendipity teaches that sometimes you find what you were not looking for. Through the analysis of the results (and limitations) of Turin 2030, it is possible to formulate a proposal with the aim of rethinking the process in a more organic way, identifying step by step the steps of a new methodological framework, based on the idea of using exploratory scenarios for normative purposes.

## ***5.2 Mission-oriented scenarios***

Our proposal is to use some steps from both models to develop a new scenario development method focused on strategic planning in cities. In particular, we use some steps of the Dator’s four archetypes methods and certain logical schemes of the mission-oriented approach because they are useful in diversifying the possible futures of urban issues, but at the same time, to keep the narratives coherent with the objective of developing concrete actions, which must be put in place quickly.

The division into three phases is in line with the theory of innovation behaviour ([Van De Ven, 1999](#)), according to which innovation processes, although they are thematically different, tend to have three constant dynamics: the exploration of needs (identification phase), the multiplication and diversification of possible solutions (divergent phase) and the selection of those considered most useful for the purposes of the scenario projector (convergent phase).






In the divergent phase, the steps of Dator’s method prevail: of the two, it is undoubtedly the one that offers more opportunities for free and creative exploration, as well as the one that offers more tools for exploring improbable but not impossible and irrelevant futures. In the convergence phase, the steps of the approach proposed by Mazzucato prevail: it is the one that presents not only more application schemes but also more implementation cases. In the identification phase, the two methods are completely mixed, as both are useful for defining the thematic, temporal and teleological limits of the scenario.

Hence, the mission-oriented scenarios can be articulated in three phases and 10 “steps” ([Figure 5](#)).

The first phase, which we propose to define as “identification”, relates to the choice of focal issues. As in the mission-oriented approach, mission-oriented scenarios link the theme on which the futures exercise is carried out to global megatrends and challenges; as in the scenario archetype model, the method envisages two steps of pre-consultation, aimed at strengthening the collective identity of the community carrying out the futures exercise and the identification of strengths and weaknesses in the present. The three steps, carried out in succession, could be merged into a single flow of activities. The identified focal issue would require a linkage to one or more major global challenges. In this, the SDGs are an excellent anchor, as they are institutionally recognized, multidisciplinary and with diversified targets and a defined time horizon. Tying the focal issues to one or more SDGs is very useful for urban policy planners: it removes a provincial approach and helps them conceive the theme to be explored as a “rhizome” that branches out in a dense network of interdependencies with other themes. The step we call “elaboration of a preferred past” is



**Figure 5** Phases and steps of mission-oriented scenarios

Generation 	Exploration 	Analysis 	Narration 	Strategy 
Definition of Focal Issues  Selection of experts and participants	Organization of Six Public Webinars as environmental scanning tools  Analysis of trends and megatrend 2000-2020 in Turin	Driving forces analysis: Six workshops  Scenario Archetypes: visual/conceptual frames	Development of a matrix with driving forces  Elaboration of 24 scenarios	Identification of 12 missions  Identification of 48 strategic actions

**Source:** Courtesy by Irene Coletto (2023)

particularly relevant. As suggested by the scenario archetypes method, this step has the objective of strengthening the cohesion and mutual recognition of the participants in the process, who will not limit themselves to carrying out a future exercise, but will have to actively collaborate in implementing it with concrete actions. It is a question of building a shared “history”, which can also be a joint analysis of the effects of a policy already implemented. Participants should be researchers, experts and policymakers who have the necessary analytical skills to conduct the identification steps.

The step regarding the identification of the time horizon is very delicate: in the case of Dator’s four archetypes, the minimum reference period is 20 years, whereas in the project the horizon was much shorter – 10 years. Given the need to link mission-oriented scenarios to specific lines of public policy, the adoption of a relevant time horizon with them is perhaps the most reasonable indication: this could lead to using this approach also for short-term (two to five years) strategic planning and design, accepting the challenge of redeclining the four archetypes in such a narrow timeline. Finally, the step related to trends and weak signals in the urban context where one is working is crucial to give all participants a common data and knowledge base, and also to prevent the analytical phase of the exercise from being conditioned by false or unfounded claims.

The second phase is the divergence phase: the focus is on the proliferation of ideas. The identification of the most relevant DFs and their combination into narratives inspired by the Manoa School Four Futures method is a challenging activity, an opportunity to take stock of the forces driving change, of the way they are driven by certain actors, of who wins and who loses from them, and of the impact of unexpected variables. This creative phase is within the reach of a panel of participants who do not necessarily need to have specific expertise. Several works have testified to the usefulness of conducting futures exercises by promoting the exchange of knowledge between experts and non-experts (Rosa *et al.*, 2021). Broadening the “voice” to social actors who are little involved in decision-making processes through foresight interventions is a fundamental step in exercising the capacity to aspire (Pellegrino, 2021) and civiness.

A strength of “deductive” methods such as Dator’s Manoa is that it is not necessary to make a selection of DFs according to their impact and uncertainty, as provided for example in the 2 × 2 matrix in other scenario planning methods. It is therefore possible to retain all the complexity and details of the analytical phase when developing the narratives, with the understanding that it is necessary to screen what is proposed by each of the participants and remove contradictions, clarify the meaning and direction of the individual forces of change and sort them according to thematic areas (via matrices such as the STEEP, PESTEL, etc.).

If the exercise has been carried out adequately, all four scenarios will contain useful elements for the construction of a preferred vision: even in the collapse scenario, elements of rupture that do not necessarily coincide with a dystopian future may emerge. The fundamental condition for proceeding in the process is that, from this associative action, an explicit, detailed and most importantly shared preferred vision emerges. At this point, backcasting is used: we return to the present and construct a narrative describing the main transitions through which the preferred vision is realized: event by event, conflict by conflict, innovation by innovation.

The third phase of the method is marked by activities of synthesis and strategic implementation, hence its name: “convergence”. Here, the participants can change: the review panel can be restricted to policy makers and representatives of those sectors directly involved in the transformation process. This is a political rather than methodological choice. Undoubtedly, this process is made up of moments of complex elaboration which require skills and assumption of responsibilities. Thus, it is not necessary that all actors are at the same level, as in the divergent phase.

An important element to consider when thinking about applying the method proposed here in practice is that the participants involved will “come on board” at different stages of the process. This requires an appropriate mindset, the provision of basic knowledge on foresight and scenario building and the possibility for each participant to see the process in its entirety and sense what their role will be.

Therefore, [Mazzucato’s \(2018b, p. 2\)](#) framework comes in handy at this stage, which can be used to operationalize the preferred vision into missions and sub-missions, to identify which actors and sectors should be involved and what actions they could concretize together. Who will carry out the process should ask participants: What are the missions that emerge from the preferred vision? Which actors and sectors are to change? Which initiatives are necessary to accelerate the transition? What is the role of the state in this? How are actions positioned on the timeline? The answer to these questions can offer a track for linking the urban policy agenda with the future exercises.

A final consideration deserves the evaluation phase, i.e. the reorganization of the development process of the scenarios “after” the strategic actions have been carried out, with the dual aim of stimulating new innovation, but also of looking retrospectively at the strengths and weaknesses of previous scenarios. Here, mission-oriented scenarios meet public policy analysis. This is dynamic and iterative. Indeed, public policies unfold over the years and are subject to restructuring, setbacks, changes of administration, regulatory changes and unexpected variables. One way to keep the working method up to date is to provide a set of indicators to monitor the achievement of expected results according to the roadmap. Moreover, provide for regular updating of the process.

### ***5.3 Implications for research and practice***

The methodological proposal presented in this article has implications for both research and practice.

Torino 2030 is an example of a “city-based” study ([Dixon et al., 2023](#)): urban foresight is addressed not with generic urban habitat futures, but with that of a situated socio-spatial context. One of the limitations of this approach, at least from the point of view of urban foresight studies, is that the issues addressed, the contents of the scenarios and action plans are hardly generalizable because they are linked to the peculiarities of the territories. The development of the mission-oriented scenario method aims to remove from the process any functional reference to the local context and stands as a neutral approach, replicable in any other urban context characterized by a level of complexity similar to that of Turin.

Another valuable aspect of the new method concerns the new way to conceive urban functions. Rather than reproducing vertical functions of the city (mobility, waste, energy), the issues are inspired by the missions: there is talk of a metromontane strategy, within which converge administrative decentralization, interdependence between inland mountainous areas and urban fabric, repopulation initiatives and prevention of gentrification effects, issues often addressed separately in urban policies. As has already been described in the previous section, the mission-oriented scenario contributes to adopting this type of associative logic because it requires local focal issues to be linked to larger-scale challenges and also circumscribes the concept of mission (Mazzucato, 2018b, p. 1) to challenging goals that can only be achieved through the joint contribution of social actors and sectors with different institutional functions.

From an operational point of view, the methodological proposal is confronted with a limitation that foresight encounters many times, especially when applied in contexts where political and institutional actors are involved, as in the case of urban governments: scenarios remain in the drawer and only marginally inspire public action (Fernández Güell and Lopez, 2016).

The challenge therefore lies in integrating already institutionalized urban planning processes, such as a master plan, or a waste management business plan, through the use of foresight techniques. In this way, foresight is associated with public policy constrained by multi-level regulations, where local actors are not able or willing, but have to provide answers. The promotion of foresight, and in particular the use of mission-oriented scenarios as a method of co-designing such processes could at least partly bridge the gap that too much separates theoretical elaboration and practice. It becomes crucial to link the time horizon and timing of the foresight method that is selected to those of the urban public policy that is to be modelled.

## 6. Conclusions

Mission-oriented scenarios can contribute to the generation of more sustainable and inclusive urban public policies. This methodological proposal is based on an original mix of knowledge exchange procedures borrowed from methodological approaches with different backgrounds: the mission-oriented and the archetypal scenarios. Their conjunction could support the formulation of ambitious yet pragmatic policies, giving a plurality of actors the opportunity to act and establish fruitful and lasting partnerships.

The privileged application of this approach is urban policies for several reasons. The first is that the urban level is where global challenges and local action meet, requiring tools that stimulate both political imagination and strategic design. Moreover, the urban level is the one where it is possible to involve multilevel local actors and where it is easier to encourage the exchange of knowledge between experts and non-experts. Finally, strategic planning with a medium-long time horizon (5–10 years) is often located at the urban level.

It is clear that a single application, however complex, does not entitle one to speak of a new foresight “method”, let alone of new public policy management. Moreover, in its “academic” version, this method requires a certain amount of time and economic resources to invest, which are not always easy to find in the local government context.

However, the assumptions made about the standardization of this new process could inspire other applications. Indeed, foresight is increasingly embedded in the institutional thinking of public administrations, particularly in Europe, where the pandemic has shown the limitations of public policy analysis and accelerated awareness of the potential of futures and foresight.

Finally, the use of the mission-oriented scenario is designed for strategic urban planning, such as the elaboration of an urban plan or the realization of a major work, and not for small

“wiring” actions. This should help local governments, universities and others potentially interested in conducting the process to find the time and money to carry out all the steps of the method, or at least those they consider necessary.

## Note

1. This is an expression used to refer to a city whose economy is predominantly driven by a company.

## References

- Appadurai, A. (2004), *'The Capacity to Aspire: Culture and the Terms of Recognition' in Culture and Public Action*, in Rao, V. and Walton, M. (Eds), Stanford University Press, Stanford, pp. 59-84.
- Bagnasco, A. (1986), *Torino. Un Profilo Sociologico*, Einaudi, Turin.
- Bagnasco, A., Berta, G. and Picherri, A. (2020), *Chi ha Fermato Torino*, Einaudi, Turin.
- Barbera, F. and Marciano, C. (2021), "Tendenze di impatto e fenomeni emergenti nella città metropolitana di torino", *Torino 2030 - a Prova di Futuro (Vv.Aa)*, Luca Sossella Editore, Roma.
- Barbera, F. and Parisi, T. (2019), *Innovatori Sociali*, Il Mulino, New York, NY.
- Barbera, F., Bocco, A., De Rossi, A., Guerzoni, M., Lombardi, P., Mellano, P., Quarta, A. and Semi, G. (2021), *Torino 2030 a Prova di Futuro*, Luca Sossella Editore, Roma, available at: [www.researchgate.net/publication/353126671\\_Torino\\_2030\\_A\\_prova\\_di\\_futuro](http://www.researchgate.net/publication/353126671_Torino_2030_A_prova_di_futuro)
- Barrett, D. and Heale, R. (2002), "What are Delphi studies?" *Evidence-Based Nursing*, Vol. 23 No. 3, pp. 68-69.
- Bell, W. (1997), *Foundations of Futures Studies: Human Science for a New Era*, Transaction Publisher, New Brunswick, NJ.
- Belligni, S. and Ravazzi, S. (2019), *La Politica e la Città*, Il Mulino, New York, NY.
- Berta, G., Casalino, C. and Ciravegna, L. (2004), "Materiali per il secondo piano strategico", *Torino internazionale*.
- Bezold, C. (2009), "Jim Dator's alternative futures and the path to IAF's aspirational futures", *Journal of Futures Studies*, Vol. 14 No. 2, pp. 123-134.
- Bishop, P., Hines, A. and Collins, T. (2007), "The current state of scenario development: an overview of techniques", *Foresight*, Vol. 9 No. 1, pp. 5-25, doi: [10.1108/14636680710727516](https://doi.org/10.1108/14636680710727516).
- Bradfield, R., Wright, G., Burt, G., Cairns, G. and van der Heijden, K. (2005), "The origins and evolution of scenario techniques in long range business planning", *Futures*, Vol. 37 No. 8, pp. 795-812.
- Cairns, G. and Wright, G. (2018), *Scenario Thinking: Preparing Your Organization for the Future in an Unpredictable World*, Palgrave Macmillan, London.
- Chermack, T.J. (2022), *Using Scenarios: Scenario Planning for Improving Organizations*, Berrett-Koehler Publisher, Oakland, CA.
- Daffara, P. (2011), "Rethinking tomorrow's cities: emerging issues on city foresight", *Futures*, Vol. 43 No. 7, pp. 680-689, doi: [10.1016/j.futures.2011.05.009](https://doi.org/10.1016/j.futures.2011.05.009).
- Daniels, K., Grim, T. and Morgan, T. (2021), "Using foresight to explore the impacts of flooding in Houston on health, poverty, and equity out to 2050", *Futures*, Vol. 131, doi: [10.1016/j.futures.2021.102754](https://doi.org/10.1016/j.futures.2021.102754).
- Dator, J. (1998), "Introduction: the future lies behind! Thirty years of teaching futures studies", *American Behavioral Scientist*, Vol. 42 No. 3, pp. 298-319, doi: [10.1177/0002764298042003002](https://doi.org/10.1177/0002764298042003002).
- Dator, J. (2009), "Alternative futures at the Manoa school", *Journal of Futures Studies*, Vol. 14, pp. 1-18.
- Dator, J. (2017), "Manoa's four generic images of the futures", *APF Compass*, July, 2-7.
- Dator, J. (2020), "The Manoa school four futures. The knowledge base of futures studies 2020", in Slaughter, R. and Hines, A. (Eds), *Association of Professional Futurists and Foresight International*.
- De Rossi, A. and Durbiano, G. (2006), *Torino 1980-2011. La Trasformazione e le Sue Immagini*, Allemandi, Turin.

- Deleidi, M. and Mazzucato, M. (2021), "Directed innovation policies and the supermultiplier: an empirical assessment of mission-oriented policies in the US economy", *Research Policy*, Vol. 50 No. 2, p. 104151, doi: [10.1016/j.respol.2020.104151](https://doi.org/10.1016/j.respol.2020.104151).
- Dixon, T., Karuri-Sebina, G., Ravetz, J. and Tewdwr-Jones, M. (2023), "Re-imagining the future: city-region foresight and visioning in an era of fragmented governance", *Regional Studies*, Vol. 57 No. 4, pp. 609-616, doi: [10.1080/00343404.2022.2076825](https://doi.org/10.1080/00343404.2022.2076825).
- Dubois, L.E. and Dimanch, F. (2021), "The futures of entertainment dependent cities in a post-COVID world", *Journal of Tourism Futures*, Vol. 7 No. 3, doi: [10.1108/JTF-11-2020-0208](https://doi.org/10.1108/JTF-11-2020-0208).
- Ergas, H. (1987), "Does technology policy matter", *Technology and Global Industry: Companies and Nations in the World Economy*, Cambridge University Press, Cambridge, pp. 191-245, doi: [10.1017/CBO9780511559938.005](https://doi.org/10.1017/CBO9780511559938.005).
- Fagerberg, J. (2017), "Innovation policy: rationales, lessons and challenges", *Journal of Economic Surveys*, Vol. 31 No. 2, pp. 497-512, doi: [10.1111/joes.12164](https://doi.org/10.1111/joes.12164).
- Fernani, A. and Song, Z. (2020), "The six scenario archetypes framework: a systematic investigation of science fiction films set in the future", *Futures*, Vol. 124, p. 102645, doi: [10.1016/j.futures.2020.102645](https://doi.org/10.1016/j.futures.2020.102645).
- Fernández Güell, J.M. and Lopez, J. (2016), "Cities futures. A critical assessment of how future studies are applied to cities", *Foresight*, Vol. 18 No. 5, pp. 454-468.
- Firoozpour, A., Marzban, E. and Pourezat, A.A. (2021), "Alternative future images of Tehran: scenario-based analysis", *foresight*, Vol. 23 No. 2, pp. 201-225, doi: [10.1108/FS-11-2019-0095](https://doi.org/10.1108/FS-11-2019-0095).
- Foray, D., David, P.A. and Hall, P. (2009), "Smart specialisation. The concept", Knowledge Economists Policy Brief (Expert Group on Knowledge for Growth), No. 9.
- Fuerth, L.S. (2009), "Foresight and anticipatory governance", *Foresight*, Vol. 11 No. 4, pp. 14-32, doi: [10.1108/14636680910982412](https://doi.org/10.1108/14636680910982412).
- Glenn, J.C. (2009), "Scenarios", in Glenn, J.C. and Gordon, T.J. (Eds), *Futures Research Methodology—Version 3.0*, The Millennium Project, Washington, DC.
- Inayatullah, S.T. (2011), "City futures in transformation: emerging issues and case studies", *Futures*, Vol. 43 No. 7, pp. 654-661, doi: [10.1016/j.futures.2011.05.006](https://doi.org/10.1016/j.futures.2011.05.006).
- Martin, R.B. (2010), "The origins of the concept of 'foresight' in science and technology: an insider's perspective", *Technological Forecasting and Social Change*, Vol. 77 No. 9, pp. 1438-1447, doi: [10.1016/j.techfore.2010.06.009](https://doi.org/10.1016/j.techfore.2010.06.009).
- Mazzucato, M. and Perez, C. (2015), "Innovation as growth policy", in Fagerberg, J., Laestadius, S. and Martin, B.R. (Eds), *The Triple Challenge for Europe: Economic Development, Climate Change, and Governance*, Oxford University Press, Oxford, pp. 229-264.
- Mazzucato, M. (2018a), "Mission-oriented innovation policies: challenges and opportunities", *In Industrial and Corporate Change*, Vol. 27 No. 5, pp. 803-815, doi: [10.1093/icc/dty03](https://doi.org/10.1093/icc/dty03).
- Mazzucato, M. (2018b), "Mission-oriented research & innovation in the European Union", Technical report, Directorate-General for Research and Innovation (European Commission).
- Mazzucato, M. (2021), *Mission Economy. A Monoshot Guide to Changing Capitalism*, Penguin Random House, New York, NY.
- Mazzucato, M. and Semieniuk, G. (2017), "Public financing of innovation: new questions", *Oxford Review of Economic Policy*, Vol. 33 No. 1, pp. 24-48.
- Mowery, D.C. (2010), "Military R&D and innovation", in Hall, B.H. and Rosenberg, N. (Eds), *Handbook of the Economics of Innovation*, Elsevier, Amsterdam, pp. 1219-1256.
- Nelson, R.R. (2011), "The Moon and the Ghetto revisited", *Science Public Policy*, Vol. 38 No. 9, pp. 681-690.
- Pellegrino, V. (2021), *Futuri Testardi. La Ricerca Sociale per L'elaborazione Del 'Dopo-Sviluppo'*, Ombre Corte.
- Ratcliffe, J. and Krawczyk, E. (2011), "Imagineering city futures: the use of prospective through scenarios in urban planning", *Futures*, Vol. 43 No. 7, pp. 642-653, doi: [10.1016/j.futures.2011.05.005](https://doi.org/10.1016/j.futures.2011.05.005).
- Rosa, A., Kimpeler, S., Schirrmeister, E. and Warnke, P. (2021), "Participatory foresight and reflexive innovation: setting policy goals and developing strategies in a bottom-up, mission-oriented, sustainable way, journal article", *European Journal of Futures Research*, Vol. 9 No. 1, doi: [10.1186/s40309-021-00171-6](https://doi.org/10.1186/s40309-021-00171-6).

- Russo, C. (2015), "A critical analysis of four South East Queensland city futures initiatives", *Journal of Futures Studies*, Vol. 19 No. 3, pp. 22-48.
- Schwartz, P. (1996), *The Art of the Long View. Planning for the Future in an Uncertain World*, Doubleday/Currency, MI.
- Semi, G. (2015), *Gentrification. Tutte le Città Come Disneyland? Il Mulino*, New York, NY.
- Stark, D. (2011), *Sense of Dissonanze. Account of Worth in Economic Life*, Princeton University Press, NJ.
- van Asselt, M.B.A., Van't Klooster, S.A. and Veenman, S.A. (2014), "Coping with policy in foresight", *Journal of Foresight Studies*, Vol. 19 No. 1, pp. 53-76.
- van de Ven, A. (1999), *The Innovation Journey*, Oxford University Press, New York, NY.

## Further reading

- Borjeson, L., Hojer, M., Dreborg, K., Ekvall, T. and Finnveden, G. (2006), "Scenario types and techniques: towards a user's guide", *Futures*, Vol. 38 No. 7, pp. 723-739.
- Dente, B. and Melloni, E. (2005), "Il piano strategico come strumento di 'governance' locale: il caso di torino, in 'amministrare, rivista quadrimestrale dell'Istituto per la scienza dell'Amministrazione pubblica' 3/2005", pp385-420, doi: [10.1442/20914](https://doi.org/10.1442/20914).
- Eames, M., Hunt, T., Dixon, T. and Britnell, J. (2013), "Retrofit city futures: visions for urban sustainability", available at: [www.retrofit2050.org.uk](http://www.retrofit2050.org.uk) (accessed 20 March 2014).
- Glackmann, H. (2018), *Multi Stakeholder Governance and Democracy. A Global Challenge*, Routledge, London.
- Goddard, M. and Tewdwr-Jones, M. (2016), *City Futures and the Civic University*, Newcastle University, Newcastle.
- Hajkowics, S. (2015), *Global Megatrend. Seven Patterns of Change Shaping Our Future*, CSIRO Publishing, Clayton.
- Schultz, W. (2015), "Manoa: the future is not binary", *APF Compass*. April: 22–26.
- Un-Habitat (2020), "The strategic plan 2020-2023", available at: [https://unhabitat.org/sites/default/files/documents/2019-09/strategic\\_plan\\_2020-2023.pdf](https://unhabitat.org/sites/default/files/documents/2019-09/strategic_plan_2020-2023.pdf)
- United Nations (2022), "World population prospect 2022", available at: [www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022\\_summary\\_of\\_results.pdf](http://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf)

## Author affiliations

Claudio Marciano is based at the Department of International Political Science, University of Genoa, Genoa, Italy.

Alex Fergnani is based at the Higher Colleges of Technology, Abu Dhabi, UAE.

Alberto Robiati is based at the Forwardto – Studies and Competences on Futures Scenario, Turin, Italy.

## Corresponding author

Claudio Marciano can be contacted at: [claudio.marciano@unige.it](mailto:claudio.marciano@unige.it)

---

For instructions on how to order reprints of this article, please visit our website: [www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)  
Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)