







VOLUNTARYLOCALREVIEW

Regione Piemonte Città metropolitana di Torino



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The development process of the Regional Sustainable Development Strategy (RSDS) and of the Metropolitan Sustainable Development Agenda (MSDA) started within the framework of the activities implemented by the Italian Ministry for Ecological Transition (MET), and involving all the Italian Regions and Metropolitan Cities, to ensure the territorialization of the National Sustainable Development Strategy (NSDS). MET is supporting the work for the preparation of the regional and metropolitan documents through a process that, at the regional level, guarantees the coherence of sustainability policies among the different territorial levels, within the framework of the different competences.

The processes started at the regional and metropolitan scale are not fully paired in terms of time: the Piemonte Region started its activities in the last quarter of 2018, while the Metropolitan City of Turin at the beginning of June 2020. From an operational point of view, this allowed the Metropolitan City to start its work when the main elements of the Regional Strategy were already available to be used as reference points.

Both Bodies concretely work with the Piedmontese research system in order to support the territories and local communities in the transition path towards sustainable development. For the elaboration of strategic documents, IRES Piemonte (Institute for Economic and Social Research) was involved from the outset with specific collaboration agreements. In addition to IRES, the Regional Agency for the Environment (ARPA Piemonte) and the Piedmontese University system are involved; other important stakeholders in the research sector will be involved in the future.

The Voluntary Local Review was designed and drafted jointly by the Piemonte Region and the Metropolitan City of Turin to highlight and develop connections for guaranteeing the coherence necessary to successfully territorialize, at all levels, the objectives of the 2030 Agenda for sustainable development.

The Piemonte Region and the Metropolitan City of Turin: the context

1.1 Territorial context

The Piedmontese landscape is very heterogeneous not only from morphological point of view (43,2% of the territorial surface is covered by mountains, 30,3% by hills and 26,5% by plain), but also in relation to its socio-economic traits and its environmental features. It is a diversified territory, including urban (with medium and large cities), mountain and rural areas. To allow the analysis of such a complex reality, the main regional territorial features are synthetically described in the picture below, showing a partition of the regional territory in Quarters.

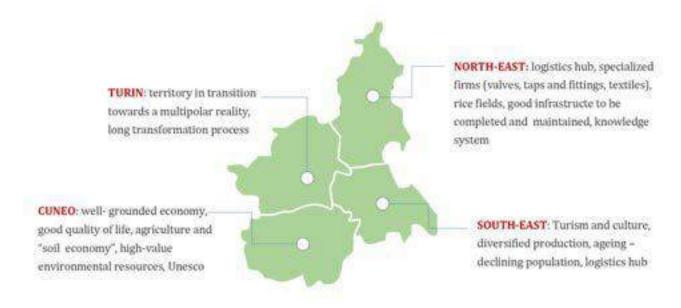


FIG. 1 - The Piedmontese Quarters

Source: IRES Piemonte¹, Progetto Antenne

The **Turin Quarter** (corresponding to the territory of the Metropolitan area of Turin) is a territory in transition which is strongly characterised by the presence of Turin, its capital city. The long transformation, which started in Turin at the beginning of the '80s (in relation to means of transport and consumption, lifestyle, demography), created the preconditions for the cultural transformation policies of the '90s and 2000s. However, it appears that these transformations have reached a turning point, in which positive results and the achievement of a high point in the "product cycle" need a new phase in the implementation of strategies. It is necessary to consider not only the polycentrism typical of the metropolitan area (including Turin as a central point, where services and "rare" and specialized activities such as universities, research, health services concentrate, and small and medium towns organised in two rings – the valley floor one and the medium-valley one), but also the territorial differences between the capital city, the metropolitan area, and the mountain, hill and plain/rural

¹ Piemonte Institute for Socio-Economic Research

areas. The territory and its development therefore need to be reconsidered in relation to the possible exchanges between the metropolitan area and the mountain/rural areas, without forgetting the periurban contexts which surround cities and merge with the rural landscape.

The **Cuneo Quarter** (corresponding to the Province of Cuneo) features a high quality of life; the productive system is among the most solid at the regional level, with high territorial, sectorial and dimensional diversification. Within the productive system, the tourism-agricultural-food value chain stands out. The development process underwent by the Quarter suggests that a new "soil economy" is growing: it is a value chain which starts from agriculture and expands into other fields, behind what has been defined as the "taste economy", linking the pimary sector to the industrial one (in relation not only to food) and the tertiary one, with clear benefits in terms of local development processes. The Quarter pays an important role as a binder between two main routes: the South of France and the Ligurian port system.

The North-East Quarter (corresponding to the Provinces of Verbania, Vercelli, Biella and Novara) has a polycentric nature. Its strong manufacturing legacy (household, taps and fittings, textile districts) with high international profile has recently started to undergo a process of productive reorganization looking for new opportunities for its market, penalised by an inadequate development of the business service sector. The knowledge system is strong and shows a good development potential: from Città Studi in Biella to the medical-pharmaceutical hub in Novara and Vercelli. A strategic element of the territory linked to its location is its role as a logistics hub (on the Suez-Genoa-Rotterdam axis, well-connected to Genoa port and to Alessandria dry port, close to Malpensa International hub and to the high-speed train station).

The **South-East Quarter** (corresponding to the Provinces of Asti and Alessandria) shows strong agricultural features and a substantial development of the manifacturing sector, penalised by the small size of the firms. While the Alessandria area is still partly dealing with her manufacturing past, undergoing a process of gradual decline/transformation, the Asti territory is more projected towards a development model based on tourism and environment, joining efforts with other initiatives in the Langhe and Roero area which has been recognised as Unesco site. There are development opportunities in relation to the large European and trans-continental transport lines, via the Genoa port; moreover, there is a good potential for the setting up of a logistics hub at the European level, which could be strategically linked to the Novara logistics hub².

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² The analysis done for the Quarters derives from the studies carried out by IRES Piemonte within the framework of <u>Progetto Antenne</u> (Rapporti di Quadrante Sud-Est, Sud-Ovest, Nord-Est e Nord-Ovest, IRES Piemonte 2018-2021)

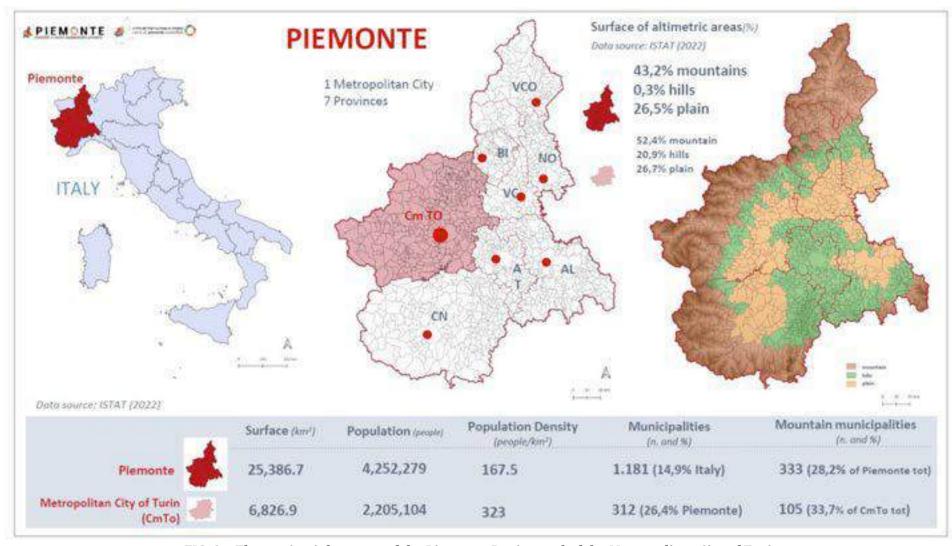


FIG. 2 - The territorial context of the Piemonte Region and of the Metropolitan City of Turin

1.2 The processes to set up the Regional Sustainable Development Strategy and the Metropolitan Sustainable Development Agenda

The development process of the Regional Sustainable Development Strategy (RSDS) and of the Metropolitan Sustainable Development Agenda (MSDA) started within the framework of the activities implemented by the Italian Ministry for Ecological Transition (MET), and involving all the Italian Regions and Metropolitan Cities, to ensure the territorialization of the National Sustainable Development Strategy (NSDS). MET is supporting the work for the preparation of the regional and metropolitan documents through the subscription of Collaboration Agreements.

The processes started at the regional and metropolitan scale are not fully paired in terms of time: the Piemonte Region started its activities in the last quarter of 2018, while the Metropolitan City of Turin at the beginning of June 2020. From an operational point of view, this allowed the Metropolitan City to start its work when the main elements of the Regional Strategy were already available to be used as reference points.

The **Regional Sustainable Development Strategy** (RSDS) was prepared after a long and complex process, which involved all the Departments of the Piemonte Region authority –the implementation of multiple tools, context analyses and survey methods - and the engagement of several stakeholders from the institutional context, the production system and more generally civil society. The document is therefore the result of a "collective" work.

Looking ahead, the engagement of the production system and of civil society for the RSDS will take place in a formal way through the Pact for Sustainable Development of Piemonte. The Pact is voluntarily subscribed by those stakeholders who intend to contribute with their commitment to the sustainable transition of Piemonte.

The **Metropolitan Sustainable Development Agenda** (MSDA) is being defined through an articulated process that is transversally involving not only the structures of the Metropolitan City authority, but also the territory (through the engagement of institutional stakeholders, actors from the goods and services production sector, organized associations and local stakeholders involved in the transition processes of the metropolitan territory).

The governance for the preparation of the Agenda is internal to the structures Metropolitan City authority, but features important and functional external relations, including the involvement of the Piemonte Region, universities and research actors. It is a type of flexible governance, which is continuously re-defined and will functionally evolve in relation to the implementation of the MSDA.

Figures 3 to 6 outline the process carried out to understand the complexity of the work carried out by integrating different levels and approaches.

In particular, the work undertaken is presented and analyzed from the points of view of:

- the reference contexts at the national, international and regional level (Fig. 3 State Regions and International contexts; Fig. 4 The Piemonte Region context; Fig. 5 State - Metropolitan City and International contexts; Fig. 6 The Metropolitan City of Turin context);
- the methods for implementing the institutional process, which combined in an innovative way
 paired formal processes (with the subscription of official agreements by the authorities
 involved) with participatory processes;
- the timing (from 2018 to 2022).

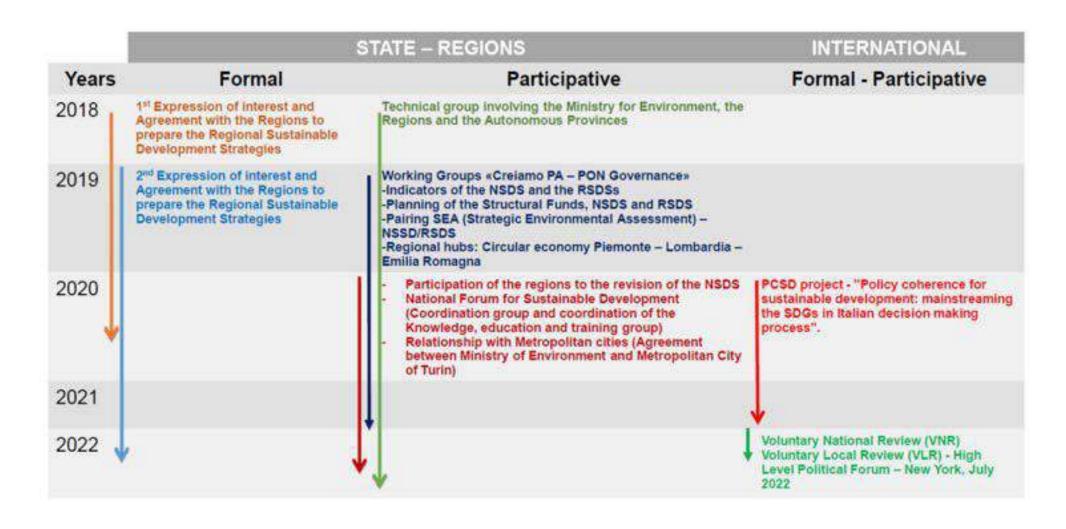


FIG. 3 - The institutional process - State-Regions and international level

years	Participative, internal to the Region	Participative with other Stakeholders	Formal
2018	- Preparation of the Piemonte Region project to start collaborating with the Ministry for Environment and the other regions		Decree of the Regional Council n. 3-7576, 09/28/2018
2019	Skills Analysis within Departments /NSDS Interviews with directors (or directors' delegates) Preparation and submission of the Technical document with initial guidelines for the setting up of the RSDS of the Piemonte Region Positioning analysis of Piemonte in relation to the Agenda 2030 goals	- The Protocol «Piemonte Region for Green education» supports RSDS – Strategic Macro-Areas n. 4 and 5 (workshops and questionnaires)	Decree of the Managing Director in, 443, 12/04/2018 Agreement with the Ministry for Environment in, 11962, 12/05/2018 Decree of the Regional Council in, 96-9007,05/16/2019 Decree of the Managing Director in, 597, 12/04/2019 Agreement with the Ministry for Environment in, 11382, 12/06/2019
2020	n. 2 questionnaires for the Directors: review of the Strategic Macro-Areas and identification of strategic goals Co-designing with officers and managers to fine-tune the RSDS's structure Drafting and submission of the Draft of the Regional Sustainable Development Strategy of the Piemonte Region	Sharing guidelines with Stakeholders located in the Quarters of the Piedmontese territory (webinars and questionnaires) Role and function of the utilities for the territorialization of the RSDS (interviews and workshops) Networks in the governance of the RSDS. The role of the Innovation hubs (Social Network analysis, workshop and inter-sectoral working group) Project 'Piemonte and Academia for Sustainable Development'—Ministry for Environment—University Network for Sustainable Development — Piemonte Region	2020 Inter-departmental goal "Coordinaton of the drafting of the RSDS"
2021	Sectoral Focus with officers and managers of the Departments Co-designing guidelines with officers and managers Co-designing with IRES Departments and database Observatories Drafting of the Monitoring and Assessment Dashboard for the RSDS Drafting and submission of the RSDS draft of the Plemonte Region Inter-sectoral Focus groups for the Strategic Macro-Areas and interaction with the Departments to modifyrintegrate the draft Fine-tuning of the RSDS structure in relation to national and EU documents Drafting and submission of the the Regional Sustainable Development Strategy of the Plemonte Region	The point of view of Young People - age18-35 (collective brainstorming)	European funds and Strategic Document - Decree of the Regional Council n. 41-1814 07/31/2029 Reporting of the activities included in the Collaboration Agreement dated 12/05/2018 to the Ministry for Environment Presenting the RSSD document to the Regional President and to all the Directors with doc. n. 153473, 12/29/2021
2022	Pairing the document with the Regional Financial Economic Document Starting the setting up of the Sustainability Observatory of Plemonte		,

FIG. 4 - The institutional process - Piemonte Region

	STATE	- METROPOLITAN CITY	INTERNATIONAL
Year	Formal	Participative	Formal - Participative
2019	1st Expression of Interest and Ministry –Metropolitan City Cooperation Agreements for the preparation of the Metropolitan Sustainable Development Agendas	Ministry for EnvironmentMetropolitan Cities Technical Committee: - Focus on different aspects: indicators, process and multi-level governance, sustainability drivers, development of process phases, pilot actions	
2020		Participation of the Metropolitan Cities to the review of the National Sustainable Development Strategy National Forum for Sustainable Development (Coordination team and coordination of the Knowledge, education and training group) Relationship with Piemonte Region (Ministry for Environment – Piemonte Region Agreement)	PCSD project - "Policy coherence for sustainable development: mainstreaming the SDGs in Italian decision making process".
2021			
2022		1	Voluntary National Review (VNR) and Voluntary Local Review (VLR) - High Level Political Forum - New York, July

FIG. 5 – The institutional process –State – Metropolitan Cities and International level

Year	Participative within the Metropolitan City of Turin	Participative with other stakeholders	Formal
2019	 Drafting of the Metropolitan City of Turin project within the framework of the collaboration with the Ministry for Environment and through cooperation with other Metropolitan Cities and Piermonte Region 	Collaboration with Plemonte Region for the Protocol "Plemonte Region for Green education" (workshop and questionnaires)	
2020	Signing of the Cooperation Agreement with the Ministry for Environment Drafting of the Guidelines for the setting up of the Sustainable Development Agenda of the Metropolitan City of Turin and its territory Planning of the Metropolitan City of Turin (first of all the Metropolitan Strategic Plan) Internal governance Competence analysis and Departmental priority areas in relation to the National Strategy for Sustainable Development (documents and interviews) Pilot actions Intranet	- Identification of functional relationships to "open up" governance: - Scientific Technical Support Group (Universities, Research bodies, National associations) - Piernonte Region - Pitot Actions - Collaboration with the Metropolitan Cities of Milano-Venice-Genera - Participation into the activities of Piernonte Region in relation to the territorialisation of the Regional Sustainable Development Strategy (utilities and innovation hubs) - Communication	Decree of the Managing Director n. 29 dated 03.25.2020 (Agreement with the Ministry for Environment) Deliberation of the Metropolitan Council n.30/2020 (guidelines) Agreement for collaboration with the Metropolitan Cities dated 09.01.2020 Start of internal activities, 04.11.20
1021	Plenary Workshop and 4 intersectoral Thematic Focus groups for the identification of the main features of the Agenda (structure, themes, stakeholder involvement models) Main lines of the Sustainable Development Agenda of the Metropolitan City of Turin and its territory: themes, tools, structure, governance, stakeholders Better focus on internal – external governance	-4 Intersectoral Thematic Focus groups to identify the main lines of the Agenda (structure, themes, stakeholder involvement models) – Piemonte Region and Universities - Setting up of a territorial stakeholder involvement model - 10 Intersectoral Thematic Focus groups with the Stakeholders of the area for the identification of the Missions	- Formal setting up of the Intersectoral Thematic Focus groups (03.22.021) - Session of the Metropolital Council 07.28.2021 (Approval of the main lines)
1022 •	- Identification of the Missions - Analysis of the Missions and identification of the Focus areas: of the Agenda (interviews, focus groups and internal working groups) - Relationship with the annual update of the Metropolitan Strategic Plan Relationship with the planning activities of the Metropolitan City (Metropolitan General Territorial Plan and Urban Plan for Sustainable Mobility) - Preparation of the Sustainable Development Agenda of the Metropolitan City of Turin and its territory. **Total City** **Total City	- Analysis of the Missions and identification of the Intervention Areas of the Agenda (Focus groups and working groups, interviews) - Relationships with the project "Piemonte and Academia for Sustainable Development" - Ministry for Environment—University Network for Sustainable DevelopmentPiemonte Region - Pilot Actions: - Inter-Institutional working group Metropolitan City of Turin-Piemonte Region- Piemonte Regional School Office - Involvement of 33 Upper Secondary Schools and Vocational training Agencies - Social Network Analysis - Collaboration with Academia - Events for the involvement of territories and for dissemination	- Collaboration agreement with universities (12.16.2021)

FIG 6 – The institutional process –Metropolitan City of Turin

Multi-level and multi-actor governance

2.1 Tools and guidelines for the governance of the Sustainable Development Strategies of the Piemonte Region and the Metropolitan City of Turin

The two processes of preparation and implementation of the strategies are at a different level of evolution.

The Piemonte Region is in the process of approving its own Strategy, has a formally recognised its internal governance, and has identified the need for a territorial governance covering also the strategies and actors of the Wide Area³. The Metropolitan City of Turin is currently sharing with the territorial actors its strategic orientation and hypothesized, in the Guidelines for the setting up of the Agenda (approved in July 2021), an internal governance allowing for a structured interaction with the Piemonte Region. This link is essential for both authorities: the Sustainable Development Agenda of the Metropolitan City of Turin and its territory is set to make a contribution to the achievement of the goals of the Regional Strategy.

There is a shared need to implement a **multi-level governance** of the strategic and operational processes. It should ensure the **consistency of sustainability policies** at the regional and metropolitan levels through the integration of skills.

In defining the implementation processes of the Regional Strategy, territorialization functions and tools that consider the relationship with the Metropolitan City are being set up. These tools support the dialogue among the Regional and Metropolitan Authorities and the territory in order to guarantee the coherence of policies and, at the same time, the promotion of a culture for sustainability.

The tools and methods of this joint effort are under elaboration and will ensure strategic and operational coherence between the regional and metropolitan level. This coherence will have to be built at both the political and technical level.

In the process of setting up the Regional Strategy and the Metropolitan Agenda, this coherence has been pursued only at the technical level through:

- The creation of contacts between the offices of the two institutions in order to integrate
 processes and support the coordination of the strategies, with the collaboration of the
 <u>Piemonte Institute for Socio-Economic Research</u> (IRES Piemonte);
- 2. The mutual involvement at a technical level in the construction processes of the strategies in relation to specific topics of common interest (focus groups, seminars, conferences, participation in technical-scientific support groups).

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³ In the Italian legal system, a Wide Area refers to the administrative level of the provinces and metropolitan cities, which is a level of management of the territory, the resources and the relations among local authorities; this level is intermediate between the municipalities and the region.

TAB 1				
	TOOLS			
Piemonte Observatory for Sustainability	Pact for the sustainability of Piemonte	Online platform	#Vettoridisostenibilità Festival	
	(GOAL		
Setting up a knowledge system to support sustainable development policies	Establish alliances amog public and private stakeholders who commit to meet sustainability goals	Show an "evaluation" of the sustainability policies which are active on the regional territory	Support the establishment of sustainability culture	
	GOVERNAM	NCE GUIDELINES		
Strengthening the relationship with the Metropolitan City of Turin to support the integration of knowledge useful to produce policies which are coherent at both the regional and metropolitan level	Managing alliances with the Metropolitan City of Turin according to territorial criteria	Including in the platform a section devoted to those policies which refer to the territory of the Metropolitan City of Turin	Implementing an annual programme of public events in agreement with the Metropolitan City of Turin	

TAB. 1 - The tools of the multi-level governance

2.2 Territorial systems and networks

In order to implement a type of governance able to produce sustainable development effects on the territory, the regional and metropolitan strategies intended and intend to act:

- 1. through existing territorial socio-economic networks and subsystems, to be oriented in relation to new development objectives;
- 2. to guide the setting up of new networks and territorial systems which are functional to the transition towards sustainable development;
- 3. aligning regional and metropolitan tools.

The territorialization of the strategies requires understanding of which co-evolutionary have to be addressed in the regional and metropolitan territory, identifying subsystems that operate and that, with their dynamics, transform the context.

Territorialization takes place in a plurality of ways and with multiple tools, analysing and intervening on different organizational and territorial settings.

In the experience of the Piemonte Region and of the Metropolitan City of Turin, these settings concern:

TAB 2			
ORGANIZATIONAL AND TERRITORIAL SETTINGS, GUIDING ANALYSES AND INTERVENTIONS	PIEMONTE REGIONAL SUSTAINABLE DEVELOPMENT STRATEGY	SUSTAINABLE DEVELOPMENT AGENDA OF THE METROPOLITAN CITY OF TURIN AND ITS TERRITORY	
TERRITORIAL PLANNING	Review of the Regional Territorial Plan (33 Areas of territorial integration); Preparation of the Socio- economic Plan of the Parks	Alignment/coherence: General Territorial Plan (11 Homogeneous Zones); Metropolitan Strategic Plan; Urban Plan for Sustainable Mobility	
GEOGRAPHICAL DIFFERENCES / SOCIO-ECONOMIC- ENVIRONMENTAL CHARACTERISTICS	The Sustainable Development Strategy of the Mountains and their territories; the suburban area - Green infrastructures - Corona Verde project	Green infrastructures - Corona Verde project (metropolis; cities working as a hinge between mountains, hills and plain; mountains; plains)	
SYSTEMS AND NETWORKS: PLACES/COMMUNITIES/LOCAL DEVELOPMENT	"Imprese rur@li" initiative: young entrepreneurs and sustainable rural development;	Food districts; 2030 AGENDA. The educational success of the territories for the transition (Educational and training	

	Food districts	territorial agreements)
SYSTEMS AND NETWORKS: DEVELOPMENT «OBJECTIVES»	Circular economy in the Piedmontese agro-food system	
SYSTEMS AND NETWORK: FUNCTIONS	The role and functions of utilities in the territorialisation of the Regional Sustainable Development Strategy; the role of innovation hubs for the sustainable transition of Piemonte	2030 AGENDA. Education and training (E&T) in transition

 $\it TAB.~2$ - The organizational and territorial areas as subjects of analysis and intervention

2.3 Relationship with the research system

In order to facilitate changes in the territorial socio-economic system, it is necessary to establish a permanent and structured relationship with the research bodies.

As highlighted in the following table, the Piemonte Region and the Metropolitan City of Turin, in the process of preparing both strategies, have addressed the establishment of this relationship in an articulated way, developing contancts and processes with public and private research bodies and with universities.

TAB 3 RESEARCH – ACTION FACILITATING THE SETTING UP **QUALITATIVE RESEARCH** AND IMPLEMENTATION OF THE **EMPOWERMENT EVALUATION** STRATEGIES-CO-GENERATION OF **COMMUNITY OF PRACTICE** KNOWLEGE BY THE REGION, THE **NETWORK ANALYSIS** METROPOLITAN CITY, RESEARCH **BODIES, UNIVERSITIES AND OTHER** A mix of methodologies, methods and tools is used for the co-**PUBLIC AND PRIVATE** generation of knowledge to be transposed into policies and **STAKEHOLDERS** actions 1) POSITIONNING of Piemonte in relation to the 2030 Agenda **Goals** - IAEG-SDGs Istat-Sistan indicators 2) INTERPRETING Piemonte in relation to the RSDS strategic goals, the 2030 Agenda and the 2030/2050 European goals specific indicators (IRES and ARPA Piemonte Observatories) 3) INTERPRETING THE METROPOLITAN CITY OF TURIN in relation to the Missions of the MSDA, the 2030 Agenda and the 2030/2050 European goals – specific indicators **MONITORING OF THE** 4) INTERPRETING BY AREA OF TERRITORIAL DEVELOPMENT STRATEGIES-«QUANTITATIVE» (regional and metropolitan) – specific indicators at the inter-KNOWLEDGE FOR THE SETTING UP municipality scale AND IMPLEMENTATION OF THE 5) INTERPRETING THE SUBSYSTEMS – specific indicators at the **STRATEGIES** municipality level for mountain territories; local subsystems (Periurban; local rural systems; ...) Monitoring allows to place the Region and the Metropolitan City of Turin in the context of the National, European and global challenges. At the same time, it help sto understand local phenomena – Knowledge for the setting up of policies for the implementation of the Strategies

TAB. 3 - Relationship with research: a mix of methodologies and processes

From this experience we intend to develop a system in which the relationship with research institutions and universities is fundamental.

For this reason, within the Piemonte Region, a decision-making process is being carried out for the identification of an implementation tool – called "Observatory" in this first phase - which structures and settles relations with research.

With this tool we intend to:

- **organize, produce and disseminate knowledge** that takes into account **economic, social and environmental aspects** in the analysis of phenomena;
- **feed and support the regional** system in defining **sustainability** policies through the formulation of **development scenarios**.

The Observatory will have to be built between the following subjects, to answer to the needs of policy makers with knowledge responses, by understanding phenomena in terms of sustainability and building scenarios to support decisions.

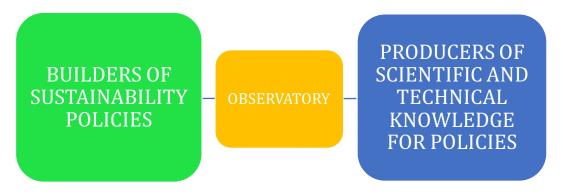


FIG. 7 - Positioning of the Observatory in the knowledge process

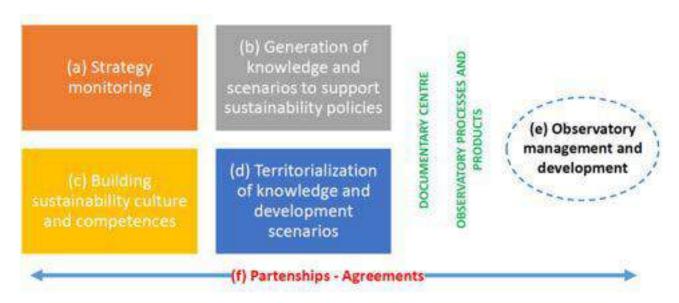


FIG. 8 - The functions and tools of the Observatory

The functions, tools and processes to be established concern:

a) Strategy monitoring

In the setting up of the Observatory, solutions (partnerships, work processes and tools, products) must be sought for meeting the following needs:

- Finalizing and standardising the monitoring process elaborated and tested during the preparation phase of the Strategy by IRES Piemonte and ARPA Piemonte in collaboration with the regional Observatories;
- Making more dynamic the use of data, in order to facilitate their consultation and use by decision makers;
- Producing, through multi-disciplinary contributions, integrated interpretations of economic, social and environmental realities, which allow to identify problems and possible scenarios of new development on an annual base and in view of three-year reviews of the Strategy;
- Making public and private decision makers aware of the monitoring results.

b) Production of knowledge and scenarios to support sustainability policies

In the setting up of the Observatory, solutions (partnerships, work processes and tools, products) must be sought for the following needs:

- Identifying the research subjects in Piemonte (universities and other research bodies) who are already producing knowledge (analysis of phenomena and scenarios) in terms of sustainability or can be oriented in this sense or can give contribution, even if sectoral, to be related to the other parts; verifying the effective contribution of these bodies and the added value that could be produced by making them active parts of the Observatory;
- Identifying the knowledge needs within the Piemonte Region and / or within other entities developing sustainability policies in Piemonte;
- Facilitating interaction and exchange between research bodies and public and private decision makers;
- **Systematizing and enhancing** those knowledge processes that link research bodies and public and private decision makers for sustainability policies;
- Support the construction and evaluation of policies;
- Guaranteeing openness to other national and international knowledge subjects and systems.

c) Building culture and skills for sustainability

In the setting up of the Observatory, solutions (partnerships, work processes and tools, products) must be sought for the following needs:

- Establishing a permanent interaction with the formal systems of Education and Vocational Training to encourage innovation processes for skills - professional and of active citizenship in relation to the knowledge produced by the Observatory;
- Identifying and systematizing the subjects who carry out or who could carry out production
 / dissemination of knowledge and training actions related to the activities of the Observatory;
- Promoting, as Observatory, training actions and production / dissemination of knowledge (seminars, conferences,....);

Developing / supporting learning processes in multi-actor projects and processes.

d) Territorialization of knowledge and development scenarios of wide and local area

In the setting up of the Observatory, solutions (partnerships, work processes and tools, products) must be sought for the following needs:

- Structuring the relationship with the Metropolitan City of Turin to facilitate the integration
 of knowledge useful for producing coherent policies between the regional and metropolitan
 levels;
- Structuring the relationship with the Observatory for the mountains so as to be able to
 understand phenomena and development scenarios for the mountains consistent with the
 dynamics that characterize the other parts and the whole of Piemonte;
- Identifying, while carrying out the activities, specific knowledge needs for other types of processes of this type.

3 Policy coherence

3.1 A Regional Strategy consistent with the National Strategy, with European guidelines and the 2030 Agenda

The setting up of the regional document was carried out within a clear and structured strategic framework, which refers to the **2030 Agenda** and its **European and national reach**.

From the regional point of view, the **National Sustainable Development Strategy** (NSDS) has represented and represents the translation at the Italian level of the objectives of the 2030 Agenda and, as such, is considered as the reference document.

The **Piemonte Region**, in undertaking the process to prepare the RSDS, has chosen to play an active role in the transition process towards more sustainable economies, operating to **territorialize the Strategic Choices** already made by the NSDS. This is done to guarantee not only the coherence of the local action towards national indications, but also and above all a strong coordination of the territorial policies.

In order to give substance to this vision, the Region was engaged at the institutional level to build a strategic document which, in its structure and contents, would allow a real adaptation of the choices to the appropriate territorial scales, with the setting up of networks and systems (geographical and relational) able to activate concrete actions for the transition of the territories.

The regional-scale structure identifies 7 **Strategic Macro-Areas** (SMA) and 6 **Transversal Areas** of intervention that orientate the processes of governance, knowledge, development of a sustainability culture and the setting up of collaborations and partnerships, which are necessary to make the implementation of the Strategy effective. It also operates in coherence with the European programming guidelines to ensure that resources are allocated in relation to the objectives set by the strategy.

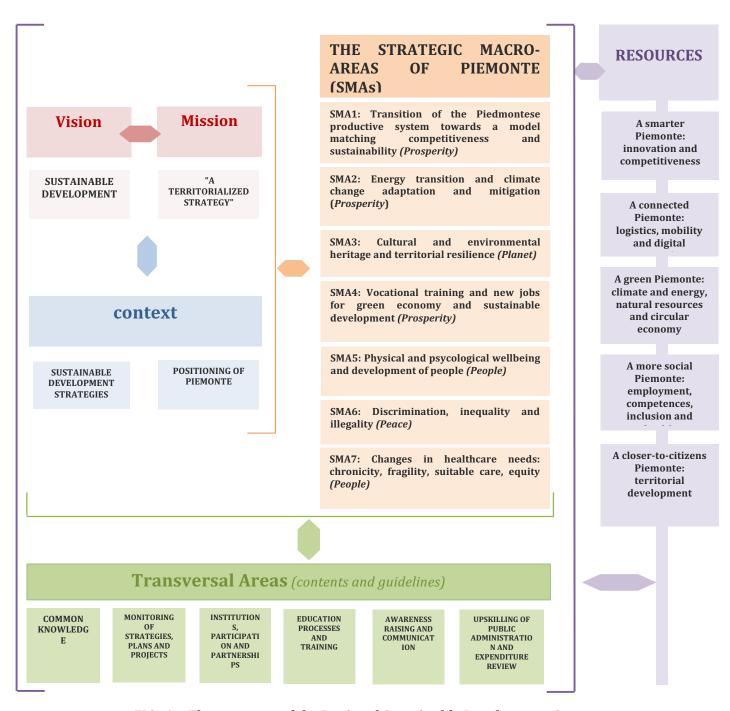


FIG. 9 - The structure of the Regional Sustainable Development Strategy

In the elaboration of the Strategy, strategic Priorities and Objectives were defined for each Strategic Macro-Area and constant reference was made to the Areas, Choices and Objectives of the National Strategy, which is in line with the Goals of the 2030 Agenda, as shown in the following table.

TAB 4			
RSDS - STRATEGIC MACRO-AREAS (SMAs)	RSDS STRATEGIC PRIORITIES	NSDS AREAS, CHOICHES AND STRATEGIC OBJECTIVES	2030 AGENDA GOALS
	1.A. DEVELOPING ECONOMIC SKILLS/SUSTAINABILITY FIRMS	PROSPERITY I. Funding and promoting sustainable research and innovation I.1 Increasing investment in research and development I.3 Adding novelty in processes and products and promoting technology transfer IV. Decarbonizing economy IV.3 Reducing greenhouse gas emissions in non-ETS sectors	8 personal p
SMA1: SUPPORTING THE TRANSITION OF THE PIEDMONTESE PRODUCTIVE SYSTEM TOWARDS A MODEL MATCHING COMPETITIVENESS AND SUSTAINABILITY	1.B. FINDING A BALANCE BETWEEN ECONOMIC SUSTAINABILITY, SAVING ENERGY AND MATERIALS, SUPPORTING THE CONVERSION OF THE PRODUCTIVE SYSTEM	PROSPERITY III. Establishing sustainable production and consumption models III.1 Dematerializing the economy, improving efficiency in the use of resources and promoting circular economy mechanisms III.3 Ensuring fair access to financial resources III.5 Limiting waste production and promoting the market for secondary raw materials IV. Decarbonizing economy IV.3 Reducing greenhouse gas emissions in non-ETS sectors	S mineral S mine
	1.C. NURTURING AND SUPPORTING THE POTENTIAL OF TERRITORIES	PROSPERITY III. Establishing sustainable production and consumption models III.6 Promoting demand and increasing the supply of sustainable tourism III.9 Promoting Italian excellence	8 Merce and Discourse and Disc
	1.D. CONVERTING AGRICULTURAL PRACTICES THROUGH THE IMPROVEMENT OF ECONOMIC AND ENVIRONMENTAL PERFORMANCES OF FARMS AND ED AGRO-INDUSTRIAL FIRMS, SUPPORTING SUSTAINABLE COMPETITIVENESS	PROSPERITY III. Establishing sustainable production and consumption models III.7 Ensuring the sustainability of agriculture and forestry along the entire supply chain IV. Decarbonizing economy IV.3 Reducing greenhouse gas emissions in non-ETS sectors	2 TH 12 AMENIA ALCOHOLOGY COO

SMA2: ENERGY TRANSITION AND CLIMATE CHANGE ADAPTATION AND MITIGATION	2.A. PROMOTING ENERGY EFFICIENCY MEASURES	PROSPERITY IV. Decarbonizing economy IV.1 Increasing energy efficiency and the production of energy from renewable sources, avoiding or reducing impact on cultural heritage and the landscape	7
	2.B. PROMOTING RENEWABLE ENERGIES AND DEVELOPING INTELLIGENT ENERGY STORAGE SYSTEMS, NETWORKS AND PLANTS AT LOCAL LEVEL	PROSPERITY IV. Decarbonizing economy IV.1 Increasing energy efficiency and the production of energy from renewable sources, avoiding or reducing impact on cultural heritage and the landscape	7
	2.C. MAKING MOBILITY MORE SUSTAINABLE	PROSPERITY IV. Decarbonizing economy IV.2 Increasing the sustainable mobility of people and goods IV.3 Reducing greenhouse gas emissions in non-ETS sectors	7 ALLES
MAS 3: CULTURAL AND ENVIRONMENTAL HERITAGE AND TERRITORIAL RESILIENCE	3.A. REDUCING HYDROGEOLOGICAL DAMAGE AND ENVIRONMENTAL DEGRADATION	PLANET II. Ensuring sustainable management of natural resources II.2 Stop land consumption and fight desertification II.6 Minimizing emissions and reducing concentrations of pollutants in the atmosphere	13 (13 (13 (13 (13 (13 (13 (13 (13 (13 (
	3.B. REDUCING TERRITORIAL MARGINALITIES	PLANET III. Creating resilient communities and territories, preserving landscapes and cultural heritage III.1 Preventing natural and anthropogenic risks and strengthening the resilience capacities of communities and territories III.2 Ensuring high environmental performance of buildings, infrastructures and open spaces III.3 Regenerating cities, ensuring accessibility and the sustainability of connections	S ments S monts S m
	3.C. ENHANCING THE CULTURAL AND ENVIRONMENTAL HERITAGE	PLANET III. Creating resilient communities and territories, preserving landscapes and cultural heritage III.5 Ensuring the development of potential, the sustainable management of territories, landscapes and cultural heritage	2 CONTRACTOR OF THE PARTY OF TH
	3.D. PROTECTING WATER AND SOILS	PLANET II. Ensuring sustainable management of natural resources II.3 Minimizing pollutant loads in soils, water bodies and aquifers, taking into account the level of good ecological status of the natural	12

	3.E. PRESERVING BIODIVERSITY	II.4 Implementing integrated water management at all planning levels II.5 Maximizing water efficiency and adapting withdrawals to water scarcity PLANET I. Stopping the loss of biodiversity I.1 Safeguarding and improving the conservation status of species and habitats for terrestrial and aquatic ecosystems I.2 Stopping the spread of invasive alien species I.3 Increasing land and sea protected area and ensuring effective management I.4 Protecting and restoring genetic resources and natural ecosystems related to agriculture, forestry and aquaculture I.5 Integrating the value of natural capital (ecosystems and biodiversity) into plans, policies and accounting systems II. Ensuring sustainable management of natural resources II.7 Ensuring sustainable forestry management and fighting abandonment and degradation III. Creating resilient communities and territories, preserving landscapes and cultural heritage III.4 Ensuring the restoration and defragmentation of ecosystems and fostering urban / rural ecological connections	6 tens to a second
	4. DEVELOPING SUSTAINABLE DEVELOPMENT SKILLS	PROSPERITY II. Ensuring full employment and quality training II.1 Ensuring accessibility, quality and continuity of training	4 mm
MAS 4: VOCATIONAL TRAINING AND NEW JOBS FOR GREEN ECONOMY AND SUSTAINABLE	4.B SUPPORTING THE QUALIFICATION OF WORKERS AND STEERING THE PRODUCTION SYSTEM	PROSPERITY II. Ensuring full employment and quality training II.1 Ensuring accessibility, quality and continuity of training	4 mm 5 mm 5 mm 6 mm 6 mm 6 mm 6 mm 6 mm
DEVELOPMENT	4.C DEVELOPING NEW ENTREPRENEURSHIP IN EMPOWERMENT PROCESSES	PROSPERITY II. Ensuring full employment and quality training II.2 Increasing sustainable and quality employment	© M
	4.D IMPLEMENTING THE TRANSVERSALITY OF "CULTURE" TO INCREASE THE COMPETITIVENESS OF THE REGIONAL SYSTEM AND OF		

	ENTERPRISES		
	4.E SUSTAINABILITY TRAINING WITHIN THE REGION		
MAS 5: SUPPORTING THE DEVELOPMENT AND THE PHYSICAL AND PSYCHOLOGICAL WELL-BEING OF PEOPLE	5.A. REDUCING POVERTY	PEOPLE I. Tackling poverty and social exclusion by eliminating territorial gaps I.1 Reducing the intensity of poverty I.2 Fighting material and food deprivation I.3 Reducing housing discomfort	1 arment 2 in the state of the
	5.B. FACING GROWING PSYCHOLOGICAL DISEASES	PEOPLE II. Guaranteeing the conditions for the development of human potential II.1 Reducing unemployment for the weakest parts of the population II.2 Ensuring the full functionality of the social protection and welfare system II.4 Fighting deviance through prevention and social integration of those at risk	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	5.C. IMPLEMENT PERMANENT EDUCATION IN SUSTAINABILITY AND PROMOTING HEALTHY LIFESTYLES	PEOPLE II. Guaranteeing the conditions for the development of human potential II.3 Reducing the school dropout rate and improving the education system	4 === 6 == 6 == 6 == 6 == 6 == 6 == 6 =
MAS 6: REDUCING DISCRIMINATION, INEQUALITIES AND ILLEGALITY	6.A. REDUCING DEVIANCE AND CRIME	PEACE I. Promoting a non-violent and inclusive society I.1 Preventing violence against women and children and ensuring appropriate assistance to victims II.2 Guaranteeing the reception of migrants seeking asylum and the inclusion of ethnic and religious minorities	5 manufer 10 minutes ()
	6.B. REDUCING DISCRIMINATION AND SOCIAL MARGINALIZATION	PEACE II. Eliminating all forms of discrimination II.1 Eliminating all forms of labor exploitation and guarantee workers' rights II.2 Ensuring gender equality II.3 Fighting all discrimination and promoting respect for diversity	4 man 4 man 5 man 8 description 10 man 10 man

			DODGE STATE OF THE
	6.C. FACILITATING ACCESS TO JUSTICE	PEACE III. Ensuring legality and justice III.3 Ensuring the efficiency and quality of the judicial system	16 in annual santa
	6.D. DEVELOPING AND PROMOTING INTERNATIONAL COOPERATION		
	7.A. DEVELOPING AN INTEGRATED APPROACH AND MULTI-SPECIALIST INTERACTION BETWEEN HOSPITAL AND TERRITORIAL STRUCTURES	PEOPLE III. Promoting health and wellbeing III.3 Ensuring access to effective health and care services, counteracting territorial gaps	3 mm. 5 mm. 5 mm. 4 mm. 4 mm. 5 mm. 4 mm. 5 mm. 4 mm.
MAS 7: ADDRESSING CHANGES IN HEALTHCARE DEMAND:	7.B. DEVELOPING AN APPROACH AIMED TO UNDERSTAND HOW DEMAND CHANGES	PEOPLE III. Promoting health and well- being III.2 Promoting healthy lifestyles and strengthening prevention systems	2 in 3 inner 5 inner 1) inner 6 inner 1) i
CHRONICITY, FRAGILITY, APPROPRIATE PERFORMANCE, EQUITY OF DISTRIBUTION	7.C. CREATING A BALANCE BETWEEN INNOVATION, INCREASED DEMAND AND COSTS	PEOPLE III. Promoting health and wellbeing III.1 Decreasing population exposure to environmental and anthropogenic risk factors	1 month 2 m (1) 1 month 2 m (1) 1 month 1 mont

TAB. 4 – Relationships among the Strategic Macro-Areas (SMAs), the RSDS priorities of Piemonte, the NSDS and the 2030 Agenda goals

3.2 Setting up of a coherent multi-level and multi-dimensional strategic orientation

In order to give substance to a vision that produces, when implemented, effects on the territory, the **Metropolitan Agenda** was designed as a tool to pursue the objectives of the Regional Strategy, which is in turn coherent with the national, European and worldwide approaches, as described in paragraph 3.1.

The methodology adopted, to achieve this consistency, involved a change in the way of operating: from addressing goals, we shifted to addressing (measurable) results to be achieved.

The metropolitan strategic approach is structured by **Missions**⁴, intended as a tool for socio-economic transformation aimed at **solving economic**, **social and environmental challenges**. It features achievable targets (the results), which must be identified with the help of public and private sectors, public institutions, social organizations (trade unions, trade associations, etc.) and citizens.

Adopting this approach as a reference framework for defining the contents of the Metropolitan Agenda means identifying, in relation to the global challenges posed by sustainability (de-carbonization, climate change, Common Agricultural Policy - CAP targets, CO_2 reduction, reduction of inequalities, ...), what are the Missions that the Metropolitan City of Turin and its territory intend to pursue, identifying for each of them the problems to be addressed and the results to aim for with respect to the targets set at national, European and global level, and transposed in the Regional Strategy.

The **multi-level governance** of the targeted processes and results is considered in the identification of the Missions, within the framework of the relationship with the Piemonte Region and with the territories of the metropolitan city. Multilevel governance will allow the Metropolitan City of Turin not to be limited by its own narrow competences, but to create synergies with the regional reference framework and to examine th needs of an extremely diverse area with specific problems to be addressed.

The Missions pursue the goals identified by the Piemonte Region in its Strategic Macro-Areas. Within each Mission, **specific Areas of intervention** are identified to **guide territorial policies**.

The structuring of the Strategy into Missions is under construction, as institutional participation processes and involvement of the civil society is ongoing. The following table shows the Missions identified to date, which are susceptible to changes, and some examples of Areas of intervention.

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⁴ Mazzucato_report_2018.pdf (europa.eu)

GOALS RESULTS

TAB 5

REGIONAL SUSTAINABLE DEVELOPMENT STRATEGY OF PIEMONTE		SUSTAINABLE DEVELOPMENT AGENDA OF THE METROPOLITAN CITY OF TURIN AND ITS TERRITORY			
	STRATEGIC MACRO-AREAS		MISSIONS	AREAS OF INTERVENTION	
	SUPPORTING THE TRANSITION OF THE PIEDMONTESE PRODUCTIVE SYSTEM TOWARDS A MODEL MATCHING COMPETITIVENESS AND SUSTAINABILITY	1.1	CREATING NEW PRODUCTION CHAINS OR CONVERTING THE EXISTING ONES IN RELATION TO RECYCLING, REUSE AND REDUCTION OF WASTE	Construction supply chains WEEE supply chains Textile supply chains ()	
		1.2	CONVERTING PRODUCTION PROCESSES AND PRODUCTS FOR THE GREEN ECONOMY	Supply chains for energy efficiency Green public Procurement ()	
1		1.3	MANAGING AND ENHANCING FORESTS FOR RURAL AND MOUNTAIN DEVELOPMENT	Wood-energy supply chain ()	
		1.4	IMPLEMENTING THE TRANSITION TOWARDS AN ENVIRONMENTALLY REGENERATIVE, HEALTHY, INCLUSIVE AND ACCESSIBLE FOOD SYSTEM FOR PEOPLE	Food districts Food community	
		1.5	BUILDING A METROPOLITAN OUTDOOR TOURIST SYSTEM		
		1.6	DEVELOPING SUSTAINABLE DIGITAL INFRASTRUCTURE		
		1.7	IMPLEMENTING A TRADING SYSTEM SERVING PEOPLE AND THE COMMUNITY	Business districts Multiservice proximity shops ()	
2	ENERGY TRANSITION AND CLIMATE CHANGE ADAPTATION AND MITIGATION	2.1	INCREASING ENERGY PRODUCTION FROM RENEWABLE SOURCES AND ADAPTING ENERGY PRODUCTION AND CONSUMPTION SYSTEMS TO TERRITORIAL SPECIFICITIES	RES: bio-gas and green hydrogen from organic supply chains Energy communities ()	
		2.2	REDUCING ENERGY CONSUMPTION AND EMISSIONS RELATED TO BUILDING ASSETS AND INFRASTRUCTURE	Energy efficiency in the use of biomass School infrastructure ()	

		2.3	REDUCE ENERGY POVERTY	
		2.4	IMPPLEMENT MOBILITY TRANSITION AND TRANSPORT CONVERSION	
3	CULTURAL AND ENVIRONMENTAL HERITAGE AND TERRITORIAL RESILIENCE	3.1	SAFEGUARDING AND REGENERATING THE NATURAL CAPITAL OF THE METROPOLITAN TERRITORIAL SYSTEM	Ecological connections for biodiversity Nature-based green infrastructure ()
		3.2	PRODUCING ADAPTATION FOR THE IMPACTS OF CLIMATE CHANGE	Urban and peri-urban forestation Re-allocation or conversion of crops ()
		3.3	DECREASIND THE EXPOSURE OF PEOPLE, ASSETS AND NATURAL CAPITAL TO HYDROGEOLOGICAL RISK	
		3.4	REDUCING THE CONSUMPTION AND DETERIORATION OF SOIL AND INCREASING ITS PRODUCTION CAPACITY	Conversion of abandoned buildings ()
		3.5	IMPROVING THE COLLECTION OF MUNICIPAL WASTE AND REDUCING THE IMPACTS OF WASTE PRODUCTION	
		3.6	REGENERATING THE TERRITORY THROUGH THE SYNERGY BETWEEN NATURAL, HISTORICAL AND CULTURAL HERITAGE	
4	VOCATIONAL TRAINING AND NEW JOBS FOR THE GREEN ECONOMY AND SUSTAINABLE DEVELOPMENT	4.1	IMPLEMENTING / IMPROVING THE SCHOOL AND VOCATIONAL TRAINING INFRASTRUCTURE ACCORDING TO SUSTAINABILITY OBJECTIVES	Schools and vocational training agencies in "transition" ()
		4.2	PROMOTING THE "TRAINING SUCCESS" FOR SUSTAINABILITY CHALLENGES	The educational success of the territories ()
	SUPPORTING THE DEVELOPMENT AND PHYSICAL AND PSYCHOLOGICAL WELL- BEING OF PEOPLE	5.1	GUARANTEEING SERVICES TO ALL CITIZENS	
5		5.2	PROMOTING NEW LIFESTYLES AND INDIVIDUAL RESPONSIBILITY IN THE PROCESSES OF SOCIAL TRANSFORMATION	
6	REDUCING DISCRIMINATION, INEQUALITIES AND ILLEGALITY	6.1	ENABLING AND FAVORING INCLUSION AND REDUCING SOCIAL FRAGILITIES	
		6.2	IMPLEMENTING DECENTRALIZED AND INTERNATIONAL DEVELOPMENT	

			COOPERATION	
7	ADDRESSING CHANGES IN HEALTHCARE DEMAND: CHRONICITY, FRAGILITY, APPROPRIATE PERFORMANCE, EQUITY OF DISTRIBUTION	7.1	RESPONDING TO THE HEALTH NEEDS OF LOCAL COMMUNITIES	
		7.2	PROMOTING HEALTH IN EARLY CHILDHOOD	

 $\it TAB.~5$ – The methodology providing coherence to policies

Sustainability culture: participation and awareness raising

4.1 Forum, Pact, Civic Social Network, Young People

To support the transition towards a Piedmontese economy which is is both competitive and sustainable, the **involvement** and contribution of the various **components of the territorial socioeconomic system** is necessary. The contribution of territorial stakeholders is essential, because they hold the necessary political, economic, organizational and cultural resources to transform the guidelines and objectives of the Regional Sustainable Development Strategy and of the Metropolitan Agenda into real processes and projects of change. The **Forum** is the virtual container that collects various tools and actions for sustainable development in Piemonte. The involvement process implemented by the Regional Forum is **part of the governance system** that **accompanies the development and implementation phases** of the Strategy.

Forum tools are:

- The Pact for the Sustainable Development of Piemonte is the tool for engaging and sharing objectives and commitments in relation to the transition to a new development model. The Pact, which can be subscribed by public and private organizations of the Piedmontese socioeconomic system, is a valuable backgroung context that feeds the social imaginary and the strategic framework guiding actions for concrete and effective challenges (not only mere "greenwashing") in which the actors can feel represented. The Pact systematizes the commitment (already active or to be started) of the subscribers not in relation to unrealistic goals but towards measurable and concrete challenges to be monitored over time.
- The **Civic Social Network**, which is the platform supporting the Pact, is useful for comparing results and for building a "balance sheet" of Piemonte's sustainability policies.

Given the value of the vision **Young** (age 18-35) and **Very Young People** (under 18) have about their future, a process to involve young generations has been initiated, with the use of suitable and dedicated tools and languages. The framework of events *Piemonte 2027 – NextGen for sustainability* is the first development element of the Youth Forum (1st event held on the 11th of December 2021 and involving more than 300 young people). It will support the implementation of the Strategy by providing regular occasions for consultation and discussion.

4.2 Educational success and schools in transition. A common experiment for policy coherence

The two pilot actions⁵ "2030 AGENDA. The educational success of the territories towards transition" and "2030 AGENDA. School and Vocational Training (VET) in transition", which are closely interrelated, focus on the identification of strategic policies and organizational innovations enabling territories to cooperate and address the challenges set by the 2030 Agenda in relation to the establishment of a culture and skills for sustainability. They constitute a common testfield and an example of the territorialization of Strategic Macro-Area n. 4 "Supporting professional qualification and new professional skills for the green economy and sustainable development".

Addressing these challenges - territorialized in the Regional Sustainable Development Strategy and in the Metropolitan Sustainable Development Agenda – does not only depend on the individual subjects but also on the relationships and forms of collaboration among the territorial stakeholders, in a view to implement a learning community of practice⁶ from which to draw knowledge, stimuli and resources to share in order to support change.

In this sense, upper secondary schools and Education and Vocational Training Agencies are strategic players on the territory; it is therefore fundamental that they:

- improve/increase relations with other territorial stakeholders, to link training subjects to the territorial needs and to the implementation of projects related to territorial sustainability policies,
- "equip themselves", from a cultural and organizational point of view, to respond to change and re-locate in a new context.

Withing the framework of the coherence of policies and inter-institutional governance described above, the Metropolitan City of Turin, the Piemonte Region and IRES Piemonte, together with the Piemonte Regional School Office, universities, other research bodies and associations⁷, are therefore collaborating for the identification of **new forms of governance** (which **facilitate relationships** among the stakeholders of the territory) and of **tools** able to have an impact on the daily activities of **schools and professional training agencies,** while guiding investments for wide-ranging planning and project designing.

With the Action "2030 AGENDA. The educational success of the territories towards transition" we intend to equip ourselves with a territorial *governance* able to create "educational success"

⁵ The collaboration agreement between the Ministry for Environmental Transition and the Metropolitan City of Turin foresees the development of Pilot actions. They are both implemented at the local and metropolitan scale and will be then transposed at the regional scale as part of the territorialisation of the Strategic Macro-Area n. 4 "Supporting professional qualification and new professional skills for the green economy and sustainable development".

⁶ The community of practice, as defined by Etienne Wenger, consists of "a group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly". A community of practice is created and develops with constant attention towards thos processes which support its goals, action and results. E. Wenger, E. (1998). Communities of practice: Learning, meaning, and identity.

⁷ Turin Polytechnic University and University of Turin, School of Management of the University of Turin, Legambiente (NGO at the national level), <u>Avanzi- sustainability in action</u>.

towards sustainability challenges⁸ and to accompany the transition to face them, focusing on education and training in the territorial system, with the aim of building skills for sustainable development.

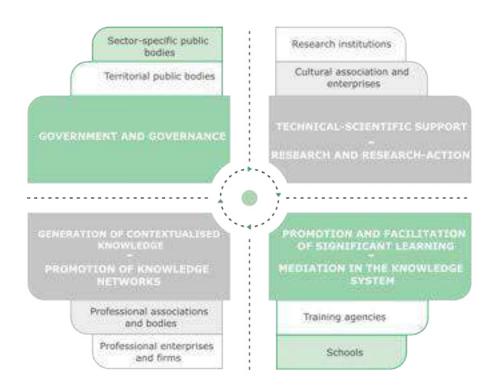


FIG. 10 - Main functions of the stakeholders involved in governance issues

Source: IRES Piemonte

The hypotheses on which our action is based are supported by previous cross-border cooperation project experiences (see Box 1) and show the need to adapt skills starting from the identification of **new training needs for the transition**. Experience has shown, however, that only little information is available on what are the tools, the territorial organizations and the existing processes supporting and promoting, in the area of the metropolitan city (at the "pilot" level), the flows of knowledge between ongoing changes and the educational and training offer available. For this reason, in the development of the Action, investigations are being carried out to understand the current dynamics among the territorial actors. We used innovative methodologies (such as the Social Network Analysis) that allow to describe the networks, to identify the typology of the relationships, nodes and dynamics, to be able to address the issue of professional qualification for sustainable development from a territorial point of view and in close relationship with the changes in production systems.

⁸ Educational success is not only an issue to be considered internally by formal education and training bodies, but a shared resposibility for all territirial stakeholders. It concerns the possibilità fo all Youth, without exclusion, to set up those culture and skills which will enable them to face a complex reality.



- The <u>Green Textbook</u> is the tool to learn about green economy and sustainable development in the cross-border territory and to encourage dialogue between the actors;
- The "Green Spin" is a set of guidelines, methods and contents to give a green direction to curricula and competence profiles;
- The Green Education contains guidelines, methods and content for adult education.

The cross-border project A.P.P.VER. directly involved hundreds of people including teachers, staff of territorial organizations and institutions, as well as researchers. It made possible, after almost four years of work, to understand that **the gap between ongoing changes in the socio-economic system and the offer of schools or vocational training agencies, can be addressed** by establishing:

- **Stakeholders' networks** in the form of communities of practice featuring effective knowledge exchanges (networks generating social capital);
- Dynamic skills, grounded in a new way to conceive development, which enables people to understand complex and constantly changing realities and act accordingly;
- Training needs, through permanent interaction among stakeholders concerning knowledge about new dynamics and plans for new development objectives;
- Educational research processes promoting methodological and content innovations in curricula;
- Learning processes for adults in training experiences, workshops, educational research processes and organizations.



FIG. 11 - The six "dimensions" of the interaction among school, vocational training and territorial productive system (at the institutional, goods and services, public and private levels)

Source: IRES Piemonte

The "2030 AGENDA. School and Vocational Training (VET) in transition" Action is integrated into the governance constitution process described in the previous Pilot Action but focuses on the setting up of a tool that gives to the activities of schools and vocational training agencies a sustainability direction, in order to plan, guide, support and enhance experiences that contribute to the educational success at the local level.

In order to be active parts in the transition, schools and training agencies must indeed **understand** and be able to assess **how sustainable and green-oriented they are**. It is then necessary that they develop processes of change both as subjects in charge to deliver education and training, and from the point of view of the quality of learning environments (physical and relational). This will allow them to play an active and coherent role within the social stakeholder network and the territorial dynamics.

In this case as well, the results of the A.P.P.VER. project can provide some ideas for the actions to be undertaken, especially in relation to the Green Textbook and the model identified (see Box 2): the sustainability of a secondary school or a vocational training agency is measured in terms of consistency between the four dimensions of the model and refers to specific descriptive keys (see Box 2).



In A.P.P.VER., to foster dialogue among the parties - schools, training agencies, institutions, research bodies, businesses and professionals – we established a common approach to investigate changes in the goods and services production system. It allowed to highlight the three dimensions of sustainability (economic, social and environmental) **through the products and the productive, organizational and relational processes with the territory** of the organizations of the territorial system.

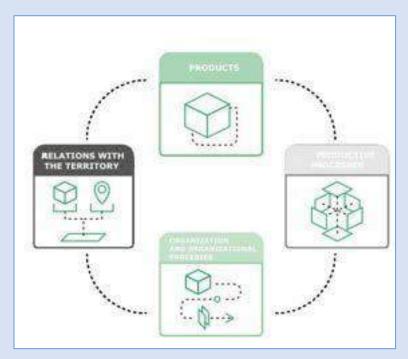


FIG. 12 - The four analysis dimensions of the organizations

Source: IRES Piemonte

According to the model, organizations of different nature can be analyzed through descriptive keys⁹ ("lenses" to read and interpret sustainability), identified for each of the four analysis dimensions, designed, with the help of trade associations and professional associations, on the basis of European national or regional indicators for green economy and sustainable development.

This knowledge model has been used for some production sectors to describe the work and innovations of some public and private organizations, case studies and good practices (even if only partial) in the fields of green economy and sustainable development (see https://example.com/theatractions-needed-to-learn-about territorial green economy and sustainable development").

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⁹ The descriptive keys help understanding organizations representing, at least for some aspects, the change towards a model of sustainable development and allow to study complex realities. They derive from indicators recognized at European and national level, as well as from knowledge produced by recent research activities. They must be modified in relation to the knowledge of each user, the gathering of new knowledge and the evolution of changes.

We are building on the results of the A.P.P.VER. Model, integrating them with the analysis of other "sustainable schools" models, the contribution of experts from Turin universities and a constant interaction with schools and vocational training agencies. Our goal is to identify **new ways** able to guide changes in the activities of schools and agencies located in the area of the metropolitan city (at the "pilot" level). Such changes will promote education and training effectiveness in relation to the development needs of the territory and, more generally, of society.