VOLUNTARY LOCAL REVIEW OF LOMBARDY 2022
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“We recognize that we will not be able to achieve our ambitious Goals and targets without a revitalized and enhanced Global Partnership and comparably ambitious means of implementation. The revitalized Global Partnership will facilitate an intensive global engagement in support of implementation of all the Goals and targets, bringing together Governments, civil society, the private sector, the United Nations system and other actors and mobilizing all available resources.”

Agenda 2030
1. Sustainability in Lombardy

The recent shocks due to the pandemic and armed conflicts are part of a broader framework of crisis, which now sees the inadequacy of the development model inherited from the 20th century. In particular, the idea that there is a competition between environment, rights, peace and prosperity, and that the latter can be pursued to the detriment of the others, proves wrong. On the contrary, any damage to one of these dimensions affects the others: it is no longer possible to ignore their interdependence. Among the factors at the origin of the crisis is an imbalance in the distribution of resources which causes, for example, the obesity of about two billion people compared to eight hundred million in absolute poverty: sufficient resources for the entire human population are distributed in an asymmetrical and harmful way for everyone, demonstrating that material wealth is not sufficient to determine the quality of life. The very concept of well-being must evolve to reflect what is truly good for the person - a balanced diet, physical movement, life in peaceful conditions, the health of ecosystems - a list that ends up coinciding with what does the good of the planet. On the other hand, it is not a matter of chance: humankind has evolved on Earth and adapted to its conditions. Therefore, being sustainable does not mean giving up well-being, but the superfluous that hurts and which, if left, will not be lost, but automatically redistributed among those who demand it.

From our choices, as individuals and as a society, a chain of consequences can be negative (inequality, environmental damage, conflicts) or positive (equality, peace, well-being, health). The Lombardy Region takes this into account, whose activity as a local government is now part of the context of the recovery from the pandemic and the war crisis in the heart of Europe, which has also sharply exacerbated the energy issue. The recovery from the consequences of these events will require unprecedented efforts, but above all, it requires a choice on the way and the objectives to be pursued. In fact, it is a question of choosing between a conservative recovery, aimed at restoring the previous system, and an evolutionary one, capable of bringing about a structural and improving change to our way of life. Companies are also increasingly aware of it, which no longer see sustainability as a choice linked to reputation, but as concrete and direct advantages, such as the security of supply chains, the absence of socio-political risks, and the activation of inner creativity, with significant economic savings.

The green economy, in fact, is structurally virtuous: instead of being based on mass production that exhausts resources and enriches few, it requires durability and quality of goods; it is therefore based on knowledge and services and requires educated and competent people: it is therefore structurally redistributive and does not wear out resources. Italy, in particular, has a strong competitive advantage in this sense because, in the face of a historical scarcity of raw materials, it has its strong point in environmental and cultural wealth, which is even more valid in a collaborative perspective of sharing of knowledge, creativity, and competence. The adoption of Agenda 2030, in the pre-Covid era, as a guide for development, represents a firm stance towards systemic change, which retains its momentum well beyond the events taking place and lays the foundations for a system capable of preserving all dimensions of well-being. The Lombardy Region has joined the path undertaken by the European Union and Italy, launching the initiatives described in this report, which represent important steps toward a zero-impact region, resilient to climate change, equitable, and creator of lasting well-being.
1.1. Lombardy at a glance

Lombardy is a region located in the northwest of Italy, in the center of the plain formed by the river Po and circumscribed by the Alps to the north and the Apennines to the south. Its territory is densely populated (420 inhabitants / sq km), especially in the Metropolitan City of Milan and in the province of Monza-Brianza, and heavily industrialized. It is in fact the most populous Italian region (about 10 million inhabitants), and with the highest GDP in the country (almost 400 billion euros in 2019), while it is in second place for per capita GDP (about $ 40,000 / inhabitant). These characteristics make Lombardy one of the Four Motors of European development, together with Auvergne-Rhône-Alpes (F), Baden-Württemberg (D) and Catalonia (ES). The advanced economy, the high number of companies, and the rate of innovation make it suitable for experimenting with new economic and social models, oriented toward a different development paradigm. One of the main strengths of Lombardy is its human capital: it is the destination of thousands of Italian and foreign students who are trained in its numerous universities and in many cases become part of its productive fabric.

The main challenges in the perspective of sustainable development concern, in this region, the protection and enhancement of the environment and natural capital, the adoption of circular production models, the transition to an energy system not dependent on fossil sources and zero emissions, the stop land use and resilience to climate change, leaving no one behind. Furthermore, the size and variety of its territory, which alternates densely inhabited urban areas with a large agricultural plain and equally extensive mountain areas, make the government’s action towards structural changes particularly complex. A role of primary importance belongs to institutional actors, associations and entrepreneurs that are able to implement initiatives according to the peculiarities of the territory.
1.2. A sustainability path

Following the adoption of Agenda 2030 as a development paradigm by the United Nations, Italy has drawn up its own National Strategy for Sustainable Development, published in 2018, which identifies the objectives to be pursued for sustainable growth of the country. According to the principle of coordination between levels of government, with the updating of Legislative Decree 152/2006, the Italian Government requested the Regions to develop their own strategy and adopt governance tools and the involvement of stakeholders and civil society to coordinate action toward these goals. In this way, the process of the Lombardy Region starts to make the sustainable development one of the key drivers of its activity, based on a long-term vision inspired by a model of fair, circular, and environmentally friendly growth. The first step was the inclusion of the principle of sustainable development among the pillars of the Regional Development Program - the main programming tool for the region's policies and actions over the course of the legislature - to then start the development of the Strategy. At the same time, various channels of involvement were established as well as tools were developed to support programming. This path led the Lombardy Region, in 2021, to have a regional strategy for sustainable development officially approved and accompanied by a monitoring system and tools for evaluating and adapting policies, governance within the body and capable of involving outside, a network of active partners who contribute to the achievement of shared objectives.

The stages

2018 Sustainability among the pillars of the PRS of the 11th Legislature
2018 Pact for Development as an involvement tool
2018 Observatory on Circular Economy and Energy Transition
2019 Agreement with the Ministry of Ecological Transition
2019 Lombard Protocol for sustainable development
2019 Definition of internal governance
2020 First regional Forum for sustainable development
2020 Online platform svilupposostenibile.regione.lombardia.it
2021 Regional Strategy for sustainable development
2021 Second regional Forum for sustainable development

1.3. Involvement and governance

The Ministry of Ecological Transition established in 2018 the national coordination and comparison table on strategies for sustainable development, with the aim of involving the Regions Metropolitan Cities, in the coordinated implementation of the national strategy. The table is a very useful tool for the Lombardy Region, which took the opportunity to provide its contributions to the national document and obtained relevant information for its business. In turn, in October 2018 Lombardy launched a discussion table with its main stakeholders, dedicated to two key themes of the ecological transition: the Regional Observatory on Circular Economy and Energy Transition (see BOX), created to discuss and define the objectives of regional policies on climate and use of resources in sharing with all the players in the area. It is flanked by the Pact for the Development of the economy, work, quality, and social cohesion, a table that has been active since 2001 on cross-cutting issues, which brings together representatives of the social partners, labor, and the productive world in planning regional policies. The desire to extend involvement and create a network of partners also led Lombardy to promote the regional Protocol for sustainable development. The Protocol consists
of a declaration of commitment that any subject, public or private, can sign to show their adherence to the principles and objectives indicated by the Region, becoming part of a network that favors the exchange of information and best practices.

These comparison tools also contribute to coordination with the institutional levels of sub-regional government; in fact, the Union of Lombard Provinces (UPL) and the Lombard section of the National Association of Municipalities (ANCI) take part. The Metropolitan City of Milan, in defining its own Metropolitan Urban Agenda for Sustainable Development, worked closely with the Region to align the method and contents of the strategies at the two levels. A workshop on sustainable development (see BOX), organized in collaboration with ANCI, was dedicated to the Municipalities to enhance the exchange of information, practices, and methodological reflections on the territorialization of the Strategy. The Lombardy Region has promoted, through a specific tender, the construction of urban strategies for sustainable development for 13 of the post populous Lombard municipalities, towards which to direct European funds. Among the partners of the Region, there is also the Network of Universities for Sustainable Development (RUS), which coordinates the activity of the Italian academic world in favour of the sustainable development goals, constituting an important point of connection with the regional Strategy. Its action goes hand in hand with that coordinated by the Region through the Regional Network for Environmental Education, which promotes the initiatives of a series of partners to spread the culture of the environment and sustainability at all levels of education.

To coordinate activities relating to sustainable development, the Lombardy Region has defined internal governance that sees the coordination cabinet at the center. The Cabin brings together the representatives of all the General Directions on a quarterly basis and is led by the head of regional planning in agreement with the Department of Environment and Climate. It is flanked by the Committee of General Managers, to share the strategic elements and the work path. Sustainability has also become a performance parameter on which to measure the effectiveness of the entity’s action and contributes to forming the variable component of the remuneration of General Managers and all staff.

The initiatives of the Region and the experiences carried out in the area find visibility in the Regional Forum for Sustainable Development (see BOX), a moment of discussion organized annually by the Region that gives a voice to local and international political representatives,
exponents of the academic world, businesses and of civil society, which find space to present the good practices adopted, identify problems and priorities, update the shared vision on the future of the region. To facilitate activities and involvement, the Lombardy Region has activated an online platform (see BOX) dedicated to sustainable development, which allows the dissemination of news and collaboration between stakeholders: www.svilupposostenibile.regione.lombardia.it.

1.4. The Regional Strategy for Sustainable Development of Lombardy

Lombardy Region has elaborated its own Strategy for sustainable development between 2019 and 2021, after signing a collaboration agreement with the Ministry of Ecological Transition (formerly the Ministry of the Environment). The path started with the analysis conducted by PoliS-Lombardia, the regional research institute for supporting Lombardy’s policies, from positioning (also through the annual Lombardy Report) to the regional policies with respect to the SDGs. With the collaboration of all the Region’s General Directorates, a first Strategic Document was drawn up, which indicated about 90 objectives, some quantitative targets, and a series of indicators for monitoring.

The dialogue with the stakeholders held through the governance bodies and during the first regional Forum for sustainable development, together with the consultation of citizenship thanks to the dedicated website, led to the first version of the Strategy, approved on 29 June 2021, and updated in the October of the same year, with the support of Lombardy’s Foundation for the Environment (FLA). In the current version, the Strategy is divided into five strategic macro-areas, which, in turn, are divided into 27 areas of intervention. These group the 96 Regional Strategic Objectives (OSR). An introductory section summarizes the elaboration of the document, its context, and the relationship with the national, European, and international levels, while the concluding section describes the governance and the next steps. The qualitative dimension of the strategic objectives is accompanied by the quantitative dimension expressed in the targets and related indicators.

To keep track of Lombardy’s progress towards the goals, monitoring system has been developed, based on two tiers of indicators: the “core” tier only involves “state indicators” and in limited
number, thus providing a synthetic view, useful to update priorities in regional policymaking; the second tier extends to “process” and “contribution” indicators and goes into more detail on the specificities of the territory. Its purpose is to support the policies that implement the Strategy and to serve as a reference for the Strategic Environmental Assessment. The criteria for selecting the indicators were, on the one hand, comparability with other Italian and foreign territories, with the adoption of many indicators from national and European statistics; on the other hand, the specificity with respect to the characteristics of Lombardy, in addition to the availability of data on a local scale, the presence of a historical series and warrantees on the future continuity.

Municipalities had space to present their experiences on international projects, energy communities and near-zero energy building, public-private partnerships, use of big data; they shared operational indications and tools and pointed out some critical issues in their work as local administrators, especially in the face of the anomalous conditions of the present moment.

The subjects that contributed to the laboratory include the Politecnico di Milano, the Milanese Transport Company, the Regional Agency for Agricultural and Forestry Services, the Polis Lombardia research center and the Italian Alliance for Sustainable Development, together with the private partners who presented their services: Edison, ABB, Comoli-Ferrari. The sixth day of the workshop, dedicated to the summary and conclusions, took place as part of the Forum for Sustainable Development of 2021; all the contents that emerged were collected in an e-book.
The Regional Forum for Sustainable Development

Since 2020, the Lombardy Region has organized an annual regional Forum dedicated to sustainable development. Alongside the regional initiatives, the Forum brings the experiences of local actors to the stage, to give visibility to good practices and keep open the dialogue on the local implementation of Agenda 2030. International politicians are invited to the debate, who in the past they included representatives from the United Nations, the European Union, and the Italian government, and from foreign regional administrations such as Wales in the United Kingdom and the state of Paraná in Brazil.

Among the issues addressed in the past sessions we find the relationship between businesses, work and sustainable development, the opportunities for young people in the Ecological Transition, the challenges for institutions at a strategic level and in the governance of the territory, the experiences of sustainability applied in the characteristic supply chains of Lombardy.

The Forum is usually divided into 3-4 days, which are joined by related events in the previous days. This guarantees a wider space to explore topics of specific interest for some groups, and for the organization of initiatives by stakeholders. For the third edition of the Forum, to be held in October 2022, the proposals for events, sessions, and contents by the partners of the Region have already been collected.

Their participation has become central to this initiative which has the very purpose of involving civil society and contributing to the spread of a culture of sustainable development, first showing how it is already being implemented in Lombardy.

of the data; more generally, the statistical quality, assessed through specific metadata cards. Targets were selected according to the obligations in implementation of European Directives and national standards, or of the commitments undertaken autonomously by the Region though legislation or agreements. The list of indicators and targets can be consulted in the attachment to the Strategy.

The monitoring system was developed by a working group, which was attended by internal members of the Region, bodies of the regional system, institutional and academic figures. Among the former, the Region’s Environment General Directorate, the Environmental Authority, the Presidency and the SEA Nucleus; among the Regional System: ARPA Lombardia (Environmental Protection Agency), PoliS Lombardia (research center), the Lombardia Foundation for the Environment (FLA), the Regional Body for Agricultural and Forestry Services (ERSAF); the Metropolitan City of Milan as an institutional partner; among the subjects of the academic world, the Poliedra research center of the Polytechnic of Milan, the University of Bergamo and, through the INTEGRA project funded by the Ministry of Ecological Transition, the Universities of Milan, Milan Bicocca and Brescia. The selection of indicators and targets also involved all the Region’s General Directorates.
The objectives of the Strategy concern, in summary, the following themes:

**Macro-area 1: Health, equality, inclusion**

**Fight against poverty:** integrate public, third sector, and private initiatives to fight poverty in a widespread way throughout the territory; promote social cohesion; guarantee food safety; collaborate internationally to manage migration flows

**Fight against inequalities:** reduce economic inequalities through welfare services; those of gender, fighting violence against women and promoting the reconciliation between life and work and the participation of women in society; intergenerational ones, protecting the well-being of future generations.

**Health and well-being:** reduce the health risks caused by pollution and unhealthy lifestyles; strengthen local health and the recruitment system for health personnel; improve prevention and care services for the elderly; facilitate access to services thanks to digital technologies.

**Macro-area 2: Education, training, work**

**Education:** fighting early school leaving; strengthening the University; contributing to an updated and adequate training offer; reducing inequalities in the education system.

**Training:** improving the link between the school system, the world of work, and research; promoting the employment and resilience of people through lifelong learning.

**Sustainable growth:** ensuring that economic growth translates into employment, access of young people to the labor market, reduction of gender inequalities, improvement of working conditions, and the balance between work and private life, especially for women.

**Macro-area 3: Development and innovation, city, territory and infrastructure**

**Research and innovation:** strengthening the link between research and businesses, promoting innovation and digitization of production processes to develop a knowledge-based, increasingly less linked to the consumption of resources and emissions of pollutants and climate-altering gases.

**Digital:** strengthen and disseminate computer networks; promote the adoption of strategic technologies for competitiveness; digitize citizen services and public administration.

**Cities and settlements:** promoting sustainability and innovation of building interventions; combat housing deprivation, increase the efficiency of public housing services, bring land consumption to zero, and invest in urban regeneration.

**Infrastructures:** enabling the energy, digital, and mobility transition through updated, safe, and sustainable infrastructures; promoting sustainable urban logistics.

**Culture and tourism:** making the area attractive and livable thanks to the services, the cultural offer, and the quality of the environment.

**Territorial governance:** adopting participatory governance methods in complex projects, involving stakeholders, and encouraging collaboration between levels of government.

**Macro-area 4: Mitigation of climate change, energy, production, and consumption**

**Climate change:** guiding the transition towards carbon neutrality in all sectors, promoting energy efficiency, electrification of demand, and renewable sources.
Mobility: adopting new models for efficient, sustainable, and human-friendly mobility; promoting sweet ways and partnerships to create new sustainable infrastructure.

Energy: developing renewable sources and an intelligent electricity grid, making them a lever for growth; promoting energy communities.

Circular economy: integrating research and the productive world to develop and disseminate circular processes; coordinate sectors to bring together new demands and offers.

Sustainable lifestyles: supporting the exchange of good practices and citizen awareness; stabilizing the demand for sustainable solutions through green public procurement.

**Macroarea 5: Environment, landscape, adaptation to climate change, agriculture**

Adaptation, and resilience: updating the policies and tools of territorial governance to make Lombardy resilient to climate change and manage related risks.

Environmental culture: disseminating knowledge and skills, to train the necessary professionals and involve citizens in the protection and enhancement of the environmental heritage.

Pollution: adopt structural measures and partnerships to improve the quality of air, water and soil, including through protection and remediation measures.

Biodiversity: protecting and enhancing habitats through the regional ecological network and its cultural promotion; combatting invasive alien species; managing forests in a sustainable way.

**The regional Catalog of environmentally relevant subsidies**

Among the commitments signed by the Lombardy Region, the construction of the regional catalog of subsidies was envisaged, based on the international commitments undertaken by Italy and as established by Article 68 of Law 221/2015.

The Catalog of subsidies acts as a support tool for public decisions that aims to represent interventions that have an impact on the environment, improving the knowledge base on the environmental sustainability of the actions taken. The document uses a broad meaning of subsidy, which includes “incentives, concessions, subsidized loans and exemptions from taxes aimed at protecting the environment”, which can be categorized into direct subsidies (that is to be found in the balance sheet items) and indirect subsidies, which can be quantified through differential estimates of the lower revenue obtained with respect to the reference benchmarks. Measures with significant environmental effects have been classified into environmentally harmful subsidies (SAD), favorable subsidies (SAF) and uncertain subsidies.

The regional Catalog, built with the support of PoliS-Lombardia in collaboration with the regional General Directions, maintains an alignment with the national methodology. In order to be able to make a coherent distinction between environmentally favorable and unfavorable subsidies, they were presented analyzed and presented with a wide range of information, the assessment of which was comprehensive of the environmental impact, sustainability and social repercussions.

In the first edition (April 2021), favorable subsidies of € 224.7 million were identified, mainly concentrated in direct subsidies, and indirect, environmentally harmful subsidies of € 215.9 million. An update of the Catalog is currently in progress.

<table>
<thead>
<tr>
<th>Subsidies’ environmental effect</th>
<th>harmful</th>
<th>favorable</th>
<th>uncertain</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect subsidies (minimum hypothesis)</td>
<td>215,9</td>
<td>4,2</td>
<td>3,5</td>
<td>223,6</td>
</tr>
<tr>
<td>Direct subsidies</td>
<td>0</td>
<td>220,7</td>
<td>65,1</td>
<td>285,8</td>
</tr>
<tr>
<td>Total (millions of euros)</td>
<td>215,9</td>
<td>224,9</td>
<td>68,6</td>
<td>509,4</td>
</tr>
</tbody>
</table>
Waters: to restore rivers and lakes to natural conditions; integrate water management, hydrogeological risk prevention, renewable energy production, and local economic development. Cities: build livable urban environments rich in biodiversity, adopting solutions based on nature; promote citizen awareness and participation. Landscape: enhancing the landscape as an element of development and attractiveness, especially the waters and the mountains; developing green infrastructure. Agriculture: promoting sustainable and competitive agriculture, with an active role in safeguarding ecosystems, resilience to climate risks, and absorption of emissions.

1.5. Policy coherence

The implementation of the Regional Strategy requires that plans, programs, and actions of the Region comply with its indications and that the policies aimed at different objectives do not conflict with each other. Achieving consistency depends on several factors, including the presence of solid governance capable of informing, involving, and motivating officials and the political level; the presence of quantitative targets and tools for assessing impacts of policies and their interactions.

The Lombard strategy has been connected with programming in several ways. Within the text, the objectives are related to the main plans and programs capable of favoring their achievement. As early as June 2021, the Regional Economy and Finance Document (EAER) has been linked to the Strategy, by marking each “action” with reference to the regional sustainable development goals to which it contributes. Furthermore, in accordance with Legislative Decree 152/06, the Strategy will constitute the reference for the Strategic Environmental Assessment (SEA) that accompanies the approval of new plans and programs, providing the criteria for aligning the new policies to a vision consistent and systemic sustainable development. Also contribute to this process of policy evaluation Catalog of subsidies of environmental relevance (see BOX) and the impact assessment model currently being developed by three Lombard universities as part of the INTEGRA project. The first was drawn up in line with the corresponding National Catalog and requires the Region to evaluate adjustments in the case of harmful subsidies. The second will lay the foundations for decision-making, thanks to the possibility of accurately predicting the effects of policies with respect to the relevant parameters in the perspective of sustainable development. The prospect is to place the Strategy at the foundation of the Regional Development Program, starting as early as the new legislature elected in 2023, to make it a Regional Sustainable Development Program.

1.6. Future commitments

The vision for the future of the Lombardy region responds to the broader project of a human system with the person at the center and fully integrated with natural cycles. The institutional and productive structure, supported by constant innovation, can only be at the service of life, human and natural, in a balance between the fundamental elements that can guarantee its quality: respect for rights, the health of the environment, development, peacekeeping. Elements, as mentioned, are inseparable in their mutual dependence, and cannot be prosecuted separately or, much less, concurrently. The 2030 Agenda model responds precisely to the need for a systemic approach, capable of sustaining at the same time all the factors of well-being in a lasting way. Our region is in a privileged position thanks, among other things, to the wealth of its human capital, the wealth of environmental resources and biodiversity, the solidity of its production and financial system, the efficiency of its infrastructures, and its potential for technical and technological innovation. It is therefore in the conditions to proceed swiftly toward a new structure, such as to guarantee a better quality of life accessible to all, minimize the consumption of non-renewable natural resources, achieve energy independence and climate neutrality, and
protect and enhance the ecosystems by integrating human environments with natural ones, in order to also increase resilience to adverse climatic and environmental phenomena. A region, moreover, fully inserted in the network of European territories and in international cooperation to achieve the sustainable development goals all over the world; capable, in this context, of actively contributing to global progress, focusing in particular on the ability to enhance human capital, to contribute to social and technical innovation processes and scientific research, and directing its high entrepreneurial potential towards objectives of Agenda 2030. A vision that immediately requires the adoption of new paradigms of action based on collaboration rather than competition and on a long-term perspective prior to that of a short one.

Lombardy continues on the path it has begun towards sustainability with a commitment increasingly focused on achieving the objectives shared at a global level. In particular, 2023 will be an election year for the regional administration; the new Legislature will present a new Regional Development Program to be implemented in coherence with the Strategy, in the perspective of a Regional Sustainable Development Program. Introducing sustainability objectives and targets at the highest level of programming can give a strong impetus to the adaptation of policies and actions, which will be implemented more and more effectively thanks to the improvement of impact forecasting models, Strategic Environmental Assessment, and indications of the Catalog of Subsidies. Furthermore, regulatory interventions on climate change and sustainable development, consolidate the governance and the tools identified, thus strengthening the effectiveness of the Strategy in determining the Region’s activity.

The institutional action, on the other hand, is only one among the many in progress, and however relevant it may not be separated from that of all the actors of the territory, public and private, to achieve the set objectives. For this reason, future efforts will increasingly go in the direction of expanding and intensifying the involvement of civil society and the productive fabric, especially through the relaunch of the Protocol and the promotion of training initiatives, sustainability reporting practices, green investments, transition paths towards sustainable business models and circular production and consumption processes. A key tool in this regard will be Green Public Procurement (GPP), whose progressive consolidation, also through the Regional Action Plan for GPP, will allow the Region to leverage the financial volume of its tenders to stimulate the demand for goods and sustainable services.

As President Fontana declared at the opening of the second Forum for sustainable development, the present moment represents an opportunity of historical significance, since a short time window still allows us to contain the effects of climate change and the loss of biodiversity; at the same time, the response to the pandemic has mobilized enough resources to bring about the necessary change. The targets on many issues, in particular on emissions, energy, circular economy and ESG performance, are defined by Europe: the responsibility of the Regions is to contribute to the creation of favorable conditions so that their territory is prepared for the deadlines and is able to grasp the many opportunities contained in the Transition.
2. The positioning of Lombardy Region in the National and European context

Effective and coordinated action between all the actors involved requires awareness of the starting point and the deviation from the targets to be achieved. This section presents the positioning of the Lombardy Region, with reference to the fourteen goals of the 2030 Agenda recalled by the Regional Sustainable Development Strategy.

The analysis of the positioning of the Region was developed, starting from 2017, through the “Lombardy Report” produced annually by PoliS-Lombardia, as a support to policy makers and, more generally, an information and knowledge tool of the Lombard reality.

In relation to the availability of statistical elaborations, refined and consolidated over the years, it was decided to provide a summary photograph of the Lombard context using, in the first place, precisely the composite indicators developed by PoliS-Lombardia; these indices, elaborated on the basis of Eurostat and ISTAT indicators, measure performance with respect to the sustainable development objectives, comparing Lombardy with 20 European countries belonging to the OECD and making use of historical series analysis for a synthetic reading of the trends.

In each of the fourteen cards referring to the SDGs, the composite indicators are flanked by two indicators selected from the ISTAT SDGs dataset, so as to allow a comparison between the values and trends over time in Lombardy, the Italian average and the Northern one. Italy. The criterion that guided the choice of the phenomena to be represented was their inclusion in the list of indicators whose targets have already been assumed by the SRSvS. Only in some cases, in the absence of a specific regional target, it was opted for indicators for which there are reference values defined by national or European planning documents, with different degrees of cogency.

As will be evident from reading the fourteen fact sheets, for numerous ISTAT statistical measures that investigate the issues covered by the SDGs and only for some composite indicators, the values referring to the years 2020 and 2021 are already available and reported here; therefore, the data show variations, even sensitive ones, which record the impacts of the COVID-19 pandemic, departing from trends that could be considered as a consolidated reference base-line.

The performance of composite indicators

Source: RL elaboration of PoliS-Lombardia data, 2021
The composite indicators: base years and last year available

<table>
<thead>
<tr>
<th>Indicator Description</th>
<th>Data provider</th>
<th>years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population at risk of poverty or social exclusion</td>
<td>Percentage share of the total population</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Population in severe material deprivation</td>
<td>Percentage share of the total population</td>
<td>Eurostat</td>
</tr>
<tr>
<td>People living in very low work intensity households</td>
<td>Percentage share of the 0-59 year population</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Population at risk of income poverty after social transfers</td>
<td>Percentage share of the total population</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Obese people aged 18 and over</td>
<td>Percentage of obese people over 18 years old</td>
<td>Eurostat e ISTAT noi Italia</td>
</tr>
<tr>
<td>Share of utilized agricultural area (UAA) invested by organic crops</td>
<td>Percentage share</td>
<td>Eurostat e ISTAT</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>Number of years</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>Deaths per 1000 live births</td>
<td>Eurostat e ISTAT noi Italia</td>
</tr>
<tr>
<td>Mortality rate attributed to accidental poisoning</td>
<td>Deaths per 100 000 inhabitants</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Death rate from suicide (standardized rate per 100,000 population)</td>
<td>three-year averages, including suicides and intentional self-harm</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Road accident death rate</td>
<td>Deaths per 100 000 inhabitants</td>
<td>Eurostat e ISTAT</td>
</tr>
<tr>
<td>Young people who leave education and training prematurely</td>
<td>Percentage share of young people aged 18 to 24</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Population with tertiary education</td>
<td>Percentage share of the population between 25 and 64 years old</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Participation of adults in education and training</td>
<td>In the 4 weeks prior to the interview. Percentage share of the population between 25 and 64 years old</td>
<td>Eurostat</td>
</tr>
</tbody>
</table>

Notes on composite indicators

The composite indices have as their reference point the threshold value equal to 100, made up of the composite index of Lombardy in the first year of observation: they therefore assume a value of less than 100 in cases of worse positioning or worsening trend compared to the reference index and higher than 100 in cases of better positioning or improving trend. The results of the analyzes are presented according to the following structure:

- representation of the composite index of the Goal for the 20 countries organized by area, indicating the positioning with respect to the median value;
- trend reading of the positioning of Lombardy and Italy with respect to other countries using the composite index.

The details of the indicators that make up the indices elaborated by PoliS-Lombardia are shown below.
<table>
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<tr>
<th>Goal</th>
<th>Indicator</th>
<th>Description</th>
<th>Data provider</th>
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<td>Percentage share of seats for national parliament (both chambers)</td>
<td>European Institute for Gender Equality, ISTAT</td>
<td>2008-2020</td>
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<td>Ratio between the percentage share of the female and male active population</td>
<td>The active population by sex is calculated on the population aged 15 to 64 years</td>
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<td>GOAL 6</td>
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<td>GOAL 8</td>
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<td>Employment rate (Age class: From 20 to 64 years)</td>
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</tr>
<tr>
<td>Indicator</td>
<td>Description</td>
<td>Data provider</td>
<td>years</td>
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<tr>
<td><strong>GOAL 10</strong> - Reduced inequalities</td>
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<td>Eurostat</td>
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<td>Income inequality measure</td>
<td>Eurostat + Istat (Lombard data calculated from IT-SILC microdata)</td>
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<tr>
<td><strong>GOAL 11</strong> - Sustainable cities and communities</td>
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<td>Kg per capita of municipal waste disposed of in landfills</td>
<td>ISTAT Noi Italia (calculated on ISPRA and Eurostat data)</td>
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<td>Eurostat e ISTAT Noi Italia</td>
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</tr>
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3. Actions for sustainability in Lombardy

The choice of regional targets and evaluation of Lombardy’s positioning allow to identify the gap between the current situation and the objectives set. The analysis of this gap highlights which fields and actions to put in place to concretely implement the regional strategy and therefore the UN Agenda. According to the partnership principle affirmed with Goal 17, such implementation depends as much on the contribution of institutions at all levels as on the stakeholders. This section lists some of the most significant actions implemented by the Lombardy Region, the Metropolitan City of Milan, and the signatories of the Lombard Protocol for sustainable development to progress toward the objectives of the regional strategy.

3.1. The actions of the Lombardy Region

Sustainability is one of the five priorities identified by the Regional Development Program of the XI Legislature for the five-year period 2018-2023. Over the past four years, the Lombardy Region has planned, financed, and implemented activities and interventions not only in the environmental field, but also in the social and economic field, in favor of a sustainable development model. The fulfillment of the commitments through interventions and actions was qualified as a performance parameter of the regional body, to enhance the remuneration of the result by the General Managers, executives, and all staff.

Here are some projects and initiatives that represent the best practices of the region, collected under the five strategic macro-areas of the SRSVS.

1. HEALTH, EQUALITY, INCLUSION

A PLAN AGAINST POVERTY. The Lombardy Region has adopted a regional plan to address poverty, with policies, interventions, and resources aimed at favoring - at the territorial level - a systematic and coordinated action by the various public and private subjects: Municipalities, Health Protection Agencies, Local Healthcare Companies, Employment Centers and the Third Sector. The interventions carried out and supported for the right to food (in implementation of Regional Law no. 34/2015) also fit into this framework, launching an important interconnection between the right to food, food poverty, and food waste.

A PLAN IN FAVOR OF PEOPLE WITH DISABILITIES. The Lombardy Region has adopted a strategy aimed at ensuring as much as possible that all people with disabilities, regardless of sex, race or ethnic origin, religion or personal beliefs, age or sexual orientation, can enjoy their human rights, and move freely regardless of their care needs and be able to decide where, how and with whom to live. In 2021, the new Regional Action Plan (PAR) was approved for policies in favor of people with disabilities 2021-2023; the PAR provides for interventions for over 1 billion euros, of which 113 million euros in support of severe and very serious disability and over 14 million, additional to the 2020 programming, for support for severe and very serious disability for the financing of life projects independent of people with disabilities and of the “After us” (the path of emancipation of people with disabilities from their family of origin). The Region also disbursed 10.8 million euros to support the care and assistance role played by family caregivers of people with severe and very serious disabilities and 10.678 million euros for school inclusion in favor of children with sensory disabilities.

THE RIGHT TO FOOD: A FUNDAMENTAL HUMAN RIGHT. As part of the Action Plan for the right to food, ten projects were financed for the protection and promotion of the right to food in the two-year period 2019/2020 (2.6 million euros of public contribution, 1 million euros more than for the previous two-year period) and 17 projects for the two-year period 2021/2022 (2.6 million euros). The projects, carried out by non-profit organizations, concern the
recovery, collection, and distribution of food surpluses in favor of people who are unable to access sufficient, safe, and nutritious food such as to guarantee a food balance and a healthy life, in particularly vulnerable groups of the population who, also because of the economic repercussions due to the Covid-19 pandemic, have lost or significantly reduced their income capacity.

DECENTRALIZED COOPERATION. In 2019, the Lombardy Region allocated 1.3 million euros for cooperation projects in developing countries. International cooperation projects were financed by civil society organizations in Ethiopia, Kenya, Mozambique, the Central African Republic, South Sudan, and Syria and by UNFPA (United Nations Population Fund) through a multi-country program for states with low income.

SOCIAL INCLUSION FOR ALL. The Lombardy Region promotes the strengthening of integration opportunities for citizens in difficulty and those belonging to disadvantaged groups, favoring inclusion paths aimed at people with disabilities, the elderly, and the population at a disadvantage and/or at risk of poverty and extreme marginality. In recent years, projects have been carried out:
- for the implementation of autonomy paths aimed at the inclusion of disabled people and to improve the quality of life of elderly people implemented by local areas and financed through vouchers, for a total of paths activated in the area regional in December 2021, respectively of 516 and 335.
- for the implementation of psycho-socio-educational interventions in response to the difficulties and problems of discomfort of young people and adolescents and their families for a total, in December 2021, of 934 activated vouchers.
- for the insertion into the labor market in favor of people in conditions of vulnerability and hardship through preparatory actions for insertion, for a total contribution of € 9.6 million and 53 funded projects.
- for the consolidation of social inclusion paths for people, young and old, at serious risk of marginalization, for a total contribution of 4.9 million euros and 40 funded projects.
- for the social accompaniment and for the reintegration of people subject to judicial authority provisions (young people and adults); in 2021 in particular, 35 social support projects were activated, with a loan of 7.2 million euros, which will be carried out in the period January 2021-June 2022 and the agreement between Regions and Cassa delle Amende was implemented for the realization integrated planning for paths aimed at people in particularly frail situations (psychic discomfort, chronically ill, etc.). Restorative justice programs and interventions for listening to and supporting the victims of crimes were also financed.

DISCOVERING THE REALITY OF PENITENTIARY INSTITUTES. Since October 2018, the Lombardy Region has launched, in concert with the Regional Superintendency of the Penitentiary Administration and the Center for Juvenile Justice of Milan, the “Path 5 Sensi” a regional awareness project, which saw the involvement of 6 Prisons throughout Lombardy. The initiative aims to bring the world of prison closer to local administrations and citizens, through a path of knowledge to facilitate the reintegration paths of the person with judicial authority provisions, with particular attention to the young adult range.

PLAYGROUNDS ARE ACCESSIBLE TO ALL. Continuing an experiment started already in 2018, in 2020 the Lombardy Region allocated 7 million euros in favor of the Municipalities, for the financing of projects aimed at the construction and adaptation of inclusive playgrounds in public areas. As a demonstration of the centrality of the issue of inclusion in regional policies, the Lombardy Region has decided to subsidize the tender again, expanding the actions and resources made available, for a total of 13 million euros. The new lines of action aim to finance the implementation of recreational and sporting activities such as the construction and adaptation of inclusive playgrounds, the creation of accessible nature trails, the renovation or redevelopment of semi-residential facilities for the disabled, and the organization of sports services.

ALONGSIDE FAMILIES. Starting from 2018, the Lombardy Region has experimented with the Lombard Family Factor measure, an innovative tool that allows - on the basis of the evaluation of some parameters ranging from the presence of a loan for the purchase of the main house, to the seniority of residence in the territory of the region and to factors such as the number of children, the presence of disabled people in the family, pregnant women and elderly dependents - to guarantee an additional amount to the contributions granted in implementation of regional measures to provide concrete support from point socio-economic point of view to situations of vulnerability.

IN SUPPORT OF GENDER EQUALITY. In 2020, the Lombardy Region approved the Regional Four-Year Plan for Equality and Prevention and Fight against Violence against Women 2020-2023 policies which provides, thanks also to the involvement of local stakeholders, a system of integrated and synergistic actions aimed at preventing and
eradicating violence against women in all its forms, not only in the home, but also in the workplace. The objective is to affirm a culture of equal opportunities based on the recognition and protection of the fundamental rights of women in every context of economic, social, and family life. The Plan also extends the sphere of intervention to issues and targets that have not been dealt with until now or treated only marginally, such as women victims of violence belonging to disadvantaged categories or with frailties, abused men, minors victims of violence and / or witnesses of intra-family violence and orphans of femicide. The creation of the “You are not alone” portal is part of this process, in which the main awareness and training campaigns promoted by the Lombardy Region and the development of the “NonSiiDaSola” APP converge, with which women, citizens, operators of health and law enforcement agencies can search, through a geolocation system, the anti-violence centers and the branches closest to the user.

LOMBARDY REGION FOR AND WITH YOUNG PEOPLE. On 5 April 2022, the Lombardy Region published the first regional law created for and with young people. The provision has a financial endowment of around 10 million euros over the next three years and among the main innovations, it includes the establishment of a regional observatory on youth policies, the creation of a youth forum, the launch of new and additional communication and communication tools, dialogue with the new generations, including the establishment of a regional award. The process started in 2021 saw the involvement of many associative subjects, an expression of the youth universe, and numerous representatives of institutional and social stakeholders, which then resulted in the collaborative drafting of the “Generation Lombardia” Manifesto, a charter of values in which the main needs, expectations and requests reported to the institutions were expressed and therefore included as a priority in the regional law. To communicate this important milestone, the Lombardy Region has focused on an innovative communication campaign, using the TIK TOK platform. #OkHaiRegione is the format through which six well-known creators of TIK TOK were asked to support the activity by promoting among the thousands of followers the importance of adhering to the Lombardy Generation Manifesto. In May 2022, the Lombardy Region launched the first concrete action to combat youth discomfort. The “Giovani Smart - SportMusicaARTe” call provides 1.6 million euros, for public or private entities to promote growth and social inclusion paths, through the organization of artistic and musical workshops and access, free and open, to sports activities in the area.

FREE NESTS AND WORK-LIFE BALANCE IN LOMBARDY. Since 2017, the Lombardy Region has promoted, financed, and expanded the “Nidi-Gratis” measure, with the aim of both supporting families in conditions of economic and social vulnerability, and responding to the needs of work-life balance by promoting permanence, insertion, and re-insertion into the labor market, in particular of mothers and contributing to the reduction of tuition costs. The contribution, paid directly to the municipalities participating in the initiative, initially provided for the cancellation of the tuition fee, otherwise, it would be paid by the parents. In 2021, the participating Municipalities were 606 and the applications admitted for funding were 6,746. In 2019, the European Commission cited the “Free Nursery 2018-2019” measure in the “2019 Report on equality between women and men in the European Union”, as an example of good practices among the actions aimed at encouraging participation of women in the labor market. Since 2013, the Lombardy Region has also been promoting actions to support work-life balance aimed at citizens and businesses, implemented through the work-life balance networks coordinated by the Lombard Health Protection Agencies (ATS). The funded interventions include assistance and support caregivers, services for the management of pre- and post-school and school closure periods, time-saving services, consultancy services, and services in support of self-employed collaborators and freelancers. The current programming, launched in 2020 with an allocation of 3 million euros, will end at the end of 2023. In recent years, to complement the actions implemented through the networks, specific notices have been financed for the management of school closure periods and the financing of summer camps, and for the financing of corporate welfare projects aimed at employees, in particular micro and small enterprises.

A LAW TO STRENGTHEN TERRITORIAL MEDICINE. In the last months of 2021, the Lombardy Region completed the legislative process of strengthening its territorial health system, adapting the regulatory framework to current needs and future scenarios, as well as improving the ability to predict and prevent health crises, also through the reorganization and strengthening of territorial medicine. Specifically, Lombardy was the first Italian region to intervene for the use of funds from the National Recovery and Resilience Plan (PNRR) along with some specific intervention guidelines. It is a new way of working in the area, through the restructuring and modernization of the hospital asset, the adaptation of IT infrastructures, the improvement of data analysis, and the implementation of telemedicine. Among the innovations of the Regional Law, there is the establishment of the Center for the
prevention and control of infectious diseases to support the management of epidemic and pandemic emergencies in the logic of the one health; the development of proximity networks to strengthen home care. The law also identified the Community Hospitals, the Community Homes, and the Territorial Operational Centers, as an ongoing point of reference for citizens to take advantage of primary health care services and for prevention activities. By 2026 the Lombardy Region has foreseen the construction of 216 Community Houses, 101 Community Hospitals, and 74 Territorial Operational Centers.

THE ELECTRONIC FLEBO: TOWARDS THE HEALTH OF THE FUTURE. In February 2022, the first electronic infusion was presented, an intelligent device that allows a great innovation in infusion therapies to improve the quality of life of patients, increase more and more personalized treatments, and the effectiveness of the health system. The project, funded by the Lombardy Region with over 3 million euros (POR FESR 2014-2020) within the “Call Hub Research and Innovation”, aims at the development of “smart” technologies and devices for infusion, portable, extremely precise, and reliable for ever more personalized clinical assistance, both in hospital and at the patient’s home. Thanks to the electronic drip it will be possible to incentivize the delocalization of care in the area, radically reducing the number of accesses to hospitals and favoring the goal of future healthcare: home as the first place of care.

SPORT FOR EVERYONE. Sport plays a priority role not only as an opportunity for the well-being of the population, but also as an instrument of education and formation of the personality, growth and inclusion, prevention and protection of health, value transfer, and orientation towards correct lifestyles. For 2021, regional policies, in synergy with the main institutional and non-institutional players in the world of sport, have pursued the objective of promoting sport and its practice for all categories of the population (“Sport for all”), from young to less young, with attention to the world of school and the most fragile categories.

Sports-educational paths have been activated for growth, well-being, and inclusion also through the support of specific projects and the signing of targeted agreements such as the one with the Italian Paralympic Committee (CIP) to bring people with disabilities closer to the sport by undertaking important paths for the physical, psychic, and relational recovery of the person.

The “Dote Sport 2021/2022” is also included (approximately 2 million euros) to subsidize, in the form of reimbursement of expenses, the cost incurred by families residing in Lombardy for the sporting activity of minors between the ages of six and seventeen.

2. EDUCATION, TRAINING, AND WORK

TOWARDS QUALITY EDUCATION. Dote Scuola is the measure of the Lombardy Region that provides for a series of contributions to financially support families and the educational path of students aged 3 to 21, residents in Lombardy, and who attend ordinary education courses or education and professional training courses (IeFP). The program consists of four components: “Didactic materials”; “Merit”, to reward students who achieve excellent results; “School voucher”, to support enrollment in schools, equal or public, which provide a fee for enrollment and attendance; “Preschools and Support for the Disabled”, with which the aim is to cover part of the cost for teaching staff engaged in educational support activities.

AGAINST BULLYING AND CYBERBULLYING. Lombardy Region, in implementation of a specific regional law for the prevention and fight against the phenomenon of bullying and cyberbullying, has been promoting since 2018, in partnership with the Regional Scholastic Office, the “BULLOUT” intervention line to support awareness-raising, information, and training; implement support programs for minors, victims of bullying and cyberbullying; promote rehabilitation programs aimed at perpetrators of bullying and cyberbullying; encourage the development of a policy to fight school and community bullying and cyberbullying by involving the local actors.

Regione has continued to develop annual initiatives with a view to education to respect online, among these we recall the organization, entrusted to some Lombard schools, of a HACKATHON, or a marathon, which can be carried out in one or more days, during which teams of students discuss the topic of cyberbullying.
GROWING PROFESSIONAL TRAINING. In 2021, the Lombardy Region allocated 253.3 million euros for the consolidation of the education and vocational training system, subsidizing Vocational Education and Training courses and first-level apprenticeship contracts. In the same year, with a budget of 1.2 million euros, further support was also given to measures dedicated to the internationalization of the entire training chain.

In addition, a considerable effort was dedicated to the scholastic inclusion of disabled students from second-cycle secondary schools and VET, with a cost of approximately 58 million euros in favor of approximately 1000 Municipalities for 8000 students, to guarantee the right to study through a contribution for the activation of school transport services and educational assistance.

Another important segment of the training chain is constituted by non-academic tertiary training and in particular by the Higher Technical Institutes (ITS) system, which provides advanced and highly demanded skills, and stands out in the national scenario as a consolidated and constantly growing system, in which the Lombardy Region has heavily invested to ensure adequate specialization for the recovery of the economic and production system, as regards the training of new intermediate figures of technicians for production and services.

Also in 2021, in implementation of the updated Youth Guarantee Plan, which provides for the introduction of a measure dedicated to the reintegration of young NEETs into training courses, a new regional notice was approved aimed at tackling early school leaving and training through the creation of modular training courses, addressed to young people who, having abandoned their studies early, are without a second-cycle education and training qualification and are unemployed, with a total amount of 13.25 million euros.

ECONOMIC SUPPORT IN A “GREEN” PERSPECTIVE. Lombardy Region, in the critical context deriving from the health emergency from Covid-19, with Regional Law 4/2021, has allocated 101 million euros to Local Authorities for interventions aimed not only at securing territories and infrastructures but also at urban regeneration projects, energy conversion, use of renewable sources, social infrastructures, environmental remediation of polluted sites, green infrastructures and ecological connections. The Lombard municipalities involved were 1,493 for 1,795 intervention projects in the Lombardy area.

CIRCULAR ECONOMY CHAINS. In collaboration with Unioncamere Lombardia, the Lombardy Region has published the Call for the innovation of circular economy chains in Lombardy, with a financial endowment of 3.6 million euros. The initiative is aimed at promoting and upgrading the Lombard supply chains, their innovation, and competitive repositioning in a circular economy perspective, by financing projects that consider the entire life cycle of the product or that support reuse and use of recycled materials, of products or residues deriving from production cycles as an alternative to virgin raw materials and the reduction of waste production. The beneficiary enterprises (micro / small and medium enterprises) were 53.

SUSTAINABLE TOURISM. In the field of tourism policies, sustainability represents one of the transversal lines of intervention for the development of the tourism sector and attractiveness, representing a competitive advantage for the territories. Starting in 2018, the Lombardy Region has promoted three editions of the “Viaggio #in Lombardia” call, aimed at public entities, tourist consortia, tourist promotion agencies, Pro Loco, and associations with a prevalent statutory purpose of promoting tourism, aimed at supporting development, promotion and communication of the tourist products expressed by the territories, as well as tourist itineraries between the capital municipalities and the “out of town" destinations in order to increase tourist flows, in a logic of sustainability / seasonal adjustment and in view of the next major events (eg. “Bergamo-Brescia Italian Capitals of Culture 2023” and “Milan Cortina 2026 Olympics”). Resources amounting to 4.28 million euros have been allocated for this purpose.

CUSTOMIZED PATHS ACCOMPANYING WORK. With the “Dote Unica Lavoro” measure, the Lombardy Region intends to respond to the needs of people, residents and/or domiciled in Lombardy, in the various phases of their professional life with an integrated and personalized offer of services to facilitate jobs’ reintegration and professional qualification or retraining. Dote Unica Lavoro provides five levels of aid intensity, calculated on the basis of distance from the labor market, age, and gender of each individual. Each band corresponds to a Dowry. The recipients of the measure - mainly unemployed and/or employed individuals up to 65 years of age - can activate, free of charge, with an operator accredited by the Region, a Personalized Intervention Plan, functional
to job placement, self-employment, and self-entrepreneurship or retraining of one's professional profile.

TO REVERSE THE WORKING MISMATCH. With the aim of overcoming the misalignment between labor supply and demand, promoting the acquisition of new skills to cope with the profound transformations of production processes, and reducing the time needed to reintegrate workers into the labor market, in July 2021 the Lombardy Region launched the initiative *Formare per Assendere*, aimed at companies that have hired people who have been unemployed for at least 30 days and at the same time implement, before or after hiring, a training course to bridge the skills gap. The measure, increased several times during the year, reached a total allocation of 26 million euros in March 2022 (of which 2 million are reserved for micro and small enterprises in the transport sector) and is aimed at financing employment incentives. Combined with training costs incurred by the employer and, where required, personnel selection costs. The call also favored the relaunch of female employment, considering that 54% of the work placements of the measure involved women.

3. INFRASTRUCTURE, INNOVATION, COMPETITIVENESS, AND CITY

**Housing and building quality**

AN EXAMPLE OF URBAN AND SOCIAL REGENERATION. Lombardy Region has promoted a significant urban and social regeneration intervention in the Lorenteggio district in Milan, according to an innovative approach that focuses on people and their needs, experimenting with a sustainable development model from the housing, construction, economic and social, replicable in other territorial contexts. The intervention, which has a financial endowment of over 100 million euros, affects a complex territorial area in which the advanced deterioration of the public heritage, both housing and collective services and open spaces, is associated with conditions of poverty, hardship social, and presence of petty crime. The project involves a multidisciplinary approach, which brings together resources and local actors, with a strong governance to develop innovative solutions capable of improving physical space and activating a process of the social and economic integration of families, creating a mix of residences, functions and collective spaces complementary to living. Specifically, the actions concern the redevelopment of public and social residential buildings, also through demolition and reconstruction; the redevelopment of the public lighting network with innovative technologies aimed not only at energy saving but also at ensuring safe pedestrian and cycle paths, equipping the district with widespread wi-fi and video surveillance and sensors for monitoring pollution and traffic and for control the occupation of parking spaces for the disabled, with a view to being a smart and inclusive city; the eco-energy efficiency of the kindergarten in the neighborhood. Not only infrastructural interventions: the project also envisaged the activation of services for accompanying housing; support for the start-up of businesses with social purposes; the provision of training courses for unemployed residents or the support of projects for the start-up or consolidation of social enterprises which at the same time activate training courses for unemployed residents.

**Infrastructure and sustainable mobility**

THE TRAINS OF THE FUTURE. In November 2020, an ambitious project aimed at eco-sustainable transport was presented in Lombardy. The goal is to put hydrogen-powered trains into circulation on the Brescia-Iseo-Edolo railway line, replacing the old diesel trains in service since the early 1990s. The plan provides for the purchase of at least 14 new hydrogen-powered trains (for a total of 160 million euros) which will serve the line and the construction of hydrogen distribution systems. The fuel produced will initially be destined for the new clean energy trains. In addition, between 2021 and 2022, the Lombardy Region allocated 85.5 million euros for infrastructural interventions to upgrade the network and connected to the activation of the hydrogen train service.

NEW TRAINS AND BUSES FOR A MORE SUSTAINABLE PUBLIC TRANSPORT. Lombardy Region, starting in 2017, has embarked on the largest renewal program of trains destined for the regional railway service. With an investment of 2 billion euros, 222 trains are under construction (of which 50 are already in operation in April 2022) intended to give a new impulse to the use of the railway. The first objective of a modern and functional train is to bring more travelers to use the railway, with obvious benefits in terms of travel safety, congestion reduction, and environmental protection.
Furthermore, between 2020 and 2021, the Region approved the overall allocation of approximately 250 million euros for the purchase of new buses and for the construction of support infrastructures for alternative-fueled buses (electric, methane, hydrogen) to benefit from important ministerial funding programs (National Strategic Plan for Sustainable Mobility, a complementary fund to the PNRR, etc.), which will allow approximately 1,200 new buses to enter service by 2026.

Guaranteeing new buses means improving the quality of the service offered and increasing the attractiveness of public transport, with benefits in terms of decongesting the road network, less pollution, and greater safety.

THE TOURIST CYCLING SYSTEM. Lombardy is crossed by European (EUROVELO) and National (BICITALIA) cycle paths, recognized by the Regional Plan of Cycling Mobility (PRMC), as an opportunity to increase territorial development linked to sustainable tourism.

As part of the National System of Tourist Cycle Routes (SNCT), the national tourist cycle routes VENTO, SOLE, and GARDA are currently in the planning stage.

The VENTO cycle route runs mainly along the banks of the Po River for 350 km in continuity with the Piedmont, Emilian, and Veneto sections, with a connecting section with Milan which joins in Pavia. The SOLE cycle route has a north-south route between Verona and Florence, 90 km of which insist on the Lombard territory. The GARDA cycle path, of about 80 km in the Lombard section, runs along the perimeter of Lake Garda.

The national tourist cycle routes are included in the National Recovery and Resilience Plan (PNRR) and have an activation horizon in 2026.

The network of tourist cycle routes also includes itineraries of regional interest and connecting sections between the national, regional, and premises, to allow a wide use. With a view to intermodality, the cycle path system will be reachable by rail and local public transport services.

Furthermore, the Region, in addition to having financed 24 interventions with resources under the Regional Operational Program of the European Fund for Regional Development 2014-2020 (referred to in the specific measure of Axis 4 “Supporting the transition to a low-emission economy of carbon”), with funds from the Program of interventions for economic recovery (the so-called “Lombardy Plan”) continues to support cycling by financing an additional 160 interventions.

A STUDY ON ALTERNATIVE FUELS. In December 2020, the Lombardy Region signed a collaboration agreement with the Energy & Strategy Group of the Politecnico di Milano, aimed at the construction of three scenarios for the penetration of alternative fuels (LPG, methane, biofuels, electricity, and hydrogen) to 2030 and an analysis of the effects of a transport, socio-economic and environmental nature deriving from the adoption of each reference scenario in the Lombardy perimeter. The results of the research were presented in November 2021.

CHARGING COLUMNS: A CERTIFIED MAPPING. The development of electric mobility is also closely connected to the availability of tools capable of giving a reliable representation of the charging infrastructures present in the area, a condition for any subsequent planning action. Lombardy Region has developed ECOMOBS, the Ecosystem of sustainable mobility which - with its cartographic and management section with access reserved for the public administration - constitutes a support tool for the planning and programming of actions functional to the completion of the infrastructure for charging of electric vehicles. The system developed is based on an innovative approach: the population and updating of ECOMOBS data do not occur with the periodic sending of tables, but through “a connection” with the data shared by the operators of the sector through an API (programming interface). Basically, the data relating to the columns managed by the operators “pass” from their databases to E015 (the digital ecosystem of the Lombardy Region that allows data exchange between public and private subjects) to be integrated into ECOMOBS. In ECOMOBS all the charging stations for electric vehicles are displayed in real-time on the map viewer. It is possible to carry out searches and queries on the basis of geographical and technical attributes and produce summary reports. In the management section, starting from the municipal scale, sustainable mobility indicators can be calculated (eg number of charging stations by type of power - slow/accelerated/fast/ultra-fast - present in a given municipality). The binomial ECOMOBS-E015 is configured as a regional prototype of the Single National Platform, envisaged by the National Plan of Electric Charging Infrastructures. For the next few years, the use of ECOMOBS is envisaged not only for electric mobility but also as a support for the development of other sustainable mobility interventions/policies.

New territorial governance

AGAINST “LITTERING”: A MULTILEVEL EXPERIMENTATION. In March 2022, the Regional Council approved the Agreement between the Lombardy Region, the Lombard Provinces, ANCI (National Association of Italian Municipalities), Lombardy and the Metropolitan City of Milan to test a pilot model of collaboration between Local
Authorities to curb the practice of “littering”, or rather the indiscriminate abandonment of waste thrown on streets and public spaces. It is an experimental model of collection and removal mechanisms, but also of waste treatment in pilot areas accompanied by investments aimed at discouraging and combating the phenomenon and identifying those responsible for the abandonment of waste. The 2.4-million-euro investment envisaged by the agreement is aimed at the purchase of technological equipment and instrumentation.

**Digital innovation**

INFRASTRUCTURE FOR ULTRA-FAST CONNECTIVITY. With the signing of the Program Agreement for the development of ultra-broadband between the Lombardy Region and the Ministry of Economic Development (MISE), the fiber optic infrastructure project was launched in 2016 for a total investment of 451.7 million euros. There are 1436 Municipalities involved, for part or for the whole of their territory, in the Banda Ultra Larga (BUL) Lombardia project, while, as a result of expressions of interest by private operators, expressed to the Ministry of Economic Development, there are 95 Lombard municipalities falling, for more than 95% of the territory, in the interest of the market ("black municipalities") and therefore not involved in the public BUL project. In fact, according to the provisions of the Community Regulations, public intervention, such as the BUL Lombardia project, cannot overlap with the action of the private sector but acts in a complementary manner and intervenes exclusively in the so-called market failure areas (white areas) for the involvement of 2,376,989 inhabitants. As of April 2022, 554,274 real estate units are connected by fiber optic with FTTH (fiber to the home), allowing citizens, businesses, and public administrations connections starting from 100Mbps.

**Sustainable and innovative manufacturing economic development**

SUSTAINABLE FASHION. In consideration of the environmental impact of the textile industry and following multiple discussions with stakeholders in the fashion sector, in 2019 the Lombardy Region promoted the call for "FashionTech - Research & development projects for sustainable fashion", with an endowment of 10 million euro, in support of R&D projects (industrial research and experimental development), aimed at supporting innovation in the “Textile, Fashion and Accessories” sector, according to the principles of environmental, economic and social sustainability within the overall production cycle, from design, to the choice of materials, to the production and distribution of products. The beneficiaries are partnerships made up of Micro, Small, and Medium Enterprises (MPMI), Large Enterprises, and Research Bodies / Universities. The measure made it possible to finance 17 projects.

LOMBARDY IS RESEARCH. With the institution of law no. 29 of November 23rd, 2016, “Lombardia è Research and Innovation”, the Lombardy Region favors, supports, and promotes research and innovation. In order to promote research and innovation, as strategic elements to support sustainable and lasting development of the territory and to respond to the global challenges of our time, the law defines two fundamental tools: the Three-year Strategic Program for Research, the Innovation and Technology Transfer, and Research Day. The latter represents a fundamental appointment for all the scientific and technological excellences operating in Lombardy and an opportunity for meetings and discussions between scientists, entrepreneurs, personalities, and artists who have distinguished themselves for their contribution to innovation and for supporting the international research. The culmination of the day is the ceremony for the awarding of the "Lombardia è Ricerca” International Award, with which one million euros is awarded to the researcher, or team of researchers, who has made a significant contribution in the field of Life Sciences the advancement of scientific and technological knowledge, with specific regard to the effects on the well-being, health, and quality of life of all people. The Award, for the 2020-2021 edition, was dedicated to the vital process of Photosynthesis, which allows us to store the renewable energy of sunlight in the form of chemical energy in organic and biological molecules, providing nourishment and fuels essential for our development. The use of sunlight can find new applications for environmental sustainability: from the remediation of polluted environments to the purification of water, to the recycling and disposal of plastic, in accordance with the Sustainable Development Goals identified by the objectives of the 2030 Agenda.

**Quality of life**

FOR THE ENHANCEMENT OF CULTURE. In 2021 the call was published for the assignment of grants for the enhancement of the Lombard public heritage for cultural purposes: innovation and sustainability. Also in 2021, the project for the international relaunch of tools, practices, and contacts for the restart of the Lombardy live
entertainment companies was approved as part of the collaboration agreement between the Lombardy Region and the Cariplo Foundation for the sharing and support of projects in the entertainment sector for the two-year period 2021/2022.

Also worth mentioning is the Next project, a laboratory of ideas for the production and programming of the Lombard show - 2021-2022 edition, with the endowment of 1,138,000.00 euros which aimed to promote the production of live shows in order to support operators of the sector hard hit by the restrictive measures imposed by the containment of the health emergency by Covid-19 and to support artistic creativity and the work of staging and rehearsing the shows.

There was no shortage, also for 2021, of contributions intended for the realization of projects for the enhancement, promotion.

4. MITIGATION OF CLIMATE CHANGE, ENERGY, PRODUCTION AND CONSUMPTION

INNOVATIVE SOLUTIONS FOR AIR QUALITY. In July 2018, the Lombardy Region updated and implemented its Regional Plan of Interventions for Air Quality (PRIA), already approved in 2013. Among the initiatives aimed at improving air quality, we note “Move-In” (Monitoring of Polluting Vehicles), a project launched on an experimental basis in October 2019, to encourage innovative ways to control vehicle emissions by monitoring mileage, considering the actual use of the vehicle and the driving style adopted. Specifically, a black box, installed on the vehicle, makes possible to detect real distances through the satellite connection to dedicated technological infrastructure. By joining the Move-In, the vehicle will no longer be subject to the hourly and daily blocks in force but will instead be monitored through the total count of the km traveled in any time slot and within a maximum km/year limit established based on the type and the environmental class of the vehicle. Participation in the Move-In service implies the commitment, by the participating citizens, to respect the threshold of kilometers assigned on an annual basis to their vehicle. Reaching this threshold makes it impossible to continue to make use of the mileage exception introduced by Move-In, which translates into the impossibility of further use of the vehicle (at any time slot and on any day) until the completion of the year of validity of the service. Since 2021, the Move-In project has also been adopted and implemented by the Piedmont Region.

Development of renewable energy sources

RENEWABLE SOURCES AND CONTRAST TO ENERGY POVERTY. In 2021, the Lombardy Region developed numerous initiatives aimed at encouraging the production of energy from renewable funds and reducing energy poverty. There are over 900 subsidized interventions (for a value of 40 million euros) for the installation of photovoltaic systems and storage systems and over 4,200 installations of electrical energy storage systems, which allow an increase in shared energy for a total of 18.1 million euros. In addition, the Region has allocated 15 million euros for the energy requalification of public structures through the installation of renewable source systems and for the increase of energy efficiency and the reduction of light pollution of public lighting systems, subsidizing the Tenders “Illumina” and “Lumen” for an amount of 15 million euros and 30.34 million euros respectively. Finally, the Lombardy Region has planned new actions, to be implemented soon, with the European resources of the 2021-2027 programming, allocating over 100 million euros of community funds to the development of infrastructures and plants using renewable sources and support for the diffusion of communities. energetic.

A REGIONAL LAW FOR ENERGY COMMUNITIES. A concrete sign of the path undertaken by the Lombardy Region towards the energy transition of the regional socio-economic system, Regional Law n. 2 “Promotion and development of a system of Renewable Energy Communities (CER) in Lombardy. Towards energy autonomy “. The legislation is supported by an initial regional investment of approximately 22 million euros which will make it possible to create a widespread network of energy production and storage plants made up of 6,000 energy communities over the next 5 years. The “network” will respond to the needs of private homes, companies, hospitals, schools, and local authorities, reducing energy costs for consumers. The coordination function of all energy communities will be carried out by the Lombardy Regional Energy Community (CERL). CERL will have to promote the culture of renewable energy sources with training and information initiatives aimed at citizens, businesses, and institutions and support the creation of individual territorial energy communities. The spread of energy communities will help to meet the 2030 objectives of
the Regional Energy, Environment and Climate Plan which provides for a reduction of one third of consumption and the doubling of energy production from renewable sources.

### Circular economy and sustainable production model

CIRCULAR ECONOMY AND ENERGY TRANSITION. On November 8, 2021, the Regional Law n. 20 “Discipline of the sustainable cultivation of mineral substances from quarries and for the promotion of saving raw materials and the use of recycled materials” aligned with European policies concerning environmental sustainability and the circular economy. The law encourages the use of inert materials from the reuse, recycling, and recovery of waste, as an alternative to newly extracted raw materials.

Among the initiatives of the Lombardy Region aimed at promoting a participatory approach on issues relating to the circular economy and the energy transition, particular mention deserves the establishment, in October 2018, of the Observatory on circular economy and the energy transition. It is an institutional discussion table aimed to sharing the strategic objectives of regional climate policies and for the sustainability of the use of resources with all the players in the area. Participation in the institutional debate is open to all trade associations, trade unions, universities and research bodies, associations of local authorities, environmental associations, and consumer associations. The Observatory is organized in permanent coordination tables that define the guidelines, objectives, and expected results of the process of common construction of regional policies and strategies for the environment and climate, and in thematic tables that elaborate specific contributions to be integrated into the new plans and regional programs, to which bodies, organizations, and experts with specific experience and expertise in the sector and in the topics subject to technical comparison are also invited. The multiplicity of stakeholders involved in the Observatory encourages a fertile dialogue, full of food for thought, and also for the proposal of new perspectives and regulations in the field of climate and energy policies.

CONTAMINATION PREVENTION. Lombardy Region continued the updating of the Regional Waste Management Plan, through the updating of the Regional Waste Management Program, which contains the Regional Reclamation Program for polluted areas. The update of the Waste Program is in line with the Directives referred to in the “Package for the Circular Economy” which have been in force since 4 July 2018. The package of new Directives is part of a broader European strategy that aims to achieve a profound change in production and consumption models, according to the new perspective of the so-called “Circular Economy”.

Regarding the implementation of the measures of the National Recovery and Resilience Plan (PNRR) and in particular, to that relating to the remediation of orphan sites (M2C4, Investment 3.4), the Lombardy Region, based on the contents of the Regional Remediation Program for polluted sites (PRB), has identified the list of sites to be redeveloped within the regional territory, through the aforementioned resources, and initiated discussions with the MITE. Lombardy Region was the beneficiary of the measures for a total of approximately 51 million euros. Finally, it should be noted that, even before the PNRR funds, Ministerial Decree 269 of 29 December 2020 governed the criteria and methods for transferring the resources to beneficiaries for the implementation of environmental remediation and restoration of orphan sites and assigned to Lombardy Region resources for a total of € 9.6 million.

Finally, in 2021, the Guidelines for the management of black slag from electric furnace steelworks were approved. The document was produced by the “Melt Slag” Technical Roundtable set up within the Observatory on Circular Economy and Energy Transition.

5. ECOPAESISTIC SYSTEM, ADAPTATION TO CLIMATE CHANGE, AGRICULTURE

RESOURCES TO INCREASE THE RESILIENCE OF TERRITORIES. In 2021, the Region invested 104.5 million euros to fight combat climate change, improve air quality, energy efficiency, and sustainable mobility (installation of photovoltaic panels, replacement of polluting cars and vehicles, replacement of obsolete thermal systems, columns for electric charging of vehicles for public bodies, regulation of biomass-fueled thermal systems); De-waterproofing and planting interventions.

THE NEW REGIONAL LAW TO IMPROVE THE MANAGEMENT OF EMERGENCIES. At the end of 2021, the new Regional Law on Civil Protection (LR 27/2021) was also approved. Among the important new elements alongside
the Civil Protection authorities, the assignment of specific functions on the matter to the presidents of the Lombard provinces, as heads of large-area entities, is envisaged. The new legislative text reforms the territorial coordination of emergency management, clearly defining which government authorities of the various territorial levels are responsible for the strategic direction and coordination of the resources to be used in the event of an emergency, based on the level of impact of the events. The law also formalized the regional forest fire risk prevention plan and regulated the training of highly qualified personnel and the inclusion of special groups. The figure of the Territorial Operational Coordinator (CTO) was also introduced, with tasks of operational coordination of the resources of organized volunteering. As regards the support and strengthening of the regional Civil Protection System (Provinces, Municipal Groups, and Associations), approximately 60 million euros were allocated in the three-year period 2021-2023 for the purchase of equipment and upgrading of the offices.

### Soil protection

**FIGHT AGAINST LAND CONSUMPTION.** In December 2021, the Lombardy Region approved the adoption of the revision of the Regional Territorial Plan (PTR), including the landscape enhancement project. The Plan has the non-exclusive objective of helping local authorities in defining the landscape contents of the planning tools and proposes for the first time the Regional Green Network project, to guarantee and strengthen the conditions of protection of rural and naturalistic landscapes. It is a tool with a broad vision, no longer strictly urban planning, to regulate Lombardy to come. With a view, hoped for by the Region, to reduce land consumption. About 450 Lombard municipalities have already taken steps to reduce the areas of transformation of free soil, by over 20 million square meters. The conclusion of the approval process for the revision of the Plan is expected by 2022.

**ENHANCEMENT OF THE DISPOSED OF MINING ASSETS.** In 2021 the “Regional program for the recovery and enhancement of the disused mining heritage” was approved, to promote and enhance the heritage that can be visited. At the same time, 5.6 million euros were allocated to improve and implement the safety of the mining sites themselves and the conditions of usability.

### Biodiversity and protected areas

**BIODIVERSITY: A GOOD TO PROTECT AND ENHANCE.** The Lombardy Region invested 6.3 million euros in 2021 for territorial interventions for biodiversity, the conservation of biodiversity, adaptation to climate change, and the enhancement of ecosystem services in Lombardy’s forests and protected areas, through the involvement of the private sector.

**LOMBARD PROTECTED AREAS: A BEAUTIFUL RE-DISCOVERY.** At the end of 2021, the Lombardy Region allocated 10.5 million euros to relaunch the social economic system of the Lombard protected areas and to deal with the negative impact deriving from the health emergency caused by Covid. The resources, distributed over the territories of Lombardy, will be used to consolidate and strengthen the structural and infrastructural heritage of the protected areas which will be made more usable and functional for the reception. In fact, during the pandemic period there was a surge in visits to protected areas, with a positive impact on the local economic system. Many citizens have been able to discover or rediscover the biodiversity preserved in these areas which are the real green lung of Lombardy: 25% of the regional territory is protected.

### Enhancement of forests

**ENHANCEMENT OF THE RURAL-LANDSCAPE-ENVIRONMENTAL SYSTEM.** In March 2021, the Lombardy Region approved the tender “Green infrastructures with ecological relevance and increase of naturalness” with which it pursues the objectives of safeguarding and enhancing the rural-landscape-environmental system. The interventions promoted are of an agroforestry nature and increase the naturalness, aimed at encouraging the green infrastructure of the Lombard territory. Enhancing naturalness means making areas more usable and increasing the quality of life and the attractiveness of the landscape. The measure allocated a financial envelope of 6 million euros for the strengthening of the agroforestry system for connecting green systems, with the containment of land consumption and urban dispersion, for the enhancement of rural areas and open spaces with an increase of naturalness, for the strengthening of the green infrastructure of the territory, for the construction of the regional ecological network and the increase of the forest heritage.
NEW WOODS IN THE PLAINS AND HILLS. The Lombardy Region is involved in safeguarding the woods and promoting more sustainable models of life also in urban centers, investing in forward-looking projects shared with local authorities. Between 2019 and 2020, in fact, the Lombardy Region has allocated 9 million euros for the creation of new woods in the plains and hills, the improvement of existing or damaged ones, forest hydraulic works, and the extraordinary maintenance of agrosilvopastoral roads. The 95 funded projects aim at the protection, conservation, and enhancement of forest ecosystems and the protection of biodiversity, including the creation of new woods in areas with insufficient woody coefficient, and are concerned with the prevention of hydrogeological instability in the areas of the foothills.

### Quality of river and lake systems

DRONES FOR HYDRAULIC SAFETY. The fluvial one is a fundamental ecosystem for the Lombard territory. Seveso Stream, a project started in March 2021, uses drone technology in a new way to survey the "discharges" along the Seveso River. The surveys are used to create a geo-referenced database of discharges, thus providing local authorities with a useful tool in support of their decisions and operations. Its interdisciplinary approach combines the goal of hydraulic safety with those of water quality and environmental protection. In October 2021, the project has been extended to the rivers Olona and Lambro.

PROTECTION AND RESTORATION OF LACUSTRIUM WATERS. In 2021, interventions for the protection and rehabilitation of water were financed with 16 million euros. The main areas of investment were lakes and biodiversity protection, the recovery of lakeshores, water depollution interventions and the purchase of new sweeping boats. Through the AQST Action Program “Safeguarding and rehabilitation of Lake Varese”, 4 million euros were allocated to the modernization and strengthening of sewage systems, water monitoring and the enhancement of the lake shores.

### Smart and nature-based solutions for the urban environment

RECOGNITION OF URBAN AGRICULTURE. In October 2021, the Lombardy Region was the first Italian region to approve a law on urban, peri-urban, and metropolitan agriculture and on vertical farm. An initiative with several innovations, which strongly innovates the regulatory framework, recognizing green roofs in urban planning and allowing the establishment of vertical farms in all urban areas, i.e. innovative vertical farms where vegetables are produced in a protected environment in a continuous cycle. These activities, even if located in urban areas, such as example in industrial areas to be regenerated, will, in any case, be recognized as agricultural. The goal is to encourage innovative urban settlements to increase environmental sustainability, urban regeneration, energy-saving, resilience to climate change, and increase the supply rate of food produced in the area, reducing logistical movements. The law also recognizes multifunctional green infrastructures, that is, urban forestry interventions aimed at the implementation of a sustainable ecosystem through the interconnection between green and built and the strengthening of local ecological connections.

### Sustainable agriculture

LESS POLLUTING AGRICULTURAL ENTERPRISES. The provision of aeromechanical services can play a significant role in reducing the environmental impact associated with mechanization, thanks to the use of more innovative, performing, and consequently less polluting equipment than those usually used by the aeromechanical company. With a specific regional action aimed at reducing the emissions produced by aeromechanical activities, launched in January 2022, the Lombardy Region has allocated 5 million euros to support micro and small aeromechanical companies for the purchase of new machines, equipment, software, and plant wastewater treatment to reduce emissions. This measure not only supports the competitiveness of the agricultural sector, allowing the purchase of new machinery, but also promotes the protection of the environment, allowing the reduction of emissions into the atmosphere.
3.2. The Metropolitan Agenda of the Metropolitan City of Milan

Introduction
Metropolitan City of Milan has chosen, along with the process of participation, exchange and partnership underway with the superordinate institutions, and in compliance with the vision of the GOAL 17.14 - Increase political coherence for the sustainable development across local institutions - to participate together with the Lombardy Region in the coordinated drafting of the Voluntary Local Review document.

The Metropolitan City of Milan intends to show itself to civil society at the direction of the just, equitable and ecological transition that must involve multiple realities in the construction of a new paradigm in the development system. Although the scenarios have drastically changed recently, this first public document intends to strengthen the enacted actions, to give visibility at an international level to the path towards change, so that the environmental, social, and economic issues of the territory keep up with the evolving historical and political scenario. The Metropolitan Urban Agenda for Sustainable Development, which will be published at the end of the ongoing process, will therefore be an instrument at the service of all, coordinated with the National Strategy and the Lombardy Region, and which will guide the territory in planning growth and well-being and will recalibrate goals where necessary.

The Metropolitan City of Milan (CMM)
The Metropolitan City of Milan is a public body formally operational since 01/01/2015 according to the National Law 56/2014. In 2015 it replaced the former Province of Milan, founded in 1860. CMM includes 133 Municipalities, including the Municipality of Milan.
Its territory is divided into 7 Homogeneous Zones. Its main tasks and functions are territorial and strategic planning, including infrastructures and the ICT network, mobility and traffic, protection of the territory and the environment, and economic and social development of the metropolitan area.

Territorial, social, and economic framework of the territory
With over 3 million inhabitants residing in 133 municipalities, of which approximately 1,330,000 live in the provincial municipality, Città Metropolitana represents the second largest metropolitan area in Italy. The population density on a metropolitan basis is in fact equal to about 2,053 inhabitants per square kilometer. A first overall reading of the state of urbanization of the metropolitan territory shows that 39% of the provincial territory is urbanized and that as much as 55% is affected by regional or local parks, with a limited amount of free residual land, which includes urban expansion forecasts. The amount of artificialized soil varies significantly, from the lower end of the Parco Sud (the rural area on the South of Milan), at 10-15%, and the high end of the North-Milanese hinterland, with 80%.

The latter shows a high presence of industrial and traffic activities, with high concentrations of PM$_{10}$, NO$_x$, and VOC, especially for the central core and the main northward routes. On the other hand, the Southern municipalities of Milan have an intermediate population density with a high presence of agricultural and livestock activities, which determines a high concentration of...
NH₃ in the area. However, the concentrations of PM₁₀ with a higher secondary component are registered to be high, in addition to less relevant emission density of PM₁₀ and NOₓ.

As regards the social component, the analysis of the population structure by age group reveals a demographic ageing tendency: in the metropolitan city the share of elderly people (over 65) is equal to 22.5% (mainly represented by women).

The urban agenda project of the Metropolitan City of Milan

Metropolitan city of Milan on 4 December 2019 signed a collaboration agreement with the Ministry of the Environment and Land and Sea Protection (MATTM), now the Ministry of Ecological Transition, aimed at defining, by the end of 2022, the urban metropolitan agenda for sustainable development. The path that led to defining the strategies for the Milanese metropolitan area took place through three main moments:

- Action A - Construction of governance
- Action B - Involvement of civil society
- Action C - Definition of the metropolitan agenda for sustainable development and integration with the metropolitan strategic plan

In the realization of the project, the Metropolitan City of Milan collaborated with the GREEN Research Center of Bocconi University, the Polytechnic University of Milan - Department of Architecture and Urban Studies - DASuU, the Italian Alliance for Sustainable Development (ASvIS), as well as with Colouree and IS Media.

Action A. Construction of the Governance

Metropolitan city of Milan has worked to involve the main internal and external actors in the preparatory works for the definition of the guidelines of the metropolitan agenda for sustainable development. On the one hand, it has internally created the top structure of the Steering Committee, which coincides with the Management Committee of the Institution, supported by the Environment Department which coordinates the committee, the project activities, and the internal working group composed of 35 participants from 6 Directorates of the Institution. The inter-sectoral working group participated in training sessions on sustainable development issues and in frequent refresher meetings, which encouraged new collaborations between colleagues and allowed the mapping of good practices already in place in the institution. Regarding the external actors, the Metropolitan City of Milan subscribed to the Protocol for sustainable development in Lombardy on 18 September 2019 and actively participates in the Sustainable Development Forum of the Lombardy Region, engaging in the events dedicated to the Regional Sustainable Development Strategy and coordinating with the superordinate body for the exchange of good practices and for the definition of the monitoring indicators. Furthermore, CMM has invested heavily in the training of local administrators and municipal technicians by organizing training sessions about sustainable development and seminars to present decision support tools developed by the Metropolitan City of Milan. In particular, between October and November 2021, CMM technicians participated as teachers in the laboratory on sustainable development of ANCI Lombardia dedicated to Municipalities. Finally, an interinstitutional working group has been set up with the metropolitan cities of Venice, Genoa and Turin, which aims to set up a system for exchanging good administrative and technical practices, as well as
to work on strategic planning. The Datalab tool was developed in synergy with the Metropolitan City of Genoa.

**Action B. Involvement of civil society**

The process of involving stakeholders and engaging with strategic actors for the Milan area and civil society was fundamental to inform, train and initiate a process of sharing a common language on sustainable development. It was also very important to define the strategic priorities with the local actors. To support this process, three specific tools have been developed to implement awareness-raising, training, and engagement activities for local actors.

**• Portal of the Agenda**

[https://www.cittametropolitana.mi.it/Agenda_metropolitana_sviluppo_sostenibile/](https://www.cittametropolitana.mi.it/Agenda_metropolitana_sviluppo_sostenibile/)

To give visibility to the commitment of the Metropolitan City of Milan in the field of sustainable development and in defining the objectives of the 2030 Agenda, a dedicated portal has been created to share information on the path taken, on the tools developed and on the contents produced, as well as on the proceedings of the training seminars and informative events organized. An important event was organized on March 22, 2022 - with over 100 participants - to begin the process of disseminating the contents of the studies and to discuss with the local actors in the initial presentation of the strategies identified by CMM as priorities to accelerate the sustainable transition.

**Institutional events**

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Number</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 events</td>
<td></td>
<td>554</td>
</tr>
<tr>
<td>Training seminars on the themes of the 2030 Agenda</td>
<td>4 events</td>
<td>267</td>
</tr>
<tr>
<td>Meetings within the CMM working group</td>
<td>5 meetings</td>
<td>16 meetings</td>
</tr>
</tbody>
</table>

**• NETlab**

[https://netlab.evidence-hub.net/](https://netlab.evidence-hub.net/)

In the context of **Goal 17** the Metropolitan City has developed, in collaboration with the Politecnico di Milano - DASTU (Architecture and Urban Studies Department), a platform animated by local, regional and national stakeholders, aimed at creating a reference community to discuss, promote and implement the objectives of sustainable development in the context of the Milanese metropolitan city. The purpose of the platform is to start a discussion on the lines of action, the most relevant and urgent challenges in the area, as well as to map projects already completed or in progress, to identify sustainable development challenges, and to connect potential stakeholders.

**Launch events**

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Number</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Virtual Mapathon</td>
<td>3</td>
<td>Workshop 1 - Mobility: sustainable infrastructures and practices, 18 participants; Workshop 2 - Supralocal welfare and sustainable production, 10 participants; Workshop 3 - Adaptation to climate change and urban ecosystem, 19 participants</td>
</tr>
</tbody>
</table>

17 subjects registered on the NETLAB platform and 22 strategic projects were already active in the area. Furthermore, thanks to the Mapathon events, 12 challenges and 12 project proposals were launched.
• School of Sustainability (S.O.S.)

https://www.cittametropolitana.mi.it/Agenda_metropolitana_sviluppo_sostenibile/SCHOOL-OF-SUSTAINABILITY/index.html

In the context of Goal 4, lifelong learning and training on sustainability, the Metropolitan City has developed in collaboration with the Politecnico di Milano - DASTU Department, the School of Sustainability (SOS), a training course aimed at citizens, businesses, associations and institutional actors, with particular attention to municipalities and local administrators. The School of Sustainability enhances the excellence and training experiences currently offered in the Milanese metropolitan area and provides support to all those interested in deepening their knowledge and acquiring new skills on the issues of Sustainable Development.

<table>
<thead>
<tr>
<th>TRAINING OFFER</th>
<th>University courses of the Milanese universities</th>
<th>n. 61</th>
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<tbody>
<tr>
<td></td>
<td>Third parties</td>
<td>n. 2</td>
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<tr>
<td></td>
<td>Professional associations</td>
<td>n. 3</td>
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<tr>
<td>CHALLENGES AND</td>
<td>Challenges</td>
<td>n. 10</td>
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<tr>
<td>PROJECTS</td>
<td>Projects to be replicated</td>
<td>n. 10</td>
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</tbody>
</table>

**Action C - definition of the metropolitan agenda for sustainable development and integration with the metropolitan strategic plan**

To identify the metropolitan strategies, in collaboration with the Bocconi University of Milan, it was necessary to carry out a preliminary analysis and understanding of two aspects:

- the competences of the Authority with respect to the objectives of the 2030 Agenda, as well as how these are reflected in the programming, planning and actions tools

Based on current legislation, especially on the reform of local authorities introduced with law no. 56 of 2014 and on the Statute of the CMM, 74 targets of the 2030 Agenda of metropolitan competence have been identified, of which 72 (and 16 SDGs) are relevant for the CMM. Secondly, both the strategic and sectoral plans were analyzed, and in particular: the Three-year Strategic Plan of the Metropolitan Territory (PSTTM) 2019-2021, the Single Programming Document (DUP), the Metropolitan Territorial Plan (PTM), the Urban Sustainable Mobility Plan (SUMP), Quarry Plan, ongoing projects and good practices not included in the plans.

From the analysis and systematization of the actions defined in the plans and projects, it emerged that, overall, the CMM contributes to **16 SDGs** and **57 targets** out of a total of 72 relevant to the Entity.

CMM targets, measures, and projects that contribute to the achievement of the SDGs and targets of the 2030 Agenda.
• the coherence in terms of sustainable development objectives between the strategic and sectoral plans of CMM with the national and regional strategies

An analysis was carried out of the strategies for sustainable development of higher levels of governance, such as the National Strategy for Sustainable Development (SNSvS) and the Regional Strategy for Sustainable Development (SRSvS). Of the 36 targets of the 2030 Agenda (out of 72 of metropolitan competence) to which the CMM contributes with targets, measures, and projects, 33 are also included in the SNSvS and 27 in the SRSvS. Finally, an analysis of the National Recovery and Resilience Plan (PNRR) was conducted with the aim of defining how the Plan and the planned investments contribute to the definition of CMM’s Urban Agenda for Sustainable Development.

SDGs and metropolitan competence targets are included in the SNSvS, in the SRSvS and in the CMM plans (does not include the projects, the measures and the CMM plans).

As a result of the analysis of current Metropolitan programs and of supraordinate governance levels strategies, it was possible to identify the SDGs deemed the most relevant by the CMM, hence those to be included in the CMM Agenda. The strategic priorities that emerged are: • sustainable management of water resources - SDG 6 • energy transition - SDG 7 • development of resilient infrastructures - SDG 9 • housing policies and sustainable mobility - SDG 11 • sustainable consumption and production and the circular economy - SDG 12 • adaptation and mitigation to climate change - SDG 13 • reducing land consumption - SDG 15 • digitalization and innovation of the public sector - SDG 16

CMM has also already activated two pilot actions related to urban regeneration SDG 11 and to the circular economy SDG12, which have been studied in order to implement the sustainable development goals.

**Positioning and monitoring**

https://sdgcittametropolitana.mi.it/

Another important tool called Datalab was developed to support CMM and public administrators in the analysis and monitoring of data which, through elementary and composite statistical indicators, allow to measure and analyze the positioning of the Metropolitan City of Milan and its homogeneous areas with respect to the 17 Sustainable Development Goals of the 2030 Agenda. The platform, created together with ASviS and the start-up Colouree, makes the trends of the territory graphically visible and easily legible with respect to the targets of the UN 2030 Agenda. The ambition is to bring down the data more and more at a territorial level with ad hoc data and indicators. The objective is dual: on the one hand, to make the data and indicators related to sustainable development accessible to the public, on other hand to support the Administration and professionals in the creation of reports as well as in planning and monitoring, so that policies can be adjusted when they are not effective.
Conclusions
The results of the analyzes and the contents mapped thanks to the described tools, will be fundamental for defining the strategic priorities of the Authority, which will see, by the end of 2022, the publication of the first version of the Metropolitan Urban Agenda for the Sustainable Development. The document will provide the metropolitan bodies with a trace of the reflection process for the elaboration of the new strategic documents of the Authority.

The goals of the 2030 Agenda are already embedded in the main current CMM Plans, from the Three-Year Strategic Plan of the Metropolitan Territory (PSTTM) 2019-2021 to the Urban Sustainable Mobility Plan (PUMS) together with the recent CAMBIO, the BICIPLAN of the Metropolitan City of Milan. Furthermore, many actions are already active in the CMM Offices such as the memorandum for the implementation of Green Public Procurement in Metropolitan Cities; the DeciWatt System, a one-stop-shop service to accompany the Municipalities in the complex process of energy requalification of buildings; Resilient Territories, the one-stop shop of the Metropolitan City of Milan for the resilient transition of the territories; the multiple forestry activities; + COMMUNITY as a lifelong learning tool, permanent and free, extended to the entire metropolitan area; Virtuous Territories for the energy and management requalification of 143 buildings belonging to the Metropolitan City of Milan.

In conclusion, the path followed so far has made it possible to set up an innovative multilevel governance for the implementation of internal actions, which will strengthen not only the coordination and cooperation between the national government, the Lombardy Region, metropolitan cities and municipalities, but will allow to achieve shared objectives and to implement strategies and policies at the metropolitan level more effectively, reducing any contradictions between the different levels of governance.

3.3. Lombardy Region and the Urban Strategies for sustainable development

Lombardy Region has promoted the Urban Strategies for Sustainable Development (U.S.S.D.) of urban contexts characterized by fragile conditions to increase the social inclusion of the most fragile populations (by age, gender and material and immaterial vulnerability), reduce material and immaterial inequalities and place local communities at the center.

The Region first approved (DGR 4151 of 30/12/2020) the guidelines for the selection of Lombard municipalities in which to implement the strategies, limited to the capital and larger municipalities, where fragilities are often concentrated, and subsequently (decree 295 of 18/01/2021) it published the expression of interest for the selection of strategies to be promoted through the European structural funds for the period 2021-2027 and a competition of regional resources.

A total of 14 municipalities have been selected, which will equip themselves with their own Strategy and will implement interventions to achieve it by 2027.

The selected Integrated Sustainable Urban Development Strategies pursue three strategic objectives:
• Sustainable urban regeneration in the physical and immaterial dimensions of some areas characterized by social fragility, concentration of poverty and inequality, degradation or inadequacy of public space and public housing stock, insufficient or low value-added neighborhood economy and commercial services.
• The reduction of inequalities and material and immaterial poverty, but also of the increasing fragility of the most vulnerable sections of the population.
• Strengthening social inclusion.

The objectives are achieved by leveraging, individually or simultaneously, the dimension of housing, economic development, school and the quality of social and health services through the coordinated implementation of material and intangible operations, the latter to be financed under the ESF + - European Social Fund.
3.4. The commitments and actions of the Lombard Protocol for sustainable development

Lombardy’s Protocol for sustainable development concretely implements the challenge posed by the Regional Development Program (PRS) (2018-2023) which has indicated sustainability among the 5 priorities of the regional governance, as a “Distinctive element of administrative action and as an opportunity to improve the quality of life of the Lombards, reconciling the needs for productive growth and involving all the players in the area: from businesses to citizens, from schools to public administrations”.

The PRS proposes, in fact, to sign “a Lombard Protocol among all the public and private actors that are committed to the environment, territory, transport system and the Lombard infrastructures”, so that it can draw the first lines of work.

“Development must respect the environment and must heal those critical situations that still exists today. We must consider all aspects as a whole: the social, economic and environmental ones for a sustainable development of society. “

(A. Fontana, President of the Lombardy Region).

the Lombardy Region and the Lombard system as a whole contribute concretely with the adoption of the Protocol, combining the three dimensions of sustainability (economic-social-environmental).

“Development is essential, but it must be pursued in respect of the environment.”

(R.Cattaneo, Councilor for the Environment and Climate)

The Protocol of the Lombardy Region aims to promote the application of the principle of Sustainable Development in public and private decision-making, during the transition towards an economy and lifestyles that are more sustainable and compatible with an efficient management
of the planet’s non-renewable resources. The ambition is to make Lombardy the “sustainable locomotive” of the country and a cornerstone of sustainability on the international scene.

The Protocol promotes actions in the following fields: the transition to a low-carbon circular economy, the improvement of air quality through integrated measures, the improvement of the quality of the transport system, the development of regional green infrastructures and initiatives for nature and biodiversity, integration of urban/territorial policies with water quality and risk defense policies hydrogeological, the containment of land consumption and promotion of territorial and urban regeneration, the promotion of Green Public Procurement, the transition to a fully sustainable agricultural sector and the promotion of rural areas, the strengthening of inclusion and social cohesion, such as strong commitment to tackling all forms of inequality.

The Protocol is also opened to gather further areas of commitment and extended collaboration.

The Protocol introduces several tools: the Regional Strategy for Sustainable Development, the Development of long-term scenarios, the technological innovation and research in the various areas of sustainability, information, communication, environmental education, and involvement of the school system, the Lombard Forum for Sustainable Development and sharing of best practices, monitoring for sustainability.

The members

The protocol is open to the subscription of all the subjects interested in giving an impulse towards sustainability in Lombardy. Lombardy Region intends to cooperate with companies and associations, with economic and trade union representatives, with local authorities and with the world of universities and research, by investing in different measures and initiatives.

The members of the Protocol commit to:

● applying the principle of Sustainable Development within their sphere of activity, in the economic, social and environmental dimensions.

● contributing to the definition of the regional strategy.
● establishing its own program of commitments, to be implemented with its own resources, defining times and methods.
● participating in the annual Forum, informing about the progress in the implementation of their program.

The Protocol was signed on 18 September 2019, by the President of the Lombardy Region, Attilio Fontana and by the Councilor for the Environment and Climate, Raffaele Cattaneo, with the first 54 members, including associations, social partners, universities, and representatives of institutions locals.

These first 54 members of the Protocol are above all “associative representatives”, who, in turn, have sensitized further members operating in Lombardy and have proposed commitments and initiatives consistent with the aims of the Protocol itself.

As of April 2022, the members are 94, belonging to different categories (see graph).

The actions of the Protocol
Each member has identified its own program of commitments to be implemented through concrete actions with an impact on the Lombard territory, described on the regional platform www.svilupposostenibile.regione.lombardia.it, in the “Protocol” section.

As of the end of March 2022, 283 actions were launched by 69 entities, relating to different types:
- training, education and awareness raising activities,
- activation of support or incentive tools, such as calls for tenders or other
- construction of structures or infrastructures intended to minimize environmental impacts
- management measures
- planning or programming activities

For each action, one or more specific areas of intervention have been identified: most of the actions operate within the Environment and energy (37%), Training and work (23%) and Low carbon economy (17%).
The actions are directly related to the SDGs, the 5Ps of the National Strategy for Sustainable Development and the Strategic Macro-Areas (MAS) of the Regional Strategy for Sustainable Development.

MAS1: Health, equality, inclusion  
MAS2: Education, training, work  
MAS3: Development and innovation, city, territory and infrastructure  
MAS4: Climate change mitigation, energy, production and consumption  
MAS5: Environment, landscape, adaptation to climate change, agriculture
Members’ actions

Here below, a list of the most significant actions carried out by the subscribers of the protocol.

**Montello S.p.A.** It’s a private company that operates: (i) in the recovery and recycling of 765,000 tons / year of organic waste (FORSU) from separate collection (r.d.) and (ii) in the selection, recovery, and recycling of 350,000 tons / year of waste from plastic packaging from r.d.

The proposed action consists in the recovery and recycling of the biogas generated by the anaerobic digestion of organic waste from waste sorting to Biomethane, which is put into the network and returned to the territory for its use as an advanced biofuel for transport, with simultaneous recovery of carbon dioxide intended for industrial / food use. From the aerobic treatment of the digestate, downstream of the anaerobic process, a high-quality organic fertilizer is also produced.

**ROELMI HPC** is a company specialized in the research, development, and production of ingredients for the Health and Beauty market. The company goal is to improve the quality of life, combining science and environmental preservation.

ROELMI HPC offers its network of local partners and customers (for a total of about 900 units worldwide) the ethical alternative in the field of cosmetic ingredients developed through circular economy processes, with the goal of achieving the most efficient results in final formulas, offering a responsible choice thanks to sustainable innovation. Each action in terms of developing sustainable ingredients is shared through specific documentation which, in detail, sets out the characteristics, benefits and applications of use. The digital channels are used as an immediate showcase in communication and, during the participation in sector fairs at national and international level, a timely communication of the results obtained is adopted in terms of development of new ingredients, and certification of effectiveness/performance aimed at increasing the added value for customers. The publication of technical-scientific articles in sector magazines, on the other hand, enters communication on classic channels to complete the dissemination of news.

Through its offer of cosmetic ingredients, ROELMI HPC intends to pursue the improvement of its footprint on the planet with innovations capable of acting positively on the ecosystem, understood as the union of several communities, which work in unison to improve the environment and human life.

**Fondazione Cariplo** is a foundation from banking origin committed to supporting, promoting, and innovating projects of social utility linked to art and culture, environment, social issues, and scientific research. The calls and projects of the Cariplo Foundation in the environmental area, involve the main actors of the territory, in particular public administrations, the third sector and schools. They are encouraged to operate on the network, thus involving the local community. For initiatives in the field of sustainable agriculture, environmental education, the fight against climate change and protection of natural resources, the budget invested in 2021 was approximately 10 million Euro. The F2C – Fondazione Cariplo for climate project has been active since 2019 with the following objectives: The F2C – Fondazione Cariplo for climate project
has been active since 2019 with the following objectives: promoting mitigation and adaptation to climate change and increasing the knowledge and awareness of citizens, technicians, and policy makers about climate change.

These objectives are mainly pursued through the Climate Strategy call, aimed at supporting large territorial areas in the definition of a Climate Transition Strategy (STC) and in the implementation of some of the actions envisaged therein, including interventions for the reduction of climate change emissions, “mitigation of the impacts of extreme weather phenomena and an increase in natural capital. Thanks to two editions of the call for proposals, six initiatives have been supported and are currently underway.

Regional agency for the protection of the environment Lombardy

The main actions adopted in line with the principles of Sustainable Development include:

1. Set up of a specific Organizational Unit for Sustainable Development has been set up.
2. Promotion of smart working beyond the emergency phase, with the support of Bocconi University, to define the best organizational methods.
3. Establishment of the Network of Representatives for Sustainable Development which has proposed three further commitments for the Protocol (2021). The Network is developing actions on sustainable mobility (focus “Niguarda”), and has contributed to the drafting of the Home-Work Travel Plan (2021); an internal asynchronous distance learning course is being released for training on Sustainable Development issues; thanks to the Network, the “bicycle day” 2021 was promoted and implemented. The Network of Referents made it possible to systematize specific skills both at the territorial level (Departments) and at the central level (Thematic Sectors) to highlight the strong transversal nature of the theme of Sustainable Development that can only be tackled with a “multisolving” approach, that is, one that maximizes the effects of a single action on several themes.
4. To reduce the use of plastic, 800 water bottles with the ARPA logo were purchased to facilitate the supply of non-bottled water, and a water dispenser was installed in the Brescia office; a further 300 water bottles and another dispenser for the Varese office are in the process of being acquired; created the manifesto of the initiative: “We protect the environment. Always.”
5. Participation in the Green School project; organization of a side-event of Forum for Sustainable Development 2020 and of an event in the Sustainability Education Fair (2021) in collaboration with FLA.
6. Regular participation in the coordination cabinet for sustainable development of Lombardy Region and in the Circular Economy and Ecological Transition Observatory.
7. Seminar dedicated to climate change for administrators and municipal technicians within the School for the Environment (06/2022).

Eni, an integrated company in the energy sector, is committed to the environmental sustainability of its products and has an interest in providing circular, innovative, and diversified solutions. As part of the training activities proposed for the Lombardy region, from January 2020 until March 2022, a total of 44 teaching hours were provided within the Medea, HSEQ, Postmaster, Master Energy Innovation masters. The lessons addressed the principles of circular economy, the energy transition path at an international and European level and sustainable mobility initiatives in the context of the new corporate strategy.

The training activity in the school sector carried out with the Municipality of San Donato Milanese which sees the implementation of educational projects on the circular economy is of
particular importance. Within the initiative, there is an action to raise awareness on the correct management of waste.

**Fondazione Sodalitas** is the reference partner for companies that consider sustainability a distinctive factor. It brings together 93 leading companies in the main sectors, representing an economic value equal to 20% of Italian PIL. It builds partnerships with associated companies for community growth.

Main projects:
- **YOUNG PEOPLE AND WORK**: 2,000 male and female students trained each year in employability skills in Italian schools.
- **DIVERSITY**: 800 companies and organizations adhering to the Charter for Equal Opportunities and Equality at Work.
- **COMMUNITY**: 200 organizations formed each year by companies to skills for social entrepreneurship.
- **TERRITORY**: 322 Italian municipalities participating in the CRESCO Award created with ANCI to promote the sustainable development of the territories.
- **20** corporate volunteering programs carried out every year.

**CAMPAIGNS FOR UNITED NATION AGENDA 2030:**
- **150** business actions for a sustainable future participating in the Sodalitas Call for Future campaign.
- **33** business leaders and over **400** SMEs involved in ESG LAB, the laboratory developed with SDA Bocconi.
- **140** participants in 7 meetings of the Sodalitas Value Academy, the managerial training course on Sustainability.

In particular, the **CRESCO AWARD Sustainable Cities**, promoted by the Sodalitas Foundation with the patronage and collaboration of ANCI and the partnership of advanced companies on the Sustainability front, **aims to enhance the innovative drive of Italian Municipalities and to reward the most effective initiatives in promoting the sustainable development of the territories**.

**Unioncamere Lombardia** is the regional associative structure that brings together and represents the 9 Lombard Chambers of Commerce at a regional level, spreads experiences and promotes common projects, enhancing the autonomy of the individual Chambers.

**ACTIONS IN ORDER TO PROMOTE CIRCULAR ECONOMY:**
All the activities foreseen in the design phase were carried out with a final investment of €143,000:
1. data analysis of waste production in Lombardy from MUD and Business Register sources, on a regional and provincial basis, to identify the sector of companies most involved and possible solutions to optimize the reuse of secondary raw materials within the production chains;
2. creation of 3 territorial focus groups, involving trade associations, public bodies, research bodies and universities to identify the environmental issues of greatest interest for the Lombardy Region;
3. realization of 19 webinars on Waste Management and Environmental Compliance and Circular Economy;
4. Specialized support: personalized technical support for the improvement of the project idea aimed at companies in the context of the tender “Innovation of the Circular Economy chains
in Lombardy”; telematic helpdesk for questions on the administrative management of waste;
n. 2 training cycles for professionals in the various areas of waste management;
5. communication made through institutional sites, the Ecocamere portal, social communication,
newsletters, and press releases.

**Energetic Research Center.** Through the research activity of RSE and its support to initiatives that share a focus on energy efficiency and innovation towards increasingly performing systems and compatible with the decarbonisation objectives, the actions presented are having on citizens, on the territory, as well as in the industrial world, in companies and institutions, economic, social, and environmental benefits of great significance. A meaning consistent with the Sustainable Development Strategy promoted by the Lombardy Region. In fact, the spectrum of action of the initiatives presented by RSE and focused on sustainability is broad. The following are reported here: the development and dissemination of sustainable mobility, in its various forms and meanings, and of an experimental area at the RSE headquarters in Milan; experiences of energy communities; analyses on the correlation between energy poverty and health; the evaluation of the cost-effectiveness and impact of the infrastructure policies and measures that can be implemented to improve the efficiency of buildings (positive energy districts). The conversion of company fleets into electricity and the construction of an experimental area at its headquarters in Milan for the recharging of its electric vehicles, which integrates charging systems from different manufacturers, and which can be managed through a centralized system that optimizes its operation, allows RSE to analyse the main opportunities and criticalities, as well as to develop and test innovative infrastructure management solutions in the field.

**CISL Lombardy** represents workers and retirees with the aim of defending their interests and raising their economic and social conditions in a logic of solidarity and is divided into 8 territorial trade unions and 19 trade union federations. The management of the social / occupational risks connected to the transition processes imply an updating of the contractual skills of the trade unionists. On 20-21 February 2020, a Visit Study was organized at the EU Commission in Brussels to deepen the programming tools for the implementation of the European Sustainable Development Strategy, which involved 25 trade unionists. (Project funded by the EU Commission Representation in Milan).

From July to October 2020, in collaboration with ASVIS, a path of 8 meetings was carried out, attended by 25 union leaders of regional federations (of each product sector) and of the territorial trade unions of the Lombard provinces on the objectives of the UN Agenda 2030. (3200 euros the cost of the investment).

Since 2018 we have participated in the national festival organized by ASVIS, offering an annual seminar with which the themes of the trade union agenda in relation to the promotion of the SDGs are explored.

In collaboration with European trade union organizations in Italy, Spain, Bulgaria, and Romania, and with the support of the European trade union, the CAE project, the European pillar of social dialogue, was implemented from 2019 to 2021. The 48 hours of training (+ 8000 indirect users of the website www.lescee.eu) had the objective of strengthening transnational bargaining on the issue of environmental sustainability. The total cost of the action was € 223,750.97.

The CAE project, carried out in partnership with CGIL UIL Lombardia, UGT and CCOO of Catalonia,
Podkrepa (BG), CSDR (RO) and the CES, involved delegates, workers of multinational companies and citizens, who met and exchanged experiences to increase knowledge about EWC tools. A final guide was prepared (200 printed copies), the creation of a website for the dissemination of the results (www.lescee.eu), 60 documents produced, with over 1000 downloads.

EFAR European Federation for Agricultural Recycling, Association that brings together the major European operators in the agricultural recovery of organic biomass.

Actions implemented:

Use of 4.0 agriculture equipment for the agricultural use of biomass from waste in agriculture
- **Recipients:** EFAR and Farmers; **Investment:** € 70,000
- **Communication:** Press releases, demonstrations in the field
- **Employ tractors and distributor wagons equipped with automations that apply robotics concepts and other technologies useful for the proposed objectives.**

Scientific studies for the evaluation of the impacts generated by the recovery of biomass from waste in agriculture
- **Recipients:** EFAR, Bodies, Scientific world, Farmers, Public; **Investment:** € 300,000.
- **Communication:** Conferences and transmission of documents
- **Completed all studies.**

Evaluation of the environmental impact and potential eco-toxicity of “fertilizer matrices” and soils treated with such matrices
- **Recipients:** EFAR, Bodies, Scientific world, Farmers, Public; **Investment:** € 110,000
- **Communication:** Report, Conference
- **The experimentation involved the eco-toxicological characterization not only of different fertilizer matrices such as Urea, Compost, Zootechnical digestate, Pork Waste, Sludge digestate, R10 Mud and Sludge defecation gypsum, but also of soil samples treated with the same. A scientific report collects the results of the tests carried out on the different matrices and on the treated soils, before distribution, after 15 days and 1 month after its execution.**

Development of a technology for the use of CO$_2$ starting from sludge and digestates to obtain a corrective for soils
- **Recipients:** EFAR, Farmers, Authorities; **Investment:** € 2,000,000
- **Product the corrective proposed at an industrial level, even if the technology is awaiting further regulatory clarifications.**

Integrated digital platform for the enhancement of biosolids and corrective agents
- **Recipients:** EFAR, Farmers, Authorities, Scientific world, Public; **Investment:** € 500,000
- **Communication:** Presentations to Bodies, Demonstrations in the field, Conferences
- **The first integrated digital platform for the traceability of the agricultural recovery chain was created and made operational. The tool will also be accessible to control institution.**

**Integrated ienergy company** involved in the energy transition with concrete actions to achieve total decarbonisation of products and processes by 2050. In mid-July 2019 the OIlà project landed at the Eni site (refinery) in Sannazzaro de ’Burgondi, for the recovery of used cooking oils and of frying (so-called UCO, Used Cooking Oil) produced by employees in their homes. Yellow containers have been allocated inside the refinery, in which Eni employees will deliver the used cooking oils. Thanks to the agreement signed by Eni with CLIR, a public company that also carries out the activities relating to the management of the municipal solid waste cycle for the Municipality of Sannazzaro, the latter will deal
with the periodic emptying of the containers, through an operator adhering to the CONOE (National consortium for the collection and treatment of used vegetable and animal oils and fats) with which Eni has signed a collaboration agreement.

1200 people have been involved since July 2019 for a collection of about 1000L of used oil to be sent for recovery. The intent of the project is to give value to a waste, transforming it from a material that is potentially harmful to the environment into a new energy resource, applying the principles of the circular economy. Waste edible oils represent a valid raw material for the processing process of Eni’s biorefineries, which use proprietary Ecofining ™ technology to produce biofuels, with a reduction in the environmental impacts linked to both the biorefinery process and the raw material.

**GI GROUP HOLDING** is a global ecosystem of HR services and consultancy that supports the development of the job market by creating sustainable economic and social value, promoting a positive work culture, and helping to change people’s lives. The project created by the Group to help make Work Sustainable took the form of a series of initiatives dedicated to people, companies, and institutions.

Academy 100% Employability: we have started a training project - through Academy - which ensures the participants a permanent job. Find out more: [https://academy100.gigroup.it/](https://academy100.gigroup.it/).

Women4: We promote the employability of women in sectors considered typically male. We are committed to debunking false myths and stereotypes: there are no jobs for men or women, but only opportunities to be caught Site visits from December 2021 to March 2022: over 22,000. Find out more: [https://women4.gigroup.it/](https://women4.gigroup.it/).

Gi Group Training Hub: professional and managerial training as well as the qualification and re-qualification of people has become a key element for the survival and evolution of every organization and must be pursued and supported with specific processes and tools capable of motivating and facilitating learning continuous not only on a personal level but also on an organizational level. Over 50 companies and interested partners and over 500 candidates have received or are receiving guidance services and “tailor-made” courses. All the initiatives implemented are communicated to the Gi Group Holding stakeholders through e-mails, social media, websites, and ad events ad hoc. Find out more: [https://traininghub.gigroup.it/](https://traininghub.gigroup.it/).

In **Elmec Solar** we work with renewable energy, design, and installation of photovoltaic solar systems. We have chosen to dedicate ourselves to alternative energies because we are convinced that they are a necessary and conscious choice for the future. In 2021 we concretely supported companies in the province of Varese in the construction of photovoltaic systems serving their production sites. 35 companies decided to cover their energy consumption with renewable sources. Total installed power of 4 MWp (average power 114 KW). Our company has decided to invest heavily in the internal training of its employees, in communication and in the creation of specific skills to achieve a common goal.

**Confcooperative of Lombardy** is the regional structure of the Confederation of Italian Cooperatives, the main organization of representation, assistance and protection of the cooperative movement and social enterprises. It associates about 2,700 cooperatives. In the first phase, data collection (assessment) and related reprocessing actions were initiated, which made it possible to identify the sustainable "health" of
our offices and to have an eye on the project KPIs. The sustainability actions then contributed to implementing the guidelines identified during the planning stage:

**WASTE MANAGEMENT:** oriented towards an overall reorganization of the separate collection of offices (with guidelines, information signs, meaning of these actions, reflection on environmental sustainability).

**PURCHASING POLICY:** particular attention was paid to the choice of materials and their characteristics, including by way of example the type of paper to be purchased, snacks and drinks, the virtuous management of water use, the reduction the use of plastic and its recycling.

**GOOD PRACTICES POLICY:** training and awareness-raising policies have been implemented on the correct way to proceed with document printing, on energy saving on consumption attentive to contrasting waste in water management in meetings and offices. There were no training moments in the “traditional” sense, also given the pandemic context, but sharing in specific moments of coordination was important to follow up on what was planned. The main actions were monitored approximately every four months.

**Tourist Consortium of Middle Valtellina** is a public body for tourism promotion that carries out actions in the sports, food and wine, trade fair and hotel sectors aimed at safeguarding and developing the territory in all its aspects. We are achieving the first results with interventions on accommodation facilities, on the eco-mobility holiday proposal and on the distribution of green energy in strategic points of the area for the supply of electric cars, bicycles and means of transport.

**INSTM** is a consortium of 50 Italian universities in which research on advanced materials and related technologies is carried out. It promotes the research activity of the consortium universities by providing adequate organizational, technical, and financial support.

As regards the two proposed actions, the recipients were the industrial, production and research system and civil society. The following indicators were chosen to quantify the effectiveness of the activities carried out in the last year aimed at the academic and industrial world: n. of projects managed: 95 (13 European, 9 national, 73 INSTM); n. of publications: 245; n. of scientific events sponsored or supported: 11; n. of prizes for young researchers: 5; n. of industrial orders and contracts: 138; n. of patents filed: 13. The Consortium organized, in January 2022, the conference “Advanced Materials and Green Processes for a Sustainable Society”. Among the dissemination initiatives we recall the event “CIG-2020: catalysis at stake”, the participation in the “2nd Regional Forum for Sustainable Development” and the Bioeconomy Day. On that occasion, a Digital Talk for research was broadcast and the Italian industrial development in the circular economy sector during which some of our projects were presented. INSTM gives visibility to its activities thanks to the INSTM website, which is registered, as a newspaper, in the Register of Communication Operators, on Linkedin and with a bimonthly newsletter addressed to about 2000 subscribers. INSTM carried out press office activities in case of events / results (eg GASIFORMING patent). Lastly, work has begun for the preparation of a Sustainability Report for INSTM activities.

**UIL Milano e Lombardia:** reduction of consumption and CO2 emissions through maintenance and installation of LED lighting systems, elimination of single-use plastics, installation of water dispensers connected to the water network for employees, operators and users of services, activation of training courses on sustainable development and sustainability for its employees and operators. Actions which are intended to be promoted in all the offices in Lombardy by 2025.
Finlombarda S.p.A. is a financial company of the Lombardy Region and a financial intermediary supervised by the Bank of Italy. Its institutional task is to contribute to implementation of Lombardy’s economic development programs. Finlombarda participates in the thematic working groups of the European Association of Public Banks and the National Association of Regional Financials. It supports the Lombardy Region in the selection of local projects in response to the Sustainable Development Goals of the UN Agenda 2030 for the Lombardy 2030 section (Open Innovation): in 2021, 54 initiatives were published, 12 of which on the education goal. It also coordinates the Simpler consortium (EEN - Enterprise Europe Network) which offers free support services to improve the level of maturity in the management of innovation and sustainability of SMEs. Finlombarda has reserved a plafond of 50 million euros to finance companies that adopt sustainable action as part of the “Minibond” initiative under management. It signed an agreement with SACE for the financial support of Lombard companies in strategic areas, including green investments: energy transition, pollution reduction emissions, freight transport efficiency, circular economy. It promotes the culture of sustainability with publications of studies and insights. In 2021, around 80 sustainability-themed posts were published on the company’s digital channels.

Coldiretti Lombardia is a trade union organization representing people and companies operating in agriculture. It represents the rural world by enhancing agriculture as an economic, human, social and environmental resource. Coldiretti Lombardia is committed to the regional, political, and administrative authorities in the preparation of proposals oriented towards actions that intend to improve the economic and social conditions of the member companies in compliance with the objectives of the 2030 Agenda. It carried out actions of information and training for companies through the Lombard territorial structures on technologies for the containment of atmospheric emissions in the ordinary activities of distributing effluents on agricultural surfaces, accompanying companies to new technological approaches, also supported by public funding. The aspects of circular economy also apply to the agronomic use of the maintenance of public and private green areas. In addition, to enhance the enterprises run by young entrepreneurs, an exhibition is promoted in which the enterprises that work and produce in an eco-sustainable way are rewarded in a specific category dedicated to “energy for the future and sustainability”. Alongside its activity of a strategic-political-technical nature, Coldiretti has supported actions aimed at the consumer to transfer the technological and entrepreneurial choices adopted. It has done so through the education project for “Campagna Amica” and a publication dedicated to workshops inspired by the 17 objectives of the 2030 agenda by companies offering educational farm services. Information and dissemination of environmental impact improvement actions related to the distribution and burying strategies of livestock manure for proper agronomic management.

Nordcom is a Digital Company with customized solutions that has been operating for more than 15 years alongside Transport Companies and Public Administration Bodies to win the challenge of digitization. The “Acqua in Borraccia” project aimed at company employees, launched in December 2019, is aimed at discouraging the consumption and purchase of disposable plastic water bottles. An opportunity for everyone to adopt virtuous, responsible, and sustainable behaviour daily that has led to savings in a year of 26,000 bottles, equal to 242 kg of PET and more than 1.5 tons of CO2. The project was made public to employees with a personal internal communication, together with the distribution of the water bottles with the name and the company logo, to everyone.
The National Confederation of Craft Trade of Small and Medium companies is a trade association. The CNA (National Confederation of Crafts and Small and Medium Enterprises) is an autonomous and democratic association.

Qualification, professional growth, and business development: training to compete. ACCADEMIA DEGLI IMPIANTISTI CNA / TTR Institute Busto Arsizio - VA - In a single laboratory all the best plant technologies available for practical corporate and individual courses. The CNA project aims to give value to the professionalism of operators to increase their competitiveness on the market and equip them with the tools necessary to address new critical issues and consequently guarantee quality, efficiency, and safety to their customers. The legislative choices related to the environmental emergency, energy saving, and safety and the continuous technological evolution require an ever higher and above all diversified level of skills and professionalism. The progressive use of systems powered by renewable energy sources and the overall rethinking around the building / envelope represent a real technological and cultural revolution. However, the actual construction of the system remains crucial, which - if of quality - returns standards of comfort, eco-compatibility, and efficiency. Considering two years of restrictions due to the pandemic period linked to Covid, 49 courses were held, involving 321 participants employed by plant installation companies for a total of 640 course hours provided.

Confcommercio of Lombardy created, through the 10 Lombard territorial associations that compose it, the regional representation of the associations of enterprises of the Lombardy service sector. Already in 2019, Confcommercio Lombardia has started a process for raising awareness and disseminating good practices in the field of environmental sustainability of tertiary companies, called “Obiettivo Sostenibilità”. This project integrates with the actions planned by our Organization in partnership with A2A Energia, which provide for an approach to green issues with a first questionnaire of 20 questions, to be completed independently to assess one’s level of sustainability, at the address www.cresciamosostenibili.it. One of the scopes of “Obiettivo Sostenibilità” is the improvement of available energy costs, which can be achieved through the favourable agreement stipulated by Confcommercio Lombardia with A2A. Coherently, Confcommercio created the “Imprendigreen” entrepreneurial initiative, which is divided into a set of actions aimed both at raising awareness, training, and guide companies in the transition from a linear-economy model to a circular one, while seizing all the opportunities that European and national programs and funds will introduce in the coming years to innovate production, distribution and service offer models. The provided self-assessment tool, made up of 20 simple questions, allows entrepreneurs to evaluate the sustainability of their businesses and to obtain useful advice to improve the environmental impact.

Lombardy Energy Cleantech Cluster (LE2C) was founded in 2009 to support growth, innovation and regional competitiveness in the Energy and Environment sector. A “place” in which to develop research, innovation and business projects: www.energycluster.it

1. The project VIDA, which ended in September 2021, financed 62 innovative projects of European SMEs; of these, 9 Italian projects were financed, for a total of approximately € 440,000. Project ideas and impacts were disseminated in an event that saw the participation of 60 stakeholders, companies and policymakers from the regions involved.
2. As part of the R-ACES project, 3 IT tools have been developed to facilitate energy cooperation
between energy-intensive industries, which promote the Lombard Ecoregion that reduces CO₂ by at least 10%. In the Bergamo area, a paper mill was put in contact with A2A for the recovery of excess heat and to feed it into the current district heating network. In 2021 the results of the project were disseminated in 7 European conferences, reaching 590 stakeholders from 13 countries.

3. “Emerging and priority micropollutants” Working Group (GdL-MIE) was set up by the LE2C Cluster in 2018, with the support of the Region. In 2020 LE2C publishes the “Emerging Pollutants” Report (over 700 downloads) which contributes to strategies for water protection and is aimed at public administration, integrated water service managers, companies to get to citizenship. The results were presented in 3 international fairs, 3 sector conferences and dozens of dissemination events. Furthermore, the work of the WG-MIE was collected in the “Emerging Pollutants” Report (2020) https://tinyurl.com/bdezdpbh. Today the GdL-MIE has started the second phase of the project to address in more detail the problem of the diffusion of micropollutants and microplastics in Lombard waters.

**CONFAPI INDUSTRIA LOMBARDIA** is the regional representation of Confindustria which brings together the 9 Lombard territorial associations, 13 thousand companies and about 700 thousand employees. Confindustria Lombardia, together with the local associations, the Digital Innovation Hub Lombardia (DIH), the Enterprise Europe Network (EEN) has achieved the objectives of the “Confindustria Lombardia for Sustainable Development” program of commitments:

- Collecting over 50 sustainability best practices, with reference to the SDGs, with specific projects, such as: Confindustria Lombardia for sustainable development, EEN, AlplinkBioeco, DIH Experience Blog 4.0, World Manufacturing Forum.
- Proposing, in collaboration with institutional entities, formal agreements, scientific research, in-depth and training meetings in support of the Lombard industrial system, such as: the collaboration agreement with banks; the research “Climate change and business strategies” with the Bank of Italy; seminars on topics related to the environment (e.g. on waste management and cycle, on ESG - Sustainability and Finance), training, internationalization, innovation, projects related to PNRR.
- Supporting Lombard companies in the scouting and pre-feasibility analysis with respect to European, national and regional tenders, calls and funding projects through a) awareness actions (e.g. webinars on the LIFE program); b) participation in supply-demand matching platforms; c) assistance in over 200 ad hoc assessment paths proposed by the EEN network and the Lombardy DIH, on the subject of innovation, sustainability and digitization.

Despite the difficulty due to the emergency period due to the pandemic, the most relevant and significant action was the communication campaign on YOUTUBE “#GlobalGoals - Confindustria Lombardia for the UN Agenda 2030 - Sustainable Development” which saw the testimony of 12 companies, one or more representing the Global Goals identified by the program of commitments (3-4-5-6-7-8-9-11-12), as best practices of the 360-degree sustainability process of the Lombard Confindustria system, which have made it possible to highlight the competitive advantages deriving from the adoption of sustainable practices and to sensitize companies to adopt practices that meet the needs of the present while protecting future generations.
**Uninsubria**: Public university founded in 1998 with headquarters in Varese, Como and Busto Arsizio, 7 departments in various subject areas, 12,000 students, 38 bachelor's and master's degree courses, 20 medical specialisation schools, 8 doctoral schools and 10 masters. Uninsubria has included the pursuit of the Sustainable Development Goals (SVS) among the most relevant missions indicated in the University Strategic Plan 2019-2024. This mission is carried out in four different areas: making the university more sustainable as a structure, that is, decreasing its carbon footprint (e.g., energy consumption, sustainable mobility, etc.); doing interdisciplinary research on the issues of sustainable development and climate change; innovating the training offer and with the Third Mission, organizing cycles of seminars, events and applied projects and involving local stakeholders and schools. Starting from 2019, a specific Rectoral Delegation was created on these issues and an office dedicated to sustainability was set up; an Antarctic office was created for scientific research on global climate change. The aforementioned are only examples of the work carried out, which, depending on the specific area of reference, involved different subjects and investments. For communication, the dedicated page “Sustainable Uninsubria”, social networks and news on the site are used. Regarding reporting, some qualitative/quantitative indicators have been created for monitoring the objectives defined by the University Strategic Plan, which are periodically updated. We actively participate in the RUS (Sustainable Development University Network), also in the indicators table.

Of particular relevance is the Green School Project (G5), aimed at education and awareness of schools and citizenship in schools and citizenship with good CO\textsubscript{2} reduction practices; born in VA in 2009, it was extended to Lombardy in the school year 2019-20, thanks to the 2-year funding from AICS. The project is still active in 8 Lombard provinces with its own resources. Uninsubria is its founder and member of the Technical Scientific Committee (with the Varese Province, CAST, Agenda 21 Laghi, JRC Ispra).

**Altroconsumo**: is an independent consumer organization, whose mission is to inform, assist, defend and represent consumers and their rights in dialogue with institutions and businesses. The actions to implement the commitments undertaken with the Sustainable Development Protocol, in part aimed at making the association’s activity more sustainable, reducing its environmental impact and the use of resources, and in part were aimed at raising public awareness of its own affiliates and more. Covid obviously influenced the results estimated at the beginning, at least in some of the actions described, while it was irrelevant on others, which provided the expected results. Thus, the reduction in water consumption, resulting from the renovations and innovations introduced, counts 12,000 m\textsuperscript{3} / year of H\textsubscript{2}O saved in the 3 years preceding Covid. Then smart working was introduced, and the offices remained practically empty.

The “green commitment” to produce magazines sent exclusively by subscription has instead made it possible to save the equivalent of 6 t / year of plastic even during the years of Covid, for a total of 17 tons of plastic from June 2019 to the end April 2022. The Altroconsumo Forest has exceeded 10,000 trees for a total avoided CO\textsubscript{2}, in the first 10 years of plant life, equal to 1,605 t (calculated with the GlobAllomeTree database). Less Plastic in the Municipality was affected by the Covid lock-down, but still reached students and citizens of the 5 municipalities involved. The project produced information materials available to all and a handbook to reproduce the initiative in other territories.

**FLA**

**Lombardy Foundation for the environment (FLA)** s(FLA) supports governmental and all other kinds of local actors in taking care the environment.
It offers scientific and projecting skills useful for activating sustainability choices and policies. Reported actions:
A Restoration project of a green belt in Viale Fulvio Testi in Milan, within the scope of making cities and human settlements inclusive, safe, durable, and sustainable by adopting urgent measures to combat climate change and its consequences.
Preparation of the adaptation plan of the Municipality of Varese, as part of the Action Plan for Sustainable Energy and Climate (SECAP) of the Municipality of Varese.
REC – Rete Ecologica Ca’ Granda: the project’s goal is creating a system of ecological connections in a West-East direction in the south of Milan, connecting the main natural reservoirs linked to the major waterways (Ticino, Southern Lambro). ERMES- Educational Remote Multi-Experiential Science Flabs @ home, a new and creative way to bring the educational scientific laboratories of the Lombardia per l’Ambiente Foundation directly into the classroom.
CLIMADA Project - The climatic and environmental reconstruction of the Adamello area and the Central Alps.The activity consists in the reconstruction of the climatic evolution of the last centuries with reference to the effects of climate change in high mountain areas.
Of prominent importance is the “PIANTALÌ” project: THE NEW REGIONAL ECOLOGICAL NETWORK STARTS FROM CORMANO TO JOIN THE TRENORD RAILWAY NETWORK. With over 1200 essences planted in Cormano, the project created for Trenord by the Lombardy Foundation for the Environment in the broader “FILI” context of FNM enters into operation. A green area of 41 thousand hectares that will grow along the Lombard railway network, making the railway ecosystem even more sustainable. This is the heart of the “Piantalali” initiative, born and implemented thanks to the collaboration of FNM, Trenord and the Lombardy Foundation for the Environment as part of the FILI urban and extra-urban regeneration project. The first seed of the project - which will bring thousands of new trees and shrubs in 24 municipalities crossed by the FERROVIENORD network - was sown in Cormano, where reforestation and cleaning of uncultivated green areas were started in March.

POLYTECHNIC OF MILAN is a public science-technology university that trains engineers, architects, and designers. It has an innovative vocation in teaching and research, with a strong link with industries and the international context.
Reported actions:
Drafting of programmatic documents and action plans on the most urgent issues (Gender Equality Plan, CO₂ Emissions Mitigation Plan, Home-Work Travel Plan). Development of reports for monitoring and communication purposes (Environmental Sustainability Report, SDGs Report @Polimi). Implementation of communication and awareness raising initiatives and events, within the Sustainable Campus project. Financing and development of over 50 responsible research projects over the 8 editions of the Polisocial Award. Opening of two Off Campus spaces in the city of Milan, where services were provided to the public and educational initiatives for the inhabitants. Implementation of innovative building interventions characterized by attention to energy saving, sustainability and liveability of spaces as part of the VIVIPOLIMI. The project recipients of the actions of the Politecnico di Milano for Sustainable Development are primarily the University community (students, professors, researchers, administrative staff); to these are added the inhabitants of the city of Milan (Campus and Off Campus), and of the Municipalities that host the Territorial Poles. The training and dissemination events are open to everyone. The communication of the activities and the results took place through the institutional website of the University, the sites dedicated to the various initiatives and the respective social channels.
The most important action is the Sustainable Campus project, due to the variety of activities and projects proposed on the relevant issues and in particular water, mobility, and circular
Economy, which have made it possible to reach a very large number of recipients; for the large number of communication and awareness-raising initiatives (social channels, Sustainability Days, participation in all the reviews of the ASVIS Sustainable Development Festival, Weeks European Mobility).

**ENEA**: national agency for new technologies, energy, and sustainable economic development, is a public law body aimed at research, technological innovation, and the provision of advanced services to businesses, public administrations and citizens: [https://www.enea.it/en](https://www.enea.it/en). Working with Lombard stakeholders, the actions have allowed the transfer and dissemination of technologies and knowledge to the Lombardy production system (ATELIER - Technical and training activities for the development of entrepreneurship on the circular economy; CREIAMO - Circular economy of the olive and wine supply chains), to the PA (PECC - Point for Energy and the Climate for Municipalities), to citizens (Construction of a metropolitan One Stop Shop to support energy redevelopment of buildings) as well as to doctoral students (Collaboration agreement for the development and strengthening of laboratories of ENEA research and for the enhancement of human capital) in the general framework of the transition towards sustainable production and consumption models. Actions took the form of 10 webinars for SMEs, 6 training meetings in municipalities, creation of the “Energy Wall”, opening of 1 Energy Desk (Monza) and 3 ENEA Laboratories, co-financing with infrastructures in the advanced R&D sectors, as well as co-tutoring of 20 doctorates and 60 scientific publications. All actions were promoted through the ENEA information channels (news, website, social network) as well as on the Open Innovation platform of the Lombardy Region, during the Ecomondo Fair and during the Forum for Sustainable Development as well as in national and international conferences.

Founded 40 years ago, the **University of Brescia** is a “free learning community” that expresses its social responsibility through inclusion and integration. The purpose of the University Plan for Sustainable Development is to transversally promote the application of the principle of sustainability in the processes, functions, and activities of the University, from teaching to research and the third mission. At the same time, the University promotes social cohesion and inclusion, the reduction of inequalities, the promotion of cultural growth and sustainable economic progress of the society. The University Plan makes the 17 Sustainable Development Goals of the 2030 Agenda its own, declining them into six thematic areas. For each area, a specific long-term strategy and an annual action plan are defined, as well as a manager within the University Commission, articulated on four levels. The working and analysis method applied with the Plan then inspired other relevant initiatives for the sustainable development of the territory, such as the elaboration of the Sustainable Development Strategy for the province of Brescia.

**ANCE Lombardy** is the regional representative body of building contractors. It examines, deals with, and coordinates the issues of interest in the sector in agreement with the Lombard Territorial Associations, maintaining a constant relationship with the National ANCE.

1-ANCE internal communication: numerous webinars were organized on various topics concerning sustainability: urban regeneration (30), energy efficiency (40), environment (60), technology and innovation (30), safety (50+). Numerous updates disseminated through websites and associative magazines. Organized continuous and professional training activities for professionals and promoted digitization initiatives (*eg* “Check”).
2-ANCE external communication: dedicated columns were launched in the context of local television programs, newspapers / magazines and industry websites. Taken part in local work and discussion tables (eg "There is Milan to be done" and "Restructuring Como") and entered into agreements with the Chamber of Commerce. Two competitions aimed at lower secondary schools were organized.

3-Collaboration with credit institutions: agreements have been signed that provide support branches for access to credit and observers for analysing the sustainability of the real estate market.

4-Home value +: agreement to promote energy efficiency (beneficiaries to date about 50 condominiums). Agreements signed for the use of energy from renewable sources on site.

5-Aggregate Market: project launched and available throughout Italy through the O.R.So.

6-Research activities: five Lombard universities research activities on circular economy, C&D waste recovery and digitalisation have been funded; participation in: two university researches, three international projects and numerous working groups.

The "Market Inerti" is a project promoted by ANCE Lombardy and Lombardy region. It concerns a platform for the dissemination of information on the availability of recycled aggregates on the market (with CE, DOP, transfer test and other possible certifications) to be used in place of the natural quarry material. The use of the platform is free and voluntary for all users (producers and users) of the Regions who use the O.R.So.

Acque Bresciane is the company that deals with the integrated water cycle in the province of Brescia and manages the service in 95 municipalities.

1. Reduction of water losses, with the aim of reducing current network losses by 50%. In 2021 Acque Bresciane reached and exceeded the target relating to its annual KPI linked to this action, replacing 28 km of obsolete networks (KPI 2021 equal to 23 km).

2. Improvement of water quality, with the aim of reducing non-potability to 0%. To act on this problem, Acque Bresciane undertakes to implement the Water Safety Plan (PSA) for each drinking water system managed. In 2021, the reference KPI for this action and relative to the percentage of the population involved in PSAs grew to 15% of the total users, reaching 81,807 citizens.

3. Reuse of water and purification, with the aim of eliminating infringements. In 2021 Acque Bresciane resolved 4 out of 15 remaining infringements, moving towards the resolution of all of them.

4. Promotion of sustainability, with the aim of further integrating sustainability into one's business. In 2021, in Acque Bresciane, sustainable purchases increased from 50% to 80% of the total value of orders and contracts entered by the company, exceeding the annual growth target linked to the KPI of 70% overall.

5. Reduction of emissions, with the aim of achieving 100% green vehicles. In 2021, Acque Bresciane's fleet of green vehicles increased from 14% to 18% of the total company fleet, reaching the annual growth target linked to the KPI.

Among the actions developed by Acque Bresciane, the improvement of water quality (objective 2, see above) has a role of primary importance, aimed at reducing the purchase of plastic bottles and encouraging the consumption of water for food use. In fact, Italy, while relying on high quality water from the water supply network, remains the first country in the world for consumption of bottled mineral water.

Acque Bresciane considers the PSA a fundamental tool, as it not only allows to improve the safety and quality of the water, but also to predict risks in the long term.
**Deloitte** is one of the largest companies in professional services for businesses, settled in over 150 countries and territories. The Deloitte network brings high quality knowledge and services to its customers and today employs over 9,000 people in Italy. Deloitte has launched a training and awareness program on the environment and climate change globally, which is mandatory for all its employees. The course developed together with WWF is delivered online and is an opportunity to learn about the risks deriving from climate change and a guide for adopting responsible behaviour, at work and at home. This initiative is part of the World Climate environmental strategy, aimed at addressing sustainable choices inside and outside the organization.

Deloitte people also could join Smart Working, a useful facility for their well-being and the reduction of the environmental impact of local mobility, with the same objective a 100% green company car list (hybrid and electrical cars).

Thanks to the Volunteer Hub, the volunteer program of the companies of the Deloitte network in Italy and the Deloitte Foundation, the Deloitte people can also personally engage in social responsibility and environmental sustainability activities to contribute to a better future for all. The activity is carried out in collaboration with Third Mission entities such as Worldrise (raising awareness on environmental issues), Recup (recovery of food surpluses) and Equoevento (support for organizational processes).

In addition, Deloitte distributed company smartphones that are linked to a charity initiative that supports the healthcare system. The climate change course was attended by over 4,500 Deloitte people in Lombardy, more informed and aware citizens who live and work in the Region and can raise awareness of other people inside and outside the organization. Smart Working is open to around 5,000 Deloitte employees in Lombardy. The company mobile phones listed above are approximately 2,000 units.

**Iterchimica S.p.A.** is a company based in Bergamo’s province, leader in the production of high-tech additives for asphalts and technologies with reduced environmental impact. For every km of road built with Gipave® we recover 20 tons of recycled plastic, we save 70% of CO$_2$eq and we do not release microplastics. Furthermore, the floors made with Gipave® are 100% recyclable, limiting the waste of non-renewable natural resources and eliminating energy consumption. We contribute to developing an infrastructural system that guarantees environmental, social, and economic benefits.

**Way2Global** is a woman start-up born as a Benefit Company that helps companies to enter in the international market throughout translation services. “Sustainable reborn” after 30 years of traditional business, we combine social impact and profit by generating inclusive prosperity.

Below are the main results of the various actions taken:

**Way2Academy**
- **Results:** 60+ retrained translators with digital skills.
- **Investment:** 5200 euros (platform and video).
- **Recipients:** translators who have lost their jobs with the pandemic.
- **Communication:** Way2Global online channels, STEMintheCity Municipality of Milan, STEAmiamoci di AssoLombarda / Confindustria, Constructive Journalism (Italy) and Constructive Network (USA).

**Made in B Italy**
- **Results:** Co-founding of AssoBenefit, launch of the Made in B Italy book on the Italian Stock Exchange for Bookcity, mission to EXPO Dubai to export Benefit Companies as sustainable
companies, viaticum of female empowerment.

- **Investment**: 8000 euros (book and events organization).
- **Recipients**: Entrepreneurs to convert businesses into Benefit Companies and do business with a social impact.
- **Communication**: Way2Global and AssoBenefit online channels, Bookcity review, media. Reporting: DNF Way2Global.

**Green Translations**

- **Results**: Decarbonisation of our business 30 years ahead of EU targets, a Climate Positive company from December 2021.
- **Investment**: € 8500 (emissions inventory, certification, forestation, and carbon credit
- **Recipients**: Environmental capital and the supply chain we involve in good green practices.
- **Communication**: Online channels Way2Global, interview, conferences and testimonials.

**Plenitude** is the company 100% owned by Eni SpA. The company is involved in the renewable energy production; it provides the sale of gas, electricity and energy services and integrates a network of charging points for electric vehicles.

Plenitude is also a Benefit Company. With reference to the residential customer segment, Plenitude offers solutions for the energy and anti-seismic requalification of both condominiums and single-family buildings and villas, through the product called “CappottoMio”. This solution, which can benefit from the current tax incentives related to energy class improvements (Superbonus 110%, Ecobonus and Sismabonus), provides for the implementation of different types of intervention, such as: thermal insulation of facades and roofs with “external insulation” systems”. In particular compliance with the CAM requirements, that is the certification that requires the use of materials containing a minimum percentage of recycled materials, and the insulation of the walls; the requalification or replacement of heating systems with “hybrid” systems consisting of a heat pump integrated with a condensing thermal module or only with centralized and autonomous condensing boilers; replacement of fixtures; the anti-seismic consolidation. The interventions carried out in 2020 and 2021 made it possible to redevelop the buildings making them more performing by significantly reducing primary energy consumption, even over 30%-40%.
Acronyms used in the document

ANCI – Associazione Nazionale dei Comuni Italiani (National Municipalities Associations in Italy)
AQST – Accordo quadro di sviluppo territoriale (Framework Agreement for Territorial Development)
ARPA – Agenzia Regionale per la Protezione dell'Ambiente (Regional Environmental Protection Agency)
ATS – Agenzia di Tutela della Salute (Healthcare Protection Agency)
CAM – Criteri ambientali minimi (Minimum Environmental Criteria, the environmental requirements applied to public purchases)
CER – Comunità dell’energia rinnovabile (Renewable Energy Community)
CERL – Comunità Energetica Regionale Lombarda (Lombard Electrical Community, a tool for promotion and coordination of CERs in the region)
CIP – Comitato Italiano Paralimpico (Italian Paralympic Committee)
DASCU – Dipartimento di Architettura e Studi Urbani presso il Politecnico di Milano (Architecture and Urban Studies Department of Milan's Technical School)
DEFR – Documento di economia e finanza regionale (Regional financial-economic document, which contains the guidelines for annual planning of the Region's expenses)
ERSAF – Ente regionale per i servizi all’agricoltura e alle foreste (Regional body for agricultural and forestry services)
ESG – Environmental, Social and Governance
FLA – Fondazione Lombardia per l’ambiente (Lombardy’s Foundation for the Environment)
GPP – Green Public Procurement
IeFP – istruzione e formazione professionale (Education and vocational training)
ISPRA - Istituto superiore per la protezione e la ricerca ambientale (Higher institute for environmental protection and research)
ISTAT – Istituto nazionale di statistica (National Statistics Institute)
ITS – Istituti Tecnici Superiori (Technical high schools)
MiTE – Ministero della Transizione Ecologica (Ministry of the Ecological Transition)
MiSE – Ministero dello Sviluppo Economico (Ministry of Economic Development)
Move-In – Monitoraggio dei veicoli inquinanti (Monitoring of polluting vehicles, an experimental project for controlling vehicles’ emissions)
NADEFR – Nota di aggiornamento al documento di economia e finanza regionale (Update draft of the regional financial-economic document)
NEET – Neither employed nor in education or training
OCSE – Organizzazione per la cooperazione e lo sviluppo economico (OECD)
OSN – Obiettivi strategici nazionali (National strategic goals, the goals of the National SD Strategy)
OSR – Obiettivi strategici regionali (Regional strategic goals, the goals of the Regional SD Strategy)
P_I, P_II... – Reference to the e 5 Ps of Agenda 2030: Planet, People, Prosperity, Partnership
PA – Pubblica Amministrazione (Public Administration)
PAR – Piano d’Azione Regionale (Regional action plan)
PLIS – Parco locale di interesse sovracomunale (Local plan of multi-municipal interest)
PNRR – Piano Nazionale di Ripresa e Resilienza (National Recovery and Resilience Plan)
POR FESR – Regional Operative Plan for the European Reagional Development Fund, defining the guidelines for allocation of the European resources assigned to regions for the local development
PRIA – Piano Regionale degli Interventi per la qualità dell’Aria (Regional plan for air-quality measures)
PRS – Programma Regionale di Sviluppo (Regional Development Plan, the main tool for regional policy programmation)
RUS – Rete delle Università per lo sviluppo sostenibile (Network of universities for SD)
SDG – Sustainable Development Goal
SILC – Statistiche su reddito e condizioni di vita (Statistics on Income and Living Conditions)
SNSvS - Strategia nazionale per lo sviluppo sostenibile (National Strategy for Sustainable Development)
SRSvS - Strategia regionale per lo sviluppo sostenibile (Regional Strategy for Sustainable Development)
UPL – Unione delle Province Lombarde (Union of Lombard Provinces)
VAS – Valutazione Ambientale Strategica (Strategic Environmental Assessment – SEA)
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