



 **Regione Emilia-Romagna**



# VOLUNTARY **LOCAL** REVIEW **2022**

**EMILIA-ROMAGNA  
REGION  
METROPOLITAN CITY  
OF BOLOGNA**



## FOREWORD

### ***Institutional collaboration is added value to build a sustainable future***

*Stefano Bonaccini*, President of the Emilia-Romagna Region

*Matteo Lepore*, Mayor of the Metropolitan City of Bologna

All countries are called upon to strive to define their own sustainable development strategy to achieve the goals set out in the UN 2030 Agenda for Sustainable Development. With the 2030 Agenda Regional Strategy for Sustainable Development and the Metropolitan Agenda 2.0, our territory assumes the paradigm of development and growth based on environmental, social, economic and institutional sustainability, as well as on the principles of universality, integration, participation and social inclusion. Goals aimed at reducing economic, social, environmental and territorial divides and achieving full gender equality at a time when the pandemic has inevitably marked breaking points on all fronts of sustainability. In recent months this has been compounded by the disturbing scenario of a war not far from our country's borders, which challenges us as bearers of a democratic and pacifist conscience, but also as citizens of a broader Europe where we are called upon to make our voice heard and to do our part. A crisis that is also affecting our territory and our communities economically, and that is already having a great impact on the families and businesses that live and work in this area due to the rising costs of energy and raw materials. This is why we must continue to work as one community, inspired by the Goals of the UN 2030 Agenda. Our territory has the capacity to become a laboratory for these new policies, investing in energy and waste, developing a new green production chain, stimulating a change in food consumption, reducing – as envisaged by regional law – land consumption, triggering virtuous processes of urban and environmental regeneration, and promoting biodiversity in every action. In this context, the 17 Goals of the UN 2030 Agenda represent a great opportunity for change, also in view of the resources of the National Recovery and Resilience Plan (NRRP) and the seven-year programming of European funds, for which the region has defined the priorities for action in the Regional Strategic Document for the Unified Programming of European Development Policies 2021-2027 and in the new Regional Strategy for Smart Specialisation in Research and Innovation 2021-2027.

As already shared in the Pact for Work and Climate, the objective in Emilia-Romagna is to generate new quality jobs, accompanying the region in the ecological and digital transition in order to reduce economic, social, environmental and territorial divides and achieve full gender equality.

The role and collaboration of regional and local institutions is crucial, indispensable for achieving many of the goals and targets of the UN 2030 Agenda, and this requires coordination of efforts at every level of government.

This is why it was decided to set up a multi-level regional steering committee with the local authorities to define a shared set of measurable and consistent objectives at the various levels of government, starting from the experience of the metropolitan city of Bologna and the many experiences already in place throughout the region. The objective is the involvement of municipalities in the process of the territorialisation of the SDGs, in order to create a multi-level system of Sustainable Development Agendas and Strategies embedded in the programming cycle of the authorities

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## Introduction

The 2030 Agenda Strategy for Sustainable Development of the Emilia-Romagna Region and the Metropolitan Agenda for Sustainable Development 2.0 of the metropolitan city of Bologna were drafted through interaction and collaboration among the various bodies and are incorporated in their strategic instruments.

### **The 2030 Agenda Regional Strategy for Sustainable Development**

The Emilia-Romagna 2030 Agenda Regional Strategy for Sustainable Development is rooted in the regional council's 2020-2025 Mandate Programme and in the Labour and Climate Pact signed on 14 December 2020 with the institutional, economic and social partnership and the metropolitan city of Bologna.

In keeping with the Mandate Programme, in which the council had already underscored the relationship between its own objectives and those of the UN 2030 Agenda, the Pact for Work and Climate outlines a shared project for the relaunch and development of Emilia-Romagna aimed at generating new quality jobs, accompanying Emilia-Romagna in the ecological and digital transition. This project, which takes the UN's 2030 Agenda for Sustainable Development as its primary reference, is based on sustainability in its three inseparable components, i.e. the environmental, social and economic, with the aim of reducing economic, social, environmental and territorial divides and achieving full gender equality.



The 2030 Agenda Strategy for Sustainable Development was approved by Council Resolution no. 1840/2021.

### **The Metropolitan Agenda for Sustainable Development 2.0**

The definition of a Metropolitan Agenda for Sustainable Development 2.0 comes as the culmination of an important process lasting several years. Defined as a wide-ranging local body responsible for strategic, environmental and territorial planning, economic growth and social development, mobility and infrastructure, and services to the municipalities that make it up, the metropolitan city has the role

of identifying and coordinating development strategies for the entire metropolitan area, in close cooperation with national and regional policies. From its earliest years, the metropolitan city of Bologna has therefore been at the forefront in implementing the principles of sustainable development. It is no coincidence that in June 2017 Bologna was chosen as the venue for the G7 Environment Ministers' meeting that ended with the signing of the Bologna Charter for the Environment by the mayors of Italy's metropolitan cities. The Charter is rooted in the international principles of the United Nations 2030 Agenda and aims to translate them into virtuous local practices through the territorialisation of sustainability policies at a local level. Specifically, the Charter identifies eight environmental issues related to Goal 11 - Sustainable Cities and Communities and makes commitments that can be traced back to the EU strategy guidelines, indicates measurable goals and targets and defines possible prospects, even on a national scale. Reinforcing its commitment and involvement on sustainability issues, the metropolitan city of Bologna has placed environmental, economic and social sustainability at the forefront of the founding principles of the 2018 Metropolitan Strategic Plan 2.0 (MSP 2.0), the policy approved by the metropolitan council, which guides the actions of the metropolitan city, the municipalities and unions of municipalities, identifying strategic, medium- and long-term objectives. In this context, in 2019 a first metropolitan Agenda for Sustainable Development was drawn up in implementation of the Bologna Charter for the Environment, with the identification of strategies and political guidelines in relation to the goals more properly ascribable to the main environmental issues of interest to the territory, i.e. air pollution, land use and green management, waste management and circular economy, water supply, energy consumption and renewable sources, mobility. Following the



public notice of the Ministry of the Environment for the funding of Metropolitan Agendas for Sustainable Development of July 2019, the metropolitan city of Bologna presented the Agenda 2.0 project to apply all the SDGs at the local territorial level taking into account all the dimensions of sustainability, in an approach that includes local actors.

# 1

## Framing

### 1.1 Emilia-Romagna Region



#### Economy (Source: Istat)

GDP (2020): 149,633 million current euros  
 GDP per inhabitant (2020): 33,614.10 current euros  
 No. of companies (Asia 2019): 359,017  
 No. of employees in companies (Asia 2019): 1,630,292  
 No. of farms (2013): 64,480

#### Labour market 2020 (Source: Istat)

Employment rate: 68.8%  
 Male employment rate: 75.5%  
 Female employment rate: 62.0%  
 Unemployment rate: 5.7%  
 Male unemployment rate: 4.8%  
 Female unemployment rate: 6.9%

Population as at 1-1-2021 (Source: Emilia-Romagna Region)

Total residents: 4,459,866

Male residents: 2,172,153

Female residents: 2,287,713

*The regional population shown does not include the municipalities of Montecopiolo and Sassofeltrio (which joined Emilia-Romagna in June 2021)*

Territory as at 1-1-2021

Number of provinces: 8

Number of metropolitan areas: 1

Number of municipalities: 328  
*(not including the municipalities of Montecopiolo and Sassofeltrio, which joined Emilia-Romagna in June 2021)*

Surface area: 22,452.78 km<sup>2</sup>  
*(not including the territories of Montecopiolo and Sassofeltrio)*  
 (Source: Istat)

Population density: 198.63 inhabitants per km<sup>2</sup> (Source: Istat for surface area, E-R for population)

Agricultural surface area used (2013): 1,038,052 hectares  
 (Source: Istat)

## 1.2 Metropolitan city of Bologna



### Population as at 1-1-2021 (Source: Emilia-Romagna Region)

Total residents: 1,015,608  
 Male residents: 491,283  
 Female residents: 524,325  
 Households as at 31/12/2020 (source: municipal registers): 493,495  
 Percentage of youth ( $\leq 14$  years) as at 31/12/2020 (source: Istat): 12.4%  
 Percentage of elderly ( $\geq 65$  years) as at 31/12/2020 (source: Istat): 24.4%

### Territory as at 1-1-2021

Number of municipalities: 55  
 Number of unions of municipalities: 7  
 Surface area: 3,702.32 km<sup>2</sup> - (Source: Istat)  
 Percentage of land consumed in 2020 (source: ISPRA): 8.9%  
 Population density: 274.3 inhabitants per km<sup>2</sup> (Source: Istat)  
 Agricultural surface area used (2013): 173,224.46 hectares (Source: Istat)

### Economy

Average income per taxpayer (2021 tax forms for 2020 income; source: MEF): €25,934  
 No. of active companies (Asia 2019): 86952  
 Percentage of female enterprises (infocamere 2019): 21.3%  
 No. of employees in companies (Asia 2019): 430,499  
 No. of farms (2013): 10,790

### Labour market 2020 (Source: Istat)

Employment rate: 70.2%  
 Male employment rate: 75.2%  
 Female employment rate: 65.2%  
 Youth employment rate: 18.3%  
 Unemployment rate: 4.7%  
 Male unemployment rate: 4.3%  
 Female unemployment rate: 5.2%  
 Youth unemployment rate: 23.2%



## 2.1 Governance of the Emilia-Romagna Region's 2030 Agenda Strategy for Sustainable Development

The 2030 Agenda strategy for the Sustainable Development of the Emilia-Romagna Region was drafted by an interdepartmental technical working group made up of more than 40 representatives of the general directorates, called upon to contribute to the definition of the document, an operational steering group made up of experts from the competent structures for methodological support and the alignment with the Regional Economic and Financial Document (REFD), as well as the steering committee for the governance and strategic control of the regional planning established by Regional Decree 602/2021.

The delegation of the 2030 Agenda is entrusted to the vice president of the region, who coordinates the work together with the director of the cabinet of the council president.

A cross-cutting work, therefore, functional to generating the integration of the key dimensions of sustainability in all policies that is indispensable to achieve the objectives, carried out with the support of ASviS, and the involvement of the investee company Art-ER and the Regional Agency for Prevention, Environment and Energy (ARPAE), as well as the network of regional universities united in Emilia-Lab.

Specifically:

- *Together with ASviS, analyses of the Region's positioning with respect to the Goals of the 2030 Agenda and the identification of quantitative targets for 2025 and 2030 were performed.*
- *Together with ARPAE, methods for the construction of integrated reports and indices for decoupling environmental pressures from economic growth were studied and set up, and sustainability training and education actions were planned and implemented.*
- *With the support of Art-ER, initiatives for stakeholder involvement and communication of sustainable development goals were set up and managed, and contributions from various participatory fora or sectoral experiences were systematised.*
- *With the support of Emilia-LaB, the network of universities in Emilia-Romagna for scientific, didactic and informative collaboration in the field of economic studies, aspects such as the impact of policies and the territorialisation of sustainable development objectives were explored in particular.*

## 2.2 The governance of Agenda 2.0 of the Metropolitan City of Bologna

The Metropolitan Strategic Plan technical operational coordination office within the general directorate of the metropolitan city takes care of, supports and coordinates the implementation of Agenda 2.0.

It was deemed appropriate to avoid the multiplication of “places of debate”, preferring to use the institutional venues envisaged in the metropolitan by-laws. All stakeholders (institutional and non-institutional) have been involved in various ways since the early stages of the Agenda 2.0 definition project, in order to outline an Agenda 2.0 co-designed and shared with the most significant organisations of the territory.



It was decided to maintain the governance system that accompanied the work on the drafting of the strategic plan, strengthening it with the establishment of an inter-sectoral and inter-institutional working group to act as a steering committee for the implementation and deployment of the Metropolitan Agenda for Development 2.0. It is composed of one or more representatives for each sector/area of the metropolitan city and a representative for the municipality of Bologna, the Emilia-Romagna region and ARPAE. The working group is called upon to discuss and evaluate the progress of the project as a whole and the results produced by the individual actions undertaken. For specific technical issues, additional in-house or external professionals from both public and private entities may be called upon to participate as experts and authoritative witnesses.

Another place for discussion is the office of the presidency. Composed of the metropolitan mayor and the presidents of the unions of municipalities, it is the body supporting the work of the metropolitan conference of mayors, and therefore the body best suited to activate local actors. Meetings with the office of the presidency accompanied the Agenda 2.0 drafting process, and depending on the progress of the work were used for discussion and debate, gathering input and sharing content.

Furthermore, to ensure a more fruitful discussion, the councils of each union and the municipality of Bologna were directly involved in working groups and workshops.

Particular attention is paid to the participants in the table of investee companies and the development council, places of participation and discussion with economic and social actors established during the drafting of the Metropolitan Strategic Plan 2.0. Additional support was provided by ASviS as scientific and technical advisor.



# 3

## Territorial strategies and the consistency of public policies for sustainable development




### 3.1 The Emilia-Romagna Region's 2030 Agenda Strategy for Sustainable Development

The positioning of Emilia-Romagna with respect to the targets defined at a national level confirms the great history of the region, undoubtedly among the most advanced in Europe in terms of health, education, employment, innovation, social inclusion and growth.

As the following radar chart shows, compared to Italy as a whole Emilia-Romagna was above the national average in 2020 in most of the goals, underscoring the need to accelerate environmental sustainability, including by continuing the coordinated action with other Po Valley basin regions with respect to air quality.



Source: Elaborations of the Emilia-Romagna Region Statistics Office on ASviS 2020 data

Indeed, the chart based on composite indices drawn up by ASviS shows that Emilia-Romagna ranks above the national average in 9 of the 14 goals:  Goal  is in line with the national average. It is below the national average for Goals . For goals 13, 14 and 17, there are no significant comparable and up-to-date data available on a local scale.

### 3.1.1. THE 17 GOALS OF THE EMILIA-ROMAGNA REGION

Each of the 17 Goals is presented as follows:

- **Introduction:** a short text framing Emilia-Romagna's objective, values and principles.
- **Positioning:** a chart and a text frame Emilia-Romagna with respect to a composite indicator that ASviS has elaborated and uses to monitor the progress made by Europe, Italy and its territories over time for each of the 17 Goals. Such elaborations make it possible to represent a set of indicators relating to the same field of analysis and territory through a single, easy-to-read index.
- **Strategic lines of action:** the Regional Strategy relates the lines of action of the Mandate Programme and the Jobs and Climate Pact to each Goal as they are instrumental in achieving the targets by 2025-2030. The source is represented by symbols:



Specific objectives of the 2020-2025 mandate programme

#### Jobs and Climate Pact



Emilia-Romagna, region of knowledge and know-how



Emilia-Romagna, region of ecological transition



Emilia-Romagna, region of rights and duties



Emilia-Romagna, region of work, enterprises and opportunities

DT  
Digital  
transformation

Digital transformation

S  
Simplification

Simplification Pact

L  
Legality

Legality

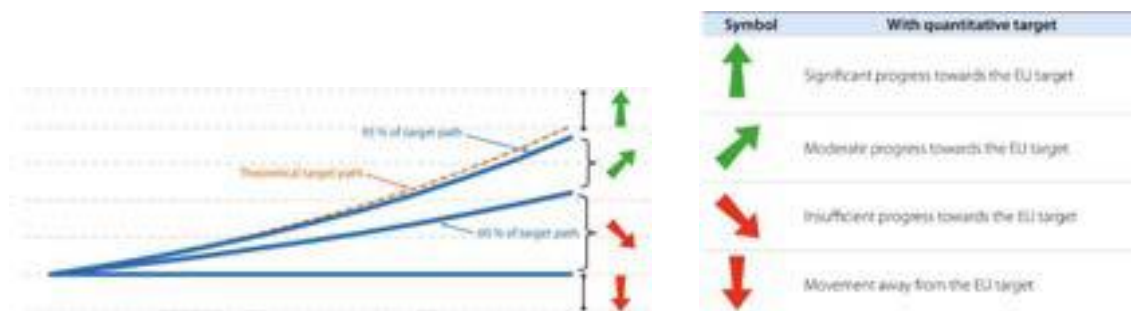
P  
Participation

Participation

**Regional indicators and targets:** The 2030 Agenda regional strategy for Sustainable Development identifies about **100 targets**, i.e. quantitative objectives to be reached by 2025 and/or 2030, partly coinciding with those assumed at a European and national level, partly defined at a regional level. Both are **quantitative targets using result indicators** (impact and/or output indicators).

In order to monitor how the regional situation is evolving with respect to the targets defined, the **Eurostat methodology** is used, which, drawing on at least five years of historical data, assesses the intensity and direction in which an indicator is moving with respect to the target set. This assessment has four classifications:

1. Significant progress (the target will be reached)
2. Moderate progress (the target will not be reached, but movement is in the right direction)
3. Insufficient progress (target will not be reached due to minimally positive trends)
4. Wrong direction (the target will not be reached, in fact results are moving further away from the target)



**Target table:** for each target identified provides:

- **Indicator:** specifies whether the indicator belongs to the composite developed by ASviS or whether it is an indicator chosen by the Emilia-Romagna Region
- **Indicator description:** defines the indicator
- **Positioning of the Emilia-Romagna region**
- **Target:** indicates the quantitative objective and the institution/body that defined it. If the Emilia-Romagna region has chosen a more challenging target, both targets are noted.

**Related Goals:** indicates the main other goals that contribute to the achievement of the objectives.

### 3.1.2 IMPLEMENTING THE STRATEGY

#### Tools to guide administrative action

Just as at the national level the implementation of the National Sustainable Development Strategy (NSDS) has to link up with planning documents, in particular with the National Reform Programme (NRP) and, more generally, with the Economic and Financial Document (EFD), at the regional level the strategy has to coordinate with a plurality of planning and governance tools both internal and “external” to the administration.

On this aspect, both the 2030 Agenda and the National Strategy for Sustainable Development are very clear: the identified goals can only be achieved through the integration of different levels of governance. A governance that must necessarily be collaborative, multi-level (vertical and horizontal), as well as a director and catalyser of the commitments of all the actors involved, and therefore capable of co-designing with the territory itself, improving the pre-existing conditions and also targeting its own

organisational performance towards this goal in order to increase the level of economy, efficiency and effectiveness of its action.

Below are the main economic programming, planning and control instruments of the administration to implement the objectives of the regional strategy.

### **European session of the legislative assembly**

Since 2008, the Emilia-Romagna Region has developed its own model of participation in the formation and implementation of European Union policies and law, summarised in the European session of the legislative assembly (Regional Law 16/2008).

The European session offers a political summary of what the region has achieved (ascending phase) through a report on the state of compliance of the regional system prepared by the council and on what it intends to achieve (ascending phase) in the matters within the region's remit concerning the initiatives announced by the European Commission in its annual work programme, with particular attention to those having a potential impact on the Emilia-Romagna territory.

In the regional compliance report prepared by the council, it will be necessary to report on the regional 2030 Agenda Strategy for Sustainable Development in the context of regional development policies, with a particular focus on cohesion policies.

### **Regional Economic and Financial Document (REFD)**

The Regional Economic and Financial Document (REFD) of the Emilia-Romagna region, approved by the council by 30 June each year, starting from the Mandate Programme and the Labour and Climate Pact defines the strategic objectives that the regional government intends to achieve during the legislature, specifying the results expected for each objective each year of the three-year period, coinciding with the time span of the budget forecast, and at the end of the legislature.

The strategic objectives are illustrated by mission and budget programme as required by Italian Legislative Decree 118/2011, and are broken down by department of reference. The Regional Economic and Financial Document (REFD) defines the framework of reference for the preparation of multi-annual and annual budgets and for the definition and implementation of regional policies.

Within the REFD, objectives for change are also enumerated as strategic objectives are transformed into technical goals that the government identifies and uses to elaborate performance assessments.

For some years now, the strategic objectives in the REFD have been correlated with national strategic areas and choices, and through them with the global goals of the 2030 Agenda. Looking ahead, in order to ensure programming that is fully consistent with the strategy, as well as to implement an increasingly integrated regional policy monitoring and evaluation system, the strategic objectives of the REFD and the objectives for change will have to be correlated with the Goals and targets of the 2030 Agenda Regional Strategy for Sustainable Development.

### **EU and national planning (ERDF, ESF+, EAFRD, FSC)**

For the 2021-2027 planning cycle, the European Union has adopted the UN 2030 Agenda for Sustainable Development and the Green Deal as a high-level strategic reference for planning.

With the **Regional Strategic Document for the unitary planning of European development policies 2021-2027** (RSD), approved by the legislative assembly in June 2021, the Region outlined the strategic

framework within which to address all the European and national resources that the region will benefit from, with the aim of relaunching the development of the regional territory in a sustainable way and to lead Emilia-Romagna towards the European targets to be achieved by 2030 and 2050.

With a vision of planning based on integration and complementarity, the RSD orients the operational programming of the funds managed by the regional administration towards the strategic objectives of the **Jobs and Climate Pact**, directs the capacity of the regional system to attract additional resources, broadening the policy mix for sustainable development and favouring a vision of planning based on integration, which enhances complementarity and synergies.

The RSD is therefore the regional planning tool for European development policies that ensures the “translation” of the strategic objectives that can be pursued through the European funds into specific objectives of the regional operational programmes, helping to define their economic and financial planning within the framework of the REFD.

The RSD, the **Smart Specialisation Strategy 2021-2027**, also approved in June 2021, which assigns research and innovation a driving role in the transition towards fairer and more sustainable production and consumption models, adopts the priorities of the UN 2030 Agenda, taking the same challenge-based approach that is indispensable for addressing the challenges of change and responding to society's new needs, both on the economic and on the environmental and social fronts. Regional Operational Programmes, also thanks to the thematic concentration thresholds<sup>[1]</sup> indicated by Regulations, will be a decisive tool to fully and concretely implement the development objectives outlined in full consistency by regional unitary planning, the Jobs and Climate Pact and the Emilia-Romagna 2030 Agenda Strategy. This consistency gives value to the method of discussion and sharing with the local authorities and all the economic and social representatives inaugurated with the Jobs Pact of 2015 and further strengthened with the Jobs and Climate Pact, consolidates the role of direction and control proper to the regional legislative assembly, and confirms the will of the institutions and the entire territorial system to pursue a precise trajectory of sustainable development.

The "Steering Committee for the Governance and Strategic Control of Regional Planning" established by Regional Decree 602/2021 has the task of promoting and verifying the full consistency between the **regional planning of the 2021-2027 European funds and the objectives of the 2030 Regional Agenda for Sustainable Development**.

## **Territorial strategies**

With the approval of the new Leipzig Charter entitled “Transformative power of cities for the common good”, the European states reaffirmed their commitment to the European urban agenda towards 2030 in line with the 2030 Agenda for Sustainable Development and the European Green Deal. The Leipzig Charter therefore supports transformation through integrated urban development, realised through a multi-level and participatory approach.

The reflections and learnings from the Urban Agenda for the European Union are also a reference for the urban strategies that the region promotes in the 2021-2027 planning.

The 2021-2027 RSD, in light of a strategy and objectives with a regional scope, identifies four territorial macro-areas to direct and organise coordinated resources and policies to – Via Emilia Axis, Coastal Axis,

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<sup>[1]</sup> The concentration threshold for the REFD in the most developed regions is 85% on policy objectives 1 - Smarter Europe and 2 - Greener Europe, and at least 30% of the resources on the latter. In the ESF+ at least 25% of the resources must be invested in social inclusion, 12.5% on NEETs, 5% on Child Guarantee, 3% on Fead

Po River and Lower Po Valley Axis, Apennine Axis – and two specific areas to focus integrated territorial strategies on. On the one hand, the more fragile and peripheral areas and territories, identified by the National Strategy of Interior Areas, and in any case the entire Apennine territory, with the essential objective of counteracting territorial imbalances, starting with demographics. On the other hand, cities and urban and intermediate territorial systems, as a privileged dimension for functional strategies to achieve the goals of the 2030 Agenda, to maximise the impact on a regional scale with respect to the ecological and digital transition. These are **Urban Transformation Agendas for Sustainable Development** linked to the Jobs and Climate Pact and the 2030 Agenda Regional Strategy for Sustainable Development, multi-level governance tools functional to the achievement of common objectives that, in the sharing of resources and commitments, involve the regional administration, local authorities, citizens, enterprises and stakeholders in a network, albeit with different roles.

More generally, the challenges posed through the objectives and targets of the Agenda 2030 Regional Strategy for Sustainable Development should be an integral part of all integrated territorial strategies for local development, be they urban, intermediate or inland areas, in order to foster the expected transformations, increase resilience, decrease inequalities and ensure a non-disparate development of territories.

### **Sectoral planning**

Sectoral planning, through which the strategic objectives defined in the various regional planning documents are implemented, must in turn take into account the thematic and sectoral dimension of sustainable development by incorporating the objectives and targets of the regional strategy into plans and programmes. It will likewise be crucial to include in the monitoring of sector plans the benchmark indicators defined in the regional 2030 Agenda Strategy for Sustainable Development.

### **Environmental assessments**

The Strategic Environmental Assessment (SEA) conceived under European Directive 2001/42/EC with the aim of enriching plans and programmes under development with appropriate environmental considerations is an important opportunity for the effective integration of sustainability aspects into planning.

For Plans and Programmes and their variants as well as for Projects and their modifications subjected to environmental assessment procedures (SEA/VALSAT, EIA, Verification of subjectivity to SEA/VALSAT and EIA), it must be made explicit in the documents provided by the proponent and in the assessments of the competent authorities how the Plan/Programme or Project contributes to the achievement of the objectives identified in the 2030 Agenda Regional Strategy for Sustainable Development.

If the implementation of a Plan/Programme or the development of a Project results in a worsening of environmental conditions with respect to the objectives and targets of the 2030 Agenda Regional Strategy for Sustainable Development, evidence of the planned mitigation and compensation measures must be provided.

The contribution to the achievement of the goals and targets of the 2030 Agenda Regional Strategy for Sustainable Development - 2030 Agenda must be monitored over time using specific indicators consistent and dialoguing (scaled) with those of the Regional Strategy.



## Performance plan

The Performance Plan, a three-year planning document prepared pursuant to Italian Legislative Decree no. 150/2009 and Regional Council Decree no. 468/2017, adopted annually by the Council, contains the objectives of change and the operational objectives that derive from them starting from the strategic planning objectives of the REFD and the related Update Note (UNREFD), as well as the related indicators and targets for the measurement and evaluation of organisational performance.

Looking ahead, the measurement of organisational performance will require the introduction of change objectives, operational objectives and consequently **direct** and **indirect impact indicators** closely linked to the targets defined in the 2030 Agenda Regional Strategy for Sustainable Development.

## Information systems and administrative acts

In order to highlight and monitor the contribution of the regional action to the Sustainable Development Goals outlined in the 2030 Agenda regional strategy, an explicit reference to the 17 Sustainable Development Goals may be included in the texts and information attached to the council resolutions and executive decisions. The connection between the administrative acts and the goals as defined in the 2030 Agenda Regional Strategy for Sustainable Development can be developed through an evolution of the regional information systems in use.

## Sustainability education

Education is one of the central focuses of the UN 2030 Agenda for Sustainable Development. A specific goal – Goal 4 – is dedicated to education, but it cuts across all the SDGs as an interdisciplinary and systemic key. As stipulated in the national strategy, sustainability education is an integral part of the 2030 Strategy: it is a useful “vector of change” to trigger the transformation of the current development model. Referring to the most advanced international models, it does not merely transfer “knowledge” but promotes the “skills” necessary for ecological transition.

In Emilia-Romagna, sustainability education received a particular boost thanks to Regional Laws no. 15/1996 and no. 27/2009, which made it possible to implement programmes and the birth of the network of **Centres for Sustainability Education (CEAS)** coordinated by ARPAE's Regional Thematic Centre to support the sustainability strategies and actions of the regional system since the first local 21 Agendas in the 1990s. A process and function that has had significant continuity and ensured continuous improvement.

It is no coincidence that the sustainability education network (SEN), strengthened by inter-institutional partnerships (including the one with the MiTE with the project “Sustainability as a learning process”) and with the worlds of research and education, green business and volunteering, is and will be in the future an active player in the 2030 Regional Strategy for Sustainable Development and in those that will be developed at a local level with its three-year programmes.

The INFEAS 2020-2022 regional programme for sustainability education also contributes to these aims, presenting the main SDGs using educational, participatory, active and transformative teaching methods. Its five integrated educational action areas (human landscapes and ecosystems, sustainable resource

management, environment and well-being, climate crisis and urban resilience, green and circular economy) generate projects that build knowledge and consistent actions.<sup>1</sup>

### Accompanying actions

The 2030 Agenda Regional Strategy for Sustainable Development will be disseminated and accompanied by a process of establishing roots in the local communities as well as improved measurement effectiveness in accordance with the national strategy.

To this end, the following lines of action are planned:

- Establish a **partnership with ANCI-ER and UPI-ER** to foster the territorialisation of the SDGs and the identification of targets for sustainable development, consistent with the various levels of government.
- In partnership with the ASviS national training school, define a **2030 Agenda training plan** that envisages actions aimed at regional and local authority personnel, actions for employees of organisations that have an agreement with the SELF platform, educational modules to be made available for training courses co-financed by the region, and more generally training that is aimed at the entire regional community via MOOC.
- Pursue the definition of **new indicators**, including decoupling **indicators** (see paragraph 7.3.1) with the aim of improving the monitoring of the Strategy's policies and lines of action, also aimed at the creation of common and uniform methods and measurement systems at a local level.
- Support the development of **participatory processes** pursuant to Regional Law 15/2018 "Law on Participation in Public Policy Making" with the **Region's Participation Observatory**.
- Carry out a survey of **good local practices**, starting with those nominated for the Responsible Innovators Award, in order to promote the actions carried out in the region that contribute to the implementation of the 17 objectives of the 2030 Agenda for Sustainable Development.
- Launch **information and communication campaigns** aimed at the regional community to raise awareness of the 2030 Agenda Regional Strategy for Sustainable Development, the objectives it sets, the actions the region is putting in place to achieve them, and the contribution everyone can make to the project. As already shared with the signing of the Jobs and Climate Pact, the challenges we have outlined require an active and participatory public. Communicating and sharing with an informed and aware civil society is the first "**common good**" of a democracy. The implementation of the Pact and the Strategy, as well as the results of the annual integrated monitoring, will be accompanied by information and communication actions that ensure transparency, accountability and shared responsibility with respect to the change that we want to pursue together, that consistently orient individual and collective behaviour with respect to the transformation needs of the economy and society, with particular attention to the issue of

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<sup>1</sup>[https://www.arpae.it/it/temi-ambientali/educazione\\_alla\\_sostenibilita/azioni-educative/progetti-e-azioni-di-sistema/educare-all2019agenda-2030/educare-agenda-2030](https://www.arpae.it/it/temi-ambientali/educazione_alla_sostenibilita/azioni-educative/progetti-e-azioni-di-sistema/educare-all2019agenda-2030/educare-agenda-2030)

the climate emergency and its effects, but that also ensure that the public is aware of the opportunities that the transition processes under way offer the region and in particular the new generations.



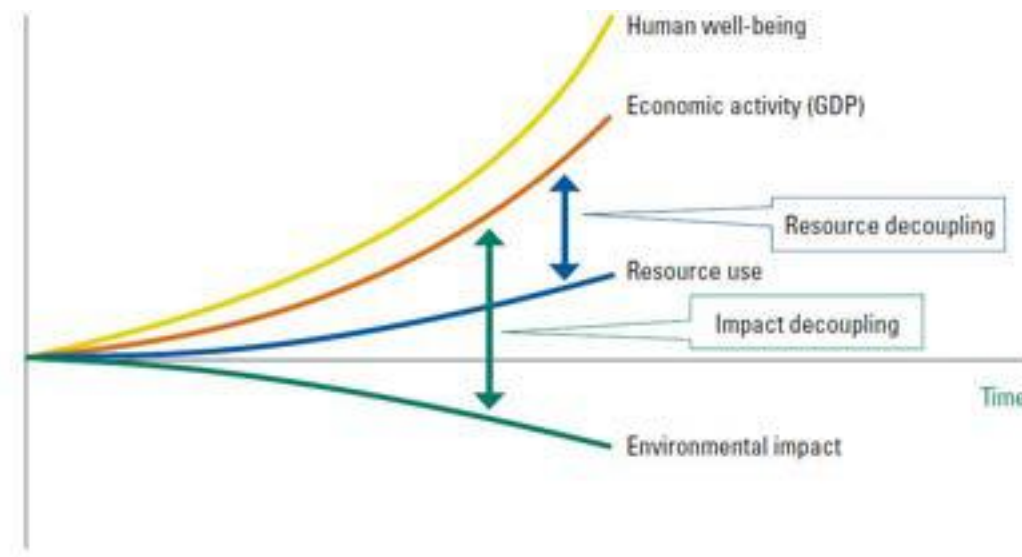
## Decoupling indicators

The relationship between economic growth and environmental degradation has long been the subject of extensive debate. The current economic model must deal with the **finite nature of the resources** the planet makes available – both non-renewable (minerals and fossil fuels) and renewable (such as biomass) – if they are consumed at a higher rate than the time needed to regenerate them.

For this reason, **breaking the link between resource consumption and economic development** (Resource Decoupling) was identified as one of the main goals of the Lisbon Strategy for Growth and Jobs (European Commission, 2005) and the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda.

Indeed, some SDGs call for decoupling indices, more commonly referred to as intensity indices, of environmental pressures or material flows from the economic value produced. These indices, also called integrated indices, are a response to the need for an integrated analysis and reading of sustainable development and thus of our development model.

The OECD defines decoupling as breaking the link between environmental pressures and economic goods, considering two complementary approaches: resource decoupling and impact decoupling. **Fig 1**



**Fig 1** Stylised representation of resource decoupling and impact decoupling. Source: UNEP “Decoupling of natural resource use and environmental impacts from economic growth”, p. 5

Resource decoupling refers to the goal of reducing resource use per unit of economic activity, represented by the ratio of GDP (determinant) to the rate of resource use (Resource Use or Domestic Material Consumption), such as for example energy or material consumption.

Impact decoupling, i.e. the ratio of GDP to environmental impact, occurs over time if the environmental impact decreases as the value produced in economic terms increases. **For both indices, the higher they are the more it is confirmed that decoupling has taken place.**

The inverse of this index, the intensity index, is considered by the United Nation Environment Programme (UNEP) to be one of the most effective in representing the decoupling of environmental pressure from economic growth in a circular economy-oriented path.

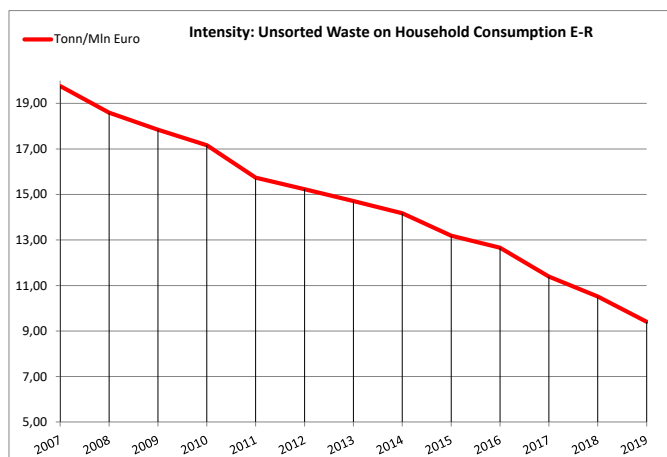
1. Graphical representation of the intensity index considered as the relationship between environmental pressures and economic determinant. Where the index is decreasing, it can be assumed that decoupling is taking place
2. Contextual representation of the two component indicators of the intensity index (*determinant* and *pressure*, i.e. *denominator* and *numerator*), made comparable in the same chart. The two charts together (**1 and 2**) thus make it possible to verify a potential path of decoupling, absolute or relative, and identify respective responsibilities
3. Analytical verification with the OECD decoupling factor. If it is between 0 and 1, decoupling is confirmed. Alternatively, if the factor is equal to 0 or negative, there is no decoupling

<sup>2</sup> “Indicators to measure decoupling of environmental pressure from economic growth”, OECD 2002. ARPAAE extracted the methodology from the OECD publication and proposed it to the SNPA Task Force on the 2030 Agenda at the Decoupling Workshop held by videoconference on 20 May 2020 <https://www.arpae.it/it/notizie/workshop-online-sul-disaccoppiamento>

The first analysis proposed is on the **decoupling of unsorted municipal waste generation over the period 2007-2019**<sup>3</sup> which may be followed by other decoupling analyses such as on energy consumption and climate-altering gas emissions.

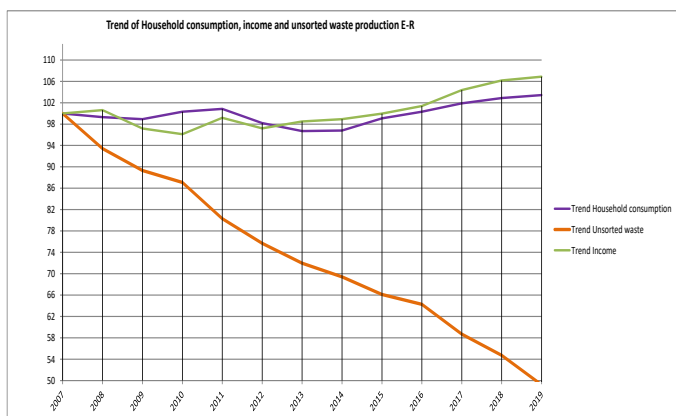
Application to the case study:

- 1) When checking the decoupling of the generation of unsorted municipal waste (MSW)<sup>4</sup> from the economic growth indicator (Expenditures on household consumption)<sup>5</sup> the intensity index shows a decreasing trend and thus it can be assumed that decoupling has occurred.



**Chart 1** Intensity index - Elaboration by ARPAE

- 2) Analysing the trends of **Chart 2** and maintaining the focus on Intensity, one can look for cross confirmation of the decoupling taking place, whether absolute or relative, and the respective responsibilities: whether due to an increase in economic output (the denominator) or a decrease in environmental pressure (the numerator).



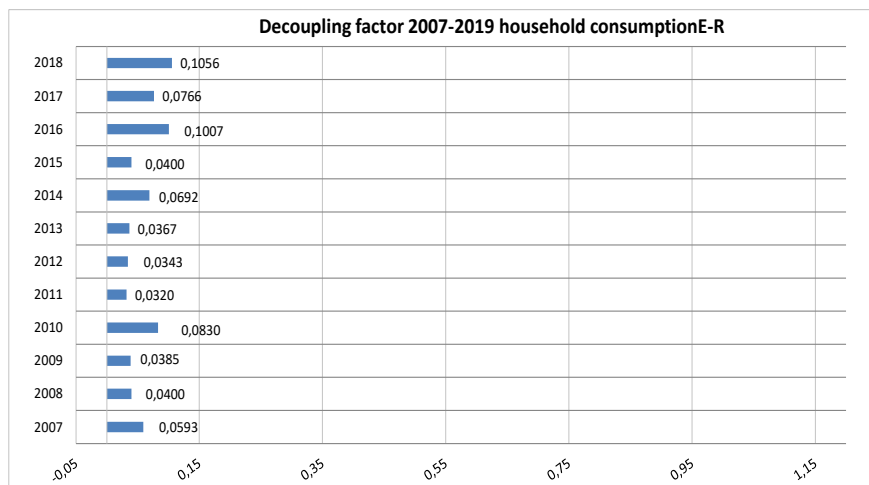
**Chart 2** Household consumption and production of unsorted municipal waste - Elaboration by ARPAE

<sup>3</sup> <https://www.arpae.it/it/ecoscienza/numeri-ecoscienza/anno-2021/numero-3-anno-2021/la-sostenibilita-al-centro/bonazzi-palumbo-ecos2021-03.pdf/view> [Bonazzi and Palumbo in Ecoscienza 3/2021, p. 32-35]

<sup>4</sup> This indicator of waste production, also referred to as *Intercepted*, is suggested by the OECD 2002 document: i.e. the total amount of municipal waste production that is sent for disposal and/or energy recovery.

<sup>5</sup> Household consumption expenditures are suggested as a determinant by the 2002 OECD paper for the verification of municipal waste decoupling.

This latter check gives us confirmation of a convincing decoupling over the same time period. (**Chart 3**)



**Chart 3** Decoupling factor - Elaboration by ARP AE

**Summary comment:** The decoupling of the regional production of unsorted municipal waste from the indicator of economic growth, both graphically and analytically, is confirmed over the period.

Indeed, it can be seen from **Chart 2** how close we are to *absolute decoupling*, which is already anticipated by the continuously decreasing trend of the intensity index in **Chart 1**.

The satisfactory presence in Emilia-Romagna of an absolute decoupling of the production of this waste, in itself rare, is further characterised by the assignment of responsibility to the constant decrease in environmental pressure.

The contribution to decoupling made by the continued reduction of unsorted municipal waste, the intercepted, is greater than the increase in the economic indicator.

Thus the absolute decoupling in the years 2007-2019 is due to a greater reduction in unsorted waste rather than not entirely confirmable economic growth after the financial crisis that started in 2007 and then became transversal and global.

## 3.2 Agenda 2.0 and the consistency of the public policies of the metropolitan city of Bologna

The Metropolitan Agenda 2.0 is consistent with the national strategy and with the Emilia-Romagna region's Strategy for Sustainable Development, not to mention the main European Union strategies and policies. The Agenda identifies 77 indicators related to the 17 UN Agenda Goals that can analyse the metropolitan context and compare it with regional and national contexts. The selection of indicators chosen to monitor the metropolitan city's progress was done in keeping with the Ministry of Ecological Transition's proposal to assign the indicators of the national sustainable development strategy to the National Strategic Objectives (NSOs) and the first ASviS Territorial Report of 2020. Based on the indicators selected, the relevant 29 quantitative targets defined by European, national and regional planning were identified, offering an assessment of the analysed territory's distance from them over time. As described for the regional strategy, here again the Eurostat method was used to assess the achievement of the quantitative targets, which involves assessing the intensity and direction the indicator is moving in with respect to the target using arrows.

For each UN 2030 Goal the Agenda 2.0<sup>6</sup> is divided into two components:

1. **mcBO's positioning** with respect to: quantitative contextual objectives measured by indicators defined by European, national and regional planning or identified by ASviS-Urban@it experts or obtained using the Eurostat method<sup>7</sup>; specific objectives relevant to mcBO's strategic choices.

These data are compared with larger territories (national, regional).



2. The **main actions already in place or in the process of being implemented**, resulting from a wide-ranging survey of European, national, regional, metropolitan and where possible municipal strategies, plans, programmes and regulations. The actions are included in the **“planning scenario”** where they are actions already in place or planned; or in the **“target**

<sup>6</sup> [https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/Home\\_Page/Agenda\\_in\\_evidenza](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/Home_Page/Agenda_in_evidenza)

<sup>7</sup> 29 were identified: the list is detailed in Chapter 6.



*scenario*” where they refer to longer-term guideline actions contained in the **National Recovery and Resilience Plan**, in the **Emilia-Romagna Regional Pact for Work and Climate** and in the **Metropolitan City Pact for Work and Sustainable Development**.

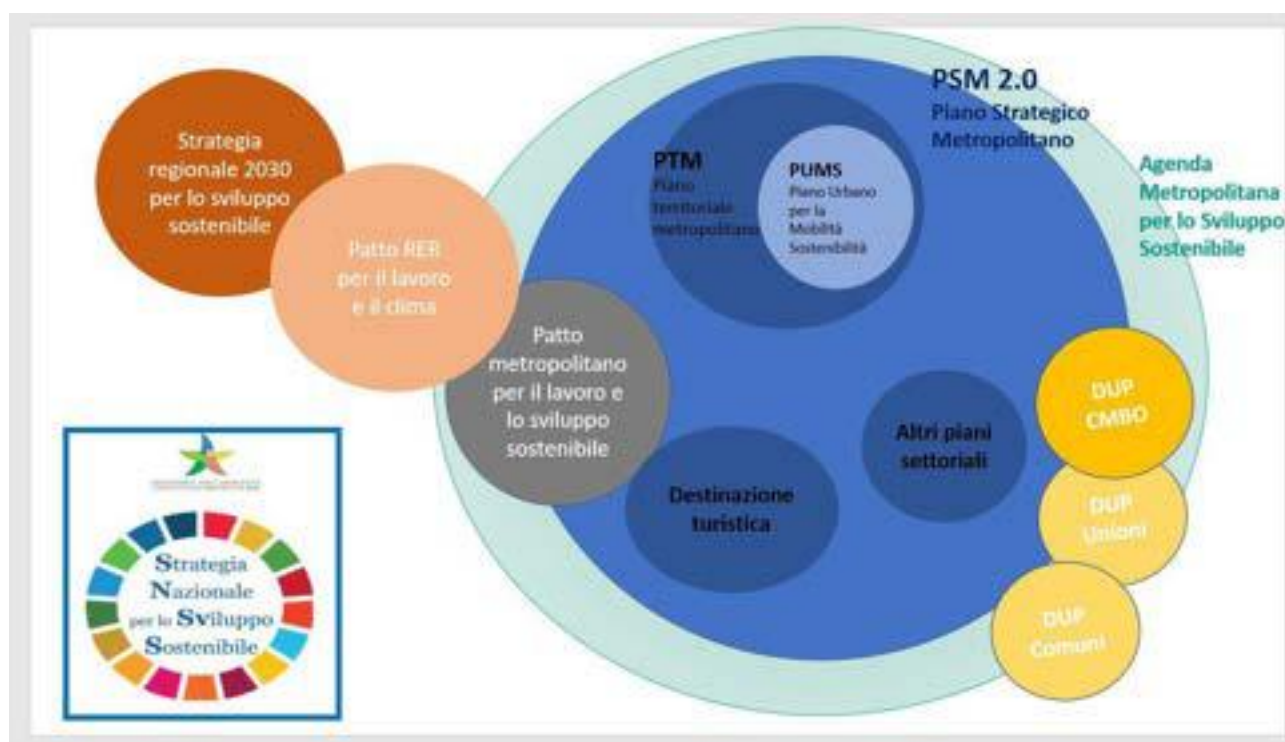
Target	Azioni scenario Programmatico CM	Azioni scenario Obiettivo (Patto per il lavoro e lo sviluppo sostenibile della CM, 2021)	Policy e/o progetti del PSM 2.0 e indicatori specifici
<b>3.6</b>	<b>Servizio di supporto alle relazioni scuola territorio-mondo del lavoro.</b> Realizza tra le altre cose progetti di innovazione dei curricula tecnico-professionali in coerenza con gli obiettivi di sostenibilità economico-sociale ambientale e con le esigenze del mondo del lavoro e i trend di sviluppo locale, al fine di una migliore occupabilità (PSM 2.0 2018, 4, IV, 6, 1, p. 55).		Policy: Insieme per il lavoro. Indicatori: n. percorsi formativi insieme per il lavoro, 243 nel 2018. Policy: Piano di intervento metropolitano per il secondo tra scuola, formazione e lavoro. Indicatori: n. azioni/progetti compresi nel Piano, 25 nel 2018; n. soggetti pubblici e privati compresi nel Piano, 114 nel 2018. Policy: Protocollo di intesa tra CM, Camera di Commercio e Ufficio scolastico territoriale. Indicatori: n. azioni/progetti attivati, 25 nel 2018. Policy: Protocollo di intesa tra CM, Anpal Emilia e Ufficio scolastico territoriale. Indicatori: n. azioni/progetti attivati in collaborazione con Anpal Emilia, 2 nel 2018.
<b>3.6</b>	<b>Progetto Operazioni orientative per il successo formativo.</b> Realizza servizi in tema di orientamento scolastico, formativo e professionale rivolti a docenti, giovani e famiglie (PSM 2.0 2018, 4, IV, 8, 1 e 2, p. 69-70).	<b>Progetto 1.6 Orientamento e supporto al successo formativo per adolescenti e giovani.</b> Consolidamento del sistema metropolitano di orientamento per il successo formativo, strutturandone ulteriormente l'architettura metropolitana e distrettuale, sviluppando le azioni e gli strumenti innovativi già in essere e aumentando la capacità di integrazione sinergica degli attori pubblici e privati interessati.	Policy: Piano triennale e annuale Orientamento e successo formativo. Indicatori: n. delle istituzioni scolastiche di secondo grado ed enti di help coinvolti nel Piano, 80 nel 2018. Progetto: Banda annuale per la concessione delle borse di studio. Indicatori: n. beneficiari borse di studio, 1526 nel 2018 (euro 420.000 complessivi).
<b>3.6</b>	<b>Festival della Cultura tecnica.</b> È un cartellone annuale di eventi aperto alla cittadinanza che si svolge dal 2014 ed è promosso in collaborazione con numerosi partner, valorizza i percorsi tecnici e professionali e la cultura tecnica, scientifica e tecnologica in raccordo con la cultura umanistica, approfondisce il rapporto tra sviluppo sociale, culturale ed economico e ospita eventi di arricchimento tra giovani e mondo del lavoro (PSM 2.0 2018, 4, IV, 5, 1, p. 26).	<b>Progetto 1.7 Cultura tecnica, scientifica e tecnologica e nuove competenze nella scuola secondaria per la sostenibilità sociale, economica e ambientale.</b> Il progetto il potenziamento delle azioni metropolitane e regionali del Festival della Cultura tecnica, con ampliamento alla dimensione nazionale.	Progetto: Festival della Cultura tecnica-edizione metropolitana di Bologna. Indicatori: 200 eventi e 100 soggetti coinvolti nel 2018.
<b>3.6</b>	<b>Investimento continuo e costante nella cultura tecnica.</b> Deve divenire strumento comparso trasversale, rappresentando un fattore cruciale anche per la creazione delle identità lavorative delle persone e delle imprese (PSM 2.0 2018, 4, IV, 4, 1, p. 34).	<b>Progetto 1.7 Cultura tecnica, scientifica e tecnologica e nuove competenze nella scuola secondaria per la sostenibilità sociale, economica e ambientale.</b> Azioni nella scuola secondaria di primo grado (progetto pilota, summer school della Cultura tecnica). Azioni nella scuola secondaria di secondo grado (percorsi per le Competenze trasversali e l'orientamento PCTI - se affermate scuola-lavoro, formazione tecnica e professionale in rete).	Progetto: Cultura tecnico-scientifica nella scuola primaria e secondaria di primo grado. Indicatori: n. azioni/progetti attivati nella scuola primaria e secondaria di primo grado, 51 in 81 istituti nel 2018. Progetto: Cultura tecnico-scientifica nella secondaria di secondo grado e nella IFTI. Indicatori: n. azioni/progetti attivati nella scuola secondaria di secondo grado e nella IFTI, 12 in 63 istituti nel 2018.

Finally, the actions of the province capital are assessed. This part could be expanded to include other municipalities.

The **Metropolitan Strategic Plan 2.0**<sup>8</sup> took a central role in identifying actions for the pursuit of targets on all dimensions, and its monitoring and evaluation system offered the possibility of identifying an initial set of specific indicators associated with Agenda 2.0 actions.

Agenda 2.0 is therefore a cross-cutting key for interpreting policies at various levels and not a new plan separate from the others, with the definition of qualitative-quantitative objectives and indicators that are directing the planning of the body, starting with the **Urban Plan for Sustainable Mobility** and the **Metropolitan Territorial Plan**. Moreover, the integration of Agenda 2.0 into the metropolitan strategic and sectoral planning is ensured through its embedding in the Single Planning Document (SPD) of the metropolitan city, for which a specific experimental action has been implemented.

<sup>8</sup> [https://psm.bologna.it/Engine/RAServeFile.php/f/documenti/Relazione\\_PSM\\_2.0.pdf](https://psm.bologna.it/Engine/RAServeFile.php/f/documenti/Relazione_PSM_2.0.pdf)



# 4

## Forums and means for involving civil society

In order for the Strategies and Agendas to work and to concretely respond to the objectives for sustainable community development, their elaboration and implementation must be shared with civil society and local stakeholders.

The metropolitan city has promoted a series of **communication and dissemination initiatives inside and outside the body**, with a focus on **its employees, school communities**, as well as **local institutions and stakeholders**. This involvement, which is fully in line with the spirit of the UN 2030 Agenda, in fact aims at ensuring mutual accountability among the actors in the area and contributes to the initiation of a shared governance process. Agenda 2.0 was publicly presented at an **international event** held remotely on 24 June 2021, which more than 200 people followed.

In order to guarantee the maximum participation of the region both in the strategy drafting phase and in its implementation, the Emilia-Romagna region has established the “**Forum for the 2030 Agenda Regional Strategy for Sustainable Development**” based on the integrated evolution of already established or ongoing regional participatory experiences.

The Forum is also instrumental in ensuring synergies with the **Emilia-Romagna Sustainable Coordination (ERSC)** and with **Agenda 2.0 for Sustainable Development of the metropolitan city of Bologna**. The aim is to optimise initiatives, resources and tools with respect to the 2030 sustainability goals, as also required by the national framework supporting the construction of metropolitan agendas.

This network, which will be expanded over time, characterised by the involvement of other administrations, the economic and social partnership, businesses and civil society, takes place in an articulated and flexible but integrated framework through tools and discussions, with a view to the continuous refinement of forms of cooperation for sustainable development.

### 4.1 Stakeholder engagement in the Emilia-Romagna region

On 14 December 2020, after a long process of elaboration and discussion, the region and the institutional, economic and social partnership<sup>9</sup> signed the **Jobs and Climate Pact**.

The Pact – which draws significantly from the UN's **2030 Agenda for Sustainable Development** – outlines a project for the **relaunching and development** of Emilia-Romagna, establishing shared commitments and responsibilities with respect to a common path that improves the quality of life of people and the planet and overcomes the conflict between **development and the environment**. A path

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Emilia-Romagna region, Associazione Generale delle Cooperative Italiane (AGCI), Associazione Nazionale Comuni Italiani (ANCI), Associazione Nazionale dei Costruttori (ANCE), Metropolitan City of Bologna, Coldiretti, Comitato unitario delle professioni intellettuali degli ordini e dei collegi professionali (CUPER), Commissione regionale ABI, Municipality of Bologna, Municipality of Cesena, Municipality of Ferrara, Municipality of Forlì, Municipality of Modena, Municipality of Parma, Municipality of Piacenza, Municipality of Ravenna, Municipality of Reggio Emilia, Municipality of Rimini, Confagricoltura, Confapi Emilia, Confapindustria, Confartigianato, Confcommercio, Confcooperative, Confederazione Generale Italiana del Lavoro (CGIL), Confederazione italiana agricoltori (CIA), Confederazione Italiana Sindacati Lavoratori (CISL), Confederazione nazionale dell'artigianato e della piccola e media impresa (CNA), Confederazione Produttori Agricoli (COPAGRI), Confesercenti, Confimi Romagna, Confindustria, Confprofessioni, Confservizi, Consiglio Nazionale delle Ricerche (CNR), federazione italiana Biciclette (FIAB), Forum Terzo Settore, Legacoop, Legambiente, Province of Ferrara, Province of Forlì-Cesena, Province of Modena, Province of Parma, Province of Piacenza, Province of Ravenna, Province of Reggio Emilia, Province of Rimini, Politecnico di Milano, Rete dei Comuni Rifiuti Zero, Ufficio scolastico regionale, Unioncamere, Unione delle Province d'Italia (UPI), Unione Generale del Lavoro (UGL), Unione Italiana del Lavoro (UIL), Unione Nazionale Comuni Comunità Enti Montani (UNCCEM), Università Cattolica del Sacro Cuore, University of Bologna, University of Ferrara, University of Modena and Reggio, University of Parma.

as challenging as it is necessary, particularly for the Po Valley, that does not jeopardise productive and natural capital, the employment of people and the well-being of society, but is instead a **driver of new and different development**.

For these same reasons, the Pact assumes **2030** as its horizon, which is indispensable to set the territory's development on new foundations and align Emilia-Romagna's pathway with those envisaged by the 2030 Agenda, the Paris Agreement, the European Union's target to reduce climate-changing emissions by at least 55% by 2030, the 2021-2027 planning of European funds and the National Recovery and Resilience Plan.

### The working method

The Pact is based on the quality of relations between institutions, economic and social representatives, mutual recognition of the role that each of the signatories plays in society, the sharing of strategic objectives and the consequent assumption of responsibility.

The signed document and the path of **democratic participation** and **shared planning** that accompanied its elaboration are a confirmation and a “relaunching” of the method started in 2015 with the signing of the Jobs Pact, which in five years allowed Emilia-Romagna to recover ground from the long crisis that began in 2008, positioning it in terms of GDP per capita, added value, unemployment rate and exports among the best performing Italian and European regions.


Debate and sharing strengthen democracy and generate cohesion, and are a heritage that this region has been able to cultivate even in the most critical moments. The region has chosen to develop them further in order to cope with the complexity of the times and to undertake those changes necessary to guarantee a prosperous future for the public, and especially for the **younger generations**.

### Strategic objectives and cross-cutting processes

The Pact outlines four strategic objectives and four cross-cutting processes that drive decisive dynamics for the inhabitants of the region. Each of them sets out guidelines that indicate the actions that the signatories consider to be priorities and undertake to implement in accordance with their own roles.

FROM THE STRATEGIC OBJECTIVES OF THE PACT TO THE REGIONAL STRATEGY	
Emilia-Romagna, region of knowledge and know-how	Investing in education, training, research and culture: not to undergo change but to bring about change; to generate quality jobs and combat precariousness and inequalities; to innovate manufacturing and services; to accelerate the ecological and digital transition.
Emilia-Romagna, region of ecological transition	Accelerating the ecological transition to achieve carbon neutrality before 2050 and moving to clean and renewable energy by 2035; combining productivity, equity and sustainability, generating new quality jobs.
Emilia-Romagna, region of rights and duties	Tackling territorial, economic, social and gender inequalities that weaken cohesion and prevent equitable and sustainable development
Emilia-Romagna, region of work, enterprises and opportunities	Design a European, young and open region that invests in quality, professionalism and innovation, beauty and sustainability; to attract businesses and talent, supporting territorial vocations and adding new value to manufacturing, services and professions.



FROM THE CROSS-CUTTING PROCESSES OF THE PACT TO THE REGIONAL STRATEGY	
	
Digital transformation	Make a major investment in the digital transformation of the economy and society starting with the three indispensable components: infrastructure, right of access and people's skills.
Simplification Pact	Strengthen and qualify the public administration and reduce bureaucracy to increase competitiveness and protect the environment and work within the law.
Legality	Promote legality, an identity value of our society and a guarantee of social and environmental quality.
Participation	Foster a new empowerment of communities and cities, engines of innovation and development, in the concrete management of Pact strategies.

## 4.2 Stakeholder engagement in the metropolitan city of Bologna

The opportunities for engagement with the metropolitan city's **stakeholders** took place through **institutional and project meetings**, such as the seminars of the mayors (16 November 2020) and of the development council together with the table of investee companies (17 November 2020), the participatory process in the Union of Municipalities of the Reno, Lavino and Samoggia Valleys, in the new Imola district and in the municipality of Bologna (25 March-23 April 2021), and **quantitative and qualitative surveys**: all this contributed to generating an ecosystem leading to the validation of the metropolitan city's Agenda 2.0 proposal.

The **path**<sup>10</sup> that involved the administrators and stakeholders of the municipality of Bologna, the new Imola district and the Union of the Municipalities of the Reno, Lavino and Samoggia Valleys was aimed at creating a shared vision on the sustainable development objectives and actions included in Agenda 2.0. It was prepared by sending a guide to participants to help and direct their reflection. This document has a part on context and a part listing the quantitative objectives and core indicators of UN Agenda Goal 11 "Sustainable Cities and Communities", with an analysis of the specific territory, classified by dimensions (social,<sup>11</sup> environmental,<sup>12</sup> economic<sup>13</sup> and institutional<sup>14</sup>). For each Goal/Target the following are presented: the distance from the Goals at a national, regional, metropolitan city and specific territory level, when data availability allows, with relevant commentary; the main actions

<sup>10</sup> [https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/documenti](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/documenti)

<sup>11</sup> 1. No poverty; 2. Zero hunger; 3. Good health and well-being; 4. Quality education; 5. Gender equality; 10. Reduced inequalities.

<sup>12</sup> 7. Affordable and clean energy; 11.2. Mobility; 13. Climate action (combined under Metropolitan Bologna carbon neutral 2040-2050); 6. Clean water and sanitation; 11.3 Land consumption (later merged into 15. Life on Land); 11.6. Air quality; 12. Responsible consumption and production;

<sup>13</sup> 8. Decent work and economic growth

<sup>14</sup> 16. Peace, justice and strong institutions.

already in place or planned for each level, the result of a necessary selection; the summary of the Emilia-Romagna region's Pact for Jobs and Climate (December 2020) and the metropolitan city's Pact for Jobs and Sustainable Development (January 2021) with an indication of the lines of action of the strategic objectives of the regional pact and the project actions of the three clusters of the metropolitan pact.

The various meetings were conducted online as follows:

1) Plenary phase: introduction to the process, illustration of the main principles of the approaches with which Agenda 2.0 was constructed, the method employed to elaborate quantitative and qualitative objectives and the respective targets. Explanation of the quantitative targets and their main actions in Agenda 2.0 pertaining to 13 of the 17 SDGs of the 2030 Agenda including 3 targets for goal 11. The Guide to the participatory path was presented.

2) Working tables. Three working tables were structured, related to the classification of goals and targets of Goal 11 by prevailing dimensions, namely: a) social; b) environmental; c) economic and institutional. Dedicated to listening, collecting and discussing ideas and proposals in order to arrive at an overall framework – shared as much as possible throughout the Bologna metropolitan area – of objectives, indicators and actions to achieve them. During these virtual tables, the following questions were asked:

1. Quantitative targets identified at a national or a regional level can be differentiated at a metropolitan, union and municipal level and how?
2. Are there other quantitative targets that could be identified at metropolitan, union and municipal levels? If so, which?
3. What further actions should be taken at the level of the metropolitan city and municipality of Bologna to achieve the quantitative objectives (target scenario)?

3) Concluding phase: report in plenary session on what was discussed in the working tables and sharing of the main results that emerged aimed at aligning the different areas of sustainability.

In general, it can be emphasised that in the various meetings of this participatory process a significant awareness of planning instruments has emerged, including some that are supra-territorial, as well as an inclination on the part of the participating subjects to read the metropolitan context in light of sustainable development issues.



## 6 INCONTRI DI CONSULTAZIONE

25/03/21 Comune di Bologna – stakeholder  
31/03/21 Comune di Bologna – amministratori  
12/04/21 Unione Reno Lavino Samoggia – amministratori  
16/04/21 Circondario Imolese – stakeholder  
19/04/21 Unione Reno Lavino Samoggia – stakeholder  
16/04/21 Circondario Imolese – amministratori

**270 PARTECIPANTI**

## FINALITÀ:

Creare una visione condivisa degli obiettivi/target ed azioni di Sviluppo Sostenibile inseriti nell'Agenda 2.0

## MODALITÀ DEGLI INCONTRI (coordinati e facilitati da FIU)

- consultazione mediante **brainstorming** (board di Miro)
- suddivisione dei partecipanti in **3 gruppi** :  
**sociale e welfare** (Goals 1-2-3-4-5-10), **economia** (Goals 8-12-16) ,  
**ambiente** (Goals 6-7-11-12-13)

Nei diversi incontri del processo partecipato è emersa una **significativa consapevolezza degli strumenti di pianificazione**, anche sovra-territoriale, e una **propensione da parte dei soggetti partecipanti alla lettura del contesto metropolitano alla luce dei temi dello sviluppo sostenibile**.



At the same time as the participatory process, the mapping of ongoing actions in the metropolitan area was initiated with the aim of investigating good practices that contribute to achieving the Sustainable Development Goals (SDGs) of the UN 2030 Agenda. The survey aims to integrate Agenda 2.0 with good sustainability practices and disseminate them with a view to replicability and diffusion, raising awareness. The activity of identifying actions or good practices in the metropolitan territory started from the reconnaissance of the actions already in place or planned in the various planning instruments of the metropolitan city. The most recent instruments drawn up at a regional level (*Emilia-Romagna Regional Jobs and Climate Pact*) and at a metropolitan level (*Metropolitan Jobs and Sustainable Development Pact*) were also analysed. In both cases, the qualitative analysis of the current strategic planning was used to make an association between the various lines of action and projects and the specific targets of the SDGs. The reflection on the location of the lines of action of the Metropolitan Pact and the projects of the Regional Pact was functional to their classification by SDG goals and targets, in line with the choices of method and merit made in the various activities outlined in them and therefore consistent with the Agenda 2.0 approach.

In order to carry out a comprehensive survey of the actions and good practices implemented or being implemented by stakeholders in the area, a **questionnaire by invitation** was prepared. The questionnaire, a purely qualitative survey, was addressed to the metropolitan city's stakeholders, totalling 122 entities of various nature. The survey, which started on 8 March 2021 and ended on 2 April 2021, was conducted on the metropolitan city's web platform. The questionnaire is divided into the following three sections:

- 1) Identification questions: designed to classify the entity-stakeholder on the basis of its legal nature, size and location in the metropolitan territory.
- 2) Description of priority actions: each entity is asked to indicate a maximum of five actions/projects/good practices carried out or under way in the entity in the last five years that are considered to have contributed or contribute to the achievement of the UN 2030 Agenda's sustainable development goals, the association of which must be made explicit. If there are more than five, the entity is invited to choose the most significant ones on the basis of the area of intervention considered a priority by the entity, and of these those considered to have the



greatest impact. For each of these, basic information was requested (objectives, content, type, duration, territorial context, partnership, costs, funding sources, measurement of results), and links to external content could be included.

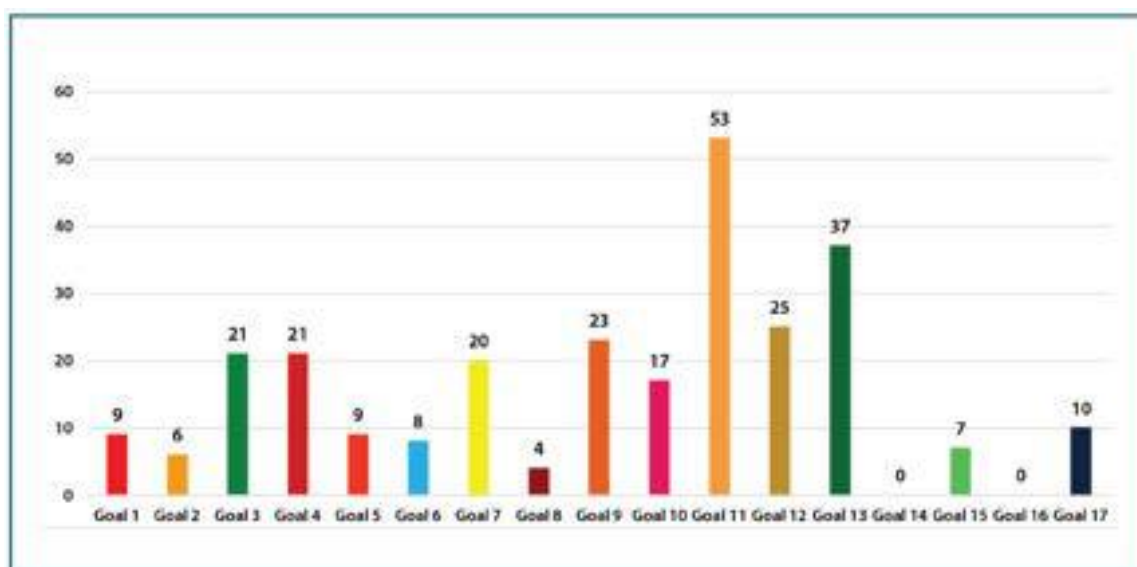
- 3) Additional actions: respondents were given the opportunity to list up to a maximum of 10 additional projects with a summary description and association with the relevant SDG(s) to report additional actions/projects/good practices of particular relevance.

The respondents totalled 47 out of 122 organisations, or 38.5% of those invited. The total number of priority actions/good practices/projects was 178, while 55 were “further actions” entered in the third section by the participants.

Each action was associated with one or two Sustainable Development Goals (SDGs) of the UN 2030 Agenda to which it contributes/has contributed or will contribute most.

An analysis of the surveys (*fig. 1*) reveals a primary focus on the environmental dimension of sustainable development, with an expected prevalence for its interactions with urban environments (goals 7, 11, 13, 15). Related to this was the focus on production and consumption from a circular economy perspective (goals 12 and 9), which, however, is not significantly reflected in the socio-economic implications. The goals dedicated to them (goals 1, 5, 8) remain below the median value of 10 associations, with the exception of goal 10. Reducing inequalities reached 17 associations (or 6% of the total), testifying to an increasing focus on social vulnerabilities. The focus of priority actions related to goals 3 and 4 further reflect the needs that the COVID-19 pandemic highlighted at a territorial level. Lastly, the presence of 10 associations – the median value – with Goal 17 is worthy of note. Partnerships for goal achievement: this finding indicates a positive focus on the need to create networks for sustainable development, fully in line with the spirit of the UN 2030 Agenda.

This snapshot remains valid even if we consider other actions that the respondents could describe (*fig. 2*): there is always a prevalence of goal 11. Sustainable cities and communities at 21%, followed by Goal 3. Good health and well-being at 12%, goal 13. Climate action and 4. Quality education at 10%, goal 15. Life on Land at 8%. Associations with Goals 14. Life below water and 16. Peace, justice and strong institutions are always absent.



*Fig. 1 - Contribution of priority actions/projects/good practices to the Sustainable Development Goals (SDGs)*

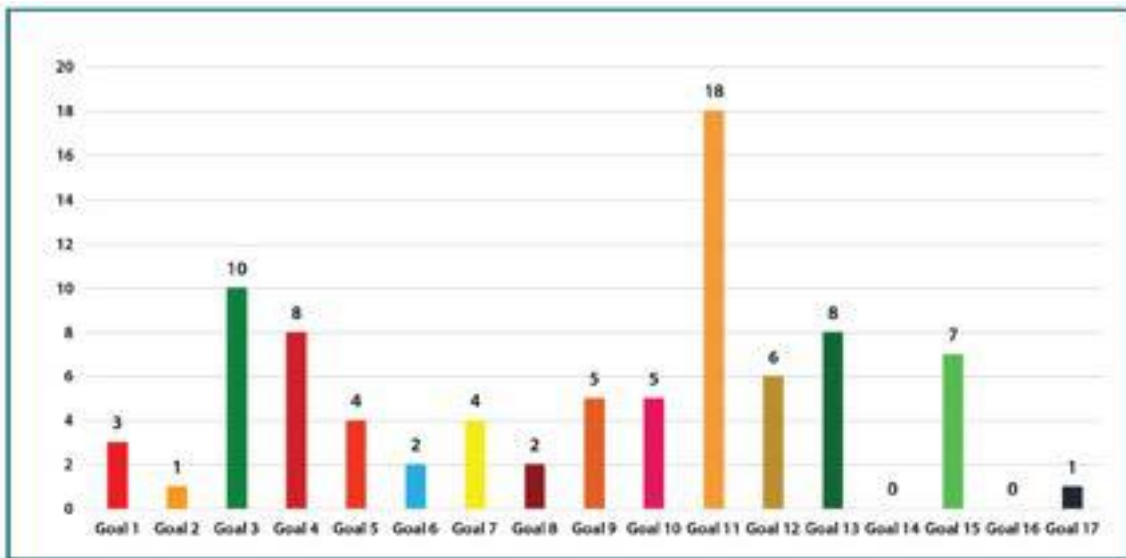


Fig. 2 - Contribution of further actions/projects/good practices to the Sustainable Development Goals (SDGs)

#### 4.2.1 SUSTAINABLE WORKING STYLES

Sustainable work styles are defined as a way of experiencing everyday working life in a socially, environmentally and economically sustainable manner, i.e. compatible with social cohesion, environmental protection and economic development.

The metropolitan city of Bologna was committed to developing an action that would bring forth proposals for sustainable work styles from the grassroots, from the very employees who make up its communities and its social and human capital.

The avocado was provocatively chosen as the logo, the cultivation of which is known to be one of the most unsustainable, but whose local cultivation is currently being experimented with in order to reduce its importation.

The product of this project is the document ***Sustainable Working Styles: a handbook for metropolitan local authorities***, produced after the participatory process with the employees of the metropolitan city of Bologna, which reports on the results and the process followed, also providing some useful tools to implement it, in order to make it replicable in other contexts and in other public organisations.

The participatory process, which started in January and ended in September 2021, consisted of three phases:

1. **Exploration phase:** a selected group of employees in managerial and organisational positions was interviewed, which raised the first needs and issues relevant to the organisation with regard to the topic of sustainability and the first ideas for practical proposals. Based on these initial elements, a survey was drawn up for all employees of the organisation to investigate their perception of the current status of the organisation with regard to sustainability, as well as to encourage active participation with the possibility of proposing ideas and suggestions.

2. Conceptualisation phase: this phase consisted of a focus group involving young Generation Y employees, and a collective co-design phase that made it possible to arrive at new ideas and concrete proposals from the grassroots, with the aim of taking them forward towards feasibility, even autonomously by the employees themselves. The ideas developed are as follows: *Water at 0 m* - Water for all without plastic; *Urban-indoor forestation* - Adopt a green area; *Welcome to the metropolitan city* - Onboarding.

3. Dissemination and experimentation phase: drafting of the handbook for sustainable work styles, to be supported, disseminated and replicated in the other entities of the Bologna metropolitan area.

#### 4.2.2 INVOLVEMENT OF THE METROPOLITAN SCHOLASTIC COMMUNITY

The National Strategy for Sustainable Development 2021 aims at strengthening the area dedicated to the “Vectors of Sustainability”, enabling conditions for triggering a transformation towards sustainable development: one of these is dedicated to the “culture of sustainability”, understood as education, training, information and communication. Specifically, education is articulated both as a capacity to recompose educational fragmentation, innovating the places and actors of education, and as an activator of an educating community through, for example, the development of educational partnerships for sustainable development. The aim is to make schools and all those who attend them increasingly aware that sustainability is a choice that must be translated into concrete initiatives every day, that it is precisely the skills and creativity of teachers and students that can be promoters of this development.

At the local level, the metropolitan city of Bologna is supporting the school community in establishing paths to inform, educate and promote sustainable development issues, investing in the education of teachers, students and staff working in the school. Specifically, it took two specific actions:

1. The announcement of a **competition on sustainable development issues**<sup>15</sup> aimed at all secondary schools in the metropolitan territory. In partnership with the regional scholastic office, Office V - Territory of Bologna, with a public notice the metropolitan city of Bologna announced for the school years 2019/2020 and 2020/2021 a competition of ideas for the dissemination of the principle of sustainable development in the metropolitan area’s secondary schools. This initiative intends to promote the establishment of scholastic communities of shared practices, to pursue the sustainability dimension through: the creativity and skills of teachers and students, promoters and protagonists of sustainable development choices; the involvement of the scholastic community, and the launching of education and awareness-raising processes for sustainable development; the promotion of environmental and sustainability culture. The aim is to raise the awareness of and responsibility for environmental issues in younger and older generations.

For the 2019/2020 edition, students were invited to design and implement an awareness-raising campaign on Agenda 2.0 issues. Forty-three classes participated and 13 project ideas were awarded

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<sup>15</sup> [https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/Home\\_Page/Archivio\\_news/Leva\\_per\\_la\\_sostenibilita](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/Home_Page/Archivio_news/Leva_per_la_sostenibilita)

€1,000. From these, a specially formed commission chose the three winning projects, which won €2,000 for first place, €1,200 for second place and €800 for third place.<sup>16</sup>

The 2020/2021 edition (still in progress) requires students to tell the story of sustainability – in the broad and articulated sense of the UN 2030 Agenda – by means of a video starting from the places/people in the metropolitan area who practise it, enhance it and promote it, identifying a public space to be reinterpreted in a sustainable key. As in the first edition, the same cash prizes are planned, which will be used by the participating schools both to make the submissions and to promote other sustainability-related actions.

2. The focus on sustainable development issues of the **Festival of Technical Culture**,<sup>17</sup> an initiative conceived and promoted by the metropolitan city of Bologna and implemented starting in 2014 in collaboration with numerous partners including institutions, schools, bodies and companies within the framework of the Bologna Metropolitan Strategic Plan. The festival is structured as a calendar of events aimed at raising awareness and appreciation of all the channels and directions of technical and vocational education and training; at promoting greater awareness of the connections between doing and thinking and of the importance of technology and science in people's lives (technical-scientific skills as citizenship skills); to promote the connection between the education and training system, the production system, local authorities and all the players in the area, for a community development that is simultaneously social, cultural and economic; to give visibility to the innovative projects and initiatives implemented by all the metropolitan players with respect to the aforementioned topics. The events are free of charge and aimed at different targets, and great attention is paid to young people and the education system, as well as to the involvement of citizens and local communities.

Starting with the 2018 edition, the metropolitan city and the Emilia-Romagna region have promoted the dissemination of the festival in all the provinces of the region.

The 2020 festival inaugurated a cycle of editions dedicated to the UN 2030 Agenda for Sustainable Development, in strong connection with Agenda 2.0, dedicating it in particular to “sustainable development and resilience”, understanding the latter as a key factor also for overcoming the crisis caused by COVID-19. The 2021 edition paid specific attention to the education system, choosing as its focus the UN objective “Quality education” to contribute to an assessment, also from a scientific point of view, of the positive and negative effects of remote learning, lockdowns, social distancing etc. on the teaching/learning processes, on the organisation of schools and other educational agencies, on professional skills, on the psycho-social dimensions of youth and adults, on orientation, on the importance of education to counteract the loss of work and opportunities, on the role of the local region and the production system, capitalising on experiences and starting from new knowledge to reprogramme the actions and intervene on the marginalities that have been created.

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<sup>16</sup> Videos of the winning schools:

[https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/Home\\_Page/Idee\\_giovani\\_e\\_vincenti\\_per\\_lo\\_sviluppo\\_sostenibile](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/Home_Page/Idee_giovani_e_vincenti_per_lo_sviluppo_sostenibile)

<sup>17</sup> <https://www.festivalculturatecnica.it/>

# 5

## Pilot actions of the metropolitan city of Bologna

As part of Agenda 2.0, the metropolitan city has launched a series of pilot projects, each of which contributes to the achievement of the SDGs.

1. Transition towards a circular economy in the hill and mountain area of the metropolitan city of Bologna.
2. Pre-feasibility study on the reorganisation of public transport services in production areas.
3. Guidelines for metropolitan forestry.
4. Operation Centre & Cities Web.

As noted in [section 4](#), parallel and cross-cutting actions concern **communication and dissemination of sustainable development within and outside the organisation**.

### 5.1 Transition towards a circular economy in the hill and mountain area of the metropolitan city of Bologna

The metropolitan city has addressed the issue of circular economy, developing a project that specifically concerns the 23 municipalities of the Apennines: what does it mean to pursue a circular economy in a hill and mountain area? Which aspects come more naturally and which are more complex to manage? How can companies in this area, which for geo-morphological and historical reasons are less involved in the innovation and development that characterise the Bologna metropolitan area, be supported and accompanied towards a future of circularity? To answer these questions, the metropolitan city promoted the drafting of guidelines,<sup>18</sup> starting with an analysis of the current spread of the circular economy in the aforementioned 23 municipalities, interpreted in light of a specially designed circularity indicator.

The concept of “circular economy” was broken down into 10 relevant dimensions: eco-design; procurement; energy and resources; waste; transport and logistics; promotion of sustainable lifestyles; circularity of supply chains; sharing with the local community; inclusiveness and certification. For each of these, the document explains the different activities in which that particular dimension of circularity can manifest itself; it discusses the actual or potential problems for Apennine enterprises wishing to measure up to that dimension of circularity; it puts forward solutions and presents good practices related to the above critical issues; and finally it proposes how to cast the dimension of circularity in the context of the Apennines of Bologna.

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<sup>18</sup>

[https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/Home\\_Page/Archivio\\_news/economia\\_circolare\\_nel\\_territorio\\_collinare\\_e\\_montano](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/Home_Page/Archivio_news/economia_circolare_nel_territorio_collinare_e_montano)

The drafting was supported by a series of interviews with companies in the area (including BASF, DISMECO, HERA, GAL Appennino Bolognese), which allowed us to discuss and better understand the needs of the Bolognese Apennine businesses in a possible circular economy.

The guidelines highlight the greater propensity for circularity of the municipalities of the foothills and those in the eastern part of the Reno Valley, but also a marked predisposition to sustainable tourism for the Setta Valley and sustainable mobility for the Reno Valley thanks to the location of two of the four local lines crossing the entire regional Apennines, and a certain attention to the issue of waste in the Santerno Valley. Finally, the map shows an evident entrepreneurial vocation for the Samoggia Valley, but certainly due to the concentration of enterprises in the lowland localities of the merged municipality, from Crespellano to Bazzano, rather than to a true aptitude for green enterprise on the Apennine side of the valley. Finally, worthy of note is the lack of a territorial position with respect to the topic of energy, and on the contrary a similarity in level of interest for environmental matters, proportionally increasing as one travels from foothill to crest.

## 5.2 Pre-feasibility study on the reorganisation of public transport services in production areas

This pilot project involves the drafting of a pre-feasibility study on the reorganisation of public transport services to **improve public accessibility of production areas**, including in terms of improving the quality of life of the workers themselves.

The objective is to identify the conditions, necessary services, agreements to be made and the administrative and legal framework for the realisation of new local public transport services for industrial or logistical areas of metropolitan importance also covered by private funding and/or in the form of “mobility vouchers” for workers.

In order to make the pre-feasibility study as responsive as possible to the most up-to-date actual conditions governing and directing the matter, a **preliminary in-depth study was carried out on the administrative/legal and economic/fiscal issues** related to the various possibilities and opportunities for promoting and supporting the activation of public transport services (and sustainable mobility in general) to improve the accessibility of productive areas. The most potentially effective solutions, and therefore worthy of further study, were identified as those related to the financing of local public transport passes, collective reserved transport, so-called mobility vouchers, car sharing, car pooling, and the establishment of company and area mobility managers. The work provides a complete, up-to-date and useful framework for technicians in public administrations and companies on issues related to the promotion of public transport and sustainable mobility for people working in the metropolitan production system, in particular regarding the economic/fiscal and legal/administrative definition of the formulas that can be employed; the conditions and the administrative and legal framework for the realisation of new LPT services for productive areas; the possible types of agreement between companies, public transport service managers and administrations; the favourable tax conditions for companies and employees for the purchase of public transport services, employee passes, collective reserved transport services; the opportunities for supporting company welfare (e.g. mobility bonus); innovative incentive solutions; incentives for company (and area) mobility management policies; possible sources and solutions of public/private financing; policies/measures to be included within territorial agreements and understandings to encourage sustainable mobility.

Based on the conclusions and indications of this preliminary work, a pre-feasibility study is being developed for the reorganisation of public transport services to improve the public accessibility of the Ozzano area, where both IMA and the Veterinary Department of the University of Bologna are located.

### 5.3 Guidelines for metropolitan forestry

Consistent with the 2019 Climate Decree, which promotes various measures to improve air quality, and in line with the strategies of the Metropolitan Territorial Plan (MTP), the metropolitan city of Bologna has developed a **strategy to define a unified, coherent and coordinated metropolitan forestation programme** capable of bringing together all the free areas available for forestation in the metropolitan territory, and involving, in particular, the most critical and sensitive areas that most urgently need action to improve their situation.

The intention is to create a true “**green infrastructure**” to serve the environment and the community, functional to the well-being and health needs of ecosystems and the public.

In order to define this strategy, the metropolitan city conducted a territorial survey that has allowed for the construction of a qualitative and quantitative framework regarding the current situation of forestation in the metropolitan territory, with an analysis of the dynamics of the last decades, also spotlighting the most critical territorial areas from the point of view of climate-altering emissions and air quality, without neglecting a framework of the regulatory and planning instruments related to forestation in the metropolitan and regional territory, starting from national and international regulations. Furthermore, an in-depth study was carried out on the planning and green regulation strategies and tools adopted by the individual municipalities through the administration of a questionnaire addressed to the municipalities that present the most critical issues with respect to air quality, i.e. those in the plains and those that, although in hilly areas, are characterised by the presence of supra-municipal production areas and metropolitan HUBs and/or integrated metropolitan functional hubs (Sasso Marconi, Pianoro and Valsamoggia).

From the overall picture, however, it clearly emerges that the metropolitan city's future projects will have to focus on the most sensitive areas such as the plains, the conurbation that has grown up around the provincial capital, the major road axes, the supra-municipal production and logistics areas and the functional poles (including Interporto in the municipality of Bentivoglio, Centergross in Castel Maggiore, the CAAB Agrifood Centre and the airport in Bologna), and in a few cases in the hilly areas in the broader stretches of the Reno, Savena and Santerno valleys.

The ***Guidelines for metropolitan forestation***<sup>19</sup> that have thus emerged offer the reader (whether a planner, technician, administrator of the metropolitan area of Bologna, or other public or private person) a tool that contains the main planning and technical-operational elements of reference for carrying out urban and extra-urban forestation operations that are sustainable from both ecological-environmental and socio-economic points of view. The *Abacus of Green Types and Plant Species* suggests different types of interventions and technical forestation solutions according to the setting in question

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<sup>19</sup>

[https://www.cittametropolitana.bo.it/agenda\\_sviluppo\\_sostenibile/Home\\_Page/Archivio\\_news/Linee\\_guida\\_per\\_la\\_forestazione\\_metropolitana](https://www.cittametropolitana.bo.it/agenda_sviluppo_sostenibile/Home_Page/Archivio_news/Linee_guida_per_la_forestazione_metropolitana)



(urban, peri-urban and extra-urban) and the characteristics of the main tree plant species suitable for use in the Bolognese territory are available, with particular attention to the city and the plains.

In the *Area Planning Sheets* the Guidelines are "put into practice", starting with certain topics that the Metropolitan Territorial Plan identifies as strategic for spatial planning purposes: Ecological network; Bicycling network; Mobility centres; Agricultural ecosystem; Supra-municipal production areas and/or integrated Metropolitan Hubs. Indeed, for each area considered, the design, execution and management aspects of the projects are identified, including the costs of installation and maintenance that must necessarily be foreseen in order to guarantee their success.

## 5.4 Operation Centre & Cities Web

The project envisages experimentation in three municipalities of the metropolitan area (**Bologna, Granarolo dell'Emilia, Imola**) and in the **metropolitan city** with a platform designed to monitor the indicators identified by Agenda 2.0 along with others deemed of interest by the local administrations. This tool was developed by the Hera Group to help administrations, bodies and any organisation to monitor the territory using simple, innovative methods in order to compare and be able to efficiently plan strategic improvement actions aimed at sustainability, and therefore at achieving the 17 goals of the UN 2030 Agenda.

This platform is based on the use of two monitoring dashboards working in synergy: the Operation Centre and the Cities Web.

The Operation Centre is an informative dashboard that will allow the three experimenting municipalities to collect, catalogue, represent and analyse their environmental, social and economic data on an interactive medium. Specifically, a tool known as the "environmental passport" was developed that features KPIs in three macro areas – environmental, social and economic – and is automatically updated by data that can be drawn from any system: IoT sensors, open data, proprietary or third-party data. Employing an innovative and intuitive approach, it is possible to have a detailed view of the territory and its data, comparing them with common sustainability goals in order to quickly understand what actions to take and initiate in order to improve and increase the territory's efficiency.

The Cities Web is the second, higher-level dashboard, developed for those administrations that have smaller ones within them, as in the case of the metropolitan city of Bologna. The Cities Web brings together all the individual data points produced by the three Operation Centres, making it possible – with an integrated approach – to promote, plan, implement and manage the sustainability and smartness of these territories involved in the trial.

# 6

## The territorialisation of the SDGs

### 6.1 Towards an SPD scheme integrated with Agenda 2.0 for sustainable development

As we noted in [section 3](#), Agenda 2.0 must become a point of reference for guiding and integrating planning and programming tools, culminating in the embedding of this document in the programming cycle of entities through the three-year Single Planning Document (SPD).

In the future, a **single integrated multi-level system** will have to be developed in order to **bring together the planning of all local authorities in the metropolitan area in a single process, ensuring consistency with the objectives of Agenda 2.0, as well as its continuous monitoring and updating.**

This experiment has involved not only the **metropolitan city** itself, but also the **new Imola district**, the **union of the municipalities of Reno, Lavino and Samoggia**, the **municipality of Bologna** and the **municipality of Monte San Pietro**. Given the cross-cutting nature of this action, which involves the various levels of government of the territory engaged in the planning and implementation of public policies, interacting with multiple sectors of intervention and disciplines, it was necessary to set up a cross-sectoral and inter-institutional working group involving external entities such as ASviS and Urban@it in addition to the aforementioned institutions.



Each of the experimenting bodies published together with the SPD 2022-2024 an **annex entitled “Towards an SPD scheme integrated with Agenda 2.0 for Sustainable Development of the Metropolitan City of Bologna”** divided into two parts.

1. The first part is devoted to the positioning of each of the experimenting institutions with respect to the 26 goals of Agenda 2.0. For each of the 26 quantitative goals the following is provided:
  - Association with the UN 2030 Agenda goals: for ease of reading, the goals and targets have been divided into four areas: social, environmental, economic and institutional.
  - Last available national, regional and metropolitan annual data. It was not possible to calculate some indicators at a municipal and/or metropolitan city level according to the methods and sources of the other territorial levels due to the lack of the relevant data. In such cases proxy indicators were used, which provide values that are not directly comparable with those calculated for the other levels.
  - Short-term (5 years) and long-term (10 years) assessment for each level, so as to facilitate an immediate comparison between the various institutional levels. To assess the achievement of the quantitative target, where historical data are available (otherwise the last available value is provided) the Eurostat method was used, which involves assessing the intensity and direction that the indicator is moving in with respect to the target using arrows. This assessment depends on the ratio between the actual growth rate and the growth rate needed to achieve the target, and has four possible assessments with the corresponding arrows having a different colour (green or red) and a different slope.

#### Objectives with a predominantly environmental dimension

Target	Obiettivi e indicatori	Dati ultimo anno disponibile per livello	Valutazione di breve periodo	Valutazione di lungo periodo	Metodologia
2.4	Entro il 2030 ridurre del 20% l'utilizzo di fertilizzanti distribuiti in agricoltura rispetto al 2018 (kg per ettaro)	CM 550,3 (2019) E-R 736,5 (2019) ITA 322,6 (2019)	↓ ↓ ↓	↑ ↓ ↑	A <sup>1</sup>
2.4	Entro il 2030 ridurre del 50% l'utilizzo di fitosanitari distribuiti in agricoltura rispetto al 2018 (kg per ettaro)	CM 10,9 (2019) E-R 19,2 (2019) ITA 9,2 (2019)	↓ ↓ ↘	↗ ↘ ↘	A <sup>2</sup>
2.4	Entro il 2030 raggiungere il 25% della superficie agricola investita in coltivazioni biologiche	E-R 15,4% (2019) ITA 15,8% (2019)	↑ ↑	: :	A <sup>3</sup>
6.4	Entro il 2030 raggiungere quota 80% nell'efficienza delle reti di distribuzione dell'acqua potabile	CoBo 71,9% (2018) E-R 68,8% (2018) ITA 58,0% (2018)	↓ ↓ ↓	: ↓ ↓	C

6.6	Entro il 2027 portare tutti i corpi idrici al livello buono o eccellente di qualità ecologica	CM 26% (2017-2019)	↓	:	A <sup>4</sup>
7.2	Entro il 2035 raggiungere il 100% di energia da fonti rinnovabili	CM 14,3% (2019)	↘	:	A <sup>5</sup>
		ER 20,5% (2019)	↓	:	
		ITA 34,9% (2019)	↓	:	
11.2	Entro il 2030 aumentare del 26% rispetto al 2004 il numero di posti-km per abitante (prodotto del numero di km percorsi nell'anno dai veicoli del TPL per la loro capacità media rapportato alla popolazione residente)	CoBo 3899 (2019)	↘	↓	D
		E-R 2809 (2019)	↘	↓	
		ITA 4624 (2019)	↘	↓	
11.2	Entro il 2030 raddoppiare l'estensione delle piste ciclabili rispetto al 2019 (km per 100 km <sup>2</sup> )	CoBo 96,9 (2019)	↗	:	A <sup>6</sup>
		ITA 24,2 (2019)	↗	:	

Target	Obiettivi e indicatori	Dati ultimo anno disponibile per livello	Valutazione di breve periodo	Valutazione di lungo periodo	Metodologia
11.6	Entro il 2030 ridurre i superamenti del limite di PM10 a 3 giorni all'anno (n. giorni)	CM 42 (2020)	↓	↘	A <sup>7</sup>
		E-R 75 (2020)	↓	↘	
		ITA 83 (2019)	↘	↘	
12.4	Entro il 2030 raggiungere quota 80% di raccolta differenziata dei rifiuti urbani	CM 65,5% (2019)	↑	↑	A <sup>8</sup>
		E-R 70,6% (2019)	↑	↑	
		ITA 61,4% (2019)	↑	↑	
12.5	Entro il 2030 ridurre la produzione di rifiuti urbani per abitante del 27% rispetto al 2003 (kg pro-capite)	CM 592,2 (2019)	↓	↓	D
		E-R 662,8 (2019)	↓	↓	
		ITA 499,3 (2019)	↓	↘	
13.2	Entro il 2050 azzerare le emissioni di gas climalteranti (migliaia di tonnellate di Co2 equivalente)	CoBo 1801 (2018)	↘	↘	A <sup>9</sup>

















15.3	Entro il 2050 azzerare l'aumento del consumo di suolo annuo (ettari annui di suolo consumati per 100.000 abitanti)	CM 7,4 (2020)		:	A <sup>10</sup>
		E-R 9,5 (2020)		:	
		ITA 8,7 (2020)		:	
15.5	Entro il 2030 raggiungere la quota del 30% delle aree terrestri protette	E-R 4,2% (2019)	:	:	A <sup>11</sup>
		ITA 10,5% (2019)	:	:	

### Objectives with a predominantly social dimension

Target	Obiettivi e indicatori	Dati ultimo anno disponibile per livello	Valutazione di breve periodo CM	Valutazione di lungo periodo CM	Metodologia
1.2	Entro il 2030 ridurre del 20% il numero di persone a rischio di povertà o esclusione sociale rispetto al 2019	CM 20,5% (2017) <sup>16</sup>	:	:	A <sup>17</sup>
		E-R 15,5% (2019)			
		ITA 25,6% (2019)			
3.6	Entro il 2030 dimezzare il numero di feriti derivanti da incidenti stradali rispetto al 2019 (n. feriti ogni 1.000 abitanti)	CM 3,4 (2020)			A <sup>18</sup>
		E-R 3,4 (2020)			
		ITA 2,7 (2020)			
4.2	Entro il 2030 raggiungere quota 98% di partecipazione alla scuola d'infanzia (4-5 anni)	CM 94,4% (2019)		:	A <sup>19</sup>
		E-R 93,5% (2019)		:	
		ITA 96,0% (2019)		:	

4.3	Entro il 2030 raggiungere la quota del 50% dei laureati tra i 30-34 anni (percentuale tra i 25 e i 39 anni)	CM 41,8% (2020) E-R 33,6% (2020) ITA 28,3% (2020)	  	  	A <sup>20</sup>
5.1	Entro il 2030 dimezzare il gap occupazionale di genere rispetto al 2020 (tasso di occupazione femminile / maschile)	CM 85,8 (2020) E-R 81,8 (2020) ITA 72,6 (2020)	  	  	A <sup>21</sup>
10.4	Entro il 2030 raggiungere quota 4,2 nell'indice di disuguaglianza del reddito disponibile (ultimo quintile / primo quintile)	E-R 4,6 (2018) ITA 6,1 (2018) CM 9,3 (2015) <sup>22</sup>	  :	  :	B

#### Objectives with a predominantly economic dimension

Target	Obiettivi e indicatori	Dati ultimo anno disponibile per livello	Valutazione di breve periodo CM	Valutazione di lungo periodo CM	Metodologia
8.5	Entro il 2030 raggiungere la quota del 78% del tasso di occupazione (20-64 anni)	CM 76,6% (2020) E-R 73,8% (2020) ITA 62,6% (2020)	  	  	A <sup>12</sup>
8.6	Ridurre entro il 2030, la quota di giovani che non lavorano e non studiano (Neet) al di sotto del 10%	CM 15,0% (2020) E-R 15,9% (2020) ITA 23,3% (2020)	  	  	A <sup>13</sup>
9.c	Entro il 2025 raggiungere la quota del 100% di famiglie servite dalla banda larga ad almeno 30Mbps	CM 76,0% (2019) E-R 68,1% (2019) ITA 66,0% (2019)	: : :	: : :	A <sup>14</sup>
9.5	Entro il 2030 raggiungere quota 3% di incidenza della spesa totale per Ricerca e Sviluppo sul PIL	E-R 2,03% (2019) ITA 1,45% (2019)	 	 	A <sup>15</sup>

#### Objectives with a predominantly institutional dimension



Target	Obiettivi e indicatori	Dati ultimo anno disponibile per livello	Valutazione di breve periodo CM	Valutazione di lungo periodo CM	Metodologia
16.3	Entro il 2030 ridurre l'affollamento degli istituti di pena al 100%	CM 134,2% (2020)			C
		E-R 104,9% (2020)			
		ITA 105,5% (2020)			
16.7	Entro il 2030 raggiungere quota 195 giorni di durata dei procedimenti civili (n. giorni)	E-R 258 (2020)		:	B
		ITA 419 (2020)		:	

2. The second part uses a matrix to illustrate the association between the Agenda 2.0 goals and the general and specific objectives of the 2022-2024 SPDs of each authority, and, where appropriate, the performance plan indicators related to the UN 2030 Agenda targets these goals refer to.

These matrices represent an initial tool for reading the metropolitan, union and municipal SPDs in light of the 26 objectives of Agenda 2.0, having shared a single key for interpreting these instruments: they allow each experimenting authority to reason on its own shortcomings based on the data entered by the other authorities in order to fill in any gaps. It is important to point out that in drawing up Agenda 2.0 following the logic of building a multi-level system, the metropolitan city deliberately “looked” at the area to identify the indicators, regardless of its own competences. On the other hand, it may not have considered more specific objectives for the municipal area, which it will be important to discuss.

Below is an example of the matrix that relates an Agenda 2.0 objective referring to UN Goal 8.5 with the general and specific objectives of the metropolitan city's SPD.



AGENDA 2.0: Obiettivi quantitativi a prevalente dimensione economica				
n. Target	Obiettivi indicatori quantitativi Agenda 2.0	Obiettivi generali DUP 2022 – 2024	Obiettivi specifici DUP (piano performance 2021)	Descrizione Indicatore (piano performance 2021)
8.5	Raggiungere nel 2030 il livello del 78% del tasso di occupazione.	SVILUPPO E BUONA OCCUPAZIONE	Insieme Per il Lavoro	CANDIDATI PRONTI AD UN INSERIMENTO AZIENDE COINVOLTE NEL PROGETTO RINNOVO PROTOCOLLO E CONVENZIONI
			Qualità del Lavoro	COLLOQUI EFFETTUATI PRESSO LO SPORTELLO OCC ACCORDI SIGLATI IN SENO AL TAVOLO DI SALVAGUARDIA MONITORAGGIO PROTOCOLLI DI SITO INTESE PER LA BUONA OCCUPAZIONE
		CONSOLIDAMENTO TRASFORMAZIONE ED ATTRATTIVITÀ DEL SISTEMA ECONOMICO IN UNA DIMENSIONE INTERNAZIONALE	Sostegno al sistema produttivo e promozione di investimenti di carattere locale e globale	CREAZIONE DATABASE INTERNO SITI /IMMOBILI DA PROMUOVERE INCONTRI CON SOGGETTI PROPONENTI INVESTIMENTI
		CITTÀ METROPOLITANA AREA VASTA A FINALITÀ TURISTICA	Operatività della Destinazione Turistica	APPROVAZIONE PROGRAMMA ANNUALE DELLE ATTIVITÀ TURISTICHE
		GOVERNANCE RETI E INTEGRAZIONE ISTITUZIONALE PER LO SVILUPPO ECONOMICO	Una Rete di Relazioni per il territorio metropolitano	INCONTRI NELL'AMBITO DEI PATTI TERRITORIALI PER L'OCCUPAZIONE E LO SVILUPPO INCONTRI CON AZIENDE DEL TERRITORIO INCONTRI DI ANIMAZIONE E NETWORKING CON AZIENDE ECCELLENTI TRAMITE CLUBPRO

## 6.2 The Project for the territorialisation of the region's SDGs

In agreement with the regional ANCI, ALI and UPI, the Emilia-Romagna region plans to set up a multi-level coordination team. The multilevel coordination team has the task of testing the construction of the multi-level system of territorial agendas for the sustainable development of the Emilia-Romagna region in the implementation of the regional strategy, hinged on the planning tools of the authorities (SPD) and accompanied by the publication of the targets to be achieved, the actions to achieve them, and the relevant updates on the respective institutional websites.

The multilevel team includes the **metropolitan city of Bologna** and **local authorities** representing **both the various levels of government and the territories themselves**.

Stakeholders are involved through the various participatory tools of the Emilia-Romagna region, in particular the regional forum for sustainable development and the table of Jobs and Climate Pact signatories.

Activity	Description
1	<i>Definition of criteria for the multilevel team with regional ANCI, ALI, UPI and the metropolitan city of Bologna</i>
2	<i>Selection of entities participating in the experiment representative of active experiences, levels of government and territories</i>
3	<i>Identification of the set of quantitative targets the REFD and SPD actions should be associated with</i>
4	<i>Consultation on the set of targets addressed to municipalities, unions and provinces via the Participation Platform</i>
5	<i>Classification of the strategic objectives of REFD 2023-2025 on the basis of the goals and targets of the UN 2030 Agenda and association with the identified set of quantitative targets</i>
6	<i>Definition and updating of a dissemination format for the publication of quantitative targets and related actions on the pages of entities' websites dedicated to strategies and agendas</i>