

REFD

2023-25

Regional
economic and financial
Document

Part I



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Foreword

The 2023 DEFR, the third of this legislative term, describes the precise framework of policies that the Council intends to implement to achieve the goals of the 2020-2025 Five-Year Plan, presented by President Stefano Bonaccini on 9 June 2020, and the Pact for Work and Climate, signed with the institutional partners on 14 December 2020, based on environmental, social and economic sustainability.

The worldwide improvement in the macroeconomic framework attested by the latest Update Note to the 2022 DEFR, after almost two years of Covid-19 pandemic, unfortunately cannot be confirmed today.

In fact, following the Russian invasion of Ukraine, which began on 24 February, the global economic outlook has again drastically deteriorated: the growth rate estimated for 2021 by the International Monetary Fund (IMF) of 6.1% falls to 3.6% in 2022, and is confirmed in 2023.

In addition to the very heavy social consequences and numerous casualties, the ongoing conflict generates strong repercussions on economic and international trade trends, which are particularly strong for Europe also because of the significant increases in the cost of energy and other raw materials as well as the considerable dependence on Russia for gas, oil and coal imports. There is no doubt that the European Union is facing an unprecedented, constantly changing context with very serious implications from a geopolitical, humanitarian, economic, social and energy perspective.

As a result, in the Eurozone, GDP growth forecasts have shrunk more than global forecasts. The 2021 growth rate, set at 5.3%, drops to 2.8% in 2022 and to 2.3% in 2023.

The shock to energy and other commodity prices is generating an inflationary push such that central banks have been prompted to consider adopting restrictive monetary policies with the anticipation of interest rate hikes. This is an additional factor that will contribute to the growth slowdown.

In 2021, Italy's national income made a strong recovery with the corresponding improvement in public finances. Gross domestic product grew by 6.6%, recovering more than two-thirds of the 9% drop recorded in 2020. The deficit was 7.2% of GDP, nearly 5 percentage points lower than what the government planned in early 2021.

In the 2022 National Economic and Financial Document (DEF), presented by the government on 6 April, the Italian real GDP growth for 2022 was assumed to be 2.9%, a downwardly adjusted estimate from the 4.2% projected in October 2021 Update (NADEF). Although growth forecasts remain positive, due to the current geopolitical situation it looks hard to go back to the pre-pandemic picture that seemed possible just a few months ago.

The biggest factor contributing to lower growth expectations is undoubtedly the increase in energy prices and a range of food and other commodities. Such increases are being

passed on to inflation. As early as March 2022, the consumer price index in Italy rose by 6.7% year-on-year.

The downward revision of real GDP growth, compared to the Update (NADEF), applies not only to 2022 but also to subsequent years. For 2023, the forecast is 2.3%, for 2024 it is 1.8%.

Despite this scenario, the latest estimates indicate that the economic recovery in the Emilia-Romagna Region has been more sustained than nationally. The 2021 GDP increase is expected to be 7.3% in real terms, almost half a percentage point higher than the Italian average, while for 2022 the forecast has been significantly reduced to 2.4%. In contrast, the forecast for 2023 remains in line with last October's, showing a deviation of only 0.2 percentage points, from 2.9 to 2.7%.

Therefore, the economic consequences of the ongoing conflict will also be felt at regional level: higher costs and lower availability of raw materials and intermediate products, difficulties in production chains, trade restrictions, and rising inflation.

In this scenario, the Council of the Emilia-Romagna Region, in order to support the path of growth and sustainable development undertaken in recent years, with the 2023 DEFR confirms a particularly relevant Investment Plan that, in just two years, has reached 18 billion Euro. In particular, investments grew for Infrastructures (+1,477 million Euro), for Public and Rail Transportation (over 660 million Euro), for the Environment (+536), for Businesses (+497), for housing policies (+404), for Health (+282), and for School and University buildings (+281).

Such a plan is further strengthened by the National Recovery and Resilience Plan (PNRR) funding: to date the amount affecting the region is more than 4 billion Euro.

It is an Extraordinary Investment Plan which is potentially capable of generating significant increases in both employment and regional value added not strictly limited to the mere sectors activated, though. In fact, data analysis shows multiplier effects on the regional production system as a whole that are produced by the exchanges between enterprises (direct and indirect effects) and through the induced increase in household consumption.

On the planning front, the integration of strategic objectives with other planning tools, particularly the Pact for Work and Climate and the 2030 Agenda Regional Strategy for Sustainable Development, is further strengthened to outline a comprehensive and organic policy action framework.

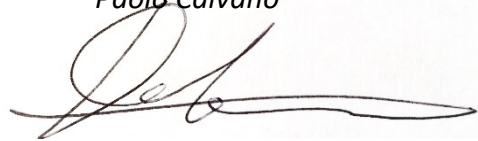
The 2023 Strategic Planning Document consists of two volumes. The first analyses the economic reference scenarios - international, national, European, regional and local - on which the administrative action of the Regional Council is based. The institutional context is also outlined, with information and data on the organisational structure of the Region, its staff, the system of investee companies, and the territory, with in-depth analysis of the local government system, territorial finance, and the demographic picture.

The second sets out 97 strategic objectives, divided by Councillorship. For each goal, we clearly state the purpose, contents, recipients and expected results for 2023 and the entire legislative term. Integrations and links with the Pact for Work and Climate, the 2030 Agenda and the Regional Budget are also highlighted. A specific section reports, for each objective, the impacts on the local government structure.

The second volume also contains the third Part about the strategic guidelines assigned to the Region-owned or investee companies and the Region's functional bodies, each of which contributes, within its field of operation, to the production and delivery of services for the implementation of regional government policies. A specific section relates to in-house companies, as required by Regional Law no. 1 of 2018.

*Councillor for budget, human resources,
heritage and institutional reorganisation*

Paolo Calvano

A handwritten signature in black ink, appearing to read 'Paolo Calvano', with a long horizontal flourish extending to the right.

PART I

The context

Pact for Work and Climate

A project for Emilia-Romagna. Consistent with the 2020-2025 Five-Year Plan, on 14 December 2020, after a long process of drafting and discussion, the Region and the institutional, economic and social partners¹ signed the **Pact for Work and Climate** (link to <https://www.regione.emilia-romagna.it/pattolavoroeclima>)².

The Pact outlines a shared project for the **boost and development of** Emilia-Romagna, which is aimed at generating new **quality jobs** and accompanying Emilia-Romagna in the **ecological transition**. Such a project is based on **sustainability**, in its three inseparable components, namely **environmental, social and economic** ones, with the aim of reducing **economic, social, environmental and territorial rifts** and achieving full **gender equality**.

The Pact was drawn up based on what the territory has learned from the health emergency and establishes shared commitments and responsibilities aimed at addressing challenges that can no longer be postponed - the **demographic crisis**, the **digital transition**, the **fight against inequality**, and the **climate emergency** - as well as pursuing strategic objectives and cross-cutting processes that intercept decisive dynamics for the entire regional society.

There are four strategic goals:

1. **Emilia-Romagna, a region of knowledge and know-how** - Investing in education, training, research and culture: not to be subjected to change, but to determine it; to generate quality jobs and combat job insecurity and inequality; to innovate manufacturing and services; to accelerate the ecological and digital transition
2. **Emilia-Romagna, a region of ecological transition** - Accelerating the ecological transition, starting the Regional pathway to carbon neutrality by 2050 and moving to 100% clean and renewable energy by 2035; combining productivity, equity and sustainability, thus generating new high-quality jobs
3. **Emilia-Romagna, a region of rights and duties** - Combating territorial, economic, social, gender and generational inequalities that weaken cohesion and prevent fair and sustainable development

¹ *Emilia-Romagna Region, Associazione Generale delle Cooperative Italiane (AGCI), Associazione tra Fondazioni di origine bancaria dell'Emilia-Romagna, 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), ABI Regional Commission, 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), FIAB Federazione Italiana Ambiente e Bicicletta, Forum Terzo Settore, Legacoop, Legambiente, Politecnico di Milano, 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, Zero Waste Municipalities Network, Regional School Office, Unioncamere, Unione delle Province d'Italia (UPI), Unione Generale del Lavoro (UGL), Unione Italiana del Lavoro (UIL), Unione Nazionale Comuni Comunità Enti Montani (UNCEN), Università Cattolica del Sacro Cuore, University of Bologna, University of Ferrara, University of Modena and Reggio, University of Parma.*

² *The Pact for Work and Climate was approved by the Regional Council with Resolution no. 1899 of 14/12/2020*

4. **Emilia-Romagna, a region of work, businesses and opportunities** - Designing a European, young and open region that invests in quality and innovation, beauty and sustainability: to attract businesses and talent, supporting territorial features and adding new value to manufacturing and services.

Four are also the cross-cutting processes:

- **Digital transformation** - Making a major investment in the digital transformation of economy and society, starting with the three essential components: infrastructure, right of access and people's skills
- **A Pact for Simplification** - Strengthening and qualifying the Public Administration and reducing bureaucracy to increase competitiveness and protect the environment and work within the law
- **Legality** - Promoting legality, an identity value of our society and a guarantee of social and environmental quality
- **Participation** - A new key role played by communities and cities, drivers of innovation and development, in the concrete management of the strategies of the Pact.

Governance, implementation and monitoring. The Pact is based on the quality of relations between institutions, economic and social representatives, on the mutual recognition of the role that each of the signatories plays in society, on the sharing of strategic objectives and the consequent assumption of responsibility, and was drafted and signed in the full awareness that the new 2021-2027 European funds programming and the extraordinary resources of the National Recovery and Resilience Plan (PNRR) represent a historic opportunity that the Emilia-Romagna territorial system intends to seize by playing a leading role. Based on these assumptions, the document outlines the strategic framework and directions of a positioning project that takes 2030 as its horizon. To fulfil it and achieve the shared goals, it provides for the full involvement of the signatories in defining subsequent **operational agreements and implementation strategies**.

The text of the document stipulates that the signatories' meetings are, as a rule, semi-annual. As of the signing, the Pact meeting was held 11 times. Subject of discussion and sharing were, in particular, the main regional planning documents, among them the *2021-2027 Regional Strategic Document for the Unitary Programming of European Development Policies (DSR)*, the *2021-2027 Strategy for Smart Specialisation (S3)*, the 2021-2027 ESF+ and ERDF Programmes as well as some sector planning.

During 2021, the *Pact for Simplification* was also drafted and the discussion and preparation of a document dedicated to occupational health and safety began. The aim of the latter is to promote a collective assumption of responsibility and share an integrated implementation strategy that will enable action on all the main levers that can ensure higher levels of health and safety for all workers, starting with the most vulnerable.

Achieving the goals of sustainable development and ecological transition outlined by the Pact for Work and Climate needs deep roots in the territories. No vision project and strategic positioning of the Emilia-Romagna Region can be fulfilled without their prominence. To this end, the Pact sets out that the strategies identified will be implemented through territorial pacts and programmes. In 2021, the Region participated in defining the Ferrara Territory Pact for Work and Climate, which was signed in November 2021. The same path was taken in the Rimini area, which signed its own territorial pact in 2022. These territorial pacts are in addition to the *Metropolitan Pact for Sustainable Development*, promoted by the Metropolitan City of Bologna, signed in January 2021.

On the basis of the choices shared by the Pact, the *2030 Agenda Regional Strategy for Sustainable Development* was also drafted and approved, which defines and "localises" the 17 Goals of the 2030 Agenda at territorial level, linking them to the strategic objectives and lines of

action of the Regional Council's 2020-2025 Five-Year Plan and the Pact for Work and Climate and establishing the first 100 targets to be achieved by 2025 and 2030.

Currently under development is the *Regional Pathway to Carbon Neutrality by 2050*, a document expressly indicated by the Pact for Work and Climate, through which to identify integrated sectoral action strategies aimed at the absorption, mitigation and reduction of climate-altering gas emissions, defining intermediate targets and tools to collect uniform data and monitoring goal achievement.

The choices shared by signing the Pact and its specific method of sharing and discussion have therefore guided the entire regional planning chain. The various documents approved by the Region as of 2021 express a unified and integrated vision of regional policies that, on the one hand, confirms the willingness of institutions and the entire territorial system to pursue a precise development trajectory, and on the other hand, guarantees the Region's commitment to work, in the implementation phase, avoiding overlapping actions and identifying common strategies capable of improving impacts, promoting maximum participation in opportunities by potential recipients, and ensuring policy continuity.

Finally, in order to monitor the progress of the actions undertaken to implement the Pact and determine their impact, an integrated reporting of the Authority's main strategic documents was initiated: in addition to the Pact, the Regional Economic and Financial Document (DEFER), the Digital Agenda "Data Valley Bene Comune (common asset) 2020-2025", and the 2030 Agenda Regional Strategy for Sustainable Development. This is an experiment that engages the entire regional administration in a process aimed at qualifying the Authority's strategic reporting to signatories and the Regional Legislative Assembly, as well as nurturing effective forms of information, involvement and reporting aimed at the people of the city, to strengthen transparency, accountability and shared responsibility for the change we want to pursue together.

The project is coordinated by the **Steering Committee for Governance and the Strategic Control of Regional Planning** established by Regional Council Resolution DGR 602/2021 with the aim of consolidating the administration's capacity to guide the integration of policies, monitor their full consistency with the Five-Year Plan, the Pact for Work and Climate and the 2030 Agenda Regional Strategy for Sustainable Development, to verify their level of implementation, as well as to communicate, through participatory and informative actions, their objectives and outcomes.

In a systematic and collaborative comparison with the Regional Councillorships and Directorates, in particular, the Steering Committee oversees the strategic control of regional planning and governance of the Pact for Work and Climate, the 2030 Agenda Regional Strategy for Sustainable Development, the Pathway to Carbon Neutrality by 2050, and the 2020-2025 Digital Agenda of Emilia-Romagna - Data Valley Bene Comune (common asset). The Steering Committee is coordinated by the Under-secretary and established within the Chief's Council Staff under the responsibility of the Chief of Staff.

The 2030 Agenda Regional Strategy for Sustainable Development

The 11th legislature of Emilia-Romagna Region began by stating that economic, social, environmental and institutional sustainability is a pillar on which to base a new paradigm of development and economic recovery, conditioned by the effects of an unprecedented COVID-19 pandemic. On this assumption, the 2020-2025 Five-Year Plan first and the Pact for Work and Climate later took the 17 goals of the United Nations Agenda as a reference point to which all regional policies should be oriented, to improve the quality of life of people and the planet and definitively overcome the conflict between development and the environment, making the most of all the potential and spaces that this new development paradigm offers to the territory and **new generations**.

The **2030 Agenda Regional Strategy for Sustainable Development** was drafted and approved by the Regional Council with Resolution DGR no. 1840 of 8/11/2021, taking into account the provisions of article 34, paragraph 4 of Italian Legislative Decree 152/2006 according to which *"The Regions will provide themselves, through adequate information and participatory processes, with an overall sustainable development strategy being consistent and defining the contribution to the achievement of the objectives of the national strategy (...)"*.

The Strategy thus outlines a blueprint for Emilia-Romagna's future based on sustainability. Such a project is primarily aimed at generating **quality work**, combating **social, economic, generational, gender and territorial inequalities**, accompanying Emilia-Romagna in the **ecological transition**, which is the testing ground of this generation and the challenge of our time. A momentous challenge taken up by the European Union and transferred to member states and regions for a modern, inclusive, resilient and sustainable Europe.

The document sets out and "localises" the global UN action plan starting from the specificities of our territory, its strengths and weaknesses, identifying about **100 quantitative targets** to be achieved by **2025** and **2030** and to be monitored annually in order to assess Emilia-Romagna's positioning against global challenges, to measure the contribution of regional policies and possibly re-address them.

The Strategy will also need to coordinate with a plurality of planning and governance tools being both internal and 'external' to the administration. As a matter of fact, the objectives identified can be achieved only through the integration of governance different levels, which must necessarily be collaborative, multilevel (vertical and horizontal), as well as directing and catalysing the commitments of all the actors involved and, therefore, be able to co-design with the territory itself by improving the pre-existing conditions and finalising towards this goal also its own organisational performance to increase the level of cost-effectiveness, efficiency and effectiveness of its action.

The working method. Based on Council Resolution no. 814/2018, with the decisions of the Chief of Staff of the Council's President no. 10246/2018 and no. 8499/2019 an **interfunctional technical working group** was set up **for the integration of 2030 goals in the various regional policies**, and was updated with decisions no. 20907 of 20/11/2020 and no. 6929 of 19/04/2021. Such a group is made up of representatives of the Authority's Directorates General, coordinated by the Chief of Staff and assisted by an operational coordination unit for organisational and methodological support, alignment with the Regional Economic and Financial Document (DEFR) and statistical aspects.

The Region has developed its own Sustainable Development Strategy fully consistent with the 2020-2025 Five-Year Plan and with the Pact for Work and Climate. It has identified the parties to the document signed in December 2020 as the partners for sharing and discussing how to apply the 17 SDGs (Sustainable Development Goals) at territorial level.

The **2030 Agenda Regional Strategy for Sustainable Development**, like the **Pact for Work and Climate**, is based on the principle of **collaboration** and the **quality of the relationships** between institutions, economic and social representatives, the **sharing of strategic objectives** and the consequent assumption of **responsibility**.

For creating the **2030 Agenda Regional Strategy for Sustainable Development**, the Region has availed itself of the support of the Italian Alliance for Sustainable Development (ASviS), of Art-ER and of the Regional Agency for Prevention, Environment and Energy (ARPAE), as well as of the network of regional universities gathered in Emilia-Lab.

The Regional Forum for Sustainable Development. The system for engaging stakeholders in the construction and implementation of the Regional Sustainable Development Strategy is based on the evolution and integration of different participatory tools of the Emilia-Romagna Region. This system includes the round table of the signatories of the Pact for Work and Climate, regional forums and other existing participatory instruments.

This network contributes to the expression of an overall "**2030 Agenda Regional Strategy for Sustainable Development Forum**", where the involvement of other administrations, businesses and civil society takes place in an articulated and flexible context, and yet is integrated through discussion tools and occasions, with a view to the continuous improvement of the forms of cooperation for sustainable development. As part of the Sustainable Development Forum launched in May 2021, several other meetings are planned and will also be implemented through the use of the new DECIDIM platform for the involvement and participation of citizens and all stakeholders.

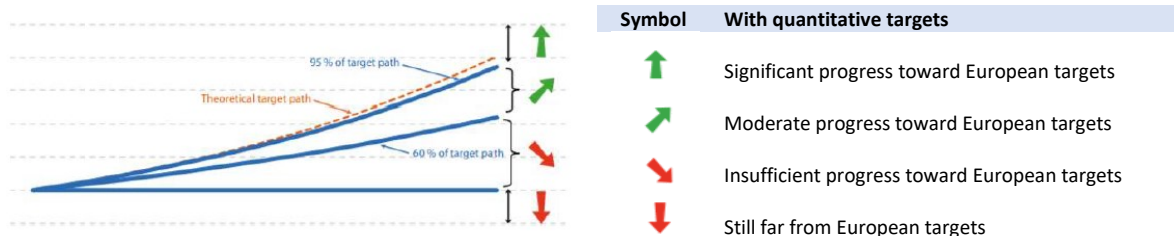
The monitoring. The monitoring of the Sustainable Development Strategy will be carried out by integrating it with the monitoring system concerning the Pact for Work and Climate. As a matter of fact, the gradual achievement of the 2025/2030 targets defined in this strategy will also be useful to measure the Pact's ability to determine results in the strategic areas identified and to assess - beforehand, during its implementation and at the end - the economic, social and environmental impacts of the resulting choices.

During this monitoring, at regular intervals, in addition to the progress of the actions undertaken, the need to update the Strategy, to integrate or modify it will be examined, starting from new scenarios, new critical points and new opportunities or from possible updates of the national system of indicators.

Multilevel Governance for the Strategy territorialisation. "Localising" the Sustainable Development Goals (SDGs) through bottom-up approaches puts local governance and citizens at the centre of the change processes themselves. This is crucial with respect to the active role of citizenry and all possible stakeholders who can be involved in local ecological transition processes with effects on broader, regional, national and international levels, making the role of territories in change processes central.

In order to promote the **achievement and full dissemination of the 2030 Goals** through regional policies and the widest involvement of the territorial governance system, an experimental project was launched, also with the support of ASviS, to build the *Multilevel System of Territorial Agendas for Sustainable Development of the Emilia-Romagna Region* and define tools to guide the administrative action of local authorities in order to correlate and integrate the Sustainable Development Strategies implemented at local level with the economic and financial planning documents of the authorities themselves (DUP) and with the regional targets of the Strategy.

To this end, the main regional specific quantitative targets included in the 2030 Agenda Regional Strategy for Sustainable Development, some of which are already included in the Pact for Work and Climate, the related indicators and the trend to analyse how the situation is evolving with respect to the goals expressed according to the methodology proposed by Eurostat³ are shown below for each Goal.



In this way, the Regional Strategy and Territorial Agendas can become a constant reference point for best practices of citizens, associations and businesses.

SDGs of the 2030 Agenda Regional Strategy for Sustainable Development



ENDING POVERTY

Supporting those living in poverty and fostering the social inclusion of fragile and vulnerable people.

*Reducing the number of **people who are poor or at risk of poverty and social exclusion** is a priority and essential goal for the Emilia-Romagna Region. The level of well-being of its citizens places Emilia-Romagna at the top of the national ranking and among the most developed European regions. However, the decade of recession first, the slow recovery later and, more recently, the pandemic have produced divides in the social fabric, starting with the labour market. As in the rest of the world, we are witnessing even in Emilia-Romagna an increase in **inequality** and a **polarisation** between very highly-skilled and highly paid jobs and low-skilled, scarcely protected and poorly paid jobs. These last conditions increasingly result in poor work, which is not enough for people to cross the poverty line. In Emilia-Romagna we want to counter this trend. We want to focus on quality work and policies capable of, on the one hand, generating value and, on the other hand, redistributing it fairly. We want to build a **sustainable and inclusive development project** that aims to counter any **fragility**.*

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 1.2 - By 2030, reducing the number of people at risk of poverty or social exclusion by 20% compared to 2019 (percentage)	ITA 25.5 (2020)	↑	↓
	E-R 15.5 (2019)	↗	↓

³ In the presence of quantitative targets, Eurostat provides for the evaluation of the intensity and direction in which the indicator is moving with respect to the set target. This assessment depends on the Ratio of actual and required growth rate and has 4 classifications: significant progress (the target will be achieved); moderate progress (the target will be achieved due to minimally positive trend); far away from the target (the target will not be achieved, in fact we are moving further away from the target level set).



ENDING HUNGER

Supporting competitive, quality and resilient agriculture, promoting generational change, nutrition education and combating waste.

The pandemic has highlighted the importance of being able to rely on a structured and competitive agricultural, agro-industrial and distribution sector supply chain capable of ensuring safe supply, sustainable processes and quality food. The agri-food sector plays a crucial role for us not only in terms of regional GDP and exports, but as a distinctive factor of our territory, its quality and excellence with which we enter the world. Therefore, we want to continue with appropriate incentives in the strategy for growth and continuous technological and managerial adaptation to further strengthen **the quality and sustainability** of production, reducing **the impact on the environment**, and to increase its resilience to climate change in the face of disastrous weather events that have the greatest impact precisely on agricultural production. We support companies in the investments needed to continue to improve **animal welfare and biosecurity on livestock farms**, to optimise nutrient use and water consumption, to minimise dispersion and emissions, and to foster varietal research and biodiversity increase, in line with the European "From Farm to Fork" strategy. We encourage every day **young farmers** and generational change, the short supply chain, organic farming and integrated plant production, **with the aim of covering more than 45% of the agricultural area (UAA) by 2030, with low-input practices, of which more than 25% will be organic.**

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 2.4 - By 2030, reducing the use of fertiliser distributed in non-organic agriculture by 20% compared to 2020 (quintals per hectares of UAA)	ITA 2.6 (2020)*	↓	↗
	E-R 5.8 (2020)*	↓	↓
Target 2.4 - By 2030, reaching the 25% share of UAA covered by organic crops (percentage)	ITA 16.4 (2020)*	↑	↑
	E-R 15.6 (2020)*	↑	↑

(*) provisional figure to be recalculated after consolidation of the total utilised agricultural area figure for proper comparison with the historical series.



HEALTH AND WELL-BEING

Ensuring good, public, universalistic, locally rooted health care for all and building an increasingly inclusive and participatory community welfare.

The virus that has struck humanity has made social contradictions and fragilities more evident, but it has also highlighted elements of strength and resilience of the territorial system as well as the inestimable value of **good health care, being public and for all, rooted in the territory.** Physicians, health professionals, social and health service staff, social services staff, technical administrative staff, as well as volunteers and the Third Sector, have proven to be a fundamental tool of territorial proximity to be recognised, qualified and enhanced. At the same time, we have become more aware of the need to adopt health-protecting lifestyles. **The first among our priorities** is to strengthen our health care system, by keeping the role of governance and **public management as a pillar**, to guarantee the **right to health** for all people regardless of economic and social conditions, but also a service to the community as a whole for the protection of public health. We want to implement and qualify the network of hospital facilities, strengthen territorial health facilities, starting with Proximity Outpatient Clinics, invest in telemedicine and home care, being pivotal elements of the system on which to build the chain of social innovation, especially in the region's inland and mountain areas, pursuing the integration of health and social policies, with an extraordinary investment plan that, in addition to facilities and technologies, aims to train and recruit all the necessary health and social workers. Similarly, we intend to invest in social welfare services that adequately respond to social and demographic changes, particularly targeting the elderly and people with **disabilities**, as well as caregivers and interpreting their needs early on. We want to face the new challenges with innovative tools for **prevention** and fight loneliness with the valuable contribution of social

cooperation, the Third Sector, qualifying **social work** and enhancing its planning and capacity for initiative.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 3.4 - By 2025, reducing the probability of dying from non-communicable diseases by 25% compared to 2013 (percentage)	ITA 9.0 (2018)	↗	↗
	E-R 8.1 (2018)	↗	↗
Target 3.6 - By 2030, halving traffic injuries compared to 2019 (injuries per 10,000 inhabitants)	ITA 26.7 (2020)	↘	↗
	E-R 33.8 (2020)	↘	↗
Target 3.8 - By 2030, reaching 78% of influenza vaccine coverage for people aged more than 65 (percentage)	ITA 66.5 (2021)	↗	↘
	E-R 70.1 (2021)		



QUALITY EDUCATION

Ensuring quality, equitable and inclusive education and learning opportunities for all.

*In Emilia-Romagna we have always entrusted **education, instruction and training** with the task of improving society. When a community faces new challenges and undertakes processes of change, intensifying this investment becomes imperative, starting with the youngest: the right to **education, being universal and inclusive, is the foundation of our development model**. We want to **ensure educational services and kindergarten** accessible to all and spread throughout the region, which remove the obstacles posed by different social starting conditions. We want to invest in **guidance** services to give young people and their families the tools to make informed choices. We consider it a priority to reduce early **school leaving** and to ensure that all people, no one excluded, have the opportunity to raise their knowledge and skills both in the phase before entering the labour market and throughout their working lives, in order to foster pathways to professional growth, to support the quality of employment in terms of stability and intensity, to innovate manufacturing and services, and to accelerate the ecological and digital transition.*

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 4.1 - By 2030, reducing early education and training system leaving (18-24 years old) below a rate of 8.5% (percentage)	ITA 12.7 (2021)	↗	:
	E-R 9.9 (2021)		
Target 4.2 - By 2030, reaching 96% of participation rate in educational activities of girls and boys from age 4 to the age of starting compulsory schooling (percentage)	ITA 95.9 (2020)	↘	:
	E-R 93.6 (2020)		
Target 4.2 - By 2030, reaching 45% of girls and boys (0-2 years old) who have used childcare services (percentage)	ITA 28.0 (2020)	↗	↗
	E-R 31.5 (2020)		

Target 4.3 - By 2030, reaching 50% of college graduates (30-34 years old) (percentage)	ITA 26.8 (2021)	↓	:
	E-R 33.6 (2021)	↓	:
Target 4.4 - By 2030, reaching 65% of people aged 25-64 who have participated in training and education activities over the past 12 months (percentage)	ITA 41.5 (2016)	:	↑
	E-R 52.5 (2016)		



GENDER EQUALITY

Achieving gender equality of all women and girls.

First, we chose to interpret all the goals of the 2030 Agenda Regional Strategy for Sustainable Development through a **gender lens**. In collaboration with the **Permanent Regional Table for Gender Policies** and the many territorial associations active in civil, social and gender rights issues, we are designing innovative policies that promote **the quality and stability of women's work, the elimination of gender wage gaps, and the overcoming of stereotypes that influence educational and professional choices, career paths and women's entrepreneurship**. We are addressing work-life balance: by strengthening the **service network**, we want to improve the distribution of the burden of care and take action on city schedules and times. We are working to overcome **the greater fragility of women's employment conditions**, which the Covid-19 emergency has highlighted in all its severity, by investing in the growth and qualification of women's work in order to see more women in decision-making positions, to have more women-owned larger businesses in sectors still dominated by men. We have intensified the **fight against gender-based violence**, ensuring pathways for the **social and labour reintegration and autonomy** of women victims and prevention activities, supporting and promoting actions and projects throughout the region.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 5.5 - By 2030, halving the gender employment gap compared to 2020 (females/males * 100)	ITA 73.5 (2021)	↓	:
	E-R 81.6 (2021)	↓	:



CLEAN WATER AND SANITATION

Improving the quality and availability of water so that it is safe, affordable and not wasted.

To protect and enhance the water resource we are improving the state of ecosystems, including by **reducing consumption and waste** in the residential, industrial and agricultural sectors (Water Footprint). We are increasing the quality and availability of the water system, with the prospect of halving **network losses**, increasing and innovating **storage capacity**, including reusing wastewater and rainwater, through an **integrated win-win approach** that can ensure water quality and hydraulic safety. Involvement of publicly owned and controlled enterprises, starting with local government multi-utilities, is critical to achieving the goals, so as to promote a type of management that **ensures services with universal value**, through continued **investment in networks and facilities**.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 6.3 - By 2025, maintaining the share of river water bodies with good chemical status at 93% (percentage)	ITA 75.0 (2010-2015)	:	:
	E-R 89.0 (2014-2019)	:	:

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 6.3 - By 2025, reaching 30% of river bodies with good or high ecological status (percentage)	ITA 43.0 (2010-2015)	:	:
	E-R 29.0 (2014-2019)	:	:
Target 6.3 - By 2025, maintaining the share of lake water bodies with good ecological status at 60%	ITA 20.0 (2010-2015)	:	:
	E-R 60.0 (2014-2019)	achieved	
Target 6.4 - By 2030, achieving 90% efficiency of drinking water distribution networks (percentage)	ITA 58.0 (2018)	↓	↓
	E-R 68.8 (2018)	↓	↓



AFFORDABLE AND CLEAN ENERGY

Encouraging choices and behaviours aimed at energy saving toward the goal of 100% renewable by 2035. We firmly believe that Emilia-Romagna must emerge from the pandemic crisis with a new development project based on respect for the planet and preservation of natural resources. This requires our region to take the lead in the transition, with a path that does not jeopardise productive and natural capital, people's employment and society's welfare, but instead be **a driver of new and different eco-sustainable development**. In the Pact for Work and Climate, we shared a challenging goal: to move to **100% renewable energy by 2035**. In order to achieve it, we will invest in the **skills** of people, youngsters and workers, foster **business** investment, including **agricultural farms**, toward renewable energy, to develop new **green supply chains** and strengthen **research and innovation** in high-potential strategic sectors such as hydrogen, electric energy and green chemistry. To increase the widespread production, utilisation and storage of renewable energy, a **Regional Law on Energy Communities** was passed. In order to accelerate energy transition in the public sector, we are willing to support the development of Municipal Energy-Climate Plans and the development of carbon-neutral pathways at territorial level, giving new impetus to the upgrade and energy efficiency of the entire public assets, starting with schools to create new zero-emission buildings. We intend to capitalise on the potential of **the 110% Ecobonus** for energy efficiency, supporting the **sustainable construction industry supply chain** to accompany processes and investments in urban regeneration and redevelopment of the existing housing stock, as well as those for innovation in new generation buildings. To accelerate the energy transition, we will develop **sustainable finance** and social impact projects.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 7.2 - By 2035, achieving 100% of energy from renewable sources out of total consumption (percentage)	ITA 18.2 (2019)	↓	:
	E-R 13.5 (2019)		



DECENT WORK AND ECONOMIC GROWTH

Supporting a long-lasting, inclusive and sustainable economic growth, full employment and decent, quality and safe work for all.

We want to carry out a development project that aims to raise the overall level of the system, investing in **supply chains**, both **educational** and **productive**, countering **poor and precarious work** and fragility at every level. To do so, we need to achieve a **just ecological transition**, accompanied by actions to generate new businesses, new jobs and new skills, upgrade the skills of those who work to protect their employment, and overcome the conflict between development and the environment. Creating new, safe and high-quality employment, which contributes to and flows from the ecological and digital transition, is not only possible, but also necessary. With this in mind, we are designing a **new economy for the recovery**, investing

in **entrepreneurial culture**, in the creation of **new businesses and structured professional activities**, especially of young people; strengthening our **manufacturing**, from the traditional one, which is already among the most advanced in the world, to the emerging one. We are also working to support the **cultural and creative industry**, the **tertiary sector, trade, tourism** and the **agri-food** sector, being distinctive factors of our territory, its quality and excellence. Finally, we continue to design policies to strengthen Emilia-Romagna's ability to **attract businesses, projects and human capital**. Fostering the attractiveness, retention and return of trained young people to the area is one of our priorities.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 8.5 - By 2030, reaching a 78% employment rate (20-64 years old) (percentage)	ITA 62.7 (2021)	↓	:
	E-R 73.5 (2021)	↓	:
Target 8.5 - By 2030, reducing the unemployment rate (15-74 years old) to 4.5% (percentage)	ITA 9.5 (2021)	↗	
	E-R 5.5 (2021)		
Target 8.5 - By 2030, reducing the share of low-wage employees to at least 6% (percentage)	ITA 10.1 (2020)	↓	↘
	E-R 8.3 (2020)		
Target 8.5 - By 2030, reducing the share of non-regular employment to below the pre-crisis threshold (2008) (percentage)	ITA 12.6 (2019)	↗	↓
	E-R 9.5 (2019)		
Target 8.6 - By 2030, reducing the share of NEETs to below 10% (15-29 years old) (percentage)	ITA 23.1 (2021)	↘	:
	E-R 15.1 (2021)		



INDUSTRY, INNOVATION AND INFRASTRUCTURE

Renewing all infrastructure networks and supporting structural innovation processes with businesses for equitable, responsible and sustainable industrialisation.

We are accelerating the **digital transformation of the entire regional society** by continuing to invest, on the one hand, in the **Data Valley**, a global research and innovation hub, and, on the other, in the dissemination of digital skills that will ensure equal opportunities for people and competitiveness for businesses throughout the region, preventing innovation from widening gaps and ensuring that it conversely contributes to narrowing them. Emilia-Romagna is an area that has long invested in innovation and digitalisation. This is evidenced by the choices made and results achieved by both the public administration (it ranked 3rd in the 2019 edition of the Digital Economy and Society Index - regional DESI by the Digital Agenda Observatory of Politecnico di Milano) and the private sector (it ranked 3rd in the 2020 edition of the PMI (SME) Digital Index 2020 made by GoDaddy) over the last years. The technological revolution has already deeply changed production processes: our ambition is to **govern the transformation** so that it does not result in the replacement of labour, but in the redesign of a **working world "augmented" by digital**. This means orienting the digital revolution toward a **new humanism**, building a **Data Valley** that is a **"Common Asset"** and nurtures participation and democracy, so that the future and evolution of technology is a right of all and everyone, an asset serving people's needs, a driver for sustainable development. In parallel, we are working to **reduce bureaucracy and innovate public administration**. Therefore, it is not deregulation, but an increase in the level of legality, rights and social justice. Finally, we continue to strengthen **the regional research and innovation ecosystem**, particularly through targeted investments in the areas of health, digital and ecological transition.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 9.5 - By 2030, reaching 3% of GDP devoted to research and development (percentage)	ITA 1.5 (2020)	↓	↗
	E-R 2.1 (2019)	↑	↑



REDUCED INEQUALITIES

Combating social, economic, gender, generational and inter-territorial inequalities.

*Our project's strategic goal is to **combat inequality** as the key to ensuring **social justice and strengthening growth**. We focus on **quality work** and policies that strengthen the system's capacity to **generate value**, on the one hand, and **redistribute it in a fair and inclusive manner**, on the other, including through a new tax policy, marked by progressiveness, social justice and the recovery of tax avoidance and evasion. Determination against social and economic inequalities is complemented by the commitment to reducing **gender, generational and territorial inequalities**. We are actively countering the widening gaps between urban and rural, inland and mountain areas, as well as between city centres and suburbs. We want to ensure opportunities and proximity services everywhere, integrating suburbs to more open and widespread cities, enhancing the identity and potential of individual territories to activate new development processes and strengthen, modernise and qualify the infrastructural component of the territory of **multifunctional spaces and services aimed at the entire population, starting with young people**.*

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 10.4 - By 2030, reducing the disposable income inequality index to the levels observed in the best of European countries (s80/s20)	ITA 6.1 (2021)	↓	↓
	E-R 4.2 (2019)	achieved	



SUSTAINABLE CITIES AND COMMUNITIES

Undertaking an all-round sustainability journey with all regional communities for inclusive, safe, resilient and sustainable cities, villages and hamlets.

*No vision project and strategic positioning of the Emilia-Romagna Region can be fulfilled without the **prominence of cities and territories**. Achieving the goals of sustainable development and ecological transition that we want to undertake needs deep roots in the land where economic innovation springs forth and social cohesion is realised, where the environment becomes substance and culture becomes everyday practice. We are working to support the **Pact of Mayors for Energy and Climate**, to foster **Urban Transformative Agendas for Sustainable Development**, and Territorial Strategies for inland and mountain areas to reduce distances between centres and suburbs at every level. Our focus is on **zero-balance land use strategies and urban regeneration**, through a plan for the redevelopment and resilience of cities capable not only of tapping European resources, but also of maximising on a large scale the incentives introduced for the redevelopment, efficiency and safety of buildings. We are strengthening **public transport networks**, with particular reference to mountain and inland areas, encouraging **the replacement of LPT companies' vehicles** with environmentally friendly vehicles and supporting forms of **subsidised pricing**. We are promoting the use of bicycles, including **through the construction of new cycle paths** and encouraging investment in the development of **e-mobility**. We are accelerating **the integration of both rail and road**, as well as with new modes of sustainable mobility and reducing the need for travel by strengthening digital technology (smart city). In compliance with the Air Quality Framework Agreement for the Po Valley Basin, we are promoting the increase of **city greenery** to drastically reduce air pollution.*

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 11.2 - By 2030, increasing the number of seat-km per inhabitant offered by public transport by 26% compared to 2004 (seat-km per inhabitant)	ITA 4,624 (2019)	↓	↓
	E-R 2,809 (2019)	↓	↓
Target 11.2 - By 2025, reducing private motorised traffic by at least 20 percentage points compared to 2019 (percentage)	ITA 75.0 (2020)	↓	↓
	E-R 78.4 (2020)		
Target 11.6 - By 2025, reducing exceeding PM10 limit below 35 days per year (number of days)	ITA 88 (2020)	↓	↓
	E-R 75 (2020)		



RESPONSIBLE CONSUMPTION AND PRODUCTION

Producing less waste, encouraging circular processes and sustainable purchasing, as well as promoting sustainable and quality tourism.

*In 2015 the Emilia-Romagna Region was the first in Italy to adopt a **regional law for the circular economy**, setting itself more ambitious goals than those established by the European Union for a recovery economy that allows us to "do more with what we already have," reducing the consumption of resources and natural capital and helping to improve the ecological footprint of the planet, with benefits already estimated at the European level on the disposable income of households and in the contraction of production costs of businesses. With the **Pact for Work and Climate**, we have set **new shared goals** to promote **a new culture of responsible consumption and production** as part of a path of ecological transition that we want to be just, because it is accompanied by effective planning of actions to generate new businesses, new work and new skills, and to update the professional skills of workers to protect and safeguard their employment. With this goal, in Emilia-Romagna we intend to **increase the quality and quantity of separate waste collection, consolidate in all municipalities unit pricing systems (PAYT), and ensure regional self-sufficiency in the management of all waste**. We intend to support research and **innovation in new production chains for material recovery, product durability and use of low-emission materials** as well as adopt new strategies for a more sustainable use of plastics by **phasing out single-use plastic products**. We also want to develop **sustainable procurement particularly in the public sector**, enhancing excellence and investing in the vocations that the territories of Emilia-Romagna express, **qualifying tourism** in harmony with the environment, communities and local cultures. Each of these challenges requires an active and participatory citizenry. Therefore, we are committed to accompanying this journey with information and communication actions that can raise awareness throughout regional society and consistently guide its individual and collective behaviour.*

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 12.5 - By 2025, reaching 80% of separate collection of urban waste (percentage)	ITA 63.0 (2020)	↑	↑
	E-R 72.2 (2020)		
Target 12.5 - By 2030, achieving 70% of recycling rate (percentage)	ITA 51.3 (2019)	↑	:
	E-R 63.0 (2019)		



FIGHT AGAINST CLIMATE CHANGE

Reducing the emissions, impacts and damage of climate change and achieving carbon neutrality by 2050.

Within the framework of the Pact for Work and Climate and in line with the European policies to fight against climate change, the Emilia-Romagna Region has set the goal of accelerating the ecological transition to **achieve carbon neutrality by 2050**. The European Union has also identified the reduction by 55% of climate-changing emissions by 2030 compared to 1990, which the region also takes as its interim target. Such a project is as challenging as it is necessary for the Po Valley, which represents the area with the highest concentration of production and manufacturing in Italy, but also the most environmentally exposed, starting of course with air quality. We are working to **accelerate mitigation and adaptation to the impacts of climate change with an organic approach toward all future standardisation, planning and programming activity and full cross-cutting approach among all sectoral policies, and with a pathway that does not jeopardise productive and natural capital, people's employment and society's well-being, but instead is a driver for new and different development**. Such a challenge is inseparable from the one against inequality. Indeed, it is the most fragile groups that pay the highest cost of the effects of global warming, but they are also the ones most at risk of paying for the effects of the transition if not properly accompanied. Based on these assumptions, we will define the **Regional Pathway to Carbon Neutrality by 2050, which will include the integrated action strategies for all sectors aimed at absorbing and reducing climate gas emissions**. This work will form the basis of the Climate Law that the Region intends to adopt. Many of the action lines reported in the other Goals of the 2030 Agenda Regional Strategy for Sustainable Development will be contributing to the achievement of this goal and in particular the goal of **moving to 100% renewable energy by 2035** reported in Goal 7 of this document. It is not possible to develop a composite indicator due to the lack of time-series data for all Italian regions, and therefore to date ASviS does not monitor this Goal at a regional level.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 13.2 - By 2030, reducing CO2 and other climate-changing gas emissions by 55% compared to 1990 levels (ton of CO2 equivalent per capita)	E-R 9.1 (2019)	↓	↗



LIFE BELOW WATER

Conserving and preserving the sea and marine resources for sustainable development.

Marine resources and coastal environments represent valuable assets and growth opportunities for Emilia-Romagna's economy, which, in this part of the region's territory, is linked to multiple strategic sectors: tourism, commercial ports and naval cruising, energy, fishing and aquaculture. These require development spaces and solutions to address critical issues related to their coexistence, environmental aspects, climate change, and to enable harmonious and sustainable systemic development. With the recent establishment of the first marine SIC (Centralised Information System) area, the Emilia-Romagna Region confirms its desire to promote the conservation and protection of coastal and marine ecosystems as tools

also for better promotion and tourist enhancement of areas of high naturalistic value, pursuing the balance between the maintenance and conservation of natural environments and the development of human activities, preventing and **significantly reducing the pollution of our sea, rivers and streams, preserving them from plastic and waste from land and sea activities**. At the same time, regional government action is aimed at **improving the state of ecosystems and ensuring exploitation of living aquatic resources that promotes sustainable economic, environmental and social conditions**. We encourage sustainable sea use by all means, so as to **minimise the impact of fishing on marine ecosystems**. To date, ASviS does not monitor Goal 14 at a regional level due to the lack of time-series data for all Italian regions, so a composite indicator could not be developed.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 14.5 - By 2030, achieving 30% of marine protected areas (percentage)	ITA 1.7 (2019)	:	↓
	E-R 1.0 (2020)	↓	↓
Target 14.5 - By 2030, achieving good ecological status quality for all coastal marine waters (percentage)	E-R 50.0 (2014-2019)	:	:



LIFE ON LAND

Combating land consumption, protecting biodiversity, increasing forest heritage.

The Emilia-Romagna Region safeguards and protects natural ecosystems and the biodiversity they host through the careful management of the parks that are dotted about its territory, the Natura 2000 areas and the hundreds of sites that, for various reasons, refer to community or universal protection systems (SICs, ZPS or Special Protection Areas, MaB areas). Alongside this protection work, there is also the development of the path to enhancement and sustainable management of the forest heritage and the launch of the project **“Mettiamo Radici al Futuro - 4 milioni e mezzo di alberi in 5 anni” (Let's Put Roots for the Future - 4.5 million trees in 5 years)** to qualify the existing heritage and increase green areas in cities. With these initiatives, we **counter pollution, protect biodiversity**, through protected areas and forests including river forests; through the enhancement of forest resources and the laying of forest plantations to be carried out in the most suitable areas with the involvement of local governments, citizens and agricultural operators. We also intend to **strengthen the connectivity and protection of existing ecological corridors**. Within the broader strategy of zero-balance land consumption, we are reclaiming polluting sites in the territory with the goal of returning them to legitimate uses. We are promoting and protecting mountain and inland areas and the natural excellences they hold, being irreplaceable reservoirs of biodiversity and basins of opportunity for sustainable development of local territories and populations.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 15.5 - By 2030, achieving 30% of land protected areas (percentage)	ITA 10.5 (2019)	:	:
	E-R 4.2 (2019)	:	:



PEACE, JUSTICE AND STRONG INSTITUTIONS

Strengthening trust in institutions, working with them to reduce crimes and promote reintegration into society. Putting Peace and human rights at the centre of the cultural agenda.

We recognise **legality** as the indispensable value and the prerequisite for generating sustainable development in the regional territory. Together with the Regional Council for

Legality and Responsible Citizenship, we intend to strengthen the **prevention** and the fight against Mafia infiltration and organised crime and to spread the **culture and practice of legality** in society and in the economy, to contribute to the fight against any phenomenon - unauthorised building or environmental crimes, false cooperatives and illegal work, the violation of health and safety regulations at work, tax and contribution payment evasion - that affects the rights and dignity of workers, damages our territory and generates unfair competition to the detriment of virtuous enterprises, thus weakening the whole society. We are working to strengthen and qualify the public administration, **investing in the people and professionals** who work in it, and to **reduce bureaucracy and simplify procedures and requirements for access to services**, by citizens and businesses, in order to reduce their time and costs, both public and private. Again, it is not deregulation, but an increase in the level of legality, rights and social justice. We promote quality initiatives to build a cultural, educational and awareness process that puts **peace and human rights** back at the centre of the political agenda.

INDICATOR AND TARGET	AVAILABLE VALUE FOR LAST YEAR	SHORT TERM	LONG TERM
Target 16.3 - By 2030, zeroing overcrowding in detention facilities (percentage)	ITA 106.5 (2021)	↗	↘
	E-R 108.8 (2021)	↗	↗
Target 16.7 - By 2030, reducing the average length of civil proceedings to 171 days (number of days)	ITA 426 (2021)	↘	:
	E-R 266 (2021)		



PARTNERSHIPS FOR THE GOALS

Consolidating territorial partnerships and the Region's central role in international relations and cooperation policies for sustainable development.

Our project aims at consolidating and giving continuity to this commitment. We have released, from multiple sources, **new economic resources for developing countries**, in line with the principles and strategies defined at the international, community and national levels on Development Cooperation. The goals to be achieved are those from the UN 2030 Agenda, aimed at promoting equitable development, combating all forms of poverty and social injustice, as well as addressing climate change. We are stepping up **climate diplomacy** activities, including within the Under2 Coalition and the International Declaration "Regions for global sustainable development," signed in Bologna in 2019, by Guangdong (China), California and Pennsylvania (USA), Gauteng (South Africa), Nouvelle-Aquitaine (France) and Hesse (Germany), to share new goals and new areas of collaboration for global and sustainable development of territories. The theme of **gender equality** and women's empowerment has become part of our cooperation policy and we want it to continue to play a relevant role in the next programming, as well as the **environmental** theme which is based on **strong partnerships**, to be consolidated and increased, **between different countries and in the territory**. The Regional Law 12/2002 "Interventi regionali per la cooperazione con i paesi in via di sviluppo e i paesi in via di transizione, la solidarietà internazionale e la promozione di una cultura di pace" (Regional interventions for cooperation with developing countries and countries in transition, international solidarity and the **promotion of a culture of peace**) identifies the objectives of regional action, the subjects of international cooperation and the areas of intervention. The global health emergency has widened global inequalities and glaring imbalances between countries, by increasing the gap with developing countries. The multidimensional nature of inequality has increased the differences in respect to the right to health, education, food and work, including gender. The main 'economic victims' of the pandemic are women with children and unemployed. Young women report a greater negative impact on their mental health. The regional action will be aimed at **consolidating and giving continuity to the role of Emilia-Romagna as a "leading" region at national, European and international level in cooperation policies** and at mobilising further economic resources for developing countries from various sources. It is also a priority to consolidate and expand territorial partnerships between bodies and associations in the regional territory and

counterparts in the target countries in order to enhance the exchange of experiences, good practices and relations between territories. Moreover, the Emilia-Romagna Region has always developed and established a dense and valuable network of international relations together with the entire territorial system, and intends to consolidate and relaunch it even further so as to lead, together with its partners, the great transformations that these new challenges impose, at the European and global level. Precisely for this reason, taking as its own the commitments undertaken at the international level, both to **combat the climate emergency** and to achieve the goals of the 2030 Agenda, it intends to focus the strategic priorities of international programming on the areas of the new Pact for Work and Climate signed by the Emilia-Romagna Region with the social partners on 14/12/2020, sharing the best solutions with its partners and also identifying at the international level new interlocutors who are confronted with the same strategic objectives: ecological transition, digital transformation, research and innovation, health and well-being of people, but also the enhancement of territories, cities and communities, productive vocations, knowledge and skills. **To date, ASviS does not monitor Goal 17 at a regional level**, since not all Italian regions practice cooperation and development. The national sustainable development strategy also uses a single indicator being "Aiuto Pubblico allo Sviluppo come quota del reddito nazionale lordo (totale) RNL" (Public aid for development as a share of gross national income (total) GNI).



The National Recovery and Resilience Plan

The PNRR, which stands for **National Recovery and Resilience Plan**, is the strategic document that the Italian government submitted to the European Commission on 30 April 2021 to access Next Generation EU (NGEU) programme funds. The Plan was approved on 13 July 2021 and in summary is aimed at:

- Revitalising the country after the pandemic crisis by stimulating an ecological and digital transition;
- Fostering structural change in the economy, starting with addressing gender, territorial and generational inequalities.

The PNRR consists of **6 Missions**, divided into Components, i.e., action areas that address specific challenges, and provides for a total of 134 investments (235 if sub-investments are counted), and 63 reforms, mobilising a total of **191.5 billion Euro** from the Next Generation EU fund, plus **30.6 billion from the Complementary National Fund (FNC)** and **13 billion** from the ReactEU fund. All measures, both investments and reforms, must be completed by 31 December 2026, adhering to a roadmap that defines milestones and targets and conditions the transfer of financial resources when they are achieved.

The **governance of the Plan**, defined by Law No. 108 of 29 July 2021 (converting Decree-Law No. 77 of 31 May 2021), is **centralised**, with control by the Presidency of the Council of Ministers, and the PNRR Central Service established at the MEF - Ministry of Economy and Finance, as well as implementation entrusted to the central administrations that own the actions and to the **regions**, local authorities and other public administrations as **implementing bodies**.

The Plan got into the thick of **investment implementation** at the beginning of 2022 following the allocation of resources among central administrations owning the actions and the publication of national public notices, and then, for directed interventions involving the regions, with the measures to allocate resources at the territorial level.

The six missions of the PNRR are declined into three strategic axes shared at the European level (digitalisation and innovation, ecological transition, social inclusion) and linked to three cross-cutting priorities (generational, gender and territorial equal opportunities).

Mission 1 aims to promote and support the digital transition, both in the private sector and in public administration, to support innovation in the production system, and invest in two key sectors for Italy, being tourism and culture.

Mission 2 addresses the issues of sustainable agriculture, circular economy, energy transition, sustainable mobility, energy efficiency of buildings, water resources, and pollution to improve the sustainability of the economic system and ensure an equitable and inclusive transition to a carbon-neutral society.

Mission 3 provides for a series of investments aimed at developing a modern, digital, sustainable and interconnected transport infrastructure network that can increase transport electrification and digitalisation, as well as to improve the country's overall competitiveness, particularly in the South.

Mission 4 affects factors that are indispensable for a knowledge-based economy. The proposed projects aim to strengthen the education system throughout the education cycle, by supporting research and fostering its integration with the production system.



Mission 5 is aimed at preventing new inequalities from emerging from the current crisis and addressing the deep gaps already in place before the pandemic, to protect the country's social fabric and keep it cohesive. This Mission's objective is to facilitate labour market participation, including through training, to strengthen the active labour policies and promote social inclusion.

Mission 6 concerns Health, a critical sector that has faced challenges of historical significance. There are two main goals: enhancing the prevention and treatment capacity of the national health care system for the benefit of all citizens by ensuring equitable and widespread access to care, and promoting the use of innovative technologies in medicine.

REPowerEU
**A plan to reduce the dependence on Russian fossil fuels
and accelerate the green transition**

Last 18 May, the European Commission unveiled the **REPowerEU** Plan, a response to the difficult and complex energy situation that has arisen as a result of the Russian invasion of Ukraine. This plan will also have an impact on the 2021-2027 European Community Budget, although this has already been partly predefined, and in particular on Policy Objective 2 (OP2). OP2 aims to promote a greener, CO₂-free Europe that implements the Paris Convention and invests in energy transition, renewable energy and combating climate change.

In particular, the purpose of the REPowerEU plan is twofold:

- 1) **Ending the EU's dependence on Russian fossil fuels**, which can be used as an economic and political weapon and still cost European taxpayers nearly 100 billion Euro a year
- 2) **Addressing the climate crisis** by accelerating the energy transition.

The measures contained in the **REPowerEU** plan can help achieve these goals through

➤ **Energy saving**

The Commission proposes to strengthen energy efficiency measures, both in the long and short term. Prominent among long-term policies is an **increase from 9% to 13% in the binding energy efficiency target** set as part of the "Fit for 55" legislative package linked to the European Green Deal. As for the short term, the Commission has published a communication on energy savings, which details changes in behaviour that could reduce gas and oil demand by 5% in the short term and encourages member states to launch *ad hoc* communication campaigns targeting households and industry. According to the Commission, saving energy in the summer and fall months will help us prepare for the possible challenges of the coming winter. Member states are also urged to implement tax measures to encourage energy savings, such as reduced VAT rates on efficient heating systems, building insulation, as well as energy-efficient appliances and products. The Commission also defines emergency measures that should be used in the event of a major supply disruption. With this in mind, it will publish guidelines to define priority criteria for different customers, as well as facilitate the development of an EU-wide coordinated demand reduction plan.

➤ **Diversification of energy supply**

The EU has been working with international partners for several months to diversify energy supply. It has already managed to secure record levels of LNG imports and increased gas supplies via alternative pipelines to those from Russia. The **EU energy platform**, created in recent months and supported by dedicated regional task forces, will enable joint purchases of gas, LNG and hydrogen. Established on a voluntary basis, these procedures aggregate demand from individual member states, optimising the use of infrastructure and coordinating negotiations with suppliers.

Looking ahead, the Commission will consider developing a **"joint purchasing mechanism"**, modelled after the Covid EU Vaccine Purchasing Programme, which would negotiate and conclude gas purchase contracts on behalf of participating member states. The Commission will also consider legislative measures to require member states to diversify gas supplies.

This EU's external energy strategy will facilitate energy diversification and the creation of long-term partnerships with suppliers. These agreements may also extend to cooperation on hydrogen or other green technologies. In the Mediterranean and North Sea, important hydrogen corridors will be developed. In the face of aggression by Russia,

the EU will support Ukraine, Moldova, the Western Balkans and the Eastern partnership countries, along with the most vulnerable partners. We will continue to work with Ukraine to ensure safe supply and the operation of the energy sector, while paving the way for future electricity and hydrogen trade and rebuilding the energy system under the REPowerUkraine initiative.

➤ **Faster spread of renewable energy to replace fossil fuels in households, industry and for power generation.**

A massive **expansion and acceleration of the adoption of renewable sources** for power generation and in industry, construction and transportation will enable us to achieve energy independence faster. At the same time, it will boost the green transition and lower energy prices. Regarding **the 2030 target for renewable energy**, the Commission proposes to **increase it from 40% to 45%**, as part of the "Fit for 55" package.

Adopting more ambitious goals will lay the groundwork for other initiatives, including:

- An [EU strategy for solar energy](#) aimed at **doubling solar PV capacity** by 2025 and installing 600 GW by 2030;
- An **initiative for rooftop solar panels**, with the gradual introduction of a **legal requirement to install solar panels** on new public, commercial and residential buildings;
- **Doubling the rate of heat pump diffusion**, coupled with measures to integrate geothermal and thermal-solar energy into district and community heating systems;
- The issuance of a [recommendation](#) to **address the slow and complex permitting procedures for major renewable energy projects** and a [targeted amendment of the Renewable Energy Directive](#) so that these are recognised as an overriding public interest. Member states should establish **specific reference zones for renewable energy** with **shortened and simplified permitting procedures** where there are fewer environmental risks. To facilitate the rapid identification of such areas, the Commission is making available a set of data on environmentally sensitive areas as part of the [digital mapping tool](#) of geographic data on energy, industry and infrastructure;
- **Setting a target of 10 million tons of domestically produced renewable hydrogen** and 10 million tons of imported renewable hydrogen by 2030 to replace natural gas, coal and oil in transportation and industrial sectors that are difficult to decarbonise. To stimulate the hydrogen market, national legislators should agree on more ambitious sub-targets for specific sectors. **Two Commission delegated acts on the definition and production of renewable hydrogen** are also being published to ensure that the latter leads to net decarbonisation. To accelerate hydrogen-related projects, additional funding of 200 million Euro has been allocated for research. The Commission is committed to completing the evaluation of the first projects of common European interest by the summer;
- A [biomethane action plan](#), which defines tools to increase production to 35 billion cubic meters by 2030, including a new biomethane industry partnership and financial incentives, including through the Common Agricultural Policy.

Reducing fossil fuel consumption in industry and transportation. Replacing coal, oil and natural gas in industrial processes will reduce greenhouse gas emissions and enhance the energy security and competitiveness of European countries. The Commission estimates that energy savings, efficiency, fuel substitution, electrification, and increased spread of renewable hydrogen, biogas, and biomethane in industry **could save up to 35 billion cubic meters of natural gas by 2030**, more than already envisioned by the proposals in the "Fit for 55" package. The Commission will propose "carbon difference" type contracts to support the industry adoption of green hydrogen. Specific funding is also provided for REPowerEU under the

Innovation Fund. Financial resources should come from the **proceeds from the sale of emission permits**. Agreements with the European Investment Bank are also planned. To maintain and regain technological and industrial leadership in areas such as solar energy and hydrogen, the Commission proposes to establish an industrial alliance for solar energy in the EU. The Commission will intensify work on the supply of critical raw materials and prepare a legislative proposal in this regard.

To **improve energy savings and efficiency in the transport sector** and accelerate the transition to zero-emission vehicles, the Commission will present a package to green freight transport, and will consider a legislative initiative to increase the share of zero-emission vehicles in public and company car fleets above a certain size. To help replace fossil fuels in the transportation sector, municipal and regional governments, as well as national governments, will also be involved.

Smart investments. A total of **225 billion Euro is already available** to support REPowerEU in the **form of loans under the Recovery and Resilience Facility (RRF)**. To achieve the REPowerEU goals, however, **210 billion Euro of additional investment** are needed by 2027. These investments must be supported by both the public and private sectors. This is a very substantial commitment. On the other hand, as we have seen, cutting fossil fuel imports from Russia can **save us nearly 100 billion Euro a year**.

To begin with, the Commission proposes to **increase the RRF budget by 20 billion Euro in the form of subsidies from the sale of ETS emission allowances** currently held in the market stabilising reserve. Through voluntary transfers of funds to the **RRF** an additional **26.9 billion Euro** could be made available from the **Cohesion Funds** and **7.5 billion Euro from the Common Agricultural Policy**.

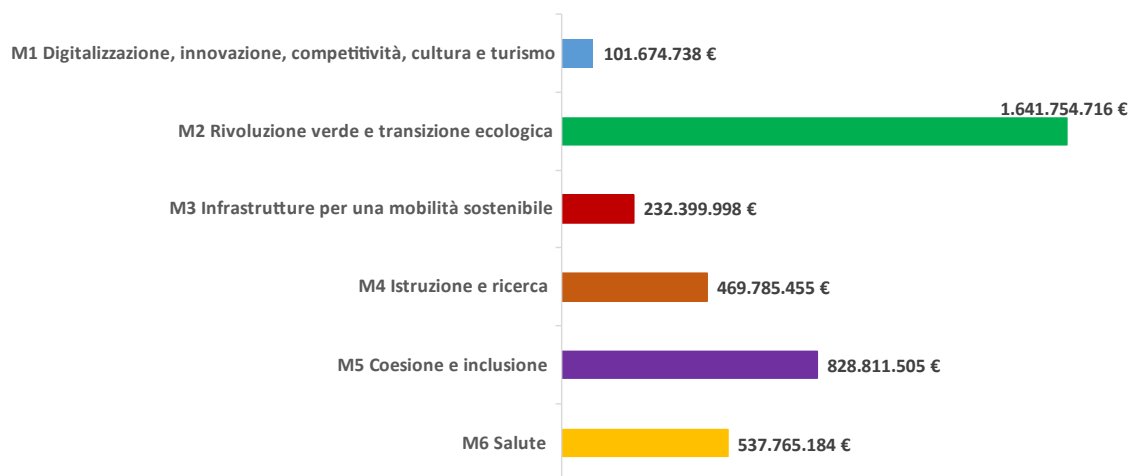
Therefore, it is clear how the implementation of the REPowerEU plan will affect European structural funds at various levels.

The PNRR in the Emilia-Romagna Region: Resources attracted by the regional system. The Emilia-Romagna Region is ready to make a significant contribution to the implementation of the Plan's investments, not only as implementing body for the directed interventions in which it is directly involved, but above all by promoting integration between regional strategic planning and the investments financed by the PNRR in the regional territory, within the framework of the objectives of the [Pact for Work and Climate](#).

In particular, in the 2021-2027 Regional Strategic Document for the Unitary Programming of European Development Policies, the Region has defined the investment priorities of the regional programmes for Cohesion (ERDF, ESF+, ESF) and rural development (EAFRD) in synergy with the objectives of the six missions of the PNRR, providing tools to monitor the investments of the regional programmes but also to measure the absorption capacity of local authorities' PNRR resources, to ensure complementary planning and implementation of investments.

The Region has adopted a dashboard⁴ to monitor PNRR investments attracted by the territorial system, which amount to **3.8 billion** as of 1 June 2022, plus 580 million in additional national co-financing. The mission most of the resources were attracted by is the "Green revolution and ecological transition" one with 1.6 billion, followed by the "Cohesion and inclusion" mission with 828 million, the "Health" mission with 537 million, "Education and research" with 469 million and "Infrastructure for sustainable mobility" with 232 million. Last is the "Digitalisation" mission with 101 million, but it is known that the calls have been published more recently and implementation is mainly through national platforms.

Resource distribution by mission



The dashboard also allows investments to be viewed at the item level, as shown below

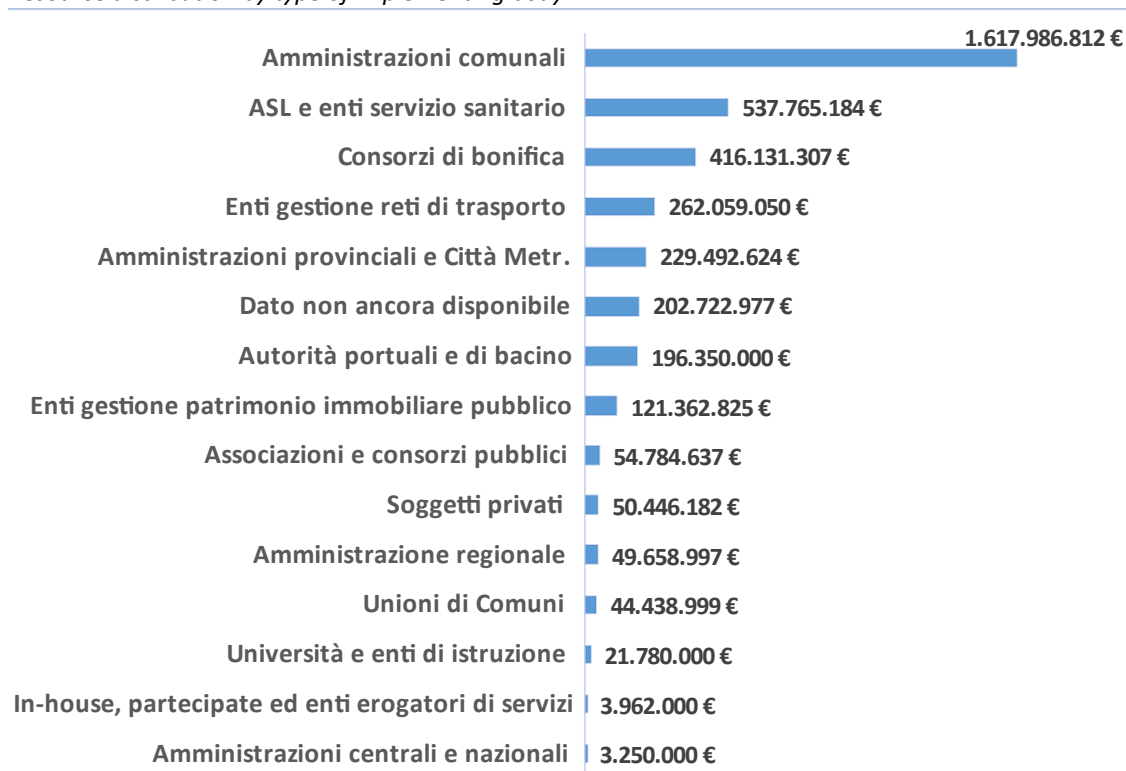
⁴ The dashboard was developed by the European Policy Coordination Sector of DG REII, is to be considered experimental and not exhaustive, is continuously updated, and is based on the mapping of resource allocation measures at a regional level. The system processes and aggregates data inferred from the measures to analyse different aspects (missions, components, territorial distribution, type of implementing body, type of investment, etc.). If the measure makes the Project Identification Code (CUP) explicit, a cross-reference is made with the national OpenCUP database to capture some additional information and classifications (nature and type of the project, sector and sub-sector, category of administration owning the project, possible co-financing with additional national resources). However, in the absence of CUP or feedback from OpenCUP, this information is provisionally assigned by inferring it from the administrative instrument or characteristics of the funded projects. If it is not possible to make such an allocation then the fields are filled with the words "data not yet available."

Resource distribution by component



As well as to show the distribution of resources by type of implementing body, highlighting how municipalities are directly involved in the implementation of a significant share of investments, amounting to 1.6 billion to date.

Resource distribution by type of implementing body

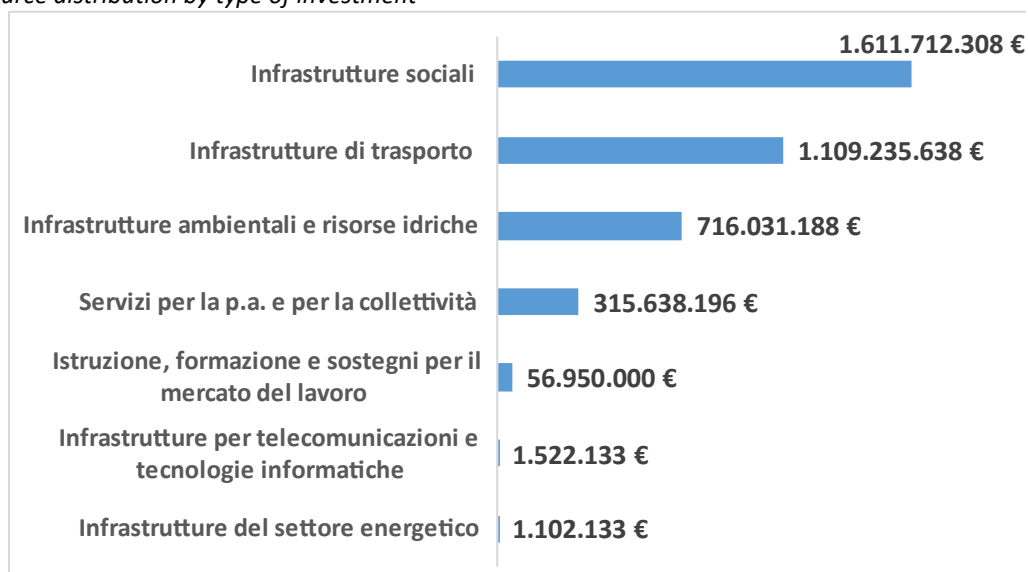


NB: In the legend, "data not yet available" corresponds to resources allocated at the territorial level but for which the administration/implementing body is not indicated in the allocation measures

It is also interesting to see the distribution by type of investment, which shows a concentration of resources on the construction of social infrastructure, amounting to 1.6 billion, followed by transportation infrastructure with 1.1 billion, and environmental infrastructure on which 710 million Euro have been invested to date. This is followed by investments in public administration and community services with 315 million, education, training and active labour policies with

about 57 million, and IT and telecommunications infrastructure with 1.5 million and energy infrastructure with just over 1 million invested to date.

Resource distribution by type of investment



Projects in which the Emilia-Romagna Region is the implementing body. As anticipated above, the governance of the PNRR is centralised, so most of the resources are allocated through national calls for proposals published by the central administrations in charge of the interventions, in which actors in the territory directly participate. In this case, the local government or other agency or body to which the funding is allocated is responsible for its implementation as implementing body

The Region is the implementing body for two interventions, the Territorial Plan under the Digitalisation, Simplification and Performance Task Force (Mission 1, Component 1, Scope 2 of the PNRR) also known as "1,000 Experts' Plan" and the Integrated Project for Enhancing the Tourist Attractiveness of the Po Delta Park Areas (Mission 1, Component 3, Scope 4 of the PNRR).

Short title	Po Delta Park
Sector	Tourist attractiveness
Notes	Project implemented in conjunction with the Veneto Region
Resources in E-R	€30 mln
Regional Council Resolution DGR	2277/2021
Project ID Code CUP	E41B21008960001
Location	Po Delta

Short title	1,000 Experts' Plan
Sector	Technical Assistance
Notes	62 experts deployed in provincial teams + central core in RER
Resources in E-R	€19.66 mln
Regional Council Resolution DGR	2129/2021
Project ID Code CUP	E41B21008240006
Location	The whole Region

Projects in which the Emilia-Romagna Region contributed to the selection. For certain interventions, depending on the competence of the subject matter of the intervention and the relationship defined with the relevant Ministry, the Region may play a role in planning (e.g., defining lists of eligible projects), assessing and/or selecting projects.

To date, the region has played a preliminary role in the following procedures (those completed are cited).

Short title	Purchase of buses for extra-urban and suburban services
Sector	Mobility
Notes	Resources allocated to public transportation companies
Resources in E-R	€30.19 mln
Regional Council Resolution DGR	1405/2021
Location	The whole Region

Short title	Securing and upgrading schools
Sector	Schools
Notes	Interventions in about 50 primary, secondary, technical and vocational schools for maintenance and/or construction of new districts
Resources in E-R	€45.4 mln
Regional Council Resolution DGR	185/2022
Location	The whole Region

Short title	Investment in the Regional Health System
Sector	Healthcare
Notes	Investment in different areas. Resources allocated to ASLs or local health authorities. Dedicated regional page: https://www.regione.emilia-romagna.it/notizie/primo-piano/pnrr-salute
Resources in E-R	€537 mln
Regional Council Resolution DGR	219/2022
Location	The whole Region

Short title	Attractiveness of villages
Sector	Culture and tourism
Notes	The national system provides for one village per region; the RER has chosen Campolo (Municipality of Grizzana Morandi - BO)
Resources in E-R	€20 mln
Regional Council Resolution DGR	262/2022
Location	Grizzana Morandi (BO)

Short title	Purchase of trains
Sector	Mobility
Notes	Purchase of 5 trains
Resources in E-R	€21.4 mln (€+10 mln of other non-PNRR national resources)
Regional Council Resolution DGR	584/2022
Location	The whole Region

1.1 Brief description of the economic and financial context

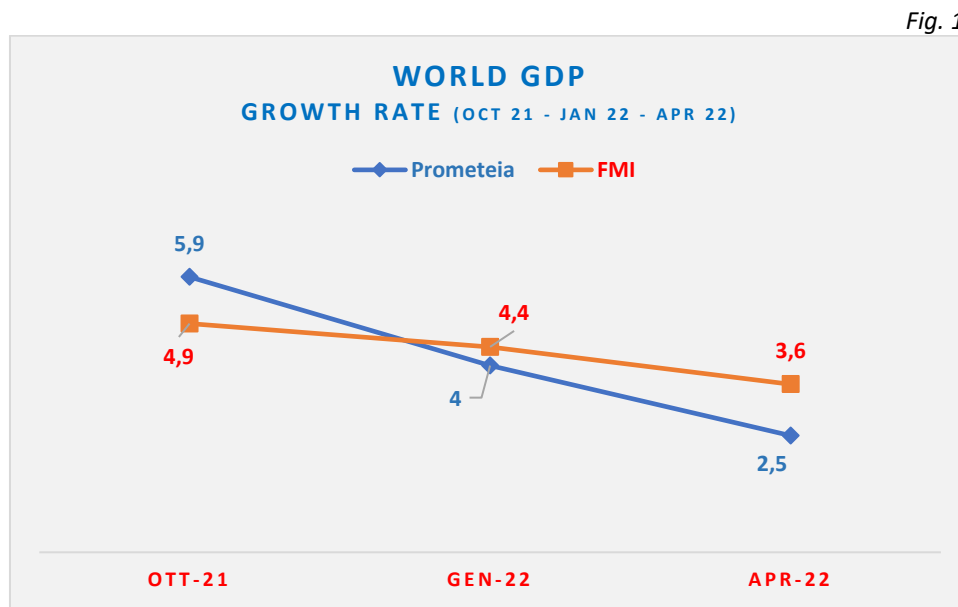
1.1.1 International economic and financial scenario⁵

After nearly two years of pandemic, a consolidation of economic recovery and a return to the pre-pandemic development path was expected at the end of 2021. Instead, following the Russian invasion of Ukraine, which began on 24 February, the outlook for the world economy has dramatically deteriorated again.

Back at the beginning of the year, economists at the International Monetary Fund (IMF) had projected a **world GDP** growth rate of 4.4% for 2022, down from what was assumed in October 2021 (4.9%)⁶, due to commodity price trends and heightened geopolitical tensions. In March, after the outbreak of war, estimates were lowered even more sharply: the projected growth rate is now 3.6%.

Likewise, in January Prometeia forecast a world GDP growth rate of 4% for 2022, down nearly two percentage points from its October 2021 forecast. In April, a further downward revision brought the world growth rate forecast to 2.5%.

The following graph shows the forecast trends we have just illustrated. Also evident is a high degree of heterogeneity in the forecasts of different institutions (usually estimates for world GDP differ by only a few fractions of a percentage point), which confirms that the assessment of the economic consequences of the war in Ukraine is subject to a high degree of uncertainty.



Source: IMF, Prometeia

Therefore, it is clear that the war in Ukraine brings with it, in addition to very heavy consequences on the human and social side, strong repercussions on the performance of

⁵ The forecasts summarised in the tables in this section (percentage changes) are taken from the International Monetary Fund's (IMF) World Economic Outlook (April 2022) and Prometeia's Local Economy Scenarios (April 2022), respectively.

⁶ When a recovery to pre-pandemic levels was predicted by the end of 2023.

international economy and trade. These are also due to the sanctions⁷ imposed on Russia, which have major repercussions on geographic areas characterised by closer trade ties with that country, and rising energy prices⁸.

The impact of the ongoing conflict is particularly strong for **Europe**, which is heavily dependent on gas, oil and coal imports from Russia, and which used to direct a not insignificant share of its exports to Russia. This is illustrated in a very clear way by the following tables, which show however that the impact is also significant for developing countries that are not exporters of energy products.

Table 1

WORLD AND ADVANCED ECONOMIES				
GDP growth rate – IMF forecasts				
	2020	2021	2022	2023
World	-3.1	6.1	3.6	3.6
Advanced economies	-4.5	5.2	3.3	2.4
United States	-3.4	5.7	3.7	2.3
Eurozone	-6.4	5.3	2.8	2.3
Germany	-4.6	2.8	2.1	2.7
France	-8.0	7.0	2.9	1.4
Italy	-9.0	6.6	2.3	1.7
Spain	-10.8	5.1	4.8	3.3
Japan	-4.5	1.6	2.4	2.3
United Kingdom	-9.3	7.4	3.7	1.2
Canada	-5.2	4.6	3.9	2.8

Source: IMF

Table 2

EMERGING MARKETS AND DEVELOPING COUNTRIES				
GDP growth rate – IMF forecasts				
	2020	2021	2022	2023
China	2.2	8.1	4.4	5.1
India	-6.6	8.9	8.2	6.9
Russia	-2.7	4.7	-8.5	-2.3
Brazil	-3.9	4.6	0.8	1.4
Mexico	-8.2	4.8	2.0	2.5
Saudi Arabia	-4.1	3.2	7.6	3.6
Nigeria	-1.8	3.6	3.4	3.1
South Africa	-6.4	4.9	1.9	1.4

Source: IMF

Compared with the estimates of three months ago, the Eurozone growth forecasts for 2022 have

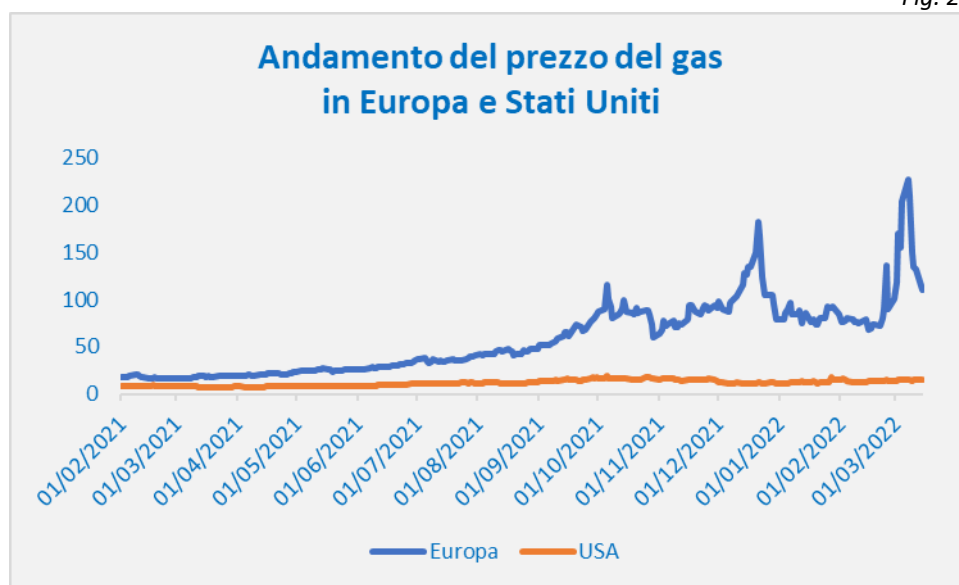
⁷ Since February, the EU has imposed **five packages** of sanctions against Russia (with a sixth in the approval stage), including targeted restrictive measures (individual sanctions), economic sanctions and diplomatic measures. Economic sanctions aim to cause serious consequences for Russia because of its actions and to effectively hinder Russian capabilities to continue the aggression. Individual sanctions target persons responsible for supporting, financing, or implementing actions that undermine Ukraine's territorial integrity, sovereignty, and independence, or persons who benefit from such actions.

⁸ Gas, oil, coal and consequently electricity.

considerably shrunk⁹. In these countries, the conflict will also inevitably have repercussions on the public finance framework, as we will see more fully below, both because European countries are engaged in preparing measures to curb the effects of rising energy prices and because they need to provide support and reception for refugees.

The **trend in energy prices**, which had already been at high levels before the war, has accelerated even further. An optimistic prediction is that prices may stabilise, or even fall again, as uncertainty decreases, and, particularly for Europe, as a plan to reduce energy dependence on Russia is developed. This assessment is somehow grounded on the fact that the increase in gas prices is a phenomenon that particularly affects Europe, while in the U.S. there was a minimal change, as it can be seen in the following graph, whose data¹⁰ was taken from the Report presented in mid-March by the OECD.

Fig. 2



Source: OECD

However, pessimists point out that replacing Russian gas will be very difficult in terms of volume but basically impossible in terms of price since the alternative sources of supply that Europe is considering are much more expensive. If so, the rise in energy prices will not be a temporary phenomenon.

The impact of the conflict is not limited to energy products. The prices of many **commodities**, for some of which Russia and Ukraine hold a significant share of the world market¹¹, have risen further, as illustrated in the following graph¹².

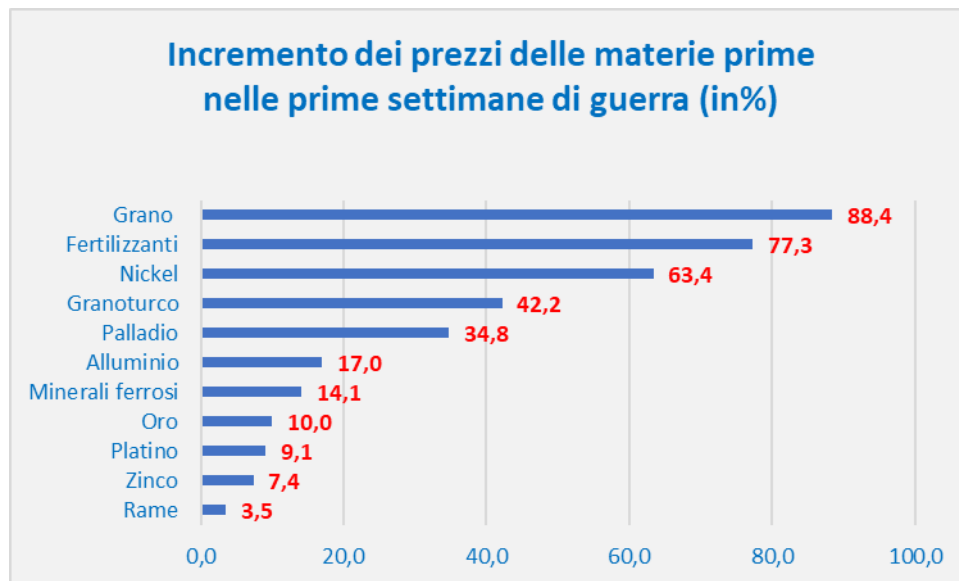
Fig. 3

⁹ In January 2022, the IMF projected a growth rate of 3.9% for the Eurozone; in October 2021, it was 4.3%.

¹⁰ Prices are expressed in Euro/MWh.

¹¹ For example, Russia is the leading global exporter of fertilisers.

¹² A World Bank study highlights how economies in sub-Saharan Africa are also affected by rising prices of basic necessities.



Source: OECD

The shock to energy and other commodity prices generated by the conflict, supply-side bottlenecks and, especially in the United States, the recovery in demand, have reinforced the view that **inflation** will not be a transitory phenomenon. This is causing central banks to tighten monetary policies: both the ECB and the Fed are expected to raise interest rates, with the aim of keeping inflation under control. This is an additional factor that will contribute to the growth slowdown.

No less important role is played by the effect of the ongoing conflict on the climate of trust. While the easing of the pandemic emergency had fuelled moderate optimism, the conflict and subsequent inflation generated, especially in Europe, a worsening of **household confidence**. For the latter, a reduction in purchasing power is expected in the current year. Relatively more affected will be households with lower incomes, because price increases involve the so-called common goods (energy, food).

Let us now look distinctly at the growth prospects of the major national economies.

The **United States** had experienced a GDP economic acceleration in the fourth quarter of 2021, and available indicators for January and February also signalled a positive start for 2022. But high inflation, which negatively affects confidence, and supply constraints in the labour market contribute to lower growth estimates for the current year.

As for **China**, growth estimates remain below the government's target for the year (set at 5.5%). Contributing to this are new epidemic outbreaks and also the strengthening of the Yuan, which reduces the contribution of exports in driving the economy. Despite this, Chinese businesses' expectations in the medium term remain marked by some kind of optimism.

Compared with the average of the main European countries, **Germany** has greater exposure to the Russian and Ukrainian markets. Moreover, like it is the case for our country, the manufacturing sector (typically energy-intensive) accounts for a significant share of German GDP. Therefore, the conflict has created difficulties for the German production system: in addition to the high energy cost, the risk of further ruptures along the supply chain, already challenged during the pandemic, should also be noted. In the first half of the year, high inflation and uncertainty are depressing household consumption and business investment. Some recovery is expected to manifest in the second half of 2022, but this may be held back by the supply constraints mentioned above.

For the first part of 2022, **the French economy** is also estimated to be very weak. Inflation will be high, although less than in other European countries, due to lower dependence on fossil fuels, while the deteriorating international environment will weigh on investment and exports.

According to the forecast, **Spain** may show greater resilience, suffering less than other Eurozone countries from the impact of the conflict. This would be due both to the stimulating effect of European funds, which, as for Italy, account for a non-negligible share of the GDP, and to forecasts of a marked recovery of the tourism sector after the pandemic. But even for Spain, growth estimates have been revised downward.

Finally, the **United Kingdom** should also be affected by the conflict in a more limited way. After the strong recovery in 2021, growth estimates for this country are still robust. This is partly due to the UK's reduced dependence on energy imports from Russia.

1.1.2 National scenario

In **2021**, Italy's national income made a strong recovery that went hand in hand with the significant improvement in public finances. The country has been able to cope with the health emergency even better than anyone could have predicted, especially thanks to the effectiveness of the vaccination campaign.

This has translated into an improvement in several macroeconomic indicators. In real terms, Gross Domestic Product (GDP) grew by 6.6%¹³, recovering more than two-thirds of the 9% drop recorded in 2020 due to the pandemic. Growth was more than half a point higher than the Update (NADEF) forecast, which estimated it at 6%.

The improvement over the Update (NADEF) forecast was even greater when it came to the public accounts deficit: on balance, in 2021, the deficit was 7.2% of GDP, 2.2 percentage points lower than projected in the NADEF and nearly 5 percentage points lower than what the government planned at the beginning of 2021. The lower deficit compared to the Update (NADEF) forecasts is mainly due to much higher than expected revenue growth (+3%). This increase involved both tax revenues (+2.6%) and social security contributions (+5.2%). In addition, public spending grew less than expected (-1.5%), mainly due to the lower use of extraordinary interventions to counter the economic and social impact of the pandemic as well as to lower social benefits.

These improvements have translated into a particularly positive development in the debt-to-GDP ratio. As noted above, the numerator has grown less than expected (and even less than in 2020): the growth in the numerator is in fact nothing but the public deficit. In addition, the denominator grew more than expected. The denominator is the gross domestic product in nominal terms, the growth of which in 2021 was 7.2%, also aided by a recovery in prices in the second half of the year (the foreshadowing of the rise in inflation alluded to in the international scenario, to be discussed again below). As a result, the public debt-to-GDP ratio fell to 150.8% at the end of 2021. It had peaked at 155.3% in 2020, and at the beginning of the year it was expected to rise further.

Unfortunately, the crisis factors indicated in the international scenario imply that the current year will not be able to confirm the expectations that the good performance of 2021 initially generated. In the 2022 National Economic and Financial Document (DEF), presented by the government on 6 April, Italian real GDP growth for **2022** is assumed to be 2.9%. This is 1.3 percentage point lower than projected in the October 2021 NADEF (4.2%). The European Commission also revised Italy's growth forecast downward, even slightly more (a 1.5 percentage point drop from its end-2021 forecast, from 3.9% to 2.4%). Growth would still remain positive, but the assumption that the pre-pandemic GDP level would be exceeded at the end of the year, which seemed within reach at the end of 2021, may have to be set aside. It must be said that the downward revisions made to date are still cautious, and others may prove necessary if the geopolitical situation does not improve in the coming months.

The biggest factor contributing to lower growth expectations linked to the war in Ukraine is undoubtedly **the increase in energy prices** and in a range of food as well as in other **commodities**. These increases clearly have an impact on inflation as well. As early as March 2022, the consumer price index in Italy rose by 6.7% year-on-year. Of even greater concern is the trend in core inflation (i.e., net of energy products and fresh food), which reached 2%. In fact, if energy and food prices can return to normal once the crisis factors disappear, there is a

¹³ About 0.6 percentage points higher than the September 2021 NADEF trend estimates.

risk that the inflationary dynamics affecting the generality of other goods will be incorporated into expectations and turn from a cyclical (one-off) phenomenon into a structural one.

Precisely to reduce this risk, central banks in virtually all advanced economies have begun to revise their monetary policy stance in a restrictive way, albeit with varying degrees of intensity. As for the European Central Bank, there has been no change yet in the interest rates controlled by the ECB. However, the approach of a reversal has been clearly signalled by monetary authorities. This announcement was enough to trigger a rise in market rates, a trend that brought with it a widening of the spread between yields on Italian government bonds and those on German Bunds. Rising market interest rates adversely affect private investment and, through interest expenditure, public finance as well.

The downward revision of real GDP growth, compared to the Update (NADEF), applies not only to 2022 but also to subsequent years. For 2023, the revision is 0.3 percentage points (from 2.6 to 2.3%), for 2024, it is 0.1 points (from 1.9 to 1.8%). In 2025, GDP growth would be at 1.5%, but here we enter a time horizon where forecasts become even more uncertain.

The dynamics of **household consumption** are expected to be lower than that of GDP, partly due to the increase in consumer prices, which is sure to affect the purchasing power of households. The **employment** dynamic also appears to have slowed down compared to previous estimates: the unemployment rate will continue to decline but without falling below 8% over the forecast period¹⁴.

The following table shows the development of the main macroeconomic variables under the trend scenario we have just described.

¹⁴ *The programmatic scenario forecasts more people employed and an unemployment rate being lower than the trend framework.*

Table
3

Italy's macroeconomic trend scenario 2022 DEF (percentage changes)					
	2021	2022	2023	2024	2025
GDP	6.6	2.9	2.3	1.8	1.5
IMPORTS	14.2	5.4	3.7	3.3	2.8
NATIONAL FINAL CONSUMPTION	4.0	2.5	1.6	1.3	1.2
HOUSEHOLD CONSUMPTION AND ISP	5.2	2.9	2.1	1.6	1.6
PA EXPENDITURE	0.6	1.2	0.1	0.3	0.1
INVESTMENTS:	17.0	7	5.1	3.9	2.3
.machinery, equipment and intangible assets	12.9	6.5	5.3	4.2	2.3
.means of transport	10.2	-3.2	6.4	5.1	3.6
.buildings	22.3	8.7	4.7	3.5	2.2
EXPORTS	13.3	4.4	3.4	3.1	2.9
LABOUR COST	0.3	2.6	1.6	1.4	1.8
PRODUCTIVITY (measured on GDP)	-0.9	0.4	0.1	0.1	0.2
UNEMPLOYMENT RATE	9.5	8.7	8.3	8.1	8.0
EMPLOYMENT RATE (15-64 years of age)	58.2	59.5	60.8	61.8	62.8

Source: 2022 DEF

On the contrary, the programmatic scenario is represented by the following table. The government expects that the economic policy measures it will put in place will have an expansionary effect on the Italian economy, raising GDP growth in 2022 from 2.9 in the trend framework to 3.1%. For 2023, the projected increase is from 2.3 in the trend framework to 2.4% in the programmatic framework.

The main interventions from which this expansive impact is expected are supports for households and businesses to cope with rising energy prices. The government estimates that these interventions will be able to increase investment, compared to the trend scenario, by 0.3%, and household consumption by 0.1%. The price to be paid is clearly a deterioration of public finance. In 2023, household consumption in the programmatic macroeconomic framework would grow as much as in the trend framework, while investment by an additional 0.4% (thus reaching a growth of 5.5% in the programmatic framework). For 2024 and 2025, the programmatic macroeconomic framework basically reflects the one under current legislation.

Table 4

Italy's macroeconomic programmatic scenario 2022 DEF (percentage changes)					
	2021	2022	2023	2024	2025
Real GDP	6.6	3.1	2.4	1.8	1.5
<i>components of real GDP</i>					
PRIVATE CONSUMPTION	5.2	3.0	2.1	1.6	1.6
PA EXPENDITURE	0.6	2.3	0.3	0.6	0.2
GROSS FIXED CAPITAL FORMATION	17.0	7.3	5.5	4.0	2.2
STOCKS (AS % OF GDP)	0.3	-0.2	0.1	0.0	0.0
EXPORTS	13.3	4.4	3.4	3.1	2.9
IMPORTS	14.2	5.4	4.0	3.3	2.9
<i>contributions to real GDP growth</i>					
DOMESTIC DEMAND	6.3	3.5	2.5	1.9	1.5
STOCK CHANGES	0.3	-0.2	0.1	0.0	0.0
NET EXPORTS	0.0	-0.2	-0.1	0.0	0.1

Source: 2022 DEF

As mentioned, the government's planned interventions will come at a cost to public finances: the projected deficit for 2022 will be about half a percentage point higher than trend, rising from 5.1% to 5.6%. An increase in the deficit, albeit more modest, is also expected in 2023 (+0.2%) and subsequent years (+0.1%).

It must be said that an extra 0.5% deficit corresponds to less than 10 billion Euro, roughly what was committed by the government already in April's measures. Should energy prices remain at current levels, the need for further action will surely become the centre of the economic policy debate. However, the expansionary effect of the interventions already implemented is estimated, as mentioned above, at an increase in GDP growth rate of 0.2%. This would mitigate the effect of the higher deficit on the debt-to-GDP ratio, which would increase by only 0.2% (from 146.8% in the trend framework to 147% in the programmatic framework). The following tables show the public finance trend and programmatic framework, respectively.

Table 5

Italy's public finance indicators trend framework 2022 DEF (percentage changes)					
	2021	2022	2023	2024	2025
NET DEBT	-7.2	-5.1	-3.7	-3.2	-2.7
PRIMARY BALANCE	-3.7	-1.6	-0.6	-0.2	0.2
INTEREST EXPENSE	3.5	3.5	3.1	3.0	3.0
PUBLIC DEBT (gross of supports)	150.8	146.8	145.0	143.2	141.2

Source: 2022 DEF

Table 6

Italy's public finance indicators programmatic framework 2022 DEF (percentage changes)					
	2021	2022	2023	2024	2025
NET DEBT	-7.2	-5.6	-3.9	-3.3	-2.8
PRIMARY BALANCE	-3.7	-2.1	-0.8	-0.3	0.2
INTEREST EXPENSE	3.5	3.5	3.1	3.0	3.0
PUBLIC DEBT (gross of supports)	150.8	147.0	145.2	143.4	141.4

Source: 2022 DEF

1.1.3 Regional scenario

The latest estimates indicate that the economic recovery in our region should have been more sustained than nationally. Last year's GDP increase is expected to be 7.3% in real terms, almost half a percentage point higher than the Italian average, with an increase in absolute values of more than 10.3 billion Euro.

The recovery of **gross domestic product** projected by Prometeia for **2022** has been significantly reduced from 3.8% predicted in October 2021¹⁵ to 2.4% in the latest forecast (end of April). Therefore, the economic consequences of the ongoing conflict in Ukraine will also be felt at regional level; this entails higher costs and lower availability of raw materials and intermediate products, difficulties in production chains, trade restrictions, and rising inflation. In contrast, the forecast for 2023 remains in line with last October's, showing a deviation of only 0.2 percentage points, from 2.9 to 2.7%.

The table below shows both real and nominal GDP values for our region, showing historical data for past years and the most recent forecasts by Prometeia for the current year and the three-year period from 2023 to 2025 (data in millions of Euro).

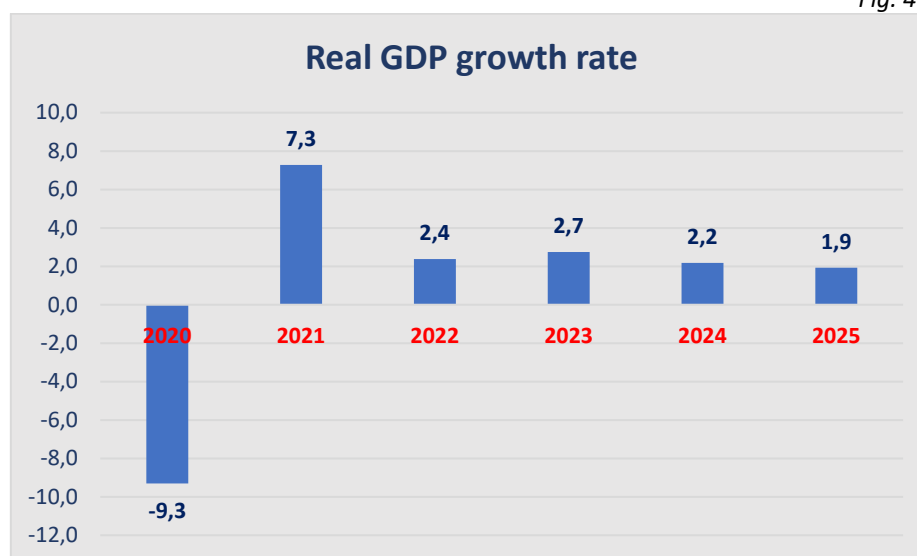
Table 7

RER GDP				
	real values	nominal values	real GDP growth rate	nominal GDP growth rate
2020	142,643.80	149,633.00	-9.3	-8.1
2021	153,025.48	161,567.48	7.3	8.0
2022	156,670.56	171,069.97	2.4	5.9
2023	160,974.88	179,977.47	2.7	5.2
2024	164,477.61	187,838.60	2.2	4.4
2025	167,649.64	194,745.45	1.9	3.7

Source: Prometeia

¹⁵ Source: Prometeia, *Scenari economie locali previsioni (Scenarios of local economies and forecast)*, October 2021

Fig. 4



Source: Prometeia

If we analyse the different GDP components¹⁶, we observe that **domestic demand** would register, again according to Prometeia's forecasts, a growth of 3.1%. As in 2021, the most dynamic component of domestic demand is investment, which is expected to grow by 6.5%, although the increased uncertainty has forced a downward revision of the estimate. The 2022 slowdown in growth will also be felt in household final consumption, the dynamics of which (+2.2%) will again be lower than that of GDP as a whole. The following table illustrates the expected trends in the various components of domestic demand at a regional level.

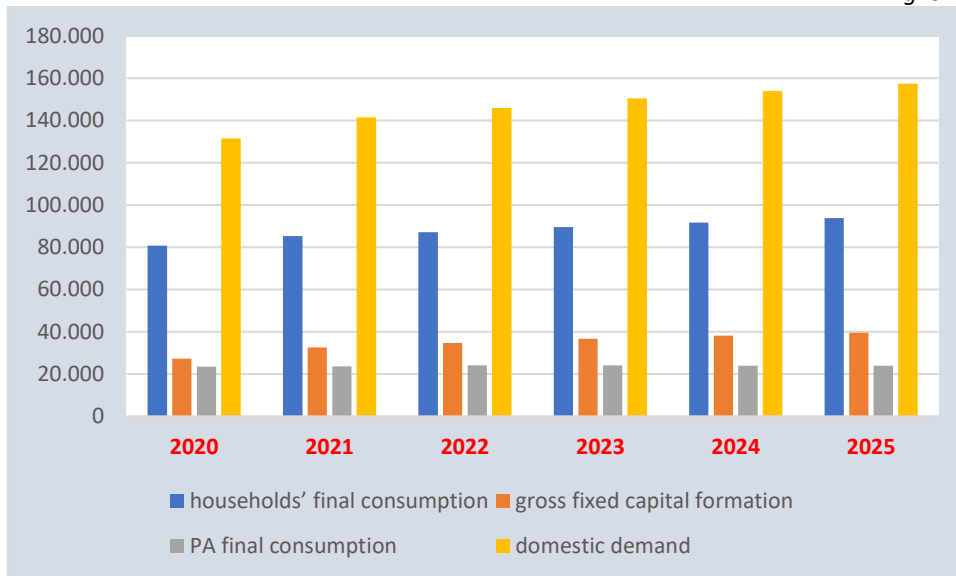
Table 8

RER Domestic demand and its components (real values)				
	households' final consumption	gross fixed capital formation	PA final consumption	domestic demand
2020	80,809.60	27,227.41	23,499.84	131,536.85
2021	85,277.07	32,611.14	23,699.87	141,588.08
2022	87,187.48	34,724.51	24,066.12	145,978.11
2023	89,608.85	36,749.79	24,070.57	150,429.20
2024	91,750.20	38,186.42	24,033.95	153,970.57
2025	93,834.72	39,585.96	24,030.32	157,450.99

Source: Prometeia

¹⁶ Data in millions of Euro.

Fig. 5



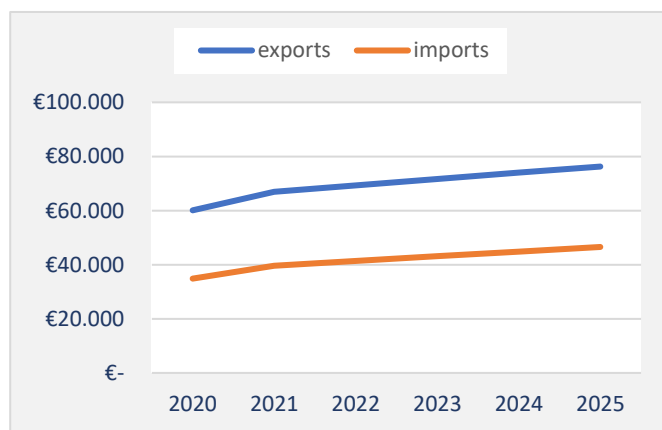
Source: Prometeia

Given their importance in the regional economy, we present forecasts for external demand (exports) and imports in a separate way. The **regional export** growth forecast has been halved: currently our region's exports are forecast by Prometeia to grow by only 3.4%. Lower export support for economic recovery in our region largely explains why GDP growth is expected to stop at 2.4%. The table below shows the data foreseen by Prometeia (in millions of Euro, at constant prices).

Table 9

RER exports/imports		
	exports	imports
2020	60,098.45	34,856.85
2021	66,996.96	39,661.33
2022	69,284.87	41,441.38
2023	71,687.33	43,203.03
2024	74,003.56	44,819.14
2025	76,261.15	46,553.08

Fig. 6



Source: Prometeia

Then considering the different **sectors of the economy**, Prometeia predicts that by 2022 the business recovery will come to a halt in industry, will continue more subdued for services, and, at a sustained but no longer explosive pace as in the previous year, in the construction sector. The latter is the only sector of the economy that has already far exceeded 2019 business levels last year. It will continue to benefit from the measures taken for building renovation and public investment plans.

The service sector, on the other hand, slows its growth compared to 2021 but is still expanding. The projected growth rate for this sector is 3%, up from 4.7% in 2021. For the following years,

growth will slow even further but will still remain above 2% in 2023, and not far from this value in subsequent years.

In the face of a substantial stability in agriculture, whose weight in the regional economy is still limited, the sector suffering the most is manufacturing. For 2022, Prometeia predicts stagnation in this sector. In contrast, the industrial sector is expected to recover in 2023, with a growth rate above 2.5%, and maintain a dynamic above 2% in subsequent years.

Table 10

RER added value by sector (real values)					
	agriculture	industry	construction	services	total
2020	3,144.20	34,746.10	5,312.60	85,045.00	128,268.70
2021	3,069.89	38,866.81	6,484.33	89,057.37	137,478.39
2022	3,071.39	38,860.16	7,044.27	91,741.68	140,717.51
2023	3,091.28	39,900.55	7,456.55	94,046.17	144,494.54
2024	3,124.26	40,900.62	7,706.28	95,889.04	147,620.20
2025	3,142.70	41,813.97	7,933.64	97,555.46	150,445.77

Source: Prometeia

1.1.3.1 Challenges and opportunities from the European Union for the 2021-2027 programming

The **cautious optimism of the 2022 winter economic forecast** released by the European Commission on 10 February 2022 - which predicted growth for the EU economy of 4.0% in 2022 and 2.8% in 2023 - is now totally undermined by a new emergency. With the **conflict in Ukraine following Russia's invasion**, the European Union is faced with an unprecedented, constantly evolving context with dramatic implications from a geopolitical, humanitarian, economic, social, and energy perspective, and one that once again requires a strong and unified EU response.

The EU's firm condemnation of "*Russia's unprovoked and unjustified military aggression*" on 24 February has been followed by an unprecedented reaction in which institutions and member states are united in defending the Union's founding values. EU efforts to date have focused on:

- **Supporting the Ukrainian people:** European solidarity is manifested through political, financial and humanitarian support, in conjunction with international partners. The **Temporary Protection Mechanism** for Ukrainian refugees has been activated, and through [the Cohesion Action for Refugees in Europe \(CARE\)](#), member states can dedicate cohesion policy funding for humanitarian emergency and assistance
- **Addressing [restrictive measures on various fronts to Russia](#):** Individual, economic and financial sanctions related to the areas of transportation, energy and combating disinformation were gradually introduced. Belarus was also included in the sanction framework in light of its involvement in the conflict.

Expected and hoped for as a year of recovery from the Covid-19 pandemic-related crisis, and two decades after the ambitious introduction of the Euro, **2022** sees a dramatic new phase in our contemporary history. This war on the EU's borders makes the international context increasingly a test case: indeed, the Union will have to assert itself as a key player in the new geopolitical balances that are emerging. European recovery, which can count on the "Next Generation EU" instrument and a renewed 2021-2027 Multiannual Financial Framework totalling 2.018 billion Euro (current prices), will have to deal with the setbacks that the conflict and economic sanctions on Russia will have on the EU economy.

Against this backdrop, the challenge for the European institutions is to continue to foster the EU's recovery and, at the same time, defend its founding values, as well as promote new forms of integration, in certain priority areas, such as the energy sector, autonomy strategy and foreign policy (including food security) and defence. Europe's regions and local authorities, alongside member states, will have to find sustainable and inclusive solutions to stem the impact of the unfolding crises.

European programming for the period 2021-2027 is in the start-up phase. The **Cohesion policy**, which has 392 billion, is allocated to the following objectives: 1) Investment for jobs and growth (with ERDF, ESF+, Cohesion Fund, and Just Transition Fund; 2) Interreg; and 3) EU-directed instruments and technical assistance.

Italy's Partnership Agreement (PA), sent to the European Commission on 17 January 2022, will be adopted by July, and so will the Regional Development Fund and European Social Fund+ regional programmes, which have already been approved by the Regional Assembly and are open for input from the territory. The PA has European resources of 42.085 billion Euro in current prices for the 2021-2027 seven-year period, plus 1.03 billion Euro from the Just Transition Fund. It will define the investment priorities and financial allocation by category of region and by Structural Fund, as well as the list of operational programmes and their

investment priorities. Also included in the PA is the National Operational Programme related to the new European Maritime, Fisheries and Aquaculture Fund (EMFAF).

For the 2021-2027 period, the **Common Agricultural Policy (CAP)**, with 291.089 billion for the first pillar (direct payments) and 87.441 billion for rural development, remains the top spending policy in the European budget. For the 2021-2022 two-year period, resources have been committed by extending the 2014-2020 CAP funding framework and measures through a special transitional regulation, due to delays in the approval of the new CAP regulations, which were published on 2 December 2021. The transition scheme allowed the Emilia-Romagna Region to extend the duration and management of its 2014-2020 Rural Development Programme with an endowment of resources also increased by Next Generation EU funds. Regarding the new CAP, at the end of 2021 the Ministry of Agricultural, Food and Forestry Policies MIPAAF forwarded to the European Commission its proposal for a National Strategic Plan, the new management tool for interventions to support agriculture that brings together both first and second pillar interventions in a single strategic document. At the end of March 2022, the Commission sent its comments to the government, and starting in April, the negotiation phase was opened with the goal of getting the Plan approved by the end of 2022. The manner and degree of autonomy with which regions will manage funding and measures for rural development interventions are among the aspects still being discussed and defined.

1.1.3.2 The Region's commitment to gender equality

In recent years there has been a reaffirmation at European and national levels of the commitment to gender equality and discrimination issues. Such a commitment was confirmed in the European strategic framework with the "Gender Equality Strategy 2020-2025" adopted by the European Commission. At the national level, it is worth noting that "gender equality" is one of the three cross-cutting priorities in terms of social inclusion in the National Recovery and Resilience Plan, that achieving gender equality is one of the 17 Sustainable Development Goals of the 2030 Agenda with global validity, and that the new National Strategy for Gender Equality 2021-2026 considers gender equality an "extraordinary driver of growth."

As part of the policies undertaken in this term of office and in continuity with what has already been initiated in previous years, the Emilia-Romagna Region has chosen to commit itself to the promotion of equal opportunities in a proactive and concrete way. In fact, it is the firm belief of this Administration that equal opportunity, even before being a tool for the protection of the condition of women, is to be considered as an important lever for the improvement of organisational efficiency and service quality, fully inserting itself as a factor that is not extemporaneous, but decisive in the process of good functioning of the Public Administration.

Regional Law no. 6/2014, "Framework law for equality and against gender discrimination", addresses the issue of equality by acting on multiple relevant issues: promotion of female employment, balance and sharing of care responsibilities, fight against gender stereotypes, and prevention and contrast of gender-based violence. The region has intervened on the many aspects of the quality of life of citizens in line with what is provided therein.

Therefore, on the one hand it is right to value the elements that have enabled our region to have female employment rates comparable to those of the most advanced European regions, knowing that there are still many inequalities to be balanced, and at the same time it is necessary to insist on cultural change actions, to combat established stereotypes and promote a culture of differences.

Also recognising the urgency of providing an adequate and lasting response to persistent gender inequalities, the Emilia-Romagna Region has approved its 2030 Agenda Regional Strategy, which is rooted in the action lines of the 2020-2025 Five-Year Plan and the Pact for Work and Climate. The Strategy traces the strategic goals back to the 17 Goals and defines the first targets from a gender perspective (with particular reference to Goal 5 "Gender Equality") to be achieved as a priority by 2025 and 2030.

Our Region has implemented a series of cross-cutting and integrated actions, including addressing the pandemic emergency that has exacerbated dynamics already marked by gender differences, such as those attributable to employment retention, wage differentials, exit from the labour market, balance between work and care/assistance needs, as well as domestic violence.

In recent years the integration and coordination for the development of gender equal opportunities policies in the programming of activities developed by the Regional Administration has been strengthened, according to a mainstreaming approach, also through the tools of the equal opportunities system provided for by Regional Law 6/14. The activity of the "Area of integration of the gender point of view and evaluation of its impact on regional policies" and of the "Permanent Table for Gender Policies" contributed to increase attention to gender in every action and in every phase of the policies and to strengthen the territorial network and the transversal actions, also thanks to tools for monitoring and evaluating the

gender impact in policies such as the gender budget (of which 4 editions have been made so far) and the recent introduction of the *ex-ante* evaluation of the gender impact of its laws.

In the preparatory work for the drafting of the Pact for Work and Climate, the contribution of the Permanent Regional Table for Gender Policies was crucial, enabling the centrality of the women's issue within regional strategies aimed at the goal of an environmentally, economically and socially sustainable future.

As a matter of fact, through the Permanent Table for Gender Policies, a process of in-depth analysis, discussion and sharing of actions aimed at supporting and planning structural interventions that contribute to the qualitative and quantitative improvement of the presence of women in the labour market has been initiated. This path involved local authorities, trade unions, professional associations, representatives of professional women, the Third Sector, universities, the regional Employment Agency, guarantee figures. Proposals later merged into the lines of intervention of the new Pact for Work and Climate.

Under the strategic objective of the Pact: "Emilia-Romagna, a region of rights and duties" and among the lines of intervention of the same is the design of "innovative policies that promote: the quality and stability of women's work; the elimination of gender wage gaps; career paths; training in all disciplines; women's entrepreneurship; work-life balance also through a strengthening of the services network; the better distribution of the burden of care; interventions on city schedules and times; and the fight against all discrimination and gender-based and "homo-bi-trans phobic" violence.

As a continuation of the confrontation process initiated on the occasion of the Pact for Work and Climate, the Table also organised itself into a thematic subgroup, aimed at sharing and comparing actions and planning directed at both supporting actions and solutions to the Covid emergency and designing structural interventions that contribute to the qualitative-quantitative improvement of the presence of women in the economic life of the territory and to enhance and strengthen their role and prominence in the regional economy and society. A Memorandum defining the goals, objectives and commitments of this subgroup is currently being signed by the parties involved.

In addition, following the approval of Regional Law no. 15 of 1 August 2019 "Regional law against discrimination and violence determined by sexual orientation or gender identity", activities related to the observatory have been initiated and are being consolidated. The observatory is provided for in Article 7 of the law itself and will have monitoring functions on the phenomenon.

In line with the previous years, also for 2022-2023, through specific calls for proposals and dedicated regional resources, the support to the projects promoted on the regional territory by Local Authorities and the Third Sector continues both to support the equal presence of women, favouring access to work, career paths and the promotion of corporate welfare and work-life balance projects, and to promote equal opportunities and fight discrimination and violence against women.

In order to foster the consolidation, development and start-up of entrepreneurial activities run by women or with a majority of female partners and to promote the presence of women in the professions, a fund has also recently been set up to support female entrepreneurship called "Regional Fund for Female Entrepreneurship and Women New Deal".

With regard to combating gender-based violence, a new "Regional plan against gender-based violence" was approved by Assembly Resolution on 13 October 2021, pursuant to Article 17 of Regional Law no. 6 of 27 June 2014, year 2021. The main thrust of the new Regional Plan is a view of gender-based violence as the outcome of a culture and an economic and social organisation still based on historically unequal relations between the female and male genders, a stereotypical view of the roles of men and women, the persistence of a discriminatory system

in the working world, and the lack of attention to a sexist language that adopts social and communicative behaviours being detrimental to women's dignity.

For years, the Coordination of Anti-Violence Centres of the Emilia-Romagna Region has been playing a role in monitoring and supervising the interventions of its member Anti-Violence Centres, which recognise themselves in common methodologies, operational practices and support for the system of relationships with other players in the territorial networks.

The Emilia-Romagna Region supports the implementation of the Regional Plan, allocating state resources and its own funding for the implementation of the actions planned and mainly aimed at the prevention of gender-based violence and protection from gender-based violence.

1.1.3.3 The Region's commitment to young generations

Thanks to Regional Law no. 14 of 28 July 2008, "Rules on policies for the young generations and subsequent amendments and additions", the Emilia-Romagna Region promotes the development of an innovative and highly integrated system of policies aimed at the young generations, through the coordinated action of provincial capitals and Unions of Municipalities, to make the most of the themes of aggregation, information, creativity, work and the active participation of young people in the life of the community in which they live.

In the area of youth policies, interventions funded by R.L. 14/08 were geared to support municipalities and their services in combating the problems caused by the pandemic, in synergy and with a view to complementarity with services funded by the social area, again in implementation of R.L. 14/08. The constant exchange, started with the youth policy officials of the local authorities in the area, also makes it possible to monitor situations of difficulty, to share needs and requirements and build together new projects starting from the places of youth aggregation.

During the pandemic period, many projects - funded under the third year of the 2019-2021 three-year programme of R.L. 14/08 - were modified in the course of implementation, and in other cases the regional funding allocated for some activities, which were impossible to carry out as a result of the closure of spaces, was directed toward forms of household support. Informagiovani services have been shifted online, continuing to provide help to girls and boys grappling with new challenges, especially in employment and education. In this emergency situation, youth gathering spaces were also closed for months, but local authorities, through the action of their operators, nevertheless reorganised activities, confirming themselves as an essential reference point for youngsters of our territory. As a result of the pandemic, local authorities in Emilia-Romagna dealing with adolescents and young people report an important increase in mental suffering in children-adolescents and youngsters by noting: concentration problems, anxiety and depression, eating disorders, internet addiction, but also, in some cases, a worsening of the phenomenon of youth distress.

In recent years, more and more resources have been allocated for activities that take place in gathering spaces, for information and communication services, as well as for actions that help young people approach the working world, including through the support for youth entrepreneurship and creativity. It was also possible to activate projects of youth prominence and education for an active and responsible citizenry, linked to the instrument of "[youngERcard](#)", the free regional card for young people who study, live or work in Emilia-Romagna that has accounted for 77 thousand subscriptions in recent years, and support for projects in Informagiovani, capable of activating collaborative synergies with territorial services aimed at young people on the theme of guidance and work.

Projects related to youth gathering centres, information, communication and employment guidance services, promotion of youth creativity and prominence, especially related to "[youngERcard](#)," and collaboration with Job Centres under the Youth Guarantee (Garanzia Giovani) project were funded. The purpose of the regional contribution is to strengthen Informagiovani and other spaces that offer services to young people, ensure their homogeneous presence in the regional territory, and contribute to actions to facilitate entry into the working world (counselling, guidance, enhancement of professional skills, assistance in business start-up).

Recent years have seen the emergence of projects aimed at developing or consolidating innovative activities in the field of multimedia and new communication languages, specifically web radio networks, through the organisation of festivals, initiatives and reviews with the direct

involvement of young people. In addition to being a tool for gathering and sharing, web radios also offer many educational opportunities for young people and allow them - through the creation of formats, investigations, broadcasts and in-depth reports - to acquire skills being useful for the job market.

A further area of intervention concerns projects to promote youth creativity and to develop networks of young artists through cross-cutting actions in the region.

As for youth gathering spaces, places owned by Local Authorities, suited by their nature for multi-functionality (Informagiovani, *fablab*, *coworking spaces*, multimedia laboratories, youth web radios, spaces for sports, rehearsal rooms and audio/video recording studios), interventions for the redevelopment of existing spaces and new openings have been financed, again through calls for proposals of R.L. 14/08, in the 2020-2021 two-year period, in favour of Unions of Municipalities and Provincial Capitals. These places have increasingly activated service collaborations with schools, universities, chambers of commerce and the area's own businesses in which collaboration, information, educational training to approach the working world, multimedia laboratories, workshops, cultural events, active citizenship projects, especially those that make use of new technologies, also with a view to creating start-ups, new forms of work characterised by considerable innovation.

In view of the strategic interest of regional policies for young generations, the Regional Council Resolution DGR 482/2021 established the Interfunctional Group for integrated actions for young people, a coordinating body made up of representatives of the various regional structures and chaired by Vice President Elly Schlein, with the function of fostering the integration of regional policies and programmes on social, educational, training, health, housing, cultural, leisure, labour, land use planning, mobility and sustainable development. As part of the Interfunctional Group, the most effective way of collaboration between the regional departments involved was identified in order to develop the three-year Guidelines that the region intends to implement for the benefit of young people.

In particular, for the definition of the Guidelines, also in view of the approval of the PNRR within the framework of the European "*Next Generation*" Plan, the Pact for Work and Climate and the start of the 2021-2027 seven-year European programming, the Council decided to launch a path of consultation, exchange and participation aimed at young people, calling on them to express their views on the Region's priorities for action.

With DGR 895/2021 and in line with the indications of Art. 34 of R.L. 14/08, the Region created the YOUZ "Youth Forum" conference, a place where boys and girls were able to talk with the regional institution and put forward proposals for the shared definition of the same Regional Programmatic Guidelines about young generations.

The YOUZ journey began on 24 June 2021 with an online meeting, attended by hundreds of young people under 35 from all over the region, and continued over the following six months with other events, 11 in the territory and 3 online, until the final stage on 6 November 2021 in Bologna, for a grand total of 14 events. The path of dialogue with different topics of interest was divided into four macro-areas, being named respectively: *Make it smartER*, *Make it greenER*, *Make it closER* and *Make it fairER*, with the aim of grouping together the main strategies and actions that the Emilia-Romagna Region has decided to take to face the challenges of the coming years.

The YOUZ experience saw, over a period of about 6 months, the participation of more than 2,000 young people from all over the region and resulted in 86 proposals, which, after drafting, gave rise to a Decalogue of actions, the implementation of which has already begun and is considered a priority by the Council.

The young people who took part in the forum asked that the discussion experience initiated in 2021 be continued in the following years, so as to have feedback on the results obtained from the dialogue held with the institutions. Therefore, during 2022 the participation process is

resumed, involving young people in the preparation and annual verification of the Guidelines' implementation, including through the regional platform <https://www.youz.emr.it/>.

Attention to young generations is also fully included in the ERDF (European Regional Development Fund) and ESF+ (European Social Fund plus) Regional Programmes for 2021-2027, in the Pact for Work and Climate, which takes as its first choice to make an unprecedented investment in people, particularly of young people and women, establishes 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, enhancing all the potential and spaces that the ongoing transformations offer to the territory and the new generations.

An important instrument of policies aimed at young generations is Giovazoom, the youth policy portal of the Emilia-Romagna Region, a virtual place where young people can find all the information they need in a clear and immediate language. There are over two thousand fields entered into the portal's geo-referencing system: 338 gathering spaces, 89 Informagiovani, 90 spaces that offer the service of rehearsal rooms (for a total of 155 rooms in Emilia-Romagna), 33 co-working spaces, 58 *fablab*/co-working spaces and 19 youth web radios, among these more than 600 are supported by R.L. 14/08.

Another important tool is the Youth Observatory, which in 2022 prepared the first report "I giovani in Emilia-Romagna" (Young People in Emilia-Romagna), which analyses the condition of young generation from the perspective of demographics, education, work and lifestyles. The Observatory will operate in 2023/2024 on the basis of a three-year work plan also approved during 2022 by the Interfunctional Coordination Group.

1.1.3.4 The Region's commitment to the future: the City of Science

A true '**City of Science**' is seeing the light at the **Bologna technopole**, where science is at the service of mankind.

It is a **national and European hub on new technologies, Big data, climatology and Human Development** that will cover the more than 120,000 square meters of the city's former Manifattura Tabacchi, designed and built in the 1950s by **Pier Luigi Nervi** with solutions that have made architectural history. Thus, the current operation also represents a major **urban regeneration** of the area: in fact, the spaces are now being reinterpreted to house **supercomputing infrastructures of international significance**, cutting-edge R&D activities, common areas for incubators, and the headquarters of a number of leading Italian scientific institutes and research centres.

Thanks to Bologna technopole, Italy will have a leading position in **Big data and computing capacity**. Leonardo alone is set to **change the geopolitics of global supercomputing** and the **weight of the Emilia-Romagna Data Valley**: about **80% of national** and **20% of European computing power** will be concentrated here, with Italy playing a decisive role in putting Europe in a position to compete with the U.S. and Chinese giants.

Such a capability is applicable to all areas: environmental protection and combating climate change; health and life sciences; telemedicine; logistics and city time reorganisation; production processes; as well as sustainable development and growth.

The first infrastructure present and completed at the Bologna Technopole is the **Data Centre of the European Centre for Medium-Range Weather Forecasts (ECMWF)**, an international body based in Reading, UK, involving 22 member states, including Italy, and 12 cooperating countries. On 29 April 2022, the Final Handover Agreement was signed, completing the delivery of the new headquarters.

Leonardo, the **new 240 million Euro European supercomputer**, will also be at the Technopole from July 2022: **120 million** for the machine **financed by the European Union**, **120 million from the Italian government** for set-up and operation, to which is added the region's allocation for the facility. The project submitted by **Cineca** was chosen by **EuroHPC Joint Undertaking**, the one called to acquire, create and deploy across Europe a state-of-the-art **high-performance computing (HPC) infrastructure** and also support a **research and innovation** programme to develop the technologies and machines (hardware) as well as applications (software) for supercomputers.

The **International Foundation Big Data & Artificial Intelligence for human development (IFAB)** promoted through Emilia-Romagna's regional law on the region's investments in **Big Data and Artificial Intelligence, meteorology and climate change** (number 7 of 17 June 2019) will have its place of business within the Bologna Technopole. Its mission is to **consolidate and integrate our country's scientific capabilities** to support the revitalisation and innovation of the entire European production system through scientific technologies and methods for sustainable human development.

The Bologna Technopole is then planned to host: ENEA Research Centre, Agenzia Italia Meteo, Biobanks and Life Sciences of the IOR, BI-REX National Competence Centre for Industry 4.0, INAF, ART-ER, as well as the new headquarters of research activities, funded by MAECI, which will host new projects related to the establishment of international bodies.

The ongoing operations in the approximately 120,000-square-meter area are divided into **six lots**.

More than 220 million Euro (125 million state funds; 90 million regional funds; 7 million European funds) have been **allocated** for their implementation, at present.

In addition to the lot related to the new Data Centre building, which has been delivered, the CINECA construction sites for Leonardo supercomputer and the one for the new ART-ER and ENEA headquarters are underway, while the integrated contract for the new research activity headquarters is about to start work, along with the construction of the external works related to the common parts and the layout of the connection with the outer area.

A procedure is also underway to complete the missing lots (Edifici Ballette or Ballette Buildings, Magazzino del Sale or Salt Warehouse, technology centre, services) through project finance.

1.1.3.5 Investment Plan

To support the regional economy recovery and turnaround, after the restrictions introduced to combat the Covid-19 pandemic, the Council has launched an extraordinary Investment Plan of 13.43 billion Euro, since the presentation by President Bonaccini of the 2020-2025 Five-Year Plan. In two years, such Investment Plan has increased to 18 billion with the current 2023 DEFR.

It is a set of initiatives geared toward the development of the territory, which affect all sectors of social and productive life: health, school, mobility, business, environment, infrastructure, post-earthquake reconstruction, tourism, culture, housing, sports, digital and big data.

Thanks to a careful planning of the use of available resources, to the synergies with the institutional partners, strengthened by the signing of the Pact for Work and Climate, and to the use of public funds and private co-financing, it is possible to support this investment policy being able to trigger a positive cycle of growth, with direct and indirect effects on production, employment, income and demand, as well as on the economy of the territory.

The following table shows the breakdown of the planned interventions. Compared with what was reported in 2021 DEFR, the total amount of investment increases by 4.58 billion; compared with what was projected with the last monitoring of the 2022 DEFR Update Note, the increase is 1.30 billion.

Table 11

INVESTMENT PLAN 2020-2024-			
FIELD OF INTERVENTION	2021 DEFR AMOUNT (mln Euro)	2023 DEFR AMOUNT	% CHANGE 2023 DEFR VS 2021 DEFR
HEALTHCARE	926.40	1,208.87	30.49%
DIGITAL AGENDA	18.90	19.00	0.53%
EARTHQUAKE	2,200.00	2,267.50	3.07%
SCHOOL AND UNIVERSITY BUILDINGS	494.00	775.75	57.03%
CULTURE	34.01	65.80	93.47%
SPORTS FACILITIES	95.00	102.50	7.89%
ENERGY EFFICIENCY AND RENEWABLE SOURCES	134.51	188.47	40.11%
TOURISM	132.15	145.63	10.19%
DATA VALLEY	162.00	181.15	11.82%
INVESTMENTS TO SUPPORT BUSINESSES	505.44	703.43	39.17%
RESOURCES FOR FINANCIAL INSTRUMENTS TO SUPPORT BUSINESSES	994.26	1,293.79	30.13%
ENVIRONMENT	561.79	1,098.17	95.48%
URBAN REGENERATION, INLAND AREAS AND TERRITORIAL INTERVENTIONS FOR INTEGRATED DEVELOPMENT OF LOCAL AREAS (R.L.NO.5/2018)	166.53	362.62	117.75%
AGRICULTURE	392.80	442.48	12.65%
INFRASTRUCTURE	5,348.80	6,826.07	27.62%
RAILWAYS AND PUBLIC TRANSPORT	1,131.32	1,797.73	58.91%
HOUSING	130.00	534.51	311.16%
TOTAL	13,427.92	18,013.47	34.15%

Thus, the positive trend already shown is confirmed, with an improvement of 34.15% over 2021 DEFR and 7.78% over NADEF 2022.

In particular, investments in Housing, Urban Regeneration, Inner Areas and Local Development, Environment, Culture, Railways and Public Transport, as well as School and University Buildings are growing. In more detail:

Healthcare. Investments of more than 1.21 billion Euro are currently being planned, to be implemented through interventions involving the construction of new hospitals (Cesena, Piacenza and Carpi), adaptation to earthquake-resistant regulations, energy efficiency and the upgrading of health departments and facilities, including through the implementation of new equipment and the enhancement of existing ones. Compared to 2021 DEFR, there is an increase in financial resources of 282.47 million, due to both the reshaping of already planned interventions and the addition of new investment interventions.

Table 12

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Cesena Hospital	156.00	194.80
Piacenza Hospital	156.00	260.00
Carpi Hospital	100.00	120.00
New Ravenna Maternal Paediatric Unit		17.50
MIRE of RE III part	10.30	10.30
Works at Mirandola Hospital	4.50	4.50
Works and expansions for Maggiore Hospital in Bologna	35.00	35.00
Implementation of 10 Proximity Outpatient Clinics	40.50	40.67
Biomedical/Information Technology	35.00	42.30
Minor interventions	22.70	14.15
Technologies for GPs	18.50	18.50
Hospital network reorganisation plan including Covid HUB interventions	27.00	123.00
Purchase of real estate by INAIL	161.70	78.35
Parma Hospital Laboratory	10.00	0.00
Completion of new integrated oncology hub	2.00	0.00
Completion of the operating compartment in Santa Maria nuova Hospital	6.70	0.00
Modena Polyclinic Completion	31.50	0.00
Mirandola Hospital	4.00	0.00
Vignola Hospital	3.50	0.00
Sant'Orsola Polyclinic	19.00	0.00
Rizzoli Orthopaedic Institute	8.00	0.00
Imola hospital expansion	3.50	0.00
Seismic improvement of Romagna's hospitals	11.50	0.00
Rimini Infermi hospital	7.50	0.00
Ravenna Hospital	9.50	0.00
Construction of the Proximity Outpatient Clinic in Savena Santo Stefano neighbourhood	9.00	0.00
Cittadella San Rocco Ferrara	5.00	0.00
Modena Hospice	1.00	0.00
Biomedical/Information Technology	27.50	0.00
Guastalla Civil Hospital A2 Unit - Ausl RE		2.50
Rizzoli Institute - IOR		19.60
Argenta Hospital - Ausl FE		11.00
Infermi hospital (RN), Santa Maria delle Croci Hospital, Ceccarini Hospital, Umberto I Hospital, Lugo Infermi Hospital - Ausl Romagna		10.00
Guastalla Civil Hospital A1 Unit - Ausl RE		2.70
S. Anna di Castelnuovo Né Monti Hospital - Ausl RE		7.30

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Parma Maggiore Hospital - Aosp PR		21.50
Azienda Ospedaliero - Universitaria of Modena - Aou MO		10.80
Bellaria Hospital - Ausl BO		9.80
S. Orsola-Malpighi Polyclinic (PAV. No. 3) - Aou BO		4.50
S. Orsola-Malpighi Polyclinic (PAV. No. 26) - Aou BO		9.70
Imola Hospital - Ausl Imola		1.40
Morgagni Pierantoni Hospital in Forlì - Ausl Romagna		7.20
Rimini Infermi Hospital - Ausl Romagna		22.80
AOSP BO - Redevelopment of Medicine and Functional Centres at Sant'Orsola Malpighi Polyclinic		64.00
Funding for RER health companies - Fund aimed at boosting investment		45.00
TOTAL	926.40	1,208.87

*Healthcare

DGR 2356 of 22 November 2019 had approved a list of interventions that can be financed with state resources intended for the continuation of the Extraordinary Programme of Investments in Healthcare referred to in Art. 20 of *Law 67/88*, for a total of 159,173,812.11 Euro, also providing that the interventions would be financed "... on condition that the procedural process for the allocation of resources is concluded."

For the continuation of the Extraordinary Programme of Investments in Healthcare, *law 178/2020* (Attachment B) allocated the Emilia-Romagna Region a total funding of 303,968,666.00 Euro and it was decided to use part of these resources amounting to 160,975,000.00 Euro for the implementation of the following interventions (*DGR 1455 of 20 September 2021*):

- New Piacenza Hospital 87,350,000.00 Euro (State share) + 4,597,368.42 Euro (5% regional share);
- New Carpi Hospital 57,000,000.00 Euro (State share) + 3,000,000.00 Euro (5% regional share);
- New Ravenna Maternal and Paediatric Unit 16,625,000.00 Euro (State share) + 875,000.00 Euro (5% regional share).

Following *DGR 1398 of 13 September 2021*, a total of 140,890,010.50 Euro were also allocated for interventions to comply with earthquake-resistant regulations of health facilities. Of this 140,890,010.50 Euro, 43,089,538.84 Euro are from the PNRR to implement 4 interventions, 97,800,471.66 Euro are from the Supplementary Fund to the National Recovery and Resilience Plan to implement 10 interventions.

Digital Agenda. The investments cover Ultra-Broadband for reducing the digital divide, spreading connectivity, and extending high-speed networks. The financial resources allocated amount to 19 million Euro.

Table 13

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Ultra-Broadband (Grande Progetto MISE)	18.90	19.00
TOTAL	18.90	19.00

Earthquake. The planned resources amount to 2.27 billion Euro and are attributable to:

- Public reconstruction, about 1,100 interventions between those active and those about to be planned;
- Private reconstruction, referring to both housing and small businesses;
- Reconstruction of productive activities.

Table 14

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Public reconstruction	1,100.00	1,041.50
Private reconstruction (housing and small businesses)	800.00	851.00
Reconstruction of productive activities	300.00	375.00
TOTAL	2,200.00	2,267.50

School and university buildings. Interventions involving school buildings involve the use of resources for more than 622 million Euro, while those falling under university buildings amount to more than 153 million. The first are operations aimed at securing school buildings and increasing the energy efficiency of facilities. The second are a series of investments concerning: 1) The construction of two university residences and two residence support buildings in Bertalia - Lazzaretto area in Bologna; 2) The conservative restoration and reuse of the former San Francesco judicial prison in Parma; 3) The completion of Villa Marchi property in Reggio Emilia. Compared to the monitoring with 2021 DEFR, the financial commitment has increased in this area by more than 281 million Euro.

Table 15

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
School buildings	447.64	622.39
University buildings	46.36	153.36
TOTAL	494.00	775.75

Culture. Approximately 66 projects are planned that aim to renovate, rehabilitate, bring up to standard, and upgrade the technology and systems of cultural heritage and performing arts venues. The financial resources used amount to 65.80 million Euro.

Table 16

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Interventions for the enhancement of cultural heritage and entertainment	34.01	0.00
Cultural heritage enhancement interventions		49.13
Interventions on performance venues		12.71
Special interventions for the enhancement of cultural heritage: Villa Emma, Grottino Chini and Parma 2020		3.96
TOTAL	34.01	65.80

Sports facilities. Investments are planned for about 141 projects, spanning the entire region. These interventions are aimed at:

- Ensuring high quality standards of sports facilities in terms of the safety of athletes and spectators;
- Promoting the accessibility and usability of sports facilities by people with disabilities;
- Improving the sustainability of facilities from an environmental and energy perspective.

The resources allocated amount to 102.50 million Euro.

Table 17

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Sports facilities	95.00	95.00
Special investment programme dedicated to sports culture, facilities and leisure activities		7.50
TOTAL	95.00	102.50

Energy efficiency and renewable sources. A set of interventions with a total investment of 188.47 million Euro is currently planned. These are interventions involving energy efficiency and renewable sources in public buildings, low-impact public transportation, cycle paths, and Renewable Energy Communities. The entire regional territory is affected.

Table 18

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Interventions related to energy efficiency of public buildings, renewable sources in public buildings, low-impact public transportation, cycle paths	134.51	188.47
TOTAL	134.51	188.47

Tourism. The resources deployed amount to 145.63 million Euro. Interventions have been planned with regard to the development of the mountain tourism sector through a set of operations to jointly support and promote the Tuscan-Emilian facilities with works on Cimone and Corno alle Scale winter resorts. Projects of urban redevelopment and regeneration of coastal resorts will be carried out in order to improve the conditions of offer and attractiveness of tourist areas and encourage the development of the seaside district of the Emilia-Romagna coast, also with reference to the "Wellness Valley." Finally, in this area there is a series of interventions aimed at the enhancement of natural, artistic and cultural attraction areas, in provincial capital municipalities and, more generally, in strategically important attraction areas and natural areas.

Table 19

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Extraordinary agreement for mountain development	13.04	13.04
Coastal public assets redevelopment	44.31	44.31
Enhancement of natural attraction areas and cultural heritage (Axis 5).	74.80	66.11
Enhancement of natural attraction areas and cultural heritage (Axis 6). Enhancement of the infrastructure hosting the Open Laboratories of Axis VI, in implementation of the Urban Agenda of the 2014-2020 ERDF ROP		22.17
TOTAL	132.15	145.63

Data Valley. The planned interventions require the use of financial resources amounting to 181.15 million Euro and concern the metropolitan area of Bologna. Specifically, it is about carrying out:

- The infrastructure for innovation, research and technology transfer called Technopole, through the rehabilitation and functional redevelopment of the former Manifattura Tabacchi or Tobacco Factory building complex;
- The external works of the Technopole;
- The interventions necessary for the Italian bid to host Copernicus services and the establishment of the European Centre for Medium-Range Weather Forecasts (ECMWF) Data Centre at the Technopole.

Table 20

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Bologna Technopole - ECMWF Data Centre Lot B	55.00	62.60
Completion of Bologna Technopole (outdoor areas and wells)	10.00	10.16
Bologna Technopole - Lot A	57.00	63.39
International research centre Weather centre	40.00	45.00
TOTAL	162.00	181.15

Investments to support businesses. The investments to support businesses total 703.43 million Euro and concern:

- The redevelopment, renovation, modernisation and renewal of equipment of hotel and open-air accommodations, seaside facilities, spas and public entertainment venues;
- An easier access to credit by businesses;
- The granting of non-refundable aids aimed at ensuring health safety related to Covid-19 of accommodation and spa facilities and areas where food and beverages are served to the public;
- The provision of grants for the revitalisation of businesses in the historic centres of earthquake-prone areas;
- The redevelopment and enhancement of commercial and public business activities in its territory and the renovation and/or expansion of the facilities in which the activity takes place;
- Investment in launching new products and/or services to customers, including through the introduction of the latest information and digital technologies;
- Investment in research and innovation with reference to enterprises in mountain municipalities; financing R&D and industrial investments under national facilitation instruments directly managed by the Ministry of Economic Development MISE;
- The implementation of innovative projects by craft enterprises;
- Investment in innovative start-up companies.

Table 21

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Investment for enterprises in tourism and hotel business	95.57	84.75
Investments for the restart of business in the hotel, restaurant, public concern sectors	3.00	8.12
Grants for the business revitalisation in historic centres of earthquake-prone areas	60.00	87.05
Investments for the benefit of the trade sector	12.06	16.80
Business Research and Innovation	108.21	237.53
Investment for mountain enterprises	18.00	0.91
Innovation Agreements	208.60	228.51
Investment for craft enterprises. 1) Call for the support and enhancement of artistic and traditional craft productions and initiatives aimed at conveying and promoting the identity and typicality of the regional territory.		3.67
Investment for craft enterprises. 2) Call for digital transition of craft enterprises.		25.85
Investment in Innovative Start-up Enterprises: call for the attraction and consolidation of Innovative Start-Ups.		10.24
TOTAL	505.44	703.43

* **Investments to support businesses**

Regarding the investments of mountain enterprises, the amount has been updated considering the expenses actually incurred and reported for the implementation of the interventions facilitated under the call of DGR 2350/2019 (final amount upon completed procedure).

Resources for financial instruments to support businesses. Resources totalling 1.29 billion Euro intended to foster:

- Access to credit;
- The establishment and development of new companies and small enterprises;
- Energy investments by enterprises;
- The mitigation of credit risk;
- Access to credit by cooperatives;
- The acquisition of liquidity by small and medium-sized enterprises and professionals as a result of the health emergency;
- Access to credit by tourism enterprises.

Table
22

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
SPECIAL-ER Fund (Regional Section of SME Guarantee Fund)	445.08	500.00
EU.RE.CA. Fund (prod. equipment inv.)	126.79	126.79
Starter Fund	20.78	40.00
Energy Fund	105.08	90.00
Credit Risk Mitigation Fund	153.53	154.00
FONCOOPER	143.00	143.00
COVID-19 liquidity fund		140.00
EU.RE.CA. Fund for Tourism		100.00
TOTAL	994.26	1,293.79

Environment. There are several interventions put in place in this area that concern soil conservation, through the provision of various projects referring to soil, hydraulic system, hydrographic network, coastal nourishment, and civil protection. Other interventions concern air quality, including "Bike to work" as well as PA boiler replacement and polluting vehicle replacement projects. Interventions related to the remediation of polluted sites, seismic risk prevention and aimed at fostering water quality and reducing leakage in aqueducts through an integrated water system also find application here. The investment planned amounts to 1,098.17 million Euro. Compared to 2021 DEFR, there is an increase in financial resources of 536.38 million Euro, or 95.48% more resources.

Table 23

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Soil conservation interventions		
Soil conservation and civil protection	523.00	523.00
New PA interventions (2020)		15.00
FSC 2014-2020 Environment Operational Plan (II addendum)		16.88
Maintenance Master Plan of the Authority for Po District Basin (year 2019)		1.27
2021 MITE Programming		20.91
Prime Minister Decree DPCM of 18 June 2021 - Casa Italia Programming		17.23
2022 MITE Programming		26.00
FSC advance 2021-2027 - focus area "Climate risks and adaptation"		37.11

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
December 2020 weather events "Interventions aimed at reducing residual risk"		74.00
December 2020 weather events "Contributions to private individuals"		26.00
Soil conservation interventions - compensation for 2020 and 2021-2023		21.09
Interventions planned through DGR 999/2021 as amended.		0.00
Public interventions of hydraulic and environmental conservation and modelling (DGR 999/2021)		0.88
Soil conservation interventions - coastal slopes, hydrographic network for 2020 and 2021-2023		23.52
Civil defence for 2020 and 2021-2023		40.09
Sacca di Goro extraordinary maintenance		0.40
Grants to municipalities for mining activities		0.30
Coastal nourishment project for 2021		22.92
Civil protection ordinances and plans		115.50
Development and update of information system software		1.80
Interventions for air quality: Bike to work		
Bike to work		1.20
Bike to work - completion of 2020 call for proposals		0.53
Bike to work 2021 for municipalities >50k		9.78
Bike to work 2021 for municipalities <50k		10.02
Interventions for air quality: 4.5 million trees		
Four and a half million more trees. Let's plant a tree for every inhabitant of Emilia-Romagna		12.96
Interventions for air quality: Call for boiler replacement		11.50
Replacement of polluting PA vehicles		5.50
Polluted site remediation		
Environmental remediation and restoration of orphan sites		5.37
Completion of Fidenza national site remediation		7.84
Asbestos removal work	8.79	8.79
Seismic risk prevention		
Funding of seismic risk prevention interventions on strategic and relevant public buildings		23.74
Water quality and aqueduct leakage reduction - Integrated water system	30.00	30.00
TOTAL	561.79	1,098.17

Urban regeneration, inland areas and territorial interventions for the integrated development of local areas (R.L. No. 5/2018). Investments of more than 362 million Euro are currently planned, and the interventions cover urban regeneration, maintenance and preservation of forest heritage, as well as the financing of specific interventions for mountain and inland area development.

Table 24

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Urban regeneration		
Calls for Urban Regeneration 2018, Urban Redevelopment and Urban Regeneration 2021	93.00	177.37
Protected areas and forestation		
Extraordinary maintenance of forest heritage		1.10
Funding of preservation interventions in the Comacchio valley complex		3.58

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Interventions for the recovery of environmental resources of the Comacchio Valley compartment		0.22
Investments related to ecological supervision functions		0.90
Call named "Sostegno al ripristino delle foreste danneggiate da incendi, calamità naturali ed eventi catastrofici" (Support for the restoration of forests damaged by fire, natural disasters and catastrophic events) - operation 8.4.01		3.00
New three-year parks investment programme		4.80
Mountain areas		
Financing of interventions for the development of mountain areas		24.39
Financing of small works and hydrogeological rehabilitation activities		0.00
Funding for special mountain interventions		0.00
Call for funding to enterprises in mountain municipalities		6.50
Grants for home purchase in mountain areas		25.00
Investment in inland areas	68.17	49.60
Local action programs R.L. 5/2018	5.36	66.16
TOTAL	166.53	362.62

Agriculture. A total of 442.48 million Euro is earmarked to support interventions on the land reclamation system, the irrigation facilities of land reclamation consortia, and for post-sanitary emergency recovery with supply chain projects and investments targeting agricultural and agro-industrial companies. The use of resources in this area is also on the rise as an 8% increase over 2022 DEFR is noted.

Table 25

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Interventions on the reclamation system	140.00	159.42
Investments for greenhouse gas and ammonia reduction		1.44
Investments in preventive actions aimed at reducing the consequences of natural disasters, adverse climate conditions		7.75
Investment in preventive actions aimed at reducing the consequences resulting from biotic adversity		4.14
Prevention of spring frost damage		3.20
Supply Chain Projects - Investments in agricultural enterprises in individual and system approach - Investments targeting agro-industrial enterprises in individual and system approach	17.80	16.53
Interventions on irrigation facilities of land reclamation consortia	235.00	250.00
TOTAL	392.80	442.48

Infrastructure. Currently, the total amount of investment is around 6.83 billion Euro with an increase of 1.48 billion Euro compared to 2021 DEFR. The interventions cover the entire regional territory and involve the whole road system including local roads, highway sections, inland navigation infrastructure, port infrastructure and, finally, airport infrastructure (Forlì, Parma and Rimini airports).

Table 26

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Road infrastructure		
New roundabout in SS16 in the municipality of S. Giovanni in Marignano (RN)	0.62	0.62
Completion of via Brenta road system in the municipality of S. Giovanni in Marignano (RN)	0.88	0.88
1st and 2nd lot of the New Via Emilia between Forlì bypass and Cesena intersecting road crossing the municipalities of Forlimpopoli and Bertinoro	7.00	7.00
Functional work on the northern access to Bologna Freight Village	2.00	2.00
Widening of Via Bondanello in the municipality of Castel Maggiore (BO)	1.00	1.00
Interventions in the Municipality of Rimini aimed at improving transit flows on state and provincial infrastructure	10.70	17.18
Connection of SS9 in S. Giovanni in Compito - A14 Valle del Rubicone toll booth	9.00	9.00
Rehabilitation and securing of the provincial road 513R in the section falling in the municipality of Vetto at km 41+600 - 1st lot (RE)	0.60	0.60
Fogliano bypass (RE) - SP467R	10.00	10.00
SP467R (MO) Pedemontana - 4th section 3rd lot - section B: SP17- Via Gualinga	4.00	15.85
SP467RMO Pedemontana - 4th section 4th lot: via Gualinga - via Montanara	7.85	0.00
4th section of the new road system South of Fidenza for the A1 toll booth connection - SS9 Via Emilia - Vaio hospital - Salsomaggiore	2.00	2.80
New connection of SP 5 - Co.Pro.B. sugar mill in Minerbio municipality and roundabouts in via Ronchi	2.00	2.60
Bridge rehabilitation over Taro River in the municipalities of Parma, Noceto and Fontevivo	2.00	2.00
SP72 PR Parma-Mezzani "Via Burla"- rehabilitation and safety works	3.00	3.00
SS16 - Safety works in SS16 at the crossing of the inhabited area of Rimini	5.27	5.27
Securing of S.P.18 Padullese with the construction of cycle and pedestrian underpass	0.40	0.64
Castel Bolognese Ravenna line - level crossing removal in the municipality of Bagnacavallo	12.90	12.90
S.P. Provincial Road No. 588R dei Due Ponti. Alternative road on a new area for the removal of level crossings in the municipality of Villanova sull'Arda	5.10	11.20
Provincial Road No. 587R in Cortemaggiore. Layout rectification between progressive km 4+200 and km 4+600	1.00	1.00
Extraordinary maintenance of the bridge over Rio Tresinaro stream	0.50	0.50
Rationalisation and securing with removal of critical points along the former SS302 Brisighellese (2nd lot)	2.07	2.07
Rastignano junction as an alternative road to SP65 della Futa 2nd lot	31.00	31.00
Construction of Lot 2-bis of Lungo Savena Road Axis	11.83	11.83
Extraordinary maintenance of provincial roads - regional funding	4.96	16.28
SP73 PC Extraordinary maintenance of the construction Manufatto at km 0+300	0.20	0.20
SP 109 PR of Fondovalle Stirone Securing the bridge over Utanella stream at km 2+800	0.18	0.18
SP 513R Securing the bridge at km 55+700	0.21	0.21
SP34 MO Safety restoration of Fosso Macchiarelle Bridge at km 8+500	0.15	0.15
SP 57 BO Restoration and consolidation of the wall vault in Rio Muro Bridge at km 1+990	0.15	0.15
SP 58 FE Reconstruction work for the crossing of Gronda canal at km 4+085	0.19	0.19
SP 254R Extraordinary maintenance work of the Bridge over Savio river at km 16 +970	0.18	0.18
SP 19 FC Consolidation and safety work of the Bridge at km2+500	0.25	0.25

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
SP 22 RN Bridge renovation at km 3+650 and km 4+500	0.20	0.20
Extraordinary bridge maintenance on Enza stream between Montecchio (RE) and Montechiarugolo (PR)	1.00	1.00
Extraordinary maintenance for new Navicello bridge - underpass in via Maestra di Bagazzano	0.42	0.42
Extraordinary maintenance of the bridge over Po river between Guastalla (RE) and Dosolo (MN)	6.50	6.50
Extraordinary bridge maintenance on Enza stream between Montecchio (RE) and Montechiarugolo (PR)	1.30	1.30
Extraordinary maintenance of the bridge over Po Giuseppe Verdi	20.00	20.00
New bridge construction on Mozzola brooklet	3.50	3.50
Extraordinary maintenance of the bridge over the brooklet in Cavriago	0.40	0.40
Extraordinary maintenance of the bridge over Tresinaro stream	0.50	0.50
Extraordinary maintenance of Dosolo Bridge in Guastalla	3.79	3.79
Extraordinary maintenance of the bridge in Castelvetro Piacentino	7.57	7.57
Urgent safety work on some sections of S.P. No. 8 Santagatese - 1st Lot	0.23	0.23
Construction of the interconnection of A14dir with S.P. 253R San Vitale in the municipality of Bagnacavallo at Borgo Stecchi	5.80	5.80
SS12 Mirandola Bypass 2nd lot 1st section	10.00	10.00
SS727 bis Forlì Bypass - 3rd lot	102.61	102.61
SS9 Alternative road of Castel Bolognese	61.87	61.87
Scheduled maintenance: SS 3bis (E45) Lake Quarto tunnel	36.90	36.90
Scheduled maintenance: SS16 Ravenna bypass - upgrading of platform and structures (divided into 4 functional sections)	68.00	68.00
Casalecchio road junction - north road section	155.60	155.60
Reggio Emilia bypass	190.80	190.80
Rationalisation and adaptation works of the level intersections along S.S. 309 "Romea" - 1st section from km 24+300 to km 52+800	4.80	4.80
Rationalisation and adaptation works of the level intersections along S.S. 309 "Romea" - 2nd section	4.50	4.50
SS72 Securing between Rimini - S. Marino	14.00	25.00
SS67 modernisation between Classe - port of Ravenna (1st section)	20.00	31.00
SS67 modernisation between Classe - port of Ravenna (2nd section: bridge over united rivers)		17.50
SS16 Argenta alternative road 2nd lot	106.80	106.80
SS 9 - Alternative road in the inhabited area of Santa Giustina in the municipality of Rimini	11.18	11.18
SS45 - Rio Cernusca - Rivergaro modernisation (1st lot)	60.00	133.00
SS62 Parma - Collecchio modernisation	13.20	13.20
SS16 Ravenna bypass extraordinary maintenance		77.00
South Complanare side road of Modena	52.00	52.00
San Cesario sul Panaro Bypass	25.60	25.60
Works related to the 3rd lane of the A14 highway between Rimini north and Cattolica	25.00	25.00
PREVAM works related to Variante di Valico	80.00	80.00
Lungo Savena Axis - 3rd lot	26.80	26.80
Noceto bypass as an alternative road to SP 357	13.45	13.45
New Minerbio bypass connecting SP 44 and SP 5 - functional sections 4 and 5		3.30
Interventions for securing bridges		0.25

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Guard rail maintenance of the regional road network		2.14
FSC 2021-2027: Road interventions for immediate work start		11.74
Highway infrastructure		
Campogalliano - Sassuolo motorway junction	514.00	514.00
Construction of the 3rd lane in A22	350.00	350.00
Cispadana Regional highway	1,308.00	1,308.00
4th lane in A14 Bologna section and Ravenna branch	330.00	310.00
North Complanare side road between Ponte Rizzoli and San Lazzaro di Savena and Ponte Rizzoli toll booths	83.00	93.60
3rd lane of A13 Bologna Arcoveggio - Ferrara south section	492.00	492.00
Bologna ring road	594.75	1,600.00
Infrastructure for inland navigation		
Class V adjustment work for free-flow regulation of Po river's low-water riverbed downstream of Foce Mincio (Mincio mouth)	15.00	15.00
Upgrading to class V of the Ferrara waterway - Lot 2 section 3 - Construction of Madonna bridge in Migliarino	2.71	2.71
Upgrading to class V of the Ferrara waterway - Lot 1 section 1 - Demolition and reconstruction of Bardella bridge over Boicelli canal	5.00	5.00
Upgrading to class V of the Ferrara waterway - completion of lot 2 section 1 Final di Rero	15.00	17.00
Upgrading to class V of the Ferrara waterway - Lot 1 section 2 - dredging of Po di Volano from Boicelli inlet to and including San Paolo dock and securing the banks	20.00	11.00
Upgrading to class V of the Ferrara waterway - Lot 3 - construction of a sea dam to secure the entrance of the canal port of Portogaribaldi	5.00	10.00
Extraordinary maintenance		0.30
Free-flow water drainage of Po river's low-water riverbed for Class Va CEMT vessels from Foce Mincio downstream to Ferrara. Completion of intervention between Revere and Ferrara / part 1		24.17
Ferrara waterway. Adaptation of bridges along Boicelli (Betto, Confortino, Mizzana and freight railway)		19.33
Ferrara waterway. Resectioning works of Ferrara waterway - Po di Volano		1.45
Ferrara waterway 1st lot - Dredging and upgrading of the stretch of navigable waterway of Boicelli canal from Conca di Pontelagoscuro to the inlet with Po di Volano		26.70
Ferrara waterway 1st lot - Redevelopment of the stretch of navigable waterway between Boicelli canal inlet and San Paolo dock in Ferrara		5.00
Ferrara waterway 2nd lot - Completion of works from Conca di Valpagliaro downstream of it to the 2750 progressive in Final di Rero - Additional resources		8.50
Ferrara waterway 3rd lot - Conca di Valle Lepri		5.00
Port infrastructure		
Ravenna port hub - Deepening of Candiano and Baiona Canals, adaptation of existing operational docks, new Terminal in Peninsula Trattaroli and reuse of extracted material in implementation of the current P.R.P. 2007	235.00	235.00
Ravenna port hub - Deepening of Candiano and Baiona canals to - 14.50 m in implementation of the current P.R.P. 2007. Construction and operation of the excavation waste material treatment plant		130.00
Ravenna port hub - Construction of a cold ironing station at Porto Corsini to serve the Cruise Terminal		35.00
Retro-port rail infrastructure to improve rail accessibility to Ravenna port hub: Molinetto canal underpass and PC80 gauge adjustment in Teodorico overpass	18.00	20.00

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Ravenna port hub interventions for the port's freight rail junction, adaptation and upgrading of the port of call in the left side of Candiano canal	22.00	22.00
Ravenna port hub interventions for the port's freight rail hub, upgrading of the arrivals and departures hub in the right side of Candiano canal, lengthening and electrification of the side	45.00	27.00
Airport infrastructure		
Rimini Airport - Enhancement of airport infrastructure		3.50
Forlì Airport - Investment support measures for enterprises operating at the airport		4.00
Parma airport infrastructure interventions - Phase 1 and 2	20.85	20.85
TOTAL	5,348.80	6,826.07

Railways and public transportation. The planned interventions, which affect the entire regional territory, concern the regional railway system, the national network (RFI), the renewal of the railway and tramway rolling stock, as well as cycling and sustainable mobility through the construction of "Vento", "Sole", and "Adriatica" cycle routes. The resources planned to support these investments amount to 1.80 billion Euro.

Table 27

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Interventions on the regional rail system		
Completion of the electrification of Reggio Emilia - Guastalla railway line	8.00	11.43
Completion of the electrification of Sassuolo - Reggio Emilia railway line	10.80	13.38
Reggio Emilia - Ciano d'Enza railway line electrification	12.00	11.60
Implementation of ACC (central computerised system) at Guastalla station in implementation of ANSF provision 9956/2016.	4.55	4.55
Roof reconstruction and seismic improvement of the passenger building at Bagnolo (RE) station, Reggio Emilia - Guastalla railway line.	0.25	0.33
Extension of Reggio Emilia central station underpass. Construction of an escalator system.	0.35	0.35
Closure of the level crossing at via Franchetti in Bibbiano (RE), Reggio Emilia - Ciano d'Enza railway line. (Agreement not yet signed)	4.00	4.00
Bassetta bridge rebuilding in Cavriago	2.50	2.50
Urban section undergrounding in Bologna - Bologna Portomaggiore LINE (PIMBO project)	57.37	57.37
Ferrara urban section undergrounding - connection of Ferrara-Ravenna line with Ferrara-Suzzara line	65.00	65.00
SCMT (Rail Traffic Management System) regional network completion	20.00	20.00
Extraordinary maintenance on regional rail network including completion of electrification		67.65
Modena Sassuolo railway - removal of the level crossing in via Panni	3.00	5.20
Modena Sassuolo railway - removal of the level crossing 28 in Formigine	7.00	11.10
Parma Suzzara Ferrara railway - electrification of Parma - Poggio Rusco section	40.00	58.00
Removal of the level crossings at Via Tiepolo in Zola Predosa (3.5 mln) and Via per Castelfranco in Bazzano (6.5 mln)	10.00	0.00
Removal of several level crossings	12.00	0.00
Bologna - Portomaggiore line 4) Budrio-Mezzolara section rehabilitation and replacement works for level crossing removal (6 mln)	6.00	6.00
Parma - Suzzara line 6) Removal of the level crossing in Parma-Suzzara line (3 mln)	3.00	4.20

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Parma - Suzzara line 7) Underpass at Guastalla station, removal of the level crossing and PMR upgrade (2.5 mln)	2.50	7.40
Modena - Sassuolo line) Removal of the level crossing at Via Morane in Modena, with underpass (8 mln)	8.00	0.00
Miscellaneous lines 13) Technological upgrade and equipping of SCMT in Modena-Sassuolo and Ferrara-Codigoro line (12 mln)	12.00	12.00
Miscellaneous lines 14) Technological upgrade of regional lines (15 mln)	15.00	0.00
Interventions for the upgrading and safety of regional railway lines and rolling stock		87.95
Miscellaneous lines 5) Removal of 3 level crossings in the Municipality of Reggio Emilia (1 mln)	1.00	1.00
Interventions on the national network (RFI)		
Railway infrastructure upgrading at the Port of Ravenna; Pontremolese line upgrading: doubling Parma Vicofertile section, upgrading Parma station	500.00	500.00
Ravenna-Rimini railway line upgrading		100.00
Investments for the renewal of rail and tramway rolling stock		
Purchase of 6 "ROCK" electric trains with 6 cars	47.00	47.00
Purchase of 3 electric trains		15.00
Technological upgrading of the rolling stock on loan to TPER-Trenitalia		1.00
Investment for the renewal of local public transport bus fleet	271.00	242.22
Investment for the renewal of local public transport bus fleet - funding to cities		384.22
Purchase of trains (plan to be determined) with resources from the PNRR supplementary fund		10.06
Purchase of trains (plan to be determined) with resources from the PNRR supplementary fund		21.42
Renewal of TPI vehicle fleet by road		0.00
Interventions for cycling and sustainable mobility		
VENTO cycle route, 1st priority lot	2.00	0.00
SOLE cycle route, 1st priority lot	7.00	0.00
National cycle route and PNRR funds for the implementation of Sole and Vento cycle routes		18.80
Adriatic cycle route, 1st and 2nd priority lots		7.00
TOTAL	1,131.32	1,797.73

Housing. The investment picture is rounded out with Housing policies, with planned resources of 534.51 million Euro (+ 404.51 million compared to 2021 DEFR). The interventions put in place cover social housing, rehabilitation of public housing, urban redevelopment through social housing and public housing, removal of architectural barriers, the National Innovative Housing Quality Programme (PinQua or Programma innovativo nazionale per la qualità dell'abitare), and the Green and Social Programme.

Table 28

INTERVENTIONS	2021 DEFR (mln Euro)	2023 DEFR (mln Euro)
Social housing	5.00	5.00
ERP public housing recovery	60.00	50.00
PIERS: urban redevelopment through ERS and ERP	65.00	65.00
Interventions for the removal of architectural barriers		16.59
National innovative programme for living quality (P.I.N.Q.U.A.)		274.11
Green and Social Programme: Redevelopment of public housing		123.81
TOTAL	130.00	534.51

1.1.3.5.1 Impacts

From the Study on the impacts resulting from the implementation of the Investment Plan, conducted by Prometeia¹⁷ and covering the period of the current Regional legislative term, 2020-2024, a potentially very interesting development picture emerges.

The impact of Plan expenditures is up from what was reported in 2022 NADEFR due to two factors: first, the increase in Plan resources and second, the more cautious scenario of economic growth for 2022-2024.

To assess in relative terms the Plan effects on the regional economy, a trend scenario was used, that is, a forecast of what the growth path of the Emilia-Romagna economy might be in the absence of the Investment Plan. The trend scenario was therefore the benchmark against which the effects potentially resulting from the implementation of the Plan were assessed. In addition, projected expenditures were deflated to take into account price dynamics for the 2020-2024 period. Monetary aggregates are accordingly expressed in chain-linked volumes with 2015 as a base year.

We used the deflators of gross fixed capital formation and current consumption expenditures of PAs in the benchmark scenario. The deflator forecasts incorporate the effects of the current international situation (war in Ukraine, lockdown in China, difficulties in sea shipping, etc.) and thus the results of the impact analysis include the effects of a significant price increase, which largely absorbs the Plan's increased financial resources.

Table 29 shows the effects of Plan expenditures in absolute terms (millions of € at chain-linked volumes with 2015 as a base year and thousands of work units) and in relative terms. Taking into account direct and indirect effects, the 15.9 billion Euro in Plan expenditures result in an increase in output of 24.3 billion Euro with an expenditure multiplier of 153%. If induced effects (consumption multiplier) are also considered, the increase in output reaches 36.6 billion Euro and the expenditure multiplier 231%. Expenditure multipliers are relatively high because, as already reported, there is a high demand aimed at the construction and public works sector, which is met almost completely by regional production.

¹⁷ "The economic impact of the Emilia-Romagna Region's 2020-2024 Investment Plan", Prometeia, 1st June 2022.

THE 2020-2024 INVESTMENT PLAN: IMPACT ANALYSIS

	Initial effects	Direct and indirect effects	Direct, indirect and induced eff.
Absolute values			
Gross fixed capital formation	14,741		
Final consumption expenditure of PA	1,152		
Household consumption (induced)	-	-	10,896
Production	11,917	24,340	36,646
Added value	4,808	10,218	16,775
Work units (000)	78.8	156.8	248.5
Effect / expenditure multipliers			
Production (%)	75.0%	153.1%	230.6%
Added value (%)	30.3%	64.3%	105.5%
Work units (employed per million €)	5.0	9.9	15.6
% cumulative effect on the base year (2018)			
Production (%)	3.7%	7.6%	11.4%
Added value (%)	3.3%	7.1%	11.6%
Work units (employed per million €)	3.8%	7.5%	11.9%

N.B.: Million € at chain-linked volumes with 2015 as a base year; thousands of work units; % values.

Source: Prometeia, RSUT Emilia-Romagna Model

The impact of the Plan on added value (added value is 45% of production) is smaller but still significant with an expenditure multiplier reaching 106% (considering also induced effects). Finally, the employment impact is 156,800 work units considering direct and indirect effects and 248,500 work units if induced effects are also considered.

The effects of the Plan are particularly intense due to two factors: the high level of committed resources (18 billion Euro or 2.3% of 2020-2024 cumulative regional GDP) and the concentration of expenditures in sectors that have significant production potential in the region (construction, machinery, transportation equipment, etc.).

Table 30 shows the cumulative effects on production¹⁸ for those sectors that show a total impact greater than or equal to the average.

The construction sector has the strongest impact from the Plan, due to the fact that 10.5 billion Euro of spending (58.3% of the total) was attributed to Construction and Civil Building Works. In construction, the initial impact of the Plan would lead to a cumulative production increase of 46.3% of 2018 production levels (Tab. 30). When indirect activation effects are also taken into account, the impact on the construction sector reaches 63.4% compared to the starting levels. The induced effects from the increase in household consumption are of marginal significance because the sector is poorly activated by consumption (repair work, etc.).¹⁹

¹⁸ Given the linear nature of the IO model, the sectoral ranking referring to added value and work units deviates only marginally from that referring to production.

¹⁹ In the national accounts, the construction of new residential housing is recorded in investment, not consumption.

Table 30

THE 2020-2024 INVESTMENT PLAN: % CUMULATIVE EFFECTS ON THE BASE YEAR (2018)

Activity branches (NACE)	Initial effects	Direct and indirect eff.	Direct, indir., and induced effects
	Production		
Construction	46.3%	63.4%	64.9%
Activities of architectural and engineering firms; Technical testing and analysis	11.7%	19.4%	22.3%
Scientific Research and Development	4.9%	15.1%	15.7%
Legal and accounting activities; central headquarters activities; management advice	0.7%	10.7%	14.3%
Other professional, scientific and technical activities; veterinary s.	1.0%	10.0%	14.0%
Programming, IT consultancy and related activities; information service activities	4.6%	11.3%	13.8%
Manufacture of other means of transport	6.6%	12.1%	13.6%
Storage and other activities supporting transport	4.2%	9.2%	13.1%
Rental and leasing activities	1.3%	9.2%	12.7%
Investigation and security services; service activities for buildings and the land; administrative and support activities for office functions and other business support services	0.3%	8.7%	12.5%
Insurance, reinsurance and pension fund, excluding compulsory social insurance	0.1%	3.3%	12.2%
Real estate activities	1.0%	2.6%	12.2%
Wood industry and cork and wooden products, excluding furniture; manufacture of items in straw and woven material	1.3%	9.1%	12.0%
Repair and installation of machinery and equipment	3.6%	10.6%	11.9%
Activities of households and cohabitations as employers for domestic staff; production of differentiated goods and services for use by households and cohabitations	0.0%	0.0%	11.7%
Accommodation services; Food services activities	0.1%	2.0%	11.7%
Manufacture of motor vehicles, trailers and semi-trailers	4.1%	9.1%	11.6%
TOTAL	3.7%	7.6%	11.4%

N.B.: Values in %.

Source: Prometeia, RSUT Emilia-Romagna Model

In order of importance, the second sector is the Activities of architectural and engineering firms; Technical testing and analysis which is activated directly by the Plan's expenditures related to Construction and Civil Building Works and indirectly by enterprises operating in construction and other sectors and purchasing technical services. The initial effect is already significant (11.7% of the 2018 base level), and the direct and indirect effect reaches 19.4%. The induced effects are modest for the reasons stated above.

Other sectors (Scientific Research and Development, Programming, etc., Manufacture of other transport equipment, Repair and installation of machinery and equipment, Manufacture of motor vehicles, etc.) have a similar distribution of Plan effects as Architectural and Engineering Firm Activities, i.e. significant initial effects (ranging from 3% to 6%), significant direct and indirect effects (ranging from 9% to 16%), and modest induced effects due to the low activation of household consumption.

All the sectors analysed so far show a similar structure with regard to the impact of the Plan: significant initial activation by the Plan, strong direct and indirect effects from integration with other sectors, and relatively modest induced effects since the production of these sectors is only marginally absorbed by household consumption.

A second group of sectors (Legal and accounting activities, etc.; Other professional, scientific and technical activities, etc.; Rental and leasing activities; Investigation and security services, etc.) record a different situation in that they have quite modest initial effects (around 1%), robust direct and indirect effects (between 9% and 12%) from purchases by other firms, and significant but less relevant induced effects.

The third group of sectors (Insurance, etc.; Real estate activities; Wood industry, etc.; Activities of households and cohabitations as employers for domestic staff, etc.; Accommodation services; Food services activities) is characterised by the significance of induced effects as it is mainly activated by household demand.

The distribution of the effects of the Plan on the sectors that are most activated shows that the Plan impacts not only the sectors to which the initial expenditure is directed, but also the regional production system through inter-firm exchanges (direct and indirect effects) and through the induced increase in household consumption.

1.1.4 Regional economic scenario

The labour market



In 2021, employment resumed growing after a sharp contraction in 2020 as a result of measures imposed to control the pandemic.

The dynamics of the regional labour market during 2021 were characterised by a strong decline in employment in the first quarter, which was followed by a sharp recovery in the next quarter that consolidated in the second half of the year.

In the annual average, in Emilia-Romagna there is an increase in the number of employed people of 12 thousand over 2020 (+0.6%), accompanied by a significant reduction in the number of unemployed people, 9 thousand less (-7.3%) and a substantial stability in the number of inactive people. The employment recovery has not allowed to go back to the pre-pandemic level: compared to 2019, 47.6 thousand employed people are still missing (-2.3%).

Employment growth has been concentrated in the industry sector: +2.1% in industry in the strict sense and +11.8% in construction, supported by tax incentives.

The categories of workers that suffered the most during the first year of the pandemic are also those recovering less: employed women increased less than men (+0.2% vs. +0.9%), the self-employed continued to decline (-2.1%) as did employed young people between the ages of 15 and 24 (-4.7%).

The regional employment rate in 2021 rises again to 68.5%, 0.3 percentage points higher than the previous year but still far from pre-pandemic levels (-2.2 points from 2019). At national level, Emilia-Romagna is confirmed in second place, after Trentino-Alto Adige (69%). The recovery is more pronounced for male employment: the employment rate for men stands at 75.3%, up 0.5 percentage points from 2020 and still 1.3 points below the 2019 figure, while the employment rate for women stands at 61.6%, just 0.1 percentage points higher than in 2020 and still 2.5 percentage points below the 2019 figure. As a result, the gender gap against women increases to 13.7 percentage points (it was 12.5 in 2019 and 13.4 in 2020).

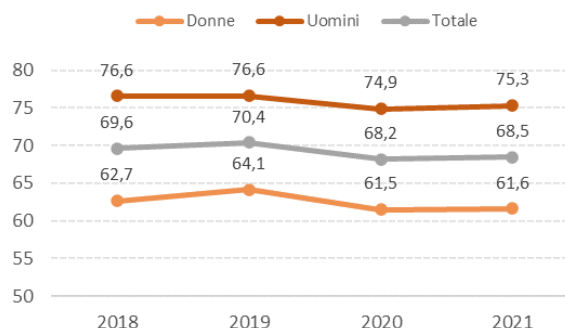
The increase in the gender gap is also confirmed by the trend in the unemployment rate, which falls to 5.5% in 2021 (0.4 percentage points lower than in 2020), thanks to the contraction of the male component alone. In fact, the unemployment rate for men decreases by one percentage point to 4% (-0.7 percentage points compared to 2019), while the unemployment rate for women increases by 0.2 percentage points to 7.2% (+0.6 percentage points compared to 2019).

Table 31 Employed people by category of workers - E-R 2021/2020 variations

	a. v. (thousands)	%
Self-employed	-9	-2.1
Subordinate	+21	+1.4
Permanent	+6	+0.5
Fixed-term	+15	+6.4
Women	+2	+0.2
Men	+10	+0.9
15-24 years of age	-4	-4.7

Source: Istat

Fig. 7 E-R Employment rate trend 15-64 years of age (%)



Source: Istat

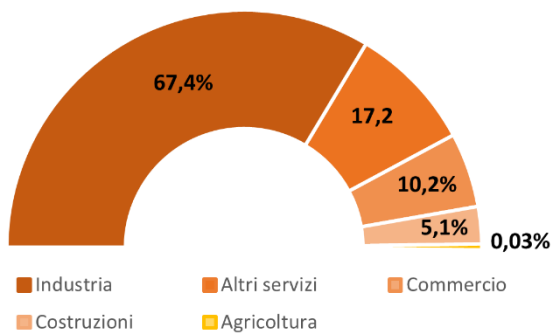
Social safety nets



During 2021, in Emilia-Romagna a total of 134 million hours of wage guarantee fund payments were authorised: 83.53 million hours of ordinary wages guarantee fund, 8.23 million hours of extraordinary interventions and 42.25 million hours of derogatory wages guarantee fund. The total hours are significantly lower (-54.5%) than the amount authorised during the first year of the pandemic, although still higher than the ones recorded in 2010.

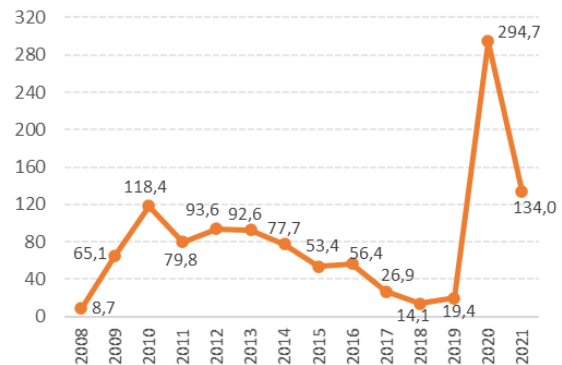
March was the month being affected the most by employment support measures, accounting for 27.1% of the total hours authorised in 2021, followed by June, with 21.5%.

Fig. 9 Total hours of Wage guarantee fund by sector - E-R (Jan-Mar 2022)



Source: INPS

Fig. 8 Wage guarantee fund - E-R (total hours authorised in millions)



Source: INPS

In the first three months of 2022, the authorised hours of wage guarantee fund payments totalled 8.5 million, 84.1% less than in the same period of 2021.

Industry continues to be the sector with the largest number of total hours authorised (5.75 million), followed at a considerable distance by the service sector (870 thousand from trade and 1.47 million from other services) and construction (438 thousand). With 2.3 thousand hours authorised, the small weight of agriculture in the total number of hours (0.03%) is further reduced.

Compared with the same period in 2021, agriculture and services show the largest declines in authorised hours of wage guarantee fund, -97.9% and -87.6%, respectively (-88.9% for trade and -86.6% for other services).

In industry the decrease is 82.2% and in construction 82.8%.

Active undertakings

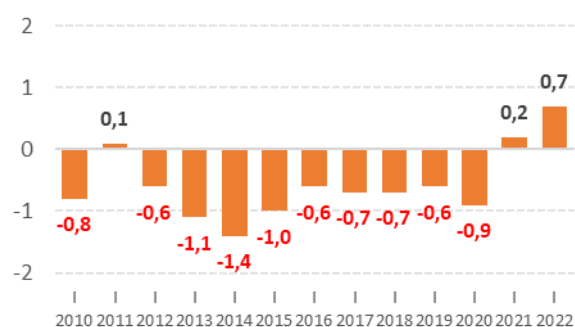


As at 31 March 2022, the number of active undertakings in Emilia-Romagna was 400,106, with an increase of 2,846 units (+0.7%) compared to the same period of the previous year, when the negative trend that had characterised the previous nine years was stopped.

The trend is differentiated by macro-sector of activity. The regional entrepreneurial base decreased again in agriculture (-1.5%) and in industry (-0.4%), which however continued to record a significant deceleration of the negative trend. The overall positive momentum came from the marked strengthening of growth in construction (+3.5%) and services (+0.8%). The result for the service sector is a synthesis of the slight contraction of undertakings active in trade (-0.3%) and accelerating growth in other services (+1.4%), which show an increase almost double compared to the one of the same quarter in 2021.

Data on the flow of registered businesses in the first quarter of the year showed a slight increase in registrations, compared to the same period in 2021, and a much larger increase in terminations. This results in a negative balance, which is typical for the first quarter, but almost double compared to the one recorded in the first three months of last year.

Fig. 10 Evolution in the number of active undertakings in E-R trend changes in the first quarter (%)



Source: Infocamere

Table 32 Active undertakings in Emilia-Romagna (1st quarter 2022)

Macro-sectors	Num.	% Var. Q1 2022/Q1 2021
Agriculture	53,381	-1.5
Industry	43,373	-0.4
Construction	67,316	3.1
Services	236,036	0.8
Trade	87,037	-0.3
Other services	148,999	1.4
Total	400,106	0.7

Source: Infocamere

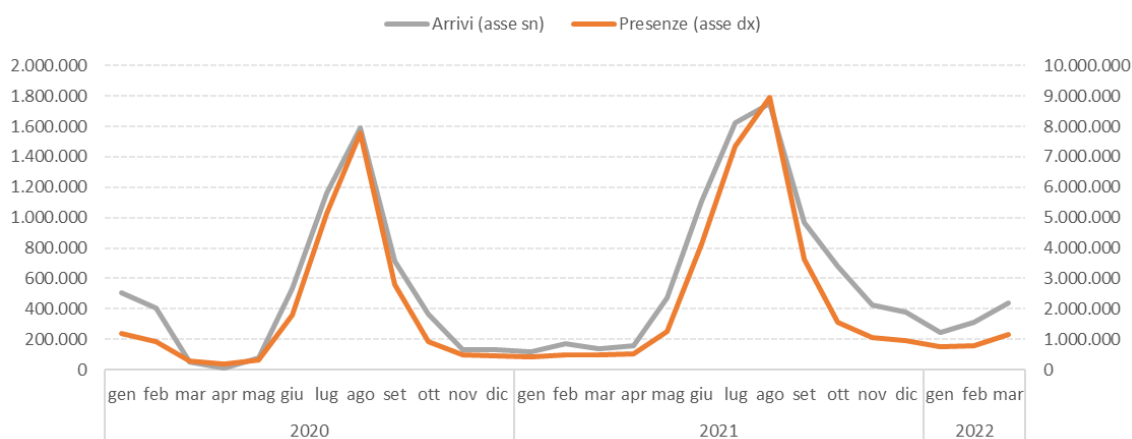


In 2021, regional tourism rebounded sharply from the previous year, although it did not recover to 2019 levels. Overall, the year ended with more than 8 million arrivals and 30.8 million visitors, representing a growth by 41.1% and 38.6% over 2020, respectively, but still down 31% and 23.6% from pre-pandemic levels.

Excluding January and February, not affected by the emergency in 2020, which showed lower values even than the previous year, all the remaining months of 2021 showed extremely higher levels of arrivals and visitors than in 2020, albeit lower than in 2019. March and April were the months with the worst performance compared to 2019: -79% of arrivals and -65% of visitors in March, -84.6% of arrivals and -79.3% of visitors in April. In contrast, in the summer months, tourist movement in the region was back close to pre-pandemic values. Specifically, in August 2021, with more than 1.75 million arrivals and nearly 9 million visitors, the difference, compared to 2019, was reduced to just 3.1% for arrivals and 3.8% for visitors.

The first quarter of 2022 was at significantly higher levels than in 2021 (+135.2% of arrivals and +89.5% of visitors) and also reduced the still significant distance from 2019 (-36.1% of arrivals and -22.9% of visitors).

Fig. 11 Arrivals and visitors in Emilia-Romagna (From January 2020 to March 2022)



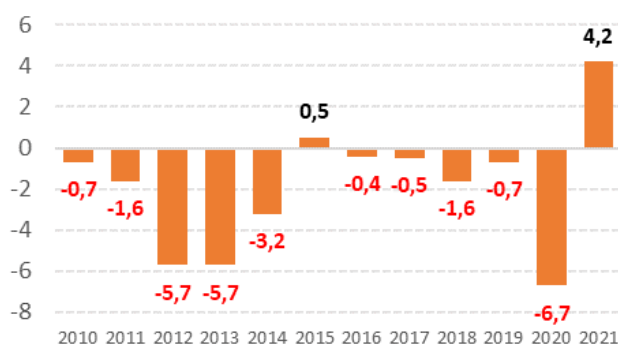
Source: RER (2022 provisional data)



The economic survey on retail trade, carried out by the Chambers of Commerce and Unioncamere Emilia-Romagna, in 2021 showed a strong recovery in sales at current prices of 4.2% for the retail businesses steadily based in the region. While this was the largest growth recorded since the survey began, it did not allow it to catch up with 2019 levels.

The pandemic has accelerated some ongoing dynamics in the industry and in consumer behaviour. Non-food speciality, the segment most affected by the restrictions imposed to counter the health emergency, performed the best in 2021, with a 6.5% increase over 2020, still not enough to bring sales back to pre-pandemic levels (-6.8% over 2019). In contrast, sales of food speciality retailers declined slightly by another 0.6%. Hypermarkets, supermarkets, and department stores, which had benefited from the difficult contingency in 2020, recorded a new, albeit more modest, sales increase of 1.1%, bringing growth over 2019 to 8.6%.

Fig. 12 Retail trade trends in Emilia-Romagna
trend changes in sales (%)



Source: Unioncamere E-R

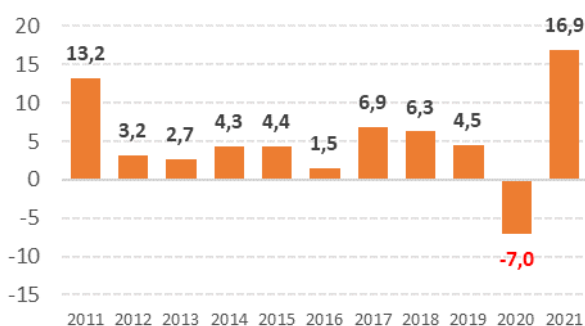


The year 2021 recorded a strong rebound in regional exports, +16.9% over 2020, allowing to exceed the pre-pandemic value of foreign sales (+8.7% over 2019). At the national level, growth was even stronger than in 2020 (+18.2%) but lower than in 2019 (+7.5%), due to less resilience of domestic exports during the first year of the pandemic.

With an export value of just over 72 billion Euro, corresponding to 14% of Italian exports, Emilia-Romagna is confirmed as the second exporting region, after Lombardy and ahead of Veneto and Piedmont. Compared with the main exporting regions, Emilia-Romagna has shown good resilience and recovery capacity in the period of crisis in global markets; comparing export changes between 2019 and 2021, Lombardy (+6.6%), Piedmont (+5.7%) and Veneto (+7.8%) underperformed compared to Emilia-Romagna (+8.7%), while Tuscany showed better performance (+10.4%).

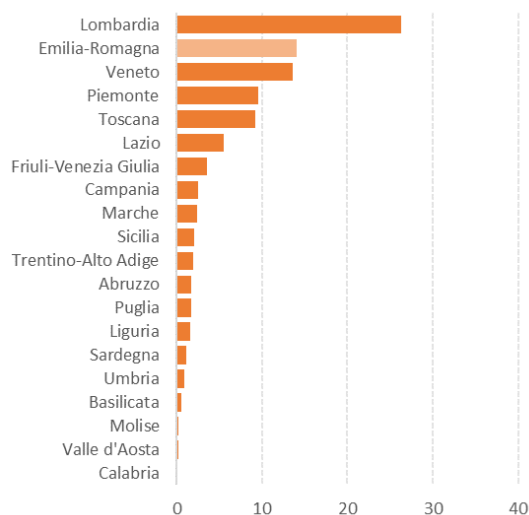
The recovery is the result of the performance of strategic macro-sectors of regional exports: the machinery and mechanical equipment sector, which accounts for more than a quarter of regional foreign sales, recorded an increase of nearly 2.5 billion Euro over 2020, or +14.8%;

Fig. 13 Emilia-Romagna export evolution trend changes (%)



Source: Istat

Fig. 14 2021 exports share on Italy's total (%)



Source: Istat

another important contribution came from the transportation equipment sector, up more than 1.3 billion Euro (+18.4%). Strong growth also came from the metallurgy and metal products industry, whose foreign sales grew, again, by 1.3 billion Euro (the percentage recovery was the strongest of all the manufacturing sector: +30.5%). Exports also grew by 15.6% year-on-year in the food, beverages and tobacco sector, whose exports increased by nearly 1.2 billion. Also remarkable, both in absolute value and in percentage terms, was the performance of another key sector of the regional economy, the processing of non-metallic minerals, namely ceramics and glass, which was positive by nearly 1 billion Euro compared to 2020 (+16.6%). On the other hand, the growth of the textile and fashion sector was smaller (+200 million Euro or +3.7%).

All other manufacturing macro-sectors, whose weight in regional exports is less decisive than those just examined, showed positive changes, even with significant percentages, with the

exception of the sector related to computers, electronic and optical equipment, down 1.3% (or about 20 million Euro).

In terms of outlet markets, there was a strong expansion of exports to America (+28.8%), while sales growth to European countries and Asia is lower than average (+14.7% and +15.4%, respectively). Germany (with exports amounting to nearly 9.4 billion Euro; +19.2% over 2020), the United States (8 billion Euro; +33.3%) and France (7.7 billion Euro; +16.8%) are confirmed as Emilia-Romagna's main foreign partners, accounting, overall, for more than a third of regional exports. Sales destined for the UK, down 20.3%, bucked the trend.

Consumer prices



After a 2020 marked by a decrease in consumer prices on an annual average, the third recorded since 1954, since the historical series of the NIC index (the index of prices for the entire national collectivity) has been available, during 2021 inflation instead strongly increased, both in Emilia-Romagna (+2.0%) and in Italy (+1.9%), reaching the highest values since 2012 (when +2.9% was recorded for Emilia-Romagna and +3.0% nationally).

It is the energy bill that is pushing up inflation.

On both regional and national scales, comparison of the annual average of consumer price indexes in 2021 and 2020 shows, in particular, price increases in the housing/energy (electricity/gas) and transportation (fuels) divisions.

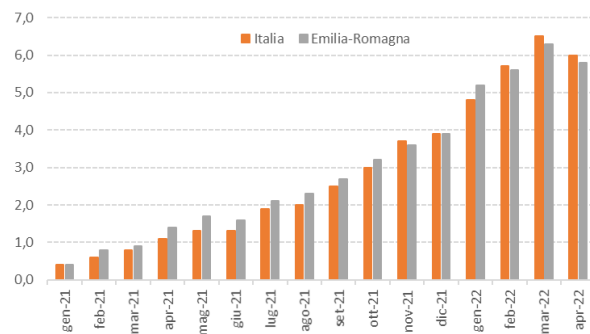
Rising energy commodity prices have a cascading effect on many other economic sectors.

However, the spending divisions showing decreases are communications (-5.3% in Emilia-Romagna, -4.9% in Italy) and education (-2% in Emilia-Romagna, -3% in Italy). Price indexes for the following expenditure divisions, however, turn out to be on the rise: housing, water, electricity, gas and other fuels (+7.1% in Emilia-Romagna and +7.0% in Italy; the previous year this division recorded -3.3% both in the region and nationally); transportation (+4.4% in Emilia-Romagna, +4.9% in Italy; in 2020 the changes in this division were -2.1% and -2.3%, respectively); accommodation and food services (+2.1% in Emilia-Romagna, +1.8% in Italy); other goods and services (+2% in Emilia-Romagna, +1% in Italy); health services and expenditures (+1.4% in Emilia-Romagna, +1% in Italy).

The other expenditure divisions, although increasing, still show small changes, ranging between +0.1% and +0.7% for the region and between +0.4% and +0.9% nationwide.

The first quarter of 2022, also due to the Ukrainian geopolitical crisis, was characterised by a further surge in the price index on a trend basis (ratio to index for the same month of the previous year), with January recording +5.2% for Emilia-Romagna, February coming in at +5.6% and March reaching +6.3%, the highest change since 2000. It is again the energy and transportation sectors that pushed the index to such high levels (in March, the "Housing, water, electricity, gas and other fuels" division recorded +27.5% and the "transportation" division +10%). National inflationary

Fig. 15 Consumer price index in Emilia-Romagna monthly trend changes (%)



Source: RER processing on Istat data

dynamics indicate trend changes a few tenths of a percentage point higher than regional ones for both February and March (+5.7% and +6.5%, respectively).

The April figure shows a marked slowdown in inflation both for Emilia-Romagna (with the trend rate at +5.8%) and nationally (+6% year-on-year). The cyclical rate marks -0.1% for Italy, while it is 0% for Emilia-Romagna. The slowdown in inflation on a trend basis is mainly due to the prices of energy goods, the growth of which dropped from +51% in March to +40.5% for Emilia-Romagna and from +50.9% to +39.5% for the entire country.

Students



In the school year 2021/22, there are about 544.7 thousand students enrolled in state schools in Emilia-Romagna, in just over 25 thousand classes. The enrolments are distributed as follows for the different school levels: 47.8 thousand in pre-school, 176.7 thousand in primary schools, 119 thousand in middle schools and 201.2 thousand in high schools. Students with disabilities number just under 20 thousand (3.7% of the total) and account for 2.1% of those attending kindergarten, 4.2% in primary school, 4.3% in middle school, and 3.3% in high school.

Foreign students are 18% of the total (estimated figure). Their presence is higher in kindergarten, where it exceeds 29%, and in the first cycle of education (primary and middle schools), with 20.6% of those attending, while the percentage drops to 11.4% in high schools.

The students of state-recognised schools in Emilia-Romagna are just under 70.3 thousand (s. y. 2020/21) and are mostly concentrated in kindergarten (69.2%).

In terms of choice of study path, 44.1% of total high school students attend "liceo" or classical type high schools, 35.6% attend technical schools and 20.3% attend vocational schools. Early data on new online enrolments for the 2022/2023 school year show that "liceo" or classical type high schools were chosen by 47.9% of new enrollees, technical schools by 36.3%, and vocational schools by 15.9%.

A total of 162.5 thousand students are enrolled at the four universities in Emilia-Romagna (a. y. 2020/21), of whom nearly 91.9 thousand are women (56.5%). The number of young people who enrolled for the first time in universities in the region (registered) in the academic year 2021/22 is just under 32.5 thousand (provisional figure). Women account for 56.7% of the registered students.

Table 33 State schools in Emilia-Romagna (school year 2021/2022)

School level	Students	Classes
Kindergarten	47,784	2,198
Primary schools	176,719	8,790
Middle schools	119,012	5,355
High schools	201,160	8,684
Total	544,675	25,027

Source: Miur (Ministry of Education, University and Research)



A recovery in life expectancy at birth is observed in 2021 compared with 2020, reflecting the lower negative impact of the pandemic on mortality recorded in the year. The regional-level estimate shows a 0.4-year increase (about 5 months) for life expectancy referring to the population as a whole (6 months for men and about 4 for women), compared with the 13-month loss recorded in 2020 compared with 2019 (17 months less for men and 11 for women).

Table 34 Life expectancy at birth in E-R (estimated for 2021 and 2021/2020 var.)

	2021	Abs. var.
Total	82.9	0.4
Men	80.8	0.5
Women	85.1	0.3

Source: Istat

An excess mortality rate persists in 2021 (estimated by Istat assuming constant death risks equal to those observed in 2019), albeit in sharp decline: the estimate referring to 2021 is +8.7% at the regional level, compared with +14.3% estimated with reference to 2020. The persistence of this excess mortality rate does not allow the level of life expectancy to recover to the values of the pre-Covid period (in 2019 it was 83.6 years, 81.7 for men and 85.7 for women) although recovery is evident. At the provincial level, the greatest recoveries are observed in the areas where the loss had been the greatest in 2020: in Piacenza, the recovery is 35 months for men and 28 months for women against a loss in 2020 of 44 months and 32 months, respectively; in Parma, the recovery is 29 months for men and 12 months for women (against losses of 34 and 18 months, respectively, in 2020). The dynamics in the provinces of Ferrara, Ravenna and Forlì-Cesena are different, with the smallest declines in life expectancy referring to the total population in 2020 but showing a further loss in 2021 referring to both men and women.



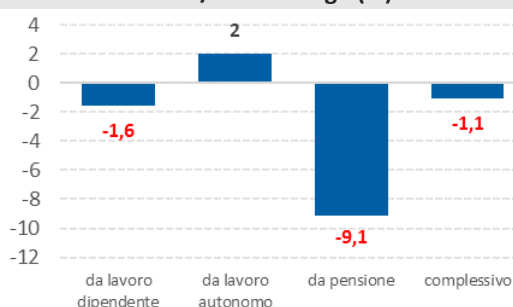
The Finance Department of the Ministry of Economy and Finance (MEF) recently released data on income tax returns for Irpef purposes filed in 2021 by Italian citizens and covering the 2020 tax year.

The total income declared for Irpef purposes by people in Emilia-Romagna amounts to about 78.4 billion Euro or an average value of about 23,680 Euro, which is more than 2,100 Euro higher than the average income declared in Italy. Emilia-Romagna is confirmed in third place among Italian regions for the highest total average income, after Lombardy (25,330 Euro)

and the autonomous province of Bolzano (24,770 Euro). Compared to 2019, the average income declared in 2020 in Emilia-Romagna suffers a decline of 1.1%, in line with the reduction recorded nationwide.

As for the main types of income reported, most of total income stems from employment (53.6%) and pensions (30%), while only 3% of taxpayers report income from self-employment. The average income from employment is about 22,300 Euro, the one from

Fig. 16 Average income for some types in E-R 2020/2019 change (%)



Source: RER processing on MEF data

pension is about 19,560 Euro and that from self-employment, which is the highest, reaches an average of 57,600 Euro. Compared to 2019, in Emilia-Romagna, in 2020, the income of employees decreased by 1.6%, from 22,660 to 22,300 Euro, while that of the self-employed declined by 9.1% (with an average loss of almost 6 thousand Euro). In contrast, the average income of retired people showed an increase of 2%. The decline in employee income has been slightly curbed by the major labour support measures decided by the government to stem the crisis, such as the extension of the Wage Guarantee Fund and the freeze on lay-offs.

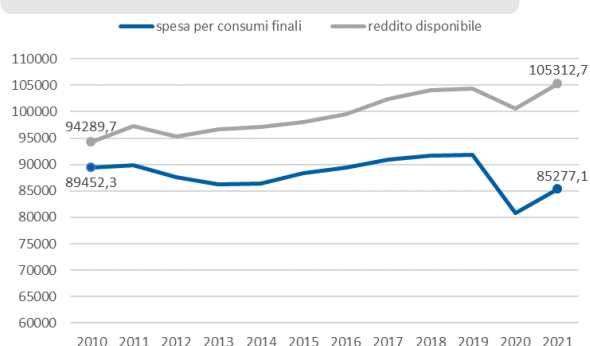
The economic crisis related to the health emergency has also increased inequalities in income distribution. In Emilia-Romagna, in 2020, the share of taxpayers remaining under 10 thousand Euro in total income increased by almost one percentage point compared to 2019 (from 23.7% to 24.5%), while taxpayers in the income classes between 20 thousand and 50 thousand Euro decreased by 2.4%.

To get a timely picture of the dynamics of household income and spending in the second year of the pandemic, national accounts data can be analysed.

For Emilia-Romagna, Prometeia's April estimates indicate a recovery, in real terms, equal to 5.5% in household final consumption expenditure in 2021, compared to the previous year, in which a 12% drop was recorded.

Disposable income is also expected to show positive dynamics, with an estimated growth of 4.7% over 2020.

Fig. 17 Final consumption expenditure and income available to households - E-R



Source: Prometeia - Scenari per le economie locali (Scenarios for local economies), April 2022



In 2021, handling in the Port of Ravenna set an all-time record, with a 20.9% increase over 2020, allowing it to not only recover but exceed pre-pandemic levels (+3.2% over 2019).

In the first two months of 2022, the freight transited totalled 4,332,094 tonnes, up 17.2% over the same period last year and 11.9% over 2019, thus consolidating the excellent result of 2021.

As for air transport, after a 2020 marked by unprecedented declines in flights and passengers, 2021 showed signs of recovery starting in May, albeit partial. Bologna Airport recorded a total of 4.1 million passengers carried, up 63.7% over 2020 but still down 56.4% over 2019, the last year not being affected by the pandemic. These are air traffic levels comparable to those in 2006.

The recovery appeared most decisive for the cargo sector, which, with nearly 39 thousand tonnes of air freight transported in 2021, grew by 12.1% over 2020 and 2.2% over 2019, bringing Bologna airport to the third place in terms of goods transported (it was fifth in 2019), after Milan Malpensa and Rome Fiumicino.

In the first three months of 2022 the recovery became stronger. Between January and February this year, the total number of passengers carried was 1.27 million, which is 6 times the value recorded in the same period in 2021, when heavy travel restrictions were still in place, but still 35.3% lower than in 2019. 2022 saw a gradual decrease in distance from pre-pandemic volumes: in January, the passengers carried were 316.6 thousand, still down 50.6% from the same month in 2019; in February, they exceeded 394 thousand, 33.1% less than in 2019; and in March, they rose to just under 558 thousand, reducing the decline from 2019 to 23.6%.

Fig. 18 Ravenna Port handling (tonnes)

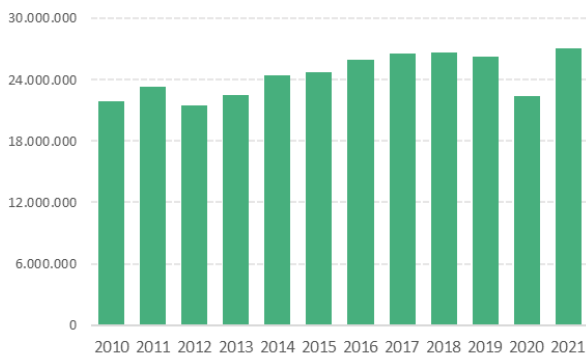
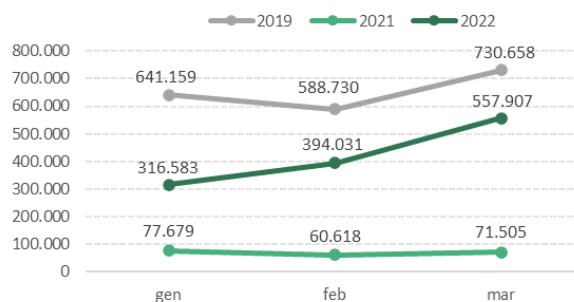


Fig. 19 Passengers of Bologna Airport (commercial tot.) January-March



Source: *Autorità sist. portuale Mare Adriatico centro-settentrionale (Authority of the harbour system for Northern Central Adriatic Sea)*

Source: *Assaeroporti*



Arpae's report, which analyses the values detected by the regional air quality measurement network, shows the 2021 average concentrations for almost all pollutants in line with or slightly lower than those observed over the last five years.

The annual average values of PM10 and PM2.5 are found to be well within the legal limits.

Unfavourable weather conditions in the winter months had an impact on the exceeded daily PM10 limit value (50 µg/m³), but the limit for the annual average is met everywhere.

The daily limit value was exceeded for more than 35 days at 11 of the 43 stations in the regional network; not considering the higher values due to desert dust transport episodes, the stations exceeding the ceiling are actually 9.

The annual average of PM2.5 was everywhere below the limit value (25 µg/m³), with levels in line or slightly lower than in the past five years.

For nitrogen dioxide (NO₂), the annual limit value of 40 µg/m³ was exceeded at one station only (in 2019 it was exceeded at 4 stations while no exceeding value was recorded in 2020, also due to lockdown).

Critical conditions remain with regard to ozone (O₃): the detected concentrations and the number of stations exceeding thresholds continue to fall short of statutory targets. However, in several areas of the region, the number of detected exceeding values is lower than in the past 6 years, and the average number of exceeding values in the past 3 years also shows a decrease from the previous 3-year averages. There were fewer exceeding figures of the information threshold (180 µg/m³) than in previous years, and no stations exceeded the alert threshold (240 µg/m³).

Values of other pollutants (sulphur dioxide, benzene, and carbon monoxide) remained within legal limits at all survey stations.

Table 35 Number of stations that detected exceeding values - E-R

	2017	2018	2019	2020	2021
PM10 daily value	27	7	17	25	11
NO₂ annual average	4	2	4	0	1
O₃ information threshold	27	16	25	18	4

Source: Arpae

1.1.5 Context indicators: (Emilia-Romagna values and positioning vs. Italy)

Institutional area - Context indicators: values for Emilia-Romagna and Italy

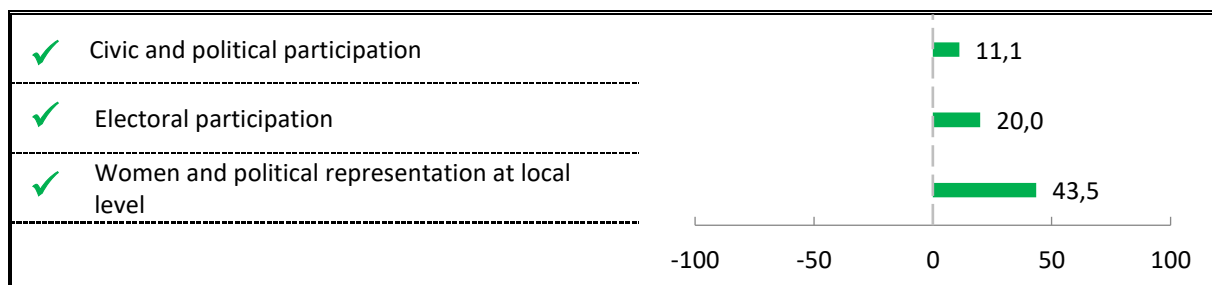
	Indicator	year	E-R	IT
bes	Civic and political participation (% of people aged 14 and over engaging in at least one civic and political participation activity* out of the total number of people aged 14 and over)	2021	72.1	64.9
bes	Electoral participation (% of people who voted in the last European Parliament elections out of the total eligible voters)	2019	67.3	56.1
bes	Women and political representation at local level (% of women elected to regional committees out of the total elected)	2021	32.0	22.3

bes tells that the indicator is among those used by Istat as a measure of Fair and Sustainable Well-being



















points out that the indicator is among those currently identified by Europe 2030 Agenda


*The activities considered are: talking about politics at least once a week; having participated online in consultations or votes on social or political issues at least once in the past 3 months; having read or posted opinions on social or political issues on the internet at least once in the past 3 months.


Institutional area - Context indicators: Emilia-Romagna positioning with respect to Italy (relative deviation in %)



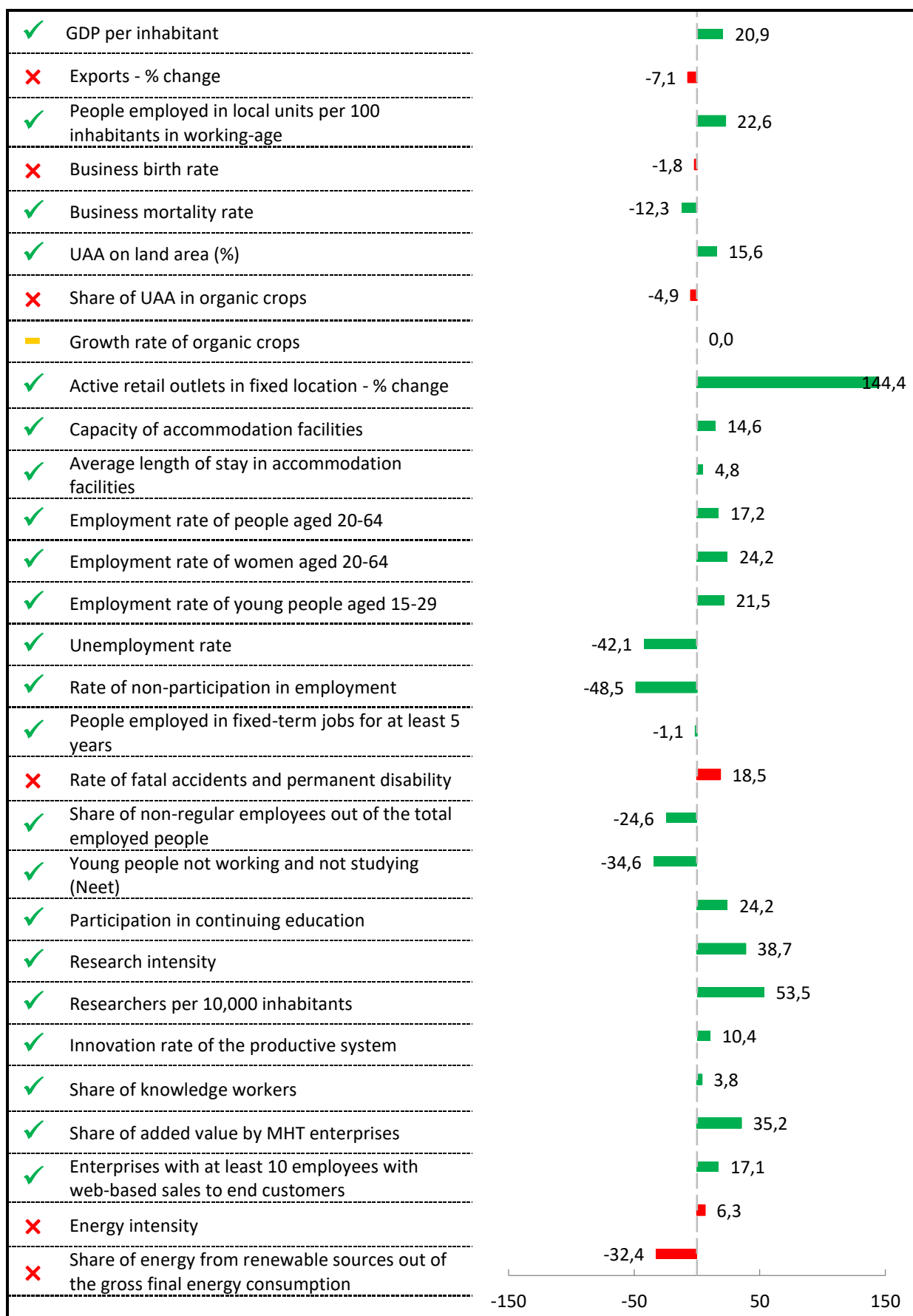
Economic Area - Context indicators: values for Emilia-Romagna and Italy

Indicator	year	E-R	IT
GDP per inhabitant (thousands of Euro - current values)	2020	33.6	27.8
Exports (percentage change compared to the previous year)	2021	16.9	18.2
People employed in local units per working-age population (people employed in local units per 100 residents aged 15-64)	2020	60.8	49.6
Business birth rate (percentage ratio between the number of enterprises created in the year and the total number of enterprises registered in the same year)	2021	5.4	5.5
Business mortality rate (percentage ratio between the number of enterprises closed in the year and the total number of enterprises registered in the same year)	2021	5.0	5.7
UAA over land area (percentage ratio between the utilised agricultural area - UAA - and the land area)	2016	48.2	41.7
 Share of UAA in organic crops (%)	2020	15.6	16.4
 Growth rate of organic crops (percentage change)	2020	5.1	5.1
Active retail outlets in fixed location (percentage change)	2021	0.4	-0.9
Capacity of accommodation facilities (number of beds per 1,000 inhabitants)	2020	99	86.4
Average length of stay in accommodation facilities (ratio between the number of nights spent in accommodation facilities and the number of registered customers in the period)	2020	3.92	3.74
 Employment rate of people aged 20-64	2021	73.5	62.7
Employment rate of women aged 20-64	2021	66.1	53.2
Employment rate of young people aged 15-29	2021	37.8	31.1
 Unemployment rate	2021	5.5	9.5
 Rate of non-participation in employment (% of unemployed aged 15-74 + potential labour force aged 15-74 - not looking for work but willing to work - out of the total labour force aged 15-74 + potential labour force aged 15-74)	2021	10.0	19.4
 Employed in fixed-term jobs for at least 5 years (% of fixed-term employees and collaborators who started their current job at least 5 years ago out of the total)	2021	17.3	17.5
 Rate of fatal accidents and permanent disability (number of fatal accidents and permanent disability over the total of employed people, excluding armed forces, per 10,000)	2019	12.8	10.8
 Share of non-regular employees out of the total employed people (%)	2019	9.5	12.6
 Young people not in employment or education - Neet (% of young people aged 15-29 neither in employment nor in education or training)	2021	15.1	23.1
 Participation in continuing education (% of people aged 25-64 who participated in education and training activities)	2021	12.3	9.9
 Research intensity (% of R&D expenditure on the GDP)	2019	2.08	1.5
 Researchers (in equivalent full-time per 10,000 inhabitants)	2019	41.3	26.9
 Innovation rate of the productive system (% of enterprises that have introduced technological innovations of product and process, organisation and marketing in the three-year period of reference on the total of enterprises with at least 10 employees)	2018	61.4	55.6
 Share of knowledge workers over the people employed (% of employees with university education in science and technology jobs out of the total number of people employed)	2021	18.9	18.2
 Share of added value by MHT enterprises (% of total manufacturing added value)	2018	43.4	32.1
 Enterprises with at least 10 employees with web-based sales to end customers (%)	2021	16.4	14.0
 Energy intensity (ratio between the gross available energy and the gross domestic product - tonnes of oil equivalent TOE per million Euro)	2019	97.3	91.51
 Share of energy from renewable sources out of the gross final energy consumption (%)	2019	12.3	18.2

 tells that the indicator is among those used by Istat as a measure of Fair and Sustainable Well-being


 points out that the indicator is among those currently identified by Europe 2030 Agenda

Context indicators: Emilia-Romagna positioning with respect to Italy (relative deviation in %)




Health and social area - Context indicators: values for Emilia-Romagna and Italy

	Indicator	year	E-R	IT
bes	Life expectancy at birth* (average number of years)	2021	82.9	82.4
bes	Healthy life expectancy at birth* (average number of years)	2021	61.2	60.5
bes	Life expectancy without activity limitations at 65* (average number of years)	2021	9.8	9.7
	Probability of death under 5 years of age* (per 1,000 live births)	2020	3.15	3.30
	Probability of death between 30 and 69 from cancer, diabetes, cardiovascular and respiratory diseases (%)	2018	8.14	8.96
bes	Standardised mortality rate for dementias and diseases of the nervous system (standardised mortality rates within the age group of 65 years and over, per 10,000 residents)	2019	34.6	34.0
	Influenza vaccination coverage for people aged 65+ (%)	2021	70.1	66.5
bes	Overweight (standardised ratio of people aged 18 and over who are overweight or obese out of the total number of people aged 18 and over)	2021	41.6	44.4
	Smoking (standardised ratio of people aged 15 and over who state they are currently smoking out of the total number of people aged 15 and over)	2021	18.5	19.5
bes	Alcohol (standardised ratio of people aged 14 and over who have at least one risk behaviour in alcohol consumption out of the total number of people aged 14 and over)	2021	16.8	14.7
bes	Sedentary lifestyle (standardised ratio of people aged 14 and over who do not engage in any physical activity out of the total number of people aged 14 and over)	2021	24.4	32.5
bes	Adequate nutrition (standardised ratio of people aged 3 and over who consume at least 4 portions of fruit and/or vegetables daily out of the total number of people aged 3 and over)	2021	21.5	17.6
	Beds in ordinary hospitalisation for acute cases (per 1,000 inhabitants)	2019	2.93	2.58
bes	Beds in residential social welfare and social healthcare facilities (per 10,000 inhabitants)	2018	104.4	69.6
bes	Elderly treated in integrated home care (% over the total population aged 65 and over)	2020	3.6	2.8
bes	Physicians (practising physicians per 1,000 inhabitants)	2021	4.4	4.1
bes	Nurses and midwives (practising nurses and midwives per 1,000 inhabitants)	2020	6.8	6.6
bes	Gross disposable income per capita (Euro)	2020	22,139.5	18,804.5
bes	Disposable income inequality index (ratio between the total equivalent income received by 20% of the population with the highest income and that received by 20% with the lowest income)	2019	4.2	5.7
	Relative poverty rate (% of households with average monthly consumption expenditure at or below the poverty line)	2020	5.3	10.1
bes	Severe material deprivation (% of people living in households with at least 4 of the 9 problems considered* out of the total residents)	2020	1.3	5.9
bes	Low work intensity (% of people living in households where people of working age - aged 18-59 excluding students 18-24 - worked for less than 20% of their potential in the previous year)	2020	4.5	11.0
bes	Ratio between the employment rate of women aged 25-49 with pre-school children and women aged 25-49 without children (%)	2021	81.0	73.0
	Anti-violence centres and shelters (rate per 100,000 women aged 14 and over)	2019	3.11	1.98
bes	Physical violence against women (% of women aged 16-70 who experienced physical violence in the last 5 years)	2014	8.2	7.0
bes	Sexual violence against women (% of women aged 16-70 who experienced sexual violence in the last 5 years)	2014	6.7	6.4
bes	Couple violence (% of women aged 16-70 who experienced physical or sexual violence from a partner or ex-partner in the last 5 years)	2014	5.9	4.9
bes	Social participation (% of people aged 14 and over who engaged in at least one social participation activity in the last 12 months)	2021	18.4	14.6
bes	Voluntary activities (% of people aged 14 and over who did free work for voluntary organisations or groups in the last 12 months)	2021	8.8	7.3

	Indicator	year	E-R	IT
bes	Non-profit organisations (share of non-profit organisations per 10,000 inhabitants)	2019	62.5	60.7
bes	Children aged 0-2 enrolled in the nursery school (% out of the total number of children aged 0-2)	2020	31.5	28.0
	Participation rate in educational activities for kids aged 5 (kindergarten and first year of primary school)	2020	94.3	96.3

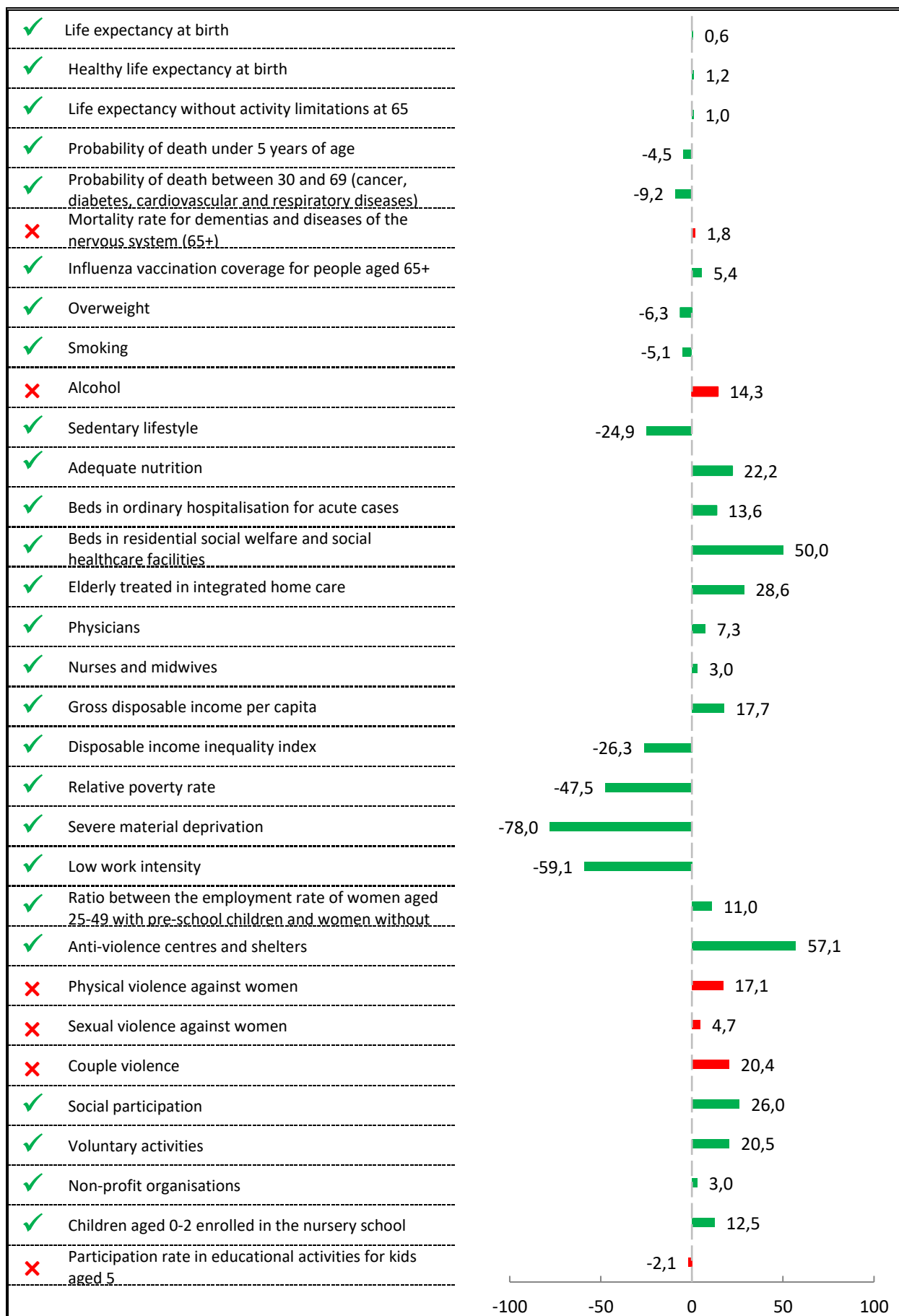
bes tells that the indicator is among those used by Istat as a measure of Fair and Sustainable Well-being

 points out that the indicator is among those currently identified by Istat for Europe 2030 Agenda

*Provisional data

**The problems considered are: not being able to afford unexpected expenses of 800 Euro; not being able to afford a week-long holiday a year away from home; being in arrears on the mortgage, rent, utility bills or other debts such as shopping on instalments; not being able to afford a proper meal every other day; not being able to heat your home adequately; not being able to afford a washing machine, a colour television, a telephone, a car.

Context indicators: Emilia-Romagna positioning with respect to Italy (relative deviation in %)



Cultural area - Context indicators: values for Emilia-Romagna and Italy

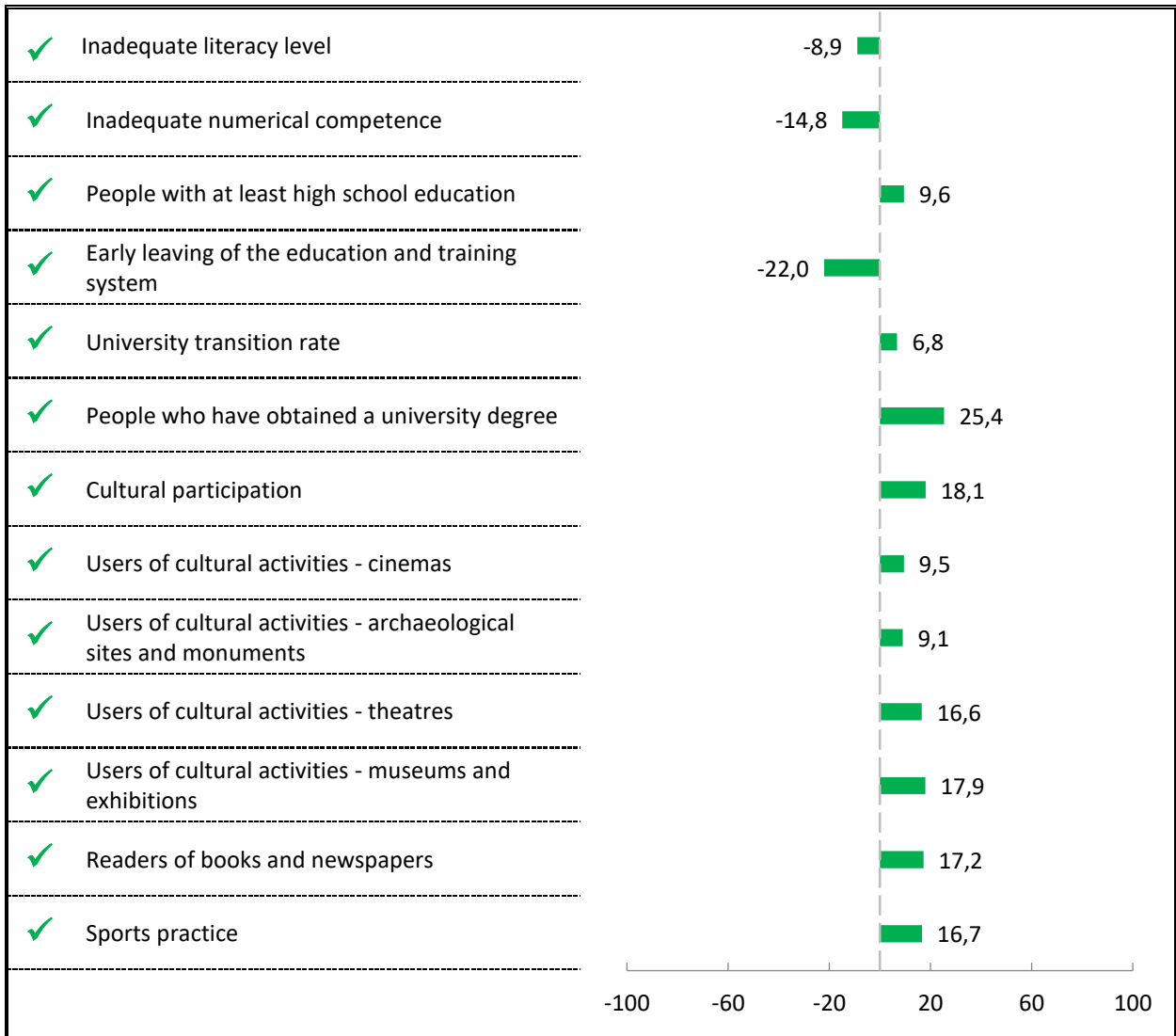
	Indicator	year	E-R	IT
bes	Inadequate literacy level (% of students in class III of middle school who do not reach a sufficient level of literacy)	2021	35.7	39.2
bes	Inadequate numerical competence (% of students in class III of middle school who do not reach a sufficient level of numerical competence)	2021	38.5	45.2
bes	People with at least high school education (% of people aged 25-64 who have completed at least high school)	2021	68.7	62.7
bes	Early leaving of the education and training system (% of people aged 18-24 with only middle school education and not in a training programme)	2021	9.9	12.7
bes	University transition rate (% of new graduates enrolling in university for the first time in the same year as graduation)	2019	54.9	51.4
bes	People who have obtained a university degree (% of people aged 30-34 who have obtained a university degree)	2021	33.6	26.8
bes	Cultural participation (% of people aged 6 and over who engaged in two or more cultural activities in the last 12 months*)	2021	9.8	8.3
	Users of cultural activities - cinemas (% of people aged 6 and over who went to the cinema at least once in the last 12 months)	2020	49.6	45.3
	Users of cultural activities - archaeological sites and monuments (% of people aged 6 and over who visited archaeological sites or monuments at least once in the last 12 months)	2020	27.6	25.3
	Users of cultural activities - theatres (% of people aged 6 and over who went to the theatre at least once in the last 12 months)	2020	18.3	15.7
	Users of cultural activities - museums and exhibitions (% of people aged 6 and over who visited museums and exhibitions at least once in the last 12 months)	2020	32.2	27.3
bes	Readers of books and newspapers (% of people aged 6 and over who read at least 4 books per year and/or newspapers at least three times per week)	2021	42.9	36.6
	Sports practice (% of people aged 3 and over who play sports)	2020	42.7	36.6

bes tells that the indicator is among those used by Istat as a measure of Fair and Sustainable Well-being

points out that the indicator is among those currently identified by Europe 2030 Agenda


*The activities considered are: going to the cinema at least 4 times; going to theatre, museums and/or exhibitions, archaeological sites, monuments, classical music concerts, opera, concerts of other music genres at least once.


Context indicators: Emilia-Romagna positioning with respect to Italy (relative deviation in %)




Territorial area - Context indicators: values for Emilia-Romagna and Italy

	Indicator	year	E-R	IT
bes	Protected areas (% of terrestrial protected areas that are included in the official list of protected areas - EUAP- and in Natura 2000 network)	2017	12.2	21.6
bes	Unauthorised building index (number of unauthorised buildings per 100 buildings authorised by the municipalities)	2021	4.2	15.1
	Fragmentation of natural and agricultural land (share of natural and agricultural land with high/very high fragmentation)	2020	57.2	44.4
bes	Soil sealing by artificial cover (% of soil sealed over the total land area)	2020	8.9	7.1
	Households living in owner-occupied housing (%)	2019	77.7	78.8
bes	Housing cost overload (% of people living in households where the total cost of the house where they live represents more than 40% of their net household income)	2020	5.0	7.2
	People living in houses with structural or moisture problems (% of people living in houses with at least one of the following problems: a) structural problems: roofs, ceilings, floors, etc. b) moisture problems: walls, floors, foundations, etc.)	2019	16.3	14.0
bes	Wastewater treatment (% of pollutant loads entering secondary or advanced systems, in population equivalents, compared to the total urban loads generated)	2015	67.7	59.6
	Efficiency of drinking water distribution networks (% of volume of water supplied to users compared to that supplied to the network)	2018	68.8	58.0
bes	Urban air quality - PM2.5 (% of valid measurements above the WHO health reference value of 10 µg/m ³ out of the total valid measurements of annual average concentrations of PM2.5 for all station types)	2020	89.4	77.4
	Urban green areas rate (% ratio between urban green areas and urbanised areas in the cities)	2020	11.8	8.5
bes	Landfilling of urban waste (% out of the total urban waste collected)	2020	9.2	20.1
	Separate collection of recyclable urban waste (% out of the total urban waste)	2020	72.2	63.0
	Motorway network (km of motorway network per 10,000 cars)	2019	2.0	1.8
	Operational railway network (km of railway network per 100,000 inhabitants)	2019	29.4	28.0
	Students using public transport (% of students under 35 who usually travel to their place of study by public transport only)	2020	27.3	26.8
	People who travel to work by private means (% of people aged 15 and over who usually travel to work by private means only)	2020	78.4	75.0
bes	Satisfaction with mobility services (% of users aged 14 and over who gave a rating of 8 or higher for all means of transport they regularly use - several times a week)	2021	27.9	20.5
	Road accident mortality rate (road accident deaths per 100,000 inhabitants)	2020	4.8	3.9
	Road injury index (% ratio between the total road injuries and the total number of accidents)	2020	129.1	134.6
bes	Homicide rate (number of intentional homicides per 100,000 inhabitants)	2020	0.3	0.5
bes	Home burglary rate (number of home burglaries per 1,000 households)	2021	10.0	7.1
bes	Pickpocketing rate (number of pickpocketing reports per 1,000 inhabitants)	2021	4.3	3.3
bes	Robbery rate (number of robberies per 1,000 inhabitants)	2021	1.3	0.9
	Length of civil proceedings (actual average length in days of proceedings in ordinary courts)	2020	258	419
	Crowding of detention facilities (% of prisoners present in detention facilities out of the total number of available places defined by the regulatory capacity)	2021	108.8	106.5
bes	People with high levels of digital competence (% of people aged 16-74 with advanced skills in all 4 domains identified by the "Digital competence framework"*)	2019	25.0	22.0

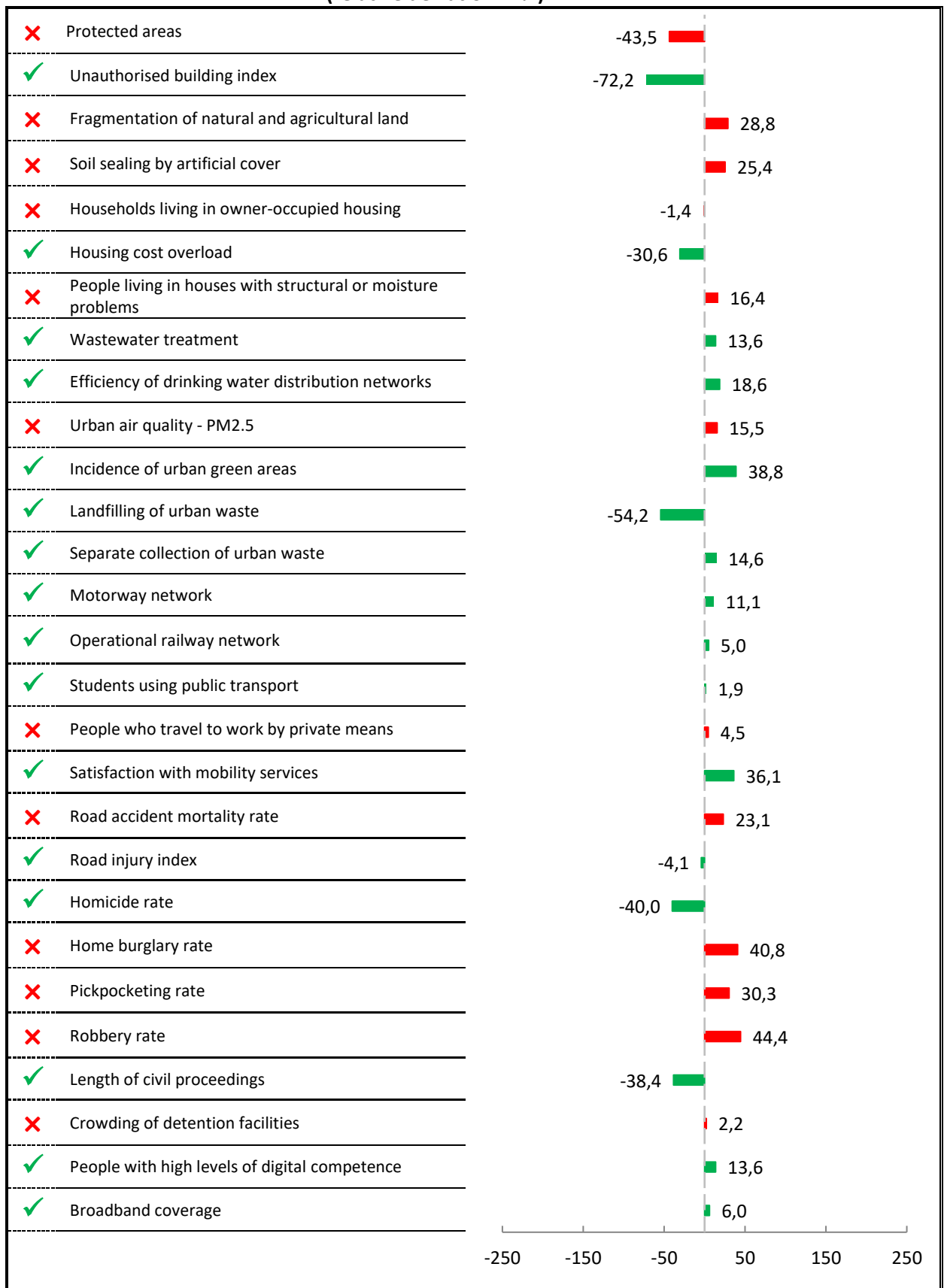
Indicator	year	E-R	IT
 Broadband coverage (% of households with fixed and/or mobile broadband connection)	2020	82.5	77.8

 bes tells that the indicator is among those used by Istat as a measure of Fair and Sustainable Well-being

 points out that the indicator is among those currently identified by Europe 2030 Agenda

*The domains identified are: information, communication, content creation, problem solving

**Territorial area - Context indicators: Emilia-Romagna positioning with respect to Italy
(relative deviation in %)**



1.1.6 Covid-19, estimated differential impact by immigrant status in the Emilia-Romagna Region in terms of incidence, hospitalisations and mortality

In the Emilia-Romagna Region, surveillance of the Coronavirus outbreak (Covid-19) through the use of current data and specific surveillance tools also continued with in-depth risk assessments of particular population groups. This section is a further supplement to what is summarised in the economic scenario from the data on mortality trends, for which we refer to the data on trends in excess and life expectancy rate. Summarised below are the results of some analyses made by the Emilia-Romagna Health and Social Care Agency in relation to differential trends in terms of incidence, hospitalisation - general and ICU - and mortality by immigrant status with a further distinction by level of urbanisation of the municipality of residence. Indeed, it is well known how the Covid-19 pandemic unequally impacted the vulnerable strata of the population, such as immigrants, who were found to be more susceptible to infection and more at risk of infection than natives.

Therefore, through an epidemiological study, it was intended to assess the differential impact of the pandemic among Italian and foreign citizens residing in the Emilia-Romagna Region. The study population included residents aged 0-74 years, in whom cases of infection were detected by molecular swab positivity for Sars-Cov2 during the period between 22 February 2020 and 31 July 2021. Non-Italian citizenship was considered in these analyses as the main exposure variable, while other variables taken into account were age, sex, degree of urbanisation of the area of residence (DEG-URBA), and time, divided into four periods established on the basis of the epidemiological trend of the pandemic. Relative risks were estimated (by means of incidence ratios between rates - IRRs, which express how much the risk for immigrants differs from that for Italians as the value shifts from the unit²⁰, with associated 95% confidence intervals - IC95%) for the main outcomes of Covid-19: infection, hospitalisations, intensive care unit (ICU) admissions, and mortality at 30 days after infection itself. Statistical (interaction) tests were applied in the analysis models to assess whether immigrants' risk levels changed as the degree of urbanisation changed.

Among the 3,888,331 residents in the study, 13.6% had non-Italian citizenship. In the period between February and May 2020, when only severe cases were tested, Italians showed higher risks of infection, hospitalisation, and mortality for both males and females. From June to September 2020, the risk of infection (men IRR 3.28 IC95% 3.06-3.52, women IRR 3.41 IC95% 3.16-3.67) and overall hospitalisation (men IRR 4.63 IC95% 3.66-5.85, women IRR 4.46 IC95% 3.48-5.70) was higher in the foreign population. From October 2020 to January 2021 immigrants continued to show higher risk of overall hospitalisation, but mortality risk was higher only among non-Italian males (IRR 1.49 IC95% 1.01-2.22). From February to July 2021, the risk of hospitalisation among foreigners remained more than 60% (IC95% 1.47-1.75) in men and 89% (IC95% 1.73-2.07) in women; similarly, the risks in the foreign population were higher for hospitalisations in the ICU (men IRR 2.41 IC95% 1.74-3.34, women IRR 1.95 IC95% 1.27-3.00). The interaction was shown to be significant for the incidence of infections and hospitalisations in both the first and last periods analysed, with higher relative risks in moving from more to less densely populated areas.

²⁰ Values above a unit are an indication of higher risk among immigrants; for example: IRR=1.49 would express a 49% higher risk compared to the risk of Italians, which is modelled to be 100%.

In summary, in Emilia-Romagna, foreign residents showed higher risks of hospitalisation and higher Covid-19 mortality among men as of June 2020, so targeted interventions and inclusion strategies to implement access to prevention, primary health care services, and self-care, particularly in less densely populated areas, may be considered useful.

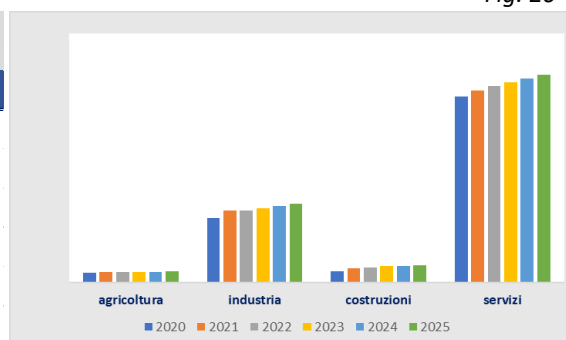
1.1.7 Provincial scenarios

Proceeding to a greater disaggregation on a geographical basis, the following tables and graphs illustrate sectoral value-added by province¹⁹, again showing historical data for 2020 and 2021 and forecasts for 2022, 2023, 2024, and 2025. Also for this section, data, expressed in millions of Euro, are taken from Prometeia's *Scenari per le economie locali* (Scenarios for local economies) (April 2022).

Tab.36

Added value of Piacenza Province					
	agriculture	industry	construction	services	total
2020	270,42	1.803,44	307,08	5.230,93	7.611,87
2021	277,66	2.019,88	384,47	5.398,43	8.080,44
2022	284,94	2.026,15	422,13	5.525,24	8.258,47
2023	290,50	2.087,39	448,68	5.645,39	8.471,97
2024	295,52	2.146,29	464,46	5.746,39	8.652,67
2025	298,26	2.200,03	478,47	5.841,34	8.818,09

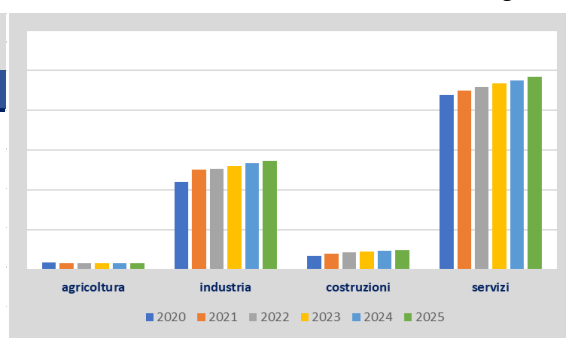
Fig. 20



Tab.37

Added value of Parma Province					
	agriculture	industry	construction	services	total
2020	341,23	4.394,16	688,85	8.733,09	14.157,34
2021	325,46	5.003,54	801,56	8.974,51	15.105,07
2022	321,66	5.045,81	855,16	9.156,27	15.378,90
2023	321,71	5.198,99	898,77	9.335,99	15.755,47
2024	324,10	5.334,84	926,27	9.490,80	16.076,02
2025	325,48	5.453,56	952,55	9.640,08	16.371,67

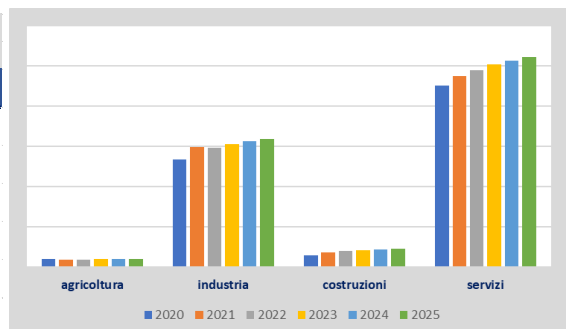
Fig. 21



Tab.38

Added value of Reggio-Emilia Province					
	agriculture	industry	construction	services	total
2020	372,44	5.345,65	565,36	9.013,80	15.297,25
2021	365,47	5.941,97	712,88	9.465,12	16.485,44
2022	366,49	5.925,67	784,88	9.778,23	16.855,27
2023	369,27	6.077,17	835,17	10.040,77	17.322,38
2024	373,41	6.226,62	864,90	10.247,46	17.712,40
2025	375,71	6.364,95	891,13	10.431,27	18.063,07

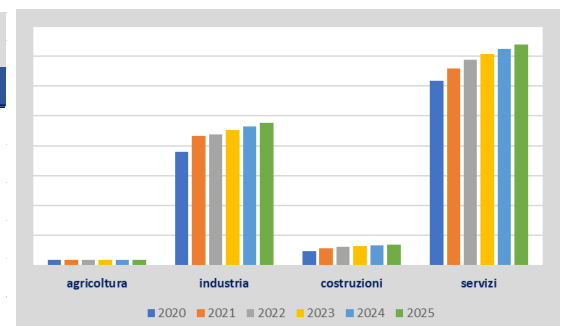
Fig. 22



Tab.39

Added value of Modena Province					
	agriculture	industry	construction	services	total
2020	356,84	7.581,92	964,58	12.365,98	21.269,33
2021	350,33	8.656,34	1.145,68	13.191,22	23.343,57
2022	351,39	8.755,01	1.232,16	13.734,91	24.073,47
2023	354,09	9.045,52	1.299,10	14.160,16	24.858,87
2024	358,09	9.304,01	1.340,50	14.481,64	25.484,24
2025	360,31	9.530,04	1.379,20	14.757,49	26.027,04

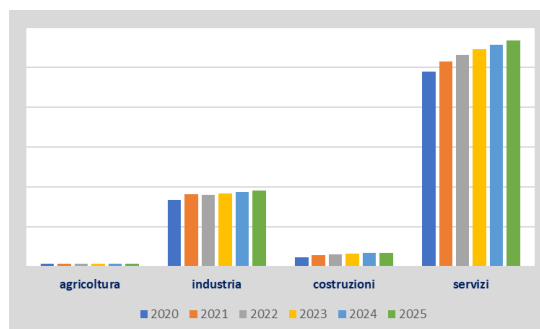
Fig. 23



Tab.40

Added value of Bologna Province					
	agriculture	industry	construction	services	total
2020	351,92	8.306,69	1.179,47	24.424,17	34.262,25
2021	325,36	9.059,69	1.420,07	25.694,96	36.500,08
2022	316,51	8.938,40	1.535,43	26.551,92	37.342,27
2023	314,02	9.110,03	1.622,23	27.260,10	38.306,37
2024	315,05	9.299,32	1.675,30	27.814,79	39.104,46
2025	315,72	9.483,90	1.724,23	28.308,33	39.832,17

Fig. 24



Tab.41

Added value of Ferrara Province					
	agriculture	industry	construction	services	total
2020	400,46	1.576,43	285,54	4.982,48	7.244,90
2021	396,46	1.763,08	361,22	5.170,99	7.691,75
2022	399,36	1.766,46	398,22	5.309,09	7.873,13
2023	403,31	1.818,11	423,95	5.433,90	8.079,27
2024	408,31	1.867,98	439,13	5.536,30	8.251,71
2025	411,08	1.913,58	452,48	5.630,61	8.407,74

Fig. 25

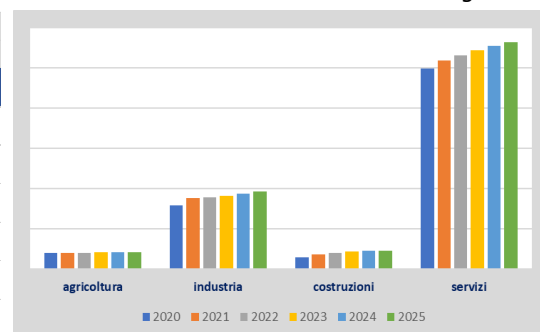
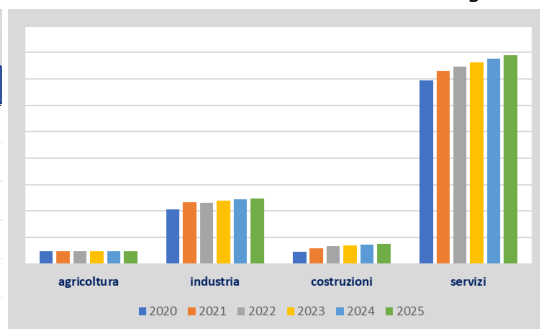


Table 42

Fig. 26

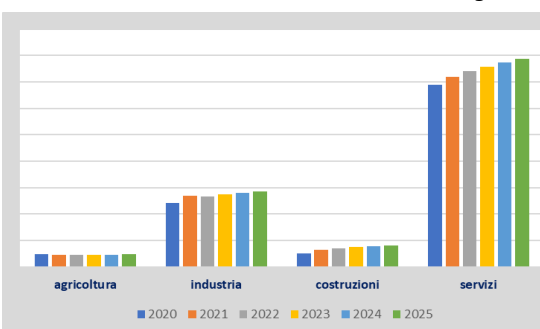
Added value of Ravenna Province					
	agriculture	industry	construction	services	total
2020	477,72	2.060,46	465,54	6.946,98	9.950,69
2021	468,06	2.330,93	602,27	7.300,32	10.701,57
2022	468,99	2.320,75	663,15	7.469,66	10.922,54
2023	472,35	2.376,36	705,65	7.630,60	11.184,97
2024	477,55	2.431,44	730,79	7.765,95	11.405,73
2025	480,45	2.482,57	752,95	7.893,28	11.609,25



Tab.43

Fig. 27

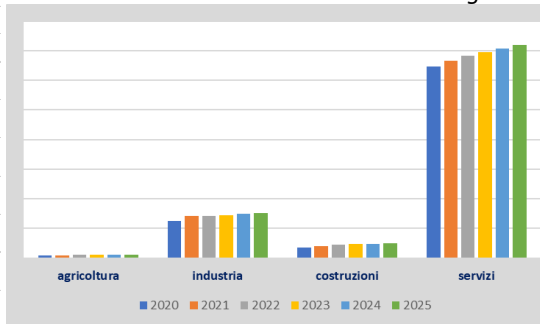
Added value of Forlì-Cesena Province					
	agriculture	industry	construction	services	total
2020	476,35	2.417,23	513,00	6.889,88	10.296,45
2021	461,98	2.678,29	646,26	7.198,09	10.984,62
2022	460,50	2.666,87	711,29	7.400,85	11.239,51
2023	462,58	2.733,19	756,75	7.580,06	11.532,57
2024	467,04	2.799,67	783,65	7.725,40	11.775,76
2025	469,56	2.861,70	807,40	7.858,12	11.996,77



Tab.44

Fig. 28

Added value of Rimini Province					
	agriculture	industry	construction	services	total
2020	96,82	1.260,13	343,19	6.457,69	8.157,82
2021	99,11	1.413,09	409,92	6.663,72	8.585,84
2022	101,55	1.415,04	441,85	6.815,51	8.773,94
2023	103,44	1.453,78	466,25	6.959,20	8.982,68
2024	105,19	1.490,44	481,28	7.080,31	9.157,22
2025	106,14	1.523,66	495,24	7.194,93	9.319,97



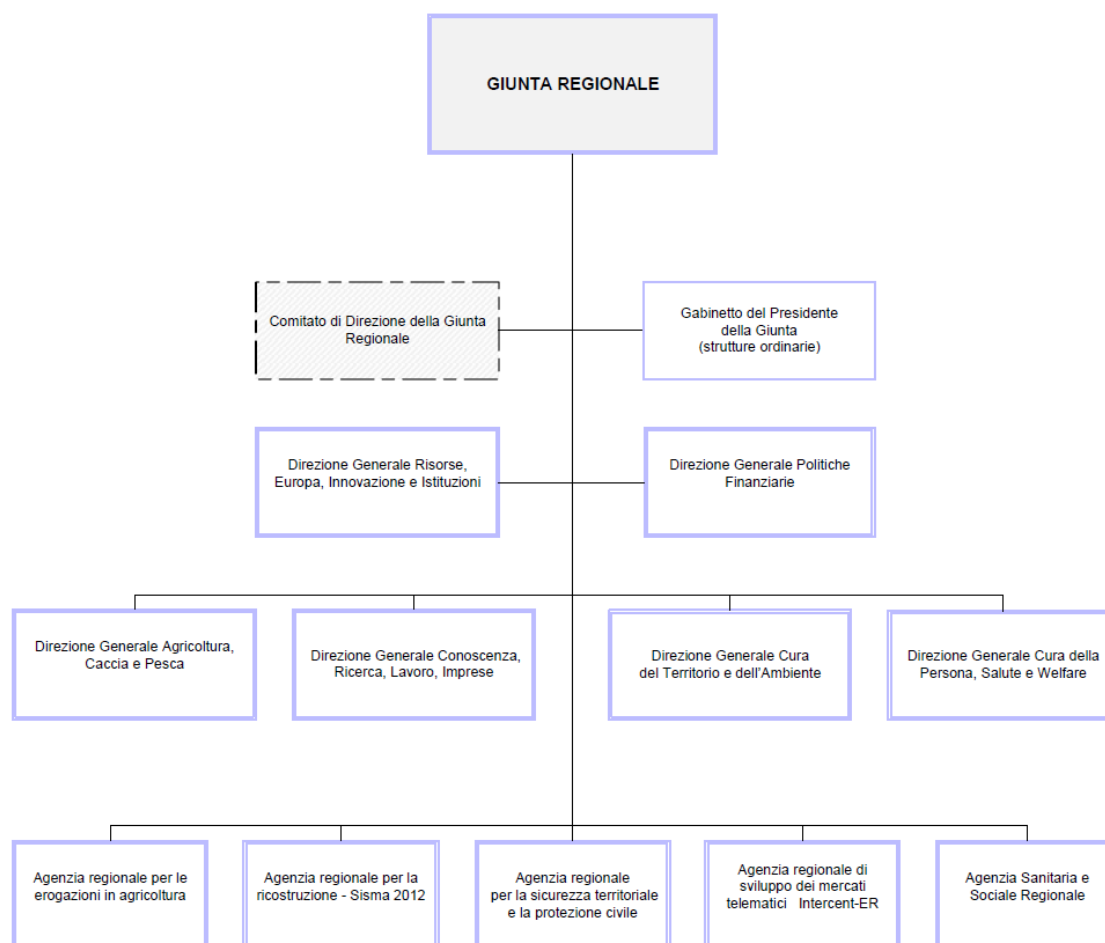
1.2 Institutional context

1.2.1 Organisation and personnel

The new organisational structure of the Regional Council is active from 01/04/2022²¹.

Fig. 29

QUADRO RIEPILOGATIVO DIREZIONI GENERALI E AGENZIE DI GIUNTA



The technical structures of the Regional Council are divided into Special Structures, Directorates General and Regional Agencies.

The **Special Structures**, supporting the political bodies, are the Presidency Affairs Service, the Institutional Reforms Service, Relations with the Conference of Regions and Coordination of Legislation and the Press Office Service, the special secretariats of the President, the Under-secretary to the Presidency, the Vice-President and the Councillors.

The **Chief's council staff** performs functions of support to the direction and coordination of the political-administrative activities of the Council, linking the operational activities carried out in the Directorates General responsible for the subject matter; it presides over relations with state, supranational and interinstitutional bodies; it performs functions of coordination, monitoring

²¹ DGR 325 of 07/03/2022 "Consolidation and strengthening of administrative capacity: reorganisation of the body following the new organisation and personnel management model."

and design of regional policies of governance and strategic control; and it presides over institutional communication activities. Embedded in its structure are the **Information and Communication Agency, 3 Sectors** and 3 Special Structure Services.

The **ordinary structure** of the Council is divided into **6 Directorates General**, **2** of which are **transversal** with tasks of coordination and boost of transversal activities to the Administration, one inherent in the management of financial resources, the other in the management of regional assets, personnel, organisational aspects, information systems and digital transformation and legal-legislative aspects, coordination of European policies and liaison activities with European Union bodies.

Alongside these are **4 thematic Directorates**, which address the areas that refer to personal care, health and welfare, knowledge and labour economy, environmental and land care, as well as agriculture, hunting and fishing.

Within the 6 Directorates General are allocated the **Sectors**, management structures whose heads are hierarchically and functionally placed under the supervision of the director general. In total, there are **39** operational Sectors as at **01/04/2022**, of which 8 are allocated to the transversal Directorates General and **31** to the line Directorates General.

The technical structure of the Council is completed with **5 Regional Agencies**, as it can be seen on the following page at the graphic representation of the organisational chart of the Regional Council. An additional **10** Sectors are allocated at the Agencies.

Therefore, the overall number of **Ordinary Sectors** is **52**.

In addition to the Sectors, the regional organisational structure provides for **Executive Work Areas²²**, to carry out and oversee the assigned activities.

With reference to the 6 Directorates General and Agencies, **140** Executive Work Areas are established as of **01/04/2022**.

The following table shows the staff assigned to the Council and Legislative Assembly, excluding directors general and the Chief of Staff, as of 31/12/2021.

The organisational balance index, given by the ratio of compartment staff to executives, increased from 23.62 in 2020 to 27.56 in 2021.

Table 45

Regional Staff Unit of the Council and Legislative Assembly. Comparison from 2016 to 31/12/2021								
Staff	2016	2017	2018	2019	2020	2021	Diff. (over 2020)	Diff. (over 2016)
Compartment	3,362	3,309	3,243	3,181	3,142	3,555	413	193
Executives	136	132	132	127	133	129	-4	-7
Total	3,498	3,441	3,375	3,308	3,275	3,684	409	186
<i>Compart./execut.</i>	<i>24.72</i>	<i>25.07</i>	<i>24.57</i>	<i>25.05</i>	<i>23.62</i>	<i>27.56</i>		

As at 31/12/2021 among the managers in the ordinary structures of the Council, 15 operate under fixed-term contracts (Art. 18 of [R.L. 43/2001](#)) and 21 are managers at other Public Administrations (in 2020 there were 17 and 18, respectively); for 16 of the latter, no financial burdens are expected to be borne by the regional budget.

²² The Executive Work Area represents an aggregate of functions, activities and staffing of a functionally homogeneous Directorate or Sector whose complexity requires oversight by a manager.

Table 46

Number of managers of ordinary facilities and agencies of the Council and Legislative Assembly as at 31 December 2021				
position (*)	fixed-term	from another PA (**)	of which without burden (**)	Directors general/Agency (***)
81	15	21	16	11

(*) including 5 on leave for other assignments and 1 leading other agencies (**) this includes the director of the Health Agency

(***) this includes the director general of Financial Policies (tenured executive with the position of director general)

The Chief of staff, the executives hired under Article 63 of the statute and tenured executives assigned to special structure are not counted as the table refers only to ordinary structures

The trend in actual personnel expenses over the last four years, i.e., after the institutional reorganisation that began on 1 January 2016 following the enactment of [R.L. 13/2015](#), has been as follows:

Table 47

Total personnel expenditure					
Item	2017	2018	2019	2020	2021
Final commitment (=actual expenditure) before renewal of the contracts	181,236,759.82	187,392,045.39	186,676,448.70	181,029,003.90	187,580,088.39
Final commitment (=actual expenditure) net of renewal of the contracts	181,236,759.82	182,777,765.68	182,091,616.17	175,774,078.28	182,587,938.81
Actual expenditure for contracts renewal	-	4,614,279.71	4,584,832.53	5,254,925.62	4,992,149.58

With regard to total personnel expenditure, the average of the values referring to the three-year period 2011-2013 (indicated as a reference by Article 3, paragraph 5 *bis* of [Italian Law-Decree DL 90/2014](#)) is 167.2 million Euro. In fiscal year 2016, the amount of spending, excluding employees transferred from provinces, was **149.8** million Euro, down from 2015, below the benchmark average.

The amount of total spending, including spending on personnel transferred from the provinces and mountain unions, was **182.6** million Euro. Once the amount of funding provided to the provinces until 2015 for their operation, amounting to **31.2** million Euro, is deducted, the amount is **151.4** million Euro, down again from 2015 and below the benchmark average.

As for 2017, as at 31/12/2017, the value of final personnel expenditure commitments was 145,698,277.81 Euro, below the average for the three-year reporting period. By adding the final commitments related to personnel spending from the provinces, the value becomes 181,236,759.82 Euro, down from 2016.

In 2018, as at 31/12/2018, the value of final personnel expenditure commitments was 150,857,337.91 Euro, below the average for the three-year reporting period. By adding the final commitments related to personnel spending from the provinces, the value becomes 187,392,045.39 Euro. However, the 2018 figure includes contract renewal charges for 4,614,279.71 Euro and expenses for 2,843,686.46 Euro of expenditure items included from 2018, following the audit by macro-aggregates. These are expenses managed by organisational structures not belonging to staff. Net of these sums, 2018 spending would be lower than 2017 spending (in fact, it would amount to 179,934,079.22 Euro)

In 2019, as at 31/12/2019, the value of final personnel expenditure commitments was 149,273,842.91 Euro, below the average for the three-year reporting period. By adding the final commitments related to personnel spending from the provinces, the value becomes 186,676,448.70 Euro. However, the 2019 figure includes contract renewal charges for 4,584,832.53 Euro and expenses for 2,838,679.02 Euro of expenditure items included from 2019, following the audit by macro-aggregates. These are expenses managed by organisational structures not belonging to staff. Net of these sums, 2019 spending would be lower than 2017 spending (in fact, it would amount to 179,252,937.15 Euro) as well as lower than 2018 spending.

In 2020, as at 31/12/2020, the value of final personnel expenditure commitments is 146,697,512.52 Euro, below the average for the three-year reporting period. By adding the final commitments related to personnel spending from the provinces, the value becomes 181,029,003.90 Euro. However, the 2020 figure includes contract renewal charges for 5,254,925.62 Euro and expenses for 2,753,402.55 Euro of expenditure items included from 2018, following the audit by macro-aggregates. These are expenditures managed by organisational structures not belonging to staff. Net of these sums, the 2020 expenditure would amount to 173,020,675.73 Euro.

Finally, in 2021, as at 31/12/2021, the value of final personnel expenditure commitments is 156,467,939.78 Euro (including the FPV share of personnel from the provinces), below the average for the three-year reporting period. By adding the final commitments related to personnel spending from the provinces, the value becomes 187,580,088.39 Euro. However, the 2021 figure includes contract renewal charges for 4,992,149.58 Euro and expenses for 2,819,820.61 Euro of expenditure items included from 2018, following the audit by macro-aggregates. These are expenditures managed by organisational structures not belonging to staff. Net of these sums, the 2021 expenditure would amount to 179,768,118.20 Euro.

1.2.2 The system of Investee Companies

The Regional Investee Companies. As at 31 December 2021, the Emilia-Romagna Region is present in **20 companies** operating in different sectors, first and foremost the transport and mobility sector where 4 companies perform services related to air, sea, rail and road transport. Within the exhibition sector, there are four shareholdings concentrated in as many companies located in Bologna, Parma, Piacenza and Rimini.

There are 3 companies operating in the agri-food sector, which are based in Bologna, Parma and Rimini, while 2 companies are active in the spa sector and 1 company provides services in the health care field. The remaining 5 companies operate in sectors such as tourism, technology, telematics, and financial instruments.

For those regional investee companies for which disposal is planned, the situation is also currently affected by the effects of the Covid-19 pandemic:

- FBM S.p.A. in liq. Pending the end of the liquidation process
- Infrastrutture Fluviali S.r.l. Pending the end of the disposal procedure
- Terme di Castrocaro S.p.A. Pending the end of the disposal procedure
- Società di Salsomaggiore s.r.l. in liq. Pending the end of the disposal procedure

With respect to shareholdings, the Region is a majority shareholder in 4 companies, has shareholdings between 20 and 50% in 3 companies, while in 12 cases it holds smaller stakes, sometimes less than 1%, as in the case of Banca Popolare Etica.

Three are the listed companies: Aeroporto Guglielmo Marconi di Bologna S.p.A. and Italian Exhibition Group S.p.A. listed on the stock market and TPER S.p.A. which issued bonds on the Dublin market.

As at 31/12/2012, there were 29 investee companies in the Region; thus, in seven years the number of shareholdings has been reduced by 9 units (-31%).

Table 48

Region's investee companies as at 31/12/2021	
Ragione sociale (Company name)	shareholding
Aeroporto Guglielmo Marconi di Bologna Spa	2,04000%
Art-er S.c.p.a.	65,12000%
Apt Servizi Società a responsabilità limitata	51,00000%
Banca Popolare Etica - Società cooperativa per azioni	0,06400%
Bolognafiere S.p.a.	11,56072%
Cal – Centro Agro-Alimentare e Logistica S.r.l. consortile	11,07600%
Centro Agro - Alimentare di Bologna S.p.a.	6,12011%
Centro Agro-Alimentare Riminese S.p.a.	11,08120%
Ferrovie Emilia - Romagna - Società a responsabilità limitata	100,00000%
Fiere di Parma S.p.A.	5,08417%
Finanziaria Bologna Metropolitana S.p.a. in liquidazione	1,00000%
IRST S.r.l.	35,00000%
Lepida S.c.p.a.	95,64120%
Piacenza Expo S.p.a.	6,24650%
Porto Intermodale Ravenna S.p.a. S.A.P.I.R.	10,45585%
Italian Exhibition Group S.p.a.	4,69800%
Terme di Castrocaro S.p.a.	2,74340%
Società di Salsomaggiore S.r.l. in liquidazione	23,42999%
TPER S.p.a.	46,13000%
Infrastrutture fluviali	14,26415%

Source: RER

Investee foundations. The Region held a stake in 14 investee foundations in 2021. In addition to ATER Association, which was transformed into a foundation on 13 January 2020, the National Museum of Italian Judaism and the Shoah (Museo Nazionale dell'Ebraismo Italiano e della Shoah - MEIS) Foundation has also been identified as an instrumental body in which the Region had held a stake since May 2021.

Table 49

Foundations in which the Region holds a stake as at 31/12/2021
Ragione sociale
Fondazione Nazionale della Danza
Emilia - Romagna Teatro Fondazione
Fondazione Arturo Toscanini
Fondazione Teatro Comunale di Bologna
Fondazione Emiliano-romagnola per le Vittime dei Reati
Fondazione Istituto sui Trasporti e la Logistica - ITL
Fondazione Scuola di Pace di Monte Sole
Fondazione Scuola Interregionale di Polizia Locale
Fondazione Centro Ricerche Marine
Fondazione Italia-Cina
Fondazione Marco Biagi
Fondazione Collegio Europeo di Parma
ATER Fondazione
Fondazione Museo nazionale dell'ebraismo italiano e della Shoah

Source: RER

Agencies, Companies, Institutes and Phyto-sanitary Consortia. For the production and delivery of specialised services, the Region operates through the following 12 agencies, companies, institutes and consortia, operational as at 31/12/2021.

Table 50

Regional Agencies, Companies, Institutes as at 31/12/2021
Ragione sociale
Arpae
Agenzia regionale per la sicurezza territoriale e la protezione civile
AGREA
AIPO
ER.GO
Intercent.ER
Agenzia regionale per il Lavoro
Ente Parco Interregionale del Sasso Simone e Simoncello

Source: RER

Table 51

Phyto-sanitary consortia as at 31/12/2021
Ragione sociale
Consorzio fitosanitario di Piacenza
Consorzio fitosanitario di Parma
Consorzio fitosanitario di Reggio Emilia
Consorzio fitosanitario di Modena

Source: RER

Control system on investee companies. The Emilia-Romagna Region has been putting in place careful oversight of its investee system since 2016. By [Resolution no. 1015 of 28 June 2016](#), the Regional Council approved the first Administrative Model of similar control to be applied to its in-house companies. The resolution outlines both the monitoring process, with the definition of managerial competencies and responsibilities (Annex A), and the contents of monitoring and supervisory activities (Annex B). It thus represents the operational tool by which the Region implements a unified centralised system of monitoring and control over its in-house companies. The Model of similar control is updated in line with the changing regulatory framework and any need to refine certain aspects of the control process. The updating procedure, with respect to fiscal years 2020 and 2021, was concluded with the adoption of [DGR no. 99 of 31 January 2022](#). The changes introduced in the update of the Control Model were provided in order to incorporate the latest regulatory innovations pertaining to the content of monitoring activities and for greater accuracy of the controls performed. Highlights include:

- The implementation of the content of detailed analysis on the activity carried out that in-house companies must submit annually (Art. 9 Annex A);
- The performance of the updating of some inspection prescriptions and expansion of supervisory activities also on Digital Administration Code (Annex B).

For the purpose of the control, the areas considered are as follows:

- 1) Compliance of the statutes with the regulatory provisions
- 2) Obligations regarding the prevention of corruption, transparency and public access
- 3) Constraints on staff recruitment and assignment of tasks
- 4) Guidelines on remuneration policies
- 5) Public contracts for the acquisition of supplies and services and for the procurement of works
- 6) Obligations regarding appointments and compensation of administrative bodies
- 7) Asset, economic, accounting and financial profiles
- 8) Compliance with data protection regulations
- 9) Compliance with the relevant regulations of the Digital Administration Code (starting from the year 2021)
- 10) Controls over any companies in which the in-house companies hold a stake.

Controls are carried out, as for the competence, with the managers of the Directorate General of Resources, Europe, Innovation and Institutions responsible for prevention of corruption, transparency, personnel, assignment of tasks, assets, budget, accounting and finance, public contracting and personal data protection and the Litigation Sector of the Council Chief of Staff for the scope related to defence assignments, legal representation and legal advice.

The Control Model also provides, since the first version, for the implementation of second - or subsequent - level controls, the contents of which are defined by determination of the Head of the Financial Planning and Control Service (now the Financial Planning, Management Control and Investee Companies Sector). By [Resolution DET 1932 of 3 February 2022](#), concerning "Subsequent similar control of administrative compliance in respect of in-house companies - fiscal years 2020 and 2021," the procedures through which subsequent controls are to be carried out were defined, with the precise indication of how the companies are to be selected for each control area, the control procedure, and the types of actions and controls to be carried out.

Rationalisation of the Region's companies and stakes. One of the key plan objectives of the last legislative term was the rationalisation of the Region's investee companies, as an autonomous political choice, and, subsequently, to implement the Consolidated Law on Public Companies ([ITALIAN LEGISLATIVE DECREE 175/2016](#)). In fact, these regulations introduced a fundamental framework for governing investee companies, and, in particular, the obligation to carry out the auditing of all direct and indirect stakes held on the date of the decree's entry into force.

In this sense, particularly with the 2017 extraordinary rationalisation plan and subsequently with Regional Law no. 1 of 16 March 2018, "*Rationalisation of in-house companies of the Emilia-Romagna Region*", two important mergers of in-house companies were carried out.

Specifically, R.L. 1/2018 provided for: a) the establishment of a specialised body in the support of regional policies on planning and territorial development and research, through the merger of Aster S.c.p.a. and Ervet S.p.A., after the acquisition of the business unit of regional relevance of FBM S.p.A., with the establishment of the new company ART-ER S.c.p.a.; b) the establishment, in line with the objectives of the Digital Agenda, of a company specialised in the design and development of ICT and digital platforms and applications on a regional scale, through the merger by incorporation of Cup2000 S.c.p.a. into Lepida S.p.A., with the creation of the new Lepida S.c.p.a.

Therefore, on the one hand, Ervet S.p.A., Aster S.c.p.a., and business branch of FBM S.p.A., have originated ART-ER S.c.p.a., a company dedicated to research, innovation, internationalisation

and knowledge of enterprises and the territory. On the other, there was the merger by incorporation of Cup 2000 S.c.p.a. into Lepida S.p.A., which has now become Lepida S.c.p.a., the common centre of regional information and communication technology development.

Next came the planned divestments of Reggio Children- Centro Internazionale per la difesa e la promozione dei diritti dei bambini s.r.l. and Infrastrutture fluviali s.r.l. The former was actually made in 2019, for the latter the process provided for in Article 24 paragraph 5 of Italian Legislative Decree 175/2016 was started in order to obtain the liquidation of the shares pertaining to it. Urged several times by the company, a formal notice was also sent by the Legal Service, which is following the process to reach the conclusion of the divestment.

The Five-Year Plan of the new legislative term is particularly focused on monitoring the directions to the companies; as for rationalisation, reference is made to an *"Update of the rationalisation path... monitoring the effects of the rationalisation plan of the investee companies... updating and completing it where necessary."*

The new rationalisation plan - approved by DGR no. 2085 of 6/12/2021, "Reorganisation plan for the rationalisation of the stakes held by the Emilia-Romagna Region for the year 2021, pursuant to Article 20, paragraph 2, of Legislative Decree no. 175 of 19 August 2016" - is in the wake of the action taken by the Emilia-Romagna Region starting from the last legislative term and developed in the current one, with the fundamental objective of rationalising the system of the Region's investee companies.

The guidelines and directions, both strategic and operational, of the review of the stakes held by the Region have been outlined in order to define a virtuous path, such as to ensure an overall structuring of absolute quality of the system of shareholdings, and not a mere adaptation to the relevant regulations. On the other hand, as of 2020, the action and strategies to be followed, even in this area, were inevitably affected by the pandemic that required recalibrating plans and goals of individual companies.

In fact, the adopted plan had to take into account the Covid-19 health emergency, which is still unfortunately ongoing and has led to profound effects on the activities and businesses of the companies as well, in addition to the entire community. These impacts entailed the need to review, sometimes drastically, the industrial planning and policy of some companies, even in light of the closure of some activities.

A specific focus on the matter concerns exhibition companies, and among them the Piacenza Expo company. Initially held for sale, it is undergoing a review of the choices made prior to the Covid-19 emergency.

With the continuing health emergency, the Region felt it had to make every effort to support the fair sector, which has been severely affected by the great crisis. The policies on the fair system are inextricably directed toward two major actions: - securing the exhibitions districts and supply chains, as well as the jobs involved, - and, at the same time, promoting the potential of an integrated system of fairs.

Therefore, at the current stage, it is of primary interest for the Region to support the whole of economic activities, including services at the territorial level, thus enhancing the exhibition centres and the supply chain present at the regional level.

Therefore, it was decided to also authorise an increase in the Region's stake in the company, by R.L. 1/2021, having as its object: *"Increased regional stake in the company Piacenza Expo S.p.A."* In order to contribute to the revitalisation of Piacenza exhibition centre, through the financing of the business plan and related planned investments, the Emilia-Romagna Region subscribed during 2021 600,000.00 new shares as part of the capital increases launched by the company, and still being executed.

Therefore, it intends to exercise its newly acquired rights for the promotion of its institutional purposes and the revitalisation of the company to serve the production chains of our region. In particular, it is monitoring the proper and substantial execution of the business plan focusing on investment in the redevelopment of the exhibition districts.

As for the Agri-Food Centres (Centro Agro Alimentare di Bologna S.p.A., Centro Agro Alimentare Riminese S.p.A., Centro Agro Alimentare e Logistica s.r.l. in Parma), despite the pandemic situation, a process of organisational and operational grouping is underway, with the aim of improving their economic-management efficiency. A first memorandum of understanding signed in 2019 was followed by another in 2021, called "*Protocollo d'intenti 2021 per l'avvio di un processo di aggregazione organizzativa ed operativa dei Centri Agroalimentari della Regione Emilia-Romagna*" (Memorandum of understanding 2021 for the start of a process of organisational and operational grouping of the Agri-Food Centres of the Emilia-Romagna Region) signed once again by the Emilia-Romagna Region, Centro Agro Alimentare di Bologna S.p.A., Centro Agro Alimentare Riminese S.p.A., Centro Agro Alimentare e Logistica s.r.l. Consortile and Filiera Ortofrutticola Romagnola S.p.A. The role of the Region in this path has been to coordinate the work, as, although it does not hold the majority shareholdings of the companies involved, it is strongly motivated by the need to provide for the identification of rationalisation solutions consistent with the regulations of Italian Legislative Decree no. 175/2016, and the extraordinary review plan submitted in execution of the same.

Regarding Spa Centres, for Terme di Salsomaggiore and Tabiano S.p.A. we are waiting for the conclusion of the insolvency proceedings underway in order to obtain the liquidation of the pertaining share; as for Terme di Castrocaro S.p.A., the sale procedure is currently suspended. Indeed, the Region has acknowledged that the risk that the valuation of the stake, if done under a health emergency and in the absence of certainty about the timing of full resumption of the spa-hotel business, could lead to an underestimation of the value of the regional stake because of temporary and contingent reasons. As of now, it is suspended until 30 June 2022, with the reservation that the extension period may be discontinued or possibly extended, even after its expiration, if the conditions are met, in relation to the actual development of the pandemic framework.

Consistent with the provisions of the regional decisions adopted as a result of the needs related to the current pandemic, based on the provisions of Regional Law no. 1 of 2018, the DEFR is meant to define and specify the guidelines as well as the strategic objectives. This also refers to in-house companies, with specific details of the expected results, the positioning with respect to the reference sector, as well as the connection with the strategic objectives that the Council assumes as its own.

1.3 The territory

1.3.1 The demographic picture

The regional survey²³ of resident population from registry sources results in a count of 4,458,006 residents in Emilia-Romagna as at 01/01/2022. Compared with the same date in 2021, this shows a decrease of 4,276 residents or -0.1%²⁴.

The decrease in population slows down compared to 2020 (-0.32% or more than 14 thousand fewer residents) but confirms a reversal of the trend from the pre-Covid period when the regional population continued to grow against a backdrop of gradual decrease in the national population; for 2021 at the national level we estimate the loss of about 253 thousand residents (-0.4%)²⁵. All regions are affected by the population decrease except Trentino Alto-Adige (+0.08%).

During 2021, the majority of the region's 330 municipalities recorded a negative change in the number of residents. The change is positive in 138 municipalities but small in magnitude. For 29 municipalities the positive change is within 10 units while for 12 municipalities it exceeds 100 units but remains below 250, with the exception of the municipality of Bologna, where there is an increase of 1,278 residents. At the opposite extreme is the municipality of Reggio Emilia, where there has been a decrease of more than 1,000 residents in the past year.

At the provincial level, the territories of Piacenza and the Metropolitan City of Bologna emerge with a positive albeit small change, +0.08% and +0.12% respectively, while the largest percentage decrease concerns the province of Reggio Emilia (-0.37%), followed by the province of Ferrara (-0.32%).

More than half of the resident population (51.2%) is female, a rate that increases with increasing age: among the elderly aged 80 and over, women account for 61.4%. The population decrease observed during 2021 is concentrated on the female population, which loses more than 4,700 units, compared to the substantial constant male rate (+486 units).

The analysis by age group shows a continuation of some trends already noted in recent years, particularly the decrease in children and adolescents up to 14 years of age, which over the past year shows a loss of more than 10,000 units. The decrease is concentrated in the 0-10 age group, and the predominant cause is the declining birth rate that has been affecting the region, and the country, for more than a decade now.

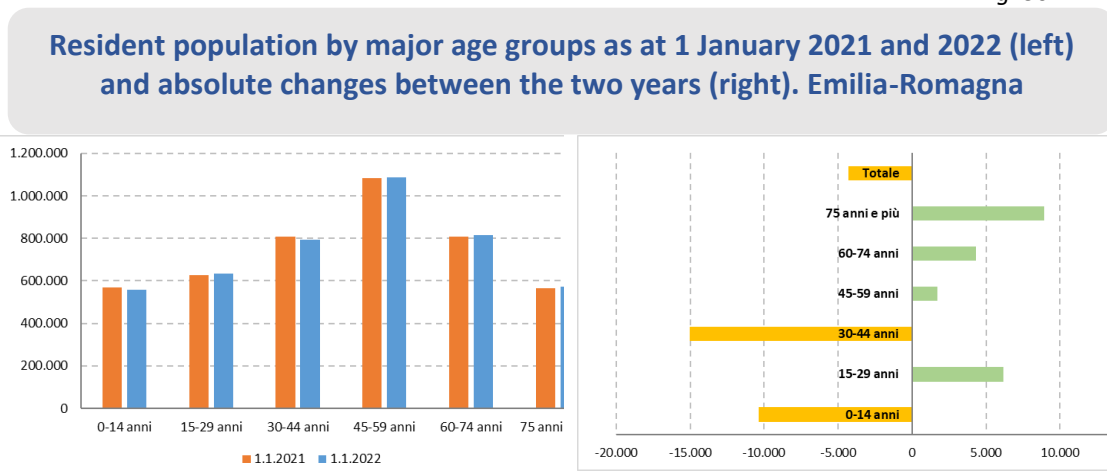
On the contrary, the population of young people in the 15-29 age group appears to be increasing, particularly the range of 15-24 benefiting from the rising birth rate from the mid-1990s to the mid-2000s.

²³ The data in this paragraph - unless otherwise indicated - come from the municipal registry population survey conducted by the Digital Innovation, Data, Technology and Archival Hub Sector - Statistics Area in close collaboration with the provincial and Metropolitan City statistical offices and municipal registry offices.

²⁴ The comparison with the previous year takes into account the entry of the municipalities of Montecopiolo and Sassofeltrio into the regional territory concluded during 2021; the move from the province of Pesaro-Urbino to that of Rimini affected 1,042 residents in Montecopiolo and 1,366 in Sassofeltrio.

²⁵ The nationwide estimate comes from provisional population balance data for the year 2021, Istat source. The same source estimates the change in Emilia-Romagna's resident population during 2021 at -0.16%. The regional survey and Istat estimates give different absolute values while being congruent in terms of trends. The differences can be attributed to the different survey methodology and some definition differences introduced with the permanent population census.

Fig. 30



Source: RER

Still shrinking is the population of young adults (30-44 years of age) due to the well-known structural effects related to the drop in the birth rate of the 1980s, which limits turnover within the age group; during 2021 the rate in this age group decreased by about 15 thousand concentrated in the 35-44-year-old range. The trend in this age group should be carefully considered, both because of the reflections on the working-age population and because of the depressive effects on the birth rate: in a context of low and declining fertility, the decrease in potential mothers is inevitably reflected in a drop in births. The average age at delivery is estimated to be 32.4 years, and in 2020 69.6% of those born had a mother being 30 or older. In a low birth rate context like the regional one, the decrease in potential mothers has important effects on the potential number of births.

When comparing with 2020, the 2021 data confirm the upward trend in the adult and elderly population, particularly in the 75 and over age group.

A positive demographic contribution to the youth population is made by residents of non-Italian citizenship, who continue to show a significantly younger age structure than residents with Italian citizenship. As at 01/01/2021, there were 569,460 residents with citizenship of a foreign country registered in the region's municipal registry offices. The non-Italian community accounts for 12.8% of total residents and grew by more than 4,600 units (+0.8%) during 2021. On the contrary, the total number of residents with Italian citizenship decreased by nearly 9 thousand (-0.2%) even in the presence of more than 16 thousand acquisitions of Italian citizenship by foreign citizens residing in the region.

While confirming itself as a younger population group than overall, the resident foreign population also shows an increasing level of ageing: the overall increase observed during 2021 is the result of a decrease of nearly 3,000 in the under-45 age group and an increase of more than 7,000 in over-45.

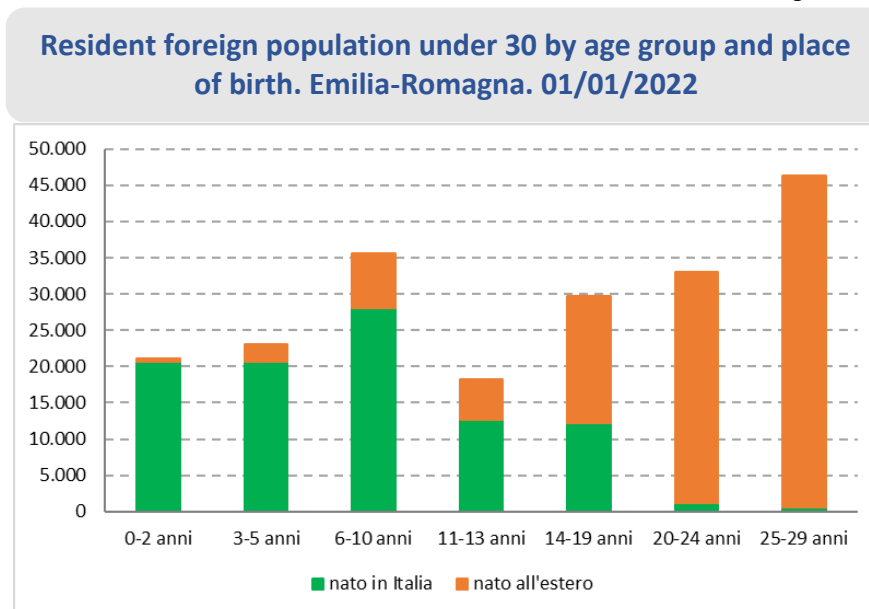
Over the past decade, the average age of foreigners has increased from about 31 years to the current 35.7 years while remaining significantly lower than the one of residents with Italian citizenship (48.3 years). As the foreigners already in the territory advance on the age scale, both the birth rate and the turnover given by new inflows decrease. In addition, acquisitions of Italian citizenship mostly involve young people and adults under the age of 45.

By virtue of the different age structure of foreign residents compared to the overall population, the foreigners' incidence of 12.8% of the total is greatly exceeded in young age groups. The share of non-Italian citizens is the highest among young people in the 30-34 age group (24.4%) and

among children 0-4 years old (23%), declines to 10% among adults 50-64 years old to reach a low of just 1.2% among the elderly aged 80 and over.

Integrating the consideration of a citizenship formally held with citizenship by place of birth, as moreover recommended by European regulations on migration statistics, a picture emerges of young generations who are foreign by birth but not immigrants.

Fig. 31



Source: RER

The share of foreigners born in Italy, averaging 17%, declines as age increases: it is the highest among kindergarten children (98% in the 0-2-year-old class and about 90% in the 3-5-year-old class) and then declines to about 79% among primary school children (6-10 years old), 69% among middle school students (11-13 years old) and just over 40% in high school. Above the age of 20, the percentage of foreigners born in Italy drops significantly to about 1% in the 25-29 age group.

Foreign residents show high heterogeneity with respect to demographic variables. There are 175 different countries of origin represented but with wide differences in numbers. 79.3% of foreigners belong to one of the 15 communities with at least 10 thousand residents in the region, and 50% are concentrated in the top five most represented communities (Romania, Morocco, Albania, Ukraine, China). About 130 countries are represented by fewer than 1,000 residents and more than half of these by fewer than 100 residents.

48.5% of foreign residents are citizens of a state in the European continent: 22.9% of another EU27 state and 25.6% of a non-EU state. Among EU nationals, 76.5% are from Romania, while among non-EU nationals there are predominantly people from Albania, Ukraine and Moldova, gathering nearly 82% of non-EU27 foreign residents. More than one-quarter (26.8%) of the total are African nationals specifically from a northern state, Morocco in 68% of the cases, or from the West, mainly Nigeria, Ghana and Senegal. The Asian continent accounts for the origin of about one-fifth of resident foreigners (20.6%) represented mainly by Central and South Asian countries, such as Pakistan, India and Bangladesh, and East Asian countries, mainly China, which is the country of origin of 64.8% of foreigners from East Asia.

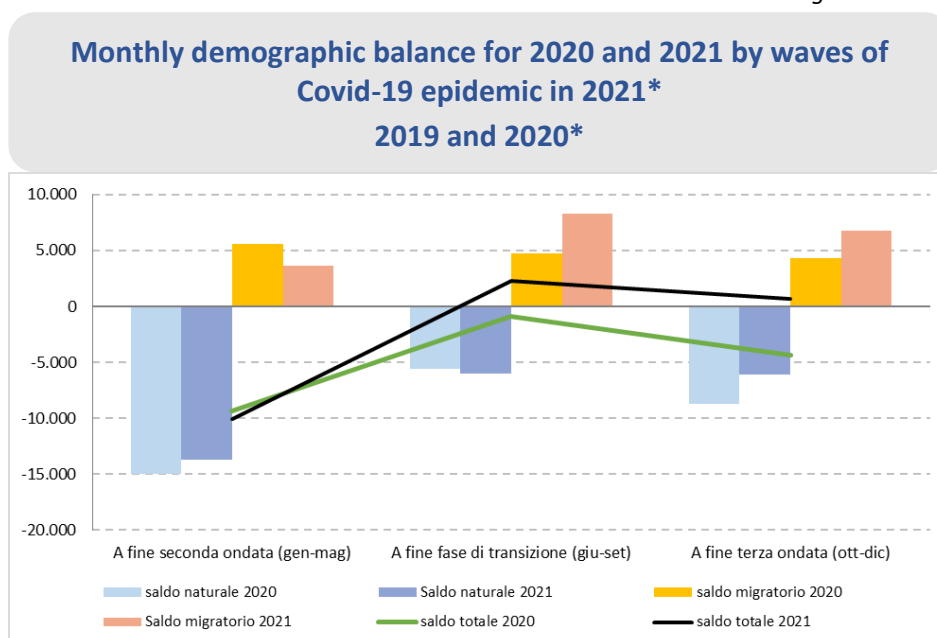
As with the overall population, there is a prevalence of women (52.7%) among foreign residents, but there is a high degree of heterogeneity among the different origins. Focusing on the

countries of origin with at least 10 thousand presences in the region, communities from Ukraine (79.1% being women), Poland (77.9%) and Moldova (67.2%) are found to be distinctly female-dominated, while we find Senegal (27.8%), Pakistan (34.2%) and Bangladesh (35.5%) to be decidedly male-dominated.

Population dynamics during 2021 still appear to be affected by the [Covid-19](#) pandemic, although to a lesser extent than what was observed in 2020. The year 2021 was characterised by the continuation of the fall pandemic wave of 2020 roughly until May, a period in which a new rise in infections and deaths was registered, which went down in June-September also due to the vaccination campaign. In the latter part of the year, from late September to December, there was a new pandemic wave also linked to the spread of new highly contagious virus variants.

The analysis of the 2021 monthly demographic balance²⁶ shows that while there is a year-on-year decrease, the decline in population is concentrated in the first half of the year while in the months of August to December the change is positive although it fails to compensate for the population loss that occurred in the first period.

Fig. 32



Source: Processing of Istat data; * provisional figures

²⁶ Provisional data from Istat that proposed the interpretation in relation to 2021 pandemic waves for national data.

The analysis of individual components of population dynamics shows that the number of births in the region in 2021 was not much different compared to 2020, unlike the national level where the pandemic-related birth compression effect was stronger. There were 29,782 births in the region in 2021 compared to 29,861 in 2020, which was essentially a minimal decrease and fully in line with the ongoing decrease in the number of births since the mid-2000s.

The estimate of the average number of children per woman in 2021 is 1.27, a tenth higher than in 2020 (1.26), but still within a steady downward trend after the peak of 1.50 reached in 2008. The regional estimate in 2021 is higher than the Italian average of 1.25 but lower than the average for the North-Eastern regions (1.31).

In terms of mortality rate, 2021 showed a decrease of about 6% compared to 2020, with 55,609 deaths compared to 59,211 in 2020. However, there is still an excess of mortality compared to the pre-Covid period, which is particularly evident in the first 4 months of 2021 when 38% of deaths for the entire year were recorded, with a peak of more than 6 thousand deaths in January, being in line with the value of December 2020.

From these dynamics comes the natural growth rate of -5.8 per thousand, indicating the loss of nearly 26 thousand people during 2021 due to natural dynamics. Although improving over the -29,350 in 2020, the 2021 figure is at a higher level than expected in the context of the processes of reduced births and natural increase in deaths of a population with a high ageing level.

Table 52

Demographic indicators - Istat estimates on provisional data

	Emilia-Romagna	Italy	North-East
Natural growth rate¹ (2021)	-5.8	-5.2	-5.0
Foreign migration growth rate² (2021)	3.3	2.7	2.7
Old-age index³ (01/01/2022)	194.7	187.9	190.5
Structural dependency index⁴ (01/01/2022)	58.3	57.5	58.0
Working-age population structure index⁵ (01/01/2022)	149.0	142.0	147.5

1: Ratio of the natural balance (number of live births minus number of deaths in the year) to the average amount of resident population, per thousand.

2: Ratio of foreign migration balance (enrolled from abroad minus cancelled from abroad in the year) to the average amount of resident population, per thousand.

3: Percentage ratio of the population aged 65 and over to the population aged 0-14.

4: Percentage ratio of the population of non-working age (aged 0-14 and 65 and over) to the population of working age (15-64 years of age)

5: Percentage ratio of the oldest portion (40-64 years old) to the youngest one (15-39 years old) of the working-age population

After the drop in migratory movements observed in 2020, which was strongly affected by travel restrictions introduced as a measure to control contagion, 2021 showed signs of recovery particularly starting in June, coinciding with the end of the pandemic wave in the first period of the year.

At the regional level, the foreign migration balance is estimated at 3.3 per thousand (about 15 thousand units), after standing at 1.9 per thousand (just over 8 thousand units) in 2020, thus approaching the value of 3.8 per thousand in 2019.

Divergent trends in the consistency of the various age groups result in further deterioration of some structural indices. As at 1 January 2022, the old-age index indicates there are about 195 elderly people aged 65 or more for every 100 young people under the age of 15, or in other words, it indicates that the weight of the elderly in the total population (24.3%) is about twice that of young people aged 0-14 (12.5%). The ageing level in the region persists above the Italian and distribution average.

The past decade has seen a worsening of the numerical imbalance between young people (15-39 years old) and adults (40-64 years old) in the working-age population (15-64 years old); with young people trending downward and adults increasing, the ageing level within this age group has increased, and the working population structure index currently detects 149 people aged 40-64 for every 100 young people being 15-39, compared with 142 for the Italian average.

The total dependency ratio measures a particularly relevant imbalance by indirectly providing a measure of the economic and social sustainability of a population structure; while purely demographic, it offers insight into the ratio of the share of the inactive population (aged 0-14 and 65 and over) to the active population (15-64 years of age) that should bear the burden. Moreover, broken down into the two components of youth and senile dependency, it provides additional insights since the increase in the dependency ratio due to the youth population has different significance than the increase due to the senile component. In the Region, this indicator has currently reached a value of 58.3, and in recent years it has shown little change due to compensation between the decrease in the youth dependency component and the increase in the senile dependency component.

The characteristics of the age structure of the population are reflected in the demographic characteristics of household members that increasingly include the elderly and in which the presence of minors shows a correlation with the presence of foreigners.

In the registry offices of regional municipalities, as at 1 January 2022, there were 2,040,090 active household sheets identifying as many registry families, in which 99.26% of the population resides. The remaining 0.74%, just under 33 thousand people, have their residence in a collective facility (convents, barracks, penal institutions, nursing homes, etc.).

The downward trend in average household size (2.17 members) continues, reflecting a distribution by number of members that is increasingly concentrated on small size. At the end of 2021, 67% of the registered households consisted of one (39%) or two (28%) members, 17% had 4 members while only 4.5% had at least 5 members.

More than 279 thousand households included the presence of at least one member with non-Italian citizenship (13.7% of total households) and among them in more than 198 thousand cases all members were foreigners. The different characteristics, both in levels of fecundity and in the greater propensity for cohabitation among individuals and households among foreigners, result in an increasing weight of households with at least one foreign national as family size increases: while at least one foreigner is present in 8.4% of households with 2 members and in about 13% of those with 3 members, the same condition affects 36.8% of households with 5 members and 59.6% of those with 6 or more members.

Table 53

Indicators on registry households. Emilia-Romagna. 01/01/2022

Households	2,040,090
Average number of members	2.17
Single-person households	794,950
Households with 5 or more members	92,010
Households with at least one foreigner	279,421
Households with at least one elderly person (being 65 or more)	785,333
Elderly people living alone (being 65 or more)	321,737
Households with at least one child (0-17 years old)	440,147
Households with at least one foreign-born member	381,260

Source: RER

In 38.5% of households there is at least one elderly person aged 65 or more; in nearly 453 thousand households there resides at least one elderly person aged 75 or more (22.2% of total households), and in just over 440 thousand at least one member is under 18 (21.6%). The larger average size of households with at least one foreign member is related to the greater presence of minors: households with at least one foreign member are found to have at least one child under the age of 18 in 37.8% of cases, compared with less than 19% when the household consists of all Italian citizens.

Nearly 533 thousand households, 26.1% of the total, include only members who have already turned 65 or more, and in more than half of the cases (more than 291 thousand households) all members have already turned 75 or more. Nearly 322 thousand elderly people aged 65 or more have families on their own, and in about 64% of cases (205 thousand households) it is an elderly person aged 75 or more.

1.3.2 Local government system

The regulatory framework. Under the system of local governance outlined by national legislation (Decree-Law 78 of 2010, Law 56 of 2014), municipalities are affected by processes of mergers of municipalities and associated management of core functions through Unions of Municipalities.

These processes have a long and relevant history in this Region: policies for the development of associations between municipalities and stable collaboration between municipalities started more than 20 years ago and have been supported by the Region by providing local authorities with substantial resources, to contribute to the development of the territories by addressing fragilities and differences, offering equal opportunities to all citizens of the region. Lastly, thanks to the strong inter-institutional relations, which have intensified in the implementation phase of the new reorganisation law (R.L. 13/2015), the Region, the Provinces and the Metropolitan City of Bologna have shared the basic choices and signed several agreements aimed at guaranteeing the necessary support, both economic and administrative, to the complex reorganisation process.

The main regulatory references of regional institutional governance are R.L. 21/2012 and R.L. 13/2015, which define the model of territorial governance of administrative functions at the regional level.

The mandatory associated management for small municipalities introduced by Decree-Law no. 78 of 31 May 2010, which imposed on municipalities with a population of up to 5,000 inhabitants, or up to 3,000 inhabitants if they belong or belonged to mountain communities, the obligation to manage all core functions in an associated form, gave the impetus to our region for the approval and implementation of R.L. 21/2012, which made Unions the centrepiece of regional policies.

Therefore, R.L. 21/2012 is the regulatory reference at the regional level to ensure the regulation of territorial governance of administrative functions according to the principles of subsidiarity, differentiation and adequacy. The law defines the principles and criteria relating to the allocation of administrative functions exercised by the regional system with the aim of reserving only functions of a single nature to the region, contributing to the identification of metropolitan functions, strengthening the Area Vasta functions of intermediate level and developing inter-municipal associative functions.

By **R.L. 21/2012** the region identifies:

1. The optimal and homogeneous territorial dimension by geographic area for the performance of municipal core functions in associated form, safeguarding as far as possible existing associative experiences and promoting their aggregation into larger areas (ATOs);
2. Unions of Municipalities, including mountain ones, as privileged "tools" for the associated exercise of core functions by municipalities, promoting the establishment of a single Union among all municipalities belonging to the optimal territorial area, recognising its priority access to funding provided by sector laws and regulations, and identifying specific municipal functions that must be exercised in associated form among all municipalities belonging to the optimal territorial area;
3. Mergers of municipalities as an important goal aimed at achieving the highest degree of integration and administrative reorganisation.

The Law identifies the three-year **Territorial Reorganisation Programme** as a tool to support territorial reorganisation policy, which establishes criteria and procedures for granting incentives for the associated management of functions.

R.L. 13/2015 *"reforms the system of regional and local government and gives provisions for the Metropolitan City of Bologna, the Provinces, the Municipalities and their Unions"*, drafted in implementation of Law 56/2014 (so-called Delrio Law).

The Emilia-Romagna Region has taken up the challenge of the new territorial reorganisation, setting its goals beyond the mere adaptation to national regulatory provisions to reset, as the outcome of a fruitful dialogue with all institutional actors in the territory, a renewed strategic vision of its role as the core of territorial government.

In this sense, the Regional Law no. 13 of 30 July 2015 laid the groundwork for a new model of territorial government based on inter-institutional collaboration between the Region itself, the bodies of Area Vasta enhancing to the maximum the strategic role of the Metropolitan City of Bologna, not only with reference to policies affecting the metropolitan area of Bologna, but through the definition of institutional paths that enhance its role as a regional hub.

In the similar perspective of the overall efficiency of the system, Law 13/2015 aimed to continue the policy of incentives for mergers of municipalities to further reduce their number and streamline the use of public resources, while enhancing the value of Unions of Municipalities as a real pivot in the organisation of services close to the citizen, giving them the role of governing body of the optimal territorial area and privileged interlocutor of the Region.

The goal is to achieve a great simplification of administrative business management systems capable of generating increasing economies of scale through the rationalisation of competencies and underlying organisational structures, as well as to ensure stable integration between distinct government bodies. This is with the intention of increasing certainty, quality and guarantees in the provision of services and delivery of public benefits.

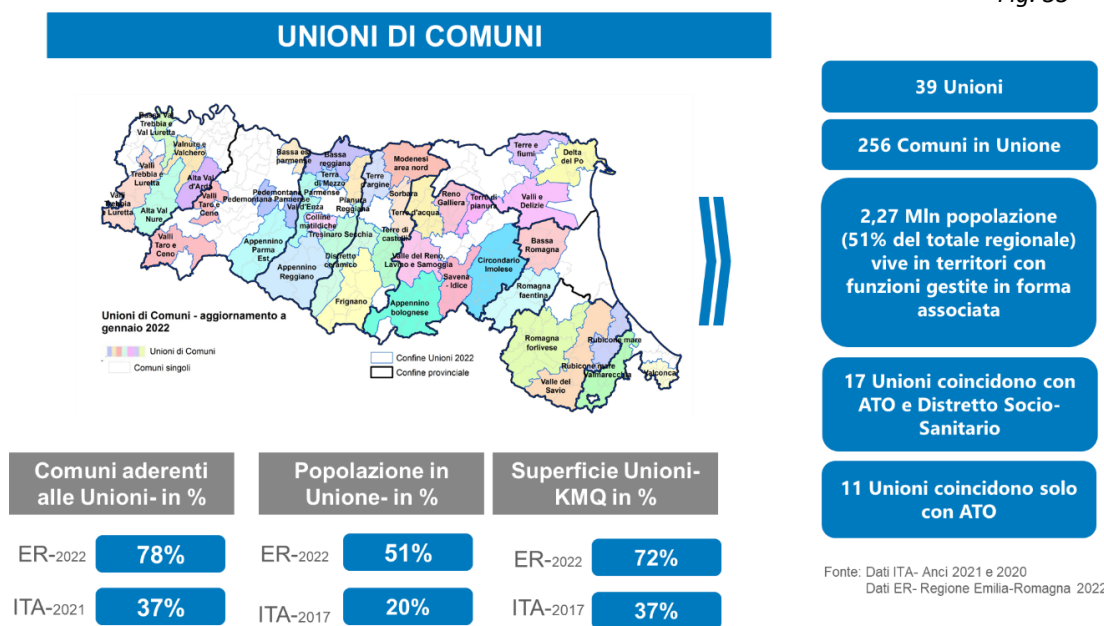
This context has been accompanied by an unfinished path of institutional reforms at the **national level**, not allowing a full development of the process of rationalisation and strengthening of local governments, nor a full definition of regional prerogatives in the relationship with the central state.

This starts with the obligation of associated management contained in state legislation, always extended and still not binding, which almost immediately lost its potential aggregative power, so much so that discussion of explicitly abolishing this obligation has been ongoing for some time. In line with the important reforms that are involving local authorities at the national level, the need to redesign the role and competencies of the Provinces and Unions of Municipalities strongly emerges. This can also be achieved through the **review of regional legislation**, by enhancing their role as intermediate bodies that can play, in a coordinated and complementary way, a fundamental role for the growth of the territories and the entire regional inter-institutional system. It is precisely in this track that the Council's goal to initiate and rationalise the provisions concerning the general regulation of local governments is framed.

In this context, the proposal for differentiated regional autonomy also represents, for Emilia-Romagna, a very important challenge and a fundamental opportunity to get to review regional powers, aimed, on the one hand, at emphasising the regulation and planning power implemented by the region itself through the legislative instrument and, on the other, at seeking more advanced and differentiated structures of local government and management, increasing the level of appropriateness, effectiveness and efficiency of Local Authorities.

The state of the art. To date, there are 39 **Unions of Municipalities** in Emilia-Romagna that comply with R.L. 21/2012, 37 of which are active, and include a total of 256 municipalities, or 78% of the municipalities in Emilia-Romagna. They are home to a population of more than 2.27 million or 51% of the regional population. If the population residing in provincial capitals is excluded, this value rises to 79.7%, thus highlighting a particularly important role in the management of functions and services for households and businesses.

Fig. 33



The path toward achieving an optimal size for service management is well underway: 17 Unions of Municipalities have achieved coincidence with the Optimal Area and the Social and Health District, to which are added 11 Unions that coincide with the Optimal Area only.

The path of territorial reorganisation in recent years has shown the achievement of further milestones in terms of increasing functions and improving the quality of associated management. Some Unions have improved planning and programming capacity, identifying potentials to be developed and starting their implementation process, as part of a strategic vision supported for this purpose by resources and tools made available by the region. This is the context in which the 2021-2023 territorial reorganisation programme operates to support Unions in engaging the many important opportunities offered by the new European Funds programming and Next Generation EU tools, starting with the National Recovery and Resilience Plan (PNRR), and facing the challenges related to the climate emergency and post-pandemic recovery.

The PRT 2021-2023 aims to activate further changes and innovations for the modernisation of administrations, and particularly smaller and fragile ones, the consolidation of associative bodies serving municipalities, and to facilitate and carry out digital transition and green transformation.

In parallel, specific measures and incentives are being developed to address local problems that have recently emerged in some Unions mainly due to internal differences or to stimulate grouping among municipalities in areas, especially inland or peripheral areas, where community associations need to be promoted.

In terms of merger processes, there are 13 **mergers of municipalities** completed so far in the Region, resulting in the grouping of 33 municipalities: since 1 January 2014, the 4 municipalities of Valsamoggia (BO), Fiscaglia (FE), Poggio Torriana (RN), and Sissa Trecasali (PR) are established, with the suppression of 12 pre-existing municipalities; since 1 January 2016, the 4 municipalities of Ventasso (RE), Alto Reno Terme (BO), Polesine Zibello (PR), and Montescudo - Monte Colombo (RN) are established, taking over from 10 pre-existing municipalities; since 1 January 2017, the Municipality of Terre del Reno (FE) was established, replacing 2 municipalities; since 1 January 2018, the Municipality of Alta Val Tidone (PC) was established, replacing 3

municipalities; since 1 January 2019, the Municipalities of Sorbolo Mezzani (PR), Riva del Po (FE), and Tresignana (FE) were established, replacing 6 pre-existing municipalities.

Merger pathways have been suspended in recent years due not only to emergency, but also to the succession of election rounds that have not favoured the possibility of starting new pathways, which need greater involvement of populations and greater care in the processes of participation and involvement. In fact, merger projects must be an expression of the widest possible consensus and must necessarily be developed within the administrations and communities concerned. The aim is to stimulate reflection on the subject again, giving new impetus to projects that respond to the needs of the territories.

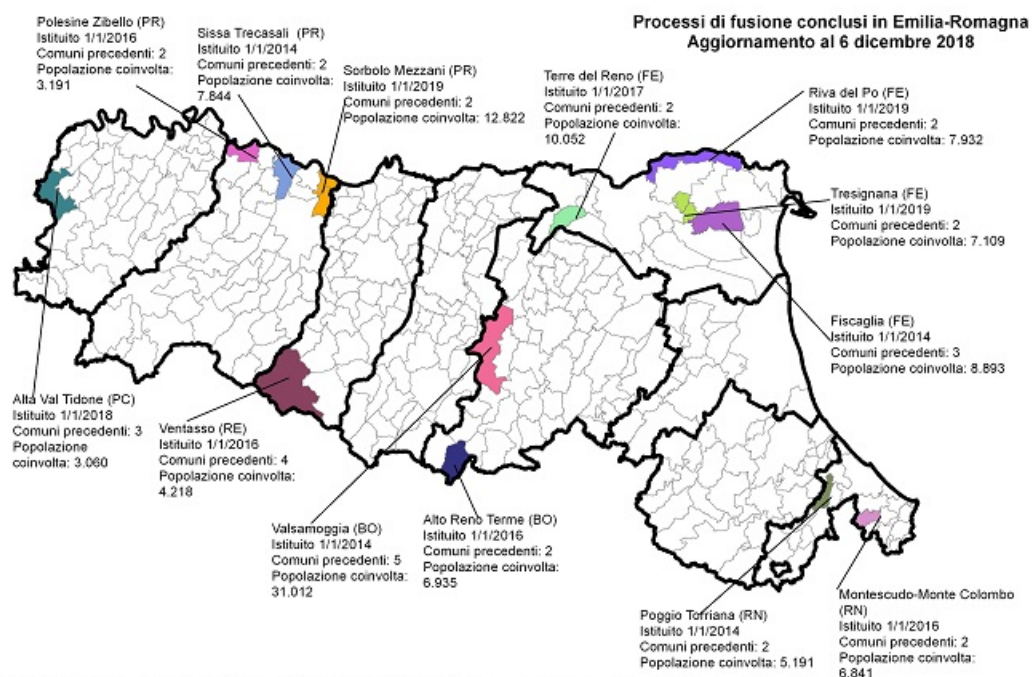
Overall, in the first half of 2021, the number of municipalities in Emilia-Romagna had decreased from 348 municipalities in 2013 to 328 by achieving the suppression of 20 municipalities.

They were joined by 2 new municipalities, Sassofeltrio and Montecopiolo, detached from the Marche region and aggregated to Emilia-Romagna (Law No. 84 of 28 May 2021) effective 17 June 2021.

Fig.34

THE MERGERS

Completed merger processes in Emilia-Romagna



1.3.3. Investments in Local Authorities of the Emilia-Romagna Region in the years 2016-2020

Methodological premises. This report is a brief summary of trends in capital spending in Local Authorities (ELs) in the region. This paper is intended to be an initial representation of the investment trend also in light of the prospects generated by the PNRR.

The analysis was carried out considering the amounts committed in the years under consideration (without the restricted multi-year fund or FPV²⁷) and the amounts paid (paid on accrual and residual accounts). Values are taken from the Emilia-Romagna Region's "Territorial Finance" website²⁸, which is fed from the BDAP (database of local government budgets), the only official data on ELs' budgets. For simplicity of representation, we have considered Title II capital spending as the equivalent of investment. The analysis is at nominal values of the base year; given the low incidence of inflation in the years under review, data are considered to be broadly comparable.

"Committed" in investment spending is a good approximation of what has been achieved. Investment expenditures are committed in the fiscal years in which the individual obligations payable arising from the contract or agreement concerning the implementation of the investment expire, based on the relevant time schedule. Even for investment expenditures that do not require the establishment of a time schedule, the allocation to the financial years of the expenditure concerning the realisation of the investment is made in accordance with the general principle of enhanced accrual, i.e., in consideration of the payability of the expenditure.

"Paid" on accrual and residual accounts expresses the value of what was actually paid on both the year's commitments and those of previous years. It can be affected with respect to progress by late payments, which theoretically should be limited to 30 days from invoice. The analysis divides Local Authorities into three groups:

- Municipalities
- Provinces and metropolitan city of Bologna
- Unions of Municipalities

Investment and PNRR. Overall, municipalities, provinces, metropolitan cities and unions made total investments in 2020 of nearly 1 billion Euro. As a result of the interventions related to the implementation of the PNRR, higher investments are estimated, on a national basis, at about 12 billion per year²⁹. If confirmed, this would amount to more than 40% of the national average annual value of yearly capital spending made by local governments in the three-year period 2018-2020. A study by IRPET Tuscany³⁰ would predict these increases, compared to the base

²⁷ *The restricted multi-year fund is the instrument through which accounting harmonisation intended to give evidence of the time lag between the acquisition of revenue and the making of expenditures financed by it. Therefore:*

- *In the expenditure part, it represents revenue assessed and payable in the year, which finances expenditure committed but payable in subsequent years*
- *In the revenue part, it represents the same revenue that is carried forward to provide financial hedging for expenditures due in the year or subsequent years*

²⁸ See the Territorial finance website <https://finanze.regione.emilia-romagna.it/finanza-del-territorio>

²⁹ *Hearing of the Parliamentary Budget Office on the status of implementation and prospects of fiscal federalism, including with reference to the related contents of the National Recovery and Resilience Plan November 2021.*

³⁰ *Local public investment in PNRR scenarios Giuseppe Francesco Gori, Patrizia Lattarulo, IV National Conference on Public Accounting, Venice, 17 December 2021 "Il comune nella finanza globale: i conti pubblici nel "front office" dello Stato alla prova del NGUE" (The municipality in global finance: Public accounts in the state "front office" to the test of NGUE)*

investments of municipalities as a result of the PNRR: 3% over 2022, 23% over 2023, 83% over 2024, 112% over 2025, 132% over 2026.

Fig.35

Il PNRR un cambio di scala per le amministrazioni. L'attuazione

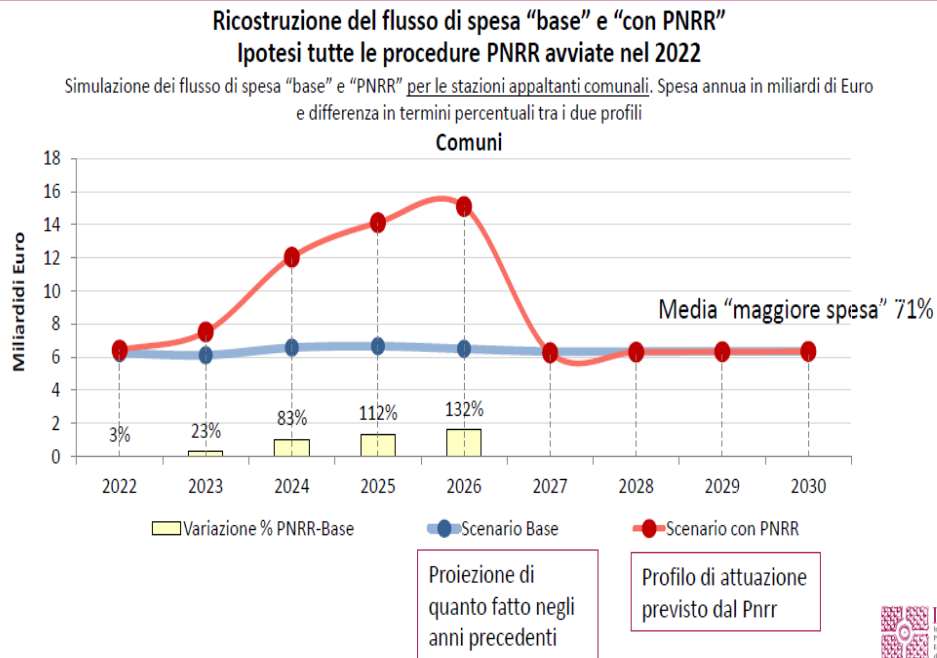
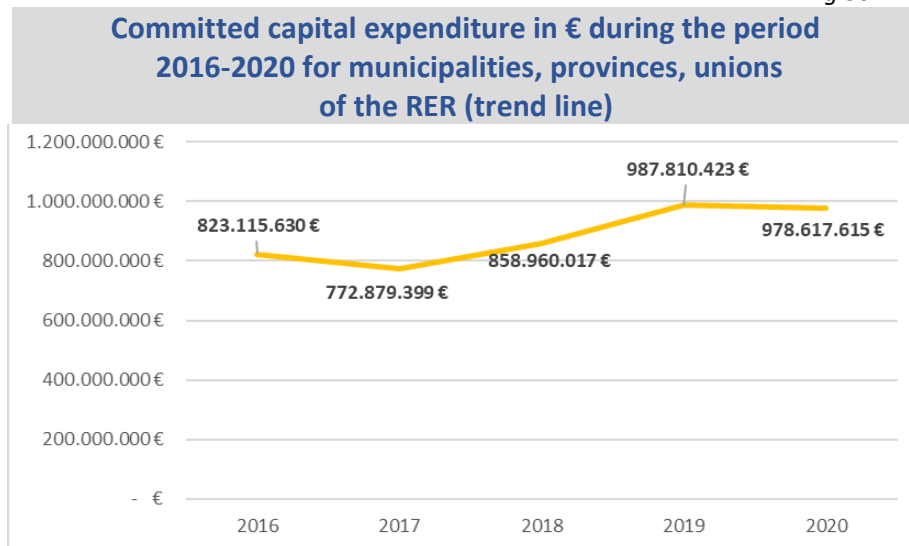
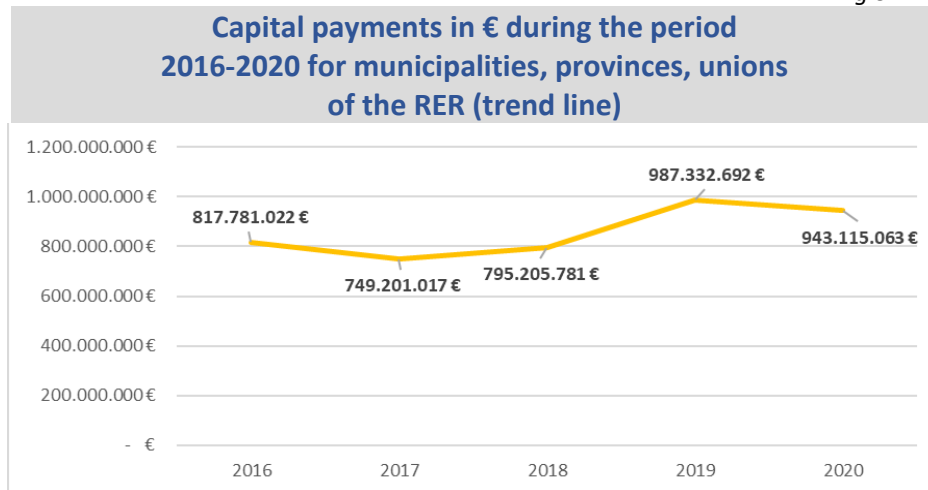


Fig.36



Committed capital spending since 2017 has been growing almost steadily. In 2020 growth came to a standstill with an imperceptible 0.9% decrease from the previous year that marked the halt due to the effects of the slowdown in activities because of Covid-19. The cumulative value over the five years is as much as 4,421,383,084 Euro in investments.

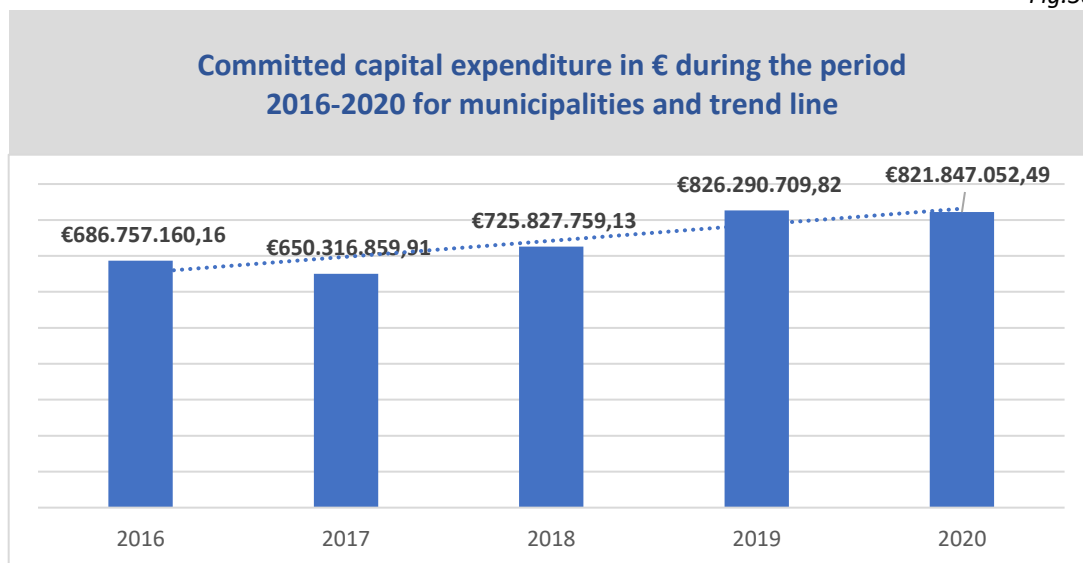
Fig.37



Exactly homogeneous is the trend of capital payments (accrual and residual account) in the five years under review. The values are obviously different since the nature of the accounting entry (paid instead of committed) is affected by the time lag of payments. Again, the slowdown in 2020 was definitely affected by the pandemic. Total payments over the 5 years amount to 4,292,635,576 Euro

Capital expenditure of Municipalities. Municipalities are obviously the bodies with the largest capital spending capacity, accounting for 84% of the total Local Government sector.

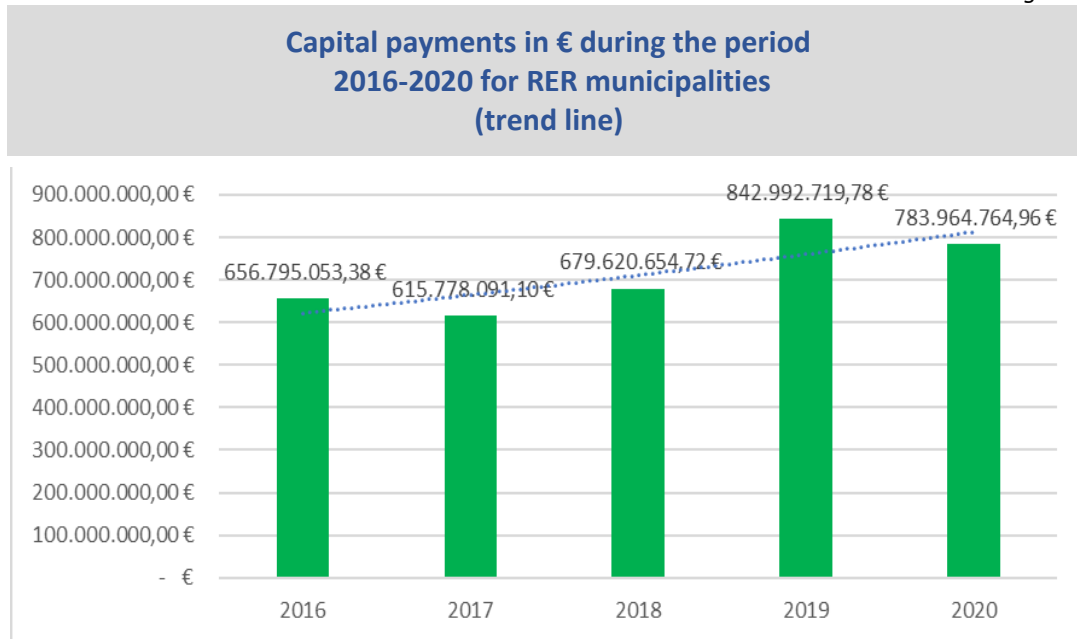
Fig.38



Provinces follow with 12% and unions with 4%. It should be kept in mind that until 2018 public finance constraints, the so-called "stability pact" imposed spending limits in various ways that also affected investment spending. As of 2019, these constraints have been permanently overcome. The trend for municipalities has been steadily increasing since 2017. We assume this is due to the breaking of these public finance constraints (October 2018). This is evidenced by the significant increase in commitments from 2019 onward, which was also confirmed in 2020. The balanced budget was finally overcome thanks to Law 145/2018 and allowed to free up resources for investment by about 100 million Euro per year, from 726 million in 2018 to 826 in

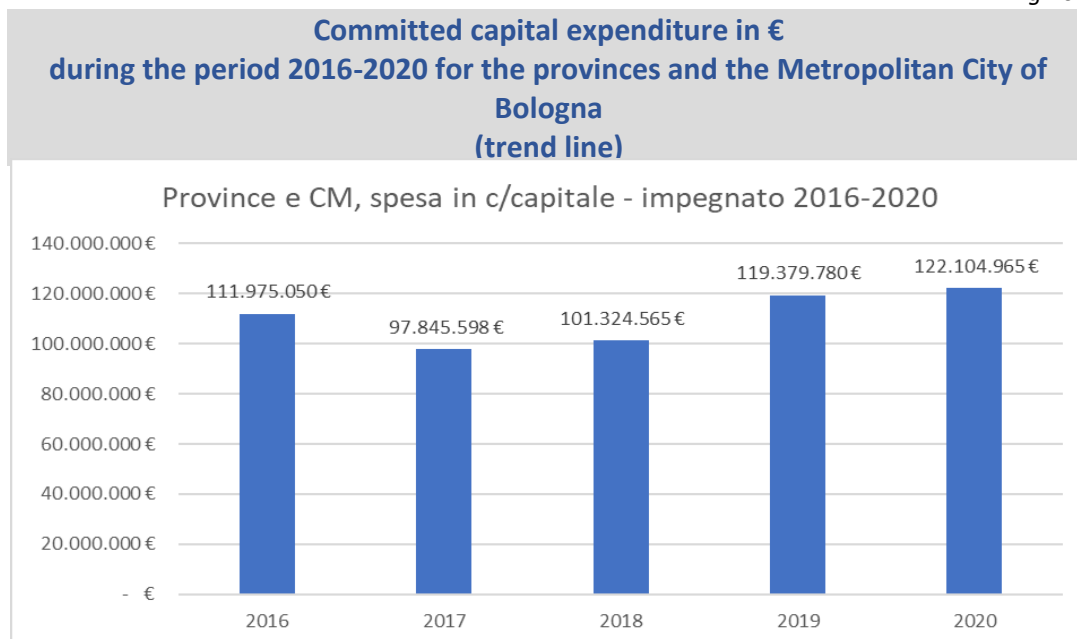
2019. 2020 came to a halt due to the pandemic and stabilised at the same values as the previous year. The payment trend is more erratic, probably affected by the different chronology of the progress, as well as by a possible non-timely application of accounting rules when reassessing residuals. However, after a decline from 2016, payments were growing steadily from 2017 to 2019. 2020 payments also declined as a result of slowdowns in activities due to the pandemic. In fact, they decreased of about 59 million Euro in payments compared to 2019, corresponding to -7% on 2019.

Fig.39



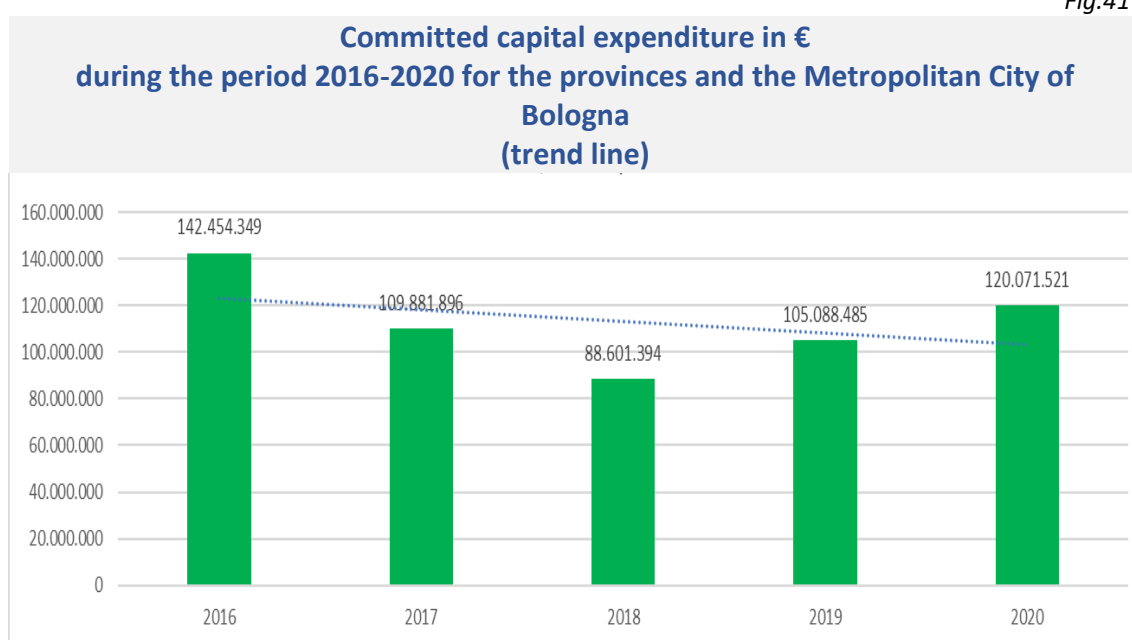
Capital expenditure for the Provinces and the Metropolitan City. The trend of the provinces and the Metropolitan City of Bologna is the same as the municipalities' one with a decline in the committed part in 2017 that then resumed steadily until 2020.

Fig.40



In contrast to municipalities, on the other hand, payments have considerable fluctuations from year to year and showed a downward trend from 2016 to 2018, being probably the result of the reduction in resources due to the regulatory reform of Delrio Law. 2016 was the year with the highest payment volume, which so far, despite slow growth in recent years, has yet to be matched. Overall, if for the committed part the values have small fluctuations (18% being the maximum one) in payments, which are affected by the time lag of work performance, they are definitely more pronounced. Please note that in contrast to municipalities, payments in 2020 grew by 14.3%.

Fig.41



Capital expenditure of the Unions of Municipalities. Unions³¹ are the most recently established bodies. Their low level of investment is due to the fact that only in a few cases the functions related to public works or school buildings have been conferred, the ownership of investment has thus remained predominantly with the municipalities. Thus, most of the Unions' capital expenditures are related to purchases of vehicles and equipment or IT investments. It should also be noted that Unions of Municipalities have always been excluded from public finance constraints, i.e., from the obligation to comply with the stability pact/balanced budget which was instead lying on individual municipalities until the end of the fiscal year 2018. This may therefore have resulted in some of the initial growth.

However, the trend of capital commitments and payments was also increasing until 2019 and then decreasing in 2020 for the well-known reasons due to the pandemic. 2019 was the highest spending year, with a committed part of 42 million Euro. Same trend for payments, which in 2020, however, only slightly decreased. It is still noted that in the period under consideration the growth was enormous: in 2020 Unions more than doubled their investments compared to 2016. Considering that to date only two Unions have conferred Public Works, Environment and Energy functions, the amounts are substantial and bode well in light of the additional resources that will be disbursed to the bodies for the management of the PNRR. Taking 2020 as an example, 11 unions made investments of more than 1 million Euro, with the largest amounting to 3.8 million. One finds a certain correspondence between "consolidated" Unions and investments, remarking that the size and conferral of many functions favours the

³¹ The values also include the New Imola District, which can be likened to a Union of Municipalities.

allocation of investments to the union. It is positively noted that almost all unions still incurred capital expenditures, although some only by a few thousand Euro.

It is good to remember that to finance investments Unions of Municipalities can take out loans with Cassa Depositi e Prestiti S.p.A. and Istituto per il Credito Sportivo like all local governments. Lenders require special guarantees from the union's member municipalities in order to grant loans to the union and, in particular, a commitment by the municipalities concerned to take over all existing obligations of the union to Cassa Depositi e Prestiti in the event of default by the authority.

Fig.42

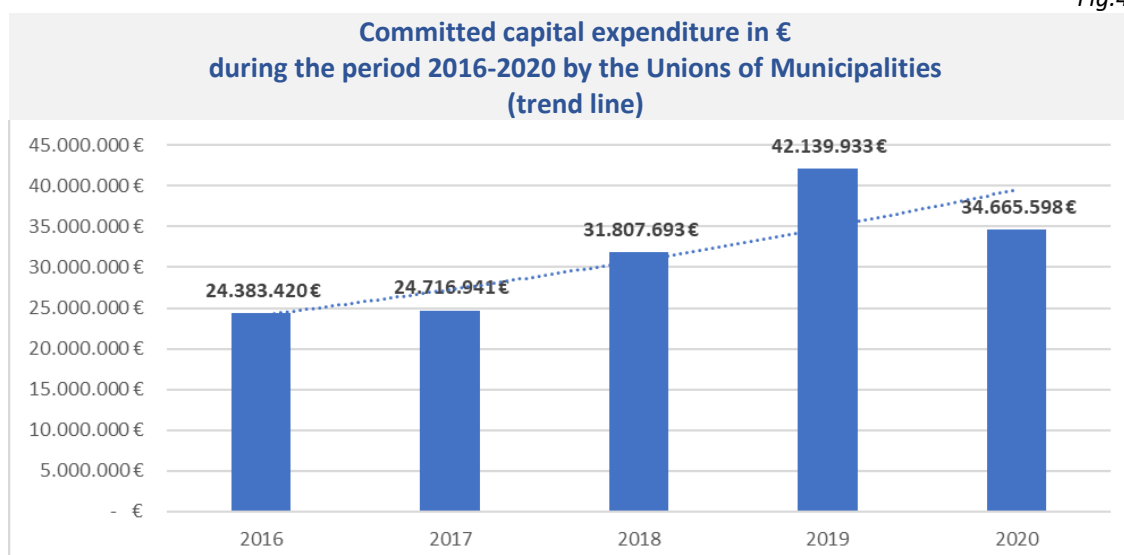
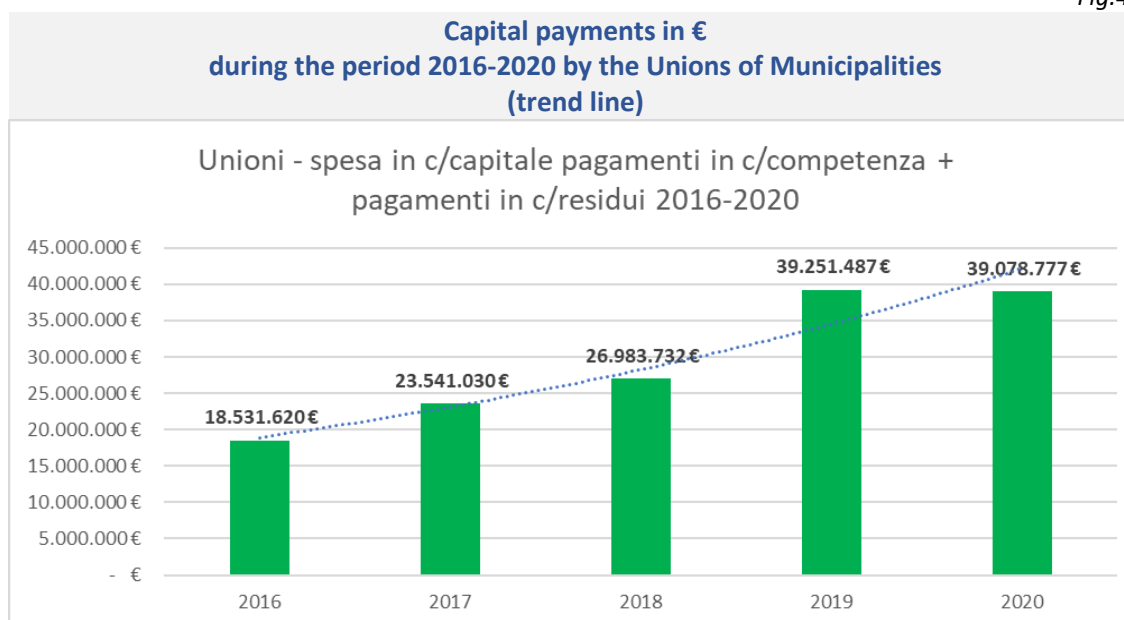


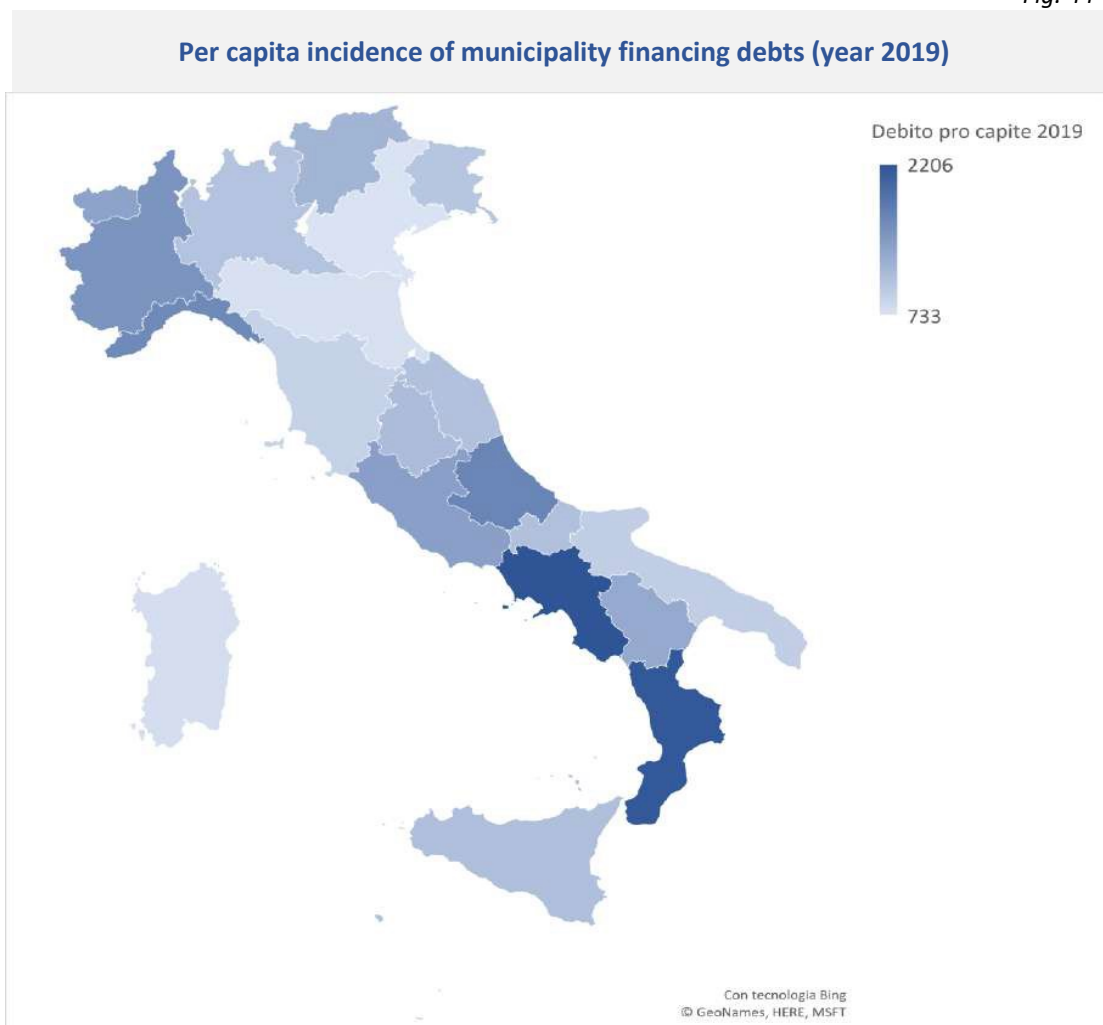
Fig.43



The investment financing funds. The breakdown and dynamics of financing funds show a truly impressive trend for local authorities overall. The main item is capital revenue (Title IV of revenue), assessed values from statements of bodies (investment contributions from other PAs, revenue from disposals, etc.), which increase from 536 million in 2016 to 750 million in 2020. In 2019, in order to support recovery in particularly critical areas of intervention for local

authorities, a 64.13 million Euro state subsidy was granted to support investments by municipalities and provinces and a direct subsidy specifically to municipalities for investments in securing schools, roads, public buildings and municipal property amounting to 400 million Euro. The time dynamic is the usual one with a steady increase from 2016 to 2019 and a slowdown in 2020 due to the pandemic. The use of surplus for investment in 2020 doubled compared to 2016, (item "P" Use of surplus for investment expenditure) from 198 million to 402 in 2020. This increase is also constant in 2020. Borrowing, on the other hand, has a convex trend in the time frame, contracting from 2016 to 2018 then restarting an upward trend in 2019 and in 2020 taking on the significant value of 127 million Euro. The use of loans for investment is a structural fact that should not be a cause for concern also considering that the Region's local authorities are among the least indebted nationwide (the debt of RER municipalities accounted for 4.9% of the national total in 2019³²). The debt per inhabitant of the region's municipalities in 2019 was 758 Euro per capita and represented together with the municipalities of Veneto (733) the lowest figure nationwide. National average is 1,228 Euro per capita.

Fig. 44



Source: State Auditors' Department³³

³²The debt situation of the surveyed municipalities in fiscal years 2018 and 2019 Page 202 of the Court of Auditors, Report on the financial management of local authorities Municipalities, Provinces and Metropolitan Cities fiscal years 2019-2020, Resolution No. 11/sezaut/2021/frg

³³ Processing by the State Auditors' Department on BDAP data No. 11/SEZAUT/2021/FRG

Fig. 45

Composition and dynamics of investment financing funds, assessed values in € in the period 2016-2020 for all ELs and trend lines (Capital revenue Title IV, Borrowing, use of surplus)

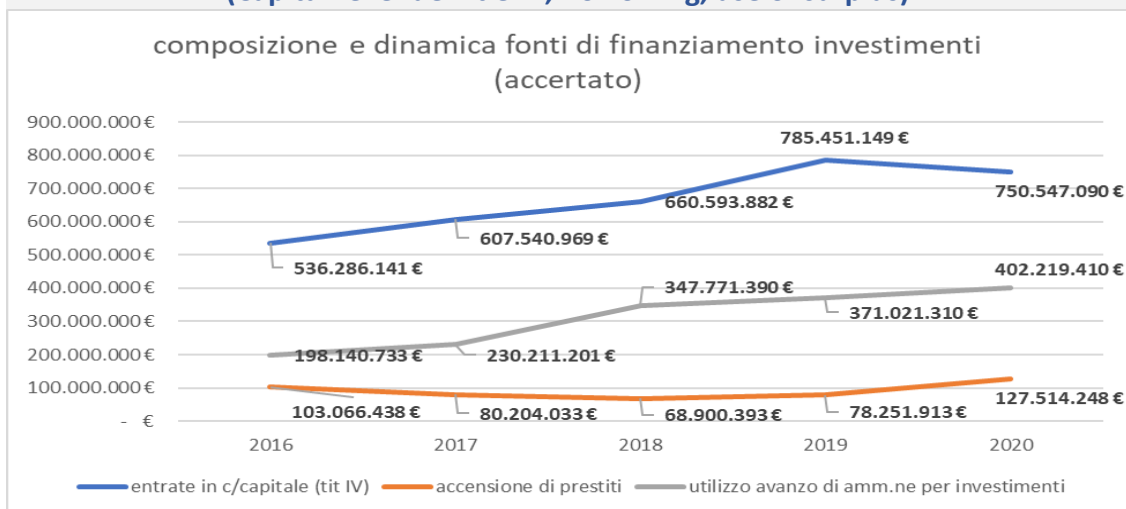
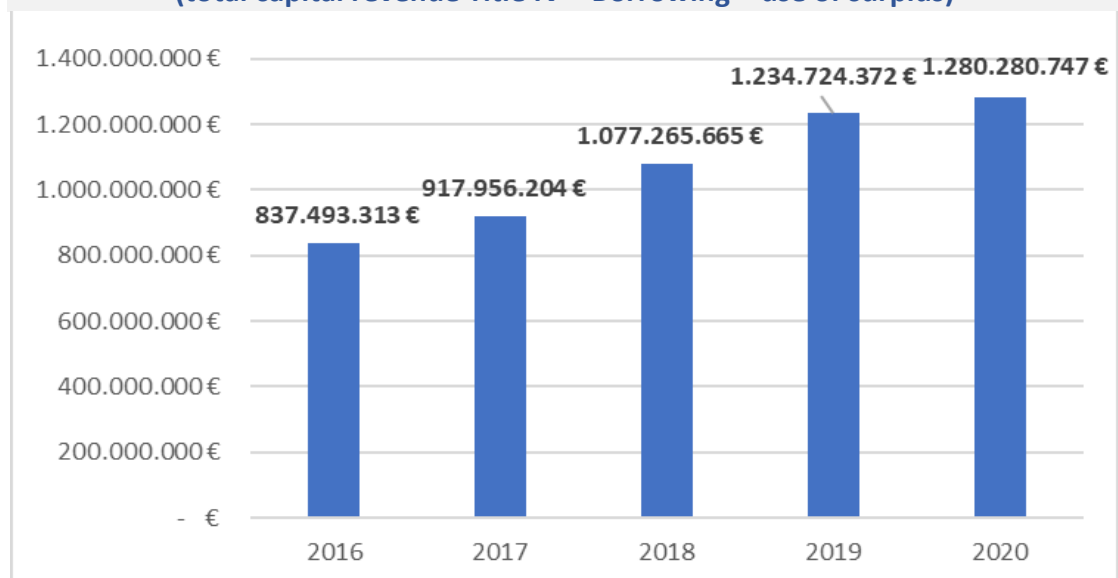


Fig. 46

Total sources of investment financing, assessed values in € during the period 2016-2020 for all ELs (total capital revenue Title IV + Borrowing + use of surplus)



In the total amounts, the main revenues for investment financing steadily increased from 2016 to 2020. The increase was significant and recorded +50% at the end of the period compared to 2016. This bodes well for the continued recovery of investment

Conclusions. The five years under review show a strong upswing in investment, which grew steadily through 2019 and then came to a halt in 2020 due to the pandemic. Also confirmed at the regional level is a trend already noted at the national level, the lockdown suddenly interrupted this investment restart process that had just begun after years of balanced budget

constraints, imposing several months of suspension on the activities of contracting stations. At the national level, 2019 was the year with the highest number of public works started in the past 8 years³⁴. The pandemic and related difficulties in the completion of administrative procedures actually interrupted this recovery trend in the investment activity of contracting stations³⁵. Over the period under review, which is 2016-2020, investments of more than 4 billion Euro were made, the main part of which was due to municipalities. In 2018 and 2019, investments grew in the Emilia-Romagna Region by 11% and 15%, respectively, before the 2020 stop. It should be noted, however, that capital payments in 2019 increased by 24% over the previous year compared with the national increase of 18.4%³⁶.

Capital spending exceeded 2016 values. Those were years conditioned by public finance constraints, then removed by the end of 2018. It should be noted that the 2018 and 2019 budget laws may have had a positive influence in these years. They included provisions that, on the one hand, allowed local governments the possibility of using resources that were previously unavailable (resources not made up of final revenues and limited use of resources set aside in the FPV) as a result of the decisions of the Constitutional Court³⁷, on the other hand, they provided for the allocation of funds, contributions and financing to be allocated to local authorities for specific investment policies (school buildings, environmental emergency, urban redevelopment, suburban safety) as well as for the implementation or completion of public works. Regulatory interventions also addressed the procedural aspect, including measures to simplify and streamline procurement and contracting procedures³⁸. The provinces and metropolitan city recorded the lowest value in the years 2017-2018 and then rose again. However, such value is still lower than in 2016. Unions of Municipalities have a small share in investments, given also the low prevalence of associated management of public works services, but show positive dynamism with increasing values. Looking forward then, especially with the additional resources of the PNRR, we expect a significant growth in the values of capital expenditures that local authorities will have to manage.

³⁴ *The Territorial Finance 2020 Report, IRES Piemonte, IRPET, SRM, Polis Lombardia, IPRES, Liguria Ricerche, Umbria Research Agency.*

³⁵ *In contrast, the sector most affected by the lockdown was the municipal one, which on average starts about 50% of the country's procedures and shows a major drop in both the number and amount of public works compared to the March-May quarter of 2019 (p. 37 of the 2020 Report of "territorial finance"). quote*

³⁶ *5.2.2 Capital spending in the 2018-2019 two-year period: State Auditors' Department, Report on the financial management of local authorities Municipalities, Provinces and Metropolitan Cities financial years 2019-2020, Resolution No. 11/sezaut/2021/frg*

³⁷ *Constitutional Court Rulings No. 247/2017 and 101/2018*

³⁸ *We refer, in particular, to the so-called decrees Sblocca cantieri (Decree-Law 32/2019) and Semplificazione (Decree-Law 34/2019).*

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