

# Recovery and Resilience Plan

## **#NEXTGENERATIONITALIA**

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### **Foreword**

At the beginning of last year — and perhaps as early as the end of 2019 — the SARS-CoV2 virus began to spread in China and other countries. Italy was the first European country to be severely affected by it. The strategy to contain the spread of the virus adopted by the Italian Government and followed by almost all other European countries has entailed personal, social and economic sacrifices to protect public health and to avoid the even worse damage that an uncontrolled spread of the virus could have caused and could still cause.

The economic cost for families and businesses – albeit necessary – was high. The Italian Government has allocated huge resources to support income and employment, protect the most vulnerable members of society, strengthen public health – which has been subject to unprecedented pressure – and ensure a constant flow of liquidity to the economy. Overall, the refunds, tax cuts and other forms of support introduced in 2020 amounted to  $\in$  108.3 billion (6.6% of GDP). Guarantees and loan moratoriums supported the disbursement of credit for about  $\in$  450 billion.

The times we are living will be remembered as some of the hardest in recent history, both for the global and the European economy. The rapid succession of two financial crises and an ongoing health emergency of global magnitude, which has already caused almost two million deaths worldwide, have had serious consequences on employment, the productive fabric, and the economic and social cohesion of almost all countries. These consequences have aggravated the already-difficult adaptation of our economies to climate change, the digital revolution and the profound geopolitical changes that are under way.

Today, Europe and Italy must face a new epidemic wave, which has brought about further economic and social costs that the Government has dealt and is still dealing with.

However, we now have the tools to address and overcome these difficulties.

We have strengthened the responsiveness of the healthcare system. We have learned how to modulate restrictions to deal with the virus without imposing excessive costs. We have launched an unprecedented mass vaccination campaign, which will enable us to go back to normal life within a year. All this has been achieved thanks to an extraordinary international effort with regard to research and vaccine production and a coordinated European plan ensuring administration of vaccines to all people, starting with the most fragile and most vulnerable.

On the international policy front, the spirit of cooperation prompted by the health emergency must be supported and strengthened, overcoming the geopolitical tensions that have exacerbated uncertainty and economic difficulties in recent years. The new US leadership shows considerable openness to multilateralism. Italy, as the holder of the G20 presidency, will play a fundamental role in leading this change; indeed, we have already launched a fruitful dialogue with the G20 member countries and – in particular – with the new US administration.

Finally, in terms of economic policies, we are facing a real turning point in Europe. At the beginning of the pandemic, Italy understood before others that Europe had to play a key role in this struggle, and that this time it could and should give a strong, united response. The extraordinary financial plan approved last July by the European Council is also the result of our efforts, and it will provide resources worth € 750 billion, of which € 380 billion consist of grants. The money will be raised by issuing European securities, of which 30% will consist of "green bonds". Italy will be the first beneficiary of the plan, with approximately € 209 billion in loans and subsidies (at 2018 values). We insisted that this decision be taken; we believed in it despite the fact that a number of people, even in Italy, considered an agreement very unlikely.

The very name of the European extraordinary plan – Next Generation EU – shows what the perspective should be. In the words of the President of the European Commission, Ursula von der Leyen, "We choose to not only repair and recover for the here and now, but to shape a better way of living for the world of tomorrow". The historic task to which we are called is to build a European Union for the next generations.

The huge resources allocated to this end are an opportunity and – at the same time – a great responsibility.

For Italy, it is not only about recovering the losses due to the pandemic crisis; we must move on from the past. We cannot afford to return to the *status quo* prior to this crisis. For over 20 years, Italy has struggled to keep up with the other advanced economies. For some time now, Italy has been experiencing output and productivity growth rates that are significantly lower than those of other major advanced economies and inadequate to ensure a significant improvement in the well-being of its citizens.

In order to emerge from this crisis and bring Italy to the forefront of European and international development, we need a clear, shared, ambitious project for the future of the country, one that will enable Italy to recover by removing the obstacles that have held it back in the last twenty years.

The Recovery and Resilience Plan (RRP) will serve as the cornerstone of this project in conjunction with the other economic planning tools available to us, starting with the European funds available within the Multiannual Financial Framework.

Italy's delay is due to well-known structural problems that have never been tackled with the necessary determination. This is the time to take action, following three lines of reform and keeping the individual, their freedom and aspirations at the core of everything we do.

First of all, we want a modern, innovative country with an efficient, modern public administration in which innovative and increasingly competitive companies can operate; a country with secure, technologically advanced infrastructure tapping into all the potential offered by the digital revolution.

Secondly, we want a greener country equipped with energy production and transport systems compatible with the objectives of reducing climate-altering gases and more resilient to extreme climatic events.

Finally, we want a country that is more cohesive and more attentive to the well-being of citizens living in its large urban centres, villages and many, maybe too many, outer areas. The increase in gender inequalities in society and in the inequalities between regions and territories cannot be tolerated. These inequalities are the result of flawed policies that proved unable to curb a dynamic that is harmful to economic growth and to the stability of the social fabric. Nobody should be left behind.

These are challenging goals. The RRP aims at giving substance to these objectives, translating them into reform and investment actions with guaranteed execution times and subject to constant public scrutiny. The Plan is structured along three strategic axes: digitisation and innovation, ecological transition and social inclusion. Its six missions unfold within this rationale. However, these missions, taken as a whole, are also aimed at three major "horizontal" objectives, following an integrated approach: gender equality; the enhancement of the skills, abilities and employment perspectives of young people; regional rebalancing and social cohesion, with particular attention to the regions of the South.

The modernisation of the economy entails the complete relinquishment of outdated production paradigms and a shift to a knowledge-based economy. This requires first and foremost skills. Therefore, we must concentrate our efforts on schools, higher and skill-building education, research, and training. Secondly, we want to remove the main obstacles that prevent the country and its rich entrepreneurial fabric from growing to its full potential. This means first and foremost carrying out essential reforms: that of civil and criminal justice, to ensure the effective protection of rights and interests through streamlined and efficient proceedings, and that of the Public Administration, which will also be achieved thanks to a wide and effective use of digital technologies, thereby reorganising the services offered to citizens.

In order to achieve the transition towards an environmentally friendly economy, we will first and foremost continue along the path laid out by Italy's Integrated National Energy and Climate Plan (PNIEC) and the ambitious objectives of the European Green Deal and the 2030 Agenda. The plan includes measures to increase the production of energy from renewable sources as well as to improve the energy efficiency of buildings, starting with schools and hospitals. New forms of sustainable local mobility and major works to complete the country's railway connections will also be promoted. The RRP also contains specific actions to improve air quality in urban centres, promote the circular economy, mitigate the risks of hydrogeological instability and clean inland and sea waters. These interventions will also prove an investment in the beauty of our country, its villages, its historic buildings, urban green areas and the protection of the land and forests.

We must act immediately to address the gender, social and geographical inequalities that afflict our country and that have been exacerbated by the Covid pandemic. The Plan provides for decisive action in favour of gender equality by supporting female employment and entrepreneurship, the implementation of various enabling interventions, starting with social services such as nursery schools, and appropriate policies to ensure a proper balance between professional and personal life. There will be a major commitment to reducing job insecurity and high unemployment rates, which mainly affect young people and — again — women. The lines of action identified will support the creation of jobs, the training and retraining of workers, as well as

their income during employment transitions. In order to address pockets of poverty and backwardness, both old and new, the plan envisages interventions aimed at areas characterised by greater fragility, investments in social housing and investments focused on improving the resilience and geographical cohesion of the country's inland, mountain and island areas. These initiatives will not neglect the role of sport and culture in strengthening social inclusion. The RRP, in line with the 2030 Plan for Southern Italy, will help to enhance the South's contribution to the relaunch of the country. This will unleash its unexpressed growth potential and act in a perspective of synergy and complementarity with the European and national resources of the 2021-2027 cohesion policy.

The RRP will contribute, together with the other government actions already undertaken, to strengthening our healthcare system, which was struck so hard by the pandemic, in order to protect the health of us all. Two guidelines have emerged as fundamental: the importance of local social and health facilities for a widespread assistance network close to citizens, and the need to promote the technological and structural modernisation of hospitals while developing telemedicine and promoting basic and applied medical research.

In conclusion, the Italian Government is fully committed to the RRP and its many lines of action. The success of the plan will require a contribution from all. In its comprehensive articulation, the Plan has a **clear strategy**, namely strengthening of the human, natural and social capital of our country, which is a **fundamental principle** underlying the centrality of the individual, as well as their freedom, aspirations and dignity. These elements should always be protected, both in the labour market and within society. A **long-term vision** is also key, as shown by the name of the European programme: "the Next Generation" that we must always keep in mind, because "We didn't inherit the earth from our fathers, we borrowed it from our children".

Giuseppe Conte
President of the Council of Ministers

#### PART 1 - THE RRP: AN OVERVIEW

#### 1.1 THE EUROPEAN UNION FOR THE NEXT GENERATIONS

Building a European Union for the next generations: this is the historical task we are called to, not as supporting actors, but as the protagonists of this century's history.

In recent years, the European Union has undergone a period of repeated financial crises and recessions. The stability of the Euro area has been severely tested. Income and employment asymmetries among Member States and geographical areas have increased, exacerbating social tensions and political risks. Finally, in 2020, the health emergency generated by the Covid-19 pandemic led to a production stoppage of unprecedented proportions as well as to the adoption of emergency measures with profound social repercussions. The challenges we face are enormous.

Faced with the aforesaid crises, the European Union has failed to develop an appropriate response, owing to its institutional set-up as well as to incomplete intervention instruments, and the adoption of austerity policies has sparked a spiral of mistrust. During the Covid-19 epidemic, awareness of a common fragility has been accompanied by an urgent need for change. Europeans have been able to once again find common ground, with the rapid approval of instruments aimed at tackling the crisis and laying the foundations for recovery.

A decisive, historic turning point came with the agreement to finance the Next Generation EU (NGEU) initiative with € 750 billion. The decisions of the European institutions show a profound awareness of this historical passage. A European idea of the society of the future is emerging, which will give substance to the project of a "geopolitical Europe" launched by the Von der Leyen Commission, to affirm European strategic autonomy.

All of the institutions have been committed to coordinated and coherent measures for the new course of action. Already in the first half of 2020, the European Central Bank (ECB) quickly responded by strengthening its extraordinary monetary expansion, providing a fundamental contribution to member countries in containing the economic fallout of the pandemic. The Commission approved the flexible use of budgetary resources with the *Coronavirus Response Investment Initiative* (CRII plus), the general safeguard clause of the Stability and Growth Pact and the temporary framework relating to state aid rules. Even before NGEU, unprecedented safety nets were made available to face the social, economic and health emergency: the instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE), the strengthening of the EIB's instruments, as well as a new specific line of credit to cope with the pandemic within the European Stability Mechanism (ESM), approved in the spring and available to Member States of the Euro Area.

Finally, at the end of December 2020, the Council of the European Union and the Parliament reached an agreement on the new Multiannual Financial Framework for 2021-2027, overcoming the vetoes in an effort of solidarity and making all the resources available for the relaunching of the Union.

We are not dealing with a mere list of initiatives, but with a new concrete political will: to strengthen unitary features and internal solidarity within the EU in order to finally make Europe a key player on the global stage.

Italy is strongly committed to the European turnaround. Our country fully identifies with a process entailing the progressive sharing of risks of investments aimed at tackling common priorities, recovering productive capacity, improving material as well as non-material infrastructures, and dealing with the energy and digital transition. The challenge of inclusive growth concerns the whole of Europe, which must find a new role in technological competition and in the reorganisation of value chains. However, it mainly concerns Italy, where the previous crises have exacerbated the already significant gender, generational and geographical inequalities, deeply undermining its resilience.

This monetary policy commitment, while necessary to deal with the shocks, will not be sufficient if it is not accompanied by a radical change in fiscal policies. It is time to build an investment union. In these terms as well, Next Generation EU is responding to a historical need, which over the course of the decade will involve, among other things, the creation of new intra-European and Mediterranean networks, as well as the launch of collaborative infrastructures for science and research, starting from the challenge of global health.

There is no world of yesterday to go back to, but a world of tomorrow to swiftly give birth to. Next Generation EU expresses the urgency and the opportunity for a real European economic renaissance, with an instrument that will enable the Commission to obtain funds on the capital market. Next Generation EU indicates the sharing of a common roadmap. The prospect of a European Renaissance does not only involve the recovery of our economies. It is a cultural challenge that engages all countries. It is the start of an unprecedented process of transformation towards the green and digital transition, which enables the Union to catch up in the global technological race, to create good jobs while maintaining and renewing the European social model, and to affirm global leadership for sustainable development, which is even more necessary after the Paris Climate Agreement.

Interdependence is the key to Europe's new course of action. Each EU Member State is called upon to contribute to the common goals. A strong and simultaneous recovery of all European countries is essential for the maintenance and strengthening of the Union, for the safeguarding of the Single Market, and for the ability to promote European rights and values in a fragile world.

Italy intends to be a key player of this European Renaissance, through the relaunching of public and private investments and with reforms aimed at bolstering the capacity and efficiency of institutions. The extraordinary role assigned to Italy within the framework of the Next Generation EU initiative is proportionate to the needs of the country, which not only concern the immediate consequences of the pandemic, but also and above all the problems and structural gaps that have hindered Italian growth during the last decades.

Next Generation EU marks a European watershed. The Recovery and Resilience Plan requires a turning point for Italy, in the planning and implementation of investments, that would mark a clear shift towards sustainable development, digitisation and innovation, and the reduction of gaps and inequalities.

# 1.2 NEXT GENERATION ITALIA. THE GREAT OPPORTUNITY OFFERED BY THE RECOVERY AND RESILIENCE PLAN

Next Generation EU is the great opportunity for Italy's development in this decade, which calls the country to a collective and urgent effort.

The instrument for achieving this national effort, namely the Recovery and Resilience Plan, (RRP) will be able to make Italy a more sustainable and inclusive country, with a more advanced, dynamic economy.

It is a *Recovery Plan*, because it responds to the economic and social impact of the pandemic crisis, starting with the lessons that have been learned in some of the most difficult months of the Republic's history. The Italian recovery should not bring us back to the "yesteryear". It will have to build a new Italy, seizing the opportunities associated with the ecological and digital transition. It will have to unleash the growth potential of the economy, increase productivity, create new jobs and improve the quality of work and citizenship services, starting with health and education.

It is a *Resilience Plan*, because the pandemic and the ecological emergency have put the extreme events of the present and the future at the heart of our concerns. Resilience is the readiness of the state, corporations and all social actors to tackle them. It is the adaptation required of our production chains within the changes of globalisation and new technological frontiers. It is the ability to prepare for the future, to govern transformations without being overwhelmed by them.

It is also a *Reform Plan*, because the lines of investment are accompanied by the adoption of a reform strategy, as an "enabling" and catalyst element, in line with the *Country Specific Recommendations (CSR)* of the European Commission and the National Reform Plan (NRP) adopted by the Government. The implementation of the ongoing reforms will be an integral part of the Plan.

The process for relaunching the country outlined in the Plan is guided by policy objectives and interventions connected to the three strategic axes shared at a European level: digitisation and innovation, ecological transition and social inclusion.

These priorities have taken on a crucial role for our country, because they point to the key issues to be solved in order to usher in a "new era" for the Italian economy and society, outlining the challenges of the future that must guide the direction and quality of development. The low propensity for innovation in the productive system and the low level of digitisation of our economy and Public Administration (PA) are among the main causes of the country's low economic growth

rates, which in turn are reflected in the insufficient rate of female and youth employment and the backwardness of the economy in Southern Italy.

The Plan makes it possible to deal with the radical nature of the transformations imposed by the dual ecological and digital transition, a challenge that requires strong collaboration between public and private sectors.

With the Plan, Italy has become a key player of the European Green Deal, in keeping with the aims laid out by President Ursula Von der Leyen in her Speech on the State of the Union: to reduce pollutant emissions; increase jobs in the green economy; improve the energy efficiency of buildings; unleash and support the industrial processes of the green transition. At the same time, the challenge of sustainability and emission reduction, in transport and in the production of goods and services, will also be won thanks to digital solutions.

Over the course of this decade, we will have to face an increasingly rapid digital transformation, which is also at the heart of the geopolitical competition. Digital technology will increasingly characterise the industrial chains of Italian manufacturing, as well as every aspect of social life (mobility, education, health). Digital technology is the enabling platform for reforms and competitiveness. As the acceleration of the pandemic has shown, digital capacity will increasingly be a crucial factor for inclusion. Only a capillary investment in digital technology with regard to infrastructures, skills and culture will be able to release the potential of all Italian regions.

Italy will not be able to call itself sustainable if it fails to grasp how to tackle and reduce gender, generational and geographical inequalities, which are the main factors of social exclusion in our country. Therefore, the implementation of the interventions connected to the strategic axes of the Plan becomes an essential tool for addressing and resolving the critical issues relating to three cross-cutting priorities: women, young people, and Southern Italy. The focus of its priorities needs to be long-term inequalities and the most pressing investment needs.

Implementing the Recovery and Resilience Plan from the viewpoint of women, young people and the South of Italy is not only an act of justice: it is the essential lever to activate Italy's development potential and to rethink social infrastructures and the public machinery. The impact on cross-cutting priorities will therefore be highlighted, monitored and assessed for all its Missions.

The basic mission of the Recovery and Resilience Plan is to engage and govern the next decade's decisive factors, involving all citizens and all economic and social entities in a national collective effort, addressing the structural problems that have held back Italian development for too long.

#### The issues to be solved in order to relaunch national development

The unsatisfactory growth of Italy is not only due to the weak dynamics of investments, but also to structural factors, such as the declining demographic dynamics and the low birth rate, the small average size of the companies and the insufficient competitiveness of the country-system, the burden of high public debt, and an incomplete transition to a knowledge-based economy. This is made increasingly evident by the statistics concerning the country's results in the fields of education, technological innovation and productivity. These statistics highlight significant delays

vis-à-vis the main European partners, as well as marked regional disparities, exacerbated by the failure to define the essential levels of services concerning civil and social rights.

The economic repercussions of the pandemic fit into this picture, thereby aggravating it. The impact on the labour market has been mitigated by the many measures implemented by the Government, and more specifically by the extensive use of social safety nets. However, job losses have been significant among fixed-term contract workers (especially young people) and self-employed workers. Some jobs could be definitively lost – also due to the progress of new digital technologies –, and it will be necessary to face a process of reallocation between sectors and geographical areas. Public employment services and their coordination with private services must be strengthened in order to facilitate this process.

The income, gender, generational and geographical inequalities that previously marked our country have only widened since the 2008 crisis. Weak employment prospects have caused the migration of young students and highly qualified workers, which is a real national emergency. Reduced public finance margins have compressed the county's response capacity, especially after the tightening following the Euro area sovereign debt crisis in 2011.

Public investment, which fell from 3.7% of GDP in 2009 to 2.1% in 2018 (only marginally recovering in 2019, to 2.3%) has been especially affected. The assessments of the European Commission indicate that, in recent years, gross fixed investments by the Public Administration have not been sufficient to compensate for the obsolescence of public capital.

Furthermore, the natural disasters that have repeatedly struck the country, from earthquakes to events also triggered by climate change, such as landslides and floods, have caused enormous damage, aggravated by the degradation of infrastructures and the abandonment of certain areas, particularly the inland areas of the country. Therefore, there is a pressing need to bolster the resilience of infrastructures, focusing on extraordinary maintenance, the technological modernisation of monitoring activities and support tools, prevention, civil protection and public aid. Resilience, however, is a broader concept, as dramatically underscored by the ongoing pandemic crisis. It includes, for example, the responsiveness of the health system to unexpected epidemic crises and other health risks; the protection of citizens and the land against environmental risks; the solidity of Public Administration and public finance, which is necessary to be able to respond promptly and effectively to sudden crises.

The weak administrative capacity of the Italian public sector has been a stumbling block to improving the services offered and public investments in recent years. The RRP has addressed this rigidity by promoting an ambitious agenda of reforms for the Public Administration, in turn supported by the digitisation of processes and services, the strengthening of management capacity and the provision of the necessary technical assistance to central and local administrations, which are essential to promote the rapid and efficient use of public resources. One of the most precious legacies of the RRP must be the permanent increase in the efficiency of the Public Administration and its ability to decide and develop innovative projects, accompanying them from their selection and design to final implementation.

#### The reforms that are accompanying Italy on the path of recovery and resilience

The lines of action and policies to be implemented with the Plan will be accompanied by **contextual reforms** that, in line with the Country Specific Recommendations laid by the Union, are aimed at strengthening the entrepreneurial environment, reducing bureaucratic burdens and removing constraints that have slowed down the carrying out of investments or reduced their productivity.

The obstacles to investments in the country also lie in the complexity and slowness of **Justice**. This latter aspect undermines the competitiveness of businesses and the propensity to invest in the country: decisive action is required to overcome this issue in order to increase the transparency and predictability of the duration of civil and criminal proceedings. The slowness of legal proceedings, though already addressed, is still excessive and will have to be contained with procedural and legal reform measures. For these purposes, it is also necessary to enhance the human resources as well as the instrumental and technological equipment of the entire judicial system.

Another key element necessary for the implementation of the RRP measures involves the reform of some components of the Italian tax system, in particular those concerning the Personal Income Tax (IRPEF), in order to make it fairer, simpler and more efficient. The Government has already taken some steps, most recently with the 2021 Budget Law, to reduce the tax wedge on labour. The next step will be a comprehensive review of the Personal Income Tax in the name of fairness and progressivity, accompanied by a ceaseless action to fight tax evasion combined with incentive measures for tax compliance. The reform will be aimed at reducing effective rates on labour income, be it on employees or the self-employed, especially for low and medium-lowincome taxpayers. It will therefore increase the employment rate, reduce non-declared work and encourage the employment of women and young people. This will be combined with the overhaul of the environmental tax system, so that it will contribute to achieving the 2030 Agenda objectives, together with the introduction of the universal family allowance. This reform will bring the Italian tax system more in line with the objectives indicated in the Country Specific Recommendations the European Union has addressed to our country. Finally, the process of tax certification digitisation - electronic invoices and digital "receipts" - will continue, accompanied by gamification initiatives and services to taxpayers that will favour, on the one hand, spontaneous compliance with the regulations, and on the other, the tax administration's enforcement capacity.

Finally, in order for the RRP to realise its effects in terms of additional employment, it will be accompanied by a constant effort to improve the **labour market** in terms of greater equity. The goal is to protect vulnerable workers, including by means of reforming social safety nets. This is aimed at promoting new active labour policies to accompany the ecological and digital transition and guaranteeing a fair remuneration in proportion to the quantity and quality of work performed in order to ensure a free, dignified existence. Action must be taken on various fronts, with particular attention to lifelong training in order to improve the country's performance in terms of labour productivity.

As far as the **promotion of competition** is concerned, the Plan supports the digital transition and the innovation of the productive system by stimulating investments in cutting-edge and

Industry 4.0 technologies as well as research, development and innovation, and cybersecurity. This will also be carried out through the modernisation and completion of very high-capacity optical fibre, 5G and satellite networks, connected to the end user, in order to ensure equal access to the market from everywhere in the country. A reform of state concessions will also be introduced, which will ensure greater transparency and a correct balance between public and private interests, as well as the constant improvement of the service for users.

Additional **sectoral reforms** will be adopted in order to bring the RRP missions to completion, with the maximum effectiveness and in compliance with the planned implementation timelines. These reforms have been illustrated in the discussion concerning RRP missions in Part II of this document.

#### The formulation of the proposal and the consultations for its finalisation

In drafting the RRP proposal, the Government has carried out a public consultation with institutional, economic and social actors that will continue in order to achieve the definitive adoption of the Plan.

In the spring of 2020, the Government entrusted a committee of experts, coordinated by Vittorio Colao, to develop proposals for the Country's Relaunch Plan. In the following months, also in the light of the recommendations of the "Colao Committee", it listened to the opinions and suggestions of Italian companies, trade unions and civil society. In mid-June 2020, the Government organised "Let's Plan the Relaunch" in Villa Pamphili in Rome, a series of meetings with the representatives of institutions and social partners, for a discussion on the country's relaunch.

Since August, the coordination of the work for the drafting of the RRP has been assumed by the Inter-ministerial Committee for European Affairs (CIAE), which in turn has entrusted the Technical Evaluation Committee (CTV) to operationally manage the activities. In September, the CIAE approved a proposal concerning the guidelines for the drafting of the RRP, consistent with those indicated by the European Commission on 17 September, which was submitted to the Italian Parliament for examination.

On 13 and 14 October 2020, the Chambers of Parliament expressed their opinion by issuing an Official Guideline inviting the Government to prepare the Plan, guaranteeing the extensive involvement of the private sector, local authorities and the outstanding personalities that the country is able to offer in all sectors.

On this basis, the Government has undertaken an informal dialogue with the European Commission's task force since 15 October in view of the presentation of the RRP. A first draft of the Plan was submitted to the Council of Ministers in the meeting of 7 December 2020 for a preliminary illustration, which served as the basic documentation for the discussion with the political forces of the majority. The discussion concerned the overall vision of the investment strategy and reforms of the Plan. This discussion has intensified in recent weeks, also through the development of observations and proposals for changes to the preliminary working drafts. The result was summarised in a number of guidelines that led to a significant revision of the project and finances regarding the RRP proposal.

The Council of Ministers, which met on 12 January 2021, approved the RRP proposal. This constitutes the basis for discussion with the Parliament, the regional and local institutions, the economic and social forces, the Voluntary Sector and citizenship networks, for the purposes of the definitive adoption of the Plan.

#### The next steps for an effective implementation

The RRP's presentation will require a more precise definition of the reforms and sector strategies connected to the Plan, also in the light of the Italian Government's choice to fully involve the Parliament. It will also require additional political-administrative steps that will make it possible to conclude the projects and reforms within the required and scheduled timeframes. This will be achieved by identifying the responsible parties, the activities to be carried out as well as the operating work and coordination methods of the administrations and institutional actors involved in various capacities.

The draft of the Regulation on the Recovery and Resilience Facility (RRF) provides that national plans are normally to be formally submitted by 30 April 2021. Informal interactions with the Commission are already underway and provide useful insights for finalising the Plan and its formal presentation.

Considering the economic and financial effects that would arise from a delayed or non-implementation of part of the Plan, the organisation of the work will ensure that the focus of all the competent administrations and institutions involved at every level is on the coordination and implementation of the RRP's courses of action.

The Government, on the basis of the European guidelines for implementing the Plan, will submit a governance model to the Parliament which identifies the responsibility for the implementation of the Plan, guarantees coordination with the competent Ministers at the national level and at other levels of government, and monitors the progress of outlays.

# 1.3 THE NATIONAL RECOVERY AND RESILIENCE PLAN: STRATEGY, PRIORITIES, MISSIONS

#### A three-pronged strategy

The country's recovery action outlined in the Plan is guided by policy objectives and interventions connected to the **three strategic axes** that are shared at European level: *digitisation* and innovation, ecological transition and social inclusion.

The Plan's European dimension clearly directs national measures towards common objectives, setting out specific eligibility criteria for investment and reform projects. This confers greater coherence and impact to the relaunch the European economy, creating a synergy that will have a more significant impact than previously estimated in terms of GDP and employment growth and will contribute to an overall strengthening of the single market.

The strategic option of directing the coordinated action to relaunch investments in order to accompany member countries along the path of ecological and digital transition, which is shared at the European level, is underscored by the provision to bind a share of no less than 37% and 20% of the total appropriations of the RRF to green and digital interventions respectively.

**Digitisation and innovation** are crucial to radically improving the economy's competitiveness, the quality of work and people's lives, and to making Italy a leading player in global technological competition. Digitisation is not a sector in and of itself, but it is the most crucial factor in the transformation of manufacturing, services and work. The digitisation and innovation of processes, products and services characterise every reform policy of the Plan, from the tax authorities to the Public Administration. They also involve the strengthening of social and critical infrastructures, as well as the resumption of cultural and tourist activities.

The European Union, by setting a digital target of at least 20% for the Recovery and Resilience Facility, is promoting investments in technologies, infrastructures and digital processes of Member States. This has been done in order to boost European competitiveness on a global scale as well as to promote the diversification and resilience of European value chains. In this context, the Italian priority is to bridge the deep digital disparity in infrastructures and culture, as shown by Italy's ranking fourth from last in the EU with regard to the Digital Economy and Society Index (DESI), and by its last place as concerns digital skills. Young people, both in businesses and in the Public Administration, will have to be the leading players of a radical modernisation of services, which will be able to increasingly include those citizens who, especially in inland and rural areas, currently find themselves cut off from innovation opportunities.

According to the European Commission's annual innovation index, Italy is a "moderate innovator", below the Union's average. In order to become an innovation leader, it will have to increase public and private investments in research and development. Italy will also need to compete on the technological frontier, especially as far as technology transfers and European strategic value chains are concerned, with a strong involvement of SMEs. Italy should focus on the most advanced supply chains, dimensional growth and internationalisation.

Digitisation and innovation are the premise and means of implementation of the second axis of the Plan, i.e., ecological transition. Investments in connectivity will improve the management of energy consumption and resources, in agriculture as well as in sustainable mobility. This will fuel new kinds of productive and research chains and will also generate good jobs.

The **ecological transition** will be the basis of the new economic and social development model on a global scale, in line with the 2030 Agenda for Sustainable Development of the United Nations. In order to start this process, emissions of climate-altering gases will first need to be drastically reduced, in line with the objectives laid down by the Paris Agreement and the European Green Deal. Secondly, it is necessary to improve energy efficiency and the use of raw materials in production chains, civil and public buildings and the quality of the air in both urban centres and in inland and sea waters.

Interventions for preventing and combating hydro geographic instability as well as an effective and integrated management of the waste cycle will constitute, together with a sustainable management of the agricultural and forestry heritage, a powerful means by which the

green transition can improve the quality and safety of large regional and urban areas of the country.

Ecological conversion can and must also represent a ground for a large part of our production system to be competitive. Large investments are needed to direct the industrial chains of energy, transport, steel, mechanics and manufacturing in general towards efficient products and productive processes, reducing the environmental impacts to a great extent, in line with the most ambitious international goals in the field. Investments are also needed in sustainable and precision agriculture and in the circular economy, starting from the South of Italy. This will make it possible to achieve a greater harmony with nature, still within the framework of a society with a strong industrial vocation. Investments in the circular economy intervene in a process aimed at producing secondary raw materials from waste materials in order to make Italy less dependent on the supply of raw materials and consequently make it stronger and more competitive on international markets. To this end, the agricultural and forestry system will be called to play a strategic role through the supervision and sustainable management of the national territory. The agricultural and forestry system will consequently be able to absorb a significant share of the climate-altering gas emissions of the country system, as highlighted by the European Green Deal.

Investing in this country's "beauty" is also required, also to consolidate the ability to attract tourist flows and the potential of Italy's huge historical, cultural and natural heritage. In the new version of the Plan, the significant increase in resources related to culture and tourism does not only correspond to the need to support the areas that are the most affected by the effects of Covid-19 and recover their growth potential. Indeed, NGEU is not a mere economic and environmental project. It is a European cultural project that defines development sustainability objectives. Strategic investments in the entire value chain of culture and tourism are essential for spreading sustainable development throughout the country, achieving social inclusion and offering young people new opportunities through cultural and creative industries and sporting activities. This is also necessary for bolstering the rehabilitation of urban areas and the recovery of inland areas. An effective management of green areas would contribute to all this, also in terms of their greater diffusion throughout urban and suburban areas, as well as substantial reforestation interventions and actions to reverse the decline of biodiversity and the degradation of the territory, taking the green heritage consisting of natural parks as an example.

Placing **social inclusion** at the heart of the Plan is an important new development. Inclusive growth and social and geographical cohesion, alongside the green and digital transition, are two of the fundamental pillars upon which the programming and content of the RRPs will have to rest, and form the basis on which the overall layout of the Plan will be assessed by the Commission. According to Next Generation EU's logic, sustainable development is linked to the structural reduction of asymmetries and inequalities among regional areas and among people.

For Italy, a drastic reduction in gender, generational and geographical inequalities is a goal that concerns economic growth, as well as social justice and geographical cohesion. For this reason, the European Commission recalled Italy's long-standing economic and social disparities and the divergent competitiveness potential in the Country Specific Recommendations of 20 May 2020,

focusing on the strengthening of essential services and social protection, as well as on the integration of inactive women and young people into the labour market.

The social inclusion axis aims at expanding development in order to reduce disparities among citizens, i.e., disparities in infrastructures, employment, services and public goods between Northern and Southern Italy and between urban and inland areas. A coherent action to reduce disparities, starting from early childhood and education with investments in nursery schools and school facilities, will be able to unleash the potential of all Italian regions, generating new opportunities for quality jobs in the ecological transition and digitisation, especially for young people and women. With this in mind, the Plan is an agenda for Italy's social infrastructures, in line with the European Commission's country reports.

The pandemic has shown the fundamental social and economic value of the local healthcare system, whose improvement involves investments in proximity services and technological and digital equipment. A stronger integration among health, social and environmental policies will contribute, together with investments in research, to a new healthcare supply chain focused on the well-being of citizens and the system's ability to respond to crises. The concept of inclusion promoted by the Plan is closely linked to the leading role of social actors and the voluntary sector, with a strong involvement of citizens and social economy networks.

#### The three overarching priorities: Women, Young People, the South of Italy

The RRP, through an integrated horizontal approach, is aimed at women's empowerment and the fight against gender discrimination, increasing the skills, abilities and employment prospects of young people, and the regional rebalancing and development of the South of Italy. These priorities have not been entrusted to single interventions limited to specific components, but pursued in all the RRP's missions.

Gender Equality	Young People	South of Italy and Regional Rebalancing	
8-7			
Achieving full equality in terms of economic and social access for women by establishing gender equality as a criterion for evaluating all projects (gender mainstreaming) and promoting an integrated strategy of reforms, education and investments in social infrastructure and support services.	Guaranteeing the full participation of young people in the cultural, economic and social life of the country, first of all by investing in their future in terms of education and research and intervening with policies aimed at raising the level of youth employment in the short and long term.	Reducing regional disparities and unleashing the unexpressed development potential of the South of Italy, maximising the projects aimed at pursuing the goal in the Lines of action of each Mission, which also serves as a priority criterion for the geographical allocation of interventions.	

Gender Equality. Gender inequality limits the potential contribution of women to the country's economic growth; its cross-sectoral nature requires a multidimensional and intersectoral perspective and policy. Equal opportunities and rights must indeed be achieved contemporaneously in various areas of economic and social life: from employment to remuneration, education, the balance between family and work commitments, up to the unfortunately still dramatic issue of gender-based violence. An essential condition for progressing in terms of effective and substantial gender equality is the raising of women's employment levels, both from a qualitative and a quantitative point of view. This aim is to be pursued primarily through active labour policies and the improvement of social infrastructures, such as the enhancement of nursery and early childhood services, nursery schools and school time. Investments in social infrastructures create high-quality employment opportunities for women and help unlock women's potential, making caretaking a matter of public importance instead of a burden to be borne by families, ofttimes with unequal distribution between the genders. Measures in favour of women's entrepreneurship and the free choice of motherhood as well as educational policies that particularly promote access by women to the acquisition of STEM skills also aim at this goal.

The interventions financed through the Plan integrate strategic measures contained in the Family Act (single universal allowance for children, measures on parental leave and working times, support for families for children's education costs) and promote a virtuous interaction with the institutional levels involved and the Voluntary Sector. The Plan measures regarding women's entrepreneurship as well as the strengthening of social infrastructures and the school sector for children aged 0-6 strengthen those already provided for in the Family Act, which in turn outlines a broad family aid strategy that is underpinned, in addition to the measures mentioned above, by the support for expenses concerning the child's raising, maintenance and education and incentives to promote measures to harmonise life and work times and the mother's return to the workplace after compulsory maternity leave.

The integration of the Plan with interventions financed through national budget funds, starting from the single payment birth grant, strengthens and expresses the country's overall strategy defined in the *Family Act* and promotes a virtuous interaction with the institutional levels concerned and the Voluntary sector.

**Young People.** Digitisation and innovation, environmental sustainability and social inclusion are the strategic priorities of the RRP and are characterised by the role and importance that the new generations assume as actors and beneficiaries of these policy lines. The components dedicated to digital innovation and ecological transition, together with the fight against climate change and the protection of natural resources, embody, along with social inclusion measures, the awareness, needs, aspirations and skills of the new Italian generations.

The interventions of the Plan will have important employment effects in favour of young people thanks to the development of new sectors and opportunities. The direct impacts on the new generations are present in all missions, and in particular in the one dedicated to "Education and Research": from the fight against early school leaving to the digitisation of teaching, from vocational courses aimed at professions to the strengthening of research, the objectives, expected results and impact of the projects essentially concern young people. In the "Inclusion and

Cohesion" mission, the upgrading of the alternative civil service and the interventions on active labour policies and professional training are aimed at improving the functioning of the labour market and will benefit the new generations. Reform and innovation in the Public Administration, together with the expected generational turnover, become a significant factor of attraction and opportunities for qualified young people.

**South of Italy and Regional Rebalancing.** The RRP, in line with the 2030 Plan for Southern Italy, pursues regional rebalancing and the relaunch of development in the South of Italy as a cross-sector priority that affects all of the missions. In defining the project and RRP's lines of action, therefore, the share of total resources allocated to the South of Italy will be specified, which may also serve as a priority criterion for the regional allocation of the planned investments.

With this in mind, the RRP interventions have been integrated with the European and national cohesion policies currently being planned in order to maximise the additional commitment for geographical cohesion, favouring synergies and complementarity among the resources coming from the RRF, those provided by REACT-EU, and the advance share of the Development and Cohesion Fund (DCF) 2021-2027. In this way, the size and intensity of the interventions for the South of Italy envisaged by the Plan have been increased even further, especially as regards infrastructural and social endowments and policies aimed at improving the quality and level of essential public goods and services (education, research, access to digital technologies, environmental protection and quality, infrastructures for sustainable mobility, social infrastructures).

#### Missions, Components, Lines of Action

The RRP is divided into **6 Missions**, which in turn group together **16 Components** aimed at achieving the economic and social objectives defined in the Government's strategy.

The Components are divided into **48 Lines of intervention** for homogeneous and coherent projects. The individual **Investment projects** were selected in accordance with criteria aimed at concentrating interventions on transformative ones with the greatest impact on the economy and employment. The identification and definition of both "**existing projects**" and "**new projects**" has also been oriented towards these criteria.

For each and every Mission, as set forth in the Second Part of the document, the necessary **reforms** for a more effective implementation, related to the implementation of one or more Components, are indicated.

The six **Missions** of the RRP represent structural "thematic" areas of intervention: 1. Digitisation, innovation, competitiveness and culture; 2. The green revolution and ecological transition; 3. Infrastructures for sustainable mobility; 4. Education and research; 5. Inclusion and cohesion; 6. Healthcare.

TABLE 1.1: STRUCTURE OF THE RRP: MISSIONS, COMPONENTS AND FINANCIAL BALANCES

	Resources (€/bn)				
	Existing	New	Total	REACT-EU	NGEU TOTAL
	(a)	(b)	(c) = (a)+(b)	(d)	(e) = (c) + (d)
DIGITISATION, INNOVATION,	10.11	25.20	45.50	2.02	45.22
COMPETITIVENESS AND CULTURE	10.11	35.39	45.50	0.80	46.30
Digitisation, innovation and security in PA	5.61	6.14	11.75	-	11.75
Digitisation, innovation and competitiveness of the production system	4.20	21.55	25.75	0.80	26.55
Tourism and Culture 4.0	0.30	7.70	8.00	-	8.00
GREEN REVOLUTION AND ECOLOGICAL TRANSITION	30.16	37.33	67.49	2.31	69.80
Green Business and Circular Economy	-	5.90	5.90	1.10	7.00
Energy transition and sustainable local mobility	2.95	14.58	17.53	0.69	18.22
Energy efficiency and building requalification	16.36	12.88	29.23	0.32	29.55
Protection and enhancement of land and water resources	10.85	3.97	14.83	0.20	15.03
INFRASTRUCTURE FOR SUSTAINABLE					
MOBILITY	11.68	20.30	31.98	-	31.98
High-speed railway and road maintenance 4.0	11.20	17.10	28.30	-	28.30
Intermodality and integrated logistics	0.48	3.20	3.68	-	3.68
EDUCATION AND RESEARCH	4.37	22.29	26.66	1.83	28.49
Skills enhancement and study support	2.99	12.38	15.37	1.35	16.72
From research to business	1.38	9.91	11.29	0.48	11.77
INCLUSION AND COHESION	4.10	17.18	21.28	6.35	27.62
Employment policies	0.80	5.85	6.65	5.97	12.62
Social infrastructure, families, communities and the voluntary sector	3.30	7.15	10.45	0.38	10.83
Special geographical cohesion measures	-	4.18	4.18	-	4.18
HEALTHCARE	5.28	12.73	18.01	1.71	19.72
Community-based care and telemedicine	-	7.50	7.50	0.40	7.90
Innovation, research and digitisation of healthcare	5.28	5.23	10.51	1.31	11.82
TOTAL	65.70	145.22	210.91	13.00	223.91

Note: (b) includes already programmed DCF resources to be allocated to specific interventions.

#### Mission 1 - Digitisation, innovation, competitiveness and culture

The mission is structured into 3 components and seeks to modernise the country by embracing the digital revolution, both in the Public Administration as well as in its productive system, carrying out the necessary 'systemic' reforms, those concerning Justice and the complete modernisation of the Public Administration, and — finally — investing in the sectors that most characterise Italy and define its image in the world: tourism and culture.

The **first component** concerns the digitisation and modernisation of the Public Administration (PA). In this context, the development of a national cloud system and the effective interoperability of the PA databases take place contemporaneously and in synergy with the European GAIA-X project, where Italy intends to play a leading role. By taking advantage of digitisation, a "PA Strategic Innovation Programme" will be developed to complete the Public Administration's reform process by creating a structural change that will bolster the Italian PA in an organic and integrated manner and at the different levels of government, creating a capable administration that is competent, simple, smart and able to offer quality services to citizens and businesses and to make the Italian system more competitive. It will do so with targeted investments and no-cost regulatory interventions aimed at defining a regulatory framework enabling change for the relaunch of the country system. Finally, the justice reform will be completed to streamline trials, also by enhancing digitisation and the human capital of the Italian judicial system in order to accelerate the backlog of cases.

The coordination of the interventions and investments of all the Missions aimed at digitisation will also be ensured, also in order to ensure consistency with the three-year plan for information technology in the Public Administration and the activities envisaged therein, with the assistance of the political authority delegated to exercise functions in matters related to the implementation of the digital agenda (both European and Italian) and the digital transformation of the country.

The **second component** concerns the innovation and digitisation of business enterprises (Transition 4.0), including those in the publishing sector, the press and the agri-food supply chains of the South of Italy, the creation of ultra-fast fibre optic networks, 5G and investments for satellite monitoring. In this view, the tax incentives included in the RRP are reserved to companies that invest in capital goods, both material as well as non-material assets, which are necessary for an effective digital transformation of production processes, as well as for research and development activities related to these investments. Projects are also planned to support the development and innovation of Made in Italy products, value chains and strategic industrial supply chains, as well as the dimensional growth and internationalisation of companies, through the use of leveraged financial instruments as well.

The **third component** aims at boosting the country's attractiveness by investing in the tourism and cultural system through the modernisation of material and non-material infrastructures, the training and strengthening of accommodation facilities through investments in strategic tourist infrastructures and services and the financing of Municipal projects for investments in identifying places throughout the relevant areas (including interventions on the artistic and cultural heritage of Rome on the occasion of the Jubilee). The Tourism and Culture 4.0 project, which is aimed at supporting the digital and green transition and the socio-economic regeneration of regions and promoting integration among schools, universities, businesses and places of culture, provides for

interventions in order to allocate a significant share of the resources to the Regions of Southern Italy and to those areas of activity characterised by a high incidence of female and youth professionals.

#### Mission 2 - Green revolution and ecological transition

The mission is structured into 4 components and is aimed at achieving the green and ecological transition of the Italian society and economy in line with the European Green Deal and the Integrated National Energy and Climate Plan (PNIEC).

The **first component**, "Sustainable Agriculture and Circular Economy", aims *on the one hand* at achieving an agri-food sector that is sustainable, by improving the logistics and competitiveness of farms and their climatic-environmental performance, *on the other hand* at developing production plants for secondary raw materials and at modernising and constructing new plants, in particular in the large metropolitan areas of central and southern Italy, for enhancing the value of waste in line with the European action plan for the circular economy. The circular economy strategy is aimed at reducing the use of natural raw materials, which the planet is progressively running out of, using "secondary raw materials" produced with scraps/residues/waste. To increase the circularity rate of waste recycling in Italy, interventions are proposed for the construction of waste transformation plants aimed at their recycling, starting in particular from waste from separate collection. The circular economy strategy intervenes on a long and complex process aimed at making Italy less dependent on the supply of raw materials and consequently stronger and more competitive on international markets. To enhance the interventions, an operational fund will be set up to leverage the resources of the RRP which encourages the development of the circular economy.

The **second component**, "Renewable energy, hydrogen and sustainable mobility", aims at enlarging the share of energy produced from renewable sources and at developing an industrial sector in this area, including that of hydrogen. A significant contribution will come from offshore wind and photovoltaic parks. In the primary steel industry, hydrogen is a prospective alternative to natural gas for the production of Direct Reduced Iron (DRI). In line with the European emission reduction objectives, an investment is planned for the development of the DRI connected to the decarbonisation project for the former ILVA plant in Taranto and the transition for the production of green steel in Italy. A specific line of action is aimed at the development of sustainable mobility through the enhancement of the infrastructures for rapid mass transport such as metro, trams, trolleybuses, Bus Rapid Transit and of the cycle routes of urban, metropolitan, regional and national areas as well as an impressive renovation of the circulating fleet of vehicles for local public transport with vehicles with low or no environmental impact. Local Authorities and Regions will be a key player in the definition and implementation of this line of action. The geographical distribution of the investments of this component will dedicate a significant share of resources, equal to 50%, to the South of Italy.

The **third component**, "Energy efficiency and redevelopment of buildings" aims at achieving energy efficiency in the public and private building stock while rendering structures safe and digitising them. Priority will be given to schools, hospitals (see Mission 6) and social housing.

**The fourth component**, "Protection of land and water resources", provides for significant interventions regarding hydrogeological instability, forestation and forest protection, large water schemes and water supply works for drinking and/or irrigation purposes and the sustainable management of water resources and urban green infrastructures.

#### Mission 3 - Infrastructures for sustainable mobility

The mission is divided into 2 components and aims at creating a modern, digitised, environmentally sustainable mobility infrastructure system.

The **first component**, "High-speed rail and road maintenance 4.0", focuses on the country's major communication lines, above all the railway ones, with a view to rapid, sustainable and technologically advanced mobility. Alongside a substantial intervention on both national and regional railway networks, to be strengthened in particular in the South of Italy thanks to the support of the DCF funds, investments are planned for the safety and digital monitoring of viaducts and road bridges in those areas that have the greatest problems.

The **second component**, "Intermodality and integrated logistics", provides for a national investment programme for a competitive, environmentally sustainable port system to develop traffic connected to the major European communication lines and enhance the role of the Ports of Southern Italy in infra-Mediterranean transport and for tourism.

#### Mission 4 - Education and research

The mission is divided into 2 components and is particularly focused on future generations. It deals with the issue that is structurally most important for relaunching growth, productivity, social inclusion and the ability to adapt to technological and environmental challenges. It has two fundamental objectives: (i) to guarantee the skills and abilities necessary to face present and future challenges by intervening on the school and university careers of students, by supporting the right to study and by encouraging families to invest in the acquisition of advanced skills by young people; (ii) to strengthen research systems and their interaction with the world of businesses and institutions.

The **first component**, "Enhancement of skills and study support", is dedicated to the enhancement of teaching. A considerable effort is expected to make up for the country's backwardness in the structures and services dedicated to pre-school age with a strengthening of the nursery school plan and integrated services to promote female employment, initiatives to combat educational poverty and to reduce geographical gaps in the quantity and quality of education, particularly in the South, and interventions for integrated digital teaching, STEM skills and multilingualism, with a specific focus on the professional training of women.

The **second component**, "From research to business", looks at basic, applied research and technology transfer to strengthen the research system along the different stages of technological maturity, by acting systemically on the lever of investments in R&D. A first line of intervention is aimed at strengthening the R&D chain through large research infrastructures and extended partnerships for the development of research projects. A second line focuses on enhancing technology transfer mechanisms, encouraging – through partnerships and public and private

investments – innovation through the systemic use of research results by the productive system. In this context, investments are envisaged for the strengthening of research structures, the creation of "national R&D networks" in certain key enabling technologies, and the creation of "innovation ecosystems" around "local R&D systems".

#### Mission 5 - Inclusion and cohesion

The mission is divided into 3 components and plays a very important role in the pursuit of the objectives, which are cross-sectoral to the entire RRP, for supporting female empowerment and combating gender discrimination, as well as for increasing employment, especially among young people, for strengthening on-the-job training for the unemployed and for improving the quality of work.

The **first component**, "Policies for work", will be implemented by carrying out a structural review of active labour policies by strengthening employment centres and their integration with social services and the network of private operators, by modernising the labour market in order to improve employment and employability, especially among young people (through dual apprenticeships and universal civil service), and in particular of NEETs, women and vulnerable groups; and by promoting of new skills (through the reform of the training system). The gender, generational and geographical dimension of this component is further strengthened by its complementarity with contributions reduction measures for young people, women and the South, partially financed through REACT-EU.

The **second component**, "Social Infrastructures, Families, Communities and the Voluntary Sector", aims at addressing situations of social and economic fragility to support families and parenthood. One specific line of intervention is designed for people with disabilities or persons who are not self-sufficient and provides for an increase in infrastructures and the provision of services and local assistance networks, thereby accelerating the de-institutionalisation process by providing paths of autonomy that are reinforced by integrated services of homecare assistance. It also intervenes with projects aimed at alleviating the main social vulnerabilities in terms of material poverty and housing deprivation by strengthening social services and boosting social housing initiatives. It also seeks to conduct urban regeneration initiatives as well as the re-functionalisation of the existing building stock. This component also includes interventions envisaged by the *Family Act* which are in line with the strategic and cross-sectoral priorities of the RRP, enhancing the contribution provided by the Voluntary Sector.

The **third component**, "Special interventions for geographical cohesion", provides for the strengthening of the national strategy for inland areas relaunched by the 2030 Plan for Southern Italy, with interventions on social infrastructures and measures to support young people with a view to ecological transition. Additional funds are included in this component for private reconstruction and the enhancement of public services in the areas affected by earthquakes. Furthermore, the component includes interventions concentrated in the Southern Regions to create infrastructures and laboratories for technology transfer in marginalised urban contexts to be regenerated.

#### Mission 6 - Health

The mission consists of two components and focuses on two aspects. The first is a paradigm change in social and health care based on the development of a local network enabling real proximity to people in accordance with an integrated path that starts from the "home as the first a place of care" and reaches the "Community Homes" and therefore the hospital network. The second element is the modernisation of the technological equipment of the National Health Service.

The **first component**, "Proximity assistance and telemedicine", aims at strengthening and reorienting the National Health Service towards a model centred on regions and on social-health assistance networks; at overcoming the fragmentation and structural disparity among the different regional health systems by ensuring homogeneity in the provision of Essential Levels of Assistance – "ELA"; at enhancing prevention and local assistance, improving the ability to integrate hospital services, local health services and social services. It is also intended to develop an ecological public health model capable of preserving the health of citizens starting from the health of the environment, mitigating the impact of polluting factors.

The **second component**, "Innovation, research and digitisation of healthcare", is aimed at promoting the dissemination of telemedicine tools and activities, at strengthening healthcare information systems and digital tools at all levels of the National Health Service, starting from the still limited and inhomogeneous dissemination of electronic medical records. Significant investments are therefore envisaged for the modernisation of equipment and for the construction of safe, technological, sustainable hospitals.

TABLE 1.2: NEXT GENERATION EU – ALLOCATION OF RRP RESOURCES BY MISSION					
	Resources (€/bn)				
	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	NGEU TOTAL (e) = (c) + (d)
DIGITISATION, INNOVATION, COMPETITIVENESS AND CULTURE	10.11	35.39	45.50	0.80	46.30
GREEN REVOLUTION AND ECOLOGICAL TRANSITION	30.16	37.33	67.49	2.31	69.80
INFRASTRUCTURE FOR SUSTAINABLE MOBILITY	11.68	20.30	31.98	-	31.98
EDUCATION AND RESEARCH	4.37	22.29	26.66	1.83	28.49
INCLUSION AND COHESION	4.10	17.18	21.28	6.35	27.62
HEALTHCARE	5.28	12.73	18.01	1.71	19.72
TOTAL	65.70	145.22	210.91	13.00	223.91

Note: (b) includes already programmed DCF resources to be allocated to specific interventions.

## 1.4 RRP RESOURCES FOR AN INTEGRATED PLAN OF INVESTMENT REVITALISATION

The RRP is an opportunity that is both extraordinary and unrepeatable for relaunching investments in our country. In addition to € 196.5 billion in grants and loans provided for Italy by the RRF, which the Government has decided to use in full, an additional financial contribution has been provided, once again in the context of Next Generation EU, amounting to € 13.5 billion granted by React-EU and to € 0.5 billion as to the Just Transition Fund.

According to the conclusions of the European Council, all the European funds included in the Multiannual Financial Framework and in Next Generation EU will put a volume of approximately € 309 billion at Italy's disposal in the 2021-2029 period.

Part of the cohesion policies and of other European funds of the 2021-2027 Multiannual Financial Framework, as well as of the national budget funds, will also contribute to the financing of the reform and investment strategy outlined in the RRP. It was therefore deemed appropriate to promote an integrated approach to the use of financial resources dedicated to the RRP's six missions. This will enable an acceleration in the implementation of interventions, including additional and complementary interventions, within a coherent unitary policy and procedure framework that pays special attention to the timing of the set of projects to be implemented.

According to the initial estimates upon which the 2021 Budget Planning Document was drafted, the European Recovery and Resilience Facility (RRF), the main financial source of Italy's Recovery and Resilience Plan would have ensured our country during the 2021-26 period approximately  $\in$  65.5 billion in grants and  $\in$  127.6 billion in loans, for a total of  $\in$  193.1 billion (in 2018 values). With the revisions of the Commission's macroeconomic forecasts and the change in the base year for the calculation of the amounts, the estimate of the RRF grants available for Italy has risen to  $\in$  68.9 billion (at current 2019 values) and the total amount of RRF resources has therefore reached the figure of  $\in$  196.5 billion, of which the Government intends to make full use and upon which the programming of the Plan is now based.

The choice of using part of the RRP funds to finance ongoing policies and individual projects, in line with the European priorities of NGEU and European Regulations, becomes necessary in order to ensure compatibility with the objectives of medium/long-term financial sustainability that the Government adopted on 5 October with the Update of the Economic and Financial Document (NADEF, approved by Parliament on 14 October 2020). The burden of excessive debt must indeed not be borne by the new generations. According to NGEU's logic, young people must be the main beneficiaries of the effects and results that are expected from the implementation of the Plan.

The integrated economic and financial planning approach defined by the NADEF and the Budget Planning Document follows a timespan that covers the entire duration of the Plan, i.e., 2021-2026, and makes it possible ensure consistency with the budget objectives.

By adding the resources of the national budget programming and the ESI/NOP and EAFRD funds co-financed by EU resources to the RRF and REACT-EU, as illustrated in Table 1.6, the **total resources** dedicated to the six missions of the RRP in the 2021-2026 period reaches € **311.9 billion**.

As previously stated, this is an impressive use of European and national resources for the economic and social revitalisation of the country.

As regards the timing of commitments and expenses, the first 70% of the grants from the RRF will be committed by the end of 2022 and spent by the end of 2023. The plan also provides that the remaining 30% of the grants to be received from the RRF will be spent between 2023 and 2025. Total RRF lending will increase over time, in line with the goal of maintaining a high level of RRP-related investments and other expenditures compared to the trend.

In the first three years of the RRP, most of the investments and "new projects" (and therefore of the macroeconomic stimulus compared to the baseline scenario) will be supported by grants. Conversely, over the 2024-2026 period, the largest share of funding for additional projects will come from RRF loans.

7.9

React-EU

RRF New Projects

Other EU Funds

FIGURE 1.1: BREAKDOWN OF RRP RESOURCES BY FINANCIAL COMPONENT (€ 311.9 billion)

13.0

■ National Budget Funds

RRF Existing Projects

**TABLE 1.3: NEXT GENERATION EU RESOURCES AND ALLOCATIONS IN FAVOUR OF ITALY** (millions of euros at 2018 prices)

Spending categories and intervention instruments	Next Generation EU resources	Next Generation EU allocations in favour of Italy	Italy's % share of allocations	
1. Single Market, Innovation and Digital Technology	10,600			
- of which: Horizon Europe	5,000	497	9.9	
- of which: InvestEU Fund	5,600			
2. Cohesion, Resilience and Values	720,000			
- of which: a) cohesion policies (React-EU)	47,500	13,496	28.4	
- of which: b) Recovery and Resilience Facility	672,500	193,033	28.7	
of which: b1) Grants - 70%	218,750	44,724	20.4	
of which: b2) Grants - 30%	93,750	20,748	22.1	
of which: b3) Loans	360,000	127,561	35.4	
3. Natural Resources and Environment	17,500			
- of which: Common agricultural policy (rural development)	7,500	846	11.3	
- of which: Just Transition Fund	10,000	535	12.40	
4. Migration and Border Management				
5. Safety and defence	1,900	236		
6. Neighbouring Countries and Rest of the World				
7. European Public Administration				
Total	750,000	208,643	27.8	

<sup>(\*)</sup> There might be slight discrepancies compared to Table I.1 owing to subsequent amendments and rounding.

#### **REACT-EU programming within the RRP**

The additional resources of REACT-EU strengthen the cohesion policy for the 2014-2020 programming period, the implementation of which will be concluded at the end of 2023, with the aim of making it easier to overcome the effects of the crisis resulting from the pandemic and of promoting a green, digital, resilient recovery of the economy. This programming also acts as a bridge between the 2014-2020 and 2021-2027 cohesion policy cycles.

REACT-EU programming integrates the RRP strategy for a total value, as currently estimated, of € 13 billion (excluding technical assistance), in accordance with the principles of complementarity and additionality with respect to the RRF, contributing to the implementation of interventions aimed at green and digital transitions and the contextual pursuit of the objectives of regional and socio-economic rebalancing and structural strengthening of the South of Italy, in line with the objectives defined in the 2030 Plan for Southern Italy.

The resources of the REACT-EU programme, 67.4% of which are to be allocated for the South of Italy, will also provide continuity to interventions to counter the heavy economic and social effects of the pandemic, strengthening the contribution already provided by the cohesion policy with the reprogramming agreements of the funds that are structural for the health, social and

economic emergency, as part of CRII plus, which made it possible to mobilise approximately € 12 billion in a short period of time.

In order to seize the opportunity of overcoming the disparities that have characterised Italy and more specifically the South of Italy in terms of the technology and digital skills of its companies, the integration of RRP resources has been planned in order to finance interventions for innovation in SMEs, supporting, in particular, investments aimed at technological and digital transformation, the Central Guarantee Fund and the financing of innovative PhDs.

A significant portion of the resources contributes to financing advantageous taxation for supporting regular and stable work in the South and other interventions for increasing the employment of young people and women throughout the country.

The interventions aimed at the structural revision of active labour policies and those provided for under the New Skills Plan are also partially financed through REACT-EU, envisaging a strong concentration of resources in Southern Italian Regions. Interventions for social inclusion are concentrated on metropolitan cities and on the refinancing of the Fund for European Aid to the Most Deprived (FEAD).

In synergy with the resources of the RRF and the other cohesion policy funds, REACT-EU finances interventions aimed at the ecological transition of the circular economy and the enhancement of the integrated waste cycle, the energy efficiency of buildings included in the heritage of the State, the creation of "smart" electricity grids in Southern regions and urban green infrastructures. Furthermore, more than 2,500 research contracts and over 6,800 PhD scholarships on green topics are expected to be financed using the National Operational Programme for Research and Innovation.

The resources of REACT-EU are also allocated in order to enhance investment in tertiary education by supporting, in Southern Regions, interventions to protect the right to higher education with the provision of scholarships and through the exemption from payment of university fees. The infrastructures of schools in the digital age is another significant area of intervention: the resources of REACT-EU will finance the internal wiring of school buildings in order to guarantee the effectiveness of the Ultra-wideband Plan dedicated to the digitisation of schools, with the aim of transforming classrooms into innovative teaching environments.

Other initiatives are aimed at strengthening the National Health System in its effort to combat Covid-19, providing support for the contracting of physicians enrolled in university medical schools for specialisation in medicine and surgery, as well as extraordinary expenses for health personnel and the purchase of vaccines.

TABLE 1.4: ALLOCATION OF REACT-EU FUNDS FOR ITALY (millions of euros at current prices)				
Measure	Total	South of Italy share		
SME guarantee fund	500	300		
Interventions for the digitisation of SMEs	300	180		
PhDs and research contracts on innovative topics	145	105		
Advantageous taxation for employment in South of Italy	4,000	4,000		
Bonus for hiring young people	340	40		
Bonus for hiring women	126	50		
Fund for new skills and other active employment policies	1,500	1,100		
Initiatives for social inclusion in metropolitan cities	100	40		
FEAD refinancing	280	100		
Intervention for the sustainability of productive processes and the				
circular economy	300	180		
Energy efficiency of public buildings	320	160		
Smart Grid	180	180		
Initiatives for the energy transition in metropolitan cities	715	315		
PhD research on Green topics	180	35		
Research contracts on Green topics	155	40		
Interventions for the energy transition and the circular economy in the South of Italy	800	800		
South of Italy	800	800		
Reduction of university tuition fees	330	120		
Exemption from university fees for students in the ISEE bracket up to € 13000 Support to the Southern Regions of Italy for awarding scholarships for	75	75		
university students	43	43		
Wiring of school buildings	446	163		
Digital transformation of school teaching	455	159		
Training contracts for physicians studying to become specialists	210	72		
Extraordinary expenses for health personnel to combat the pandemic	1,100	374		
Purchase of vaccines	400	136		
Interventions Total	13,000	8,767		
In %	100	67.4		
Technical Assistance	500			
REACT-EU	13,500			

#### Strategic coherence with the 2021-2027 Multi-annual Financial Framework

The strategic objectives defined by Next Generation EU are in line with the Union policies funded by the new Multiannual Financial Framework (MFF). For the purposes of the overall planning of the use of EU funds to support the country's development, it is therefore appropriate to consider the contribution provided by the 2021-2027 MFF.

The size of the EU budget over the seven years is estimated to be 1.11 per cent of the EU's Gross National Income (GNI), or € 1,085.3 billion at 2018 prices. The total appropriations in favour of Italy are estimated to be equal to € 99.1 billion. For the purposes of complementarity with the RRP, the first three headings of the following table take on a particular importance.

Single Market, Innovation and Digital Technology. The € 13.6 billion that Italy can use finance research and innovation with a centralised management at EU level, as well as the proper functioning of the internal market and the transport, energy and digital sectors through the so-called "Facilities".

Cohesion, Resilience and Values. The € 37.3 billion placed at Italy's disposal for cohesion policies that should be implemented through the ERDF, ESF + and ETC, which become € 42 billion at current prices, are, both under the European regulations and in terms of amount and objectives, the largest item of the MFF with which to achieve coordination and complementary use of resources with the RRP. This complementarity is particularly evident if we consider the thematic concentration rules of the ERDF on digitisation, innovation and the environment and of the ESF + on policies for young people and social inclusion. Through national co-financing, the resources of the European cohesion funds will exceed € 80 billion for the 2021-2027 cycle, thereby providing a fundamental support element for the achievement and strengthening of the policy objectives connected to the three strategic axes of the RRP.

Natural Resources and Environment. The € 34.5 billion at 2018 prices that are being allocated to Italy from the Common Agricultural Policy contribute, in synergy with the resources of the RRP, in order to accelerate the green and digital transition process of the agricultural sector, combining environmental, economic and social sustainability.

Just Transition. Under Heading 3, the resources for Just Transition provided for Italy amount to about € 500 million at current prices. By adding the € 500 million from Next Generation EU and the national co-financing to these resources, € 1.2 billion are made available at current prices to finance regional strategies in order to favour, in the context of cohesion policies, the just and environmentally compatible transition in the Taranto and Sulcis areas.

TABLE 1.5: 2021 - 2027 MULTI-YEAR FINANCIAL FRAMEWORK AND ESTIMATE OF RETURNS FOR ITALY (millions of euros at 2018 prices)

Committed Appropriations	Total MMF 2021-2027	IT Returns 2021-2027 (absolute value)	IT Returns 2021-2027 (values %)	
Single Market, Innovation and Digital Technology	136,781	13,601	9.9%	
2. Cohesion, Resilience and Values	383,768	42,664	11.1%	
of which: economic, social and geographical cohesion	330,235	37,341	11.4%	
3. Natural resources and environment of which: Expenses related to the Single Market and	356,374	35,835	10.1%	
direct payments	258,594	25,262	DP 9.4%; MRE 14.4%	
of which: Rural Development		8,679	11.2%	
of which: Just Transition Fund		401	5.4%	
4. Migrations and Management of the Borders	23,671	2,935	12.4%	
5. Safety and Defence	13,185	1,635	12.4%	
6, Neighbouring Countries and Rest of the World	98,419	-	-	
7. European Public Administration	73,102	2,393	3.3%	
of which: administration expenses of the Institution	55,852			
Total committed appropriations as a percentage of the Gross National Income	1,085,300 <i>1.11%</i>	99,063		

Source: Version updated in light of the agreement between the European Parliament and the Presidency of the European Council.

#### Complementarity and additionality of European and national cohesion funds in the RRP

The integration of the RRP strategy of part of the European and national cohesion funds, for which the related programming for the 2021-2027 cycle is being prepared, aims at further supporting the pursuit of the objectives of inclusive growth and social and geographical cohesion already embraced by the RRP. This choice makes it possible to implement both the regulatory provisions of the RRF, which require consistency among the RRP, the Partnership Agreements and the operational programmes adopted within the Union funds, and the Budget Law, which provides that the Development and Cohesion Fund (DCF) 2021-2027 financial allocation is used in line with the sector-based investment and reform policies envisaged in the RRP, according to a principle of complementarity and additionality of resources.

The early identification of the purposes of use for new projects and initiatives of part of these funds, which on the basis of national and European legislation provides for a strong concentration of the related resources in the South of Italy, within the framework of the strategic approach of the RRP makes it possible to increase the share of envisaged public investments and to additionally strengthen the financial endowment of interventions for regional rebalancing, more specifically for infrastructures and the quality of essential public services, avoiding any recourse to further indebtedness that would compromise the consolidation trajectory of the public finance framework.

National programming of European Cohesion Funds. In the ongoing negotiations with the European Commission on the Partnership Agreement for the programming of the resources of the European cohesion funds foreseen in the 2021-2027 MFF, the need to maximise synergies and complementarities between actions and the interventions envisaged in the RRP and the objectives and priorities that will characterise the Operational Cohesion Plans, with particular reference to the national ones, is becoming stronger. Only by means of a coordinated and coherent planning action will it be possible to avoid overlaps and fragmentation, which would compromise the effectiveness of policies while at the same time strengthening the additionality objectives of cohesion, concentrating resources on RRP actions and interventions with the greatest need to reduce geographical inequalities.

The current RRP proposal contains a first significant exercise of integration and coordination between the two programmes (for a value of € 6.9 billion), which constitute part of the national programming of cohesion policies for the 2021-2027 cycle. The level of complementarity between RRP and cohesion policies could grow even more, in light of the detailed progress of the respective programmes, and in particular by means of coordination with actions and interventions to be envisaged in the Regional Operational Plans, in keeping with the objectives of Next Generation EU.

The Advanced Implementation of the Development and Cohesion Fund for 2021-2027. For the purposes of integration into the RRP, the national programming of the 2021-2027 Development and Cohesion Fund has been brought forward for a value of € 21.2 billion. The goal is to strengthen the volume of additional investments financed through the loan component of the RRF, both at a general level and as concerns concentration in the South of Italy. The use of the Development and Cohesion Fund resources, as part of the RRP, is exclusively intended for financing additional and complementary interventions, in keeping with the objectives of regional

rebalancing and development of the South of Italy typical of the national cohesion policy. The unitary framework of procedures and implementation mechanisms specific to the RRP will enable a significant acceleration in the use of the Fund's resources and the completion of investment projects. Compliance with the regulatory constraint of geographical destination of 80% of Development and Cohesion Fund resources to the South guarantees their full additionality.

The 2021 Economic and Financial Document will specify the timeline for the reintegration of Development and Cohesion Fund resources anticipated in the RRP, as part of the 2021-2027 programming cycle. The positive macroeconomic effect generated by the effective use of this advance guarantees the sustainability of the reintegration from the public finance point of view.

#### Use of leveraged financial instruments

In some areas (industrial policies for strategic supply sectors, improvement of tourist services and tourist-accommodation facilities, circular economy, social housing), the RRP may provide for the use of financial instruments that make it possible to activate a leverage effect on NGEU funds in order to facilitate the participation of private capital (equity or debt), other public funds or even a combination of both (blending) to support investment initiatives.

From this standpoint, public intervention may take the form of a guarantee on private loans, a coverage of the initial loss or an equity investment, with the aim of carrying out specific projects. This way of utilising RRF resources makes it possible to obtain an overall volume of public-private investments that is higher than that which would be obtained with direct financing from the public sector (grants, incentives).

The leverage effect also characterises all types of investment funds in which public resources are complemented with resources coming from private institutional investors. These Funds may take the form of both equity funds and credit funds, including those with a revolving nature. The use of financial instruments compared to traditional grants leads to a greater effectiveness and efficiency of public intervention. Without prejudice to the assessment in terms of economic, environmental and social sustainability, a selection of projects is made on the basis of their implementability and therefore on their ability to repay the debt contracted or remunerate the invested capital.

One of the forms in which RRP resources can be efficiently utilised is via the establishment of a Fund of funds, through which some resources of the Plan are transferred to specialised operating funds for financial instruments, risks undertaken and sectors of intervention. This contribution, together with EIB and European loans as well as the participation in the capital and/or loans of financial intermediaries and partners, would constitute the endowment that each individual fund would use to finance the specific projects/sectors for which it was set up. It is also possible to set up a national InvestEU sub-fund to create a synergy between the potential of the interventions envisaged in this area and the resources of the RRF.

#### 1.5 INVESTMENTS AND REFORMS FOR GROWTH AND EMPLOYMENT

The reform and investment strategy envisioned by the Plan's lines of action and projects is of paramount importance in bringing about a permanent positive effect on growth by increasing public capital endowment and encouraging greater private investments.

Compared with the preliminary versions, this draft of the RRP has aimed at maximizing the resources allocated to public investments, the share of which now exceeds 70%, with a consequent reduction in the share of incentives to 21%. Compared with measures incentivizing private investments, public investments generate a far more favourable and lasting multiplier effect on production and employment, which exceeds two in the best scenarios.

By using yet-to-be-programmed 2021-2027 DCF national cohesion resources, it was possible to increase investments by around € 20 billion for new projects in important sectors, including the high-speed railway network, integrated ports, sustainable local transport, broadband and 5G, the complete waste cycle, and social and health infrastructure in southern Italy.

The total resources allocated to the six missions of the RRP amount to approximately € 210 billion. Out of this amount, € 145.22 billion will finance "New projects", whereas the remaining € 65.7 billion will be allocated to "existing projects" that, thanks to their inclusion in the RRP, will experience a significant acceleration in their implementation timeframes and, therefore, in their expenditure.

The financing of existing investment projects with NGEU resources, in line with the RRF Regulation, is not only compatible with the public finance framework, but it also enables the moving up of the Plan's economic, employment and environmental effects from the very first year of implementation. On the other hand, new investment projects will produce economic and social effects over a longer period of time. The incentive component — which, in this Plan proposal, is more oriented towards innovation goals, business digitisation, and the energy efficiency and earthquake-proofing of buildings than in the preliminary ones — will contribute, given its more immediate effects, to ensuring the homogeneity of the time distribution of the RRP's impact.

From an accounting standpoint, all of the € 68.9 billion worth of grants are allocated to new projects. In line with NADEF goals, € 53.5 billion in loans are earmarked for additional interventions, while the remaining € 87.5 billion cover the debt profiles that have already been discounted in public finance baseline projections. These profiles include a portion of the DCF's advance resources that, from a policy standpoint, are instead earmarked for new projects, on an additional basis and subject to restrictions in terms of geographical allocation.

Note on balances. With a view to the parliamentary debate and with an economic and social partnership in mind, the resources programmed for the RRF in this draft RRP amount to € 210.91 billion and are greater than the € 196.5 billion allocated to Italy. The reason for this choice is twofold. Firstly, once the analysis on the use of leveraged financial instruments has been concluded, it is likely that the impact in terms of net borrowing of the resources used in this area will be reduced. Secondly, a more accurate verification of the project schedule and a discussion with the European Commission on their full admissibility could lead to a reduction in the number of resources authorised, with respect to which a safety margin ensuring the full use of the European resources available to Italy should be maintained.

# 1.6 INTEGRATION WITH THE ECONOMIC AND FINANCIAL PROGRAMMING

# An investment and reform programme for sustainable public finances

According to NADEF estimates, Italy's public debt reached 158% of GDP in 2020. Financial planning will aim at reconciling the need to keep debt dynamics on a virtuous path with that of providing a strong and long-lasting boost to GDP growth. This latter is fundamental to ensure both the sustainability of debt and the social and economic stability of the country, and requires a solid programme of investments in public assets such as the one outlined in the RRP.

Sovereign bond yields have drastically decreased. The NADEF's conservative estimates, which are based on yield curve levels in early September, suggest that the ratio of interest expenditure to GDP will fall from 3.5% in 2020 to 3.1% in 2023. The low yields have benefited from the credibility the government has gained and the expansionary monetary policy measures implemented by the ECB, such as the Pandemic Emergency Purchase Programme, as well as from significant and unprecedented actions taken at EU level. These positive developments need to be consolidated by striking the right balance between stimulus measures and prudent public finance management.

The NADEF outlines a path to reduce public debt in relation to GDP. This requires, on the one hand, that the RRP's expansionary boost to economic growth be maximised through a prudent management of resources and a strong push to investments, and, on the other hand, that current expenditure and revenues be conservatively planned so as to ensure a significant surplus in the primary budget balance. In the event of significantly better-than-expected economic developments, the debt reduction plan may be revised according to even more ambitious targets, in particular for the period after 2026.

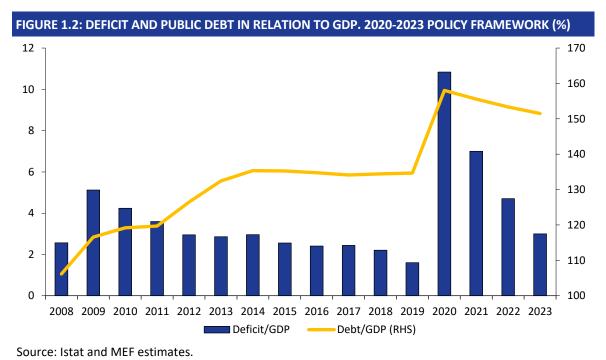
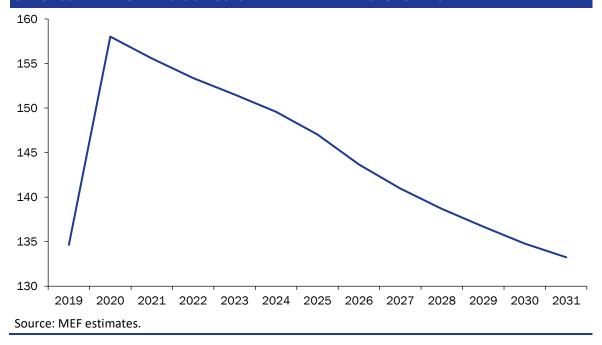


FIGURE 1.3: PROGRAMMATIC PATH FOR THE DEBT-TO-GDP RATIO UP TO 2026 AND EXTRAPOLATION UP TO 2031 KEEPING THE 2026 STRUCTURAL PRIMARY BALANCE UNCHANGED



Indeed, it should be noted that the full implementation of the current Plan could mark a significant improvement in growth prospects compared to the current situation, making Italy's high public debt highly sustainable.

# The budgetary plan for 2021

The 2021 Budget Law is not only a continuation of the actions taken so far to counter the economic effects of the second wave of the Covid-19 epidemic, but also provides an ambitious strategy to relaunch and transform Italy, focusing on investments, labour, welfare and education with a view to innovation, sustainability, cohesion and equality.

The budget implements a significant fiscal expansion for 2021, amounting to approximately € 39 billion. With respect to this total, € 24.6 billion will be obtained through the measures envisaged in the Budget Law within the framework of the higher deficit authorised by Parliament in October when presenting the NADEF (from a tendential 5.7 per cent to a programmatic 7 per cent), and a further € 17.1 billion using grants and other transfers from *Next Generation EU*.

In addition to stimulus measures of a temporary nature aimed at vigorously countering the economic and social damage caused by the pandemic, the budget approved by Parliament contains structural and infrastructural equalisation measures that tie in with RRP initiatives, in particular by impacting on the Plan's overarching priorities.

The total contribution reduction for new hires, amounting to three years for young people up to the age of 35 (extended to four years in the southern regions) and two years for women, will have a significant gender and generational impact. An impact on both priorities is also ensured by the entry into force of the first module of the universal child allowance during 2021, for which an additional € 3 billion have been earmarked. As part of the *Family Act*'s family and inclusion policies,

paternity leave has been increased to 10 days, and extraordinary funding has been provided for the Municipal Solidarity Fund, with a share of funding earmarked for the enhancement of nurseries. In addition, a new fund has been introduced to finance the tax reform and the implementation of the universal child allowance from 2022 onwards, which will replace the existing support measures for families and fertility.

The regional rebalancing policy is reinforced via a substantial package of measures dedicated to the South and geographical cohesion, starting with the extension until 2022 of the tax credit for investments in capital goods and the strengthening of the tax credit for research and development in southern regions. The impact of policies and investments in the South has been reinforced by the confirmation until 2029 of the advantageous taxation for work in the South, i.e., a 30% reduction in social security contributions for companies.

The tax reform will be aimed at reducing the tax burden on medium and lower-middle labour income, in continuity with the plans to implement the reduction of the tax wedge on employees as of 1 January 2021, for which an additional € 3 billion has been allocated. The reform will also provide incentives to participation in the regular labour market and affect households' disposable income, in continuity with the single allowance measure. Both parts of the reform (tax delegation and single allowance) will increase the overall fairness and efficiency of the tax and benefit system.

In spite of the pandemic, tax revenues exceeded projections in 2020 as well, thanks to the measures introduced in recent years to address the tax gap (including e-invoicing and e-transmission of receipts, combined with the digitisation of payments). Increased revenue from improved tax compliance will be set aside in a fund that will finance the different modules of the tax reform.

Finally, funding for public investment will also increase regardless of Next Generation EU. In addition to the amount of resources for public investment already allocated by the 2020 Budget Law and the other measures adopted this year, the 2021 Budget Law allocates more than an additional € 50 billion for the next 15 years, including both the appropriations allocated to central administrations and those allocated to local administrations for the securing of buildings, land and road infrastructure.

Overall, the Budget Law and the RRP complement each other in laying the foundations for a strong recovery in employment, particularly among women and young people, for the development of the South, for the relaunch of investments, and for supporting families and improving equality and social inclusion.

TABLE 1.6: OVERALL RESOURCES BY MISSION AND CLUSTER

	Resources (€/bil)								
	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	NGEU Total (e) = (c) + (d)	ESI / NOP funds (f)"	EAFRD (g)	2021-2026 Budgetary Programming (h)	Grand total (e)+(f)+(g)+(h)
DIGITISATION, INNOVATION, COMPETITIVENESS AND CULTURE	10.11	35.39	45.50	0.80	46.30	1.60	-	11.35	59.25
Digitisation, innovation and security in PA Digitisation, innovation and competitiveness of the	5.61	6.14	11.75	-	11.75	0.30	-	1.31	13.36
production system	4.20	21.55	25.75	0.80	26.55	1.00	-	10.04	37.59
Tourism and Culture 4.0	0.30	7.70	8.00	-	8.00	0.30	-	-	8.30
GREEN REVOLUTION AND ECOLOGICAL TRANSITION	30.16	37.33	67.49	2.31	69.80	0.70	1.00	8.20	79.70
Green Business and Circular Economy	-	5.90	5.90	1.10	7.00	-	-	-	7.00
Energy transition and sustainable local mobility	2.95	14.58	17.53	0.69	18.22	0.30	-	-	18.52
Energy efficiency and building requalification Protection and enhancement of land and water	16.36	12.88	29.23	0.32	29.55	0.40	-	7.44	37.39
resources	10.85	3.97	14.83	0.20	15.03	-	1.00	0.76	16.79
INFRASTRUCTURES FOR SUSTAINABLE MOBILITY	11.68	20.30	31.98	-	31.98	-	-	1.16	33.14
High-speed railway and road maintenance 4.0	11.20	17.10	28.30	-	28.30	-	-	1.16	29.46
Intermodality and integrated logistics	0.48	3.20	3.68	-	3.68	-	-	-	3.68
EDUCATION AND RESEARCH	4.37	22.29	26.66	1.83	28.49	2.60	-	2.95	34.04
Skills enhancement and study support	2.99	12.38	15.37	1.35	16.72	1.70	-	2.53	20.95
From research to business	1.38	9.91	11.29	0.48	11.77	0.90	-	0.42	13.09
INCLUSION AND COHESION	4.10	17.18	21.28	6.35	27.62	2.00	-	55.38	85.00
Employment policies Social infrastructure, families, communities and the	0.80	5.85	6.65	5.97	12.62	1.65	-	24.70	38.97
voluntary sector	3.30	7.15	10.45	0.38	10.83	0.35	-	30.68	41.86
Special geographical cohesion measures	-	4.18	4.18	-	4.18	-	-	-	4.18
HEALTHCARE	5.28	12.73	18.01	1.71	19.72	-	-	1.01	20.73
Community-based care and telemedicine	-	7.50	7.50	0.40	7.90	-	-	-	7.90
Innovation, research and digitisation of healthcare	5.28	5.23	10.51	1.31	11.82	-	-	1.01	12.83
TOTAL	65.70	145.22	210.91	13.00	223.91	6.90	1.00 (*)	80.05	311.86

Note: (b) includes already programmed DCF resources to be allocated to specific interventions.

<sup>(\*)</sup> RRP allocation regarding forestation will be further strengthened by the EAFRD, once the ongoing programming process is completed and in agreement with the Regions and PAs. As an indication, in the 2014-2020 period, 1.6 billion Euros have been allocated to forestry measures for sustainable management and hydrogeological instability prevention.

#### 1.7 PLAN IMPACT ASSESSMENT

The RRP will have a positive impact on the main macroeconomic variables and on inclusion, equality and sustainable development goals (SDGs) through the increased investments that will be activated both directly and indirectly and the technological innovations that will be introduced and promoted. These effects will be amplified by the contextual and more sector-specific reforms included in the individual components of the Plan.

An assessment of the overall impact of investments, transfers, incentives and reforms, as well as of the multiplier effect that could be achieved thanks to the leverage effect of several project lines of the Plan, could be carried out when all the details of the projects and related reforms are fully defined. The impact of the Plan, at the time of its precise definition, could therefore be much greater than stated here.

However, it seems useful to briefly recall a preliminary assessment of the Plan carried out using the QUEST III dynamic general economic equilibrium model developed by the European Commission<sup>1</sup>. Said model makes it possible to include not only the demand effects of an increase in public investment expenditure, but also those on the supply side, assuming a complementary relationship between public and private capital in the production function of businesses, i.e., public capital contributing significantly and persistently to the productivity and competitiveness of the economic system.

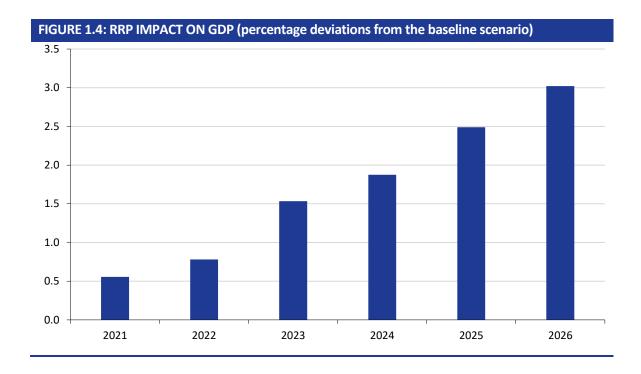
As a first approximation, the impact of the additional expenditure that will be achieved thanks to all the investments and incentives of the Plan, which are supplementary with respect to the trend scenario of public finance, has been estimated.

The impact assessment addressed the impacts not only of the RRF, but also of the other components of the NGEU, starting with REACT-EU. In addition, consistently with the RRP setup outlined in this document, it has been assumed that more than 70% of the additional NGEU funds will be used to finance public investment, i.e., capital expenditure by Public Administrations. The remainder would be used mainly for business investment incentives, for reducing tax contributions on labour and, to a limited extent, for current public spending and transfers to households.

In addition to these operational hypotheses, the public investments financed by the Plan were assumed to be highly efficient, i.e., to consist of tangible or intangible infrastructures with a high impact in terms of potential output growth. A gradual, albeit realistic improvement in the implementation of projects by administrations was also assumed. The following graph shows the estimated impacts on the main macroeconomic variables, showing in particular that GDP in 2026, i.e., the final year of the Plan, would be 3 percentage points higher than in the baseline scenario.

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<sup>&</sup>lt;sup>1</sup> The QUEST3RD 2018 version developed by the Commission for Italy was used.



RRP investments will be accompanied by economic policy reforms and measures that will involve many areas of the socio-economic fabric. Reform actions will be synergetic and interact with public investments.

Structural reforms need further definition and investigation to be translated into parametric changes and incorporated into the models. While there is a high degree of subjectivity in the quantitative assessment of reforms, it should be stressed that, once parameterised, the impacts of incisive contextual reforms could prove very significant. For instance, with reference to the three contextual reforms identified in the Plan, i.e., Public Administration, Justice and Taxation, the simulations carried out with models already in use at the MEF indicate that the impact on GDP in the medium term (five-year period) could be well above one percentage point. A labour reform leading to a sharp increase in the participation rate of all categories of workers, an improvement in the quality of skills and a reduction in frictions in the labour market would increase GDP by at least another percentage point.

#### Assessments of overarching priorities: gender equality, youth and the South

The Plan's high impact in **boosting public investments** in the South will have positive consequences not only on the area's economy, but on the entire country. Indeed, the level of economic interdependence between the two areas is very strong. Research institutes and the Bank of Italy itself confirm that investing in the regional rebalancing of public investment expenditure would not only reactivate the South's development process, but would have positive effects on the entire national economy. Moreover, all macroeconomic models drawn up on a regional basis highlight the high value of the public investment multiplier in less developed regions.

A simulation aimed at estimating the potential effect on growth and employment of the set of measures that will involve the Regions of southern Italy in the 2021-2026 period was carried out using a multi-regional model so as to capture the real effects of the package, not only on the entire

economic system, but also at the level of individual regions. The measures related to public investments were incorporated on the basis of the share of such investments in each region. The simulations show that the GDP of southern regions would increase by between 4 and 6-odd percentage points by the end of the first three years of the Plan. The impact on employment would also be very significant, ranging from 3 to 4 percentage points.

Assessments are also in progress with regard to the impact of RRP measures aimed at combating **gender inequalities** and those in support of the **new generations** and youth employment. Said measures are present across the board in all of the Plan's missions, as mentioned several times in the document, especially in the "Education and Research" and "Inclusion and Cohesion" missions, but also in the reorganisation and innovation of the Public Administration, as well as in a number of targeted actions such as those aimed at strengthening nursery school and early childhood services.

The aim of this wide-ranging strategy, which is unprecedented in the history of our country, is to overcome two of the three major inequalities (affecting women and young people) that, together with the geographical inequalities to which they are linked, make Italy a major anomaly compared to other advanced economies, and thus contribute to holding back the development of our country, draining human resources and preventing the full development of each person's potential. Together with the reforms of the Public Administration and the Justice System, the digital and energy transition, and measures aimed at reducing geographical inequalities, the full involvement of women and young people in the rebirth of the country is the highest goal of our Plan, as it aims to make Italy a leading player in the European Renaissance, thereby contributing to significantly improving the growth of our GDP in the medium term.

Therefore, RRP intervention lines, following the final approval of the individual coherent projects, will be accompanied by a set of qualitative and quantitative indicators that will enable a more accurate assessment – both ex-ante and ex-post – of the gender and generational effects of the Plan's policies and investments.

As mentioned above, the Budget Law has already provided for a three-year tax exemption for the hiring of young people up to 35 years of age (extended for young people in the South) and a two-year exemption for the hiring of women. On the other hand, the RRP focuses on a number of structural issues that negatively affect youth and female employment. In particular, witness the increase in resources for school, university and post-graduate training, the enhancement of Industrial-Technical High Schools, education in STEM subjects and digital skills, and – finally – the fight for educational inclusion, which will provide young people with better training and facilitate their transition into the labour market. On the demand side, in addition to actions aimed at creating job opportunities in the most advanced and strategic sectors, the expected increased economic growth will also provide a significant boost to employment, which will tend to absorb more youth unemployment. Econometric evaluations are currently being carried out to quantify the effects of this complex set of factors on youth employment.

The entire Plan will be assessed from a gender mainstreaming perspective. The integration of the Plan with interventions financed through national budget funds, starting with the single allowance, reinforces and emphasises the country's overall strategy defined in the *Family Act* and favours a positive interaction with the relevant institutional bodies and the Voluntary Sector.

# Impact on the Sustainable Development Goals of the UN 2030 Agenda

Through the RRP's reforms and investments, Italy also intends to accelerate the achievement of the 17 Sustainable Development Goals (SDGs) endorsed by the UN 2030 Agenda. Since 2018, Italy has turned Equitable and Sustainable Well-Being (ESW) indicators into a strategic tool for economic and financial planning. The experience gained in recent years will make it possible to assess whether the results expected from the Plan's numerous lines of action can contribute to the achievement of the individual SDGs and the improvement of ESW indicators. Said results will be subject to an impact assessment carried out with the support of experts in connection with the implementation of the missions, both at a national and a regional level.

Moreover, the RRP will also have a positive impact on national and regional measures aimed at improving air quality. In particular, the investments envisaged by the "Sustainable agriculture and circular economy" and "Infrastructures for sustainable mobility" missions, which target the sectors that most impact pollutant emissions, will contribute to improving air quality in accordance with the provisions of the "Clean Air Dialogue", the related implementation protocol signed by the Italian government and the European Commission in June 2019, and the Plan Agreements signed by the Italian Ministry for the Environment and the Protection of Land and Sea and the Regions."

#### NOTE:

The structure of Part 2 of the present plan may vary on the basis of proposals from the Parliament and of negotiations with the European Commission task force, while fulfilling the economic guidelines contained in the NADEF.

# PART 2 - MISSIONS AND COMPONENTS

# 1. DIGITISATION, INNOVATION, COMPETITIVENESS AND CULTURE

# General objectives of the mission

- Digital advancement of the country.
- Digital transformation of the public sector; strengthening the cybernetic national security perimeter; achieving databases interoperability.
- Foster a radical improvement of the public administration by promoting innovation, competences, skills and merit. Enhance simplification in administrative procedures, reducing their length and cost.
- Digitisation of judicial proceedings and acceleration of timing in justice within a shared reform framework.
- Support the innovation and competitiveness of the productive system, with particular focus on SMEs and supply chains.
- Promote the implementation of the Broadband, 5G and satellite monitoring plans.
- Relaunch tourism and culture in a sustainable way, raising the quality of tourism and cultural services, supporting the digital and green transition and the socio-economic development of the country.

# **Resources deployed in the Mission**

Total	
Tourism and culture 4.0	
Digitisation, innovation and competitiveness of the productive system 26.55 billion	
Digitisation, innovation and security in the public administration	

The key goal of this mission, necessary and ambitious, is to innovate the country and to bring about deep structural changes along the lines of a new digital paradigm.

It is a unifying goal – which is why it is aggregated into one, composite mission – and aims for a significant impact on private investment and on the attractiveness of the country. It covers a number of key policy areas: the digitisation and modernisation of the public administration (PA), the reform of justice, the innovation of the production system, the realisation of broadband, and the investment on the assets that distinguishes the Italian system from other countries: the tourism and cultural one.

The lines of intervention are developed in an articulated way both in its three design components and in an ambitious strategy of regulatory interventions, with particular reference to structural innovation in the Public Administration and speeding up the timing of justice, within a shared reform framework.

The objectives of innovation and digitisation also concern other missions. Digitisation is indeed a pervasive necessity, as underlined by Parliament's policy act: it concerns the school in its educational programs, the skills of teachers and students, its administrative functions, its buildings (see also missions 2 and 4). It concerns health in its hospital infrastructure, medical devices, skills and staff updating, in order to ensure the best level of public health for all citizens (see also missions 5 and 6). It concerns the continuous and necessary technological upgrading in agriculture, industrial processes and the third sector (see also missions 2 and 3). It concerns the ways of using culture and artistic and archaeological heritage, which constitute one of the distinctive features of our country. The valorisation of this heritage will also have to take place through digital channels and reach a large audience, guiding them through the paths and in the discovery of the national territory, its culture and its history. Lastly, it concerns public administration and justice in a comprehensive way, with important repercussions on technological equipment, on human and infrastructural capital, on its organisation and on how to operate and provide services to citizens.

It will also ensure the coordination of the interventions and investments of all the Missions aimed at digitisation, also in order to ensure consistency with the three-year plan for information technology in public administration and the activities provided, together with the political authority delegated to exercise the functions in the fields of the implementation of the digital agenda (European and Italian) and the digital transformation of the country.

In synergy with digital transformation a "Strategic Innovation Programme of the PA" will be developed, aimed to achieving a structural change to strengthen the Italian PA, in an organic and integrated way, at the different levels of government, through a capable, competent, simple and smart administration, able to offer quality services to citizens and businesses and to make the Italian system more competitive. The Programme will be accompanied by interventions of regulatory nature without costs, aimed at defining a regulatory framework enabling the change for the relaunch of the Country System.

The achievement of the objectives of digital growth and modernisation of the PA is also a prerequisite for the implementation of projects under the Recovery and Resilience Facility (RRF), and at the same time a key to revitalising the country system. In this context, the mission also includes initiatives in the fields of digitisation, innovation and competitiveness of the production system, as well as those in the field of tourism and culture.

The second component of this mission aims to promote innovation and digitisation of firms, to strengthen the supply chains, with particular reference to the most innovative and strategic ones for the competitive positioning of Italy and of the 'Made in Italy' brand in the international martketplace, as well as to encourage the creation of ultra-fast fibre optic networks, promoting 5G technologies and investments in satellite monitoring infrastructure. The aim of this component is, on the one hand, to increase private investment in advanced technologies and, on the other hand, to improve the network infrastructures that these investments necessarily require in order to be

effective. These changes must take into account the specific characteristics of the Italian productive system, and this motivates the interventions to support SMEs and supply chains, including through the use of leverage to maximise the available resources.

It should also be emphasised that tourism in Italy has a strong impact on competitiveness as its main factors of attractiveness, landscape and cultural heritage are closely linked. The crisis resulting from the COVID-19 health emergency has severely hit the sector, which must therefore be supported and relaunched: to this end, the Plan puts in place an important commitment to support tourism, culture and the whole chain associated. These sectors are fundamental for Italy, in terms of economic value and employment. Collectively, they represent 12 percent of national GDP. Tourism and culture also have significant positive social impacts on other areas, such as health, education, inclusion and urban regeneration. The effective implementation of all support measures for the sector is therefore given the highest priority. Objectives to be pursued also through an ever more intense integration between tourism and the use of cultural and landscape heritage, enhancing, in particular, the villages, inland areas, paths and cultural itineraries, also through the involvement of the Regions and Local Authorities in order to achieve an organic action to promote the country.

This mission of the Plan consists of three components: 1) Digitisation, Innovation and Security in the PA; 2) Digitisation, Innovation and Competitiveness of the production system; 3) Tourism and Culture. These components are distributed over a number of projects, totalling more than €45 billion.

# **GENDER, GENERATIONAL AND TERRITORIAL IMPACT**

Mission's interventions will aim to enhance in particular gender, generational and territorial dimension. The interventions are designed to allocate a significant share of resources to the Southern Regions and to the areas of activity characterised by a relatively high incidence of female and youth professionals. The new digital vision of the PA that also uses smart-working, in line with the recent Road Map traced by the European Commission's "New start to address the challenges of work-life balance faced by working families", represent one of the tools to increase flexibility at work. It acts, in particular, on the two fronts of the working time and place. It can be used alone or together with telework and co-working. The aim of all these tools is to build innovative models of job organisation that enable women and men to reconcile their professional and family life, a theme that is one of the strategic priorities of the Recovery programming. The improvement of the well-being of male and female workers, as well as having a direct impact on individuals, also has an induced effect on the community, because there is evidence that in the environments where people work well, internal efficiency increases. These principles, if applied to the public administration, allow the creation of an increasingly friendly bureaucracy with citizens. Tourism and Culture are two areas in which the presence of young workers and women (art, restoration, architecture, design etc.) is high. For this reason, special attention is required, together with a strengthening of the connection of professionalised and ITS paths for the artistic and cultural professions, as well as a new training for the digitisation of the tourist service. Finally, the redevelopment of peripheral and extraurban contexts is an instrument of social and territorial cohesion. Therefore, through the actions on the Villages and on the most forgotten realities, action will be taken to reduce inequalities and territorial disparities, especially in the South and in the inland areas, in urban suburbs and in the most degraded extra-urban areas.

# 1.1 DIGITISATION AND MODERNISATION OF PUBLIC ADMINISTRATION

# Objectives of the component

- Change the public administration to foster innovation and digital transformation of the public sector, equipping it with modern, interoperable and secure infrastructure.
- Speeding up, within a shared reform framework, the length of legal proceedings.
- Promote the deployment of platforms, digital services and electronic payments to public administrations and citizens.

Achieving the objectives of digital growth and modernisation of the PA is a key to revitalising the country's system. This component aims at a radical leap in quality of the PA, through the digital transformation of the public sector and its subsequent structural reform. For this reason, the proposed interventions combine investment in new facilities and services with important interventions in the organisation and human capital of the PA, in accordance with a strict complementarity and a comprehensive reform strategy.

The proposed interventions concern, on the one hand, the adaptation of the infrastructure necessary for the digitisation of the Public Administration and the strengthening of the digital skills of the PA staff and, on the other hand, the strengthening and redevelopment of human capital in the PA and finally a drastic bureaucratic simplification. It concerns the public administration in a widespread manner with important repercussions on technological equipment, human capital and infrastructure, organisation, procedures and the provision of public services to citizens.

In this context, the transition to cloud computing is one of the most important challenges for the digitisation of the country, as it constitutes the technological substrate that enables the development and use of new technologies. The development of a national cloud storage will take place in parallel and in synergy with the GAIA-X European project, promoted at European level and in which Italy intends to play a leading role. Gaia-X aims to create a European standardisation forum to define the operating protocols of cloud services, from the control of processed and stored data on the infrastructure, in line with the principle of "digital strategic autonomy", to full decentralisation of data thanks to the latest available technologies (multi-edge, multi-cloud or edge-to-cloud).

These targeted actions in digital infrastructures and cyber security are characterised by a close complementarity with those relating to three groups of projects, aimed at strengthening the capabilities and competences of the "human factor" and reducing the time and costs of administrative procedures, as part of a comprehensive strategy for completing the reform of the PA. In other words, the completion of the reform of the PA (including innovations in the field of justice) involves both strengthening competences and simplifying decision-making processes and through targeted investments in digital infrastructure.

In this way, a strategic reform intervention is constructed to ensure the implementation of the projects and, on the other hand, to implement parts of previous reforms of the PA in and to complete them in a number of crucial aspects.

A specific investment profile within the mission, with its own design autonomy, is aimed at enhancing the digitisation of the Italian judiciary and promoting the disposal of the backlog.

In this context, a particular value is the gender impact (e.g. in relation to the development of smart working and access to managerial positions) and that on young people (e.g. in relation to extraordinary recruitment for the execution of the NRRP).

M1C1 – Digitisation,	Resources (EUR/billion)							
innovation and security in PA	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)			
Digitisation of PA	5.61	2.34	7.95	-	7.95			
Digital Infrastructures and Cyber Security	.,05	1.20	1.25	_	1.25			
Data and interoperability	0.79	0.34	1.13	-	1.13			
Digital Citizenship, Services and Enabling Platforms Modernisation of the PA	4.77 -	<i>0.80</i> 1.50	<i>5.57</i> 1.50	-	<i>5.57</i> 1.50			
Capable PA: recruitment of human capital	-	0.21	0.21	-	0.21			
Competent PA: strengthening and valorisation of human capital	-	0.72	0.72	-	0.72			
Simple and connected PA: simplification of administrative procedures, digitisation of processes	-	0.48	0.48	-	0.48			
Smart PA: Creation of Territorial Poles for recruitment, training, co- working and smart-working	-	0.10	0.10	-	0.10			
Organisational Innovation of Justice	-	2.30	2.30	-	2.30			
Human resources to strengthen the Office for the Process - new								
organizational positions TOTAL	5.61	2.30 <b>6.14</b>	2.30 <b>11.75</b>	-	2.30 <b>11.75</b>			

Notes: (b) includes DCF resources already planned, to be finalised for specific interventions.

# 1. Digitisation of public administration

#### 1.1 Digital infrastructure and cyber security

The investment aims to promote the adoption of cloud services according to the Cloud First strategy of the Three-year Plan for Information Technology in Public Administration through the development of a highly reliable infrastructure located on the national territory for the rationalisation and consolidation of the Type B Data Centers of the Central PA and the green reinforcement of Type A Data Centers eligible for PSN from the AGID census<sup>2</sup>. This will overcome the current fragmentation of IT infrastructure assets, secure DPC and data of strategic interest, and allow all PAs to evolve towards the provision of digital services in security and high reliability. Streamlining and consolidating existing digital infrastructures in a new cloud model for the PA will lead to significant savings in the cost of maintenance and updating of data centers over the next three years. A Cloud Enablement Program is also planned to facilitate the aggregation and migration of central and local PAs to cloud solutions and provide PAs with procedures, methodologies and support tools for this transition.

These investments will also allow the creation and strengthening of infrastructure for the cybernetic protection of the country provided by the 'cybersecurity perimeter' (Decree Law no. 105/2019), the Network and Information Security Directive (Legislative decree no. 65/2018) and the initiatives provided for by the European Cybersecurity Strategy of 16/12/2020, including the application of the Cybersecurity Act (Regulation EU 2019/881). The investment aims to improve the resilience of the IT infrastructure of our country, strengthening the digital tools and expertise necessary to ensure operational continuity, starting from the State's essential functions and services whose malfunction could create a prejudice to national and European security. Overall, the initiative will produce an important stimulus for "the creation of jobs in the period following the crisis of the Covid-19 pandemic" encouraging the development and enhancement of a national and European industry, in a context of European digital sovereignty to provide enabling technologies and services, designed and manufactured in Europe, with a high degree of security, with particular regard to critical infrastructures.

The total allocation for this project is about 1,250 million, of which approximately 50 million already allocated for the construction of a data center of the Ministry of the Interior and for the strengthening of the connectivity networks of the National Fire Corps.

# 1.2 Data and interoperability

Infrastructure equipment and 'the cloud' are enabling technologies for the development of a kind of "country operating system", which allows the processing of large amounts of data and information needed to provide and manage services to citizens and businesses. However, the increased filing, storage, and data extraction capacity by individual administrations is not sufficient for the rational and efficient use of such information in the absence of standards and tools allowing full interoperability and sharing of information among public administrations. Therefore, to give effective and complete implementation of the 'once only' principle, and in line with the EU Data

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<sup>&</sup>lt;sup>2</sup> See Article 35 of Decree Law of 16 July 2020, no 76.

Strategy, databases are made interoperable and accessible through a catalogue of digital platforms of the public sector (API) that allows central and territorial administrations, according to various levels of authorisation, to draw on cloud data, to process them and to provide services to citizens and businesses. The investment will also support the implementation of the Single Digital Gateway (Sportello Digitale Unico europeo), guaranteeing access to the services provided by the Italian PA also by European citizens, as well as the digitisation and re-engineering of the National Agricultural Information System (SIAN).

The total allocation for this project is about 1.1 billion which also includes the various interventions of the central administrations that have started projects of archives and asset digitisationand of the assets currently on analogic support and pathways of digitisation of the operating processes.

# 1.3 Digital citizenship, services and platforms

The fundamental principle on which this innovative "country operating system" is based is to exploit digital technologies for citizens and businesses; it therefore requires designing, developing and monitoring, through the use of public sector data, policies and services focused on the needs of users who, in order to benefit from them, must be "enabled" to the use of digital services. Therefore, it is necessary to develop and disseminate enabling platforms such as: digital identity (SPID and CIE), electronic signature, digital payment tools for public and private (PagoPA, Italy Cashless community), notification platform, ANPR (Anagrafe Nazionale della Popolazione Residente), AppIO as access point for administration services, implementing their use through common standards. At the same time, it aims to promote the basic and advanced digital literacy of citizens and businesses through the setting up and strengthening of the Network of Digital Facilitation Services in the territories and the creation of 'Institutions for Innovation and Digital Culture'. Training, testing and guidance courses will be set up in these structures, which are essential to strengthen the capacity of citizens and businesses to use information technology and to use digital public services. The professional involvement of young members of the Digital Civil Service, which will be launched for this purpose, will help to disseminate skills and combat digital exclusion.

The total allocation for this intervention is 5,560 million, of which 4,765 million have already been allocated for the Italia Cashless project and initiatives already under way by the central government.

# 2. Innovation in the public administration

#### 2.1 PA capable: recruitment of human capital

Public staff in Italy, after years of the block of the turnover, show severe shortcomings in some sectors and a very high average age. This makes a priority to ensure a generational and cultural change in central and local PA, including by significantly simplifying recruitment procedures meeting the needs of new professional profiles identified by reconnaissance of new needs and digitalised management of recruitment and mobility.

Investment 2.1 aims at improving the recruitment capacity of the public sector and recruiting staff with appropriate professional skills, and is not a stand-alone measure but strongly connected and functional also to the implementation of RRF projects, including the Digitisation of the PA, ensuring both an overview and a greater speed and functionality of the recruitment. To this end, the following actions are envisaged:

- Rethinking of procedural models and standards for the analysis of needs and competences, to be accelerated and to be connected also with the new missions of the PAs in implementation of the NRPP, with an organic but bottom-up approach, which moves priority from the projects admitted to the Plan.
- Strengthening of the new competition season, already started, through the continuous and
  periodic programming of public competitions, aimed at recruiting young graduates with
  technical skills. The competition procedures, for which it is expected to implement selection
  methods according to models already adopted by the European institutions (EPSO model),
  will also be aimed at assessing relational, motivational, aptitude and problem solvings kills
  (so-called soft skills).
- Implementation of an extraordinary organic plan of recruitment of fixed-term staff, aimed at strengthening the administrations involved in the implementation of the Recovery Plan, to ensure the necessary specialised support for the concrete implementation of the projects, with particular attention to the issue of digitisation, innovation and modernisation of administrative action. The recruitment will be carried out on the basis of the survey of needs carried out by May 2021 by each administration in collaboration with the Department of the Public Administration that will define the faster and more effective methods of selection and recruitment. The staff recruited will be assigned to the administrations concerned, who will provide for the recruitment and management of the economic treatment with resources of the individual projects of the NRPP. In the context of the new competition season, in order to not to disperse the technical skills acquired and trained on the field but to give certainty to the best professionalism emerged, the aforementioned recruitment will be accompanied by the identification of selective and non-automatic mechanisms, to enhance skills and knowledge acquired by administrations in the context of extraordinary recruitment.
- Implementation of a "Recruitment Portal": that will allow citizens to have centralised and systematic access to all the competitions available (for specific professional profile with integrated geo-refencing system) and to the PA to manage recruitment processes in a unitary

way. Participation in selective procedures by candidates through the Portal will allow the creation of a "on-line candidate's register" contributing to the reduction of bureaucratic burdens on participants and administrations. The portal will also be able, in a second phase, to allow timely reconnaissance of the needs of PA and employee mobility.

The total appropriation for this assistance is 210 million of euro, in addition to that for recruitment for individual NRPP projects, from the resources of the NRPP.

# 2.2 Competent public administration: strengthening and valorisation of human capital

The aim of the investment is to strengthen the knowledge and skills of the PA management and workers, which are also necessary to contribute proactively to the digital transformation of the public sector. The investment also involves strengthening human capital through the implementation of upskilling and reskilling paths for personnel in service and establishing a national certification and accreditation system for training bodies. The training must be reformed with an operational and behavioural approach, creating new public professionalism, increasing the technical culture of administrators over the legal one, prioritising the achievement of results, relying on the spirit of mission of civil servants.

Finally, the investment – which is accompanied by structural interventions of legal nature – is aimed at identifying new and more effective ways of valorising staff with high professional skills in the administrations, in order to motivate and encourage the aforementioned staff and consequently improve the efficiency of administrations (by reducing, however, the tension towards more attractive structures in terms of career prospects and economic developments, resulting in costs in organizational terms and loss of know-how for administrations of origin).

To this end, the following actions are envisaged:

- introduction of mechanisms to strengthen the role, skills and motivations of civil servants, through paths of valorisation of acquired professionalism and achievements, including through the prediction of career progressions based on not automatic but selective paths of development and growth;
- introduction of a new model of public work, including through regulatory and contractual
  instruments, with evaluation and remuneration based on the result that requires a new
  system of measurement and evaluation of performance also through the strengthening of
  citizen satisfaction aimed at achieving greater selectivity in identifying professional
  excellences and achieving results, including through systems of analysis of impact of smart
  working; economic exploitation of human resources with the characteristics of professional
  excellence;
- introduction of mechanisms to strengthen the role and competence of public managers, with
  particular attention to women's access to managerial positions. Provision of ad hoc
  managerial training courses starting from a personalised assessment of skills for managers
  of central administrations, with provision for a training course that takes into account the
  specific activities envisaged in carrying out the task;

- reform of the training system, in particular with regard to the need for retraining linked to digital transformation. Integrated training and quality certification programme for training providers and national accreditation system for training bodies;
- smart working and new forms of public work organisation aimed at increasing individual productivity, innovation in operational processes, especially those targeting external users, as well as the reconciliation of living and working time.

The total allocation for this intervention is 720 million.

# 2.3 Simple and connected public administration: simplification of administrative procedures, digitisation of processes

The process of digitising procedures and developing interoperability is an unrepeatable opportunity for a radical rethinking of procedures, often still governed by obsolete regulations and without impact analysis, with the aim of achieving a drastic reduction in the costs and time of procedures, as well as of providing services according to new quality standards, in order to build participatory planning and with a certain outcome, even by exploiting new digital technologies.

Investment 2.3 aims to transform the PA into a simple, streamlined and connected organisation, able to offer services designed to the real needs of citizens and businesses and designed in a user-centric logic. To this end, the investment provides for the full mapping of all administrative procedures related to economic activities or the life of citizens, with priority for those necessary for the rapid implementation of the Recovery Plan projects and with ad hoc consultation of the relevant groups.

This systematic "Census of Procedures" is preparatory and functional to change, on the regulatory level (if appropriate, with the appropriate delegated law), the re-engineering, digitally, of the discipline of the same procedures, to be carried out, among others, according to the principles of the abolition of the obligations no longer necessary, the reduction of time and costs, transparency and reliance, full digitisation and digital interoperability (with an effective implementation of the 'once only' principle).

The investment also includes:

- speeding up procedures for relaunching by supporting state, regional and local administrations in the management of complex processes (infrastructures, public works, production facilities, environmental assessments, energy transition, urban and landscape building etc.) through the provision of pools of multidisciplinary experts;
- the simplification, reengineering and integral digitisation of procedures for construction and production activities through the digitisation of the front office and back office and the interoperability of document flows between administrations (SUAP, SUE, Conferences of telematic services and other procedures relevant for production activities).

Finally, there are: i) a phase of ex post verification and monitoring, as well as actions of ii) ad hoc training of employees who will have to implement the digitised and simplified procedures and iii) institutional communication of the reforms and simplifications adopted, including through the

web and social media, both to inform citizens and businesses and to increase the "reputation Country", according to the techniques of Country branding.

The total allocation for this intervention is 480 million.

# 2.4 Smart public administration: creation of territorial poles for co-working, smart working, recruitment and training

The investment involves the planning and realisation, also through the recovery of state property, of territorial technological poles of the public administrations (PTA), redesigned according to innovative models of the use of space and the performance of the work activities, which act as:

- co-working and smart working spaces, also in order to decongest urban centres;
- poles of technical and organisational innovation, thanks to the comparison, interaction and socialisation of the knowledge of employees of different administrations;
- training and public service provision centres.

The aim is to experiment with new public physical-organizational-technological contexts, to be replicated in the offices of the administrations.

The total allocation for this intervention is 100 million.

# 3. Organizational Innovation of Justice

The total allocation for this intervention is 2 billion of euro, plus additional resources of 1 billion and 10 million from the Budget Law.

The investment aims to significantly reduce the time of justice, also on the basis of experience gained in other countries and in some best practices recently experienced in Italy with the establishment of a new institutions the Office for Proceedings "Ufficio per il processo". The objective is to ensure the reasonable length of the process through innovation of organisational models and by ensuring more efficient use of information and communication technologies. The office for Proceedings is a model of integrated collaboration through which professional judges can avail themselves of a technical support staff, in order to concentrate their energies on decision-making profiles. For this purpose, technical personnel (computers, architects, engineers) will be placed for the construction activity, as well as organisational managers for the development and monitoring on the territory of the advancement and results of computer and building projects. The employees of the Office for Proceedings will have the task of collaborating in the study of the dispute and the relevant case law, of preparing drafts, of collaborating in the collection of the declarative evidence in the civil process. These figures will be included in a specific organisational project in order to enhance their contribution of collaboration with the magistrate, with a view to progressively reducing the backlog and accelerating the treatment of ongoing proceedings.

Moreover, for the offices of proceedings of the courts most burdened by arrears in the civil sector, the extraordinary graft of professionalism already structured and, therefore, able to operate immediately at full speed, with the specific purpose of collaborating with the magistrate

in the adoption of the decision and in the drafting of the judgment. These aggregated honorary magistrates, therefore, will contribute to the work of defining the proceedings through the editing of omplete drafts of judgments in order to allow the reduction of the length of civil proceedings and the advance definition of the proceedings for which a hearing has been fixed for the clarification of the conclusions.

A specific intervention is provided for the disposal of tax litigation pending before the Court of Cassation. As documented in the last inauguration report of the judicial year, the tax section alone has a gradient, as of 2019, of 52,540 cases, while all the other ordinary civil sections together have a gradient of 51,583 proceedings (excluding immigration). In order to address this continuing criticality, it is expected that auxiliary honorary magistrates may be assigned, on an extraordinary basis, temporarily and contingently to the tributary sections of the Court, and for two cycles, in order to break down the endemic backlog weighed on these sections, negatively affecting the disposal performance of the entire Supreme Court.

In this context, strengthening the security and innovation of digital software and infrastructures is of primary importance. Combined with the completion of the digitalisation of the civil and criminal proceedings and the planned regulatory reforms, staff measures will ensure long-term performance up to European standards. The expectation of success of the measures described above is based on the high rate of disposal of business by the Italian magistrates ( so called Clearance Rate), i.e. the constant increase in the percentage of definitions compared to annual occurrences (1,6 in 2019). This suggests that the absorption of the backlog through the extraordinary measures indicated will allow decision-making times in line with European standards.

#### THE REFORMS OF JUSTICE: CIVIL PROCESS, JUDICIAL SYSTEM, CRIMINAL PROCESS

The reform projects are naturally open to contributions that will be made during the parliamentary process and which will be able to achieve, even more effectively, the objectives of efficiency of justice, the protection of rights of action and defence, and the enhancement of the professionalism and independence of the judiciary.

#### The reform of the civil process

A draft law is pending in Parliament for the reform of the civil process aimed at simplifying and streamlining the process, both first-degree and appeal, through the reduction of rites and their simplification. Broadly speaking, the measure provides for:

- the introduction of a simplified civil rite: from three rites (court of peace, ordinary monocratic and monocratic summary) we move to a single rite;
- the reduction of the cases in which jurisdiction is conferred on the tribunal in collegiate composition;
- the review of the appeal judgment, with the provision that the institute of the judgment is the appeal; provided, moreover, that the time limit for the first hearing will not exceed 90 days;
- anticipation of the time limits for filing statements of clarification or modification of applications, exceptions and submissions with the aim of defining the decision making theme before the first appearance of the parties;
- the elimination of the hearing specifying the outcomes;

- the revision of the framework for alternative dispute resolution instruments with the exclusion of mandatory use of mediation in matters of health liability, financial, banking and insurance contracts. In the context of assisted negotiation, lawyers are given the opportunity to anticipate, where possible and with defined procedures, part of the investigative activity in order to facilitate the detection of the facts before the start of the trial, to allow the parties to better assess the fairness of judgment and to encourage transactive solutions. The examination of such activity in any subsequent judgment shall be returned to the judge's assessment;
- a special mediation procedure is introduced with regard to the dissolution of communions of goods;
- the implementation of the telematic process, with the provision that, in proceedings before the justice of the peace, the tribunal and the Court of Appeal and Cassation, the filing of the documents and the acts of the party will take place exclusively by telematic means. Notifications may also be made electronically if the recipient holds a PEC address or a digital domicile;
- the definitive overcoming of the so-called 'Rito Fornero';
- the introduction, in the field of real estate expropriation of rules aimed at speeding up the course of the enforcement procedure and to contain the costs through the collaboration of the debtor, who may be authorised by the judge to sell directly the property foreclosed.

Regulatory intervention will necessarily have to be part of a broader context of overall reorganisation of the justice system. In addition, other measures are under consideration and are being developed for possible inclusion in a forthcoming decree law that contains the accompanying and functional measures for the realisation of the projects in the time horizon given by the European regulation establishing the Recovery and resilience fund. The need to implement the reforms set out in draft delegation Law (Senate Act no. 1662) also comes out from the requests made by the European Commission during the bilateral meeting held on 18 November: noting that the overall programme is in the right direction, the Commission considered that, in order to further strengthen the set-up already contained in the draft law pending in Parliament, further efforts were needed to ensure that the overall objective of ensuring greater efficiency of civil justice is achieved. These are, in summary, the further measures being defined:

- in order to increase the use of alternative dispute resolution procedures and to facilitate
  the definition of disputes through judicial conciliation or out-of-court settlements, specific
  measures are being prepared, both implementing and simplifying the implementation of
  existing ones and introducing new ones;
- with regard to the **civil process**, further measures are being defined to improve the efficiency of the process with reference to the central issues of procedural foreclosures, reestablishing the temporal cadences for the definition of the decision-making theme, so that at the first hearing the positions of the parties are complete and the judge can assess the procedural choices functional to the speediest definition of the judgment;
- the operational entry into force of the system of the principle of clarity and summary of the acts of the parties and of the judge is also being developed;
- interventions are also being done on further rules to speed up and streamline **appeal judgments**;
- some amendments relating to **arbitration judgment** are being studied in order to give arbitrators the power to grant seizures and other protective measures if provided for in the arbitration agreement or other separate written act drawn up prior to the establishment of the arbitration judgment;

• finally, a number of measures are being drawn up in the field **of justice expenditure**, which introduce reward mechanisms where the parties, in specific cases, contribute to streamlining the decision-making phase in the Supreme Court, and on the digitisation of payments of the allowances referred to in Law No 89 of 24 March 2001 in order to speed up the winding-up proceedings.

# Reform of the judicial system

The reform of the judicial system, which is pending in Parliament, does not only have effects on the legal profile, but also has direct consequences for the efficiency of the administration of justice.

The rules governing the organisation of the activities of offices with a direct impact on the efficient management of the justice sector are primarily taken into account:

- the assignment to the executive of the office to verify that the distribution of the roles and workloads ensuresthe functional and efficient objectives of the office and ensures that all the magistrates of the office, sections and colleges are consistently fair;
- the specific provision that it is the responsibility of the manager (both of the office and of
  the individual section) to monitor the occurrence of delays by one or more magistrates of
  the office in order to ascertain the causes and to take any appropriate initiative to eliminate
  them, through the preparation of targeted disposal plans, to be verified in the practical
  operation every three months;
- the introduction of specific disciplinary offences in the event of non-compliance with the obligations set out in the preceding paragraph;
- the overall reorganisation of the Public Prosecutor's Offices, due to the need to require all the offices to have an organisational form based on criteria of efficiency and valorisation of the competences of individuals;

In relation to the rules of the judiciary which have effects of efficiency in the overall management of human resources, the following should be noted:

- the reduction of access to the career of a magistrate that allows graduates to participate
  directly in the competition, reducing the average age of access to the judiciary and making
  it attractive also for those particularly gifted young people who, instead, for long periods of
  time, embark on different careers;
- the reduction of the organic plant of the office of the maximary of the Court of Cassation resulting from the restoration of the functions of supporting the nomophilachia of that office, so as to contain the number of magistrates removed from the ordinary exercise of jurisdiction;
- the extension also to magistrates who hold apical functions of the obligation to remain in the offices for at least four years, which is a timeframe necessary to allow adequate planning and organisation of the office they direct;
- preclude participation in the competition for the coverage of all senior posts (other than
  those of first President and Attorney General at the Court of Cassation) to magistrates who,
  by reason of their age, cannot guarantee their stay for at least four years which, as
  mentioned above, represent the timeframe necessary to allow adequate planning and
  organisation of the office they direct;
- reduce the number of passages of functions from judges to requirers;
- simplify the procedures for approving tables and plans for the organisation of offices;
- simplify the work of judicial councils.

In relation to the interventions aimed at ensuring an exercise of the self-government of the judiciary free from external conditioning and, therefore, based on choices based only on the good performance of the administration is envisaged:

- a reform of the selection and confirmation procedure of the directors of the offices and sections, in order to allow the offices to be run by magistrates with the necessary skills and professionalism;
- a reform of the selection procedure for the judiciary responsible for legality, in order to enable the quality of the nomophylactic function to be recovered;
- a reform of the mechanism for electing members of the High Council of the Judiciary and a remodelling of the internal organisation of that body;
- a new discipline, strongly restrictive, of the conditions allowing the candidacy of magistrates for elective posts and the status of magistrates, both in the event of non-election and, in the case of election, at the end of the parliamentary or council term;
- a new discipline, equally restrictive, of the status of magistrates who have assumed positions of national, regional or local government.

#### **Reform of the criminal process**

The draft law pending in Parliament relates above all to the necessary realisation of the progressive digitisation of the criminal process: with rules relating to the electronic filing of documents and documents and a regulation of communications and notifications focused on the use of the PEC and also of technological solutions other than the PEC. A number of provisions are envisaged with the sole aim of eliminating the "dead time" of the criminal process, of drastically reducing cases where the proceedings lead to debate, of streamlining the discipline of a number of institutions with a prospect of acceleration and simplification. Special attention is paid to the appeal judgment, a real bottleneck of the criminal trial.

The principles underlying the reform action are summarised as follows:

The duration of the preliminary investigations is rescheduled according to the seriousness of the offences carried out. In order to make the maximum period of time more difficult to circumvent, a mechanism for judicial verification of the timeliness of the registration of criminal offences by the public prosecutor is introduced and an obligation is introduced for the public prosecutor to file the documents of the investigation at the end of the maximum period of time, with the additional obligation to file a request for dismissal or the prosecution within thirty days from the submission of the relevant request by the lawyer of the suspect or the offended person.

The guiding criterion of the decision of the Public Prosecutor and the Judge for the preliminary hearing is redefined, to make a request for the dismissal of the proceedings and the issue of the judgment not to proceed, replacing the parameter of the inadequacy of the elements acquired to support the accusation with that of the inability of the same to allow a reasonable forecast of acceptance of the accusation in the trial.

The rules on alternative rites are amended to encourage their adoption, except in cases where very serious offences are carried out.

With regard to the debated judgment, the reform contains a number of directives specifically geared to the objective of accelerating the procedure, including:

- the elimination of the need for the consent of the other procedural parties in order to revoke the admission of evidence to which the requesting party has renounced;
- the provision that the processing of technical advice and expert advice must be filed within a period prior to the hearing set for the examination of the consultant or expert;

• the obligation for the court to determine and communicate to the parties, at the beginning of the debate, the timing of the trial.

With regard to proceedings before the tribunal in monocratic composition, a "filter" hearing is introduced, always with a view to strong deflation, only in cases of direct litigation, in which the judge (other than the one before which, where appropriate, the judgment will have to be celebrated) assesses, on the basis of the documents in the prosecutor's file, whether the debate is to be held or whether, on the contrary, a judgment of no place to proceed must be given.

The interventions related to the appeal judgment are numerous and significant:

The lawyer may appeal the judgment of first instance only if he has a specific mandate to appeal, issued after the delivery of the judgment, with the aim of avoiding a large number of appeals lodged in the interest of persons who have become irretrievable.

The possibility of bringing an appeal at the Registry of a judicial office other than that which issued the measure to be challenged shall be deleted, subject to the rules governing the electronic filing of the appeal.

The monocratic appellate judge is introduced, with jurisdiction to judge the judgments of first instance delivered by the monocratic judge, accompanying this innovation with adequate guarantees for the parties.

In order to ensure greater speed, deadlines for the maximum duration of the different phases and grades of the criminal proceedings are also introduced, hence the obligation for individual judges to take organisational measures to ensure that criminal proceedings are defined in accordance with the deadlines; failure to adopt such measures (and not non-compliance with deadlines), if attributable to inexcusable negligence, may constitute disciplinary liability; in the judgments of appeal against convictions, at the end of the period of time for the trial set in the reform, the procedural parties may request that the judgment of appeal against the judgment of conviction at first instance be dealt with. After the submission of the application, the process will have to be defined within six months. It will be up to the heads of the judicial offices and individual magistrates to ensure that these deadlines are met, by dictating the necessary organisational measures.

In short, the aim of the reform isto streamline and simplify the process and, without confusing the fundamental rights of action and defence, speed up their conclusion in order to meet the dual need to avoid consuming prescriptions (in every state and degree) and, at the same time, that the processes have an unreasonable duration.

# 1.2 DIGITISATION, INNOVATION AND COMPETITIVENESS OF THE PRODUCTION SYSTEM

# **General objectives of the mission**

- Support the digital transition and innovation of the production system encouraging investments in advanced technologies and 4.0, research, development and innovation, cybersecurity.
- Implement ultra-fast fibre optic, 5G and satellite networks for the construction, modernisation and completion of very high-capacity networks connected to the end-user in the South and in the white and grey areas, as well as to ensure the connectivity of public entities considered key and strategic, integrating the best available technologies to offer advanced services for the productive and security sector (including the offer of services packages for the secure management of cloud data, redundancy of strategic networks, strategic networks' construction).
- Encourage the development of productive chains, in particular the innovative ones, as well as those of 'Made in Italy' and increas the competitiveness of Italian companies on international markets, also using innovative financial instruments for this purpose.

In recent years, to bridge the "digital intensity" gap of our production system towards the rest of Europe (lower investments estimated at 2 points of GDP), especially in manufacturing and SMEs, a tax incentives policy has been pursued for investments in capital goods functional to technological transformation according to the "Transition 4.0" model and in related intangible assets t, as well as in research and development activities. The available analyses show that incentives for the purchase of truly innovative tangible and intangible goods have had positive effects on the digitisation of businesses as well as on employment, especially among young people and in new professions. It is now necessary to strengthen this line of action to reduce the costs of implementing digital transformation, while increasing the degree of involvement of smaller economic activities located in the South.

The policies described above, to be fully effective, must be accompanied by the development of a fast and ultra-fast digital connection network to spread innovation and new services. The connection is in fact an enabling prerequisite to take advantage of various "4.0 technologies" – such as sensors, the Internet of Things, and three-dimensional printers – which require fast connections with low latency times. The intervention of the National Recovery and Resilience Plan in this area follows the challenging objectives defined at European level (the "connect" flagship initiative) and the awareness that ultra-fast broadband networks are a General Purpose Technology, capable of triggering productivity and growth gains on a large-scale in all sectors of the economy.

However, according to the latest DESI index, our country ranks 17th (out of 28 EU countries) on connectivity. The coverage rate of Italian households with ultra-fast networks is 24 percent,

compared to an EU28 average of 60 percent. To overcome this delay, due to both demand-related factors and supply bottlenecks, the Italian Government approved in 2015 the National Strategy for the UltraBroad Band, capable of mobilising over 12 billion of public and private resources, for the integrated development of a fixed and mobile TLC network, based on "future proof" technology of fiber. Despite the increase in investment in the fixed network in recent years, the NRRP intends to accelerate further, promoting a "fiber project" that avoids the risk of duplication in the grounding of the network – which is part of national strategic infrastructures – while ensuring full competition in the provision of services.

Technological innovation must be pursued while continuing, at the same time, to support the development and internationalisation of our companies and production chains, with attention also to smaller companies and to the choices of production location (reshoring).

Strengthening the country, in fact, means supporting the growth and resilience of SMEs, the true driving force of the Italian system, strengthening the ability of the supply chains, in particular of technologically advanced ones, to compete on international markets and to respond to the current crisis. Many sectors of Made in Italy excellence are now characterised by a strong incidence of micro and small enterprises. The latter represent almost 70 percent of non-financial industrial value added and 80 percent of the workforce. Nevertheless, fragmentation and small size have led to competitiveness problems in the long-run, especially in sectors where economies of scale and investment capacity are most relevant. Furthermore, the economic impacts of the crisis have resulted in situations of severe capital and financial tension in many companies, especially in SMEs, with consequent potential impacts on production chains: in fact, many producers depend on a large number of suppliers and sub-suppliers of small dimension, not immediately replaceable. It is therefore essential envisage new financing systems, such as the fund of funds, to maximise the resources available for the production chains by exploiting financial leverage.

As a whole, the projects of this component play an essential role for the development of the South and for youth employment. The increase in the degree of digitisation of the country will be of particular benefit to the younger generations, also through the investments in human capital envisaged by Mission 4 of this same plan. Of absolute strategic importance for the country and for the South is the development of the supply chain on basic technologies, that is on microelectronics and microprocessors, an area of action that falls within the seven flagship initiatives indicated by the Union in the guidelines for the drafting of the NRRP (the flagship "scale-up"), to which a specific project is then assigned. Finally, some of the production chains with a high export vocation are located in southern Italy, in particular in Puglia and Campania.

The total allocation for this component is  $\le$  26.55 billion (including  $\le$ 800 million for the React/EU).

M1C2 – Digitisation,	Resources (EUR/billion)							
innovation and competitiveness of the production system	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)			
'Transition 4.0'	3.10	15.70	18.80	-	18.80			
Innovation and technology of microprocessors	-	0.75	0.75	-	0.75			
SME digitisation and Guarantee Fund *	-	-	-	0.80	0.80			
Broadband, 5G and satellite monitoring	1.10	3.10	4.20	-	4.20			
Fast Connections	1.10	2.20	3.30	-	3.30			
Satellite constellation and National Institute of Earth Observation	-	0.90	0.90	-	0.90			
Industrial policies for the supply chain and								
internationalization**	-	2.00	2.00	-	2.00			
TOTAL	4.20	21.55	25.75	0.80	26.55			

<sup>\*</sup> Financing with React-EU.

#### 1. Transition 4.0

Incentives are envisaged to facilitate the digital and green transition, supporting virtuous processes generated by interconnected technological transformations in the design, production and distribution of manufacturing systems and products. The Plan acts on the factors that enable the digital transformation of companies by creating favourable conditions for the realisation of innovative investments. The founding principles of the Plan can be summarised in a logic of technological neutrality and in the choice to intervene with horizontal and automatic actions. With the "Transition 4.0 Project" a new industrial policy strategy of the country has been developed, more inclusive and attentive to sustainability.

The project consists of a series of measures aimed at:

- stimulating the demand for private investment in capital goods in order to encourage both
  the digital transformation of companies and the necessary modernisation of machinery and
  plants with a view to production and energy efficiency;
- supporting innovative products and processes through a measure dedicated to research and development activities leading to the adoption of new solutions for the reference sector or market.

The new Transition 4.0 project provides for multi-year measures to facilitate the planning of business investment strategies. It also introduces significant improvements, both in terms of rates and ceilings, and in terms of simplification and acceleration of the procedures for granting the tax advantage. The extension of facilitated investments, which starting from 2021 include a wider pool of intangible capital goods, should allow for the greater involvement of small businesses that

<sup>\*\*</sup> Includes leveraged intervention lines.

historically have to fill a gap in terms of basic digitisation. Finally, still in favour of small enterprises, the project envisages a wider pool of facilitated intangible capital goods and simplified and accelerated mechanisms to offset the benefits accrued for companies with an annual turnover of less than € 5 million. The immediate usability of credit, addressing the known liquidity shortages, could favour more investment by SMEs.

The project is based on a tax credit articulated for expenditure on capital goods (tangible and intangibles 4.0), and for investments in research and development, as well as in innovation and development processes oriented towards environmental sustainability and digital evolution. These measures can also be accessed by publishing companies for digitisation activities and for interventions to support the digital transformation of the supply and use of publishing products.

The total budget for this project is € 18.8 billion.

In addition, complementary resources of € 6 billion and € 760 million are added from the appropriations of the Budget Law.

# 2. Industrial supply chain and internationalisation policies

The project plans to support industrial supply chains, in particular those that have been most affected by the effects of the crisis and those most advanced from the point of view of innovation and environmental sustainability, encouraging their strengthening also in order to improve their positioning in European and global value chains and to reduce dependence on third countries. Particular attention will be paid, in this projects area, to companies that promote Made in Italy products worldwide, in particular those of smaller dimensions.

To this end, the Fund of Funds system will be used through which the allocated resources are transferred to specialised operating funds for financial instruments, risks and sectors of intervention. This contribution, together with EIB and EU instruments and participation in the capital and/or financing of financial intermediaries and partners, may represent the endowment that each individual fund would use to finance the initiatives of this project. In addition, supporting the supply chains also means providing a set of interventions that stimulate the quality and specialisation in the aggregatioprocesses n of the supply chains in each sector, especially in those of national relevance. This will encourage integrations and interconnections between companies in the different phases of production processes, favouring, with suitable tools, also merger and patrimonialisation processes.

The total budget for this project is € 2 billion.

# 3. SMEs financing and Guarantee Fund

The liquidity crisis caused by the health emergency brings out, for large segments of the production system and regardless of the size of the company, the need to access sources of financing different from cash flow, compromised by the fall in turnover. In this context, the banking system and the support measures undertaken by the Government have played a prominent role. For this reason, the NRRP – thanks to a synergy between several European programmes – provides various instruments for strengthening the production system, in particular tools to facilitate access to credit and the liquidity of companies, such as the refinancing of the Guarantee Fund.

The total budget for this project is €800 million on React-EU.

In addition, complementary resources are added for €1 billion from the NOP projects and for €3 billion and €100 million from the appropriations of the Budget Law.

# 4. Broadband, 5G and satellite monitoring

In this context, interventions for the reduction of the digital divide are planned, favouring the achievement of the European objectives of the Gigabit society. Among the main lines of the project are:

- The Italy 1 Gbit/s Plan that provides for the completion of the ultrabroad band project, with initiatives for connecting end user to ultra-fast connections and its extension to grey areas.
- Fiber optic coverage in public realities considered as a priority (completion of schools Plan; health premises Plan; fiber Plan for natural parks; fiber Plan for museums and archaeological sites).
- 5G fiber along extra-urban communication routes and disseminations of 5G networks in public sports facilities.
- Interventions for the promotion of 5G services and the safety of 5G.

Furthermore, in full coherence with the initiatives launched by the European Union and several member states in a rapidly expanding sector at global level, as part of the Extraordinary Plan for the Space Economy, the launch of a a satellite constellation is envisaged for the Earth monitoring (optical and via radar) at high resolution with the related realization of the ground infrastructure for the control of the constellation and the establishment of an institute for environmental monitoring and defense of the territory, through AI systems and high speed computing. Interventions are also planned in the field of tracking (Mirror Galileo) and low latency satellite telecommunications for institutional and government services (GovSatCom), also implemented in public-private partnerships. In fact, the contribution that space technologies and applications can provide in resolving different social challenges, including combating the Covid19 pandemic, is well known, as well as the propulsion role that this sector can play in the process of relaunching the country's growth potential. The projects of the Italian Space Agency may also find space within this financing line.

The total budget for this project is €4.2 billion [of which 1.1 already earmarked for existing projects].

# 5. Innovation and technology of microprocessors

The project is aimed at supporting the high-tech sector of microelectronics, through a mix of tools for financial support for investments in machinery, equipment and production facilities. Given the specialisation in the sector of some areas of the country, it is reasonable to expect that a significant proportion of this line of action will affect the South and also favor highly qualified employment, including of youth people.

The total budget for this project is €750 million.

#### 1.3 TOURISM AND CULTURE 4.0

# Objectives of the component

- Increase the attractiveness of the country, improving the tourist and cultural system through the modernisation of tangible and intangible infrastructure of the artistic historical heritage, the improvement of digital usability and the physical and cognitive accessibility of culture.
- Regenerate the villages and urban suburbs through the promotion of participation in culture, the revival of sustainable tourism, the protection and enhancement of historical parks and gardens.
- Secure and restore places of worship and historical-architectural heritage.
- Strengthen accommodation facilities through investment in strategic tourism infrastructure and services, renewing the tourism ecosystem and promoting root tourism.
- Support the digital and green transition in the tourism and culture sectors 4.0 and the socioeconomic regeneration of the territories and promote training and interaction between schools, universities, business and culture.
- "Caput Mundi" and "Paths in History" to promote the country's tourist attractiveness through a synergistic and innovative use of the Heritage and redevelop the contexts, with forms of "slow" and sustainable tourism.

In the third component "Tourism and Culture" the interventions are concentrated in two sectors that offer potential for growth, are concrete factors of development, and represent comparative advantages and strategic assets of the country. Consequently, they constitute essential areas of intervention in the policies of revitalisation. The green transition and environmental sustainability in our country can only be based on the protection and enhancement of cultural heritage, intrinsically ecological policies that involve limiting land consumption, minimising the use of natural and energy resources and ensuring a low environmental impact. Tourism and culture are among the sectors most affected by the pandemic and need specific support to accompany their recovery and strengthen their resilience for the future.

In the public sector Italy has a very large and valuable cultural heritage that requires significant annual investments, but it can be an important attraction for cultural and tourist activities. The Plan therefore envisages numerous projects to enhance the cultural and historical sites of major metropolitan cities, including peripheral areas.

There is also the need to invest to make Italian cultural sites more accessible to wider sections of the population and tourists. The investments proposed include actions aimed at improving the accessibility of cultural heritage sites and buildings, allowing wider participation in culture, thus promoting the inclusion and socio-cultural regeneration of neglected areas as well as economic and social well-being. Remote areas and urban suburbs will be included among investment areas.

There is an opportunity to balance tourist flows by investing in rural and sustainable tourism. As an example, Italy has many small historical centers (villages) and places of worship, which can offer enriching and diversified tourist experiences. Moreover, there are many citizens of Italian

origin in the world who might be interested in a type of tourism linked to the discovery of their roots. However, there is a need to redevelop accommodation facilities.

Digital access to public information on cultural heritage is limited, thus reducing opportunities for cultural and creative enterprises to use and reuse information for their products and services, and for the education and research sector to increase the level of essential cultural services.

The rapid development of new digital technologies in the film sector, especially those linked to virtual production, requires strategic investments in the training of new skills in this field, so as not to lose competitiveness compared to other countries.

However, it is necessary to improve the energy efficiency of cultural heritage buildings and to update practices related to cultural heritage conservation and cultural production and participation, so as to move towards a more circular economy and contribute to the European Green Deal. Moreover, these latter are activities with a high incidence of female and youth work that represent two cornerstones of the Relaunch Plan.

Knowing that the artistic and cultural heritage serves as a unique calling card that no other country can boast, the valorisation of the archaeological and cultural heritage as well as tourism become one of our "flag initiatives". The Tourism and Culture component has consequently been valued in terms of resources for investments and contributions with a budget of 8 billion, which could also be reinforced by important leverage effects on some areas of action such as that linked to the accommodation infrastructure.

#### Reform of the tourism sector and cultural enterprises

A Draft Law for tourism attached to the Budget Law and containing the reform of the sector is planned for 2021. The reform contains rules on tourism, within the limits allowed by the State's competence, ensuring the reorganisation, coordination and integration of the existing state legislative provisions, in compliance with both the European Union legislative framework and the powers of the Regions and Local Authorities. This reform is necessary in order to overcome some of the problems encountered by the operators, made even more problematic by the pandemic, ensuring the regulation and development of the tourism sector at national level, also to stimulate the tourist offer in order to strengthen the competitiveness of the national system as a whole.

#### Reform related to the formal adoption of Minimum Environmental Criteria (M.E.C.)

The reform aims to facilitate the reduction of the ecological footprint of cultural events: exhibitions, fairs, festivals, cultural reviews, musical events through the inclusion of social and environmental criteria in public procurement policies in cultural events funded, promoted or organised by public bodies, orienting them towards environmental sustainability. Their systematic and homogeneous application allows the dissemination of environmental technologies and environmentally preferable products and produces a leverage effect on the market, prompting the less virtuous economic operators to adapt to the new standards required by the Public Administration. This action can therefore help to steer the supply chain towards the eco-innovation of products and services in the field of culture.

The Tourism and Culture Plan is divided into three main areas of intervention: "Cultural heritage for the EU Next Generation", "Minor sites, rural areas and urban suburbs" and "Tourism and Culture 4.0". The interventions that will be described include a strong cooperation between public actors involved in the implementation of the programme, in order to facilitate the preparation of the intervention in an area where, usually, different responsibilities at central (administrations) and local level (Municipalities, Metropolitan Cities and Regions) exist. In addition, the private sector, citizens and communities will also be involved both in terms of promoting sponsorships and through multi-level governance. This approach is in line with the "Faro Convention" on the value of cultural heritage for society, and with the European Framework for Action for Cultural Heritage, which calls for the promotion of integrated and participatory approaches, to generate benefits in the four pillars of sustainable development: economy, cultural diversity, society and environment.

	Resources (EUR/billion)						
M1C3 – Tourism and culture 4.0	Existing	New	Total	REACT-EU	TOTAL NGEU		
	(a)	(b)	(c) = (a)+(b)	(d)	(c) + (d)		
Cultural heritage Next Generation	-	2.70	2.70	-	2.70		
Strengthening of the strategic plan major tourist and cultural attractors	-	1.10	1.10	-	1.10		
Digital platforms and strategies for access to cultural heritage	-	0.50	0.50	-	0.50		
Improving physical accessibility	-	0.30	0.30	-	0.30		
Caput Mundi. Interventions on Rome artistic and cultural heritage	-	0.50	0.50	-	0.50		
Development of film industry (Cinecittà project) Minor sites, rural areas and urban	-	0.30	0.30	-	0.30		
suburbs	-	2.40	2.40	-	2.40		
National Plan Villages	-	1.00	1.00	-	1.00		
Rural Historical Heritage	-	0.50	0.50	-	0.50		
Program Identity places, suburbs, parks and historical gardens	-	0.40	0.40	-	0.40		
Seismic safety of places of worship and restoration of FEC heritage	-	0.50	0.50	-	0.50		
Tourism and Culture 4.0	0.30	2.60	2.90	-	2.90		
Culture 4.0: Tourist training and initiatives for cultural diffusion in schools	-	0.40	0.40	-	0.40		
Support for cultural operators in the green and digital transition	-	0.50	0.50	-	0.50		
Paths in history "Slow tourism"	-	0.50	0.50	-	0.50		
Improvement of tourism infrastructure and tourist services*	0.30	1.20	1.50	-	1.50		
TOTAL	0.30	7.70	8.00	-	8.00		

Notes: (b) includes DCF resources already planned, to be finalised for specific interventions.

<sup>\*</sup> Includes lines of intervention with a leverage effect.

# 1. Cultural heritage for the EU Next Generation

The first investment area of the action line consists of the strengthening of the Strategic Plan Major Tourist andCultural Attractors, which provides for the investment in the regeneration of cultural and urban heritage in some of the main Italian cities. It is a matter of providing restoration and the re-functionalisation of structures of high historical-architectural value and testimony. The interventions, with some exceptions, are located in the main Italian cities and all share the nature of complex projects where the recovery of cultural heritage assets is the basis of urban regeneration processes in which, in some cases, local authorities have been engaged for some time. Such investments in the regeneration of cultural heritage can produce a wide range of economic, social and environmental benefits: they strengthen the cultural value of the site, increase the attractiveness of places and contribute to their economic and social prosperity. Investment in cultural heritage guarantees good profitability and is a significant source of tax revenues directly from the economic activities of cultural heritage sectors and, indirectly, through new projects stimulated by redevelopment.

Investments in digital platforms and strategies for access to cultural heritage are also planned, to increase, organise and integrate the immense digital heritage produced over the years from archives, libraries, museums and in general places of culture, to allow new experiences of use for citizens and operators and to improve the supply of services. This important effort to digitise cultural heritage will be accompanied by the development of an infrastructure for the collection, conservation and access to digital resources, which will provide the resources for reuse to offer complementary services with high value added, developed by cultural and creative enterprises and innovative start-ups, and for educational purposes.

Another fundamental infrastructural intervention to raise the levels of attractiveness of the country will concern the improvement of the physical and cognitive accessibility of institutes and places of culture, with particular attention to museums, monumental complexes, archaeological parks and areas, archives and state libraries. The intervention involves the realisation of a strategic plan for the elimination of architectural barriers (P.E.B.A) sensorial-perceptive, cultural and cognitive, interventions of physical accessibility, sensorial-perceptive, cultural and cognitive and widespread use in the places of Italian culture and the creation of an information system for the quality of the use of the cultural heritage by people with specific needs. Finally, training activities will be carried out on the themes of the use of heritage extended to heritage professionals.

There is also an important investment area, "Caput Mundi", which aims to define an innovative process of enhancing the archaeological, cultural and tourist heritage of Rome using the opportunity offered by next Jubilee of 2025. With this action, some cultural attractions of Rome will be properly leveraged together with other important and precious, but so far neglected, 'minor' sites. These are various interventions of safety upgrading, restoration and re-opening to the public of monuments inserted in integrated fruition paths, able to add itineraries to the most famous ones existing in Rome. In particular, the actions also extend to the peripheral areas of the city where there are important sites that stood along the main roads departing from Rome. An important integration strategy should therefore be envisaged, for example by providing joint ticketing and facilitation to encourage visits to "rediscovered" areas. Synergies across different educational levels should be encouraged by exploiting the new realities made available and re-functionalised. At the

end of the interventions, each site subject to intervention must be accompanied by a digital and popular "smart" experience.

Finally, investment in the development of the film industry are planned, through the enhancement of Cinecittà film studios to improve the quality and quantity of production supply, increase the attractiveness of major national, European and international productions and be able to compare with major international competitors. The activities of the *Centro Sperimentale di Cinematografia* Foundation will be relaunched through the development of infrastructures ("virtual production live set") for professional and educational use through e-learning, digitisation and modernisation of buildings and installations and through investment in training, in order to strengthen the professional skills and competences in the audiovisual sector linked above all to the promotion of technological transition.

This intervention receives additional resources of 150 million from the NOP projects.

# 2. Minor Sites, Rural Areas and Urban suburbs

The development of tourism and culture in rural areas and the suburbs is indeed an important line of action for this component. Interventions will be carried out to valorise the great heritage of history, art, culture, and traditions present in small Italian towns with enormous natural, landscape and cultural potential.

Under this line interventions on the small historical and rural villages will take place, following the National Plan Villages. These are often fragile demographic and social contexts with high environmental risks. Interventions are planned to enhance the great heritage of history, art, landscape, culture and traditions present in small Italian towns, favoring the rebirth of ancient agricultural structures and traditional crafts (e.g. handicrafts). It will support the activation of entrepreneurial and commercial initiatives, including new ways of receptivity such as diffuse hospitality and hotels, for the revitalisation of the socio-economic texture of the places, countering the depopulation of the territories and favouring the preservation of the landscape and traditions and redevelopment of rural and historical buildings.

To spread cultural and creative activities and strengthen the social texture, investment will be made in the redevelopment of identity places , suburbs, parks and historical gardens, supporting participated projects of cultural-based urban regeneration, focused on local communities, in which municipal administrations will be the protagonists, with the aim of supporting the realisation and strengthening of the offer of cultural and creative activities, in partnership (co-design) with public and private actors, organised social institutions, third sector, cultural associations, and foundations. Interventions are also planned for the redevelopment of public real estate deteriorated and/or unused, intended for social and cultural, educational services.

For the first time in a systematic way, great attention will be paid to the environment through the redevelopment of parks and historical gardens, putting in place an extensive action of knowledge and recovery of Italian parks and gardens with a view to their proper maintenance, management and public use.

Investment are also planned in the seismic safety of the places of worship and in the restoration of the heritage of the Fund for places of Worship (FEC). The program implements a large

plan of earthquake prevention interventions to significantly reduce the risk and avoid not only the enormous investment necessary for restoration after calamitous events, but also the definitive loss of many assets, as unfortunately happens after every earthquake. As far as the mobile public property is concerned, temporary storage centres for works of art that are exposed to natural risks (rain, snow, temperature range, wind, floods, landslides, earthquakes, volcanic eruptions) will be realised in order to resolve emergency situations that must be addressed promptly.

#### 3. Tourism and Culture 4.0

Tourism and Culture 4.0 aims to promote the interaction between schools, universities, businesses, and places of culture based on local strategies of intelligent specialisation, also through the interaction between creative and craft enterprises with specialised training and support activities. The action is linked to vocational training and the reform of ITS, enhancing skills in the field of valorisation and maintenance of historical cultural heritage. Quality vocational training in the tourism sector will be promoted through the creation of a national structure for the high training and training of staff engaged in tourism activities.

Investments are also planned to support cultural operators in the green and digital transition, through interventions aimed at: promoting cultural demand and participation, encouraging the technological transition of cultural operators and the active participation of citizens; improving the ecosystem in which the cultural and creative sectors operate, supporting integration between creative hubs and territory through technological innovation.

Action will be taken on the improvement of tourist facilities and tourist services, retraining and improving the standards of accommodation offer, with the dual objective of increasing the competitive capacity of businesses and promoting a tourism offer based on environmental sustainability, innovation and digitisation of services. The action includes measures for the redevelopment and modernisation of companies operating in the tourism sector, in order to increase their level of digitisation; promote innovative models of work organisation, also through the development of networks and other forms of aggregation; develop the digital and non-digital skills of operators through access to qualified training. In this context, it will also be possible to activate the leverage effects of resources through appropriate initiatives of Investment Funds with important multiplier effects on investments and funding.

Finally, "Paths in History" is a profound action that wants to involve the whole territory by introducing a new way of enjoying the heritage. It is a "slow tourism" made up of perception, belonging and identity context. A great innovative project that aims to generate new areas of attraction and promote a greater diffusion of visitor flows, opening up to the valorisation of new territories, in a key of sustainability and authenticity, also through the creation and offer of walking paths, cycle routes, railway routes, rediscovery of "forgotten" archaeological areas. This action will also play a role in rebalancing local and territorial fragmentation by increasing its integration along the main attractors. Communication will be particularly important in the sites under intervention, in order to make citizens perceive how the funds have actually been spent and how they benefit, including through "smart" means of dissemination.

Finally, but very important for the "green" objectives that guide the Relaunch and Resilience Plan, all the projects referred to above will have an important environmental value, re-greening and redefining the urban and peripheral environment through the arboreal replanting and the absorption of CO2.

This intervention receives additional resources of 150 million from the NOP projects.

## 2. GREEN REVOLUTION AND ECOLOGICAL TRANSITION

## General objectives of the mission

- Make the agri-food production chain sustainable, preserving its competitiveness.
- Fully implement the circular economy paradigm
- Reduce climate-altering gas emissions in line with the 2030 Green Deal objectives
- Increase the production of energy from renewable sources and develop transmission networks
- Promote and develop the hydrogen supply chain
- Support the transition to clean transportation and production chains
- Improve the energy efficiency and seismic performance of buildings
- Ensure the sustainable management of water resources over the entire cycle
- Tackle hydrogeological failures and implement a programme of reforestation Improve ng the quality of inland and marine waters

Resources devoted to the Mission (billions of euros)	
Green enterprises and circular economy	7,00
Renewable energy, hydrogen and sustainable mobility	18.22
Energy efficiency and requalification of buildings	29,55
Protection of land and water resources	15,03
Total	69,80

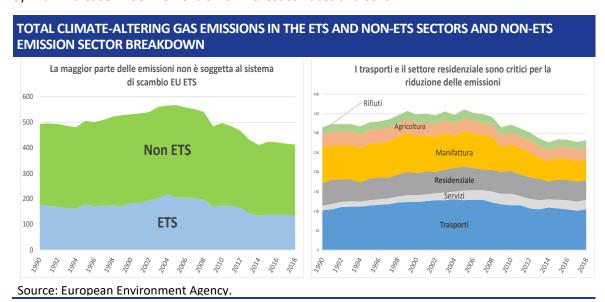
Mission 2 covers the major issues of sustainable agriculture, the circular economy, energy transition, sustainable mobility, energy efficiency of buildings, water and pollution. It includes three of the *NGEU flagship* programs identified by the European Commission in the 2021 Annual Sustainable Growth Strategy and reiterated in the Guidelines for Recovery and Resilience Plans: *Power up* (renewable energy and production and transport of green hydrogen), *Renovate* (energy efficiency of buildings), *Recharge and* Refuel (development of sustainable mobility through the development of electricity and hydrogen distribution networks).

The *European Green Deal* sets a new and more ambitious target for reducing CO2 emissions and climate-altering gases, of at least 55 % by 2030 (compared to the 1990 level), and confirms the goal of climate neutrality by 2050. Achieving climate neutrality by 2050 requires substantial investment and a wide range of enabling reforms.

In Italy, greenhouse gas emissions fell by 17 % between 1990 and 2018, from 516 million to 428 million tons equivalent. Adding the net removals due to absorption of emission by the agricultural and forestry sector, the amount of emissions 2018 was 390 Mton CO2 equivalent. The

scenario that would lead Italy to climate neutrality by 2050 thus highlights an emissive gap to be closed mainly through three types of action:

- a substantial reduction in energy demand (particularly in the residential and commercial sectors and in transport);
- 2) a further change in the energy mix in favour of renewable sources, along with extensive electrification for end-use consumption purposes and hydrogen production;
- 3) an increase in CO2 removals from forest surfaces and soils.



The investments to be undertaken within the four components of the mission Green Revolution and ecological transition are distributed according to different design lines for a total amount of resources equal to 68.9 billion euros. These design lines will be more accurately defined, together with the relative concrete investment initiatives, in coherence with the overall national strategy currently under construction and with the view to achieve the PNIEC objectives effectively and efficiently.

Investments under the Mission will be accompanied by specific reforms to promote the energy and ecological transition, including the definition of a national circular economy strategy. This strategy will build on a legislative regulatory reform entitled "Circularity and Traceability" to promote administrative simplification in the circular economy and the implementation of the European Circular Economy Action Plan. The reform in question will aim to improve the organisation and operation of the waste control and traceability system, strengthen ecodesign and industrial symbiosis, reduce waste generation upstream and strengthen Italy's position as a country with the highest rate of circular reuse in Europe.

Regulatory measures, consistent with European directives and objectives, will also be envisaged to facilitate the reuse/recovery of products and the promotion of new management systems, in particular those linked to strategic value chains or identified based on their environmental impact and their potential for circularity. The strategy envisages, among other things, the creation of a national technological *hub* and centres of territorial competence for the circular economy to support the production system. The strategy aims to make the country more resilient in some strategic sectors, also mitigating the critical issues related to the security of raw material supplies.

#### **GENDER, GENERATIONAL AND TERRITORIAL IMPACT**

Mission 2 is mainly oriented to the pursuit of environmental sustainability, but it also has considerable links to digitisation, as a factor that is present in many design lines. The assessment of social, generational, territorial and gender impacts is very complex and will be more fully addressed in the final version of the NRPR, including through aggregation of information at the level of individual projects. In addition, the following preliminary qualitative assessments can be made.

**Social inclusion**. Recycling, the reduction of emissions and air and water pollution, as well as the tackling of hydrogeological failures, are intrinsically inclusive policies from a social point of view, as the disasters caused by the deterioration of the environment and the consumption of soil have a greater impact on the poorer and more vulnerable sectors of the population. A less polluted, greener and livable country would benefit all citizens, but in relative terms it would benefit those with less economic possibilities of mitigating their health risks.

Territorial rebalancing and the South. The positive impact of Mission 2 on reducing territorial gaps will be very important, in particular as regards the recycling of waste, the circular economy, water networks, hydrogeological disruption and the earthquake-anti-seismic interventions — areas that currently see the Mezzogiorno in a position of delay or greater vulnerability. The projects relating to RES and related industrial sectors will also trigger investments in the Mezzogiorno. In addition, several measures to convert production processes from using raw fossil materials to recycled materials will involve industrial plants located in the Mezzogiorno that also employ a considerable number of workers. Finally, the improvement of the quality of inland and marine waters and the reduction of pollution, as well as investments to support tourism, culture and the archaeological heritage of the country, will increase the attractiveness of tourist destinations in southern Italy, with positive effects on tourism, a sector very important for the economy of the Mezzogiorno.

**Youth employment**. The impetus of the Mission on GDP and employment growth will be significant and will contribute to the reduction of youth unemployment, one of Italy's main problems. The investment expenditure envisaged by the project lines will, in fact, lead to a significant increase in jobs, not only in the energy and construction sector, but also in manufacturing. Youth employment will benefit to a considerable extent, especially if other NRPR missions contribute to significantly reducing mismatch skills through training and improving labour market efficiency.

**Gender equality.** Female employment will also benefit from the economic development and environmental improvements generated by the project lines of Mission 2.A criticism of the NGEU is that the overall design of the programme directs most of the resources towards environmental and technological objectives, activating sectors with predominantly male employment. However, it should be pointed out that the NRPR and the Budget Law mitigate this distortion by devoting ample resources to gender inclusion, and that the employment growth generated by Mission 2 will also cover sectors where the share of female employment is relatively high (e.g. business services, tourism).

#### 2.1 SUSTAINABLE AGRICULTURE AND CIRCULAR ECONOMY

## Objectives of the component

- Achieve a sustainable agri-food chain of production, improve the competitiveness of farms and their climate-environmental performance, and strengthen the logistics infrastructure of the sector.
- Make the recycling chain functional through interventions that facilitate the recovery of secondary raw materials (MPS).
- Implement the paradigm of the circular economy, reducing the use of raw materials of which the country is lacking and gradually replacing them with waste materials, resulting in a lower environmental impact (e.g. reduction of pollutants and CO2) and the creation of jobs linked to the green economy.

The "Sustainable Agriculture, Green Enterprise and Circular Economy" component has as its priority objectives the promotion of environmental sustainability in the agricultural production chain, support for innovative decarbonisation projects within circular economy processes, as well as the establishment of a national plan for the circular economy. This component also includes promoting the transition to sustainable and certified processes, which adopt the *Life Cycle Assessment* (LCA) principles for the assessment of the environmental footprint of products and services as well as the use of *biobased* materials.

The first line of action, "Sustainable Agriculture", foresees initiatives to support the competitiveness, the energy requalification and the logistic capabilities of the Italian agri-food sector. The second, entitled "Circular Economy and Improvement of the Integrated Waste Cycle", focuses on *revamping* existing installations and the construction of new installations for the exploitation and closure of the waste cycle, addressing in particular critical situations currently existing in the management of waste in large metropolitan areas of Central and Southern Italy. Finally, the third component, "Circular economy projects for the conversion of industrial processes", aims to support the conversion of industries such as chemistry towards the substitution of more polluting raw materials with recycled materials.

#### REFORM MEASURES LINKED TO THE COMPONENT

National strategy for the circular economy. The new strategy will be proposed by the Ministry of the Environment and the Protection of the Territory and the Sea in the coming months. It will seek to reduce the use of non-renewable raw materials, reduce the volume of waste, reuse and recycle waste, through the introduction of traceability systems for material flows, technological innovation, dissemination of good practices and the adoption of tools to promote synergies between the public and private sectors and to plan the development of infrastructures to close the waste cycle.

Regulatory changes. The primary and secondary legislation will be amended for the recognition of the end of the waste qualification for many types of materials produced in the recycling chain and to speed up the authorisation procedures for plants and their operations.

M2C1- Sustainable	Resources (EUR/mld)					
Agriculture and Circular Economy	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
Sustainable agriculture	-	2,50	2,50	-	2,50	
Circular economy and valorisation of the integrated waste cycle	-	3,40	3,40	1,10	4,50	
Construction of new plants and modernisation of existing recycling plants	_	1,50	1,50	_	1,50	
Project Circular Economy	-	1,90	1,90	0,30	2,20	
Ecological transition in the Mezzogiorno – Projects to be				0.80	0.00	
identified TOTAL	-	- 5,90	- 5,90	0,80 <b>1,10</b>	0,80 <b>7,00</b>	

Notes: (b) includes DCF resources already planned, to be finalised for specific interventions.

## 1. Sustainable agriculture

This project line has a total cost of 2.5 billion euros, and consists of three projects:

#### 1.1 Supply chain contracts

Incentives for projects in the agri-food, fishery, forestry and floral sectors involving investments in tangible and intangible assets aimed at the conversion of enterprises to sustainable production models. The identification of the priorities for intervention is foreseen by Q2 2021, the publication of the call for the selection of investment programmes by Q4 2021 and the approval of the final rankings of public calls for aid by Q2 2023. The investments will be completed by 2026.

#### 1.2 Agri-solar parks

Incentives for the modernisation of the roofs of buildings for productive use in the agricultural, zootechnical and agro-industrial sectors (installation of solar panels, thermal insulation, replacement of eternity roofs, etc.) to increase the sustainability and energy efficiency of the sector, and to realise decentralised systems of energy production. The programme will be implemented through calls for proposals, the criteria of which will be consistent with European objectives (high innovation and a high contribution to environmental energy sustainability). The procedure for the submission of applications will be started by Q4 2021 and will aim to obtain by 2026 a covered area with photovoltaic panels equal to 13,250 square meters, such as to produce 1.300-1.400 GWh at full speed (an increase in photovoltaic production of 5 % compared to the baseline of 24,000 GWh).

### 1.3 Logistics for the agri-food, fishery, aquaculture, forestry and floral sectors

This component will operate through incentives to invest in the improvement of the storage capacity of agricultural raw materials, the strengthening of the infrastructure of agricultural markets and the development of an integrated logistic system for the chains of production of the sectors involved. The priorities for action will be identified first; the measures, the aid levels and the publication of expressions of interest will subsequently be prepared. The call will then be launched,

with subsequent approval of the rankings and the granting of aid, aiming at completing 60 interventions by 2026.

## 2 Circular economy and valorisation of the integrated waste cycle. Construction of new plants and modernisation of existing recycling plants

Investments in the exploitation and closure of the waste cycle. The additional investments under this heading will amount to EUR 1.5 billion. The aim will be the adaptation of existing installations and the construction of new installations for the closure of the waste cycle with the production of secondary raw materials. The investments will also be aimed at strengthening the differentiated collection of waste with investments in new generation means and implementing logistics for particular fractions of waste.

The planned interventions are aimed in particular at addressing critical situations in waste management in the large metropolitan areas of Central and Southern Italy (e.g. metropolitan cities of Rome Capital, Naples, Bari, Reggio Calabria and Palermo). Communication policies will be activated to increase the differentiated collection of waste and promotion of collection and reuse centres.

Flagship projects with high innovative content will also be carried out, including the increase in the collection and recovery of Waste from Electrical and Electronic Equipment (WEEE); the closure of the management cycle of sludge produced by urban wastewater treatment; the creation of integrated treatment plants for waste produced by large users (ports, airports, hospitals, education centres).

The timing of the investments foresees a horizon of 2026, starting from existing projects proposed by metropolitan cities, present in regional planning, where regulated, verified by the ARERA for tariff profiles and, in any case, verified according to financial sustainability profiles, indicating the possible leverage effect for the share to be borne by private operators.

#### 2.2 Circular economy project

This package of interventions is financed through a Fund specifically designed to achieve the objectives of the circular economy with the aim of reducing the use of raw materials of which the country is lacking in industrial processes, gradually replacing them with materials produced from scraps, residual materials and waste.

The interventions will have to be consistent with the *Circular Economy Action Plan*, with the aim of reducing net waste production and the use of landfills for all process wastes (under this heading are included all actions aimed at the exploitation of waste and the production of intermediate products to be allocated to the various production sectors by progressively reducing the supply of raw materials from abroad). The Fund will be financed by mobilising, where possible, in relation to the implementing subject and the economic and financial sustainability of the intervention, financial instruments to maximise the leverage effect and the contribution of private capital and lenders such as the EIB.

## 2.3 Eco-transition in the Mezzogiorno and the Minor Islands

This sub-component envisages essential investments for the ecological transition of the marginal areas of the South and in particular for the smaller islands, also in order to transform them into "100 % green" territories as practical examples of ecological development models and real attractors of green investments, as well as to support the development of environmental economic zones located in the South of Italy.

The interventions foreseen in Mission 2 are oriented to have a high impact on environmental sustainability and can be subject to environmental monitoring that will be carried out with the tools available but also through the implementation of specific activities that will interface with the system of environmental cartography, including the Geological and Geo Thematic Charter (CARG.)

## 2.2 RENEWABLE ENERGY, HYDROGEN AND SUSTAINABLE MOBILITY

## Objectives of the component

- Increase the share of renewable energy sources (ERFs), in line with the NECP and European targets
- Stimulate the growth of an industrial chain in the technological sectors linked to the production of energy from renewable sources
- Strengthen transmission and distribution networks to accommodate increased production from RES and increase their resilience to extreme climate phenomena
- Promote the production, distribution and end-uses of hydrogen, in line with Community and national strategies
- Increase the sustainability of individual mobility by enhancing rapid mass transport and cycle routes, as well as through the renewal of the local public transport fleet and private vehicles.

This is one of the most important components of the Plan because of its strategic role for reaching the objective of environmental sustainability and as reflected by the resources dedicated to it. The component primarily deals with the production and distribution of energy, encouraging the use of renewable sources and providing the necessary infrastructure for their integration into the national electricity system and for powering electric vehicles as well as the exploitation of liquid hydrogen. These actions, funded by the NRPR, will contribute to the achievement of the EU's objectives, made even more challenging by the revision of the existing European legislation (Fit for 55 package) which will be incorporated into the revision of the NECP.

The investment programme in offshore renewables and the Hydrogen Plan will make use of ongoing consultations and projects currently under definition. Their likely cost has been taken into account given the decarbonisation targets included in the NECP and the strategies announced at EU level.

The component also foresees interventions for the decarbonisation of the transport sector, with particular attention being paid to the renewal of the rolling stock of local authorities – which is one of the oldest in the European Union – and green public mobility solutions. The approach adopted will aim to ensure that public demand for vehicles, trains and ships with low or zero emissions is accompanied by the development of national production in all components of the relevant supply chains. As far as private mobility is concerned, solutions will also be introduced that take account the most effective and efficient production chains.

These structural changes in the production and energy system will also contribute to the reduction of local pollution: 3.3 % of the Italian population lives in areas where the limits of pollutants (particulate matter and nitrogen oxides) in the air are exceeded, as set by European directives. At the same time, national legislation on air pollution control will be reinforced.

#### REFORM MEASURES LINKED TO THE COMPONENT

Authorisations and support for renewables. Simplification of authorisation procedures for onshore and offshore renewable installations and the definition of the new legal framework to support production from innovative renewable sources by extending the timeframe and extension of the scope of eligibility of the current support schemes.

Regulatory changes. The primary and secondary legislation will be amended for the recognition of the end of the waste qualification for many types of materials produced in the recycling chain and to speed up the authorisation procedures for plants and their operations.

Release of biogas. New rules for the imposition of compulsory quotas for the release of biogas to importers and producers of natural gas. Reform aimed at increasing the share of biogas in industrial, commercial and residential sectors, replacing fossil gas.

Evaluation of local public transport projects with fixed installations and in the field of mass rapid transport (TPM). Simplification of project evaluation procedures in local public transport and rapid mass transport by eliminating duplication of expertise in the evaluation of projects within the Administration itself and accelerating payment and timing processes for TPM systems.

National programmes on air pollution control. Alignment of national and regional legislation and accompanying measures to reduce emissions of air pollutants and for a related monitoring system.

M2C2 – Renewable	Resources (EUR/mld)						
energy, hydrogen and sustainable local mobility	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)		
1. Production and distribution of renewables and support for the supply chain	_	7,98	7,98	0,69	8,66		
Renewable Energy Sources (ERFs)	_	4,00	4,00	-	4,00		
Support for the renewable supply chain Network infrastructure and smart	-	0,36	0,36	-	0,36		
grids  Projects of municipalities in	-	2,72	2,72	0,18	2,90		
line with NECP	-	0,90	0,90	0,51	1,41		
2. Investments in the hydrogen supply chain and DRI transition to green steel	-	2,00	2,00	-	2,00		
3. Sustainable local transport, cycleways and renewal of rolling stock	2,95	4,60	7,55	-	7,55		
TOTAL	2,95	14,58	17,53	0,69	18,22		

Notes: (b) includes DCF resources already planned, to be finalised for specific interventions.

## 1 Production of energy from renewable sources

#### 1.1 Production and distribution of renewables and support for the industrial chain

The investment action includes support for the development of floating and *offshore* wind photovoltaic projects, *onshore* projects carried out on sites owned by the PA or with low land consumption or combined with storage technologies, as well as financial support through funding (senior/junior loans and/or *credit enhancement*) for *grid parity* systems (parity between cost of self-produced electricity with a photovoltaic system and cost per kilowatt hour of energy produced from traditional sources). Grants will help mitigate commercial risk, while loans will facilitate project bankability and/or financial sustainability with a specific focus on grid parity initiatives. The targets for 2026 are represented by an increase of 4.5-5 GW in installed renewable capacity, in order to support the NECP target for 2025. In combination with wind power plants, 100 MW floating photovoltaic systems will be designed and installed in a high irradiation area, thus increasing total energy production. The program aims at the realisation of a first group of integrated wind/photovoltaic/ storage systems and related connection infrastructures. At the same time, the electricity transmission infrastructure will be developed to support emerging offshore renewable technologies.

This intervention benefits from additional resources of 300 million from the PON projects.

#### 1.2 Support for the industrial supply chain in the technological sectors related to renewables

Support for the growth of industrial sectors linked to the production of technologies for the generation of electricity from renewable energy sources. The investment focuses on two sectors, photovoltaic and wind. In particular, with regard to new generation photovoltaic panels, the investment objective is to increase the national production from the current 200 MW/year to at least 2 GW/year in 2025 and to 3 GW/year in the following years. With regard to wind turbines, the investment will support the creation of intellectual property and the acquisition of missing technologies and skills for the production of high-efficiency turbines, with the creation of a prototypal production plant.

#### 1.3 Upgrading and digitising electricity grid infrastructure

The investment involves the installation of thermal storage systems to decouple the thermal and electrical flows of the CCGT (*Combined Cycle Gas Turbines*) systems, allowing the temporal displacement of electricity production while ensuring a safe and continuous supply to industrial complexes. These actions will contribute to the objective set out in the NECP of increasing the renewable share in the Italian energy mix (55.4 % in 2030) and achieving a storage capacity of 3.0 GW by 2025 and are in line with the EU decarbonisation strategy. In order to increase the integration of renewable energies into the electricity distribution network, substantial physical infrastructure and digitalisation of the grid are expected.

Further interventions are aimed at increasing the resilience of the electricity distribution network and installing integrated charging poles for electric vehicles. In order to achieve the European targets for decarbonisation, a fleet of around 6 million electric vehicles is planned for 2030 (of which 4 million are fully electric and 2 million hybrid plug-ins). It is therefore essential to

promote the development of a network of fast charging stations. The proposal encourages innovation of the fuel distribution network, which has more than 22,000 stations with widespread territorial diffusion.

#### 1.4 Support for projects of municipalities in line with the NECP

The projects sent by ANCI, as well as those collected by Utilitalia, will be selected on the basis of consistency and contribution to the objectives of the NECP, as well as for local impact, through a procedure of public evidence and aid intensity, in line with Community rules in force at the time of the start of the selection.

## 2 Production, distribution and use of Green Hydrogen

The Hydrogen Strategy is currently being finalised. Pending its definition, the Green Hydrogen project line is based on the following initiatives:

#### 2.1 Production of hydrogen in disused areas

This line of investment aims to reconvert abandoned industrial areas to test the production of hydrogen from RES located in the same areas. The investment will allow the local use of hydrogen in industry, creating from 5 to 10 *Hydrogen Valleys* with local production and use.

## 2.2 Electrolyser production and development of an Italian hydrogen chain

The project aims to create an industrial hub for the production of electrolysers. The industrial hub will have to be able to produce electrolysers of different sizes and types to meet the different needs of the market.

## 2.3 Use of hydrogen in the 'Hard-to-abate' industry

In the primary steel industry, hydrogen is in perspective an alternative to natural gas for the production of Direct Iron (DRI). In line with the European emission reduction targets, an investment is planned for the development of DRI linked to the project for the decarbonisation of the former steel plant ILVA in Taranto and the transition to the production of green steel in Italy. In addition to primary steel production, hydrogen can be used in heating in other production processes regarding steel, oil refining, chemistry, cement, glass and paper mills.

#### 2.4 Network of Hydrogen refuelling stations network

This investment aims to create a network of hydrogen refuelling stations with up to 40 fuel distributors suitable for trucks to reduce transport-related emissions.

#### 2.5 Hydrogen use in rail transport

This investment aims to introduce hydrogen-powered trains into the national rail network. FCH (*Fuel Cell Hydrogen*) propulsion can replace diesel where rail electrification is not economically feasible (currently about 40 % of the national network).

#### 2.6 Research in the field of hydrogen

The investment aims to improve knowledge regarding the implementation of the hydrogen vector at all stages: production, storage and distribution. Alongside the technologies, experimentation will be supported in the main segments as well as the realisation of prototypes for the industrialisation of innovative processes. This project will be linked with those foreseen in Component 2 of Mission 4 ("From Research to Enterprise") with particular reference to IPCEI and the creation of centres of excellence for research and emerging technologies.

#### 2.7 Technological Development of Green Hydrogen

The main objective of the investment is to make gas turbines an integral part of the future energy mix, meeting incoming demand to extend the capacity of existing energy generation infrastructures to incorporate green fuels, in particular hydrogen. The strategy is to design and build burners capable of using hydrogen to replace natural gas by up to 70 %, corresponding to a 40 % reduction in CO2 emissions.

## 3 Sustainable local transport, cycleways and renewal of vehicle fleets

The line of investment consists of the following projects:

#### 3.1 National Cyclone Plan

Construction and maintenance of urban, metropolitan, regional and national cycling networks, both for tourist or recreational purposes, as well as for daily travel and intermodality, ensuring safety. In particular, the measure provides for the construction of (i) 1,000 km of urban and metropolitan cycle paths; (ii) 1,626 km of tourist cycle paths.

#### 3.2 Sustainable mobility: hurry slowly

The project plans to implement integrated measures (cycling routes, school buses, *sharing mobility, mobility management* etc.) in 40 municipalities with more than 50,000 inhabitants, to be identified through the publication of an expression of interest, to the benefit of urban areas most affected by the negative impact of poor air quality, road accidents and congestion.

## 3.3 Green Local Public Transport and Rapid Mass Transport

#### 3.3.1 Strengthening the green transport industry and related national supply chains

The investment includes various support measures for related production chains. A first measure envisages the conclusion of 25/30 development contracts for companies in the national bus supply chain to implement industrial transformation projects to serve the increase in demand for buses with low environmental impact. A second measure promotes, in the form of a tax credit, the purchase or construction of molds for vacuum lamination of hulls for recreational craft in infusion of fibreglass or pre-grained fabrics, which allow greater efficiency in navigation. A third measure envisages the activation of tenders, pre-competitive procurement, *early adoption* systems with lower thresholds than the current ones to encourage SMEs to convert to new technologies (electric/hybrid vehicles, digitisation, ecodesign, etc.), new productions and

extension to *automotive*, bus, nautical and maritime mobility aimed at low environmental impact and smart transportation.

#### 3.3.2 Fleet renewal of buses with low environmental impact

The measure consists of accelerating the implementation of the National Strategic Plan for Sustainable Mobility and provides for the progressive renewal of buses for local public transport and the construction of dedicated charging infrastructures. In particular, the purchase by 2026 of 5,139 low-emission buses is expected: 2,730 vehicles powered by CNG or LNG, 2,051 electric-propelled vehicles and 358 hydrogen-powered vehicles. The Autonomous Province of Bolzano has presented a specific project for hydrogen-propelled buses.

#### 3.3.3 Fleet renewal for regional transport by means of alternative propulsion

The objective is to reduce the average age of the regional rolling fleet through the purchase of electric propulsion trains and hydrogen-powered trains. The total number of trains to be purchased is 80 units by 2026, of which 59 electrically propelled and 21 hydrogen-powered.

### 3.3.4 Fleet renewal for regional transport with alternative propulsion units

The intention is to renew 25 % of the fleet for local public transport by purchasing low and zero emission units, resulting in the purchase of 12 ferries and 10 high-speed naval units (hydrofoils) powered by LNG, electric or hydrogen. A national control unit will be established to manage purchases by the Regions, to be given in concession to operators regulated by public service contracts.

## 3.3.5 Digitisation of local public transport

The proposal aims to make public services safer, more versatile and linked through two measures. The first involves the design and realisation of a national enabling platform with C-ITS services based on flagship projects in the cities of Turin, Rome and Naples, that can be replicated also in other urban realities. The second involves the creation of a living lab within the city of Milan that optimises the most advanced solutions in terms of powertrains for urban buses and the adaptation of infrastructures with C-ITS and 5G technologies in order to improve vehicle safety and service to users.

#### 3.3.6 Rapid mass transport

The measure envisages the construction of 195 km of networks equipped for rapid mass transport infrastructures such as metros, trams, trolleyways, Bus Rapid Transit, including rolling stock. Among the interventions already identified are those involving Genoa, Bergamo, Rimini, Florence, Rome and Palermo. In addition, further interventions for rapid mass transport systems are planned. These will be identified through a new expression of interest in early 2021.

#### 2.3 ENERGY EFFICIENCY AND RESTORATION OF BUILDINGS

## Objectives of the component

- Energy efficiency of public and private building assets, with contextual securing and digitisation of structures.
- Relaunch of the construction sector in terms of environmental sustainability and seismic performance

The component intercepts a very important dimension for the reduction of CO2 emissions: the reduction in energy consumption of buildings that generate more than a third of total consumption in Italy, as well as the adjustment of buildings to make them earthquake-resistant. Most of the country's 14.5 million buildings have been built in eras prior to current regulations related to energy efficiency. Italy is also exposed to seismic risks, which require widespread diffusion of preventive interventions.

The component consists of two design lines. The first regards the implementation of a programme for greater efficiency and security of the heritage of public buildings, with particular reference to schools, public housing, municipalities and judicial towns. The second relates to a temporary incentive for energy requalification and anti-seismic measures introduced with regard to private property, through a tax deduction equal to 110 % of the costs incurred for the related interventions.

M2C3 – Energy efficiency and	Resources (EUR/mld)						
redevelopment of buildings	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)		
1.Efficiency of public buildings	6,10	4,62	10,72	0,32	11,04		
Programme for the structural rehabilitation of school buildings	5,87	0,50	6,37	0,05	6,42		
Efficiency of state property buildings	-	-	-	-	-		
Programme for the construction of new schools	-	0,80	0,80	-	0,80		
"Safe, green and social" programme for public housing	-	2,00	2,00	-	2,00		
Energy efficiency and requalification of public buildings in metropolitan							
areas	0,23	0,87	1,10	0,25	1,35		
Efficiency of judicial towns	-	0,45	0,45	0,02	0,47		
2.Energy efficiency and seismic-							
resistant private and public housing	10,26	8,26	18,51	-	18,51		
TOTAL	16,36	12,88	29,23	0,32	29,55		

Notes: (b) includes DCF resources already planned, to be finalised for specific interventions.

## 1 Public buildings

#### 1.1 Structural renovation of school buildings

Energy efficiency of school buildings, digitisation of learning environments through the internal wiring of schools, in order to promote a progressive reduction of energy consumption and climate-altering emissions, an improvement of energy standards and an increase in the seismic safety of buildings. The rate of renovation of school buildings is to be equal to 20 % of the existing assets, reaching a total share of 50 %, given the starting situation (30 % efficient and safe buildings).

#### 1.2 Construction of new schools by building replacement

Creation of new schools replacing a part of the stock of inherited school buildings, especially in areas with greater seismic risks, increasing green areas, digitising learning environments through the internal wiring of schools. The number of buildings involved is 20 % of the existing assets.

#### 1.3 "Safe, green and social" for public housing

Requalification of the national public housing estate, including the introduction of energy efficiency measures, aimed at achieving the transition from energy class G to class E, as well as seismic improvement interventions. It is estimated that interventions will involve an area of about 10,200,000 square meters, or 1/5 of the entire surface of the public housing estate in Italy; seismic improvements are estimated to involve about 1/5 of this value.

#### 1.4 Energy efficiency and requalification of public buildings in metropolitan areas

Projects under development with the ANCI regarding the requalification of municipal buildings for social use.

#### 1.5 Efficiency of judicial towns

Creation of judicial citadels, ecological and digital requalification and improvements to the real estate belonging to the justice administration. The target is the requalification of about 40 buildings, including the construction of judicial citadels.

This intervention benefits from additional resources of 150 million from the PON projects.

This line of action also benefits from additional resources of EUR 250 million from PON projects for state-owned buildings efficiency.

# 2 Private buildings: extension of the superbonus of 110 % for energy efficiency and building safety

The measure, recently introduced, provides for a tax deduction of 110 % for expenditure incurred for energy efficiency improvements, such as thermal insulation of buildings and the replacement of winter heating systems, as well as the reduction in the seismic risk of buildings. In the case of such interventions, it is also possible to extend the incentive to cover expenses for the installation of solar photovoltaic systems and infrastructures for the charging of electric vehicles.

The benefit covers expenses incurred for interventions carried out on common parts of buildings, on functionally independent real estate units with one or more independent accesses from the outside, located within multi-family buildings, as well as on individual real estate units. It applies to interventions carried out by households, natural persons, outside the exercise of

business, arts and professions, and by self-employed social housing institutes and bodies having the same social objectives that meet the requirements of European legislation on "in-house providing", undivided housing cooperatives, non-profit organisations and voluntary associations, associations and amateur sports clubs.

In order to facilitate the general use of the measure, it is possible to opt, instead of the direct use of the deduction, for an early contribution in the form of a discount from the suppliers of the goods or services or, alternatively, for the transfer of the credit corresponding to the deduction due.

In addition to the normal requirements for tax deductions, in order to benefit from the incentive, the taxpayer must also obtain the compliance visa for the documentation attesting to the existence of the conditions that give the right to the tax deduction, including the technical assessment report relating to measures of energy efficiency and seismic risk reduction by qualified technicians and the attestation of the appropriateness of the expenditure, based on specific cost tables, in relation to the specific operations the cost of which is to be covered by the tax deduction.

The measure shall apply to expenditure incurred up to 30 June 2022 (31 December 2022 for HICPs). It may be applied for a further six months in the case of work carried out by households and IACPs when at least 60 % of the work has been carried out before the expiry date of the measure. In order to provide more time for more complex interventions, it is expected that the measure will be extended (i) for IACPs to 30 June 2023, extended by a further six months when at least 60 % of the work has been carried out; (ii) for households up to 31 December 2022, irrespective of the completion of at least 60 % of the work.

The objective is to increase substantially the annual savings generated by energy requalification measures. In terms of the area undergoing energy and seismic requalification, it is estimated that around 3 million square metres are undergoing requalification per year, corresponding to about 1 % of the total area occupied by residential buildings.

This measure benefits from additional resources of 6 billion euros and 200 million euros allocated within the Budget Law.

#### 2.4 PROTECTION OF LAND AND WATER RESOURCES

## Objectives of the component

- Ensure the security of water supply for drinking water, irrigation and industrial purposes and a reduction of water dispersion through effective, efficient and sustainable management of water resources.
- Pursue the care, protection and improvement of environmental quality through integrated management of river basins.
- Prevent and counter the effects of climate change on hydrogeological disruption and on the sustainable management of the irrigated and forestry agro-ecosystem.
- Digitalise and innovate processes related to the management of water resources and the risk of floods and territorial preservation also for the purposes of the circular water economy.
- Implement an urban forestry programme to contribute to CO2 capture.

The component aims first of all to improve the **resilience of water systems** to climate change and to the increase in consequent stress, improving the ecological and chemical quality of water bodies, the management at the basin level and the efficient allocation of water resources between the various uses/sectors (urban, agriculture, hydroelectric and industrial), investing in the extraordinary maintenance of the reservoirs and supply systems (some with supraregional extensions), i.e. by supplementing the often large scale schemes.

Furthermore, it is intended **to drastically reduce water dispersion** linked to inefficient management of obsolete infrastructure (the national average is 41 %, while in the South the average is 51 %). The efficient use of water resources is a key measure of adaptation to climate change, considering the longer observed duration of periods of drought and water stress in some areas of the country. To this end, actions to promote the transformation and support the consolidation of networks include smart networks with sensors and equipment that allow the continuous control of pressures and proactive identification of leaks, investing in maintenance with replacement of pipes, targeted and economically more advantageous in the short and long term.

A further objective of the component is **to promote more effective water purification** in order to **improve the quality of inland and marine waters** by combining technological innovation, ecological transition and improvement of environmental quality. Currently Italy is the recipient of four infringement proceedings opened by the European Commission for breach of Directive 91/271/EEC, which for the most part concern the Mezzogiorno. Sewage treatment plants will have to become "green factories", enabling energy and sludge recovery, and the production of purified waste water for irrigation.

In addition, the aim is to **mitigate the risks associated with hydrogeological instability**, exacerbated by the impacts of the climate on the hydrological cycle and on all the other phenomena associated with it. Funding for the mitigation of risks arising from hydrogeological instability is strategic, also in view of the overall policies of sustainable development, economic territorial growth and the construction of policies for the resilience of local communities.

Furthermore, again in relation to the mitigation of risks from hydrogeological instability, extensive measures must be carried out in forest areas present in the river basins, regarding sustainable forest management and forest hydraulic systems, with particular reference to hilly and mountain areas with high hydrogeological and landslide risk, with the aim of improving the functionality, resistance, resilience of existing forests including in terms of their regulatory and anti-erosive functions in order to prevent hydrogeological instability and improve outflows into the minor hydrographic grid and in irrigation systems servicing rural areas.

Mitigation actions, within the framework of the irrigated agroecosystem, must necessarily involve integrated measures for the better management of water resources such as *irrigation infrastructure interventions for the conversion of* the irrigation system to higher efficiency systems, with the installation of technologies, such as meters and remote control systems and systems for *monitoring irrigation concessions* for private use, as well as interventions in the management and maintenance of rural areas by means of extraordinary maintenance of the drainage network, verification and improvement of water pumps, automation and remote control of movable barriers in order to prevent phenomena of overflowing upstream in the case of floods. .

Finally, it is necessary to implement the supplementary and non-structural measures of the Water Management and Flood Risk Plans, in addition to the achievement of the objectives of Directives 2000/60/EC and 2007/60/EC. In order to ensure adequate reduction of residual risk, it is necessary to include, along with structural measures to contrast hydrogeological instability, non-structural measures such as active land maintenance, requalification, monitoring and prevention. In addition, in order to preserve and improve the state of water bodies and reduce soil consumption, it is necessary to increase *nature-based* and *land-based* interventions, such as the *Natural Water Retention Measures*, which provide a wide spectrum of ecosystem services, integrating the needs of mitigation of hydrogeological risk with the protection and recovery of ecosystems and biodiversity.

The digitalisation of processes is a catalyst and complementary instrument with regard to the management of water resources and flood risks. It responds to the need to promote the digital transition, pursuing the objective of investing in the creation of monitoring systems aimed at providing a valid knowledge base for a correct programming aimed at increasing the resilience of the water, irrigation and forestry system, as well as making data and information accessible to users in computerized and digital ways, that can be useful for the protection of land and water resource from the effects of climate change, while ensuring the development of knowledge and skills and the valorisation of environmental capital in the basins.

In order to achieve these objectives, it is essential to accompany investment projects with a reform action that strengthens and complements the *governance* of the integrated water service, entrusting the service to efficient managers in the areas of the country where this has not yet taken place and, where necessary, supporting the relevant bodies with appropriate industrial capacities for the grounding of planned interventions.

In order to ensure the implementation of the Management Plans for the Hydrographic Districts and the integrated strategy for the management of the resource, it is fundamental that

there be an adequate *governance* at Basin level and that wholesale water managers be well-prepared from both a technical and financial point of view.

Along the same lines, action is planned to strengthen the technical support structures for Commissioners in the design, procurement and supervision of measures to protect against hydrogeological risk. The reform is also aimed at strengthening the design capacity of the land reclamation consortia also through regional planning centres, promoting the revision and strengthening of consortia in the Southern Regions.

Two further interventions are included in the component. The first relates to urban forestry according to criteria for the reduction of climate-altering emissions foreseen in a programme already defined by specific sector legislation. The second concerns interventions for the resilience, environmental enhancement of the territory and energy efficiency in urban areas already covered by the legislation in force.

In summary, the interventions foreseen under the component promote environmental sustainability, the socio-economic development of the country, territorial competitiveness and infrastructure modernisation, especially in areas of the Mezzogiorno, where there is a serious backwardness in the management of essential public services in the water and treatment sectors, causing frequent emergencies, strengthening social cohesion and resilience to future challenges. The set of actions described as well as the cross-section of all processes with that of digitisation contribute to a significant overall impact in terms of greening and digitisation.

#### **REFORM MEASURES LINKED TO THE COMPONENT**

- Simplification of the legislation relating to the National Plan of interventions in the water sector.
- Strengthening governance in water supply infrastructures and measures for full implementation of concessionary assignments in the Integrated Water Service.
- Strengthening of operators, measures of support and accompanying measures for Government Commissioners and District Basin Authorities.
- Simplification and acceleration of procedures for projects relating to plant degradation and forestry and exploitation of plant residues resulting from forest management interventions.
- Strengthening of the planning and management capacity of the Land Redemption Consortia.

	Resources (EUR/mld)					
M2C4 – Protection and valorisation of land and water resources	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
Interventions on hydrogeological failures	3,36	0,25	3,61	-	3,61	
Urban Forestry	0,03	0,30	0,33	0,20	0,53	
Afforestation and protection of forests*	-	-	-	-	-	
Flooding and sustainable management of water resources	1,46	2,92	4,38	-	4,38	
Primary water infrastructure for security of supply	1,46	0,90	2,36	-	2,36	
Resilience of irrigated agrosystem (including digitisation and network monitoring)	_	0,52	0,52	_	0,52	
Water distribution networks and		0,32	0,32		0,32	
digitisation of monitoring networks	-	0,90	0,90	-	0,90	
Sewage and sewage treatment	-	0,60	0,60	-	0,60	
Interventions for increased resilience, land enhancement and improved energy						
efficiency of the municipalities	6,00	-	6,00	-	6,00	
Management systems for waste collected at sea in port areas	-	0,50	0,50	-	0,50	
TOTAL	10,85	3,97	14,83	0,20	15,03	

Notes: (b) includes DCF resources already foreseen, to be targeted at specific interventions

#### 1. Interventions to contrast hydrogeological instability

These are structural interventions involving active maintenance of the territory, requalification, monitoring and prevention that are selected according to the risk level of the area and number of citizens at risk regarding the occurrence of calamitous events such as landslides and floods.

These operations benefit from additional resources of 160 million euros allocated within the Budget Law.

#### 1.1 Urban Forestry

These are urban forestry measures carried out in the municipalities according to criteria for the abatement of climate-altering emissions foreseen in a programme already defined with specific sector legislation.

#### 1.2 Afforestation and forest protection.

Actions shall be consistent with regional planning for the maintenance of forest hydraulic systems, management and maintenance of the rural territory, in order to reduce decaying forest areas and areas subject to hydraulic risks. These are:

<sup>\*</sup> The allocation of the NRPR on the forestry component will be further strengthened by the EAFRD once the ongoing programming process has been completed and in agreement with the Regions and the PA. As an indication, over the period 2014-2020, 1.6 billion euros were earmarked for forestry measures for sustainable management and prevention of hydrogeological instability.

- extensive sustainable forest management actions in areas subject to hydrogeological constraints;
- maintenance and extraordinary installation of forest hydraulic works in mountain and hilly areas with high hydrogeological and landslide risk;
- measures to prevent forest fires and to restore degraded forest areas;
- maintenance of rural land, canals and the minor water network.

Assistance is financed from EAFRD resources for 1 billion euros.

#### 1.3 Flooding and sustainable management of water resources

Primary water infrastructure for security of supply. Action consists in about 100 interventions throughout the national territory, concerning extraordinary maintenance, aimed at static and seismic safety, upgrading and/or completion of water infrastructures of derivation, artificial reservoirs and dams, primary supply pipelines and the reduction of water losses in the supply systems. The interventions concern the entire national territory, with a particular attention to the water schemes of the South that have highly critical issues.

#### 1.4 Resilience of the irrigated agrosystem

Infrastructure interventions on networks and irrigation systems and related digitisation and monitoring systems, through the installation of technologies such as meters and remote control systems, and purification monitoring systems with potential for irrigated reuse.

#### 1.5 Water distribution and the digitization of monitoring networks

Investments are to modernise and make efficient 45 water distribution networks, for about 25,000 Km with a reduction of losses of 15 %. The immediate interventions begin with areas that have the highest known losses, using new technologies and the digitisation of networks that will allow a more effective and cheaper predictive maintenance.

#### 1.6 Sewage and sewage.

Investments in sewage systems and sewage treatment plants with the priority aim of helping to overcome EU infringement procedures in this area and for the expected improvement of the quality of receiving water bodies.

# 2. Interventions for increasing resilience, land enhancement and improved energy efficiency of the municipalities

Small-scale interventions carried out in urban areas and already covered by existing legislation. These operations also benefit from additional resources of EUR 600 million euros from the budget law.

#### 3. Management systems for waste collected at sea in port areas

Interventions for the management of the waste collected at sea that is carried out through the construction of new installations for the management of marine litter, that is produced by ships or caught at sea, and interventions to adapt e existing plants.

## 3. INFRASTRUCTURE FOR SUSTAINABLE MOBILITY

## **General objectives of the mission**

- Creating a modern, digitised and environmentally sustainable infrastructure system for mobility.
- Introducing digital remote monitoring systems for the safety of arterial roads and carrying out urgent maintenance work of neglected arterial roads, bridges and viaducts.
- Investing in a competitive and environmentally sustainable harbor network with the aim of increasing the waterway traffic toward the main European navigation routes and enhancing the importance of southern Italian ports in Mediterranean commercial traffic and tourism.

#### **Resources deployed in the Mission**

High speed railway and road maintenance 4.0	
Intermodal transport and integrated logistics  Total	
	<u></u>

The Infrastructures for sustainable mobility mission's objective is to complete, before 2026, the first and significant step of a longer-term project aimed at building a modern, digitised and environmentally sustainable infrastructure system, that can take into account the specificities of the Italian territory. Part of the resources will be devoted to existing projects in order to accelerate their completion, and new investments will be undertaken with the aim of creating synergies with the European infrastructural projects and of addressing the deficiencies that have hitherto penalised the economic development of the Country and, in particular, of the Mezzogiorno and the Islands.

Additional resources, such as the Government's own budget resources, the NGEU and other European funds available for infrastructure development, will contribute to the completion of this strategic objective and create synergies in the investments. Further, interventions that are in line with the strategic design of the Recovery Plan and are financed with the resources of the European Regional **Development Fund** (ERDF) and the **Cohesion Fund** (CF) 2021-2027 are also included in this document.

Investments in the railway network aim at completing the main lines by linking them to and integrating them with the high-speed lines (HSLs), while, at the same time, speeding up and securing the entire network, including the regional and southern lines. In particular, the investments will lead to a sizable reduction in travel time and will strive to improve the long-distance transport of goods (between 500 and 900 km) and to solve the last-mile infrastructure problems for rail freight.

Rail investments seek to augment both the **infrastructure's resilience** and its **accessibility**. In fact, carefully planned interventions will ensure that the infrastructure is always available for rail service, that its safety is improved and that the existing equipment is upgraded to match the

industry standards. Further, ameliorating the modal integration of the rail system for both public and private traffic and widening the range and quality of services provided in passenger stations will increase the infrastructure's accessibility.

Investing in digital remote monitoring systems to verify the arterial **roads' safety** is essential to the identification of the more urgent maintenance works needed to ameliorate neglected roads, bridges and viaducts. These measures are crucial to avoid depletion of previously accumulated capital since the abundant infrastructure built in past decades must be upgraded to match the new safety standards.

Finally, the mission aims at developing a **competitive harbor network.** On the one hand, the port system is needed to complement the northern European network in oceanic traffics. In this sense, the completion of the Alpine passes (starting from the Gotthard and Brenner passes) and the TEN-T connections with the northern Tyrrhenian and Adriatic Sea ports will allow Italy to foster an expansion that is coherent with its geographical position. On the other hand, the planned infrastructural and logistic improvements will exalt the **southern Italian ports**' role in infra-Mediterranean traffic, especially given the strategic importance they have in enhancing the whole country's competitiveness.

The **Infrastructures for sustainable mobility** mission is articulated in 2 components, structured in 4 project lines, and entails a total expenditure of 31.98 billion euros.

From a legal standpoint, the project is framed within the **procedural reforms framework** detailed in the "D.L. Semplificazioni" in order to ensure successful completion. Indeed, the framework specifies which additional instruments can be triggered, should impediments to the project realization arise.

#### 3.1 HIGH SPEED RAILWAY AND ROAD MAINTENANCE 4.0

## Objectives of the component

- Decarbonisation and emission reduction through the improvement of passenger and freight rail transport (from road to rail).
- Regional cohesion and connectivity enhancement/travel time reduction.
- Control systems digitisation and road infrastructure (bridges, viaducts and tunnels) safety upgrades.
- Traffic efficiency improvement and competitiveness enhancement of the southern industrial system.

The list of proposals for infrastructure and technological interventions includes:

- High speed lines' improvements for speeding up both passengers and goods traffic
- Completion of the TEN-T railway corridors
- Completion of the passes
- Strengthening of the railway junctions and lines
- Fill the North-South infrastructure gap, allowing the southern regions to catch up

Speeding up the main passenger and commercial lines along the North-South and East-West axes, and increasing their capacity will ameliorate regional connectivity and encourage the switch from road to rail circulation, especially for long-distance traffic. In particular, the Milan-Venice, Verona-Brenner and Liguria-Alps railway lines will be upgraded in Northern Italy, improving circulation between the Genoa and Trieste ports and the regions north of the Alps. Two East-West axes (Rome-Pescara and Orte-Falconara) will be strengthened in Central Italy, significantly reducing travel times and increasing transport capacity. Finally, the Tyrrhenian and Adriatic line from Northern to Southern Italy will also be improved reducing the infrastructure carbon footprint.

The completion of the Naples-Bari line, the further advancement of the Palermo-Catania-Messina line and the commencement of the Salerno-Reggio Calabria and Taranto-Potenza-Battipaglia lines will **extend the HSL to the southern Italian regions**.

The strategy further focuses on **southern regional lines** through a series of interventions aimed at upgrading, electrifying and fostering resilience of the network. A detailed Plan for Southern Stations complements the framework for infrastructure development in Southern Italy.

The Plan for Southern Stations focuses on the performance harmonization and upgrade of the existing infrastructure for both passenger and freight traffic, and includes interventions on regional railways. More specifically some regional lines will be brought to match the technical and safety standards of the national network (Canavesana, Turin-Ceres, Bari-Bitritto, Rosarno-San Ferdinando, Sansepolcro-Terni, Benevento-Cancello, network managed by FSE). This will ensure:

- Greater integration between national and regional rail infrastructure
- Expansion and integration of road and rail services
- Harmonization of safety standards

- Creation of novel passenger and freight connections with airports, ports and terminals
- Integration between HSLs and local transportation services

Lastly, the planned investments on the railway junctions and lines' technological development with the application of **ERTMS technology** will significantly increase the capacity and safety of rail transport and have sizable repercussions on regional rail transport and on commuter traffic entering Milan, Rome and Naples.

An advanced digital road monitoring system will be implemented in order to increase the infrastructure's **safety**, withstand and adapt to climate change and **digitise the road network**. Further, the monitoring system will foster resilience against seismic risks and disruption and reduce both accidents and future maintenance expenditures.

The interventions needed to implement monitoring can begin within a short time-frame: they comprise the introduction of an advanced sensor network and a digital information system, and fall within the extraordinary maintenance works apt at strengthening the resilience and safety of the roads. The "D.L. Semplificazioni" provides the legal framework within which those improvements can be installed, as it contains the relevant provisions on road and motorway safety.

Completing the HSL can foster equity and equal **opportunity** within the country and advance integration with the rest of Europe. In fact, it substantially alters the supply available to passengers, thereby potentially modifying their preferred means of transportation and endowing workers and **young individuals** – categories for which mobility is essential to improve labor market outcomes and skill allocation – with a wider choice set.

These investments can reinforce **territorial cohesion** and reverse the **demographic and socio-economic depletion** of poorly connected territories. An improved and wide-reaching rail/road network is essential to bolster the country's competitiveness, **narrow the gap between Northern and Southern Italy**, ensure fast and efficient connections between the eastern and western part of the peninsula and harmonize the **transportation service quality** throughout the national territory. Half of the financial assistance provided for the rail network improvements – including the resources from the ERDF and CF funds – will accrue to Southern Italy.

#### **REFORMS**

Acceleration of the approval process for the programme contracts with RFI, procedure simplification (EIA opinion, etc.) and elimination of redundant phases. Simplification of the procedures for the inclusion of the construction works contained in the Plan within the existing RFI programme.

Implementation of the "dynamic road monitoring system"; MIT Reform implemented in December 2020 by decree (currently awaiting publication in the Official Journal).

Implementation of the novel risk classification and management system and of the technological road and motorway monitoring infrastructures (DM No 578, 17 December 2020, awaiting publication in the Official Journal).

Ownership transfer from the provincial roads to ANAS of part of the works of art.

Ownership transfer of works of art along the roads.

Application of the simplified authorization procedures detailed in the Legislative Decree "Semplificazioni".

Acceptance of the control of the con	Resources (EUR/mld)					
M3C1 – High railway speed and road	Existing	New	Total		TOTAL NGEU	
maintenance 4.0	(a)	(b)	(c) = (a)+(b)	(d)	(c) + (d)	
Railway works for the mobility and fast connection of the country	11,20	15,50	26,70	-	26,70	
HSL interventions and improvement of the speed, frequency and capacity of existing railway connections	8,66	6,13	14,79		14,79	
European Rail Transport Management Systems (ERTMS) Programme junctures and lines – Infrastructural and technological development and upgrading. Resilience of Apennine routes connecting with the main rail junctures.	0,27 2,27	2,7	2,97 2,97		2,97 2,97	
Renewal of locomotives and freight transport infrastructure	-	0,2	0,2		0.2	
Regional lines — HS integration with regional transport (interconnected railways) and upgrade of regional urban railways	-	2,67	2,67		2,67	
Upgrading, electrification and resilience in the South	-	2,4	2,4		2,4	
Southern stations plan	-	0,7	0,7		0,7	
Safety and digital monitoring of roads, viaducts and bridges  Motorways A24-A25 – dynamic monitoring system for remote control and safety	-	1,60	1,60	-	1,60	
interventions on works of art (bridges, viaducts, overpasses and tunnels)	-	1,15	1,15		1,15	
Dynamic monitoring system for remote control of the works of art (bridges, viaducts, overpasses and tunnels) and implementation of interventions and digitisation of road						
infrastructure	-	0,45	0,45		0,45	
TOTAL	11,20	17,10	28,30	-	28,30	

Notes: (b) includes DCF resources already planned, to be devoted to specific interventions.

#### 1. Railway interventions fostering mobility and fast connections within the country

The planned interventions implement the strategic and programmatic objectives contained in the annex '#Italia veloce' to the Economic and Financial Document 2020, which was approved by the Council of Ministers on 6 July 2020:

- The main HSL investments are devoted to the realisation of the following key rail lines: Naples-Bari, Brescia-Verona-Vicenza-Padua and Salerno-Reggio Calabria.
- Further investments aim at speeding up and increasing capacity of six other rail lines: Rome-Pescara, Orte-Falconara, Palermo-Catania-Messina, Liguria-Alps, Taranto-Metaponto-Potenza-Battipaglia and Verona-Brenner (supply works).
- Technological updating of rail routes and junctions through the commencement of the European Rail Traffic Management System (ERTMS) implementation on the entire national network.
- The technological upgrading of traffic management systems will improve traffic regularity and relax the capacity constraints of specific railway lines.
- Investments on those regional lines that connect to the national rail network (Turin Cerese-Canavesana, FUC Udine-Cividale railway, Bari-Bitritto line, Rosarno-S. Ferdinando line, FCU Central Umbra railway, EAV, FSE South East railway).
- Upgrading of selected regional and urban railways which are a priority (Ferrovie Nord, Roma Lido e Roma Viterbo, Circumvesuviana, Circumtenea, Catanzaro-Cosenza, Ferrovie Appulo-Lucane, Ferrovie del Gargano etc.).
- Upgrading, electrification and resilience building in Southern Italy railway lines (Ionica Sibari-Catanzaro Lido-Reggio Calabria, Venafro-Campobasso-Termoli, Catania junction, Decimomannu-Villamassargia amplification, rail connection of the Olbia airport, among others).
- Establishing a dedicated intervention plan for the Southern Italy rail stations (Stations Plan in the South).

In order to provide a more complete picture of the planned interventions, the next section presents a geographical break down of the **infrastructural developments** needed for the construction of novel railway lines and for the most substantial improvements of the existing lines.

#### **North-West Area**

The plan for this area comprises the continued development of the Rhine-Alps European corridor and of the western part of the Mediterranean corridor. In particular, the plan aims at ameliorating the railway lines in the Liguria-Alps national corridor through the connection of the Third Giovi Pass with the Genoa juncture; the quadrupling of the Gallarate-Rho and Milan Rogoredo-Pavia lines on, respectively, the Parabiago-Rho and Milan Rogoredo-Pieve routes.

Those project are in an advanced phase of their realization since they either are under construction by General Contractor (Third Pass and related interventions in the Genoa junction) or



plans for their implementation already exist and the necessary authorisations have been secured. Several objectives are pursued: augmenting the transport capacity of the corridors and the interconnectedness of the Turin, Milan and Genoa junctions; improving the competitiveness of rail freight by making the passage of heavier, longer and larger trains possible.

#### **North-East Area**

The priority in the North-East area are the supply-augmenting improvements on the Verona-Brenner line. The Trento beltway will allow to channel freight transport, thereby freeing up the historical, urban route for a possibly higher regional traffic. The interventions in this area are complemented with additional projects that are either under construction (i.e. the new Brenner tunnel) or planned (i.e access roads to the Brenner pass). Projects focus on the betterment of freight traffic along the Scandinavia-Mediterranean European corridor through the increased transport capacity of the railway infrastructure and the relaxation of the current performance constraints.



In addition, the plan for the area includes the continuation of the horizontal high speed, high capacity axis Brescia-Verona-Vicenza-Padua. The development of some of its sections is already entrusted to General Contractors and is underway, namely the 1<sup>st</sup> Brescia Est-Verona functional unit and the 1<sup>st</sup> Verona-Bivio Vicenza functional unit. The project aims at increasing transport capacity. The availability of a new set of tracks allows the expansion of the rail transport supply in different sectors: short and long-haul travelers and freight transport.

#### **Central Area**

The plan for Central Italy's infrastructural development includes the enhancement of the East-West Apennine routes: the Orte-Falconara (Ancona) and Roma-Pescara.

The improvements on those two routes fall within the wider ambition to transform the current high-speed rail system in a "High Speed Network" (HSN) capable of offering the best possible service to the main urban areas of the country. Careful repurposing of existing routes, infrastructural upgrades and the construction of new lines should all be planned with this broader goal.



Recently, national and local institutions resumed discussions on the best possible way to connect the Adriatic with the Tyrrhenian side of the country after a prolonged standstill in which lack of financial resources hindered any real progress on the project. The East-West Apennine routes, although regional, can strengthen the transport supply to the centers of Rome, Chieti-Pescara and Ancona and accommodate the demand in the area. Currently, all the potential stakeholders of the project are being consulted in order to draft a carefully outlined investment plan with a pragmatic and concrete approach.

Both the Orte-Falconara (Ancona) and Roma-Pescara routes are in the preliminary stages of development: enhancement proposals are being discussed with the involved regions. As a consequence, nothing more than a rough estimate of their costs can be provided, and only the very first phases of these challenging investments will be included in the Recovery Plan.

#### **Southern Area**

The Government's "Plan for Southern Italy 2030: Development and Cohesion" details the country's decrease in infrastructure expenditure over the last decade. The curtailing of capital investments has resulted in a sizable gap between Italy and the other major European countries in the levels of infrastructural endowment. Moreover, endowment heterogeneity is substantial within the country as well: the southern regions have reduced investment significantly more than the central and northern areas. In 2018, the PA current capital expenditure for Southern Italy amounted to 6.2 billion, representing only 22.5 % of the national tally and well below the 34% population share of the South.

In the annex to the DEF 2020 "#italiaveloce", the Government acknowledges the need for a carefully drafted programme for structural interventions in the transport and logistics sectors:

 resuming investment and public expenditures in infrastructures and transports to render valuable territories accessible is pivotal to the rebound of the economy (also through fiscal multipliers); • structural changes to the logistics and freight transport sectors are needed to foster their resilience and competitiveness, especially at an international level.

The existing rail network upgrades and the construction of new High Capacity/High Speed lines along the main southern routes constitute a primary Government objective. Boosting infrastructure and transport investments, both public and private, is also instrumental in achieving the European ecological conversion and decarbonisation objectives.

Priority is given to speeding up the Rome-Naples-Salerno-Reggio Calabria routes with a progressive upgrading of the lines connecting Central Italy with Basilicata (Battipaglia-Potenza-



Metaponto-Taranto) and Calabria. The projects' drafting has already been financed (40 millions) with the recent "Decreto Rilancio".

The planned investments on the Naples-Bari route (about 6 billion) and the Messina-Catania-Palermo route (about 8 billion) are at a more advanced development stage. In fact, the procurement of the first functional units on the Naples-Bari line has been completed. It has a value of about 2.3 billion and includes the Naples-Cancello line, the doubling and speeding of the Cancello-Frasso Telesino line and the doubling of the Apice-Hirpinia line. All the remaining functional units are being put up for auction: the official call for the Hirpinia-Orsara procurement auction – the last remaining functional unit having an estimated value of 1.5 billion euros – will be published in the next few days. The doubling of the Bovino-Cervaro line has already been completed and the building sites on the Naples-Bari route will be operational within the next year. The first direct trains connecting Naples to Bari will be available by 2023, after the completion of the Naples-Cancello and Cancello-Frasso lines; while the extension of the route to Lecce and Taranto will begin subsequently.

Construction works on the first Bicocca-Catenanuova functional unit, on the Palermo-Catania route, are underway and have a value of 0.4 billion. The remaining functional units are presently being planned.

Moreover, the resources available in the 2021-2027 ERDF and CF funds will also be invested in the southern railways enhancement (i.e. the regional networks; the Ionian, Sardinian and Sicilian networks; the Catania and Palermo junctions; the Molise and Adriatic networks), in the connections with the airports (Trapani Birgi and Olbia), and in improving ports and terminals connections (i.e. Augusta and Bari Lamasinata).

Finally, a plan focusing exclusively on the southern railway stations has been drafted. The programme aims at providing assistance and information to the public and improving the stations'

accessibility, rendering them easily accessible to individuals with reduced mobility. Further, advancements in the modal integration of the railway stations are also included in the programme: the construction of parking lots, the set-up of connecting areas with other public transportation services, the creation of bicycles parking areas. A second objective of the plan is to upgrade and improve medium and large stations, including their external areas and to foster their integration with the wider urban mobility.

Presently, the rail share of passenger and freight mobility is substantially lower than the road one. Rail investments aim at creating a more competitive infrastructure and at shifting part of the road traffic to the public rail transport. To this end, it is particularly important to renew the obsolete locomotive fleet, and to create the conditions for an efficient and environmentally friendly freight traffic ensuring a reduction in environmental and noise pollution.

The transition from private to public mobility constitutes an important positive externality. By limiting both pollution and the frequency of road accidents, rail investment is expected to have a substantial positive effect on the public.

#### 1. Road maintenance works 4.0

The country has, over time, constructed a road infrastructure by overcoming many different geographical and morphological constraints (environmental, orographic, archaeological, seismic, hydrogeological). Consequently, the national network comprises a series of works of art, such as bridges, viaducts and tunnels, that were built between the 1950s and 1960s, mainly using concrete, and that are now rapidly deteriorating.

We currently make a very limited use of digital tools in order to gather, analyse and evaluate traffic data and to assess the risks to the infrastructure's safety. The road maintenance project aims at increasing digitisation of the network in order to efficiently manage traffic flows, plan maintenance and safety upgrades effectively, and cultivate the network's resilience.

Two main obstacles risk interfering with the planned infrastructural investments: the scarce knowledge of the bridges, viaducts and tunnels' current state, and the uncertainty over the works of art's ownership, which makes it arduous to establish which specific institution would have the legal responsibility of carrying out maintenance works.

The situation is particularly precarious along the A24 and A25 motorways (connecting Rome to L'Aquila and Teramo and Rome to Pescara), an area subject to seismic risk and along which several works of art having a high risk index are situated.

#### 3.2 INTERMODAL TRANSPORT AND INTEGRATED LOGISTICS

#### Objectives of the component

- Increasing the Italian harbor system competitiveness in a sustainable manner through the development of an intermodal infrastructure, integrated big-picture planning and a focus on last-mile ports' connections
- Improving ports' environmental sustainability and energy efficiency (Green ports);
- Digitalising the national supply chain and air traffic;
- Reducing polluting emissions in freight handling.

The project comprises a series of interventions on the logistics sector of the country and, in particular, of its **maritime transport**. Intermodal freight traffic in Italy is typically terrestrial, roadrail, but its connection with maritime traffic is inefficient. The completion of the so-called "last mile" connection between railways and ports is pivotal to the competitiveness of Italian ports, especially since the railway terminals of freight transport (introduced with Reg. 913/2010) are oftentimes ports. Italian firms face logistic costs that are 11% higher than the European average. Further, solution of last-mile problems is an environmentally sustainable objective that would reduce good-handling emissions and foster the *green* transformation of the harbor system.

Therefore, the **second component** — *Intermodal transport and integrated logistics* — aims at improving the competitiveness, capacity and productivity of the Italian ports in an environmentally friendly way by:

- focusing on ports not only as transit locations but as crucial components of the sea-ground traffic:
- offering an efficient and reliable logistic network available for inland transport to/from final destinations;
- creating enough demand for transport services to reap the environmental benefits of the economies of scale, and strengthening traffic toward the region north of the Alps;
- implementing structural changes that improve harbor accessibility and railway/road connections with the Italian ports (last mile);
- reducing ports' environmental footprint (by limiting fossil fuels emissions of buildings, plants, and both terrestrial and maritime means of transportation).

#### **Integrated project Italian Ports**

The plans within this component focus on ports and intermodal traffic connecting Italy to **the European transport network.** 

Italian ports are currently trying to cope with the gradual increase in vessels' average dimension. In particular, Genoa and Trieste ports, which are crucial for both Italian and European trade with the Near, Middle and Far East, have been greatly affected by this trend in fleets' size.

The creation of a new dam just outside Genoa's port is among the urgently needed investments. The dam construction would allow to navigate on two lanes and provide a basin big enough as to satisfy the needs of the larger ships operating today in the Liguria port. Further, the "Adriagateway" project includes plans to ameliorate the port terminals and its connections with the available terrestrial means of transportation in order to facilitate freight transport toward the northern European markets.

The Italian harbor system will progress both toward the North, keeping an eye on oceanic traffic, and toward the South, improving Mediterranean trade, increasing its dynamism and competitiveness while, at the same time, reducing its footprint.

The improvement of intermodal traffic in the southern ports can foster both freight and tourist traffic. To this end, creating the appropriate connections between the ports ant the HS railway lines would stimulate trade, intermodal transport and, at the same time, allow for emissions' reduction.

This consolidation would reposition the southern ports at the very center of intra-Mediterranean trade, and allow them to withstand the North African ports' competition. Special Economic Zones (ZES) surrounding the harbors, must be enriched with the aim of attracting productive capital through administrative and bureaucratic simplification and the application of a favorable economic regulation.

At the same time, investments in the minor ports of Southern Italy would foster sailing and tourism. The Mezzogiorno potential for the tourist sector is one of the most valuable resources of the country, and its benefits can be more easily reaped by encouraging greater accessibility to the southern coasts.

The "Green Ports" projects are integrated with the "Cold ironing" docks' electrification plans as they both strive for environmental sustainability.

The docks' electrification promises to reduce the moored ships' generators footprint. This is because generators currently need to be switched on during the cargo-loading and docking operations.

#### Digitisation of the national logistic system, including airports

The logistic infrastructure needs to be conceived as a *unicum* of junctures and networks that is adequately interconnected and allows for a smooth and "bottle-necks" free freight handling.

A renovation of the national logistics sector requires a comprehensive digitization strategy to ensure:

- "just in sequence" processes combining the two key logistic variables: time and space.
- "industrialisation" of the transport links between airports, seaports and dry ports;
- "modularity" and standardisation to rapidly manage numerous twenty-foot equivalent units (TEUs, a container's measure).

The digital revolution – and the consequent productivity increase – can only be brought about by a sizable investment in broadband and 5G technology involving all the main supply chain junctions. This mission is then inextricably linked to the digitisation mission M1C2, which details interventions aimed at the broadband and 5G technology adoption on the whole national territory.

#### **Conclusions**

This class of planned investments will: a) contribute to the "Green Revolution" by reducing ports' emissions through their structural modification; b) foster the economy's resilience by stimulating the development of economic areas and productive sectors tied to harbors' activity. The increment of commercial trade directly and indirectly benefits the labor market and has a positive externality on harbor cities, logistic value chains and inner terminals.

#### **REFORMS**

Port planning procedural simplification through i) the "Documento di Pianificazione Strategica di Sistema" (DPSS), concerning strategic planning and ii) the Harbor Regulatory Plan (PRP), concerning legal (and environmental) requirements.

Implement the 1994 reform, requiring the drafting of a competitive port procurement regulation.

Creation of a digital portal dedicated to the "Sportello Unico Doganale" (Single Customs Desk), allowing access to the national databases and coordination of the customs' controls.

Drafting and approval of a set of simplified procedures for the creation of an infrastructure for energy transportation to moored ships.

Harmonizing and coordinating the port community system (PCS) for the various Harbor System's Authorities through the national strategic platform UIRNET.

Logistics simplification through document digitisation, adoption of the electronic CMR, freight shipments and identification of official analysis laboratories.

M3C2 – Intermodality and integrated logistics	Resources (EUR/mld)					
	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
Integrated project Italian Ports	0,48	2,84	3,32	-	3,32	
Ports and intermodal transport, connection with the main European and national lines and development of the Southern Italian ports	0,48	1,62	2,10		2,10	
Green Ports and Cold ironing	-	1,22	1,22		1,22	
Airports and logistic systems digitalisation	-	0,36	0,36	-	0,36	
TOTAL	0,48	3,20	3,68	-	3,68	

#### 1. Integrated project Italian Ports

## 1.1 Ports and intermodal transport, connection with the main European and national lines and development of the Southern Italian ports

The development projects for the Genoa port include the realisation of a new dam that will allow access to the new generation vessels; the protection of the internal basins; and the safety upgrades in the entry and exit procedures.

The development projects for the Trieste port include the Adriagateway plan aimed at strengthening the ports' logistic system, including the harbor's terminal and its connection to the railway.

Some of the planned investments complement the Fast Italy line of strategic planning:

- Solution of last-male issue in both railway and road connections (Venezia, Ancona, Civitavecchia, Napoli and Salerno harbors);
- Infrastructures' Resilience to climate change (Palermo, Salerno, Manfredonia, Catania and Venice harbors);
- Maritime accessibility (Vado Ligure, Civitavecchia, Taranto, Marina di Carrara, Naples and Salerno and Brindisi harbours);
- Increased Harbor Capacity (Ravenna, Cagliari, La Spezia, Naples, Trapani and Venice harbors);
- Energy and environmental efficiency (Messina harbor).

## 1.2 Other projects involving environmental sustainability, "Green Ports", and "Cold Ironing" docks' electrification

The "Green Ports" project focuses on the nine center-north Harbor System's Authorities which are not involved in the PON Infrastructures and Networks system (Western Ligurian Sea, Eastern Ligurian Sea, Northern Tyrrhenian Sea, Northern-Central Tyrrhenian Sea, Sardinian Sea, Central Adriatic Sea, Northern-Central Adriatic Sea, Northern Adriatic Sea).

Investments will be aimed at:

- reducing energy consumption during the freight handling activities and in the port buildings (lighting and energy-inefficient systems);
- increasing efficiency, renewable energy production and monitoring of the harbors' environmental footprint.

The "Cold Ironing" project includes the docks' electrification and is coherent with the 2014/94 EU directive. It aims at minimizing fossil fuel use and at mitigating the transport sector environmental impact. The proposed investment focus on 41 ports, including 39 from the TEN-T network.

## 2. Digitisation of the national logistic system, including airports

The supply chain Digitalisation project comprises the creation of a business-to-client platform allowing customers' interaction regarding the management/monitoring/tracking and bidirectional exchange of shipments; creating an artificial intelligence system able to manage, plan and schedule shipments; and the complete digitisation of transport documents.

The airport systems Digital Innovation Project includes the implementation of a new-generation Air Traffic Management system in selected airports. The system would allow all operations to be digitised and would increase the IT infrastructures' safety.

# 4. EDUCATION AND RESEARCH

#### General objectives of the mission

- Filling the skills gap that limits Italy's potential growth and its ability to adapt to technological and environmental challenges.
- Improve students' educational and university pathways; facilitate access to raise the incentive for families to invest in the acquisition of advanced skills by young people.
- Strengthening research systems and their interaction with firms and institutions.

# Resources deployed in the Mission (EUR/billion)

Component 1: "Enhancement of skills and right to study"	. 16.72
Component 2: "From Research to Business"	. 11.77
Total	. <b>28.50</b>

The "Education and Research" mission revolves around the following main axes:

- the extension of skills acquired in schools, universities, and institutions of High Artistic and Musical Training by young people, workers and large groups of the working population.
- strengthening basic research and major research infrastructures, which are fundamental in
  frontiers areas and for technology transfer, improving the interaction between research and
  production, as well as the propensity for innovation of enterprises, especially SMEs, and their
  participation in strategic projects and chains. In line with the recently adopted National
  Research Programme 2021-2027, this route also supports the demand for advanced skills and
  their proper use in our production system.
- the internationalisation of higher education and research through the promotion of the mobility of teachers and researchers, both abroad and within Italy, to contribute to the main international processes of research and training of new skills, in the main strategic areas in a future perspective.
- Support for research conducted by young talents, with funding dedicated to them, following the model of excellence of the European Research Council (ERC) grants.

Specific attention to regional disparities will be essential to accompany these actions, as to reskill the workforce to let it actively contribute to the implementation of twin transitions.

The lines of action of the mission will be accompanied by a series of **reforms** aimed at removing obstacles to the efficient implementation of the investment initiatives and at strengthening their expected impact on the development of skills, on research and development investment by the public and private sectors, and on the smooth and timely transfer of basic research results to the production side of the economy.

The mission consists of **2 components**:

- Upgrading of skills and right to study.
- From research to business.

The investments in which these objectives are realised are distributed on 24 projects for a total amount of EUR 28.56 billion.

All interventions will, however, be calibrated according to the possibility of financially compensating the permanent burdens within the overall resources available under unchanged legislation in the "School System".

#### **GENDER, GENERATIONAL AND TERRITORIAL IMPACT**

The caretaking work should be a matter of public interest, while today in our country it is left on the shoulders of families and distributed in an asymmetrical way among genders. On this principle it is based one of the most important actions in support of gender equality contained in this mission.

The strengthening of nursery and early childhood services, nursery schools and school time provides concrete support for women's full freedom of choice and personality expression and contributes to increasing female employment. This is supported by measures in the field of education, in particular those which encourage women to acquire STEM, language and digital skills.

This mission has a particularly relevant direct impact on the new generations since all its objectives, from the contrast to school leaving to the digitalisation of teaching, from professionalising training to the strengthening of research, are primarily aimed at giving to young the necessary tools for an active participation in the social, cultural and economic life of the country, at the same time providing the wealth of competences and skills that are indispensable to face the processes of transformation of our lives induced by digitalisation and ecological transition.

The projects on kindergartens, the fight against early school leaving, the fight against educational poverty and the improvement of school efficiency will have a strong impact in terms of reducing territorial gaps by attacking one of the structural factors of underdevelopment in some regions. In addition, the promotion of new centres of excellence in research in the South – integrated into local innovation ecosystems – will also facilitate technology transfer and the use of qualified resources.

As with all other missions, monitoring and evaluation of the effects on these three horizontal dimensions will take place at the level of both individual projects and expected overall results.

#### 4.1 ENHANCEMENT OF SKILLS AND RIGHT TO EDUCATION

# Objectives of the component

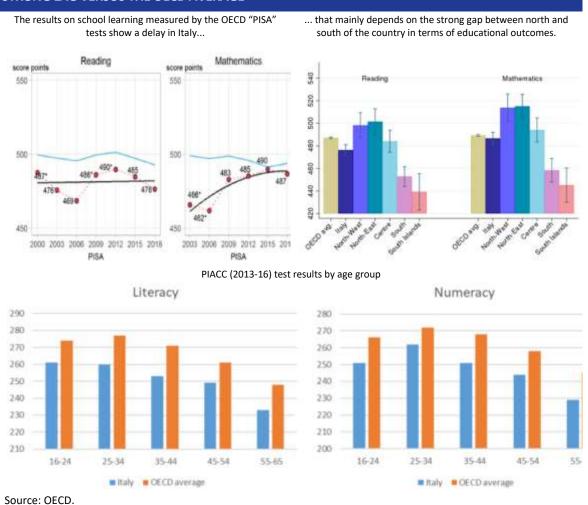
- Increase the supply of nurseries and childcare services and promote their balanced distribution across the country.
- Broadening opportunities for access to education and combating early school leaving and educational poverty.
- Improving the results and performance of the school system.
- Strengthening the training and recruitment of teaching staff.
- Strengthening teaching in particular in STEM, linguistic and digital disciplines also through greater schools' autonomy.
- Setting up a Fund to reduce education gaps and to facilitate the spread of full-time education across the national territory.
- Increase investment in tertiary education.
- Strengthening secondary and university formation and vocational apprenticeships.
- Reducing skills imbalance between labour supply and demand.

According to the Programme for International Student Assessment (PISA), Italian students aged 15 are below the OECD average in reading, mathematics, and science, with wide territorial differences documenting better results than the OECD average in the North but much lower in the South.

Similar evidence – as shown in the following figure – is found for Italian adults, for whom the Programme for the International Assessment of Adult Competencies (PIAAC) indicates a steady worsening of results compared to the OECD average.

The component aims to enhance basic skills in lower and high secondary schools, with interventions able to reduce the early school drop-out rate (14.5 percent in 2018 compared to the EU average by 10.6 percent) and to reduce territorial gaps. The interventions will take account of past experience. The INVALSI (National institute for the evaluation of education and training system), following an information and training action aimed at all schools in the South, concluded in 2019, noted that the training of teachers has a positive impact not only on skills and teaching methodologies, but also on the motivation of students and on their school performances in basic disciplines. In addition, the collaboration of school institutions with the third sector has proven to ensure a broadly understood inclusion, characterised by the recovery of sociality and by the attention to motivational, metacognitive, and soft skills aspects, which play a decisive role in the educational success and prevention of early school leaving.

# THE LEVEL OF BASIC KNOWLEDGE BOTH AMONG PUPILS AND IN THE ADULT POPULATION SHOWS A STRONG LAG VERSUS THE OECD AVERAGE



A further and synergistic objective is to increase the proportion of the population aged 25 to 34 who have a tertiary degree (28 percent compared to 44 percent on average in OECD countries). To this end, public investment in tertiary education will be increased by providing for effective measures to guide students towards the most appropriate university pathways, in order to reduce their early drop-out, to increase the number of scholarships for deserving and less well-off students, to increase the number of student housing and to strengthen the facilities to attend university courses. Moreover, on the one hand, there is the strengthening of secondary and tertiary vocational programmes, which allow for better integration into the world of production, by filling an important gap in the provision of training vis-à-vis our main European partners; on the other hand, there is the increase in the number of researchers, in support of both the development of higher education and basic research.

At the same time, in line with the provisions of Mission 2 on energy efficiency of school buildings, school modernisation and wiring will be carried out.

In order to achieve these objectives, in addition to the reform initiatives mentioned above, **three lines of action** are envisaged, with respective investments for reforms.

#### Access to education and reduction of territorial gaps

The school determines the future of the country, preparing the youngest for life, for their integration into society and offering them job prospects. It is the first instrument for integration, equal social opportunities, and better prospects for working life. It is the basis on which the creation of the national community and social cohesion are based, guaranteeing the development of the country and its long-term growth. That is why school and education are one of the cornerstones of the Relaunch Plan. This line of action acts with the aim of:

- strengthening access to education for all, ensuring equal opportunities for young people throughout the entire territory and reducing educational poverty, regardless of economic opportunities.
- increase the "school-time" by increasing the space for the training offer;
- helping reconcile the living and working times of families, especially women.

This is also done through the strengthening of preschools (3-6 years) and "spring" sections (24 to 36 months). The Plan for nurseries and childcare is included in this Mission with the intention of placing Italy from country below average to country above the European average. These actions are expected to have a positive impact on the labour market in the short to medium term.

#### STEM skills and multilingualism

The actions are aimed at filling the skills deficit that limits our country's potential growth and its ability to adapt to technological and environmental challenges. The intervention involves strengthening teaching, improving the quality of teaching, continuing training for teaching staff and guaranteeing the right to study. Training for the future is a work of high complexity and responsibility that requires constant support over time. It is necessary to establish a career progression system related to the professional development and continuous enhancement of teachers. Particular attention is paid to the development of STEM skills and of digitalisation and innovation, in all grades of education, from childhood and primary to secondary school, with a view to full interdisciplinarity, taking care to ensure equal access to scientific, technological, engineering, and mathematical careers. In addition to the technological and scientific abilities, the aim is to increase the knowledge of foreign languages in order to ensure sound cultural training and greater employment opportunities. Finally, the *'Scuola 4.0'* Project through a massive intervention of innovation and digitalisation of school structures (e.g., wiring, new classrooms and laboratories) will give an important boost to investments and will have an enabling role in many interventions of the cluster, helping to make them more effective.

#### **Professional education and ITSs**

The second major area of intervention concerns the "skill mismatch" between education and the world of labour. This will be done through the extension of skills in schools, universities and businesses and workers. The training offer will be enhanced, in particular in enabling disciplines 4.0, and related to the productive vocation of the reference territory. There will be investments in the technological modernisation and structural dimension of Superior Technical Institutes (*Istituti Tecnici* 

*Superiori*, ITSs), including through the establishment of forms of joint public-private collaboration (e.g., laboratories). Guidance modules will be introduced in high secondary schools. In the university field, there will be a greater impact on educational credits in digital and environmental subjects, also by establishing new PhDs in the same fields and on specific programmes for the productive world.

PhDs courses will be reformed, with simplification of accreditation procedures to strengthen programmes in collaboration with businesses, and international programmes and with foreign universities and institutions. The PhD will be enriched with modules dedicated to the development of business ideas and the economic valorisation of technologies and innovation. Similarly, professionalising degree courses will be used to make them more flexible compared to the needs of companies and suitable to the international tertiary training scenario.

The superior technical institutes will be strengthened with the aim of increasing students by 5 years and creating a greater osmosis between ITS and university courses. Professional tertiary training courses will be opened for university drop-outs and allowing the recognition of university credits to ITS graduates. The coherence of these interventions with those of Mission 5 will be ensured in order to give a boost to the dual system and to apprenticeships, so as to put the most vulnerable individuals back to work through the training apprenticeship contract. Finally, students' educational and university pathways will be improved by strengthening research systems and interaction with business and institutions as well as with culture 4.0.

	Resources (EUR/bn)					
M4C1 – Enhancement of skills – and right to study	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)	
1. Access to education and reduction of territorial gaps	1.60	7.40	9.00	0.45	9.45	
Students' housing	-	100	1.00	-	1.00	
Scholarships and free access to the university	-	0.90	0.90	0.45	1.35	
Full-Time School Fund	-	1.00	1.00	-	1.00	
Reduction of territorial disparities in skills and combating early school leaving	-	1.50	1.50	-	1.50	
Nursery and Integrated Services Plan	1.60	2.00	3.60	-	3.60	
Strengthening childrens schools (3-6 years) and "spring" sections	-	1.00	1.00	-	1.00	
2. STEM skills and multilingualism	1.39	2.73	4.12	0.90	5.02	
Integrated digital didactics and continuing training of schools staff	0.39	0.03	0.42	-	0.42	
STEM skills and multilingualism for teachers and students	-	1.10	1.10	-	1.10	
School 4.0: innovative schools, wiring, new classrooms and laboratories	1.00	1.10	2.10	0.90	3.00	
University advanced didactics and	1.00	1.10	2.10	0.90	3.00	
competences	-	0.50	0.50	-	0.50	
3. Professional education and ITS	-	2.25	2.25	-	2.25	
Development and reform of ITS	-	1.50	1.50	-	1.50	
Vocational training and collaboration universities – territories	-	0.50	0.50	-	0.50	
Active orientation in the school- university transition	-	0.25	0.25	-	0.25	
TOTAL	2.99	12.38	15.37	1.35	16.72	

#### **COMPONENT REFORMS**

- **Reform of the teacher recruitment system.** The reform redesigns the public competitions procedures for recruiting teaching staff, strengthening, in innovative ways, the year of training and testing, through a more effective integration between disciplinary and laboratory training with professional experience in educational institutions.
- In-service training for school staff. The system of compulsory in-service training is realised, through the reform measure introduced, in a system of training modules organised for skills, with compulsory frequency, to which are linked professional training credits expendable for the career progression, according to a meritocratic system of

- valorisation and through forms of provision that find the place of election in a School of Higher Training aimed at all school staff.
- STEM and digital skills in education degrees. The reform consists of the integration into curricular disciplines of activities, methodologies and contents related to developing and strengthening STEM and digitalisation and innovation skills, in all levels of education, from childhood and primary to secondary school, with a view to full interdisciplinarity, taking care to ensure equal opportunities for access to scientific, technological, engineering, and mathematical careers.
- Reform of the ITSs system. The reform strengthens the ITSs system through the strengthening of the organisational and educational model (integration of training offer, introduction of premiums and broadening of pathways for the development of enabling technological skills 'Industry 4.0'), the consolidation of the ITSs in the system of professional tertiary education, strengthening their active presence in the business system of the individual territories. The reform also provides for the integration of the ITSs paths with the university system of professionalising university degrees.
- Reform of technical and vocational institutes. The reform aims to align the curricula of technical and professional institutes to the demand emanating from the productive territories of the country. In particular, it steers the model of technical and vocational education towards innovation introduced by 'Industry 4.0' and incardinating it in the renewed context of digital innovation.
- **Reform of the Counselling system**. The regulatory intervention introduces modules of formation counselling to be included within the overall annual curriculum aimed at the fourth and fifth classes of high secondary school, in order to guide students in the conscious choice of continuation of the course of study or further vocational training (ITSs), preparatory to integration into the world of work.
- **Graduating degrees.** The reform provides for the simplification of procedures for the qualification of the professions, making the graduate exam coincident with the state exam, thereby simplifying and speeding up access to the world of work by graduates.
- Graduation classes. The reform provides for the updating of the discipline for the construction of the educational systems of the degree courses. The objective is to remove the constraints on the definition of training credits to be assigned to the different disciplines, in order to allow the construction of educational systems that allow the strengthening of multidisciplinary skills, on digital technologies and in the environmental field as well as the construction of soft skills. The reform will also expand the professionalising degree classes.
- **PhD reform.** The reform provides for the updating of the PhD discipline, simplifying procedures for the involvement of businesses, research centres in PhD courses, to strengthen the measures dedicated to the construction of PhD courses not aimed at academic careers.
- Innovation of the regulatory framework **linked to university building**, the offer of residences for students and the provision of scholarships.

# 1. Upgrading of skills and right to study

#### 1.1. Student residences

The project envisages investments to enhance housing services for out of town students in order to improve accessibility conditions, acting on income-related barriers with based eligibility mechanisms based on the ISEE of the birth household.

The initiative envisages the use of leverage mechanisms with consequent, low, resource saving or, alternatively, the possibility of meeting a higher demand for housing with equal deployed resources. It is possible to finance infrastructure interventions proposed by metropolitan cities for the redevelopment of degraded and unused public buildings to allocate them to student housin g with reduced fees directed to management and maintenance costs.

#### 1.2. Scholarships and free access to the university

Finance the increase in the number of universities scholarships and reform the system of exemption from school fees for deserving and needy students. This project aims to integrate contribution policies with those for support for study through:

- the extension of the no-tax area to students from families with ISEE less than EUR 23,500;
- increase of scholarships and their extension to a larger proportion of students.

This intervention receives additional resources of EUR 660 million from the appropriations of the Budget Law.

#### 1.3. Full-Time School Fund

The "school-time" will be increased by increasing the space for educational provision and at the same time helping to reconcile the living and working times of families and especially women. This will also be done through the strengthening of preschools (3-6 years) and "spring" sections (24 to 36 months).

The project is financed by EUR 1 billion, and EUR 300 million for operations within the NOP projects.

# 1.4. Reduction of territorial disparities in skills and combating early school leaving

Plan for strengthening "Basic Skills", which pays particular attention to schools that have experienced greater difficulties in terms of school performance – thus differentiating interventions in relation to students' needs. In addition to the support of the school manager with external tutors, in the most critical cases there will be the availability of at least one unit for discipline (Italian, Mathematics and English) and for at least two years. Tutoring and training for teachers are planned. A single national online training portal will support the plan.

The project also includes an investment aimed at combating early school leaving through tutoring, counselling and active and vocational guidance that prevent early school leaving during secondary school and reduce the phenomenon in line with the European parameters of the ET2020 strategy (age group 18-24).

The project also aims to promote social inclusion and, in particular, to ensure the Integrated Digital Teaching for people with sensory and/or intellectual disabilities or in disadvantaged territories.

The intervention is financed with EUR 1.5 billion, EUR 750 million for interventions within the NOP projects and EUR 240 million appropriations of the Budget Law.

#### 1.5. Nursery and Integrated Services Plan

The investment objective is to overcome the target set by the Barcelona European Council of 2002 on achieving a minimum offer of 33 percent for early childhood services by 2026. The achievement of this objective would allow Italy, from the current offer of 25.5 percent, to exceed the European average (35.1 percent).

For the overall implementation of the project, acts will be issued to increase the available resources of the nursery and kindergartens fund (finalising the additional fee exclusively to nurseries), which was established at the Ministry of the Interior by the Budget Law for 2020 (art. 1, paragraph 59, Law No. 160/2019), in order to provide additional and specific financing for the conversion or construction of new services for early childhood. This will be followed by the acts necessary to define the modalities and the procedures for submitting applications for assistance, the allocation criteria and the modalities for the use of resources, monitoring, the eligibility and evaluation criteria (ministerial decree and public notice) for the selection of projects received by the municipalities, and the beneficiaries.

Following the publication of the list of eligible for funding, the beneficiaries will activate their procedures for the signing of the conventions and the start of the conversion and construction work necessary for the creation of additional posts in early childhood services.

This intervention receives additional resources of EUR 300 million from the appropriations of the Budget Law. The interventions will be calibrated according to the possibility of financially compensating the permanent burdens within the overall resources available under the current legislation in the "School System".

# 1.6. Upgrading of preschools (3-6 years) and "spring" sections

Investment for the realisation, redevelopment and securing of childhood schools, including through the innovation of learning environments and environmental sustainability, with the strengthening of the Spring experimental sections (24-36 months) and the establishment of childhood centres, referred to in Legislative Decree No. 65 of 2017.

This intervention receives additional resources of EUR 560 million from the appropriations of the Budget Law.

#### 2. STEM skills and multilingualism

## 2.1. Integrated digital teaching and continuing training of school staff

The project, linked to the "high training school" reform (see component reforms box, second point), provides for the establishment of a system for the continuous professional development of all school staff (managers, teachers and administrative and technical staff) with targeted training interventions, based on a survey of the needs of teachers and school staff updating. The project also envisages the creation of a digital system documenting experiences and training (the "Open badge" professional skills portfolio), the implementation of a skills assessment and training measures for improvement. The intervention includes specific measures for the realisation of an ecosystem of the digital competences of school staff and students in order to promote the development of integrated digital teaching and the adoption of digital curricula in school institutions, also aimed at the priority indicated in the National Reform Programme to open the National Digital School Plan to new scenarios, to strengthen the actions addressed directly to schools, to achieve a full development of the digital skills of students, but also of the whole school, in tune with the European skills framework. There will be involved in the training projects, provided by a national planning, all the 8,000 schools present on the Italian territory. The digital system sofia.istruzione.it will ensure the monitoring and national governance of the project.

It includes the reform High Training School (University – Indire) and compulsory in-service training for school managers, teachers and administrative and technical staff.

This intervention receives additional resources of EUR 400 million from the NOP projects and EUR 140 million from the budget law appropriations.

#### 2.2. STEM skills and multilingualism for teachers and students

The intervention consists of the integration into curricular disciplines of activities, methodologies and contents related to developing and strengthening STEM skills and digitalisation and innovation, at all levels of education, from childhood and primary to secondary school, with a view to full interdisciplinarity, with particular attention to equal opportunities and gender equality in the methodological approach and orientation to STEM subjects.

The programme of development/enhancement of skills involves collaboration with the productive sector. As regards the strengthening of multilingual skills, the intervention consists of actions aimed at pupils and teachers, with an extension of information and counselling programmes and mobility for learning, relating to Erasmus for the period 2021-2027:

- curricular courses for kindergarten, extracurricular courses for primary and low secondary school and a period of study abroad for high secondary school pupils (through initial scholarships).
- the incoming mobility of foreign teachers;
- language and methodological courses for teachers.

A system of digital monitoring of the language skills of our country will also be realised with the collaboration of the relevant certifying bodies.

The project is financed by EUR 1.1 billion, and EUR 250 million is planned for operations within the NOP projects. These resources are also earmarked for the mobility of school staff and students.

#### 2.3. School 4.0. Innovative schools, wiring, new classrooms and laboratories

The intervention aims to promote the strengthening of the digitalisation of schools, also in order to reduce the territorial gaps and to promote access to the technologies of all educational institutions, the creation of innovative learning environments, the digital transformation of the school organisation, including actions for the internal wiring of schools in order to improve connectivity, the provision in classrooms of innovative and advanced tools for digital teaching, the activation in high schools of workshops on the new professions connected to the artificial intelligence, robotics and digitalisation, also fostering collaborations between public and private sectors.

This intervention receives additional resources of EUR 630 million from the appropriations of the Budget Law.

## 2.4. Advanced University Teaching and Skills

The project aims to qualify and innovate, through a set of sub-measures, the university (and PhDs) pathways, by funding initiatives in the field of:

- (T1) Digital innovation in superior formation, also favouring the lifelong learning paths and in collaboration with enterprises.
- (T2) "culture of innovation", strengthening the role of the University High Schools.
- (T3) internationalization.

#### 3. Professional education and ITSs

#### 3.1 Development and reform of the ITSs

The investment is oriented to increase the training offer of the Superior Technical Institutes, strengthening their instrumental and logistical equipment and increasing the participation of enterprises in the training processes for a better connection with the entrepreneurial system. In addition, a national digital platform will be set up to enable students to learn about the job offers for those who obtain a professional qualification.

## 3.2 Professional training collaboration universities – territories

The project aims to implement a program for superior vocational training, which includes the construction of collaborations on a regional basis with the contribution of universities and local branches of professional associations. Increasing the supply of professionalising graduate courses is crucial in this category of higher education, which determines a large part of our country's gap in relation to the European average in terms of the percentage of the population with tertiary qualifications in relation to the total population aged 25-34.

Each regional area will be able to manage different professional degrees in different classes, according to the vocation of local businesses. Collaborations on a regional basis may include the

participation of the ITSs and the creation of paths in synergy with mechanisms for exchange and integration of training paths.

#### 3.3 Active guidance in the school-university transition

The measure consists of an investment programme for students in the fourth and fifth year of high schools, with an expected result of an increase in the transition rate between school and university. It is aimed at an active and vocational guidance towards university education opportunities, through short courses provided by university teachers and school teachers that allow students to better understand the offer of university educational courses and to fill the gaps in the basic skills that are required. In addition, a related objective is also to build a programme, integrated with the previous one, which includes initiatives for the fourth and fifth year of high schools to bring girls closer to the opportunities offered by STEM disciplines and digital disciplines.

#### 4.2 FROM RESEARCH TO BUSINESS

#### Objectives of the component

- Increase public and private spending on research and innovation.
- Strengthening IPCEI initiatives.
- Strengthening technology transfer mechanisms.
- Supporting innovation.
- Foster closer interaction between business and research.

The second component "From research to business" aims to raise the potential growth of the economic system, acting in a systemic way on the leverage of R&D investments, taking into account the territorial differences and the typicality of enterprises. The expected repercussions consist in an increase in the volume of expenditure and a more effective level of collaboration between the public scientific base and the business world.

On the first front, Italy remains, in fact, still far from the performance of other countries, recording an intensity of R&D expenditure compared to GDP (1.4 percent in 2018) much lower than the OECD average (2.4 percent), both in the public and in the private sector (0.9 percent against an OECD average of 1.7 percent – see the following figure).

# Private investment in "knowledge-based" Expenditure on research and development (% of GDP) Private investment in "knowledge-based" (% of GDP) Private Private Private

Source: OECD.

France Germany Spain

Japan

United

Kingdom

United

States

DECD

The lower **number of researchers** in Italy compared to the main advanced countries (only 5.5 per thousand workers, compared to almost 9 in the OECD) and the number of **patents**, normalised according to GDP size, reflects these shortcomings, being less than half the average in OECD countries. As regards the integration of research results into the production system, the fragmentation of the industrial system in micro and SMEs has so far kept demand for innovation low, limiting the potential for use (and its exploitation) of the scientific and technological base already available: In this respect, the volume of research carried out in the public R&D company-

funded system (as a percentage of GDP) is still far from the EU average and very far from the performance of the German industry<sup>3</sup>; Moreover, in 2019, only 2 percent of Italian publications were public/private co-publications compared with 4 percent in the EU.

Strengthening the innovation propensity of our production system implies its higher demand for advanced skills, whose remuneration would increase by supporting the incentive for households to invest in education and training. The result would be a gradual reduction of the current imbalance between supply and demand of high skills, which is an essential condition for smart, inclusive and sustainable growth.

In order to address these challenges, three lines of action are envisaged, covering in detail:

#### Strengthening Research and Development and IPCEI initiatives

A first line of intervention, significantly reinforced, is aimed at strengthening the R&D supply chain in the research system and the economic system, through the empowerment of large research infrastructures; the enlarged partnerships for the development of research projects geared to the strategic innovation challenges facing the country; and the funding of research projects by young researchers. The aim is also to establish hubs for innovation and research and development of IPCEI, with public and private partnerships and investments. Lastly, projects for almost EUR 2 billion were introduced to finance the National Research Programme Fund and the new PRINs (Research projects of national interest), and for EUR 1 billion to the construction and research infrastructure fund, particularly in the South.

Such interventions will make a significant contribution to reducing the gap in research and development spending compared to the most advanced countries, as requested also by eminent exponents of the same Italian research world (*Piano Amaldi*), and will be accompanied by reform initiatives aimed at promoting: the integration and simplification of incentive and facilitation instruments; the greater openness of the school and university system to the business world, including through a change in technology transfer centres at universities.

#### **Technology transfer and innovation support**

The second line of action aims to strengthen the system of production of scientific results by improving the competitiveness of research institutions, creating an attractive ecosystem for international flows of creative talent and by retaining within the national system skills that would otherwise be destined to pursue their career elsewhere.

Some "innovation ecosystems" are introduced around R&D "territorial systems", a new model similar to that of the "Fraunhofer", that is a network of applied research institutes spread throughout Italy, through public-private funding (with different shares in the various scientific fields, up to 30 percent public and 70 percent private) aimed at ensuring the full osmosis between research and its industrial application. Investments are also included in the strengthening of research facilities and the creation of R&D "national networks" on some enabling technologies (Key Enabling Technologies). Innovation ecosystems are strengthened through the construction of

<sup>&</sup>lt;sup>3</sup>European semester thematic factsheet Research and innovation.

a selected network of research dual facilities in strategic areas such as life sciences, materials science, digital technologies, according to public-private partnership schemes.

In addition to long-term innovation benefits, there would also be a leverage effect on the country's overall capability to recover large European Competitive Funds in Horizon Europe and ERC. The creation of cutting-edge research dual structures , laboratories with new generation machinery is, for example, an incentive to attract young talents and increase the share of European research funding.

Support for innovation by SMEs is also stimulated through the establishment of PhDs dedicated to the specific R&D needs of business.

Finally, the projects of this component will allow to encourage innovation through the systemic use of research results by the whole productive system, including SMEs who traditionally find it hard to participate in these virtuous processes.

#### **COMPONENT REFORMS**

- Reform to support R&D promotion interventions
- Upgrading of large research infrastructures at research institutions and institutes and universities to make them accessible to production chains. The reform aims to enhance the capacity to implement interventions by acting on three fronts: 1) approach to supporting R&D activities, introducing a model based on a few priorities of horizontal nature around which to aggregate interventions covering the whole chain, ensuring continuity in the financing of initiatives; 2) simplifying the modalities of management of funds for public-private partnerships for research activities; 3) strengthening, by the Ministry of University and Research, of technology transfer centres at universities and research institutions, stimulating the definition of operating models that aim to improve collaboration between public and private research, according to successful good practices in other countries (e.g. Fraunhofer Institute in Germany).
- Construction of innovation ecosystems and national thematic networks, around the strategic innovation challenges for the country, through collaboration between the world of research, the productive world, institutions and companies, to promote the contamination between advanced training, basic research, oriented research, innovation and dissemination of research results.
- Reforms to support the attractiveness of researcher positions, with reference to the availability of research funds and mobility between offices and foreign institutions.

	Resources (EUR/bn)				
M4C2 – From research to business	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)
1. Strengthening Research and Development and IPCEI initiatives	1.38	5.91	7.29		7.29
Enlarged partnerships extended to universities, research centres, enterprises and funding					
basic research projects	-	1.61	1.61	-	1.61
Funding young researchers	-	0.60	0.60	-	0.60
Agreements for Innovation	-	0.70	0.70	-	0.70
IPCEI, Partnerships in Research and Innovation	-	1.00	1.00	-	1.00
National Research Programme Fund	0.45	0.40	0.85	-	0.85
New PRINs – Researches on topics of major national interest	0.35	0.60	0.95	-	0.95
Fund for Constructions and Research Infrastructures	0.58	1.00	1.58	-	1.58
2. Technology transfer and support for innovation	-	4.00	4.00	0.48	4.48
Innovation ecosystems and territorial champions of R&D Strengthening research facilities and creation of national R&D	-	1.30	1.30	-	1.30
samples on Key Enabling Technologies (Agritech, Fintech, IA, Hydrogen, Biomedics)	-	1.60	1.60	-	1.60
Upgrading and thematic and territorial extension of technology transfer centres by industry segments	-	0.50	0.50	-	0.50
Innovative PhDs for business and placement of researchers in companies	-	0.60	0.60	-	0.60
PhDs and researchers green and innovation	-	-	-	0.48	0.48
TOTAL	1.38	9.91	11.29	0.48	11.77

# 1. Strengthening Research and Development and IPCEI initiatives

# 1.1 Enlarged partnerships extended to universities, research centres, enterprises and funding research projects

To finance R&D projects, within the framework of 10 "missions", involving the participation of enlarged partnerships – extended to universities, research centres, companies – able to cover the full spectrum of the level of technological maturity (from basic research to industrial research, to experimental development).

R&D projects also envisage investment by universities in new fixed-term researcher positions, to allow the conduct of the research activities envisaged by the projects themselves and to increase, in the long term, the appropriate skills to meet the innovation challenges outlined by R&D projects.

#### 1.2 Financing young researchers

Funding – on the model of ERC calls, in Horizon Europe's pillar Excellent Science — research activities run by young researchers for 5 years, in order to enable them to gain a first experience of research responsibility. The project also includes a programme of short periods of mobility for research or didactics of university teachers at other locations, encouraging exchanges at less-favoured offices or abroad, with the aim of enhancing the mobility of teachers. This intervention receives additional resources of EUR 200 million from the NOP projects.

#### 1.3 Agreements for Innovation

To finance, through a negotiating instrument, research and development projects capable of experimenting and introducing high-profile innovative solutions, including through collaboration with technology transfer centres, research and knowledge dissemination organisations.

# 1.4 Initiatives on the model of IPCEI Partnerships in Research and Innovation – Horizon Europe

The measure provides for public support (through incentives) to the participation of Italian companies in strategic value chains through initiatives such as IPCEI and Partnerships in Research and Innovation – Horizon Europe. In detail, IPCEIs, which apply in <u>six</u> strategic European value chains, allow the pooling of knowledge, expertise, financial resources and economic actors across the whole Union, fostering collaboration between the public and private sectors for large-scale projects. The Partnerships in Research and Innovation – Horizon Europe aim to support research, development and innovation projects identified with specific calls, in conjunction with EU counterparts, for participation in research and innovation partnerships.

#### 1.5 National Research Programme Fund

The purpose of the Fund is to strengthen the supportive measures for scientific research set out in the National Research Programme (NRP) 2021-2027 in order to ensure the implementation of the scientific research strategy lines in line with the European Union's Research and Innovation Framework Programme.

#### 1.6 New PRINs – Research on topics of major national interest

To finance three-year research projects, to promote the national research system, strengthen the interactions between universities and research institutions and encourage Italian participation in initiatives within the framework of the European Union's Research and Innovation Framework Programme. Each project must have a maximum cost of EUR 1,200,000 and a number of research units from 1 to 5.

#### 1.7 Fund for Construction and Research Infrastructure

The Fund for Construction and Research Infrastructures will finance interventions in research facilities and infrastructures with particular attention to the South.

This intervention receives additional resources of EUR 420 million from the appropriations of the Budget Law.

### 2. Technology transfer and innovation support

#### 2.1 "Ecosystems of innovation" and "territorial champions of R&D"

Finance the creation of 20 "territorial champions of R&D" that, characterised by a specialisation linked to the productive and research vocations of a territory, put into a system, around an excellence (typically, University or Research Centre/Infrastructure), scientific competences and facilities, promoting, according to a market-oriented approach, the link between research and industry.

An important component in the structuring and strengthening of some interdisciplinary "innovation ecosystems" is the realisation of new digital infrastructures, with integration of artificial intelligence, quantum technologies, advanced materials, advanced methods of mathematical analysis and artificial intelligence applied to the business, with the provision of services to companies and research facilities and, moreover, with the support of the development of innovative enterprises. Innovation ecosystems will be able to exploit public private partnerships (PPPs) to develop research and innovation dual infrastructures (used by public structures and businesses), based on pilot lines, for example for the development of new materials and devices, for quantum technologies, health technologies and renewable energies. The aim is to generate relevant research infrastructures for many key applications: development of fifth (5G) and sixth generation (6G) communication systems, increasing data speed by a thousand, with a safe, reliable and low latency service, with lower energy consumption than today; super calculation; new medical diagnostics, integration of biology with artificial intelligence, quantum technologies and new materials.

The research infrastructure network will support the opening up of new development and innovation trajectories. In this infrastructure advanced teaching will be integrated (innovative masters and PhDs for companies and placement of researchers in companies), as well as research, public-private laboratories and third sector, to strengthen the social and economic impacts. The availability of a pilot line will facilitate the participation of Italian companies in European and international collaborations on innovation projects and technological hubs. Dual infrastructures, where relevant for the structuring of innovation ecosystems, will be based on public-private partnership schemes, to mobilise expertise and capital capable of assessing the sustainability and feasibility of each operation. The combination of public guarantees and financing with loans from the European Investment Bank, private and industrial capital will allow the optimal implementation and management of infrastructure.

In detail, the project, which resumes and is inspired by some successful experiences (such as the University Pole of Federico II University in San Giovanni a Teduccio), covers a wide spectrum of collaboration between companies and research organisations: upgrading of research infrastructures, places of teaching and training, especially innovative such as academies, multidisciplinary laboratories, mixed innovative spaces to host innovative companies and startups, places for contamination with the territory, including operators in the third sector.

# 2.2 Upgrading research facilities and creation of "national champions of R&D" on some Key Enabling Technologies

Finance the creation of 7 active centres in as many frontier technological domains by strengthening the provision of research infrastructures and highly qualified personnel. In detail:

- National Centre for Artificial Intelligence (the Institute will be based in Turin).
- National Centre of High Technology Environment and Energy.
- National Centre of High Technology quantum computing.
- National Centre of High Technology for Hydrogen.
- National Centre of High Technology for Biopharmaceuticals.
- Agri-Tech National Centre (the Agri-Tech Polo will be based in Naples).
- Fintech National Centre (the Polo will be based in Milan).
   It is expected that around half of the investments will be located in the South.

# 2.3 Upgrading and thematic and territorial extension of technology transfer centres by industry segments

Finance, also through a process of reorganisation and rationalisation, the centres (Centres of Competence, Digital Innovation Hubs, Points of Digital Innovation) responsible for the provision to companies of advanced technological services and innovative services qualifying for technology transfer.

In addition to support for technology transfer, NOP resources of EUR 400 million are earmarked for innovative investment projects for small and medium-sized enterprises.

# 2.4 Innovative PhDs for businesses and placing of researchers in business

Finance the enhancement of high-profile skills, particularly in the areas of Key Enabling Technologies, through:

- (T1) the establishment of dedicated PhD programmes, with the contribution and involvement of enterprises, including by encouraging research spin-offs.
- (T2) incentives for the recruitment of junior precarious researchers by companies.

It is also planned, in collaboration with national institutions, the creation of a hub aimed at supporting the technology transfer from research to the real economy and the economic valorisation of research produced by industrial doctorates, favouring the creation of spin-offs.

This intervention receives additional resources of EUR 100 million from the NOP projects.

#### 2.5 Green PhD and researchers and innovation

There will be the activation of PhD courses consistent with eco-sustainability and innovation and digitalisation strategies, funded with REACT-EU resources for EUR 480 million, plus EUR 200 million for interventions within the NOP projects.

Under this heading there is also the project "Innovative investments SMEs" of EUR 400 million within the NOP.

# 5. INCLUSION AND COHESION

# General objectives of the mission

- Strengthening active employment and training policies for the employed and unemployed.
- Increase quality youth employment by strengthening the dual system.
- Supporting female entrepreneurship as an instrument of economic autonomy
- Strengthen the universal civilian service and maintain the number of available positions.
- Increase the quantity and quality of social infrastructure for minors, elderly people and people with disabilities.
- Rehabilitate and regenerate buildings and urban areas, with particular attention to suburbs and internal areas of the country.
- Renovation and provision of home automation investments of dwellings to be allocated to independent life paths of the elderly who are not self-sufficient and persons with disabilities;
- Construction of sports facilities and equipped urban parks, which tackle urban degradation, promote the socialisation of young people, and address social marginalisation;
- Expansion of public housing and flat-rate housing, including for students (social housing) and housing at lower prices than market prices.
- **Special interventions for territorial cohesion** aimed at reducing the impact of the crisis and creating the conditions for fair and resilient development in specific territorial areas.

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This mission plays a major role in the pursuit of the objectives spanning across the RRP, of supporting women's empowerment and the fight against gender discrimination, increasing the skills and employment prospects of young people, restoring territorial balance and development in the Mezzogiorno and inland areas.

Priority attention is given to policies to support employment transitions and employment with a focus on the quality of jobs created.

In order to accompany the modernisation of the country's economic system and the transition to a sustainable and digital economy, it is envisaged a strong support for job creation, training and retraining of workers, as well as for income during employment transitions (the wage supplementation fund and unemployment benefits are financed in budgetary law and the reform of the social shock absorbers will be carried out in compliance with the financial sustainability required by the Country Specific Recommendations). Italy intends to address the lack of

investment in skills, and the ensuing slowdown in the transition to a knowledge-based economy. In this mission, investments are planned in upskilling, reskilling and life-long learning of workers and companies, which aim to relight productivity growth and improve the competitiveness of Italian SMEs and micro-enterprises, lagging behind those of other European countries. Training and upgrading of skills, in particular digital, technical and scientific skills, will improve the mobility of workers and provide them with the capacity to meet the future challenges of the labour market also posed by the green and digital transitions. Investment is planned to strengthen active labour policies and specific measures to promote youth employment through dual apprenticeship (joining training and work) and universal civil service. The increase in the number of young people who have access to the opportunity provided by civil service is accompanied by an increase in the quality of the programmes and projects in which young people are engaged.

Specific support for women's entrepreneurship is also introduced, with the aim of promoting women's economic independence, and which can represent an important contribution to supporting women victims of violence in their path towards economic autonomy.

Despite the important efforts made in recent years, social and support policies of the family need to be significantly strengthened, including them in an organic planning, which also aims to overcome the considerable territorial gaps existing, with the aim of improving social equity, intergenerational solidarity and the reconciliation of private life and working time.

To this end, the choice of allocating substantial resources to social infrastructure, which is instrumental in implementing policies in support of minors, people with severe disabilities and the elderly who are not self-sufficient, contributes decisively. These are interventions aimed at promoting socialisation, supporting independent life paths, and preventing institutionalisation, including through the restructuring of housing that exploit innovative technologies to overcome the physical, sensory and cognitive barriers that impede the autonomous performance of the acts of daily life. This type of project will be complemented by services financed from PON funds. It should also be emphasised the possible integration with the monetary support measures contained in the *Family Act*, with particular reference to the Single and Universal Child Allowance.

The strengthening of social infrastructure helps to reduce the wide gaps in care opportunities that characterise our country and which are the basis of the processes of reproduction and widening of social, economic and territorial inequalities. Through the recognition of the social value of care activities, they will also achieve the twofold objective of reducing the burdens of care traditionally managed in the family sphere, with a strongly unbalanced distribution among genders – thereby stimulating greater participation of women in the labour market – and fostering a higher demand for work in a sector where the presence of women is higher.

The construction or renovation of existing buildings (public or private), intended to be occupied by people with severe disabilities or by elderly people who are not self-sufficient, go hand in hand with other interventions of urban regeneration, with important effects on the re-weaving of the urban fabric, especially peripheral, and with a significant impact in the internal areas of the country.

Inclusion policies, which are primarily dedicated to the most vulnerable sections of the population, in conditions of social marginality, are supported through interventions aimed at enhancing residential public housing and *temporary* housing (such as temporary accommodation for homeless or economically disadvantaged individuals), but also social housing *aimed* at offering low-rental housing, for example, to students or single-income families.

An important role is also played by enhancing the role of culture and sport in social inclusion and well-being.

In the definition and implementation of projects of social and territorial significance of this mission will be enhanced the role of local authorities and in particular of metropolitan areas where the conditions of social hardship and vulnerability are more widespread. The involvement of local authorities is essential in order to ensure permanent base funding for services provided through their structures and operations, and not relying on resources coming from the RRP, which are to be properly strengthened during the budgetary planning of the next few years.

Public intervention will also be able to make use of the contribution of the Third Sector through the planning in co-design of services, taking advantage of the synergy between social enterprise, volunteering and administration, thus working a more discerning reading of inconveniences and needs in order to detect new marginalities and provide more innovative services, in a mutual exchange of skills and experiences that will enrich both the PA and the Third Sector.

The RRP pursues across all missions the objective of reducing territorial disparities. In addition, this mission includes some actions focusing on strengthening specific actions aimed at reducing the impact of the crisis and creating the conditions for fair and resilient development in specific territorial areas: the Mezzogiorno, the internal areas of the country, the territories subject to earthquakes.

Reducing disparities between citizens and between territories is a national priority for a more united and fairer Italy, it is the real opportunity to restart strong and sustainable development, to resume investing by activating latent growth and innovation potential, to create good job opportunities, especially for young people and women, in marginal territories.

The mission is set out in 3 lines of action (components) with regard to investment:

- Employment policies
- Social infrastructure, families, communities and third sector
- Special measures for territorial cohesion

These lines of action, which take into account and respond to the recommendations of the European Commission No 2 for 2019 and 2 for 2020, will be accompanied by a series of **reforms** that support and complement the implementation of investment.

#### TERRITORIAL, GENERATIONAL AND GENDER IMPACT

The actions envisaged in this mission will have a strong impact on the three horizontal dimensions envisaged in the Plan: gender gaps, youth and South. In particular, the strongest impacts will be on the employment rate in terms of quality and quantity.

As far as women are concerned, this is mainly through investment in social infrastructure and the progressive activation of related services, which favours women's employment both in terms of supply and demand. Support for women's entrepreneurship will contribute to the same outcome. The territorial rebalancing of this type of investment will have the further effect of helping to reduce the employment gaps between north and south of the country.

Actions on active labour policies and training, which aim to improve the functioning of the labour market through the priority instrument of creating and exploiting skills with a strong investment in education and training policies (dual apprenticeship), will mostly benefit the new generations, and, together with the strengthening of universal civil service, will also help to reduce the number of NEET, among whom there is a significant gender gap.

Measures in support of the South that strengthen the provision of essential services and bridge the gap in connectivity and digitisation in marginal areas are aimed at increasing the attractiveness of territories at greatest risk of depopulation, increasing job opportunities and affirming the right to stay for the new generations, improving the employability of women. Networking Universities and innovative companies triggers virtuous processes of technological and social innovation in urban contexts to be regenerated in the South and has direct effects on the qualified human capital of young people and women. Enhancing the assets confiscated from the mafias with the Third Sector contribution contributes to the creation of a new social awareness on the issues of fighting organised crime.

The effects of this mission as a whole will improve the following indicators:

- Provision of essential public services in marginalised areas;
- Investment in research and development in the Mezzogiorno;
- Territorial differences in employment and unemployment rates;
- Female employment rate of only 50.1 % in 2019, and almost 18 percentage points lower than for men;
- gap in the employment rate between women aged 25-49 with preschool children and women without children: for the former, this rate is only 74,3 % of the latter;
- Youth unemployment rate, which is 29.2 % for young people aged 15-24 and 14.8 % for those aged 25 and 34;
- Neet incidence among young people:27.9 % of women and 19.9 % of men,
- Employment rate in the South, which is 44.8 % compared with 67.9 % in the north,
- The net migration balance from the south, which in the last 20 years has been around 1 million people,
- The proportion of 18-24 years old Italians who has at most a lower secondary qualification and is already outside the education and training system is 13.5% (561 thousand young people), a value higher than the European benchmark set at 10%.

#### 5.1 POLICIES FOR WORK

# Objectives of the component

- Supporting employment levels, in particular youth, through the definition and extension of
  active labour policy measures in support of skills acquisition for adaptation to changes in the
  labour market and relocation;
- Addressing the misalignment between the skills held by workers and the skills needs of
  enterprises through agreements at different levels of government and between the various
  relevant state and regional administrations, in order to ensure access to adequate and quality
  training throughout the national territory, by establishing uniform standards and
  strengthening the system of certification of competences (National Plan of New Skills);
- Meeting training and work needs for young people with dual apprenticeships for young people;
- Promoting the economic autonomy and self-entrepreneurship of women with support for women's entrepreneurship;
- Support the activation of the Universal Civil Service for young people in the 18-28 age group and the acquisition by these of key skills (soft skills)

The component," *labour policies*", aims to accompany the transformation of the labour market with appropriate tools to facilitate employment transitions, to improve the employability of workers and to raise the level of protection through training.

The strategic objective of this component is to increase the employment rate by facilitating job transitions by equipping people with adequate training; reduce skills mismatch (and thus address NEETs); increase the quantity and quality of continuing training programmes for the employed and the unemployed.

To this end, active labour policies are reviewed, spanning from the relocation allowance to the establishment of a national programme ("Workers' Employability Guarantee" – GOL) providing for a single system of taking care of both the unemployed and persons in transition in employment which combines the profiling of work services with training. Employment centres are to be strengthened and are integrated with the education and training system through the network of private operators. Specifically, action will be taken in the redefinition of the tools for taking care of the unemployed with active policies that, starting from the profiling of the person, allow the construction of personalised paths for retraining skills and accompanying work. At the same time, training standards will be set for the unemployed in employment centres and the strengthening of the vocational training system in Italy, promoting a territorial network of education, training and work services, including through public-private partnerships (including in the forms of *industry academy*). For employed workers, the Fund is provided for new skills in order to allow companies to remodel the working hours of workers in order to facilitate training activities on the basis of specific collective agreements with the trade unions.

There is a project to support women's entrepreneurship and a measure to stabilise dual apprenticeships combining training and work for young people. Finally, the Universal Civil Service

is strengthened with the aim of having a higher number of young people who, through the Civil Service, complete a non-formal learning path through which they increase their knowledge and skills and are better oriented to the development of their professional life.

These actions are aimed at promoting new skills and facilitating the entry of young people into the labour market and are complemented by incentives for recruitment through decontribution measures for employers (financed in the budget law).

Overall, these operations benefit from additional resources of EUR 1 billion and 650 million from the PON projects and EUR 24 billion and 650 million from the budget law appropriations.

#### **REFORMS**

Reform 1. Active labour policies and new skills of workers. The aim is to reform active policies through the full integration of skills retraining pathways to support workers in transition in employment through the establishment of a national "employment guarantee" programme (GOL). In particular, the aim is to strengthen employment centres so that they can systematically and extensively carry out activities to analyse skills needs, to build training plans and, therefore, to guide and accompany work in a system involving both public and private entities. Starting from the review of the relocation allowance (already financed in the budget law), a single profiling system will be set up at national level and a service offering will complement training for professional updating, retraining or retraining, including through paths that allow the acquisition, through recognition of credits, of professional qualifications and diplomas, of higher technicians' diplomas and professional degrees. The modalities for calculating eligible expenditure, process and result reimbursement and relationship with private operators are defined at national level but the programme will be managed in agreement with the Regions. The reform will be partially funded by REACT-EU.

Reform 2. The strengthening of active policies will be accompanied by a national strategic intervention to reorganise the training of workers, employed and unemployed. The vocational training system in Italy will be strengthened by promoting a territorial network of education, training and work services, including through public-private partnerships to develop a lifelong learning system (life-long learning, reskilling and upskilling). In close coordination with the regions, the objective of the reform is to define the quality standards for the training activities that need to be activated, in relation to the profiling system established at national level. It is proposed to set standards for the training of beneficiaries of income support instruments for the unemployed (NASPI, DIS-COLL), i.e. beneficiaries of nationality and long-term unemployed income, as well as for workers benefiting from extraordinary instruments or derogating from wage integration (CIGS, cessation fund, derogating treatment in complex crisis areas).

	Resources (EUR/mld)					
M5C1 – Work Policies	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
Active labour policies and support						
for employment	0,40	5,60	6,00	1,50	7,50	
Active labour policies and training	0,40	2,60	3,00	0,50	3,50	
Support for women's						
entrepreneurship	-	0,40	0,40	-	0,40	
Dual apprenticeship	-	0,60	0,60	-	0,60	
New Skills Plan	-	2,00	2,00	1,00	3,00	
Tax advantage for work in the south and new recruitments of						
young people and women **	-	-	-	4,47	4,47	
Universal Civil Service	0,40	0,25	0,65	-	0,65	
TOTAL	0,80	5,85	6,65	5,97	12,62	

Notes: (b) includes DCF resources already foreseen, to be targeted at specific interventions.

#### **New Skills Plan**

A lifelong learning system (life-long learning, reskilling and upskilling)will be developed through the strengthening of the system of vocational training centres, inter-professional funds (which can also provide training for the unemployed), ITS, Provincial Adult Education Centres (CPIAs) and universities (which will also be able to offer courses for the employed and unemployed). Existing tools using dual learning modes (IeFP, IFTS, ITS, professionalising pathways involving universities) will be enhanced and public-private partnerships will be encouraged with the activation of synergistic networks between stakeholders, including in the form of industry academies, in line with the recent Skills Agenda for Europe. For employed workers, the Fund "nuove competenze" (new job skills) is set up with a view to enabling companies to reshape workers' working hours in order to encourage training activities on the basis of specific collective agreements with trade unions. In this way, having identified the training needs for the specific company, the sector or the territory, it ensures the professional updating required by putting in charge of the resources of the Fund the cost of the hours spent in training. The costs of training (teachers and classrooms) are still borne by companies, for which the use of the inter-branch funds is possible. The new Fund can also be accessed by companies already drawing from the wage supplementation Fund; and, when allotments are aimed at coping with structural restructuring or crises, the training activities promoted are crucial to accompany labour relocation processes or to help the transition to new employment. This intervention is partially funded by REACT-EU for 1 billion.

#### **Supporting Women's Entrepreneurship Activities**

The project, in its dual nature, of reform and investment, aims to systematise and redesign the current instruments to support the start-up and implementation of innovative business projects for companies run by women or predominantly female participation already established and operating (digitalisation of production lines, transition to green energy, etc.). Accompanying

<sup>\*\*</sup> Financing with REACT-EU.

measures (mentoring, technical and management support, measures for the reconciliation of life and work, etc.), multimedia communication campaigns and events and monitoring and evaluation actions will be complemented by the instrument of the "Fund in support of women's entrepreneurship" already provided in the 2021 Budget Law.

# Dual apprenticeship.

Further specific actions are planned to facilitate the entry of young people into the labour market. It is planned to strengthen the dual system with the aim of making education and training systems increasingly synergistic with the labour market, with a view to fostering the employability of young people through the acquisition of new skills, with the modality of learning on the job spendable on the labour market. The aim is to set up training paths that meet the needs of the companies, providing the productive fabric with the range of competencies it needs to reduce the mismatch between skills required in the labour market and those out of education and training paths in order to get out of the crisis and to engage in recovery.

#### **Universal Civil Service**

It will be strengthened in order to increase the quality of the projects and the number of young people (with a target of 80 thousands volunteers during the period of operation of the RRP) involved in activities that contribute to the improvement of the country's social cohesion. The specific objectives of the project are as follows: *Have* a larger number of young people who, through the Civil Service, carry out a non-formal learning pathway, through which they increase their knowledge and skills and are better oriented towards the development of their professional life; *To disseminate* the value and experience of young people's active citizenship as an instrument of social inclusion and cohesion; *Implement*, through the projects in which volunteers work, more effective social interventions in the territories, including intercepting the dimension of the transition to green and digital; *Implement community services* to make the country more resilient but also to mitigate the social and economic impact of the crisis.

# 5.2 SOCIAL INFRASTRUCTURE, HOUSEHOLDS, COMMUNITY AND THIRD SECTOR

# **Objectives of the component**

- Strengthening social infrastructure for children, older people and people with disabilities, to improve their quality of life, and to promote women's employment
- Accelerate the processes of deinstitutionalisation and prevention of institutionalisation in order to improve the autonomy of people with disabilities and/or non-self-sufficient, including developing high-tech residential solutions (e.g. home automation);
- Improve the protection system and inclusion measures for people in extreme marginalisation (e.g. homeless persons) and housing deprivation through a wider range of facilities and services;
- Recognising the role of sport in social inclusion and integration as a tool to counter the marginalisation of local actors and communities;
- Integrate national policies and investments covering both the availability of more accessible public and private homes and urban and territorial regeneration.

This component aims to provide tools through which the "social" calls and guides health, urban and housing policies, childcare services for the elderly for the most vulnerable, those of training, work, support for families, safety, multiculturality, equality between genders.

The aim is to intervene to avoid the emergency that arises when it has not been possible to prevent the risks of exclusion.

In particular, this component aims to pinpoint and support situations of social and economic fragility, to support families and parenthood. A specific line of intervention is designed for people with disabilities or non-self-sufficient and provides for the increase of infrastructure (e.g. temporary housing solutions for people with severe disabilities, day centres, places of support and socialisation for the elderly fragile, family homes to support child distress) and the provision of services and networks of territorial assistance. One of the objectives is to accelerate the process of deinstitutionalisation and prevent institutionalisation through autonomy paths accompanied by integrated services of home care, also creating customised housing solutions equipped with advanced technological support. Furtermore, the planned intervention entails projects aimed at addressing the main social vulnerabilities in the areas of material poverty, housing discomfort, through the strengthening of social services, the adoption of innovative models for taking care of the most fragile subjects and social housing initiatives, also in the face of more complex situations (family nuclei in temporary difficulty, homeless) and strengthening social housing initiatives.

Support **for housing policies** at lower (sustainable) prices than those of the market (*affordable housing*) is also envisaged as a leverage mechanism operated by investing in target funds that are aimed at implementing the *social housing* project.

Special attention is given to interventions of urban regeneration, also as a tool to support prominently youth inclusion, and the reverse of social and environmental degradation. A strategic role is given to the redevelopment of sports facilities, aimed at ensuring the strengthening of the role of sport in terms of inclusion and social integration.

The development of social infrastructure envisaged in this component, with a significant focus in the Mezzogiorno, is particularly relevant in relation to women's employment and the release of part of the time that women devote to nursing work.

#### **REFORM ACTIONS**

Acceleration of the implementation of the reform of the third sector The completion of the reform of the third sector still lacks important implementing decrees. The aim is to speed up its implementation and at the same time assess the effects of the reform on the whole of the region.

M5C2 – Social	Resources (EUR/mld)					
infrastructure, families, communities and third sector	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
Social-assistance services, disability and marginality	-	3,45	3,45	0,38	3,83	
Social infrastructure in the municipalities and involvement of the Third Sector	-	2,50	2,50	0,10	2,60	
Autonomy paths for the disabled	-	0,50	0,50	-	0,50	
Temporary Housing and Post Stations	-	0,45	0,45	0,28	0,73	
Interventions under the Family Act ***	-	-	-	-	-	
Urban Regeneration and Social Housing	3,30	3,00	6,30	_	6,30	
Urban regeneration	2,80	0,70	3,50	-	3,50	
Social housing	0,50	2,30	2,80	-	2,80	
Sports and suburbs	-	0,70	0,70	-	0,70	
TOTAL	3,30	7,15	10,45	0,38	10,83	

<sup>\*\*\*</sup> Family Act financed with 30.5 billion allocated by the Budget Law.

# 1. Social welfare services, disability and marginality

- 1.1 Social infrastructure for minors, elderly people and people with disabilities, with particular regard to the prevention of vulnerabilities of families and minors. Overall, this investment is worth EUR 2.5 billion during the run-up to the RRP, plus EUR 100 million from the REACT-EU. The planning is entrusted to local authorities in synergy with the Third Sector, with attention to the necessary territorial equalisation in the distribution of these infrastructures.
- 1.2 Improved social services for people with disabilities to support the deinstitutionalisation process and prevent institutionalisation by supporting home care. The plan proposes the definition of personalised care projects, which identify the different needs, increasing the number of accompanying paths towards autonomy, including through direct support for the renovation of housing, equipping them with technologically advanced tools. The strengthening of the various home care measures, the related activation of devices to promote distance work and the professional retraining of persons with disabilities will facilitate access to the labour market.

This intervention receives additional resources of 200 million from the PON projects.

1.3 Temporary housing schemes (up to 24 months) for individuals or households in extreme difficulty with simultaneous actions to facilitate the exit from care paths. In larger urban centres, projects are planned for people with extreme marginality and homelessness. In the structures created and dedicated to the overnight or temporary reception (Post Stations) will operate multidisciplinary teams that will take care of the users and with an integrated sociohealth approach, will encourage their integration into the world of work.

This intervention receives additional resources of 150 million from the PON projects.

#### 2. Urban Regeneration and Social Housing

- 2.1 Interventions promoted by Metropolitan Cities aimed at urban regeneration and refunctionalisation of the existing building heritage, with particular attention to the suburbs. It is proposed to contribute to the reduction of housing and settlement difficulties with particular reference to the existing public heritage and to the redevelopment in neighbourhoods without services. The plan also provides for the preparation of a "pilot project" with a high strategic impact for urban recovery. The increase in public housing assets will be pursued through the implementation of the National Innovative Programme for the Quality of Housing and investment in social housing.
- **2.2 Interventions** promoted by municipalities for urban regeneration to reduce situations of social exclusion and degradation. The projects intervene on quality and urban decor, finalising the recovery to the improvement of the social and environmental context.
- 2.3 Projects aimed at land recovery and increasing the availability of public housing in order to support vulnerable people and low-income households and investments and to expand the supply of public housing and flat-rate housing, including for students (cd. Social Housing). The actions will be accompanied by measures to ensure transparency, legality and fairness and a

leverage mechanism is envisaged with investment in target funds that propose *social housing* projects.

# 3. Sports and suburbs

Regeneration of peripheral areas, integrating urban recovery with the construction of sports facilities. This is a model of action to combat urban degradation through the recovery of sports infrastructure and the construction of equipped urban parks. This will also promote sport as a means of addressing exclusion and helping socialisation, especially among young people.

It is intended to take preferential action on the most deprived communities, through measures and interventions consistent with policies and strategies in support of the green and digital transition, promoting the demands of economic, social, territorial and national and European cohesion, as well as strengthening the capacity for economic and social resilience and mitigation of the social and economic impact of the crisis induced by the continuing covid-19 pandemic.

These operations benefit from additional resources of 180 million from the appropriations of the Budget Law.

#### 5.3 SPECIAL TERRITORIAL COHESION MEASURES

# Objectives of the component

- Strengthening the National Strategy for Inner Areas, through measures to support the improvement of levels and quality of school and health services and social infrastructure, and youth entrepreneurship,in particular in the tourism and agri-food sectors.
- Strengthening the international vocation and propensity to research and innovation of
  the economy and society of the Mezzogiorno, through the creation of Ecosystems of
  innovation in urban contexts to be regenerated, able to respond to the challenges posed by
  twin transitions (digital and green) and to the strengthening of collaboration between
  companies, institutions and research organisations and citizens.
- Economic and social valorisation of the reuse of property confiscated from the mafias.
- Investments for the sustainability of the areas affected by earthquakes in order to strengthen economic activities, respecting the vocation of the territories; promoting the ecological transition; boost the diffusion of the circular economy; recover infrastructural equipment in use or disused.

The third component, "Special Interventions for Territorial Cohesion", does not exhaust the objective of reducing territorial disparities, which the RRP pursues across all missions, but focuses on strengthening specific interventions aimed at reducing the impact of the crisis and creating the conditions for fair and resilient development in particular territorial areas: the internal areas of the country, the territories affected by earthquakes, the urban contexts to be regenerated through technological and social innovation in the Southern regions.

In the twenty-year period of Italian stagnation, the geography of territorial disparities became complicated:alongside the rift between North and South, across the country the divergence between centers and suburbs, between cities and deindustrialised countryside, between urban areas and inland areas has increased. A new territorial policy for proximity to places must be strengthened in order to respond to the new "national" connotation of territorial cohesion, trying to restore protagonism to areas marginalised by public policies, which require renewed attention to guarantee essential services and relaunch productive vocations. Policies that allow accessibility and mobility in inland areas and the availability of school, health and social services in line with the rest of the country need to be strengthened.

In the field of innovation and research it must necessarily be strengthened the role of public policies in the creation of contexts that promote the rooting in the territory of universities and their proximity and collaboration with local and external enterprises for applied research and knowledge transfer activities. As emphasised in the South Plan 2030, the environmental and socioeconomic redevelopment of urban areas affected by distress/degradation is central in order to create the conditions for the establishment of innovative enterprises, for the attraction of talents and in the processes of technological transformation of the production system of the Mezzogiorno. The South Plan 2030, in particular, identifies as a reference model for the promotion of innovation replicable in other Southern Regions the University Pole of San Giovanni a Teduccio: an experience

of urban redevelopment and economic and social revitalisation with a view to improving the living and working conditions of residents and integrating the redeveloped sites into the fabric of the reference territory.

The strategy for the recovery and redevelopment of property confiscated from the Mafia is a very important and symbolic element. In the South Plan 2030, the prevention and combating of corruption and organised crime are identified as priority areas of policy intervention, recognising the economic and social value of the reuse of confiscated assets with particular reference to the southern territories.

#### **REFORM ACTIONS**

Reforms for inland areas: Strengthening the measures in favour of internal areas of the country, through the provision of more services, through a specific refinancing of the norm for the enhancement of social infrastructure, and the implementation of measures in favour of entrepreneurship, the so-called superbonus for the areas affected by the earthquake in line with the timeframe of the Plan, which has its financial effects in the period 2021-2026.

M5C3 – Special	Resources (EUR/mld)					
interventions for territorial cohesion	Existing (a)	New (b)	Total (c) = (a)+(b)	ACT-EU (d)	TOTAL NGEU (c) + (d)	
National Strategy for Inner Areas	-	1,50	1,50	-	1,50	
Interventions for the Earthquake Areas Innovation ecosystems in	-	1,78	1,78	-	1,78	
the South in marginalised urban contexts	-	0,60	0,60	-	0,60	
Valorisation of property confiscated from the Mafia	-	0,30	0,30	-	0,30	
TOTAL	-	4,18	4,18	-	4,18	

### 1. National Strategy for Inner Areas

The strengthening of the National Strategy for Inner Areas (SNAI), in line with the provisions of the South Plan 2030 and in numerous regulatory interventions over the last year, includes additional measures to improve the level and quality of school, health and mobility services, an improvement of social, environmental and digital infrastructure (including through co —working spaces), as well as measures to support youth entrepreneurship, in particular in the tourism and agri-food sectors, and housing and productive resettlement. Finally, a specific funding of EUR 180 million is earmarked for digital infrastructure for the agri-food supply chains in the southern regions.

The aim of strengthening SNAI in the Plan is to increase the number of areas involved in the Strategy, starting from those most characterised by limited access to basic services, indices of socio-economic distress and depopulation.

# 2. Interventions for the areas of earthquakes

It is foreseen that private and public reconstruction is to be further incentivated (with particular attention to social services, kindergartens, technical training centres and schools), energy efficiency and eco-sustainable lighting is envisaged; the strengthening of the system of skills and training, support for local economic and productive activities, including through the exploitation of environmental, agri-food resources, tourism and cultural goods, and improving the provision of services and transport infrastructures. These operations benefit from additional resources of 2 billion and 950 million from the appropriations of the Budget Law.

# 3. Innovation ecosystems in the South, in marginalised urban contexts

As part of the national project envisaged in the second component of mission 4, the interventions for innovation and ecological and digital transformation in the Southern Regions are aimed at creating infrastructures and laboratories for technology transfer which requalify the urban fabric. The aim is to create new infrastructure assets for the attraction and creation of innovative enterprises, to strengthen highly qualified human capital, to retrain skills capable of responding to the challenges posed by the ecological and digital transitions, as well as to the strengthening of collaboration between companies, institutions and research organisations and citizens. The choice is to locate such interventions in the Southern urban contexts to be regenerated, combining technological innovation and social innovation.

#### 4. Valorisation of confiscated assets

Action is taken on the valorisation of the assets confiscated from the mafias, strengthening the joint work of the National Agency for confiscated property and the Agency for Territorial Cohesion, with investments aimed at the return to the community of confiscated assets and their use for economic and social development (including job creation), as well as as guardians of legality in support of a more transparent economy and the fight against organised crime.

# 6. HEALTH

# General objectives of the mission

- Strengthen the hospital system and, in particular, the territorial assistance network, in order to ensure homogeneity in the ability to provide integrated responses (health and social health issues), as well as equal access to care.
- Strengthen the resilience and timeliness of the health system's response to emerging infectious diseases characterised by high morbidity and mortality, as well as other health emergencies.
- Boost digital health care, design digital solutions for multidisciplinary and multi-professional care and assistance processes, as well as for proximity and communication with people.
- Promote and strengthen the field of scientific research, increasing resources for biomedical and health research, including via the promotion of equity funds and developing skills that can facilitate technology transfer.
- Provide safe, technologically advanced, digital and sustainable hospitals, also by revamping existing facilities with particular reference to high-tech equipment and digitisation.
- Strengthen the country's capacity, effectiveness, resilience and equity in the face of current and future health impacts associated with environmental and climate risks.
- Enhance the technical-professional, digital and managerial skills of professionals in the National Health Service (NHS) and resolve shortages within the ranks of specialists and general practitioners.

# **Resources deployed in the Mission**

Proximity assistance and telemedicine: EUR 7.5 billion plus EUR 400 million from REACT-EU.

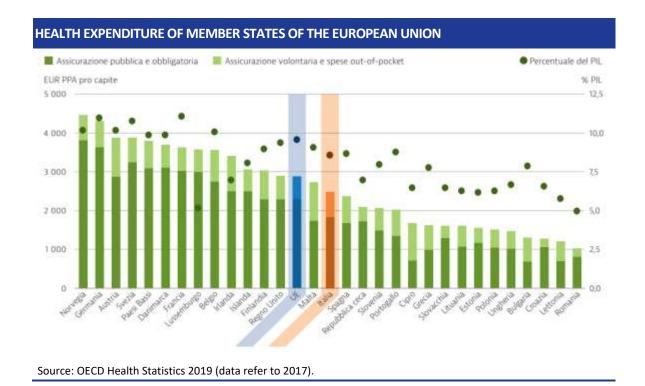
*Innovation, research and digitisation of healthcare:* EUR 10.51 billion plus EUR 1.31 billion from REACT-EU.

Total Health Mission: EUR 18.01 billion plus REACT-EU resources worth EUR 1.71 billion, for a total of EUR 19.72 billion.

The Covid-19 pandemic has highlighted the universal value of health and its nature as a fundamental public good.

The Italian National Health Service is recognised worldwide as one of the few systems that, in guaranteeing health as a right, manages to achieve adequate health results and, at the same time, a low health expenditure.

Italy, in fact, is characterised by a population with high life expectancy at birth (about 83 years according to the Istat survey for 2019) and a lower mortality rate (about 10.5 per thousand inhabitants) than in OECD countries, and, at the same time, for a relatively low public health expenditure in relation to GDP (6.5 percent, compared to 7.8 percent of the European average, 9.6 percent in Germany and 9.4 percent in France).



The dynamics and trends of the sector identify the ageing of the population, and the consequent increase in chronic deseases, the most important challenge that health systems will face. This challenge is also relevant for the NHS of our country where the incidence of the elderly population on the total is high (about 23 percent over 65 and 3.6 percent of over 80); this inevitably translates, at the epidemiological level, into a steady increase in the incidence of chronic noncommunicable diseases, as well as in the rest of the world.

In view of the demographic change taking place and the increase in the elderly population, the NHS must therefore increasingly focus on a demand for health and complex needs, which require the provision of integrated services of the territorial assistance network (health and sociohealth) as an essential element in ensuring an appropriate and effective care response to people.

The current picture of territorial health care, however, shows high fragmentation and significant critical elements: in particular, Italy shows a strong delay in the spread of home care compared to other OECD countries (4 percent elderly patients compared to the OECD average of 6 percent) and a high inhomogeneity among Regions of all residential and neighbourhood services.

The tendency to rationalise inappropriate hospital admissions, which is already evident when one considers that between 2008 and 2018 there is a reduction in the number of hospitalisations, must be consolidated and strengthened. The most complex activities must be entrusted to the hospital and the less complex services must be shifted to a territorial level.

The hospital system is also lagging behind in particular with regard to the shortage and training of staff, but also in terms of the age of technological equipment and IT equipment, so it is a priority to provide for uniform modernisation measures on the national territory.

Against this background, the NHS also came to the test of Covid-19 with evidence of relative weakness and in the presence of wide and persistent regional gaps in terms of assistance. The NHS

response to the spread of the pandemic, in fact, has been hampered by difficulties in the supply of adequate medical and medical devices, and by a lack of specialised human resources and infrastructure (in particular technological and digital), but, above all, by an inadequate response of territorial and hospital care (although the latter has shown a good "holding" capacity).

There is, therefore, a need for action to strengthen both the hospital system and, in particular, the territorial assistance network: the latter appears, in fact, weak and not homogeneous in the ability to provide integrated responses (health and social health), not guaranteeing fair access to care and constituting one of the main criticalities of the NHS.

Digital health plays a crucial and cross-cutting role to support the development of territorial assistance and to address future care needs. Only 1.2 percent of public health expenditure is earmarked for digital technologies 4.0. In absolute terms, expenditure on digital health in Italy stands at EUR 22 per head, compared with EUR 70 in Denmark, the most virtuous country at European level, while according to the "DESI Index" – Index of digitisation of the economy and society, Italy is ranked 25th in Europe in 2020. Having digital solutions for multidisciplinary and multi-professional takeover plans – able to integrate care and assistance processes, as well as supporting closeness and communication to people – becomes a fundamental factor in sustaining the process of strengthening and homogenising territorial services in all areas of the country in the post-emergency phase.

On the side of scientific research, which is one of the strategic assets of our country, there are some structural trends on which it is equally important to intervene: the reduction of funds for biomedical and health research; the small number of patents, despite the growth of scientific productions of the Institutes of Hospitalisation and Care of a Scientific Nature (*Istituti di Ricovero e Cura a Carattere Scientifico*, IRCCS); the lack of venture capital and skills that can facilitate technology transfer.

Finally, a further element to be addressed and no longer deferrable for the NHS concerns the strengthening of health personnel, including from a training point of view: Italy shows fewer nurses than the OECD countries (5.8 per 1,000 inhabitants compared to the European average of 8.8) and, although the number of doctors is overall higher than the European value, it is necessary to fill the relative lacks in some specialists (particularly in anaesthesia and intensive care, internal medicine, pneumology, paediatrics) and in the field of general medicine. In particular, the role of the Ministry of Health and regions, in planning training needs, should be strengthened.

In the Health Mission, resources are foreseen to strengthen the resilience and timeliness of health system response to emerging infectious diseases burdened by high morbidity and mortality, as well as other health emergencies. This objective is pursued primarily through the development of territorial healthcare network, close to people's needs, but also through stronger integration between health and social policies and services. Secondly, the aim is to strengthen the field of scientific research and to support the challenge of innovation, through technological modernisation and strengthening processes of digitisation and technological innovation, both at local level, in support of the process of modernisation of NHS and regional bodies, developing innovative and digital welfare models. Furthermore, it will be necessary to accelerate the evolution and completion of the Electronic Health Record, and, last but not least, at the central level,

strengthen the technological infrastructure and the capacity of the Ministry of Health to have innovative tools for data analysis and simulation of predictive scenarios able to support complex health planning and prevention choices.

The mission consists of two components with regard to the **interventions**:

- Territorial healthcare assistance and telemedicine
- Innovation, research and digitisation of healthcare

The interventions will be characterised by coherent lines of action within a single **reform project, aimed** at strengthening and making more synergistic the territorial and hospital response, as well as the research activity of the NHS:

- Promote and strengthen local care, close to the needs of citizens, in order to ensure an
  effective fair access of the population to health and social health care, through the
  establishment of uniform quality and quantitative standards, the strengthening of the
  network of district services, and the consolidation of the integrated hospital care network.
- **Define a new institutional framework of prevention Health-Environment-Climate**, according to the "One-Health" approach, to promote human health with respect to environmental factors and their changes, in synergy with the economic and social development of the country.
- Reforming the relationship between Health and Research, revisiting the legal regime of IRCCS and policies related to the Ministry of Health, supporting research activity and strengthening the capacity of NHS to respond to health emergencies, epidemiological transition and health needs related to the demographic framework.

The investments in which the two components of the **Health** Mission are realised are distributed on 4 projects for a total amount of resources equal to EUR 18.01 billion euros plus ReactEU resources of EUR 1.71 billion, totalling EUR 19.72 billion. The interventions will be calibrated according to the possibility of financially offsetting the permanent burdens within the overall resources available under existing legislation in the system.

## **6.1 TERRITORIAL ASSISTANCE AND TELEMEDICINE**

# Objectives of the component

- Strengthening and refocusing the NHS towards a model focused on territories and social and health assistance networks;
- Overcoming the fragmentation and structural gap between the different regional health systems by ensuring homogeneity in access to care and the provision of Essential Care Levels – "LEA";
- Enhance prevention and territorial care by improving the capacity to integrate hospital services, local health services and social services, to ensure continuity of care, multiprofessional and multidisciplinary approaches, integrated hospital-domicile pathways for the whole population;
- Strengthening the country's capacity, effectiveness, resilience and equity in the face of current and future health impacts associated with environmental and climate risks, in a "One—Health" vision and in the evolution of "Planetary Health".

The M6C1 component, called Territorial Assistance and Telemedicine, is aimed at strengthening and redirecting the NHS towards a model focused on territories and social and health care networks; to overcome the fragmentation and structural gap between the different regional health systems, by ensuring homogeneity in access to care and the provision of Essential Care Levels – "LEA"; to enhance prevention and territorial care by improving the capacity to integrate hospital services, local health services and social services, to ensure continuity of assistance, multi-professional and multidisciplinary approaches, integrated hospital-domicile pathways for the whole population; to strengthen the capacity, effectiveness, resilience and equity of the country in the face of the current and future health impacts, associated with environmental and climate risks, in a "One-Health" vision and in the evolution of "Planetary health".

The total allocation of this cluster is EUR 7.5 billion plus ReactEU EUR 400 million.

# **REFORMS**

Reform called "Territorial Assistance and Telemedicine" – sub reform "Defining structural, technological and organisational standards of territorial assistance" and "Instituting a National System for Prevention of Health-Environment-Climate (SNPS) with consequent implementing regulatory acts", which supports and goes along with the planned interventions.

The reform is transversal to the two components of the Health Mission and is a preliminary action and complementary to all interventions in the health field.

With reference to the first component, the Reform is aimed at defining structural, technological and organisational standards of territorial assistance; the second reform

action consists of the establishment of a National System for Prevention of Health-Environment-Climate (SNPS) with consequent implementing regulatory acts, functional to:

- ensure effective fair access for the population to health and social health care;
- define a new institutional structure, able to manage the health-environment-climate issue in synergy with the economic and social development of the country.

M6C1 – Territorial	Resources (EUR/bn)									
assistance and telemedicine	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)					
1. Upgrading health care and territorial network	-	7,00	7,00	-	7,00					
Home of the Community and taking care of people.	-	4,00	4,00	-	4,00					
Home as the first place of care, Home care assistance.	-	1,00	1,00	-	1,00					
Development of intermediate care. 2. Health, Environment and	-	2,00	2,00	-	2,00					
Climate. Ecological public health.  TOTAL	- -	0,50 <b>7,50</b>	0,50 <b>7,50</b>	0,40 <b>0,40</b>	0,90 <b>7.90</b>					

Notes: (b) includes the resources of the Fund for Development and Cohesion (DCF) already foreseen by current legislation, to be earmarked to specific interventions.

## 1. Health enhancement and territorial network

## 1.1 Home of the Community and taking care of people

The lack of coordination in health, social and social care interventions, the regional heterogeneity present in the provision of territorial assistance services, especially for the populations living in rural or disadvantaged areas, are critical issues that can be overcome through the implementation of care facilities close to the communities, placing in the same physical space a set of health and socio-health services and exploiting the spatial contiguity of services and operators, also allowing prevention, diagnosis and care paths for each person, with an approach based on gender differences, in all stages and environments of life.

The project was therefore created to enhance the overall integration of social and health care services for the promotion of health and the global responsibility of the community and all people, whether healthy or in the presence of pathologies (one or more pathologies) and/or chronicity.

In order to achieve this integration, the project involves the creation of physically identifiable structures ("Home of the Community"), which qualify as a reference point of proximity and point of reception and orientation to primary health, social and social care services for citizens, ensuring interdisciplinary interventions through the spatial contiguity of services and the integration of professional communities (multi-professional and interdisciplinary teams) operating according to

integrated programmes and paths, between health services (territory-hospital) and health services.

From the operational point of view, the model provides for the identification of a common reference standard, through which to distribute, in a capillary and homogeneous way, these structures throughout the national territory, identifying them as a node, easily recognizable and accessible by the reference population, within the wider network of health, social-health and social-assistance services, and at the same time, as an integral part of the places of life of the local community. In this sense, the aim of this intervention is to define a preliminary regulatory act and an action plan by 2022 and to implement by 2026 one Home of Community for every 24,500 inhabitants: the aim is to create 2,564 new Home of Community with the purpose of taking care of about 8 million chronic monopathological patients and about 5 million chronic multi-pathological patients.

# 1.2 Home as the first place of care. Home care assistance

Integrated home care (*Assistenza Domiciliare Integrata*, ADI) is today the care framework that best responds to the epidemiological changes in the population (ageing, increased comorbidity and chronic diseases) and the needs of economic sustainability of the NHS. It is a model of alternative treatment to hospitalisation, which allows the stay at home of fragile people with chronic diseases and the implementation of integrated therapeutic pathways from a health and social point of view, while ensuring adequate sociality and proximity of the primary care network.

Through this project it is intended to promote and strengthen the home care assistance, to increase the diffusion and quality of the offer throughout the national territory through the reorganisation of integrated home care services management and the local development and implementation of a digital model of the ADI, which makesusable solutions and tools of telemedicine and connected care, fundamental for taking care of people at home, monitoring and remote diagnosis of patients.

With this in mind, the project is closely linked to the project described above by the 'House of the Community', since, in the context of the admission of a patient by the Community House, one of the necessary tools for an integrated and effective management of chronicities, especially for chronic elderly patients, is the provision of integrated home care services with the support of technological and digital solutions and telemedicine. The goal is to define nation-wide indications for telemedicine performance delivery by 2022 and to implement a new ADI model by 2026, with 575 activated coordination centres, 51,750 doctors and other professionals as well as 282,425 patients with active technical package kits.

Expected results: approximately 500,000 new patients over 65 under the care of the ADI (*Presi in Carico, PIC*).

## 1.3 Development of intermediate care

The project aims at the implementation of short-term health facilities (Community Hospitals), which are interconnected with the health and social services system and play an "intermediate" role between home and hospitalisation in order to relieve the hospital from low complexity health

services that do not require a high care burden and contribute substantially to the reduction of improper access to hospital facilities and emergency rooms.

Community Hospitals are, therefore, structures that are placed at an intermediate level between territorial care and hospital care, to provide assistance to all those who do not need hospitalisation but need health care and surveillance that they could not receive at home.

From an operational point of view, the action plan to create new structures and/or reconvert the existing ones to community hospitals is expected to be drawn up by 2022; the project will bring the realisation of beds in short terms hospitalisation facilities (15 to 20 days), according to a uniform standard throughout the country. The objective is to implement and/or adapt one Community Hospital per 80,000 inhabitants – 753 hospitals – by 2026.

# 2. Health, environment and climate. Ecological public health

The project aims to strengthen the capacity, effectiveness, resilience and equity of the country in addressing the current and future health impacts, associated with environmental and climate risks, in a "One-Health" vision, and in the evolution of "Planetary health", through a plan of reforms and investments that establishes, in terms of regulatory and equipment of infrastructure and resources, the network of the "National System of Prevention of Health-Environment and Climate, SNPS", organized at the central, regional and territorial level, for full integration with the existing National System for Environmental Protection (SNPA).

In particular, it is planned to implement:

- an investment plan associated with the structural reform instituting the SNPS;
- Investments functional to the development of operational programmes for the implementation of integrated models in specific contaminated sites of national interest.

From an operational point of view, an Action Plan, for the establishment/strengthening of poles of excellence and national reference of the SNPS network and of regional poles and territorial institutions of the SNPS-SNPA network, is planned by 2022; the digitisation of the SNPS and SNPA network; the creation/strengthening of territorial structures of the SNPS-SNPA network and any public research bodies; the strengthening of local and hospital health structures, IRCSS and other research bodies, for integrated health promotion, active surveillance and health care and community participatory communication systems, at specific contaminated sites of national interest. Also by 2022, it is expected to carry out the Procedure for the allocation of calls for three-year national research competitionin Health-Environment-Climate.

According to the Plan, 100 percent of the national reference structures of SNPS and 50 percent of SNPS-SNPA structures (about 190) are expected to be upgraded in terms of infrastructure, instrumental and human resources by 2026.

It is also planned to finance 8 university grants in Health-Environment-Climate for 3 cycles; there will be established a) a training and updating centre in Health-Environment-Climate with 11 online training courses on specific priority themes (*Formazione a Distanza*, FAD); b) a training and updating centre in Health-Environment/Climate; c) 11 three-year national research projects on Health/Environment/Climate issues with a priority nature.

Operational programmes for the implementation of integrated models of Health-Environment-Climate intervention will be developed in at least two specific contaminated sites of national interest, with the involvement of territorial structures of the SNPS-SNPA network, health and hospital facilities, IRCSS and other research institutions.

The project activities will also be aimed at implementing at territorial level the essential levels of environmental technical performance (LEPTA).

# 6.2 INNOVATION, RESEARCH AND DIGITISATION OF HEALTHCARE

# Objectives of the component

- Promote and strengthen the field of scientific research, giving priority to the creation of clinical and transnational networks of excellence.
- Strengthen health information systems and digital tools at all levels of the NHS.
- Enhance human resources, through the modernisation of training tools and contents and the development of technical-professional, digital and managerial skills of NHS professionals.
- Overcome the criticalities related to the limited and heterogeneous spread of the Electronic Medical Record.
- Solve the problem of the ageing of equipment and the low use of health technologies in hospitals, achieving higher standards of efficiency and effectiveness.
- Building safe, technological, digital and sustainable hospitals.
- Overcome the limited dissemination of telemedicine tools and activities.

The M6C2 **component**, called Innovation, Research and Digitisation of Healthcare, aims to promote and strengthen the field of scientific research by: prioritising the establishment of clinical and transnational networks of excellence; strengthening health information systems and digital tools at all levels of the NHS; enhancing human resources through the modernisation of training tools and content and the development of technical-professional, digital and managerial skills of NHS professionals; overcoming the critical issues related to the limited and heterogeneous spread of the Electronic Medical Record; to address the problem of the ageing of equipment and the low use of health technologies in hospitals, achieving higher standards of efficiency and effectiveness; building safe, technological, digital and sustainable hospitals; overcoming the limited dissemination of telemedicine tools and activities.

The total allocation of this cluster is EUR 10.51 billion plus EUR 1.31 billion REACT-EU. These operations also benefit from additional resources of EUR 1.01 billion from the appropriations of the 2021 Budget Law.

#### **REFORMS**

Reform intervention called "Territorial Assistance and Telemedicine" – sub reform "Reorganising the network of IRCCS to contribute to the improvement of NHS excellence". The reform is transversal to the two components of the Health Mission and is a preliminary action and complementary to all interventions in the field of health.

With reference to the second component, the reform aims to reorganise the network of IRCCS to contribute to the improvement of the excellence of the NHS, in particular by revisiting the legal regime of IRCCS and research policies related to the Ministry of Health to strengthen the response capabilities of the NHS.

	Resources (EUR/bn)									
M6C2 – Innovation, research and digitisation of healthcare	Existing (a)	New (b)	Total (c) = (a)+(b)	REACT-EU (d)	TOTAL NGEU (c) + (d)					
Technological and digital modernisation	5,28	4,73	10,01	-	10,01					
Modernisation of hospital technology and digital park Hospitals	1,41 3,30	2,00 2,30	3,41 5,60	-	3,41 5,60					
Electronic Health Record and central data collection, processing	0,57	0,43	1,00		·					
and analysis Research and technology transfer and training	-	0,43	0,50	1,31	<i>1,00</i> 1,81					
Exploitation and enhancement of the biomedical research of NHS	-	0,20	0,20	-	0,20					
Innovative health ecosystem	-	0,10	0,10	-	0,10					
Development of professional, digital and managerial skills of health professionals  TOTAL	- 5,28	0,20 <b>5,23</b>	0,20 <b>10,51</b>	1,31 <b>1,31</b>	1,51 <b>11,82</b>					

Notes: (b) includes the resources of the Fund for Development and Cohesion (DCF) already foressen by current legislation, to be earmarked to specific interventions.

# 1. Technological and digital modernisation

## 1.1 Modernisation of hospital technology and digital park

The project aims at the technological modernisation of hospitals in relation to high-tech equipment and other interventions oriented to the digitisation of health facilities (both in terms of processes and technological infrastructure and IT assets). In particular, the intervention shall be aimed at:

- modernising the technological assets provided at hospital facilities, replacing the entire park of the large old sanitary equipment (over 5 years old);
- digitising all the hospital clinical-assistant processes of facilities with admission and emergency unity (*Dipartimento di Emergenza e Accettazione*, DEA), with particular reference to operating blocking systems, Laboratory Information System, resonances, pharmacy services, first aid, acceptance/dismissing/transfer systems, drugs prescription and management, imaging diagnostics, repository and order entry.

By March 2021, reports are expected to be produced with the detection of the needs of large equipment; an action plan for the design and planning of interventions on large equipment will be adopted by 2023, including the definition of procurement procedures, the conclusion of contracts with the service provider and the implementation of interventions;

The goal is to purchase and test 2,648 large sanitary equipment and digitise 184 healthcare facilities with DEA unity.

# 1.2 Hospitals

The project aims to outline a path of structural improvement in the safety of hospitals, which play a crucial and strategic role in emergency situations, with the aim of aligning them with the most modern seismic regulations at international level, also bearing in mind that Italy is one of the countries with the greatest seismic risk in the Mediterranean. At the hospital, one of the most exposed and sensitive sities, as it is crowded by thousands of people with very different reactive capacities, it is therefore required not only to resist without excessive damage to the shock force of the earthquake, but also to continue to offer sufficient levels of health care.

This means that particular attention must be paid not only to the load-bearing elements, but also to non-structural and plant elements, as well as to the distribution of functions and flows, in order to ensure that the environmental units and equipment necessary for the management of maxi-emergencies can remain fully operational.

To this end, the Ministry of Health noted in 2020 an overall need for interventions in the field of hospital seismics in the various regions and identified in particular 675 interventions.

The planned implementation period is 2021 to 2026. An action plan for the launch of procedures and work sites will be developed by 2022 with a view to completing 675 seismic interventions by 2026.

This intervention receives additional resources of 680 million from the appropriations of the 2021 Budget Law.

# 1.3 Electronic Health Record and central data collection, processing and analysis

The project is aimed at implementing regional interventions for the evolution, completion and dissemination of the Electronic Health Record (ESF), also expanding its instruments (e.g.IoT, app) that enable the collection of new information on a voluntary basis by the citizen (e.g. habits and lifestyles).

The project also aims to strengthen and expand at central level the National Health Information System, in terms of the evolution and modernisation of the infrastructure, of the construction systems, collection and analysis of health and non-health information, with particular reference to the completion of the ongoing path of construction of tools simulating and predicting the health needs of the population.

The preparation of regional and central government plans for the strengthening of the ESF is planned by 2021; while the completion of feasibility studies for the implementation of new information flows at national and regional level is foreseen by 2022. By 2026, 1 billion digitised documents are expected.

Another objective is also to: implement two new information flows at national and regional level by 2024; implement the technological and application infrastructure of the Ministry of Health and activate the Open Data platform and portal by 2026; realise and integrate a predictive model based on real world data, as well as by 2026.

# 2. Research and technology transfer and training

# 2.1 Enhancing and strengthening biomedical research of NHS

The project is aimed at implementing two types of interventions:

- financing a total of EUR 100 million PoC (Proof of Concept) projects, by reducing the gap between research results and industrial application and supporting the development of technologies with a low level of technological maturity, as well as facilitating the transfer of technology to industry. Short-term financial resources are then made available to carry out experiments demonstrating the feasibility of a technology or product concept, to:
  - a. build/improve a prototype to prepare its marketing;
  - b. verify commercial feasibility or carry out scale-up tests;
  - c. demonstrate risk mitigation for a potential investor/industry or licensee, if there is a patent;
  - d. address and overcome a specific gap identified by industry and hampering its attractiveness to investors;
- financing research programmes/projects in the filed of rare diseases and rare cancers. These diseases, with high biomedical complexity and often multi-body expression, require the convergence of high clinical competence, advanced diagnostic and research activities, require excellent technologies and the coordination of collaborative networks at national and European level. In order to strengthen the response capacity of the centres of excellence in Italy, it is intended to launch a research programme with a dedicated funding for a total of EUR 100 million, in order to develop targeted therapies able to provide concrete responses to the health needs of citizens suffering from rare diseases.

A two-year selective procedure for the award of vouchers to support technology transfer is planned by 2023 and a public evidence procedure for research in the field of rare diseases and rare cancers is planned by 2026.

It is expected to carry out two calls of EUR 50 million to award vouchers for projects of PoC by 2023 for a total value of EUR 100 million, and further two calls of EUR 50 million by 2023 for the allocation of funding for research programmes/projects in the field of rare diseases and rare cancers for a total value of EUR 100 million.

## 2.2 Innovative health ecosystem

The intervention aims to develop an ecosystem for innovation in the Health Area as identified by the National Research Programme (PNR) and the National Strategy of Intelligent Specialisation (SNSI). The innovative element in the approach method lies in the structured function of "coordination" and sharing to determine the priorities of intervention, the Technological Trajectories and Domains to guide the action, specifically contextual and in the implementation phase.

The aim is to continuously generate new opportunities for innovation, development and skilled employment in the Health Area, including through public-private partnerships, through the virtuous collaboration between NHS, Universities, Business Incubators, Research Centres, Large Businesses, SMEs and other stakeholders in the productive, research and institutional investor

worlds, aimed at consolidating the innovation chain to engage in the competitive development of the Health Ecosystem and, in this area, of the NHS.

The programme recognises the need to enhance the specificity and complexity of innovation in life sciences with regard to intellectual property issues, the expansion of research time, regulatory complexity and ethical implications. However, it will develop in coherence and collaboration with the research ecosystem programmes proposed by the MIUR and technology transfer programmes proposed by MISE, including through joint initiatives.

The project is in continuity with the Health Operational Plan (POS) being implemented by the Ministry of Health, which includes the realisation of Hub Lifescience, i.e. infrastructures dedicated to public-private research, the attraction of innovative business initiatives, technology transfer and the development of services and activities for open innovation, also thanks to public-private partnership initiatives. The resources authorised, therefore, will be made available to each Hub for the realisation of a project aimed at a specific line of research and technology transfer.

It is planned to develop, by 2023, an action plan for the creation of a network of centres for technology transfer dedicated to life sciences and health with stakeholders active in the field at regional and territorial level, in the IRCCS, in public/private partnerships, in university or private initiatives; and an action plan to strengthen the national network of innovative specialised infrastructures – HUB Life Sciences initiated by the Ministry of Health in the framework of the POS.

At least three actions will be implemented by 2026 with a co-financing of EUR 40 million earmarked to Technology Transfer Centres, and at least three North-Central-South projects with co-financing of EUR 60 million to strengthen Hub Lifescience.

# 2.3 Development of technical, professional, digital and managerial skills of healthcare professionals The aim of the project is to strengthen the training activity along three lines:

- increasing grants for the specific training course in general medicine (Medicina Generale, MG), ensuring the completion of three three-year training courses;
- launching an extraordinary training plan for all hospital staff of the medical and non-medical management and the nursing and technical staff of the NHS in the field of hospital infections;
- activating a process of formation of the apical roles of the NHS and its macro-organizational structures (general, health, administrative directors, directors of districts, departments, hospitals, as well as union colleges and supervisory bodies), in order to acquire the necessary skills and managerial skills to address current and future health challenges in an integrated, sustainable, innovative, flexible and result-oriented perspective.

It is planned to adopt an action plan to define the needs of scholarships for the specific training course in MG for each of the three-year training years 2021-2024, 2022-2025, 2023-2026.

It is also planned the adoption by 2023 of an action plan for the realisation of training paths for the apical roles and for the staff of the NHS.

The aim is to provide and complete 900 scholarships for the specific training course in general medicine for each of the years 2024, 2025, 2026; provide technical-managerial training courses to at

least 5,000 senior staff by 2025 and provide extraordinary training in hospital infections by 2026 to at least 200,000 NHS employees.

This intervention is complemented by resources of EUR 330 million allocated by the 2021 Budget Law and with REACT-EU resources for specialised training contracts.

TABLE 2.1: TOTAL RESOURCES FOR MISSIONS, COMPONENTS AND LINES OF INTERVENTION Resources (EUR/bn) **Existing** Total REACT-EU **Total NGEU Funds EAFRD Total total** New **Budget planning** (b) (c) = (a) + (b)(d) (e) = (c) + (d)SIE/PON (f)' (a) (g) 2021-2026 (h) (e)+(f)+(g)+(h)1. DIGITISATION, INNOVATION, COMPETITIVENESS AND CULTURE 10.11 35.39 45.50 0.80 46.30 1.60 11.35 59.25 Digitisation, innovation and security in the PA 5.61 6.14 11.75 11.75 0.30 1.31 13.36 Digitisation of Public Administration 5.61 2.34 7.95 7.95 0.30 0.30 8.55 Modernisation of the PA 1.50 1.50 1.50 \_ 1.50 Organisational Innovation of Justice 2.30 2.30 2.30 3.31 1.01 Digitisation, innovation and competitiveness of the production system 4.20 21.55 25.75 0.80 26.55 1.00 10.04 37.59 Transition 4.0 3.10 15.70 18.80 18.80 6.94 25.74 Innovation and technology of microprocessors 0.75 0.75 0.75 0.75 Digitisation SMEs and Guarantee Fund \*\* \_ 0.80 0.80 1.00 3.10 4.90 Wideband, 5G and satellite monitoring 1.10 3.10 4.20 4.20 4.20 Industrial policies of supply chain and internationalisation \* 2.00 2.00 2.00 2.00 \_ **Tourism and Culture 4.0** 0.30 7.70 8.00 8.00 0.30 8.30 2.70 2.70 2.70 0.15 2.85 Cultural heritage Next Generation Minor sites, rural areas and suburbs 2.40 2.40 2.40 \_ 2.40 Tourism and Culture 4.0 0.30 2.60 2.90 2.90 0.15 3.05 2. GREEN REVOLUTION AND ECOLOGICAL TRANSITION 37.33 67.49 2.31 69.80 0.70 1.00 79.70 30.16 8.20 **Green Enterprise and Circular Economy** 5.90 5.90 1.10 7.00 7.00 Sustainable agriculture 2.50 2.50 \_ 2.50 2.50 Circular economy and valorisation of the integrated waste cycle 3.40 3.40 1.10 4.50 4.50 Energy transition and sustainable local mobility 2.95 14.58 17.53 0.69 18.22 0.30 18.52 Production and distribution of renewables and support 7.98 7.98 0.69 0.30 8.97 for the supply chain 8.67

Note: (b) includes the resources of the Fund for Development and Cohesion (DCF) already foreseen by current legislation, to be earmarked to specific interventions.

2.00

2.00

2.00

2.00

Investments in the hydrogen chain

<sup>(\*)</sup> The allocation of the NRPR on the forestry component will be further strengthened by the EAFRD once the ongoing budget planning process has been completed and in agreement with the Regions and the PA. As an indication, over the period 2014-2020, EUR 1.6 billion was earmarked for forestry measures for sustainable management and prevention of hydrogeological failure.

<sup>\*</sup> Includes Lever Effect Intervention Lines; \*\* Financing with REACT-EU; \*\*\* Financing with the 2021 Financial Statements.

TABLE 2.1 BELOW: TOTAL RESOURCES FOR MISSIONS, COMPONENTS AND INTERVENTION LINES

	Resources (EUR/bn)								
	Existing (a)	Addition al (b)	Total (c) = (a)+(b)	REACT-EU (d)	Total NGEU (e) = (c) + (d)	Funds SIE/PON (f)'	EAFRD (g)	Budget planning 2021-2026 (h)	Total total (e)+(f)+(g)+(h)
Sustainable local transport, cycleways and renewal of									
rolling stock	2.95	4.60	7.55	-	7.55	-	-	-	7.55
Energy efficiency and redevelopment of buildings	16.36	12.88	29.23	0.32	29.55	0.40	-	7.44	37.39
Efficiency of public buildings Energy efficiency and seismic private and public	6.10	4.62	10.72	0.32	11.04	0.40	-	-	11.44
housing	10.26	8.26	18.51	-	18.51	-	-	7.44	25.95
Protection and valorisation of land and water resources	10.85	3.97	14.83	0.20	15.03	-	1.00	0.76	16.79
Interventions on hydrogeological failure	3.36	0.25	3.61	-	3.61	-	-	0.16	3.77
Urban Forestry	0.03	0.30	0.33	0.20	0.53	-	-	-	0.53
Afforestation and protection of forests (*) Flooding and sustainable management of water	-	-	-	-	-	-	1.00	-	1.00
resources	1.46	2.92	4.38	-	4.38	-	-	-	4.38
Resilience, valorisation of the territory and energy efficiency of municipalities	6.00	-	6.00	-	6.00	-	-	0.60	6.60
Waste management systems collected at sea in port areas	-	0.50	0.50	-	0.50	-	-	-	0.50
3. INFRASTRUCTURE FOR SUSTAINABLE MOBILITY	11.68	20.30	31.98	-	31.98	-	-	1.16	33.14
High speed railway and road maintenance 4.0 Railway works for the mobility and fast connection of	11.20	17.10	28.30	-	28.30	-	-	1.16	29.46
the country Security and digital monitoring of roads, viaducts and	11.20	15.50	26.70	-	26.70	-	-	1.16	27.86
bridges	-	1.60	1.60	-	1.60	-	-	-	1.60
Intermodality and integrated logistics	0.48	3.20	3.68	-	3.68	-	-	-	3.68
Integrated project Ports of Italy	0.48	2.84	3.32	-	3.32	-	-	-	3.32
Digitalisation of airports and logistics systems	-	0.36	0.36	-	0.36	-	-	-	0.36

Note: (b) includes the resources of the Fund for Development and Cohesion (DCF) already foreseen by current legislation, to be earmarked to specific interventions.

<sup>(\*)</sup> The allocation of the NRPR on the forestry component will be further strengthened by the EAFRD once the ongoing budget planning process has been completed and in agreement with the Regions and the PA.As an indication, over the period 2014-2020, EUR 1.6 billion was earmarked for forestry measures for sustainable management and prevention of hydrogeological failure.

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TABLE 2.1 BELOW: TOTAL RESOURCES FOR MISSIONS, COMPONENTS AND INTERVENTION LINES Resources (EUR/bn)

	Existing (a)	Addition al (b)	Total (c) = (a)+(b)	REACT-EU (d)	Total NGEU (e) = (c) + (d)	Funds SIE/PON (f)'	EAFRD (g)	Budget planning 2021-2026 (h)	Total total (e)+(f)+(g)+(h)
4. EDUCATION AND RESEARCH	4.37	22.29	26.66	1.83	28.49	2.60	-	2.95	34.04
Upgrading of skills and right to study	2.99	12.38	15.37	1.35	16.72	1.70	-	2.53	20.95
Access to education and reduction of territorial gaps	1.60	7.40	9.00	0.45	9.45	1.05	-	1.76	12.26
STEM skills and multilingualism	1.39	2.73	4.12	0.90	5.02	0.65	-	0.77	6.44
Professional education and ITS	-	2.25	2.25	-	2.25	-	-	-	2.25
From research to enterprise	1.38	9.91	11.29	0.48	11.77	0.90	-	0.42	13.09
Strengthening Research and Development and IPCEI									
initiatives	1.38	5.91	7.29	-	7.29	0.20	-	0.42	7.91
Technology transfer and innovation support	-	4.00	4.00	0.48	4.48	0.70	-	-	5.18
5. INCLUSION AND COHESION	4.10	17.18	21.28	6.35	27.62	2.00	-	55.38	85.00
Employment policies	0.80	5.85	6.65	5.97	12.62	1.65	-	24.70	38.97
Active labour policies and support for employment	0.40	5.60	6.00	1.50	7.50	1.50	-	0.06	9.06
Tax advantage for work in the south and new									
recruitments of young people and women **	-	-	-	4.47	4.47	-	-	24.65	29.11
Universal Civil Service	0.40	0.25	0.65	-	0.65	0.15	-	-	0.80
Social infrastructure, families, communities and third									
sector	3.30	7.15	10.45	0.38	10.83	0.35	-	30.68	41.86
Social-assistance services, disability and marginality	-	3.45	3.45	0.38	3.83	0.35	-	-	4.18
Interventions under the Family Act ***	-	-	-	-	-	-	-	30.50	30.50
Urban Regeneration and Social Housing	3.30	3.00	6.30	-	6.30	-	-	-	6.30
Sports and suburbs	-	0.70	0.70	-	0.70	-	-	0.18	0.88
Special territorial cohesion measures	-	4.18	4.18	-	4.18	-	-	-	4.18
National Strategy for Inner Areas	-	1.50	1.50	-	1.50	-	-	-	1.50
Interventions for the Earthquake Areas	-	1.78	1.78	-	1.78	-	-	2.95	4.73
Innovation ecosystems in the South in marginalised									
urban contexts	-	0.60	0.60	-	0.60	-	-	-	0.60
Valorisation of property confiscated from the Mafia	-	0.30	0.30	-	0.30	-	-	-	0.30

Note: (b) includes the resources of the Development and Cohesion Fund (DCF) already foreseen by current legislation, to be earmarked to specific interventions.

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TABLE 2.1 BELOW: TOTAL RESOURCES FOR MISSIONS, COMPONENTS AND INTERVENTION LINES

	Resources (EUR/bn)								
	Existing (a)	Addition al (b)	Total (c) = (a)+(b)	REACT-EU (d)	Total NGEU (e) = (c) + (d)	Funds SIE/PON (f)'	EAFRD (g)	Budget planning 2021-2026 (h)	Total total (e)+(f)+(g)+(h)
6.HEALTH	5.28	12.73	18.01	1.71	19.72	-	-	1.01	20.73
Territorial assistance and telemedicine	-	7.50	7.50	0.40	7.90	-	-	-	7.90
Upgrading health care and territorial network Health, Environment and Climate. Ecological public	-	7.00	7.00	-	7.00	-	-	-	7.00
health	-	0.50	0.50	0.40	0.90	-	-	-	0.90
Innovation, research and digitisation of healthcare	5.28	5.23	10.51	1.31	11.82	-	-	1.01	12.83
Technological and digital modernisation	5.28	4.73	10.01	-	10.01	-	-	0.68	10.69
Research and technology transfer and training	-	0.50	0.50	1.31	1.81	-	-	0.33	2.14
TOTAL	65.70	145.22	210.91	13.00	223.91	6.90	1.00 (*)	80.05	311.86

Note: (b) includes the resources of the Fund for Development and Cohesion (DCF) already foreseen by current legislation, to be earmarked to specific interventions.

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