



S34Growth

Interreg Europe



S34Growth addresses regional policy instruments facilitating industrial innovation-related interregional collaboration which can help the renewal of Europe's industry and boost competitiveness.

www.interregeurope.eu/s34growth

Baseline Analysis – S34Growth Extension

February 2022

State-of-play analysis of relevant EU, national and regional Covid-19 recovery plans and measures for industry and advanced manufacturing in partner regions

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Introduction

While the COVID-19 pandemic has had a major impact on EU industry, various rapidly adopted COVID-19 recovery plans and measures, and EU's Green Deal with ambitious goals on the twin digital and green transitions, have brought new opportunities for European industry policy stakeholders, including regions. The one-year extension of the S34Growth projects, provides the partnership is a timely opportunity for exchange and joint planning on interregional response to advanced and scale-up manufacturing related challenges caused by the COVID-19 pandemic. Moreover, the partners want to mobilise and build up coordinated support measures in the framework of the policy instruments addressed by the project.

In S34Growth, an innovative interregional element to the addressed policy instruments was developed, supporting the renewal of Europe's industry and competitiveness, new interregional value chains, and the joint interregional approach to S3 especially in the post-2020 period. This provides a highly useful platform for the facilitation and development of coordinated interregional COVID-19 response and recovery measures on advanced and crisis-related scale-up manufacturing, as well as supporting the development of interregional recovery measures to the 2021–2027 Operational Programmes. In case of already approved, ongoing REACT-EU projects in partner regions, the project will facilitate exchange and cooperation between them. Results of this exchange will also be utilised in the development of new cooperation mechanisms and actions. Moreover, mechanisms to implement Horizon Europe and the 2021–2027 OPs in synergy for advanced manufacturing related topics are discussed and co-created.

The baseline analysis at hand serves the purpose of providing a state-of-play analysis of relevant EU, national and regional COVID-19 recovery plans and measures for industry – in particular advanced manufacturing – in partner regions, i.e. Tampere region, Basque Country, Catalonia, Lombardy, Norte, Scotland, South Netherlands, and South-Holland. All regions responded to the following questions:

- 1) What is the overall structure and main themes and topics of your regional and national COVID-19 recovery plans, especially what comes to support for industry and responses to advanced manufacturing supply chain impacts? (*hereinafter Part I*)
- 2) Which measures (financial support instruments, other support instruments and services) are in place regionally (or nationally) to support industry/advanced manufacturing in this unprecedented situation? (*hereinafter Part II*)

Tampere Region

Part I

Finland's Recovery and Resilience Plan (published on 26 May 2021) has been named as Sustainable Growth Programme for Finland. In the programme, the Government has selected investment projects and reforms that can achieve a long-term positive impact. The aim is to promote structural adjustment of the economy through particular packages of measures. The preparatory work has focused on major packages with a significant impact rather than distributing resources among projects that are too small and have too little impact. The reforms aim at encouraging private investment and supporting systemic solutions. In line with the Government Programme, the Sustainable Growth Programme for Finland will support growth that is ecologically, socially and economically sustainable. The Programme will boost competitiveness, investment, research, development and innovation, and efforts to raise skill levels. Funding for the Sustainable Growth Programme for Finland will be from the EU's one-off recovery instrument (Next Generation EU). This programme consists of four sections: 1) A green transition will support structural adjustment of the economy and underpin a carbon- neutral welfare society, 2) Digitalisation and a digital economy will strengthen productivity and make services available to all, 3) Raising the employment rate and skill levels will accelerate sustainable growth, 4) Access to health and social services will be improved and their cost-effectiveness enhanced. <https://julkaisut.valtioneuvosto.fi/handle/10024/163363>

Finnish the Recovery and Resilience Facility grants will be mainly distributed through Business Finland and the Academy of Finland by organising national competitive calls. For instance, the search for ideas for building state-of-the art technologies and infrastructures supporting sustainable growth and digitalisation is now under way.

Regional COVID-19 recovery plan

REACT-EU is the ERDF-specific part of recovery funding and implemented as part of the programming period 2014–2020. The projects to be funded need to respond to the challenges and effects of COVID-19. The projects will have a maximum duration of two years until August 2023. The level of the support is the highest possible, i.e. 80 % for the development projects and 70 % for the investments. The emphasis is on digitization and on green transition. The target groups in the specific objective 12.2 are companies, research and educational organisations, municipalities, associations of municipalities, public sector, third sector. Demonstrating a strategic partnership with companies will increase the impact of the project activities. Activities to be supported include digitization, green growth, circular economy, development of the use of innovative public procurement, life cycle thinking and systemic change, sustainable transport systems, the digitization of mobility, and new products and services in the field of health and wellbeing.

REACT-EU funding has been distributed through the ERDF call for proposals that closed 10 May 2021. The funding in the region is being fully tied to the applications within, including at least a couple of S34growth extension relevant projects.

Part II

The most important measure is the new structural programme in Finland "Innovation and Skills in Finland 2021-2027, which promotes regional vitality, employment and wellbeing, with two ERDF priorities implemented in the Tampere region:

1) Innovative Finland (ERDF): The objective is to promote research and innovation capabilities of regions and companies with a particular focus on business and working life, and the introduction of new technologies. The funding will boost the growth and competitiveness of small and medium-sized enterprises (SMEs). Another objective is to utilise digitalisation for the benefit of citizens, businesses and public administration.

2) Carbon neutral Finland (ERDF): The aim is to promote energy efficiency and circular economy and to reduce greenhouse gas emissions. Funding will also be allocated to measures to prepare for climate change.

The first calls will take place in the spring 2022. The funded projects must support the newly approved regional development plan including RIS3, within the following areas of expertise.

- Responsible and sustainable industry transition
- Smart and sustainable communities
- Welfare technologies and services
- Culture and digital experience economy

RIS3 practices (working methods) to promote and better utilise the areas of expertise are

- Co-creation and participatory innovation platforms, community facilities and resources, RDI infrastructures and learning environments across regional borders
- User-driven and encouraging experiments, pilots and demonstrations
- City organisations and environments as development platforms and RDI infrastructure as a Service
- International investment cooperation and making use of best practices
- Developing and exploiting talent and human capital

Regional RIS3 activities are coordinated with national and European measures. Investments and funding in the region will be directed to sites and activities that also enable international funding and learning through international activities

Interesting is also the new instrument called Interregional Innovation Investments (I3) which supports the innovation and marketing cooperation between actors in different regions and countries. Tampere region actors could join the projects in Strand 1 as a partner and in Strand 2 also as a coordinator. Other important funding sources will be Horizon Europe, Digital Europe, Interreg & other special programmes. It is also crucial to develop competences that support key themes; the flow of ERDF and ESF in the same direction is significant. Business Finland's public-private partnership financing can serve as a resourcing method for large-scale implementations.

Basque Country

Part I

The Spanish national recovery plan is called "[Spain can do it: Recovery, Transformation and Resilience Plan](#)". It is expected to lift Spain's GDP by 1.8% to 2.5% by 2024. This boost to the economy should bring up to 250.000 citizens into jobs.

It has four cross-cutting lines of action that serve as the backbone for all the levers and components: (i) the green transition, (ii) the digital transformation, (iii) social and territorial cohesion and (iv) gender equality.

These four lines of action are reflected in ten lever policies with capacity to drive activity and employment as of the first phase of the Plan, with a view to 2023, to promote economic recovery in the short term and support a transformation process that increases the Spanish economy's productivity and future growth potential:

1. Urban and rural agenda, agricultural development, and the fight against depopulation (€14.40 billion).
2. Resilient structures and ecosystems (€10.40 billion).
3. A fair and inclusive energy transition (€6.38 billion)
4. A public administration for the 21st century (€4.31 billion)
5. Modernisation and digitalisation of industry and SMEs. Entrepreneurship and business environment, recovery and transformation of tourism and other strategic sectors (€16.07 billion).
6. Promotion of science and innovation and strengthening of the capabilities of the National Health System (€4.94 billion).
7. Education and knowledge, lifelong learning, and capacity building (€7.31 billion).
8. The new care economy and employment policies (€4.85 billion).
9. Promotion of the culture and sports industries (€0.82 billion)
10. Modernisation of the tax system for inclusive and sustainable growth (-)

Among these, the fifth lever policy focuses the most on industry and responses to advanced manufacturing supply chain impacts. It places emphasis on the need to modernise and improve Spain's industrial competitiveness, to incorporate and leverage the benefits of digitisation and sustainability across existing and future business fabric, favouring its energy transition and promoting cross-cutting actions that foster the necessary transformations to guarantee its long-term viability while maintaining employment.

These ten lever policies encompass the 30 components of the coherent investment and reform projects to modernise the country. Most of them are horizontal in nature, i.e., for the economy as a whole; however, some of them specifically aim to promote the modernisation of sectors driving the economy, such as trade, tourism, agri-food, health, the automotive industry, or the public administrations.

Furthermore, the Plan sets out eleven key reforms aimed at modernising the economy and the public administration, responding to market failures, increasing the factors of production (natural, human, technological and social capital) and their productivity, reducing inequality and, in doing so, fostering Spain's growth potential.

One of the main reform components relates to the need for new public policies aimed at establishing a dynamic, resilient, and inclusive job market, one that responds to the circumstances stemming from the intense digitalisation process accelerated by the pandemic.

This Recovery Plan is a nationwide project, which requires the involvement of all economic and social actors, from all levels of government and from all the public administrations. In this context, new governance bodies have been created to guarantee a participatory process which will include proposals from the main economic, social, and political actors, as well as the necessary coordination mechanisms between the different levels of the public administration.

A part of the Spanish national recovery plan will be implemented through Strategic Projects for the Recovery and Economic Transformation (SPRET). These SPRET are strategic projects with great impact in the economic growth, employment and competitiveness of the Spanish economy together with a high component of public-private collaboration and transversal to the different administrations.

The SPRETs that the Spanish Government has approved so far are:

- Development of a state-of-the-art national health system
- Renewable energies, hydrogen and storage
- The green and connected automotive industry
- The aerospace industry
- Sustainable and efficient agriculture

At a regional level, the Basque Country approved the Euskadi Next Programme in June 2021: "[Euskadi Next: Basque Recovery and Resilience Programme 2021-2026](#)". It is a clear commitment to economic transformation of the Basque Country by making use of the European Recovery and Resilience Mechanism. The Euskadi Next programme has a clear positive discrimination towards industry for two reasons. Firstly, because boosting industry and its competitiveness represent a fundamental lever for the desired State socio-economic transformation. And secondly because investment intensity is greater in the industrial sector than it is in other sectors with a view to tackling both the green and the digital transformations.

In Euskadi Next, the Basque Country has identified 63 projects for a total amount of 6,4 billion euros across the following 8 components:

- Health and Care
- Lifelong Learning
- Generating Renewable Energies
- Sustainable Mobility
- Digitisation and Innovation
- Urban Habitat
- Natural Habitat and Natural Disaster Prevention
- Circular Economy

Part II

At national level, an Urgent Action Plan was implemented in March 2020. This Plan included measures supporting liquidity, adapting working hours and implementing telework, enabling flexibility and public support for maintaining jobs through furlough and short-time work schemes and sustaining family incomes, focusing in particular on the self-employed and on those groups especially affected by the pandemic.

At regional level, the Basque Government adopted in March 2020 a first batch of measures amounting to 841 million euros with the aim to alleviate the enormous economic problems derived from the paralisation of the activity of a large part of the Basque business fabric. To this regard, aid schemes were launched to fund R&D projects related to the fight against the Coronavirus, as well as the mitigation and recovery of the

socio-economic effects derived from the health emergency. In particular, aid-schemes facilitated the restructuring and relaunch of companies that suffered the consequences of a situation of exceptional and global crisis. Equally, liquidity lines or working capital was offered to provide the necessary liquidity to the Basque business. Finally, aid was also offered to acquire IT equipment to facilitate the implementation of teleworking.

Later on, in November 2020, the Basque Government approved "[Berpiztu 2020-2024, the Programme for Economic Recovery and Employment of the Basque Country](#)". It is the response of the Basque institutions to overcome the economic and employment crisis generated by the Covid 19 health pandemic. Consequently, it goes in line with the Next Generation Europe and the Sustainable Development Goals.

Berpiztu will be a lever to face the three global transitions: (i) The technological-digital transition, (ii) The energy-climate transition, (ii) The health and social transition.

The programme sets out 10 specific objectives, linked to employment, economic recovery, and the resilience of the Basque Country, in line with European recommendations: (i) Incentivising quality employment (bringing the unemployment rate below 10%), (ii) Promoting youth employment, (iii) Preparing employment for the three global transitions, (iv) Supporting investments and reforms, (v) Sustaining the economy and supporting economic recovery, (vi) Developing a sustainable and healthy diet, (vii) Strengthening Basque industrial ecosystems, (viii) Accelerating public investment and infrastructure projects and promoting private investment, (ix) Incentivising a just energy and environmental transition, and (x) Promoting gender equality.

To achieve these objectives, the programme will invest €13.250 million euros (period 2020-2024) out of which a budget of €9,550M is earmarked for the two vertical core areas of the plan and €3,700M is intended for the financing for companies and the self-employed. This figure comes from the Basque Government's own budgetary resources and does not include those extraordinary funds that might be coming from the European Union. These two core goals are deployed in 12 policies and 60 lines of action.

- 1st core area: Economic recovery (€7,935M):
 1. New public and social infrastructures (€2,976M)
 2. Research, innovation, and digital transformation (€2,512M)
 3. Energy and environmental transition (€375M)
 4. Industry and SMEs, advanced services, creative industries, and internationalisation (€1,164M)
 5. Food industry (€613M)
 6. Tourism and cultural trade and industry (€313M)

- 2nd core area: Employment creation (€1,615M):
 7. Entrepreneurship. New companies (€128M and 10,790 jobs)
 8. Training for employment (€342M and 24,100 jobs)
 9. Job integration. Local and district employment plans (€577M and 26,110 jobs)
 10. "Renove Programme". Building refurbishment (€406M and 15,000 jobs)
 11. Public sector job offers (** and 10,720 jobs)
 12. Youth employment action plan (€162M and 25,800 jobs)

To complement the two core areas, a third cross-cutting area relates to the improvement of the quality of employment and gender equality, making it the thirteenth policy area of this Programme.



The Programme foresees many positive impacts. The main one will be the creation of 130.000 jobs. Other positive results on the economic activity are expected such as the creation of 6,000 new companies (including micro-SMEs and the self-employed), the financing of 800 new R&D&I projects, the support for 10,000 industrial companies in their modernisation and expansion and, finally, the value added growth in industry and advanced services (4,000 M€), the food industry (100 M€) and the trade, hotel and catering and tourism sector (1,400 M€).

Catalonia

Part I

The Spanish national COVID_19 recovery plan is called “España puede. Recovery, Transformation and Resilience Plan for the Spanish Economy”. This plan is aligned with the European Next Generation EU (NGEU) programme to facilitate Recovery and Resilience after pandemic.

Spain’s recovery and resilience plan responds to the urgent need of fostering a strong recovery and making Spain future-ready. The reforms and investments in the plan will help Spain become more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. To this end, the plan consists of 112 investments and 102 reforms. They will be supported by €69.5 billion in grants. 40% of the plan will support the climate objectives and 28% of the plan will foster the digital transition. [Spain’s recovery and resilience plan | European Commission \(europa.eu\)](#)

The transformative impact of Spain’s plan is the result of a strong combination of reforms and investments which address the specific challenges for Spain. The reforms address bottlenecks to lasting and sustainable growth, while investments are targeted to accelerate the transition towards a more sustainable, low-carbon and climate-resilient economy, to maximise the benefits of the digital transformation and to ensure social cohesion. The plan also intends to improve connectivity within the country, boost labour market performance, innovation capacity of the economy and make public spending more efficient and sustainable. All reforms and investments have to be implemented within a tight time-frame, as the Regulation on the Recovery and Resilience Facility foresees they have to be completed by August 2026.

The plan will foster economic growth and create jobs. It will lift Spain’s gross domestic product by 1.8% to 2.5% by 2024. This boost to the economy will bring up to 250,000 citizens into jobs. Spain will benefit significantly from the recovery and resilience plans of other Member States, for instance through exports to these Member States. These spill-over effects account for 0.4 percentage points of gross domestic product in 2024. This demonstrates the added value of joint and coordinated action at the European level. These estimates do not include the possible positive impact of structural reforms, which can be substantial.

At the regional level, the Catalan COVID_19 recovery plan is called Economic, Reactivation and Social Protection Plan in Catalonia. The Executive Council of the Government of Catalonia has outlined 11 missions to guide the definition of Next Generation Catalonia:

These 11 missions are as follows:

1. **EQUAL OPPORTUNITIES.** To create a Catalonia in which all citizens have the same opportunities for a healthy lifestyle and access throughout their lives to quality education and training for their integral development and well-being.
2. **SUSTAINABLE ECONOMY.** To transform the production model into one that takes into account the limits of the planet, in which sustainable economy is the driver of social welfare, and shared responsibility is a value on which to build growth.
3. **ENERGY TRANSFORMATION AND NEW INDUSTRY.** To make savings and energy efficiency, renewable energy and the circular economy the key pillars of economic reactivation.
4. **SUSTAINABLE MOBILITY.** To switch the fossil-fuel based model of mobility for a sustainable, smart mobility of reference to combat climate change.
5. **THE NATURAL ENVIRONMENT.** To adapt the natural environment in order to protect it from the ravages of climate change.
6. **CONNECTIVITY.** To digitally connect the territory and transform it into a lever for economic impetus, resettlement and reduction of the digital divide within the territory for a more cohesive Catalonia.
7. **TECHNOLOGICAL SOVEREIGNTY.** To achieve technological sovereignty by developing disruptive technologies culminating in a new high value-added industry.
8. **INNOVATION.** To become a leading innovator through the creation and intensive transfer of knowledge and the impetus to entrepreneurship.
9. **TRANSFORMATION.** To harness digitalisation, sustainability and conscious and responsible knowledge as drivers of transformation in the economic sectors hardest hit by the pandemic.
10. **INFRASTRUCTURE.** To create an efficient and collaborative infrastructure roadmap for a more competitive, cohesive and connected country.
11. **COMPETITIVENESS.** To turn knowledge into a competitive factor allowing for increased growth potential in the Catalan economy and its production sectors in the long term.

[Next generation
\(gencat.cat\)](https://gencat.cat)

[Catalonia](#)

In 2021, ACCIÓ launched Generation EU Office to Catalan companies for [Next Generation EU, per la Competitivitat de \(gencat.cat\)](#)

the NEXT give support to these calls: [Oficina ACCIÓ - Agència l'Empresa](#)

Part II

At regional level, along with the financial support already mentioned, other measures have been set up during 2020 and 2021:

- **COVID MARKETPLACE:** in 2020 ACCIÓ launched a virtual marketplace to connect companies and Catalan manufacturers from different points of the value chain to foster collaboration towards the health emergency due to Covid-19.
[La Generalitat crea un portal per recollir i posar en contacte empreses que ofereixin tecnologia, material sanitari o capacitat de producció pel Covid-19. ACCIÓ - Agència per la Competitivitat de l'Empresa \(gencat.cat\)](#)
- **Care & Industry together against CORONA** (Powered by Flanders' Care – Government of Flanders & E.E.N. Flanders).
'Care & Industry together against CORONA' b2match offered the opportunity to make targeted and time-efficient contacts with all actors in healthcare, industry, academia and government. ACCIÓ, as member of the EEN-Enterprise Europe Network, was one of the co-organisers of this initiative.
[Care & Industry together against CORONA - Home \(b2match.io\)](#)
- **COVID INTERVIEWS:** In 2020 ACCIÓ prepared a set of interviews/questionnaires to be formulated to Catalan companies (including several questions about the situation of the company due to the pandemic, about their needs...) with the objective to have a picture about how the COVID outbreak was affecting Catalan ecosystem and how we could help them through our services.

- ProACCIÓ4.0: Regarding industry4.0/advanced manufacturing, ACCIÓ had already an Industry 4.0 Programme called ProACCIÓ4.0 before the pandemic. This programme has been reinforced and includes different services, grants and activities that ACCIÓ provides so that companies can take the leap into industry 4.0. For instance, Industry 4.0 Vouchers, advisory services or funding opportunities. ACCIÓ also organises activities, conferences, missions and courses specifically aimed at Industry 4.0. [ProACCIÓ 4.0. ACCIÓ - Agency for Business Competitiveness \(gencat.cat\)](#)
- COVID EU Calls: From the European Projects team at ACCIÓ, we gave support to Catalan companies to participate in the extra EIC Accelerator Call for COVID: The EIC Accelerator will work with an extra €150 million to support game-changing innovations to tackle the coronavirus crisis. The additional budget will fund the best start-ups and SMEs who applied under the March 2020 cut-off. A record number of companies applied to the EIC Accelerator pilot March cut-off - many of which have innovations relevant to the coronavirus outbreak.

[EISMEA - Item \(europa.eu\)](#)

Standard services: through our current portfolio of services we supported companies in specific needs that emerged during this pandemic, i.e. chip shortage.

Lombardy

Part I

The Italian national COVID-19 recovery plan is called [Piano Nazionale di Ripresa e Resilienza \(PNRR\)](#) and it is aligned with the European Next Generation EU (NGEU) programme to facilitate Recovery and Resilience after pandemic. The plan consists in a set of actions on three main strategic axes: digitisation and innovation, ecological transition, and social inclusion. The short-term objective is to address the economic and social disruption caused by the pandemic crisis. In the medium-long term, the Plan intends to remove structural weaknesses of the Italian economy, namely innovation, territorial, generational and gender gaps. Finally, PNRR will lead the country along a path of ecological and environmental transition.

The Plan has six specific missions:

1. *"Digitalisation, Innovation, Competitiveness, Culture"* allocates a total of €49.2 billion to promote the country's digital transformation, supporting innovation in the production system, and investing in two key sectors for Italy, namely tourism and culture.
2. *"Green Revolution and Ecological Transition"* allocates a total of €68.6 billion to improve the sustainability and resilience of economic system and to ensure a fair and inclusive environmental transition.
3. *"Infrastructure for Sustainable Mobility"* allocates a total of €31.4 billion to develop a modern, sustainable transport infrastructure in the whole country.
4. *"Education and Research"* allocates a total of €31.9 billion to strengthen the education system, digital and technical-scientific skills, research and technology transfer.
5. *"Inclusion and Cohesion"* allocates a total of €22.4 billion to facilitate labour market participation, particularly supporting women, vulnerable people or ones with disabilities.
6. *"Health"* allocates a total of €18.5 billion to support local prevention and health services, modernising and digitalising the whole system.

The first two missions and the fourth one are the more connected to Advanced Manufacturing. In terms of digitalization of production processes, lots of incentives to support the development and competitiveness of SMEs and large companies on international markets has been set up at technology (machinery, plant and equipment), research and market (tax credits and training activities) levels for Made in Italy branded products. In the second mission, instead, the support focuses on Circular Economy, establishing a more efficient and advanced recycling of waste (+55% of electric materials, +85% of paper, +65% of plastics and +100% of textiles) and limiting energy consumption through the use of hydrogen and renewable energies in industry.

The Plan also includes an ambitious programme of reforms to facilitate the implementation phase, contributing to the modernisation of the country and making the economic environment more favourable to the development of business activities. In particular, Public Administration reform will encourage the recruitment of young people, the invest in human capital and the digitisation, justice reform will reduce the length of legal proceedings and simplification measures will favour the obtaining of permits and authorisations. The simplification and clear definition of needed authorizations is significant for the Advanced Manufacturing, because it allows to treat waste materials and to implement new technological solutions not completely standardized yet.

In general, the impact on national economic and productivity growth will be significant, with a +3.6% of GDP in 2026 according to Italian Government. The Italian Ministry of Economy and Finance will monitor the

progress in the implementation of reforms and investments and will be the point of contact with the European Commission.

At regional level, a significant role within PNRR will be played by Local Authorities, which are responsible for investments amounting to more than € 87 billion. Furthermore, the Lombardy Plan has been set up in 2020, anticipating the PNRR, to support all the regional stakeholders strongly affected by COVID-19 pandemic. A total amount of €4 billion has been addressed to Lombardy, of which €400 millions distributed to Local Entities to promote sustainability, energy efficiency and the development of digital infrastructures.

In general, Italy and Lombardy Region as response to pandemic situation decided to not change the ongoing policies and strategies but to connect them to the economic recovery, linking the industrial reaction to Covid to sustainable and digital transition. Another tool promoted by Lombardy Region in 2020 was the Open Expression of Interest reserved to public entities aimed at creating a regional Hub for industrial transition to Circular Economy developing high TRL solutions for commercialization of developed processes/technologies. It was configured within the “Programma Degli Interventi Per La Ripresa Economica” (Programme of Interventions for Economic Recovery). The Hub, funded in 2021, will treat EOL Electric vehicles through the participation of 5 universities and research centres (€5 million funding).

Part II

At regional level, along with the financial support already mentioned, two other measures have been set up during 2021:

- “[*Nuova impresa*](#)” programme to favour the development of new businesses as answer to COVID-19 crisis. It is aimed to support new business in different sectors, among which manufacturing, in order to promote the opportunities of relocation through the disbursement of grants connected to the creation of new enterprises. The measure allocates a total of €11,7 million, with a maximum of €10'000 per enterprise (50%).
- “[*Patrimonio impresa*](#)” programme to strengthen the capital structure of SMEs in order to increase enterprises resilience and to find new resources. The relaunch of SMEs could be in different topics, among which the digital transition and the sustainable transition. The measure allocates a total of €140 million, with a maximum of €100'000 per enterprise (30%).

At national level, the PNRR represents the most important instrument to envisage investments and a consistent reform package, with a total of €248 billion available. In addition to these resources, there are also those made available by the REACT-EU programme, which will be spent in the years 2021-2023 in accordance with EU regulations. These funds amount to a further €13 billion.

In relation to industry/advanced manufacturing, the main measures are:

- *Mission 1 “Digitalisation, Innovation, Competitiveness, Culture”*, aimed at relaunching the competitiveness and productivity of the country through a digital revolution, with a total budget of €40,29 billion. In particular, Component 2 “*Digitalisation, Innovation, Competitiveness in production systems*” supports technological innovation and digitalization of SMEs and large enterprises on international market for made in Italy products. M1C2 has four main investments some of them directly connected to Advanced Manufacturing:
 1. *Transition 4.0* recognizes three funding lines, namely tangible and intangible assets for digital transition of production processes, training activities and investments in research and innovation.
 2. *High-tech investments* for the purchase of machines, equipment and systems for Advanced Manufacturing.

3. *Industrial value-chain policies and internationalization*, mainly addressed to SMEs, to decrease value-chain fragmentation and to support industrial competitiveness on international markets through feasibility studies, participation to fairs, consultancy services, etc.
- *Mission 2 “Green Revolution and Ecological Transition”*, aimed at making sustainable and competitive the national ecosystem through Circular Economy, with a total budget of €59,46 billion. In particular, Component 1 “*Sustainable Agriculture and Circular Economy*” supports the management of waste, strengthening the infrastructure for waste collection and sorting, modernizing the existing recycling plant and constituting new treatments plants. The Component 2 “*Renewable energies, hydrogen, sustainable mobility and network*”, instead, focuses on increasing the use of renewable energies at industrial level and favour the development of competitive Supply Chain in key sectors, limiting the dependence on foreign resources and strengthening R&D on innovation-intensive areas (such as photovoltaic, batteries, etc.).
- *Mission 4 “Education and Research”*, aimed at strengthening the educational system, the digital and techno-economic skills, the research, and the technological transfer with a total budget of €30,88 billion. In particular, Component 2 “*From research to Enterprises*” supports the dissemination of innovative models for the applied research in synergy between universities and industrial stakeholders, favours processes for the innovation and technological transfer and strengthens the research infrastructures and the competences boosting innovation. M4C2 allocates 6 billion on four specific measures:
 1. *Extended Partnership* to finance basic research projects carried out by universities, research centres and industrial companies. Each partnership will receive a funding of 80-160 million on different thematic areas: Artificial Intelligence, cybersecurity, circular and sustainable Made in Italy, future energy scenarios, etc.
 2. *National Research and Development Champions* on key enabling technologies, through the strengthening of existing research infrastructures. The 5 thematic areas are data analytics, Agricultural technologies, RNA technologies for health sector, sustainable mobility, and biodiversity.
 3. *Innovation ecosystems creation* as territorial research and development networks. Each ecosystem will receive a funding of 60-120 million for three years projects able to have a significant economic and social impact, particularly on SMEs. According to regional, national and European strategies, they should promote the local scientific and economic smart specialization towards innovation, industrial transfer and private-public collaborations.
 4. Realization of 30 *integrated system of Research Infrastructures and Technological Infrastructures of Innovation*. Research infrastructures are laboratories or equipment systems for research, while Innovation Infrastructures are Pilot Plant to increase industrial competitiveness. This measure has a total grant of 1.6 billion.

All these PNRR measures have national impact and, thus, involve also Regions. However, in particular, the measure “*Innovation Ecosystems*” of Mission 4 is designed to have a specific impact on regional development grounded on Smart Specialisation.

Norte

Part I

As part of the creation of the Next Generation EU - a temporary recovery instrument created by the Council - the Recovery and Resilience Mechanism was developed, which includes the [Recovery and Resilience Plan \(PRR\)](#). Portugal's PRR is a nationally applicable program, with an exceptional implementation period lasting until 2026.

The reforms and investments in the plan pretend to – besides responding to the urgent need to nurture a strong recovery and make Portugal's future-ready following an unparalleled crisis caused by the epidemic – help the country become more sustainable, resilient, and better prepared for the challenges and opportunities of the green and digital transitions.

To this end, the plan consists of 83 investments and 37 reforms, supported by €13.9 billion in grants and €2.7 billion in loans, is organized in 20 components and based on three structuring dimensions: Resilience, associated with an increase in the capacity to react to crises and overcome their associated current and future challenges; Climate Transition, as a result of Portugal's commitment and contribution to the climate targets that will enable it to reach carbon neutrality by 2050; and Digital Transition that includes significant reforms and investments planned in the areas of digitalization of companies, in the state and providing digital skills in education, health, culture, and forest management.

Resilience considers nine components to strengthen Portugal's social, economic, and territorial resilience. These include a robust set of interventions in strategic areas, namely in health care (C1.), housing (C2.), social care (C3.), culture (C4.), capitalization and business innovation (C5.), qualifications and skills (C6.), infrastructure (C7.), forestry (C8.), and water management (C9.).

Component 5. aims to increase the competitiveness and resilience of the economy based on R&D, innovation, diversification, and productive structure specialization. Providing capital to economically viable enterprises before the economic recession caused by the pandemic and encouraging productive investment in areas of strategic national and European interest. This component comprises the following reforms: promoting R&D&I and innovative investment in enterprises; creation and development of the Banco Português de Fomento¹; expanding and Consolidating the Network of Interface Institutions; Research and innovation agenda for the sustainability of agriculture, food, and agro-industry; and developing the capital market and promoting the capitalization of non-financial companies. Key measures aimed at reinforcing economic resilience include, inter alia, investments aimed at boosting research and innovation, such as the Mobilising Agendas (Business Innovation mobilising Agendas²/Alliances and Business Innovation Green Agendas/Green Alliances³) that worth more than €900 million, and institutional and business environment reforms aimed at boosting productivity.

¹ Banco Português de Fomento (BPF) is the Portuguese promotional bank, an institution resulting from the merger of three leading institutions operating within the mission of supporting Portuguese SME that aim to achieve innovative solutions for national and international projects, promote sustainability and economic development.

² The Mobilising Agendas/Alliances for business innovation, with emphasis on reindustrialisation, aim to accelerate the structural transformation of the Portuguese economy, improving its specialisation profile through the formation of solid and structured consortia that guarantee the development, diversification and specialisation of national value chains, pursuing objective goals in terms of exports, qualified employment and investment in R&D.

³ The Green Agendas/Alliances seek to enhance the importance of green growth and innovation in areas important for accelerating the climate transition. A limited number of Green Agendas for business innovation will be empowered, with an emphasis on reindustrialization. The collaborative

The decarbonization of the economy and society offers important opportunities and prepares the country for the realities that will shape competitiveness factors shortly. In this regard, six Climate Transition components were considered for intervention in strategic areas, such as the sea (C10.), decarbonization of industry (C11.), sustainable bioeconomy (C12.), energy efficiency in buildings (C13.), renewable energies (C14.) and sustainable mobility (C15.).

Component 11. aims to decarbonize the industrial and business sector and promote a paradigm shift in the use of resources, implementing measures in the National Energy and Climate Plan 2030⁴ (NECP) - especially in its 7th objective - development of an innovative and competitive industry- and constitutes a central strategic PRR objective given that it contributes towards accelerating the transition to a carbon-neutral economy and, at the same time, promotes the competitiveness of industry and enterprises through decarbonization, reduced energy consumption and promotion of endogenous energy sources.

Digital Transition aims to ensure that Portugal accelerates the transition to a more digital society and is based on 5 components: enterprises 4.0 (C16.), quality and sustainability of public finances (C17.), economical justice and business environment (C18.), public administration more efficient (C19.) and digital school (C20.).

Component 16. has the specific goal of enhancing the digitalization of enterprises and, in parallel with the C11, C16 aims to leverage the investments necessary for Portuguese companies and their workers to adapt to the dual climate and digital transition. Support for the decarbonization of industry provided in C11 (more than €700 million) will ensure the timely preparation of our productive fabric for the new environmental requirements. C16 will make a decisive contribution to the digital transformation of SME business models, allowing them to reposition their businesses in a digitally advanced ecosystem, particularly relevant in the pandemic context. This component benefits from €650 million supporting small and medium enterprises and their workers with tailored digital skill training and tailored coaching and support to adopt digital technologies, reforms, and investment will also contribute to creating a safe digital environment for the digital transition of society and business.

Part II

Shortly after the beginning of the pandemic crisis caused by COVID-19, the Portuguese government and, consequently, the various institutions supervised by its ministries, promoted a set of initiatives that aimed to respond to the immediate and future problems that could affect Portuguese citizens and companies. These financial support instruments were implemented in the territory of continental Portugal, including the Norte region. Below is a list of some of the measures promoted which, although not specifically aimed at advanced manufacturing, due to their transversality, cover the entire industry in general.

INNOV4COVID19: with a budget of 4 million euros, this reimbursable support aimed to assist the immediate development of R&D and technological innovation projects and initiatives that respond to the immediate and medium-term needs of the National Health Service.

Support for Exporting Companies in Industry and Tourism: with a budget of 1.050M€, this is a line of credit placed on the market by Banco Português de Fomento and credit institutions to encourage export activity for industry and tourism.

projects to be supported must leverage the development of new products, services and solutions, with high added value and the incorporation of knowledge and technology, allowing a response to the challenge of the green transition towards environmental sustainability.

⁴National Energy and Climate Plans (NECPs) determine national contributions of each Member State towards the binding EU energy-climate targets and the objectives of the Energy Union, over a period of ten-years.

Simplified lay-off regime: extraordinary support measure issued by Portuguese Government for protecting both employees and companies facing a business crisis caused by coronavirus pandemic, towards the maintenance of employment contracts.

Incentives for the normalization of business activity and simplified support for micro-enterprises to maintain jobs: attribution of financial support to companies in the phase of the return of their workers to the normal provision of work and the normalization of business activity.

The Recovery and Resilience Plan is one of the financing instruments that results from a strong combination of reforms and investments which address the specific challenges of Portugal and the Norte Region in the aftermath of the COVID-19 pandemic. This instrument is part of a global strategy that covers a broader time horizon – the 2030 Strategy, constituting one of its most relevant sources of funding, along with others, namely: the Multiannual Financial Framework (MFF) 2021-2027; the Partnership Agreement and Strategic Plan for the CAP; other European mechanisms for responding to the pandemic crisis, such as SURE; the different centrally managed European funding programs, such as Horizon Europe, the Connecting Europe Facility, InvestEU or BPI/EIF⁵ funding; the annual national budget exercises; other public funds, such as the Environmental Fund; and structuring private investments.

During the next decade, and together with the Norte Regional OP, these financing instruments will flow resources for the modernization and economic and social development in Norte. The PRR encompasses a budget of 16,6 billion euros, including funds from EU Structural funds, the REACT-EU fund and the reinforcements of the Just Transition Fund and Rural Development. The implementation of PRR has begun in July 2021.

⁵ Credit line up to €95 million guaranteed by the European Investment Fund (EIF) to support investments in agricultural holdings and in the processing and marketing of agricultural products.

Scotland

Part I

At the outset of the Covid Pandemic the Scottish Government launched a package of grant support for SME and newly self employed. A total of almost £160m was awarded to 4,023 businesses and 5,602 self employed people; £121m of this was awarded via the Pivotal Enterprise Resilience Fund which targeted viable but vulnerable SMEs vital to the local or national economic foundations of Scotland. A full breakdown of awards by Fund, sector and local authority is available [here](#). Further schemes were also launched to support niche areas of the economy including the snow sports sector and the wedding industry.

In October 2021 the Scottish Government launched the Covid Recovery Strategy: for a fairer future. This Strategy (<https://www.gov.scot/publications/covid-recovery-strategy-fairer-future/pages/2/>) aims to address the systemic inequalities made worse by Covid whilst at the same time progressing Scotland towards a wellbeing economy and accelerating inclusive person-centred public services. A key economic outcome of this strategy will be support Scottish businesses to create and sustain new, good, green jobs

Underpinning this from a manufacturing perspective are a series of actions set out for 2021, as detailed here: <https://www.gov.scot/publications/making-scotlands-future-recovery-plan-manufacturing-final-june-2021/>. Since the onset of the Covid-19 pandemic Scottish Enterprise has revised the organisation's approach to supporting the manufacturing sector with the introduction of seven National Programmes. These programmes (listed below) are envisaged to help restructure the Scottish economy and deliver positive impact in the long term:

1. Digital Scale Up
2. Health for Wealth
3. Future Healthcare Manufacturing
4. Scotland in Space
5. Hydrogen
6. Zero Emission Heavy Duty Vehicles
7. Decarbonising Heat

Part II

The new Scottish Enterprise Decarbonising Heat National Programme will support the Scottish Government 'Heat in Building' and 'Covid Recovery' strategies. The Heat in Building Strategy' is a key component to achieving its Net Zero targets and includes the priority Investing in innovation and demonstration.

The Decarbonising Heat National Programme includes:

- **The Decarbonising Heat Innovation Programme (DHIP)**

The 5-year DHIP will provide a range of support, primarily through challenge-based calls, for research and innovation projects. Support will incorporate grants to existing and potential Low Carbon Heat supply chain companies, resulting in the development of new technologies, solutions and products. These will be delivered using domestic funding mechanisms and European Joint Calls for transnational collaboration.

Diversification is a key component, providing opportunities for industries such as Oil and Gas, Water, Facilities Management, Engineering, Digital/Data and Energy Systems.

Specific Decarbonising Heat Initiatives Supporting market growth

- **Cluster builder**

The Cluster builder will provide support, information and events to the Scottish Heat sector, creating effective linkages amongst the constituent parts, helping it to engage in a coordinated and cohesive basis. It will establish new routes of communication and collaboration between SMEs in the sector.

- **The Heat Hub**

The Heat Hub National Centre will act as a centre for collaboration to support manufacturers and their current and potential supply chain, customers of low carbon heating solutions and investors. In so doing so providing a focus to accelerate the ambitions to meet the net zero emissions target and building on existing companies, leading demonstrator projects and academic strengths and positioning Scotland as the lead UK location for heat pump manufacturing.

Financial instruments (loan / equity)

SE is reviewing its investment portfolio, including the decarbonisation opportunities. These include the consideration of investment funds into low carbon heat projects.

The Decarbonising Heat National Programme is aligned to the Workplace innovation services, Capital Grant Assistance support and wider tailored support for SMEs.

South Netherlands

Part I

National

Due to ongoing government coalition negotiations, the Netherlands has not yet approved and submitted its RRF plan to the EC. This is expected to become public in the upcoming weeks (new government will start its work early January 2022).

Regional

REACT-EU brings 49,5 mEUR of additional funds to South Netherlands, which is composed of three provinces which have each defined their own priorities:

- Brabant
 - development of new digital products and services in health care and cities
 - making sustainable existing real estate
 - (re)skilling of current and future potential labour force
 - new technologies in energy conversion and storage, AI, green mobility, agrofood and health
- Limburg
 - SME innovation in hospitality, retail and tourism
 - valorisation of knowledge in regenerative medicine: development and production of materials and equipment
 - gravitational waves: connecting SMEs to developments in this new enabling technology (link with ESFRI project "Einstein Telescope")
- Zeeland
 - SME innovation in hospitality, tourism and culture
 - Strengthening the ecosystem by stronger links between companies and knowledge institutes

30 projects have received funding. These are the ones with a particular link to industry and AM:

- Development and production of materials and equipment, in order to industrialise Regenerative Medicine products (proof of concept of an assembly line; development and demonstration of a point-of-care instrument)
- Set up of a field lab to support industrialisation (i.e. integration in operational processes) of AI and AR/VR applications in a maintenance and service context
- Large scale production of sustainable and high value bio-aromatics, and demonstration in applications such as bio-coatings for industry
- Set-up of a field lab on "autonomous marine navigation", using digital technologies such as robotics and AI
- Pilot Manufacturing Center: a space for pilot production, experiments and training in electronics and additive manufacturing
- Development of technologies to realise the Einstein Telescope, and detecting applications and spin-off potential in other domains to the benefit of SMEs
- Battery Competence Center: cluster building for the regional and national battery value chain, focussed on application driven battery technology development (battery packs, pilot assembly lines)
- Cluster building to realise affordable and qualitative cultured meat
- Demonstration of the feasibility of production and integration in building facades of solar panels and thermochrome windows + realisation of an open innovation space for SMEs focussed on functional coatings on glass for energy saving or generation
- Development of inspection robots in the maintenance of process industry

- Set-up of 4 field labs using data and digitalisation technologies (AR/VR/Serious Gaming; smart supply chain contracts; robotics; digital twin) to realise smart solutions and applications for optimisation of supply chains and processes
- Development of AgroBots for the agriculture sector

Part II

National

- Compensation for Loss of Turnover (general measure): in case of documented loss of turnover as compared to the year before (minimal 20%; percentages have differed along the duration of the Covid crisis), companies can ask for a subsidy to compensate fixed costs (minimum amount per quarter 1.500 EUR, max. amount 550.000 EUR/600.000 EUR depending on resp. SME or larger company)
- Emergency Measure Bridging Employment (general measure): in case of documented loss of turnover, this measure compensates part of salary costs in order for employers to be able to keep employees on board

Regional

- Corona Bridging Loan (all regions in the country, implemented by RDAs; general measure) : The Coronavirus Bridging Loan (COL) is an emergency loan for innovative entrepreneurs and SMEs who do not have a bank loan facility and are facing financial difficulties as a result of Covid19. This facility was developed as part of an intensive collaboration between the Dutch Ministry of Economic Affairs and Climate Policy (EZK), the joint Regional Development Corporations (ROMs) and TechLeap.nl, and with the close involvement of Invest-NL. At the request of the EZK, the ROMs are providing bridging loans of between €50,000 and €2 million. (closed in May 2021)
- BrightMove Emergency Fund for Start-Ups (Brainport Region): The aim of the fund is to provide support during max. three months in order to arrive at a structural solution to the financing demand. The financial support should prevent innovation in the region from falling sharply in the coming years and problems arising in the further development of these companies after the corona crisis has been overcome.

The regional emergency fund is needed because smaller startups are not eligible for other corona crisis measures. They are not eligible for many national schemes. The national fund for startups and scaleups, which is run in North Brabant by the Brabant Development Agency (BOM), provides loans between €50,000 and €2 million. The Bright Move emergency fund offers loans between €15,000 and €50,000. The regional emergency fund and the national Corona Bridging Loan (COL) complement each other to help as many startups as possible throughout the chain.

In the Brainport region, the partners are Bright Move, Incubator 3+, Brainport Development, Eindhoven University of Technology, Rabobank Eindhoven Region, Eindhoven Municipality, Brabant Startup Fund, ASML and Philips. Together with the Province of Noord-Brabant, they have set up the Bright Move emergency fund. This is intended for innovative start-ups that have existed for less than 6 years, employ staff and are a Limited Company.

Limburg: "Limburg recovers and accelerates", innovation support targeted at SMEs by the RDA, focussing on digitalisation, sustainability and health (e.g. information on new technologies and market opportunities, business development advice)

South-Holland

Part I

National government:

- financial support for loss of turnover for all companies up to 90%
- deferred taxes and more favorable terms for government loans

No national Recovery and Resilience Plan submitted in Brussels for political reasons (elections, forming of new government)

Province:

- monitoring of effects on regional economy
- lending personnel to business information desks of the national government
- small scale projects for 'frugal' innovations in medical equipment (masks, a mechanical ventilator)

Part II

A programme for pandemic preparedness as suggested by the life sciences sector has been submitted to the national government. Our Regional Development Agency will give support to a limited number of projects aimed at strengthening pandemic preparedness of our regional economy. With REACT EU € 6,8 million was aimed at speeding up the dissemination of innovations contributing to the transition to a sustainable and digital economy.

The pandemic intensifies the need for focus on inclusive transition to a sustainable and digital economy. That is why we are working on an update of the work programme for economy. This is work in progress, but interregional value chains will be an element also with regard to production sovereignty *and* sustainability.