



Action Plan

INNO Industry

Improving innovation
delivery of policies within
4.0 industry in Europe

**anuebla**
cooperación
empresarial


**INNO
INDUSTRY**
Interreg Europe

 European Union
European Regional
Development Fund

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I. PRESENTATION

Project: INNO Industry - Improving innovation delivery of policies within 4.0 industry in Europe.

Partner organization: AMUEBLA - Innovative Business Association of Furniture Manufacturers and Related in the Murcia Region.

Country: Spain

NUTS2 region: Región de Murcia

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I.1. General Information

About AMUEBLA:

Founded in 2009, [AMUEBLA](#) is the business cluster association of the furniture, wood, and habitat sector in the Region of Murcia. Starting with 15 associated companies in 2009, AMUEBLA is comprised by a group of stakeholders close to the furniture sector (most of them SMEs, suppliers and manufacturers, universities, and research centers) working together to address needs in the furniture and habitat sector and representing the interests of more than 80 companies and over 2,500 employees.

AMUEBLA is registered in the European Cluster Collaboration Platform and has renovated the Bronze Cluster Certification in 2018.

Its main goal is to promote joint actions between companies of the furniture sector and other sectors by facilitating innovative practices and improving the competitiveness of its partner's companies, as well as defending its general business interests and promoting its projection and international visibility.

About the Region of Murcia:

The Region of Murcia (regional capital: Murcia) is located at the South-East of Spain, at the Mediterranean coast. The gross domestic product (GDP) of the region has increased

significantly from 2012 (€26,548m), being at €31,458m in 2018, which represents 2.6% of national GDP (Eurostat, 2020)¹.

According to Eurostat (2020), in 2017 the research and development (R&D) expenditures have been at €280.00m, which represents 0.92% of the regional GDP. This is below the national average (1.21 %) and below the EU average (2.08%). According to the Regional Innovation Scoreboard 2019 (RIS 2020), Murcia has achieved the classification of “Moderate Innovator”, with innovation performance increasing over time.

The Region of Murcia, like Spain, has been in a period of beginning economic recovery since 2014-15, after a deep crisis suffered since 2007-08. This recovery in economic activity after the crisis is not matched by growth in employment. In any case, the regional unemployment rate, traditionally higher than the national one, tends to match the latter in recent years.

Productivity in the region, in terms of GVA per job, although it has grown steadily over the last decade, is historically lower than the national average, both in the economy in general and in industrial activity. The regional industrial fabric, like the national one, is characterized by its fragmentation, being formed mainly by micro-SMEs with less than 10 employees (84% of the number of companies).

At the sectoral level, on the other hand, it presents a relatively concentrated structure, with the refining and chemical and agri-food sectors standing out for their volume, although with very different characteristics. Labor costs remain very stable in the Region of Murcia, below the national average, and are significantly lower than those of other autonomous communities with an industrial tradition.

Exports from the Region of Murcia have grown at very high rates in recent years, both in absolute terms and in relation to GDP. The industrial sector has contributed the greatest volume to this growth trend, as the value of regional industrial exports has doubled in the period 2010-18. The destination of exports is mainly the countries of the European Union. Regional investment in R&D&I has traditionally been low, below 1% of GDP, and lower than the national average, although there has been a slight improvement in recent years.

There is also a growing trend over the period in regional business investment in R&D and innovation, clearly led by the industrial fabric. The Region of Murcia has developed infrastructures for technological entrepreneurship, in all phases of business creation and growth, and a consolidated regional system of science, technology and innovation, with public and private participants, complemented by a wide range of university offerings. There is business representation in this system, although collaboration between agents has been limited.

¹ [European Commission. Internal Market, Industry, Entrepreneurship and SMEs: Regional Innovation Monitor Plus.](#)

I.2. Committee of Experts of the Region of Murcia

As a first step in the INNO Industry project, AMUEBLA created the Committee of Experts of the Region of Murcia, which is represented by various agents of the regional innovation system such as universities, technology centers, clusters, business associations, as well as the regional government through the Regional Development Agency.

To conform this group of experts AMUEBLA selected the most relevant regional actors regarding clusters policy, industry 4.0, R&D and innovation:

- Business Competitiveness Area of the Institute for the Promotion of the Region of Murcia.
- Startup Incubator of the Business and Innovation Centre of the Region of Murcia.
- TICBIOMED Cluster.
- AGROFOOD Cluster.
- Stone Cluster.
- Vice-rectorate of Employment, Entrepreneurship and Society of the University of Murcia.
- School of Industrial Engineering of the Polytechnic University of Cartagena.
- Furniture and Wood Technology & Research Center.
- Marble, Stone and Materials Technology Centre.
- Regional Association of Young Entrepreneurs.

The initial goal of the periodic meetings and workshops of the Committee of Experts was to develop a common picture of what already existed, what were the strengths, weaknesses, opportunities, and threats, what could be considered a best practice to be shared and what are areas where they wanted to learn from other partners (improvement areas) regarding the following dimensions:

- Relevant policies (strategies and funding Programmes) for clusters and/or digital transformation.
- Support for companies / cluster members for digital transformation.
- Support for cluster management (or similar) organizations.
- Coordination & interaction of the main actors in the innovation ecosystem, such as policy makers, cluster managers and other innovation service providers, representatives of the business and science community.
- Cluster activities to support digital transformation.

After the identification and exchange among the project members of a series of 30 good practices related to clusters and digitization during the first phase of the INNO Industry project, the Committee of Experts of the Region of Murcia has been in charge of analyzing which of these initiatives are more interesting according to the needs that the region may have in terms of Industry 4.0.

The conclusions obtained in the debate around these good practices and the current situation of the Region of Murcia in terms of digitization and Industry 4.0, has enabled AMUEBLA to develop the current action plan to increase the rate of clusters that develop activities to support digital transformation by improving regional policies.

1.3. Initial SWOT analysis for the Region of Murcia

During the first semester of the INNO Industry project, AMUEBLA organized a workshop with stakeholders who have contact with Region of Murcia policy in the business field, with special interest in those who have a relationship with digital transformation.

The goal for this workshop was to detect improvement areas and best practices, which then has served as baseline for the current action plan. The overall aim was to gain a better understanding of relevant framework conditions and activities within in the Region of Murcia.

The main conclusions obtained during the SWOT analysis of the Region of Murcia were the following:

Dimension	Strengths	Weaknesses	Opportunities	Threats
Policies	<ul style="list-style-type: none"> • Alignment with national and European strategies. • Good communication between the regional and national governments. • Strong awareness towards the digital transformation of industry 4.0. • Clusters presence in national and regional strategies. 	<ul style="list-style-type: none"> • No explicit strategy to support clusters. • Insufficient mechanisms for evaluating the effectiveness of policies. • Lack of effectiveness of policy instruments. 	<ul style="list-style-type: none"> • Awareness of clusters. • Flexibility of SMEs. • Wide range of solutions for the digitalisation of SMEs. 	<ul style="list-style-type: none"> • The slowing down of the economy. • Instability in international markets. • Emerging countries.

<p>Support for companies / cluster members</p>	<ul style="list-style-type: none"> • Wide range of aids for the digital transformation. • Programme to support SMEs for the digital transformation. • Self-assessment tool. • Support programmes. 	<ul style="list-style-type: none"> • Investment aids separated from training aids. • High bureaucracy. • Little collaboration. 	<ul style="list-style-type: none"> • Access to European funds. • Innovation support ecosystem. • Advanced tax relief system. 	<ul style="list-style-type: none"> • Reduction of structural funds.
<p>Support for cluster management</p>	<ul style="list-style-type: none"> • Well organized cluster system. • Exclusive support program for Industry 4.0. 	<ul style="list-style-type: none"> • Lack of enough time to implement projects. • Absence of a culture of collaboration. • Absence of support programmes for dissemination 	<ul style="list-style-type: none"> • Synergies between different clusters • Wide structure of clusters 	<ul style="list-style-type: none"> • Companies are at risk being of been left behind. • Difficulty of clusters to generate direct income from partner companies.
<p>Interaction of main players</p>	<ul style="list-style-type: none"> • Wide Industry 4.0 ecosystem. • High research capacity. • Wide range of forums. 	<ul style="list-style-type: none"> • Overlaps between agents. • High dispersion of functions. • Slow administration. 	<ul style="list-style-type: none"> • Reduced size of the Region of Murcia. • Collaboration of actors from different sectors. 	<ul style="list-style-type: none"> • Discouragement of companies due to mistrust of public policies.
<p>Cluster Activities</p>	<ul style="list-style-type: none"> • Experience of habitat-related actors in projects. • Wide network of partners at regional, national, and European level. 	<ul style="list-style-type: none"> • Companies disconnected from initiatives promoted by intermediate bodies. 	<ul style="list-style-type: none"> • Access to an enormous amount of open information on industry 4.0. 	<ul style="list-style-type: none"> • Polarisation of SMEs.

II. POLICY CONTEXT

The current Action Plan aims to impact:

- ✓ Investment for Growth and Jobs programme.
- European Territorial Cooperation programme.
- ✓ Other regional development policy instrument.

II.1. Policy instrument addressed

ERDF Operational Programme 2014-2020:

The European Regional Development Fund (ERDF) aims to strengthen socioeconomic cohesion within the European Union, correcting the imbalances between its regions, with special attention to the specific characteristics of each region.

The ERDF Regional Operational Program has a total of 296.40 million euros of European funding. Regarding the topics addressed by the INNO Industry project, 55% of the ERDF investment in the Region is concentrated on the following objectives:

- Strengthening of research, technological development, and innovation.
- Improving the use, quality, and access to ICT.
- Improving the competitiveness of SMEs, favoring the transition to a low-carbon economy by increasing the use of renewable energies, reducing energy use, improving efficiency, and promoting intelligent energy systems.

II.2. Additional policy instruments addressed

ERDF Operational Programme 2021-2027:

In 2021-2027, the European Regional Development Fund (ERDF) will enable investments in a smarter, greener, more connected, and more social Europe that is closer to its citizens by enabling investments to make Europe and its regions:

- More competitive and smarter, through innovation and support to small and medium-sized businesses, as well as digitization and digital connectivity.
- Greener, low-carbon and resilient.
- More connected by enhancing mobility.
- More social, supporting effective and inclusive employment, education, skills, social inclusion, and equal access to healthcare, as well as enhancing the role of culture and sustainable tourism.

- Closer to citizens, supporting locally-led development and sustainable urban development across the EU.

Spanish Recovery, Transformation and Resilience Plan:

In July 2020, the European Council agreed on an exceptional temporary recovery instrument known as Next Generation EU endowed with €750 billion for all Member States. The Recovery Fund ensures a coordinated European response with Member States to address the economic and social consequences of the pandemic.

One of the two largest instruments of the Next Generation EU is the Recovery and Resilience Facility (RRF), which forms the core of the Recovery Fund and is endowed with EUR 672.5 billion. Its purpose is to support investment and reforms in Member States to achieve a sustainable and resilient recovery, while promoting the EU's green and digital priorities.

Each Member State was required to design a National Recovery and Resilience Plan that includes the reforms and investment projects necessary to achieve the objectives set by the RRF.

The Recovery, Transformation and Resilience Plan for the Spanish economy, presented in June 2021 by the Spanish government, foresees the mobilization of more than €140 billion of public investment until 2026, with a strong concentration of investments and reforms in the first phase of the Next Generation EU plan, covering the period 2021-2023, to boost recovery and achieve maximum countercyclical impact.

The Plan has four cross-cutting pillars that are structured into 10 lever policies, within which thirty components are collected, which make it possible to articulate the Plan's coherent programs of investments and reforms:

- the ecological transition
- digital transformation
- social and territorial cohesion
- gender equality

II.3. Influence of the INNO Industry project

The INNO Industry project has had a very positive influence, as it has led to the creation of a very diverse working group that represents the main agents of the innovation system in Murcia and that meets periodically to promote discussion on the digitization needs of the regional business fabric.

By bringing into the same conversation representatives of Industry 4.0-related policy makers, clusters and research centers, business associations and higher education institutions, among others, it has allowed the needs of the region to be addressed with all perspectives and potential agents involved.

While this action plan contains two very specific actions aimed at addressing the support to companies to promote their digitalization and the construction of a training map related to Industry 4.0 in the Region, there is also an added benefit specifically related to the clusters in the region.

In the SWOT analysis carried out by AMUEBLA in the initial phase of this project, one very important point was highlighted: that there is no clearly defined policy at regional level focused on the support and promotion of clusters, although they are considered in the different strategies as entities which bring together a considerable number of companies with a vocation for innovation.

However, it was also pointed out as an outstanding opportunity that there are a significant number of cluster organizations in the region that are well aware of the needs of the SMEs they represent, which, with the right institutional support, would allow for the development of a specific policy for clusters at regional level.

With this objective in mind, and with the willingness of all the agents participating in the expert committee, it has been possible to create a specific line of discussion to address the topic and the issue of clusters, something that had never been done before in the region, let alone involving such diverse participants who could contribute their knowledge to create potential solutions.

III. DETAILS OF THE ACTIONS ENVISAGED

III.1. Action 1: Southeastern Talent & Innovation Hub

III.1.1 Background

Challenges of the innovation environment

In the current economic context, the figure of the business cluster has become absolutely fundamental for the development of industrial sectors that take advantage of the synergies between the companies that make it up. In general, it tends to be said that a cluster is a tool that multiplies the possibilities of business productivity.

It is therefore a way of approaching production in which a group is generated with the capacity to be directed and configured as a whole, and the possibility of dividing its areas of intervention so that they are complementary. This generates a competitive advantage within specific environments. It is something that, sustained over time, provides the increase of these advantages.

When companies and institutions, working together, are able to generate a space in which knowledge, experience, resources and capabilities are shared, the first step towards the operation of a cluster has been taken.

However, we should not visualize business clusters exclusively as large geographic environments and high concentrations of companies. For example, the presence of the so-called innovation clusters, which are becoming more and more relevant, clearly shows how in diverse environments and with different scales, the idea of a business cluster can be a driving force that activates and links participants from different ecosystems.

In other words, clusters are a useful tool for the creation of common spaces and the search for competitive advantage.

Lessons learnt from INNO Industry

The initial SWOT analysis performed in December 2019, showcased that business projects of a technological nature are encouraged by industrial SMEs in the Region of Murcia, which aim to establish a clear competitive improvement through the effective introduction of digital technologies in industry, allowing devices and systems to collaborate among themselves, and with other industries, to improve products, processes, and business models.

But, although currently there is a wide range of solutions for the digitalisation of SMEs in the region, AMUEBLA and its stakeholder perceive there is an opportunity to invest in a broad-based innovation support ecosystem that would include actors such as clusters,

research centres, universities and other professional and/or sectorial organizations that could collaborate to identify opportunities for the hybridization of different sectors.

This would mean that the whole ecosystem of innovation in the region must be improved to develop business growth programs based on Industry 4.0 and digital transformation that include the training and/or guidance of the workers who must assume the digital transformation.

Influence of INNO Industry's Good Practices

Since the start of the INNO Industry project, the participants in the Expert Committee have had the opportunity to discuss the good practices presented by the rest of the partners and how they could serve to improve current policies in the region, which ultimately have served to develop an action plan adapted to the current needs of clusters and/or digitalization in the Region of Murcia.

With regard to this specific action, the good practice identified as a potential source of inspiration is the [Business and Shared Services Center of Fundão](#) (Portugal).

Inspired by the learnings from this good practice, this action will incorporate the following factors:

- Financing – A high percentage of the total investment of the project will be funded by the EU.
- Strategy – A clearly defined strategy that will ensure success in establishing an Industrial and Talent Hub.
- Physical Facilities - A physical space that will sustain the strategy and sustainability of the Hub.

III.1.2 Description of the action

Summary of the action

The aim of this initiative is to generate that common place of support to the industrial sector where an activity that favors business growth is generated through the training of talent, the generation of disruptive ideas and the development of pilots prior to the launch of products or services in the market.

To this end, the Southeastern Talent & Innovation Hub will be configured in such a way that everything happens in a fluid and fast way to adapt it to the real times of business development, especially industrial ones, which are increasingly shorter and more fleeting due to this VUCA (Volatility, uncertainty, complexity, and ambiguity) environment that sets the pace of the productive and services world.

The idea of the building is that the layout of the building itself is a reflection of how the innovative process flows in a company from the moment the idea is generated until it is exploited by an existing company or, perhaps, by a start-up.

Therefore, the conception of this advanced infrastructure is designed to serve as a structural lever to support this new concept that we have called Circular Innovation, and whose process flows logically and coherently in the building itself.

The building itself architecturally stages a new concept of innovation that we have called Circular Innovation, which consists of generating a continuous innovation process in the company that feeds back on itself to make it absolutely continuous, flowing logically and coherently in the building itself.

Therefore, the process usually followed by the vast majority of companies, in which disruptive innovations are generated at specific moments in time, is replaced by a continuous innovative process in time and constant in the activity of the company.

This infrastructure would consist of a 3-story building to which a subterranean parking lot would be added, taking advantage of the already established space on the site.

Thus, the first thing that is needed in the company is to generate ideas that, as a result of a coherent and complete analysis and technological surveillance, generate ideas in the fields already specified that can be materialized in disruptive products or services. This is what is done on the second floor, which is closer to the clouds, to the ethereal. It is the "head of the building" and is therefore at the top of the building.

The second floor is where ideas are materialized, becoming, if necessary, prototypes with which to study the real economic and business feasibility of putting these products or services on the market. It is a floor full of thematic experimental development areas (labs) for each of the areas specified in their own names, as described above. It is the central part of the building, the "driving" part of the building.

The first floor is the area dedicated to attracting and training talent. There is no innovation without the right talent. It is simply impossible. This is the floor that really gives the circularity to the building because it is here that people are trained with the new products or services developed so that they are able to manufacture them and, at the same time, people are provided with skills so that, returning again to the second floor, they can start thinking again about new innovations.

Even on this floor, there will be room for those experiences that can become companies that, through entrepreneurs, can open businesses and to achieve this, in their first months or years of life, a suitable place for the implementation of the business idea and to provide it with the first impulse.

In fact, many large companies choose to launch new innovative projects by creating start-up companies that are autonomous from the core business of the company itself, so that

they are not "contaminated" by the day-to-day business of the normal company and can be absorbed by it, since the time and procedures can end up killing early the development of new "blue businesses" that, by definition, are not in the core business of the company.

It is, therefore, a building with an absolutely innovative concept in terms of its capacity to germinate, flow and exploit all the innovative potential of companies in southeastern Spain that want to use it as a fundamental infrastructure to generate and launch businesses derived from new ideas, especially disruptive ones.

At the construction level, the building has been designed to be energy neutral and to accompany the flexibility and dynamism that an innovative business process must inherently bring.

As for human resources, they will be linked to the Furniture and Wood Technology & Research Center, a private business R&D&I organization in the form of a business association that currently has almost a hundred associated companies from various sectors.

Main goals of the action

The ultimate goal is for the building to be focused on the search for so-called "blue innovation", that is, truly disruptive innovation that generates new products or services that are either totally new to the market or are so highly innovative that they represent a break with what already exists in the market. This is the innovation most desired by companies, as it is the most efficient and economically profitable.

To ensure that companies can enter into this dynamic of blue innovation or, at least, try to get out of the so-called "red innovation" where they compete almost exclusively on price so that competition is absolutely voracious with very small profit margins, it is intended to build, as a complement to the current Furniture and Wood Technology & Research Center, located in the city of Yecla (Murcia), the Southeastern Talent & Innovation Hub, conceived as the first physical space for attracting talent, training, innovation and industrial development in southeastern Spain.

Contribution to digital transformation

This is an infrastructure whose main objective is to promote business R&D&I with a fully operational focus on the generation of innovative products and services for companies in southeastern Spain that can find in this infrastructure the place to develop their blue innovation projects.

For this type of disruptive innovation to generate new business, it is necessary for companies to take it out of their "day to day", as it has been proven that it is necessary to take the development of new businesses out of the core business, which require totally different approaches so that the company's main activity does not contaminate or condition the new activity, which will surely be totally different from the main one and with very different needs.

This infrastructure will be the one that will support the realization of ideas, the development of prototypes and the implementation of the start-up that begins to move the business.

Training and education will be one of the most important areas of this infrastructure in order to retain jobs by creating new skills in unemployed staff and also by qualifying the active workers of the companies in the sphere of influence so that they can be continuously recycled in the skills of the digital world and the sustainable economy.

The infrastructure will be located in Yecla, a city that, although it is a business city, is located in a rural area 100 kilometers from the large cities of southeastern Spain (Murcia, Alicante, Albacete, Valencia), which will provide continuous training feedback for employees of the different business sectors in the area of influence.

III.1.3 Players involved

Besides AMUEBLA, as the main promoter behind this action, the rest of the players involved in this action will be the following:

- **Furniture and Wood Technology & Research Center (CETEM):** over the last 20 years CETEM has been promoting and implementing innovation and technological development in the Furniture Sector, making CETEM the main business reference in the industry and becoming an important economic engine in the Murcia Region. CETEM currently has a hundred associated companies although it provides its services to more than 300 companies annually.
- **Regional Association of Wood Entrepreneurs (AREMA):** it has been the reference point for the sector in the Region of Murcia since 1977. It groups the wood processing industries in general, representing a part of the regional economy and employing 15% of the personnel hired in the Region and 17% in terms of number of companies.
- **Regional Ministry of Enterprise, Employment, Universities and Spokesmanship:** is the public body of the Region of Murcia in charge of the proposal, development and execution of the activities promoted by the regional government in the field of business support and business and technological innovation linked to ICTs for application in the company.

III.1.4 Timeframe

The estimated timeline (that might be subject to change) for this action is the following:

- February 2022: Drafting of final project and obtaining of licenses.
- May 2022: Start of building construction.
- November 2022: Acquisition of furnishing and technological infrastructure.
- January 2023: Certification of construction completion.

- March 2023: Opening of the building and start of operations.

III.1.5 Costs

The estimated budget to carry out this action is €5,500,000. The following table shows a breakdown of the total estimated budget for each item during the development of the action.

ANNUAL BUDGET PER LINE ITEM	YEAR 1	YEAR 2	TOTAL PER LINE ITEM
Production equipment and machinery	100.000,00 €	130.000,00 €	230.000,00 €
Building	990.000,00 €	750.000,00 €	1.740.000,00 €
Facilities	400.000,00 €	650.000,00 €	1.050.000,00 €
Civil Engineering	250.000,00 €	100.000,00 €	350.000,00 €
In-house personnel	35.000,00 €	200.000,00 €	235.000,00 €
External collaborations	400.000,00 €	500.000,00 €	900.000,00 €
Equipment and inventoriable materials	325.000,00 €	670.000,00 €	995.000,00 €
ANNUAL TOTAL	2.500.000,00 €	3.000.000,00 €	5.500.000,00 €

III.1.6 Funding sources

Among the possible sources of funding to be able to implement this action, the following have been selected:

- 2021-2027 European Regional Development Fund and the Cohesion Fund (ERDF-CF).
- The Next Generation EU (NGEU) fund.
- Regional financing funds for the promotion and development of R&D activities.

III.1.7 Monitoring and indicators

In order to monitor the results obtained from the operation of the Southeastern Talent & Innovation Hub, a series of indicators are proposed for which it will be necessary to monitor their evolution over the years.

It is evident that many of these indicators are slow to evolve and are strongly influenced by the economic and business evolution of the area. The following indicators are proposed:

- Medium-qualified personnel trained annually: Should be more than 150 people.
- Highly qualified personnel trained annually: Should be more than 40 people

- Disruptive new product/service development projects in companies:
 - Year 2022: 2
 - Year 2023: 5
 - Year 2024: 7
 - Year 2025: 10
 - Subsequent years > 12

- Startups created as a result of the development of new products/services:
 - Year 2022: 0
 - Year 2023: 1
 - Year 2024: 2
 - Year 2025: 3
 - Subsequent years > 3

- Number of companies assisted/advised:
 - Year 2022: 25
 - Year 2023: 60
 - Year 2024: 75
 - Year 2025: 100
 - Successive years > 100

- Increase in % R&D&I activity/GDP in area of influence (Eastern Andalusia, Castilla La Mancha, Region of Murcia, Southern Valencian Community):
 - Year 2022: 0%.
 - Year 2023: 0.05%.
 - Year 2024: 0.1%.
 - Year 2025: 0.15%.
 - Successive years > 0.15%.

III.2. Action 2: Regional Plan for Digital and Technological Skills

III.2.1 Background

The scenario resulting from the COVID-19 pandemic has accelerated the digitalization process of companies, especially SMEs, thus highlighting the need to promote and enhance digital and technological skills as basic tools to be able to take advantage of the opportunities of the new economy.

In this sense, this is a key priority of the Recovery, Transformation and Resilience Plan, the Spanish strategy to channel the funds earmarked by Europe to repair the damage caused by the COVID-19 crisis and, through reforms and investments, build a more sustainable future.

On the other hand, the Digital Agenda 2025, an initiative developed by the Spanish government to promote the country's digital transformation process, establishes digital training among its 10 priority axes, with the aim of "strengthening the digital skills of workers and citizens as a whole".

While it is true that Spain starts from a relatively advanced position in the Digital Economy and Society, digital skills among its workers are lower, as reflected in the following data:

- Almost half of the Spanish population (43%) lacks basic digital skills.
- ICT graduates are 4% of the total
- ICT specialists account for 3.2% of total employment
- Women specialists are 1% of total female employment.

Lastly, in the initial SWOT analysis performed in the Region of Murcia, stakeholders identified as a possibility for improvement the inclusion in the digitalization programs the training/formation of the workers who must assume the digital transformation of the industry.

Furthermore, although there is aid in the region for investment in digitization for companies, it is always separate from aid for training workers in topics and technologies related to Industry 4.0, which often causes an imbalance in the industry as there are insufficiently trained workers with the necessary suitable digital skills.

Influence of INNO Industry's Good Practices

Since the start of the INNO Industry project, the participants in the Expert Committee have had the opportunity to discuss the good practices presented by the rest of the partners and how they could serve to improve current policies in the region, which ultimately have served to develop an action plan adapted to the current needs of clusters and/or digitalization in the Region of Murcia.

With regard to this specific action, the good practice identified as a potential source of inspiration are the [sector-driven innovations towards an efficient labour market in the Slovak Republic](#) and the [Kickstart Digitalization methodology](#) (Sweden).

Inspired by the learnings from this good practice, this action will incorporate the following factors:

- To address such shortages of the labor market, especially the lack of staff with specialized ICT skills and lack of skilled staff in companies in general.
- To bring together all key players within the regional innovation system for to identify skills mismatches and programmes/projects addressing identified needs within the INNO Industry project.
- To reflect practical skills needs that incorporate the employers' point of view, thus influencing the training programmes and curricula for specific qualifications and professions related to ICT.
- To create awareness and an understanding of opportunities related to the use of digital technologies and to support SMEs to take initial action towards higher levels of digitalization.

III.2.2 Description of the action

Through the development of the Regional Plan for Digital and Technological Skills, it is intended, first of all, to guarantee the acquisition of advanced digital skills both for unemployed people to improve their employability and for unemployed people.

Secondly, this initiative and its subsequent actions aims to ensure that companies in general, and in particular SMEs, have the digital skills necessary to address their digitization, regardless of their sector of action.

In this way, the number of ICT specialists can be increased, favoring the training, attraction and retention of talent, and thus creating fully digitized and competitive companies that can create new quality jobs.

On the other hand, one of the main objectives of this action is not only to include digital competencies (soft skills) but also to expressly include skills related to robotization, which represent the most industrial part and with the greatest growth potential within SMEs.

This newly created regional initiative will be articulated in three main pillars or areas:

- ❖ Pillar 1: Digital and technological skills for employment:
 - Vocational training programs of modular and flexible digital training.
 - Integration in the National Catalogue of Professional Qualifications the accreditation of digital competences at different levels.

❖ Pillar 2: Training for the digitization of SMEs:

- Specific newly created programs focused on the digital transformation of SMEs.
- Connected Company Strategy 2021-25 aimed at supporting the efforts made by companies in the Region of Murcia to develop innovative projects consisting of the implementation of technologies for digital transformation.
- ÁGORA Digital Innovation Hub Platform: initiative of the Region of Murcia to help companies identify and attract the necessary resources to undertake their digital transformation.
- Collaboration agreement between the Ministry of Industry and the School of Industrial Organization.

❖ Pillar 3: Promotion of ICT talent:

- Adaptation of the existing vocational and university training offer and design of new specialties that enable the acquisition of advanced digital skills.
- Program to attract and retain digital talent in all sectors.
- Saavedra-Fajardo grants and fellowships for ICT specialties.
- Internationalization of the ICT faculties of universities.

III.2.2.1 Digital Innovation Acceleration Program

The first specific action that has been defined within the second pillar (Training for the digitization of SMEs) of this Regional Plan for Digital and Technological Skills is the Digital Acceleration Program. The objective of this action is to help SMEs, microenterprises and entrepreneurs to identify new growth opportunities in the digital era and ignite bold innovations, which ultimately aims to help and accompany the entire regional business community in improving all its digitization processes.

For many companies, the COVID-19 pandemic has reaffirmed their digitalization processes. For others, it has made it clear that they should have started earlier. That is why the goal is to facilitate their adaptation to the new post-pandemic digital environment and help SMEs, freelancers and anyone interested in entrepreneurship to be able to offer products and services with high added value.

In this sense, the Digital Innovation Acceleration Program is based on two main training itineraries:

- Tools and technologies for digitalization and innovation
- Value strategies for sustainability and circular economy.

This program aims to help microenterprises and entrepreneurs, a group that has been particularly hard hit by the economic crisis resulting from the pandemic, to mitigate the

effects of the covid-19 crisis and contribute to their reactivation and incorporation into the innovative ecosystem of the Region of Murcia.

Regarding the timeline for the implementation of this program, the regulatory bases for the call will be published before the end of 2021, while the call for participants will be launched in the first trimester of 2022.

This program plans to invest a budget of 1.5 million euros to improve the digital maturity of approximately 600 companies in the region of Murcia. Of these, it is estimated that 25% will see their digitalization capabilities significantly improved, and another 25% will be highly capable of actively implementing sustainability strategies.

This activity will be led by the Regional Development Agency of the Region of Murcia, with the support of the regional technology centers and clusters, the Local Development Agency of Murcia and the European Business and Innovation Center of Murcia.

III.2.3 Players involved

With respect to the governance of this initiative, it will be articulated as follows:

- Pillar 1: Digital and technological skills for high quality ICT employment → Regional Employment and Training Service of the Region of Murcia (SEF).
- Pillar 2: Training Digitized and competitive enterprises → Regional Development Agency of the Region of Murcia (INFO).
- Pillar 3: Promotion of ICT talent and knowledge → General Directorate of Universities through the Séneca Foundation.

Thus, the main players involved in this action will be the following:

- **Regional Development Agency of the Region of Murcia (INFO):** the economic development agency of the Autonomous Community of the Region of Murcia is responsible for the promotion and development of the business fabric, stimulating competitiveness, innovation and productivity of regional companies, especially SMEs, so that they generate quality and stable employment.
- **Regional Employment and Training Service of the Region of Murcia (SEF):** it is a body that unifies all regional resources and services related to employment, and its activity is aimed at facilitating workers to obtain a decent and suitable job, favoring job promotion and retraining of workers, guaranteeing equal opportunities for men and women in employment.
- **Séneca Foundation:** its mission to promote scientific and technical research of excellence in all areas of knowledge and the transfer and application of its results and the promotion of innovative activity to achieve socially and economically

relevant research, attentive to the needs of its environment. To this end, it works in collaboration with multiple organizations to improve the quality of the Regional Science, Technology and Business System and its internationalization, increasing the capacity of its institutions and strengthening the links between the business world and the research system.

III.2.4 Timeframe

The activities included in this action will start in the first quarter of 2022 and will last until the end of 2025, although the final implementation timeline will be presented early next year.

However, the first activity to be carried out within this initiative, the Digital Innovation Acceleration Program, will be developed within the first half of 2022, with the official publication of the regulatory bases before the end of this year and the launch of the participation bases in the first trimester of 2022.

III.2.5 Funding sources

The Recovery and Resilience Mechanism (RRM) is at the core of the Recovery Fund, ensuring a coordinated European response with Member States to address the economic and social consequences of the pandemic.

The Recovery, Transformation and Resilience Plan for the Spanish economy foresees the mobilization of more than €140 billion of public investment until 2026, with a strong concentration of investments and reforms in the first phase of the Next Generation EU plan, covering the period 2021-2023, to boost recovery and achieve maximum countercyclical impact.

The investments and reforms set out in this Recovery, Transformation and Resilience Plan include 10 lever policies and 30 components that make it possible to articulate the Plan's coherent investment and reform programs.

In the case of this specific action, its financing will be framed within Lever 8, "New care economy and employment policies", and its Component 23, "New public policies for a dynamic, resilient and inclusive labor market", which aims to foster the acquisition of new skills for digital, green and productive transformation and has an estimated total national investment of 2,363 million euros.

The funds will be articulated through the Regional Development Agency of Murcia, which belongs directly to the Regional Ministry of Enterprise, Employment, Universities and Spokesmanship.

III.2.6 Monitoring and indicators

The following list of indicators are proposed to monitor the results obtained from the development and posterior implementation of the Regional Plan for Digital and Technological Skills:

- Digital and technological skills for employment:
 - Increase in the number of students enrolled in digital and robotics training in vocational training.
 - Increase in the number of unemployed people enrolled in digital training and robotics courses.
 - Increase in the number of workers enrolled in digital and robotics training courses.

- Training in the digitalization of SMEs:
 - Number of companies receiving digital training actions within the framework of actions included in the Connected Enterprise Strategy 21-25.
 - Number of companies receiving training and advisory services from Ágora DIH.

- Promotion of ICT talent:
 - Increase in the number of students in ICT faculties of the universities of the Region.
 - Increase in the number of Saavedra-Fajardo grants and fellowships aimed at attracting and retaining ICT specialists.

Yecla, January 13th 2022.

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