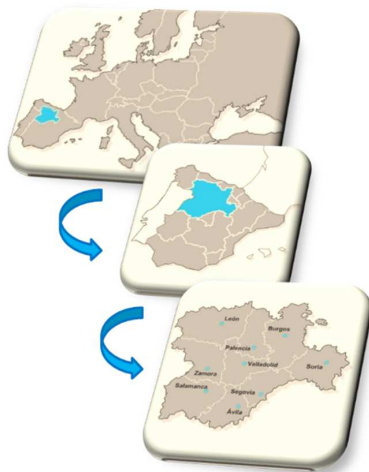




# Smart SMEs for Industry 4.0 (SMARTY)



## CASTILLA Y LEÓN ACTION PLAN



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## Part I – General information

**Project:** PGI05839 SMARTY, Smart SMEs for Industry 4.0

**Partner organisation:** ICE – Institute for Business Competitiveness of Castilla y León (Spain)

**Other partner organisations involved (if relevant):** ICAMCYL – International center of advanced materials and raw materials of Castilla y León

**Country:** SPAIN

**NUTS2 region:** Castilla y León

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### Introduction to the SMARTY Project

#### The Fourth Industrial Revolution is here, are we ready?

Companies across the globe are digitally transforming as they are challenged to improve business processes and develop new capabilities and business models. 4IR technology patent applications are on the rise, Industry 4.0 ambitions are high, manufacturing and manufacturing technologies do well, spending on the Internet of Things in industrial markets looks promising ... and the list goes on. The so-called fourth industrial revolution is of course not just a matter of technology. It is also a matter of cooperation between European regions! But while large companies are anticipating the changes arising from the digital revolution in the production and value creation process, SMEs are struggling to embrace the Industry 4.0 revolution. The uptake of advanced manufacturing solutions still remains an opportunity for SMEs:

Partners from regions across Europe have decided to join forces to exchange experience on how policies related to Structural Funds can unlock the full potential of Industry 4.0, fully convinced that the success of digital transformation will greatly depend on the SMEs, which feels in need of more practical support.

SMARTY is born to establish a common basis for policy learning among its members to overcome fragmentation of Industry 4.0 solutions and their enabling potential by dealing with main challenges hampering their diffusion into the European Union ecosystem. It is therefore key to bring together and to connect best capabilities across the EU as to foster the development,



upscale, and commercialization but also diffusion of Industry 4.0 solutions – whether these are new technologies, products, services, business models, etc.



### Estimated Impact

The overall result of the project will be to improve the capacity of the partners' policy instruments to support the adoption of Industry 4.0 by SMEs through the implementation of new and better projects.

## Part II – Policy context

### Castilla y León Context

Castilla y León, with a surface of 94.225 km<sup>2</sup>, is a sparsely populated region, the third largest European region after Övre Norrland and Pohjois-Suomi (in terms of area) and contains 20% of the total number of municipalities in Spain (2.248). Castilla y León is the biggest of the 17 regions in Spain. The population in 2021, according to National Statistics Institute (INE), was 2.383.139 inhabitants which means a density of 25,29 inhabitants/km<sup>2</sup>.

The most outstanding aspects of Castilla y León's demography are: dispersion and ageing of the population. Regarding to the first one, 57% of the population lives outside the cities, and 43,5% in towns of less than 10.000 inhabitants.

In terms of economy, from a total of approximately 150.000 enterprises, SMEs predominate in the region: 55,2% of companies have no employees, 41% are micro enterprises (less than 10 employees), 3,3% are small enterprises (10 to 50 employees); while only 0,5% are medium and large companies (more than 50 employees). By sector of activity, Castilla y León is intense in industrial activity, with a strong role of the agri-food economy (30% regional industry). The volume of companies of service sector is around 78%, followed by the construction sector (14,7%), other services and social activities (10,9%), hotels and restaurants (10,5%), commerce and repairs (8.7%) and industrial sector accounts for 7%.

In terms of digital transformation, Castilla y León companies have moderately advanced during the pandemic, with more investments in bandwidth connections, social media presence, and the use of cybersecurity tools. However, most of the companies and in particular SMEs, are far from



the desired digital and green transformation through the adoption AI, HPC, and other advanced digital skills. For example, only 3,3% of the gazelle companies (usually high-tech companies) in Spain are from Castilla y León.

The Action Plan aims to impact:

- Investment for Growth and Jobs program
- European Territorial Cooperation program
- Other regional development policy instrument

Name of the policy instrument(s) addressed:

**“ERDF Operational Program of Castilla y León 2014 - 2020”.**

**The objective of this Action Plan is to improve the Digitalization of the small and medium-sized enterprises in the autonomous community of Castilla y León under the frame of the ERDF Operational Program.**

The 2014-2020 ERDF Operational Programme for Castilla y León aims, among others, to promote innovation, contributing to a change in the production model of Castilla y León, through synergies with the regional smart specialization strategy RIS3, boosting of projects of interest, knowledge transfer and modernization of infrastructures as well as promote the development of ICT in line with the Digital Agenda for Europe and the new knowledge economy as a basis for a sustainable economic recovery.

The operational programme concentrates more than 70% of the available budget on research and innovation, ICTs, SMEs and the low-carbon economy. It sets out ambitious objectives in terms of cooperation between enterprises and R&D institutions.

Manufacturing companies, and in particular SMEs, must develop novel competences through innovation activities in the transition to Industry 4.0. There is a margin of improvement in the manufacturing sector through diagnosis, integration of concepts like big data, IoT, 5G or modelling, and the creation of specialization hubs for the development of novel innovation strategies. Modernization of innovation infrastructures and knowledge sharing with other regions will be also important in the generation of synergies, opening new capabilities for defining a sustainable action plan for improving the sectoral approach. A multidisciplinary regional collaboration is well defined and influenced during the project.

Castilla y León partners:

- International center of advanced materials and raw materials of Castilla y León (ICAMCyL)
- Institute for Business Competitiveness of Castilla y León (ICE)



## Part III – Details of the actions envisaged

### 1. The background and inspirations

2<sup>nd</sup> semester's topic, "*Clusters and clustering initiatives & assessment tools*" was a very important inspiration to develop one of the goals in the new strategy of Castilla y León: the creation of a collaborative ecosystem related to digital transformation where SMEs will be the key to the chance.

Good Practices that became an inspiration:

#### 1.1. Industry 4.0 Alliances – Catalonia

Among Catalanian's Missions, we find the idea of creating an ecosystem and promote interaction among different actors. In the same way, they have the *Goal* of identifying different agents to promote a knowledge exchange, collaboration, synergies, etc. The Administration / Public Companies have a very important role of coordination in this interesting plan where stakeholders are really important as well.

Proposing an ambitious plan of activities and challenges will keep this interaction alive, and will provide SMEs with the necessary tools to support them on their way to digitalization.

 Lessons learnt:

- Having a Plan of Activities will keep those alliances alive and will contribute to knowledge exchange. → **Centr@tec Program (3<sup>rd</sup> edition)**

#### 1.2. Building the Catalan EDIH: from isolated nodes to an integrated service approach

Catalonia analyses the offer and the players offering services in digitalization in order to coordinate Digital Catalanian Ecosystem and (again) coordinate an action plan to improve player's efficiency: specific actions and specific funding instruments are the key.

 Lessons learnt:

- Coordination of specific actions. → **Centr@tec Program (3<sup>rd</sup> edition)**

→ The idea of **having a Plan of Activities to keep created alliances alive and to contribute to knowledge exchange**, the importance of the **coordination of those specific actions for digitalization** and including specific services such as **specialized consulting or a catalog of digitalization experts** have been the more important inspiration from SMARTY project to improve our existing program Centr@tec in its 3<sup>rd</sup> edition.



### 1.3. Digital Innovation Hub (DIH) – Slovenia

Slovenian DIH's model offers an interesting selection of services as the result of their diverse ecosystem. We have found inspiration and some common points to share among Slovenian DIH services' proposal: specialized consulting, grants for digitalization and a catalog of digitalization experts.

In addition, their proposal of specific vouchers for digitalization reminded us of the importance of adapting the current Castilla y León's Financial Launcher to the real needs of regional companies.

 Lessons learnt:

- Specialized consulting; catalog of digitalization experts. → [Centr@tec Program \(3rd edition\)](#)
- Grants for digitalization – specific vouchers for digitalization. → [Castilla y León's Financial Calls for Digitalization](#)

Castilla y León has found inspiration not only in Catalanian plan and their positive conclusions, but also in Slovenian services, including some of them in the new Centr@tec edition (Centr@Tec 3). Obviously, all the inspirations have been adapted to Castilla y León circumstances and SMEs needs.

## 2. Actions

As a result of all the information it was proposed as main action of this Plan, **Improve Regional Support for the Digitalization of SMEs to increase their participation in calls for business digitalization.**

Comprehensive support for companies requiring digitalization services through key digital enablers of the regional ecosystem, providing access to specialized technical knowledge and experimentation environments, helping to make the digitalization process of a company as simple as possible.

This accompaniment includes from awareness and training actions to individual diagnostics of digitalization, development of implementation plans, including subsequent tutoring and follow-up that allows the assessment of SME's digital maturity.

In order to get this, ICE is going to develop the next steps through two different ways: one of them is the Centr@Tec Program, directly related with the aim of the Action Plan and the second one, which is financed by the Policy Instrument addressed to SMARTY project: “**ERDF Operational Program of Castilla y León 2014 - 2020**”.

### 1. [Centr@tec Program \(3rd edition\)](#)

At the end of 2021, ICE launched the third edition of the **Centr@Tec Program**, “**Centr@Tec 3**”, an ambitious program on **Training, Technology Transfer and Business Innovation Support**, in collaboration with the Technological Centers of Castilla y León.





These Technological Centers are in charge of executing the actions envisaged in the Centr@Tec Program (mainly, training and diagnostics that include implementation plans, related to digital transformation), which will be developed in the years 2022 and 2023.

Centr@Tec is a program that offers, free of charge, a large volume of high added value Innovation services to companies in Castilla y León, focused on SME's digitalization and with special attention to rural areas, this will ensure that the entire territory of the Community is covered.

To achieve this objective, "Centr@tec 3" has incorporated in this new edition the creation of a new **Support Unit for Digital Transformation for SMEs**, that will have a network of agents from the different Technological Centers involved in it with competence in this area, and that in a coordinated manner they will carry out direct actions to support the digital transformation of SMEs of Castilla y León. Specifically, these services are:

- Training and digital transformation workshops.
- Carrying out diagnostics, designing action plans and tutoring the implementation of these in matters of digital transformation, including industry 4.0.
- Timely technological advice to SMEs
- Encouraging the participation of regional entities in other regional, national and European plans to support digitalization
- Actions that promote the interaction of all agents of the regional ecosystem and with other ecosystems
- Mapping and updating of the catalog of calls for digital transformation at regional, national and European level
- Catalogue of ICT technological solutions and providers in Castilla y León

The diagnostics related to Digitalization include a second phase of advice by the Digitalization Agent, to carry out the implementation of the Action Plan defined previously, having a special impact on the financing of actions, training needs and resistance to change by management and staff.

In relation to financing, this advice will focus mainly on identifying the necessary costs and regional, national and international sources of financing, which are most appropriate for the implementation of the Plan by the company, **mainly through ICE financial calls**, including information and recommendations on applications for assistance and funding to which the entity may have access. **The main objective is to provide the assistance scheme focused on generating quality projects which improves the participation of the companies in the regional financial calls for business digitalization (ERDF funds).**

The success of the 1<sup>st</sup> edition of Centr@Tec Program is reflected in the outputs: there were 134 training actions, 10% focused on European Programs. 2.231 people participated in the different training. 145 diagnostics were made in collaboration with the companies. The program was valued with 3,4 points (of 4, with the participation of 52%). The 2<sup>nd</sup> edition led to an increase in **digitalization and Industry 4.0 activities**: 125 training actions (from a total of 249) and 140 diagnostics / action plans (from a total of 277). We also find an increase in the number of participants.

In the 3<sup>rd</sup> edition, the aim is opening the program to companies, being more flexible on the structure of the actions proposed, and **supporting more than 550 SMEs in 2022-**





**2023 through diagnostics on innovation, industrial digitalization and digital transformation** and marketing plans. This decision was made in response to the needs of the SMARTY project stakeholders who demanded a more ambitious program regarding digitalization for SMEs so they can be more competitive.

**a. Players involved**

**Centr@tec3** has the participation of **8 Technological Centres** (and one more to join in the upcoming months), which will mean an increase both in the number of activities and in **the number of companies** receiving these kind of services. In addition, an Association of Castilla y León Technological Centres' Network has been created and will be involved in Centr@tec program as a very useful tool in terms of coordination on common issues.

**Technological Centres involved in Centr@tec 3**

(stakeholders in SMARTY project)



**b. Timeframe**

October 2021 – September 2023

A first review of Centr@Tec 3 will be carried out in the last quarter of 2022, which will provide us partial indicators of the program, which will enable us to measure the impact of the Centr@tec program's actions related to digitisation on the current Operational Programme.

**c. Costs**

Centr@tec 3 has a budget of more than 4M€ (1<sup>st</sup> edition had a budget of 1,3M€ and 2<sup>nd</sup> one had a budget of 2M€)

Within Centr@Tec program, the Digital Transformation Support Unit has an allocation of 1,4 million euros and 32.400 hours of assistance to companies.

**d. Funding sources**

Regional resources: Junta de Castilla y León (ICE)

**2. Castilla y León's Financial Calls for Digitalization**

ICE, as a regional public entity, implements programs, policies and financial measures related to national and international R&D&I policies and programs assisting the private sector. ICE has financed more than 20.000 projects for enterprises, mobilizing almost 500 M€ of investment in the private sector of the region.



ICE, as key actor of the regional innovation eco-system, is aware of the SMEs needs and also is in charge of the amendments to be included in the new financial calls. As a result of all the information collected during the SMARTY project, the support for the Digitalization of SMEs in Castilla y León is expected being improved.

ICE has a very complete plan in supporting Industry 4.0 projects, what is considered part of the last step of the digitalization's process for SMEs, closing a circle in which the regional companies are always accompanied: from the beginning to the end.

The current regional Financial Launcher includes some special grants related to digitalization, such as:

- **ICT incorporation in SMEs:** grants to facilitate the incorporation of information and communication technologies (ICT) in Castilla y León SMEs, in order to improve their competitiveness.
  - o Solutions such as CRM, e-commerce, digital marketing, ERP, SMC, etc.
  - o Solutions related to communications and data processing in the areas of: cybersecurity, cloud computing, traceability, energy efficiency, mobility, etc.
  - o Solutions to connect physical and digital worlds in any of the following areas of action: 3D print, advanced robotics or sensors and embedded systems.
  - o Any other ICT solution related to Industry 4.0, Internet of the future or solutions for an independent life.
- **R&D projects in the ICT sector:** for new products or new functionalities of existing products, including prototypes if necessary, developed by SMEs in ICT sector, especially those related to Industry 4.0 and cybersecurity.
- **Promotion of innovation for SMEs:** financing business projects aimed at promoting innovation in technological field of Castilla y León.
  - o Advice on innovation in order to implement productive efficiency and/or organizational improvement systems, including cybersecurity certification and audits as well as advise to access and implement secure teleworking.
  - o Advice on innovation related to management and organization processes through the implementation of cloud computing solutions.

→ The importance of **having specific grants and vouchers for digitalization and the experimentation actions "test before invest"**, has been the useful inspiration from SMARTY project to consider reviewing current calls and the importance of adapting them to the needs of companies in future financial calls.

ICE is already working in the design of new grants, paying special attention to the one's related to digitalization.

To highlight the definition of a **new comprehensive call of support for business digitalization** within the framework of the ERDF Operational Programme Castilla y León,



inspired by lessons learnt in SMARTY project, which includes different services related to the digital transformation of companies, including those relating to Industry 4.0, such as:

- Procurement of specialized advisory, support and technical assistance services.
- Consultancy and necessary resources for the training of workers and other groups
- Incorporation of specialized personnel into target entities
- Experimentation of digital solutions and technologies in companies
- Implementation of digital solutions and/or technologies in the target entities
- Support for the implementation of business activities/projects in collaboration with clusters/innovation poles.

ICE is in charge of this new financial call, with a budget of around 6 M€, which will help support investments in digitalization of approximately 50 companies/year.

**a. Players involved**

Junta de Castilla y León (ICE) + EU + Castilla y León companies.

**b. Timeframe**

This new line is expected to be operational by the end of 2022.

**c. Costs**

6 M€

**d. Funding sources**

Regional sources (Junta de Castilla y León –ICE-) and ERDF funds.



## Conclusions: Contribution to Castilla y León's Policy Instrument (In terms of digitalization strategy)

The main goal of this Action Plan is to improve regional support in SME's to increase their participation in calls for business digitalization. This goal is directly connected to priorities 2 and 3 of the current OP, ERDF Operational Programme for Castilla y León 2014-2020.

Therefore, the policy change expected through SMARTY project is related to **an improved management of the policy instrument, ERDF Operational Programme for Castilla y León 2014-2020.**

**New financial calls are going to be published during SMARTY phase II**, with the consequent increase in the number of beneficiary companies in the Regional Financial Calls for Digitalization (2014-2020 ERDF Operational Programme of Castilla y León).

The policy change will be based on the combination of two aspects. The first will be the new comprehensive call of support for business digitalization of ICE, which will contemplate a set of amendments that will response to those needs have been detected through the support provided to companies by ICE team and the demands identified in the SMARTY stakeholder group meetings. These modifications are expected to begin to be effective throughout the year 2023.

On the other hand, they are amendments incorporated in the third edition of the Centr@Tec program wich are focused on digitalization. The main objective of this third edition is addressing the needs/barriers identified in previous editions with the objective of increasing the number of companies supported in their process of digitalization, with special emphasis in rural areas.

To achieve the above goal, from ICE is working on the following actions already described which will directly impact in the current OP.

### **Centr@tec Program (3rd edition)**

Centr@Tec Program is directly related to the aim of the Action Plan, being fully necessary to have the expected results on the regional financial calls for Digitalization, which are financed by ERDF Castilla y León Operational Program.

After several meetings with the stakeholders of SMARTY project, and in response to their needs for regional SMEs, a new group of actions focused in digitalization was defined in the framework of the third edition of Centr@Tec program, called **Support Unit for Digital Transformation for SMEs.**

Specialized consulting or the elaboration of a catalog of ICT technological solutions and providers in Castilla y León are some of the services that this new Unit has. Also training, digital transformation diagnostics, action plan and tutoring for implementation represent a novelty in this third edition of Centr@tec program, since these services already existed in previous editions but in a more general way.

Both, stakeholders SMARTY projects suggestions and needs detected by ICE team, have been crucial to design the new edition of Centr@tec program, paying special attention to digitalization, with almost 35% of the total budget of the program.





## Castilla y León's Financial Calls for Digitalization

As we explained a few paragraphs above, ICE is already working on the design of a new grants package that will attend the needs of SMEs in terms of digitalization. This fact will suppose an impact in the Operational Program **increasing the number of companies demanding calls since, after the review and the changes, these calls will be more adapted to the needs of SMEs in terms of digitalization and will be also more attractive for them as the final step of the process towards Digitalization, started in many cases with the Centr@Tec Program.**



## COMMITMENT:

This Action plan has been developed by ICE – Institute for Business Competitiveness of Castilla y León - who commit itself implement the actions envisioned within their respective capabilities.

Name of the organisation: ICE – Institute for Business Competitiveness of Castilla y León

Signature of the relevant organisation:

**Beatriz Casado Sáenz**  
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