



ALLON_I3




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WP3 - Support to the identification of investment projects

MS1- Study and identification of business cases

Overview

Name of SME	Polo Meccatronica Valley 
Region	Sicily, Italy
Location	C.da Tonnarella Z.I. Termini Imerese, Italy
Focus Area	High-tech specialization sectors including mechanics, automation, electronics, and informatics, collectively known as "mechatronics".
Business case title	Generating economic development and employment in the mechatronics sector.
Description	<p>The Meccatronica Valley Hub aims to support the Sicilian entrepreneurial ecosystem with the goal of generating economic development and employment within innovative industrial sectors. The Meccatronica District, promoted and recognized by the Regional Department of Productive Activities of the Sicilian Region, was established to enhance all Sicilian companies operating within a high-tech specialization area that combines mechanics, automation, electronics, and informatics, collectively known as "mechatronics" (Decree nr. 279/GAB of 03/10/2020). The Meccatronica production district extends across the entire territory of Sicily. It has attracted 148 companies, along with several organizations, associations, and consortia, which represent a full range of industries, including metalworking, electronics, IT, and other sectors. The majority of these companies are located in Palermo, which accounts for about 63% of the members, but the district also includes companies in other major Sicilian provinces, such as Caltanissetta, Trapani, Catania, Agrigento, Ragusa, Siracusa, and Messina. The district was initiated by Confindustria Palermo, which, along with the University of Palermo, contributed to the creation of the first version of the agreement. The district operates with a meta-district model, focusing primarily on the immaterial phases of the value chain: innovation, research, design, planning, and internationalization. This approach enables the organization to "dematerialize value" and emphasizes collaboration in the creation of new products and market expansion opportunities.</p>

Stakeholder Involvement

Key Stakeholder



Business Model

Core Activities/Services

- **Industry 4.0:** Polo Meccatronica Valley seeks to be a promoter of Industry 4.0, focusing on digital technologies and collaborative models for the transfer of knowledge between research and production sectors. The widespread adoption of new technologies will foster interconnection among people, companies, customers, suppliers, and production centers, contributing to the creation of networks and multi-centric economic systems. Industry 4.0 will aid the evolution of production processes by enhancing automation, interconnection, and the development of Smart Manufacturing practices.
- **Start-up incubator:** Polo Meccatronica Valley supports small-scale production start-ups by functioning as an incubator, fostering innovation and research through shared resources such as co-working spaces, training, mentorship, networking, and access to venture capital. After the initial incubation phase, the district plans to help accelerate start-ups, partnering with leading regional and national start-up accelerators.
- **Energy efficiency:** Polo Meccatronica Valley promotes the development of innovative energy-saving technologies and the use of renewable and alternative energies. The district focuses on energy conversion of organic waste materials, which can be transformed into electricity using advanced technologies.
- **Smart cities:** Polo Meccatronica Valley is also working to develop technologies for Smart Cities, such as measuring electricity consumption, integrating renewable energy, and enabling electric mobility. The goal is to promote innovative technologies in transportation, sustainable mobility, and infrastructure, minimizing environmental impacts and emissions. Additionally, the district promotes research in augmented reality for cultural heritage and is developing smart sensors for environmental monitoring.
- **Training:** Polo Meccatronica Valley offers training programs through national professional training funds. The programs will focus on Industry 4.0 technologies, digitalization, augmented reality, Internet of Things (IoT), collaborative robotics, 3D printing, and cloud computing for data centralization and storage.

Value Proposition	<p>The initiative to establish a shared and dynamic platform managed by businesses arises from the need for an industrial policy supporting SMEs. The vision focuses not so much on their dimensional growth, but on their sectoral and productive requalification, supported by intangible investments in shared value-added services and widespread research and development activities. The creation of an incubator in the Termini Imerese area aims to definitively overcome the information asymmetry and lack of synergy between the research world and businesses. The initiative targets all manufacturing companies in Sicily eager to initiate innovation and internationalization processes, economic activities excluded from the industrial hub but strongly embedded in the social and cultural fabric of the region, as well as companies in the former Fiat supply chain in Termini Imerese. The primary goal is to establish a shared strategic governance between public and private entities to guide decisions on technology transfer and innovation, capable of formulating specific regional policies to support industrial innovation processes in Sicily.</p>
Target Market	<p>The target market of the Polo Meccatronica Valley encompasses a diverse range of stakeholders, all of whom play a critical role in advancing the development of Sicily's innovative industrial sectors, particularly within the mechatronics field, including established companies, start-ups, as well as research institutions, public agencies, and skilled professionals. By supporting these stakeholders, the Polo aims to drive economic development, job creation, and international competitiveness within the mechatronics and broader industrial sectors in Sicily.</p>
Capacity Building Needs	<p>The Polo Meccatronica Valley faces several capacity-building needs to foster the growth of the Sicilian mechatronics sector. One of the most crucial aspects is the development of a highly skilled workforce in automation, robotics, digitalization, and smart manufacturing, requiring comprehensive training programs in collaboration with universities and vocational institutions. To drive innovation, the Polo must invest in advanced technological resources such as Industry 4.0 technologies, including IoT, AI, and cloud computing, alongside establishing cutting-edge research and testing facilities for product development. Financial resources are essential, requiring private investment, venture capital, and public funding to support R&D, process innovation, and internationalization. Additionally, the Polo must strengthen infrastructure like co-working spaces and innovation hubs to foster collaboration and idea-sharing among businesses, research institutions, and other stakeholders. Creating synergies with global markets and facilitating international partnerships is key to ensuring sustainable growth and competitiveness. Finally, the Polo must focus on supporting smart, sustainable innovations, particularly in renewable energy and energy-efficient technologies, to align with global trends and environmental goals. These efforts will position the Polo as a leader in innovation, supporting a competitive and sustainable mechatronics sector.</p>

Investment Opportunities	
Product/Service Sales	<p>The Polo Meccatronica Valley in Sicily offers diverse investment opportunities to enhance the technological infrastructure and innovation capacity of the Polo Meccatronica Valley, positioning it as a leader in the mechatronics industry and contributing to regional economic development:</p> <ul style="list-style-type: none"> - Product development and prototyping: investing in advanced

	<p>mechatronic products and prototypes.</p> <ul style="list-style-type: none"> - Research and development (R&D): raising funds to R&D in automation, robotics, and smart manufacturing, fostering collaboration between research institutions and companies to accelerate technological advancements. - Start-up incubation and acceleration: supporting emerging businesses by investing in incubation and acceleration services, providing resources such as co-working spaces, mentorship, and access to a network of investors. - Technology transfer services: investments in technology transfer services to bridge the gap between research and industry, driving innovation and improving competitiveness within the mechatronics sector. - Training and skill development programs: Invest in educational initiatives to develop a skilled workforce proficient in mechatronics disciplines, ensuring professionals are equipped with necessary skills to meet industry demands.
Service revenue	<p>Polo Meccatronica Valley's revenue model is multifaceted, combining public funding aimed at fostering innovation and economic development with income generated through a diverse array of services offered to its members. This hybrid approach ensures financial sustainability while promoting technological advancement within Sicily's mechatronics sector.</p>
Licensing and Royalties (EU, National, Public Funding)	<p>Polo Meccatronica Valley benefits from substantial public investments, including funding from the European Union's Next Generation EU program. These funds are strategically allocated to develop infrastructure, support research and development activities, and stimulate job creation within innovative industrial sectors. For instance, the establishment of the incubator in Termini Imerese has been a pivotal project, aiming to revitalize the industrial area and foster economic growth.</p>
Other Incomes	/
Critical Assumptions and Constraints	
Assumption	<p>Critical assumptions include:</p> <ul style="list-style-type: none"> - The initiative relies on continuous public investments aimed at fostering innovation and economic development. Assumptions about the availability and stability of these funds are integral to planning and executing projects. - There's an underlying assumption that local businesses, especially SMEs, will actively engage with the Polo's offerings, contributing to and benefiting from the collaborative ecosystem. - The success of the Polo depends on the assumption that a sufficient pool of skilled professionals is available to meet the demands of advanced mechatronics industries.
Constraints	<p>Constraints include:</p> <ul style="list-style-type: none"> - Despite public funding, financial resources may be limited, necessitating prioritization of projects and efficient allocation to maximize impact. - Operating within both the EU and Italy's legal and regulatory frameworks imposes constraints on certain activities, requiring compliance and potentially limiting flexibility in operations.

- The presence of established national and international players in the mechatronics sector poses competitive challenges, requiring the Polo to continuously innovate and offer unique value propositions.
- The fast-paced evolution of technology necessitates constant adaptation and investment in R&D to stay relevant, which can strain resources and focus.
- Overcoming traditional business practices and fostering a culture of innovation may be challenging, particularly among SMEs with limited experience in collaborative, high-tech projects.

Contact Information

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