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Excellent peripheries for a strong European Research Area

D.6.3 Recommendations for the establishment of Spin-offs supporting offices

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Acronyms & Abbreviations	
ASTP	Association of European Science and Technology Transfer Professionals
AUTM	Association of University Technology Managers
CEO	Chief Executive Officer
D	Deliverable
EIT	European Institute of Innovation & Technology
EU	European Union
InUAC	Incubadora de Empresas da Universidade dos Açores
IP	Intellectual Property
KTT	Knowledge Technology Transfer
R&D	Research & Development
RIS3	Smart Specialisation Strategies
RIS3 Açores	Innovation and Research Strategy for Smart Specialisation in the Autonomous Region of Azores
RIS3 Canarias	Smart Specialisation Strategy of the Canary Islands
RTTP	Registered Technology Transfer Professional
TTO	Technology Transfer Office
UAC	University of Azores
ULPGC	University of Las Palmas de Gran Canaria
WP	Work Package

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TABLE OF CONTENTS

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EXECUTIVE SUMMARY

This deliverable, part of WP6 "Sustainability and Exploitation," is aligned with Task 6.3, which focuses on "Feasibility Studies and Partnership Agreements for the Establishment of Spin-offs Supporting Offices." It offers a thorough set of precise recommendations aimed at establishing permanent spin-off support offices in the Azores and Canary Islands. These recommendations are grounded in the insights gained from WP1 "Regional Ecosystems Assessment and Cooperation Models," particularly the findings outlined in D1.2, the "Azores and Canary Islands Regional Ecosystem Assessment Reports."

The challenges identified in D1.2 have been carefully examined, and this document builds on those findings to offer actionable, region-specific guidance on how to address key legal, administrative, and economic barriers hindering spin-off creation and growth. The recommendations focus on improving critical conditions for spin-off establishment, enhancing administrative efficiency, optimising regulatory frameworks, and fostering a conducive environment for academic entrepreneurship. The recommendations align with the Smart Specialisation Strategies of the Azores and the Canary Islands, respectively.

Furthermore, the deliverable emphasises the importance of strategic collaboration with local stakeholders such as chambers of commerce, scientific parks, and regional authorities. By establishing partnerships and joint initiatives, spin-off support offices can create synergies that bolster the innovation capacity of the region and provide the necessary resources for spin-offs to thrive.

Ultimately, this document aims to create a detailed roadmap for the sustainable establishment of spin-off support offices in the Azores and Canary Islands, contributing to long-term economic growth, fostering innovation, and strengthening regional cooperation.

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1. INTRODUCTION

1.1 PURPOSE OF THE DOCUMENT

The aim of this deliverable is to provide a comprehensive set of targeted recommendations for establishing permanent spin-off support offices in the Azores and Canary Islands. These recommendations build on insights gained from previous work packages, which thoroughly identified and analysed the legal, administrative, and economic challenges affecting the innovation and entrepreneurial ecosystems in these regions. Rather than revisiting these obstacles, the focus is on offering practical guidance to overcome the barriers that hinder the creation, growth, and sustainability of spin-offs, fostering an environment where these ventures can thrive.

The document begins by summarising the key challenges identified at the University of Azores (UAC) and the University of Las Palmas de Gran Canaria (ULPGC) in D1.2. It then presents detailed, actionable recommendations tailored to the specific needs and characteristics of each regional ecosystem. These proposed measures aim to streamline processes, enhance support structures, and create a favourable environment for academic entrepreneurship. The purpose is to create a lasting framework for spin-off support offices, ensuring they operate effectively and contribute sustainably to regional innovation and entrepreneurship.

A central aspect is the exploration of strategic cooperation with other key actors within the surrounding ecosystems, such as chambers of commerce, scientific parks, local authorities, and other regional stakeholders. By collaborating with these entities, spin-off support offices can create synergies that enhance the regional innovation capacity and ensure that spin-offs receive the necessary resources and guidance to succeed. This document emphasises the importance of establishing partnerships and joint initiatives that combine the expertise, networks, and resources of various actors in the region.

In summary, this deliverable provides a holistic framework for establishing permanent spin-off support offices in the Azores and Canary Islands. It emphasises the need for a tailored, region-specific approach that takes into account the unique challenges and opportunities in both regions. The ultimate goal is to create a thriving entrepreneurial ecosystem that supports the creation of high-impact spin-offs, enhances regional collaboration, and fosters long-term economic growth and innovation.

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1.1.1. ALIGNMENT WITH SMART SPECILISATION STRATEGIES

The Smart Specialisation Strategies (RIS3) implemented by the Azores (RIS3 Açores[1]) and the Canary Islands (RIS3 Canarias[2]) serve as foundational blueprints tailored to address the unique economic and geographical realities of these outermost regions. RIS3 frameworks are crucial for overcoming structural disadvantages linked to insularity, small market size, and remoteness. They enable regions to strategically focus limited resources, access essential European Union structural funds and drive targeted economic transformation towards higher value-added activities grounded in knowledge and innovation.

Mandated by the European Union, RIS3 requires regions to identify and cultivate areas of competitive advantage through focused investments in research, development, and innovation. For outermost regions like the Azores and the Canary Islands, RIS3 offers a vital mechanism to move beyond traditional economic models, fostering diversification, strengthening resilience against external shocks, and leveraging unique local assets—such as marine biodiversity, climate conditions for agriculture or energy, a geostrategic location, and unique sky quality—for sustainable, knowledge-driven growth.

By fostering collaboration among academia, industry, government, and civil society—the so-called "quadruple helix"—RIS3 aims to prevent fragmented efforts and ensure that innovation translates into tangible economic diversification, quality employment, and societal well-being. It also seeks to enhance the regions' standing within the broader European and global context.

Both RIS3 Açores and RIS3 Canarias reflect the shared context of Atlantic archipelagos. However, they adapt their priorities and governance structures to suit their distinct ecosystems and institutional landscapes. Common ground is evident in their strong strategic emphasis on the Blue Economy and Sustainable Tourism, leveraging their extensive maritime domains and natural attractions. Both strategies also underscore the importance of cross-cutting enablers such as digitalisation (to modernise sectors), the green transition (in line with climate goals and circular economy principles), internationalisation (to mitigate small market limitations), and the development and retention of human capital as a foundation for a knowledge-based economy.

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[1] RIS3 Açores. "Estratégia de Investigação e Inovação para a Especialização Inteligente da Região Autónoma dos Açores (2022-2027) " https://ris3.azores.gov.pt/system/files/2022-11/ris3_acores_2022-2027_v20221025.pdf

[2] RIS3 Canarias. "Estrategia de Especialización Inteligente de Canarias. RIS3 Ampliada (2021-2027)" https://www.gobiernodecanarias.org/cmsgob1/export/sites/conocimiento/galerias/doc/RIS3-ampliada_marzo-2023.pdf

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RIS3 Açores places significant emphasis on the valorisation of endogenous resources and is structured around specific Priority Domains. In addition to the shared focus on the Sea and Tourism, it highlights Agriculture and agro-industry, Space and data science and Health. Sustainability, climate change adaptation, and the circular economy are integrated as horizontal principles across these domains.

RIS3 Canarias, in contrast, follows a more systemic structure built upon five interconnected Strategic Levers designed to work synergistically:

1. **Knowledge Generation and Valorisation** — Strengthening the R&D system and its connection to market needs.
2. **Talent Perspective** — Focusing on training, attracting, and retaining talent, promoting scientific and entrepreneurial vocations, and ensuring gender equality.
3. **Internationalisation** — Increasing global presence, attracting investment, and leading international projects.
4. **Focus and Prioritisation (Specialisation)** — Targeting key sectors such as Digital & Sustainable Tourism, Health & Well-being, Blue Economy Industry, Astrophysics, Space & Aeronautics Industry, and Emerging Industries.
5. **Territorial Perspective** — Fostering the participation of individuals, businesses, and institutions, turning insularity into an advantage for economic and social development, with the territory and its people as key beneficiaries.

Despite structural differences and variations in sectoral focus, the overarching objective remains consistent: to catalyse a transition towards a more competitive, innovative, resilient, sustainable, and inclusive economic model by strategically concentrating R&D efforts and fostering systemic change.

The recommendations outlined in this document are not simply aligned with the strategic goals of RIS3 Açores and RIS3 Canarias—they are integral, actionable tools designed to directly implement and accelerate the achievement of these objectives. They translate the strategic vision articulated in the RIS3 frameworks into tangible improvements for regional innovation ecosystems. These recommendations aim to bridge the persistent gap between research potential and market realisation, foster a dynamic entrepreneurial culture, and strengthen the innovation ecosystem through robust support structures for spin-offs.

1.2. STRUCTURE OF THE DOCUMENT

This document is structured into two main sections:

Section 2 addresses the specific challenges faced by the UAC in the Azores, as identified in deliverable D1.2. It provides a brief summary of the legal, administrative, and economic barriers hindering the growth of the innovation and entrepreneurial ecosystem in the region. Based on these challenges, targeted recommendations are presented to facilitate the establishment of spin-off support offices in the Azores.

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Section 3 focuses on the specific challenges faced by the ULPGC in the Canary Islands, as identified in deliverable D1.2. It summarises the legal, administrative, and economic barriers limiting the development of the innovation and entrepreneurial ecosystem in the region. The lessons learned from these challenges lead to comprehensive recommendations for the establishment of spin-off support offices in the Canary Islands.

2. RECOMMENDATIONS FOR THE ESTABLISHMENT OF SPIN-OFFS SUPPORT OFFICES IN THE UAC ECOSYSTEM

Subsection 2.1 provides an overview of the key legal, administrative, and economic challenges affecting the UAC, as outlined in deliverable D1.2. These challenges have been thoroughly identified, documented, and analysed, revealing significant barriers that hinder the growth of the region's innovation and entrepreneurial ecosystem.

The analysis highlights legal and administrative challenges such as insufficient start-up support and incubation, inefficient regulatory frameworks, and systemic inefficiencies that obstruct the entrepreneurial process. Additionally, there are notable gaps in knowledge transfer literacy and a lack of internal communication within the UAC, all of which contribute to the difficulties faced by researchers and entrepreneurs in the region. Economic challenges are also evident, particularly the lack of meaningful partnerships with industry, limited resources and capacity, and misalignment between academic research and market needs. These issues hinder the effective creation and scaling of spin-offs, making it difficult for innovations to reach their commercial potential.

In response to these challenges, subsection 2.2 presents targeted recommendations for spin-off support offices in the Azores region. These recommendations propose concrete actions to address the identified legal, administrative, and economic barriers. Key actions include developing a regional strategic knowledge transfer plan, strengthening spin-off support and incubation services, optimising regulatory frameworks and administrative processes, and enhancing knowledge transfer literacy. Furthermore, a focus on promoting effective communication and collaboration is emphasised to foster stronger ties between academia, industry, and the local community. By implementing these recommendations, the region can create a more conducive environment for academic entrepreneurship, driving innovation and ensuring sustainable spin-off growth.

2.1. IDENTIFIED CHALLENGES AT THE UAC INNOVATION ECOSYSTEM

2.1.1. LEGAL AND ADIMINISTRATIVE CHALLENGES

The key legal and administrative challenges identified at the UAC are subsequently outlined. The issues highlighted include insufficient start-up support and incubation, ineffective regulatory frameworks and systemic inefficiencies, limited knowledge transfer literacy, and a lack of internal communication, all of which impede the region's innovation and entrepreneurship efforts.

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- **Insufficient Start-up support and incubation**

The deficient performance in providing start-up support and incubation is the second most frequently mentioned challenge in D1.2, cited by both internal members of the UAC and external stakeholders.

While the UAC operates a Technology-Based Incubator (InUAC), its capacity to effectively nurture start-ups is hindered by shortcomings in infrastructure, communication, and integration with the business sector. Internal inefficiencies, including bureaucratic hurdles and potentially high costs, further weaken the start-up ecosystem. A pressing challenge is the lack of awareness within the university community regarding InUAC's existence and the specific support it offers, leading to underutilisation of its services.

This lack of awareness presents a substantial barrier to spin-off creation, particularly for researchers who might otherwise leverage the incubator's resources. Limited access to essential elements such as mentorship, early-stage funding, and industry connections further exacerbates the challenge. Additionally, bureaucratic inefficiencies and rigid administrative processes discourage engagement with InUAC. If researchers and students remain unaware or perceive InUAC as inaccessible or ineffective, the university's capacity to foster successful spin-offs remains significantly constrained.

- **Ineffective regulatory frameworks and systemic inefficiencies**

UAC's innovation ecosystem is impeded by ineffective regulatory frameworks and systemic inefficiencies, including ambiguous intellectual property (IP) rules, bureaucratic delays, and cumbersome administrative procedures. These obstacles create uncertainty and slow down the development of entrepreneurial ventures.

Spin-offs depend on well-defined regulations to secure funding, protect IP, and navigate commercialisation pathways. However, UAC's unclear IP policies discourage researchers from pursuing spin-off formation due to concerns over ownership rights and commercialisation feasibility. Moreover, inefficient administrative processes prolong the establishment of spin-offs, diminishing their chances of successfully transitioning from research projects to market-ready enterprises.

- **Limited knowledge transfer literacy**

A widespread deficiency in knowledge and technology transfer (KTT) literacy among UAC staff and researchers hampers the university's ability to translate academic research into viable commercial ventures. Many faculty members lack familiarity with fundamental KTT processes, which is further exacerbated by a shortage of funding and skilled personnel dedicated to technology transfer activities.

This knowledge gap significantly impairs spin-off creation. Without adequate expertise in securing patents, structuring business models, or engaging with external stakeholders, researchers struggle to commercialise their innovations effectively. Additionally, the

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absence of well-trained administrative staff further limits the university's capacity to provide targeted support, leaving potential entrepreneurs without the necessary guidance to navigate the commercialisation process.

- **Lack of internal communication**

The lack of communication channels and ineffective communication is the most frequently mentioned challenge in D1.2, cited by both internal members of the UAC and external stakeholders.

UAC struggles with significant internal communication breakdowns that hinder its operations. Specifically, there is a lack of adequate information sharing within the university regarding crucial aspects like career development opportunities, established ethical processes, and the strategic objectives of knowledge transfer initiatives. This internal communication gap directly impacts the university's ability to foster a thriving environment for spin-offs.

For spin-offs to succeed, clear and accessible information about university resources—such as funding opportunities, specialised equipment, and expert mentorship—is essential. However, the current communication breakdown isolates potential entrepreneurs, preventing them from leveraging UAC's assets.

2.1.2. ECONOMIC CHALLENGES

This subsection outlines the main economic challenges identified at the UAC, as detailed in D1.2. Namely, the issues highlighted include a lack of partnership with industry, resource and capacity limitations, and market misalignment, all of which hinder the effective establishment and growth of spin-offs.

- **Lack of partnership with industry**

UAC's limited engagement with industry partners poses a significant challenge to fostering an innovation-driven environment. A prevailing perception within the business sector is that the university does not actively seek or prioritise collaboration, leading to insufficient outreach efforts and poor alignment with market needs.

Strong industry partnerships are critical for spin-offs, providing essential market insights, funding opportunities, and customer validation. However, UAC's weak external networks leave spin-offs without access to these crucial resources. The perceived lack of engagement further discourages industry stakeholders from investing in or collaborating with university-driven ventures, thereby limiting the growth potential of spin-offs emerging from UAC.

- **Resource and capacity limitations**

The UAC faces limitations in its available resources and overall capacity, which present considerable challenges to its research endeavours, and operational efficiency. A

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notable aspect of this limitation is the persistent shortage of both technical and administrative staff, which places increased strain on the existing workforce and complicates the university's efforts to attract and retain qualified personnel, particularly given the geographical context of the Azores. This scarcity of resources and personnel ultimately restricts the university's overall capacity to effectively support and foster innovation initiatives.

For spin-offs, these limitations translate into restricted access to expert guidance, administrative support, and advanced research infrastructure. The lack of personnel slows down research and development efforts, impedes funding application processes, and complicates intellectual property management. Additionally, inadequate scientific equipment hampers the ability of researchers to develop competitive technologies, further reducing the university's capacity to generate high-potential spin-offs.

- **Market misalignment**

A disconnect between UAC's academic programs and the evolving demands of the local and global job markets creates a significant challenge for entrepreneurial ventures. Many research initiatives are conceived without sufficient consideration of real-world applications, leading to scepticism from industry stakeholders regarding the university's ability to contribute meaningfully to economic development.

This misalignment hinders spin-off formation in multiple ways. Graduates often lack the entrepreneurial skills and market awareness needed to establish successful businesses, as curricula do not sufficiently emphasise industry-driven innovation. Furthermore, research projects, developed with limited business sector input, frequently fail to produce commercially viable solutions. Without stronger market integration, UAC's spin-offs struggle to identify viable opportunities, secure investments, and achieve long-term success, ultimately limiting their impact on regional economic growth and innovation.

2.2. SPECIFIC RECOMMENDATIONS FOR THE UAC INNOVATION ECOSYSTEM

2.2.1. LEGAL AND ADMINISTRATIVE RECOMMENDATIONS

Considering the challenges identified at the UAC, this section presents strategic recommendations for spin-off support offices in the Azores region, focusing on legal and administrative improvements, in alignment with the RIS3 Açores. The proposed actions include developing a strategic knowledge transfer plan at the regional level, strengthening spin-off support and incubation, optimising regulatory frameworks and administrative processes, enhancing knowledge transfer literacy and capacity building, and promoting effective and collaborative communication.

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Developing a strategic knowledge transfer plan at the regional level

Implementing a comprehensive knowledge transfer plan is pivotal for enhancing the support and incubation of spin-offs, streamlining regulatory frameworks, improving knowledge transfer literacy, and strengthening internal communication within the Azores' entrepreneurial ecosystem. Such a plan provides a structured approach, aligned with RIS3 principles, to identify, manage, and disseminate knowledge, ensuring that all stakeholders—from experienced researchers and industry experts to aspiring entrepreneurs—are equipped to foster innovation and commercialization effectively, particularly within the RIS3 Azores priority domains. By operating on a regional scale, it establishes standardized procedures and benchmarks across the Azores, facilitating collaboration and creating a cohesive environment for innovation, contributing to the RIS3 goal of a more integrated regional innovation system.

A central element of this plan, directly supporting RIS3 Açores, is the **identification of critical knowledge areas essential for spin-off success**, focusing on the priority domains such as Agriculture and agro-industry, Sea and blue growth, Tourism and heritage, Space and data science and Health. This includes not only technical expertise but also market-related information pertinent to leveraging the Azores' endogenous resources and unique environmental conditions. By clearly defining these areas, support offices can focus their efforts on transferring relevant and actionable knowledge, directly tackling challenges related to insufficient start-up support and incubation, thereby contributing to the valorisation of regional R&D investments as envisioned in RIS3. When emerging ventures have access to consistent, high-quality resources and mentorship aligned with RIS3 priorities, they are better prepared to overcome initial obstacles and accelerate their growth.

Equally important is the process of **pinpointing both the knowledge holders and the recipients**. Experienced researchers, successful entrepreneurs, and industry experts serve as valuable sources of insight, while new spin-off teams, PhD students, and emerging entrepreneurs stand to benefit from this expertise. Establishing clear roles and responsibilities facilitates effective mentorship and bridges the gap between theoretical knowledge and practical application, thus enhancing human capital, a key enabler in RIS3 Azores. This process also mitigates administrative inefficiencies that arise from ambiguous regulatory frameworks. With clearly defined channels, the plan supports an environment where critical information is consistently and efficiently exchanged.

Selecting appropriate transfer methods is crucial to cater to diverse learning styles and types of knowledge. A blend of documentation, interactive training sessions, hands-on workshops, and digital platforms can be used to deliver the content effectively. For instance, workshops on business model development, market analysis, and financial planning provide entrepreneurs with the foundational skills they need, while digital repositories ensure that the information is preserved and easily accessible. This integrated method enhances internal communication by centralising resources and facilitating the efficient dissemination of knowledge across the region.

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Documentation plays a vital role. Comprehensive guides, process maps for navigating regulations relevant to RIS3 sectors (e.g., marine exploration permits, agri-food product labelling rules, permits for heritage site interventions, medical device approval pathways, protocols for commercializing Earth observation data), and video tutorials should be created and stored centrally. This ensures that knowledge is preserved over time and continuously updated to reflect evolving industry standards and regulatory requirements, further reinforcing the internal communication framework and streamlining the transfer of knowledge.

The plan also involves **developing a structured schedule with clear timelines and milestones**. Integrating regular progress reviews and feedback sessions ensures that the process remains systematic and measurable. Such a schedule allows for continuous monitoring and timely adjustments, overcoming challenges related to inefficient regulatory processes and systemic inefficiencies. Moreover, periodic benchmarks foster ongoing engagement with industry partners, aligning spin-off projects with current market trends and investor expectations. This approach also addresses economic challenges like market misalignment and resource limitations and strengthens partnerships with industry. In this regard, a comprehensive knowledge transfer plan plays a transformative role in **addressing broader economic challenges**. By fostering closer connections among academia, industry, and governmental bodies, the plan encourages the formation of strategic partnerships, which are crucial for mitigating issues such as lack of industry collaboration. Through clear communication of available resources and regular engagement, the plan builds trust and opens avenues for increased investment and shared resource utilisation. It also addresses resource and capacity limitations by optimising the use of existing assets and establishing a scalable model for continuous improvement. Furthermore, by incorporating market research and stakeholder feedback into its processes, the plan ensures that spin-off projects remain responsive to evolving market trends and consumer needs, effectively bridging gaps caused by market misalignment.

Evaluating the plan's effectiveness through regular feedback collection and performance assessments is vital for continuous improvement. By analysing outcomes against predefined key performance indicators, support offices can identify areas for enhancement and make necessary adjustments. This ongoing evaluation reinforces the overall support system while simultaneously improving economic challenges, ensuring that spin-offs remain aligned with market needs and are supported by robust industry partnerships.

The successful implementation of this plan requires **coordinated efforts and clear communication** among all participants. Assigning dedicated personnel or teams to oversee execution, monitor progress, and facilitate interactions between knowledge holders and recipients is essential. This coordinated approach systematically addresses operational challenges—from start-up support and regulatory hurdles to knowledge transfer literacy and internal communication breakdowns—thereby creating a smoother pathway for spin-off development and growth aligned with RIS3 Açores.

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In summary, a comprehensive, regionally integrated knowledge transfer plan provides a unified framework that not only enhances start-up support and incubation, streamlines regulatory frameworks, improves knowledge transfer literacy, and strengthens internal communication, but also lays the groundwork for better industry partnerships, resource optimisation, and market alignment. By aligning all stakeholders and standardising processes across the Azores, such a plan creates a robust, dynamic, and cohesive entrepreneurial ecosystem capable of driving sustainable growth and innovation throughout the region.

- **Strengthening spin-off support and incubation**

To effectively nurture spin-offs in the Azores, dedicated support offices must establish specialised infrastructure tailored to the region's key research sectors. These offices should **facilitate access for spin-offs to fundamental resources** such as agricultural research facilities and food processing laboratories for agriculture and agro-industry, marine research vessels and aquaculture platforms for sea and blue growth, cultural heritage sites and tourism innovation hubs for tourism and heritage, satellite data centres and computational resources for space and data science, and biomedical laboratories and clinical testing facilities for health. Following the RIS3 Açores priority domains, but without ignoring other industries, the focus should remain on fostering innovation and economic growth across key sectors such as Agriculture and Agro-industry, Sea and Blue Growth, Tourism and Heritage, Space and Data Science, and Health. At the same time, it is essential to **maintain openness to opportunities in emerging or complementary industries** that can contribute to regional development and diversification.

Drawing from successful models in other regions, these support offices can help spin-offs access tailored facilities for understanding environmental impacts or for developing and testing innovative technologies. These offices should also play a crucial role in facilitating **access to broader innovation hubs and research facilities**, both regionally and potentially through partnerships nationally and internationally.

Given the multi-island nature of the Azores, these spin-off support offices must **ensure that their services and resources are accessible to researchers and academics across the entire archipelago**. This requires overcoming geographical distances by leveraging robust digital infrastructure to provide remote access to resources, mentorship, and collaborative platforms. The support offices can **establish virtual incubation programs and facilitate online networking events** to connect potential spin-off teams regardless of their island location. Drawing lessons from initiatives in other geographically dispersed regions, these offices should aim to create a cohesive ecosystem where spin-offs can thrive despite the physical separation.

Expanding a mentorship network specifically tailored to the needs of spin-offs is vital. The support offices should actively recruit mentors with experience in commercialising research, navigating intellectual property, securing funding for science-based ventures, and scaling technology-driven companies. This network should include individuals with

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expertise in the Azores' key research sectors, as well as those with experience in island economies and international markets. The support offices could also provide training and resources to these mentors to ensure they are equipped to guide spin-off teams effectively. A **structured matching process** managed by the support offices will be essential for connecting spin-offs with the most relevant mentors based on their technology, market, and stage of development.

Securing adequate seed funding is a critical function that the spin-off support offices must address. These offices should actively work to **connect spin-offs with relevant funding opportunities**, including angel investors and venture capital firms focused on sustainable and deep-tech industries. They should also **provide guidance and support in applying for regional, national, and European funding mechanisms** designed to support research commercialisation. Furthermore, the support offices can play a role in educating researchers on the potential of equity crowdfunding and connecting them with suitable platforms. A key function will be to **assist spin-offs in developing clear milestones and financial projections to attract investment** and ensure the responsible use of funds.

Tailored training programs specifically designed for researchers and academics looking to launch spin-off companies should be a core offering of these support offices. Curricula should be action-oriented and focus on the unique challenges and opportunities of commercialising research, with sector-specific modules relevant to the Azores' strengths. These programs should cover essential business fundamentals, including business planning for ventures, financial management with a focus on R&D costs, marketing strategies for innovative technologies, and legal aspects related to intellectual property and licensing. The support offices should utilise blended learning approaches to ensure accessibility across the islands.

Implementing **multi-channel awareness campaigns** is vital for ensuring that researchers and academics across the Azores are informed about the existence and services of these spin-off support offices. This should include targeted communication through university channels, research institutions, and relevant professional networks, highlighting success stories of spin-offs and the resources available. The support offices should **maintain a strong online presence and host regular information sessions and workshops** to engage potential spin-off founders.

To effectively nurture spin-offs in the Azores, dedicated support offices must establish infrastructure tailored to the region's key research sectors, such as agriculture and agro-industry, sea and blue growth, tourism and heritage, space and data science, and health, without neglecting other industries that may also contribute to regional innovation and economic growth. These offices should provide access to essential resources, both physical and digital, ensuring services are available across the entire archipelago. This includes leveraging digital infrastructure for remote access and creating virtual incubation programs. Expanding a mentorship network and securing seed funding are critical for supporting spin-offs, as well as offering tailored training programs to

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researchers. Awareness campaigns and strong communication channels are essential to ensure that all researchers are aware of the support available.

- **Optimising regulatory frameworks and administrative processes**

Streamlining regulatory frameworks and administrative processes is essential for reducing burdens faced by researchers and academics seeking to create spin-off companies. Support offices should advocate for simplifying business registration, intellectual property transfer from research institutions, tax filings for early-stage ventures, and environmental permits relevant to specific sectors.

Close collaboration with policymakers is critical, and the spin-off support offices should actively engage with government agencies to ensure that the regulatory environment is conducive to the creation and growth of spin-off companies. These offices can play a key role in fostering open dialogue between researchers, regulatory bodies, and policymakers. They can also explore and promote public-private partnerships that support the development of infrastructure and services specifically tailored to the needs of spin-offs emerging from the Azores' research strengths.

Providing accessible legal and administrative support is a core function of the spin-off support offices. This includes offering specialised consultations on IP protection, guiding researchers through the process of patenting, licensing, and transferring IP from their institutions to their spin-off companies. These offices should also offer support on local and EU compliance requirements relevant to technology-based ventures, as well as assistance with contract drafting and review. Establishing partnerships with legal professionals or creating legal clinics focused on the specific needs of spin-offs can provide much-needed support.

Establishing regular communication channels with regulatory bodies is crucial, and spin-off support offices should play a key role in facilitating these interactions for spin-off teams. To address the unique regulatory challenges faced by research-based ventures, the support offices should form a dedicated task force with representatives from government, academia, industry, and the support offices themselves.

Simplifying regulatory processes is essential for spin-off creation. Support offices should advocate for easier registration, IP transfer, and compliance, while collaborating with policymakers to create a supportive environment. Legal and administrative assistance will help researchers navigate challenges, and task forces with key stakeholders will strengthen the ecosystem.

- **Enhancing knowledge transfer literacy and capacity building**

A **comprehensive knowledge transfer plan** is vital for leveraging expertise within the Azores' key research sectors to create successful spin-offs. Support offices should identify promising research with commercial potential and connect researchers with resources needed to translate findings into viable businesses. Facilitating mentorship that bridges academia and industry through specialised workshops, entrepreneurial skills

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training, access to resources, and collaborative projects will enhance knowledge transfer.

Operationalising a dedicated Technology Transfer Office (TTO), potentially housed within or closely linked to the spin-off support offices, is vital. This TTO should be staffed with experts in IP management, business development specifically for technology ventures, and investment readiness. Core functions should include systematically identifying and evaluating research with spin-off potential, managing IP assets arising from research institutions, supporting the development of robust business models tailored to science-based ventures, facilitating engagement with investors who understand the long-term potential of deep-tech, managing the complex process of technology licensing and the formal creation of spin-off companies, fostering collaborations between spin-offs and their originating research institutions, and actively measuring the economic impact generated by spin-off activities in the region.

Fostering synergistic cross-institutional partnerships is crucial for the success of spin-off creation. Spin-off support offices should actively work to build bridges and facilitate collaborations among universities, research centres, and potential spin-off ventures. Encouraging joint research projects with clear pathways to commercialisation through spin-offs, facilitating shared access to specialised research equipment and facilities for early-stage spin-offs, and supporting collaborative innovation initiatives that directly address local challenges and leverage the Azores' research strengths are all key roles for these support offices. They can also help navigate the complexities of intellectual property sharing and collaboration agreements between academic institutions and spin-off companies.

A knowledge transfer plan is key for creating spin-offs in the Azores. Support offices should connect researchers with resources, provide mentorship, and facilitate partnerships. A TTO should manage IP, business models, and investor engagement, while fostering cross-institutional collaborations for commercialisation.

- **Promoting effective and collaborative communication**

Effective communication and collaboration within the Azorean spin-off ecosystem, facilitated directly by the spin-off support offices, are crucial for its success. These offices should actively **foster connections and knowledge sharing** among spin-off companies, researchers interested in commercialisation, mentors with relevant expertise, and investors focused on science and technology ventures. To achieve this, the support offices should maintain a **comprehensive network directory**, readily available to stakeholders upon request, detailing the expertise and interests of individuals and organisations within the ecosystem.

Furthermore, the support offices should develop and actively **distribute a repository of valuable resources** tailored to the needs of spin-offs. This could include templates for IP agreements, guidance on funding applications, and business plan frameworks specifically designed for technology-based ventures. These resources can be made

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available during workshops, individual consultations, and through a dedicated section on the support offices' website or physical premises.

The spin-off support offices should also take the lead in **curating and publicising an integrated event calendar**, highlighting relevant workshops, networking events, and investor pitch sessions specifically designed for spin-offs. This calendar can be disseminated through regular email newsletters, announcements on the support offices' premises, and collaborations with other regional organisations that promote innovation.

Designing impactful regular networking events specifically for the spin-off community is crucial. The spin-off support offices should consider a mix of formats, including in-person meetups held on different islands to encourage local connections among spin-off founders and researchers, and virtual events to facilitate broader participation from across the archipelago and beyond. Industry-specific workshops focused on the unique needs of spin-offs in agriculture and agro-industry, sea and blue growth, tourism and heritage, space and data science, and health. The frequency of these events should be carefully considered to maintain engagement and foster the exchange of ideas, the building of new partnerships, and the promotion of collaboration among researchers, entrepreneurs, investors, and mentors within the spin-off ecosystem. The support offices should **request feedback from the spin-off community** to ensure these events are impactful and meet their needs.

To further encourage discussions, knowledge sharing, and the building of a supportive community, the spin-off support offices should organise **regular in-person forums and roundtable discussions** where spin-off founders, researchers, mentors, and investors can interact directly. These events can be themed around specific sectors or challenges relevant to spin-offs in the Azores.

The support offices should also play a direct role in **matching spin-offs with suitable mentors and potential investors**. This can be achieved through personalised introductions based on the specific needs and profiles of the spin-offs and the expertise and investment interests of the mentors and investors in their network. Dedicated matchmaking events or one-on-one meeting facilitation can be effective strategies.

Ensuring stakeholder accessibility and user-friendliness of the spin-off support offices themselves is paramount. These offices should be strategically located and easily accessible across the islands, potentially through a network of physical locations or regular outreach programs to different islands. Providing multilingual support, catering to both the local community and international stakeholders interested in Azorean spin-offs, will enhance their reach and usability.

Effective communication and collaboration within the Azorean spin-off ecosystem are crucial. Support offices should build networks, provide resources, and organise events to foster collaboration among spin-offs, researchers, mentors, and investors. Ensuring accessibility and multilingual support will further enhance their impact across the archipelago.

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2.2.2. ECONOMIC RECOMMENDATIONS

Given the economic challenges identified at the UAC, this section offers targeted recommendations for spin-off support offices to improve economic aspects crucial for their success and long-term sustainability. These recommendations, which are aligned with the strategic priorities outlined in the RIS3 Açores, emphasise strengthening industry engagement, overcoming resource and capacity limitations, and bridging the research-to-market gap.

- **Enhancing industry engagement**

To comprehensively enhance industry partnerships within the Azores to support the creation and growth of spin-off companies, spin-off support offices should undertake industry liaison and partnership activities, including proactively building and maintaining relationships with the broader business community across the region. This involves identifying and cultivating connections with local, national, and international businesses aligned with the Azores' research strengths in various institutions.

The spin-off support offices should **organise regular networking events** to facilitate interactions between researchers from across the Azores and industry representatives, foster joint research projects, and create formal partnership agreements that provide spin-off companies with access to invaluable market insights and experienced mentorship. Acting as the central point of contact for businesses seeking to engage with Azorean research institutions is crucial, as is providing guidance to faculty and researchers looking to establish collaborations with industries.

These offices should also **facilitate the establishment of industry links** that offer opportunities for the professional development of both researchers and students across the region, assist in the formation of new industry partnerships and start-up ventures, and maintain an active and informative presence specifically for industry partners.

In this regard, spin-off support offices could **organise regular Industry Advisory Board meetings** to provide a valuable platform for dialogue between research institutions in the Azores and representatives from various industries, offering feedback on research directions, curriculum relevance in relevant educational institutions, and the potential for commercialising regional research through spin-off companies, ensuring alignment of research with market demands and providing researchers with a better understanding of industry needs, reviewing program educational objectives and student outcomes in pertinent institutions, and encouraging companies to provide valuable internship opportunities for students across the Azores.

Spin-off support offices should foster industry partnerships by organising networking events, promoting collaboration, and ensuring research aligns with market needs. Regular advisory meetings can provide valuable feedback, mentorship, and opportunities for professional development.

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Addressing resource and capacity limitations

To effectively address resource and capacity limitations, the spin-off support offices must first **secure adequate funding to establish a strong foundation by strategically attracting and retaining qualified personnel**. This includes offering competitive salaries, comprehensive health benefits, robust retirement plans, and potentially incentives like relocation assistance to attract talent to the Azores. Equally important is **investing in the professional development** of staff, covering specialised training in areas such as technology valuation, intellectual property law, business incubation best practices, and grant management.

Support offices should clearly communicate their unique mission and the potential for significant impact on the Azorean economy and innovation landscape. Proactively **engaging with local universities and educational institutions** is also essential to cultivate a pipeline of future talent through internships, collaborative projects, and career events. Additionally, offering remote work options where feasible can expand the recruitment pool beyond the islands.

Once the support offices secure sufficient funding and build their internal capacity, they can more effectively address the broader resource and capacity limitations within the Azorean innovation ecosystem. A primary responsibility will be to **provide comprehensive research support and innovation services**, which will require financial backing for operational costs and potential seed funding initiatives. This includes providing expert assistance with grant writing, guiding researchers through intellectual property management—from disclosure to commercialisation strategies—and facilitating access to shared research infrastructure and specialised equipment across different institutions in the Azores. Streamlining the administrative processes for spin-off formation will also be crucial.

To further empower the research community, the support offices should **organise and host regular workshops and training sessions** on advanced research methodologies, technology commercialisation pathways, and entrepreneurial skills. Additionally, the support offices should actively engage in **talent development and recruitment activities** that will directly benefit the spin-off companies. These offices should offer **targeted training programs to enhance the skills of existing staff within spin-offs**, particularly in areas critical to their growth, such as advanced research techniques, grant funding acquisition, and effective IP management. A commitment to conducting thorough skills gap analyses within both the support offices and the broader innovation ecosystem will help inform the development of comprehensive and targeted talent strategies—again requiring sufficient resources.

To overcome resource limitations, spin-off support offices need to secure funding and hire skilled staff, offering competitive benefits and professional development. Collaboration with local universities and offering remote work options can help attract talent. Once operational, these offices will provide essential support for research,

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streamline spin-off processes, offer training on commercialisation and IP management, and help attract talent to the innovation ecosystem.

- **Bridging the research-to-market gap**

In order to connect academic research in the Azores with market needs, spin-off support offices must adopt a holistic approach to entrepreneurship and commercialisation. This approach should involve a variety of programs aimed at fostering essential entrepreneurial skills, such as identifying market opportunities through research and trend analysis, conducting thorough market assessments to determine the viability of research outcomes, creating customised business plans for technology ventures, and enhancing pitching skills, including the development of compelling presentations and financial projections.

The support offices should collaborate closely with educational institutions across the Azores to **design curricula that emphasise industry-driven innovation**. The changes should be prioritized, although not exclusively, in training related to the priority sectors according to RIS3 Açores, such as agriculture and agro-industry, sea and blue growth, tourism and heritage, space and data science, and health. This approach ensures that research projects align with market needs and potential applications from the outset. They should offer specialised workshops on market opportunity identification, using tools like design thinking and lean startup methodologies. Additionally, mentorship from experienced entrepreneurs and business leaders with relevant sector expertise should be made available to help researchers translate their findings into marketable solutions.

A variety of services should be offered by the support offices to entrepreneurs at different stages of their journey—from idea generation and validation to the successful launch and growth of spin-off companies. Events like **pitch competitions and demo days** will provide valuable platforms for spin-offs to engage with investors and showcase their innovations. **Promoting success stories** from Azorean spin-offs and highlighting the benefits of university research commercialisation will help foster a culture of entrepreneurship. **Feedback from alumni and graduated spin-off companies** should be actively solicited to continually improve programs and services.

The support offices must also **drive comprehensive technology transfer activities**, identifying promising research outputs with commercial potential across the Azores and efficiently translating them into viable spin-offs. This includes evaluating inventions based on novelty, market potential, technical feasibility, and impact, securing IP rights through patent applications, trademark registrations, and copyright protection, and negotiating licensing agreements or terms for the creation of new spin-off ventures. Raising IP awareness through seminars and accessible resources, managing IP disclosures, and developing clear procedures for invention handling is also key.

Marketing available technologies through online platforms, industry events, and direct outreach should be prioritised, alongside managing the complexities of revenue sharing from IP commercialisation and addressing potential conflicts of interest. Collaboration with researchers to develop business plans that outline market

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opportunities and commercialisation strategies will further strengthen the process. Negotiating equity stakes, establishing licensing terms, and guiding researchers through legal and regulatory requirements—such as environmental regulations, data protection laws, and business registration processes—are critical components of the technology transfer process.

These activities should be conducted by specialised staff with expertise in IP law, technology valuation, licensing agreements, and business development for technology ventures. Clear, transparent policies and procedures for IP management and spin-off formation should be established, with a proactive, service-oriented approach and consistent communication. Streamlining the spin-out process will help reduce delays, fostering trust and confidence among researchers by demonstrating a commitment to supporting founders well beyond the initial launch phase.

3. RECOMMENDATIONS FOR THE ESTABLISHMENT OF SPIN-OFFS SUPPORT OFFICES IN THE ULPGC ECOSYSTEM

Subsection 3.1 provides a summary of the primary challenges—both legal and administrative as well as economic—that affect the ULPGC. These challenges were comprehensively identified, documented, and analysed in deliverable D1.2, and reflect significant structural and operational barriers within the university's innovation and entrepreneurial ecosystem.

The analysis addresses legal and administrative issues such as the absence of incentive systems to encourage academic entrepreneurship, skill mismatches resulting from misalignment between university curricula and industry requirements, bureaucratic hurdles that delay or discourage entrepreneurial activities, outdated and insufficient infrastructure hampering product development, and limited visibility and insufficient resources within start-up support programmes. Furthermore, economic challenges are presented, including inadequate engagement between the ULPGC and local industrial partners, insufficient connections with the broader community, limited availability and accessibility of funding sources, and a notable gap in entrepreneurial knowledge among researchers regarding the process of spin-off creation and management.

Building upon the insights and lessons learned from these specific challenges at the ULPGC, a set of targeted recommendations is subsequently proposed in subsection 3.2. These recommendations are explicitly directed at spin-off support offices in the region and provide concrete actions and best practices aimed at systematically addressing the identified challenges. Within these recommendations, particular emphasis is placed on the importance of establishing strong, collaborative relationships with key stakeholders across the regional innovation ecosystem, thereby leveraging external expertise, resources, and networks to maximise the effectiveness and impact of spin-off support initiatives.

Additionally, these recommendations are closely aligned with the strategic levers of the Smart Specialisation Strategy of the Canary Islands (RIS3 Canarias), ensuring they are

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not developed in isolation. By tying into Strategic Lever 1 (Knowledge Generation and Valorisation), Strategic Lever 2 (Talent Perspective), Strategic Lever 3 (Internationalisation), Strategic Lever 4 (Focus and Prioritisation), and Strategic Lever 5 (Territorial Perspective), they complement and support the objectives of each lever. This alignment guarantees that the proposed actions are both relevant and practical, offering clear guidance to enhance the spin-off ecosystem. By integrating these strategic priorities, the recommendations contribute to fostering sustainable economic growth, positioning the Canary Islands as a key player in innovation and entrepreneurship while addressing regional needs and driving inclusive development.

3.1. IDENTIFIED CHALLENGES AT THE ULPGC INNOVATION ECOSYSTEM

3.1.1 LEGAL AND ADMINISTRATIVE CHALLENGES

This subsection summarises the legal and administrative challenges already identified at the ULPGC. In particular, the issues highlighted include the lack of appropriate incentive structures for academic entrepreneurship, substantial gaps between university curricula and workforce skills demanded by industry, bureaucratic hurdles that delay innovation, outdated infrastructure hindering product development, and insufficient visibility and resources within existing start-up support programmes.

- **Absence of an incentive system for researchers to build spin-offs**

The ULPGC and the broader Canary Island system lack incentives for researchers to create spin-offs. More broadly, there is a nationwide absence of an incentive system that supports knowledge transfer in Spain. Researchers typically do not have incentives to create spin-offs, as existing incentives are predominantly focused on research output rather than on commercialisation efforts. The academic career path is highly demanding, and researchers are often unwilling to abandon their academic work to venture into entrepreneurship due to the associated risks. Additionally, there is little flexibility for balancing both research and entrepreneurial pursuits. This issue extends beyond the regional level, affecting the national research ecosystem.

In the absence of institutional or national support structures to encourage and reward entrepreneurial activities, spin-offs are often viewed as secondary to academic work, hindering the potential for knowledge transfer and the commercialisation of research outcomes. Without clear institutional backing, many potential entrepreneurs within universities may forgo the spin-off path due to a lack of incentives or unclear pathways. Developing specific policies that recognise and reward faculty members for launching spin-offs could provide the necessary impetus to stimulate more entrepreneurial activity within ULPGC's research community. This would require aligning academic objectives with entrepreneurial incentives.

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- **Skill gaps in the workforce**

The region faces significant skill gaps in its workforce which are essential for spin-offs originating from ULPGC's research activities. The ULPGC faces challenges related to the lack of specialised training and curriculum alignment with industry needs. These issues suggest that policy changes within the university are required to ensure curricula are more aligned with the evolving demands of the start-up ecosystem and emerging industries.

For spin-offs emerging from ULPGC, the lack of a skilled workforce directly impacts their ability to grow and succeed. Despite having a wealth of academic excellence, ULPGC faces a brain drain, with skilled graduates often leaving the region for more attractive job opportunities elsewhere. Additionally, spin-offs find it difficult to attract the necessary technical and business talent locally, as the talent pool in the region does not always meet the needs of these high-tech start-ups. The lack of tailored programs that focus on entrepreneurial skills further limits the potential for growth of spin-offs. Without an improved educational framework that aligns with industry requirements, spin-offs at ULPGC will continue to struggle with recruitment and scaling, which ultimately impacts their ability to innovate and compete in the marketplace.

- **Bureaucratic hurdles**

Administrative hurdles and slow response times are the most frequently mentioned challenges in D1.2, cited by both internal members of the ULPGC and external stakeholders within the innovation ecosystem of Gran Canaria.

These bureaucratic delays can significantly hinder the progress and innovation of spin-offs, especially during the critical early stages when quick decisions and timely access to resources are essential for maintaining momentum. Spin-offs often operate with small teams and may lack the expertise in regulatory compliance, making complex reporting requirements for grants, funding applications, and tax obligations particularly burdensome. Additionally, the inflexibility of administrative processes can result in missed opportunities, as spin-offs may fail to secure funding or approvals within crucial timeframes. This inefficiency can frustrate potential founders who are eager to move forward with their projects, ultimately delaying their market entry and reducing the chances of success.

- **Outdated equipment and insufficient infrastructure**

The lack of appropriate infrastructure for prototyping and product testing is a major challenge for spin-offs in Gran Canaria. Many high-tech spin-offs, particularly in fields such as astrophysics, space or marine research, require specialised facilities to effectively develop and test their products. However, the existing infrastructure in Gran Canaria for prototyping is both limited and outdated, with ULPGC unable to provide sufficient high-tech resources to meet the diverse needs of these start-ups.

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Without access to modern prototyping facilities, spin-offs are forced to seek external resources, which is not only costly but also time-consuming. This lack of state-of-the-art equipment hampers their ability to quickly develop functional prototypes, slowing down the overall product development process and ultimately diminishing their competitiveness in the market.

- **Lack of visibility and resources of the start-up support program**

Spin-off support programs at ULPGC face challenges related to poor visibility and insufficient resources to effectively promote and assist start-ups and spin-offs. Many researchers may not even be aware of the resources available to them, or they may be uncertain about where to seek the support they need. This lack of awareness, coupled with limited marketing or outreach efforts, means that the ecosystem designed to assist spin-offs remains underutilised.

Researchers who are unaware of where to access critical support risk missing out on vital resources such as funding, mentoring, and business development assistance. As a result, they may fail to leverage opportunities that could help accelerate their growth and ensure their sustainability. The lack of visibility not only diminishes the effectiveness of the spin-off support offices but also prevents these offices from connecting with the entrepreneurs who need their services the most.

3.1.2. ECONOMIC CHALLENGES

This subsection outlines the main economic challenges identified at ULPGC as presented in D1.2. Namely, the issues highlighted include insufficient engagement between the university and industrial partners, limited connection with the broader local community, a significant funding gap impacting spin-off growth, and inadequate entrepreneurial knowledge among researchers on how to effectively establish and manage spin-offs.

- **Limited engagement with industrial partners**

The engagement of the ULPGC with industrial partners is the second most frequently mentioned challenge in D1.2, cited by both internal members of the ULPGC and external stakeholders within the innovation ecosystem of Gran Canaria.

The university's technological innovations often struggle to translate into practical applications within the local industry, primarily due to the disconnect between academia and industry. This disconnect can lead to a lack of collaboration between ULPGC researchers and local businesses, meaning that research is often not aligned with the specific needs of the industrial sectors of the region. For the ULPGC, this gap prevents technologies developed at the university from being tested, scaled, or commercialised in collaboration with industry players. The absence of robust relationships with local industries results in lower opportunities for partnerships, real-world applications, and funding from industrial sources. Furthermore, without industrial backing, spin-offs

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struggle to find validation for their products or services, which are necessary steps to build confidence among investors and customers.

For spin-offs emerging from ULPGC, industrial partnerships are essential for product development, market testing, and commercial growth. Without strong connections to local industry, these spin-offs face challenges in securing real-world applications for their innovations or finding collaborative opportunities to scale their products. The absence of these industry connections significantly limits their ability to validate their technologies, expand their networks, and secure additional funding through industry-led investments. The lack of engagement from the private sector also hinders the creation of joint ventures or co-development projects that could help spin-offs grow and gain access to larger markets.

- **Limited engagement with the broader local community**

Similarly, another ongoing challenge faced by ULPGC is the engagement with the local community. Engaging with the local community is essential for fostering an environment of mutual support, where public institutions and residents can benefit from the university's research outputs. ULPGC's research initiatives often fail to connect with the community at large, which limits the potential for feedback, collaborative partnerships, and access to local markets. The lack of structured community outreach and engagement initiatives means that research outputs may not be aligned with the actual needs or interests of the community, leading to missed opportunities for real-world applications. This disconnect also makes it more challenging to raise public awareness of the university's contributions and to build strong local partnerships that could further support innovation. Without a clear framework for community involvement, ULPGC's research and technological advancements may not fully contribute to the regional development of Gran Canaria.

For ULPGC spin-offs, the lack of engagement with the local community presents significant challenges. Community involvement is crucial for market awareness, building initial customer bases, and gaining public support. Spin-offs may struggle to connect with local businesses or government bodies that could act as partners or first adopters of their products. Furthermore, the absence of community-focused initiatives makes it difficult for spin-offs to build customer loyalty and ensure that their innovations meet the needs of the local population. This lack of community connection can hinder their early growth and expansion, as they miss opportunities for collaborations, customer feedback, and local market development.

- **Insufficient funding**

A major economic challenge for ULPGC is the insufficient funding available to support spin-offs. Although there are public funding programs and EU grants, the process of accessing these resources is highly competitive, complex, and slow. Additionally, the funds available are often limited, particularly in the crucial early stages of a spin-off's development. Public funding, though available, is frequently restricted by specific criteria

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that many spin-offs may not meet, and the application processes can be lengthy and cumbersome, leading to delays in providing financial support when it is needed most.

Moreover, the lack of private capital exacerbates the problem, as there are few venture capitalists or angel investors in the region. This limits the ability of spin-off support offices to connect start-ups with investors who are willing to take risks. The regional funding ecosystem is underdeveloped, leaving spin-off support offices overly reliant on public grants and subsidies, which are often insufficient to enable ventures to scale effectively. Additionally, the spin-off support offices themselves often face resource constraints. In many cases, they lack sufficient budgets and personnel to fully support the start-ups. This limitation hampers their ability to provide comprehensive assistance, further exacerbating the difficulties spin-offs face in accessing the necessary support.

This scarcity of funding, combined with the under-resourced support offices, creates a significant "funding gap," especially in the early stages of spin-off development. As a result, many spin-offs struggle to secure the necessary financial backing to move their ideas forward and grow successfully.

- **Lack of knowledge on how to create a spin-off**

At ULPGC, a significant barrier to the creation of spin-offs is the lack of knowledge among researchers about the process of transitioning from academia to business ventures. While researchers possess outstanding technical expertise and innovative ideas, they often lack the business acumen required to successfully establish and run a company. The shift from research to entrepreneurship involves complex tasks such as business planning, market analysis, financial forecasting, sales strategies, and understanding legal requirements – areas in which most researchers are not trained.

Spin-off support offices must bridge this knowledge gap by offering tailored mentorship programs and business development training. Entrepreneurial education and advisory services are crucial to help researchers make the transition from lab to launch.

3.2. SPECIFIC RECOMMENDATIONS FOR THE ULPGC INNOVATION ECOSYSTEM

3.2.1. LEGAL AND ADMINISTRATIVE RECOMMENDATIONS

Based on the specific challenges identified at the ULPGC, this section provides targeted recommendations for spin-off support offices in the Canary Islands region regarding legal and administrative aspects. These recommendations address the absence of effective incentive systems for academic entrepreneurship, gaps between academic curricula and industry needs, bureaucratic barriers hindering spin-off creation, deficiencies in university infrastructure, and insufficient visibility and resources within spin-off support programmes.

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These recommendations for overcoming legal and administrative barriers are comprehensively aligned with the RIS3 Canarias framework, integrating with all five key strategic levers. They support Lever 1 by promoting knowledge valorisation for economic transformation; Lever 2 by fostering talent development, attraction, and retention; Lever 3 by enhancing internationalisation efforts; Lever 4 by balancing focus on priority sectors with broad support for all industries; and Lever 5 by leveraging the region's territorial strengths for local benefit. Therefore, the recommendations presented below are not developed in isolation but find their place within these strategic levers, reinforcing and complementing their objectives. By aligning with the RIS3 Canarias framework, they aim to provide actionable guidance for spin-off support offices that strengthens the spin-off ecosystem and contributes to sustainable economic growth in the Canary Islands.

- **Implementing a consistent, formal incentive system for researchers to create spin-offs**

Spin-off support offices play a crucial role in bridging the gap between academic research and entrepreneurship, yet Spain's current academic incentive structures continue to prioritise traditional scholarly outputs over commercial or social impact. Despite the introduction of initiatives such as the *sexenio de transferencia*, intended as a pilot measure to formally recognise and reward technology transfer activities—including spin-off creation—this promising approach has not been implemented regularly, unlike standard academic research evaluations. To truly foster a thriving culture of entrepreneurship within academia, **spin-off support offices must advocate for institutional changes, consistently lobby for regular implementation of dedicated incentives, and actively promote policies enabling flexible collaboration between academia and industry**. This approach aligns directly with the RIS3 Canarias, particularly its Strategic Lever 1 on Knowledge Generation and Valorisation. By leveraging knowledge, innovation, and entrepreneurship as drivers of economic transformation, this lever emphasises the importance of translating research into tangible societal and economic impacts.

In 2018, the Spanish government introduced the *sexenio de transferencia* as a pilot initiative to explicitly recognise and reward academics who successfully translate research outcomes into commercial or societal impact. One of the key evaluation criteria under this initiative was specifically participation in academic spin-offs, clearly acknowledging entrepreneurship as a valuable academic accomplishment. However, unlike regular calls for traditional research achievements, this initiative has not been continued beyond its initial pilot call. The absence of regular follow-up calls creates uncertainty among researchers regarding institutional commitment to entrepreneurial recognition, undermining the initiative's potential impact.

To address this, spin-off support offices should actively **lobby university administrations, regional and national policymakers, and relevant academic evaluation bodies for regular implementation of the *sexenio de transferencia***. Offices must emphasise that consistent, predictable calls for this recognition mechanism are essential for creating stable, ongoing incentives that motivate researchers to engage

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actively with spin-offs and technology transfer activities. Highlighting evidence from the pilot programme's successes and comparable international benchmarks will strengthen the argument for embedding entrepreneurship and commercialisation as permanently recognised academic pursuits. Additionally, spin-off support offices should proactively raise researchers' awareness of the *sexenio de transferencia*, clearly communicating the benefits and explicit criteria and assisting academics in documenting eligible knowledge-transfer activities. Offices could also streamline bureaucratic processes related to these applications, providing hands-on guidance to ensure researchers can easily benefit from available incentives, thereby reducing perceived risks and uncertainty associated with entrepreneurial activities.

Spin-off support offices should also **advocate structural reforms within universities, seeking to formally integrate entrepreneurial and knowledge-transfer achievements into academic evaluation criteria** beyond the *sexenio* itself. Collaborating with university leadership and policymakers, offices should push for reforms to tenure, promotion, and funding policies that explicitly recognise and reward outputs such as spin-offs, licensing agreements, and patents, aligning Spain's practices with established international models. Such structural integration will permanently anchor entrepreneurship as a legitimate and valued academic pathway, providing sustained incentives beyond periodic recognition schemes.

Furthermore, spin-off support offices must **advocate policy changes to enhance direct financial incentives associated with entrepreneurial activities**. Encouraging policies that provide researchers with greater equity shares, higher royalties, or direct financial rewards will further motivate academics to engage in spin-off creation. Complementing institutional recognition like the *sexenio*, stronger financial incentives will significantly boost the attractiveness of entrepreneurship for researchers, aligning personal rewards with entrepreneurial success.

Additionally, spin-off support offices should actively **push for policy and legal frameworks that enable flexible and sustained academia-industry exchange programmes**. Current regulations in Spain rarely allow flexible contractual arrangements permitting university staff to simultaneously engage in commercial roles or enabling industry professionals to actively teach in academic settings. Spin-off support offices must advocate for establishing clear legal mechanisms that facilitate joint academic-industry appointments, structured industry secondments for faculty, dedicated entrepreneurs-in-residence programmes, and industry mentorship initiatives within universities. By securing such flexibility, spin-off support offices will significantly enhance the practical industry exposure of academics, directly improving the quality and market relevance of university-based spin-offs.

Through targeted lobbying for regular implementation of the *sexenio de transferencia*, structural integration of entrepreneurial achievements into academic evaluation, strengthened financial incentives, and enhanced academia-industry mobility, spin-off support offices can drive a comprehensive cultural transformation. These coordinated actions will position entrepreneurship firmly as an integral, institutionally supported

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component of academic success, significantly increasing the volume and impact of spin-offs emerging from the region.

- **Bridging workforce skill gaps by aligning university curricula with industry requirements**

Spin-off support offices should prioritise addressing the substantial gap between university curricula and the specific competencies required by companies, particularly spin-offs. Higher education programmes traditionally emphasise theoretical knowledge and academic research, often without providing adequate exposure to the practical skills or experiences demanded by industry. As a result, graduates and doctoral candidates frequently enter the workforce lacking not only entrepreneurial abilities but also fundamental competencies necessary for successful integration into commercial and industrial environments. Consequently, spin-offs experience a mismatch between the skills of their teams and those needed for efficient product development, operational execution, and effective market entry.

To mitigate this gap, spin-off support offices should **facilitate structured university-industry collaboration programmes**. Offices should **proactively create opportunities for real-world industry engagement** by coordinating capstone projects, internships, apprenticeships, or industry-sponsored challenges, partnering with regional businesses and international companies active in the region. Such initiatives enable students and researchers to gain first-hand experience of corporate practices, project delivery expectations, quality standards, and regulatory frameworks. Through these targeted experiences, participants develop practical, industry-relevant competencies, significantly improving their employability within spin-offs and broader industry.

Spin-off support offices should also actively **lead advocacy efforts to facilitate short-term curriculum enhancements**, introducing critical industry-relevant content into existing academic courses. This could involve organising regular guest lectures, industry-led seminars, or workshops delivered by experienced industry practitioners or entrepreneurs who can illustrate current market trends, technical demands, and real-world scenarios that graduates typically face upon entering the workplace. Offices could **establish industry advisory boards that regularly consult with universities**, identifying immediate skill gaps in disciplines like data analytics, biotechnology standards, cybersecurity, digital transformation, and quality assurance. Crucially, spin-off support offices must **advocate strongly with regional and national policymakers for necessary legal reforms** to grant universities greater flexibility and autonomy to swiftly update and align curricula with industry needs, bypassing lengthy administrative approval processes currently impeding rapid response to market demands.

In parallel, spin-off support offices should **advocate robust long-term educational reforms**, promoting policy changes that systematically embed industry-focused learning into Spanish higher education programmes. Offices should collaborate with policymakers to create formal frameworks for dual education, integrating mandatory, extended industry placements, apprenticeships, or cooperative education semesters into

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university degrees. Successful implementation of such reforms requires clear legal definitions, appropriate incentives for industry collaboration, and sustained policy support. Spin-off support offices should therefore engage actively with governmental bodies to propose these structural reforms and secure ongoing institutional commitment.

Finally, spin-off support offices should encourage long-term cultural shifts within the educational system to prioritise continuous responsiveness to industry needs. Offices can **advocate for policy-level integration of industry relevance and practical skills training across all educational stages**, reinforcing that the goal of higher education includes producing graduates fully prepared to meet industry expectations. Promoting institutional recognition of successful university-industry collaborations and consistently highlighting career paths involving strong practical skills would foster an academic environment increasingly attuned to real-world market demands.

By implementing these targeted strategies and vigorously advocating for necessary policy and legal changes, spin-off support offices can effectively bridge the broader skills gap between academic education and the practical requirements of companies. This will significantly enhance the competitiveness and market readiness of spin-offs and other technology-based companies emerging from the region. These recommendations are in line with the RIS3 Canarias, particularly with its Strategic Lever 2: Talent Perspective, which emphasises the importance of training, attracting, and retaining talent, promoting scientific and entrepreneurial vocations as a foundation for a welfare society. By addressing the skills gap and fostering industry-relevant competencies, spin-off support offices contribute directly to achieving these vital strategic objectives for the region.

- **Streamlining and simplifying administrative processes to accelerate spin-off creation**

Spin-off support offices must streamline administrative procedures, and accelerate the process of creating and growing academic spin-offs. Lengthy processes, extensive paperwork, and complex regulatory compliance not only discourage researchers from pursuing spin-offs but also hinder companies from swiftly seizing market opportunities or securing timely investment. Internally, universities themselves often add layers of bureaucracy in approving participation in spin-offs or licensing intellectual property, further slowing commercialisation efforts.

To address these challenges, spin-off support offices should **adopt a proactive "one-stop" concierge model for managing administrative processes**. Instead of leaving academic founders to independently navigate university departments such as legal, financial, and technology transfer units, spin-off support offices should take responsibility for coordinating and expediting these interactions behind the scenes. Offices must implement simplified, unified workflows—such as consolidated proposal forms—that allow researchers to submit requests efficiently, while the support office manages internal approvals related to IP licensing, equity participation, and conflict-of-interest clearance. Establishing clear, enforceable internal will accelerate these processes to align with startup timelines rather than traditional academic schedules.

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Further, spin-off support offices should **standardise and simplify common procedures by introducing template agreements and streamlined documentation**. Offices must develop standardised spin-off licensing contracts with pre-approved terms for royalties and equity participation. Having these pre-vetted, standard agreements dramatically reduces negotiation and administrative delays. Similarly, offices should proactively work with external funding agencies and incubators to simplify application forms for innovation grants, reducing redundant paperwork and even pre-filling routine institutional details on behalf of spin-offs. Offices should also negotiate internal "fast-track" processes for spin-off activities, such as hiring or procurement requests, to prevent these crucial actions from becoming trapped in bureaucratic queues. These lean operational improvements can significantly reduce bureaucratic friction within months, rapidly improving the entrepreneurial environment.

Spin-off support offices should additionally **advocate strongly for expediting funding approvals and payment processes**. Recognising that lengthy review cycles severely disadvantage spin-offs needing quick turnaround of prototype or proof-of-concept grants, offices must negotiate accelerated review timelines with university committees and external funding agencies. Offices could establish dedicated micro-grants with simplified review processes designed specifically for rapid response to spin-off projects. Moreover, spin-off support offices must coordinate closely with finance departments to expedite the disbursement of awarded funds and simplify financial oversight procedures, such as expense reporting, while still maintaining accountability. By streamlining purchasing and accounting practices specifically for start-up-related projects, offices can significantly reduce administrative friction, enhancing spin-offs' agility and responsiveness to market opportunities.

Spin-off support offices must also drive efforts to fundamentally overhaul bureaucratic culture within universities. Offices should **advocate internally for greater operational autonomy**, enabling quicker decision-making and approvals related to spin-off activities, such as faculty participation or IP licensing. Such autonomy, balanced by clear accountability measures, aligns with international best practices. Spin-off support offices should actively represent the needs of academic entrepreneurs in policy discussions, facilitating seamless integration across multiple administrative layers, from university to regional and national levels.

Finally, spin-off support offices should **advocate for continuous reduction of bureaucratic burdens through institutionalised review and improvement mechanisms**. Offices can propose the establishment of ongoing task forces or advisory groups—including representatives from universities, government, and entrepreneurs—to systematically identify, evaluate, and resolve administrative pain points experienced by spin-offs. Issues such as cumbersome VAT procedures or difficulties in hiring international talent could be addressed through targeted regulatory adjustments or guidelines. Additionally, spin-off support offices should actively engage with Spain's new "National Office for Entrepreneurship" (Oficina Nacional de Emprendimiento), ensuring this central body effectively serves as a practical resource helping spin-offs navigate remaining administrative complexities.

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By diligently pursuing these recommended actions spin-off support offices will dramatically improve the regulatory and bureaucratic landscape for academic entrepreneurship. These efforts will empower researchers, facilitating more efficient and effective translation of academic innovation into thriving, market-ready spin-off enterprises.

- **Upgrading and expanding infrastructure and equipment to support spin-off innovation**

Spin-off support offices should proactively address the significant challenge posed by outdated university infrastructure and limited funding for advanced scientific instrumentation, especially at institutions located outside major innovation hubs. The current shortage severely restricts the capabilities of spin-offs operating in equipment-intensive sectors, including biotechnology, hardware development, and advanced manufacturing, forcing them either to incur substantial external facility costs or compromise their R&D objectives. As modern innovation increasingly requires substantial capital investment in specialised resources, spin-off support offices must actively work to alleviate this infrastructure bottleneck, enabling smoother translation of academic research into commercially viable products.

To address this, spin-off support offices should **establish structured infrastructure-sharing programmes**. Offices must first identify underutilised or available university equipment and negotiate agreements enabling controlled access for spin-offs, particularly during off-peak hours. Offices should implement clear booking procedures, establish modest usage fees to cover maintenance and operational expenses, and create straightforward guidelines to ensure efficient and equitable access. Furthermore, spin-off support offices should broker and formalise partnerships between spin-offs, nearby research institutes, and private corporate R&D laboratories. These partnerships should explicitly define shared usage terms, address confidentiality through non-disclosure agreements, and clarify cost-sharing arrangements, benefiting both spin-offs and collaborating institutions. To facilitate these arrangements, spin-off offices must also ensure the allocation of dedicated technical support staff who provide user training, supervise equipment usage, ensure compliance with safety and operational protocols, and minimise disruptions to ongoing academic activities. This structured, centrally-managed "core facility" approach will rapidly optimise existing resources, immediately boosting the R&D capacity of early-stage spin-offs.

Additionally, spin-off support offices should **advocate for and assist universities in repurposing existing campus spaces** into collaborative innovation laboratories, fabrication studios, or specialised incubators. These spaces should provide essential general-purpose equipment—including electronics workstations, prototyping tools, and basic wet-lab facilities—thus offering spin-offs and student entrepreneurs a critical transitional environment prior to securing private facilities. Spin-off offices should recommend staffing these spaces with qualified laboratory managers or technicians capable of maintaining equipment, ensuring compliance with safety regulations, and assisting teams technically. By actively supporting the creation of such collaborative

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innovation hubs, spin-off offices will foster peer-to-peer learning, knowledge exchange, and collaboration, significantly enhancing the local innovation ecosystem.

Spin-off support offices should also take an active role in **identifying and securing public funding streams for infrastructure upgrades**. Offices should regularly assess the most critical infrastructure and equipment needs identified by spin-offs, prioritising these in coordinated funding applications. Furthermore, offices should facilitate and negotiate public-private sponsorship arrangements, engaging local businesses and industry partners to co-finance or donate specific equipment in exchange for shared access rights, naming opportunities, or collaborative benefits. By implementing these sponsorship models, spin-off offices can accelerate infrastructure modernisation, leveraging private-sector contributions to significantly enhance local innovation capacity.

For sustained impact, spin-off support offices should **advocate at policy level for long-term infrastructure solutions involving substantial investments through public-private partnerships.** Reflecting key economic priorities stated in the RIS3 Canarias, offices should spearhead initiatives for establishing dedicated innovation centres offering specialized infrastructure tailored to sectors such as digital and sustainable tourism (e.g., data analytics hubs), health and well-being (e.g., advanced biomedical labs), the blue economy (e.g., marine research facilities), and astrophysics, space, and aeronautics (e.g., aerospace component workshops).These facilities should be funded jointly by government agencies, private-sector partners, and universities, ensuring alignment with market needs, economic sustainability, and affordability for emerging spin-offs. Spin-off support offices must actively participate in the governance and operational oversight of these facilities, ensuring continuous responsiveness to the evolving requirements of spin-off companies.

Importantly, spin-off support offices should **advocate strongly for policies supporting investment in human capital related to infrastructure management**. Offices should emphasise the importance of recruiting, training, and professionally recognising skilled technical personnel—such as laboratory managers, technicians, and facility supervisors. These technical experts are essential for maintaining complex instrumentation, training users effectively, and ensuring maximum utilisation and safety. Spin-off offices should propose policy measures inspired by successful international models, such as structured professional development programmes for technical staff, reinforcing their critical role within the innovation ecosystem.

By strategically implementing these short- and long-term measures—developing infrastructure-sharing programmes, establishing collaborative innovation spaces, leveraging funding opportunities, advocating for major public-private investments, and emphasising human capital—spin-off support offices can effectively resolve infrastructure bottlenecks. Ultimately, these actions will substantially improve conditions for spin-offs, accelerating the development of innovative, market-ready products and significantly enhancing the region's overall innovation environment.

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Increasing visibility and strengthen resources for spin-off support offices

Spin-off support offices should proactively tackle the significant challenge of low visibility and limited resources, both internally within the academic community and externally within the broader entrepreneurial and investor ecosystems. Even well-designed programmes and incentives will fall short if potential entrepreneurs remain unaware of their existence or if spin-off successes remain undercelebrated. Thus, spin-off support offices must place a high priority on outreach, marketing, and communications to maximise their impact.

Internally, spin-off support offices should consistently **engage academics through active publicity campaigns**, clearly highlighting available support services such as grants, entrepreneurial training programmes, mentoring networks, incubation facilities, and specialised infrastructure. For instance, regular informational newsletters, departmental seminars, or visits to laboratories and research groups should form part of an ongoing strategy to raise awareness among faculty and students. Offices should also identify and empower departmental representatives—faculty members or graduate students acting as "innovation champions"—who can assist in scouting ideas and encouraging colleagues to explore spin-off creation. This peer-to-peer approach significantly increases the visibility of support resources among researchers, many of whom may not initially realise the entrepreneurial potential of their scientific or technological ideas.

Externally, spin-off support offices must adopt a strong promotional role, **showcasing spin-off successes to the wider community, local industry, and investment circles**. A recommended strategy is the regular dissemination of positive narratives highlighting significant spin-off milestones such as prototype completion, customer acquisition, or successful funding rounds. Offices can use diverse communication channels—local media, professional networks like LinkedIn, and social media platforms—to amplify these success stories, positioning spin-offs as role models within the regional innovation landscape.

Spin-off support offices should **organise regular public events** designed to significantly boost visibility. Offices should facilitate annual or biannual spin-off exhibitions or "Innovation Showcases" rotating among various Canary Islands institutions. This rotation actively embodies the principles of RIS3 Canarias Strategic Lever 5 (Territorial Perspective), leveraging the archipelago's geography to ensure innovation is visible and accessible across the territory, thereby turning insularity into a connective advantage. Such events could feature spin-offs presenting their technologies in a trade-fair format, pitch competitions judged by industry experts and investors, and interactive sessions enabling networking between spin-offs, industry representatives, researchers, students, and potential investors. Such public platforms provide spin-offs crucial visibility, validation, and opportunities for strategic partnerships, while also cultivating a vibrant innovation community. By establishing these showcases as regular, anticipated events, spin-off support offices will embed entrepreneurial achievement into the cultural fabric of the region.

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Spin-off support offices should also **coordinate closely with regional economic development agencies and trade organisations to extend outreach beyond local boundaries**, **proactively targeting national and international industry partners and investors**. Creating and regularly updating an annual "Innovation Portfolio"—a professional brochure or digital platform profiling active spin-offs, available support mechanisms, and regional competitive advantages such as quality of life, infrastructure, or tax incentives from the Special Canary Zone—would significantly enhance the visibility of the region's spin-offs internationally. Offices should actively represent the region's innovation at national and international forums, startup conferences across Europe, or within European innovation networks such as EIT (European Institute of Innovation and Technology) communities, proactively seeking inclusion and partnerships that can elevate regional prominence. In alignment with the RIS3 Canarias framework, specifically Strategic Lever 3 on internationalisation, efforts should focus on strengthening international collaborations with leading institutions, making a quantitative leap in flagship project leadership, increasing presence in international forums, and consolidating the attraction of companies by leveraging the favourable tax environment that the Canary Islands offer.

To further strengthen internal capabilities, spin-off support offices should rapidly **establish dedicated mentor and alumni networks**. By involving successful entrepreneurs and distinguished alumni as mentors or entrepreneurs-in-residence, offices gain immediate credibility and practical expertise. Regular mentor-led events, panel discussions, or informal "fireside chats" can inspire faculty and students by demonstrating achievable entrepreneurial paths.

A critical priority is to improve the **professionalisation of spin-off support office staff**. Offices should advocate for professional development resources from university administration or regional governments to facilitate specialised training for technology transfer and entrepreneurship professionals. Participating in internationally recognised programmes such as AUTM or ASTP conferences and RTTP certification programmes build the transfer competencies of staff. Additionally, hiring or contracting experienced entrepreneurs-in-residence or start-up coaches—professionals with proven track records in company creation—can immediately bolster internal expertise, ensuring that spin-offs receive high-quality support that directly enhances their chances of success.

Finally, to maintain ongoing effectiveness, spin-off support offices should **implement systematic tracking of metrics and impact assessment**. Offices should regularly measure not just the quantity but also the quality and sustainability of spin-offs, including their survival rates, growth metrics, employment generation, and broader economic impact. This data-driven approach allows continuous improvement of support mechanisms, identifying areas where spin-offs require additional assistance, such as scaling or accessing later-stage funding. External evaluations by independent experts should periodically review and validate these outcomes, ensuring that spin-off offices remain aligned with best international practices. Regularly communicating these positive impacts and measurable results to stakeholders reinforces the critical importance and

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credibility of spin-off support programmes, generating sustained institutional and public backing.

By strategically undertaking these comprehensive actions, spin-off support offices will significantly raise their effectiveness, maximise utilisation of their programmes, and firmly establish academic entrepreneurship as a highly valued, celebrated component of the region's innovation ecosystem.

3.2.2. ECONOMIC RECOMMENDATIONS

Based on the economic challenges identified at the ULPGC, this section provides targeted recommendations for spin-off support offices aimed at improving economic aspects critical for their success and long-term survival. These recommendations focus specifically on enhancing industry engagement, fostering deeper connections with the local community, securing sufficient funding channels, and addressing the knowledge gaps researchers face when creating spin-offs.

Designed to overcome economic barriers, these recommendations are embedded within the RIS3 Canarias. They operate across the full spectrum of the strategy's ambitions, simultaneously promoting the translation of knowledge into economic value (Lever 1), nurturing and retaining talent (Lever 2), expanding the region's international footprint (Lever 3), strategically focusing on key growth sectors while supporting overall industrial innovation (Lever 4), and harnessing the islands' unique geography for inclusive local development (Lever 5). Thus, these are not standalone suggestions but actionable steps for spin-off support offices, intrinsically linked to the RIS3 framework, aimed at bolstering the regional innovation ecosystem and fostering sustainable economic prosperity.

- **Boosting industry engagement**

Engaging with the private sector is crucial for the success of spin-offs. Strong connections between academia and industry ensure that academic innovations are market-driven, while also providing spin-offs with valuable partnerships and early customers. Strengthening this engagement is essential to helping spin-offs thrive and scale effectively.

One key strategy for fostering industry engagement is the **establishment of industry-specific advisory boards** within the spin-off support offices. These boards, composed of local business leaders and academic experts, can guide spin-offs in developing market-ready solutions. Involving local industry leaders from sectors such as digital and sustainable tourism, health and well-being, blue economy industry, astrophysics, space and aeronautics industry or emerging industries —key priorities of the Canary economy as stated in the RIS3 Canarias—would ensure that spin-offs are aligned with regional needs. They can serve as connectors, introducing spin-offs to potential clients, partners, and investors within the region. They can also provide insights on skill gaps, market demands, and offer mentorship or even help evaluate spin-off proposals. For example, an advisory board could include CEOs or R&D managers from industry sectors, who

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collaborate directly with spin-off support offices to ensure the solutions being developed are aligned with real-world needs. Meeting quarterly with the entrepreneurship team, this council would help create a feedback loop, where spin-off ideas are evaluated against market realities, and the industry has a sense of ownership in the region's innovation output.

Spin-off support offices should **promote co-development projects** between spin-offs and local businesses. By sharing the risks and rewards of innovation, both parties can ensure that products are better aligned with market needs. For instance, a local marine tech company could collaborate with a university spin-off to develop sustainable technologies, benefiting from the combination of academic expertise and real-world testing environments.

Another recommendation for spin-off support offices to strengthen industry engagement is through **challenge-driven innovation programs**. These initiatives can involve local businesses posing specific challenges and inviting spin-offs to develop solutions. For example, a "TourismTech Challenge" could see major hotel and travel companies in the Canary Islands inviting spin-offs to pilot energy-efficient solutions or digital tourist services, following the strategic priority of digital and sustainable tourism outlined in the RIS3 Canarias. Those selected could implement paid pilots, providing the spin-offs with validating first customers and fostering industry buy-in. While similar initiatives, such as hackathons, have been organised in the past, these challenges must be sufficiently funded and come with a commitment from all parties involved. Adequate financing and genuine involvement from both the businesses and spin-offs are essential to ensure that the projects are successful and can be taken to the next stage.

Establishing **joint research funding schemes**—co-funded by industry and government—could provide an avenue for spin-offs to engage in early-stage projects with established companies. A company sponsoring a PhD or proof-of-concept project in exchange for first rights to a license or spin-off investment could encourage more collaboration. This approach would also enable spin-offs to access the resources needed to refine their products and accelerate commercialisation.

To further promote engagement, **regular industry-university partnership events** should be organised. These events would provide a platform for local businesses and spin-offs to meet and explore opportunities for collaboration. Tailoring these events to specific sectors, such as digital and sustainable tourism, health and well-being, blue economy industry, astrophysics, space and aeronautics industry or emerging industries, would ensure that the discussions are focused on the areas that matter most for both parties. Likewise, **fostering informal networks** between academia and industry is key to creating a collaborative culture. Spin-off support offices can organise **sector-specific meetups or innovation forums** where researchers and industry professionals can mingle, exchange ideas, and build relationships. This can help break down barriers and encourage more spontaneous collaboration across sectors, further strengthening the ties between spin-offs and the local business community. For example, a monthly "Innovation Breakfast" event alternating between islands could feature researchers pitching their

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ideas and receiving feedback from peers and industry professionals in a casual setting, helping to break down silos within the local ecosystem.

Lastly, given the geographic challenges of the Canary Islands, **virtual engagement and travel support** are essential for connecting spin-offs with key industry hubs. Spin-off support offices should facilitate travel for spin-off teams to industry events and trade fairs on the mainland or abroad, while also inviting industry players to the islands for innovation tours. This dual approach would help spin-offs access important industry networks and gain exposure to potential collaborators.

These recommendations acknowledge the strategic emphasis of key regional sectors under RIS3 Lever 4 (Focus and Prioritisation Perspective) for economic transition, but fundamentally, they are structured to deliver broad innovation support applicable to all industries without exception. This inclusive approach is complemented by alignment with Lever 5 (Territorial Perspective), leveraging the region's insularity as an advantage through the involvement of local entities. By embedding these strategies into the spin-off support ecosystem, spin-off support offices can better align research output with market demand. This strategic approach—focusing on prioritised sectors while also nurturing innovation across the entire economy and capitalizing on the region's unique territorial advantages to directly benefit the local population—ensures that spin-offs secure the partnerships and resources essential for their success and scaling, ultimately strengthening the regional economy.

- **Increasing local community involvement to build support for spin-offs**

Another critical issue faced by the ULPGC is the lack of engagement with the broader local community. To address this, spin-offs support offices should create a formal program to engage with local businesses, government bodies, and residents, ensuring that the benefits of spin-offs are directly felt by the community. One way to achieve this is by offering local businesses **early access to innovative products or services** developed by spin-offs. This would not only foster early adoption but also help create a supportive environment for spin-offs. **Community open days and product demonstrations** could also be organised, allowing spin-offs to present their innovations to local residents and businesses while receiving valuable feedback.

Beyond industry, the wider community and culture of a region play a significant role in sustaining innovation. Community support can manifest as public enthusiasm for local startups, engagement of alumni networks, or the presence of grassroots entrepreneur groups. Historically, the Canary Islands' economy has been dominated by tourism, with less of a tradition in deep-tech entrepreneurship. Changing this narrative requires grassroots community-building efforts to make entrepreneurship more inclusive and celebrated. One recommendation is to **cultivate entrepreneurial communities or clusters** on different islands that include not just tech founders, but also students, hobbyists, small business owners, and citizens interested in innovation. These communities often start organically, but spin-off support offices can accelerate them by providing venues, sponsoring refreshments, or inviting guest speakers. Hosting

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hackathons, startup weekends, or innovation bootcamps open to the public can draw in talent from outside academia and create a sense of community ownership of the innovation ecosystem.

University alumni are another community facet to engage. Many graduates from Canary Islands universities have gone on to work in businesses or even start companies elsewhere. The support offices should **collaborate with alumni associations** to identify those with entrepreneurial experience or resources and invite them into the local ecosystem. By creating an alumni mentorship network, the community supporting spin-offs extends globally.

Local governments and the general public also need to be on board. Support offices and spin-off founders should **engage in community outreach**, such as going into schools to talk about science entrepreneurship or participating in city council forums on economic development.

Culturally, the idea is to **make entrepreneurship a visible and valued** part of Canary Islands life. When a spin-off achieves a milestone, it should be celebrated within the community (featured in local news, invited to community events, etc.). An “Innovation Day” event or an annual award ceremony organised by a specific spin-off support office or by a collective event involving all the spin-off support offices in Gran Canaria or the Canary Islands could be established. During this event, several outstanding startups and spin-offs could be recognised and celebrated. This initiative could serve as a platform to showcase the most successful and innovative spin-offs, drawing attention to their achievements and contributions to the local economy.

In short, fostering community support means breaking the silo of academia and making innovation a collective endeavour. By engaging local populations and institutions, this approach embodies the RIS3 Canarias' Strategic Lever 5 (Territorial Perspective), transforming the region's insularity into an economic and social advantage and guaranteeing that innovation benefits the wider community. When the local culture starts to see entrepreneurs as trailblazers for the region’s future, more people will be willing to participate, whether as founders, employees, mentors, or supporters. This cultural shift is hard to quantify but can be felt in attitudes and engagement levels. Over time, it results in a self-sustaining ecosystem where each new spin-off finds encouragement not only from its university or investors but from the very community it aims to benefit.

- **Securing sufficient and diverse funding sources for spin-off growth**

Spin-off support offices in the region should proactively address its funding constraints, notably the heavy reliance on public funding and difficulties in attracting private investment. Offices can play a central role in expanding and streamlining both public and private funding channels specifically designed for spin-off creation and growth.

On the public side, spin-off support offices should advocate for **dedicated funding programmes for spin-offs**, actively collaborating with regional authorities such as Agencia Canaria de Investigación Innovación y Sociedad de la Información del Gobierno

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De Canarias and Instituto Tecnológico de Canarias. While past initiatives provided valuable precedents, support offices should push for scaling these programmes through a permanent "Spin-off Innovation Fund". This fund should be replenished annually, offering two clear tiers of financial support: small-scale proof-of-concept for early-stage validation, and larger seed grants or soft loans for incorporated spin-offs with demonstrable market potential. Spin-off support offices should work to streamline application processes, reducing bureaucracy and adopting international best practices. Offices could support regional authorities by assembling evaluation panels, including industry and market experts, ensuring funded projects have strong commercial viability.

To stimulate private investment, spin-off support offices should actively **facilitate the development of a local investor ecosystem**, despite geographic challenges. One step is to strengthen synergies with the existing Canary Islands business angel network, such as the Red Canaria de Business Angels (RECABA), to engage local high-net-worth individuals. Offices should host regular pitch events targeted explicitly at local investors to channel more private capital towards spin-off ventures. Additionally, spin-off support offices should **actively engage with venture capital firms** to enhance visibility and deal flow for Canary Islands startups. Offices should establish close relationships with venture capital funds at regional, national, and European levels. This proactive engagement beyond regional borders directly supports Strategic Lever 3 (Internationalisation) by seeking to attract international investment and connect local spin-offs with global funding networks. Gaining a clear understanding of these diverse funds' investment criteria and sectoral focus will enable support offices to accurately identify and approach the most suitable investors depending on the spin-off's business model, technology domain, and market sector, thus improving funding success rates and enhancing the international competitiveness of the ecosystem.

Furthermore, spin-off support offices should **actively collaborate with corporate innovation programmes** to establish strategic partnerships between spin-offs and industry players. Creating structured industry collaboration programmes or innovation challenges would enable spin-offs to secure pilot contracts or co-development opportunities, thereby enhancing their attractiveness to private investors.

Spin-off support offices should also **undertake targeted promotional campaigns** that showcase local success stories, highlighting spin-offs that have secured funding and grown successfully in the region. By systematically communicating these achievements—through events, digital media, and industry publications—the offices can build a stronger reputation for the region as an attractive investment destination.

Lastly, spin-off support offices must **ensure comprehensive measurement and tracking of funding-related outcomes** to continuously refine their strategies. Recommended metrics include the number of spin-offs applying for and securing funding, spin-off survival and growth rates, and subsequent private-sector investments leveraged through public funding initiatives. For instance, identifying gaps—such as limited progression from seed-stage to Series A investments—would highlight the need

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for further actions, including creating dedicated growth-stage funding programmes or enhancing investor outreach.

By systematically building and refining these funding pathways, spin-off support offices can ensure that innovative ideas from research institutions have adequate financial support throughout their entire development cycle—from initial validation to long-term growth and commercial success.

- **Training researchers effectively to build spin-offs**

A critical skills gap currently exists among researchers, who typically have extensive scientific expertise but limited experience in forming and managing businesses. Spin-off supporting offices play an essential role in addressing this challenge by developing structured support systems designed specifically to guide and educate new spin-off teams from idea generation to market entry. Such comprehensive systems should blend formal training programmes, structured incubators, mentorship networks, and easily accessible practical resources, thereby demystifying the spin-off process and empowering researchers—especially young doctoral candidates—to create viable companies.

To effectively implement this strategy, spin-off supporting offices must **establish structured incubator and pre-incubation programmes**, offering dedicated support over periods of 6 to 12 months. These incubators would systematically guide researchers through crucial phases of spin-off creation, including company formation, IP strategy, business model development, regulatory considerations, market validation, and growth planning. Similar programmes implemented successfully in other regions have demonstrated effectiveness by combining masterclasses, expert-led workshops, and individualised coaching to transition research inventions into sustainable business models. Spin-off supporting offices should implement this comprehensive incubator training in close collaboration with local universities, innovation centres, economic development agencies, chambers of commerce, financial institutions, and relevant industry associations. These partnerships could facilitate incentives such as seed funding, research stipends, mentoring programmes, or provision of office space, ensuring participating spin-off teams receive tailored and practical support to accelerate their transition from research to viable commercial enterprises.

Additionally, **comprehensive financial literacy training should be integrated as a core component of these incubators**. Spin-off supporting offices should organise focused workshops and individualised coaching sessions covering topics such as budgeting, financial planning, or cash-flow management. Researchers would also benefit from dedicated sessions on grant writing, including practical guidance on proposal development, peer review opportunities, and direct coaching from experienced grant writers. Training programmes should explicitly cover investor pitching skills, encompassing preparation of compelling pitch decks, clear communication of business value propositions, and understanding and evaluating investment terms. Structured

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peer-feedback sessions would further enhance founders' skills by refining presentation abilities and business narratives.

Moreover, spin-off supporting offices should proactively promote the **integration of entrepreneurship and innovation education directly into academic curricula**, particularly at master's and doctoral levels. This can be complemented by regular seminars, workshops, and certificate programmes addressing innovation management, start-up finance, regulatory compliance, and market analysis. Guest lectures from successful entrepreneurs, particularly regional spin-off alumni, would further inspire researchers, normalising entrepreneurship as a natural career path stemming from research activities.

Another essential element involves **structured mentorship networks** connecting academic entrepreneurs with experienced business mentors. Through mentorship, researchers gain critical skills such as investment pitching, strategic decision-making, and business planning, alongside moral support, significantly increasing their likelihood of success.

In addition to structured programmes and mentorship, spin-off supporting offices should develop **accessible online toolkits and advisory services** tailored specifically for Canary Islands researchers. Such a digital platform could offer step-by-step guides, document templates (e.g., term sheets, IP agreements), FAQs, and market research data to support founders at every stage of company creation. Complementing this static content, offices could host regular, on-demand advisory clinics—such as weekly office hours with legal and business experts—to resolve specific issues promptly. The primary objective of these resources is to provide comprehensive, easily accessible knowledge, thus empowering researchers who cannot participate in formal incubator programmes to pursue entrepreneurship independently.

By implementing structured incubator and mentorship programs, spin-off support offices can empower researchers—especially young doctoral candidates and early-career scientists—with the necessary skills to transition from academia to entrepreneurship. These programs not only close critical knowledge gaps in business management, financial literacy, and market validation but also help position entrepreneurship as a viable and attractive career path. Integrating entrepreneurship education into academic curricula and leveraging mentorship networks can further embed an innovation culture in the region. Through these efforts, spin-off support offices contribute to retaining talent within the Canary Islands, ensuring that innovative ideas translate into sustainable enterprises that drive regional economic growth while promoting inclusivity and equal opportunities. These recommendations align with Strategic Lever 2, Talent Perspective, from the RIS3 Canarias, which emphasizes the importance of training, attracting, and retaining talent while promoting scientific and entrepreneurial vocations as a foundation for building a welfare society. Additionally, this approach strongly resonates with Strategic Lever 1: Knowledge Generation and Valorisation. By equipping researchers with entrepreneurial skills and actively facilitating the creation of spin-offs, these recommendations provide the crucial bridge needed to transform academic knowledge

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into market-ready innovations. This process actively enhances the value of research outputs and provides the primary pathway for turning scientific breakthroughs into real-world societal and economic gains, consequently fuelling the economic transformation outlined in Lever 1 through the practical deployment of research and innovation.

4. CONCLUSIONS

This deliverable presents a comprehensive set of recommendations for establishing permanent spin-off support offices in the Azores and the Canary Islands, grounded in insights from previous work packages that identified and analysed the legal, administrative, and economic challenges affecting their innovation and entrepreneurial ecosystems.

Crucially, these recommendations are deeply embedded within the strategic context provided by the Smart Specialisation Strategies of both regions – RIS3 Açores and RIS3 Canarias. The recommendations presented here are not merely aligned with RIS3; they are conceived as integral, actionable tools designed to directly implement and accelerate the achievement of RIS3 objectives, translating the strategic vision into tangible improvements for the regional innovation ecosystems, particularly in bridging the research-to-market gap and fostering a dynamic entrepreneurial culture through robust spin-off support. While both the Azores and the Canary Islands share common challenges in fostering innovation and spin-off growth both require tailored strategies, guided by their respective RIS3 priorities, to create sustainable environments that nurture successful spin-offs and contribute to the broader goals of economic diversification, resilience, and sustainable, knowledge-driven growth envisioned in their Smart Specialisation Strategies.

A key recommendation is the optimisation of regulatory frameworks and the simplification of administrative processes to facilitate the creation of spin-offs. The complex regulatory landscape—encompassing business registration, IP transfer, tax obligations, and environmental permits—remains a significant barrier. Close collaboration with policymakers is essential to advocate for a more favourable regulatory environment. In addition, providing accessible legal and administrative support, including specialised advice on IP protection and regulatory compliance, will ease the path for researchers seeking to commercialise their innovations. The formation of working groups involving representatives from government, academia, and industry can help to identify and address specific regulatory challenges.

Securing diversified and sufficient funding sources is another critical element for spin-off support offices. This entails advocating for the establishment of dedicated public funding programmes, facilitating the development of local angel investor networks, attracting venture capital, and fostering collaboration with corporate innovation programmes. Monitoring and evaluating funding outcomes is essential to ensure these strategies are effective and to enable continuous improvement. Moreover, enhancing the visibility of support offices within the academic and entrepreneurial ecosystems is vital for long-term sustainability. This can be achieved through active outreach campaigns, showcasing

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spin-off successes, and establishing mentor and alumni networks. Ensuring that support offices have adequate resources and qualified personnel is fundamental to their effective operation. Continuous impact assessment will further help to refine their operations and ensure ongoing success.

Establishing effective support infrastructure is crucial for the successful development and sustainability of spin-offs. This includes access to specialised resources such as well-equipped research laboratories, advanced technological platforms, and high-performance computational resources. Given the multi-island nature of the Azores and the Canary Islands, it is critical to ensure that geographical constraints do not limit access to these resources. Developing robust digital infrastructures can address this challenge by enabling remote access to specialised tools and platforms. Virtual incubation programmes also play a vital role by offering flexible support to entrepreneurs and researchers, particularly in regions with limited physical infrastructure. These programmes can facilitate virtual mentoring, access to digital laboratories, and cloud-based technologies, allowing spin-offs to operate efficiently regardless of location.

Bridging the gap between theoretical knowledge and practical industry skills remains a significant challenge for spin-offs. Support offices should prioritise closing this gap by promoting university-industry collaboration programmes and advocating for long-term educational reforms that better align academic curricula with industry needs. In technology-driven sectors, modern infrastructure and equipment are essential for spin-off success. Expanding university infrastructure, implementing shared-use programmes, and securing both public and private funding are critical steps in supporting these efforts.

Strengthening industry engagement is also crucial for the success of spin-offs. Facilitating connections between researchers and industry representatives through regular networking events and industry advisory boards can help align research with market needs and identify collaboration opportunities. Involving the local community through early access to innovative products and outreach events can generate broader support and foster a sense of belonging within the entrepreneurial ecosystem. Promoting a culture of entrepreneurship at the community level is key to ensuring the long-term sustainability of these efforts.

In conclusion, establishing permanent spin-off support offices in the Azores and the Canary Islands requires a sustained, coordinated effort from all stakeholders. When implemented comprehensively, these recommendations have the potential to transform regional innovation ecosystems, driving economic growth, creating high-quality jobs, and diversifying local economies in alignment with the strategic goals of RIS3 Açores and RIS3 Canarias. This will not only benefit universities and researchers but also contribute to a more dynamic and resilient economic landscape that leverages the unique strengths identified in their respective RIS3 frameworks. These initiatives will lay the foundation for a future in which research and innovation serve as integral drivers of regional development and global competitiveness, a core objective shared by both Smart Specialisation Strategies.

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