

THE REGIONAL STATE OF THE ART REPORT REGION OF WESTERN GREECE (CTI)

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DIGITRANS - Regional State of the Art Report – Region of Western Greece, Greece

1. Regional Background Information

1.1. Introduction

The Region of Western Greece (R.W.G.) is one of the 13 administrative regions of Greece and serves as a second-level local government authority. It comprises the Regional Units of Aetolia-Acarnania, Achaia, and Ilia, and spans a total area of 11,350 km²—approximately 8.6% of the national territory. Geographically, it occupies the western part of mainland Greece, covering the northwestern section of the Peloponnese and the western frontier of Central Greece. The region borders the administrative regions of the Peloponnese and Central Greece and lies adjacent to the Ionian Islands Region. Strategically positioned along the Ionian Sea and the gulfs of Ambracian, Patras, and Corinthian, Western Greece functions as a natural gateway to the Adriatic and Western Europe.

The regional capital is the city of Patras, which serves as a key administrative, commercial, and port hub both at national and transnational levels—due to its direct maritime connections with Italy. Other significant urban centers include Agrinio, Messolonghi, Pyrgos, Amaliada, Aigio, Kato Achaia, and Nafpaktos. The region consists of three regional units and is further subdivided into 19 municipalities. Administratively, it falls under the Decentralized Administration of Peloponnese, Western Greece, and the Ionian Islands.

The territory of Western Greece is predominantly mountainous (45.3%) and semi-mountainous (25.6%), with only 29.1% consisting of lowland areas. As a result, the settlement pattern is largely shaped by the topography, with higher population densities in coastal and urban zones. In terms of human development, the region ranks sixth nationally, with a Human Development Index (HDI) of 0.861, reflecting a relatively balanced combination of education, income, and life expectancy indicators.

In terms of per capita income, Western Greece remains among the least developed regions of both Greece and the EU, despite modest recovery trends. According to revised Eurostat data (PPS), the region's GDP per capita in 2021 corresponded to approximately 54% of the EU average, slightly higher than in 2019 but still below the national convergence threshold. This reflects persistent structural weaknesses—including low productivity, limited economic diversification, and demographic contraction—particularly outside the urban pole of Patras. The updated Regional Operational Programme 2021–2027 classifies Western Greece as a “Less Developed Region” under Cohesion Policy criteria, eligible for enhanced support to bridge development gaps, enhance SME competitiveness, and accelerate green and digital transitions.

The regional economy of Western Greece is predominantly based on traditional, low value-added sectors such as agriculture, construction, and small-scale manufacturing. Micro, small, and medium-sized enterprises (SMEs) form the backbone of the local economy, accounting for over 97% of active businesses. Although the primary sector holds a relatively high share in both GDP and employment—above the national average—its productivity remains low. The secondary sector (mainly food processing and construction) exhibits moderate productivity, while the tertiary sector is dominated by retail and public administration. The digital and innovation intensity of firms is limited, indicating a need for deeper economic diversification.

Western Greece has benefited significantly from the EU's Cohesion Policy through ERDF and ESF funds, as well as from the Recovery and Resilience Facility (RRF) launched in response to the COVID-19 pandemic. The Regional Operational Programme 2021–2027 foresees targeted investments exceeding €400 million to support green and digital transition, enhance SME competitiveness, and promote social inclusion. Additionally, national RRF measures—such as vouchers for digitalization and energy upgrades—are being deployed regionally, albeit at uneven rates. These funding instruments are crucial for addressing long-standing structural gaps and stimulating economic convergence.

The region is undergoing a marked demographic decline, with its population dropping from 679,796 in 2011 to 655,189 in 2019, and projections indicating further contraction in the coming decades. The ageing index and old-age dependency ratio have increased substantially, reaching 35.2% in 2019, above the national average. Youth outmigration, especially among tertiary graduates, continues to erode the regional talent pool, particularly in sectors like ICT, engineering, and health sciences. These demographic trends place direct pressure on the region's labour market, welfare systems, and long-term development potential.

Western Greece's innovation profile is modest, yet evolving, with areas of emerging specialization in agri-food technologies, energy efficiency, and health-related applications. The Smart Specialisation Strategy (RIS3) of the region identifies six priority areas and promotes synergies between academia, SMEs, and research centers. Institutions like the University of Patras and the Hellenic Open University provide a strong knowledge base, while regional innovation ecosystems—such as the Patras Science Park and POS4Work incubator—serve as critical infrastructure for tech transfer and entrepreneurship. However, the innovation performance remains below the EU average, requiring further investment and governance reform.

Thanks to its strategic location along the Ionian coast, the Region of Western Greece actively participates in several cross-border and transnational cooperation programmes, including Interreg Greece–Italy, Interreg Balkan–Mediterranean, and ADRION. These programmes foster regional integration in fields such as sustainable mobility, blue economy, and cultural heritage. The region also contributes to macro-regional strategies such as the EU Strategy for the Adriatic-Ionian Region (EUSAIR), enhancing institutional capacity and innovation through cross-border collaboration. Such participation supports the region's outward orientation and European territorial cohesion.

In line with the EU Digital Decade framework, Greece has adopted its National Digital Decade Strategic Roadmap (2023), which sets measurable targets for digital skills, digital infrastructure,

business digitalization, and public e-services by 2030. Although these targets apply nationally, their implementation is regionally differentiated. For Western Greece, key challenges persist: only about 54% of the adults possess at least basic digital skills, compared to the EU average of 56%, while the share of SMEs with a basic level of digital intensity is estimated at only 53%, far below the EU target of 90%. Additionally, the use of advanced digital technologies such as cloud computing, AI, and big data remains limited among regional enterprises—below 20% in most cases—particularly outside urban hubs like Patras. These gaps reinforce the urgency of targeted support for digital capacity building, especially among rural SMEs, citizens aged 55+, and public sector entities at local level. Such disparities directly affect SME competitiveness and must be addressed through coordinated regional and national interventions.

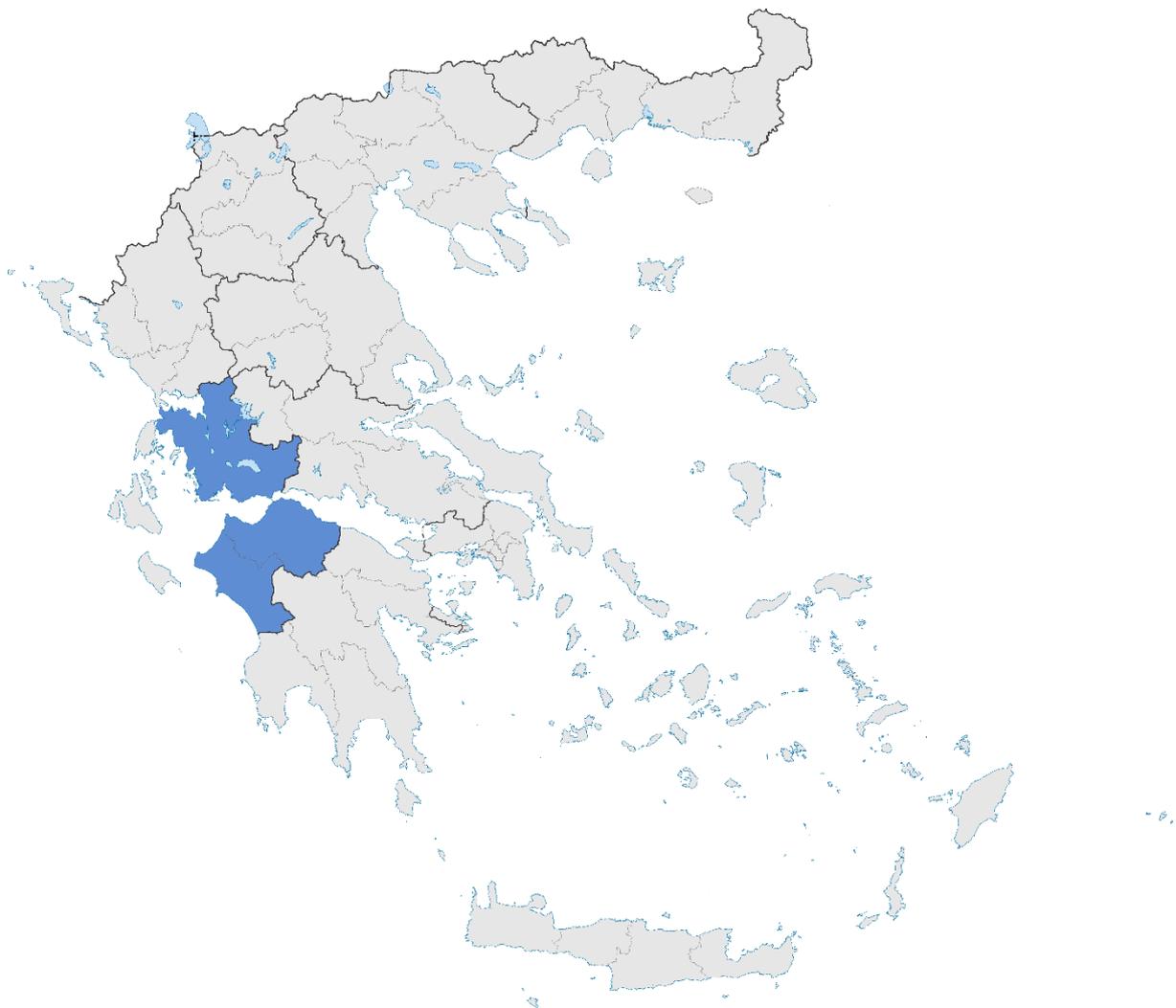


Figure 1: Location of the Region of Western Greece within Greece.

1.2. Economic Profile of the Region

General Overview

The economy of the Region of Western Greece is characterized by a traditional and relatively undiversified production base, with dominant shares in the primary and tertiary sectors. Agriculture and agri-food processing remain central to the regional economic fabric, especially in the Regional Units of Aetolia-Acarnania and Ilia, while the service sector is concentrated in urban centers such as Patras, which also functions as a port and logistics hub. The industrial sector is comparatively limited and primarily concentrated in low to medium technology branches, including food and beverage manufacturing, construction materials, and basic chemical products. Micro, small, and medium-sized enterprises (SMEs) account for more than 97% of active businesses in the region, yet their contribution to regional value added remains modest due to low productivity, weak internationalization, and limited innovation intensity. Structural challenges such as outdated infrastructure, skill shortages, and insufficient sectoral interconnection hinder the transition toward a more knowledge-intensive and export-oriented growth model.

In terms of Gross Domestic Product (GDP), the Region of Western Greece ranks eleventh among the thirteen regions of the country. Its GDP per capita also ranks eleventh among the thirteen Greek regions. The ten-year economic crisis affected every region in Greece, leading to a general decline in development levels across the country. By 2018, all Greek regions—including Attica—were recorded as having development levels below the European average (Eurostat). Notably, the North Aegean Region had reached just 46% of the EU average. The Region of Western Greece ranked sixth in terms of overall contribution to national GDP, accounting for approximately 4.5% of Greece's total economic output. This context reinforces the strategic relevance of targeted digitalisation policies for SMEs under the 2021–2027 programming period.

Western Greece is among the poorest regions in both national and European terms and lags in competitiveness. This underscores the need for targeted development measures during the 2021–2027 programming period, aiming to act as levers for recovery and convergence with European economic and social cohesion.

The region demonstrates strong specialization in the primary sector, with GDP and employment levels significantly above the national and EU averages, though productivity remains low. The secondary sector also has a notable presence, with relative productivity exceeding the national average. The tertiary sector shows a slightly smaller share but marginally higher productivity compared to the national average. Deindustrialization has been a chronic issue for the region since the 1990s.

According to the Location Quotient (LQ) using ISIC Rev.4 classification, Western Greece shows strong specialization (LQ > 1.25) in agriculture (LQ 1.59), ICT (LQ 1.35), and other services (LQ 1.26), with moderate specialization in administrative/support services (LQ 1.11) and construction (LQ 1.01). In terms of export performance (Revealed Comparative Advantage – RCA), the region exhibits significant specialization in agricultural products.

At a more detailed level (NACE2), the productive base is moderately diversified, with the region showing specialization in 10 out of 38 sectors. Strong specialization is seen in agriculture and wood processing, while moderate to weak specialization exists in sectors such as metal

products, electronics, machinery, energy, construction, retail, and education. Overall, the region specializes in six tradable sectors.

The limited diversification of the productive base could be addressed through the development of value chains via stronger backward and forward linkages, especially in sectors of specialization. However, these linkages remain weak, and local economic multipliers are low. Only one sector shows regional multipliers above one, and it does not belong to the tradable or specialized sectors. This implies that increases in demand (e.g. from tourism, public spending, or exports) are unlikely to translate into proportional increases in local production. This structural limitation underscores the importance of developing stronger value chains and technology uptake among SMEs.

Regional Disparities

Western Greece displays significant intraregional disparities—both socioeconomically and digitally. Patras and the Regional Unit of Achaia serve as the administrative and developmental hub of the region, hosting the University of Patras, major research institutions, and most knowledge-intensive enterprises. In contrast, the Regional Units of Aetolia-Acarnania and Ilia show weaker performance in key indicators related to innovation, entrepreneurship, and connectivity, reinforcing the digital divide. While innovation hubs and incubators are concentrated in Patras, broadband infrastructure remains limited in rural and mountainous areas. In 2019, only 70% of residents had internet access, highlighting persistent digital connectivity gaps in rural areas. Fewer than 10% of businesses offered online payment or ordering services.

These inequalities extend beyond infrastructure and entrepreneurship to human capital. More remote areas exhibit higher unemployment, lower participation in training programmes, and reduced access to educational and research resources—factors that contribute to a brain drain towards Patras and other urban centers.

Digital Transformation

Digital transformation is a fundamental prerequisite for improving the competitiveness, outward orientation, and sustainability of businesses and the regional economy overall. The regional strategy emphasizes supporting SMEs, the public sector, and citizens in adopting digital technologies, enhancing connectivity, and developing digital skills.

Recent data show that Western Greece lags in key digital maturity indicators: only 70% of citizens had internet access in 2019, and only 10% of businesses handled electronic orders or payments. Furthermore, only 17% of SMEs had adopted ICT solutions in their production processes, intensifying the digital gap compared to other European regions.

Challenges include digital illiteracy, lack of ICT skills, insufficient broadband coverage in rural areas, and a limited supply of digital public services. Nevertheless, the region hosts important research and academic institutions (e.g., University of Patras, Hellenic Open University), as well as a notable presence of startups and innovative companies, which could act as catalysts for

digital transition in the framework of smart specialization (RIS3), particularly through enhanced collaboration between SMEs, universities, and regional innovation intermediaries.

Under Specific Objective RSO1.2 of the Regional Operational Programme 2021–2027, interventions are planned to:

- support SMEs with digital tools (ERP, CRM, e-commerce),
- expand broadband networks and telecom infrastructure,
- fund innovation hubs, tech transfer structures, and incubators,
- train business and public sector personnel in digital skills.

The COVID-19 pandemic further emphasized the need to accelerate digitalization, with encouraging but uneven signs of adoption in areas such as education and e-governance. However, progress remains uneven between urban centers and more remote units.

In conclusion, while Western Greece has made steps toward digital transformation, further targeted institutional and financial support is required to achieve full digital convergence.

Barriers to Digital Transformation

Despite strategic efforts to improve digital readiness, significant barriers remain—especially for SMEs in rural areas. The main obstacles fall into four categories: digital skills, infrastructure, organizational culture, and access to support/funding.

As previously noted, most micro and small enterprises in the region show limited strategic readiness for digitalization, with only 17% integrating ICT into production and fewer than 10% offering digital services.

Low levels of digital literacy affect both entrepreneurs and citizens, with limited participation in upskilling and reskilling programmes undermining the effectiveness of digital investment. The lack of local ICT providers, digital consultants, and mentoring structures exacerbates the isolation of smaller firms, particularly in rural areas.

Several key sectors—such as small-scale manufacturing, agri-food, and tourism—remain traditional in operation, slowing the diffusion of digital technologies. This is further hindered by bureaucratic obstacles, poor awareness of available funding tools, and concerns over adaptation costs.

The 2023 revision of the Regional Operational Programme for Western Greece incorporates performance-based objectives and new strategic priorities aligned with national and EU policy frameworks. The region is expected to benefit from over €400 million in co-financed investments during the 2021–2027 programming period, covering a broad spectrum of interventions. These include SME digitalization support (through vouchers and technical assistance), investment in green innovation, circular economy practices, and renewable energy infrastructure. Selected actions are co-funded through both the European Regional Development Fund (ERDF) and the Recovery and Resilience Facility (RRF), with targeted emphasis on promoting regional resilience,

sustainable growth, and technology adoption. These measures are expected to contribute to improved SME competitiveness, enhanced regional productivity, and gradual digital convergence.

1.3. HR Profile of the Region

Regarding demographic indicators the permanent population of the Region of Western Greece is 655,189 inhabitants (ELSTAT), accounting for approximately 6.3% of the country's total population. The region exhibits a lower population density than the national average, while its age structure closely resembles that of Greece as a whole— indicating similar challenges of population ageing.

Compared to other Greek regions, Western Greece ranked fourth in population size in 2019 (ELSTAT). Patras is the largest city in the region and one of the major Functional Urban Areas (FUAs) of the country, with a population of around 210,000 residents, placing it third in terms of population among mainland cities. Moreover, Patras is an important port and commercial hub, not only at the regional but also at the national level, due to its maritime connections with Italy.

The region has experienced a slight population decline since 2008, accompanied by a corresponding decrease in population density, which remains significantly below both national and EU averages. The share of the population aged 25–64 with tertiary education is 23.8%, also below the national and European averages. Most residents live in urban centres, with an urbanisation rate of 61.7%, still below the national.

Table 1: Permanent population by Region (ELSTAT, 2019).

Region	Permanent Population 2019
Attica	3.742.235
Central Macedonia	1.873.777
Thessaly	718.640
Western Greece	655.189
Crete	634.930
Eastern Macedonia and Thrace	599.723
Peloponnese	574.447
Central Greece	555.960
South Aegean	344.027
Epirus	333.696
Western Macedonia	267.008

North Aegean	221.098
Ionian Islands	203.869
Total	10.724.599

Population ageing in Western Greece represents a significant demographic challenge. The share of residents aged over 70 is higher than both the national and European Union averages and increased substantially—by around 2.6%—during the economic crisis. The old-age dependency ratio, which reflects the burden placed on the working-age population, stood at 35.2% in 2019, slightly above the national average. The region also records a negative gross migration balance, although this has improved slightly, with a reduction of around 2.2% in recent years.

Despite the presence of major academic and research institutions, the region exhibits lower rates of tertiary education attainment and limited alignment between education and labour market needs. A significant share of SMEs report difficulties in recruiting qualified personnel, particularly in areas such as digital transformation, ICT, and technical occupations.

Participation in lifelong learning and skill development activities remains well below both the national and EU averages. The share of adults involved in formal continuing education does not exceed 3.5%, with the greatest obstacles recorded in rural areas and among low-income or low-education groups. Many residents also report limited access to digital learning platforms or insufficient skills to use them effectively.

The Region of Western Greece continues to experience high levels of brain drain, especially among those aged 20–34. Many young people particularly -particularly graduates in science and technology- migrate to Attica or abroad, weakening the region’s human capital base. Vulnerable groups such as rural women, people with disabilities, and long-term unemployed individuals over the age of 55 face persistent structural barriers in accessing education, training, and employment.

Overall, the Region of Western Greece needs to develop a coherent and multi-level human capital strategy, including reforms in education and vocational training, stronger links between research and the labour market, incentives for the return of skilled professionals, and investments in digital and green skills—particularly for socially vulnerable groups. Such measures are essential for improving regional competitiveness, supporting digital transformation among SMEs, and reducing long-term demographic imbalances.

1.4. Socioeconomic Conditions and Employment Opportunities

The labour market in the Region of Western Greece is marked by structural imbalances and limited opportunities, particularly in rural and declining areas. The region’s employment rate remains consistently below both national and European averages. In 2020, only 56.8% of individuals aged 20–64 were employed, compared to 61.2% in Greece and 72.4% in the EU. Western Greece is ranked among the four Greek regions with the lowest employment rates, demonstrating clear challenges in integrating its active population into the labour market.

Youth unemployment remains particularly high, reaching approximately 38% in 2021, while long-term unemployed individuals account for approximately 65% of all unemployed in the region. Vulnerable groups include women, secondary education graduates, individuals over 55, and residents of remote areas. Limited upskilling opportunities and weak alignment between training systems and actual labour market needs further exacerbate underemployment and repeated unemployment.

Productivity remains unevenly distributed across sectors and territories. Most businesses in the region are micro-enterprises operating in traditional, low-value-added sectors such as agri-food, construction, and tourism. At the same time, the adoption of digital technologies remains limited, perpetuating a cycle of low productivity and low wages.

Wages remain below the national average, with significant disparities based on gender and between the public and private sectors. Flexibility in forms of employment is limited, while collective bargaining mechanisms are only partially applied at the local level. Housing shortages, rising living costs, and insufficient transport infrastructure between rural and urban zones create additional barriers to labour mobility, particularly for vulnerable groups.

Outmigration directly impacts both the size and the skills profile of the region's labour force. Many young tertiary graduates in high-demand fields such as STEM, ICT, and engineering migrate to other urban centers or abroad, resulting in a shortage of specialized professionals. Internal imbalances shift employment concentration toward metropolitan areas, leaving rural communities without the human resources to revitalize their local labour markets.

At the institutional level, the Region of Western Greece has initiated active labour market policies, including adult training vouchers in green and digital skills, social entrepreneurship schemes, and support mechanisms for the long-term unemployed and young people. However, participation remains limited due to cost barriers, lack of information, and training formats that are often unsuitable for older age groups. Additionally, socioeconomic indicators such as poverty rates, material deprivation, and social exclusion suggest that a significant portion of the population—particularly in mountainous or remote municipalities—has limited access to the benefits of existing development policies. Approximately 24% of the region's population is at risk of poverty or social exclusion, a figure higher than the national average, exacerbating inequalities in access to employment.

In conclusion, the Region of Western Greece faces significant challenges related to low employability, skills mismatches, brain drain, skills mismatches, and spatial and social inequalities. Strengthening employment and social cohesion will require long-term investments in skills development, digital and green transitions, and targeted actions for vulnerable groups and structurally weak regional labour markets.

2. Analysis and Assessment of Policy Instruments

The policy instruments shaping the digital transformation of Western Greece are primarily embedded within two key funding mechanisms: **the National Recovery and Resilience Plan (RRP) "Greece 2.0"**, implemented under the EU's NextGenerationEU framework, and the

National Strategic Reference Framework (NSRF) 2021–2027 Operational Programmes (ERDF & ESF). Together, these instruments mobilise significant national and EU resources—exceeding €7 billion— to advance Greece’s digital targets, with a strong emphasis on infrastructure development, skills enhancement, and the modernization of public services. In the case of Western Greece, these policy instruments are particularly relevant given the region’s structural challenges in connectivity, digital skills, and socioeconomic disparities compared to the national average. The inclusion of Public-Private Partnerships (PPPs)—most notably the Ultra-Fast Broadband (UFBB) project—alongside significant private investments in telecommunications infrastructure, such as Fiber-to-the-Home and 5G deployment, demonstrates a strategic reliance on blended funding models to address gaps in digital access. This hybrid approach is significant for Western Greece, where geographical and demographic constraints necessitate coordinated investment from both public and private actors. Moreover, the planned update of the National Digital Transformation Strategy (“Digital Bible”) for 2025–2030 underscores the forward-looking orientation of these policy instruments, ensuring continuity beyond the expiration of current EU funding cycles. Key measures targeting the digital divide, ICT workforce development, and secure digital infrastructures directly align with Western Greece’s regional development priorities, as they not only enhance competitiveness but also foster social inclusion. Overall, the policy framework reflects a comprehensive, multi-layered approach that combines immediate infrastructure expansion with long-term capacity building, thereby situating Western Greece’s capacity to integrate into the national and European digital ecosystem.

The digital transformation of businesses in Greece, including Western Greece, is a central priority within the framework of the National Recovery and Resilience Plan “Greece 2.0”, funded by the European Union’s NextGenerationEU. In 2022, the flagship programme supporting small and medium-sized enterprises (SMEs) was launched with a total budget of approximately €445 million, implemented by Information Society S.A. under the supervision of the Ministry of Digital Governance. The programme aims to strengthen the digital maturity of SMEs by modernizing their productive, commercial, and administrative functions through three State aid schemes: “SME Digital Tools”, which provides vouchers for acquiring digital products and services; “Development of Digital Products and Services”, offering non-refundable grants ranging from €200,000 to €2 million to support cloud infrastructure and digital innovation; and “Digital Transactions”, which focuses on upgrading cash registers and replacing outdated POS machines. These initiatives are complemented by Greece’s growing startup ecosystem, which has expanded significantly since the financial crisis, attracting investments from major international funds such as Intel Capital, Accel, Sequoia, and others, while producing successful unicorns including Viva Wallet, Beta Cae, Skroutz, PeopleCert and “sooncorns” such as Persado, Blueground.

To support the broader digital transformation of enterprises, Greece has implemented a range of measures and programmes that combine public and private investment. Initiatives such as the European Digital Innovation Hubs (€34.3 million EDIHs, €34.3 million combined national and EU funding), “Development of Digital Products and Services” (€100 million), the “Research – Create – Innovate” schemes (€650 million for 2014–2020 and €300 million for 2021–2027), and the Digital Transformation of SMEs Programme (€210 million) provide both financial resources and technical

guidance for SMEs to adopt advanced technologies, including cloud computing, big data, and artificial intelligence. Additional programmes, including the acceleration of smart manufacturing (€75 million) and the establishment of industrial data platforms (€145 million), aligned with the EU Data Strategy, further enhance digital capacities across enterprises. Legal and strategic frameworks, such as the National AI Strategy and Law 4961/2022 on emerging ICT technologies, institutionalize long-term support for digital innovation. Complementary measures, including co-financing loans for digitalization (€100 million) and the Development Law (Law 4887/2022), support SMEs in achieving a baseline level of digital intensity, helping bridge the digital divide. Finally, programmes supporting startups and scale-ups, such as “EquiFund I and II” fund-of-funds (exceeding €500 million in Equity capital) backed by NSRF 2014-2020 and 2021-2027, new VCs backed by HDBI’s sovereign fund, 17 up to date, with an availability of approximately 1 billion euros in equity capital and the Elevate Greece platform (€2.85 million), alongside the Angel Investors framework, create an environment conducive to investment, innovation, and growth. Collectively, these measures not only enhance SMEs’ competitiveness but also foster an innovative business ecosystem in Western Greece, ensuring the region participates fully in the country’s broader digital transformation. These instruments collectively address the main barriers identified in Western Greece—limited digital skills, low ICT adoption, and restricted access to finance—while strengthening SME competitiveness and enhancing regional resilience.

2.1. Policy Instruments

Policy Instrument 1: Regional Operational Programme 2021–2027 of Western Greece

The **Regional Operational Programme (ROP) 2021–2027 of Western Greece** constitutes a central policy instrument for the region’s economic transformation. It was approved in 2022, with a total public expenditure of €628,447,202. Out of this, €534,180,118 is funded by the European Union, and €94,267,084 is provided by national resources. The programme is co-financed by the European Regional Development Fund (ERDF) and the European Social Fund Plus (ESF+).

The development vision for the **Region of Western Greece** for the 2021–2027 period is based on implementing a holistic strategy to transform the region into a fair, smart, and competitive European region. The region will serve as a hub for technology, innovation, research, and creativity, setting an example for social solidarity, cohesion, and the promotion of Olympic ideals, volunteering, and culture.

To achieve this vision, five strategic objectives have been set as follows:

1. **Improving competitiveness in production, strengthening entrepreneurship through innovation, openness to international markets, and digital upgrading.**
2. **Protecting the natural environment, addressing climate change, enhancing energy self-sufficiency, and promoting a circular economy.**
3. **Enhancing mobility within the region.**
4. **Strengthening social cohesion within the region.**
5. **Promoting sustainable local development through integrated interventions.**

Among its core objectives, the programme prioritizes the **digital transformation of small and medium-sized enterprises (SMEs)** through targeted actions under **Policy Objective 1: A Smarter Europe**. Specifically, it addresses **Specific Objective RSO1.2**, which aims to leverage the benefits of digitalisation for citizens, businesses, research organisations, and public authorities. The digitalisation axis is included under **Priority 1 (P1)** of the programme: “Enhancing competitiveness in production, strengthening entrepreneurship through innovation, extroversion, and digital upgrading”.

The following amounts refer to **selected indicative interventions** under RSO1.2 and do not reflect the full financial allocation of Priority 1. The strategic priority of digitalisation is co-financed by the **European Regional Development Fund (ERDF)** and national resources, with a total public expenditure of **€70,804,450** allocated to **Priority 1**. This funding aims to support the digital upgrading of SMEs within the Region of Western Greece. The objective is aligned with European and national strategies, including the **National Smart Specialisation Strategy (RIS3)**, the **Digital Transformation Bible (2021–2025)**, and the **National Recovery and Resilience Plan**, particularly under the pillars of 'Digital Transformation' and 'Private Investment and Economic Transformation.' Additionally, the actions of the Specific Objective are designed and will be implemented in complementarity and synergy with the policy choices of the national **NSRF 2021-2027**, the **Development Goal 'Smart Growth' of the National Development Programme 2021-2025**, and the policies of the sectoral programme ANTAGONISTIKOTITA (ex **EPANEK**).

Measures and Actions for SME Digitalisation

The programme promotes **two main types of actions** in support of SME digitalisation:

1. **Action Type 1.ii.1 – Business plans for the development and commercialization of innovative, value-added digital products and services:** This action is primarily aimed at high-digital-intensity SMEs in Western Greece and focuses on enhancing their competitiveness by integrating digital technologies into their production and administrative processes. The objective is to support businesses in the region by facilitating the development and commercialization of new, innovative products and services that incorporate digital innovations. Eligible activities under this action include investments in digital tools, implementation of enterprise resource planning (ERP) and customer relationship management (CRM) systems, the creation of e-commerce platforms, and the adoption of digital marketing strategies. These measures are designed to strengthen the digital transformation of business models and operational processes, with broader benefits for productivity, competitiveness, and innovation across various sectors and industries. The ultimate goal is to help businesses in Western Greece remain competitive in the evolving digital landscape and prepare for future challenges driven by Industry 4.0.
2. **Action Type 1.ii.2 – Exploiting Data using innovative technologies (Artificial Intelligence, Virtual Reality, Internet of Things, Big Data, Data Analytics, etc.) to improve services for citizens and businesses:** This action focuses on supporting the digital transformation of the public sector and public services by encouraging the adoption of **innovative technologies** that facilitate data utilization. By employing

technologies such as **artificial intelligence (AI), big data, virtual reality (VR)**, and the **Internet of Things (IoT)**, the action aims to enhance the quality of services provided to both citizens and businesses. Additionally, it seeks to foster digital innovation that will strengthen the regional infrastructure supporting entrepreneurship. These technologies are expected to significantly contribute to the development and expansion of the local business ecosystem, ensuring better service delivery and higher efficiency. Although primarily focused on public services, this action indirectly supports SME digitalisation by improving the availability and quality of digital public services and the data infrastructures on which businesses depend.

Distribution of Funds

The **Indicative Distribution of Planned Resources (EU)** for **Priority 1, Specific Objective RSO1.2**, under the **ERDF** funding in the **Less Developed Regions** is as follows:

- The first intervention is focused on the **digitalisation of large enterprises**, which includes e-commerce, electronic business activity, networked business processes, digital innovation hubs, living labs, internet entrepreneurs, and start-ups in the ICT sector, specifically in **B2B**. The allocated funding for this intervention amounts to **€3,145,000**. Although targeted at large enterprises, the intervention strengthens regional digital capacity and indirectly benefits SMEs through spillover effects.
- The second intervention is centred on **ICT solutions, e-services, and digital applications for the public sector**. This aims to enhance the public sector's efficiency by promoting digital solutions that improve the services provided to both citizens and businesses. The allocated funding for this intervention is **€3,913,782**. Although primarily targeted at public administration, the intervention indirectly supports SMEs by improving the quality and interoperability of digital public services.

Policy Instrument 2: Policy Instrument 2: Digital Transformation Programme (NSRF 2021–2027) Within the framework of the new Programming Period 2021–2027, the **Digital Transformation Programme** aims to facilitate the implementation of the actions described in the “**Digital Transformation Bible**” and contribute to the digital transformation of the Greek economy. The strategic goals set by the Digital Transformation Programme include:

- Innovative digital services and applications from the Public Sector and Local Authorities
- Environmentally friendly cloud infrastructures
- Completion of the Public Sector Network
- Digital platforms to support business activity
- Further enhancement of the unified digital public services portal **gov.gr**
- Strengthening the **National Alliance for Digital Skills and Jobs** and the **National Digital Skills Academy**
- Ultra-high-speed connectivity and expansion of wireless access points

The total budget of the programme amounts to **€943 million**, the allocation of which (excluding Technical Assistance) is presented in the diagram below (Diagram 1).

Flagship Digital Transformation Actions in the Public Sector:

- Applications & tools for Public Administration – **€85 million**
- Support for entrepreneurship – **€35 million**
- Digitisation actions – **€30 million**
- Digital transformation of Local Authorities – **€220 million**
- ICT infrastructures: cloud, wireless access, SYZEFXIS, data centers – **€97 million**
- Enhancement of eHealth services and independent living – **€46.5 million**

Flagship Connectivity Enhancement Actions with High-Speed Broadband Access:

- Development of Ultra-Fast Broadband infrastructures – **€190 million**
- Infrastructure development in areas with no coverage (Very High Capacity Networks) – **€110 million**
- Support actions for planning, development, management, and monitoring – **€3 million**

Flagship Actions for Digital Skills Development:

- **Reskilling – upskilling programmes** for General Government employees – **€45 million**
- Upskilling programmes on innovative digital technology utilisation and management – **€20 million**
- Development of an inter-ministerial branch for **Digital Policy Analysts** – **€15 million**
- Support for the **National Alliance for Digital Skills and Jobs** – **€15 million**
- Support for the **National Digital Skills Academy** – **€3 million**
- Development of basic digital skills among the general population – **€15 million**

Although primarily focused on public administration, the programme creates an enabling digital environment that indirectly supports SME digitalisation at the national and regional level.

Presented below are specific measures from Policy Instrument 2: National Strategic Reference Framework (NSRF) 2021–2027 pertaining to the digitalisation of SMEs.

Table 2: Measure 1 - Promotion of employment through programmes Public Beneficial Character - Training voucher

<p>Short description of the measure</p>	<p>The object of the action is the provision of training programmes for horizontal or specialized skills and the certification of the knowledge and skills that will be acquired by the beneficiary participants in the Program of Community Benefit in Municipalities, Regions, Regional Social Welfare Centers (RCCs)/ related bodies, Ministry Services and other agencies.</p> <p>Theoretical training program from 120-150 hours depending on the subject of the training program that will lead to the certification of the knowledge and skills acquired within the program.</p> <p>The thematic subjects of the theoretical training are the following:</p> <ul style="list-style-type: none"> • Basic ICT Skills (1st level) • Basic ICT Skills (2nd level) • Basic ICT Skills (3rd level) • Organization & Operation of Public Services, Organizations & Businesses • Environmental Protection and Product Recycling • Digital Social Networking Skills with applications in the workplace (Social Media) • Secretarial support <p>The action will be implemented with the training voucher system.</p> <p><i>Link to the target:</i></p> <p>The measure contributes to the target by providing basic digital skills training programmes to a large part of the population.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 of 2023 (administrative decision) and the first results expected in Q4 of 2023. The programme is expected to be available at least until the end of 2027.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources - allocated]</p>	<p>Total: €19.8 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through NSRF 2021 - 2027

<p>Expected impact and related timing:</p>	<p>In total, approximately 19 146 beneficiaries are expected to benefit, who will be trained. This number is based on the number of beneficiaries up to 54 years of age who are required to participate in this action, as well as the number of over 55 years of age who participate based on their choice during the first individual consultation.</p>
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Table 3: Measure 2 - National Academy for Digital Skills

<p>Short description of the measure</p>	<p>The National Academy of Digital Skills (NADS) is an initiative of the Ministry of Digital Governance with the aim of developing and gathering educational content on an online platform. It is available from May 2021 with free and open access for everyone who wants to improve, strengthen and develop their digital skills.</p> <p>For the first time, citizens are given the opportunity to choose and follow suitable open training programmes in IT and communication technologies for free, in order to acquire basic as well as advanced digital skills. It also accelerates the digital literacy of citizens by mitigating educational, economic and social inequalities. By improving their level of digital skills, citizens can:</p> <ul style="list-style-type: none"> – to know how to use the digital services of the Greek government, – to utilise ICT in all aspects of their daily life and – to enrich their already existing knowledge to become more attractive in the labour market. <p>In the context of the National Academy of Digital Skills, among others, a set of activities and actions aimed at the development and creation of an integrated electronic platform for uniform and direct access to educational content for broad population groups of citizens, professionals, students, etc.</p> <p><i>Link to the target:</i></p> <p>The NADS provides a digital platform for upgrading the basic digital skills (among others) to all citizens.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 of 2021 and it is expected to be available at least until the end of 2030.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human</p>	<p>Total: €8.6 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through NSRF 2021 - 2027

<p>resources allocated]</p>	
<p>Expected impact and related timing:</p>	<p>The National Academy of Digital Skills aspires to play an active role in the field of digital literacy, constantly enriching the educational content available to citizens. It has more than 290 basic and advanced level courses corresponding to over 1 800 hours of training. Also, the courses are offered by organisations with recognized academic and educational prestige, such as Greek academic institutions, well-known international companies, banking institutions, telecommunication providers and digital education organisations.</p>

Table 4: Measure 3 - Ultra-Fast Broadband - PPT Project

<p>Short description of the measure</p>	<p>The project "Ultra-Fast Broadband Infrastructure" (UFBB) is the largest telecommunications infrastructure project that has been announced in Greece, and one of the largest Public-Private Partnership (PPP) projects in Europe. It envisages the creation of telecommunication infrastructures that will ensure the possibility of ultra-highspeed Internet in areas that were not included in the planning of private investments. The implementation of the UFBB project is expected to contribute to the support and development of local businesses, the creation of new jobs and the support of decentralisation, through the reduction of the digital divide between urban and semi-urban areas. In total, it is estimated that about 830,000 households and businesses, in areas that were not included in the planning of private investments, will benefit from Ultra-Fast Broadband, ensuring the possibility of an Internet speed of up to 1Gbps.</p> <p><i>Link to the target:</i></p> <p>The programme will contribute to the expansion of the internet speed of up to 1Gbps to households in areas that were not included in the planning of private investments.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 2023, and it will be implemented until 2027.</p>
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<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €870 million</p> <ul style="list-style-type: none"> • National: €35 million allocated • EU: €265 million allocated through NSRF 2021 - 2027 • Private: €570 million
<p>Expected impact and related timing:</p>	<p>It is estimated that about 830 000 households and businesses, including about 10 000 public buildings (schools, health centres, etc.), in areas that were not included in the planning of private investments, will benefit from Ultra-Fast Broadband, ensuring the possibility of an Internet speed of up to 1Gbps</p>

Table 5: Measure 4 - Programme “Research - Create - Innovate” 2021 - 2027

<p>Short description of the measure</p>	<p>The programme is a continuation of the “Research - Create - Innovate” in the period 2021 – 2027. The objective of the funding program "Research - Innovate" is to connect research and innovation with entrepreneurship and to strengthen the competitiveness, productivity and extroversion of companies towards international markets, with the aim of transitioning to quality innovative entrepreneurship and increasing domestic value added. In addition, the aim of the programme is to strengthen Research and Innovation, which is fully aligned with the country's strategy to place innovation at the heart of a sustainable and resilient recovery from the pandemic, to accelerate the green and digital transition and ensure technological development of Greece.</p> <p><i>Link to the target:</i></p> <p>The SMEs participating in the programme will be supported to test and develop products and services related (among others) to new technologies like big data, artificial intelligence and cloud computing services.</p> <p><i>Tentative timeline:</i></p> <p>The programme will start in Q3 of 2023 and it is expected to be available until end of 2027</p>
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<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €300 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through NSRF 2021 - 2027
<p>Expected impact and related timing:</p>	<p>It is expected that more than XX will participate to the programme and develop products and solutions related (among others) to new technologies like big data, artificial intelligence and cloud computing services</p>

Table 6: Measure 5 - Digital Transformation of SMEs Programme

<p>Short description of the measure</p>	<p>The programme of state aid actions “Digital Transformation of SMEs” aims to address the lag of Greek businesses in the adoption and integration of modern digital technologies in their production activity. Recognizing the different levels of digital and technological maturity of SMEs but also the different investment needs, the set of actions encourages, as a matter of priority, the implementation of targeted investment projects, as well as of comprehensive initial digital transformation investment plans that contribute to one extroverted, innovative, competitive and sustainable critical production of higher quality products and services added value. In particular:</p> <ul style="list-style-type: none"> • the Action 2 - Advanced Digital Transformation of SMEs concerns companies which aim to expand their digital and technological maturity with integrated investments in new ICT that will upgrade their competitiveness. It concerns business plans with a budget from €50 000 to €650 000 • the Action 3 Edge Digital Transformation of SMEs: concerns businesses that have already integrated ICT in many of their operations and now seek to implement integrated investments in cutting-edge technologies or 4th industrial revolution solutions. It concerns business plans with a budget from €200.001 to €1.200.000 <p><i>Link to the target:</i></p> <p>The Action 2 and 3 of the Programme “Digital Transformation of SMEs” promote the use of edge technologies in order to provide higher quality products and services by the SMEs. It is expected that part of the investment projects will include the integration of new technologies like big data, artificial intelligence and cloud computing services in the production process of the</p>
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	<p>business.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q4 of 2022 and it will be available until the end of 2027.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources - allocated]</p>	<p>Total: €210 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through NSRF 2021-2027
<p>Expected impact and related timing:</p>	<p>It is expected that a large number of SMEs will participate in the programme and integrate new technologies like big data, artificial intelligence and cloud computing services in the production process.</p>

Table 7: Measure 6 - Digital Transformation of SMEs Programme - Action 1: Basic Digital Transformation of SMEs

<p>Short description of the measure</p>	<p>The Action 1 "Basic Digital Transformation of SMEs" of the programme "Digital Transformation of SMEs" is to meet the basic needs of SMEs with modern information and communication technologies (ICT).</p> <p>The Action encourages the implementation of targeted investment projects of basic digital transformation that contribute to an extroverted, innovative and competitive production of products or services of higher added value.</p> <p><i>Link to the target:</i></p> <p>The programme provides funding to Greek SMEs to increase their basic level of digital intensity.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q4 of 2022 and it will be available until the end of 2027.</p>
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<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €90 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through NSRF 2021-2027
<p>Expected impact and related timing:</p>	<p>It is expected that a large number of SMEs will participate in the programme and increase their basic level of digital intensity.</p>

Policy Instrument 3: National Recovery and Resilience Facility– Greece 2.0 (Recovery and Resilience Fund)

The Recovery and Resilience Facility – RRF was established to tackle the crisis triggered by the Covid-19 pandemic and to support the transition to a green and digital economy. The Recovery and Resilience Fund, supports reforms and investments, particularly in green and digital technologies, with a lasting impact on the productivity and resilience of the EU economy. The ‘Greece 2.0’ National Recovery and Resilience Plan includes 105 investments and 75 reforms, utilising a total of €35.95 billion — €18.22 billion in grants and €17.73 billion in loans.

Specifically, Pillar 2 “Digital Transition” includes three (3) Action Axes, aimed at the digital transformation of Greece. The total budget from the Recovery and Resilience Fund (RRF) to support and implement these actions amounts to €2.2 billion, while an additional €2.3 billion in private investment resources is expected to be mobilized.

Axis 2.1 Connectivity for citizens, businesses, the state

RRF Budget €522 m – Private Investment Resources €582 m

The core objective of this axis is the installation of fibre-optic infrastructure in buildings, the development of 5G networks covering the major Greek motorways, the assurance of transition to high-speed broadband connections for remote islands via undersea cables, as well as the utilization of space technologies and applications and their integration into the national economy in order to provide secure telecommunications services.

These connectivity investments indirectly support SME digitalisation by improving broadband quality and expanding access to Very High Capacity Networks, particularly in rural and remote areas.

Axis 2.2 Digital transformation of the state

RRF Budget €1.3 billion – Private Investment Resources €1.3 billion

The core objective of this axis is the modernization of the Public Sector and the integration of new technologies, increasing its efficiency and effectiveness, and achieving the provision of improved, quality services to citizens and businesses.

For SMEs, the expansion of digital public services reduces administrative burden and enables more efficient digital interactions with public authorities.

Axis 2.3 Digital transformation of businesses

RRF Budget €375 million – Private Investment Resources €475 million

The core objective of this axis is to enhance SME digital readiness and accelerate the adoption of digital technologies, enabling businesses to expand their digital presence and integrate innovative digital channels into their operations. Also, the actions of this axis aim to support further development of businesses through tax incentives for investment in digital technologies, as well as to enhance their resilience to crises.

It includes actions such as:

- the provision of digital products and services aimed at supporting the digital transformation of SMEs
- the creation of a central mechanism to assess the needs of individual SMEs, evaluate the outcomes of digital transformation service provision, raise awareness among business executives and provide support, transfer know-how and plan training by specialists, so that businesses are in a position to exploit the tools and services offered via a digital marketplace platform (creation of digital marketplace)
- the provision of tax incentives in the form of super-deductions of expenses and assets for the purchase of software, cloud services, installation of specialized equipment etc., in order to accelerate investments in modern digital technologies.

Pillar 3 (“Employment, Skills, Social Cohesion”) includes Axis 3.2, which finances large-scale digital upskilling and reskilling programmes in education and vocational training. These interventions indirectly support SMEs by expanding the pool of digitally skilled workers and improving the long-term matching between skills and labour-market needs. Achieving the above objectives will contribute to increasing long-term development, creating jobs and strengthening worker mobility and, consequently, the economic and social resilience of the economy and the labour market.

Flagship Actions Funded by the RRF:

- **Municipality of Patras – Greek Smart Cities:** Investments in SSC (Smart Sustainable Cities) infrastructures and systems for a sustainable & green urban future – **€4.8 million**
- **Smart Manufacturing – €75 million**
- **Digital Transformation of Businesses – €180 million**

Presented below are specific measures from Policy Instrument 3: National Recovery and Resilience Plan – Greece 2.0 (Recovery and Resilience Fund) pertaining to the digitalisation of SMEs.

Table 8: Measure 1 - Upskilling and reskilling program in high-demand sectors with an emphasis on digital and green skill

<p>Short description of the measure</p>	<p>The programme “Upskilling and reskilling program in high-demand sectors with an emphasis on digital and green skills” concerns the provision of vocational training programmes to 150 000 beneficiaries with the aim of upgrading their skills (upskilling) and reskilling them in digital and green skills in high demand industries. The programme is being implemented in the framework of the action: “Horizontal upskilling / reskilling programmes to targeted populations” funded by the Recovery and Resilience Fund.</p> <p>D.YP.A will cooperate with the licensed LLL centres. that meet specific quality assurance criteria, for the provision of training programmes to unemployed people registered in the unemployment registers, as part of the national effort to upgrade the skills of the Human Resources, mainly in "digital" and "green" skills, aiming both their effective interconnection with the labour market and the improvement of their employability, as well as the preservation of future jobs.</p> <p>The object of this project is the provision of theoretical training services - which will lead to certification of the knowledge and skills that will be acquired during the training - and will be addressed to beneficiaries, registered in the Register of unemployed, over 18 years of age.</p> <p>In particular, the services provided under this project include:</p> <ul style="list-style-type: none"> • Theoretical training programmes for the unemployed - beneficiaries lasting 50 - 200 hours that lead to the acquisition of digital and "green" knowledge and skills, as will be described in each call. • Certification of knowledge and skills that will be acquired within the training programmes. <p><i>Link to the target:</i></p> <p>This Measure tackles the need for digital, green and financial literacy skills of the following population groups: a) unemployed, especially the youth and long-term unemployed, b) employees, especially those with high unemployment risk and those who are left behind by workspace technology, c) employees, especially at SMEs with limited in-house training capacity, d) public sector employees, including teachers. Skills offered are: a) Baseline digital skills, b) Medium-level digital skills, c) Green skills and d) Financial literacy skills. Therefore, the measure will increase the digitally skilled population and at the same time will support the employability of 150 000 beneficiaries.</p> <p><i>Tentative timeline:</i> The programme started in Q4 of 2022 (administrative</p>
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	decision) and the first results expected in Q3 of 2023. The programme is expected to be available at least until the end of 2025.
Budget allocated or planned and, if relevant, other resources – including human resources – allocated]	Total: €302 million National: €9 million allocated EU: €293 million allocated through RRF
Expected impact and related timing:	150 000 individuals with at least basic digital skills until end of 2025

Table 9: Measure 2 - New Strategy for Lifelong Skilling: Modernising and Upgrading Greece's Upskilling and Reskilling System

Short description of the measure	<p>A New Strategy for Lifelong Skilling: Modernising and Upgrading Greece's Upskilling and Reskilling System puts in place a new governance providing an incentives-compatible framework of training provision in Greece. The reform envisages an outcomes-based skilling-reskilling system, providing the right incentives for trainees and training providers, as well as an error-proof certification framework. By linking the financial remuneration of providers to training and labour market outcomes, as well as ensuring high certification standards, the reform provides incentives promoting adoption and scaling up of best practices, resulting in systemic improvement of training and labour market outcomes.</p> <p><i>Link to the target:</i></p> <p>The reform is linked to a horizontal upskilling programme aiming to develop the skills - mainly digital - of the working age population and build a more sustainable workforce.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q4 of 2023 and it is expected to be available at least until the end of 2030.</p>
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<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €40 million</p> <ul style="list-style-type: none"> • National: €1.2 million allocated • EU: €38.8 million allocated through RRF
<p>Expected impact and related timing:</p>	<p>The reform is linked to a horizontal upskilling programme aiming to develop the skills - mainly digital - of the working age population and build a more sustainable workforce.</p>

Table 10: Measure 3 - National Coalition for Digital Skills and Jobs (NC)

<p>Short description of the measure</p>	<p>The National Alliance for Digital Skills and Employment, as a member of the European Alliance for Digital Skills and Employment, is part of the General Secretariat for Digital Governance and Simplification of the Ministry of Digital Governance and has as its central mission to improve digital skills, increase the employment of the population and support digital transformation at national, regional and local level in the context of the government's broader skills policy.</p> <p>The mission of the National Coalition includes:</p> <ul style="list-style-type: none"> • the adaptation, at national, regional and local level, of the political and operational priorities of the European Union (EU) and the EU institutions in matters of digital skills, • submitting proposals to the Ministry of Digital Governance in matters of planning and updating the national strategy for digital skills, • supporting the networking and cooperation of the members of the National Alliance, in order to plan and implement actions to upgrade the digital skills of the population and strengthen employment, • the exchange of know-how and best practices between the members of the National Alliance and Alliances of other EU member states, as well as the exchange of know-how and best practices in the context of related initiatives of third countries, • the formulation of project proposals, co-financed or not, to strengthen the digital skills of the population, • the organisation of events, conferences and workshops to promote digital skills policy, • cooperation with corresponding initiatives of the private sector
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	<ul style="list-style-type: none"> its participation, if requested by the relevant body, in the certification of educational structures or training structures with the object of digital skills, training or training programmes with content of digital skills and digital knowledge and skills of the trainees <p><i>Link to the target:</i></p> <p>The National Alliance for Digital Skills and Employment supports and coordinates several actions regarding the upgrade of basic digital skills of the population.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q1 of 2020 and it is expected to be available at least until the end of 2027.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources - allocated]</p>	<p>Total: X</p> <ul style="list-style-type: none"> National: €X million allocated EU: €X million allocated through RRF
<p>Expected impact and related timing:</p>	<p>The National Alliance for Digital Skills and Employment supports and coordinates several actions regarding the upgrade of basic digital skills of the population.</p>

Table 11: Measure 4 - Vocational Education & Training Reform

<p>Short description of the measure</p>	<p>The overall aim of this reform is to effectively address current skills mismatch and create a direct link between qualifications and jobs. To this end both the reforms of OAED (namely “Labour force skilling, reskilling and upskilling through a reformed training model for the working population” and “Strengthening the apprenticeship system”) and the reform and investments of the Ministry of Education and Religious Affairs through RRF will further upgrade the Vocational Education and Training (VET) in Greece, create opportunities to respond effectively to unemployment and address labour market imbalances, while contributing to making the VET system an appealing educational pathway. The aforementioned projects also invest in the digital transformation of the VET system and the provision of the required equipment and tools that will help meet the shifts in skill demand and supply that have been reflected in the inability of employers to fill their vacancies with people that have the right skills. Towards this goal the Horizontal Upskilling Programme will further support the undertaking policies to reduce</p>
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	<p>skills mismatch.</p> <p><i>Link to the target:</i></p> <p>The reform will address current skills mismatch and cover a significant part of the ICT specialist’s gap.</p> <p><i>Tentative timeline:</i></p> <p>The programme will start in Q4 of 2023 and it is expected to be available at least until the end of 2025.</p>
Budget allocated or planned and, if relevant, other resources – including human resources - allocated]	<p>Total: €131 million</p> <ul style="list-style-type: none"> • National: €4 million allocated • EU: €127 million allocated through RRF
Expected impact and related timing:	<p>A strengthened professional and vocational training system will strengthen the Greek economy and help to alleviate the social costs of the economic downturn. At the same time, it will facilitate the supply of new, relevant and rewarding skills as a response to the increased demand of the labour market. Innovation, economic growth and competitiveness of the workforce are the expected lasting outcomes of investing in revamping labour force skilling, reskilling and upskilling. To this end, it is expected that the reform will cover a significant part of the ICT specialist’s gap.</p>

Table 12: Measure 5 - The Project “Choose Greece”

Short description of the measure	<p>The project “Choose Greece”, concerning the repatriation of highly skilled Greeks working abroad, is the most emblematic initiative of Rebrain Greece. The project includes a wage subsidy scheme offered to Greek companies for hiring in total 500 young Greeks of high qualifications and scientific experience with a salary of 3 000 euros for a minimum duration of two years.</p> <p><i>Link to the target:</i></p> <p>The project “Choose Greece” provides incentives for ICT specialists to join the workforce of Greek ICT companies.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q1 of 2020 and it is expected to be available at least until end of 2030</p>
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Budget allocated or planned and, if relevant, other resources – including human resources – allocated]	<p>Total: €X million</p> <ul style="list-style-type: none"> • National: € million allocated • EU: € million allocated through RRF
Expected impact and related timing:	<p>It is expected that a large number of ICT specialists will participate in the programme and join the workforce of Greek ICT companies.</p>

Table 13: Measure 6 - New Institutional Framework for Lifelong Learning and skills development

Short description of the measure	<p>The policy measure “New Institutional Framework for Lifelong Learning and Development skills” is financed by the European Union – NextGeneration EU and concerns the primary/secondary legislation to modernise the ongoing system vocational training, so that it evolves into an effective system that is widely accessible, simpler and more flexible, and responsive to modern socio-economic needs, emphasises quality results and promotes the redefining and upgrading the skills of the country's workforce. The legislation will enforce the new Strategy for Lifelong Skilling.</p> <p><i>Link to the target:</i></p> <p>The new institutional framework will support the implementation of the new Strategy for Lifelong Skilling, in order to address the current skills mismatch and cover a significant part of the ICT specialist’s gap.</p> <p><i>Tentative timeline:</i></p> <p>Most of the programmes started in Q1 of 2022 and it is expected to be available at least until the end of 2030.</p>
Budget allocated or planned and, if relevant, other resources – including human resources –	<p>Total: €1.236 million</p> <ul style="list-style-type: none"> • National: €0.239 million allocated • EU: €0.997 million allocated through RRF

<p>allocated]</p>	
<p>Expected impact and related timing:</p>	<p>The specific policy measure will support the reforms for developing the skills -mainly digital - of the working age population and build a more sustainable workforce</p>

Table 14: Measure 7 - Smart Readiness Programme

<p>Short description of the measure</p>	<p>The "Smart Readiness" Program grants the implementation of works related to the installation of infrastructure that will facilitate the transformation of a building into a "smart" one, as well as its interconnection with utility networks (electricity, natural gas) through new "smart" meters.</p> <p>For this purpose, the "Smart Readiness" Program will provide checks (Vouchers) that will be allocated to cover part of the cost of the above works, the nominal value of which will be determined according to the type of work to be carried out and the special characteristics of the buildings.</p> <p><i>Link to the target:</i></p> <p>The Smart Readiness Program will address the problem of lack of the necessary infrastructure in existing buildings and acts in addition to another envisaged action (Gigabit Voucher) in order to remove obstacles that limit citizens' access to ultra-high speed broadband services.</p> <p><i>Tentative timeline:</i></p> <p>The programme launched in 2023 and it will be available until the end of 2025.</p>
<p>Budget allocated or planned and, if relevant, other resources - including human resources - allocated]</p>	<p>Total: €100 million</p> <p>EU: €100 million allocated through RRF</p>

<p>Expected impact and related timing:</p>	<p>The Smart Readiness Program comes to address the problem of lack of the necessary infrastructure in existing buildings and acts in addition to another envisaged action (Gigabit Voucher) in order to remove obstacles that limit citizens' access to ultra-high speed broadband services. In addition, upgrading a building's infrastructure to support ultra-high-speed broadband services allows work to be carried out in parallel to facilitate interconnection with utility grid smart meters and the installation of sensors aimed at reducing the environmental footprint of buildings. Most basic communal facilities of the buildings.</p>
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Table 15: Measure 8 - Programme “Development of Digital Products and Services”

<p>Short description of the measure</p>	<p>Strengthening of private Businesses for the implementation of investment projects that cover the entire development cycle of digital products and services (new product development). This funding program emphasizes the implementation by private IT companies of cloud services (SaaS, PaaS, IaaS) and the provision of vouchers to SMEs in order to make use of these cloud services.</p> <p>The products and services should be based on modern technologies and have as their goals (among others) the operation of new computing infrastructures and services for small and medium enterprises, the support of small and medium enterprises for the utilisation of Cloud infrastructures and services and the development of online software services.</p> <p><i>Link to the target:</i></p> <p>The programme provides financial assistance to Greek companies to develop products and services related to cloud computing services.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 of 2022 and it is expected to be available at least until the end of 2025.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €100 million</p> <ul style="list-style-type: none"> • National: €21 million allocated • EU: €79 million allocated through RRF
<p>Expected impact and related timing:</p>	<p>It is expected that more than 1 000 SMEs will participate in the programme.</p>

Table 16: Measure 9 - Programme “Smart manufacturing”

Short description of the measure	<p>The programme provides funding of investment projects of very small, small and medium enterprises in the industry sector. Investment plans should aim to improve business resilience through upgrading digital production management and control systems, procurement of advanced and digitally controlled industrial equipment, digitalisation of interconnection systems throughout the supply chain, and production systems and technology that support digital transformation. In addition, the action will finance 5G high-speed network infrastructure, mechanical equipment, laboratory equipment and quality control equipment, ICT & software equipment, software licences, cloud licences, IT security services, product design, intellectual property, patents, costs certification, technical consulting services for the implementation of new IT and software infrastructures or for carrying out a feasibility analysis for the development of new smart products and services, staff and workforce training in the new Industry 4.0 technologies.</p> <p><i>Link to the target:</i></p> <p>It is expected that part of the investment projects will include the integration of new technologies like big data, artificial intelligence and cloud computing services in the production process of the business.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q3 of 2022 and it will be available until the end of 2025.</p>
Budget allocated or planned and, if relevant, other resources – including human resources - allocated]	<p>Total: €75 million</p> <ul style="list-style-type: none"> • National: €36 million allocated • EU: €39 million allocated through RRF
Expected impact and related timing:	<p>It is expected that a large number of SMEs will participate in the programme and will integrate new technologies like big data, artificial intelligence and cloud computing services in the production process.</p>

Table 17: Measure 10 - Programme “Industrial Data Platforms”

<p>Short description of the measure</p>	<p>In the context of the Project, the financing of the development of innovators is foreseen services based on modern technologies aimed at the operation of new computers infrastructure and services for small and medium enterprises (Cloud Infrastructure & Services), the support of small and medium enterprises for the utilisation of Cloud Only infrastructures and services, the development of online software services (cloud Only Software framework) that will is available to SMEs based on its policies and standards GAIA-X initiative and the EU's International Data Spaces Association (IDSA).</p> <p><i>Link to the target:</i></p> <p>The aim of the programme is to support the utilisation of Cloud only infrastructures and services by the business.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q3 of 2022 and it will be available until the end of 2025.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources - allocated]</p>	<p>Total: €145 million</p> <ul style="list-style-type: none"> • National: €X million allocated • EU: €X million allocated through RRF
<p>Expected impact and related timing:</p>	<p>It is expected that a large number of SMEs will participate in the programme and utilise cloud computing services in their operating models.</p>

Table 18: Measure 11 - Programme “Digital Tools for SMEs”

<p>Short description of the measure</p>	<p>The programme is about strengthening the small and medium enterprises in the Greek territory, with the aim of adopting modern digital tools which will support the business processes. More specific businesses using new digital tools could:</p> <ul style="list-style-type: none"> • modernise their productive, commercial and administrative function, • upgrade the way of communication and collaboration and introduce new forms of hybrid work (hybrid workplace), • digitise electronic transactions with customers and partners,
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	<p>including e-commerce,</p> <ul style="list-style-type: none"> • increase the level of security and trust in electronic transactions. <p>The Program will provide vouchers for the acquisition of new digital tools.</p> <p><i>Link to the target:</i></p> <p>The programme provides funding to Greek SMEs to increase their basic level of digital intensity.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 of 2022 and it is expected to be available at least until the end of 2025.</p>
<p>Budget allocated or planned and, if relevant, other resources – including human resources - allocated]</p>	<p>Total: €180 million</p> <ul style="list-style-type: none"> • National: €37.8 million allocated • EU: €142.2 million allocated through RRF
<p>Expected impact and related timing:</p>	<p>It is expected that approximately 100 000 SMEs will participate in the programme and increase their basic level of digital intensity.</p>

Table 19: Measure 12 - Programme “Digital Transactions”

<p>Short description of the measure</p>	<p>The programme is about strengthening the small and medium enterprises in the Greek territory, with the aim of adopting modern digital tools which will support the processes of invoicing, issuing and handling tax documents and making electronic payments. The Program will provide vouchers for the acquisition of new digital tools.</p> <p><i>Link to the target:</i></p> <p>The programme provides funding to Greek SMEs to increase their basic level of digital intensity.</p> <p><i>Tentative timeline:</i></p> <p>The programme started in Q2 of 2022 and it is expected to be available at least until the end of 2025.</p>
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<p>Budget allocated or planned and, if relevant, other resources – including human resources – allocated]</p>	<p>Total: €162 million</p> <ul style="list-style-type: none"> • National: €34 million allocated • EU: €128 million allocated through RRF
<p>Expected impact and related timing:</p>	<p>It is expected that approximately 500 000 cash registers will be upgraded or replaced with computer-based solutions.</p>

Table 20: Regional Operational Programme (ROP) 2021–2027 of Western Greece

Instrument name	Regional Operational Programme (ROP) 2021–2027 of Western Greece
Duration	2021–2027 (approved in 2022)
Description of goals	<p>The programme aims to transform Western Greece into a fair, smart, and competitive European region serving as a hub for technology, innovation, research, and creativity. It pursues five strategic objectives: (1) improving competitiveness and entrepreneurship through innovation and digital upgrading; (2) protecting the environment and promoting a circular economy; (3) enhancing mobility; (4) strengthening social cohesion; and (5) promoting sustainable local development. Total public expenditure amounts to €628,447,202 (€534,180,118 EU funding; €94,267,084 national funding).</p>
Relevance to national and regional strategies	<p>The digitalisation strategy under Priority 1 aligns with the National Smart Specialisation Strategy (RIS3), the Digital Transformation Bible (2021–2025), and the National Recovery and Resilience Plan—particularly the pillars “Digital Transformation” and “Private Investment and Economic Transformation.” It also complements the NSRF 2021–2027, the National Development Programme 2021–2025 (Goal: Smart Growth), and the sectoral programme EPANEK.</p>
Enhancing digitalisation of SMEs	<p>Under Policy Objective 1: A Smarter Europe and Specific Objective RSO1.2, €70,804,450 is allocated to Priority 1, co-financed by ERDF and national resources, to support SME digital upgrading. Two main action types are included: Action Type 1.ii.1 – business plans for innovative</p>

	digital products/services (ERP, CRM, e-commerce, digital marketing) to strengthen SME competitiveness and digital transformation; Action Type 1.ii.2 – exploitation of data using AI, VR, IoT, and Big Data to improve public services and entrepreneurship support. The indicative ERDF distribution includes €3,145,000 for digitisation of large enterprises and €3,913,782 for ICT and e-services for governments.
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Table 21: National Strategic Reference Framework (NSRF) 2021–2027 – Digital Transformation Programme

Instrument name	National Strategic Reference Framework (NSRF) 2021–2027 – Digital Transformation Programme
Duration	2021–2027
Description of goals	The Digital Transformation Programme aims to implement the objectives of the <i>Digital Transformation Bible</i> and accelerate Greece’s digital transition across the public and private sectors. Its main goals include: providing innovative digital services and applications for the public sector and local authorities; developing environmentally friendly cloud infrastructures; completing the Public Sector Network; creating digital platforms to support business activity; enhancing the <i>gov.gr</i> portal; strengthening the National Alliance for Digital Skills and Jobs and the National Digital Skills Academy; and expanding ultra-high-speed connectivity and wireless access. The total programme budget is €943 million.
Relevance to national and regional strategies	The programme is a central component of the Digital Transformation Bible (2021–2025) and directly supports the implementation of Greece’s National Digital Strategy . It aligns with the overarching priorities of the NSRF 2021–2027 , the National Recovery and Resilience Plan , and the European Digital Decade objectives. Its actions complement regional programmes, such as the Western Greece ROP, ensuring coordinated national and regional digital transformation.
Enhancing digitalisation of SMEs	The programme supports SME digitalisation primarily through actions that create enabling infrastructures and services, such as digital platforms for business activity (€35 million) , digitisation actions (€30 million) , and connectivity enhancements (€190 million for ultra-fast broadband and €110 million for Very High Capacity Networks) . These initiatives provide the technological foundation for SMEs to adopt digital tools, access e-services, and operate efficiently in a fully digital economy. Additionally, the digital skills development actions (€113 million total) strengthen human capital, enabling SMEs to benefit from

	reskilled and upskilled workforces capable of leveraging digital technologies.
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Table 22: National Recovery and Resilience Plan – Greece 2.0 (Recovery and Resilience Fund – RRF)

Instrument name	National Recovery and Resilience Plan – Greece 2.0 (Recovery and Resilience Fund – RRF)
Duration	2021–2026 (implementation period of the RRF for Greece)
Description of goals	The Recovery and Resilience Fund (RRF) was established to address the economic and social impacts of the COVID-19 crisis and support the transition to a green and digital economy . With an overall EU budget of €672.5 billion , Greece’s allocation amounts to €31 billion , expected to mobilize €60 billion in total investments. The Greek Plan focuses on reforms and investments that enhance productivity, sustainability, and resilience. Pillar 2: Digital Transition (€2.2 billion RRF + €2.3 billion private) aims to accelerate the country’s digital transformation, while Pillar 3: Employment, Skills, Social Cohesion (€2.3 billion) focuses on enhancing digital skills and education.
Relevance to national and regional strategies	The Greece 2.0 plan is fully aligned with the European Commission’s priorities under the EU Recovery and Resilience Facility and complements Greece’s Digital Transformation Bible (2021–2025) , National Smart Specialisation Strategy (RIS3) , and NSRF 2021–2027 . It contributes directly to the EU’s twin transition (green and digital) and supports regional programmes such as the Western Greece ROP , ensuring coherent policy implementation across governance levels.
Enhancing digitalisation of SMEs	Under Axis 2.3 – Digital Transformation of Businesses (€375 million RRF and €475 million private resources) , the plan promotes SME digitalisation through: (1) provision of digital products and services supporting SME transformation; (2) creation of a central mechanism to assess SME needs, evaluate results, and provide training and know-how transfer via a digital marketplace ; and (3) tax incentives (super deductions) for investments in software, cloud services, and digital equipment. Complementary flagship actions include Smart Manufacturing (€75 million) and Digital Transformation of Businesses (€180 million) , aimed at enhancing innovation, competitiveness, and resilience of Greek enterprises.

2.2. General Assessment

Regional Context and General Overview

The Region of Western Greece (RWG) is actively pursuing digital transformation across various sectors, including public administration, education, and enterprise development. While the region benefits from a solid research and academic base, as well as notable infrastructure in ICT, the level of digital adoption among small and medium-sized enterprises (SMEs) remains relatively low. Digitalisation has increasingly emerged as a policy priority, with regional strategies progressively aligned with both national and European frameworks. Despite this progress, a series of structural and operational challenges continue to constrain the pace and overall scale of SME digital transformation, underlining the need for targeted support mechanisms and coherent policy interventions.

Current State of Digital Adoption in SMEs

The current state of digital adoption in SMEs within the Region of Western Greece (RWG) reflects significant challenges despite notable infrastructure, business, and human resource potential in the ICT sector. Although there has been progress in recent years, the region has not yet achieved a model of digital operation. The use of computers and the Internet remains particularly low. Internet use remaining low prior to the pandemic, with only 70% of residents using the Internet in 2019 (ELSTAT), placing RWG 5th among Greek regions in terms of Internet use. . This limited adoption is also reflected in SMEs: although 82% report having an Internet connection, the quality and speed of connectivity—especially in rural and mountainous areas—remain inadequate for modern digital business operations.

In addition to limited connectivity, the integration of technology within the business processes of SMEs in RWG is relatively minimal. Only around 17% of SMEs have integrated technological solutions into their production processes, indicating very low digital maturity. Adoption of even basic digital tools remains limited: fewer than 10% of micro and small enterprises offer online ordering or electronic payment capabilities, particularly in rural areas. This highlights the slow adoption of digital tools that are essential for streamlining operations, improving efficiency, and fostering growth in the modern economy.

Another key issue concerns the limited uptake of digital public services at regional and local level. Although Greece has significantly expanded the range of services available through gov.gr, the adoption and effective use of these services in RWG remains uneven—particularly in smaller municipalities and rural areas—reducing the extent to which SMEs can interact digitally with public authorities.

The Region of Western Greece also faces a significant shortage of specialised ICT personnel. The share of ICT specialists in the regional labour force is among the lowest in Greece, making it difficult for SMEs to recruit qualified digital professionals and slowing the adoption of advanced technologies.

Despite these challenges, RWG has shown some positive trends, especially in terms of collaboration **between SMEs**. The European Regional Innovation Scoreboard 2023 highlights RWG's strong performance in this area, which suggests that there is potential for growth through collaboration and the sharing of digital knowledge and resources among businesses.

The broadband gap between rural and urban areas remains a significant barrier to SME digitalisation. Many mountainous and remote areas of RWG still fall within 'white' or 'grey' NGA zones, lacking access to Very High Capacity Networks (VHCN), which restricts SMEs from adopting cloud services, e-commerce solutions and other advanced digital tools.

Overall, although the COVID-19 pandemic accelerated the demand for digital tools, SMEs in RWG were unable to fully capitalise on this momentum due to persistent structural barriers—limited digital skills, uneven broadband coverage and the absence of tailored support mechanisms for micro and small enterprises.

Technological Infrastructure in the RWG

The evolution of technology is such that the existence of basic ICT infrastructure, such as broadband networks or mobile telephony/data networks and the ability to connect to them, is considered a given in most developed countries. For this reason, statistical measurements tend to focus on the **use** of ICT rather than the **existence** of ICT infrastructure. Greece lags in this area, as many remote regions lack access to the internet via terrestrial networks and instead rely on alternative methods (e.g., satellite, mobile data, etc.). Additionally, internet speed in the country is among the worst in the EU, ranking 93rd globally. Despite the above, the vast majority of Greeks can access the internet at home, in their workplaces, in public open spaces, and while on the move.

Within this context, Western Greece appears to be significantly behind in the use of ICT, both in comparison to other Greek regions and at the European level. In 2019, only 70% of the population in the RWG were internet users, placing it fifth among the Greek regions. Among these users, only half had been using the internet for more than 11 years—the time period during which widespread internet use began in Greece (EUROSTAT, 2019). This lag may be attributed to the fact that RWG has a large rural and elderly population—groups traditionally less familiar with ICT. On the other hand, this situation potentially indicates both low digital skills among large segments of the workforce and the risk that substantial population groups in RWG could face digital—and consequently social—exclusion in the medium term, given the rapid penetration of ICT into daily human activities, especially following the advent of 5G networks.

In 2019, 511,000 citizens in RWG had access to a broadband connection. Of these, 407,000 also had mobile internet access, i.e., through some mobile device (tablet, smartphone, etc.). The mobile telephony penetration rate reaches 152%, meaning many citizens of Western Greece have more than one mobile subscription. Finally, in 2019, 254,000 citizens used at least one e-government service (estimate based on EUROSTAT, 2019 data). The number of e-government service users is particularly low compared to European regions with similar characteristics, mainly due to the limited offering of state services through electronic/remote means. Given the ongoing digitalisation of many procedures by central government services, this number is

expected to improve. In any case, it confirms the earlier observation regarding ICT penetration levels.

RWG faces a challenge of low digital skills among its population, with limited prospects for improvement under current conditions. Only 56% of the population are daily internet users, while an even smaller percentage use e-banking services—a clear indicator of a population group’s digital maturity (estimate based on EUROSTAT, 2019 data). Only 25% of RWG's workforce is employed in ICT-intensive sectors, placing Western Greece at the bottom among Greek regions. A similar picture emerges regarding tertiary education graduates with advanced digital skills, who make up only 25% of the regional workforce (EUROSTAT, 2019). Only 50% of citizens have basic digital skills, and 56% have basic software usage skills. Furthermore, only 2% of Western Greece’s citizens have digital skills beyond the basic level—a figure particularly low compared to the European average.

Another major challenge, even for the global economy and major regional economic powers (e.g., USA, EU, BRICS, etc.), over the past decade has been the adoption of the principles and tools of the **Fourth Industrial Revolution (Industry 4.0)** into their existing economic and production models. The EU, in fact, is expected to place special emphasis on promoting these principles and tools during the current funding period (2021–2027). At the national and regional level, there is significant lag in adopting these principles compared to regions and other EU member states.

Greece significantly lags in integrating the principles of the Fourth Industrial Revolution into the current model of public sector operation and business activity. The COVID-19 pandemic crisis strongly highlighted the need to promote digital maturity among Greek organizations and businesses, accelerating digitalisation across all levels (personal life, business activity, and state operation). In Greece, limited digital maturity has resulted in only 36% of employees working in jobs where the use of basic ICT tools and/or programming languages accounts for at least 50% of their tasks. Similarly, out of the 20 occupations with the highest number of workers in Greece (a total of 2,184,690 individuals), only in 8 (650,620 individuals, 29.8%) does ICT usage account for more than 50% of the job duties. This highlights the general digital lag of businesses and workers, as well as the limited technological content of many occupations.

In RWG, only 82% of businesses had an internet connection, and only 17% had introduced technological solutions at any stage of their production process. Among primary sector enterprises, internet access is limited to approximately 37%. Moreover, only 40% of Western Greece businesses have a website, and just about 10% are capable of processing online orders or electronic payments.

The figures across all sectors of the regional economy could improve through the promotion of startup and outward-looking entrepreneurship. In Achaia, an innovation ecosystem has begun to form in recent years; however, it needs to be strengthened in order for its contribution to local and regional economy to grow to a competitive level. Still, the number of individuals—particularly recent graduates in technology- and innovation-intensive fields—who proceed to establish their own businesses or participate in the founding of a business in RWG and Greece remains low compared to the EU. As a result, the regional and national economy is deprived of opportunities

to create jobs, develop a strong export-oriented production profile, retain highly qualified graduates in the country, and attract investments.

The integration of Industry 4.0 principles and tools into the regional economy is a complex process. It requires a focus on producing specialized human capital, as well as increased investment in a combination of physical and digital (cyber-physical) infrastructure, aimed at achieving the most efficient possible integration of humans and machines in the production process. It also requires both the entities responsible for shaping and regulating the business environment, and the businesses themselves, to focus on data processing (big data, open data, metadata) in order to extract useful business insights and support decision-making processes with the goal of improving productivity and efficiency. Businesses in Western Greece appear to have recognized the shift but are unable to keep pace with it. Their main stated needs include electronic invoicing (35.3%), creation of a modern website and/or e-shop (33.9%), and full support for conducting electronic transactions (21.6%).

Sectoral Differences in Digital Maturity

Digitalisation is not uniformly distributed across economic sectors in RWG. The ICT services sector—especially in the regional unit of Achaia—shows higher levels of digital readiness, particularly in software development, IT consulting, and digital services.

In the Region of Western Greece (RWG), **73.7% of ICT enterprises operate in the services sector**, and a large portion of these (59.8%) are involved in **programming and consultancy**, followed by **data processing and web portal-related activities (20.7%)**. These subsectors require high levels of digital infrastructure, skilled personnel, and continuous innovation, indicating a relatively advanced state of digital maturity. Employment patterns reinforce this, with **59.5% of ICT workers** in RWG employed in services—mirroring the sector’s dominance in enterprise distribution.

Within RWG, **Achaia leads** in digital development, hosting **76% of ICT services firms** and **nearly 70% of ICT employment**. This concentration suggests the presence of digital hubs, access to tech talent, and stronger ICT ecosystems. In contrast, the regional units of Aetolia-Acarnania and Ilia lag behind, highlighting geographic disparities in digitalisation within RWG.

By contrast, the **ICT manufacturing sector** shows very low levels of digital presence and maturity, accounting for only **0.8% of ICT enterprises** in RWG and **3% of employment**. Similarly, the **ICT trade sector**, although more developed than manufacturing, remains less digitally intensive, focused more on hardware and equipment distribution than on value-added digital services.

More broadly, the fact that only **0.8% of all enterprises in RWG operate in the ICT sector**, compared to **1.2% nationally**, implies that **traditional economic sectors in the region—such as agriculture, construction, and small-scale manufacturing—are significantly less digitalised**. These sectors typically show slower adoption of digital tools, lack ICT integration in core processes, and face greater barriers in terms of infrastructure, investment, and digital skills.

In summary, digital maturity in RWG is **highly concentrated in the ICT services sector**, particularly in Achaia, with clear gaps in manufacturing, trade, and non-ICT sectors. This uneven distribution of digitalisation points to both **opportunities for targeted digital policy interventions** and the need to **support lagging sectors and regions** to ensure a more balanced digital transition.

Innovation Capacity and Human Capital Constraints

Digital and innovation capacity in the Region of Western Greece (RWG) is constrained by both structural and human capital limitations, despite some areas of emerging strength. RWG is classified as a “**moderate innovator**” in the 2023 **Regional Innovation Scoreboard (RIS)**, with a **Regional Innovation Index (RII) score of 0.419**. This reflects an **improving performance over time**—notably, a **20.9% increase relative to the EU average since 2016**—yet the region still underperforms compared to both national and European innovation leaders.

RWG demonstrates strengths in **SME collaboration on innovation**, with a high score of **0.918**, placing it significantly above the Greek average and close to the EU frontier in this dimension. The region also performs relatively well in **public sector R&D expenditure (1.26% of GDP; score 0.752)** and **public-private co-publications (score 0.627)**—indicative of a supportive institutional framework and research potential.

However, **critical weaknesses persist in human capital and digital employment**, limiting the region’s capacity to absorb and implement innovation at scale:

- **ICT Employment Deficit:** Only **1.3% of the workforce** in RWG consists of **ICT specialists** (score: **0.100**), the **lowest share among all Greek regions**, and well below the EU average. This shortage is a **key bottleneck** for digital transformation, as SMEs struggle to find qualified personnel to implement and maintain digital systems internally.
- **Low Digital Skills Base:** The share of adults with **above average digital skills** is just **20.9%** (score: **0.344**), also below both national and EU benchmarks. This limits not only the adaptability of the workforce but also the uptake of advanced digital tools by businesses and public services.
- **Tertiary Education & Skills Mismatch:** Although RWG has relatively **strong tertiary education participation (38.3%, score: 0.461)**, and decent infrastructure in its educational institutions, **alignment with labour market needs in the digital economy remains weak**. A key indicator of this misalignment is the **very low rate of lifelong learning (3.2%, score: 0.083)**, which restricts opportunities for upskilling and reskilling in fast-evolving digital domains.
- **Innovation Employment Gap:** Employment in **knowledge-intensive activities** stands at only **7.8%** (score: **0.171**), far below both the Greek average (46) and EU norms (30), suggesting a narrow innovation-driven employment base. Similarly, **only 25% of the workforce is employed in ICT-intensive sectors**, underscoring a broader lack of digital absorption across the regional economy.

While RWG exhibits a growing innovation trajectory and notable strengths in **public sector research** and **SME collaboration**, its **digital transformation is hampered by persistent human capital constraints**. The **shortage of ICT specialists**, low **digital skills levels**, and **limited participation in lifelong learning** all present significant barriers to digital and innovation-driven growth.

Policy Agenda and Strategic Direction

Digitalisation of SMEs has become an increasingly prominent priority for the Region of Western Greece and is explicitly integrated across strategic regional, national, and EU-aligned frameworks. Key instruments at both levels seek to promote SME digital adoption, strengthen competitiveness, and close existing digital and innovation gaps—particularly in less developed areas.

Strategic frameworks supporting this agenda include:

- **The Operational Programme of the Region of Western Greece 2021–2027**, which identifies SME digitalisation as a key enabler of regional competitiveness under Specific Objective RSO1.2, with targeted measures for high-intensity digital adopters;
- **The National Recovery and Resilience Plan (Greece 2.0)**, which dedicates over €375 million to SME digital transformation through financial incentives, advisory services, and a national digital marketplace;
- **The NSRF 2021–2027 – Digital Transformation Programme**, which provides dedicated funding for SMEs to adopt digital tools, platforms, and services, alongside investment in digital connectivity and infrastructure;
- **The Digital Transformation Bible 2020–2025**, Greece’s national roadmap that frames SME digitalisation as essential to economic renewal, competitiveness, and inclusion;
- **The Greek National Digital Decade Strategic Roadmap**, which sets quantified national targets for digital business transformation in line with EU 2030 goals;
- **The Regional Smart Specialisation Strategy (RIS3)**, which links digital transformation with innovation in priority sectors like agri-food, green energy, and manufacturing, and supports SMEs through R&D cooperation and technology diffusion.

A particularly relevant initiative at the regional level is the **“DigiWest – Hub for Digital Business Transformation” project**, funded by the Public Investment Program and part of the Operational Programme “Western Greece 2021–2027”. The project is designed to support the integration of ICT in the operations and processes of businesses across the region. Structured in two phases, DigiWest first gathers and adapts international best practices in line with Industry 4.0 principles, compiling them into a methodological guide tailored to the regional context. In its second phase, the project delivers **personalised digital transformation services to 500 selected businesses**, helping them enhance their digital maturity, upskill their workforce, improve productivity, and embrace modern technologies. Rather than offering direct financial aid, DigiWest provides

indirect support through dedicated consulting, training, and transformation services, contributing to the formation of a dynamic digital ecosystem in the region.

A broad mix of policy instruments has been introduced to operationalise these strategies. These include **investment grants for digital technology adoption, digital platform development, training and upskilling for SME workforces, and connectivity upgrades**—particularly in remote or underserved areas. Horizontal support measures are complemented by more targeted schemes aimed at boosting digital intensity in key sectors and among low-digital SMEs.

Capacity-building initiatives also play a central role. The **National Academy of Digital Skills** and the **National Alliance for Digital Skills and Employment** offer accessible training and lifelong learning opportunities for SME owners and employees, helping to overcome one of the most persistent barriers to digital uptake: lack of digital skills.

Implementation is further reinforced by the region’s alignment with national coordination bodies and European mechanisms such as the European Digital Innovation Hubs (EDIHs). A key role in this direction is expected to be played by the newly established EDIH “easyHPC”, based in Patras with national reach. It is one of seven hubs representing Greece in the newly formed European network and aims to promote the broad adoption of advanced digital technologies—including Artificial Intelligence (AI), High-Performance Computing (HPC), and Cybersecurity—by industry and businesses. The hub specifically focuses on developing digital solutions for the plastics and packaging sector, contributing to the diffusion of innovation and strengthening the digital capacity of SMEs.

Despite the strong strategic orientation and financial support, challenges remain, including the need to better integrate digital and innovation policy across levels of governance, enhance outreach to lagging SMEs, and ensure that digital tools are tailored to the diverse needs of regional businesses. Ongoing monitoring and evaluation mechanisms are being developed to assess the effectiveness and inclusiveness of these instruments.

In conclusion, the Region of Western Greece is actively advancing a multi-level digitalisation agenda for SMEs, supported by a combination of EU, national, and regional instruments. While significant progress is underway, unlocking the full benefits of digital transformation will require targeted implementation, effective coordination, and a sustained focus on bridging both sectoral and territorial divides.

2.3. Identification of Policy Challenges

The policy framework currently supporting SME digitalisation in the Region of Western Greece includes a combination of national and regional instruments. Key among them are the Regional Operational Programme (ROP) 2021–2027, the National Strategic Reference Framework (NSRF) Digital Transformation Programme, and the Greece 2.0 Recovery and Resilience Plan (RRP). These frameworks collectively aim to enhance the digital capabilities of small and medium-sized enterprises through funding, capacity-building, infrastructure, and advisory support. While the strategic direction of these instruments is consistent with EU policy objectives for the digital

transition, several implementation-level challenges persist, limiting their accessibility, effectiveness, and territorial inclusiveness.

One of the most significant challenges remains the uneven level of digital maturity across the SME population in the region. The adoption of digital technologies is concentrated in urban centres—most notably in Patras—where firms are more likely to have the internal capacity and strategic orientation to engage with digital innovation. In contrast, the vast majority of SMEs in rural and semi-urban areas, especially in Aetolia-Acarnania and Ilia, continue to operate with limited or no digital integration. These disparities are shaped by sectoral characteristics, firm size, educational levels of entrepreneurs, and geographic isolation. As a result, a large number of enterprises in agriculture, agri-food processing, hospitality, construction, and retail remain disconnected from digital funding programmes, both in terms of awareness and readiness.

The instruments currently in place, including the ROP measures focused on digital transformation and Greece 2.0's digital toolkits, tend to attract participation from already well-positioned firms. Microenterprises, family-run businesses, and firms lacking prior experience with EU-funded projects often find the administrative burden of these instruments too high. Application processes involve complex documentation, rigid eligibility criteria, and tight implementation timelines, which deter less digitally mature firms from applying. In several cases, SMEs face difficulties in understanding the scope of eligible activities, choosing appropriate digital solutions, or estimating project costs—issues that are rarely addressed through structured pre-application guidance.

Another core weakness is the absence of integrated support services accompanying financial instruments. Although funding is available for digital tools, few schemes offer embedded advisory or mentoring services to help SMEs plan, implement, and sustain their digital investments. This leads to a situation where grants are disbursed without ensuring that the receiving SMEs possess the necessary digital literacy, change management capabilities, or technical knowledge to implement the funded actions effectively. As a result, the long-term impact of such investments is often diminished, with many firms adopting superficial or poorly integrated digital solutions that do not transform their core business processes.

The policy ecosystem also suffers from fragmentation and insufficient coordination among support actors. While there are strong institutions present their activities are largely concentrated in metropolitan areas and are not sufficiently connected to the broader SME population across the region. Innovation support services, business development agencies, and digital consulting networks are either missing or underdeveloped in rural areas, leaving a large portion of SMEs without access to localised, sector-specific digitalisation support.

A further barrier is the lack of sector-specific approaches within current instruments. The digitalisation needs of SMEs vary significantly by sector, yet most funding and support measures are designed generically. For example, the requirements of a small hospitality business seeking to adopt online booking tools differ substantially from those of an agri-food processor considering IoT-based quality control. Without tailored guidance or sector-adapted tools, many SMEs either opt out of applying or make suboptimal investment decisions.

In addition, there is currently no comprehensive monitoring system to assess digital maturity levels among SMEs at the regional level. While data is collected at national scale, disaggregated indicators on digital uptake, policy instrument performance, and regional impact are lacking. This absence of granular monitoring impairs policymakers' ability to track the territorial distribution of digitalisation benefits, identify underserved SME groups, or adapt support mechanisms in real time.

From the perspective of beneficiaries, several barriers continue to surface, such as limited access to information, lack of local advisory services, the high cost of digital transition, and uncertainty about future digital demands and technologies. Among non-beneficiaries—particularly smaller or more traditional enterprises—the most pressing needs include: easy-to-understand, simplified digitalisation schemes; access to local ICT service providers; sector-specific digital solutions; and financial instruments that can be phased or blended with capacity-building support.

A clear distinction must be made between general and specific measures impacting SME digitalisation in the region. **General measures** are those that indirectly influence digital transformation by creating an enabling environment. These include broadband infrastructure expansion, public digital services (e.g., gov.gr), digital skills development initiatives, education reforms, and tax incentives for digital investments. While essential, these measures are broad in scope and do not directly engage SMEs in structured transformation processes. **Specific measures**, on the other hand, are targeted interventions designed to directly support SME digitalisation. These include the ROP actions focused on digital upgrading of enterprises, the digital toolkits under Greece 2.0, EDIH services, and regional initiatives such as DigiWest. These instruments are intended to trigger measurable progress among SMEs but require improvements in accessibility, delivery mechanisms, and integration with skills development programmes.

The challenges identified are deeply linked to both national and regional policy frameworks. The **Digital Transformation Bible (2021–2025)** sets ambitious targets for increasing the digital intensity of enterprises, promoting interoperability, and accelerating digital public services. However, its operationalisation at regional level remains uneven. Similarly, the **National Recovery and Resilience Plan** includes well-funded components for digital investments, yet these instruments often rely on centralised structures and lack the flexibility needed for regional tailoring. At the regional level, the **ROP 2021–2027** aligns well with thematic objectives on SME competitiveness and digital innovation, but local delivery is hindered by institutional capacity gaps, limited multi-level coordination, and insufficient involvement of regional innovation actors in co-designing support mechanisms.

In conclusion, despite the availability of well-structured funding programmes and alignment with EU strategic objectives, the digital transformation of SMEs in the Region of Western Greece remains constrained by a combination of institutional, procedural, and territorial factors. Closing the gap between strategic ambition and practical implementation will require a stronger focus on integrated, localised, and demand-driven support models that reflect the real needs of SMEs across all sectors and geographies of the region.

Table 23: Policy challenges

Title of the Challenge	Description of the challenge
C1: Uneven Digital Maturity and Territorial Disparities	SMEs in urban centres show higher engagement with digital tools, while rural and traditional SMEs—particularly in Aetolia-Acarnania and Ilia—lag behind due to low awareness, skills, and infrastructural barriers. This digital divide remains a structural challenge across the region.
C2: Administrative and Procedural Barriers to Access	Many SMEs face high administrative burdens in accessing digital support instruments. Complex application processes, unclear eligibility criteria, and short implementation deadlines discourage participation, particularly among micro and less-experienced firms.
C3: Lack of Integrated Advisory and Implementation Support	Financial tools are not accompanied by sufficient advisory, mentoring, or aftercare support. SMEs often receive grants without adequate preparation, leading to weak implementation, poor adoption of technologies, and underutilised investments.
C4: Fragmentation of the Innovation and Support Ecosystem	Innovation support structures (universities, incubators, EDIHs) are concentrated in urban areas and poorly connected to the broader regional SME base. Rural and sector-specific SMEs lack access to localised, continuous support services.
C5: Absence of Sector-Specific and Localised Instruments	Current digitalisation schemes are too generic and fail to address the distinct needs of key regional sectors like agri-food, tourism, crafts, or construction. This limits both the relevance and uptake of available tools.
C6: Lack of Monitoring and Regional Performance Data	There is no unified system at regional level to track SME digital maturity or assess the territorial impact of policy instruments. The lack of disaggregated data limits policymakers’ ability to make evidence-based, adaptive decisions.

2.4. Regional Competitiveness

Economic: Employment rates and salary levels in SMEs and ICT sectors

With 643.188 inhabitants, Western Greece represented about 6.2% of the population in Greece in 2023. The gross domestic product per capita, adjusted for price levels (PPS) in Western Greece was 40.1% of the EU27 average, well below the national average of 55.1%. Western Greece benefits from various subsidy programmes aimed at boosting employment, particularly in disadvantaged groups, such as entrepreneurs and youth. These include public benefit employment schemes and training programmes for reskilling in green and digital technologies. These initiatives are designed to promote long-term job creation and workforce development.

DYPA offers subsidies to businesses to hire jobseekers, covering significant portions of wage and social insurance costs. This incentivizes companies to create new jobs while ensuring workers gain meaningful employment. In 2023, more than 281.700 people were active in the labour market in Western Greece. 30.8% had tertiary education, 48.5% had secondary education, and 20.8% had primary education. The employment rate in Western Greece was 45 % in 2023, 1.4 percentage points lower than the national average in Greece and 2.3 percentage points higher compared to 2022. The employment rate for women in 2023 was 34.6%, men had an employment rate of 55.6%, and for the youth the employment rate was 15.9%. The employment rates for women and the youth were below the national average, while the employment rate for men was above the national average.

A pronounced gender employment gap persists, with male employment at 55.6% and female employment at only 34.6% (European Labour Authority, 2024). Moreover, long-term unemployment accounts for over 60% of total unemployment in the region, indicating persistent structural imbalances and limited absorption capacity in local labour markets.

Small and medium-sized enterprises (SMEs) form the backbone of the regional economy, primarily in low value-added sectors such as agriculture, construction, and retail (INSETE, 2023). These businesses generally offer salaries below both national and sectoral averages due to low productivity levels and reduced innovation capacity. In contrast, ICT-intensive SMEs in the region tend to offer wages up to 25–30% higher than the regional average, mainly driven by acute shortages in digitally skilled professionals (European Labour Authority, 2024). However, their overall share in the regional employment structure remains marginal, and their spatial concentration is mainly limited to urban centers such as Patras.

Flexible work arrangements such as teleworking or flexible schedules are significantly underutilized, particularly in rural and mountainous areas. These weaknesses, combined with limited digital transformation in traditional SMEs, reinforce youth outmigration and the ongoing brain drain of highly educated professionals to metropolitan areas or abroad (INSETE, 2023). Addressing these asymmetries requires robust policy interventions targeting digital upskilling, financial incentives for SMEs engaging in digital transformation, and support for ICT cluster development in non-metropolitan areas. Without such measures, regional competitiveness and labour market resilience will remain under threat.

Social: Quality of life index

Although Greece reports moderate life satisfaction levels compared to other EU Member States, the Region of Western Greece (RWG) experiences intensified challenges linked to its demographic composition, geographic morphology, and infrastructural underdevelopment. According to the most recent Quality of Life in European Cities Report Greece achieved an average life satisfaction score of 6.9 out of 10, slightly below the EU-27 average of 7.3. While regional disaggregation is limited in the report, the RWG is notably affected by elevated youth unemployment, ageing population trends, and spatial isolation, particularly in remote areas of Aetolia-Acarnania and mountainous Ilia.

These socio-territorial factors translate into structural deficiencies in access to public goods and services, including primary healthcare, secondary education, and digital connectivity. The Regional Development Programme of Western Greece 2021–2025 underscores that rural and highland municipalities face significant delays in receiving state-provided services, contributing to an uneven distribution of life opportunities across the territory. Environmental safety concerns, linked to extreme weather events and poor waste management infrastructure, particularly in peri-urban zones of Patras and Pyrgos, further undermine subjective well-being indicators.

Additionally, intra-regional mobility remains significantly constrained. According to the Operational Programme of Western Greece 2021–2027, insufficient public transportation options, fragmented inter-municipal networks, and limited multimodal integration contribute to spatial exclusion and curtail labour mobility between rural hinterlands and regional urban centers. This limits the capacity of residents to access higher-order services and employment nodes, reinforcing geographic and socioeconomic disparities within the region.

Despite moderate national performance in quality-of-life metrics, the Region of Western Greece (RWG) remains structurally disadvantaged in terms of digital access and technological equity. Digital infrastructure deficits particularly in remote municipalities of Aetolia-Acarnania and mountainous Ilia reinforce broader spatial and social inequalities. According to empirical data from SMEs operating in RWG, more than 70% of small enterprises in rural areas lack access to advanced digital tools such as ERP, CRM, or cloud-based service platforms. This digital underdevelopment not only constrains local business innovation but also limits community access to e-government, telemedicine, and distance learning services, which are essential public goods in sparsely populated territories.

Furthermore, the digital maturity index (DMI) for RWG SMEs is the lowest among the other Greek regions. The limited uptake of foundational tools such as the national MyData platform or integrated online tax and social security services reflects both infrastructural weaknesses and cultural resistance to digital transformation. This lag exacerbates service delivery delays and further impedes the region's capacity to meet evolving citizen needs in health, education, and administrative sectors.

Additionally, the lack of regional digital competence centers and public ICT training programmes creates digital skills divide, particularly among older residents and economically inactive youth. According to findings from Anagnostopoulou (2024), the absence of targeted ESG-related digital initiatives in RWG's enterprises diminishes not only the region's economic resilience but also the broader subjective well-being of its population—who perceive themselves as being excluded from the benefits of digital modernisation.

In sum, digital deprivation operates as a key vector of socio-territorial inequality in RWG, amplifying pre-existing gaps in access to public services, job opportunities, and quality-of-life outcomes. Bridging this digital divide requires territorially sensitive investments in connectivity, institutional support for SME digitalization, and inclusive digital literacy initiatives, particularly in rural and peri-urban areas.

In summary, despite moderate national performance in quality-of-life metrics, the Region of Western Greece is marked by internal inequalities that stem from systemic territorial disadvantages. Addressing these gaps requires strategic investments in social infrastructure, spatial planning, and inclusive digital services to enhance regional cohesion and life satisfaction outcomes.

Regional innovation index and innovation ecosystem in Western Greece

Western Greece is classified as a “Moderate Innovator” in the 2023 edition of the Regional Innovation Scoreboard (RIS), exhibiting an overall innovation performance that remains well below the EU-27 average. The region’s innovation index stands at approximately 70% of the EU average, reflecting structural limitations in its research and development (R&D) ecosystem and innovation capacity. Despite the presence of institutional assets such as the University of Patras, the Patras Science Park, and the Computer Technology Institute & Press “Diophantus”, the translation of academic research into market-oriented applications remains limited due to insufficient technology transfer mechanisms and fragmented linkages between academia and the private sector.

Furthermore, the region’s R&D intensity, as measured by gross domestic expenditure on R&D (GERD) as a percentage of GDP, is among the lowest in the country. This underinvestment constrains the ability of local firms especially SMEs to engage in high-risk, high-return innovation activities. According to the European Innovation Scoreboard 2023, Greece as a whole ranks among the lowest-performing EU Member States in several key innovation dimensions, including firm-level digitalisation, patent applications per million inhabitants, and the availability of venture capital for start-ups and scale-ups. These systemic weaknesses at the national level disproportionately affect regions such as Western Greece, which lack large metropolitan agglomerations and major industrial anchors.

Moreover, collaborative R&D efforts between firms and public research organizations in Western Greece remain sporadic and uncoordinated. The Revised Operational Programme 2021–2027 acknowledges that while smart specialization strategies (RIS3) are formally in place, their implementation has been partial, with limited spillover effects across traditional sectors such as agri-food, tourism, and manufacturing. Innovation intermediaries and clusters often operate in isolation, and support services for innovation, such as incubators and accelerators, are unevenly distributed across the territory.

In summary, while Western Greece possesses certain institutional and academic assets with innovation potential, these remain underutilized within a fragmented innovation ecosystem. Strengthening regional innovation performance will require a coordinated policy mix focusing on increased R&D funding, reinforcement of university-industry partnerships, improved access to venture financing, and inclusive implementation of RIS3 priorities aligned with the region’s socio-economic profile.

Impact of SME digitalisation on regional competitiveness

Digitalisation plays a critical role in enhancing the competitiveness of SMEs in Western Greece, particularly in the post-pandemic recovery and in alignment with the European Union's dual green

and digital transition. Multiple official sources, including the OECD and the European Commission, indicate that SMEs integrating digital tools—such as e-commerce platforms, cloud computing services, artificial intelligence applications, and data analytics—exhibit increased productivity, resilience to external shocks, innovation performance, and export capacity.

According to the Digital Economy and Society Index (DESI), in 2024 approximately 73% of SMEs in the EU had reached a basic level of digital intensity—defined as using at least four out of twelve digital technologies. However, Greece continues to underperform, with only about 53% of SMEs reaching this threshold. This gap is particularly pronounced in rural and less developed regions such as Western Greece, where SMEs face persistent structural barriers: low broadband coverage, limited financial capacity to adopt digital tools, and deficits in digital skills and advisory support.

Quantitative studies based on EU27 data from 2017 to 2021 confirm a strong statistical correlation between higher digital intensity in SMEs and improved innovation performance. One econometric analysis reveals that a 1% increase in SME digital adoption is associated with a 0.16% increase in patent applications, underlining the role of digitalisation in enhancing research outputs and innovation capacity.

The OECD’s 2024 report on “SME Digitalisation to Manage Shocks and Transitions” highlights that digital infrastructure—such as remote working software, digital logistics, and cloud-based platforms—allowed SMEs to maintain operations during crises such as COVID-19. Nevertheless, the same report documents the obstacles that continue to hinder SME digitalisation: managerial inertia, low awareness of available tools, lack of digital capabilities, and uneven access to high-speed internet services in non-urban areas. In conclusion, while the benefits of digitalisation for SME competitiveness are well-documented, their realisation in Western Greece requires strategic support. Policy recommendations include investment in regional digital infrastructure, subsidised training for digital skills, advisory schemes tailored to SMEs, and the development of regional digital innovation ecosystems that support transformation through coordinated public-private partnerships.

In summary, improved SME digitalisation can unlock higher productivity, innovation capacity, international competitiveness, and resilience. However, closing the gap in regions like Western Greece will require comprehensive support: infrastructure investment, digital skills training (especially for SMEs), tailored funding, and coordinated ecosystem building through digital innovation hubs and policy frameworks.

2.5. Good Practices and Recommendations

Good Practices and Policy Tools – Region of Western Greece

The Region of Western Greece has implemented a targeted portfolio of policy instruments to support innovation, digitalisation, and SME competitiveness, drawing on national and European funding streams, particularly the Recovery and Resilience Facility (RRF), the National Strategic Reference Framework (NSRF) 2021–2027, and regional development programmes. Since 2021,

these tools have contributed to strengthening the innovation and entrepreneurship ecosystem, with a focus on digital transition and internationalisation.

One of the flagship instruments is the set of digital transformation schemes funded by the RRF, including programmes such as “Digital Tools for SMEs,” “Digital Transactions,” and “. Programme “Smart Manufacturing” These actions provide direct financial support to micro, small, and medium-sized enterprises for investing in software, automation systems, ERP/CRM platforms, and cybersecurity upgrades. The schemes are implemented by the Ministry of Digital Governance in collaboration with the Ministry of Development and Investments, with voucher-type support ranging from €1,000 to €200,000 per enterprise. In Western Greece, more than 1,000 SMEs have applied under these programmes, aiming to enhance productivity, reduce operational costs, and transition toward more sustainable and resilient business models.

Complementing this, the Regional Operational Program (ROP) of Western Greece under NSRF 2021–2027 has introduced initiatives targeting digital upskilling and technology adoption. Notably, action supporting digital upskilling under the ROP WG 2021–2027” supports training for SME personnel and entrepreneurs in areas such as e-commerce, cloud computing, and data analytics. At the same time, the regional smart specialisation strategy (RIS3) prioritises sectors such as agri-food, energy, and transport, enabling businesses to align with innovation trends through co-financed R&D and business development projects.

A good practice with strong transferability potential is the “DigiWest” initiative, implemented by the Region of Western Greece. This program fosters cross-border cooperation for developing digital platforms, services, and training curricula for SMEs, particularly in rural and less-developed areas. With a total budget of over €1 million (co-financed by Interreg and regional funds), DigiWest promotes access to e-government services and smart tools for business planning. Outcomes include the development of online portals, mentoring networks, and digital readiness diagnostics for over 150 SMEs.

Additionally, the region participates in national schemes supported by the RRF such as the “Enhancing Extroversion of Agri-Food SMEs” program (part of Greece 2.0), which enhances export capacity and digital visibility for agro-industrial SMEs. The program funds branding, certification, and digital marketing activities, with significant uptake by producers and cooperatives in Achaia and Ilia.

These interventions are coordinated through a multi-level governance framework the Regional Development Fund, the Managing Authority of the ROP, local chambers, and innovation intermediaries such as Patras Science Park . Together, they help bridge the gap between funding opportunities and SME capacity for digital and green transformation.

Overall, Western Greece’s approach highlights the importance of combining national recovery funds with regional smart specialisation and place-based innovation strategies. It offers valuable insights for other EU regions seeking to enhance digital competitiveness, particularly in peripheral or structurally disadvantaged areas.

Table 24: Good practices

Title of the Good Practice	GP Description
<p>Digital Tools for SMEs – Vouchers for Digital Transformation</p> <p>https://greece20.gov.gr/?calls=psifiaka-ergaleia-mme</p>	<p>The action supported SMEs in the Region of Western Greece through vouchers ranging from €900 to €18,000 for the acquisition or leasing of digital products and services (e.g., software, cloud solutions), aiming to enhance digital modernization, remote work, e-commerce, and cybersecurity. It was implemented under the Recovery and Resilience Facility "Greece 2.0" with a total budget of €180,000,000 and duration from 22/06/2022 to 01/11/2022.</p>
<p>Digital Transactions II – Vouchers for e-Invoicing and e-Payments</p> <p>https://greece20.gov.gr/?calls=psifiakes-synallages-v</p>	<p>The program supports SMEs in the Region of Western Greece through vouchers covering the adoption of digital tools for invoicing, e-tax documents, and electronic payments, including POS devices, e-invoicing software, and integrated cash systems. Co-funded under the Recovery and Resilience Facility "Greece 2.0", the scheme has a total budget of €61,257,500 and runs from 23/06/2025 to 05/09/2025.</p>
<p>Digital Tools for SMEs – Vouchers for Digital Transformation 2nd Call</p> <p>https://greece20.gov.gr/?calls=prosklisi-yповolis-aitiseon-chrimatodotisis-gia-tin-entaxi-sto-programma-psifiaka-ergaleia-mme-v</p>	<p>The program supports existing SMEs in the Region of Western Greece through vouchers ranging from €630 upwards, covering up to 90% of eligible costs for acquiring or leasing new digital tools and services to improve business operations, hybrid work, e-commerce, and cybersecurity. It targets specific SME categories, including professionals (e.g., notaries), businesses in disaster-affected areas, and general SMEs. Implemented under the Recovery and Resilience Facility "Greece 2.0", the scheme has a total budget of €42,000,000 and runs from 16/12/2024 to 03/01/2025.</p>
<p>Gigabit Connectivity Voucher Scheme</p> <p>https://greece20.gov.gr/?calls=prosklisi-yповolis-aitiseon-symmetochis-sto-programma-koyponi-syndesimotitas-gigabit-gigabit-voucher</p>	<p>This scheme provides a one-time voucher of €200 to citizens and SMEs in the Region of Western Greece who currently lack a broadband connection of at least 100 Mbps. Covering up to 50% of eligible expenses, it supports the acquisition and installation of gigabit broadband services, including in-building cabling, activation fees, terminal equipment, and monthly subscription costs for 24 months. The program aims to boost the penetration of high-speed internet across Greece and is implemented in four phases, linked to the Smart Readiness initiative. The total budget amounts to €79,999,921, with €22,875,390 co-funded by the RRF "Greece 2.0". Applications are open from 18/11/2024 to 30/09/2025 (for individuals) and until 15/09/2025 (for SMEs).</p>

<p>Digital Transactions – Vouchers for SMEs</p> <p>https://greece20.gov.gr/?calls=programma-psifiakes-synallages</p>	<p>The “Digital Transactions” program supports SMEs across Greece, including the Region of Western Greece, through vouchers for adopting digital tools related to invoicing, tax documentation, and electronic payments. Beneficiaries can receive funding for a wide range of eligible actions, such as replacing EFT/POS terminals, using mobile invoicing, subscribing to certified e-invoicing services, upgrading fiscal devices (FIM, EAFDSS, ADIME), and adopting modern cash register systems. Each category has predefined funding caps and support rates ranging from 90% to 100%. The program targets SMEs active before 01/01/2022, in eligible economic activities, and compliant with EU and national legislation. It is co-funded by the RRF “Greece 2.0” with a total budget of €137,400,000. Applications for the current call (Cycle D and Cycle C) were open from 26/02/2024 to 12/03/2024.</p>
<p>Development of Digital Products and Services</p> <p>https://greece20.gov.gr/?calls=programma-anaptyxi-psifiakon-proionton-kai-ypiresion</p>	<p>The “Development of Digital Products and Services” program provides grants to support investment projects by micro, small, and medium-sized enterprises (SMEs) in the Information and Communication Technologies (ICT) sector in Greece. It funds the full cycle of digital product/service development, including preparatory activities (e.g. market research, feasibility studies, upskilling), development of new digital products/services, and complementary commercialization actions. Eligible enterprises must operate legally in Greece, belong to the ICT sector, and meet specific financial and legal requirements (e.g. not under bankruptcy or recovery orders). Each enterprise can submit only one proposal. Projects must have a budget between €200,000 and €2,000,000. The grant intensity depends on company size, type of activities, and eligible expenditures. It was implemented under the Recovery and Resilience Facility “Greece 2.0”. The total program budget is €100 million, fully funded by public resources. The call was open from 22/06/2022 to 31/12/2022.</p>
<p>Digital Tools for SMEs</p> <p>https://greece20.gov.gr/?calls=psifiaka-ergaleia-mme</p>	<p>The “Digital Tools for SMEs” program supported Greek small and medium-sized enterprises with vouchers ranging from €900 to €18,000, intended for the purchase or lease of standardized digital products and related services (e.g., software, cloud tools, cybersecurity solutions). The goal was to enhance business operations, promote hybrid work, improve e-commerce capabilities, and strengthen trust in digital transactions. Eligible beneficiaries included legally established businesses across Greece from key sectors (agri-food, health, ICT, energy, tourism,</p>

	<p>etc.) that were founded before 01/01/2022 and employed between 0.01 and 250 Annual Work Units (AWUs) in 2021. The program was implemented under the EU de minimis regulation, had a total budget of €180 million, and accepted applications via the national Digital SME platform between June 22 and November 1, 2022.</p>
<p>Digital Transformation of the Tourism Enterprises Registry</p> <p>https://greece20.gov.gr/?tenders=psifiakos-metaschimatismos-mitrooy-toyristikon-epicheiriseon</p>	<p>The project “Digital Transformation of the Tourism Enterprises Registry” aims to modernize the national registry system for tourism businesses in Greece through the development of the digital platform mydigitaltourism.gr. The initiative is implemented by the Information Society S.A. under the supervision of the Ministry of Digital Governance, as part of Greece’s Recovery and Resilience Plan (Greece 2.0), Pillar 2: Digital Transition – Action 2.2.6 (16785). The action falls under the broader objective of digital transformation of public administration. The contract is executed via an international open tender procedure above EU thresholds. The project has a total budget of €13,142,880 (excluding VAT). It is fully publicly funded. The deadline for submitting tenders was 27/01/2024. The project aims to enhance administrative efficiency and improve service delivery to tourism enterprises by digitizing processes and establishing a centralized digital registry.</p>
<p>Value-Added Services for the Support Mechanism of the Digital Transformation of SMEs</p> <p>https://greece20.gov.gr/?tenders=psifiakos-metaschimatismos-mikromesaion-epicheiriseon-16706</p>	<p>The project “Value-Added Services for the Support Mechanism of the Digital Transformation of SMEs” concerns the procurement of a multi-lot framework agreement for Subproject 9 of the broader initiative “Digital Transformation of Small and Medium Enterprises.” It is implemented by the Information Society S.A. (KtP M.A.E.) under the responsibility of the Ministry of Digital Governance and is part of Greece’s Recovery and Resilience Plan (Greece 2.0), Pillar 2: Digital Transition – Action 2.3.1 (16706). The action falls within the strategy for advancing the digital transformation of businesses. The aim is to provide high-quality, value-added support services to facilitate the implementation and success of Subprojects 1 & 2 of the overall SME digitalisation initiative. The procedure was conducted through an international open tender above EU thresholds. The total contract budget amounts to €9,360,000, fully publicly funded. The tender submission deadline was 24/03/2023. The project seeks to enhance the uptake, coordination, and impact of the digital tools and services offered to SMEs under the digital transformation scheme.</p>

<p>Subproject 2 (SUB2) – Digital Transformation of the Agri-Food Sector (export-oriented agriculture component)</p> <p>https://greece20.gov.gr/?tenders=psifiakos-metaschimatismos-agrodiatrofikoy-tomea-2</p>	<p>The project “Extroverted Agriculture” is Subproject 2 (SUB2) of the broader Action 16653 “Digital Transformation of the Agri-Food Sector.” It is implemented by the Information Society S.A. (KtP M.A.E.) under the responsibility of the Ministry of Rural Development and Food. The project is part of Greece’s Recovery and Resilience Plan (Greece 2.0), under Pillar 4: Private Investments and Economic Transformation – Axis 4.6: Modernization and resilience of key economic sectors – Action 4.6.20. The aim of this subproject is to enhance the digital capabilities and international competitiveness of agricultural and food sector stakeholders by developing and deploying digital tools, platforms, and services that support smart, data-driven, and export-oriented agriculture. The procurement was conducted through an international open tender procedure above EU thresholds. The total contract budget is €25,483,406.45 (excluding VAT), fully publicly funded. The deadline for tender submission was 20/01/2023.</p>
<p>Support for ICT Enterprises in Western Greece</p> <p>https://www.pde.gov.gr/ependyseis/actions/cti.html</p>	<p>This action, funded by the European Regional Development Fund (ERDF) under the Regional Operational Programme “Western Greece 2014–2020,” supported ICT SMEs in the region to develop innovative digital products and services. It aimed to enhance competitiveness, productivity, knowledge-intensive entrepreneurship, and internationalization of the regional ICT sector, especially through synergies with dynamic sectors such as manufacturing, tourism, culture, and agri-food. The program also contributed to job retention and creation, particularly of high-skilled and high-value positions. It aligned with Priority Axis 1 of the ROP and targeted the Specific Objective 2.b.1 – increasing the number of enterprises modernizing through ICT-based product and service development. Grants were provided under the General Block Exemption Regulation (GBER – 651/2014), with a focus on turning knowledge into business opportunities through applied research, academia-industry collaboration, product development, and pilot production in Western Greece.</p>

<p>Modern Manufacturing in Western Greece – Boosting the Scale and Competitiveness of Manufacturing and Related Enterprises</p> <p>https://www.espa.gr/e/Pages/ProclamationsFS.aspx?item=6472</p>	<p>This action, co-funded by the European Regional Development Fund (ERDF) and the European Social Fund (ESF) through flexibility provisions, is part of the Operational Programme "Western Greece 2014–2020" under the National Strategic Reference Framework (NSRF 2014–2020). It falls under Priority Axis 1: "Enhancing competitiveness and extroversion of enterprises, transition to quality entrepreneurship, with a focus on innovation and increasing domestic added value", and contributes to Specific Objectives 1.b.1 (Increasing private sector participation in research and innovation) and 3.a.1 (Strengthening SME activity in smart specialisation sectors).</p>
<p>Modern Manufacturing in Western Greece</p> <p>https://www.espa.gr/e/Pages/ProclamationsFS.aspx?item=5660</p>	<p>The “Modern Manufacturing in Western Greece” program, co-funded by the European Regional Development Fund (ERDF) and the European Social Fund (ESF) through flexibility rules, supports SMEs in the region to expand and modernize manufacturing activities. Implemented under the Operational Programme "Western Greece 2014–2020", it aligns with Priority Axis 1 and contributes to Specific Objectives 1.b.1 (increase private sector participation in R&D) and 3.a.1 (strengthen SME activity in smart specialisation sectors). The program funds projects across three strategic pillars: manufacturing diversification and transformation (towards innovative, export-oriented, and environmentally friendly products), digital industry (supporting flexible and digitalized production and distribution processes), and energy efficiency (reducing energy consumption and aligning with future EU energy standards). It offers financial incentives and investment tools to drive competitiveness, productivity, and technological adaptation among manufacturing SMEs in Western Greece.</p>
<p>Green Transition for SMEs</p> <p>https://www.espa.gr/e/Pages/ProclamationsFS.aspx?item=5666</p>	<p>Funded through the National Strategic Reference Framework (NSRF) and co-financed by the ERDF and national resources, the “Green Transition for SMEs” initiative promotes sustainable transformation among micro, small, and medium-sized enterprises across Greece. Implemented under the NSRF 2021–2027, it consists of two distinct actions: (1) "Green Transformation of SMEs" (€300 million), which supports energy efficiency upgrades, circular economy practices, and low-carbon solutions using modern technologies and infrastructure, and (2) "Green Productive Investment of SMEs" (€400 million), which fosters sustainable production, green mobility, and digital innovation. Both actions provide grants for eligible costs such as green equipment, electric vehicles, eco-certifications, consultancy, and</p>

	<p>salary costs for new staff. The program targets enterprises with at least one full financial year and specific sector eligibility (based on NACE codes), and it requires a minimum employment level prior to application. Implementation duration is capped at 30 months from project approval.</p>
<p>Implementation of Upskilling Programmes in Digital Technologies for Private Sector Employees</p> <p>https://www.espa.gr/e/Pages/ProclamationsFS.aspx?item=5733</p> <p>https://www.espa.gr/e/Pages/ProclamationsFS.aspx?item=6377</p>	<p>Implemented within the framework of the National Alliance for Digital Skills and Employment and funded by the NSRF 2021–2027, this initiative supported the development of upskilling actions for private sector employees with medium to high levels of digital maturity. With a total budget of €62.5 million, the program focused on training in the use and management of innovative digital technologies and cybersecurity. The training was delivered remotely, aiming to enhance personal development and better prepare participants for evolving labour market demands. Eligible applicants included national-level institutional social partners, chambers, associations of chambers, and ICT business associations that are members of the National Alliance. The program contributed to strengthening Greece’s digital workforce in line with the country’s digital transition strategy.</p>
<p>DigiWest – Regional Hub for Business Digital Transformation</p> <p>https://digiwest-pde.gr/index.php/to-ergo</p>	<p>The DigiWest – Business Digital Transformation Hub is an initiative of the Region of Western Greece under the framework of regional cohesion policy. It aims to support local enterprises through the integration of advanced information and communication technologies into their operations and processes. The project provides tailored services to 500 businesses in the region to enhance their digital skills and capabilities, improve productivity, and boost competitiveness. Drawing on the principles of Industry 4.0, international models and best practices for digital transformation are collected and adapted to the regional business context, forming a methodological guide specifically designed for local needs. These practices are piloted in selected enterprises, with the broader goal of strengthening digital maturity, fostering digital competencies among entrepreneurs and employees, promoting innovation and extroversion, and ultimately establishing a regional digital hub for networking and business support.</p>

2.6. Data Infrastructure

Assessing the level of digitalisation and competitiveness of SMEs in the Region of Western Greece (RWG) requires a multi-layered data infrastructure that combines national and regional statistical sources, administrative registries, and European benchmarking tools. In recent years, Greece

has advanced in developing strategic and technical frameworks to monitor digital transformation, yet significant gaps persist in terms of regional disaggregation, SME-specific metrics, and real-time performance indicators.

Strategic and Institutional Framework

At the national level, the Ministry of Digital Governance is the lead authority overseeing Greece's digital transformation agenda, in line with the Digital Transformation Bible (2020–2025) and the strategic priorities of the Greek Recovery and Resilience Plan (RRP). These frameworks emphasise SME digitalisation, digital public services, broadband infrastructure, and innovation ecosystems as pillars of competitiveness.

At the regional level, the Region of Western Greece has incorporated digitalisation priorities within its Regional Development Programme (RDP) 2021–2025 and the updated Operational Programme 2021–2027 under the NSRF. These documents outline objectives such as upgrading digital infrastructure in rural municipalities, improving SME access to e-government services, and strengthening digital skills through vocational training and technical education initiatives.

Available Data Sources and Monitoring Tools

The main source for national-level statistics on SME digitalisation is the Hellenic Statistical Authority (ELSTAT), which annually conducts the Survey on ICT Usage in Enterprises in alignment with Eurostat methodologies. These data provide insights into digital tool adoption (e.g., cloud computing, ERP systems, websites), broken down by enterprise size and economic sector; however, regional-level breakdowns are not provided. According to the latest available results (2023), only 53% of Greek SMEs achieved a basic level of digital intensity, compared to the EU average of 73%.

Additional information on Greece's digitalisation progress is captured through the historical DESI indicators (up to 2022) and Digital Decade Country Reports (from 2023 onward), which aggregates national indicators across dimensions such as connectivity, digital public services, human capital, and integration of digital technologies. Although these indicators are available only at the national level, with no NUTS 2 regional data provided, they still serve as a key benchmarking tool for identifying structural weaknesses, including low broadband coverage in rural areas and underdeveloped digital skills in the workforce.

Administrative and institutional datasets also play a critical role. The National Register of Businesses (GEMI), the General Secretariat for Information Systems (GSIS), and the Independent Authority for Public Revenue (IAPR) maintain registries of digital service uptake on firms, including e-invoicing adoption, participation in digital voucher schemes, and use of online tax platforms. Additionally, the digital platform gov.gr has expanded significantly since 2020, offering over 1,500 online services, many of which are utilised by SMEs for licensing, certification, and compliance processes.

At the regional level, data availability is more limited. Some monitoring is conducted through the Regional Observatory for Social Inclusion and Development of Western Greece; however, its focus is primarily socio-economic, and it does not systematically track SME digitalisation

metrics. This limited regional-level monitoring highlights the need for targeted data collection to support evidence-based policymaking on SME digitalisation.

Technical Infrastructure and Platforms

Greece has made considerable strides in building digital infrastructure that supports data generation, integration, and service delivery. Projects such as Syzefxis II and the National Cloud (G-Cloud) provide the backbone for interconnecting public institutions, which in turn improves the availability and quality of administrative data relevant to SMEs. Moreover, platforms such as IDIKA (eHealth infrastructure), ERGANI (labour market monitoring system), and the E-Services Portal of the Ministry of Labour offer structured datasets on employment, training, and service delivery that can indirectly inform digital competitiveness assessments (IDIKA, 2023, Ministry of Labour, 2023).

In addition to national infrastructure, EU-funded programmes have further strengthened SME digital engagement. For instance, the “Digital Transformation of SMEs” subsidy scheme under the Recovery and Resilience Plan (RRP) provides digital vouchers for acquiring hardware, software, and consulting services. The platform kynotita.gov.gr monitors uptake by region and sector, although access to more granular, region- and sector-specific data is limited. Similar initiatives, such as “Digital Tools for SMEs” and “Digital Skills Upskilling for Employees,” are currently being implemented, but detailed NUTS2-level reporting remains limited, constraining region-specific policy evaluation.

Gaps in Data Infrastructure

Despite the growing number of initiatives and data sources, several limitations persist in capturing SMEs' digital maturity and competitiveness in Western Greece: Lack of regionalised indicators: Most national datasets do not offer NUTS2 or NUTS3 breakdowns. Thus, regional policymakers lack precise data on digital adoption among SMEs in Aetolia-Acarnania, Ilia, and Achaia, hindering targeted intervention design. Exclusion of micro-enterprises: most surveys typically cover only enterprises with 10 or more employees, neglecting micro-firms, which constitute over 96% of businesses in RWG (ELSTAT, 2023). These firms are less likely to adopt advanced digital tools but are disproportionately affected by digital exclusion. Weak integration between digitalisation and performance data: There is limited availability of linked microdata that combines digital uptake with outcomes such as productivity, exports, or innovation activity. This hampers the ability to assess the real impact of digital tools on SME competitiveness. Insufficient real-time and digital-behaviour data: Data on SME participation in e-commerce, digital payments, or online service usage is often outdated or unavailable. There is no real-time dashboard to monitor progress at the regional level. Lack of sector-specific insights: While broad sector categories exist, there is insufficient detail on how specific industries e.g., agri-food, manufacturing, or tourism—utilize digital tools. Sectoral variation is essential for smart specialisation strategies.

3. Summary

The digitalisation of SMEs in the Region of **Western Greece** is increasingly recognised as a catalyst for productivity, competitiveness, and regional convergence with EU priorities. SMEs constitute the overwhelming majority of enterprises in the region and are central to economic activity, yet they exhibit **low to moderate levels of digital maturity**. While basic ICT tools are used by many firms, especially those located near Patras and linked to academic and research institutions, the uptake of advanced technologies—such as artificial intelligence, big data analytics, cloud computing, and Industry 4.0 solutions—remains limited. SMEs in rural parts of Aetolia-Acarnania and Ilia continue to lag behind due to skills shortages, poor broadband infrastructure, and low awareness of digital benefits.

The regional and national policy framework provides targeted digitalisation support through strategic and funding instruments aligned with EU Cohesion Policy and Digital Europe priorities. Key frameworks include the **Regional Operational Programme (ROP) of Western Greece 2021–2027**, the **National Recovery and Resilience Plan (Greece 2.0)**, the **NSRF 2021–2027**, and the **Smart Specialisation Strategy (RIS3)**. These are complemented by specific measures to enhance the digital transformation of SMEs such as:

- **Digital Transformation for SMEs (NSRF & RRF funding tools)**
- **Digital Business Upgrading Actions under RSO1.2 (ROP Western Greece)**
- **Digital Skills Enhancement Programmes (national VET and reskilling initiatives)**
- **Ultra-Fast Broadband (UFBB) and Rural Connectivity Projects**
- **Innovation Vouchers and Technology Transfer Support actions**

Despite this structured policy mix, **major challenges** remain:

- **Digital divide within the region:** Patras benefits from proximity to universities and ICT clusters, while rural and peripheral areas face structural barriers.
- **Skills gap:** SMEs lack digitally skilled staff, while brain drain reduces the regional talent pool.
- **Low awareness and limited advisory support:** Many SMEs do not have access to tailored digital transformation guidance.
- **Fragmentation of support:** Limited integration between regional, national, and EU initiatives reduces long-term impact.
- **Insufficient innovation culture:** Few SMEs engage in R&D or adopt strategic digitalisation roadmaps.

A further constraint is the **limited data infrastructure** for evidence-based policymaking. Existing regional assessments draw on ROP monitoring data, RRF programme reports, RIS3 updates, and EU datasets (e.g. Digital Decade indicators and historical DESI metrics), but these do not provide:

- Micro-level SME indicators on digital adoption,
- Sector-specific digitalisation trends,
- Geographically disaggregated data within the region,
- Outcome-based evaluation linking digital investment to SME performance.

Currently, data is collected by regional managing authorities, national ministries, and statistical services, but **there is no integrated regional dashboard** to monitor SME digital maturity or programme effectiveness.

Key Measures Needed

- Strengthen regional data collection systems and establish **digital maturity assessments** at SME level;
- Develop a **Regional SME Digitalisation Observatory**;
- Promote **targeted advisory services** and digital coaching through regional networks;
- Ensure **balanced access** to funding and broadband infrastructure across all subregions;
- Integrate **skills development** with SME digital upgrade initiatives;
- Introduce clear **monitoring and evaluation mechanisms** to assess policy impact.

Overall, Western Greece has established a coherent strategic foundation for SME digitalisation. However, bridging the regional digital divide, improving programme coordination, and enhancing the data ecosystem are essential to accelerate a fair and effective digital transition.

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