DEVISE

COVID-19 Regional context assessment Report

Project context

The topic of DEVISE, supporting the digital transformation of regional S3, is one of the most relevant ones in relation to the impact that COVID-19 has brought, considering both the positive and negative sides.

On the positive, COVID-19 has reinforced the importance of supporting digital transformation as a key element for competitive, adaptive and resilient SMEs. This brings along new business models that, on the offer side is opening new opportunities to the digital sector to provide their services and products while on the demand side is showing the importance of becoming a digital transformed business able to adapt to unexpected changes or market trends.

On the negative, COVID-19 has highly impacted several sectors like some of the targeted by DEVISE (i.e. tourism, hospitality, manufacturing) making vital to find new ways to support their recovery.

DEVISE partners and regional stakeholders address all these new challenges and opportunities that the pandemic brought. In doing so, new supporting instruments, innovative solutions and digital technologies were launched.

Scope of the regional context analysis: analyzing the challenges and opportunities for digital transformation of SMEs in the context of COVID-19, the support measures took by local/national authorities in this regard and their transformation potential into new policy instruments.

Approach of the regional context analysis carried out by the partners:

The 1st part of the regional context analysis integrates:

- a general overview of the COVID 19 impact on digital transformation of SMEs at international level (to be provided by ERNACT)

- a more in-depth analysis of the positive & negative effects of COVID 19 on digital transformation of the sectors addressed at national, regional and/or local levels and the reaction of authorities to the pandemics (all partners)

The 2nd part of the regional context analysis focusses on:

-identifying support measures for digitalization of SMEs

-identifying the opportunities for developing new policy instruments

*

The current report comprises a general overview of the COVID 19 impact on digital transformation of SMEs at international level and main conclusions of the 2nd part of the 'COVID-19 Regional context assessments' that partners carried out in their regions in the framework of the 5th call application.

I. COVID 19 context for digital transformation

International Context

The first part of the regional context assessment provides a general overview of the COVID 19 impact on digital transformation of SMEs at international level. The key sources used in this part are results and conclusions of the following surveys and reports:

1. Annual Report on European SMEs 2020/2021, SME Performance Review 2020/2021, July 2021
2. SME Digitalisation – charting a course towards resilience and recovery Vodafone Public Policy Paper September 2020, Deloitte
3. One year of SME and entrepreneurship policy responses to COVID-19: Lessons learned to "build back better", April 2021, OECD
4. The Digital Transformation of SMEs, OECD
5. The Flash Eurobarometer 486, run during the initial phase of the pandemic, providing information on the state of digitalisation of SMEs in the EU-27.
6. A special SME survey run in 9 EU-27 member states (BG, EE, FI, FR, DE, EL, IT, NL, SI) during the second phase of the pandemic. The survey focused on the impact of Covid-19 on SMEs and on their digitalisation activities.
7. A survey of SME associations and SME digitalisation support organisations run in November/December 2020, focusing on the views and opinions of the associations and organisations on the impact of the pandemic and the digitalisation activities of SMEs.

In 2020, more than 21 million SMEs were active in the EU27, counting for 99.8% of all firms. Moreover, 53% of the total value added produced by the EU27 and 65% of total EU-27 employment was generated by EU-27 SMEs in 2020. Many industries, especially in the SME-intensive services sector, experienced declines in sales as a result of the measures introduced by member states to fight the spread of Covid-19. At the same time, some industries actually saw their sales increase.

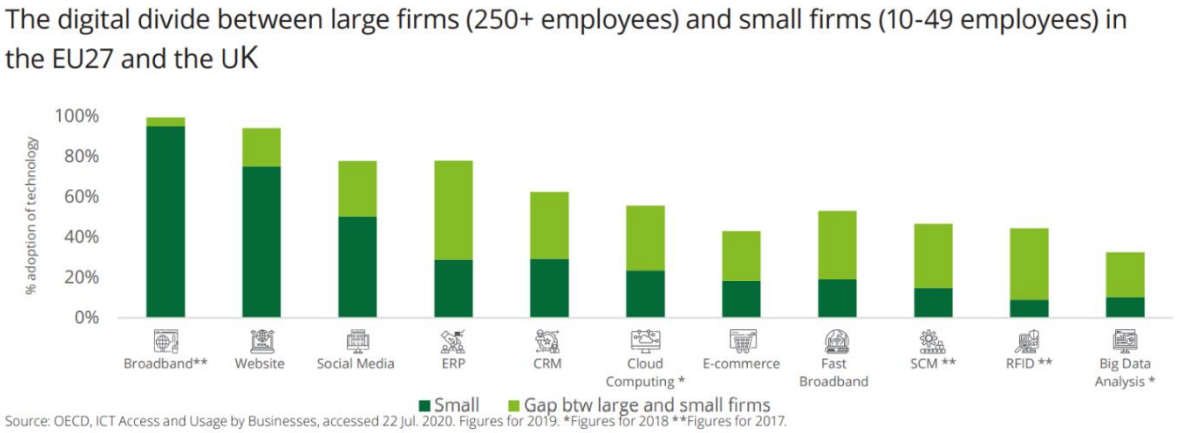
At EU-27 level, the industries in which SMEs were worst affected by the pandemic were: 'accommodation and food service activities' (37.8% decline in SME value added), 'transport and storage' (16.1% decline in SME value added), 'administrative and support service activities' (13.3% decline in SME value added) and 'manufacturing' (9.8% decline in SME value added).

Digitalisation provides a range of opportunities for SMEs to improve performance, enhance productivity, boost innovation, increase market outreach, etc. Despite this, smaller businesses continue to lag in digital transformation, in particular dragged back by a lack of internal resources and awareness, skills gaps or financial issues.

In overcoming these barriers and allowing SMEs to fully enhance the benefits of digital transformation, policy makers have a significant role.

State of digitalization of SMEs in the context of COVID 19 – main conclusions from the reports

- SMEs have been more affected than large firms by the COVID-19 crisis. One of the reasons is that smaller companies lag behind in terms of uptake of digital tools and technologies which can help to build resilience in the current pandemic crisis (OECD, 2021). The COVID-19 crisis has exemplified how differences in digital maturity and preparedness could undermine business resilience and their chances of faster recovery (OECD, 2020).

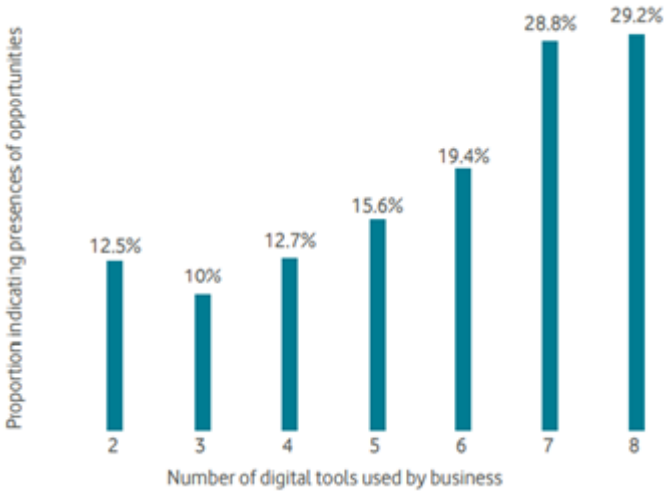


- The impact of the pandemics on SMEs varied across member states and industries.

- EU-27 SMEs in the digital sector performed much better in 2020 than EU-27 SMEs in the non-digital sector. Value added generated by the former group of SMEs fell by only 0.5% in 2020, while the latter group of SMEs saw value added drop by 8.0%.

- While all SMEs have been impacted and face risks due to COVID 19, the most digitalized businesses have highlighted opportunities in the pandemic economy at more than double the rate of the least digitalized, as seen in the figure below:

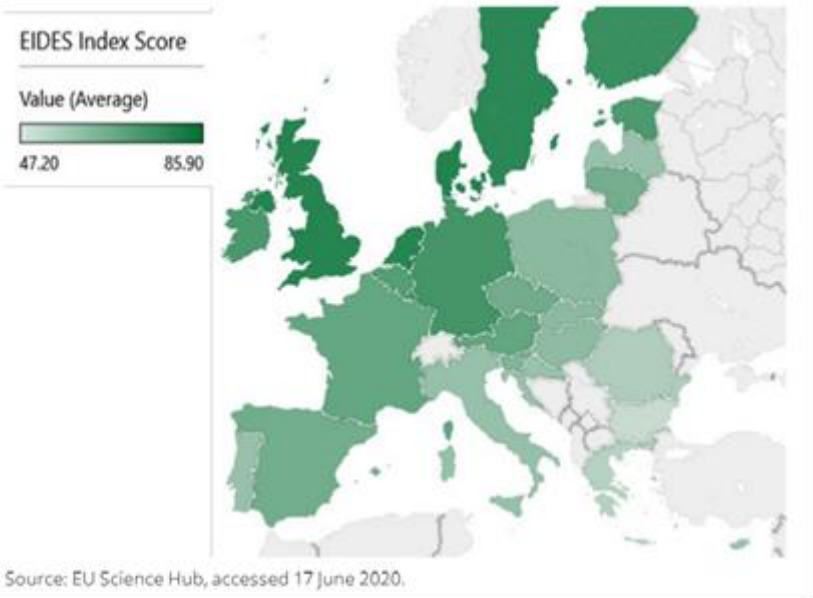
Proportion of SMEs indicating that COVID-19 has presented new opportunities for the business vs. the number of digital technologies adopted by SMEs.



The digital technologies covered here are: mobile devices and contracts, communication/collaboration tools, high-speed connectivity, fixed mobile connectivity, network management solutions, landline, IoT devices and cloud-based services.

- The lack of skills were, together with a lack of internal financial funds and a lack of access to finance, a major barrier for SMEs which have not yet digitalised their activities, or have done this only to a very limited extent. Using 33 different digitalisation indicators, a cluster analysis of the state of digitalisation of small and medium-sized SMEs reveals three distinct groups of Member States.
    - a first cluster of Member States (BG, EL, HU, IT, LV, PL, RO, SK) lags markedly behind that of their peers in other EU-27 Member States
    - the digitalisation performance of SMEs is generally about average in a second group of Member States (AT, CY, CZ, DE, EE, ES, FR, HR, LT, LU, PT, SI)
    - SMEs in a third group of Member States (BE, DK, FI, IE, MT, NL, SE) outperform their peers in the other two groups.

- The environment for SME digitalization also influences the uptake of digital technologies by SMEs. This differs from one country to another, as measured by the European Index of Digital Entrepreneurship Systems



Digitalisation activities of SMEs in 2020

The COVID-19 crisis gave a big push to further digitalisation, SMEs aiming to move operations online in order to survive lockdowns and the disruptions of supply chains, and to find new working arrangements in order to accommodate constraints of social and physical distancing at work (OECD, 2020).

Surveys show that since the start of the COVID-19 pandemic, up to 70% of SMEs are making more use of digital technologies, although substantial differences exist between countries. However, the difference between SMEs and large firms continues to be significant, with the uptake of digital technologies by SMEs being only half of that by larger firms.

Digitalisation involves the use and applications of a broad range of different technologies, for different purposes, e.g. from enabling greater access to markets and end-users, to achieving greater integration of internal business processes, or to scaling up corporate IT capacity, etc.

Cross-industry differences in digital adoption also emerge more markedly. Firms in IT services have a more intensive use of all types of digital technologies. Cloud computing is more popular in professional scientific and technical services, construction, or administrative and support services. In manufacturing and wholesale trade, more firms are using ERP software. In the wholesale, CRM software as well.

According to the SME survey, the key digitalisation activities of SMEs include:

- improve their internal ICT skills (77% of SMEs);
- change their use of social media (74% of SMEs);

- improve their ICT security systems (72% of SMEs);
- adopt more advanced technologies (71% of SMEs);
- introduce online marketing and/or sales (60% of SMEs).

Policy responses to digitalization of SMEs in the context of COVID 19

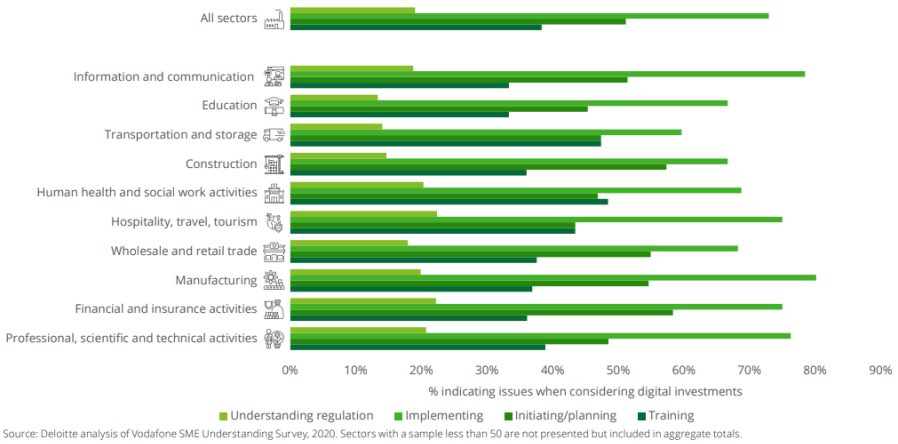
A number of EU programmes and policies have contributed to helping SMEs to digitalise, such as: DigitaliseSME and Digital Europe (including the creation of a network of 200 European Digital Innovation Hubs to support the SMEs in their digital transformation), Industrial Clusters, the Digital Markets Act, the Digital Services Act, the Data Governance Act.

In the initial phases of the COVID-19 crisis, European governments prioritised support for SMEs by introducing short-term financial relief measures to mitigate the challenges faced by SMEs. The following policies have had an important role to play in enabling SMEs to remain resilient during the crisis: free or lower-cost access to digital tools and services; grants and voucher schemes; online informational resources and repositories; training schemes and direct support. In addition to short-term relief, the OECD has recognised that governments are increasingly focused on strengthening the resilience of SMEs in a structural way and supporting their further growth, through the adoption of new technologies and practices that may enable them to strengthen their post-crisis competitiveness.

The SME survey shows that, overall, 72% of SMEs believe that better access to public support schemes would be useful to allow them to digitalise. In addition, about half of all surveyed SMEs reported that assistance in fundraising would help them to digitalise their business.

Moreover, the results of the various surveys and the literature review suggest that irrespective of their state of digitalisation, all SMEs would benefit from grants and subsidised public funding and would benefit from mentoring programs involving one-to-one support provision and coaching – access to skills and training of management and staff.

Proportion of SMEs needing support with business capabilities relating to digital transformation, by sector



Source: Deloitte analysis of Vodafone SME Understanding Survey, 2020. Sectors with a sample less than 50 are not presented but included in aggregate totals.

These findings raise several policy considerations.
First: the role of governments in removing regulatory barriers and enabling greater SME uptake, e.g. through the digitalisation of public services.
Second: how policies should be adapted to the specific industries SMEs operate in, as well as the business functions that are subject to transformation, as challenges and changes vary by sector/function.
Third, are more evidence, comparable service providers, business associations, business partners, such as large firms, and last but not least, online platforms, which are major enablers of digitalisation and potentially key source of data and evidence on the SME digital transformation. (OECD, 2021)

Accelerating digital innovation diffusion to SMEs requires, therefore a mix of policy approaches to be further exploited:

- Promoting SMEs with technology support and assistance
- Leveraging alternative sources of finances for SMEs
- Promoting e-government, e-services for SMEs
- Deploying high quality digital infrastructures and platforms

II. Policy instruments and measures in the context of COVID 19

1. Support measures for the digital transformation of SMEs in the context of COVID 19 in DEVISE countries and regions

II.1.1. Border, Midland and Western Region, Ireland

On 1st February 2022 the Irish government launched a new national digital strategy, **Harnessing Digital – The Digital Ireland Framework**, to drive and enable the digital transition across the Irish economy and society. As Ireland emerges from the pandemic, the government wants to capture and build upon the positive elements of this experience, in a considered and balanced way. The Irish Government will drive the acceleration of digitalisation across SMEs, to achieve the following key targets:

- Enterprise take-up of 75% in Cloud Computing, Big Data, AI by 2030
- 90% of SMEs at Basic Digital Intensity level by 2030
- At least 800 businesses supported by 2026 under the €85 million Digital Transition Fund to support businesses to digitalise
- At least 35% of State funding for start-up and early stage businesses to be invested in innovative digital businesses from 2022

The €85 million **Digital Transition Fund** running until 2026 as part of Ireland's National Recovery and Resilience Plan will be used to help companies at all stages of the digital journey – from the early days of simply going online; digitalisation of products and business processes; facilitating exporting; using digital technologies to develop new markets and business models.

The **Accelerated Recovery Fund** is a fund designed to provide support to Irish companies seeking to adapt their operations and business models in order to remain competitive and return to growth following the effects of the pandemic.

The **Digitalisation Voucher** was designed to help companies prepare a plan for the adoption of digital tools and techniques across the business.

At a local level, the **Donegal Digital Action Plan** focusses on accelerating the digital readiness by exploring smart technologies, building digital communities, digital clusters and increasing digital innovations around the county. The digital transformation, accelerated by the Covid-19 pandemic, has transformed the ways of working and highlighted the effectiveness of remote working for businesses.

Donegal County Council has prepared a strategy framework to enable Donegal to avail of these emerging opportunities – **Remote Working Strategy for Donegal**. This strategy is aligned with the various programmes of activity currently being led by the Council including initiatives such as Donegal Digital, the ambitious town and village regeneration programme, assistance with the rollout of the National Broadband Programme (NBP), development of a range of coworking spaces and other economic development activities.

The Remote Working Strategy for Donegal aims to promote Donegal nationally and internationally as an ideal and superb location for remote workers by emphasizing the wide range of alternative work spaces available throughout the County, the supports available to remote workers in the County, the talent pool which exists here and the infrastructure and connectivity available across the county.

ConnectedHubs.ie is operated by The National Hub Network, a Government of Ireland initiative that provides a vehicle for individual hubs to come together under a shared identity to maximise the economic opportunity of remote working. The National Hub Network has the support of Government, remote working advocacy groups and industry representatives. In this way, ConnectedHubs.ie also encompasses a range of key features that deliver significant benefits to member hubs, hub clients, employers, local communities and the wider economy.

II.1.2. Northern Ireland, UK

Support offered to SME's within DCSDC in response to COVID-19 fall into the following three categories:

Accountability support and risk review
Designed to:
- support economic recovery and revitalisation
- respecting the public health controls needed to maintain public health and minimise transmission

Targeted at - tourism, hospitality, retail and close contact sectors
Aim to - boost customer confidence to return to town centres and villages in the knowledge that businesses are taking positive steps to keep their customers and staff - Online resource

Workshop and information support
Webinars to:
- Get business online
- Grow business online
- 100 day cash flow

STEPS (Smart Tech; Empowering People) – SEAGATE & O'Neills

Funding

Grants to digitalise and innovated business in response to COVID-19

- Start Up Support Grants - £500 per business £40k
- Revitalisation Business Grants - £3k per business - £653k total
- DAERA Rural Business Development Grant Scheme (TRPSI) 50/50 match – up to £5k per business - £168k total

II.1.3. San Sebastian, Basque Country, Spain

A number of different projects and initiatives have been carried out, some of which are pioneer schemes, using a combination of public/private resources to illustrate possible ways of taking effective steps towards digital transition, thereby guaranteeing the competitiveness of businesses in the medium/long-term. Some examples are the following types of initiatives:

Digital platforms

Local digital platforms as a way of presenting and marketing goods and services had already emerged prior to the outbreak of the health crisis. They have nevertheless gradually spread during this period of time. In some way, the crisis has led businesses to boost their digital presence to seek out new selling methods and market niches. The general trend is basically the creation of Market Places which serve as a space for digital encounters to centralise the full offer in a certain spatial context (generally local). These Market Places have a dual function: on the one hand, they act as a showcase for the goods and services offered by each business, and, on the other, they also serve as a sales outlet channelling the orders placed by consumers. Some examples are DSS Market Plaza, Hernanin, and EUP!

Digital supply-demand relationship solutions

This includes all tools enabling direct interaction between suppliers and consumers - even though these existed prior to the health emergency, they have expanded into standard usage due to COVID-19. In addition to the frequency or magnitude of use given to social networks to guarantee direct communication with customers, one of the positive impacts of the crisis consists in the unified management of the said tools by a number of suppliers to channel their offer efficiently in a scenario featuring all kinds of restrictions.

In this regard, it should be pointed out that more or less organised lists of customer relations have emerged, which sprang up collectively and intuitively at a number of Basque municipalities such as Berriz, Durango or Urnieta, among others, to jointly display the existing offer and take in individual orders by customers. To do this, suppliers (ranging from retailers to farmers) avail themselves of several resources such as, for example, WhatsApp Business.

Alternative distribution

One of the segments that has benefited most from the pandemic is logistics and distribution. Personal mobility restrictions have had a rebound effect, ushering in an increase in requests for delivery of products and services to the point of origin of the order. Thus, the availability of online means to place orders and the increasing utilisation of these means also relate to the formulation of new ideas and the channelling

of demand from the point of view of logistics. In this regard, the crisis has led to the emergence of alternative instruments to distribute/share out supply consignments. These general dynamics include an increase in alternative home delivery formulae which, in some cases, such as Hernani or Barcelona (Les Mercedes), have a large component of environmental sustainability, in due observance of km 0 precepts, or the "Txitas" system in Donostia. Another goods delivery formula entails the adaptation of the space and implementation of devices to take up orders, using smart lockers. This is the case of the La Bretxa locker system in Donostia, and Zumarraga's "Klik eta Jaso" lockers.

Selling and integral distribution at food markets

In relation to the preceding point, the greater potential of IT applications and the increased use of Internet as a tool for the consumption of goods and services have ushered in new business opportunities in sectors with traditional organisational and operational formulae, the permeability of which seemed to be limited. This is precisely the case of food markets, where new dynamics appeared during the pandemic, with new actors, and most especially new methods. One such example is Kibus, a company channelling the purchase and distribution of fresh and seasonal produce, specialising in food markets, working with several markets in Spain, and also local markets such as La Bretxa in Donostia/San Sebastián and La Ribera in Bilbao.

II.1.4. South Ostrobothnia, Finland

Several support measures can be identified at the regional level.

Digital transformation is happening faster than ever currently in the companies in regional, national, and international scale. **Virtual Reality (VR)** has been adapted in companies to communicate and show, for example, of different products (e.g. machines) in virtual environments. This makes as well easier in the future to show existing products, for example, in fairs in several fields of businesses. Moreover, this is as well a good way to market products to the customers since VR and AR models can be accessed easily online. Moreover, this type technology tends to be relatively cheap.

Data and its value have been noted in several SMEs at the region. Data provides company possibility to enhance the activities but as well develop new products and services. This has a direct link to artificial intelligence and data analytics. However, finding the business value can be a challenge in several companies but using the data in internal use (e.g. real-time visualization of manufacturing processes) is implemented by several companies. Moreover, neural networks are utilized in machine vision in quality inspection activities in production lines to increase the quality level of products in overall.

Other technologies, mainly related to manufacturing industries, which have been seen beneficial and tested are, for instance, machine vision, robotics, additive manufacturing, digital twins, and simulations. These technologies are relevant when companies are developing their products and as well ramping up new production lines and developing existing ones. Moreover, classical technologies and IT systems have their place as well in development of SMEs since the digitalization level can be quite low in some companies. This can mean that some SMEs begin with IT systems like ERP and CRM in their digitalization path. Thus, roadmaps for development are crucial in many cases aside of understanding of digital maturity and possibilities.

II.1.5. Pays de la Loire, France

To enable companies to accelerate their digital transformation, which as we mentioned earlier is a source of greater resilience for companies, the State has supported the competitiveness of companies and encouraged them to increase their investments.

For the industry sector:
In concrete terms, this has resulted in the creation of subsidies for companies of up to €800,000, intended to support the modernisation projects of industrial companies. This envelope was intended to allow companies to invest in digital equipment in order to make them more competitive.

For the commerce sector:
The French government has developed a platform for retailers, craftsmen and hotel and restaurant professionals to create a website, set up a remote payment solution, join an online marketplace or set up logistics and delivery solutions.

For very small businesses in all sectors:
The State offers online Mooc-type training courses aimed at raising awareness of the benefits of digital transformation for businesses and guiding them on the actions to be taken.
In addition, it also offers digital vouchers worth €500 to finance purchases or subscriptions to digital solutions.

Furthermore, for all companies in the region, diagnostics are offered to assess their digital maturity and their individualised action plans.

Finally, new awareness-raising actions have been set up for VSBs and SMEs. To this end, the region has issued a call for expressions of interest to encourage the emergence of collective actions to accelerate digitisation. This action has a budget of €400,000

II.1.6. Cantabria, Spain

Some of the measures developed in the COVID 19 context at regional level are:

- Recovery Support Schemes to more impacted sectors.
- Tourism and services sector financial schemes (Vouchers)
- Supporting/collaborating remotely with SMEs.
- Digital Innovation rural network/Innovation as a service.

II.1.7. West Region, Romania

The general support measures for SMEs taking place at national level are trough the National Recovery and Resilience Plan under the second Pillar – Digital transformation. The instrument is very specific and rather focused on public administration and public organizations than on companies at horizontal level.

Regarding the SMEs, the foreseen investments will result in:

1. **Staff of at least 2000 SMEs trained in digital skills** (such as digital tools and equipment, strengthening digital skills, including skills related to cloud technologies and industry-specific technologies 4.0). this means at regional level an average of 250 companies.

2. **Assessment, documentation and monitoring of the level of maturity in cybersecurity** (operational, technology, skills) for 1000 economic actors and key public administration (including companies, SMEs, schools, hospitals, agencies of central and local public administration).

2. Opportunities for new policy instruments on digitalization

II.2.1. Border, Midland and Western Region, Ireland

As Ireland looks to post-pandemic economic recovery, it is vitally important that the appropriate policy supports that are in place to enable SMEs to embrace digitalisation – for their survival, growth and to remain competitive.

The COVID-19 pandemic has added new opportunities for accelerating productivity-enhancing digitalisation. For instance, lockdowns and social distancing requirements have increased the use of online platforms (OECD, 2020), raising resilience during the crisis and foreshadowing future productivity benefits, especially for SMEs and less productive firms, which benefit most from the use of platforms. It also caused a surge in telework, with real time surveys suggesting that the phenomenon is likely to survive the crisis. The added flexibility that telework allows might also raise productivity in activities where stronger telework is feasible and sustainable.

In addition to making use of these opportunities, a policy approach to accelerate the diffusion and uptake of digital technologies in the following main areas is needed:

- **Technology access via infrastructure**

Policy should support the development and access to quality ICT infrastructure, as such infrastructure is the basis for the uptake and effective use of all kinds of digital technologies.
More specifically, ensure that all businesses, no matter where they are located, have access to high-speed connectivity. This is an obvious need and one that has become even more important over the past 2 years. The EU Recovery Fund may be best placed to facilitate this infrastructure investment and ensure widespread access to high-speed connectivity across the country.

- **Close the connectivity and technology divide between large and small firms**

To address this, Ireland may want to consider voucher schemes to support high-speed connectivity and technology adoption, targeted at SMEs in specific sectors that are most impacted financially and least digitalised, or to SMEs more widely. Funds from the EU Recovery Plan could provide the resources required to close this gap at a national level. Additionally, the Irish Government's €3.4billion Covid-19 Recovery Fund, set out in budget 2020, is also a vehicle which could deliver this support for investment in digital infrastructure.

- **Flexibility with the supports on offer**

SME's have varied digital needs, so they need to be able to choose the most appropriate technologies or tools for themselves – a one-size-fits-all policy is unlikely to be effective for all. To address this, government may want to consider offering a mix of support measures, including: flexible grants or vouchers earmarked for digital investment, incentives for the financial system to lend to SMEs for digital investment, training in sector-relevant digital skills and/or sector-specific online resources.

- **Lifelong learning**

Skills are crucial to adopt and effectively use digital technologies. Building effective and inclusive lifelong learning programmes is key to ensuring everybody has the opportunity to acquire and upgrade the skills needed to thrive in a digital world. Boosting adult learning programmes and on-the-job training schemes, and better integrating digital tools into school curricula are key steps to this end.

Skills shortages and a mismatch between the supply and demand for skills represents a challenge for Ireland as a whole, but also for the Northern and Western Region of Ireland. This requires the development of lifelong learning, the improvement of management skills for entrepreneurs, finding ways to better retain skilled workers for local firms and avoid a brain drain, and better connecting the supply and demand for skills at local and regional level. A one-size-fits-all approach is unlikely to deliver this, and suggested a more place based approach that takes local and regional differentiation into account.

- **Framework conditions**

These should provide SMEs with the right incentives and access to markets, including via the updating of competition and regulatory policies to the digital age and easy access to digitalised public services via e-government and open data.

II.2.2. Northern Ireland, UK

The delivery of the COVID19 Recovery and Revitalisation support has highlighted a number of key attributes for delivering business support in the areas of digitalisation, digital support packages and use of digital tech. The aim of the support offered is to enhance SME capacity, improve local economy and support prosperity of region within the following themes:

- Business Support
- Infrastructure
- Social Economy
- Tourism Proposition

The delivery of the support programmes highlighted within this regional context assessment has allowed DSCDC to utilise best practice delivery mean and outcomes for future stragetic policy and programmes which will be delivered within the region as follows:

- The City Deal
- SMART Cities Transformation
- NI Digital Transformation Programme

Best practice learning following the outcome of the COVID19 Recovery and Revitalisation support have highlighted 'Transformation Potential' within the following areas**:**

- Grants Process
- Increase footfall in town centres

- Encourage citizens and visitors to city centres & feel safe
- Digitalising key services and connecting people

All of which pay a pivotal role in improving the economic proposition within the region.

II.2.3. San Sebastian, Basque Country, Spain

The analysis conducted shows that the crisis created by the emergence of the COVID-19 has led to shutdowns, various restrictions of opening hours/capacities, and general difficulties in carrying on urban retail business. This crisis has given a boost to online retail, which had already been experiencing the dynamics of a gradual growth. This has generated a difficult situation for most of the traditional retail and hospitality activities or sectors, and the sustainability of their operations has been affected, with a large number of business closures.

This situation has led to the mobilisation and a rapid response by the authorities on several levels (state, region and local), which have attempted, as far as possible, to mitigate these immediate effects with economic-financial assistance in a bid to safeguard the continuity of businesses and jobs. Paradoxically, however, this harsh disruptive situation has helped generate the conditions for change and sectoral modernisation in the long run.

Consumers have become more aware of the virtues of urban retail and hospitality as a proximity service which assists local sustainability and standards of living and have come to identify this with current values and trends (km 0, healthy food, environmental sustainability etc.). Businesses have observed more clearly the inevitable need to digitalise their activities; alongside service improvements and innovation as a means of competitiveness and survival. In this context, the public authorities are elaborating on their promotion of transformational activities, and have introduced a number of lines of reflection to "fine-tune" their support and achieve larger and better impacts in the medium/long-term.

In fact, although the immediate measures which sought to resolve the most urgent needs have served to mitigate the most adverse effects in the short term, their real scope was deemed insufficient to undertake the major change which was required prior to the emergence of the crisis, and magnified by it subsequently.

In this regard, the initial short-term aid packages are now leading to other particularly interesting measures by the public authorities, accommodating the long-term changes required to guarantee the future of the urban retail and hospitality sectors by increasing business competitiveness. These include measures focusing on digital transformation as a central space of the policies and instruments designed to take on the post-COVID 19 era.

As already mentioned in relation to the international context, in the local context a greater digital awareness is now also being observed in the offer of increasingly digital services by businesses, and by local authorities as active agents of their digital transition (assistance with investment and capacitation).

Some mention should be made of the following learning processes and recommendations:

Bottom-up approach: Making a distinction between digitalisation and online trading. The former, ´digitalisation´, should be understood as a competitive requirement affecting all links in the business's value chain (supplies, purchasing experience, relations with customers, management); whereas the latter, ´e-commerce´, is a marketing method used as part of an omni-channel sales strategy. And it is necessary to begin with the former, making gradual progress in accordance with the reality of each subsector and company, in order to undertake the latter, where necessary, with efficiency and guarantees.

Integral and structured work procedure: It must be accepted that the effectiveness of the action to be taken on digital transformation must be matched by the creation of an integral, structured work procedure in the direction of digitalisation; this must start out from the very foundations to gradually encompass all the other steps. From this integral point of view, a suitable digital transformation strategy would have at least the following complementary lines of action:

Awareness and training: retailers, hospitality operators and, in general, those responsible for urban-economy businesses, must be aware of the existing range of digital functionalities, and they must have an understanding of their benefits and impacts on their businesses; they must approach these functions, and familiarise themselves with their operation. It is essential for those operating the businesses to have this awareness, and to undertake the overwhelming need to move towards digitalisation to maintain their competitiveness and guarantee the future of the business in the medium/long-term. This entails an information/awareness boost with capacitation training to enable the changes to be carried out properly. Here, it is essential to have a system and an operating network capable of providing a mass response to the information-training and awareness-raising needs of the sector.

Personal advisory and consultancy: Just as it is necessary to bring business operators and employees up close to the digital environment and allow them to familiarise themselves with this, it is also necessary to select and implement at every company those functions and solutions required by each business model and the juncture or competitive challenge it faces. That is why it is essential to articulate support programs for individualized advice and consultancy, which allow to select suitable tools adapted for each business, implement them, and put them into practice and accurately monitor the courses of action already identified.

Financial support for investment: The provision of technological resources and devices to carry out the planned digitalisation processes requires investment by the companies. And, in a context such as the present one, still suffering the impact of the worst effects of the pandemic and with no return to normality as yet, businesses require financial support to make these investments. It has therefore been observed that it is necessary to create specific financing processes and lines (direct aid or other schemes) to carry out the investment associated with companies' digitalisation and servitisation projects; and, in general, with actions to modernise and innovate these companies.

E-commerce: Finally, after the business's internal digitalisation has been addressed, a further step towards e-commerce may be considered with a guarantee of success in an omni-channel strategy, using detailed solutions or through shared digital platforms.

Generation of community: Experience also shows that, in instrumental terms and in terms of the effectiveness and efficiency of the support programmes, the impact and operativity of the aid schemes are given a boost when they are set out with the logic of ´community generation´, prioritising the idea of collaboration, the emulation effect, the sense of belonging to the collective of the change, etc. In this regard, the local Market Places (associated with the companies in specific towns and/or territories) which, to date had shown a mixed bag of results, with limited success in terms of effective sales, are nevertheless incorporated in shared work spaces which boost the idea of community and propitiate virtuous effects among participants in the digitalisation processes, if they can find the integral, structured lines of support already mentioned.

II.2.4. South Ostrobothnia, Finland

The COVID19 pandemic have had a different scale of positive and negative affection on companies depending on company's industry and customers. Boosting digitalization in general can be concluded a good development direction since technologies provides a lot of new possibilities especially SMEs at the region. However, a lot of development is still required to enhance the digital capabilities of companies and different organizations, especially SMEs. Regional strategies (e.g. Smart Specialization Strategy) directs and guides well the digitalization development activities at the region. It can be concluded that there are several opportunities for new policy instruments based on requirements of South Ostrobothnia region.

Common and general digitalization themes (e.g. AI, robotics, XR and digital twins) can be combined other important development activities. Sustainability is one example that can be as well enhanced with digitalization. Digitalization themes and technologies should be as well developed in the future, but especially data-driven technologies and innovations should be noted and enhanced. Data-driven innovations provides new digitalization possibilities especially SMEs in manufacturing sector. Data can be collected nowadays easily but processing the data to provide added-value services is an issue in many industries.

Demonstrators (pilots) related to digitalization are important to the companies and other organizations since the demonstrators provides practical information how new technologies can be adapted in companies and their processes. Demonstrators provide a good way as well to distribute the information to different actors at the region. Moreover, training can be based on demonstrators and they will bring direct value to the companies. Companies can utilize the demonstrators to develop their own solutions based on the demonstrator solution (e.g. machine vision and artificial intelligence).

COVID19 pandemic have made visible, how important the **resilience** is in different organizations. When changes are happening fast, the resilience is required in companies from several point of views. Digitalization provides a lot of new possibilities for SMEs but at the same time it requires flexibility in several areas since customers are used to have digital services alongside of traditional products. **Smart technologies** and products are required. This means that companies should adapt disruptions in their products and services. Moreover, remote working has made the work from home business-as-usual and, thus, companies should gain this momentum to get best professionals and experts to work to their companies. Organization resilience is one important aspect in companies nowadays but even more important in the future.

Implementation of **digital based innovations** is possible only when there is enough knowledge about business itself and different technologies. Digitalization is an umbrella for various business models and technologies. However, SMEs should be able to learn new technologies and adapt business models fast. Therefore, educational institutions should be able to provide decent training (*continuous education*) for business and technological fields in the future even more utilizing, for example, digital pedagogical models (e.g. MOOCs and other online courses) in flexible matter. Moreover, this type of training should be as close as possible of companies when the information is provided directly to the company. Companies should be familiar of technological possibilities, have knowledge of existing solutions and be able to adapt these to provide added value to customers and organizations, which are utilizing its products and services.

II.2.5. Pays de la Loire, France

The COVID crisis has drastically accelerated awareness of the impact of digital technology in companies, while at the same time changing the way they work. Tomorrow more than ever, digital technology will be a factor in the performance of companies and their employees.

At a time when there is talk of the relocation of industry, there is no doubt that this can only be envisaged by rethinking in depth the way factories operate and by integrating digital technologies such as the Internet of Things, artificial intelligence and intelligent robotics. In addition to make the factory intelligent and automated, digital technology must also help to make employees more efficient with new training tools (virtual and augmented reality) and assistance (robotics).

Digitised industrial processes will produce huge quantities of data that will make it possible to optimise performance for better profitability, but also for a more virtuous consumption of energy and raw materials, making it possible to combine economic and environmental performance.

The e-commerce revolution began with consumer products and is continuing at high speed in the BtoB world. The platformisation of professional markets is underway. The evolution of commercial relations requires an increased use of digital tools and a much greater use of data.

The multiplication of data circulation within the company and towards the outside world, the boom in the number of connected objects, the extension of remote working methods are all possible flaws that hackers will want to exploit, which makes cybersecurity a major issue in the future economy. This makes cybersecurity a major challenge for the economy of tomorrow, including for small businesses.

The digital revolution, even more than previous industrial revolutions, is accelerating the transformation of society and therefore the transformation of businesses. The ever-increasing power of computers, which has grown exponentially since they first appeared, is opening up new opportunities every day by making possible what was only a dream yesterday.

This whirlwind acceleration of technologies makes it almost impossible for those who do not move fast enough to catch up, because of a lack of vision, a lack of skills, or a lack of faith in the future will be left behind.

The companies that are unable to transform themselves quickly enough due to a lack of vision, a lack of skills, or the disbelief of their managers in the face of these developments will be irreparably left behind and condemned in the long term.

Europe and the States are constantly producing reports on the urgent need for the digitalisation of companies, but they will go unheeded if managers do not take up these issues as a priority. Digitising a company is above all a question of changing the culture. The technologies exist and are increasingly accessible: prices are falling and the tools are becoming simpler.

Digital technology reveals the dysfunctions of the company, disseminates information widely, breaks down monopolies, it speeds up decision-making and opens up the company to the outside world. This upheaval in the culture of managers and employees is often frightening and constitutes a brake on progress that is at least as strong as that of insufficient skills in view of rapid technological change.
The digital transformation of companies is underway and will not stop. It is essential to make access to information on this subject more fluid, to pool everything that can be pooled, to coordinate support for businesses, to identify champions to be emulated and leaders to follow, to train existing employees and to welcome the new, more alert generations arriving in the companies.

This is the role of universities, technical centres, public and private business support structures to facilitate this path, which has yet to be traced for the most part.

II.2.6. Cantabria, Spain

Opportunities already detected which can be taken into account for new policy instruments concerning digital transformation:

- Regional network of innovation communities.
- Digital technologies for more resilient SMEs.
- Digital skills improvement/Digital Facilitator.
- LIA programme.

II.2.7. West Region, Romania

There are two levels of policy instruments regarding digitalization at regional level: ROP 2021-2027 and EDIH initiative.

ROP 2021-2027 is directly funding digitalization for administration and companies through the TOP1 A more competitive and smarter Europe, by promoting innovative and smart economic transformation and connectivity.

Specific Objective 2 - Leverage the benefits of digitalization for the benefit of citizens, companies, research organizations and public authorities

There are two target groups targeted by investments through ROP 2021-2027:
- SMEs that capitalize on digitalization for their own development and in relation to the administration;
- Public administration under the umbrella of smart city interventions.

The digital transformation of the regional economy is becoming a necessary condition for ensuring and improving prosperity. Given the level of performance of the Western Region compared to the average European performance, there is a need for measures to address the following issues:
• the adoption of digital technologies on a small scale in enterprises in the region, which represent only a minor support for innovation and competitiveness;

• poor virtual connection of demand with the supply of products and services, which diminishes the potential to increase market position;
• Poor virtual connection of enterprises with public administration and other public service providers.

Over 17 Mil Euro will be invested in West Region Romania targeting to support the digitalization of 800 SMEs in the RIS3 sectors, in correlation with the indicators that make up the DESI index through the purchase of customized packages, starting from the self-assessment of the initial state, through investments in equipment, licenses, applications, solutions, IT&C services.

The future **EDIH initiative** is a policy instrument that will enforce the activity of the West RDA Agency in supporting digitalisation on several levels:

1. Test before invest – basic demonstration and adoption of digital technologies using cloud processes and digital twin;
2. Skills – introduction and familiarization with major technologies regarding digital security;
3. Ecosystem building – matching offer and demand regarding digital technologies and try to increase the adoption of local solution including in smart city investments;
4. Access to finance – facilitate between offer and demand especially in the process of designing new calls for ROP 2021-2027.

Several target groups were identified for the EDIH dedicated services:
- HORECA traceability and the reduction of food waste
- manufacturing – Management Resource Planning solutions
- private health services – Cyber Security managing data patients
- creative industries – cloud technologies facilitating co-creation and codesign
- support services (HR, accounting) – adopting Robot Processing Automation.

II.2.8. BAA, Bulgaria

Bulgaria lags other EU member states in terms of digitalization of the economy. The EC's Index on the Entry of Digital Technologies into the Economy and Society (DESI) for 2021 ranks the country 26th in the EU, in the cluster of low-performing countries. The main challenges facing Bulgaria are related to the very low level of skills in the field of digital technologies in the population and the low level of implementation of digital technologies in business.

According to many surveys on the level of digitalization in the country the companies are not prepared to fully benefit the digital transformation opportunities because they are not aware of them, they are not skilled enough, they lack sufficient funding and need to be supported to explore the most convenient digital innovations before they invest.

According to many surveys on the level of digitalization in the country the companies are not prepared to fully benefit the digital transformation opportunities because they are not aware of them, they are not skilled enough, they lack sufficient funding and need to be supported to explore the most convenient digital innovations before they invest.

It is necessary to stimulate investment in high value-added developments and the use of modern technologies. These investments are an important source of innovation, productivity and therefore the

competitiveness of the economy. But this aim could not be reached before the process of digital transformation of companies is expedited.

Providing appropriate conditions for digital business transformation and providing adequate support in this process will create an opportunity to win higher market shares in existing and emerging product niches.

The country's focus is at technological transformation of the economy and catching up with its digitalization through targeted and focused support, one of the tools of which are the ERDF programmes like the new ***"Competitiveness and Innovation in Enterprise Program 2021-2027"***, PCIE.

This is the main policy instrument that will support the digital transformation of SME's. Though the programme is submitted already for approval to the EC we keep suggesting different actions for focusing specifically the digital transformation of SME's.

The most relevant amongst them are:

- To ensure urgent delivery of a large numbers of digital vouchers for first level of digitalisation for micro and small companies. Until now less then 500 SME's benefited from a similar measure. At least 5 000 vouchers are needed to be delivered. These vouchers might be delivered in relation to the application of the DEVISE DMAT tool.
- To ensure immediate start of integrated measures from ESF programmes for simultaneous measures for increasing the digital skills for employees together with the measures for business support
- To finalise the long-postponed decision on supporting the establishment and development of a national network of digital innovation hubs in all larger cities – at least 10 in most of the district centers. These hubs will ensure that all Bulgarian SMEs will have at reachable distance to their place of origin across the country access to up-to-date knowledge, consultancy and testing facilities related to digitalisation.