UDENRIGSMINISTERIET
The Trade Council

AUGUST 2021

SECTOR ANALYSIS

Public digitalisation in Germany, Poland, Portugal and Spain

INDHOLD

1 GOVTECH IN LIGHT OF THE EU RECOVERY FUND

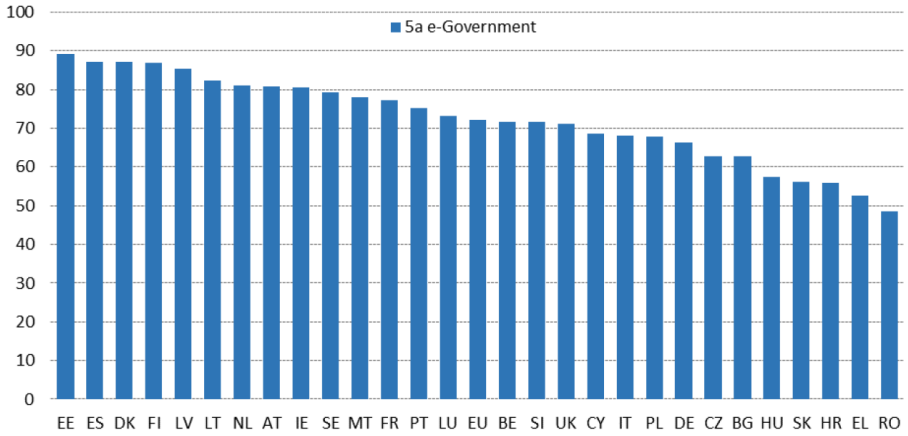
To rebuild Europe following the COVID-19 pandemic, the EU is currently investing approx. EUR 750 billion in the EU Member States through its recovery fund. 20 percent equivalent of approx. EUR 150 billion has been earmarked for the digital transition across the EU. A substantial part of these funds will go to improve the digitalisation of public services, an area where a strong public-private collaboration has helped get Denmark to the top of the European Digital Scoreboard.

Undoubtedly, the EU recovery fund represents an unprecedented export opportunity for Danish businesses with innovative digital solutions. However, exporting solutions especially targeted public entities is not an easy task, as the solutions often need to be adapted to the local context and local language. Therefore, in collaboration with Danish business organisations, The Trade Council will be facilitating a number of export promotion activities to help Danish companies overcome obstacles and seize the unique opportunities across the EU.

As part of the initiatives, this report offers an overview of the current state and plans for further digitalisation in the public sector of selected EU countries where we see special opportunities for Danish providers of digital solutions: Germany, Poland, Portugal and Spain. For this purpose, the Digital Economy and Society Index (DESI) 2020 (DESI) is used as a benchmark to describe the markets digital performance.

To learn more about the concrete market activities, please contact us at eugen-start@um.dk or contact the Danish missions directly, using the contact details provided in the market descriptions below.

Figure 1. E-Government



Source: DESI 2020, European Commission.

2 PUBLIC DIGITALISATION IN GERMANY

GERMAN PRIORITIES

As it is clear from Figure 1 in the above section, Germany is generally lagging behind when it comes to public digitalisation, scoring well below the average of the DESI e-government index. COVID-19 and the EU recovery fund have increased focus on the

need to improve performance. Specific areas of improvement include increasing the number of e-government users and the usage of digital public services, areas where Germany scores particularly poorly according to the DESI-index.

Germany's Recovery and Resilience Plan reflects these priorities, with three main investments in the area of digitalisation of public administration: Approx. EUR 3 billion will be invested in the implementation of the "Online Access Act" (Onlinezugangsgesetz – OZG), approx. EUR 0.2 billion in Electronic ID and approx. EUR 0.3 billion in the implementation of the register modernization act.

Table 1. Allocation of funds to digitalisation in Germany

Digitalisation	Approx. EUR
Public sector	EUR 3.25 billion
- Online Access Act	EUR 3 billion
- Electronic ID	EUR 0.2 billion
- Register modernisation act	EUR 0.3 billion
Education	EUR 1.3 billion

DIVISION OF RESPONSIBILITIES

In comparison to Denmark, the responsibilities in the area of public digitalisation are much more decentralised in Germany. At the same time, the level of digitalisation vary greatly across Germany, where the states and municipalities have different strategies.

The Federal Ministry of the Interior, Building and Community (BMI) is primarily responsible for the overall public digitalisation strategy in Germany. Amongst other, BMI's responsibility includes the implementation of the "Online Access Act" (Onlinezugangsgesetz – OZG), which is the central legislation in the area of public digitalisation. The aim of OZG is to digitise 575 public services, divided into 14 themes, by the end of 2022. BMI has also established an independent body, the "IT Planning Council" (IT-Plannungsrat), which is responsible for the coordination of two main projects:

1) The programme for developing and implementing state and local level online services (Digitaliseringsprogramm Föderal),
2) The network administration of portals at federal, state and local level. In addition, the IT Planning Council has formed a body for federal cooperation known as FITKO (Föderale IT-Kooperation). FITKO's main task is to ensure an optimal IT strategy and architecture for all levels of government.

The Federal Ministry for Economic Affairs and Energy (BMWI) also plays a major role in Germany's digital transformation. The ministry's role is focused on the digitalisation of services for German businesses. This includes initiatives to improve and centralise registers of German Businesses.

The implementation of the OZG is a good example of how the responsibilities are shared between the federal, state and local government: The implementation is planned into two programmes. The first, "Digitalisierungsprogramm Bund", covers all services at the federal level. Here, the Federation is responsible. These services will be available for all

German citizens. As this program covers the federal level, no coordination with the state and local governments is necessary.

Services provided by the state and local governments, are part of the second program, “Digitalisierungsprogramm Föderal”, which makes up the majority of the 575 services that should be digitised by the end of 2022. The different federal states and local governments offer varying services and benefits, and use different standards, forms and platforms, which makes the implementation at this level very complex. In this program, the federal, state and local governments are working closely together on deciding the process for digitising different services. Since the 575 services are divided into 14 themes, where different states are responsible for different areas, it is highly prioritised to develop a given service “Once-Only”, to avoid implementing different versions of the same service, and create a certain level of standardisation. The IT Planning Council and FIKTO are also central in the coordination and planning processes.

THE BUNDESPORTAL

Germany launched a centralised digital platform, “Bundesportal”, in February 2021. It is still only a basic-version, which will be upgraded and updated continuously. The platform will be useful for both citizens and businesses; however, it is not as immense and centralised as the Danish platforms “borger.dk” and “virk.dk”. The Bundesportal will guide citizens and business to the digital services they demand. The digital services will still be in different platforms either on federal, state or local level. In regards to national registers for citizens and businesses, Germany do not have a national register system that is comparable to Danish standards. However, a new “Register Modernisation Act” has been passed in 2021, which aims to improve the connection between different registers and the different levels of authorities.

THE MATURITY OF PUBLIC DIGITALISATION

The digital transformation in Germany is expected be a long process. As described, the level of digitalisation vary a lot across Germany, where the states and municipalities have different strategies. If it is possible to develop existing IT-solutions further, it will be the strategy. On the other hand, some authorities do not even have an IT-infrastructure. Here, new IT-solutions is expected to be purchased. Hence, the investments in new IT-solutions depend on the current situation in the authorities around Germany.

The German public sector is generally very price sensitive. Cheaper solutions will generally be preferred, which favours the decision to develop on existing IT-solutions, if possible.

The level of digital skills in the population is generally low in comparison to Denmark, but in a European perspective, Germany is doing fairly well. According to the DESI index, Germany is in top 5-10 as measured by most indicators. It indicates, that German citizens do not lag behind other European citizens the same way as the German public administration does.

Overall, 96 percent of German households have internet access and 86 percent of the population use the internet in daily life. However, there are large differences within the population. Only 64 percent of citizens with a lower education use the internet in their

daily life, while the number for citizens with a higher education is 97 percent. The same difference is observed in regards to age. Here, elderly citizens use the internet less.

LEARN MORE

The sheer market size, Danish experience, current local needs and planned investments make Germany a very interesting market for public digital solutions. Currently, The Trade Council in Berlin is supporting several Danish Govtech companies – for example, Danish companies offering Biometric solutions, Queue Management systems, Document management system and IT security solution. We have successfully assisted the companies in their entry to Germany by connecting them to key stakeholders in municipalities and states, and all of them are experiencing great growth. Furthermore, we helped them get in touch with relevant stakeholders at the political and the operational level – both areas are important in terms of understanding the potential in the market and developing the necessary network in Germany.

If you are interested in knowing more about concrete activities and specific counselling, you can find contact details here.

3 PUBLIC DIGITSATION IN POLAND

POLISH PRIORITIES

Poland has made progress within digitalisation of its public administration over the past years, but when it comes to e-government readiness the country continues to perform at medium level in a European context, hence figure 1 in the first section of this report. There is still room for improvement and the Polish Recovery Plan includes a focus on public e-services and IT solutions to better the functioning of the government. There is also a focus on disruptive technologies in the public sector and in the economy at large. This includes improving digital competences and strengthening the cyber resilience of information systems (IT and OT) used in entities that are part of the national cyber security system. Furthermore, providing highly efficient, energy-efficient computing centers is a priority along with securing the continuity of critical infrastructure that secures data for the provision of public services.

Table 2. Approx. Allocation of funds to digitalisation in Poland – includes grants and loans

Digitalisation	
Of the public sector	EUR 1.047 billion
Of the educational system	EUR 1.250 billion
Of the health care sector	EUR 1.000 billion
Broadband and 5G	EUR 2.600 billion

DIVISION OF RESPONSIBILITIES

The department GovTech Polska operates at the Chancellery of the Prime Minister. GovTech Polska is an inter-ministerial team operating across the entire public sector to coordinate strategic digital projects, involving entrepreneurs, officials, and citizens. The aim is to position Poland as a digital country.

Every city or local entity can have their own digitalisation strategy, but the role of central government is to create the common infrastructure to connect all these systems and initiatives. Local entities can apply for funding (for example EU funds) for digitalisation projects.

Following links can be used for a better overview:

- The centralised platform for digital services for citizens and businesses: OBYWATEL.GOV.PL - Informacje i usługi przyjazne obywatelom | obywatel.gov.pl
- The list of services can be found here: Mapa serwisu obywatel.gov.pl | obywatel.gov.pl
- For companies: Biznes.gov.pl - Serwis informacyjno-usługowy dla przedsiębiorcy | Biznes.gov.pl - Serwis informacyjno-usługowy dla przedsiębiorcy

The digitalisation unit at the Chancellery of the Prime Minister administers the following registers: PESEL register (Polish personal numbers), register of ID cards, register of civil status, register of contact data, central register of issued and invalidated passport documents, central register of drivers, central register of vehicles, central register of parking card holders. Poland possesses an open data platform to increase the quantity and quality of open public data and further data reuse. The website can be accessed here: www.dane.gov.pl.

THE MATURITY OF PUBLIC DIGITALISATION

Some public services are fully digitalised while other service are just described online. In total, 185 services are available digitally, but just 51 of them are fully digitalised. The accessibility of a given service will depend on the level of digitalisation of the given unit.

Examples of available online services include for example:

- registering a company
- sending tax reports
- sending a general letter to Polish authorities
- obtaining a copy of the civil status certificate
- reporting the loss of one's ID card
- checking drivers' penalty points
- checking vehicle's record online
- register a purchase or a sale of a car

Poland has a digital identity system. There are several ways to verify one's identity in Poland. Citizens can log in using their trusted profile (similar to the Danish nemID). In order to create the trusted profile online, one can use a bank account or a qualified electronic signature. At the moment, nine banks offer such a possibility. Another way is to create the trusted profile directly at the office or after registering on the trusted profile

page and completing the application form. Citizens can also use their electronic ID cards with an embedded chip or mojeID developed by the National Clearing House and currently used by five banks.

In terms of user accessibility, 90.4 percent of households had access to the internet in 2020, which was 3.7 percentage points more than in the previous year. In 2020, people who used public administration services via the internet in the last 12 months accounted for almost 42 percent of the population aged 16-74. In recent years, the number of people searching for information on public websites and making use of online e-government services has been growing. In 2020, the percentage of people searching for information on public websites increased by 2.3 percentage points, and those who visited the website with a purpose of using a specific e-service increased by 2.1 percentage points.

In 2019, 83.1 percent of households with at least one resident aged 16-74 possessed at least one computer. This indicator systematically increases year by year, but at a slower and slower pace; compared to the previous year it increased by 0.4 percentage points.

AREAS OF IMPROVEMENT OF PUBLIC DIGITAL SERVICES – PRIORITIES

The current priorities of the Polish Government include (based on DESI and Operational Programme) Digital Poland for 2021-2027 include: Greater access to fast broadband internet, further development of digital services (health, finance, and justice), improving user-friendliness, data economy, cybersecurity and advanced digital competences.

Moreover, Poland has not yet assigned any radio spectrum for 5G services. The levels of basic digital skills remain low compared to the EU average. Poland has a relatively weak performance in terms of digitalisation of businesses[1].

PUBLIC TENDERS AND KEY PROVIDERS WITHIN PUBLIC DIGITALISATION

Public tenders are organized by specific units or authorities. Relevant platforms to look into are Biuletyn Zamówień Publicznych (uzp.gov.pl) (used before 2021) and the new one: Portal Dostępowy | Testowa (demonstracyjna) wersja platformy e-Zamówienia (ezamowienia.gov.pl)

The key national IT companies, which are competitors and/or potential partners, are Asseco, Comarch and Integrated Solutions (owned by Orange Polska).

Table 3. An overview of the key national IT companies (competitors or potential partners)

[1] Source: DESI - Poland | Shaping Europe's digital future (europa.eu)

Asseco	The biggest provider of state-of-the-art IT solutions in Central and Eastern Europe. Asseco is one of the largest software vendors in Europe. Present in 60 countries worldwide and employing over 28,000 people. Offering service for the public sector.
Comarch	Large Polish IT company with clients of major Polish and international brands. USD 380 m revenue, 6500 experts, 57 subsidiaries and affiliates, present in 100 countries. Servicing the public sector.
Integrated Solutions (part of Orange Polska)	Consulting company that offers services in the area of Automation / AI, Cloud, Data Analytics, Software Development, Networking & Communication, IT Infrastructure, Cyber Security.

DIGITALISATION OF THE HEALTH SECTOR

There are opportunities in digitalisation of the health care sector for Danish companies. An example is predictive AI solutions, e.g. predicting the patients' health condition and diseases in the future, as well as remote monitoring of patients.

In terms of organisation, both public and private healthcare providers operates in Poland. The private facilities can apply for funds and sign a contract with the National Health Fund (public payer) after winning a tender.

The owners of the healthcare providers include municipalities, counties (*powiat*), and regions, universities (public), and private companies. The Ministry of Health and e-Health Centre has the responsibility for digitalisation within the health sector.

Again, the tenders or competitions are organized by specific units or authorities. The platforms to look into are again: Biuletyn Zamówień Publicznych (uzp.gov.pl) (before 2021) and the new one: Portal Dostępowy | Testowa (demonstracyjna) wersja platformy e-Zamówienia (ezamowienia.gov.pl)

CORPORATE DIGITALISATION

The main trends include cloud, analytics, process automation, robotics (production), and automating contact with clients.

There are opportunities in digitalisation of the private sector that businesses may pursue in parallel. 78 percent of the organizations from the sector of medium and large enterprises are in the process of digital transformation, and 36 percent of them is at an advanced stage of digital transformation[2]. These are mainly large enterprises employing over 250 employees, including State Treasury companies.

[2] Source: https://news.microsoft.com/pl-pl/2021/03/09/78-proc-srednich-i-duzych-firm-w-polsce-stawia-na-cyfryzacje/

LEARN MORE

If you want to learn more about the specific opportunities and how we may help you, please contact the Trade Council in Poland.

4 PUBLIC DIGITALISATION IN PORTUGAL

PORTUGUESE PRIORITIES

The Recovery Plan in Portugal regarding digitalisation focuses on health, digital public administration and enterprises. See the concrete contents in the following tables:

Table 4. Allocation of funds to health care – approx. EUR 1.383 billion

Primary Health Care | approx. EUR 463 million (24 investments)	Integrated information system that allows users to be referenced between levels of care (SIGA SNS) Build new health units/centres to replace unsuitable buildings Install dentistry offices in health centres Provide health centres with technical conditions to carry out teleconsultations and telemonitoring of chronic diseases Create integrated diagnostic centres (MCDT of low complexity, at least RX and Clinical Analysis) in Health Center Groupings
Digital Transition in Health: approx. EUR 300 million (4 investments)	Data network, improving the quality of service and the resilience of SNS computer systems, assuring greater security and auditability in terms of health data, technology and maintenance Standardization and digitalisation of the communication channels between citizens and health units Modernization of current work processes, assuring usability and mobility to health professionals Normalization of critical data regarding the national registries in the Portuguese Health System

Equipment for Hospitals Seixal, Sintra and Lisbon: approx. EUR 196 million (1 investment)	Equipment acquisition for Hospital de Lisboa Oriental and for nearby hospitals Seixal and Sintra
Digital Transition in Health Madeira: approx. EUR 15 million (6 investments)	Implement digital technologies to support patient monitoring Intensify telehealth Strengthen ICT and artificial intelligence for epidemiological surveillance

Table 5. Allocation of funds to Digital Public Administration - EUR approx. 1.304 billion

Digital Transition in Justice and Business Environment | approx. EUR 267 million (6 investments)	Digital Courts Platforms Development and implementation of procedural processing systems in all courts and instances(400 Courts and 3.000 magistrates) Digital Platforms for Citizens and Business Life Cycles and for Criminal and Forensic Investigation Strengthening of Infrastructures, Equipment and Technological Architectures: communication networks, hw/sw, data centre, service desk, contact centre Knowledge management platforms: Platform of Common Services of Justice, and Transparency Platform - Data extraction and processing
Sustainable electronic services based on interoperability and data utilization | Approx. EUR 102 million (3 investments)	Increase governance and the ability to securely reuse data in the public administration Strengthen Dados.Gov service as an open data portal, providing: more offers, more connected data in real time, and better transparency Promote the creation of integrated infrastructures for specific purposes, such as an integrated information infrastructure of territorial knowledge of the country, as well as the characterization of families, commercial,

	industrial and agricultural activities, presenting interoperability with other information systems
National Program for Training and qualification of the Public Administration| Approx. EUR 98 million (5 investments)	Zero Info exclusion, directed to public workers in a situation of info exclusion Public Administration Digital 4.0, based on three axes, in close articulation with higher education institutions: training in productivity tools, training for technicians in the IT career, and training in emerging technologies and management, directed to managers and employees of the public administration Development of a multi annual Action Plan to implement the objectives of the Qualifica AP Program
Digital Portal of Public Services and multichannel services | Approx. EUR 198 million (3 investments)	Provide a Unique Digital Services Portal , as "Loja do Cidadão Virtual", that allows citizens to deal in a digital and dematerialized way with the main services of Public Administration Contact Centre equipped with technology that allows to deal with the main public services through this channel Expand the network of Citizen Stores, Citizen Spaces and Mobile Citizen Spaces
Digital Transition in Social Security | Approx. EUR 200 million (5 investments)	Reorganization and modernization of the Social Security Information system Implementation of a new technological relationship model (360º Vision) that streamlines, in an omnichannel view, the various channels of interaction Implement infrastructure solutions, based on cloud, for Social Security systems , assuring greater performance, availability and updating
Digital Transition in The Public Administration of Madeira and Azores | Approx. EUR 103 million (2 investments)	Provide Madeira with high-capacity digital broadband networks in order to support: the digitalisation of services and companies, the knowledge society and entrepreneurship, the establishment of new Telecom trends, such as 5G networks, IoTecosystems and the development of smart cities Digital infrastructure in Azores Public Administration-Mobile.GOV, hosted on the Azores Cloudplatform

Table 6. Allocation of funds to enterprises 4.0 | Approx. EUR 0.650 billion

ENTERPRISES 4.0 | Approx. EUR 650 million	Digital Transition (Enterprises)
	Digital Training (Enterprises)
	Digital Transition Catalyzing (Enterprises)

DIGITALISATION OF PUBLIC SERVICES IN PORTUGAL

The digitalisation agenda is a priority for the Portuguese Government. Portugal benefits from a good technology infrastructure and qualified (though in limited numbers) human resources. In parallel with previously approved plans currently being implemented, the government approved the 'Action Plan for Digital Transition' in March 2020. The intention with the 'Action Plan' is to put Portugal at the forefront of the Fourth Industrial Revolution.

The 'Action Plan' consists of three pillars ande ach pillar represents different priorities and actions. Eighteen national programmes and initiatives have been created to support the three different pillars. Digitalisation of the public sector is included in the third pillar of the 'Action Plan for Digital Transition'. This pillar is supported by the following national programmes and strategies Estratégia TIC 2020: Portugal's official strategy for digital transformation of the public administration is using ICT for an efficient administrative simplification and the improvement of public services.

As an example, iSIMPLEX is a revised edition of the flagship program on administrative simplification with the aim of modernizing the relation with citizens and businesses. iSimplex focuses on; 'digital-by-default', 'once-only-principles', and 'emergent technologies'. The main objectives of the plan in regards to the public sector is to:

- expand and improve the number of public services available online, servicing citizens and companies to create an increasingly inclusive and democratic digital society.
- simplification and efficiency of the internal processes of the State.
- further development of the e-Residency Program by creating a digital identity concept using the Digital Mobile Key (CMD).
- ensure that the services provided on the public portals can be accessed in other languages and improve the information.
- institutionalization of a regulatory environment that allows the exploitation of the potential of the data and IT economy.

The Secretary of State for Digital Transition under the Ministry of Economy and Digital Transition monitors the implementation of the inter-ministerial measures of digitalisation process. The digitalisation strategy is applied in coordination with different ministries, including for example the Ministry of State Modernization and Public Administration, which is responsible for implementing the strategy in the public sector. AMA (the Administrative Modernization Agency) plays a prominent role in implementing the digital strategy in the public administration. They develop, promote and support the digitalisation efforts. AMA is also the main responsible for directing the technical committee of the council for information and communication technologies (CTIC).

In the different digitalisation strategies of the State, the different concepts are developed on a central level but the responsibilities are divided on both national, regional and local level. During 2019, Portugal launched the web portal ePortugal, that merged the Citizen Portal and the Entrepreneur's Desk in a central repository for all public services dedicated to citizens and businesses, which is more limited than the Danish counterpart ("borger.dk" and "virk.dk"). The platform gives access to different individual areas where the user have different access numbers and it does not include areas like health, banking etc. Furthermore, the portal offers several customisation options, a reserved area for the citizen and the possibility to geo-locate all Portuguese public services in a Citizen Map, which allows the user to see waiting times and get virtual queue tickets. The goal is to provide a Unique Digital Services Portal as a "Loja do Cidadão Virtual".

Regarding the national registers, there are several registers in Portugal, each with their own purpose e.g. registers for tax, health, identification for individuals. These systems are individually advanced and some hold personal information such as medical reports. Persons or companies' tax numbers are often used for identification. Portuguese citizens' information are collected on a citizen's card, which includes numbers for social security, tax, driver's license; each with their own numbers and registers behind the individual number. Companies in Portugal, regardless of the structure, are registered in the Portuguese Trade Register or the National Registry of Companies. The COVID-19 situation has resulted in more online registrations.

THE MATURITY OF PUBLIC DIGITALISATION AND AREAS OF IMPROVEMENT

According to information based on DESI (Digital Economy and Society Index 2020), Portugal continues to adopt relevant measures to digitise public services, and is one of the leaders in the EU in this regard. The parallel efforts made to improve basic digital skills will allow an increasing share of the population to benefit from those services. In 2019, Portugal continued to implement measures to modernise public services by using digital technologies. The Portuguese strategy for digital transformation of the public administration, Estratégia TIC 2020, promoted the use of ICT for a more effective and efficient administrative simplification and the improvement of public services.

However, according to the Digital Economy and Society Index (DESI) 2020 report, Portugal ranks 21st out of 28 when it comes to human capital with only 80.9 percent of households in Portugal having internet access at home in 2019. In the same year, the percentage of the Portuguese population without at least basic digital skills decreased from 50 percent to 48 percent. About 26 percent had no digital skills at all. This is still mainly due to many people never having used the internet. On the use of internet services, Portugal still ranks 24th out of 28 Member States. The proportion of people who have never used the internet (as mentioned above) is more than double the EU average. In the same vein, relatively few Portuguese use the internet at least once a week - 73 percent compared to 85 percent for the EU as a whole. The expectation is that there will be a combination of buying new equipment and solutions as well as updating existing older legacy systems.

The overall goals for the future digital investments in the Portuguese public sector is to ensure the development of a single digital portal for public services that integrates the various areas of Public Services minimizing the interactions of users and reducing costs.

Furthermore, it is to increase the availability, robustness and security of the emergency communications networks. The intention is also to enhance the cyber security of digital systems by promoting training in cyber security and secure use of data, information and knowledge. The goals also include an implementation of a taxation system in order to promote an environmentally sustainable use of old buildings and support the digital transition of the Public Administrations of the Autonomous Regions of Madeira and Azores.

MAIN SUPPLIERS OF INFORMATION SYSTEMS AND SOFTWARE PACKAGES FOR THE PUBLIC SECTOR

There is a clear growth trend in the procurement of digital services and technologies by the public sector and public companies. The Public Procurement Portal centralises the most important information on all procedures, including pre-contractual procedures, follow-up and monitoring. Table 7 lists the main suppliers for public entities when it comes to information systems and software packages.

Table 7. The five main suppliers of information systems and software packages for public entities

CLARANET II SOLUTIONS	Claranet is a multinational managed service provider, with presence in Portugal, offering fully managed hosting, network security and solution services to help businesses reduce costs and risks. This group is one of only five vendors in the world that has all three audited MSP certifications from the large scalers: Microsoft, Azure, AWS and Google Cloud Platform.
Inetum	Informática El Corte Inglés is now part of Inetum, an agile IT services group that provides digital services, namely infrastructure, application or software. Furthermore, Inetum develops solutions focused on smart cities, industry4.0, Omni-commerce, digital banking or cybersecurity paradigm, having a deep experience regarding applications development for Public Administration.
MEO	Part of the Altice Group and renowned as a Web Summit technology partner. It is one of the biggest telecommunications and multimedia companies in Portugal. Having Portugal Telecom as its genesis, MEO had a deep contribution to the development of the telecommunications infrastructure in Portugal; currently playing a major role in IPTV, mobile, network and in the 5G establishment.
Normática	Offers solutions for software licensing and support, open source, consulting, hardware and biometric services, being a reference in the sector in Portugal. The company has a particular specialization regarding the Public Sector, particularly the Central and Local Public Administration, Health and Education, with technological contributions regarding Business Intelligence solutions, infrastructure and network, as well as biometry.

Axianseu Digital Solutions	Axians is the registered trademark of the Vinci Energies group dedicated to ICT and the challenge of Digital Transformation. The company presents a strong specialization in telecoms infrastructures, cloud and data centres, enterprise networks, digital workspace, business applications and data analytics. Cyber security is also a priority in all of these areas.

DIGITALISATION OF THE HEALTH SECTOR

There are major opportunities for Danish companies in digitalisation on the health care sector. 28 percent of the EU Recovery funds allocated to Portugal will be invested under the Social Resilience-coloumn. Together with Deloitte, the Trade Council in Lisbon has conducted a study, where the following areas have been identified as prominent areas where Danish companies may bridge the gap:

- Robotics and Automation
- AI
- Big Data
- Logistics and infrastructure

The Trade Council in Lisbon has worked several years in promoting the Danish health tech solutions with interested Portuguese stakeholders from the public health sector. The overall goals for the future investments in the Portuguese health sector is to ensure the following:

- Guarantee the improvement of the existing proximity care, considering the population ageing, chronicity and epidemiological changes, through a territorially balanced and reinforced network of equipment, complementary means of diagnosis and therapy, screening capacity, and community and home intervention
- Extend the national integrated and palliative care networks and build new units.
- Reorganize and resize Lisbon and Vale do Tejo hospital, in order to provide a better offer and access to quality health care for a significant part of the population in this area of coverage, contributing to reduce inequalities in terms of quality and proximity
- Reform the national response capacity related to mental health, by increasing the number of admission units in General Hospitals, creating new community teams in this area and increasing the coverage of Health Centre Groups with dementia response structures, among other structural measures
- Strengthen the Regional Health Service and health digitalisation in Madeira
- Reinforce the digital evolution of National Health Service (SNS) through the
    (i) development of new digital solutions,
    (ii) integration of the telephone channel (SNS24) and digital means (through the Single Portal and Single App) and expanding telehealth offer
- Implementation of Digital Hospital in Azores, an initiative that aims to enable the option to choose for a consultation in a "virtual hospital“, in order to reduce access inequalities to the Regional Health Service

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If you want to learn more about the specific opportunities and how we may help you, please contact the Trade Council in Portugal.

5 PUBLIC DIGITALISATION IN SPAIN

SPANISH PRIORITIES

In terms of digitalisation, the Recovery Plan in Spain, "España Puede" focuses on modernising industry, SME's, tourism and entrepreneurship, as well as digitalisation of education.

The plan "Digital Spain", España Digital 2025 presents close to 50 measures around 10 strategic axes. They aim at mobilizing public and private investments of around 70.000 milion EUR up to 2023. The public sector expects to finance around approx. 20.000 million EUR, of which approx. 15.000 million EUR will be financed by EU programmes. The private sector is expected to invest around 50.000 million EUR during the same period.

The 10 strategic axes are:

1. Guarantee adequate **digital connectivity for 100 percent of the population**, to eliminate the digital divide between rural and urban areas (goal 2025: 100 percent of the population with 100 Mbps coverage).

2. Focus on **5G technology** (goal: 100 percent of the radio electric spectrum ready for 5G).

3. Reinforce **digital competences** of workers & citizens (goal: 80 percent with basic digital competence of which 50 percent women).

4. Reinforce Spain´s capacity in **cybersecurity** (goal: 20.000 new specialists in cybersecurity, AI and Data).

5. Boost the digitalisation of **Public Administration** (goal 2025: 50 percent of public services available in mobile app format).

6. Accelerate the digitalisation of **companies**, with focus on micro SMEs and start-ups (goal: e-commerce should amount to 25 percent of the SME´s turnover).

7. To speed up the digitalisation of the **productive model** with **tractor projects of sector transformation** that generate structural effects (goal: reduction of CO2 emissions by 10 percent thanks to digitalisation).

8. Increase Spain´s attractiveness as a European platform for business, work and investments in the **audio-visual** sector (goal: 30 percent increase in audio-visual production in Spain).

9. Facilitate transition to a **data economy**, taking advantage of the opportunities offered by **AI** (goal: 25 percent of companies using AI and Big Data).

10. Guarantee citizen´s **rights** in the new digital environment (goal: a national letter about digital rights).

Table 8. Allocation of funds for digitalisation in Spain

EUR 16 billion (23 percent) for the modernization of the digital network infrastructure as well as digitalisation of industry and SMEs, tourism and entrepreneurship.	Tourism: EUR 3.4 billion (5 percent) for modernisation of the tourism sector SMEs: EUR 4.9 billion (7 percent) for SMEs Digital network: EUR 4 billion (5.8 percent) for digital connectivity, enhanced cyber security and extension of the 5G network.
EUR 5.3 billion (7.5 percent) for digitalisation of the educational system.	Education: EUR 1.7 billion (2.4 percent) for modernisation and digitalisation of the educational system (incl. children 0-3 years) and EUR 3.6 billion (5.2 percent) for a national plan for digital skills in education.

A goal of the Spanish Government is that at least 50 percent of all public sector digital tools can be accessed in app form. The smartphone penetration and use hereof in Spain is among the highest in the EU. This means that Danish companies offering user-oriented platforms and digital tools integrating design and usability have a big potential in the Spanish market.

Furthermore, the Spanish government is investing in public sector digitalisation in terms of GDPR compliance and digital public contracts. Another priority area is back-end solutions helping the autonomous regions and municipalities to reduce time on managing receipts, financial documents etc.

The digital infrastructure of the public sector in Spain is based on older legacy systems. However, public authorities have become more open to further develop existing and purchase completely new IT solutions. This is a result of the digital needs created by the COVID-19 crisis and the investment opportunities thanks to the Recovery funds.

AREAS OF IMPROVEMENT IN TERMS OF PUBLIC DIGITALISATION

In Spain, the Ministry of Economic Affairs and Digital Transformation (MINECO) manages the public digitalisation strategy. The 17 autonomous regions have the power to make decisions on regional level.

According the Digital Economy and Society Index (DESI) 2020, Spain ranks 2nd in the EU on digital public services thanks to its well-timed implementation of a digital-by-default strategy throughout its central public administration. The country performs well also in the area of connectivity. Spain is below the EU average on the human capital indicators and almost half of the Spanish population still lack basic digital skills. Spanish SMEs have a relatively poor performance in digitalisation of their businesses and have yet to fully unlock the potential of e-commerce.

Spain implemented several digital measures to deal with the COVID-19 crisis. Measures were first taken to maintain the provision of the electronic communication services for the population and to ensure these services were running smoothly during the disruption caused by the pandemic.

Development of new digital uses was accelerated with a mobile app for self-diagnosis, an analysis of people's mobility to study the impact of the confinement, and a centralized information system to coordinate the needs for staff or equipment in hospitals. As regards digitisation of businesses, and especially of SMEs, Spain will mobilise in the next two years more than approx. 200 million EUR for the recovery.

Looking forward, as regards the DESI indicators that are especially relevant for the economic recovery after the COVID-19 crisis, Spain is very advanced in the provision of digital public services and performs particularly well in the deployment of Very High Capacity Networks (VHCN).

There are a good number of e-services available to citizens and businesses via digital public platforms; however, there is room for improvement, since they are often lacking in terms of usability, user experience, agility and ease of use. Furthermore, a number of public services are still not fully digitalized with requirements to download and print forms, for instance.

PUBLIC TENDERS AND KEY PROVIDERS WITHIN PUBLIC DIGITALISATION

The purchase of IT-platforms in the public sector is organized through public tenders. The Public Sector Procurement Platform is the official platform for public procurement in Spain. Companies can register and access the platform's services, which are personalized and for free. The Public Sector Procurement Platform allows companies to consult the bids published in the Contractor Profiles hosted on it.

Table 9. A comparison between the Spanish and Danish public platforms for digital services

DENMARK	SPAIN
SKAT.dk	Inicio: Ministerio de Hacienda Inicio - Agencia Tributaria
Virk.dk / proff.dk	Infocif.es / einforma.com

Sundhed.dk	www.seg-social.es national platform / 17 regional platforms. ex. for Catalonia http://www.Catsalut.cat

Table 10. An overview of the key national IT companies (competitors or potential partners)

Telefónica España	Telefónica is one of the biggest telecom operators in Spain and Latin America, and is the leader in IT services and solutions, fixed and mobile telephony, with broadband as a key tool for the development of both.
INDRA	Indra is one of the leading global consulting and technology companies.
Orange España	Orange España is the second telecom operator is Spain, with close to 20 million customers. It is also part of the French Orange Group, one of the leading telecoms in the world.

DIGITALISATION OF THE HEALTH SECTOR

Digitalisation will play a very important part of the healthcare transformation in Spain. In 2020, the Government created the Department for Digital Health within the Ministry of Health in order to guide the strategy for this transformation and channel funds from the EU Recovery Fund to drive the digital transformation of the national healthcare system.

The main areas of opportunity for Danish companies are:

- Automation of processes (robots and other automation tools)
- Helping in diagnosis tools (AI/Computer assisted diagnosis)
- Developing capacity outside big areas (telemedicine, improving healthcare access in rural areas)

The national healthcare system comprises 17 regional healthcare systems. At a national level, the Ministry of Health is in charge of major regulations, coordination of regional cooperation and setting recommendations that are developed by the regional healthcare systems. The main national challenge is interconnecting all the regional healthcare systems in a more effective way. However, the main obstacle is more of a regulatory nature than one of access to technological solutions.

The regions are responsible for healthcare management and delivery, which means that decision making regarding transformation (also in terms of digitalisation) is made by the regions. Regional authorities are responsible for the tendering process and have their own public contracting offices. At the national level, an office collects the information of public contracts (both national and regional) and publish all this information on a website called "Plataforma de Contratación del Sector Público".

As per the private sector, it accounts for 30 percent of the entire healthcare sector. Big private hospital groups are already investing in digitalisation and many of them are planning to present digitalisation projects that will apply for EU Recovery Funds. Although private hospital groups can make their purchase decisions in a more agile way, some of them have established procurement processes similar to simplified tender processes.

LEARN MORE

If you want to learn more about the specific opportunities and how we may help you, please contact The Trade Council in Spain.

The Trade Council is a part of the Danish Ministry of Foreign Affairs. We advise Danish companies regarding exports, internationalization and innovation, as well as foreign companies seeking to establish themselves in Denmark. With a presence in more than 70 countries, where we are represented at embassies, consulates general, trade offices and innovation centers, we work closely with the business community and have a strong knowledge of local markets.

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