

Digital Public Administration factsheet 2020

Portugal

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1 Country Profile

1.1 Basic data

Population: 10 276 617 inhabitants (2019)

GDP at market prices: 212 302.8 million Euros (2019)

GDP per inhabitant in PPS (Purchasing Power Standard EU 28=100): 77

(2018)

GDP growth rate: 2.2 % (2019) **Inflation rate**: 0.2 % (2019)

Unemployment rate: 6.5 % (2019)

General government gross debt (Percentage of GDP): 111.7 % (2019) **General government deficit/surplus (Percentage of GDP)**: 0.2 % (2019)

Area: 92 212 km² Capital city: Lisbon

Official EU language: Portuguese

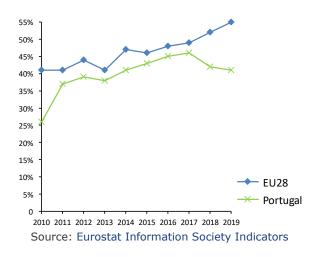
Currency: Euro (EUR)

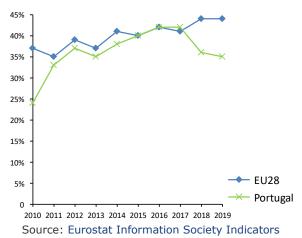
Source: Eurostat (last update: 30 April 2020)

1.2 Digital Public Administration Indicators

The following graphs present data for the latest Digital Public Administration Indicators for Portugal compared to the EU average. Statistical indicators in this section reflect those of Eurostat at the time the Edition is being prepared.

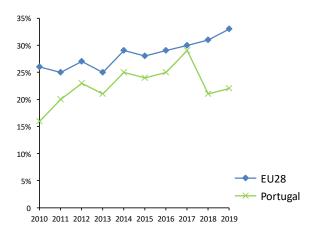
Percentage of individuals using the internet for interacting with public authorities in Portugal Percentage of individuals using the internet for obtaining information from public authorities in Portugal

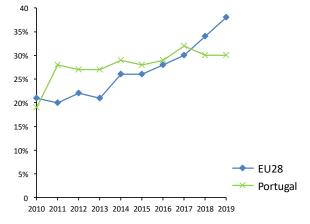




Percentage of individuals using the internet for downloading official forms from public authorities in Portugal

Percentage of individuals using the internet for sending filled forms to public authorities in Portugal



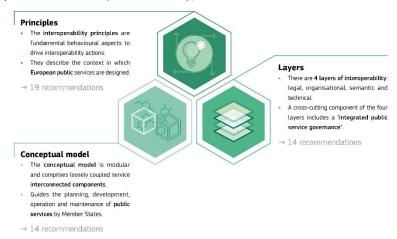


Source: Eurostat Information Society Indicators

Source: Eurostat Information Society Indicators

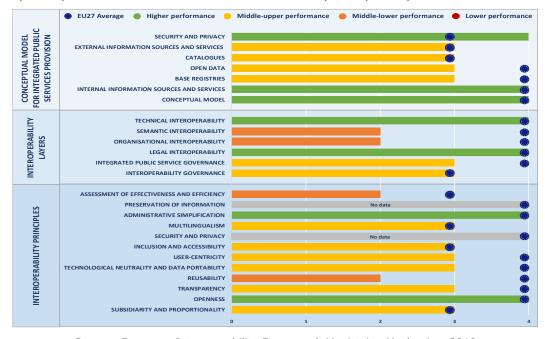
1.3 Interoperability State of Play

In 2017, the European Commission published the European Interoperability Framework (EIF) to give specific guidance on how to set up interoperable digital public services through a set of 47 recommendations. The picture below represents the three pillars of the EIF around which the EIF Monitoring Mechanism was built to evaluate the level of implementation of the EIF within the Member States. It is based on a set of 68 Key Performance Indicators (KPIs) clustered within the three main pillars of the EIF (Principles, Layers and Conceptual model), outlined below.



Source: European Interoperability Framework Monitoring Mechanism 2019

For each of the three pillars, a different scoreboard was created to breakdown the results into their main components (i.e. the 12 principles of interoperability, the interoperability layers and the components of the conceptual model). The components are evaluated on a scale from one to four, where one means a lower level of implementation, while 4 means a higher level of implementation. The graph below shows the result of the first EIF Monitoring Mechanism data collection for Portugal in 2019. On average, Portugal scores middle-upper performance throughout the three different scoreboards. The main areas of improvements are concentrated within the interoperability principles and the interoperability layers' scoreboards. Not enough data was collected to measure the principle of preservation of information and security and privacy.



Source: European Interoperability Framework Monitoring Mechanism 2019

1.4 eGovernment State of Play

The graph below is the result of the latest eGovernment Benchmark report, which evaluates the priority areas of the eGovernment Action Plan 2016-2020, based on specific indicators. These indicators are clustered within four main top-level benchmarks:

- User Centricity indicates the extent to which a service is provided online, its
 mobile friendliness and usability of the service (in terms of available online
 support and feedback mechanisms).
- Transparency indicates the extent to which governments are transparent about (i) the process of service delivery, (ii) the responsibilities and performance of public organisations and (iii) the personal data processed in public services.
- **Cross-Border Mobility** indicates the extent to which users of public services from another European country can use the online services.
- Key Enablers indicates the extent to which technical and organisational preconditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

The 2020 report presents the biennial results, achieved over the past two years of measurement of all eight life events used to measure the above-mentioned top-level benchmarks. More specifically, these life events are divided between six 'Citizen life events' (Losing and finding a job, Studying, Family life, all measured in 2012, 2014, 2016 and 2018, and Starting a small claim procedure, Moving, Owning a car, all measured in 2013, 2015, 2017 and 2019) and two 'Business life events' (Business startup, measured in 2012, 2014, 2016 and 2018, and Regular business operations, measured in 2013, 2015, 2017 and 2019).



Source: eGovernment Benchmark Report 2020 Country Factsheets



2 Digital Public Administration Highlights

Digital Public Administration Political Communications

The national programme for administrative modernisation and simplification, SIMPLEX, was awarded the European Public Sector Award 2019 for the best "European and National" project, recognising the innovative nature and effectiveness of its participatory methodology and the significant gains in efficiency and costs reduction for citizens and businesses.

The 2019 (and ongoing) edition of the programme was developed with a focus on innovation and technology, resulting in a rebranded iSIMPLEX that includes 119 new measures organised along five axes: Interacting only once; Sharing and reusing; Digital by default; Behavioural Economics; Emerging technologies.

Portugal launched its National Strategy for Artificial Intelligence in June 2019, being the result of a collaborative work between different areas of governance that was developed under the National Digital Competences Initiative e.2030 - Portugal INCoDe.2030. The AI Portugal 2020 envisions seven pillars with evidence-based approaches on public policies and decision-making processes.

Published in June 2019, the National Strategy for Cyberspace Security 2020-23 aims to guarantee the protection and defence of critical infrastructures and vital information services and to promote a free, safe, and efficient use of cyberspace by all citizens, companies, and public and private entities. Its strategic objectives are threefold: (i) maximise resilience; (ii) promote innovation; and (iii) generate and ensure resources.

The Public Administration's ICT Strategy will be reviewed in 2020 to define the model of governance and main guidelines to be implemented over the next years.

Digital Public Administration Legislation

Law 104/2019, of 6 September 2019, reformulated and broadened the State Organisation Information System (SIOE) on the characterisation of public entities to provide an extended scope of information and data collection, with a view to deliver a more comprehensive picture of Public Administration, allow the extraction of more relevant reports and indicators and simplify citizens' access to public information.

Digital Public Administration Governance

The digital transformation of the Portuguese public administration is led, since October 2019, by the area of governance of State Modernisation and Public Administration, with the political tutelage of the Minister for State Modernisation and Public Administration, Alexandra Leitão, and the Secretary of State for Innovation and Public Administration, Maria de Fátima Fonseca.

The Interministerial Network for Administrative Modernisation (RIMA), established by the Decree-Law n. 4/97 and reviewed by the Decree-Law 72/2014, brings together representatives from all areas of governance, and will have a key role in streamlining the relationship between State, citizens and businesses, promoting a collaborative work to design and promote simplification initiatives with greater added value to the society.

Digital Public Administration Infrastructure

The ePortugal.gov.pt is the Portuguese Single Digital Gateway. It was launched in February 2019, integrating the Citizen Portal, the Citizen Map and the Entrepreneur's Desk, facilitating the relationship between citizens, businesses and the public

administration by organising the information and digital services around life and business events. $\ \ \,$



3 Digital Public Administration Political Communications

3.1 Specific political communications on digital public administration

ICT Strategy 2020 – Public Administration Digital Transformation Strategy

The ICT Strategy 2020, devised by the Council for Information and Communication Technologies in Public Administration (CTIC) and approved on 2 March 2017 by the Council of Ministers with Resolution No 108/2017, is designed to guide the digital transformation of the Portuguese public administration until the year 2020. The strategy comprises three main axes:

- promotion, integration and interoperability;
- innovation and competitiveness;
- resource sharing and investment in digital competences.

These three axes foresee a total of 12 measures and 37 actions, that include activities to be implemented in a cross-sectoral and distributed way by the different government bodies.

The ICT Strategy was fully reviewed in 2018 to account for the revision of the ICT sectorial plans that also date back to 2018, thus including the progress made on the implementation of the various cross-sectoral and sectoral measures and the related (and updated) data on investments, savings and economic and social benefits.

The above-mentioned CTIC, created in 2016 by the Council of Ministers' Resolution No 33/2016, of 3 June 2016, is the coordination structure responsible for developing and operationalising the ICT Strategy and the overall ICT action plan in the Portuguese public administration.

CTIC responds directly to the Prime Minister, who has delegated this assignment to the Ministry of State Modernisation and Public Administration. Its Technical Committee, which includes a representative for each Ministry, is chaired by the Administrative Modernisation Agency's (AMA) CEO, thus entrusting this body with a cross-sectorial management role in the Portuguese eGovernment policy domain –under the guidance of the Minister for State Modernisation and Public Administration.

The CTIC pursues the following objectives:

- promoting ICT in the Public Administration;
- developing the ICT strategy and action plan in the Public Administration;
- implementing the measures contained in the ICT strategy which it is directly responsible for;
- monitoring the implementation of measures carried out by other entities; and
- monitoring the integration and alignment of the ICT strategy's sectoral action plans in the Public Administration.

As the ICT Strategy is due to be fully implemented by end of 2020, the government has been working on the governance model and approach to be followed.

SIMPLEX Programme

SIMPLEX is the Portuguese flagship simplification and modernisation programme. It follows a citizen-driven approach and has a strong focus on co-creation, with the ultimate goal of simplifying as much as possible citizens and businesses' everyday life as well as their interaction with the public administration.

<u>Governance</u>

In terms of governance, the responsibility for the programme lies with the Minister for State Modernisation and Public Administration, with the direct support of the Prime Minister. The Secretary of State for Innovation and Administrative Modernisation is in charge of coordinating and monitoring the programme, with the technical support of the Administrative Modernisation Agency. Furthermore, SIMPLEX includes a Focal Point Network, constituted by representatives of the various Ministries, which assures a constant communication between the highest coordination bodies and the different public authorities involved in the implementation and monitoring of the SIMPLEX measures.

Objectives

SIMPLEX pursues in one single governmental programme the objectives of better regulation, administrative burden reduction, service interoperability, digitisation procedures, red tape cutting, and digital government promotion. Moreover, many initiatives encompass more than one area or ministry, which makes the teamwork and coordination effort between different entities a fundamental part of the process.

<u>Implementation</u>

The programme is highly inclusive and innovative, and, since its first edition, it has involved citizens, entrepreneurs and public servants in determining and designing the initiatives to be implemented by the public administration:

- nationwide meetings and design brainstorming sessions are organised, engaging citizens, businesses and public servants across the country. The Secretary of State participates in most of these meetings, and the Minister and the Prime Minister themselves also take part in some events;
- the SIMPLEX website is an open and permanent channel where anyone can submit ideas, suggestions and complaints. Moreover, it assures transparency by publicising SIMPLEX's activities and projects, their implementation stage, timelines, and the entities in charge of each initiative;
- the 'Start-up Simplex' competition, organised in 2016, invited start-ups to prototype new solutions for the public administration, thus stimulating innovation.

Overall, SIMPLEX has already launched over 1 600 simplification measures, 255 of which in the 2016 edition, 172 in the 2017 edition, 175 in the 2018 edition and 119 in the 2019 edition (some of the measures ascribed to the different editions are multiannual).

Results/Impact

SIMPLEX has proven to be a successful and replicable model, with an average annual execution rate exceeding 89% (2016-2018) and a very positive feedback from the programme's stakeholders. Moreover, in 2017, Nova University (Lisbon) evaluated 13 business-oriented measures in SIMPLEX 2016, concluding that they accounted for an estimated potential saving of EUR 623 992 million for companies, plus an added value of EUR 1 094 million for the economy and a reduction of 490 000 working hours for the public administration.

More recently, in 2019, an Ernst & Young evaluation, commissioned by the European Commission in coordination with the Portuguese government, analysed the impact of 40 measures of SIMPLEX 2016 and 2017, concluding that they represented a yearly net saving of EUR 170.1 million and 15 million working hours, plus a potential additional benefit for the economy corresponding to EUR 89 million.

Emblematic SIMPLEX initiatives are the medical ePrescription+, which includes both the prescription itself and dispensation of medicines through secure digital means, for both citizens and health professionals; the Professional Attribute Certification System, allowing citizens to be digitally authenticated and sign as professionals, according to certified professional attributes; the Automatic Tax Declaration, whereby yearly tax submissions are fully digital and automatic; and the Paperless Invoice, eliminating paper invoices and replacing them with electronic documents.

The effectiveness of the SIMPLEX methodology has been further recognised by the European Institute of Public Administration, which awarded SIMPLEX the European Public Service Award 2019 in the European and national category.

iSimplex 2019 - Innovation to change your life

In 2019, SIMPLEX focused more on innovation and technology and was rebranded as iSIMPLEX, introducing 119 measures organised along five axes:

- 1. Once only interaction: eliminating duplication of information requests and checks. Example of the first axis are:
 - Bank portability: simplifying and dematerialising banking services mobility procedures, including the opening of a new account in the destination bank and the transfer of banking services and associated information (e.g., personal data, deposited amounts, applications or direct debit orders) from the primitive account;
 - Pre-filled VAT: extending the pre-filling of periodic VAT declarations of taxable persons with simpler tax situations, using data from the eInvoice system and with an increase in the number of pre-filled fields, namely the ones referring to deductible VAT.
- Sharing and reusing: focusing on the collaboration between different ministries and different levels of administration and applying common technical standards, interoperability platforms and common terminologies. Example of the second axis are:
 - Public Administration Interoperability Platform/Customised data: allowing public administration bodies to define protocols with entities already using the Public Administration Interoperability Platform, in order to configure autonomously the services and data they intend to resort to;
 - Death and Bereavement Service: new integrated and transversal service, both front-end and back-end, that aims to simplify all bureaucratic procedures which relatives have to follow after the death of a family member.
- 3. Digital by default: focusing on the digital format. Example of the third axis are:
 - SIMPLEX Digital Mobile Key: simplifying digital authentication processes with the Digital Mobile Key (CMD), using biometrics and a QR Code; facilitating CMD adhesion via mobile devices, by comparing a photograph captured at the moment (live) with a photograph previously collected during the onsite registration for the Citizen Card (national eID);
 - Driver's license on time: making driver's licenses available to citizens on the day they apply for it.
- 4. Behavioural Economics: focusing on the development of tools that promote the voluntary adherence of individuals and companies to certain behaviours that are conducive to the fulfilment of administrative modernisation objectives. Example of the fourth axis are:
 - Fire Prevention Campaign: promoting awareness and preventing risky behaviours in order to avoid fires, continuing the 'Safe People' and 'Safe Village' programmes, aimed at self-protection and population protection;

- Road Safety Campaign: promoting awareness-raising actions to prevent road traffic accidents, testing different modes for different contexts to assess the impact of each solution.
- 5. Emerging technologies: focusing on the development and use of artificial intelligence, data science, blockchain, internet of things and internet. Example of the fifth axis are:
 - Intelligent Management of On-site Service (gIAp): using artificial intelligence tools to balance the demand and offer of public services though face-to-face channels, implementing simulation mechanisms to assess the service efficiency and impact and to propose solutions for improvement;
 - Participa 5.0: centralised platform to support participatory procedures (e.g. participative budgets) in municipalities, making use of blockchain technology for the attribution of votes to citizens.

Portugal INCoDe.2030

The National Digital Competences Initiative e.2030 - Portugal INCoDe.2030, launched in April 2017, is an inter-ministerial action that brings together the areas of economy and digital transition, science, technology, higher education, labour, solidarity and social security. It aims to upgrade the ICT basic skills of Portuguese citizens, preparing them for emerging and digitally-based employment opportunities.

This initiative is structured around five main axes: inclusion, education, qualification, specialisation and research. It includes a variety of measures to be implemented by different governmental bodies in collaboration with the private sector, academia and civil society.

Examples of ongoing activities include: a training programme for Chief Data Officers; the signing of cooperation protocols between public entities to qualify the specialised human resources of each institution; launching a EUR 10 million project competition to support the development of partnerships between the public administration and R&D institutions in the fields of artificial intelligence and data science; and the development of the strategies for artificial intelligence (AI Portugal 2030) and for advanced computing (Advanced Computing Portugal 2030).

Strategy for Innovation and Modernisation of the State and Public Administration

The new strategy for the innovation and modernisation of the State and of the public administration 2020-23, promoted by the area of government responsible for State modernisation and public administration, was developed through a participatory process that involved public servants, academia and the private sector.

The involvement of these stakeholders was guaranteed, among other initiatives, by means of workshops promoted under the Public Management Innovation Incentive System (SIIGeP), which brought together more than 800 public officials, and meetings of the Commission for Administrative Modernisation, composed of business associations, social partners, consumer protection associations, professional associations and representatives of local authorities,. Overall, more than 1 000 people participated in the process, with over 1 100 contributions.

The strategy will be presented in 2020 as a roadmap for modernising the State and the public administration, and foresees 4 transformative axes:

- investing in people: attracting and mobilizing public officials, including through renewed and dynamic leadership models;
- developing management : strategically managing employees and leveraging performance through business models focused on value creation;

- exploring technology: providing citizens and businesses with safe, accessible and seamless services;
- strengthening proximity: bringing decision-making and public action closer to citizens, focusing on deconcentration, decentralisation and participative processes.

3.2 Interoperability

No political communication has been adopted in this field to date.

3.3 Key enablers

3.3.1 Access to public information

National Action Plan for Open Administration

Portugal joined the Open Government Partnership (OGP) in 2017, and published, in December 2018, its first National Action Plan for Open Administration. The plan was developed by the National Network for Open Administration through a process of cocreation that involved the public sector and civil society, including an online public consultation held between 19 November 2018 and 3 December 2018.

This plan includes eight commitments to promote transparency and access to public sector information, foster public participation and boost the use of public open data. Four of the eight commitments have already been successfully completed, as shown in the monitoring of the 1st Action Plan, and the remaining ones will be implemented by the National Network for Open Administration by August 2020, in collaboration with other relevant stakeholders of the public sector and civil society, if needed. The National Action Plan for Open Administration is available both on the OGP Portugal website and on the Open Government Partnership website.

Portugal's participation in the OGP was subject to an independent evaluation by the Open Government Partnership, which positively assessed the development stage of the 1st Action Plan and identified two of its commitments as Starred Commitments (i.e. with a high transformation potential).

Public Administration Open Data Portal

Dados.gov is the open data portal of the Portuguese public administration and aims to aggregate, reference and host open data from different bodies and sectors of the public administration, thus serving as open data central catalogue in Portugal.

3.3.2 eID and Trust Services

Digital Identification Mechanisms

The development of Portuguese digital identification mechanisms and the promotion of their uptake by citizens, businesses and the public administration itself still are at the top of the political agenda, with ongoing initiatives targeting different end-users. The constant addition of new features (e.g. mobile eSignature), the swift integration of these mechanisms in digital public services delivered by different areas of governance and their steady adoption by the private sector (e.g. banking, utilities) are some of the positive outcomes of setting eID as a political priority.

3.3.3 Security aspects

National Cyberspace Security Strategy 2019-2023

The National Cyberspace Security Strategy 2019-2023 (Resolution of the Council of Ministers No 92/2019), published on 5 June 2019, aims to ensure the protection and defence of critical infrastructures and vital information services, and to promote the free, secure and efficient use of cyberspace by citizens, companies and public and private entities.

This strategy has been developed and is evaluated annually by the High Council of Cyberspace Security, taking into account developments in the digital domain since the approval of the first version in 2016.

It establishes three strategic objectives for 2019-2023:

- maximising resilience: to overcome the threats that could compromise cyberspace security;
- promoting innovation: to develop the field of cyberspace;
- generating and ensuring resources: to contribute to achieving sufficient resources to guarantee the country's cyberspace security capacity.

It is also worth mentioning that, in August 2019, Portugal formally applied to the European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE), recognising said threats as a cross-cutting priority that requires a cooperative approach within the EU and NATO, and in line with the objective of creating a national plan to counter disinformation and cyber-attacks.

Furthermore, within the scope of the StartUp Portugal programme, a Working Group for Cybersecurity was created in May 2019, involving representatives of six public entities (DGAE, DGC, ASAE, IAPMEI, CNCS and ANI), with the aim to support national start-ups in the field.

3.3.4 Interconnection of base registries

No political communication has been adopted in this field to date.

3.3.5 eProcurement

No political communication has been adopted in this field to date.

3.4 Domain-specific political communications

Closer Justice Plan (*Justiça + Próxima*)

The Closer Justice Plan aims to increase transparency and trust in the judicial institutions, fostering citizens' participation to the ideas, initiatives and projects introduced to improve justice in Portugal. It encompasses four fundamental pillars:

- enhancing efficiency, through simplification and dematerialisation of procedures;
- innovation, by modernising justice;
- proximity, by offering citizens clear, transparent and accountable information;
- humanisation, by valuing tangible and intangible resources.

The methodological approach called for scheduled measures to be implemented in successive waves, with periods of analysis in collaboration with the judicial organisations and officials responsible for their implementation. The Directorate-General for Justice

Policy is responsible for managing and monitoring the plan, in close coordination with the Ministry.

By the end of 2019, 131 measures were completed out of the 197 planned. Examples of structural measures already implemented include:

- Tribunal + (Court +), encompassing the transformation of back-office working procedures and methodologies in the court offices, and in management support tools. It foresees a new customer service model with clearer information and signage, a centralised service desk, an attendance and registration management system, recording of entry time, easier exit from the court and updated information on the status of the proceedings. The IT systems used for civil, criminal, administrative and tax jurisdiction cases, CITIUS and SITAF, also benefited from improvements identified by key users, magistrates, bailiffs and agents;
- consultation of pending cases in the courts, allowing citizens who are parties to ongoing trials in Portugal to consult online the procedural acts and documents pertaining to their cases, by accessing the *tribunais'* websites. This measure allows for the online consultation of over 1.5 million cases, without having to go to the courts or turn to a lawyer or a solicitor. Access is granted through secure digital authentication via the Citizen Card and the Digital Mobile Key;
- Electronic Judicial Certificate, enabling the parties to court proceedings, their legal representatives, judicial administrators and any other interested party to request and obtain electronically a dematerialised certificate of the court proceedings, through a single access code at a reduced fee. This includes ongoing cases in judicial, administrative and tax courts, as well as any cases under the remit of the Public Prosecutor's Office. The above-mentioned access code replaces printed documents and can be provided to any public or private entity upon request;
- Interface for Judges MAGISTRATUS, allowing judges to consult, prepare and annotate case files, with the possibility of searching contents inside the documents (including images and scans). Cases can be handled without directly accessing CITIUS and SITAF. MAGISTRATUS is already recognised by magistrates as a major asset and will continue to evolve, e.g. by adding fully searchable automatic transcription of trials and implementing artificial intelligence tools to support judges' decision-making processes. In addition, interfaces for the Public Prosecutor's Office and for lawyers, and subsequently for court offices, are also foreseen, with a view to creating a single platform that will simplify the work of all judicial staff.

A second edition of the Closer Justice Plan is currently underway, with 140 measures, some of which were included in the first edition but were not completed by the end of 2019.

Digital Skills Training

Digital skills is a strategic training area for the public administration, as established through Order No 3431/2019, of 19 March 2019, of the Minister for Finance, following a proposal by the Directorate-General for the Qualification of Public Workers (INA). This strategic training area is implemented in the INA Training Centre through the Programme for the Development of Digital Skills, which includes three training syllabuses with different training paths:

- training programme for zero infoexclusion, aimed at eliminating info exclusion and improving the ability to use essential tools;
- training programme for the digital transformation of public administration, focused on skills development in emerging areas;
- digital tools training programme, which develops the ability to work with word-processing tools, edit spreadsheets and manage databases.

Programme More Science, Less Bureaucracy

Programme for the rationalization and administrative simplification directed at the scientific community, aiming at promoting the scientific, social and cultural responsibility of all actors operating in the fields of science and technology. In this context, and considering programme's broad scope, it worth highlighting already-implemented initiatives, namely Ciência ID (unique ID for scientists) and Ciência Vitae (national system for scientific CVs management linked to Ciência ID, plus a central element for monitoring scientific and technological activity and a support system for the modernization of public administration. The measures related to the Simplex Programme, such as the NAU Platform (online platform for remote education and training), are also relevant.

3.5 Emerging technologies

National Strategy for Artificial Intelligence: AI Portugal 2030

The National Strategy for Artificial Intelligence, launched in June 2019, was promoted by the Portugal INCoDe.2030 coordination structure in cooperation with the Science and Technology Foundation (FCT), the National Innovation Agency (ANI), *Ciência Viva* and the Administrative Modernisation Agency (AMA).

Developed within Portugal INCoDe.2030's axis 5 ("Research"), the strategy is aligned with the European Coordinated Plan on AI and encompasses four main interacting processes:

- Portugal is highly attractive to young knowledge-intensive companies and international production units, and there is room for improvement;
- development of the national ecosystem, with the aim of further promoting current innovation levels for a vast number of public and private companies and organisations;
- research potential in AI and other areas will grow due to the larger share of private investment and the added value arising from the challenges posed by innovating companies;
- academia, both alone and in collaboration with the industry, will increase its capacity and develop different levels of qualification programmes in AI and related areas.

The AI Portugal 2030 vision is based on seven pillars:

- promoting a better society;
- fostering AI skills and "digital minds" for all;
- promoting new jobs and developing an economy of AI services;
- fostering Portugal as a living lab for experimenting new developments;
- securing AI niche markets through key specialized services in Portugal;
- contributing to generating knowledge and new developments through AI research and innovation;
- providing better public services for citizens and businesses and adopting evidence-based approaches on public policies and decision-making processes.

The strategy aims to support research & development (R&D) activities that contribute to strengthening scientific and technological skills to manage the vast amount of data generated in the public administration. Currently 32 R&D projects are being funded through the FCT's Programme on data science and artificial intelligence in the public administration, which aims to foster AI in public administration.

Advanced Computing Portugal 2030: ACP.2030

Advanced Computing Portugal, which also falls within the scope of Portugal INCoDe.2030 and is closely related to AI Portugal 2030, is a science, innovation and growth strategy aimed at promoting and expanding advanced cyberinfrastructure in Portugal until 2030. Its purpose is to generalise access to scientific computing and foster cooperation based on advanced scientific computer networks, as well as promoting international collaboration to support advances in different areas and fields.

ACP.2030 encompasses three major domains of activity:

- creating a national supercomputing infrastructure at the service of research and innovation;
- developing and retaining high-value people with advanced computing skills;
- implementing a public policy info-structure to fill in the gap between infrastructures and people in a way that fosters the creation of high-value services and software.

A relevant initiative in this domain is the inauguration, in July 2019, of the Minho Advanced Computing Centre (MACC), home of the first supercomputer operating in Portugal (BOB). This machine is part of the Iberian Advanced Computing Network and marks the start of the Portuguese participation in the European High-Performance Computing initiative (EuroHPC). Deucalion, the second supercomputer to operate in Portugal under the EuroHPC, was contracted in November 2019 and will also be installed at MACC.

Portugal INCoDe.2030

In addition to the 'AI Portugal 2030' and the 'ACP.2030' strategies, the National Digital Competences Initiative e.2030 - Portugal InCoDe.2030 encompasses a variety of initiatives aiming to foster the development and uptake of emerging technologies by the public sector. One of these initiatives is a EUR 10 million funding programme in data science and artificial intelligence in the public administration, first launched in February 2018 to promote public tenders and support new R&D projects, also through partnerships between the public administration and scientific institutions. This programme, as previously mentioned, has financed 32 applications so far.

iSIMPLEX

The national administrative simplification programme, SIMPLEX, was revised and rebranded in 2019 as iSIMPLEX to focus more on innovation and technology by incorporating a set of measures specifically based on emergent technologies, such as artificial intelligence, data science, internet of things and blockchain.

Support System for Digital Transformation of the Public Administration (SAMA2020)

SAMA2020 is responsible for distributing European funds to support the modernisation and efficiency of the Portuguese public administration. In 2019 it opened a EUR 10 million tender to promote the adoption of advanced technologies in the field of artificial intelligence and data science applied to the public administration. The objective is to stimulate experimental and innovative solutions to process the large volumes of data collected and managed by the public administration. So far, 44 projects on artificial intelligence have been approved under SAMA2020.

There is a growing demand for SAMA2020's general funding of projects in the area of emerging technologies, such as IA, data science and IoT. Furthermore, all approved projects have to comply with specific technological requirements that include many key enablers of the Portuguese digital government/digital transformation ecosystem,

namely the Interoperability Platform of the Public Administration (iAP), eID, the National Digital Interoperability Regulation (RNID), the GDPR, and cybersecurity, among others.

ICT strategy 2020

The innovation and competitiveness axis of the ICT 2020 strategy explicitly mentions the importance of preparing for the future, looking at what science and technology can offer and at the innovation possibilities in the public administration, based for instance on the use of AI data analytics, among other ETs.



4 Digital Public Administration Legislation

4.1 Specific legislation on digital public administration

Single digital address and public service of electronic notifications

Decree-Law No 93/2017, of 1 August, created the unique digital address, linking the electronic notifications public service to a unique digital address. The electronic notifications public service, associated to the single digital address, is regulated by Ordinance No 365/2017, of 7 December.

TIC APP – Centre for Digital Competences of the Public Administration

The Resolution of the Council of Ministers No 22/2018 established TicAPP - Public Administration Digital Competencies Centre - as a specialised skill centre for the digital transformation of the public administration. In 2019, it started its operation within the Administrative Modernisation Agency to support different government areas in the process of digital transformation.

TicAPP's role is to act as a centre of digital expertise, developing projects across public administration in the fields of:

- digital architectures: collaborating with public entities in defining and planning their corporate architecture and information systems;
- digital transformation: providing support in process modelling, optimisation, simplification and integration through IT resources; gathering, analysing and defining information systems requirements, in collaboration with public entities, including the exploration, design and development of prototypes and PoCs; elaborating specifications and technical clauses for the contracting of information systems, specifically in the areas of software and services;
- data science: developing quantitative and predictive models to use available data to support the political and administrative decision-making process.

It also supports the development and implementation of some SIMPLEX emerging technology measures, in the domains of artificial intelligence (gIAp) and blockchain (Participa 5.0).

Decree-Law on Digital Services

Decree-Law No 74/2014, of 13 May 2014, further amended by Decree-Law No 105/2017, of 29 August 2017, introduced the rule of digital provision of public services by default. It enshrined digital assistance via a Citizen Spot network as an essential complement, where those who cannot, will not, or do not know how to use digital tools, can benefit from the support and guidance of a public servant/digital mediator: the objective is to give all citizens the possibility to access digital services.

Decree-Law on Administrative Modernisation

Decree-Law No 135/99, further amended by the Decree-Law No 73/2014, approved in May 2014, introduced important administrative modernisation measures, including the 'once only' principle, according to which citizens shall not be obliged to give the public administration the same document twice. The 'once only' principle implies several standards being applied, particularly relating to administrative communications.

Decree-Law on Zero Licensing

The Portuguese Zero Licensing programme is one of the most representative initiatives of the eGovernment agenda. Its main objective is to considerably simplify the licensing procedures necessary to carry out several economic activities by reducing red tape through an electronic single contact point. One of the first objectives was achieved in April 2011, following the approval of Decree-Law No 48/2011, which saw a significant

reduction in the required licences. It was further strengthened with the approval of Decree-Law No 10/2015, which regulated the entire procedure for food and beverage establishments, as well as trade and services establishments.

Decree-Law on the Responsible Industry Regime

Decree-Law No 169/2012, of August 2012, introduced the Responsible Industry System (SIR), which lays down the necessary procedures for industrial activities. Decree-Law No 73/2015, of May 2015, first amended the SIR.

All SIR procedures are carried out electronically on the SIR Platform, which is accessible through the Entrepreneur's Desk and competent public entities' in-service counters.

4.2 Interoperability

Council of Ministers' Resolution No 91/2012

Council of Ministers' Resolution No 91/2012, of 8 November 2012, introduced the National Digital Interoperability Regulation and the standards that can be used to provide interoperability in public administrations' information systems. It was revised by the Ministers Council Resolution No 2/2018, of 5 January 2018.

Council of Ministers' Resolution on the Interoperability Platform for the Public Administration (iAP)

Council of Ministers' Resolution No 42/2015, of 19 June 2015, foresaw the preferential adoption of the Interoperability Platform for the Public Administration (iAP) as primary means for exchanging information among public administration departments and entities.

4.3 Key enablers

4.3.1 Access to public information

Law on Access to Administrative Documents

Article 268(2) of the Portuguese Constitution provides for the fundamental right of access to administrative archives and registries, except for information related to state security, criminal investigation and personal privacy.

In addition, Law No 26/2016 of August 2016 regulates access to administrative and environmental data, as well as re-use of administrative documents. It transposes the European Parliament and Council Directive 2003/4/EC on public access to environmental information, and European Parliament and Council Directive 2003/98/EC on the re-use of public sector information. One of its highlights is the implementation of the principle of active information dissemination, by which entities falling within the scope of the law publish a set of updated information on their websites, without the citizen having to ask for it.

Science, Technology and Higher Education

Council of Ministries' Resolution No 21/2016, of 11 April, establishes guiding principles for the implementation of a national policy on open science and universal access to knowledge. It has direct implications at the level of public information access, knowledge sharing and dissemination, and the preservation of information for its re-use.

Decree-law on the accessibility of public sector's websites and mobile applications

Decree-Law No 83/2018, of 19 October 2018, transposed the European Directive (EU) 2016/2102 on the accessibility of public sector's websites and mobile applications into Portuguese law.

According to this Decree-Law, all public sector bodies, including local administrations, shall comply with the EU standards and the best practices adopted, namely WCAG 2.1 from W3C, thus making their websites and mobile applications more accessible to users and allowing everyone, including people with disabilities, to use the available information.

The Administrative Modernisation Agency (AMA) shall ensure that the public sector's websites and mobile applications comply with these rules. For that purpose, a set of tools have been made available, including an Accessibility and Usability Kit for public sector's websites, the Accessibility WCAG 2.1 Validator, the Accessibility Statement Generator and the Usability Seal of Excellence, among others.

State Organisation Information System (SIOE)

The State Organisation Information System, reformulated and expanded by Law No 104/2019, of 6 September 2019, is an information system on the characterisation of public entities in the universe of national accounts, as well as on the social activity of public employers.

The afore-mentioned law, besides extending the information scope to the social activity of public employers, has also enlarged the fields of data collection on the characterisation of public employers, identification data and other employees' personal data.

This extension of data collection and processing with regard to employees' data is intended to achieve the following purposes:

- collecting, preparing and producing information and indicators within the framework of labour market statistics and other management and planning indicators;
- planning, implementing, monitoring and evaluating the budgeting and implementation of human resource management policies;
- managing, controlling, monitoring and evaluating employees' movements, including those caused by: (i) reorganisation, restructuring, demerger, merger and other structural or functional changes of public employers; and (ii) change of workplace, reallocation, mobility, new assignments and other issues related to employees' contracts;
- managing and controlling the system of time credits and temporary transfers
 of public employees due to public interest within the scope of trade union
 activity and under the terms foreseen in the General Law of Labour in Public
 Functions;
- ensuring the electronic exchange of data within the social security systems coordination framework, as provided for in Regulation (EC) No 883/2004 of the European Parliament and of the Council of 29 April 2004 and Regulation (EC) No 987/2009 of the European Parliament and of the Council of 16 September 2009, regarding the immediate contingencies of employees integrated in the convergent social protection scheme, transposed by Law No 4/2009 of 29 January.

With regard to public employers' data, social balance sheets or equivalent management instruments are prepared by each public employer, through access to their own data,

compiled in specific tables, and to relevant indicators to be included in their planning and management instruments.

The SIOE may also serve as a platform for the electronic processing of administrative procedures, information provision and decision making:

- among public employers and among these and other national entities, without sharing or using any employees' identification data or personal data;
- among public employers and the institutions of the European Union or its Member States, using workers' identification data and other personal data, limited to the strict pursuit of the objectives set out therein.

The purposes of the SIOE may be pursued by sharing data via web services or by using open standards, in accordance with the law.

4.3.2 eID and Trust Services

Law on Citizen Card

Law No 7/2007, of 5 February 2007, introduced the Citizen Card and regulated its issuance, replacement, use and cancellation. Article 18 outlined the provisions for digital certificates, an electronic document using a digital signature. The eSignature based on a qualified certificate is optional and can only be activated and used by citizens over the age of 16. No eSignature based on a related qualified certificate can be activated if the holder requesting a Citizen Card is deemed unsuitable.

Law No 32/2017, of June 2017, introduced significant changes to the Citizen Card, in particular the integration of the Professional Attributes Certification System (SCAP), which allows citizens to use their national eID card to digitally sign not only as citizens, but also as certified professionals of a specific recognised profession (e.g. as engineer or as physician).

Decree-Law on Electronic Signatures

Decree-Law No 62/2003, of 3 April 2003, aligned the legal requirements for digital signatures established in a previous Decree-Law (Decree-Law No 290-D/99) to Directive 1999/93/EC on a Community framework for electronic signatures.

eSignature based on a qualified certificate

The provisions of Decree-Law No 290-D/99, Decree-Law No 165/2004, Decree-Law No 62/2003 and Decree-Law No 116-A/2006 apply to eSignatures based on qualified certificates, which in turn are subject to the applicable rules and regulations pertaining to the State Electronic Certification System (SECS).

Law on the Digital Mobile Key

Law No 37/2014, of 26 June 2014, established the Digital Mobile Key, an alternative and voluntary citizens' authentication system in portals and websites of the public administration.

The introduction of Law No 32/2017, of 26 June 2017, allowed citizens to digitally sign documents by entering a personal identification code, or a mobile phone number, followed by a permanent password and a unique, temporary and automatically-generated numeric code received by SMS or via a specific smartphone app.

More recently, Law No 2/2020 (which approves the State Budget for 2020 - Article 407 amends Law No 37/2014, of June 26) has offered citizens the portability of their personal data (in compliance with the GDPR), by granting:

- access to the data contained in their identification documents or issued by public entities through a mobile application, made available by the Administrative Modernisation Agency [Id.gov.pt];
- access to data contained in the databases of public administration bodies, made available at autenticacao.gov.pt through secure authentication;
- the presentation of data obtained through the abovementioned mobile application (Id.gov.pt) has a legal value equivalent to that of the original documents.

Administrative Rule No 73/2018 is also relevant, as it defines the terms and conditions for use of the Professional Attributes Certification System (SCAP), for the certification of professional, business and public attributes through the Citizen Card and Digital Mobile Key, as is Administrative Rule No 77/2018, which regulates the use of the Digital Mobile Key for digitally signing documents.

4.3.3 Security aspects

Law on the use of Open Standards in Public Administration Information Systems

Law No 36/2011, approved in June 2011, established the use of open standards in the public administrations' information systems. It was considered a fundamental step for public institutions' autonomy and control over their own documents, thus reducing the dependence on businesses and external applications that can properly interpret electronically stored information.

Subsequently, the National Digital Interoperability Regulation (RNID) – originally published in 2012 and updated in 2018 by Council of Ministers' Resolution No 2/2018 – established (among other standards) the OpenDocument Format (ODF) 1.2 as a mandatory standard.

Law on the Protection of Personal Data

Law No 41/2004, of 18 August 2004, transposed into national law Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector, except for Article 13 which concerned unsolicited communications. This legislation applies to the processing of personal data within the context of publicly available electronic communications services and networks, while complementing the provisions of Law No 67/98 (Law on the Protection of Personal Data). Its provisions ensure protection of the legitimate interests of subscribers who are legal entities to the extent that such protection is consistent with their nature.

On 8 August 2019 Law No 58/2019 was published, establishing the application of Regulation (EU) 2016/679 of the European Parliament and the Council of 27 April 2016, on the protection of individuals with regard to the processing of personal data and to the free movement of such data (GDPR) in Portugal, thus repealing Law No 67/98.

Cybersecurity legislation

Decree-Law No 136/2017, of 6 November, defined the structure of the Portuguese National Cybersecurity Centre, and Law No 46/2018, of 13 August, established the legal regime for the security of cyberspace, transposing Directive 2016/1148 of the European Parliament and of the Council of 6 July 2016, on measures to ensure a common level of network and information security throughout the Union.

The National Cyberspace Security Strategy 2019-2023 (Resolution of the Council of Ministers No 92/2019) was published on 5 June 2019.

4.3.4 Interconnection of base registries

Civil Registry

The Civil Registry was first regulated by Decree Law No 131/95 and later repeatedly modified. This law prescribed the civil facts that must be registered, identified the civil registries and their mandates, and described the archiving procedures.

Commercial Registry

The Commercial Registry is regulated by Decree Law No 403/86. Several amendments have been made to this legislation. This law established the different types of businesses, identified the authorities responsible for the registration, and described the registration process, among others.

Land registry

The Land Registry is regulated by Decree Law No 224/84. This legal document has been revised multiple times. It identifies the facts that must be registered and describes the registration process.

Vehicle Registry

The Vehicle Registry is regulated by Decree Law No 54/75 and subsequent amendments. This legislation describes a complex registration system for vehicles.

Sharing information between the national commercial registry and EU Member States

Decree-Law No 24/2019 established rules applicable to the sharing of information between the national commercial registry and the commercial registries of other European Union's Member States in accordance with Directive 2012/17/EU.

4.3.5 eProcurement

Decree-Law on eProcurement

The Public Procurement Code (PPC), approved by Decree-Law No 18/2008, of 29 January, transposed the following EU Public Procurement Directives:

- Directive No 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts;
- Directive No 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive No 2004/18/EC;
- Directive No 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive No 2004/17/ EC;
- Directive No 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement;
- Delegated Regulation No 2019/1828 of the European Commission amending Directive No 2014/24/EU of the European Parliament and of the Council regarding thresholds for public supply contracts, public service contracts and public building contract, as well as for design contests.

The application rules for the PPC are further defined by the following ordinances:

- Ordinance No 371/2017, 14 December 2017, defines notice templates for the types of open procedures foreseen by the code.
- Ordinance No 371/2017, 14 December 2017, states the rules and conditions for the sellers to present legal documentation for the pre-award phase of public contracts.
- Ordinance No 57/2018, 26 February 2018, provides guidance and technical data blocks to be registered on the national public contract register, portal BASE. It was updated by Ordinance No 284/2019, 2 September 2019, which provides for further data on market prices for goods and services, as well as electronic invoicing.
- Ordinance No 72/2018, 9 March 2018, defines the terms for public buyers to demand labels, test results, certifications and other means of proof.

eProcurement provisions are based on three major innovations:

- full adoption of eProcurement for any open, restricted or negotiated procedure to award a public contract, thus avoiding traditional paperwork and increasing speed, transparency and competitiveness;
- increase in accessibility through electronic publication in an official portal of all notices and contract announcements;
- full specification of the multi-criteria model to be adopted by the jury in selecting the most economically advantageous proposal and its presentation in the procedure documents to the benefit of every tenderer, so as to fully guarantee equal treatment.

Law 96/2015, of 17 August, regulates the availability and use of electronic platforms for public procurement. Decree-Law No 72/2018 requires the creation of the National State Suppliers Portal, whose purpose is to simplify and expedite the procedures to verify that there are no impediments to contracting, as provided for in the Public Procurement Code.

eInvoicing legislation

In Portugal, the responsible entity for eInvoicing is the Ministry of Finance. The legislation in this field refers to the Public Procurement Code, which was reviewed in September 2017 (by Decree-Law No 111-B/2017, of August 31) in order to transpose Directive No 2014/55/EU.

Currently two platforms are used for procurement: the Portal BASE, an online platform that enables the processing of contracts in the context of public procurement both in the pre- and post-award phase; and the *Plataforma Eletrónica de Compras*, a central online platform that manages a series of public eProcurement procedures, including eInvoicing, in the context of the framework contracts established by the Government Shared Services Entity (eSPap).

Decree-Law No 123/2018, of December 28, defines the governance model for the implementation of electronic invoicing in public contracts.

Decree-Law No 28/2019, of February 15, regulates the obligations related to the processing of invoices and other fiscally relevant documents, as well as book-keeping obligations, including records and respective supporting documents that apply to VAT taxable persons.

Decree-Law No 84/2019, of June 28, established the State budget execution rules for 2019 within the scope of Financial Services, defining the conditions for the adoption of the accounting information system provided by eSPap.

Ordinance No 289/2019, of September 5, regulates complementary elements of the electronic invoice.

Prior opinion

Decree-Law No 107/2012, of May 18, regulates the duty to provide information and the issuing of an opinion prior to the acquisition of ICT goods/services costing EUR 10 000 or more. It applies to both direct and indirect administration bodies and State services, and the Administrative Modernisation Agency is the entity responsible for assessing the compatibility of the acquisition proposals with the strategic objectives for the digital transformation of the public administration (including, for example, an assessment of FOSS solutions, whose total ownership cost is lower than a solution entailing proprietary software or specific licensing).

4.4 Domain-specific legislation

Education legislation

Executive Order No 6/2018, of 12 April 2018, establishes school registration procedures, their renewal and the norms to observe concerning children and pupils' distribution. It establishes the digital channel as the preferential one for the registration of pupils.

Decree-Law No 65/2018, of 16 August, amends the legal regime for higher education degrees and diplomas, previously established by Decree-Law No 74/2006, of 24 March. Amendments aim at improving simplification and dematerialisation and a process is introduces to reduce the administrative burden and publication costs associated with the registration of study cycles. In the medium term, the exemption from publication in the Electronic Official Journal is introduced, which is replaced by publication on an appropriate electronic platform, to be developed by the Directorate-General for Higher Education. Total dematerialisation is also carried out for the purposes of presenting dissertations, project works, reports, theses or works that replace them, determining that only the digital format is required, without prejudice to the legal deposit guarantees.

Decree-Law No 66/2018 of 16 August 2018, approved the legal regime for the recognition of academic degrees and diplomas of higher education awarded by foreign higher education institutions. It establishes that the recognition of foreign degrees and foreign diplomas of higher education is carried out through an electronic platform.

Decree-Law No 55/2018, of 6 July 2018, established the curriculum for primary and secondary education and the guiding principles for learning assessment. In line with the priorities of simplification and dematerialisation of the public administration, it foresees that the certificates and diplomas templates for the various educational and training paths should be issued by schools in an electronic format.

Digital Skills Training

Order No 3431/2019, of March 19, establishes training in digital skills as a strategic area for the public administration.

Code of Criminal Procedure

Law No 1/2018 of 29 January 2018, amended the Code of Criminal Procedure. The amendment allowed for making notifications to legal representatives by electronic means.

Foreign languages in civil registry

Decree-Law No 51/2018 of 25 June 2018, ensured that the documents to be registered in the civil registry can be written in foreign languages. To apply for such registration, applicants must make an appointment online.

Online certificates for organisations

Decree-Law No 52/2018 of 25 June 2018, prepared the creation of online certificates for organisations. These certificates allow for an electronic search of organisations on the constantly updated Central Registry of Organisations.

Electronic processing of cases in the administrative and fiscal jurisdiction

Law No 118/2019, of 17 September, (which amended, among other things, the Code of Procedure in Administrative Courts) modifies procedural regimes within the administrative and fiscal jurisdiction, making it mandatory to process cases electronically in administrative courts. This allows for the speeding up of cases and increases efficiency in the processing of cases. On the other hand, the speeding up of proceedings improves the quality of services offered to citizens by the public administration.

4.5 Emerging technologies

Resolution of the Council of Ministers No 26/2018

Council of Ministers' Resolution No 26/2018 approved the National Digital Competences Initiative e.2030 - Portugal INCoDe.2030. The Portugal INCoDe.2030, launched in April 2017, is an inter-ministerial action that brought together the areas of administrative modernisation, science, technology and higher education, education, labour, planning and infrastructures and economy. It aimed to strengthen the basic ICT skills of Portuguese citizens, preparing them for the emerging digital-based employment opportunities. This initiative comprised five axes: inclusion, education, qualification, specialisation and research.



5 Digital Public Administration Governance

5.1 National

5.1.1 Policy

Minister for State Modernisation and Public Administration

The Minister for State Modernisation and Public Administration is responsible for the modernisation of public administration and digital government.



Alexandra Leitão Minister for State Modernisation and Public Administration

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Secretary of State for Innovation and Administrative Modernisation

The Secretary of State for Innovation and Administrative Modernisation is responsible for the modernisation of public administration and digital government.



Maria de Fátima Fonseca Secretary of State for Innovation and Administrative Modernisation

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5.1.2 Coordination

Administrative Modernisation Agency (AMA)

Created in 2007, AMA is a public institute that assists the Ministry of State Modernisation and Public Administration in the areas of digital government and administrative modernisation and simplification, under the superintendence and tutelage of the Secretary of State for Innovation and Administrative Modernisation.

AMA's activity is divided in three major areas: digital transformation, public services delivery (both physical and digital) and innovation & public participation.

AMA operates in areas such as ICT strategy and governance, administrative simplification, electronic identification (eID), interoperability, open data and other building blocks of the digital government in Portugal.



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Council for Information and Communication Technologies in the Public Administration (CTIC)

The Council for Information and Communication Technologies in the Public Administration (CTIC), created in 2016 by the Council of Ministers' Resolution No 33/2016, of June 3, is the coordination structure responsible for developing and operationalising the ICT strategy and the overall action plan for ICT in the Portuguese public administration.

The CTIC responds directly to the Prime Minister, who delegated this attribution to the Minister for State Modernisation and Public Administration. Its Technical Committee (which includes a representative for each Ministry) is chaired by the Administrative Modernisation Agency's (AMA) CEO, thus giving that entity a cross-sectorial management role in the Portuguese eGovernment policy domain, with the guidance of the Minister for State Modernisation and Public Administration.

The CTIC has the following objectives:

- promoting the study of ICT in the public administration;
- developing the ICT strategy and action plan in the public administration;
- implementing the measures contained in the ICT strategy that can be carried out directly;
- monitoring the implementation of measures that are carried out by other entities;
- monitoring the integration and compatibility of sectoral action plans with the ICT strategy in the public administration.

As the ICT strategy is due to be implemented by end-2020, the government has been working on the orientations and governance model to follow.

5.1.3 Implementation

Administrative Modernisation Agency (AMA)

AMA implements initiatives to modernise and simplify public administration, focusing on digital transformation, service delivery and public participation.

Individual Government Ministries and Agencies

Individual Government Ministries and Agencies carry out projects within the framework of their competences.

5.1.4 Support

Management Centre for the Electronic Government Network (CEGER)

CEGER, under the Prime Minister's Office, provides IT support to government bodies. It is responsible for the management of all the technological infrastructure of the government network, including maintenance of the Data Processing Centre, technological equipment, systems and the electronic communication network. In addition, CEGER focuses on electronic security and on advanced systems in support of government decision-making. It also acts as the certification manager for the State Electronic Certification System - management of Public Keys (SCEE). It is the responsible entity for registration of GOV.PT internet sub-domains.



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Entity for Shared Services in Public Administration (eSPap)

The Government Shared Services Entity (eSPap) ensures the development and provision of public services, and designs, manages and evaluates the national procurement system in addition to ensuring the management of the PVE (State Vehicle Fleet). It supports the development of strategic policies by the Ministry of Finance and the Ministry of State Modernisation and Public Administration in the area of information and communication technologies (ICT). It also ensures the planning, designing, execution and evaluation of digitalisation initiatives of the respective services and organisations.



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Source: https://www.espap.gov.pt/

5.1.5 Interoperability coordination

Administrative Modernisation Agency

The responsible body for interoperability activities in Portugal is the Administrative Modernisation Agency.

5.1.6 Base registry coordination

Base Registries

As a result of the consecutive electronic government national strategies and related programmes (e.g. SIMPLEX), many base registries and respective services are currently available online. The Interoperability Platform for the Public Administration (iAP), managed by AMA, is connected to the base registries of social security, finance, health and justice (among others), thus allowing for the collection of specific information within these base registries.

5.1.7 Audit

Court of Auditors

The Portuguese Court of Auditors is in charge of auditing public funds, public revenue and expenditure, as well as public assets, with a view to ensuring that the administration of these resources complies with the law and with principles of financial responsibility.

5.1.8 Data Protection

National Commission for Data Protection

The National Commission for Data Protection is an independent body with powers of authority that extend throughout the country. It supervises and monitors compliance with the laws and regulations in the area of personal data protection, in full respect of both human rights and the fundamental freedoms and guarantees enshrined in the Constitution and the law.

5.2 Subnational (federal, regional and local)

5.2.1 Policy

Minister for State Modernisation and Public Administration

The Minister for State Modernisation and Public Administration is also responsible for the modernisation of public administration and eGovernment at all subnational levels.

Secretary of State for Innovation and Administrative Modernisation

The Secretary of State for Innovation and Administrative Modernisation is also responsible for the modernisation of public administration and eGovernment at all subnational levels.

Secretary of State for Decentralisation and Local Administration

The Minister for State Modernisation and Public Administration is currently responsible for formulating, implementing and evaluating a comprehensive and coordinated policy

in agreement with local governments, through the Secretary of State of Decentralisation and Local Administration.

Regions and Municipalities

Regions and municipalities are in charge of policies/strategies within the scope of their competences.

5.2.2 Coordination

Administrative Modernisation Agency (AMA)

AMA coordinates administrative modernisation programmes and involves, via a very active model, most of the municipalities on how to implement them at regional and local level. Many of the several existing initiatives focus on areas such as co-financing (SAMA), licensing (Zero Licensing and Industrial Licensing), Citizen Spots (multiservice physical desks for assisted digital service delivery, in partnership with municipalities).

Regions and Municipalities

Regions and municipalities are in charge of policies/strategies within the scope of their competences.

5.2.3 Implementation

Directorate-General for Local Administrations (DGAL)

The DGAL is a service integrated in the Ministry of State Modernisation and Public Administration, whose mission is to design, study, coordinate and implement measures to support local administrations and to strengthen cooperation between the latter and the central administration. Its tasks include, for example, the design and development of information systems in the areas of financial, patrimonial, administrative and HR management.

Regions and Municipalities & AMA

Regions and municipalities carry out projects within their scope of competences. Furthermore AMA, besides coordinating, also plays an active part in the implementation of several initiatives such as licensing (Zero Licensing and Industrial Licensing) and public services delivery Citizen Shops and Citizen Spots (one-stop-shops with strong municipalities' involvement), together with regional/local entities. The Common Knowledge Network electronic platform works as an enabler.

5.2.4 Support

National Association of Portuguese Municipalities (ANMP)

The National Association of Portuguese Municipalities is the representative body of the Portuguese municipalities. It promotes their interests and provides support services in various areas, including ICT and public management.

5.2.5 Interoperability coordination

No responsible body has been reported to date.

5.2.6 Base registry coordination

Base Registries

As a result of the consecutive electronic government national strategies and related programmes (e.g. SIMPLEX), many base registries and respective services are currently available online. The Interoperability Platform for the Public Administration (iAP), managed by AMA, is connected to the base registries of social security, finance, health and justice (among others), thus allowing for the collection of specific information within these base registries.

5.2.7 Audit

Court of Auditors

The Portuguese Court of Auditors is also in charge of auditing public funds, public revenue and expenditure, as well as public assets, at all subnational levels.

5.2.8 Data Protection

National Commission for Data Protection

The National Commission for Data Protection also supervises and monitors compliance with the laws and regulations in the area of personal data protection, at all subnational levels.



6 Digital Public Administration Infrastructure

6.1 Portals

6.1.1 National Portals

Government Portal

The Government Portal is the institutional website of the Portuguese Government, providing information to businesses and citizens on matters such as the government programme, the government composition, diverse documentation (e.g. political communications) or ongoing public consultations, as well as generic information about Portugal.

ePortugal

ePortugal.gov was launched in February 2019 (Council of Ministers' Resolution No 46/2019, of 22 February) to replace/merge the Citizen Portal, the Entrepreneur's Desk and the Citizen Map in a Single Digital Gateway, which centralises all digital public services for both citizens and companies as well as the information inscribed in the National Catalogue of Entities and Services (directory of public entities, services, points of care, websites, mobile applications, etc.).

The portal, which was developed under the national simplification and modernisation programme SIMPLEX, is organised around life and business events according to the core public service vocabulary (e.g. having a child, getting married, retiring) and provides both informational and transactional services, in line with the citizen-driven approach that the Portuguese government has been implementing for the last years. As such, ePortugal's development involved several co-creation activities, including designthinking and user-testing sessions with different public entities and end-users (citizens and businesses).

There are a wide range of transactional services that can be performed directly on the ePortugal portal, including changing the address on the Citizen Card, requesting birth, marriage and/or death certificates or requesting over 500 business licenses and permits, to name just a few. As to the services that are not directly accessible on the portal, the user can still consult all related info and be redirected to the sectoral portals that provide that service. In the case of services that can only be done at physical counters, ePortugal redirects the user to the Citizen Map, where that information is available and georeferenced.

The ePortugal is dynamic and adaptable to individual users, offering several customisation options and a reserved area that allows them to access different information regarding their relationship with the public administration (e.g. check when the user's data has been requested for authentication on other portals, using the electronic identification means provided by Autenticação.gov; check the status of the user's requests regarding the cancellation or renewal of the Citizen Card, change of address on the Citizen Card, birth/marriage/death certificates; view a list of the user's electronic medical prescriptions). Registered users also have access to a documents folder where they can save and share documents with other registered users or with the public entities that have subscribed to this service.

The portal was developed with a focus on accessibility and usability, adapting to any type of device and presenting a simpler and clearer language.

Likewise, ePortugal intends to facilitate the interaction between citizens/companies and the State by providing innovative support instruments such as the abovementioned Citizen Map (available as an app, for Android and iOS), which provides georeferenced information for all public services and also allows the user to get digital queue tickets

for onsite public services, and the chatbot SIGMA, a digital assistant based on artificial intelligence that helps users to find and use the available services, and allows to request a contact with one of the available helplines to citizens and entrepreneurs.

Following the 2020 COVID-19 outburst, ePortugal has had an increased relevance as a privileged vehicle to prevent social contact and thus strengthen the fight against the virus.

Portal for COVID-19 public information: EstamosOn

On 18 March 2020, the central administration launched covid19estamoson.gov.pt as the single point of contact for all relevant information on the COVID-19 prevention and containment measures. This national platform, directed to citizens, families and companies, offers:

- communication campaigns to promote the use of digital public services, introducing the ePortugal portal as a way to minimize social contact;
- technological tools (and respective tutorials) to operationalise the telework regime and facilitate the pursuit of day-to-day activities;
- a list of the exceptional measures adopted by each governance area, political communications and relevant legislation, accompanied by FAQs;
- a dashboard with the epidemiological evolution in Portugal;
- a section with questions collected from social networks and answered by the competent health authorities;
- a complete, consolidated and reliable list of emergency and support contacts created by the various public services.

All contents are also available through a mobile application (Android and iOS), to ensure their dissemination to different end-users.

Open Data (Dados.gov)

Following international practices in the area (e.g. the US or the UK Data.Gov projects), the Administrative Modernisation Agency has committed to the development of a wide and open platform containing all kinds of data from public bodies. The Open Data Portal makes available to citizens an extensive range of information from very diverse areas.

The objective of this policy - keeping in mind the right of any citizen to consult public administration information - is to democratise citizens' access by operating on the means to obtain it.

Dados.gov web-portal was relaunched in May 2018 as Dados.gov+, replacing its previous 2012 version. Developed under the SIMPLEX+ Programme, this new version was designed to conform to the best international practices in the field, and incorporate innovative solutions in terms of user experience, content structure, data integration and user licenses.

Managed by AMA and available in open source, dados.gov is based on the French UDATA platform, which was developed by ETALAB, and already has more than 2030 datasets. It is free and open to all users that want to access data, but also to citizens and organisations that wish to make data of public interest available. All they need to do is register, receive their API key, and characterise the dataset they wish to upload. Each dataset can have more than one associated resource and can be published in different and multiple formats, which is one of the features enabling data reuse. It is also possible to index datasets, by introducing an URL referring to the origin of the data, which is ideal for entities that already have the information available in their own platforms, like the partilha.justica.gov.pt, from the Ministry of Justice, or the *Lisboa Aberta* portal, from the Lisbon City Hall. In case the supplying entity already possesses its own data portal, the publishing process can also be made through data harvest, thus collecting the data in a regular and automated way.

OGP Portugal

The OGP Portugal website was developed within the scope of the Portuguese participation in the Open Government Partnership (OGP), to centralise all information about the process, progress, evolution and monitoring of the National Open Administration Action Plan and to foster public participation. Citizens are invited to contribute to the promotion of Open Administration in Portugal, collecting their contributions and ensuring feedback is given to them. This portal has been available since October 2018, and it is also highlighted in the "Transparency" area of the ePortugal portal, with the objective of promoting its dissemination and visibility.

The activities of OGP Portugal are allowing a free exchange of ideas and suggestions, between civil society organisations and public entities, highlighting the relevance of including Civil Society themes, which must continue to be considered in future to keep promoting Open Administration in Portuguese public entities, namely the digital transition process and the guarantee of a wider inclusion and representativeness within the participation in State activities.

Tax and Customs Authority

The Ministry of Finance makes available to citizens and companies a web portal allowing for tax submission and fiscal situation consultation, among a wide range of digital services. Users can consult their tax files, statistics and conduct simulations.

Advanced functionalities have recently been integrated into the system allowing for enhanced usability, the most notable being the automated income tax declaration. The pre-filling of the declaration already began several years ago, culminating in the current fully automated procedure, in which IRS can be settled without any intervention by the taxpayer. Developed as a Simplex measure, this feature automatically prefills the citizen's income statement with all relevant data conforming to data protection regulations; the declaration receipts and the notification of the final tax calculation can be confirmed electronically.

The *Portal das Financas* allows secure authentication via the Citizen Card and the Digital Mobile Key, and a complimentary app was made available in 2018 to facilitate the payment of taxes and the consultation of the citizen's fiscal status.

National Health System

Available since 2016, this platform provides citizens with access to a wide range of information and services online, made available by the institutions that integrate the Portuguese National Health System and other institutions of the Ministry of Health. The portal allows, among other functions:

- consultation/download of diverse health indicators;
- access to geo-referenced information about health providers;
- online medical appointments and renewal of medical prescriptions;
- access to didactic materials on Health Literacy;
- activation of electronic notifications (via SMS) whenever an accredited health professional consults the patient's registered clinical information.

The National Health System Portal includes the National Health System Transparency Portal, which centralises the data produced by the health care entities in a digital and accessible platform, so that this information can be analysed and reused without any restriction by the general population.

Since May 2019, the authentication on the National Health System platform is done exclusively through the Citizen Card or Digital Mobile Key eID mechanisms.

Social Security - Direct Social Security

Via the Social Security Portal, citizens can access their social security data and perform a wide range of services, from submitting requests for unemployment benefits, child allowances, and leaves to payments, while enjoying and having access to the information they need regarding their rights and duties in the social security domains. Authentication via Citizen Card (eID) is available and the platform presents lots of already prefilled information, based on back office automation and interconnection with other public organisations.

Qualifica

The *Qualifica* portal aims at easing access to information, services and tools included in the Qualifica Programme (i.e. the National Credit System for VET and the *Qualifica* Passport). It targets trainees, employers and adult education and training providers. It enables citizens to find a Qualifica Centre, to consult education and training opportunities and to update the Qualifica Passport. The *Qualifica* Passport is an online tool that records the education and training pathways attained; it also provides guidance to pathways in order to complete or obtain a new qualification, taking into consideration the already attained training and the acquired skills.

National Commission for the Promotion of the Rights and the Protection of Children and Young People

The CNPDPCJ portal is managed by the National Commission for the Promotion of the Rights and the Protection of Children and Young People (CNPDPCJ) and provides citizens with a wide range of information on: the promotion and protection of children and young people; ongoing activities being pursued by the CNPDPCJ and other national entities towards the implementation and realisation of these goals; national and international framework; and on the Portuguese system of promotion and protection of children and young people in danger. The CNPDPCJ portal also conveys updated data and assessment reports on the activity of the Local Commissions for the Protection of Children and Young People and offers citizens an additional channel for the referral of children and young people at risk or in danger.

National Statistics

The national portal for official statistics is where citizens, companies and academia supply and obtain official statistics about the Portuguese society.

It was relaunched in 2019 with the reorganisation of contents and layout and also the improvement of accessibility and navigation functionalities, such as the adaptation for access in mobile devices, tablets and smartphones. Furthermore, Statistics Portugal (INE) made available a set of feeds (RSS, ICS, and JSON) that provide direct connection to other third-party applications, allow users to receive INE's news in real time on their computers, and provide a REST API that allows for the creation and extraction of an indicators catalogue available in the website database, thus enabling users to extract the indicators and related metadata.

This service is characterised as follows:

- real time update;
- extracted data in standard formats;
- available in Portuguese and English;
- free of charge.

The activity of INE comprises data collection through a website where citizens and companies can answer the available surveys, which are framed by National or European legislation.

The activity of INE is duly framed by the strategies of the National Statistical System (General Guidelines of National Statistical Activity 2018-2022) and of the European Statistical System (European Statistical Programme up to 2020), which give special emphasis to technological innovations applied to the statistical production process in their different phases, as well as privileging access to new data sources, namely those of administrative nature.

The current statistical operations carried out by Statistics Portugal, representing the various statistical domains, fulfil reporting obligations and methodological requirements established by European and national statistical legislations.

Access to administrative data is carried out in a number of areas, in a constant pursuit of minimising the burden of data collection operations on enterprises and citizens. Attention is given to significantly reducing the statistical burden, as well as making available to society new statistical indicators, more relevant and appropriate to the users' needs when making decisions. With this purpose in mind, Statistics Portugal articulates with both public administration entities and private entities.

Online Security Accreditation

The Online Security Accreditation platform (CRESO), managed by the National Security Office, was developed in the scope of the Simplex programme and aims to make it easier for citizens and companies to interact with the public administration, whenever it is necessary to obtain or renew a security clearance. For this purpose, the Council of Ministers' Resolution No 70/2019, of 11 April, declassified some of the forms required to apply for accreditation.

Justice

The Justice Portal, launched by the Ministry of Justice in 2017, offers a wide catalogue of services related to the area of justice, including courts, registries and notary, reintegration and prison services and industrial property. The platform congregates in a single website information about the judicial services in a clearer and more accessible language (all contents are written in 'plain Portuguese' and can be easily searched by using a simple interface). The platform marked a watershed moment in how citizens, companies, and their agents interact with the various services in the justice sector.

The creation of a common network to aggregate the websites of the area of governance of Justice is also relevant, with a view to enabling better sharing and availability of content, news, statistics and documents. In this context, the justica.gov.pt network already integrates seven public bodies websites.

CITIUS

The CITIUS service enables the electronic submission of documents for their use in court cases. Lawyers can present evidence and documents to the courts, check their distribution, look up cases and keep track of fees electronically. For civil cases and injunctions, most correspondence can be conducted electronically. Sets of copies and duplicates are no longer needed. The system is secure in that the use of personal, non-transferable electronic certificates is required.

Electronic Yellow Book

The Electronic Yellow Book, launched as a Simplex+ initiative, allows businesses and citizens to leave a complaint, a suggestion, or write a compliment regarding the public administration and its services, namely the digital ones.

RFA

Launched in December 2016, the State of the Environment portal (portal REA) contains online information about environmental indicators. Developed and managed by the

Portuguese Environment Agency, this platform includes information and analysis for businesses and citizens and is expected to serve as a reference for consultation on key indicators and environmental trends in Portugal. The REA portal aggregates a number of indicators on the state of the environment, presented in 49 thematic sheets across eight environmental domains: economy and environment, energy and climate, transport, air, water, soil and biodiversity, waste and environmental risks.

Denunciar

Launched in 2018, Platform *Denunciar* was designed as an electronic desk for complaints from businesses and citizens. It is hosted by the General Inspectorate for Agriculture, Sea, Environment and Spatial Planning.

CINERGIA

CINERGIA, the Information Centre for Energy, is an online platform launched in December 2018 by the Portuguese Agency for Energy (ADENE) to disseminate an integrated vision of the energy sector from production to transport, storage and consumption, contributing to a better energy literacy by the civil society.

The portal includes an electric mobility simulator and allows users to plan trips by calculating the carbon footprint associated with different modes of transportation. There is also an energetic map by district, and businesses and citizens can make quizzes to test their knowledge on the subject.

LUA

LUA is a platform that integrates environmental permits for industries. It is in full service since 2017, explored by the Portuguese Environment Agency.

Participa

Public consultations under the responsibility of the Ministry of Environment and Energy Transition take place on the *Participa* portal, which was launched in 2015 and is explored by the Portuguese Environment Agency.

Poupa Energia

The *Poupa Energia* portal aims to provide the general public with a tool that allows simulations on how to save in energy bills and in electricity and natural gas consumption. It was launched in 2017 by the Portuguese Agency for Energy (ADENE).

Defence

The Ministry of Defence launched the Portuguese defence portal in June 2019, which is now available. It provides the most relevant information about national defence, its history, regulatory legislation, structure, mission, designations, activities and statistics, among other information. Its development followed best practices in terms of accessibility and usability and adapts to any type of device. This portal is an important contribution to the government's objectives to open defence and the military to society and to recruit more and better, and to retain longer. On the other hand, it discloses the most relevant missions, operations and activities conducted by the Armed Forces, to citizens and the media, presented in an informative and accessible language.

It also has centralised access to all defence public services to citizens and companies, as the military branches and the Portuguese Maritime Authority Portals, among others of interest, are accessible through this central MoD portal. It also contains a reserved area that allows access to Business Intelligence information.

Military Recruitment

The Ministry of Defence launched the military recruitment portal in June 2019. The purpose of this portal is to provide the Portuguese youth with a more effective information and communication tool in support of military recruitment. The portal aggregates information on recruitment in a personalised way, according to the interested user, and does not require prior knowledge about any of the branches. Therefore, it aims to promote better-informed decisions from candidates joining the Armed Forces. It brings the military closer to the recruitment pool, the Portuguese Youth. The development of this platform was a SIMPLEX project.

Captaincy Online

In September 2018, the Captaincy Online web-portal and its corresponding mobile app were launched. This platform, which resulted from a SIMPLEX+ project, offers information and online services to seafarers, ship-owners, companies and other users on maritime-related licenses, registrations, applications and statements requests, professional diving, maritime courses and other National Maritime Authority (NMA) services, including service cost simulation and electronic payment. It constitutes a one-stop shop for NMA services and allows automatic data sharing with other governmental entities. The application is also accessible through Automatic Terminals located at the 28 National Captaincies, located all over the Portuguese coastline and at the fishing auction houses. Additionally, an app is available for maritime police to conduct surveillance operations, allowing access to the application registered data on seafarers, divers, boats, etc.

National Defence Memory Institutions

In January 2019, the National Defence Memory Institutions website (NDMI-w) became available. The NDMI-w resulted from a SIMPLEX+ project and provides centralised online access and a specialised search function for the main defence-related National Archives (6), Museums (10) and Libraries (23), located throughout the Portuguese territory. To date, the platform holds more than 630 000 entries, and documentation and cultural artefacts registries. Furthermore, digital scanning, both in 2D and 3D, is ongoing in all 'memory institutions'. The aim of this platform is to:

- provide access to virtually all collections of the national defence-related historical and cultural heritage, through proper metadata identification and digital registration;
- reinforce conservation mechanisms by leveraging the digitisation process of historical documentation and cultural artefacts;
- provide scale at National Defence level and to be a reference within the public administration;
- Creation of the National Defence Memory Institutions Network and beyond, as a means of share-to-gain.

Entrepreneur's Desk

The Entrepreneur's Desk was released in 2011 as a part of the Portuguese Business Portal (which was set up in 2006), to implement the EU Services Directive.

Integrated in the ePortugal portal, it is the point of single contact for digital services related to the exercise of economic activity. Services provided include the complete setting up of a business through the web site ('Online Business'), as well as the Business Electronic Dossier, where the different interactions of each business with the public administrations are gathered. These are easily and securely accessible to business partners or their representatives through identity authentication by advanced eSignature certificates. This access point ensures full transparency on the status of administrative procedures. The Entrepreneur's Desk also brings together information of interest for business activities related to the management, expansion and closure of

enterprises, and provides information on financing, location and innovation opportunities for businesses. This platform registered 78 794 applications in 2019 (-10% as compared to 2018) and made available, by the end of the year, a total of 304 transactional services (+10%), 29 of which were new services added in 2019. In addition to this digital platform, there are also a national network of physical desks, the Business Spots, offering a catalogue of more than 180 informational and digital services to businesses, and the Business Support Centres, which provide both face-to-face and digitally assisted services.

Up until January 2020, a total of 320 processes had been fully dematerialised, treating 23 regulations.

Simplified Business Information (IES)

IES is used for the delivery of declarative obligations related to accounting, taxation and statistics via electronic means and in a completely dematerialised form. All information which businesses have to provide on their annual accounts is transmitted collectively and to a single entity. The IES submission has to be made through the Business portal, by choosing IES and filling in the form directly or by opening and sending the corresponding file previously formatted according to specifications laid down by law. It is then submitted electronically to the IES, and the automatically-generated ATM reference has to be retained to allow the payment of the accountability submission registration. The registration for the accountability submission has to be paid within five working days.

Public Employment Service: IEFP OnLine

The IEFP OnLine portal, launched in 2018 by the Ministry of Labour, Solidarity and Social Security provides citizens and companies with a wide range of services related to job seekers, including unemployment allowances, browsing and applying for training opportunities, advertising jobs, automated cross matching between employers and job seekers or applying to support under the framework of labour market policies.

With electronic authentication via Citizen Card or Digital Mobile Key, the portal allows a total dematerialised relationship between the user and the public employment service and is responsive to mobile devices.

The development of the portal encompassed different stages:

- in the first phase, with the support of university research centres, the Experimentation Laboratory of the Public Administration (LabX) investigated citizens and businesses' experience in the use of the IEFP service, obtaining a deep perspective of the needs and barriers of this service;
- in a second phase and after the creation of the portal, LabX carried out a heuristic analysis, conducted usability tests with real users, and measured the system usability scale and user satisfaction, after the tests. During this phase, a set of recommendations were prepared and delivered to the project promoter, aiming at improving the overall user experience in the new IEFP portal and consequently increase the efficiency and quality of this digital public service.

The IEFP Online portal is constantly evolving to provide more services to citizens and companies, considering the needs identified and the feedback that IEFP gets from users' experiences.

Web accessibility and usability ecosystem

The Administrative Modernisation Agency (AMA) is responsible for developing, promoting and monitoring the implementation of usability and accessibility guidelines and regulations, ensuring compliance with national and international standards and best

practices (namely WCAG 2.1 from W3C) and enabling citizens, especially those with disabilities, to access and use public services online.

To this end, AMA made available an ecosystem, aggregated in the acessibilidade.gov.pt webportal, with information about laws, guidelines, best practices and also practical online tools for public entities which include:

- an accessibility and usability kit for public sector's websites (with all resources available on Github);
- an accessibility WCAG 2.1 validator;
- an accessibility statement generator;
- a usability and accessibility seal of excellence.

The Usability and Accessibility Seal, in particular, is an indicator of the quality of the contents and services made available online by public and also private entities, according to three levels of compliance with standard requirements: Bronze seal (conformity to level 1 requirements), Silver seal (intermediate level) and Gold seal (highest level of conformity).

App.gov.pt

App.gov.pt was launched in 2018 as a directory of mobile apps that centralised various applications made available by the public administration to make life easier for citizens.

The development and management of this app was provided by the Administrative Modernisation Agency (AMA), which ensured the indexation of the apps developed by the public bodies themselves.

App.gov.pt is available for both Android and iOS devices.

Study and Research in Portugal

Launched in 2019, the Study and Research Portal is a one stop shop with all the relevant information about Portuguese higher education, research, and innovation systems. It has a search engine that allow users to find all the courses and opportunities on offer in Portuguese higher education and research institutions.

Directorate General for Higher Education

This portal allows an easier access to all the different services offered by the Directorate General for Higher Education (DGES), namely a platform for accessing the first cycle studies in the national call to enrol in a public higher education institution and a platform for applications for student support.

Ciência Vitae

Ciência Vitae was launched in 2018 by the Foundation for Science and Technology (FCT) as the new national system for management of scientific CVs. In a single platform, in direct relation to the scientific ID system (Ciência ID), it aggregates information which was otherwise dispersed in multiple platforms. Ciência Vitae imports information from past systems of scientific CVs management (FCT-SIG and DeGóis), and it is now linked to other platforms, such as RENATES (electronic deposition of theses), REBIDES (academic human resources), ORCID and RCAAP (scientific production).

iAPEX

iAPEX was designed by the Office for Strategy and Studies of the Ministry of Economy (GEE) in partnership with the University of Minho, in order to facilitate access to relevant information on different potential export markets.

Portugal Exporta

Portugal *Exporta* is a digital platform launched in April 2019 to inform, support and advise an increased number of Portuguese companies on the best ways to approach, start exporting or expand in foreign markets, in a perspective of autonomous preparation and self-sufficiency.

The public area of this platform provides basic information about the four main steps of an internationalisation process: self-diagnostic, selecting a target market, action plan and soft landing; promotes benchmarking with success cases from different economy sectors; and publishes useful news and an events agenda. Companies can also find a walkthrough of the Agency for Investment and Foreign Trade of Portugal (AICEP) portfolio, with all the products and services available to help them build global businesses.

Registration and login are recommended to those companies who want a digital client service that can match their needs. The login to a restricted personal area (My AICEP) gives entrepreneurs tailored content, customised tools and guidance throughout their particular internationalisation process, new business opportunities, the latest news on each business sector and an event calendar specifically catered for each registered company. They will also find suggestions for new markets, customized action plans to best approach and engage with them as well as alerts and notifications on new incentive programmes.

National Housing

Managed by the Institute for Housing and Urban Rehabilitation, the National housing portal serves as a single point of contact to all the Portuguese housing and rehabilitation programmes related matters. It provides an integrated access to electronic platforms for programmes such as Affordable Lease Programme Platform (PAA), *Primeiro Direito* and *Porta de Entrada* (rehousing programmes).

Public Procurement - BASE

The BASE Portal gathers all relevant information on public procurement in Portugal, making it available to citizens in an open and transparent way.

It was created after the publication of the Portuguese Public Contracts Code (CCP), in January 2008, which transposed Directives 2004/17/EC and 2004/18/EC. Ordinance No 57/2018, of February 26, regulates the functioning and management of the BASE Portal and approves the data models to be transmitted to this platform, for the purposes of the provisions of the CCP.

Cultura

The Culture Portal aggregates relevant information on the national cultural offer, cultural routes and cultural spaces all across the country. This portal has been evolving with new functionalities, developed under the SIMPLEX programme, including the addition of customisation options and a module for the acquisition of tickets to public buildings (museums, palaces and monuments) and guided visits, as well as the georeferencing of cultural sites and relevant entities.

travelBI

Turismo de Portugal, the Portuguese national tourism authority, developed a knowledge management portal, travelBI, to disseminate the main performance indicators of the tourism sector. Through this tool, Turismo de Portugal takes on the role of optimising the production and dissemination of information and knowledge to assist companies in their strategic and investment decisions, on the definition of public policy and encouraging tourism research.

Recognising the importance of up-to-date and accessible tourism data, Turismo de Portugal has developed the travelBI business intelligence platform to provide up-to-date data, statistics and market intelligence to local operators on the top inbound source markets. The platform integrates information from various national and international information systems. Tourism investors and companies can easily access statistical information and analyses on tourism, data by source markets, national strategic priorities, and emerging market trends. This information-sharing mechanism provides more and better knowledge to companies.

TravelBI is a free access knowledge management portal whose mission is to disseminate the main performance indicators of the tourism sector, its competitive analyses and the continuous monitoring of the 25 main sending markets to Portugal. It provides primary information and data produced by various industry-relevant national and international partners through a business intelligence tool and open data availability.

Through this tool, Turismo de Portugal assumes the role of the main information aggregator in the tourism sector, optimising the production and dissemination of information and knowledge for the decision-making of the sector companies in their strategic and investment decisions, in the development of new projects, the definition of public policies and the promotion of research on tourism.

TravelBI has emerged as a significantly improved process for sharing data that measure tourism supply and demand in Portugal. In order to adapt to the needs of companies and the market for more information, which is also more immediate and customisable, travelBI includes a specific Open Data Portal, which provides data that can be analysed and reused without any restrictions by the sector and academia regarding the tourism offer in the country. At the same time, travelBI makes use of all of this information through a geographical information system, SIGTUR, for the evaluation and implementation of new businesses and the general tourism offer in the country.

Local Administrations

Managed by the Directorate-General of Local Administrations (within the Ministry of State Modernisation and Public Administration), the local administrations portal gathers information on all Portuguese local administrations and provides several online services to support them, such as the Integrated Local Administrations Information System, which centralises the collection and validation of financial and non-financial information on local administrations, or the Information System for the Legal Regime of Urbanisation and Building, which simplifies and dematerialises the processes of urbanisation operations.

This portal is directed to both public servants and citizens in general, as a complimentary channel to the local administrations' institutional websites.

6.1.2 Subnational Portals

No portals have been reported to date.

6.2 Networks

Council for Information and Communication Technologies in Public Administration

CTIC, the Council for Information and Communication Technologies in Public Administration, is the coordination structure responsible for operationalising the strategy and global action plan for ICT in the public administration. It is intended to effectively articulate with the SIMPLEX Programme to recover measures that take advantage of the transformative potential of ICTs and to implement new measures that will improve the quality of citizens' lives and reduce the costs for companies. CTIC brings

a new ICT governance model in the public administration, one that is open to society and well-adjusted to the government's objectives, thereby enabling the effective development of a global ICT strategy.

Interministerial Network for Administrative Modernisation

The Interministerial Network for Administrative Modernisation (RIMA), established by Decree-Law No 4/97 and reviewed by Decree-Law No 72/2014, brings together representatives from all governmental areas to pursue a collaborative work in the scope of administrative simplification and modernisation and streamline the relationship between the State, citizens and businesses.

It establishes, in particular, administrative modernisation measures on methodology and mechanisms for regulatory impact assessment of normative acts.

Commission for Administrative Modernisation

The Commission for Administrative Modernisation brings together business associations, social partners, consumer protection, professional associations and representatives of both central and local government, with the aim of promoting the sharing of ideas between the different stakeholders and partners in the modernisation of public administration.

SIMPLEX focal points network

The iSIMPLEX Programme includes a network of iSIMPLEX focal points, consisting of representatives of the various areas of governance and which plays a central role both in the development of the programme and in the subsequent monitoring of the implementation of its various measures.

Innovators Network + Experimentation Labs Network

In its mission of being a reference for experimentation in the Portuguese public administration, the Experimentation Laboratory of the Public Administration (LabX, an organic unit of the Administrative Modernization Agency) has been creating network-based initiatives to bridge the existing capacity and expertise within both the public sector and the innovation ecosystem. From the initiatives developed in this context, two stand out:

- the Innovators Network aims at creating connections between public servants from different governmental agencies and thus foster an ecosystem focused on the transformation of the public administration. It is a community of practice made by public servants, regardless of their role, hierarchical level or entity. The Innovators Network is geared towards the incubation and mentoring of experimental projects, enhancing the skills of its members and conducting collaborative sessions for a shared resolution of 'problems' and the dissemination of knowledge.
- In the first year (2019) the network already exceeded 500 members, who have co-created the Charter of Principles for the Public Innovator. There is a constellation of digital and face-to-face touchpoints, where they can access practical knowledge, share experiences with peers and also challenge the network with concrete problems and get the members support and collaboration in trying to solve them. It includes the realization of eight WORKSHOP@LabX with a combined number of 150 participants throughout the year. In December 2019, there was a Innovators Network event, that included 4 workshops held simultaneously, on topics such as Rapid Prototyping, Citizen Participation, Transforming Organisational Culture using Lego and Introduction to Blockchain.
- The launch of the «Toolkit for Public Services focused on the Citizen», which had the contribution of its members, is a digital, live and collaborative document,

which brings together a set of instruments aligned with the 3 phases of the LabX specific methodology. It offers members access to a variety of service design tools adapted to the specific context of the Portuguese public sector. There is also a printed version, a Toolbox, with a set of 24 cards, one for each tool, and a practical guide to support members in the day-to-day application of these innovation tools.

- Through LabXpresso, a bimonthly newsletter for members only, the Network can find practical knowledge, case studies on innovative projects in the public sector and the results of experimentation in public sector: 10 experimental projects use cases; 2 blog posts about LabX's methodology and approach; 4 tutorials on how to apply specific tools of the LabX's Toolkit;
- The Experimentation Labs Network, in which public administration teams are given project-based training, to apply in rapid prototyping cycles. They use LabX's approach to materialize experimental projects (up to six-month duration per project), which allows these teams to accelerate transformational proposals, for both public service delivery or public sector organisations.
- Established in partnerships and protocols with public entities from local, regional or central governance, the Experimentation Labs Network initiative is particularly important, since it allows to develop a 'belt of multipliers' who will promote and scale innovation within the public administration, integrating teams, laboratories and initiatives that are guided by purposes and by principles of the experimental approach adopted by LabX.

Citizen Shops

The Citizen Shops is a concept of public service delivery that combines in the same physical space several public and private entities. It does so with the aim of expediting relations between citizens and companies with the public administration.

The establishment of the first Citizen Shops took place in 1999 in Lisbon and Oporto. Their opening was the first step in the direction of the one-stop-shop concept for public service delivery, since citizens now have access to a wide range of public and private services in the same place.

This model has been continuously developed to respond to the evolving needs of citizens and companies. Examples include the availability of free Wi-Fi and the possibility to automatically assess, through QR Code or free SMS, the services provided in the Shops.

As of 24 February 2020, the network of Citizen Shops comprises 59 one-stop-shops.

Citizen Spots

The Citizen Spot is a multiservice physical counter where a specialised mediator assists citizens in accessing a portfolio of digital public services and further teaches them how to operate autonomously thereafter.

The services provided are essentially those already available on various websites, but some citizens may not feel capable or comfortable to use them by themselves. They include civil registration documents, forms to request the European Health Insurance Card, the Tax Authority's land registry, social security and tax services, just to name a few. In 2017, this catalogue was enriched with 22 electronic services.

All Spots are equipped with a double-screen system (one screen for the mediator and one for the citizen) that allows citizens to follow the steps being taken by the mediator. The service is provided in a completely transparent way, allowing the citizen to learn and control all the steps and procedures done by the assistant and hence reducing the chances for abuse of power/corruption to virtually zero.

Moreover, all the operations are supported by electronic identification tools developed by AMA, namely the PIN-protected Citizen Card and the Digital Mobile Key, the Portuguese mobile eID solution which allows citizens to authenticate themselves via mobile phone and email (including foreigners with a registered passport number), thus strengthening the citizens' trust in digital services and helping them understand the emphasis put on rights to privacy, data and consumer protection.

The combination of public digital services with the onsite assistance of a specialised mediator, in a brand-new hybrid model of service delivery, has proven to be an effective way to engage citizens in the use of digital services. It makes everyone more aware of the available services and their respective benefits and also aware of online security, which is fundamental to boost public confidence in the use of ICTs in general.

As of February 24, 2020 there were 637 Spots located in town halls, parishes, public libraries or post offices throughout the country (aiming to be close to citizens of all backgrounds) and also in the cities of São Paulo (Brazil), Paris (France), Brussels (Belgium) and London (UK), providing more than 230 services with nearly 6 million attendances.

The Citizen Spot concept was recently extended with the launching of the Solidarity Citizen Spot, which specifically targets day-care centres, nursing homes and residential structures for the elderly and comprises the operation of mobile kits by a trained mediator, and also the Mobile Citizen Spots, which foresees the use of minivans to provide digital assistance in remote locations or in catastrophic situations (this project was first mobilised to the areas affected by the fires that occurred in Portugal in the summer of 2017).

6.3 Data Exchange

Interoperability Platform of the Public Administration (iAP)

The iAP is a services-oriented central platform that aims to make available to all public administrations a shared tool that allows multichannel services for citizens and enterprises. The iAP comprises four independent services: 'Integration Platform' provides a simple and integrated delivery of cross-cutting electronic services, becoming a cornerstone in the administrative modernisation process; 'Authentication Supplier' allows authentication using the Citizen Card in portals duly accredited and authorised for that purpose; 'Payments Platform' enables the availability and integrated management of multiple payment methods for different channels; 'SMS Gateway' enables the sending and receiving of SMSs via short numbers between citizens and public administration bodies, thus enlarging the number of available contact channels for managing the relationship with citizens.

This shared tool for interconnection between different systems enables the provision of digital public services like dematerialised Medical ePrescriptions (mandatory and fully electronic since 2016) and the Automated Social Energy Fare, that automatically processes social benefits related to the energy bill by integrating data from Social Security.

The public administration's interoperability platform has been progressively extended to the private sector, enabling the provision of services such as the Dematerialised Bank Account Opening, available since July 2018 and allowing banks and financial companies to obtain data on the professional situation of potential clients in a totally dematerialised way.

Traffic Exchange Point

Council of Ministers' Resolution No 12/2012, of February 7, approved the Global Plan for Rationalisation and Cost Reduction concerning ICT in the public administration,

establishing a set of ground rules to rationalise the ICT assets used by the Portuguese government.

With regard to consolidated ICT solutions, as per Decree-Law No 151/2015, of August 6, it was decided to build an infrastructure that supports (voice and data) communications between the public entities, in a private, secure environment and without the service-fee charged by commercial providers, i.e. a Traffic Exchange Point (PTT) that guarantees direct access to all public entities while promoting a better service and secure, faster and easier access, with lower costs.

The implementation of the PTT is still progressing towards the designated goal of covering the whole public sector: the backbone link between the ICT entities of each one of the ministries was achieved in early 2019, with more than 25 different services made available for common use.

The rollout process will continue during the next years with the implementation of an increasing number of new services in the PTT.

6.4 eID and Trust Services

Electronic Authentication Platform: Autenticacao.gov

The Electronic Authentication Platform brings together the different authentication and electronic signature solutions available to citizens, allowing them secure access and authentication in the portals and internet sites of different public entities (such as the Citizen Portal or the Tax Authority Portal). Available authentication tools are the Citizen Card, the eID-based Portuguese identity card, and the Digital Mobile Key, an ID mobile solution that allows citizens to authenticate solely with a mobile device, thus eliminating the need to use a personal computer with a smartcard reader. 2017 saw the release of a Digital Mobile Key dedicated app to facilitate the use of the eID from the smartphone.

Another feature of Autenticação.gov is the Professional Attributes Certification System (SCAP), which allows citizens to authenticate and/or sign based on the professional functions that they perform, according to professional or business attributes.

Electronic Identity Card - Citizen Card: Cartão de Cidadão

Citizen Card is the Portuguese civil and electronic identification card (eID) that provides both visual identity authentication and electronic identity authentication using biometrics and electronic signatures. It allows the holder to provide secure authentication when dealing with digital services and to digitally sign electronic documents. Citizens can thereby take advantage of a multi-channel service delivery in their interactions with public and private services.

The national eIDAS node is implemented and in production on the ePortugal.gov.pt webportal - Citizen Card notification is published in the OJEU 2019/C 75/04 with a 'high' Level of Assurance.

Mobile Identification - Digital Mobile Key: Chave Móvel Digital

The Digital Mobile Key is a mobile authentication and signature mechanism associated to the eID Citizen Card, and other documents. It is a form of secure online citizens' authentication and signature, based on a system similar to home banking solutions, through the introduction of a username (citizen's mobile number), password (chosen by the citizen) and a one-time password sent by SMS, e-mail or Twitter account (also chosen by the citizen). Since December 2017, citizens can also use a Digital Mobile Key app for receiving the one-time password associated with each authentication through push notifications on their smartphones. More recently, in April 2018, the Digital Mobile Key was upgraded with a remote qualified signature feature, according to eIDAS Regulation No 910/2014.

The main objective is offering a complementary authentication solution through mobile devices, safer than the access via username and password, to electronic public services (more security to the State) and simpler to the citizen (more effectiveness and efficiency to citizens and companies). As of February 2020, more than 1.3 million citizens have already been enrolled in the Digital Mobile Key system.

The electronic identification scheme concerning the Digital Mobile Key was published in the OJEU 2020/C 116/01, with a 'high' Level of Assurance.

Portuguese Electronic Passport (PEP)

PEP represents the beginning of a new generation of eID documents with the most rigorous security patterns. While preserving the features of traditional passports as to the identification of its holder, it integrates innovative components ranging from facial recognition to the incorporation of a contactless chip which allows the automatic processing of entries and exits. All the information contained in the chip can only be read by the specialised equipment State Electronic Certification System (SCEE)

The SCEE is an infrastructure of public keys which supports electronic signatures and other electronic security services activated by public keys (algorithms). The SCEE architecture constitutes a hierarchy of trust that guarantees the electronic security of the State and the strong digital authentication of electronic transactions among several public services and organisations, and between the State, citizens and businesses. It allows interoperability with the infrastructures that fulfil the necessary rigorous authentication requirements through adequate technical mechanisms and compatibility in terms of certification policies, primarily within the scope of the EU Member States.

6.5 eProcurement

Public eProcurement platforms

There are five private platforms, certified by the National Security Office (GNS) and licensed by the Institute of Public Markets, Real Estate and Construction (IMPIC), through which all public procurement procedures have to be conducted regardless of the nature of the contracting entities.

The national public procurement portal (BASE) publishes all notices and contract announcements electronically and lists all certified eTendering platforms. Public entities can acquire eTendering services with minimal effort. Calls for tender are published in the Electronic Official Journal (DRE). Publication requests can only be submitted electronically. Some innovations are not commonly used (e.g. eAuctions, dynamic purchasing systems), and eProcurement in the post-award phase (e.g. ordering, invoicing and contract management) is still in its infancy.

All public administration contracts are required to be published on the BASE portal. A user can perform a thorough search, analyse expenses by the public sector, public bodies and enterprises, among other actions. This portal is one of the key examples of transparency efforts involving all public administration activities.

During 2019, eSPap developed a platform for the Annual Procurement Plan (PAN). The eAggregation solution became available in early March 2020 and its main objective is to reduce the administrative burden associated with the process of preparing the National Public Procurement Plan (PNCP) and allow those involved to invest more time in analysing the collected data and not in the process itself, as the data aggregation process is automatic.

The PAN is a fundamental instrument for planning the activity of the Ministerial Purchasing Units (UMC) and eSPap, namely in the centralised procurement procedures conducted by these entities. Furthermore, it allows assessing the level of coverage of each of the framework agreements signed by eSPap versus the amount entered in the

State Budget for each of the economic classifications covered by the framework agreements.

Also, the Public Suppliers Portal, to be launched in 2020, is meant to simplify and accelerate the pre-award phase of public contracts, and to provide digital means for public buyers to easily validate their suppliers' tax situation for invoice payment authorisation. It will establish communication by means of the interoperability platform managed by AMA, with the public contract register portal, eTendering platforms, and other public administration data sources.

Portal of Public Contracts: BASE

In 2008, the Public Procurement Code (Decree-Law 18/2008, of January 2008) established that 'the constitution, operation and management of a single Internet portal dedicated to public procurement', was paving the way for the online consultation of all contracts resulting from the public procurement process. This information is centralised and made available through Portal BASE, which collects all information on public procurement and publishes it in an open and transparent way, thus becoming an instrument of accountability and transparency in public purchasing.

The portal BASE is managed by IMPIC, according to Decree-Law No 232/2015, of October 13.

Electronic Invoicing Portal for the Public Administration: FE-AP

The Electronic Invoicing Portal for the Public Administration - FE-AP - was implemented in 2018 and allows for the receipt of invoices and rectifying documents in electronic format, ensuring the control and monitoring of all stages of the process:

- receipt;
- validation;
- archiving;
- verification;
- processing in accounting systems.

The solution is available to any public entity and allows direct integration with the GeRFiP solution or via web services with any other accounting or document management system. In addition to the exchange of electronic documents, the technological solution also dematerialises the dialogue with suppliers, transforming the verification process into a digital format.

The implementation programme of Electronic Invoicing in the Public Administration, executed by the Finance Shared Services, is based on the availability of two solutions around electronic billing:

- the portal of Electronic Invoicing in the Public Administration (FE-AP) to be used by public entities in the reception and invoice verification procedures, already in production;
- the Business to AP (B2AP) to be used by suppliers of the public administration, as co-contractors, in the monitoring of the electronic invoice delivery and its status evolution, in the pilot phase.

The use of the electronic invoice in public contracts, both their issue and reception, will be gradually made by public contractors and co-contractors.

From 18 April 2019, the central government and public institutes shall receive electronic invoices with binding adhesion to the FE-AP, and the sovereign bodies shall receive electronic invoices but with voluntary adhesion to the solution. By 18 April 2020, the regional and local government entities and independent administrative entities shall receive electronic invoices but with voluntary adhesion to the FE-AP.

As to the issuing of electronic invoices by co-contractors, it is mandatory for large enterprises by 18 April 2020 and for micro, small and medium-sized enterprises, as well as for public entities by 1 January 2021.

A collaborative process on the Unit for the Implementation of the Budget Framework Law (UniLEO) with eSPap is underway, which promotes the integration of electronic invoices into the new Information System for Public Financial Management (SIGFinP).

6.6 ePayment

Interoperability Platform of the Public Administration

The Interoperability Platform of the Public Administration (iAP) includes a Payments Platform (PPAP) that allows for the provision and integrated management of multiple payment methods (ATM, credit card), according to the different public service delivery channels. This platform guarantees full integration with operating systems via Web Services, simplified and secure operational management through a back office, and the use of the 3D Secure platform (Verified by Visa and Secure Code from Mastercard) to prevent fraudulent use of cards.

In 2019, the PPAP processed a monthly average of EUR 27.6 million.

6.7 Knowledge Management

Experimentation Laboratory of the Public Administration - LabX

The Experimentation Laboratory of the Public Administration (LabX) was created in 2017 as an organic unit of AMA to research, design and experiment innovative solutions to improve public services, driven by citizens and business' needs and expectations. With a small multidisciplinary team that combines service designers, public servants and social scientists, LabX focus on evidence-based knowledge, collaborative exchanges, experimentation and impact assessment, using different approaches from service design or gamification to behavioural sciences and participatory techniques, and privileging liaisons with civil society organisations, national research and development centres or with the community of entrepreneurs.

LabX's activity is anchored in four cornerstones:

Experimentation

The development of experimental projects provides an opportunity to research, design and experiment (the three stages of LabX's specific methodological approach) innovative solutions that improve public services:

- research makes it possible to define problems correctly before thinking about solutions;
- through co-creation processes, design ensures that all involved stakeholders are heard and can actively participate in building the solution;
- experiment allows testing before implementing a solution, gathering lessons that allow to reduce risks and learn from improvement attempts.

Empowerment

Changes only become sustainable over time if they are internalized by public entities and their employees. In order to continue to build capability for this change, LabX has developed different training programmes for the public administration:

- first, the ProLabX, brief awareness sessions (4hours), aimed at disseminating the laboratory's methodological approach;
- second, immersive training sessions (17 hours) which include actual fieldwork and are focused on the specific challenges of a given experimental project;

• finally, the mentoring programme, which takes place over a 6-month period and ensures that the teams involved in experimental projects have individualised follow-up to achieve their goals.

Connection

LabX acts as a connector and activator of the public administration innovation ecosystem, creating bridges between public entities and national research and development centres, the community of entrepreneurs, civil society organizations and, especially, citizens. The Innovators Network and the Experimentation Labs Network stand out in this context (see section 6.2. 'Networks').

Exploration

• An experimentation laboratory must remain realistic, stay very attentive and prepared to meet the challenges of emerging trends and at the same time being capable of ensuring its own reinvention as an innovation ecosystem connector and activator. LabX has pursued this through its initiatives on the use of service design in experimental projects, the application of behavioural sciences in public policy, the interface between humans and machines when dealing with emerging technologies or the use of gamification as a way to change organisational culture.

LabX projects include, among others:

- the Death and Bereavement Service, to facilitate all bureaucracies with which relatives interact after the death of a family member;
- the Land Registration Service, mapping the existing obstacles and opportunities for citizens and businesses to engage with a new service aiming at promoting the completion of the land registry in ten Portuguese municipalities;
- Citizenship Education, finding alternative models and initiatives of citizenship education, as well as approaches that promote civic participation by children and young people;
- Tax Citizenship 2.0, developed jointly with the Tax and Customs Authority to improve the latter's communication with its different end-users, by sharing fiscal information in a more simplified and concise manner;
- Public service as a Living Lab, creating a safe, open and transparent space, inside
 a Citizen Shop, so that public entities, in collaboration with LabX and research
 and development centres, can test innovative solution proposals to improve
 public services, through experimentation in a real context, involving citizens in a
 process of continuous and iterative improvement.

LabX paved the way for Portugal's participation, since November 2017, in the States of Change group, a group of countries that stand out as 'international champions' of innovation in the public sector.

Incentive System for Innovation in Public Management/SIIGeP

The Incentive System for Innovation in Public Management is a programme which aims at fostering innovation capacity in human resources, to improve the work environment and the development of management models. The coordination of the programme falls upon AMA, INA (National Institute of Administration) and DGAEP (Directorate-General for Administration and Public Employment).

SIIGeP includes a set of incentives to promote innovative practices in valuing human resources, improving the work environment and developing management models, which can be of three types:

- training actions, work experiences in innovative international institutions and other similar incentives;
- support to the development of experimental projects, through privileged access
 to training for innovation, tools that facilitate the elaboration of projects and the
 possible temporary suspension of legal regimes in force, for the duration of the
 project (the 'right to challenge' mechanism);
- awarding a prize to innovative management projects that present measurable results.

Online Knowledge Library: b-on

The Online Knowledge Library (b-on) is a virtual library which provides unlimited and permanent access to international scientific journals from a wide range of publishers, through subscriptions negotiated on a national basis with publishing houses.

The National Bibliographic Database: PORBASE

The primary objective of PORBASE is the permanent update and promotion of the National Library's general catalogue, current national bibliography and the Portuguese library's collective catalogue. It includes the collections of the National Library and over 170 Portuguese private and public libraries. PORBASE currently contains over 1.5 million bibliographic records. The database is updated daily, and its average annual growth is estimated at 10 000 bibliographic records.

AMA Academy

Implemented by the Administrative Modernisation Agency (AMA), the AMA Academy develops projects in the areas of training, qualification and skills development for the Public Service Network, composed by the Citizen Shops and Spots located both in Portugal and abroad.

It also designs training solutions for the whole public administration, allowing the public bodies and their employees to keep abreast of digital government innovations, new electronic public procedures and guidelines within the scope of administrative modernisation, thus collaborating in the simplification of their internal processes and the relationship with their end-users.

Furthermore, the AMA Academy develops tailor-made training solutions for public and private partners, both national and from Portuguese-speaking countries, through face-to-face pedagogical methodologies, eLearning, virtual action learning and serious games.

AMA is a training entity certified by the Directorate General of Employment and Labour Relations since May 2014, under the provisions of Ordinance No 851/2010 of September 6, amended and republished in Ordinance No 208/2013 of June 26.

6.8 Cross-border platforms

eIDAS

The national eIDAS node is already implemented and in production on the ePortugal.gov.pt web-portal, with the electronic identification scheme concerning the Citizen Card (national eID card) being published in the Official Journal of the European Union (OJEU) on 28 February 2019 and attaining a 'high' level of assurance. Additionally, the electronic identification scheme concerning the Digital Mobile Key (mobile eID mechanism) is also published in the OJEU, with a 'high' level of assurance.

Recognition of Foreign Degrees and Diplomas

Following the implementation of the new regime for the recognition of foreign degrees and diplomas (Decree-law 66/2018, of 16 August), a common platform was created, shared by all public higher education institutions and managed by the Directorate General for Higher Education. It centralises the submission of all requests for the recognition of foreign higher education degrees and diplomas, processes said requests and the corresponding certificates are then issued.

EU platforms

Portugal is involved in the interconnection of trans-European interconnections systems such as:

- EULIS, European Land Information Service, providing direct access to the Portuguese Land Registry;
- ECRIS, European Criminal Records Interconnection System;
- BRIS, Business Registries Interconnection System, sharing data and documents obtained through the Integrated Business Registration System (SIRCOM).
- ERRU, European Register of Road Transport Undertakings. Data are provided by the Directorate General of Traffic (DGT) through the intermediation platform (SARA + sTesta-II);
- RESPER, RESau PERmis de conduire;
- IMI, Internal Market Information System, facilitating the cross-border exchange of information between public authorities in multiple policy areas.

6.9 Base registries

Interoperability Platform of the Public Administration

As a result of the consecutive electronic government national strategies and related programmes (e.g. SIMPLEX), many base registries and respective services are available online. The Interoperability Platform for the public administration is connected to the base registries of social security, finance, health, and justice, thus allowing for the collection of specific information within these base registries.



7 Cross-border Digital Public Administration Services for Citizens and Businesses

Further to the information on national digital public services provided in the previous chapters, this final chapter presents an overview of the basic cross-border public services provided to citizens and businesses in other European countries. Your Europe is taken as reference, as it is the EU one-stop shop which aims to simplify the life of both citizens and businesses by avoiding unnecessary inconvenience and red tape in regard to 'life and travel', as well as 'doing business' abroad. In order to do so, Your Europe offers information on basic rights under EU law, but also on how these rights are implemented in each individual country (where information has been provided by the national authorities). Free email or telephone contact with EU assistance services, to get more personalised or detailed help and advice is also available. Please note that, in most cases, the EU rights described in Your Europe apply to all EU member countries plus Iceland, Liechtenstein and Norway, and sometimes to Switzerland. Information on Your Europe is provided by the relevant departments of the European Commission and complemented by content provided by the authorities of every country it covers. As the website consists of two sections - one for citizens and one for businesses, both managed by DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) - below the main groups of services for each section are listed.

7.1 Life and Travel

For citizens, the following groups of services can be found on the website:

- Travel (e.g. Documents needed for travelling in Europe);
- Work and retirement (e.g. Unemployment and Benefits);
- Vehicles (e.g. Registration);
- Residence formalities (e.g. Elections abroad);
- Education and youth (e.g. Researchers);
- Health (e.g. Medical Treatment abroad);
- Family (e.g. Couples);
- Consumers (e.g. Shopping).

7.2 Doing Business

Regarding businesses, the groups of services on the website concern:

- Running a business (e.g. Developing a business);
- Taxation (e.g. Business tax);
- Selling in the EU (e.g. Public contracts);
- Human Resources (e.g. Employment contracts);
- Product requirements (e.g. Standards);
- Financing and Funding (e.g. Accounting);
- Dealing with Customers (e.g. Data protection).

The Digital Public Administration Factsheets

The factsheets present an overview of the state and progress of Digital Public Administration and Interoperability within European countries.

The factsheets are published on the Joinup platform, which is a joint initiative by the Directorate General for Informatics (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from Cláudia Barroso and Tiago Mendonça, (AMA - Administrative Modernization Agency).



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ISA² is a EUR 131 million programme of the European Commission which develops digital solutions that enable interoperable cross-border and cross-sector public services, for the benefit of public administrations, businesses and citizens across the EU.

ISA² supports a wide range of activities and solutions, among which is the National Interoperability Framework Observatory (NIFO) action.

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