

Council of Ministers Resolution n.º 12/2012

Global Strategic Plan to Rationalize and Decrease ICT Costs in Public Administration



GOVERNO DE
PORTUGAL

SECRETÁRIO DE ESTADO ADJUNTO
DO MINISTRO ADJUNTO
E DOS ASSUNTOS PARLAMENTARES



PRESIDENCY OF THE COUNCIL OF MINISTERS

Council of Ministers Resolution n.º 12/2012

The Council of Ministers Resolution n.º 46/2011, of November 14th, set up the Project Group for Information and Communication Technologies (ICT), hereinafter briefly referred to as PGICT.

In compliance with the aforementioned Council of Ministers Resolution, PGICT developed a global strategic plan to rationalize and decrease ICT costs in Public Administration, which was presented to the Government member in charge of the administrative modernization.

Given that from the study shed on the global strategic plan follows that each ministry must develop its sectoral strategy, in compliance with the strategic drivers outlined, it seems pertinent that the same plan be submitted for approval to the Council of Ministers.

In fact, the implementation of a global Public Administration strategy on ICT requires compliance with the guidelines of that strategic plan, which has the ultimate goal of achieving gains in savings and efficiency that are anticipated to come true for all ministries. Envisioning a quality public service which presents lower costs for citizens and companies and simultaneously decreases public expenditures, particularly concerning ICT, 25 rationalization measures are proposed according to the following principles of operation: (i) improving governance mechanisms, (ii) cost reduction, (iii) using ICT to leverage administrative change and modernization, (iv) implementing common ICT solutions and (v) stimulating economic growth. Gains can partially result from wider governance, from concentrating of computing function on each ministry and from the rationalization of resources, thus allowing the State to be considered for the first time as a whole by ICT service providers or vendors.

It is also emphasized that the implementation of the global strategic plan is the outcome of a compromise assumed by the Portuguese Government in the scope of the Economic and Financial Assistance Program (EFAP), providing for the mandatory implementation of a global strategy of ICT rationalization in Central Government by the end of 2012, which can only succeed if a transversal plan exists and is implemented.

Thus:

According to Article 199, paragraph g), of the Constitution, the Council of Ministers decides to:

1 — Approve the outline of the global strategic plan to rationalize and decrease ICT costs in Public Administration, hereinafter referred to as global strategic plan, presented by the Project Group for Information and Communication Technologies (GPTIC), appended hereto and forming integral part of this resolution.



2 — Determine that in each ministry a body is identified as responsible for the coordination of the Information and communication Technologies (ICT) field and that a sole interlocutor for this area is designated.

3 — Determine that the PGICT identifies crucial operational systems that are subject to specific escape rules, in order to submit strategic sectoral plans that are adequate to their reality.

4 — Establish that priority shall be given to the compliance and implementation of the global strategic plan, and that the heads of the bodies referred in n.º 2 shall enforce its guidelines, in conjunction with Inter-Ministerial ICT Network set by Council of Ministers Resolution n.º 109/2009, of October 12.

5 — Determine that the bodies and interlocutors referred in n.º 2 are designated by decree by the member of the Government responsible for the tutelage within 10 working days of the publication date of this resolution.

6 — Establish that the final schedule of the global strategic plan will be set within three months after the publication date of this resolution, having in mind its implementation.

7 — Involve local authorities in those measures applicable to Local Government, through the Portuguese National Association of Municipalities and the Municipal Simplex Programme.

8 — Determine that this resolution shall come into force the day after its publication.

Presidency of the Council of Ministers, January 12th, 2012. — The Prime-Minister, Pedro Passos Coelho.

ANNEX

Action Plan

1 — In fulfilling the mandate given by the Council of Ministers Resolution n.º 46/2011, of November 14th, the Project Group for Information and Communication Technologies (PGITC), drew a global rationalization and cost reduction study in Public Administration (PA) with management and use of information and communication technologies (ICT).

2 — In its dispositions, of which this annex is a synthesis, the study is organized around five main action areas: (i) the improvement of governance mechanisms, (ii) cost reduction, (iii) using ICT to enhance administrative change and modernization, (iv) implementing common ICT solutions and (v) stimulating economic growth.

3 — The proposed 25 measures of ICT rationalization were identified by its transverse character and potential impact on Administration as a whole and estimations are that, after its full implementation, they can save the Central Administration up to 500 million Euros a year in administrative expenditure, considering not only those items more directly related with ICT management (software, hardware, services and communications), efficiency gains, namely in facilities management, human resources and other operational costs.

4 — Concerning the enhancement of governance mechanisms are proposed five measures, including studying and implementing a model that allows the holistic management of ICT, ending the current fragmentation and reduced maturity of the IT function and consolidating a national strategy for information security:

4.1 — Measure 1: Definition and implementation of ICT governance in Public Administration

To define and implement an ICT governance model in PA, namely defining the authority and responsibility structure for coordination and execution of processes necessary to an effective implementation of policies and rules regarding a rational use of existing resources, ensuring permanent alignment of ICT strategy with PA business strategy and the long term sustainability of the IT function.

This model must be designed by reference to the following pillars:

- Information Management;
- Information and Communication Systems and Technologies;
- Information Security.

This model must stand on a transverse legal, financial and human resources basis, and it should evolve the model outlined by the Restructuring Program for the State's Central Administration (RPSCA) and by the Reduction and Enhancement Plan for

Central Administration (REPCA), recommending a transverse and sectoral structure for ICT in PA.

Developed under the coordination of PGICT, in the ICT Inter-Ministerial Network and with the contribution of the civil society, this measure has the following specific goals:

- Developing of the ICT governance model in PA;
- Developing and monitoring the implementation plan for the ICT governance model in PA.

Deadline: The governance model should be submitted for discussion in ICT Inter-Ministerial Network within six months.

4.2 – Measure 2: Rationalization, organization and management of IT function

To ensure an effective centralization of IT function in each ministry, including the management of technology infrastructures, communications, information systems (adding the maintenance and development of every vertical use in the ministry), acquisition and licensing management and user support.

This measure is central not only for rationalizing and sharing of human and technology resources expended, but to ensure efficient (and effective) ICT governance in each ministry. This (gradual) IT function centralization process on a single body assumes:

- The creation of service desk function to support every service in a single body in each ministry;
- The unification of the several data processing centers in a single one, the ministry's own or another one already existing in PA or made available by the market (see Measure 8);
- The unification of administration, application development and licensing services in a single ministry body, in conjunction with the shared solutions made available by central administration;
- The unification of the infrastructure and services in a single body for each ministry (see Measure 7);
- The unification of micro computing services in a single body in the ministry;
- The unification of governance, strategy and ICT architecture services in a single body for each ministry.

In this sense, the several departments with ICT functions existing in each ministry's public entities will be extinct, the human, material and financial resources affected to those functions being allocated to the ministry department to be designated in the future (existing or new), the competences and mandate of which will have to be well defined. According to the governance model defined (see Measure 1), the plan must take into account the technical, legal and operating technicalities of each ministry.

This measure shall have a staged implementation, beginning with a pilot project in the Presidency of the Council of Ministers (PCM) which will cover the State's respective direct and indirect administration services, including the bodies of the

extinct Ministry of Culture – excluding only the Government’s Informatics Network, managed by CEGER, and the bodies and services in the Information System of the Portuguese Republic (SIRP) – under the coordination of the Agency for Administrative Modernization, P. I. (AMA, I. P.), which will gradually assume all the above mentioned functions.

Deadline: The PCM pilot project will initiate within six to eight months. The implementation for each ministry shall be scheduled on its sectoral plan (see Measure 5), that implementation being due no later than the end of 2013.

4.3 – Measure 3: Technologies and information systems architecture, rules and guidelines

To establish a reference information systems architecture that will guide the implementation, purchase, development and maintenance of technologies and information systems in PA. This measure also assumes the adoption of tools and methodologies which allow the continuous listing of the whole IS and ICT infrastructure in PA.

By implementing the European guidelines on interoperability [European Interoperability Framework (EIF) for European public services], there is an intention of defining a set of mandatory guidelines for PA information systems, namely:

- Reference information architecture, including the specification of information entities (v. g., citizen, company, address, contact, event, case, invoice, receipt, etc.);
- Reference application architecture, including the identification of requirements and rules that the main application components in PA must meet, namely ensuring the separation of business and technological architectural layers (v. g., document management systems, workflow systems, authentication systems, etc.);
- Transverse (v. g., through the National Digital Interoperability Regulation; issuing guidelines regarding security, etc.) and sectoral (v. g., information system architecture for Health, Justice, etc.) rules;
- Project assessment metrics and initiatives regarding the reference architecture;
- Architecture upgrade and feeding mechanisms based on undergoing ICT initiatives and projects;
- Mandatory publication systems and information technologies architecture of all public entities on a common tool (except when this should be protected for security reasons).

Deadline: Reference architecture proposals and integration rules and guidelines should be placed for discussion on ICT Network within six months. The implementation of ICT tool and cataloging methodology and to the definition of sectoral rules and security guidelines must take place within 12 months.

4.4 – Measure 4: Definition and implementation of a national information security strategy

To strengthen the National Security Information Strategy (NSIS), defining:

- National goals on information security – what every member of the Information Society can expect and take for granted on a national level;
- Responsibility in information security— who is responsible for implementing information security in the country;
- Information security organization – what structure is defined for information security;
- Management – who is responsible for establishing, controlling, measuring and managing the risk and for auditing information security;
- Information security services – what services are provided on a national level and by whom.

Indeed, NSIS will include namely:

- The design, installation and making operative a National Cyber security Centre;
- Deepening and improving the operation conditions of the State's Electronic Certification System (SCEE) having in mind its adequacy to the latest international requirements;
- The creation and certification of a strong cryptography solution of national origin, as well as the development of solutions for its use and promotion to potential users;
- The revision of the legal Framework for the security of classified matters – including the safeguard of classified information, of personal and industrial accreditation, and also information and communication systems' security, replacing the SEGNAC rules now in force.

The development of this measure will be coordinated by the National Security Cabinet (NSC) with the cooperation of any relevant entity in the matter, in the scope of the existing working group in the ICT Inter-ministerial Network.

Deadline: NSIS should be reviewed within six months, all other measures being implemented within 12 months.

4.5 – Measure 5: Definition and implementation of sectoral ICT rationalization action plans

To develop action plans for each ministry, identifying, with deadlines and persons in charge, sectoral initiatives and projects on ICT level which contribute to the referential of cost reduction and improvement of public services offered.

The action plans implementation follow-up and the measurement of estimated benefits should be made through ICT Inter-ministerial Network.

Deadline: Every ministry shall present its respective sectoral action plan for ICT rationalization within six months, these being approved by PGICT and published on Internet website.

5 — In the second line of action (cost reduction) five measures are also proposed, namely mandatory preliminary and subsequent assessment of the cost and benefit of ICT investment and expenditure according to architectures and transverse guidelines previously outlined, the rationalization of means (data processing centers, communications and information systems) and the rapid adoption of transverse human and financial resources management solutions.

5.1 — Measure 6: Assessment of ICT projects and expenditure

To implement a mandatory and binding ICT projects and expenditure assessment process *ex ante* and *ex post*, establishing formal mechanisms for multi-criteria assessment of investments, ensuring that only projects with real guarantees of return in the various dimensions in analysis are financed and implemented, reducing investments which are redundant and out of line with national politics for ICT in PA.

Part of the ICT governance model in PA (see Measure 1), this measure requires:

- The definition of the assessment methodology;
- The definition of an organizational model supporting methodology enforcement both at global and sectoral level;
- The construction of the due technological support for methodology enforcement, including projects' life cycle management (ensuring the update of information systems architecture, having in mind the various projects to be implemented);
- The effective *ex ante* and *ex post* assessment of all ICT projects, be it assessment by the assessment structure or self-assessment;
- The provision of transparency mechanisms on the assessment made, through the implementation of a public dashboard.

The assessment methodology must consider at least the following analysis dimensions:

- Investment return on cost-benefit logic, considering the *total cost of ownership* of projects against the expected benefits;
- The alignment of project goals with the body, ministry and/or PA strategic goals as a whole;
- Risk factors related with its implementation and strategic coherence with reference information and technology architectures (see Measure 3) and with ICT politics and rules defined for the PA (v. g., electronic identification, interoperability, resource reuse, existing information platforms or systems and open rules, among others).

The assessment process shall be transparent, with all projects approved (or rejected) being published on a public dashboard, namely in what concerns indicators of costs and benefits to achieve. In project operation, closure and post-closure stages, the real benefits attained shall be presented in order to allow the *ex-post* assessment, whether by citizens or by auditing mechanisms inherent to the methodology. A system of merit awarding those bodies with the best ability to deliver should also be implemented, for instance, through a highly competitive management of the State's investment budget.

Deadline: The model and methodology design to support the assessment process is up to AMA, I. P. and should be ready within six months, the mandatory ICT expenditure assessment beginning on that date.

5.2 – Measure 7: Communications rationalization

To define and implement a strategy for implementing a single communications network – or, as an intermediate stage, a set of interconnected communications networks – to serve the whole PA, with centralized and global management covering all communications, data and voice services, both fixed and mobile.

With the underlying distinction between internal (within the State) and external (between the State and other entities) communications, this measure includes:

- A survey of current communications infrastructures;
- The definition of a governance model of the State's communications networks;
- The interconnection and the progressive integration of PA communication networks, both internal and external;
- The transfer of all external communications between the two State systems using public networks to the State's interconnected communications networks;
- The replacement of analogical or ISDN for voice solutions over IP (VoIP);
- The adoption of contractual models giving the State a better bargaining capacity with external communications supplier operators.

It is proposed a staged implementation with a pilot project in the Presidency of the Council of Ministers, covering all its departments of the State direct and indirect administration, except the bodies and services in the SIRP, under the direction of CEGER. It should be insured that in the initial stage of this measure the new communications contracts and projects fall immediately on the assumptions set here (via Measure 6).

Deadline: The survey of communications in PA should be carried out within six months. The communications model must be put to discussion on the ICT network within six to 12 project months and extended to PA from then.

5.3 – Measure 8: Rationalization of data centers

To define and implement the data centre decrease program in Central and Local Administration.

This measure includes:

- The survey of PA data centers;
- The definition of a comprehensive implementation and operation model of the State's data centers;

- The consolidation into a small number of data centers (State owned or in the form of provision of services by third parties), without excluding the possibility of a total centralization solution in the future.

The implementation of this measure should be staged, with a pilot project in the Presidency of the Council of Ministers covering all its departments of the State direct and indirect administration, except the bodies and services in the SIRP and headed by AMA, I. P.

Deadline: The survey of data centers in PA should be carried out within six months, after which the pilot Project with the PCM bodies will begin. The data centers rationalization model should be outlined by AMA, I. P. within six months and extended to all PA within 12 months.

5.4 – Measure 9: Unified communications platform

To implement unified communications platforms in PA, thus changing the way people communicate and cooperate.

The use of unified communications tools and productivity in PA is still incipient, in such ways that:

- It is not possible to contact a person in the same body without using the telephone or electronic mail;
- In disperse organizations, contacting someone in a distant unit often means making long-distance calls;
- People who are not at their workplace are difficult to contact, which leads to inefficiencies that hinder services effectiveness;
- Training actions, short communications or meetings require movement of people and several previous scheduling proceedings;
- It is not possible to have a specialist immediately solving a problem – for example, a complex issue raised by a citizen at a helpdesk;
- Contacting people inside PA bodies costs as much as contacting anyone outsider PA;
- Information is difficult to trace and sometimes that leads to decisions or to the provision of services based on wrong assumptions.

This measure, which assumes the implementation of the communications infrastructure described in Measure 7, includes:

- The implementation of a unified communications platform including campus where people gather, to allow the holding of conferences throughout the country;
- The creation of a networks and directories federation in order to move towards a consolidated infrastructure for all PA.

Deadline: This measure will be part of the Central Administration simplification program (National Simplex), to be implemented in 2012. The PA common platform shall be implemented by CEGER within 12 months.

5.5 – Measure 10: Transverse rationalization measures ICT enhanced

To make available services and technology platforms common to several public entities, allowing the standardization of processes and function having in mind the rationalization of costs and shared services.

This measure includes the following rationalization actions:

- Promoting the use of the State's resources and shared services in the field of human resources for every Central Administration body (GeRHuP);
- Promoting the use of the State's resources and shared services in the scope of performance assessment (GeADAP);
- Standardization and automation of human resources management processes, making them more efficient;
- Improving human resources level and management instruments in PA;
- Promoting the use of the State's resources and shared services in the field of financial resources for every Central Administration body (GeRFiP);
- Normalization and automation of financial resources management processes, making them more efficient;
- Improving the control level of material resources expenditure and management in PA.

Deadline: This measure will be coordinated by the Shared Services Entity in Public Administration, P. I. (ESPAP, I. P.), being assured that GeRFiP should be implemented in 50 % of public entities in 2012 and extended to all public entities by the end of 2013. The extension of GeRHuP to all public entities should be concluded by the end of 2014.

6 – ICT use to enhance administrative change and modernization includes the increase of organizational, semantic and technical interoperability in PA and the use of already developed alternative channels made available to all for the provision of public services (v. g., ATM and payshop networks, television, mobile phone, among others), but also greater efficiency in the management of all public entities (v. g. printing centralization, dematerialization of internal processes, etc.).

6.1 – Measure 11: Interoperability in Public Administration

To consolidate a national interoperability framework taking into account semantic, technical and legal levels, making mandatory the use of the PA interoperability platform.

Public services have primarily been developed for direct use by citizens and companies (v. g., business start-up). Few are those who, by their reuse, form joint services that actually respond to life needs or events (v. g., immediate business and business online services include and make available in a single contact point several sectoral services, like firm or denomination approval, business creation, its respective company registration and business start-up for tax purposes, among others).

Technical implementation of PA interoperability (see www.iap.gov.pt) through a central platform is also essential to enhance the concentration of the communications networks of the various ministries in a small set of communications clouds, with very significant savings (see Measure 7).

This measure is in line with the European Interoperability Framework – Interoperability Solutions for European Public Administrations – of the European Commission and meets its recommendations, thus permitting the future creation of transnational services.

Deadline: The rules determining the use of the interoperability platform as mandatory should be drawn up by AMA, I. P. and approved by the Government within three months.

6.2 – Measure12: Electronic authentication and signature in Public Administration

To strengthen obligatoriness and control mechanisms on the effective implementation and use of the electronic side of the citizen card in electronic authentication and signature in the different State departments, whether by public officers, in the scope on internal processes and of communication with citizens and companies, or by these in their relation with the PA.

Currently, more than six million citizens are citizen card holders, of which about 40 % have already activated their electronic signature. The validity and probative value of electronic identification and signature are duly consecrated in the law which created the citizen card (Law n.º 7/2007, of February 5), as well as in communitarian and national law concerning electronic documents (Decree-Law n.º 290 -D/99, of August 2, modified and republished by Decree-Law n.º 62/2003, of April 3, and modified by Decrees-Law n.º 165/2004, of July 6, and 116 -A/2006, of June 16). The adoption of exclusive mechanisms of identification, authentication and electronic signature of citizens before the public sector by means of citizen card is mandatory, as stipulated by n.º 4 of the annex to Council of Ministers Resolution n.º 109/2009, of October 2th.

Taking advantage of citizen card's public keys infrastructure, more and more widespread for all citizens, a set of transverse technology platforms and components is also available, facilitating and offering additional services to the citizen card, namely:

- Authentication Supplier, available on the PA Interoperability Platform (<http://www.iap.gov.pt>), which aims to ensure the unequivocal identification of a citizen card holder user on the websites of every organization, as well as relaying authentication only once to perform one or several services that may be launched on transverse portals (single sign-on), saving time and decreasing bureaucracy to users of those entities electronic services.
- New citizen card middleware, that is, the centralization of the authentication function and the delegation of communication with the card mechanisms allowed the investment and usability enhancement of the citizen card electronic use software. From the 1st trimester of 2012, citizens who access

electronic services via Authentication Supplier won't even need to install any software (that is, middleware) on their computers.

- Certification of professional attributes with the citizen card — without changing the infrastructure and the card and making sure that professional associations and certification entities maintain full control of the information under their management, this system allows the citizen to make his or her electronic identification according to his or her role in society — for example, «Architect», «Engineer», «Trustee», among others.

Thus, this measure intends:

- To consolidate the mandatory use of the citizen card on the citizen-company interaction at Central Administration and Local Administration level;
- To extend the mandatory use of the citizen card to all public officers, on PA internal systems authentication or on electronic signature of documents, namely (among others):
 - In the access to workflow and document management systems, to public procurement platforms and to organization business systems.
 - On the electronic signing of every document (internal and external) — v. g., internal information, notices, opinions, contracts, e-mails, commitments of expenditure, reports, etc.
- To forbid the purchase or the issuing, by government entities (Central and Local Administration), of digital certificates to public officers, supervisory staff, public officials or government members, being the use of the citizen card mandatory for the latter;
- To make the professional attributes certification system available along with the citizen card on the second semester of 2012;
- To provide for the necessary legal support to professional attributes certification with citizen card.

Deadline: This measure should be part of the Central Administration simplification program (National Simplex), to be implemented in 2012, and should be completed within 12 months.

6.3 — Measure 13: Rationalization of public services provision by electronic means

To consolidate the mandatory availability of electronic services on exclusive contact points — Citizen and Company Portals — as well as the mandatory use of other transverse platforms supporting the provision of electronic services, like the payments platform (PPAP), the SMS gateway (GAP) and the forms managements tool (eForms), allowing a decrease of the investment and maintenance costs associated with the delivery of public services, whatever the channel used.

For that purpose it is considered necessary the technological upgrade of the Citizen and Company Portals, without prejudice to the mandatory availability being extended to all public services distribution channels (v. g., SMS 3838).

Thus, redundant investments will be prevented at the same time that effective conditions for a single PA view on citizens and companies are created with the subsequent increase of service quality and context cost reduction. Consequently,

smaller dimension public entities or sectors will have their sites and sectoral portals eliminated.

Making these transverse platforms available involves contracting services provision between AMA, I. P. and client public entities based on a shared sustainability model that grants the quality of the services provided and allows the adequate evolution of the platforms.

Deadline: The renewal of Citizen and Company Portals should be completed by AMA, I. P. within 12 months, immediately after which a plan for the consolidation of websites and of sectoral portals of service provision should be drawn.

6.4 – Measure 14: ICT rationalization and administrative modernization within public entities

To develop and implement a cost reduction program through a significant decrease of paper use in all cases at public entities (operational and support areas), between public entities and, whenever possible, in the relation with citizens and companies.

This measure includes the following actions:

- Dematerialization of internal processes and procedures (mandatorily preceded by reengineering and simplification efforts);
- Mandatory use of electronic signature mechanisms based on the citizen card;
- Interdiction of paper exchange in PA (between departments, areas or sectors of a same organization or between different public entities);
- Printing centralization (with a ratio of a printer for at least 25 officials), preferably with a print log per official;
- Preference to electronic channels on the interaction with citizens;
- Mandatory use of electronic channels on the interaction with companies and single-member companies;
- Provision of a central platform for registration and availability of PA electronic documents/certificates.

Deadline: This should be part of the Central Administration simplification program (National Simplex), to be implemented in 2012, and should be completed within 12 months, and a technical backup service should be created to help the various public entities with change management.

6.5 – Measure 15: The State's Central Electronic Archive

The relocation of paper archives of the different government bodies to a single location on a low cost housing zone. This relocation should be followed archive digitalization, making its access easy, immediate and inexpensive.

In fact, the creation of a State's Central Electronic Archive should be studied and tested in a pilot project, including:

- The relocation of the different physical archives to a single location on a low cost housing zone;
- The electronic preservation of documents by means of digitalization and digital archive;
- The implementation of an information management system and making digital documents available;
- The implementation of a mechanism which allows the quick issuance of a physical document in case of absolute necessity of consulting the original.

This measure includes the following actions:

- A thorough diagnosis of the State's archives situation, namely with the identification of physical space used, documentary classification, use and access typology, criticality levels and document security;
- The drawing of a valorization study of the estate currently in use to house the existing archives, as well as a plan for its future maximization and an implementation plan;
- Implementation of the pilot project on a ministry to be designated.
- Implementation in Central and Local PA.

Deadline: The Directorate-General of Books, Archives and Libraries is responsible for the drawing of maximization study of the estate to be released and of an implementation plan within 12 months, after which the implementation of the pilot project will follow.

7 — In the scope of the ICT common solutions implementation it is foreseen, namely, the provision of a pocket of expertise of the PA human resources, the creation of a software catalogue strengthened with applications developed by the State itself, which should be shared within the Administration (and in some cases with the civil society, helping our companies adding value) and the assessment of cost and benefit of adopting a computing cloud for the whole Administration, concentrating and providing infrastructures, platforms and services to the vast community that is the country's public sector.

7.1 — Measure 16: Cataloguing human resources

To allow public servants the access to more and better information (v. g., single register), promoted by a centralized and integrated technology solution based on data single entry and non-redundancy, with the decrease of administrative efforts promoted by features automation and by standardization and optimization of business processes in full observation of the legal framework.

This measure is particularly relevant in the management of human resources in PA, thus being expected:

- The provision on GeRHuP (Shared Mode Human Resources Management Solution) of the ICT human resources single catalog, which will be updated by public servants themselves and validated by the services with that ability whenever appropriate;

- The assessment and the proposal of mechanisms that facilitate access to catalogued resources in order to make their use easier;
- GeRHuP aims to standardize processes and support the human resources management activities of the PA bodies and services (Ge-RALL). Public administrators could use analytical tools of research (scenarios included), defining search and systematization criteria of the human capital available, as well as the identification of needs for a more effective estimate management. On a second stage it will be possible to use decision support tools (v. g., simulators, curricula benchmarking, etc.).

Deadline: *The solution should be implemented in all bodies of the Ministry of Finance throughout 2012, and it should be extended to the remaining bodies of Central Administration within the 12 following months.*

7.2 – Measure 17: Cataloguing, sharing and standardization of the State's software

To create the State's Software Catalogue (CSE) making mandatory the use of software that meets transverse needs and that has been developed for the State or by the State, to which it belongs as property.

This measure includes the following actions:

- The creation of the CSE, which will include every software developed by (or for) the State, preferably transverse need-oriented;
- The definition of the legal guidelines to be observed in every public contract in order to allow the reuse of software in PA, namely ensuring that software intellectual property;
- The setting of a legal limit on the maintenance and technical support value for software off-the-shelf (v. g., about 10 % of that software or hardware purchase value, except for software with no licensing costs);
- A review of the available software on the National Catalogue of Government Procurement (CNCP), eliminating software typologies and decreasing the number of other softwares;
- A review of mechanisms for the entry of new products in CNCP in order to adequate them to technology evolution cycles;
- To ensure a more dynamic and easier access of small and medium TIC enterprises greater (SME) to CNCP.

Deadline: State's Software Catalogue should be proposed by ESPAP, I. P. in conjunction with AMA, I. P. within 12 months and published on an Internet website. CNCP should likewise be revised by ESPAP, I. P. within the same deadline.

7.3 – Measure 18: Cloud Computing in Public Administration

To make the business case study and create a governmental cloud including broker mechanisms among the cloud infrastructures existing on the market, taking advantage of technological innovations to have more flexible, transparent and better

managed (through the formalization of service level agreements) ICT solutions, with higher security levels and at lower cost and providing a more effective use of ICT resources (both technical and human) and, at the same time, creating conditions for a better integration and normalization of data and applications — Governmental Open Cloud (GO -Cloud).

In this case, the creation of a governmental cloud by the Government, whether private, communitarian or hybrid (in the sense of broker existing only for public clouds), seems to be the way of taking advantage of technological innovations to have more flexible, transparent and better managed (through the formalization of service level agreements) ICT solutions, with higher security levels and at lower cost and providing a more effective use of ICT resources (both technical and human) and, at the same time, creating conditions for a better integration and normalization of data and applications.

In the scope of this measure, it is also expected the study of the implementation of desktop virtualization in order to shorten the PC procurement cycle and increase the productivity of the ICT resources granting user support (service desk).

Deadline: ESPAP, I. P., in conjunction with AMA, I. P. should study the business case for implementation of a cloud within six months and develop the solution's architecture by the end of 2012.

7.4 — Measure19: B2B Platform

To develop a B2B platform to support the full procurement cycle which allows a dematerialized relationship between supplier companies and the PA with the purpose of promoting cooperation, information sharing and electronic communications.

This measure intends an evolution to technology platforms to support the relationship between suppliers and the PA, promoting the integrated management of Public Procurement as a service transverse to PA and the integration of the purchasing process in the effective real time control and planning of the public expenditure cycle, as well as cooperation, information sharing and electronic communications.

Taking advantage of initiatives aiming at the centralization of public procurement negotiation and electronic disclosure (electronic procurement platforms), there is an intention to extend the dematerialization of processes and procedures to the whole expenditure cycle (besides the purchasing process).

Thus, the concretion of this measure assumes:

- The provision and implementation of a centralized solution (full procurement cycle) in PA which guarantees an adequate centralized management of the Public Procurement Process and lessens existing redundancy;
- The dematerialization of the remaining expenditure cycle, namely at electronic invoice, integration with suppliers and standardization and automation of process and procedure levels;

- The provision of supplier compliance certification mechanisms and of ill use of public funds or eventual fraud;
- The implementation, in line with Measure 22, of Public Procurement Platforms Broker, minimizing need of suppliers interacting directly with several public procurement platforms so they can relate with PA;
- The identification and creation of a Governance model for all agents involved in Public Procurement.

Deadline: Within 24 months, ESPAP, I. P. should proceed to the implementation of relationship processes with suppliers and the support to the implementation of the expenditure cycle.

7.5 – Measure 20: Good ICT practices directory

To spread good ICT practices in PA and increase the cooperation and sharing of various information systems source code.

Knowledge management and sharing are central in the various sectors, indispensable to the promotion of innovation and quality in organizations, arming them with a dynamic of continuous improvement. Set up in 2008, the Common Knowledge Network (RCC) is an essential instrument of good management and knowledge sharing in PA, as well as for the sharing of knowledge with universities and the civil society, creating the adequate environment for the development of a wide and dynamic pool of good ICT practices.

Recently awarded by the United Nations, it currently comprises a pool of over 300 good practices shared by over 160 Central, Regional and Local Administration entities. Likewise, it includes some good practices of Portuguese-speaking countries.

In that sense it is important to deepen the role of RCC, extending its domains and features and involving more and more entities in its used and development. RCC should be the space where any interested agent might find information on the modernization processes in PA, thus trying to prevent great information dispersion over several sites and public platforms.

Deadline: Within six months, AMA, I. P. should redesign the public RCC website, being mandatory that government bodies provide the source codes of the information systems to be designated by AMA, I. P. in <http://svn.gov.pt>.

8 – Among the measures stimulate economic growth we find the adoption of open software on the State's systems, the improvement of public procurement processes and solutions, the international spread of methodologies, ICT solutions and knowledge through national competitiveness clusters and, in the scope of the Open Government strategy, the wide provision of public sector information in reusable format through projects such as dados.gov.pt, favoring the services coproduction with the civil society with added value for both the State and the economy.

8.1 — Measure 21: Adoption of open software on the State's information systems

Promoting the use of open software in PA information systems where the costs and maturity are favorable.

In the scope of this measure and in line with the strategy of the Directorate-General for Informatics of the European Commission for the progressive adoption of open source solutions, it is mandatory to identify tools that can immediately be used in PA whether with recommendation or requirement character. This study, which cannot be dissociated from the State's Software Catalogue (see Measure 17), will promote the use of open software created by the State, the private sector or the civil society according to the European license for open software, EUPL, approved by the European Commission.

In this sense and in line with Measure 6 (Assessment of ICT projects and expenditure) before purchasing any technology solution or service the government entities should always proceed to a quantification of *Total cost of ownership*, having in mind the minimum requirements defined and communicated to the market and the (direct and indirect) costs of that solution. The comparison of licensed and open software based solutions will be mandatory in this analysis.

Additionally, it will be set a number of areas in which, preferably, the implementation of open or free software is intended (having in mind its potential financial impact and the spreading and sustainability of the solution by the market), provided this represents the most economically advantageous solution for the State, particularly:

- Productivity software (word processor, spreadsheet, slideshow editor);
- E-mail clients;
- E-mail servers;
- Portals;
- Document management;
- Monitoring software.

Deadline: Within six months, through Measure 6, the analysis and comparison of software solutions will become mandatory; within six to 12 months AMA, I. P. should identify the areas and list of open software preferably or mandatorily used in PA.

8.2 — Measure 22: Purchase of ICT goods and services

To review the framework agreements — considered the actions mentioned in the remaining measures, namely at Communications, Software, Hardware and consumables level, among others —, widening the scope of the National Public Procurement System (SNCP) to the State's business sector and promoting a greater publicity of all public procurement.

This measure includes the following actions:

- Developing of a set of guidelines, in simple language, for the purchase of ICT goods and services;
- Reviewing framework agreements, considering the actions laid on measures 3, 5, 7, 8, 10 to 18 and 21;
- Widening the scope of SNCP, binding the State's business sector and Local Administration;
- Assessing the needs in terms of software, hardware and fixed and mobile communications through the drawing of annual plans, reviewed and approved by a regulatory and managing authority (according to Measure 6);
- Conjunction with the assessment measure (Measure 6), ensuring the comprehensive knowledge, on a central point of the Administration, of the PA suppliers licensing and prices models.

Concerning contract negotiation (ICT and others), a small group specialized in contract negotiation and management responsible for standardizing procedures, anticipating hidden costs and reusing knowledge will be created. Every contract should include the possibility, whenever it comes aware that a particular company sold the same goods in more favorable conditions, for the State to prevail in those same conditions from then on, thus creating a mechanism (though not unique) of progressive adjustment of prices.

Regarding SNCP, it is intended, in line with NB 2012, to bind the State's business sector to framework contracts, thus increasing estimated global savings.

Deadline: ESPAP, I. P., in conjunction with AMA, I. P., should renegotiate the framework agreements and widen the scope of SNCP, with the binding of the State's business sector, within 12 months.

8.3 – Measure 23: Open administration and new channels of service

To implement an Open Administration program which allows the publication and aggregation, of information produced by the PA (dados.gov.pt) in reusable formats and enhance the use of alternative channels of service, taking advantage of the installed capacity for the provision of public services.

The Open Administration theme has taken progressive prominence at international level. It was given significant attention on the Digital Agenda for Europe and on the European Action Plan for e-Government. Matters such as transparency, participation and cooperation have been given unavoidable centrality in new development and provision of public services using ICT models.

In this context it is important to continue the development and implementation of an Open Administration Program that allows:

- The publication and aggregation, of information produced by the PA in reusable formats, facilitating citizens companies access to relevant information produced by the public sector;
- Take advantage of the already existing services distribution networks (v. g., television, ATM, payshop, etc.) with no additional costs and even with a potential for own resources, adopting a model typically referred to by the Anglo-Saxon name of government-as-a-platform. These channels provide the

user with a near you services network, with more comfortable and with a more convenient schedule, sparing the Government some costs and with the advantage of taking pressure off contact hours;

- The consultation of citizens and public workers, specially through the use of crowd sourcing tools (as it is the case of the platform developed by AMA, I. P., which can be made available to the remaining PA entities in <http://www.participacao.gov.pt/>, and which should support several public consultations or internal consultations promoted by the Government and/or the PA, taking advantage of ICT potential to effectively reach their recipients and to facilitate the treatment of these ways of participation).

Deadline: The number of Central and Local Administration involved in dados.gov.pt should increase within 12 months and public consultations of third identities using the public participation platform should be carried out in the same period.

8.4 — Measure 24: Methodology, ICT solutions and public knowledge internationalization

To take advantage of the investment on ICT in PA, namely in electronic administration, through the development of innovative tools, methodologies and knowledge in general, resulting from the cooperation of PA with industrial or commercial companies, which develop and market them internationally.

With this measure there will be a study, a definition and an implementation of the exporting mechanisms of knowledge, methodologies and ICT solutions (software/hardware) supporting national electronic government and which allow Portugal to stand among the first in what concerns electronic administration in Europe.

For that matter, and based on the Reference Technologies and Information Systems Architecture set for PA (see Measure 3), the various architectural components and modules should be developed insuring the sharing of results resale rights by the Portuguese State together with its suppliers.

This measure includes the following actions:

- Mandatory inclusion of clauses allowing their subsequent internationalization in partnership with suppliers in projects with potential for value creation;
- Mandatory submission of projects in the fields of administrative modernization and of electronic administration to AMA, I. P. for prior opinion, according to Measure 6;
- Stimulating national SME to develop partnerships and investments with the PA, with incentives from research and development programs.

Deadline: The identification of already existing potential innovative solutions and the issuing of framework legislation should take place within 12 months.

8.5 — Measure 25: Disclosing and prototyping innovative projects in competitive clusters

To optimize the relation of the Portuguese State with legally recognized entities of collective effectiveness, poles and clusters, especially in projects that require high innovation potential in the field of administration modernization.

With this measure, in projects of innovative potential and prior to the procurement process, and in a legal framework ensuring competition conditions, the PA binds to widely disclose its development plans and to allow the prototyping of solutions by the market, in order for companies to better organize to meet public needs. The said disclosure will happen in strict cooperation with entities of collective effectiveness, poles and clusters.

This measure includes the following actions:

- The provision, together with the plan of activities of every ICT entity in PA, of the projects or services with innovation potential;
- The possibility of carrying out prototyping projects with innovation potential by SME/competition cluster.

Deadline: The aggregation of projects with innovation potential and the subsequent development of prototypes should take place within 12 months.

9 — The global strategic plan to rationalize and decrease ICT costs should be published on the Government Portal.

10 — The follow-up of the execution of every measure should be carried out semiannually, with updates of the plan published, without prejudice to the assessment of strategic objectives and of their indicators and targets, established for the period from 2012 to 2016 and detailed in the plan.

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