Executive summary:
Getting value out of information
and communication technologies

Spain, hit hard by the global and European financial and economic crises, faces serious challenges. Low growth, unemployment rates above 20%, a severe fiscal imbalance, and budget challenges are key issues faced by the recently elected government. The new administration has clearly stressed the need to undertake the measures necessary to address the challenge of restoring growth to the economy and balance to the public sector budgets.

The new government has, in particular, reiterated the importance of using modern information and communication technologies (ICTs) to sustain efficient and effective public administration at all levels of government, as this may help to foster the greater overall competitiveness of the national economy. ICTs are vital to competitiveness and key enablers of economic growth and productivity. They also have an important social impact.

One key policy area has been improving communication infrastructure, and particularly the extension of broadband availability as a real incentive for next generation networks (NGN). Many consider this future-proof communication infrastructure a key foundation for economic growth and productivity.

Future administrative reforms are expected to support the elimination of inefficiencies and duplications, and to sustain the overall aims of downsizing, restructuring, and reducing the operating costs of the public sector.

E-government provides an important part of the answer by enabling higher efficiency and effectiveness in government administration and service delivery. The use of ICTs facilitates reductions in government expenditures by building on already existing investment and increasing efficiency and effectiveness. Leveraging the strategic use of e-government in the current economic context is imperative if public sector innovation and

agility are to be increased, administration simplified, and service delivery and productivity improved. These insights were echoed in discussions at the last session of the OECD Public Governance Committee in the autumn of 2011.

This study does not include a comprehensive review of Plan Avanza 2. At the request of the Spanish government, the analysis focuses on selected areas of the plan that are linked to two of its overall objectives: improving communication infrastructure and the advent of paperless administration through the government use of ICTs. The new Spanish government is elaborating the Digital Agenda for Spain, which will be aligned with the Digital Agenda for Europe. The report reviews Plan Avanza 2, Spain's information society strategy. The study builds on existing data and background material and on information acquired through interviews conducted in July 2011 with the main stakeholders in Spain's public administration.

Some common key challenges emerge from this analysis of communication infrastructures and the government's use of ICTs. They are:

- **Aligning strategies at all levels of government** to ensure coherence and exploit synergies. On one hand, this involves specifying how all the objectives set out in the Plan should be matched by operational initiatives that ensure the overall objectives are met. On the other hand, it means aligning efforts across all levels of government – national, regional and local.

- **Ensuring that resources are well prioritised,** allocated only to the soundest, most profitable investments, and subsequently spent effectively. Profitable investment may be ensured through better management and regulation of private markets and suppliers and through a systematic focus on how to support digital governance by using better data and professional ICT management and implementation processes.

- **Increasing user uptake**, and thus shifting focus from the supply to the demand of ICTs in order to benefit from the returns on previous investments. The significant achievements of the Spanish Government in the development of ICT infrastructure and e-government service supply could be used more robustly as a platform to harvest financial and qualitative benefits.

Improving communication infrastructure

The Plan emphasises extending the availability of fixed and mobile networks throughout the country. Public funding of broadband infrastructure and universal service obligations have been combined with spectrum policy measures and other instruments, such as the new provisions for in-building wiring infrastructure, designed to remove barriers to network deployment.

High levels of co-ordination between the various measures undertaken as part of the Plan are desirable if impact is to be maximized. One of the principal strengths of the Plan is its internal policy coherence and its coherence with policy and regulatory regimes and institutional actors.

The European Digital Agenda: a national broadband plan. Spain expanded its universal service obligations as of 1 January 2012 to include broadband access at 1 Mbps. This move positions it as one of the few countries to have achieved the ambitious aim of guaranteeing broadband access through universal service obligations. Spain has thus met target I of the European Digital Agenda ("basic broadband for all"). The sequenced inclusion of broadband service as a universal service obligation was well designed, as public funding was made available to operators to extend coverage prior to complying with their obligations.

Spain has publicly endorsed the European Digital Agenda targets. However, it has not yet specified how these targets will be met, at least not in detail. Wireless technologies will certainly play a role in meeting them, at least in rural and remote areas. Nonetheless, Spain should provide a clearer interpretation of these targets and spell out what they actually mean in terms of communications infrastructure. Other enabling measures, in particular with respect to backhaul infrastructure, are likely to be needed. It is not clear, for example, how Spain will meet Digital Agenda targets II and III.

Spain should, therefore, conduct a comprehensive evaluation and set clear objectives, drawing up a roadmap and defining a set of available instruments to ensure that it meets the second and third Digital Agenda targets. One approach might be to draw up a national broadband plan which should specify: *i)* the specific quality of service requirements for the targets; *ii)* which technologies may meet the requirements for access, backhaul, and backbone; *iii)* whether the targets are to be met by market players only or if public funding will be necessary and/or available. Any public funding of the broadband network to meet the objectives should be clearly underpinned by a sound cost-benefit analysis.

Spain should maximize the benefits derived from the financial instruments recently put forward by the European Commission as part of its proposed Connecting Europe Facility funding arrangement. Furthermore,

the current use of financial instruments for broadband infrastructure deployment under the Plan is thought to provide a reasonable leverage for the resources committed and shares common elements with the proposed Connecting Europe Facility. It is considered that these instruments minimise the market distortions that result from public intervention.

Broadband funding and market dynamics. Co-ordination between supply-side measures to improve communication infrastructure has been relatively successful. The supply-side input that had to be co-ordinated came from bodies such as the State Secretariat for Telecommunications and the Information Society (SETSI), Spain's Telecommunications Market Commission (CMT), the National Competition Commission (CNC) and the European Commission. The co-ordination of demand-side policies could, however, be improved. One possible area for improvement is the geographical alignment of broadband infrastructure funding and demand-side measures such as e-literacy or government use of ICTs. Spain should undertake a thorough assessment of the economic and social costs and benefits accrued through publicly funded broadband networks – for example, new business created or learning applications and healthcare services provided or facilitated.

Regulatory framework and market dynamics. A competitive broadband market and affordable prices are crucial to ensuring broadband take-up. Spain lags behind its OECD and European counterparts in both areas, even though the situation is improving. Recent developments in competition have also been partly based on off-price list discounting, which is not considered beneficial for consumers due to the lack of price transparency.

The Spanish regulator should, therefore, continue to encourage price-based competition in the broadband market. It should also make competition dynamics more transparent for consumers concerning off-price-list discounting. Moreover, Spain should transpose the new European regulatory framework into national law and the regulator should also undertake another round of communication market reviews. Both initiatives should be undertaken as rapidly as possible as they will help to give legal certainty to all stakeholders.

Spectrum reforms. Spain undertook substantial spectrum reforms for some years up to 2011. The measures were ambitious and forward-looking, and aimed at releasing the digital dividend band by 2015. The overall outcome so far has been well-designed and balanced in terms of the final spectrum holdings of all operators, public revenue, and market structure. Further involvement of smaller players would have been desirable. The authorities did in fact facilitate it, but without achieving the hoped-for

participation. Coverage obligations have been introduced during the tender procedures, which will help to bring connectivity to rural areas. However, significant work still lies ahead as regards the release of the digital dividend by 2015.

Removing barriers to infrastructure deployment. The new in-building wiring regime for new buildings is considered excellent and will help remove barriers to infrastructure deployment for apartment buildings. Nonetheless, effects are likely to be visible in the long term only, given the low activity of the construction sector in Spain. Other measures could increase its effectiveness. They include extending or highlighting existing or future tax relief arrangements to cover fibre-ready buildings and reinforcing labelling schemes for buildings. Spain should also consider incorporating in-building wiring-related requirements into the general building review that takes place every 15 years.

Other positive measures for removing barriers to infrastructure deployment have been put in place. Among them are the symmetrical obligation for operators to allow access to in-building fibre infrastructures at reasonable prices and under transparent conditions, and the proposed requirement that they make ducts, poles, masts and land space available for the deployment of fibre and mobile communication infrastructure in newly-built railway and road infrastructure.

Focus on the value of e-government – consolidating and increasing user uptake

Policy reforms, as well as administrative reform efforts, can be supported and levered by good use of ICTs at all levels of government. Government use of ICTs and e-government are key enablers of successful modernisation processes. The following paragraphs advance observations and suggestions as to ways of improving the outcomes of e-government initiatives in Spain.

Strengthening digital governance to align strategic goals at all levels of government. E-government offers strong potential for addressing the challenges currently faced by the Spanish economy and society. In the past few years Spain has focused on implementing Law 11/2007 on citizens' rights to electronically access services. It seems largely to have accomplished its aim. On this basis, it could reflect and address the economic challenges it faces more forcibly in its current e-government orientations. ICT use can be leveraged to support and increase the impacts of public sector simplification and modernisation in the area of justice, for example, as stated by the new Prime Minister. Government policies could,

and should, build on the use of ICTs to enhance and increase policy impact when relevant. However, the implementation of national policies and the use of ICTs still vary considerably across the autonomous communities and local authorities. To further its efforts, Spain is encouraged to consider:

- **Aligning e-government policies with public sector reform goals**, particularly to address budgetary and fiscal goals and challenges and to use ICTs to increase trust in government.

- **Strengthening the governance framework and developing a specific e-government strategy** beyond the Plan to support shared goal setting and co-ordination across all levels of government.

- **Comprehensively grounding the next e-government** strategy through international comparison with peers to obtain advice on good practice – in how to use ICTs to improve the business climate, for example.

Simplifying service supply and prioritising service channels. Spain has made significant progress in its online provision of public services and is now at the forefront of OECD countries in this regard. The approach of stating a set of citizens' rights with which public administration bodies must comply seems to have had a strong mobilising effect. However, the multi-channel service delivery strategy enabling citizens to choose their preferred communication and access channels seems to have fallen short of its aims. It fails to provide sufficiently clear incentives to support cost efficient prioritisation between different service delivery channels. Additionally, a digitised public administration is not by default a simpler, more trustworthy one: a more thorough understanding and greater participation in the use of public services – by businesses and citizens and stakeholders from all levels of government – could be instrumental in this regard in ensuring context-relevant and customised interaction. To further improve its service supply, Spain is encouraged to consider:

- **Better data to ground channel priorities.** Promote the use of indicators and data on service delivery channels to support prioritisation. Examples of data include those relating to cost structures, user preferences, and demand for services.

- **Stronger prioritisation of online channels.** Strengthen the use of the most efficient service delivery channels by, for example, increasing the mandatory use and/or provision of incentives for certain user groups.

- **Simplification and focus on user value.** Fundamentally challenge the traditional culture within administrative, regulatory and working processes and involve citizens and businesses.

Realising the value of ICTs by ensuring a higher e-government uptake. Spain seems to be aware of the key challenge that to fully benefit from its high online service provision it is important to increase user uptake of e-government services. Good practices like those of the Spanish Tax Agency might offer sound inspiration in this regard. The implementation model currently applied by the Ministry of Justice in the ongoing modernisation programme also seems to make good use of transparency as a benchmarking and implementation tool at local levels of government, particularly within the autonomous communities. Other models for engaging citizens to increase their uptake and trust could also be explored. In this regard, Spain is encouraged to consider:

- **Adopting common take-up measurements to ground policies.** One way might be the use of common models and data for assessing the delivery and uptake of services and supporting work on user uptake.

- **Marketing to increase awareness,** which involves strengthening and targeting the marketing and publicising of e-government services to achieve the highest impact – for example, by building on existing social networks.

- **Exploiting and enhancing ICT** competencies**, capacity building and training strategies.** One approach might be to build on existing cultural, educational and social policies targeting both citizens and businesses.

Consolidating government ICTs and adapting a whole-of-government approach. Spain cannot afford redundant infrastructures or services, missed synergies, or under-exploited data. Nor can it afford to invest in ICT projects of little value or in those whose benefits are not reaped. Clear management instruments identifying the added value in the use of ICTs are necessary. Considering public administration from a whole-of-government perspective enables seamless provision of services across levels of competency, shared services, and economies of scale. Spain has outlined a common government service architecture and seems to provide most essential shared services. It is a challenge – as it is across most OECD member countries – to ensure the full, co-ordinated uptake of these shared services at all levels of government, particularly in light of differences in ICT maturity and at both development and implementation levels. In order to address these challenges, Spain is encouraged to consider:

- **Standardising infrastructures and common components** to clarify further the government service and data architecture and define responsibilities across all levels of government.

- **Using business cases to focus on benefits realisation,** i.e. focus on the financial benefits of e-government and use business cases to determine the costs and benefits of key projects.

- **Consolidating and pursuing economies of scale,** as consolidating ICT infrastructure services can secure overall coherence and the realisation of potential economies of scale.