

Communication infrastructure: Key assessments and proposals for action

This chapter has dealt chiefly with the supply-side policies that Spain is implementing to boost its network connectivity, especially its access to fixed and mobile broadband services. However, it also considers some desirable elements of alignment with demand-side policies.

Spain's market context and regulatory framework, both heavily influenced by European-wide policies, play a key role in shaping the telecommunications market. They are also crucial in determining the instruments available to the Spanish authorities for taking action on specific issues. The European regulatory framework clearly constrains national policies and practices in areas like the State Aid Framework, procedures for defining and analysing communication markets and, more specifically, remedies for significant market power. Nonetheless, the Spanish authorities – the regulator in the present instance – do enjoy a significant degree of autonomy and play a critical role as well.

In addition to the overall European context, poor economic conditions and ongoing fiscal consolidation currently curb the Spanish authorities' ability to implement more far-reaching public programmes designed to increase network availability and use. The previous information society strategy was among the most ambitious information society strategies undertaken in OECD countries between 2005 and 2009 and dwarfed the resources allocated to the current Plan. As the OECD acknowledged in its first review (OECD, 2010c), the Plan put down very important milestones – increased broadband coverage in rural and remote areas, a successful switch-over to digital terrestrial television (DTT), and significant progress in e-literacy and the availability of online government services.

While not on the same scale as its predecessor, the Plan enjoys a non-negligible budget which, through efficient management and clear policy goals, will certainly continue to improve Spain's performance in the digital economy. Measures taken under the Plan have been successful in further advancing the information society in Spain. This report highlights its

achievements and supplies an overview of remaining challenges and action areas that the Spanish authorities should consider for the implementation of measures both now and in the next stages of Spain's information society strategy.

Policy coherence of the Plan

Assessment

The Plan sets infrastructure deployment goals which translate into a series of policy instruments. The outcome is a co-ordinated approach across a number of areas. For example, the objective of universal basic broadband connectivity at 1 Mbps has been met using financial instruments which not only target access networks but aim to put in place the necessary backhaul connectivity. Spectrum policy measures are in line with these connectivity targets, as is the universal service obligation that has been in force since 1 January 2012 and now incorporates the 1 Mbps universal basic broadband connectivity.

The plan is internally coherent and is linked to broader regulatory and policy frameworks, both domestic and European. Measures to remove barriers to the deployment of communication infrastructure like in-building wiring are well designed and contribute to building a comprehensive policy approach towards network deployment in Spain.

Key finding

An important aspect of the Plan is its own policy coherence and its clear connections with policy frameworks, regulatory regimes, and institutional actors.

Network development

Assessment

Spain's approach has been ambitious. **It is one of the few countries to enshrine universal basic broadband availability** in legislation by making 1 Mbps broadband connectivity a universal service obligation. Since 1 January 2012, the designated operator for the provision of universal service, Telefónica, has to meet the obligation of providing functional access to the Internet at 1 Mbps of download speed. The connection may be provided through wired or wireless technologies with a data allowance of 5 GB and a stipulated price.

The inclusion of basic broadband connectivity in USO is the final step in **sound policy sequencing**. Public funding was made available to operators

so that they could extend coverage prior to enforcing the broadband USO which, together with spectrum management measures, has substantially reduced the cost of providing universal service from 2012 on.

Key finding

Spain's guarantee of universal access to basic broadband is amongst the most ambitious in the OECD. It met the Digital Agenda for Europe's 2013 target of basic broadband for all by January 2012. Furthermore, the sequencing of its policy to incorporate a broadband service in its USO was well designed.

Assessment

The **other two Digital Agenda goals** are more ambitious and have a much longer time horizon during which technology may evolve and changes in market structures may even occur, making it easier to meet the goals. The Digital Agenda gives neither a detailed specification of the goals nor of how they are to be met.

As regards **the 30 Mbps target**, Spain's spectrum policy measures do appear well co-ordinated. Their aim is to ensure the widest possible coverage through 3G and LTE technologies, which would position it closer to the Digital Agenda targets. However, whether LTE is able to ensure the 30 Mbps target in all scenarios depends on the speed used as a reference (actual, symmetrical, advertised, or theoretical). Moreover, significant backhaul deployments may be needed regardless of the reference speed.

The **100 Mbps 50% household penetration target** is even more ambitious, since it is not likely to be met through wireless technologies alone and will need extensive fibre deployments. Furthermore, "household" penetration requires much higher availability – in the range of 80%-90%.

At the moment, the **incumbent provider Telefónica has deployed fibre only to a limited extent** even though it may have the capacity to deploy extensively in a very short period of time – at least in densely populated areas. For the time being, only cable networks may support speeds of around 100 Mbps and such networks may currently ensure a population/household coverage of only around 60%. This is far lower than would be needed to achieve a 50% household penetration target in 2020: 60% population coverage represents significantly less than 50% household penetration as not all households adopt broadband. And, as cable operators have announced that they are not interested in extending their networks further than the current 60% population/household coverage, the potential for meeting the target of 50% at 100 Mbps hinges on the incentives for the

incumbent – or, more unlikely, other DSL entrants – to extend its fibre network to cover 80%-90% of the population.

Wireless technologies should not be ruled out of the running for meeting the 100 Mbps target. In rural and remote areas, at least, evolved LTE and related technologies, which will be deployed up to 2020, may well meet needs.

Key findings

Spain has not yet specified in detail how it intends to meet the broadband connectivity targets of the European Agenda for Europe. The ability of wireless solutions to meet the criteria will depend on how the criteria are defined. But under any definition, other enabling measures – particularly with respect to backhaul infrastructure – are likely to be needed.

It is not clear how Spain will meet the second and third Digital Agenda targets. Whether it does so or not depends on: *i*) the incentives for the incumbent to undertake large-scale deployment of fibre networks; *ii*) the extension of cable's footprint to far wider coverage than the current 60% of the population; *iii*) the evolution of wireless technologies; and *iv*) the feasibility of large-scale public funding of broadband networks in the event that market forces fail to meet the targets.

Recommendation

Spain needs to formulate a National Broadband Plan which specifies how, when, and on what assumptions it will meet the Digital Agenda and/or national connectivity targets. Such a plan should state, for example: *i*) the specific quality of service requirements for the targets; *ii*) the technologies able to meet the requirements, which includes connectivity needs at the access, backhaul and backbone levels; *iii*) whether private operators are expected to rely on themselves to achieve the goals or whether public funding will be forthcoming.

Ensuring legal certainty and investment incentives for NGA networks

Assessment

As noted earlier, guaranteeing a **stable framework for investment and legal certainty** is like putting together a jigsaw puzzle. The different pieces are drivers that will eventually form adequate incentives for players to invest in NGA networks. Among the many drivers and factors that should interact

to deliver a successful outcome, the following may be distinguished: demand-side measures like widely available e-government services; enablers that ensure a sense of security and trust in networks (e.g. the electronic identity card initiative); and other instruments that lower deployment barriers such as infrastructure sharing and access to ducts and conduits.

Finally, **pro-competition regulation should always be in place**, as the benefits delivered by competition are crucial to ensure long-term market efficiency. Furthermore, most supply-side policies related to NGA networks are determined to some extent by European policy, either through legislation or related provisions such as the NGA recommendation.

Within the European e-communications regulatory framework, Spain has managed to forge an **institutional arrangement** that affords players in the communications sector sufficient legal certainty. Co-ordination between the different public bodies (SETSI, CMT, CNC) has been satisfactory and the current framework provides adequate degree of regulatory certainty. SETSI formulates policy, CMT applies ex-ante regulation and CNC promotes competition and undertakes antitrust and merger review, together with the European Commission.

Key finding

From the point of view of supply-side measures, the current framework provides a sufficient degree of co-ordination and legal certainty.

Assessment

There has been a **significant delay in amending the current regulatory framework**. Spain should have transposed the new electronic communications directives into national law by May 2011 and the passage of the General Telecommunications Bill through Parliament was halted by a general election in November 2011.

Similarly, **the regulator has not yet undertaken the obligatory biennial market review** (triennial under the new regulatory framework). Some markets, like former Market 15 (call origination in public mobile telephone networks) have not been reviewed since 2006. As SETSI conducted its most recent market reviews in 2008 and 2009, the two-year period has already elapsed.

Recommendation

Spain should direct its efforts towards transposing the new European E-communications Regulatory Framework as rapidly as possible. The regulator should, moreover, undertake a new round of market reviews in order to: *i*) comply with the European regulatory framework; *ii*) take due account of the latest developments in e-communications markets; *iii*) adopt the measures necessary to promote competition; and *iv*) increase legal certainty for industry players and other stakeholders.

Assessment

Despite the falling availability of funds and the limited use of available loans under the Plan, financial instruments in the form of **soft loans** are perceived as being an effective means on the supply side (Parcu et al., 2011). Although discussion is still ongoing, significant European funds are likely to be made available in the coming years under the Connecting Europe Facility (CEF) and associated financial instruments. Spain should benefit from these programmes in the near future in order to meet the Digital Agenda targets.

Key finding

The use of financial instruments under the Plan for broadband infrastructure funding is in line with the European Commission's funding proposal. These instruments are also seen as minimising market distortions caused by public intervention and maximise resource mobilisation.

Recommendation

Spain should maximise the benefits derived from using European Funds (under the future CEF) to leverage private investment in broadband infrastructure networks, as the ambitious goals set by the Digital Agenda can benefit from additional public funding.

Co-ordinating supply- and demand-side measures

Assessment

While inter-institutional co-ordination works well for supply-side measures only (between SETSI the CMT and the CNC), the present report has identified **gaps in the interaction between demand-side and supply-**

side policies. This perception echoes the OECD's in its first review of the previous information society Strategy (OECD, 2010c), where it pinpointed improved horizontal and vertical co-ordination as one of the remaining challenges. By way of example, there seems to be no match between geographical areas to which funds for broadband infrastructure deployment have been allocated and geographical allocations for demand-side measures like e-government and e-literacy.

Recommendation

Efforts should be made to co-ordinate supply- and demand-side measures more closely. One possible area for improvement is the geographical alignment of broadband infrastructure funding and such demand-side measures as e-literacy or e-government programmes.

Assessment

Increased co-ordination may happen in a number of ways. Some were already highlighted in the first OECD review (OECD, 2010a). **Multi-level governance could be strengthened by highlighting the role of CATSI**, Spain's Telecommunications and Information Society Advisory Board. Regional and local governments are represented on this advisory body but their role could be enhanced. CATSI could co-ordinate the alignment between infrastructure deployment measures and demand-side policies through a more effective co-operation scheme between different levels of government. Such increased co-ordination would be required not only across the different levels of government, but also within central government itself in areas like e-literacy or e-government services.

Recommendation

Increased co-ordination should be conducted across local and regional government and within the central government.

Monitoring the benefits of broadband funding programmes

Assessment

Any broadband funding programme should incorporate a mechanism for conducting **sound cost-benefit analysis**. While the costs of the New Avanza Infrastructure Plan may be easily quantified, it is certainly harder to account for the social and economic benefits associated with network infrastructure deployments that have been funded.

As laid down in the requirements for calls for tender, the plan collects information on the technical characteristics of the networks that have been deployed using public funds and subscribership rates once the networks are in place. This data is already being collected and processed internally. However, searching for evidence on the actual use of the networks, alignment with demand-side policies, and the economic and social benefits that these networks enable is far more difficult. For example, one area that could be looked at is the type of applications or services that consumers and business use – e.g. e-government services, teleworking, e-health, e-learning, information purposes only. Even though it is difficult to quantify some in economic or social terms, it is crucial that SETSI obtain a clear picture of the actual use of subsidised networks.

Recommendation

Spain should undertake a thorough assessment of the economic and social benefits brought about by publicly funded broadband networks – e.g. new businesses created, new business models, new learning possibilities, e-health services. It should also perform a sound cost-benefit analysis.

Affordable broadband prices and penetration rates

Assessment

Having a competitive broadband market with affordable prices for consumers and businesses does not fall directly within the scope of the previous information society strategy or SETSI's responsibilities. Nevertheless, such goals are as crucial as other measures in ensuring that citizens and business reap the benefits of the information society. In this respect, **broadband penetration in Spain lags behind EU and OECD averages** and its price levels are, according to available evidence, relatively high.

The incumbent's broadband market share, which remained stable for many years, has been falling since 2009. This trend may be due to more effective enforcement of LLU remedies, the stronger competitive position of DSL entrants, and/or increased consumer price sensitivity in the current difficult economic conditions. Price opacity in the market remains nonetheless of concern. It is reported that considerable off-price-list discounting takes place. It targets specific users – especially those who threaten to terminate their contracts – and discounts often remain in place even beyond their original duration. While some may argue that these are legitimate commercial practices, they do make it more difficult for

consumers to compare prices, while the perception of high prices, whether true or not, discourages potential new subscribers.

Key finding

A competitive broadband market and affordable prices are crucial to ensure take-up. Spain lags behind its OECD and European counterparts in both areas, even though the situation is improving.

Recommendation

The Spanish regulator should continue to encourage price-based competition in the broadband market. It should also make competition dynamics more transparent for consumers and address off-price-list discounting.

Spectrum policy

Assessment

Spain started the digital switch from a particularly difficult position due to its historically intensive use of terrestrial broadcasting technology.

New **spectrum holdings were assigned using a well designed and executed licence** award procedure which set appropriate spectrum caps. Capping was designed to facilitate the entry of new spectrum holders (like Jazztel or the cable operators) and to encourage Yoigo, the fourth mobile network operator to increase its spectrum holdings. Historical spectrum allocations may, in light of technological and commercial developments, need to be recalibrated to facilitate service development and competition both now and in the medium term.

The **use of caps and, where appropriate, voluntary spectrum refarming, appears to have found the right balance in Spain.** Overall, the spectrum allocations comply with service- and technology-neutral requirement and allow LTE deployment in the 800 MHz and 2.6 GHz bands. Coverage obligations have been also introduced to provide 98% of the population with 30 Mbps connectivity by 2020 (by whatever technology is the most efficient at the time).

Some auction outcomes were not anticipated: **some spectrum was not assigned in the first round**, for example, after Yoigo chose not to take part. The second auction could have also been delayed until the perception of market conditions or the economic situation improved. However, the final outcome did address all knowable factors, met the need for additional public revenues in a parlous economic situation, and gave momentum to spectrum

allocation reform. And, in a short period of time, it established in a stable, spectrum policy landscape that will be in place until 2030.

Key finding

Spain has achieved a balanced outcome in terms of spectrum policy, final spectrum holdings of all operators, public revenue and market structure. Further involvement of smaller players would have been desirable and was facilitated even if ultimately it did not happen. Coverage obligations have also been introduced, which will assist in providing connectivity to rural areas.

Assessment

The **transition to DTT has been successful** so far. Nevertheless, Spain started to release digital dividend only in 2012, with SETSI having prepared an ambitious set of measures aimed at the 2015 target. Challenges remain: *i*) there needs to be a second migration to free up the 800 MHz band currently occupied by some DTT channels; *ii*) intensive use of the neighbouring bands for broadcasting purposes makes the risk of harmful interference higher than in other countries.

Another possible long-term concern is the possibility of an international agreement that would allocate other bands (e.g. 700 MHz) to wireless communications. Again, the reason for this would be the heavy use of this band for broadcasting services.

Key finding

Spain has so far completed the transition towards DTT successfully. Its last spectrum auction enabled it to lay the foundations for digital dividend release. Nevertheless, digital dividend release ahead of 2015 still poses significant challenges.

Recommendation

Spain should move forward and ensure the implementation of the Digital Dividend.

In-building wiring and infrastructure sharing arrangements

Assessment

Spain has made a **sustained, continuous effort to facilitate the deployment of communication infrastructure in multi-dwelling buildings** through measures for in-building wiring. Given the large proportion of residential multi-dwelling units in Spain, any measure that paves the way for the deployment of communication infrastructure in such buildings will certainly remove one of the main barriers to ICT uptake.

These measures have been successful and now some **20% of Spanish buildings comply with the requirements of the 1999 CTI regulation**. The adoption rate is nonetheless slow and heavily reliant on activity in the construction sector. In this respect, the adoption of the new 2011 regulation is likely to be slow, given current levels of activity in the construction sector.

Key finding

The new in-building wiring regime for new buildings is considered excellent and will certainly help to remove barriers to infrastructure deployment in apartment buildings. Given the currently low levels of activity in the construction sector, the effects of the new regulation are likely to be felt only in the very long term.

Spain has put in place a number of measures to facilitate infrastructure sharing, such as the symmetrical obligation on all operators to ensure other operators access to in-building fibre infrastructure at reasonable prices and under transparent conditions. Another example is the proposed obligation laid down by law that requires infrastructure developers to make ducts, conduits, masts and land space available for the deployment of fibre and mobile communication infrastructure in newly built railway and road infrastructure.

Assessment

There are possible ways to **boost the effectiveness of the new CTI (Common Telecommunications Infrastructures) regulation** and which may, to some extent, be applicable to existing buildings (which do not fall within the scope of the regulation). Possible tax relief related to the construction, transfer, or renovation of buildings could be highlighted or extended to fibre-ready buildings. Labelling schemes, similar to the one in place in Korea, could be effective in this respect. Furthermore, Spain should consider

the possibility of incorporating compliance with new CTI regulation into the general building review which takes place every 15 years.

Recommendation

To make the new CTI regulation even more effective, Spain should consider measures like extending or highlighting existing tax reliefs to cover fibre-ready buildings and introducing labelling schemes for such buildings. It should also consider incorporating CTI compliance in the general building review which takes place every 15 years.

Paperless administration: Reforming through information and communication technologies: Key assessments and proposals for action

Spain faces a series of serious challenges related to its difficult economic context. The global and European financial and economic crises have also hit Spain. Low growth, unemployment rates above 20%, and severe fiscal imbalance and budget challenges in the aftermath of the economic crisis are key issues faced by the newly elected government. Instability and rising easing interest rates in the euro area reinforce the need to ensure trust in Spanish economic policies and government administration. Spain has already undertaken some far-reaching measures, such as public expenditure cuts, reductions in public sector wages and employment, and reduced investment in public infrastructure.

The new Spanish Government has clearly reinforced the need to put in motion the necessary measures to address these challenges. In particular, the Prime Minister has reiterated the importance of using modern information and communication technologies to sustain efficient and effective public administration at all levels of government, as this may foster increases in the overall competitiveness of the national economy. This is why all future measures are expected to support a reform of administration that eliminates inefficiencies and duplications, and sustains the overall aims of downsizing, restructuring, and reduced operating costs in the public sector.

The new government has restated the importance of carrying on the necessary reforms of the justice administration, which is not only seen as a power that guarantees protection of citizens' rights, but also as an essential factor in national competitiveness and trust in institutions. Ensuring that the administration of justice is a modern and quality public service is therefore seen as a priority. It is envisaged that, in the years to come, this should be achieved by promoting the efficient, co-ordinated use of new technologies.

E-government can provide part of the answer by enabling higher efficiency and effectiveness in government administration and service delivery. This can, in turn, support the government's ambitions to improve the budget in ways that might seem more acceptable to the electorate than

direct cuts on welfare services. As such, the strategic use of e-government in the current context is imperative in order to increase public sector innovation, agility and mobility, and to enhance public sector productivity and secure sustainable public sector reforms. This was also reflected in the discussion of the latest session of the OECD Public Governance Committee in the fall of 2011.

This study has examined the Spanish goal to achieve a paperless administration by 2015 as a part of its information society strategy. It has focused particularly on an overall analysis and assessment of the digitisation of the areas of taxation and justice and it has proposed future action that is relevant to the broader e-government development within the Spanish public administration in general.

The section below summarises the key findings of the analysis on e-government, e-taxation and e-justice in line with the scope of this study and makes proposals for action to support the future efforts of the Spanish Government in those areas.

Strategic alignment and strong co-ordination

A clear e-government strategy setting out a strong vision to be made operational through selected key actions can help to ensure a common direction for and alignment of individual e-government efforts. The strategic direction can be supported by the adequate co-ordination structure, proper incentives, a clear division of responsibilities, and follow-up of the progress in implementation through monitoring and evaluation through the use, for example, of indicators.

Key assessments

The Plan is a comprehensive information society strategy. It covers a broad range of policies to support economic recovery and growth. E-government is an important axis in this strategy, which sets the ambition of achieving a paperless administration by the year 2015. The work on e-government in recent years has been guided by the Law 11/2007 on citizens' rights to electronic access to public services. The significant increase in the online service provision indicates that the work to ensure this right seems to have been largely accomplished.

The Plan is based on a multi-stakeholder approach to co-ordination and implementation. The co-ordination measures established within the Plan could provide an adequate framework for fostering collaboration in funding the implementation of information society policies and related initiatives.

However, the co-ordination framework could be further strengthened with regard to the overall e-government implementation.

Additionally, the overall economic challenges faced by the government could be reflected and addressed more strongly in the current e-government orientations, while the overall economic goals of the information society strategy could establish closer links to the more specific covered initiatives related to e-government. An exhaustive e-government co-ordination framework might go beyond the scope of the Plan, which covers and funds important e-government initiatives in some areas (e.g. health and education), but not all (e.g. taxation). This further accentuates the importance of defining an e-government strategy and the co-ordination of its implementation, particularly by the High Council of E-government and the Ministry of Territorial Policy and Public Administration. This seems in line with current efforts and considerations on how to advance a new e-government strategy for the years to come. E-government development and implementation challenges seem to be particularly important at local levels of government. The existing governance framework for e-government does not seem to account fully for this.

The strategies and governance frameworks vary within the different policy areas. The Ministry of Justice has put forward an ambitious, comprehensive strategy for modernisation. It provides a good example of how to embrace and support the general political goals of the government at all levels through e-government as an integrated part of public sector reform. The strategy to accelerate the process of digitising the judicial system seems to be guided by the political need to ensure public trust and confidence through a new “social deal”. This has led to significant investment in the modernisation process guided mainly by the political imperative of transparency and trust rather than by an underlying business case. The Spanish justice system seems to be still in the process of completing the organisational changes and reaping the dividends of transformation achieved through significant investment. This requires an ongoing high level of senior management attention. Further, ensuring and building trust in the Spanish justice might also be facilitated by establishing a high level of engagement and participation of the users, i.e. the citizens and businesses.

The strategy for the digitisation of the taxation area has focused, rather, on increasing revenues and efficiency. For example, it has sought to reduce fraud and increase user uptake of online services. The Tax Agency is considered a front-runner in e-government and large-scale investment seem to have resulted in a high online presence, mature channel priorities, and more effective organisation. Finally, the ICT infrastructure in the taxation area appear well grounded in, and co-ordinated with, the national governance framework for e-government. However, some co-ordination

challenges still seem to remain in this regard, particularly in the use of electronic ID and interoperability.

Proposals for future action

Align e-government policies with public sector reform goals

Given the budgetary and financial challenges the Spanish Government is facing, it could consider a closer alignment of its next e-government strategy not only with government reform policies recently announced by the new Prime Minister to specifically address budgetary and fiscal goals and challenges, but also with the objectives of administrative simplification to improve business competitiveness. E-government policies and strategies should embrace and support the general goals of the government at all levels, including the autonomous communities. Using ICTs to improve management by creating transparency and benchmarking of regional and local service provision seems an important approach to develop further – the lessons from the justice modernisation programme should be learnt in this matter. The importance of the economic challenges and fiscal imbalances could be key levers to using e-government in support of the ambitious government transformation process. This could help to increase overall government efficiency and secure the realisation of the financial benefits of e-government initiatives.

Strengthen the governance framework

Whereas the Plan sets out some of the overall directions regarding e-government, Spain could consider separately developing a specific e-government strategy. This would support the development of focused policies and the setting of concrete e-government goals. It would also facilitate e-government co-ordination across and within levels of government. The lofty Spanish ambitions for e-government might benefit considerably from a stronger institutional and governance framework. This may ensure alignment of goals and efforts both at the national as well as at the regional and local levels. It would involve not only revising the existing institutional framework but also the frequency, intensity, and the scope of existing co-ordination mechanisms as well as the central-local division of responsibilities.

Comprehensively ground the next e-government strategy

Building on this study the Spanish Government could consider conducting a comprehensive e-government review in order to solidly ground the redefinition of policies and the development of a new e-government

strategy. One area of attention could be to focus on the use of ICTs to improve the Spanish business climate, national competitiveness, and innovation. Given the importance of the Spanish regional and local levels of government, the review of the roles, responsibilities and capacities of the respective authorities should be covered by such a review. Assessing and measuring e-government performance at the regional and local levels would help Spain strengthen a whole-of-government perspective and improve multi-level co-ordination within and across levels of government. This would enable it to strengthen its position at the forefront of OECD countries in the development and implementation of e-government. Additionally, the review could help identify concrete action to improve the use of ICTs in support of administrative simplification designed to foster businesses innovation. One example would be to put in place a single window to access the public sector and thus eliminate the need to use different points of access to the public sector for each phase in a product's life cycle.

Prioritising digital service supply and service delivery channels

A channel strategy for service delivery is an important policy tool for managing and prioritising government interaction with citizens and businesses. An overall channel strategy encompasses analogue and digital entry and delivery points, and sets priorities between them.

Key considerations in the prioritisation of service delivery channels could be transaction types and frequencies, the readiness of user segments, the cost structures of the transactions on different channels, and the differences in service levels perceived by the users. Service delivery channels might be managed by combinations of push and pull mechanisms (“sticks and carrots”) that range from regulating for mandatory use on the one hand to delivering user-oriented digital services of the highest quality on the other. Granting users the right to choose their preferred service channels, while providing incentives to use the prioritised digital channels can be designed in different ways.

Key assessments

Spain has made significant progress in online service provision. As a result, the country now performs above the average level of its peers in the OECD and the EU in this regard, according to EU E-government Online Availability measures: Spain stands at 95% against an average of 82% in 2010 for the 27 EU member countries. Further to this, Spain ranks among the top ten countries in the UN E-government Survey 2010: it is ranked ninth by the E-government Development Index and third by the E-Participation Index.

Law 11/2007 recognises the right of citizens to choose their preferred communication channel, thus laying the ground for a multi-channel strategy. Even though this is not translated directly into cross-governmental prioritisation of channels, some overall indicative estimates of the cost structure of different service delivery channels have been established in order to help ground and motivate any prioritisation process.

The government prioritisation services which should be fully digitised will require high political and administrative attention. Such work should reflect key policy goals at the same time as transaction intensity and the costs associated with the different service delivery channels. Spain seems well aware of the challenge of establishing a strong service delivery channel strategy that takes users' preferences and demands into consideration.

The Tax Agency has used a multi-channel approach to prioritise a selection of channels in the taxation area. This is leading to higher efficiency through the closing down of analogue channels. One good example is the mandatory use of electronic communication between businesses and the Tax Agency. Another example is the focus on automating communication by, for example, moving away from mail-based communication.

As for the judicial system, the strategy for providing services online reflects the Ministry of Justice's policy goals and modernisation objectives, as outlined above. The newly established digital platforms in the justice system (e.g. the NOJ Minerva management system and the digital Civil Registry) aim for ambitious, unprecedented levels of transparency and more effective internal working processes.

Proposals for future action

Prioritise online channels more strongly

The high provision of online services in Spain is a great advance in terms of the quality of public service delivery. However, to fully exploit the benefits of the considerable investments made in its online service provision, Spain could consider strengthening the use of the most efficient service delivery channels, e.g. automated services or online services. This could include further strengthening the obligation for certain user groups to communicate through selected service channels and providing incentives for the use of online services – rather than relying on a guiding principle of letting users choose the preferred communication channel. This would be in line with the practices of other OECD countries. Under considerable pressure to identify savings, several OECD governments are exploring how advances in technology-driven modernisation offer opportunities to generate significant efficiency and productivity gains while maintaining vital

frontline services. A case in point is the strategic approach of the United Kingdom in making public services digital by default and delivering efficient, cost-effective public services that are responsive to the needs of citizens and businesses.

Supply better data to ground channel priorities

Good data to support the elaboration and reinforcement of a channel strategy are essential. Spain could consider establishing a framework providing for indicators and data related to the different service delivery channels that could support sound priorities of government policies on digitisation. Examples could be data related to differences in service delivery cost structures, user preferences, and services demand. Such a measurement framework should be clearly aligned with the overall e-government strategy, including the service delivery channel strategy. This would subsequently need to be incorporated into local strategies as long as local conditions were taken into consideration. Assessing the impact of ICTs on the overall delivery of policies and services would entail collecting relevant data from all levels of government. This would support optimising the use of ICTs across the whole government and contribute to the improvement of the overall performance of the public sector. This approach would be in line with the strategic orientations expressed by the members of the OECD Network on E-government at the Workshop on E-government Indicators in December 2011.

Simplify e-government access and focus on user value

Spain could consider how to further strengthen the user orientation of government service provision. This could involve reorganising services around users through digitisation and fundamentally challenging traditional organisational culture within the administration, regulation and working processes to focus on increasing user value. The high level of online service provision, as well as the developed e-government infrastructure, provides a good foundation for strengthened efforts to ensure seamless service delivery. A stronger focus on the simplification of rules, administration and service delivery, as well as on the value added for users across all levels of government, could additionally contribute to further reducing administrative burdens for citizens and businesses. One important element in addressing this challenge might be to engage the different users more strongly and more systematically in the development and simplification of the online services.

Increasing user uptake

User take-up of e-government services is a key measure of the degree to which the e-government services provision is actually used. The concept of user take-up refers to the use of public service delivered through new channels (i.e. adoption of e-government services). Together with survey-based consideration, data on user take-up can provide valuable contributions to policy making. One example of survey-based data includes Eurostat's uptake measures on online interaction between governments and citizens. More specific data on user take-up can be identified in relation to the overall number of transactions of the delivered service. Spain has strengthened its focus on the uptake of online services relative to the total number of a certain type of transactions. Additionally, Spain also extends the notion of e-government uptake to include the uptake of e-government services through intermediaries, e.g. by delegation to social collaboration partners.

User take-up of e-government services usually depends on a broad range of factors; and its increase can be addressed through several approaches; e.g. simplification, situation-bound customisation, engagement, marketing, and channel strategies.

Key assessments

Spain seems to have recognised the challenges of increasing user uptake of e-government services, particularly in light of its accomplishments in the increase of its online service provision. This also seems grounded in data as Spain, despite its high level of online service provision, remains just around or below the EU and OECD average levels of e-government user uptake – for both citizens and businesses. In 2011, for example, 32% of the Spaniards used the Internet for interacting with public authorities, against an EU average of 41% and an OECD average of 42%. Where 69% of the businesses in the EU's 27 member countries used the Internet for transactional services with the public sector, the figure for Spain was 65%. National initiatives to address this challenge are being developed. Frontrunners like the Tax Agency might provide inspiration in this regard – electronic declarations of corporate tax and VAT are among the highest in the EU.

Progress in the overall improvement of e-government service uptake seems to derive particularly from the good results in uptake of online services in the taxation area. The extensive digital service provision, in particular the actual user uptake of services delivered online, is essential for high efficiency in the taxation area. Currently, almost 40% of personal income tax declarations are submitted online. However, as a share of the total number of tax returns, 68% are submitted electronically.

The judicial system does not yet appear to have progressed as much or as far as taxation with regard to user uptake, particularly as its services were only recently digitised. However, the implementation of restructuring process seems well advanced with several deep-reaching changes having been made. One example is the digitisation of court proceedings, where case handling has become paperless through the use of the case handling system REGIUS. The Ministry of Justice has further established a comprehensive and ambitious system for monitoring the status of cases being handled at all levels of government. This also includes progresses in user take-up.

With regard to the raising of users' awareness of the availability of online services, both the justice system and taxation areas seem to be covered by ambitious communication strategies supported by the use of new technologies that include social media platforms. The impact achieved through these channels is not yet clear, although the initiative does demonstrate the large steps taken by Spain to progress in the "government 2.0 experience" by leverage, for example, YouTube channels and Facebook. The awareness of online services seems likely to be furthered through social networks.

Proposals for future action

Adopt common take-up measurements to ground policies

Solid data are a prerequisite for good policy making. As highlighted in the previous set of proposed actions, Spain could ground and support its work to increase online service user by drawing up a common framework for assessing the delivery and uptake of services through the various channels at all levels of government. This could support increases in user uptake and further enable management by realising Spain's overall investment in e-government efforts as well as in specific projects.

Use marketing to increase awareness

Having achieved a high level of online service provision, the challenge now facing Spain is to ensure an optimal level of user take-up. Spain could consider strengthening and targeting its communication and marketing strategy for e-government services. Such a strategy might also benefit from the leverage of existing social networks (analogue as well as digital) within government and through private business or civil society when deemed relevant. Clear prioritisations on how to achieve the highest impact is a prerequisite for success.

Exploiting and enhancing IT competencies

Skills, competencies, and trust in digital government are important prerequisites for harvesting the gains of e-government. Spain could consider addressing the need to improve the IT-related skills of businesses and citizens through designated capacity building and training strategies. Furthermore, these efforts could be considered in relation to existing cultural, educational and social policies and should seek to take advantage of existing initiatives and networks – particularly the related objectives of the Plan.

Focus on consolidation and return of investment

A consistent focus on producing returns on investment in e-government involves exploiting its financial potential along with the qualitative benefits. All e-government policies should therefore be aligned to ensure coherence, reduce redundancies, and promote mutual synergies. The professionalisation of project management in the public sector and consolidation of IT and e-government services are key components in securing return on investment.

Key assessments

A mature e-government strategy builds on a clear architecture of public services defining the roles and responsibilities of all stakeholders as well as the standards to link them. However, wide differences in e-government maturity and development within government can make co-ordinating initiatives and efforts difficult. It might lead to redundant infrastructure components – e.g. digital signature services and the under-exploitation of core data in the administration – and thus hinder the development of synergies and achievement of benefits. To tackle this matter, Spain has outlined a common government service architecture and seems to provide essential shared services – the SARA network, payment solutions, the e-delivery system for exchanging information between government administrative bodies and the electronic signature, DNLe.

The Tax Agency appears advanced in terms of its internal IT organisation. It is using a professional project management framework to guide the technical development and implementation of IT projects. A business case model to support decisions on costs, investment, and benefits of e-government projects could be drawn up and adopted to complement this framework.

The Tax Agency manages a certain amount of its IT services and operations in house. The sourcing strategy seems based on what the agency considers vital internal key competencies. Important in-house resources are

currently focused on IT software development and service-oriented architecture.

Even though the transformation of the justice system is also guided by efficiency considerations as part of the new “social deal justice”, the focus on measuring and realising dividends could be even further accentuated. This would be in line with the ongoing transition in the modernisation programme, moving from implementation towards achievement of results, i.e. towards more effective, efficient daily operations.

Proposals for future action

Use business cases to focus on benefits realisation

To support a stronger focus on the financial benefits of e-government, the Spanish Government could consider introducing the use of a common project management model, which would include a business case tool that specified the costs and benefits of key projects. Experience in OECD countries has demonstrated that business case models can be useful in order to assess the value (benefits, costs and investment) of e-government projects. In addition to ensuring better decision making, the advantage of using business cases is that they can help to specify the value added of a project while enabling a clear focus during the implementation process on how to realise this value. The adoption of standardised IT project management and business case models would be in line with the practice in OECD member countries such as Denmark.

Standardise infrastructures and common components

The Spanish progress on e-government reflects concerted, co-ordinated efforts across government. To support this, Spain could consider clarifying even further the government service architecture to spell out clearly responsibilities across all levels of government – within each ministerial department as well as at regional and local levels. This could support co-ordination and collaboration efforts; provide guidelines on when who should apply what (e.g. on standards and joint components); and help strike the balance between the perspective of a single organisation as opposed to broader national perspectives.

Consolidate and pursue economies of scale

Spain could consider establishing a plan for the joint consolidation of ICT infrastructure services. As digital services evolve across government it is important to ensure the overall coherence and realise potential economies of scale, e.g. in management, operations, and sourcing. A consolidation of

ICT infrastructures could be designed within government administration (e.g. through shared services) or through private service suppliers (e.g. subcontractors or partnerships), or in combination, reflecting the strategic decisions on what competencies to maintain and/or build inside public administration. The use of cloud computing – i.e. IT services provided on demand through the Internet – is increasingly considered by OECD countries to enhance government agility and performance.