BRITISH ACADEMY OF MANAGEMENT

BAM CONFERENCE

3RD-5TH SEPTEMBER
ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM

This paper is from the BAM2019 Conference Proceedings

"From E- to Open-Government in delivering European Union funds to beneficiaries: the case of Greece"

Abstract

The aim of the current research is to examine how and to what extent existing egovernment services in planning, managing and delivering EU funds in Greece, can evolve into new open-government models. It also aims to examine how to effectively engage citizens and potential beneficiaries to participate in processes, such as policy-making or projects' and funds' allocation within the framework of the Partnership Agreement 2014/2020. The importance of the subject lies within identifying ways to promote government efficiency through open government initiatives motivating citizens' participation, interaction and collaboration, especially during times of distrust in national public and in European Union institutions. The study comprises of a combination of both primary and secondary data collection. To this end, it includes a literature review to define e-government, open government and means to deliver e-services. It showcases policies, the legal framework and available platforms and trends in both Greece and Europe. The review offers a perspective on actual e- and open government efforts in the EU funds' management. In this context, the research further presents a study carried out and the responses acquired among public bodies (managing authorities) and potential beneficiaries (public entities and citizens) with regard to their awareness, perceptions, concerns and attitudes on existing and possible future open government models. Findings show that respondents recognize the benefits of e-government services, yet they encounter difficulties using them, mostly due to the platforms' technocratic language. They are uncertain however on the impact open data have had on the EU funds management and demonstrate reservations on trust and security issues, including interaction and integration of their proposals in policy- and decision-making processes. The study concludes with proposals on future academic research and policy applications in order to further advance the openness of governance in the EU funds.

1. Introduction

E-government is an effective and efficient interactive delivery of government information and services through digital means, with the aim to improve and accelerate governmental services and eventually enhance public trust in governments (West, 2004). Nevertheless, it often reproduces existing government styles (Pina, Torres and Royo, 2010) or even magnifies bureaucracy (Wong and Welch, 2004), emphasizing more the delivery of information and less the interactivity and enabling of civic participation (Freeman and Quirke, 2013).

Many e-government studies are descriptive and analyse secondary data, the content of governmental websites and case studies (Yildiz, 2007). This is more the case in egovernment applications for EU funding. Academics have not extensively dealt with the effects e-government services delivering EU funds have in opening up the governance of the funds (transparency, efficiency or accountability). Studies have focused on services' content, mostly non–interactive and non-deliberative, either as communication measures mandated by the EU regulations or as case studies on opening up data to the public (Reggi and Ricci, 2011). The academic literature has not in depth analysed and evaluated egovernment's effects on a more democratic planning, managing and implementing cohesion policy on a European or national level and has not researched it as a factor for more open and participative policy-making and governance of the funds.

One long-lasting debate in Europe concerns the democratic deficit of the EU and the legitimacy of its administrative bureaucracy (Curtin and Mendes, 2011). The citizens' mistrust in the EU and its institutions is growing the last years and is reflected in the periodical Eurobarometer surveys. In 13 out of 28 EU-states the majority of respondents do not trust the EU, particularly in Greece (69%), the UK (57%) and the Czech Republic (56%). Europeans' trust in national governments is even smaller. In Greece 86% don't trust the parliament and 87% don't trust the government (European Commission, 2018c). In 14 countries respondents do not believe that their voice counts in the EU. In total, 49% in all countries, 73% in Greece, 70% in Estonia and 67% in the Czech Republic. Moreover, Greeks have a negative image (37%) or a neutral image (36%) of the EU (European Commission, 2018c).

In 2017, examining awareness and perceptions on EU regional policy, 78% of the respondents believed that co-financed projects had a positive impact on the development of their city/region. In Greece 84% agreed. Nonetheless, a striking 65% did not believe they have

benefited in their daily life from projects funded by the ERDF or the Cohesion Fund (European Commission, 2017).

In this context, the core concern of the current study is whether e-government in managing and delivering EU funds is indeed leading and can transform to a more interactive, open and accountable cohesion policy and governance, empowering citizens and reinforcing trust in the EU and the national governments. We seek to identify means for the transition of simple e-services to an open and interactive policy-making.

To this end, we used a combination of secondary data (literature review, reports, statistics and action plans) and primary data (informal interviews, observation of platforms' services and a quantitative research) collection technique. The quantitative research, across both employees in Managing Authorities (MAs) and the public sector, as well as citizens, explored among 400 respondents perceived values and benefits of e-government services provided in the framework of the Partnership Agreement (PA), their experience and demand of quality, awareness and perceived effects of open data on the funds' management. It also explored expectations and motivation behind e-participation. Descriptive statistics and analysis of responses by occupation or age group confirmed previous findings, such as the need for simplification of language, designing multichannel delivery services based on users' needs, and the importance of bridging the digital divide. It also revealed diverse perceptions among the public sector and individuals on the importance of quality dimensions such as design or mobile accessibility, on effects of using open data and motives of e-participation.

The results of the study could foster academic research on how to further the transition to open government in the EU funds' management and in collaboration with practitioners to raise awareness on open data initiatives and promote their use. Practitioners could exploit the results to design more effective open government initiatives.

2. Literature Review

The part analyses the concepts of e-government, open government and e-democracy according to literature. It presents the scope of the cohesion policy, the legislative framework in Greece and the EU, as well as platforms pertaining to the delivery of the EU funds.

2.1 E-government and open government

The literature on e-government and open government is extensive both among academia and organisations. Yet, there is a variety of approaches to both these concepts and consequently to the notions of e-democracy and e-participation.

E-government seems to be an outcome of the New Public Administration (NPA) doctrine in the US that public administration should move toward more democratic structures, participation and social equality (Gruening, 2001). The concept evolved in the New Public Management (NPM) movement, to apply to the public administration policies and customerdriven services from e-business, e-commerce and the private sector (Gruening, 2001; Moon, 2002; Torres, Pina and Royo, 2005). The use of ICTs is the key component in the NPM theory. Citizens are regarded as customers of the governmental services (Roman and Miller, 2013) and the public administration is reorganised following the best practices of the private sector (Petrakaki, 2008).

E-government is an effective and efficient 24/7 delivery (through the internet or other digital means) of government information and services in a non-hierarchical and non-linear way. It is interactive by nature, aiming to improve and speed up governmental services and even enhance public trust in governments (West, 2004). It provides services and improves governance between government and citizens (G2C), government and businesses (G2B), between internal governmental operations (G2G) and between government and employees (G2E) or between government and civil societal organisations (G2CS) and even between citizens (C2C) (Palvia and Sharma, 2007; Yildiz, 2007).

O'Reilly (2010) described Government 2.0 as "the use of collaborative technologies to better solve collective problems at a city, state, national and international level" and introduced the concept of Government as a Platform. GaaP means the end of designing closed applications, governments build an open platform with essential infrastructure and fundamental services and multiple stakeholders will then be enabled to add innovative applications and participate in the decision-making.

The OECD defines e-government as the use of ICT "as a tool to achieve better government" (Field, Muller and Lau, 2003) and provide in a more effective and efficient way services to citizens and businesses. The European Union also regards e-government as a tool to a more efficient administration and defines it as "the use of information and communication technologies in public administrations combined with organisational change and new skills

in order to improve public services and democratic processes and strengthen support to public policies" (European Commission, 2003).

The United Nations acknowledge as integral to the E-Government Development Index (EGDI) the provision of online services, telecommunication connectivity and human capacity (United Nations Department of Economic and Social Affairs, 2016).

The concept and definitions of e-government have evolved over years, due to rapid technological advances and changes in government culture and society.

Initially scholars identified three stages of development: e-presence or simple presence on the internet, e-service delivery or online services and e-democracy with the citizens' participation. West (2004) argues that there are four development stages of e-government, the billboard stage with the provision of simple information, the partial service delivery when citizens can search or order data in various formats, the portal stage with a fully integrated one-stop-service and interactive democracy with personalised services and interaction. Others support that the four stages are: one-way communication of catalogued information, online transactions for two-way communication, integration of government operations and horizontal integration of various functional areas (Layne and Lee, 2001). Some researchers argue there is a difference between e-government and e-governance, the former focusing on users outside the government and the latter on the administration and management of internal resources within governmental entities (Palvia and Sharma, 2007).

Domínguez, Nchez and Álvarez (2011) present evidence that successful e-government initiatives depend on the governments' administrative and financial capacity and on the general development level.

Although it is difficult to conclude to a common definition for e-government, institutions and academics alike, agree that open government is more than information on the internet and that the simple provision of data does not open up a government. Open government combines transparency and participation, it requires interaction and synergy between the administration and the citizens, it encourages citizens' engagement and inclusion in policy processes, it promotes dialogue and empowers citizens, it fosters transparency and accountability, limits corruption and eventually restores trust to governments (Chadwick and May, 2003; Meijer, Curtin and Hillebrandt, 2012; OECD, 2016; Williamson and Eisen, 2016).

In this study we endorse this approach that e-government is a first stage of providing online governmental and administrative information and services to citizens, businesses and other

government entities. Open government, however, transforms the user from "customer" to "collaborator" and combines e-services with interaction: users actively engage in transforming and co-producing policies and projects in a democratic environment.

The Open Government Partnership (OGP), established in 2011, aims "to promote transparency, empower citizens, fight corruption and harness new technologies to strengthen governance". The 75 participating governments endorse a declaration to "pro-actively provide high-value information, including raw data, in a timely manner, in formats that the public can easily locate, understand and use, that facilitate re-use, to create and use channels for public feedback and deepen public participation in developing, monitoring and evaluating government activities, to support and develop the use of technological innovations by government employees and citizens alike". The members of the OGP submit a national Action Plan elaborated after public consultation and periodically report on its progress.

Often there is a misconception of the terms "open government" referring to the policy and "open data" being the technology or simply a means of achieving transparent and accountable governance (Yu and Robinson, 2012; Millard, 2013). Open data as a tool can result in an open government and advance both transparency and knowledge or interaction with society, whereas the citizens become a part of and engage in the process, provide feedback and hold the government accountable (Janssen, Charalabidis and Zuiderwijk, 2012; European Commission, 2015a).

In this context, the UN define Open Government Data (OGD) as "government information proactively disclosed and made available online for everyone's access, re-use and redistribution without restriction" (United Nations, 2018).

Actually, the concept of open government as the government's release of information to promote public accountability dates back to the 1950s in the US and the people's right to know recognized in the Freedom of Information Act in 1966 (Yu and Robinson, 2012). The authors support that the ambiguity arose when the US President used the term "open" to refer both to transparency and to technological innovation in his Memorandum on Transparency and Open Government (Obama, 2009) followed by his Open Government Initiative.

The whole concept of open government is based on the values of transparency, participation, and collaboration (Coglianese, 2009; Abu-Shanab, 2015). However, open data alone and technology do not necessarily open up a government or enhance public accountability, if the

data delivered is not meaningful or easily understandable by the users or if they do not possess the skills to benefit from them.

2.1.1 Benefits or myths of e- and open government

Summating the above, e-government services are expected to produce cost savings, increased efficiency and better delivery of public services. They are largely associated with transparency, accountability, fight of corruption, better governance and democracy. However, a fundamental question in our study is whether they are indeed leading to a more transparent, participative and inclusive, open and accountable government in managing the EU funds. Academic literature supports these reservations.

Focused on efficiency and modernisation through the means of digital technologies, e-government services tend to prioritise front-office services, reinforce existing powers, maintain or duplicate processes and structures or even establish a de-humanized e-bureaucracy (West, 2004; Pina, Torres and Royo, 2010; Roman and Miller, 2013). They concentrate more on one-way communication and access to information or applications, yet they do not necessarily ensure or enhance citizens' participation - unless they involve a continuous dialogue and are viewed as complementary to the traditional forms of democracy (Freeman and Quirke, 2013; Roman and Miller, 2013). The desired outcome would be to establish a discussion with the citizens, seek their opinion and not simply view them as customers (Chadwick and May, 2003).

We can also debate a series of "myths" surrounding e-government: better government, quality of services and cooperation among public entities, infinite potential of technological progress, rational management and an empowered citizen.

In this context, scholars question the exchange of knowledge among back-offices, the interoperability of IT systems, the power of ICTs to transform structures, processes and institutions or lead citizens to more active and frequent participation (Bekkers and Homburg, 2007). Often e-government services lack in interactivity, provide the minimum data legally required and reflect existing administrative structures, thus they do not necessarily transform organisations or enhance a more accountable and participative governance (Pina, Torres and Royo, 2010). Administrators perceive open government as access to information and transparency and less as collaboration and co-creation of policies (Gómez, 2017). Additional

concerns raised regard security of personal information, privacy and protection of commercial interests (Meijer, Curtin and Hillebrandt, 2012).

The impacts of e-government in effectiveness, productivity and cost and time-savings, communication and cooperation, policy- and decision-making are not clear or really transformative, despite better data quality, access or intergovernmental cooperation (Andersen *et al.*, 2010). Others dispute the idea that openness enhances transparency and trust in the government (Fung and Weil, 2010) and claim it may even hinder government decision-making and lead to risk-aversion attitudes (Meijer, Curtin and Hillebrandt, 2012).

Actually, Fung and Weil (2010) argued that initiatives such as "follow the money" have opposite effects, because they only focus on spending without any emphasis on the possible broader public benefits. To averse such effects, they suggest collaborative platforms for ongoing feedback on actual projects' progress and storytelling on their real societal value.

Another fundamental problem concerns the digital gap among citizens, their diverse capacities and skills or different level of access to the internet (Janssen, Charalabidis and Zuiderwijk, 2012; Meijer, Curtin and Hillebrandt, 2012). More often than not, the process and re-use of the data provided requires either professional ICT developers or digital-savvy users (Kassen, 2017). Lack of specific technical skills, interdisciplinary expertise or even time prevents citizens from fully understanding and exploiting complex datasets (Barker *et al.*, 2016; Reggi and Dawes, 2016) which often are a bulk of meaningless data with no effect on government's accountability (Yu and Robinson, 2012).

Even open data portals are criticized for being simply complex repositories of mainly statistical data of no substantial use, with insufficient or incomplete metadata, lacking a central quality control mechanism, usability and comprehensibility (Lourenço, 2015). Without enough publicity, technical intermediaries and a democratic environment open data will not have any effects on governments' accountability (Peixoto, 2013). According to Reggi and Dawes (2016), civic participation should be encouraged, possibly through expert intermediaries (journalists, NGOs, academics) and the necessary mechanisms to apply citizens' feedback in the decision-making.

2.1.2 E-participation and e-democracy

Scholars and institutions introduced and distinguished from e-government the term of e-democracy, or e-participation and e-engagement, which refers to consultations with and

engaging the citizens through ICT in the government's policy-making (Torres, Pina and Royo, 2005; Palvia and Sharma, 2007; Lee, Chang and Berry, 2011; Freeman and Quirke, 2013; European Parliament, 2016).

The UN evaluate as e-participation the provision of and access to information, the engagement of citizens in deliberating with the public administration and co-producing policies and services (United Nations Department of Economic and Social Affairs, 2016). The European Parliament endorses the UN's e-participation index and accepts three interactions between governments and citizens: e-information, e-consultation and e-decision-making which have the potential to increase interest in politics and reinforce citizens' trust to local, national and European governing bodies and eventually enhance e-democracy (European Parliament, 2016).

In democracy and open government transparency or "vision" refers to access to information on the decision-making processes, while participation or "voice" involves dialogue, consultations and active involvement in the decision-making (Curtin and Mendes, 2011; Meijer, Curtin and Hillebrandt, 2012). Thus, e-democracy is not confined to consultation initiatives with official forums, questionnaires or e-mails with limited response, but provides more active, transparent and open processes to the citizens. It is an ongoing two-way dialogue, with both online and offline methods, it requires receptive governments responsive to change (Freeman and Quirke, 2013), user-friendly tools and respect for the actual priorities of the citizens and the diverse cultural, educational or other skills of the target groups (Charalabidis and Loukis, 2011). According to a European-wide survey amongst practitioners, researchers described a model of 23 success factors for designing an e-participation initiative (Panopoulou, Tambouris and Tarabanis, 2014). Among the factors ensuring sustainability of the initiatives, they include security and privacy, technology advances, accessibility and employee training. They also consider as a success factor "value for citizens", describing activities pertaining to the appeal, ease and clear understanding, combination of online and offline channels and feedback to the users.

2.2   The Cohesion Policy

Cohesion policy or European Regional Policy (Article 174, Treaty of the Functioning of the European Union) aims "to promote an overall harmonious development to strengthen economic, social and territorial cohesion by reducing regional disparities and the

backwardness of the least-favoured regions" (Conference of the Representatives of the Governments of the Member States, 2012). It is funded from the European Regional Development Fund, the European Social Fund and the Cohesion Fund. In the Programming Period (PP) 2014-2020 cohesion policy is in coordination with other regional development policies and includes the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund. All Funds constitute the European Structural and Investment Funds (ESIF). The cohesion policy, with €351.8 billion in 2014-2020, supports a variety of projects, ranging from infrastructure, to innovation, education, employment, entrepreneurship and a sustainable, low-carbon economy according to the Europe 2020 growth strategy. Most of the funds are allocated to regions with a per capita GDP under 75% of the EU average.

Each member state set out a strategic plan with the European Commission, the Partnership Agreement (PA), which includes priorities and Operational Programmes (OPs) on the measures to be funded by the ESI Funds, either for a thematic goal or for a specific region. Cohesion policy also includes cross-border or interregional OPs to meet the European Territorial Cooperation goal.

Greece benefits 21 billion euro (plus 5.2 billion from the national budget) and the PA 20142020 (or ESPA as is known in the country) comprises of 7 national (sectoral) and 13 regional OPs, 3 cross-border, 3 transnational and 2 interregional programmes. Each OP has a Managing Authority, responsible for the programming, the projects' selection according to the OP's selection criteria, the implementation monitoring and the OP's evaluation. European Regulations also stipulate that relevant stakeholders are included in the policymaking; accordingly, each OP's Monitoring Committee includes regional, economic and social partners to examine results, revise and assess the programme's effectiveness. Ministries and local administrations implement the policy and the beneficiaries (individuals, businesses, public bodies, associations) receive the funding and carry out the projects.

2.3   E-government strategy and models in the EU and Greece

The European E-Government Action Plan 2016-2020 (European Commission, 2015a) sets three priorities: modernisation of public administrations, cross-border interoperability of the digital public services, digital interaction between administrations and citizens/businesses.

Following the E-Government Action Plan and the European Interoperability Framework, the EU and the EFTA countries in the Tallinn Declaration have committed to provide at all levels of public administration high quality, user-friendly, borderless and interoperable digital public services to all citizens and businesses (European Union, 2017). Moreover, they will apply user-centricity principles (digital interaction, accessibility, protection of personal data and privacy, availability, usability, reduction of administrative burden, incentives for digital service use, complaint mechanisms).

The revised PSI Directive 2003/98 on the economic aspects of re-using public sector's information Europe-wide, focuses on free flow of data, transparency and fair competition. Currently, at the EU level there is a range of digital programmes to boost the Digital Single Market, such as the eIDAS Regulation 910/2014 "on electronic identification and trust services for electronic transactions" and the Interoperability Solutions for Public Administrations, Businesses and Citizens (ISA²) programme. Moreover, the Connecting Europe Facility (CEF) programme is funding Digital Service Infrastructures or "building blocks" that can be re-used in digital services across EU states and sectors (eDelivery, eInvoicing, eID, eSignature and eTranslation). The EU also supports ICT open government projects under the Horizon 2020 Research and Innovation Framework Programme.

In the field of the cohesion policy, the Structural Funds' Regulations 2007-2013 required that the MAs provide information about available investment opportunities and publish electronically a list with the programmes' beneficiaries, the title of co-financed projects and the amount of public funding allocated "with the aim of highlighting the role of the Community and ensuring that assistance from the Funds is transparent" (Article 69 of the Council Regulation 1083/2006, Article 7 of the Commission Regulation 1828/2006).

In 2010 a web-based survey of all 436 OPs across Europe examined the availability and quality of these beneficiaries' lists (Reggi and Ricci, 2011). The researchers concluded that most of the programmes focused on the letter of the law and provided strictly the minimum information required in pdf format, even ignoring Directive 2003/98 on the re-use of Public Sector Information.

In the current period, the EU set more explicit and strict requirements towards a more usercentered strategy, quality and openness of the data published. To ensure that the funds' management is open for public scrutiny, current rules (Common Provisions Regulation 1303/2013, Articles 115-117 and Annex XII and Implementing Regulation 821/2014,

Annex II) stipulate that the MAs must publish and update every 6 months a list of operations with the name of the beneficiary, the name and summary of the operation funded, the postal code or other location indicator, the country, the implementation period (start date and expected or actual completion date), the total eligible expenditure allocated, the EU co-financing rate and the category of the intervention".

Moreover, the MAs are responsible for providing information to potential beneficiaries regarding all funding opportunities, calls for proposals, eligibility of expenditures, procedures for evaluating funding applications, deadlines, selection criteria and the authority's contact details. Beneficiaries on the other hand are required to inform the general public on their operation, its aim and the support received from the ESIF. Additional public information and communication measures on ESIF, require publishing updated information on the programmes' implementation and achievements on a single portal or on each programme's website, as well as examples of co-funded projects (in the local language plus a second widely spoken EU language). Failure to comply with any of the above, may result in a flat-rate correction calculated on the total cost of the project.

It is important to add at this point that the "mid-term" revision of the EU Regulation introduces a new concept, that of "visibility" alongside information and communication. It also introduces new tasks and responsibilities for the MAs, namely to increase their digital presence through social media ("communication adapted to technological innovation") and improve interaction with citizens. Moreover, the proposed rules for the post-2020 Multiannual Financial Framework (European Commission, 2018b) move towards a simplified cohesion policy with shorter, fewer, simpler and clearer rules harmonised through all EU funds and programmes. They introduce at EU level single branding, a single portal displaying all available funding opportunities across member states and a single project database with the co-financed operations Europe-wide. They also introduce a single national website providing access to information on all EU programmes and funds and a 5% financial correction to beneficiaries not complying with the rules.

In the meantime, the Commission has launched since 2015 the European Data Portal (www.europeandataportal.eu), a repository of open to re-use information from all public administrations across the EU. Amidst growing mistrust among European citizens, they also introduced the EU Open Data Portal (data.europa.eu) with open data published by the EU institutions free to use and re-use (tenders' datasets, research projects, Eurobarometer etc.).

The Commission also launched the ESIF Open Data Platform (cohesiondata.ec.europa.eu) with data on financing and implementing the cohesion policy and the co-funded programmes. The platform provides for over 530 programmes daily payments' updates, by theme, by country or by fund and datasets by member state (with metadata files) for both the current and the previous period. It is soon expected to publish complete showcase projects with text and video, possibly in an effort of applying storytelling on their real societal value as suggested by Fung and Weil (2010).

In this framework of working to make the EU institutions more open and transparent and fostering civic engagement and participation in policy-making, the Commission launched an online consultation in 23 languages on EU funds in the area of cohesion (10/1-9/3/2018). They also launched a series of consultations on the entire spectrum of EU future funding. The consultation on EU funds was open to all citizens and beneficiaries of cohesion policy with the aim to assess the use of funds so far and to collect the views of all stakeholders on what challenges to address in the future. Sadly, the consultation received 4,395 replies, 45% of them from individuals (436 were from Italy) and 55% on a professional capacity[1]. Greece as a member state adheres to the strategy, the rules and regulations of the EU both on e-government and on cohesion policy.

The National Digital Strategy 2016-2021 (Ministry of Digital Policy, Telecommunications and Information, 2016) specifies seven areas of intervention in the public sector, the economy and society, the priorities and the implementation measures and actions required for Greece's development in the digital single market. The strategy aims at developing a next generation access infrastructure, accelerating the economy's digitisation, stimulating the ICT industry to develop digital economy and employment, empowering people with digital skills, fundamentally reviewing the way digital public services are provided, removing digital exclusions and strengthening security and trust. The E-Government Strategy and the ensuing Action Plan 2014-2020 focus on ICT as a means to enhance the efficiency of the public sector and elaborate on how exactly to implement the National Digital Strategy and best deliver digital public services. Greece aims "to build a more efficient, transparent and accountable administration", facilitating participation and strengthening citizens' role (Ministry of Administrative Reconstruction, 2014b). The principles are interoperability among government services and systems, compliance, integration, conservation, single-data entry, feasibility-

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[1] https://ec.europa.eu/info/consultations/public-consultation-eu-funds-area-cohesion_en

sustainability of ICT services, transparency, accessibility for all, data security and users' privacy. Greece has also been actively involved since 2011 in the OGP and is currently implementing an ambitious 3rd National Action Plan on Open Government 2016-2018 (Ministry of Administrative Reconstruction, 2016) to promote transparency, citizens' participation and corruption fighting.

Greece's commitments include among others a framework law on open and participative governance, e-goal setting tools for monitoring and evaluating the administration's and the government's work, improvement of the open deliberation process and a digital repository for public administration studies. They also include open data on culture, justice, marine, and public property, geospatial data, informative actions on open data for students and school of data for public servants, open-participatory budgets as well as local administrations' online consultation platforms and a "wikification" of the public services' procedures. The action plan also commits to Key Performance Indicators (KPI) for the public and the EU-funded projects, providing geospatial mapping information on the implementation progress, benefits and impacts of the projects at central and local level and encouraging feedback from the citizens.

In conclusion, Greece has planned and introduced a series of important e-government initiatives and open government projects and legislation (e.g. Law 4305/2014 on open provision of public sector data) and undoubtedly prioritises the ICT use in the administration to foster openness, participation and accountability.

Nonetheless, we observe limited completion of various OGP commitments and planned actions and low rankings of Greece among other countries.

Regarding the degree of ICTs penetration, according to a composite set of dimensions established by the EU to measure performance in five major categories of the Digital Economy and Society Index (DESI), Greece ranks 27th among the 28 EU member states with a score of 38.4 when the EU average is 54 (DESI, 2018c).

In the indicator of connectivity, it ranks the lowest with a transition to fast broadband connection slower than in the other EU states. In human capital (digital skills) it ranks 26th. In the use of internet services, Greece ranks 22nd, mainly because banking and shopping online are far below the EU average. In the integration of digital technologies by businesses it ranks 24th, mainly because of a low use of e-invoices and cloud services.

Sadly, Greece's performance in digital public services (e-government and e-health) also remains low. It ranks last scoring 39.2, with a 38% of e-government users (EU average 58%), however it is near the EU average in the provision of open data .

Low ratings are also recorded in the Commission's E-government Benchmark Report (Tinholt *et al.*, 2017), on penetration of online e-government services, digitisation of back- and front-office and citizens' digital skills.

Greece however ranks 35th (from 43rd in 2016) among 193 countries in the UN EGovernment Development Index (EGDI), a weighted average of online services' quality, telecommunication infrastructure and human capital. It has now joined the Very-High EGDI group and also ranks 34th[th] in the E-Participation Index, rising 31 positions since 2016 (United Nations Department of Economic and Social Affairs, 2018).

2.4 E-government platforms for delivering EU funds to the Greek beneficiaries

The part serves as an inventory of e-government applications regarding cohesion policy in Greece the last two decades. We examine the evolution of data and services provided either conforming to the EU Regulations of the funding periods or as initiatives of the public administration. Appendix C: List of OPs websites and social media accounts and Appendix D: EU funds' e-platforms (statistics, visuals) present respectively the links to websites/social media accounts of the Greek OPs and visuals/statistics of selected platforms.

The part includes other open data initiatives introduced to enhance transparency and accountability of the government, indirectly related to the management and allocation of EU funds to beneficiaries. It concludes presenting examples of e-participation initiatives applied in the field of the EU funds' management.

2.4.1 Programming Period 2000-2006

At the end of the PP 1994-2000 the Ministry of Economy and Finance introduced the **Integrated Monitoring Information System (MIS),** a G2G service which became fully functional during 2000-2006. It has since served as the information and management system covering all stages of planning and implementing all the OPs and co-funded projects

(applications, approvals, progress of works and funds' allocation, financing, timetables etc.). It publishes a variety of analysis and business intelligence reports for the MAs, the beneficiaries and the public. Its use is nowadays mandated by EU Regulations on the exchange of data for the management of EU funds between member states and the European Commission and the Greek laws on the NSRF and the PA (3614/2007 and 4314/2014).

To promote funding opportunities to potential beneficiaries and enhance transparency, in September 2003 the Ministry commissioned MOU to design and manage a website aimed directly to the general public. The Citizens' Online Information System (**www.info3kps.gr**) as an "one-stop-shop" aggregated information for all CSF financial support schemes, employment, education, training and social support to individuals and businesses. A network of officers among the MAs collected and entered on a web-based database the calls for proposals (overview of terms and conditions, detailed documentation and contact details for further consultation). The MOU edited the data to achieve a uniform presentation and a more understandable language, devoid of EU jargon or abbreviations.

Users could browse and search for support schemes (by attribute, sector of interest, target group or by keywords). The website supported the W3C Web Content Accessibility Guidelines and provided additional functionalities: help desk for further enquiries and registration for personalised e-mail alerts on funding opportunities, as well as a "my basket" area based on the user's interests.

By 2008 info3kps, a G2B and G2C e-service and the first such initiative EU-wide, had reached a large base of users (citizens, entrepreneurs, journalists and consultants). It received more than 1,2 million visits annually by 380,000 unique visitors.

The MOU also designed (2005) a portal on the investments' law incentives and specific state aid schemes co-funded by the CSF. The aim was to promote transparency in governmental operations and combat bureaucracy in the allocation of EU funds. The **State Aid Management Information System - SAMIS (www.ependyseis.gr)**, also among the first such initiatives in the EU, provided one-stop electronic services to entrepreneurs (submission of application, evaluation, monitoring, control, auditing and payment to the beneficiaries). All parties involved in the processes used the same system and shared a common database for different needs. SAMIS included business intelligence reports, helpdesk, interoperability with the MIS and speeded up the procedures in submitting, evaluating and approving state aid schemes.

Furthermore, the MOU and the MA of the CSF developed an informational website for the collection and promotion of "**best practices**" co-financed by the CSF aiming to inform the public on the effects of the EU-funded projects and to transfer good practices among beneficiaries. With 65 projects from all over the country, **www.hellaskps.gr/bestpractices** was included in a European study (Messina *et al.*, 2008) and presented in the European Parliament.

2.4.2 Programming Period 2007-2013

The MIS, SAMIS and the programmes' websites were further developed and upgraded, whereas info3kps and "best practices" were discontinued. Their features and network of administrators were incorporated in the new NSRF portal.

The portal **www.espa.gr** was launched to serve as a single point of access to the OPs. In fact, some of the OPs websites were developed on the same platform to ensure interoperability and single-data entry for calls for proposals, news, legal documents, communication points etc. It conformed to the EU Regulations and its concept followed in the steps of info3kps presenting all funding opportunities addressed to the public (individuals, enterprises) together with those addressed to public entities. (National Coordination Authority, 2016).

Moreover, the MOU developed on the same platform an intranet for the MAs. Under Law 3614/2007, the use of **Diavlos** (portal.espa.gr) became mandatory for the written consultations among the members of the Monitoring Committees. As a G2G service, the objective was to enhance collaboration and flow of information among the MAs. It included content management tools, e-libraries, contact information, workspaces, discussion groups (forum, chat services), users' sites (profile pages) and internal news.

In 2011, the Ministry launched the website **anaptyxi.gov.gr** (http://2013.anaptyxi.gov.gr/) to disseminate information on the implementation progress of the NSRF and its projects. Powered through the MIS and updated daily, it published lists and detailed information on projects from both the public and the private sector and statistic data analysis. Content managers from the MAs edited the descriptive content for each project in order to achieve a uniform user-friendly presentation in a simpler language.

2.4.3 Programming Period 2014-2020

The portal **espa.gr** was redesigned to become more modern. It is mobile responsive and has a higher conformance level of Double-A of the W3C Web Content Accessibility Guidelines. It

publishes all the technical information related to the provisions and procedures of the OPs, and information on other EU funding instruments. As required, it presents in a searchable mode projects financed and implemented during NSRF 2007-2013 with photos and a reference to their benefits.

Like its predecessor, espa.gr serves as a gateway to the OPs websites and provides searchable e-services: news, calls for tenders, e-library, funding opportunities from all the OPs for all categories of potential beneficiaries (1,189 calls for proposals on 5th May 2018).

Diavlos (diavlos.espa.gr) is upgraded and provides a wider range of specialised "workspaces" among officers (i.e. the information and communication network, the PA management and control system, the monitoring of projects supported by the MOU in the municipalities, etc.). Nevertheless, employees never fully tapped on its social media–like features and potential (users' profiles, chat and forum).

The website **anaptyxi.gov.gr** as a performance monitoring tool enhancing transparency and accountability is upgraded and provides multiple search options (project title, description, contractor, beneficiary, time period, geographical criteria, thematic objective, project category, OP, funds). It also provides graph data and open datasets (for projects, regions, OPs, funds, thematic objectives).

The **State Aid Management Information System** in the current period is by Law 4314/2014 compulsory for all EU-funded state aid schemes. SAMIS, a G2B and G2C service, has evolved into a dynamic development platform that supports the storage and processing of large volumes of data, complex workflows and business intelligence applications with an online user interface and advanced security layers. All the required procedures of the investment proposals (submission, evaluation, monitoring, certification, disbursement) are completed through SAMIS, thus facilitating the tracking of all actions in case of controls and antifraud assessments.

According to the data from the MOU, SAMIS has 293,000 registered users with distinct roles and corresponding rights Among them 9,000 are employed in the Interim Management Bodies (Ministries, banks, EFEPAE, etc.). SAMIS has implemented 64 integrated grant schemes, each with a diverse variety of workflows, with more than 700 different subsystems. Approximately 262,000 investment projects have been submitted for co-financing (Figure D.2).

2.4.4 Open data initiatives

Diavgeia (diavgeia.gov.gr): The transparency program publishes online all public spending decisions since its launch in 2010

OpenGov.gr: Launched in 2010 to promote citizens' participation and collaboration in policy-making, the website publishes drafts of law open for comments from the public and open calls for the recruitment of public administration officials.

Data.gov.gr: It was launched in 2013 to gather in one website and distribute government data in an open format so as to enhance transparency and accountability.

Subsidystories.eu: At European level, the platform aiming to increase fiscal transparency of the EU funds aggregates in a standardised format all available beneficiary lists (datasets) for the 2007-2013 and 2014-2020 PPs.

YourDataStories: The project was co-financed under Horizon2020 and has developed an online tool through which governments share data and the public can use, re-use and repurpose this data, produce collaborative reports thus enhancing transparency and corruption fighting.

diadikasies.gr: The OGP commitments (Ministry of Administrative Reconstruction, 2016), include the "wikification" of the public services' procedures. The GFOSS-Open Technologies Alliance built an open knowledge-base on the Wikipedia's model, where public servants record in a simple way services they provide and administrative procedures.

2.4.5 E-participation initiatives (deliberations, polls)

Entrepreneurial Discovery (EDP): In the period 2013-2015 the General Secretariat for Research and Technology introduced the process of entrepreneurial discovery, a bottom-up participative process to identify potential new activities and new market opportunities in research and innovation in each Greek region. Entrepreneurs, academics, policy makers and citizens identified the priorities in a structured consultation through online Innovation Platforms in the eight respective priority areas of the National Strategy of Smart Specialisation (S3). EDP is a dynamic and evolving process to capitalise in strengths, a "self-discovery process" to interactively define priorities for public investment because the government does not have the ex-ante knowledge (Hausmann and Rodrik, 2003), ergo EDP is implemented throughout 2014-2020.

In October 2017 the Special Managing and Implementation Service in the areas of Research, Technological Development and Innovation conducted an **online poll** to measure the effectiveness of their EU-funded state aid project "Research-Innovate-Create" and the beneficiaries' satisfaction (Eyde-etak.gr, 2017). Among the 5,462 beneficiaries contacted, 1,106 responded and solicited feedback on the benefits of the programme and how well their needs and expectations were met. They positively evaluated the call for proposals, the SAMIS system and helpdesk, the support provided by the Special Service and the MA for the OP "Competitiveness, Entrepreneurship, Innovation". After evaluating the results of the project "Research-Innovate-Create", they organised in March an "Open Consultation for Smart Specialisation" which continued to incorporate electronic feedback from the stakeholders.

Deliberation on Integrated Spatial Interventions in the area of the mythical river Acheron: the programme is expected to receive EU funding on a variety of projects for the sustainable development of five municipalities in the Epirus Region. During an open meeting in July 2017 the strategical plan was put under public debate among stakeholders and citizens involved. The planning team visited stakeholders and with this face-to-face approach they effectively collected responses. In participatory or deliberation processes it is often advisable to combine online and offline methods and multiple channels (Åström and Grönlund, 2012).

Gavdos: Processing a sustainable and endogenous development model for the island, the local authority and the MOU apply an open, **participatory planning** model through open-ended (bottom-up) governance, with experiential and participatory workshops, interviews or questionnaires and local dissemination events. The aim is to identify the strategy for local development, co-produce with the public's participation the action plan to be submitted for co-funding by the EU[2] and to ensure civic engagement during its application.

3.   Relative platforms in EU countries

3.1 Estonia

Estonia, "the most advanced digital society in the world" (Hammersley, 2018) with startups such as Skype and Transferwise, is among the high performing EU countries ranking 9th in the DESI index (it scores above the EU average a 59.7). In the Digital Public Services dimension

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[2] http://www.mou.gr/el/Pages/otasupportnewsFS.aspx?item=453

of the index, Estonia lost its first position, however it still has the highest rate of e-government users and is among the top countries in pre-filled forms, online service completion and digital public services for businesses (DESI, 2018b).

Estonia has 88% of households with computers, 90% of the population using the internet regularly and an 86% broadband coverage in households. It is the first country worldwide which introduced e-voting in parliamentary elections and provides more than 500 e-services, including e-residency, digital signature and e-identity card (e-Estonia, 2018). A significant factor for making all these e-services available with the eID is the X-road, a secure internet data exchange layer among databases and information systems.

The single website of Estonia providing information on, and access to funding opportunities of the ESIF (http://www.struktuurifondid.ee) was initially launched in the previous funding period and is available in three languages (Estonian, Russian, English). It uploads information directly from the MIS monitoring implementation, consequently it is always updated. Following the EU rules, it provides in a machine-readable format the list of projects co-financed by the ESIF (in csv, xlsx) and "success stories" in the various intervention fields. In April 2018, there are 28,087 supported projects and 62 success stories published with infographics, the amount granted, the fund and furthermore the project period, the implementation body, objectives, results (output indicators) and photos of the project. The website also provides monthly statistics and potential beneficiaries can use a search tool for open calls for proposals and search by field of intervention and/or type of applicant.

The website connects the structural funds' administration to an extranet with documentation related to their work and necessary contacts. It also connects implementing bodies to the MIS (e-support environment). Users can authenticate with eID, the national identification system, or the newer mobile ID. However, there are no online polls or consultations with the public and potential beneficiaries.

Estonia has in all aspects applied high-end digital solutions for e-government, e-commerce, e-banking platforms, producing datasets in an automated mode, however has so far achieved modest results in the promotion of open data (DESI index 58%, with an EU average of 73% and Greece scoring 72%). Providing a wide range of high quality e-services possibly makes private open data driven projects somewhat obsolete (Kassen, 2017). Besides, the Estonian administration places more emphasis on security, central design, control and coordination than to other principles of the "Government as a Platform" concept. Data mining, learning from

hackers and experimentation seem not as important in this e-government ecosystem (Margetts and Naumann, 2017).

4. Development trends and challenges

E-government rapidly evolves due to ICT advancements, abundance of digital information and societal and economic challenges. For example, the use of Geographic Information Systems (GIS) and Internet of Things (IoT) which "enables objects to collect and exchange data" can potentially transform design, implementation and monitoring of public policies (United Nations Department of Economic and Social Affairs, 2016) or increase services' efficiency (Van Waart, Mulder and De Bont, 2016). For the scope of this study we present trends on participatory design, smart cities and social media.

4.1.1 User-centred design, participatory design

Early enough, researchers identified that bureaucratic administrations tend to reproduce their structure and style on digital tools. They organise the information provided according to the existing bureaucracy and organisation charts. An approach prevailing at the moment is a more "user-oriented" design considering the needs of the citizens (Pina, Torres and Royo, 2010). User Centred Design (UCD) plans to accommodate a wide range of needs and skills different users may have (Jaeger and Bertot, 2012). Well-designed, user-friendly e-government services reach a wider audience and tap on the full potential of empowering citizens. UCD thus involves the end-users in the design process ranging from the development stage of the service or product (participatory design) to evaluating alternative prototypes (participatory prototyping) or testing the usability of the output (Abras, MaloneyKrichmar and Preece, 2004).

Among key challenges in participatory design and prototyping is how to effectively inform and stimulate citizens to actively get involved in these events and how to sustain collaboration for future planning (van Waart, Mulder and de Bont, 2016).

In the context of participatory design in e-government services, indicative tools enhancing civic engagement are participatory budgeting, hackathons and GovJams.

GovJams are jam sessions involving public officials and individuals (designers, academics, citizens, entrepreneurs) to collaborate and materialise an idea into a concrete public service (Breno and Gama, 2018). Breno and Gama (2018) explain that GovJams aim at knowledge e-

sharing and exposing service design to governments. A significant effect of GovJams is that public servants are provided with new insights into how citizens perceive issues (van Waart, Mulder and de Bont, 2016). Co-designing user-centred services promotes inclusiveness, co-responsibility, increases ownership and trust among citizens (European Commission, 2015b).

4.1.2 Smart cities

The participatory approach is a core concept of smart cities. Technological developments and open data release have facilitated citizens' engagement and participation in policy and decision-making. Citizens can use web or mobile applications to report problems or deliberate on policies. They can participate in hackathons to exploit data or in living labs to prototype and test new projects (Gil-Castineira *et al.*, 2014; Barker *et al.*, 2016). This evolution shaped the concept of the smart governance as one of the current key trends. It largely refers to local governments applying ICTs to deliver to their citizens in a more efficient and effective way administrative and urban services (e.g. transport, energy, buildings, health care, public safety, logistics) and moreover to engage them in decision making processes and thus to foster economic growth and better life quality (Washburn and Sindhu, 2010; Mellouli, Luna-Reyes and Zhang, 2014;Chourabi *et al.*, 2012).

The smart city is a concept and a goal dominating the current funding period, to improve efficiency of public services. Community initiatives, the Smart Specialisation Strategy (RIS3) and the sectoral and regional OPs as well as the 3rd National Action Plan on Open Government include and/or co-finance a series of relevant actions.

4.1.3 Social media

In the last decade, digital social networks, with their ease-to-use and mobile accessibility, have facilitated real-time communication, interactions, collaborations, delivery of governmental services (campaigns, debates) and even co-production of services. They enhance "collective action" and "collective intelligence" and shift the focus from the citizencustomer to citizen-partner (Linders, 2012).

Social media platforms like Facebook, Twitter or YouTube dominate the users' preferences. According to the Digital News Report of the Reuters, focusing on issues of trust in the era of fake news, Facebook remains a very popular platform in Greece. Among the sample population (2,014 users end of January/beginning of February 2018), 60% use it for news and 78% for all purposes. YouTube follows closely (36% use it for news and 79% for all purposes).

Not surprisingly, the younger generation (18-24) uses mostly YouTube for any purpose (92%) and for news content (63%), Facebook (84% and 46%) and Instagram (68% and 21%). The report also records a rise in the use of messaging apps (Messenger, Viber, WhatsApp) for news (Nic *et al.*, 2018). Notwithstanding, trust of Greeks in news in social media is very low (22%) and regardless of the medium only 26% trust the news content.

Greek national and regional MAs until now sparsely use social media, mainly as a billboard for announcing calls for proposals, news and events pertaining to their OPs. Actually, across EU, cohesion policy has a striking low visibility in social media, which are among the least used sources of information about EU funded projects (Corchado *et al.*, 2018).

Examples of social media include G2G online platforms: Yammer, a social network inside organisations, is for example used by services of the Commission to communicate and exchange ideas among interest groups such as the ERDF communication officers-INFORM network; the European Network for Rural Development (enrd.ec.europa.eu) connects stakeholders (National Rural Networks, MAs, Leader Local Actions Groups, European organisations and academics) to exchange information and know-how on rural development policies; the Greek National Rural Network (ead.gr) aims to increase the involvement of participants in rural development. Other examples of platforms include collaborative social media (i.e. wikis, SharePoint, google docs).

Besides committed and skilled personnel to manage the social media accounts, the administration should have clear principles and goals of the initiatives and distinct evaluation metrics (Lee and Kwak, 2012).

5. Research Methodology

The research problem consists of examining how and to what extent existing e-government services in planning, managing and delivering EU funds in Greece can evolve and how into open-government models. The research targets both the public administration -either managing EU funds (MAs) or implementing public projects as beneficiaries (ministries, local administration etc.)- and citizens as (potential) beneficiaries.

It focuses on the administration's attitudes and concerns on promoting open government models and on how to effectively engage (potential) beneficiaries to participate in processes, such as policy-making within the framework of the PA 2014-2020.

5.1 Methodology

To explore these aspects, during a four-month period, we used a combination of primary and secondary data collection and designed a quantitative research. Literature and documents/reports (OECD, UN, European Commission, Eurostat, OGP and Open Data Barometer; european policies, action plans and reports on EU funds' management and on open government) were reviewed.

In the second phase of the study, primary data was collected from observing platforms on EU funds and through a quantitative research in the form of a survey addressing both the public sector and citizens. The aim was to measure specific traits (level of awareness, perceptions, expectations and needs) affecting the use of e-government services and encouraging or hindering participation.

Before distributing the questionnaire to respondents, we conducted a pilot testing with academics and practitioners in the field (MAs/MOU) in order to obtain feedback and finalise the questionnaire. Their responses were excluded from the final sample size.

The third phase, included informal interviews with practitioners to acquire qualitative information, exploring trends by participating in Athens GovJam and synthesising the findings.

5.2 Research questions

The questionnaire, including demographics, consists of five sections and 22 questions in total. It has three multiple choice questions, one open question for possible additional comments by the respondents and thirteen Likert-scale questions to which the respondents indicate the extent to which they agree or disagree with a given statement or evaluate certain options

The first section seeks to identify the respondents' attitude to e-government services provided by the Greek authorities in the framework of the PA. The second section explores the actual knowledge and experience of the participants, as well as their demand of e-services. Furthermore, the section tracks down the perceived quality of these websites with Likertscale questions based on the literature on quality management in electronic services. Researchers generally accept the multidimensional aspect of quality, nonetheless definitions for each

dimension vary. In this case, the items which the respondents had to evaluate in terms of quality refer to the dimensions of *information* (clear, updated, personalised), *technical efficiency* (ease of use, design, accessibility), *reliability of services* (error-free and protection of personal data) and *communication/support* such as tutorials or helpdesk (Janita and Miranda, 2018).

The third section of the questionnaire applies the index of the Open Data Barometer (The World Wide Web Foundation, 2017) in order to evaluate respondents' awareness and satisfaction on the use of open data.

Two "to-what-extent-questions" include items measuring the availability and quality of open data in the field of the EU co-financed programmes (context and policy of open data). The fourth section with five Likert-scale questions explores the citizens' expectations of egovernment services and the motivation lying behind their e-participation (Torres, Pina and Royo, 2005) along with drivers such as pro-social behaviour and contribution to the community, enjoyment, reputation, learning, anticipation of benefits (Schmidthuber *et al.*, 2017).

5.3   Sample - Research tools

The structured questionnaire addressed both citizens and employees in the MAs and the broader public sector. It was designed online and published in Greek in order to easily appeal to a larger sample of the target population .To reach the target groups, first we published the link to the questionnaire on social media (personal profiles on Facebook and LinkedIn, as well as groups of postgraduate students) and on the MBA forum of the Hellenic Open University.

In addition, we used the official e-mailing list of approximately 1,600 employees of Special Services' managing and applying OPs, including a personal introductory note and a link to the online questionnaire.

6.   Data Analysis

The part presents the results from the 400 questionnaires, their analysis per section and question and the key findings emerging.

6.1 Research findings and analysis

Detailed demographic information about the respondents is presented in Table 4.1.

Variable	Frequency	%	Population Consensus 2011
Gender			
Male	165	41.25%	49%
Female	235	58.75%	51%
Age			
18-29	17	4.25%	12.49%[3]
30-39	90	22.50%	15.12%
40-49	193	48.25%	14.62%
>50	100	25.00%	38.15%
			average age: 41.9
Education Level			
Primary	0		
Secondary (High School-Lyceum)	10	2.50%	
Tertiary (AEI-TEI)	114	28.50%	42.7% [4]
Master/PhD	276	69.00%	
Occupation			
Free Lancer	27	6.75%	
Entrepreneur	5	1.25%	
Unemployed/Student	10	2.50%	
Employee-Private Sector	82	20.50%	
Employee-Public sector/Local Administration	97	24.25%	
Employee-Managing Authority/ Special Service/Headquarters MOU	179	44.75%	
Working Experience			
<5 years	20	5.00%	

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[3] Age 20-29

[4] Among those 30-34 years old

|		
5-10 years	49	12.25%
11-20 years	162	40.50%
>20 years	169	42.25%

Table 4.1 Demographic profile of the respondents

Breaking down the respondents by gender, most of them (58.75%) are women. The majority (48.25%) belong in the age group 40-49, followed by those above 50 (25%). Only 4.25% are up to 29 years old (Figure 4.2). Among the respondents, 69% hold a master's level degree/PhD and an additional 28.5% a university degree . They have an extensive working experience of more than 20 years (42.25%) and 11-20 years (40.5%).

The first four questions investigate how users perceive the benefits of e-services.

A 66.25% of the respondents totally agree and another 26.8% agree "that online services in the framework of co-financed programmes are useful to beneficiaries and citizens in general" Subsequently, participants were asked to evaluate a series of e-government's benefits on one hand for the MAs/implementing bodies and on the other hand for the public (citizens /enterprises). Regarding benefits on public administration, the majority consider modernisation of the public administration (56.75%), increase of services' effectiveness (52.5%) and cost reduction (49.5%) as the major benefits. They also evaluate as very important the simplification of work (42.75%) and the faster programmes' implementation (42%). However, approximately 20% evaluate those benefits as moderate. We recorded a divided opinion on the adoption of innovation as a benefit of the e-services. When they evaluate the benefits for citizens and enterprises, the majority consider as most important benefits time-saving (53.75%) and transparency (44%). They disregard "strengthening of the citizen's role" as a benefit (35.75% consider e-government has moderate effects) and opinions are divided on whether it contributes to "faster response from the public administration". To the last section's question, 15.75% totally agree that PA websites provide useful information and services . The majority either agree or are not certain (45.75% and 33.5% respectively) (Figure 4.9).
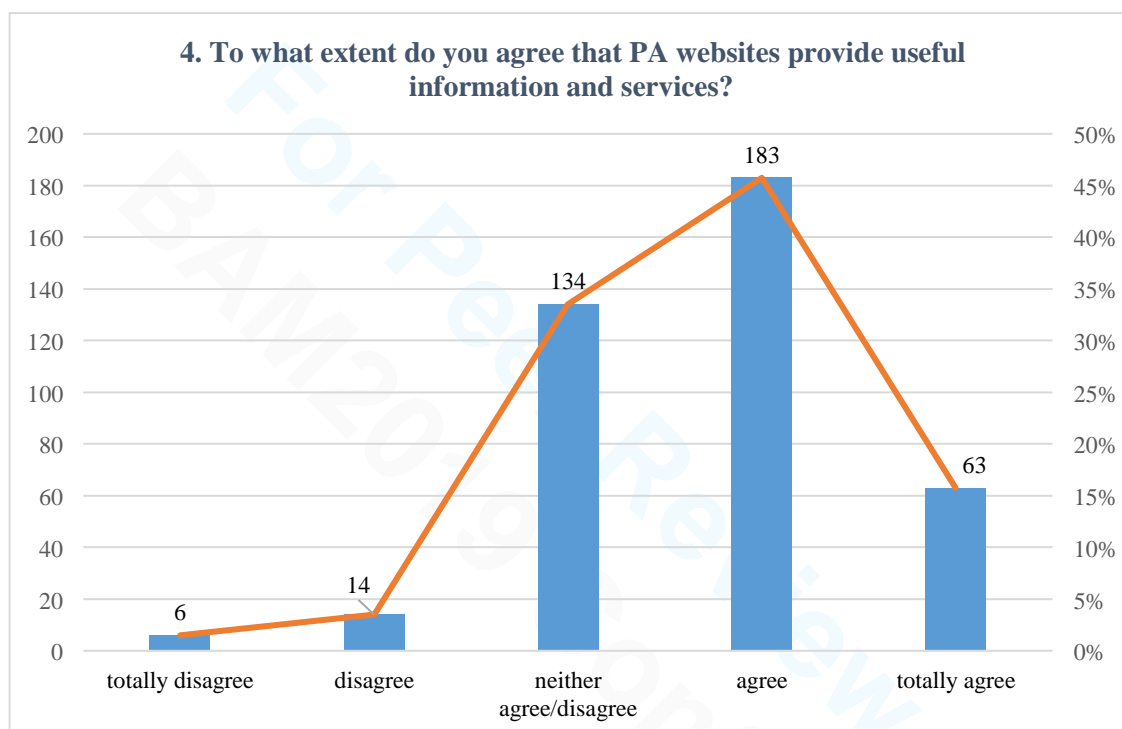
Figure 4.9 Perceived usefulness of PA websites' information and services

Section 2: E-Government services and quality (use and satisfaction)

The questions explore the users' actual knowledge and experience and their expectations from e-services provided by the PA websites.

When asked to select websites they had already visited, www.espa.gr is by far the numberone website among the surveyed sample, followed closely by Diavgeia . Specifically, 89.5% of the respondents have visited espa.gr and 81% diavgeia.gov.

Only one respondent had visited none of the listed websites, which included main PA websites (e.g. espa.gr, antagonistikotita, esfhellas.gr, agrotikianaptyxi.gr etc.), well known e-government websites (e.g. diavgeia, opengov) and few EU websites.

The respondents had the option to add relevant websites. They have visited sites related to public procurement (Single Public Procurement Authority, e-procurement), paying mechanisms (Rural Development MIS), OPs and projects' dedicated websites (Interreg, Environment, Home Saving II, Start-up Greece) and recently launched ones (National Rural Network). All additional websites came from the public sector and the MAs.

Respondents mainly engage in news reading (87.5%), search for legislation, guidelines and studies (75%), for calls for tenders or job postings (68.5%) and contact details (63.25%). More than half seek standardised documents (51%). A significant 39.75% look for financing opportunities and 36.25% for statistics. Frequency of visits varies between a 31.25% of the respondents who visit these websites daily and a 16.25% who rarely visit them .

In terms of problems encountered when accessing the websites, the majority of the respondents encountered slight (33.5%) or moderate difficulties (35.5%) regardless of the frequency of their visits recorded in the previous questions .

 Measuring what matters to users most when they visit a PA website in terms of information, efficiency, communication and security, the respondents place the highest value to the dimension of information and its quality. Very important factors are considered updated and reliable information (63,5%), plain language (56.5%), clear and organised content (57.25%). Nevertheless, personalised information is very important only to 20.25% of the respondents.

Dimensions of efficiency, such as ease of navigation and accessibility for the disabled are considered very important by 51.75% and 45.25% of the respondents respectively. Opinions are divided on the importance of accessibility from mobiles (29.25% rate it very important, but 19.25% consider it of moderate and 10.5% of poor importance). The same applies with attractive design (30.75% consider it very and 38% quite important, 23% of moderate importance).

Support services provided by the administrators are considered very important by 44% of the respondents and quite important by 31%. Security, a growing concern among users nowadays, is regarded very important in terms of error-free services (46.75%) and security of the users' transactions and personal data (51,25%).
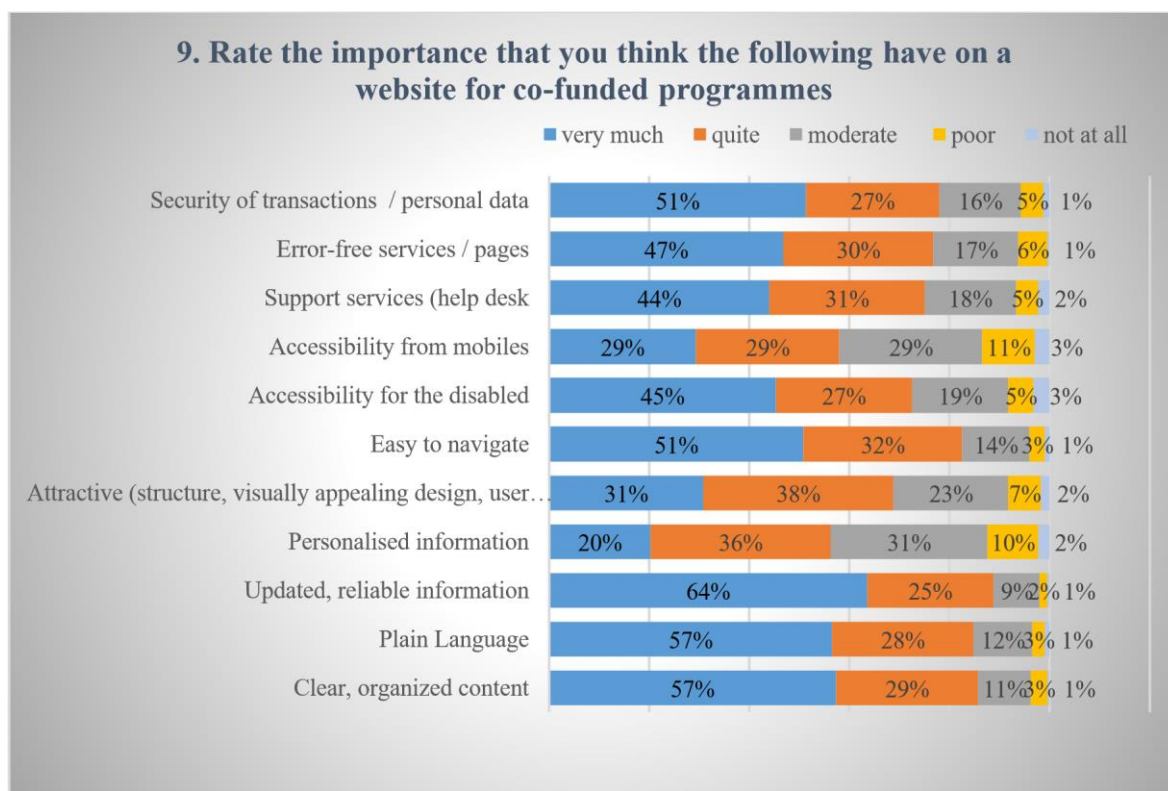
Figure 4.14 Qualities that matter to users

Section 3: E-Government services and open data (effects)

The third section of the questionnaire focuses with two multifactor questions on how the authorities publish and use open data in the framework of the PA. To this end, we used the Open Data Barometer index (The World Wide Web Foundation, 2017).

The majority of the respondents in Figure 4.15 neither agree nor disagree that the PA's public administration is well-resourced to promote open data initiatives (40.25%), engages with civil society and IT professionals on the subject (52%), supports a culture of innovation with open data (46.25%) or has developed such initiatives (46%).

By 44% and 44.25% they are also uncertain about training offered to improve skills in the use of open data or in order to build businesses to exploit open data. In fact, large segments disagree with all items and around 11% totally disagree that training opportunities are at all provided.

There is also ambivalence on the effect the use of open data has had in managing and delivering EU funds and few totally agree on any effect whatsoever, as Figure 4.16 illustrates.

A 32.8% agree that open data have increased the administration's efficiency, but 41.8% are uncertain. A 35.8% agree that open data increased transparency and accountability and 37% that they have improved access to services by minority groups.

However, better access did not increase the inclusion of marginalised groups in policymaking (44.5% are not certain, 19.8% disagree and 6.8% totally disagree). There is also disagreement as to the effect of open data on the establishment of new businesses (18.8% disagree and 4.3% totally disagree) and economic development of the country (20.3% disagree and 6.3% totally disagree).

4   Open data in co-funded programmes

11. To what extent do you agree that open data in the field of PA has had a noticeable positive impact on:
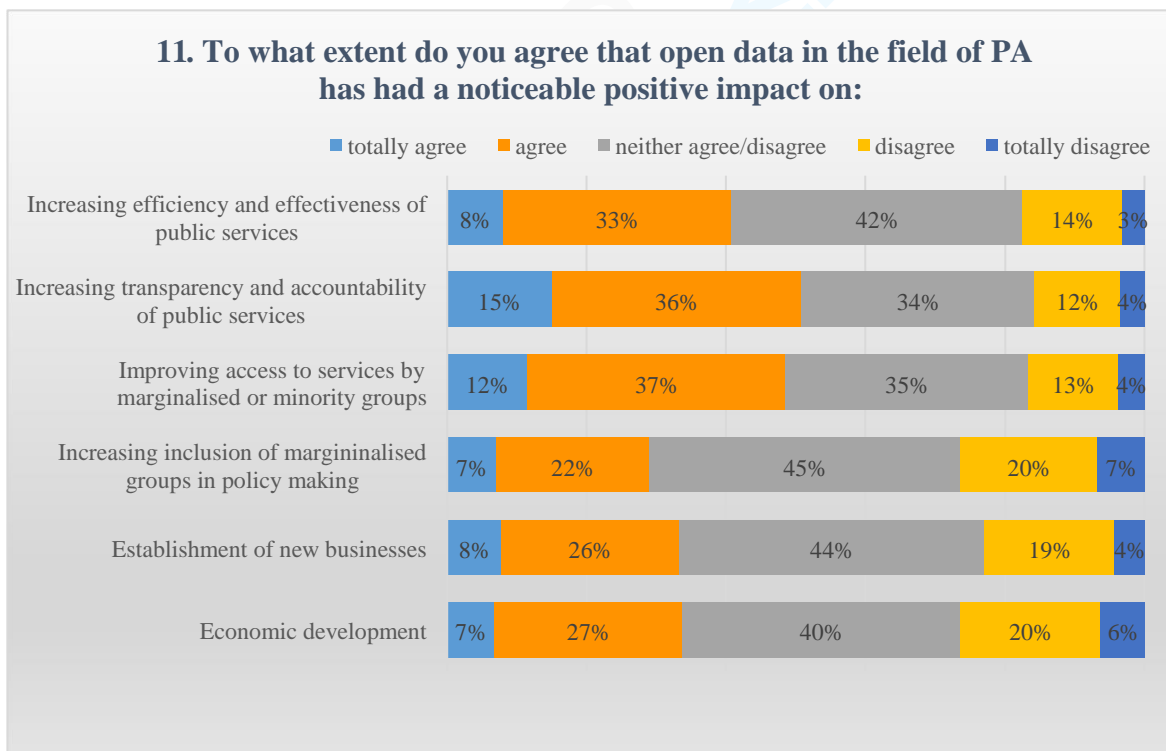
Figure 4.16 Perceived positive impact of using open data in the PA

## Section 4: Open Government and Participation (drivers)

The section explores the users' expectations of open government and the motivation lying behind e-participation. It consists of five closed-style questions, including a self-evaluation of the respondents' degree of innovativeness and an open one for their further suggestions or comments.

To the question regarding the importance of a possible variety of services in the websites, open data on public spending (49.75%), one-stop-shop for submitting applications (54.75%),

interoperability with other systems (59.5%), e-payments/e-invoices (59%) and user authentication (53.75%) are considered the most important by more than half of the respondents. Figure 4.17 demonstrates that services like forum/chat/wikis and presence in social media or surveys/e-voting are considered very important only by around 20% of the participants (by 19.25%, 21.25% and 20.25% respectively). Still, a 40% consider them fairly important or important. The respondents were asked to rate the importance of a variety of actions aimed at motivating the public to use e-services (Figure 4.18). They totally agree in training the personnel in the MAs, both in technical skills (58%) and change management (50.5%), and in motivating them to adopt innovations (45%). Connectivity through broadband internet and security issues are once again of importance. The least value is placed on public awareness campaigns. Interactive services and response to the citizens is considered as fairly important. Respondents were asked to rate the trust they have on services provided by the PA websites. Valid information is trusted "a lot" by 50.25% of respondents and "very much" by 31.75%. Updated content is less trustworthy: 27.5% express a moderate level of trust and 6.25% a slight trust. There is moderate trust regarding protection of personal data (29.25%) although 44% trust a lot the PA websites on this item. The respondents express moderate trust in continuous service availability (27.25%), while a 44.75% have a lot of trust (Figure 4.19).
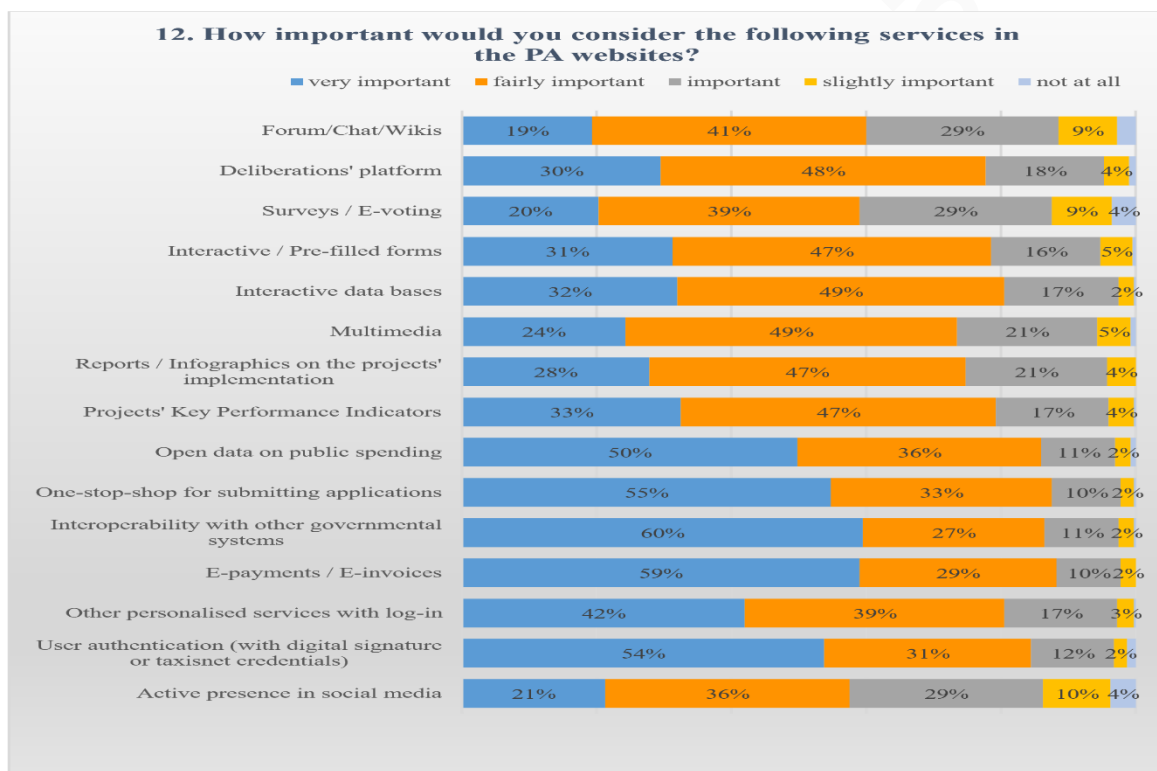
Figure 4.17 Importance of e-services in the PA websites
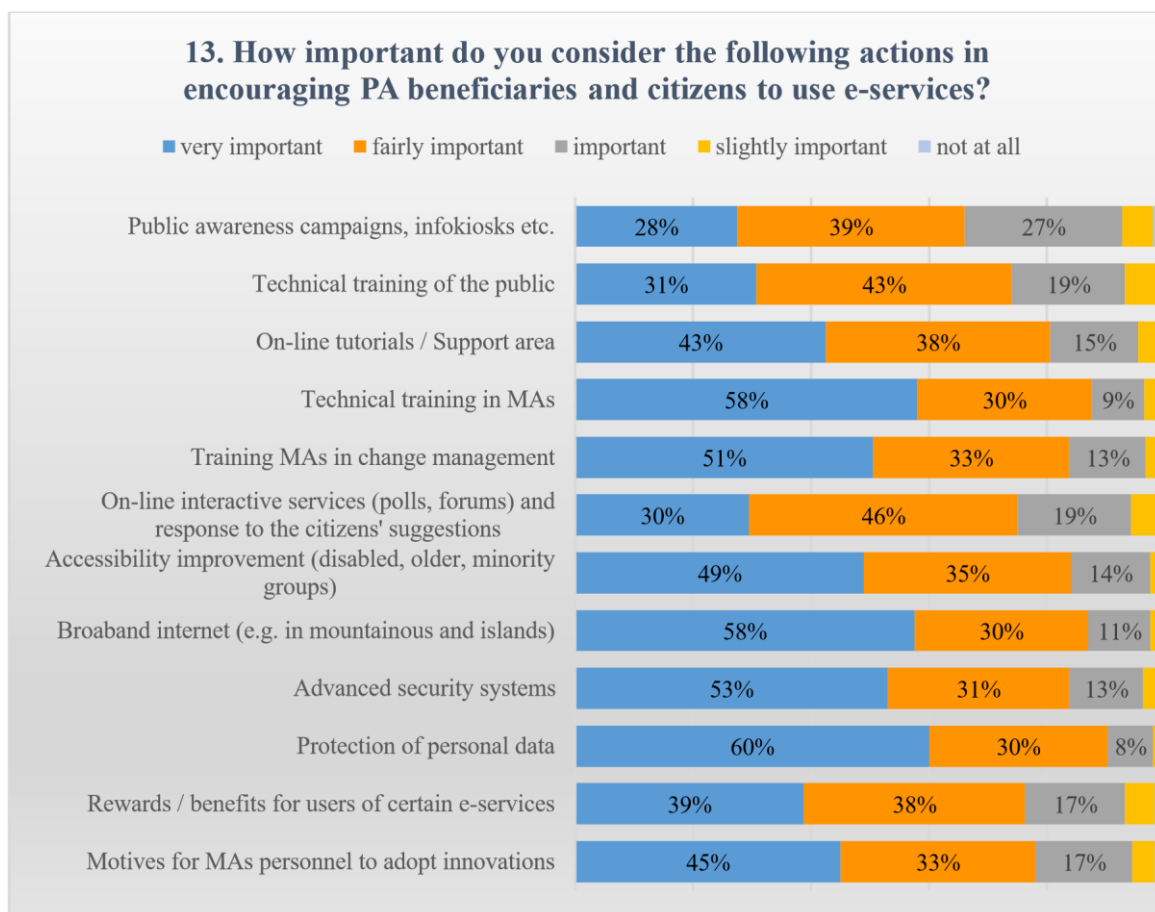
Figure 4.18 Drivers encouraging the use of e-services

The section's last question identifies what would motivate users themselves to actively participate, interact within the PA platforms and engage in e-services in order to contribute to policy-making decisions. The least important factors to them are whether "friends already participate" and whether such services are advertised (only 3.5% and 4.25% respectively would be motivated by people they know or by commercials to participate in polls, forums etc.).

A strong motivator, however, is the ability to directly interact with the public administration (24.75% totally agree and 47% agree with this item) and their interest in local issues.

The participants' degree of innovativeness is asserted from the closed-end self-evaluation question . They like innovating (47%), however they cautiously adopt innovations (38.75%) and are uncertain (39.25%) whether or not they prefer to first see others using some innovation before adopting it themselves. They like original thinking (49.75%) and difficult problems are challenging to them (46.5%).

The participants had the option to add comments or suggestions. Among the 29 who shared their opinion (7.3% of all respondents), 86.2% work in the MAs or the MOU.

Nine respondents focused their comments on the use of complex and bureaucratic language and stressed the need for "plain language" in order to facilitate transparency and access to a wider audience. As one user commented "A clean and efficient website for the PA requires human resources dedicated exclusively to this function. The reliability of information is the most important issue. Complex information from many sources requires an efficient, reliable and flexible mechanism for direct sharing of information among MAs so that the citizen can get information directly from the source". Transparency was also among their concerns. They emphasised the need to actually implement suggestions arising from public consultations. Actually, there was a notion of mistrust, as respondents underlined the necessity of timely content updates.

A couple of respondents focused both on the necessary training of the employees in the MAs/MOU and on the use of collaborative tools among them.

One user referred to the KPI's for the implementation of Public and EU Financed Projects, one of the commitments of the 3rd National Action Plan on Open Government. In addition, four respondents also suggested one-stop platforms for citizens and enterprises (such as the datagov in the UK), interoperability of the various systems and centralisation of data entry in order to provide integrated services to the public.
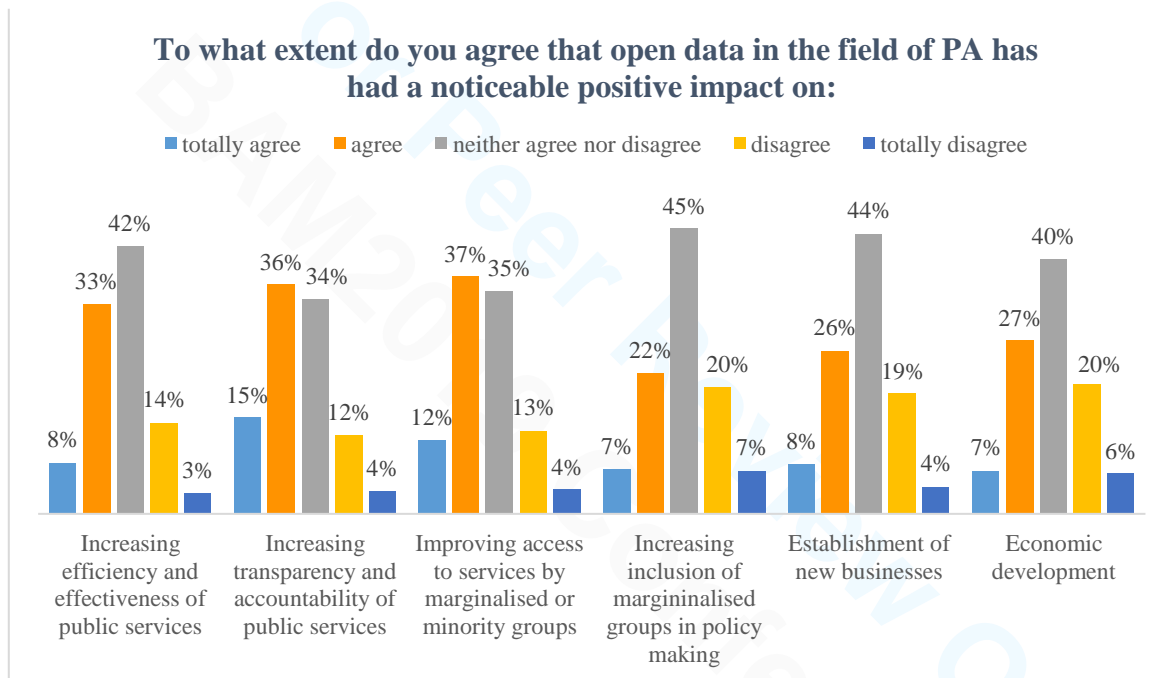

6.2 Key findings

The review of the results above provides evidence to certain key findings.

The e-government services' positive effects to beneficiaries and citizens are widely accepted Moreover, this perception does not vary, regardless of occupation. Both citizens and the public sector/MAs totally agree that they are useful Among the strong supporters of the e-services' benefits, 72% are either employees in the public sector or work in the MAs/MOU.

Other fields of the research also prove a consensus among respondents: most are uncertain on the readiness of the public administration to ensure benefits from open data and a substantial percentage even disagree. The same applies on their impact on the EU funds management (Figure 4.22). However, citizens view more positive impacts from the use of open data than

public servants do on the inclusion of marginalised groups in policy-making and on the establishment of new businesses.

To what extent do you agree that open data in the field of PA has had a noticeable positive impact on:

Legend: totally agree, agree, neither agree nor disagree, disagree, totally disagree

Increasing efficiency and effectiveness of public services: 8%, 33%, 42%, 14%, 3%
Increasing transparency and accountability of public services: 15%, 36%, 34%, 12%, 4%
Improving access to services by marginalised or minority groups: 12%, 37%, 35%, 13%, 4%
Increasing inclusion of margininalised groups in policy making: 7%, 22%, 45%, 20%, 7%
Establishment of new businesses: 8%, 26%, 44%, 19%, 4%
Economic development: 7%, 27%, 40%, 20%, 6%

Figure 4.22 Perceived impact of using open data in the field of PA

In addition, motivation factors of utmost importance to encourage the use of e-participation are the protection of personal data and advanced security systems . The difference among groups by occupation is that citizens place more emphasis on online interactive services and administrators believe that the MAs should undergo technical training and training in change management.

The respondents' reasons for participating in online forums/consultations/voting do not differ among them. Citizens regard as a strong motivator the ability to directly interact with the public administration (25% totally agree and 45.16% agree) and among employees in the public sector 24% totally agree and 45% agree . Both groups participate if it is easy and fast to use these tools and absolutely disregard possible peer pressure and advertisements/promotions to do so. They are reserved on the trustworthiness of the consultations' results, and more so the public staff. Moreover, citizens are interested in local administration issues and want to exchange ideas.

Secondly, in other areas of the research, our results demonstrate diverse approaches by groups, depending on their occupation or age.

MAs and the public sector consider as greatest benefits of e-government for their own work the modernisation of the public administration (56.2%), the increase of services' effectiveness (51.1%) and cost reduction (46.7%). Citizens agree, but in higher numbers (at 58.1%, 55.6% and 55.6% respectively). We also record a different perspective by occupation regarding effects on simplification of work: 40.2% from the public sector believe they have totally benefited, 48.4% from the private sector. Still, in both groups, those considering the benefits to the public administration of moderate value are a considerable segment, especially regarding faster implementation of projects/programmes and simplification of work. Adoption of innovative procedures seems to be the least obvious benefit by all parties involved.

We also observe variations concerning benefits enjoyed by individuals . Citizens identify time-saving (59.7%), financial benefits (38.7%), transparency (37.9%). The factor of transparency has 26% of citizens considering it as of moderate and 6% as of poor impact. The public sector and MAs on the other hand believe that the benefits for citizens and enterprises are: time-saving (51%), transparency (47%), financial benefits (27%). Both segments agree that e-services result in a faster -or quite faster- response from the administration and neither has confidence that e-services have strengthened citizens' role.

The usefulness of information and services provided is agreed upon by all groups but more so by the MAs/MOU and the public sector (Figure E.6). Of those who do agree, 73% are either public servants or employees in the MAs, who are often the providers of that information. A ffew respondents totally agree on the usefulness and a 33.5%, mostly among citizens and public sector employees, are neutral .

Both citizens and the public sector basically visit the same websites (espa.gr, diavgeia, opengov, mou.gr and antagonistikotita) and occupation does not differentiate substantially the services they reach for (news, search for calls and legislation/studies). However, public servants/MAs visit more websites and use a wider range of services. Among them, 78% also search for organisational chart/contact information and 60% for standardised forms. Unexpectedly, citizens are less interested in these e-government services (31%) and those downloading datasets/geodata and participating in consultations are less than 10% .

Consequently, citizens are less frequent visitors to the PA websites. Although among all respondents 31% visit the websites daily, only 5% of citizens do so . A 32% of citizens visit the websites once/twice a year and 31% even less often, apparently when they really need to.

Among the public sector staff, 15% visit daily, 20% weekly, 24% once/twice a year and 25% rarely .

All users have moderate or slight difficulties when using e-services. Only an 18.5% (74 respondents) had no difficulties at all, however 66% of them are employed in MAs/MOU and 20% in the broader public sector. Citizens encounter much more difficulties in accessing and fully using the services in the websites, as demonstrated in Figure 4.23 with more than half of the respondents facing moderate difficulties.
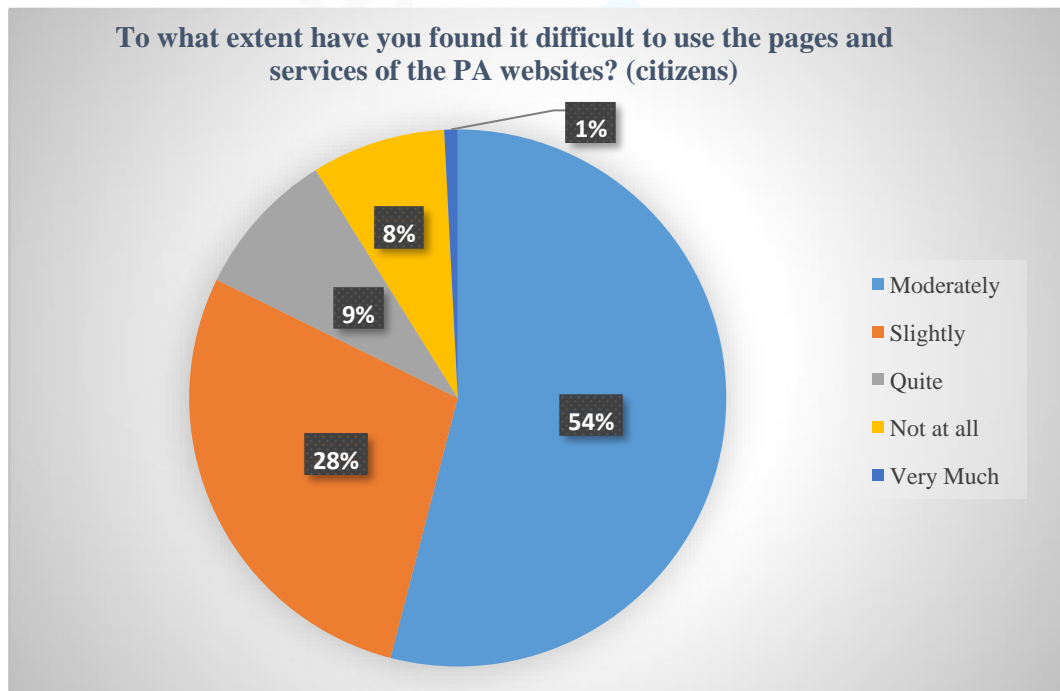
Figure 4.23 Degree of difficulty experienced by citizens

When respondents evaluate the quality of a PA website, they place the higher value to the dimension of information. In terms of efficiency, user-friendly design and mobile accessibility show low values. However, when we examine these factors, there is a different perspective among age groups. Design is considered very and quite important by the ages 40-49 and less so by the younger generation. Mobile accessibility is deemed very important and quite important by both age groups 18-29 and 40-49.

There is also a different perspective among groups by occupation. The administration places far more importance than citizens do on an appealing design and consider mobile accessibility slightly more important than citizens do. Both findings suggest an increased sensitivity of the public sector/MAs as to the services provided.

In terms of trust in the online services provided, the degree of trust among citizens and the public sector/MAs differs significantly. Citizens are more reluctant to trust updated content, protection of their personal data and continuous service availability. They also score lower in trusting the validity of the information published

Last, an important finding in the understanding of the results is that the respondents embrace innovation. In their self-assessment, the private and the public sector participants, as well as the MAs/MOU employees consider themselves innovative and original thinkers . Nevertheless, the respondents from the private sector find difficult problems more challenging.

Women like original thinking more (38.3% totally agree and 50.64%% agree) in comparison to men (48.48% and 33.94% respectively) and find challenges in difficulties (51.49% agree versus 39.39% of men). However, they are more cautious to adopt innovations than men are.

By age group, those 18-29 and those above 50 like innovating the most, however young people are the most cautious in adopting innovations. All age groups find difficult problems challenging, but the ages above 50 feel more confident and believe they do not need instructions or a demonstration before they start using an innovation.

7. Discussion of Findings

This study aims to understand awareness, perceptions, expectations and needs as well as factors influencing practitioners and individuals to use e-government services in the delivery of EU funds. A key question posed is how to encourage and maintain citizens' involvement in policy-making as a means to an open government.

The perceived value of e-government services in managing and delivering EU funds is undisputable. Respondents agree as to the benefits on the administration's modernisation, effectiveness, cost reduction and time-savings. These findings are consistent with studies in our literature review. Nonetheless transparency is valued as a benefit predominantly by the civil servants, but not individuals, and effects on strengthening the role of the citizens are unclear to both respondents' groups. This finding is in line with the research among respondents from the Greek public sector when Fragouli and Vitta (2012) retrieved low ratings on effects to transparency and strengthening the citizens' role. This attitude could be interpreted by the high level of Greeks' distrust of their national institutions (European Commission, 2018c).

The evaluation of use and satisfaction shows that the platforms most used (espa.gr, diavgeia, opengov.gr and antagonistikotita.gr) are websites which either contain practical information on accessing funding or are "flagships" for promoting transparency and accountability in a broader spectrum of governance. A site such as anaptyxi.gov.gr with open data, fostering transparency on funds' allocation, records only a 20% of visits among citizens in our research. These findings are confirmed by the websites' statistics .

Users, and especially citizens, encounter various degrees of difficulty when using the platforms and do not visit them often in contrast to the MAs and the broader public sector. This was expected, because as other researchers have demonstrated, people use platforms with valuable data, relevant to what they need to do (Lourenço, 2015). Besides, practitioners use a broader spectrum of services, so we may conclude that they need to perform more specific tasks under their professional capacity and citizens use other services.

A significant barrier is the jargon used, a fact highlighted even by employees in the MAs. This finding is expected and consistent with the conclusions drawn in 2007 from the online public opinion survey on info3kps.gr. The problem is also recognized at a European level: the European Parliament among the recommendations on how to manage data transparency and accessibility on EU funds (2016) recommends simplification of the 'technocratic' language, easy language and visualisations.

In terms of quality, the respondents prioritise quality of information, clear and updated, but do not put so much emphasis on personalised content. Reliability and security of transactions is closely an important quality dimension. According to Janita and Miranda (2018) it is the most important dimension in their research and information quality the second. In our case the reverse order can be interpreted because few PA platforms provide log-in access and transactions to raise such concerns. In addition, in their research across the specific Greek cultural environment, Papadomichelaki and Mentzas (2011) confirm that the majority of users considers efficiency as the most important quality dimension, followed by trust.

Technical efficiency is appreciated by respondents in terms of ease of navigation and accessibility for the disabled, nonetheless design and mobile accessibility are viewed as less important in encouraging participation. Efficiency is indeed recognised by academics when they interview public servants (Janita and Miranda, 2018) and our research confirms that it is the public sector employees who place more emphasis on design and mobile accessibility and not the end-users. Accessibility for the disabled is among the indicators evaluating

governmental websites (Panopoulou, Tambouris and Tarabanis, 2008) and required by the EU rules. Support is moderately important to the respondents compared with the other dimensions, a finding present in the researches of Papadomichelaki and Mentzas (2011) and Janita and Miranda (2018).

With regard to open data, the results are mostly expected. In the Open Data Barometer, Greece ranks 36th. On readiness to ensure benefits from the publication of open data, Greece scores 56 in government policies, 62 in government action, 78 in citizens and civil rights and 39 in entrepreneurs/businesses. On the assessment if open data release has had impacts, Greece scores 37 in political impacts, zero in social impacts and 12 in economic impacts (The World Wide Web Foundation, 2017).

Among the platforms presented (part 2.4 E-government platforms for delivering EU funds to the Greek beneficiaries), anaptyxi.gov.gr provides open data both on site and to the data.gov.gr website. The PA portal (espa.gr) publishes calls of proposals (xls) and the list of operations (csv), the latter however is undecipherable to users with no knowledge of the ESIF management and control system. The EU open data platforms are known to a handful of practitioners and lack publicity through the Greek PA websites.

Besides low country rankings and limited open data available on EU funding, academics have anyway expressed reservations on the effect of open data on government's accountability (Yu and Robinson, 2012; Peixoto, 2013) and their research highlights the digital divide among citizens. An initial field research during Athens GovJam[5] confirms that citizens are not aware what exactly open data are, where to find them and how to use them without intermediaries (Janssen, Charalabidis and Zuiderwijk, 2012; Barker *et al.*, 2016; Reggi and Dawes, 2016; Kassen, 2017). The initial quest of the team in Athens GovJam was to improve open data access for the public. However, field research among mostly university students, redirected the team to tackle with how to raise awareness and how to educate on the use of open data, designing a "treasure hunt" of open data for high school students.

It is nonetheless encouraging that citizens perceive more positive impacts from the use of open data than public servants do.

The findings on what fosters users' participation reveal a certain mistrust regarding data validity and users' data protection. In addition, respondents stressed the need for actually

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[5] Design of Treasure Hunt in secondary education "Data rangers" – to be published by mid-July 2018
 https://submit.globaljams.org/gallery/yJMNnPjr?per_page=25&category=24286

implementing suggestions arising from public consultations, thus supporting previous academic findings (Panopoulou, Tambouris and Tarabanis, 2014; Wijnhoven, Ehrenhard and Kuhn, 2015; Oliveira, 2016; Schmidthuber *et al.*, 2017).

Intrinsic motivation to participate in e-government initiatives has mixed results. It seems to rely less on fun and enjoyment with friends or on publicity, contrary to Wijnhoven's findings (2015). Respondents are however motivated by their interest in the community, involvement in service improvement in direct communication with the public administration and believe such participative tools are easy to use. According to research, users who are already active in the local community in real life, also engage in e-participation platforms (Karamagioli, Staiou and Gouscos, 2014) and perceived ease of use is a significant factor of motivation (Schmidthuber *et al.*, 2017). In this section, we identify again an ambivalence regarding trust in the results of e-participation.

Last, responses to the open-ended question, include suggestions almost only from MAs employees, which was expected. Besides practitioners' experience in the field, it is indicative of the top-down approach of innovations in the country's public administration.

8. Theoretical and Managerial Implications

The current study focused on how e-government in managing and delivering EU funds can transform to a more interactive, open and accountable policy and governance and reinforce trust in the EU and the national governments.

The results have implications relating to academic research. The study confirmed previous findings, such as perceived benefits of e-government (Papadomichelaki and Mentzas, 2011; Fragouli and Vitta, 2012), the need for simplified language and multichannel, user-centered delivery services (Pina, Torres and Royo, 2010; Panopoulou, Tambouris and Tarabanis, 2014), as well as the importance of bridging varying skills and different level of access to e-services (Janssen, Charalabidis and Zuiderwijk, 2012; Meijer, Curtin and Hillebrandt, 2012). Our primary data collection often confirmed academic literature on lack of interactivity and provision of complex datasets or the minimum data legally required (Reggi and Ricci, 2011), practices which do not foster an accountable and participative governance.

In addition, the study highlighted diverse perceptions between the public sector and citizens on issues such as trust, the importance of quality dimensions and value for citizens, the effects of open data and the motives of e-participation. These findings could be further explored. The

results of this study have additional implications for potential changes on the managerial level of delivering EU funds to beneficiaries. Both literature review and our findings suggest that to achieve transparency practitioners should focus on simplification of procedures and language. This could be achieved with visualisations, multichannel service delivery and/or the use of educated intermediaries, such as journalists (Reggi and Ricci, 2011). The European Parliament study claims that even "the lists of beneficiaries cannot be understood without knowledge of the complex EU funds" (2016).

9. Limitations - Future research directions

Our research problem was focused in Greece and was narrower than the general concepts of e- and open government on which research is extensive. Academics have not focused on e-government effects towards a more open and democratic planning when managing and implementing cohesion policy either at the European or the national level. Such concerns are mostly raised in policy papers and are the focus of EU commissioned studies. To overcome the above limitations, we adopted a more exploratory research design. We combined methodology from a wider area of research on e- and open government across Europe and included dimensions used in international open data indexes

The study was further limited by the nature of our sample, where, possible bias resulting from their education, occupation and self-reported data answering the questionnaire, requires caution regarding generalisations to the whole population.

Despite limitations, the study can be viewed as a solid first step based on primary data from a significant sample of 400 respondents. We recommend that future research includes more respondents from the under-represented groups and especially the young. Millennials have come of age with the web, social media and collaboration tools, therefore their stance is extremely important when planning e-government services to engage citizens and maintain participation.

10. Conclusions

The purpose of the study was to identify how e-government services in the field of the EU co-funded programmes and projects can evolve into open government models and enhance citizens' engagement and participation in policy-making in this field.

Our review demonstrated that Greece lags behind in European and international indexes on e-government and open government. However, it shows promising signs in certain dimensions, e.g. scoring 72% in the promotion of open data (EU average 73%) or sharply rising to the 35th position in the UN E-Government Development Index. The EU and national legislative framework are deemed sufficient and Greece has elaborated inspired national action plans in the field of open government – despite delays identified among various projects. Greece also applies promising open government initiatives, combining online and face-to-face consultations in specific policy areas of the EU funds' management.

According to the findings of our research, the benefits of e-government in the field are obvious. Nonetheless, the EU funds' platforms and social media accounts mainly provide stakeholders and individuals with one-way communication and access to information and applications, following the letter of the law on information and transparency. They have not endorsed more user-friendly and user-centered initiatives to foster interactivity and an inclusive policy-making. Consequently, the strengthening of the citizens' role and transparency are not unanimously recognised as obvious benefits. To accommodate the wide range of individual needs, administrators would need to involve end-users in the design process, e.g. organising "jams" or sponsoring hackathons to improve service delivery. Open data as a means to a more accountable governance have not had an effect and respondents from both the public and the private sector would need training and possibly expert intermediaries to fully exploit their potential.

Until now, users still face access barriers due to certain quality dimensions pertaining mostly to not meaningful or easily understandable data. We also identified trust issues, a need of feedback to inputs and of a move to more collaborative forms. Researchers support that trust in government is positively related to trust in e-government sites which depends on information quality, service and system quality (Teo, Srivastava and Jiang, 2008). In addition, according to the key findings of the 27-month project COHESIFY (www.cohesify.eu), researching the impact of cohesion policy on European identification, EU funds can result in a real difference to how Europeans perceive and identify with the EU. The researchers concluded that a more citizen-focused approach is needed to programming and communication of the funds and this could be achieved by introducing participatory democratic tools to connect with citizens (Corchado *et al.*, 2018).

Future research is recommended to validate the conclusions drawn from this study. Academics and practitioners can further explore progress achieved in Greece and additional means and

strategies to transit from providing simple e-government services to open government initiatives that will foster e-participation and e-democracy in the cohesion policy.

References

A Scuola di OpenCoesione - I video di #ASOC1617 (2018). Available at: http://www.ascuoladiopencoesione.it (Accessed: 20 February 2018).

Abras, C., Maloney-Krichmar, D. and Preece, J. (2004) 'User-centered design', in *W.Encyclopedia of Human-Computer Interaction*. Bainbridge: Thousand Oaks: Sage Publications. doi: 10.3233/WOR-2010-1109.

Abu-Shanab, E. A. (2015) 'Reengineering the open government concept: An empirical support for a proposed model', *Government Information Quarterly*. Elsevier Inc., 32(4), pp. 453–463. doi: 10.1016/j.giq.2015.07.002.

Andersen, K. N. *et al.* (2010) 'Fads and facts of E-government: A review of impacts of Egovernment (2003-2009)', *International Journal of Public Administration*, 33(11), pp. 564–579. doi: 10.1080/01900692.2010.517724.

Åström, J. and Grönlund, Å. (2012) 'Online Consultations in Local Government: What Works, When, and Why?', in *Connecting Democracy: Online Consultation and the Flow of Political Communication*. MIT Press, pp. 75–96. Available at: https://www.jstor.org/stable/j.ctt7zv3w6.

Barker, M. *et al.* (2016) 'Towards a DataPlace: mapping data in a game to encourage participatory design in smart cities', in *3rd International Workshop on Pervasive Participation, a NordiCHI workshop*. Göteborg, Sweden. Available at: https://perpart2016.files.wordpress.com/2016/11/barker-wolff-vdlinden_2016_towards-adataplace_mapping-data-in-a-game-to-encourage-participatory-design-in-smart-cities.pdf.

Bekkers, V. and Homburg, V. (2007) 'The Myths of E-government: Looking beyond the assumptions of a new and better government', *Information Society*, 23(5), pp. 373–382. doi: 10.1080/01972240701572913.

Breno, A. and Gama, K. (2018) 'Global Gov Jam: Motivational Aspects of Participants', in *Proceedings of the 3rd International Conference on Game Jams, Hackathons, and Game*

Creation Events - March 18 - 18, 2018. San Francisco, CA, USA: ACM New York, NY, USA. doi: 10.1145/3196697.3196701.

Buttiglione, P. L. (2014) *Toolkit Monithon*. Available at: http://www.monithon.it/media/css/Toolkit Monithon.pdf (Accessed: 10 April 2018).

Buttiglione, P. L. and Reggi, L. (2015) 'Il monitoraggio civico delle politiche di coesione e lo sviluppo delle comunità civiche', *Prisma Economia-Società-Lavoro*, 1(2005), pp. 1–17. Available at: https://mpra.ub.uni-muenchen.de/67206/ (Accessed: 10 April 2018).

Canova, L. *et al.* (2014) 'OpenCoesione and Monithon - a transparency effort', in *5th Samos Summit on ICT-enabled Governance*. Samos, pp. 1–5. Available at: http://porto.polito.it/2561746/1/OpenCoesioneAndMonithon_Samos_Final.pdf.

Chadwick, A. and May, C. (2003) 'Interaction between States and Citizens in the Age of the Internet: "e-Government" in the United States, Britain, and the European Union.', *Governance*, 16(2), pp. 271–300. doi: 10.1111/1468-0491.00216.

Charalabidis, Y. and Loukis, E. (2011) 'Transforming Government Agencies' Approach to Eparticipation Through Efficient Exploitation of Social Media', in *Ecis 2011 Proceedings*, pp. 1080–1091. Available at: http://aisel.aisnet.org/ecis2011/84.

Chourabi, H. *et al.* (2012) 'Understanding smart cities: An integrative framework', in *Proceedings of the Annual Hawaii International Conference on System Sciences*. Maui, United States: 2012 45th Hawaii International Conference on System Sciences, HICSS 2012, pp. 2289–2297. doi: 10.1109/HICSS.2012.615.

Coglianese, C. (2009) 'The transparency president? The Obama administration and open government', *Governance*, 22(4), pp. 529–544. doi: 10.1111/j.1468-0491.2009.01451.x.

Conference of the Representatives of the Governments of the Member States (2012) *Treaty on the Functioning of the European Union (Consolidated Version)*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT.

Corchado, L. *et al.* (2018) 'A comparative analysis of Cohesion Policy communication strategies - Cohesify Research Paper 11'. Available at: http://www.cohesify.eu/researchpapers/.

Curtin, D. and Mendes, J. (2011) 'Transparence et participation : des principes démocratiques pour l'administration de l'union européenne', *Revue française d'administration publique*, 137–138(1), p. 101. doi: 10.3917/rfap.137.0101.

DESI (2018a) *Digital Economy and Society Index (DESI) - Country report Austria*. Available at: https://ec.europa.eu/digital-single-market/en/scoreboard/austria.

DESI (2018b) *Digital Economy and Society Index (DESI) - Country Report Estonia*. Available at: https://ec.europa.eu/digital-single-market/en/scoreboard/estonia.

DESI (2018c) *Digital Economy and Society Index (DESI) - Country Report Greece*. Available at: https://ec.europa.eu/digital-single-market/en/scoreboard/greece.

DESI (2018d) *Digital Economy and Society Index (DESI) - Country report Italy*. Available at: https://ec.europa.eu/digital-single-market/en/scoreboard/italy.

Domínguez, L. R., Nchez, I. M. G. S. and Álvarez, I. G. (2011) 'Determining factors of egovernment development: A worldwide national approach', *International Public Management Journal*, 14(2), pp. 218–248. doi: 10.1080/10967494.2011.597152.

el.diadikasies.gr (2016) *el.diadikasies.gr Payment of Investments Subsidy Grant*. Available at: https://el.diadikasies.gr/Καταβολή_Επιχορήγησης_Επένδυσης_των_Επενδυτικών_Νόμων (Accessed: 30 May 2018).

European Commission (2003) *The role of eGovernment for Europe's future COM(2003) 567 final*.   Brussels.   Available   at: http://unpan1.un.org/intradoc/groups/public/documents/other/unpan032402.pdf.

European Commission (2015a) 'eGovernment action plan 2016-2020', p. 12. doi: 10.1017/CBO9781107415324.004.

European Commission (2015b) 'Quality of Public Administration: A Toolbox for Practioners', p. 140. doi: 10.2767/91797.

European Commission (2016) *Workshop Report: Supporting the implementation of eGovernment at regional and local level*. Brussels. Available at: https://joinup.ec.europa.eu/event/supporting-implementation-egovernment-regional-andlocal-level.

European Commission (2017) *Flash Eurobarometer 452 Report "Citizens' awareness and perceptions of EU regional policy"*. Brussels. Available at: http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2145.

European Commission (2018a) 'E-Government in Greece'. Joinup. Available at: https://joinup.ec.europa.eu/sites/default/files/inlinefiles/eGovernment_in_Greece_2018_0.pdf.

European Commission (2018b) *Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial r*. Available at: https://eurlex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A375%3AFIN.

European Commission (2018c) *Standard Eurobarometer 89 - Spring 2018 'Public opinion in the European Union, First results'*. Brussels. doi: 10.2775/00.

European Parliament (2014) *Mapping Smart Cities in the EU*. Available at: http://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOLITRE_ET(2014)507480_EN.pdf..

European Parliament (2016) *Potential and Challenges of E-Participation in the European Union*. doi: 10.2861/115760.

European Union (2017) 'Tallinn Declaration on eGovernment'. Tallinn. Available at: http://ec.europa.eu/newsroom/document.cfm?doc_id=47559.

Eyde-etak.gr (2017) *ΕΥΔΕ-ΕΤΑΚ Νέα*. Available at: http://www.eydeetak.gr/central.aspx?sId=106I495I1274I646I439523&olID=834&neID=841&neTa=133_2 &ncID=0&neHC=0&tbid=0&lrID=2&oldUIID=aI834I0I106I495I1274I0I2&actionID=lo ad (Accessed: 5 April 2018).

Field, T., Muller, E. and Lau, E. (2003) *The e-government imperative*, *OECD egovernment studies*. Paris: OECD.

Fragouli, E. and Vitta, A. (2012) 'E-government Policy Administration: the case of Greece', *Science Journal of Business Management*, (2), pp. 1–23. Available at: http://www.sjpub.org/sjbm.html.

Freeman, J. and Quirke, S. (2013) 'Understanding E-Democracy Government-Led Initiatives for Democratic Reform', *JeDEM*, 5(2), pp. 141–154. Available at: http://www.jedem.org.

Fung, A. and Weil, D. (2010) 'Open government and open society', in Lathrop, D. and Ruma, L. (eds) *Open Government. Collaboration, Transparency, and Participation in Practice*. O'Reilly, pp. 107–114. doi: 10.1007/s13398-014-0173-7.2.

Gil-Castineira, F. *et al.* (2014) 'Smart City or Smart Citizens? The Barcelona Case', *Journal of Urban Technology*, 18(2), pp. 1–16. doi: 10.2139/ssrn.2585682.

Gómez, E. A. R. (2017) 'Perceptions About the Concept and Benefits of Open Government in Local Governments in Spain', in Baguma, R., De', R., and Janowski, T. (eds) *Proceedings of the 10th International Conference on Theory and Practice of Electronic Governance - ICEGOV '17*. New York: ACM, pp. 594–597. doi: 10.1145/3047273.3047338.

Gruening, G. (2001) 'Origin and theoretical basis of new public management', *International Public Management Journal*, 4(1), pp. 1–25. doi: 10.1016/S10967494(01)00041-1.

Hausmann, R. and Rodrik, D. (2003) 'Economic development as self-discovery', *Journal of Development Economics*, 72(2), pp. 603–633. doi: 10.1016/S0304-3878(03)00124-X.

Hung, S. Y., Chang, C. M. and Yu, T. J. (2006) 'Determinants of user acceptance of the eGovernment services: The case of online tax filing and payment system', *Government Information Quarterly*, 23(1), pp. 97–122. doi: 10.1016/j.giq.2005.11.005.

Jaeger, P. and Bertot, J. (2012) 'Designing, Implementing, and Evaluating User-centered and Citizen-centered E-government', *International Journal of Electronic Government Research*, 6(2), pp. 1–17. doi: 10.4018/jegr.2010040101.

Janita, M. S. and Miranda, F. J. (2018) 'Quality in e-Government services: A proposal of dimensions from the perspective of public sector employees', *Telematics and Informatics*. Elsevier, 35(2), pp. 457–469. doi: 10.1016/j.tele.2018.01.004.

Janssen, M., Charalabidis, Y. and Zuiderwijk, A. (2012) 'Benefits, Adoption Barriers and Myths of Open Data and Open Government', *Information Systems Management*, 29(4), pp. 258–268. doi: 10.1080/10580530.2012.716740.

Karamagioli, E., Staiou, E. R. and Gouscos, D. (2014) 'Can open-government models contribute to more collaborative ways of governance? An assessment of the Greek OpenGov initiative', in Gascó-Hernández, M. (ed.) *Open Government: Opportunities and Challenges for Public Governance*. New York: Springer International Publishing, pp. 37–

50. doi: 10.1007/978-1-4614-9563-5_3.

Kassen, M. (2017) 'Open data and e-government – related or competing ecosystems: a paradox of open government and promise of civic engagement in Estonia*', *Information Technology for Development*. Taylor & Francis, 0(0), pp. 1–27. doi:

10.1080/02681102.2017.1412289.

Layne, K. and Lee, J. (2001) 'Developing fully functional E- government: A four stage model', *Government Information Quarterly*, 18(2), pp. 122–136.

Lee, C. P., Chang, K. and Berry, F. S. (2011) 'Testing the Development and Diffusion of E-Government and E-Democracy: A Global Perspective', *Public Administration Review*, 71(3), pp. 444–454. doi: 10.1111/j.1540-6210.2011.02228.x.

Lee, G. and Kwak, Y. H. (2012) 'An Open Government Maturity Model for social mediabased public engagement', *Government Information Quarterly*. Elsevier Inc., 29(4), pp. 492–503. doi: 10.1016/j.giq.2012.06.001.

Linders, D. (2012) 'From e-government to we-government: Defining a typology for citizen coproduction in the age of social media', *Government Information Quarterly*. Elsevier Inc., 29(4), pp. 446–454. doi: 10.1016/j.giq.2012.06.003.

Lourenço, R. P. (2015) 'An analysis of open government portals: A perspective of transparency for accountability', *Government Information Quarterly*. Elsevier Inc., 32(3), pp. 323–332. doi: 10.1016/j.giq.2015.05.006.

Magro, M. J. (2012) 'A Review of Social Media Use in E-Government', *Administrative Sciences*, 2(4), pp. 148–161. doi: 10.3390/admsci2020148.

Margetts, H. and Naumann, A. (2017) 'Government As a Platform: What Can Estonia Show the World?', pp. 1–41. Available at: https://www.politics.ox.ac.uk/materials/publications/16061/government-as-a-platform.pdf.

Meijer, A. J., Curtin, D. and Hillebrandt, M. (2012) 'Open government: Connecting vision and voice', *International Review of Administrative Sciences*, 78(1), pp. 10–29. doi:

10.1177/0020852311429533.

Mellouli, S., Luna-Reyes, L. F. and Zhang, J. (2014) *Smart government, citizen participation and open data*, *Information Polity*. doi: 10.3233/IP-140334.

Messina, C. *et al.* (2008) *Good practice in the field of regional policy and obstacles to the use of the Structural Funds*. Brussels. Available at: http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOLREGI_ET(2008)405396.

Millard, J. (2013) 'ICT-enabled public sector innovation: trends and prospects', *Proceedings of the 7th International Conference on Theory and Practice of Electronic Governance - ICEGOV '13*, pp. 77–86. doi: 10.1145/2591888.2591901.

Ministry of Administrative Reconstruction (2014a) 'E-Government Action Plan 20142020'. Available at: http://www.minadmin.gov.gr/?p=9796.

Ministry of Administrative Reconstruction (2014b) 'E-Government Strategy 2014-2020'. Available at: http://www.minadmin.gov.gr/wpcontent/uploads/20140415_egov_strategy.pdf.

Ministry of Administrative Reconstruction (2016) '3rd National Action Plan on Open Government 2016-2018'. Available at: https://www.opengovpartnership.org/documents/greece-national-action-plan-2016-2018.

Ministry of Digital Policy Telecommunications and Information (2016) 'National Digital Strategy 2016-2021'. Available at: http://mindigital.gr/index.php/κείμεναστρατηγικής/220-digital-strategy-2016-2021.

Ministry of the Interior and Administrative Reconstruction (2016) *Analysis of Public Administration staff for the year 2015 (Ανάλυση τακτικού προσωπικού Δημόσιας Διοίκησης για το έτος 2015)*. Available at: http://www.minadmin.gov.gr/?p=15034.

Monithon | About – English (2018). Available at: http://www.monithon.it/about-english/ (Accessed: 10 April 2018).

Moon, M. J. (2002) 'The Evolution of E - Government among Municipalities: Rhetoric or Reality ?', *Public Administration Review*, 62(4). doi: 10.1111/0033-3352.00196.

Mou.gr (2007) *Opinion survey to evaluate info3kps.gr*. Available at: http://www.mou.gr/el/Pages/NewsFS.aspx?item=195 (Accessed: 15 April 2018).

Mou.gr (2015) *Human Resources*. Available at:

http://www.mou.gr/en/Pages/HumanResources.aspx (Accessed: 1 April 2018).

National Coordination Authority (2016) 'Evaluation of Information and Publicity Actions co-financed by the European Regional Development Fund and the Cohesion Fund for the period 2007-2013 in Greece'.

Nic, N. *et al.* (2018) *Reuters Institute Digital News Report 2018*, *University of Oxford*. doi: 10.1017/CBO9781107415324.004.

O'Reilly, T. (2010) 'Government as a Platform', *Innovations: Technology, Governance, Globalization*, 6(1), pp. 13–40. doi: 10.1162/INOV_a_00056.

Obama, B. (2009) *Memorandum on Transparency and Open Government*. Available at: http://www.presidency.ucsb.edu/ws/index.php?pid=28111&st=&st1=.

OECD (2015) *Government at a Glance - 2017 edition*. Available at: https://stats.oecd.org/Index.aspx?QueryId=78408 (Accessed: 10 June 2018).

OECD (2016) *Open Government - The Global Context and the Way Forward*. Paris: OECD. doi: 10.1787/9789264268104-en.

Oliveira, C. (2016) 'A study on Engagement and Research Opportunities on Digital Democracy'.

Palvia, S. C. J. and Sharma, S. S. (2007) 'E-Government and e-governance: definitions/domain framework and status around the world', *Foundations of eGovernment*, pp. 1–12. doi: 10.3991/ijac.v5i1.1887.

Panopoulou, E., Tambouris, E. and Tarabanis, K. (2008) 'A framework for evaluating web sites of public authorities', *Aslib Proceedings*, 60(5), pp. 517–546. doi: 10.1108/00012530810908229.

Panopoulou, E., Tambouris, E. and Tarabanis, K. (2014) 'Success factors in designing eParticipation initiatives', *Information and Organization*. Elsevier Ltd, 24(4), pp. 195–213. doi: 10.1016/j.infoandorg.2014.08.001.

Papadomichelaki, X. and Mentzas, G. (2011) 'Analysing e-government service quality in Greece', *Electronic Government, an International Journal*, 8(4), p. 290. doi: 10.1504/EG.2011.042808.

Peixoto, T. (2013) 'The uncertain relationship between open data and accountability: A response to Yu and Robinson's The New Ambiguity of "Open Government"', *UCLA Law Review Discourse*, 60(2007), pp. 200–213. Available at: https://www.uclalawreview.org/the-uncertain-relationship-between-open-data-andaccountability-a-response-to-yu-and-robinsons-the-new-ambiguity-of-open-government/.

Petrakaki, D. (2008) 'E-Government and changes in the public sector: The Case of Greece', in Barrett, M. et al. (eds) *Information Technology in the Service Economy: Challenges and Possibilities for the 21st Century. IFIP — The International Federation for Information Processing*. Boston: Springer International Publishing, pp. 213–227. doi: 10.1007/978-0-387-09768-8_15.

Pina, V., Torres, L. and Royo, S. (2010) 'Is E-Government Leading To More Accountable and Transparent Local Governments? an Overall View', *Financial Accountability & Management*, 26(1), pp. 3–20. doi: 10.1111/j.1468-0408.2009.00488.x.

Reggi, L. and Dawes, S. (2016) 'Open government data ecosystems: Linking transparency for innovation with transparency for participation and accountability', *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 9820 LNCS, pp. 74–86. doi: 10.1007/978-3-319-44421-5_6.

Reggi, L. and Ricci, C. A. (2011) 'Information strategies for open government in Europe: EU regions opening up the data on structural funds', *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 6846 LNCS, pp. 173–184. doi: 10.1007/978-3-642-22878-0_15.

Roman, A. V. and Miller, H. T. (2013) 'New Questions for E-Government: Efficiency but not (yet?) Democracy', *International Journal of Electronic Government Research*, 9(1), pp. 65–81. doi: 10.4018/jegr.2013010104.

Saija, F. and Avella, G. D. (2016) *OpenCoesione : Monitoring Public Spending and its Impact in Italy*. Available at: https://www.opengovpartnership.org/sites/default/files/casestudy_Italy_OpenCoesione_full.pdf.

Schmidthuber, L. *et al.* (2017) 'The emergence of local open government: Determinants of citizen participation in online service reporting', *Government Information Quarterly*. Elsevier, 34(3), pp. 457–469. doi: 10.1016/j.giq.2017.07.001.

Szopiński, T. and Staniewski, M. W. (2017) 'Manifestations of e-government usage in post-communist European countries', *Internet Research*, 27(2), pp. 199–210. doi: 10.1108/IntR-01-2015-0011.

Teo, T. S. H., Srivastava, S. C. and Jiang, L. (2008) 'Trust and Electronic Government Success: An Empirical Study', *Journal of Management Information Systems*, 25(3), pp. 99–131. doi: 10.2753/MIS0742-1222250303.

The World Wide Web Foundation (2017) *Open Data Barometer 4th Edition - Global Report*. Available at:
https://opendatabarometer.org/4thedition/detailcountry/?_year=2016&indicator=ODB&detail=GRC (Accessed: 24 February 2018).

Tinholt, D. *et al.* (2017) *eGovernment Benchmark 2017*. doi: 10.2759/002688.

Torres, L., Pina, V. and Royo, S. (2005) 'E-government and the transformation of public administrations in EU countries: Beyond NPM or just a second wave of reforms?', *Online Information Review*, 29(5), pp. 531–553. doi: 10.1108/14684520510628918.

United Nations (2018) *Glossary*, *Glossary*. Available at:
https://publicadministration.un.org/egovkb/en-us/Resources/Glossary (Accessed: 10 February 2018).

United Nations Department of Economic and Social Affairs (2016) *United Nations EGovernment 2016: E-Government in Support of Sustainable Development*. Available at: http://workspace.unpan.org/sites/Internet/Documents/UNPAN97453.pdf.

United Nations Department of Economic and Social Affairs (2018) *E-Government Survey 2018*. Available at: https://publicadministration.un.org/en/research/un-e-governmentsurveys.

Del Vicario, M. *et al.* (2016) 'The spreading of misinformation online', *Proceedings of the National Academy of Sciences*, 113(3), pp. 554–559. doi: 10.1073/pnas.1517441113. van Waart, P., Mulder, I. and de Bont, C. (2016) 'A Participatory Approach for Envisioning a Smart City', *Social Science Computer Review*, 34(6), pp. 708–723. doi: 10.1177/0894439315611099.

Washburn, D. and Sindhu, U. (2010) *Helping CIOs Understand "Smart City" Initiatives*.

Cambridge, MA; Forrester Research, Inc. Available at: http://public.dhe.ibm.com/partnerworld/pub/smb/smarterplanet/forr_help_cios_und_smart _city_initiatives.pdf.

West, D. M. (2004) 'E-Government and the Transformation of Public Sector Service Delivery', *Public Administration Review*, 64(1), pp. 15–27. doi: :10.1111/j.15406210.2004.00343.x.

Wijnhoven, F., Ehrenhard, M. and Kuhn, J. (2015) 'Open government objectives and participation motivations', *Government Information Quarterly*. Elsevier Inc., 32(1), pp. 30–42. doi: 10.1016/j.giq.2014.10.002.

Williamson, V. and Eisen, N. (2016) 'The Impact of Open Government: Assessing the Evidence', *Brookings Institution*, Development (December), pp. 1–30. Available at: https://www.brookings.edu/wpcontent/uploads/2016/12/gs_20161208_opengovernment_rep ort.pdf.

Wong, W. and Welch, E. (2004) 'Does E-Government Promote Accountability? A Comparative Analysis of Website Openness and Government Accountability', *Governance*, 17(2), pp. 275–297. doi: 10.1111/j.1468-0491.2004.00246.x.

Yildiz, M. (2007) 'E-government research: Reviewing the literature, limitations, and ways forward', *Government Information Quarterly*, 24(3), pp. 646–665. doi: 10.1016/j.giq.2007.01.002.

Yu, H. and Robinson, D. G. (2012) 'The New Ambiguity of "Open Government"', *SSRN Electronic Journal*, 178(2012), pp. 178–208. doi: 10.2139/ssrn.2012489.

Zola, D., Naletto, G. and Andreis, S. (2015) 'Web-COSI " Web COmmunities for Statistics for Social Innovation "', *Web-COSI " Web COmmunities for Statistics for Social Innovation "*, (610422), pp. 1–61. Available at: http://www.webcosi.eu/images/2015/09/Web_COSI_Deliverable3.6.pdf (Accessed: 10 April 2018).