



eGOVERNMENT

European eGovernment Research Network

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Executive summary

The objective of the Work Package 2 “Needs Analysis for eGovernment Research programme Management” (WP 2) has been to identify important needs that have to be considered in order to successfully strengthen eGovernment research management. This includes the needs underlying the current as well as the future eGovernment research programmes.

Knowledge and experience have been gathered during the prepared events (workshops, project board meetings, conferences etc.) in order to build a common understanding of the underlying needs and challenges to manage and successfully strengthen eGovernment research. A discussion on overall questions like: *What are the challenges, important research areas and RTD weaknesses to be addressed in terms of better management of eGovernment research?* has been deepened step by step. A list of needs for eGovernment research programme management has evolved.

Main problems of the eGovernment research and the most important challenges of eGovernment research programme that should be tackled by following project activities have been identified during the work on task T2.3.

eGovernment research areas that are best contributing to the eGovernment development and areas which, due to their complexity, need particular research programmes are important issues as well.

Prioritised list of needs regarding eGovernment research programme management has been prepared accordingly to the evolved list of needs presented in deliverable D2.1. Gathered needs presented in D2.1 were divided into seven categories. Needs within those categories have been prioritised to three time frames (3-5, 10 and 15 years) during which they should be realized. From the realization point of view, selected time frames coincide with European Framework programme for Research and Development.

The following categories have been defined for the purpose of the needs priority map:

- Needs regarding users – stakeholders.
- Needs regarding development of eGovernment.
- Needs regarding eGovernment researches.
- Networking, collaboration within eGovernment research programmes and dissemination of results.
- Knowledge, education, best practice of eGovernment research programme management.
- Infrastructure and organization for eGovernment research programme management.
- Strategy for eGovernment research programme management.

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1. Introduction

The objective of eGOVERNET work package 2 (WP2) "Needs Analysis for eGovernment Research Programme Management" (WP2) is to establish a forum for requirements analysis, knowledge exchange and experience of management needs underlying current and future eGovernment research programmes and to get an overview of research programme management needs mapped to different time frames.

Based on the prioritised list of needs presented in milestone M 2.2 "Need priority list established" and the summary of needs analysis Ws presented in deliverable D 2.1 "Needs Analysis Workshop Summary", this document aims at presenting the needs mapped to:

- main problems for eGovernment research programme management;
- challenges for eGovernment research programme management;
- key eGovernment research areas, with high impact on eGovernment development;
- different time frames.

The document will serve as a basis for further work within eGOVERNET project on consolidation of eGovernment research in Europe.

1.1 Background and description

Work package 2 addresses the research programme management needs that underlie future eGovernment research programmes in Europe. The purpose of this work package, together with Work package 3 (Building a knowledge service on eGovernment research programmes) – is to lay a solid foundation for the subsequent activities by identifying the stakeholders and their needs.

For achieving one of the goals of the eGOVERNET project, that is to create a framework for a common European eGovernment research agenda, it is clear that work must be based on the current situation in eGovernment research management, as well as the identified needs on short and long term. The framework should answer questions like: *How is research organised today? What we want? What we can do? and How can we achieve goals?*

The document aims at systematic review of collected needs for eGovernment research programme management.

In order to achieve and refine the input taken from stakeholders, a series of workshops and round tables have been arranged (see further deliverable D2.1 "Needs Analysis Workshop Summary" for further details).

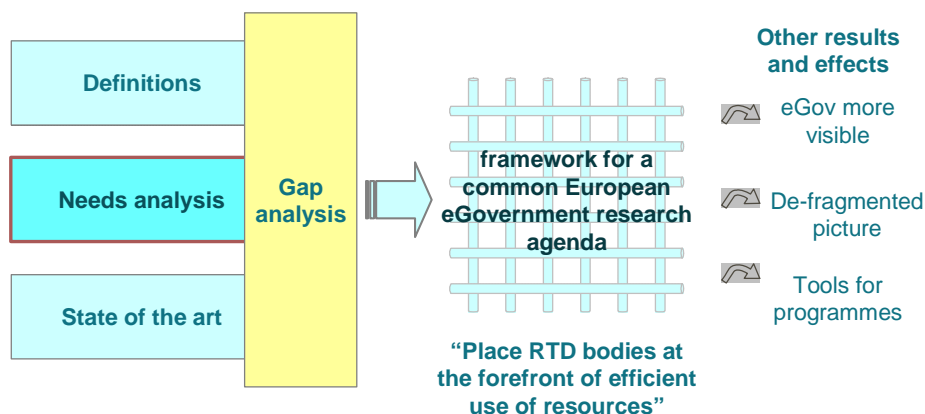


Figure 1: The needs analysis plays a vital part in strengthening eGovernment research management in Europe.

Today eGovernment researches are organized in many different ways. In general there is no central organization, which could have control over many different researches executed in the European Union. During the project, certain findings aroused, especially about deficiency in the field of collaboration between different institutions and organizations, which conduct researches. Often it occurs that academic researches are not useful for development and deployment of eGovernment. This results in many different needs regarding establishment of organization which should take care about eGovernment research programme management. Establishment of an organization like that would help to correctly establish and manage the eGovernment researches.

Research programme management needs analysis has a vital role for further activities of eGovernment research consolidation. All aspects of eGovernment research management have to be thoroughly assessed. Correctly analysed state of play alongside with exactly set short and midterm goals are a solid base for consolidation of eGovernment research at European level.

(Figure 1 will be further developed during the course of the project).

2. Main problems of the eGovernment researches

Government today faces three primary challenges:

- Delivering public services more quickly, efficiently, effectively, and flexibly.
- Transforming public services to offer what citizens want while keeping taxes down.
- Building trust and accountability with a sceptical and often cynical public.

The next phase of e-government transformation should put people and communities at the centre of new eGovernment of knowledge, service, trust, and accountability. We should redefine the role of government, find a way how to modernize the public sector, and how to strengthen democracy. These are far-reaching and difficult goals, achievable through understanding and making use of the transformation potential of ICT technology and interactive and networked information. There are a lot of problems and questions which need to be addressed by comprehensive eGovernment researches. This transformation and further development of eGovernment on a national and pan-European level will affect the people who work with and for governments, as well as the people for whom governments exist. In the light of difficulties of goals, eGovernment researches should have in further activities bigger and more important role than they have now.

eGovernment researches are often challenged by different problems, which are mainly a consequence of non-collaboration between different research organizations. The fact is that European Union comprises of 25 different countries, where every country is conducting their own researches; usually there is no collaboration between countries either. It happens too often that different countries perform similar project or researches.

During the examination of the documents, created while work progressed in the Work package 2, main problems of eGovernment researches were identified. Identified main problems are as follows:

- Fragmented governmental research activities.
Separated and unconnected eGovernment research initiatives and activities within government departments are common for many countries.
- Separated academic eGovernment research activities.
Academic eGovernment research projects can mistakenly be seen by a layman as a mere publishing of scientific articles. At the same time, there is a weak interaction between academic researchers, which both reflects in low applicability of the research results to public administration.
- Absence of appropriate organization and research management infrastructure for eGovernment researches.
An organization with mechanisms that would enable ordering, financing, managing and finally fostering use of the eGovernment research results is more or less exception in most of the countries.

- Distinction between academic researches and researches needed by public administrations and ICT industry.

In general there is a weak correlation between key stakeholders in eGovernment research landscape in terms of relationships among public administration, researchers, ICT industry and other interested parties (politicians, users of eGovernment services, etc.).

- Existing eGovernment researches have a weak correlation with eGovernment strategies.

Government officials are not aware of the fact that usage of eGovernment researches could contribute to quality of eGovernment considerably.

- Absence of long term eGovernment vision.

Public administration's lack of long term eGovernment vision results in initiating mainly deployment researches. Therefore there are not enough basic research projects, which could systematically support eGovernment development in long term.

- Lack of systematic needs identification for eGovernment research.

Absence of systematic needs identification is the reason for unsolicited eGovernment research projects from the point of view of a person commissioning researches. Consequentially research project results are not in accordance with needs regarding eGovernment development.

- Ensuring enough financial funds for research.

Low priority of eGovernment researches is often a consequence of unsystematic approach to eGovernment development. This reflects in low financial budgets dedicated to eGovernment.

- Ad hoc political decision regarding eGovernment development projects.

Political demands for fast results reflect in development of e-services with highest priorities in a very short time, as well as development of e-services easily adopted by public.

3. Challenges of eGovernment research programme management

Challenges of eGovernment research programme management are mainly emerging from identified problems described in Chapter 2. Question is arising: How should eGovernment research programmes be managed in order to solve problems in the field of eGovernment researches?

Awareness of challenges of eGovernment research programme management should be high in order to establish quality research programme management. From the point of view of research programme management, challenges are mainly connected with variety of relations with and between different types of users – stakeholders. It is necessary to distinguish users of eGovernment as a whole (that means end-users: citizens, businesses, public administration) from users of eGovernment research. Whereas the users of eGovernment research (directly) are mainly public administrations and IT companies. Users we are talking about can be grouped as following:

- Users of research results.

Users of eGovernment research results should be project leaders within the public administration who lead development projects of eGovernment. Users of research results should be developers of e-services for public administration, high ranking public administration officials and politicians as well.

- Users in the role of researchers – stakeholders.

Researchers are from academic, public and private organizations that conduct eGovernment researches.

- Users as research programme managers – stakeholders.

Research programme managers have a role of financers as well. In this combination, they are mostly from public administrations (both national and EU), they come from academic sphere and IT companies as well.

While collecting input for establishing state of play in the eGovernment research programme management landscape we realize that every type of user or stakeholder has their part in terms of common problems and challenges. Consequently, needs identified are closely related to government and public administrations, to researchers, to ICT industry and some directly to research programme management.

The most important of the identified challenges of eGovernment research programme management that should be considered, are:

- Understanding needs of different users / stakeholders of eGovernment research.
- Raising awareness among different actors on eGovernment research.
- Understanding legal and cultural constraints.
- Leveraging the involvement of various stakeholders.

- Leveraging technological advancement in terms of new information and telecommunications technologies, new business models, and open source principles.
- Socio-economic challenges (e.g. overcoming fear of mistakes and resistance to change, finding new models for eGovernment service provision, delivery and governance).
- Challenges at the EU level (coordination of the eGovernment programme and creation of pan-European public value).
- The development of pan-European services.
- Establishment of eGovernment research programme management infrastructure at national and European level.

4. Important eGovernment research areas

eGovernment researches are unsurprisingly very fragmented, since eGovernment is a complex, multi-disciplinary issue that deals with technological, socio-economic, political, legal, psychological and several other aspects that influence eGovernment in general and are embedded in each eGovernment service. The fact is that we are facing fragmentation in terms of eGovernment research management infrastructure, separated research projects and especially in overlapping of research themes. As a consequence, national eGovernment is developing in many different ways, not always caused just by national legal or other objective understandable reasons. There are too many cases of reinvention of wheels. Furthermore, first inceptive projects of implementation of pan-European eGovernment services shows strong demands regarding better collaboration between researchers, research teams, better cross-border cooperation, common development efforts and exchanges of best practice experience. Taken into life mentioned measures, national eGovernment could and should benefit also. One of initial steps on the new way to eGovernment development and effective implementation of pan-European eGovernment services should be a well-structured and coherent approach to eGovernment research.

The task of the following chapters is to identify the most important research areas in order to come to a better overview of existent and needed research. The following paragraphs divide eGovernment research areas into ones that are best contributing to the eGovernment development and areas which, due to their complexity, need particular research programmes.

4.1 eGovernment research areas that are best contributing to the eGovernment development

In the context of e Government research, several areas arise as vital for further development of eGovernment. They touch upon questions of greater provision of eGovernment services by key users, i.e. citizens, businesses and public administration itself, they focus on legal and technical barriers, platforms for intergovernmental collaboration, models of public-private-partnership and other key issues.

eGovernment research areas that are best contributing to the development in the field of eGovernment are presented in

Table 1 on next page.

Table 1: eGovernment research areas that are best contributing to the development of eGovernment

eGovernment research area (<i>What</i>)	Rationale (<i>Why</i>)
Research on users needs	User needs clearly emerge as one of frontrunner research topics that need to be addressed to achieve greater eGovernment provision.
Research on eGovernment interoperability framework	Interoperability as a crucial part for enhanced back office reorganization as well as seamless G2B and G2C delivery, especially in cross-border delivery of e-services.
Research on ICT	Multichannel delivery, accessibility enhancing technologies and fore coming technologies need to be taken into account, as well as electronic identification, interoperability and semantics that will generate further eGovernment development.
Research on effectiveness of eGovernment services	Reduced administrative burdens, increased user value and satisfaction and more inclusive public services are the pillars of eGovernment effectiveness, one of often stressed value drivers and goals of eGovernment.
Research on management support for sustainable eGovernment development	Experience shows that top-level governmental officials support is a critical success factor of any eGovernment project/programme.
Research on eInclusion regarding eGovernment	Provision of eGovernment services is impossible without thorough knowledge of its users – a distinctly diversified group with different needs, competences, access to ICT and motivation; a more distinct topic that addresses the accessibility of eServices.
Research on eDemocracy regarding eGovernment	ICT bring new possibilities that need to be explored in order to improve citizen-government interaction, commonly dubbed as eDemocracy and eParticipation.
Research on law	eGovernment – friendly legal framework is one of necessary preconditions; research on administrative burdens can improve subsequent eGovernment delivery.
Research on economics	Increased eGovernment funding requires analysis of its economic implications.

eGovernment research area (<i>What</i>)	Rationale (<i>Why</i>)
Research on socio-economics	Greater provision of eGovernment requires in-depth comprehension of user segmentation and their diversified needs.
Research on psychology	Psychological issues such as perceived usefulness and usage barriers, quality of interaction and users experience as a whole should be an integral part of eGovernment development.
Research on social science	Understanding the social implications of ICT and eGovernment and the way ICT transforms citizen-government interaction, is important for adequate approach to developing eGovernment services.
Research on public-private-partnership	Public and private sector should perform their “natural” tasks by exploiting their relative competitive advantages in providing better services for eGovernment users.

4.2 eGovernment research areas that need particular research programmes

Several areas of eGovernment research are extremely wide and complex and thus require special research programmes to adequately cover all aspects of a certain field, a task which one specific research project could not cover.

eGovernment research areas that need particular research programmes are presented in

Table 2 on next page.

Table 2: eGovernment research areas that need particular research programmes

eGovernment research area (<i>What</i>)	Rationale (<i>Why</i>)
G2C e-services	G2C significantly differ from G2B services from both supply and demand side.
G2B e-services	Questions such as usefulness of G2B e-services, cross-border delivery and alleviating administrative burdens deserve particular attention.
G2G e-services	Public administration is an important user of eGovernment, since back-office reorganization in public administration using ICTs is a key driver for cheaper and more efficient public administration.
Interoperability framework	Interoperability framework is inheritably a prerequisite for pan-European eGovernment, as well as seamless delivery on a national level.
eID	Several successful national approaches show the benefits for improved service delivery through electronic identification.
eInclusion	eInclusion aspects need to be explored to understand why e-services are not more commonly used, to understand user needs as well as several other socio-economic questions that have implications of eGovernment usage.
eBusiness	Understanding how to best exploit ICTs in providing public services.
eLearning	Accessibility of public education as one of public services can be extended using modern ICTs.
eDemocracy	ICTs can be an impetus for greater indolent of citizens and enhanced government-citizen participation.
eVoting	eVoting is a particular research area with accentuated issues of feasibility, security, deployment and accountability.

eGovernment research area (<i>What</i>)	Rationale (<i>Why</i>)
eCitizens	Encouraging citizens' involvement in decision-making and sparking evolution towards innovative models of eParticipation. Improving contact between public administration and the citizens.
Public-private-partnership (PPP)	PPP models, best, worst and learning practices deserve special research attention. Assessing the changing role of civil servants and of private organisations in the provision of e-government services.
Pan-European e-services	Pan-European e-services differ significantly from national, regional or local delivery of e-services from every aspect.
Knowledge development and transfer	How to accumulate and transfer knowledge is a separate and extensive issue.
Innovation in private sector	Private sector's inherited innovation capabilities can extend the frontiers of existing eGovernment services.
User needs	User needs once more arise as a complex and crucial inter-disciplinary research topic.
Trust and security	Trust and security are prerequisites for greater provision of eGovernment. Finding tools and methods for ensuring trust and security.
Collaboration	Collaboration within public administration, between stakeholders of eGovernment research is a critical success factor for eGovernment projects.

5. Needs priority map for eGovernment research programme management

During the workshops and roundtables a list of needs for eGovernment research programme management has evolved. There is a general consent between representatives for government, academia and industry that the items on that list are important. Some items are especially addressed to government and public administration, others to researchers and a few to the industry. Some of the items are directly related to research programme management. Others describe underlying structures and necessary requirements.

According to the list of needs eGovernment research programme management prioritised list of needs has been prepared. Effective needs priority map should consider rising needs regarding eGovernment research programme in the following areas:

- Needs regarding users – stakeholders.
- Needs regarding development of eGovernment.
- Needs regarding eGovernment researches.
- Networking, collaboration within eGovernment research programmes and dissemination of results.
- Knowledge, education, best practice of eGovernment research programme management.
- Infrastructure and organization for eGovernment research programme management.
- Strategy for eGovernment research programme management.

Needs in individual areas are divided into three time frames in which they should be realized:

- 3 – 5 years,
- 10 years and
- 15 years.

From the realization point of view, selected time frames should coincide with European Framework programme for Research and Development. Table 3 on the next page presents how time frame for realization of prioritised needs coincides with Framework Programme.

Table 3: Coinciding of the time frame for realization of prioritised needs with Framework Programme

Time frame for realization of prioritised needs	Framework Programme (FP)
3 – 5 years	Second half of FP 7 and first half of FP8
10 years	Second half of FP 8
15 years	First half of FP9

5.1 Needs regarding users and stakeholders

Political decisions and strategic directions of institutions dealing with information society development will in future rely more on research oriented towards understanding the demand side of services offered by the government. The impetus will come from identified needs of users and their preferences, which need to be rightfully incorporated when designing electronic services. Some research on this matter is already in progress.

In order to be clear from the start, the terms “users” and “stakeholders” should be clarified. The term “users” means users of eGovernment as a whole, namely citizens, business and government (or public administration broadly speaking). It should not be neglected that government is an important user of eGovernment, since business process reengineering in public administration is a key driver for cheaper and more efficient public administration. These are the main target groups and the actual users of eGovernment. Before building any eGovernment research agenda, we have to think about what we want the government to achieve. In order to design an eGovernment research it is imperative to have a vision and be normative, bearing in mind that the aims are delivering high-quality, user-oriented, effective and efficient services. To achieve these high-flying goals, eGovernment research is clearly needed. The term “stakeholder” herewith implies the organizations that are embedded in the cycle eGovernment research. In this manner, as stated in Chapter 3., three main stakeholders of eGovernment research can be identified, namely research programme managers, researchers and users.

User-orientation is what matters the most for eGovernment provision. However, research on eGovernment has thus far focused primarily on the supply-side of eGovernment and so has benchmarking of eGovernment success. If eGovernment is to become really user friendly and beneficial, strengthened efforts need to be put on the demand-side of eGovernment. In this light, several obvious research topics emerge and are described below.

When designing eGovernment services, it is of utmost importance to meticulously consider user needs - that is the needs of citizens, businesses and government. It is impossible to assess user needs without thoroughly knowing the users. In terms of citizens as users, a distinct typology of users needs to be explored. As is the case with inclusion in the information society, the same applies for citizens as eGovernment users. One has to satisfy the critical factors if he/she is to overcome the digital divide and fully exploit the possibilities

offered by information-communication technologies, i.e. to become an active part of the information society. In citizen's case, one needs to have access, competence and motivation to use information society services. Existing research implies that both users and non-users are highly differentiated groups and user needs are significantly versatile and need to be addressed accordingly. Furthermore, EU citizens, although in principle attracted by the possibility to contact public administration online, often feel that they do not derive any tangible benefits when compared to traditional delivery channels.

Groups that lack access require a completely different approach than groups that satisfy the access and competence factor, but lack the motivation to use eGovernment services. A significant eGovernment research area thus needs to look closely at these diverse socio-economic groups, if eGovernment is to be tailored to their needs and thus achieve greater provision of eGovernment services. Furthermore, existing research shows an important proportion and role of intermediaries, i.e. existing eGovernment users that use their knowledge and experience thus assisting non-users in the family or among friends in using services or actually acting on their behalf.

Once eGovernment services are developed they need to be monitored carefully in terms of usage, visibility, findability, perceived usefulness, and user satisfaction with existing eGovernment services and quality of the interaction. Further research topics that tackle user needs should for example target: mapping of non-users to common typology, needs for multi-channel delivery of services, diversification of user needs over time. An important topic that should not be neglected is the issue of eGovernment awareness and promotion, being an essential precondition for greater eGovernment provision, since one cannot use a service if he/she is not aware that it exists or is unable to find it. Further research needs to explore, which strategies work best and which should be additionally considered.

As is the case with citizens, user needs in terms of businesses and governments need to be further explored.

A closely knit research area that emerges as well is the development of benchmarking e-services, especially in terms of development of impact indicators. Better understanding of user stratification should gain fertile ground for improvements in understanding what to measure and how to measure it.

Prioritised list of needs regarding users and stakeholders

Identification and definition of users and stakeholders of eGovernment researches is very important and should be accomplished during the first time frame (3 to 5 years). eGovernment is intended to be used by users and stakeholders therefore their identification and definition is the key issue for developers and researchers of eGovernment. Prioritised list of needs for the first time frame is based on needs that should be realized through researches.

Activities in the second time frame (10 years) should be focused on promoting users' and stakeholders' role and participation in development of eGovernment. Users and stakeholders should be included into development of eGovernment.

Researchers should be aware of all needs users might have for the eGovernment at the end of the last time frame (15 years).

Table 4: Prioritised list of needs regarding users and stakeholders

3 – 5 years	10 years	15 years
To identify stakeholders and key stakeholders. The term “stakeholder” should include citizens, businesses and public administrations. Stakeholders are also funding agencies/organizations.	To promote the active role of the citizen: do not reduce the role of the citizen to his/hers needs (in the building of the society).	To finance and coordinate stakeholders / citizens needs. The results should be published publicly.
To identify groups that cannot benefit from eGovernment services but they require special measures to be taken (eInclusion of eGovernment).	To match stakeholders with relevant research programmes (More possibilities to be funded than in traditional RTD programmes alone).	To define helpful and realistic targets in terms of benefit for different stakeholders (What is the impact and result of eGovernment implementation and research?).
To create consensus about research/identification of benefit to the stakeholders.	To widen the area of “user needs”.	
To identify users need. These needs are not constant, they vary over time. Some times the user does not even know that would benefit from a service. Many things are regulated determined by the framework.		

5.2 Needs regarding development of eGovernment

eGovernment has been an important strategic priority in European strategies for developing information society throughout the eEUROPE Action Plans and remains one in the i2010 strategic framework. The Manchester Ministerial Declaration on eGovernment (November, 2005) clearly sets eGovernment priority fields within the i2010 strategic framework:

- No citizen left behind – inclusion by design
- Using ICT to make a reality of effective and efficient government
- Delivering high impact services designed around customers’ needs
- Widely available, trusted access to public services across the EU, through mutually recognized electronic identifications.

It is perceivable that eGovernment will play an important role in subsequent strategic documents as well. If the goals set are to be achieved, several efforts need to be put into examining the status and satisfying the needs of eGovernment.

Examining the status of eGovernment in European countries or - eGovernment benchmarking - has been on-going almost since the term eGovernment had first been coined. In 2001, the first wave of European-wide eGovernment benchmarking, financed by European Commission and carried out by private investigators, has been carried out. Several private and academic initiatives have been evolving as well, mainly focusing on global comparisons trying to determine the most successful practices in eGovernment development. As is the case in other fields of information society benchmarking, the area of eGovernment benchmarking needs to constantly evolve, taking into account rapid developments of information and communication technologies and their provision. Current European eGovernment benchmarking has focused on supply-side of eGovernment by investigating the availability and sophistication of basic G2B and G2C eGovernment services. Clearly, several other important areas need further investigation. If one is to examine the status of eGovernment in European areas, it is crucial to negotiate a set of indicators that will measure other very important aspects of eGovernment development, among others:

- Back office restructuring (G2G)
- Efficiency and efficacy of eGovernment services
- Impact of eGovernment
- Demand-side aspects.

Some specific research projects, such as eGEP and eUSER for example, have already tackled these issues; however, consolidation in this area is necessary.

Prioritised list of needs regarding development of eGovernment

Establishment of different research programmes which will answer to questions like *What is the status of eGovernment in different countries? How to formulate different research programmes?* etc. is necessary in order to develop a successful eGovernment on the whole European area. Realization of all the demands should be complete in 15 years time frame.

Table 5: Prioritised list of needs regarding development of eGovernment

3 – 5 years	10 years	15 years
To examine the status of eGovernment in various countries		
To establish more applied eGovernment research programmes.	To formulate eGovernment research programmes.	To establish basic eGovernment research programmes.
To define clear indicators on how research on eGovernment can make a difference.		
To establish benchmarking principles and impact indicators.		
To establish measures for eGovernment future assessment and comparison.		

5.3 Needs regarding eGovernment researches

Many different needs arise in correlation with eGovernment researches, which should be considered during the establishment of eGovernment research programme management. Researches represent a tool which is used to prepare different arena where different players of eGovernment development meet. Researches are contributing to knowledge spreading as well.

Distinction between academic researches and researches needed by public administrations and ICT industry is often an issue. Good definition of demands regarding execution of researches and demands of research users is reasonable because this could prevent differences between the research results and what client commissioning the research needs.

Prioritised list of needs regarding eGovernment researches

During the first time frame (3 – 5 years) it is necessary to find out what kind of researches are needed, to define research activities, priorities and responsibilities between performers of the researches etc.

During the second time frame (10 years) and the third time frame (15 years) different researches must be accomplished. Those researches should relate to different research areas and will establish foundation for future development of eGovernment in Europe.

Table 6: Prioritised list of needs regarding eGovernment researches

3 – 5 years	10 years	15 years
To put users' needs as a research topic to gain more information about user behaviour and needs.	To conduct cross-disciplinary researches; a strong link with public management research.	Action-oriented researches where researchers take part in the development process.
To clearly identify where and what kind of research is needed so that results correlate with the needs of the users (different needs for different users).	To conduct researches on following research areas: <ul style="list-style-type: none"> • Public Private Partnership and business models • Interdisciplinary researches. • Public management researches (differences in societal structure) • Researches on organizational change • Basic researches • Action oriented researches. 	To establish research driven towards useful results.
To focus the researches on e-services for the citizens, not public sector e-services. The user does not often care if it is a public or private provider.	To conduct research on social aspects before a technical encounter (for example: the ICT picture in media or our relationship with technology).	To cover the whole picture with the research.
To find out how research results are implemented in practice; how to develop a will to change and make use of opportunities.	To establish theory generation research (=basic research), not only applied research. A combination is needed.	
To divide research activities and responsibilities.	To chose one research area for European co-operation.	
To define research priorities.	To conduct researches on cost effectiveness.	
To establish links with public management research.	To carry out researches which are solid enough to build on in future projects.	
To consolidate research activities.		

3 – 5 years	10 years	15 years
To balance research and development.		

5.4 Networking, collaboration within eGovernment research programmes and dissemination of results

It is usual that there is large number of people cooperating while carrying out extensive and complex researches. It often happens that those people come from different institutions and organizations (such as public administration, private sector, industry) sometimes even from different countries. It is of great importance for researchers to have an effective tool which is designed for collaboration, sharing and dissemination of results. Construction of a central European research network or connection of existing research networks into one central research network represents such a tool for collaboration, sharing and dissemination of results.

People interested in eGovernment researches and their results would be able to follow all the researches at one place regardless whether the research has been completed in the past or it is still in progress.

In order for innovations to be introduced, there must be cooperation and more open communication between the public sector (purchaser) and private companies (vendors).

Prioritised list of needs regarding networking, collaboration and dissemination

During the first time frame (3 – 5 years) a united and coordinated research network should be established. Researchers and other interested people would use this network as a tool to share and disseminate experiences, research results and acquired knowledge with each other.

During the second time frame (10 years) collaboration between researchers, public administration and industry should be encouraged and increased.

During the last time frame (15 years) ties between researchers, public administration industry and other users should be strengthened. This represents the only way to establish real time project across boundaries.

Table 7: Prioritised list of needs regarding networking, collaboration and dissemination

3 – 5 years	10 years	15 years
To integrate existing national eGovernment programmes.	To create coherent national eGovernment RTD programmes.	To establish eGovernment European Research Area.
To establish a network for sharing and disseminate knowledge and experience between projects and users.	To collaborate between researches, public administration, public agency, funding bodies and industry.	To strengthen different networks between researchers and between researchers, government and industry.
To coordinate existing European networks. Choose one eGovernment research area for European cooperation.	To collaborate through networking administrations.	To establish “real” [on the market] project across boundaries.
To improve skills – exchange of knowledge between eGovernment research and public management.	To group researchers and create collaboration within common projects.	
	To compare and spread widely ‘best practice’ research programmes.	
	To establish networks between researches and users.	

5.5 Knowledge, education, best practice of eGovernment research programme management

Existing mechanisms for knowledge management which shall support the share of eGovernment experiences, good practices, lessons learnt and information are still not efficient enough and are limited in their effectiveness by being project-based. It is important to improve the knowledge of organisational learning and changes within the public sector. These include changes resulting from new theories of action and new ways of thinking within the organisations. In addition methods for analysing the benefits of public sector e-services must be developed.

Prioritised list of needs regarding knowledge, education, best practice

During the first time frame (3 – 5 years) researchers should clarify terms used in correlation with knowledge, education and use of best practice. Activities which will support better awareness about importance of education and its influence on development of eGovernment and development of eGovernment research programme management. Besides that more civil servants in public administration should have higher education (PhD).

Identified needs show that during the second time frame (10 years) more attention should be intended for development of educational programmes in the field of eGovernment and for usage of best practices in different areas.

During the third time frame (15 years) appropriate methods for knowledge transfer should be assured. Knowledge acquired from different researches of NGO and private researches must be transferred to all areas covered by eGovernment researches. Knowledge should be transferred among different countries as well.

Table 8: Prioritised list of needs regarding knowledge, education, and best practice

3 – 5 years	10 years	15 years
To clarify terms used.	To develop educational programmes in the field of eGovernment.	To establish knowledge transfer from research on NGO and private to all research areas and between countries as well.
To employ public servants as PHD students (a European concern) and to assure the exchange of PhD students.	Best practice and pilot projects showing useful and practical experiences (transfer of knowledge).	To assure higher education including research and working life (important part of eGovernment RTD).
To emphasize and clarify the importance of education as one among other means to push the development forward.	To use best practices: <ul style="list-style-type: none"> • on systems of governance and processes; • as a base for methods development. 	To develop techniques / possibilities for man / organizations to use knowledge / experience from other stakeholder than regional and local authorities (methods for knowledge transfer).
	To establish knowledge development within the agencies, using public servants as PhDs. Financial support from funding bodies is needed.	

5.6 Infrastructure and organization for eGovernment research programme management

The Lisbon agenda as well as the i2010 strategy foresee single access points to reach all public agencies. Therefore, different ICT systems need to be seamlessly networked together, in particular new innovative systems that shall exchange data interoperable with older ICT systems and applications. ICT research shall emphasize new forms of dynamic networked co-operative business processes and optimised work organizations.

Not many countries in EU have established central organization which would take care entirely of researches, their management, financing and dissemination of results acquired during the research. Absence of such infrastructure for research management is one of main problems arising with research programme management. It often happens that the client ordering research does not know how to employ a researcher. And vice versa the researcher does not know how to sell research to a client.

Central management must be more clearly defined. In many cases, this is an urgent requirement, in particular with regard to infrastructure/standards, the orientation around the needs of citizens and collaboration between different organisations within the public sector, and between the public and private sectors. This central body must be able to make decisions (and not just discuss issues and make recommendations). It must also be able to allocate financial resources to measures covering the whole public sector.

Prioritised list of needs regarding infrastructure and organization for eGovernment research programme management

According to identified needs, during the first time frame (3 – 5 years) establishment of appropriate infrastructure and organization for eGovernment research programme management is necessary. Such infrastructure will offer all information regarding researches in one place. Definition of eGovernment research landscape, need of knowledge and information from different user groups and discussion of the law problem is necessary as well.

During the second time frame (10 years) flexible information systems should be developed which will be able to adjust to constantly changing conditions in the field of eGovernment researches. Political support for execution of researches should be assured, wide, contextual socio-economic environment within societies and organizations should be understood and responsibilities regarding eGovernment research programme management should be divided.

During the third time frame (15 years) centres of excellence should be established, new e-services developed, European research collaboration stimulated and financing possibilities cleared.

Table 9: Prioritised list of needs regarding infrastructure and organization for eGovernment research programme management

3 – 5 years	10 years	15 years
To establish single point of contact with government/policy organizations. The users should not be aware of which PA is responsible for the relevant service.	To develop flexible information systems that can adjust to partly unknown and constantly changing conditions.	To establish centres of excellence.
To establish organizational infrastructure for eGovernment research.	To identify what services are most suitable for a win-win situation.	Different structures of public administration demand different e-services.
To map the eGovernment research landscape. The field of research is rather new and multi-disciplinary and it is not altogether easy to track down all research programmes.	To politically support research and organizational commitment to eGovernment strategy and policy. Strong political support is needed from local and regional municipalities as well as at national level.	To establish e-governance on a political science perspective.
To map the need of knowledge / information from different user groups (different groups, different times in life, etc.). Look at different ways to address these problems e- and non-e solutions.	To understand the wide, contextual socio-economic environment within societies and organizations. Different countries have differently organized Public Administrations and different practices and require different research programme management.	To stimulate European research collaboration.
To discuss the problem of law formation and legal aspects. E-services are recommended by the government, but laws and rules are sometimes counteractive and difficult to change.	To define how necessary resources can be allocated to back office. This is necessary, if research results are to be implemented.	The options and opportunities of financing should be clear and visible (the need of participation of different sciences).
	To divide responsibilities: who is doing what in relation to eGovernment research management – government, academia and industry.	

5.7 Strategy for eGovernment research programme management

Established infrastructure and organization for eGovernment research programme management is not enough. Beside infrastructure and organization there should be a strategy for eGovernment research programme management which is very important as well. Strategy execution will direct eGovernment research programme management towards success using predefined steps.

Prioritised list of needs regarding strategy for eGovernment research programme management

During the first time frame (3 – 5 years) definitions of eGovernment research areas should be clarified, long term strategies and e-services should be defined.

Promotion and further development of eGovernment should take place during the second time frame (10 years).

During the last time frame (15 years) a consolidation of all eGovernment research programme is needed as well as review of legal frameworks.

Table 10: Prioritised list of needs regarding strategy for eGovernment research programme management

3 – 5 years	10 years	15 years
To clarify research areas – a satisfactory definition of eGovernment research that takes into account the multidisciplinary character of the field.	To promote eGovernment opportunities, by governments, public administrators and others.	To evaluate models supporting the structure that we need.
To define long-term strategies.	To continue competence development.	To define legal frameworks and to eliminate legal barriers.
Definitions of e-services should not be too narrow. The citizen perspective is very important, but a wide and including eGovernment definition is preferable.	To ensure efficiency of administration systems and efficient use of resources.	Different countries (with different systems of governance) set the agenda on what services are needed.
	To make benefit from commercial e-services.	
	To define longer time perspectives of projects.	
	To send important signals to the politicians. This will give better opportunities to get the budget.	To visibly finance eGovernment on a European level.

3 – 5 years	10 years	15 years
	<p>To define common European eGovernment research agenda.</p> <hr/> <p>To define how to visualize business opportunities in order to attract content providers.</p>	

6. Conclusions

Finalization of delivery “D2.2. - *eGovernment research programme management needs map*” represents the realization of the Work Package 2. During the work, knowledge and experience have been gathered; needs and challenges to solve for successful eGovernment research programme management have been identified.

This document presents a systematic review of collected problems, challenges and needs for eGovernment research programme management.

An established priority needs map has a key role at conducting a gap analysis (WP3) and for further activities on eGovernment research consolidation, where all eGovernment research management aspects should be thoroughly assessed. Correctly analysed state of play alongside with exactly set goals are a solid base for consolidation of eGovernment research that will lead in perspective to a common framework for eGovernment research programmes at EU level.

7. Attachments

eGOVERNET doc2.2 Need Priority List Brussels..doc

eGOVERNET M2.2 Need Priority List established..doc

eGOVERNET D2.1 Needs Analysis Workshop Summary.doc

8. References

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