

EUReGOV:  
*Innovative and  
adaptive pan-  
European services  
for the citizens in  
2010  
and beyond*

INCEPTION REPORT

RAND Europe

UNU-MERIT

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## Summary

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New forms of government services delivery and governance through electronic means have developed rapidly in the last years. The European Commission (EC) and the EU Member States, as well as local and regional authorities have been actively supporting the development of eGovernment covering all areas of public sector activity in Europe.

The key objective of this study is to help develop a vision on European eGovernment policy initiatives and to provide the EC with tools to help identify a number of high impact innovative and adaptive eGovernment services that are or can be delivered at a pan-European scale and which should be designed to be adaptive to various contexts and to continuous societal and technological change. For this the study will undertake a mapping exercise to lay out the current state of play, trends, barriers, drivers, and user requirements, for the next 10 years. We will check findings and theory against a rigorous selection of real life case studies. Furthermore we will develop a generic model for sustained innovation, which we will test against a theoretical model of adaptive decision-making. The project will also develop a measurement framework and composite indicators to assess the impacts of such services, in order to determine the ‘business case’ for their development. The final deliverable will be a strategy for determining, designing and developing pan-European eGovernment services, accompanied by a roadmap for their implementation.

Policy development at the level of the EU takes place in the context the policy framework of i2010. Within i2010 the recently adopted eGovernment Action plan will be the reference point for this study. In this action plan the bullet points of ‘high impact services’ and ‘efficiency and effectiveness’ are of particular interest.

The i2010 high level group and the eGovernment sub-group, including a number of ad hoc groups (e.g. e-Inclusion, e-Identity Management) form the governance structure of the EU’s endeavours to strengthen eGovernment through studies, benchmarking, best practice exchange and pilot project. A number of Commission DGs are actively involved, with DG INFSO as central coordinator of eGovernment activities and responsibilities for eGovernment research and strategy. Other DGs also have important strategic functions, like DG JFS in exchange and retention of personal data for security and law enforcement purposes; and DG Enterprise runs IDABC, which develops and manages a number of pilots, a shared infrastructure and the European Interoperability framework. Other DGs have thematic interests like Employment, SANCO, etc. The project is aware of this policy and governance context and will work with these parties in preparing the deliverables, in order to achieve the necessary buy in for increasing the project’s impact.

An expert working group of academics and stakeholders from MS and EU will be a sounding board for the project and a dissemination platform for the project’s outputs. It will be supported by a dedicated website and a range of dissemination activities. The project will actively cooperate with existing projects and studies to increase relevance, continuity and efficiency of EC endeavours in this area.



## CHAPTER 1 Project outline and guidelines

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The kick off meeting on June 19 inspired new ideas on the conduct and purpose of the project. In light of the common understanding of the European Commission, and the project team adjustments will be made to the original proposal. Here below we describe the main conclusions of the meeting and their effect on the conduct of the study. Chapter 2 will give a detailed description of the research approach and how it will be adjusted to address these requirements

### 1.1 General guidelines for the project:

1) Context: This project should be seen within the framework of the eGovernment action plan and the 'High impact services' and Efficiency and Effectiveness of eGovernment in particular.

2) Goal: Create a pan-European vision for the future of European e-Government initiatives;

3) Objectives:

- Making the business case for pan-European (innovative, adaptive) services as part of the European competitiveness agenda.
- Develop a sound method for determining what the key (high impact) services are on which it should focus in developing its eGovernment policies.
- Increase understanding of pan-European eGovernment services and their importance among new actors.
- Contributing 2 composite indicators on impact and an impact assessment framework for pan-European eGovernment services.

4) Form: The study is not an academic piece of work, and will deliver concrete outputs. The number of deliverables may be reduced to concentrate of delivery of the central objectives.

4) Synergies: The team will be pragmatic and build on work already available and to seek for synergies with other projects where feasible and effective. For example: coordinate selection of experts and case studies; presence at conferences, work shop timing.

### 1.2 Specific guidelines

1) Definitions (WP1): The project will define key concepts up front:

- Innovative (design, process, delivery, outcome)
- Adaptive (transferable, adjustable, flexible)
- Pan-European (cross border, Trans-European, pan-European)
- Services (transactional, decision making support, etc.)

2) Case studies (WP2): Selection of case studies will be related to the themes of the eGovernment Action Plan

3) Timing (WP3): Early in the project, but no later than March '07 the project will present composite indicators on impact and readiness to inform discussions on the eEurope benchmark indicators for 2008.

4) Communication/dissemination:

- The website will be developed in the first months of the project and all files and capabilities will be transferable to the EC eGovernment website.
- Brochure for the project will be produced - following the EC design example – in a low cost folder format, containing basic information and contact details.
- Communication plan: distributing results and engaging/informing the stakeholder community.
- All presentations will conform to the EC eGovernment style incorporating relevant logos

### 1.3 Lay out of the project

The essential elements of activity in the study are proposed as follows:

1. Define concepts. Establish the state of play, likely future developments (drivers, enablers, barriers, etc), in the development of pan-European eGovernment services, also taking account of the political context (e.g. autumn 2007 eGovernment conference in Portugal). Who and what are the key drivers? Provide first indication of the likely high impact services that could be rolled out at a pan-European level? (WP1)
2. Identify a long list of 12 and a short list of cases and conducting 6 (may be less) case studies; describing what the key services should be; find effective examples and study their essential features, the motivations of key actors and to build the argument why the EC would develop these services and how they can be made 'pan-European'. (WP2)
3. Develop an impact assessment framework to build the business case for developing these services. (WP3)
4. Design measurement tools to track progress and measure impact: develop composite indicators on readiness and impact (WP3)
5. Ensure adaptability and transferability of these services and their implementation solutions across Europe and between different layers of government (i.e. interoperability issues, adaptability to new information, trends, technology) – EC will clarify further what it means exactly with adaptability (WP4)
6. Disseminate project outcomes to encourage wider buy in and ownership from stakeholder community (WP5)

## CHAPTER 2 Approach

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### 2.1 Overall Objective

This study will help develop a pan-European vision for the future of European eGovernment and provide the necessary tools to help identify a number of high impact innovative eGovernment services that are or can be delivered at a pan-European scale and which are adaptable to the various different socio-economic and cultural contexts and to continuous societal and technological change.

Specific objectives are

- Identify current and future needs, trends, barriers, drivers in pan-European and cross-border eGovernment services for citizens
- Identify key services and support the design of appropriate policy and R&D strategies for developing these services at pan-European level
- Develop composite indicators and an Impact Assessment Framework to help build the business case for developing these services and to inform the policy debate (readiness, impact, prioritization)
- Facilitating decision making concerning support for the development of pan-European adaptive and innovative services, addressing interoperability and other specific challenges in an iterative and continuous manner

### 2.2 Overall Approach

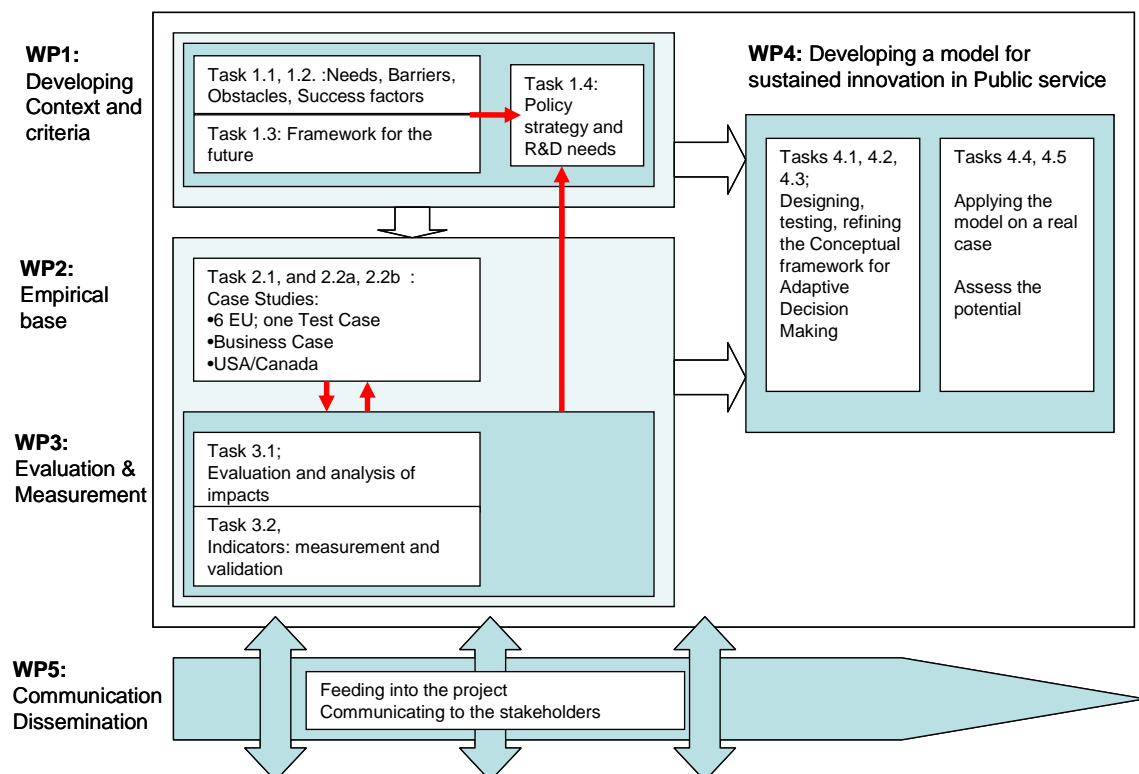
The Terms of Reference lists a large number of required deliverables. Identifying the main priorities of this study is important for focusing the work in the complex and potentially broad field of research. The RAND Europe/UNU MERIT project team envisions the project as having 5 central deliverables that support each other and are stand alone outputs of the work. These main deliverables of the study will be:

1. Report on validated key critical success factors, drivers and barriers for the development of innovative pan-European eGovernment services
2. A set of best practice case studies including a method of transferring best practice to other contexts: areas, organisations
3. A framework of measuring the success and impact of innovative eGovernment services
4. 2 composite indicators for measuring impact and readiness

5. An ICT supported governance model that would allow for sustained innovation in eGovernment services and which would bring eGovernment to the next level of development

The subset of objectives, activities, and outcomes will be addressed in subsequent sections. These will be implemented through 4 work packages. 2 Additional work packages are concerned with dissemination and overall management of the project

To deliver the 5 main deliverables the various Work Packages (WPs) are required to closely cooperate and to coordinate their activities. Various feedback loops between WPs will validate and inform the final deliverables of the project. The following diagram represents this interplay.



WP1 provides the context. WP2 gives the empirical base. Both are validated and abstracted in WP3. WP4 will be the culminating part of this study where our current understanding of best eGovernment practices is tested against a theoretical model of adaptive decision-making, which would allow decision makers to act effectively in the new policy environment. This new governance and decision making model or approach will be applied to a carefully selected case study to test its effectiveness. It could be supported by the newly designed EBISI knowledge base of DG Info, depending on the adaptability of its design. All inputs from WPs will feed into a strategy for the development of pan-European eGovernment services.

All along the project we will be drawing on an expert group of representatives of the scientific community and government, but also representing key user groups and component manufacturers and designers. This group is at the same time a knowledge resource as a dissemination platform to the various constituencies. Other communication and dissemination actions – like a website, workshops, participation at

conferences, publications etc. - will draw knowledge into the project and engage stakeholders.

## CHAPTER 3 Detailed Work Plan

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### 3.1 WP1: mapping of pan-European eGovernment: identifying and assessing current and future needs and challenges

#### 3.1.1 Objectives

The specific objectives of this work package are:

- 1) Define concepts:
  - Innovative
  - Adaptive
  - Pan-European
  - Impact
- 2) Map pan-European eGovernment developments: establish the state of play
- 3) Identify elements (drivers, enablers, barriers, trajectories, etc) in the development of pan-European eGovernment services, also taking account of the political context (e.g. autumn 2007 eGovernment conference in Portugal). Who and what are the key drivers?
- 4) Instantiate the developed understanding of success factors, drivers and barriers by existing examples, analyse existing forward-looking scenarios, and develop foresight issues
- 5) Deliver a strategy for the development of innovative adaptive pan-European eGovernment services, including R&D requirements

#### 3.1.2 Approach

Task 1.1, Mapping the domains of innovative eGovernment Services: Define the basic concepts (innovation; impact; 'pan-Europeanness'; adaptability) and create from this the basic framework for analysis, initially to assist in selection of case studies and subsequently for use throughout the study. Expand this into a full understanding of high impact services (impact on citizens; financial models; socio-economic benefits; impacts on European integration and the internal market, etc.?).

Task 1.2, Critical Success factors: Expand issues concerning drivers and barriers (including particularly political drivers, new financial/organisational models etc), facilitators, impediments and forces shaping different trajectories, based on specific public services, crosscutting functions (e.g. procurement, planning and budgeting, consultation), etc.

Task 1.3, A Framework for the future: Develop future perspectives (including the review of existing scenarios for the future) and instantiate the critical success factors from Task 1.2. by reference to existing possibilities.

Task 1.4, Developing Support for Strategy: Synthesise the outputs from WP1 with the progressive incorporation of outputs from WP2, WP3 and WP4 into a full report (with recommendations) on policy support for the optimal development of this sector.

3.1.3 Interplay with other WP's

WP1 will lay the conceptual foundations for the rest of the project. It provides the selection criteria for the case studies in WP2 and the building blocks for the Impact Assessment Framework of WP3. The definitions given in WP1 define the parameters of WP4 ADM model. In turn all WPs contribute to the final deliverable of WP1, i.e. the strategy report.

3.1.4 Deliverables

Intermediate deliverables

- 1) State-of-Art in Innovative Pan-European e-Government Services
- 2) Critical Success Factors in Innovative Pan-European e-Government Services
- 3) A Framework for the Future of Innovative Pan-European e-Government Services

Final deliverable

- 1) Strategy for the development of innovative adaptive pan-European eGovernment services and R&D requirements

3.1.5 Timing

WP1 tasks starts its substantive work in July 2006 and will be finalised at the end of the project as it will deliver a final output, which is the strategy paper on the development of pan-European Innovative Adaptive eGovernment Services. This paper draws on all inputs and intermediary deliverables of the WPs.

<b>Task</b>	<b>Period</b>	<b>Activities</b>	<b>Events</b>
1.1. Defining concepts, taxonomise state-of-play	July 2006 - October 2006	Literature review, interaction with expert group	
1.2. Defining critical success factors, drivers and barriers	September 2006 – December 2006	Analysis of literature key informant interview	Expert Workshop (end October 2006, likely to coincide with e-Challenges conference in Barcelona)
1.3. Future perspectives and foresight issues, instantiate criteria	November 2006 – January 2007	Analysis of existing scenarios and workshop inputs	
1.4. Developing support for strategy	December 2006- April 2008	Analysis and compilation of all WP inputs and intermediate	Final Workshop (May 2008)

		deliverables	
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### 3.2 WP2: Case study analysis of high-potential eGovernment services, analogies of ICT-use in other sectors, and innovative eGovernment services in the United States

#### 3.2.1 Objectives

The main objective of this work package is the identification and examination of high-potential eGovernment services, with special regard to such services that are provided on pan-European level or that are provided on local, regional, or national level, but have the potential to be extended to a higher or pan-European level.

The proposed study will examine the key success factors of high-potential eGovernment services, the barriers that must be overcome and the lessons that were learned in the course of implementing these services and expanding their scope, and the future plans and possibilities for these services, as well as the motivational factors driving the main actors.

A comparison of particularly advanced and successful high-potential pan-European eGovernment services with eServices provided in the private sector and eGovernment services in the United States and/or Canada will reveal information on the competitiveness of pan-European eGovernment services and give suggestions for their potential further improvement.

#### 3.2.2 Approach

##### Task 2.1. Surveys and case studies of high-potential European eGovernment services

- I. Development and test of research instruments
- II. 3 Step approach to identification and selection of cases that are already or (may) become pan-European in future (using IDABC database and eGovernment Best practice web site)
  - 1) Step 1: Classification of available cases: a) already or intended to become pan-European, b) potentially pan-European, c) unlikely to become pan-European. There are at least four types of eGovernment service that have a cross-border dimension:
    - *Services for cross-border users*: those government-services that should be open to users in other Member States, in order to enable European labour force mobility.
    - *Services for information exchange between Europe's public administrations*: those government e-services that require access to information held by public administration in another Member State, such as in the area of transport, crime, or taxes.
    - *Services involving information cascades for citizens and enterprises*: life event processing aims to eliminate or significantly reduce the burden on the user of dealing with multiple administrative bodies by ensuring that a single event captures all the necessary user-related information.

-*European-level services*: already there are some government e-services available at the European level; these are e-services often provided by European institutions, agencies or other international public sector organisations. The services of the European Commission are one of the main examples of this.]

Apart from this classification, we will also refer to classifications that turned out to be useful in other projects on eGovernment, e.g. we will distinguish between legally enforced vs. not legally enforced services and between information services (one-way, anonymously), communication services (one- or two-way, formal identification needed), and transaction services (two-way, formal identification needed), as proposed by the eUser project.

- 2) Step 2: Selection of innovative, adaptive and high-impact pan-European eGovernment services for the case studies: As described in the overview section and in WP1, the project will define a number of criteria by which a decision for the selection of eGovernment case studies can be made. A good part of these criteria will derive from the i2010 eGovernment action plan of the European Commission and similar publications, another part will derive from other research projects in the fields of eGovernment, and a part of these criteria will be developed by the project team.

Building up on the sampling frame developed in WP1, WP2 will develop a set of more detailed criteria for the case study selection within each of the three dimensions of the sampling frame. With regard to our demand to focus on eGovernment services that are already “flagships” (in the sense of the eGovernment action plan of the European Commission) as well as on eGovernment services that bear the *potential* to become such flagships in future, the criteria must not be seen as requirements that have already been met by the eGovernment services under scrutiny. For being selected as a case study it might be sufficient if an eGovernment service will meet these requirements in the near future. In addition, eGovernment services must not meet all the requirements, they only have to reach an outstanding score in all three dimensions of the sampling frame; i.e. they must be extraordinarily innovative, have a strong impact, and show a strong degree of adaptability on pan-European scope.

Which factors determine the three dimensions of the sampling frame is explained in the following:

#### Innovation

The first step in order to estimate the innovativeness and readiness of a service is to classify relevant services in terms of the stage model developed by Capgemini for its study of the online availability of public services in Europe.<sup>1</sup> An example of this classification (income taxes) is provided below:

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1 [http://ec.europa.eu/information\\_society/soccul/egov/egov\\_benchmarking\\_2005.pdf](http://ec.europa.eu/information_society/soccul/egov/egov_benchmarking_2005.pdf)

## Definition of the public service

Income taxes: declaration, notification of assessment

### Research definition

<b>Stage 0</b>	The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.
<b>Stage 1</b>	The information necessary to start the procedure to declare income taxes of an employee is available on a publicly accessible website managed by the service provider or by the administrative responsible level.
<b>Stage 2</b>	The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare income taxes of an employee in a non electronic way.
<b>Stage 3</b>	The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare income taxes of an employee.
<b>Stage 4</b>	The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of income taxes of an employee via the website. The complete income tax declaration and notification of assessment can be treated via the website. No other formal procedure is necessary for the applicant via "paperwork".

Source: Capgemini 2004, p. 47.

Beyond this general classification, following criteria will be used in order to evaluate the degree of innovativeness more precisely:

a. Technology

- i. old vs. new technology
- ii. level of security
- iii. maintainability
- iv. standards

b. Procurement innovation

- i. degree to which public procurement has an impact on innovation and / or new technology (spin-offs)
- ii. degree to which procurement procedures have changed

c. Knowledge transfer

### High Impact

Though this term is widely used and has gained importance in the discussion of eGovernment services, there is no clear-cut concept of what "high-impact" eGovernment services are. A very broad definition that may serve as a starting point to approach this problem has been provided by the eGovernment Working Group in 2004: "high impact services are services with a large number of customers, high frequent delivery and requiring much administrative work".<sup>2</sup> The Commission's i2010 eGovernment Action Plan does not provide an explicit definition of "high impact key services for citizens and businesses", but highlights a number of features that go beyond the eGovernment Working Group's definition and substantiate it: high-impact services are delivered across borders, mobilise top-level commitment, create substantial demand for key enablers such as electronic identification and interoperability, and achieve a measurable impact through widespread usage. The action plan also mentions

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2 [http://e.gov.dk/uploads/media/e-gov\\_report\\_for\\_DG\\_meeting\\_vs\\_10\\_nov.doc](http://e.gov.dk/uploads/media/e-gov_report_for_DG_meeting_vs_10_nov.doc)

inclusion and participation as aspects of *democracy* that are fundamental elements inhering in these services.<sup>3</sup>

Conclusively, we will use following criteria for measuring the impact of eGovernment services:

a. Scope of service and actual usage

- i. Degree of specialisation (general purpose services vs. specialised services)
- ii. Targeted user groups (service-specific potential)
- iii. Accessibility (inclusion)
- iv. Actual usage
- v. Transferability (potential usage in future, independent from actual service)

b. Customer satisfaction

- i. Benefits to users
- ii. Feedback from users
- iii. Benefits to public authorities (PAs)
- iv. Feedback from PAs

c. Impact on organisation and processes

- i. Changes in the organisational structure (of involved PAs and partners)
- ii. Process management and changes
- iii. Quality assurance
- iv. Transparency of government services

d. Economic performance

- i. cost/benefits analysis
- ii. potential for spin-offs

Adaptability (interoperability) / pan-European

Main measures of adaptability at pan-European level are the degree (intensity) of cooperation between different public administrations (PAs) across borders

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[http://europa.eu.int/information\\_society/activities/egovernment\\_research/doc/highlights/egov\\_action\\_plan\\_en.pdf#search=%22egovernment%20action%20plan%22](http://europa.eu.int/information_society/activities/egovernment_research/doc/highlights/egov_action_plan_en.pdf#search=%22egovernment%20action%20plan%22)

and the existence of public-private partnerships in provision of an eGovernment service.

IDABC's "European Interoperability Framework for Pan-European eGovernment Services"<sup>4</sup> provides a number of recommendations for adaptive (interoperable) eGovernment services that allow to enlarge the number of our criteria in this dimension and to envisage quality issues of interoperability. In IDABC's concept, interoperability must be provided in the organisational and semantic as well as in the technical dimension. From this approach IDABC derives a number of requirements that should be met by pan-European high-impact eGovernment services:

- the service requirements should be jointly determined by the participating administrations via a *demand-driven approach*
- all involved partners should agree on *Business Interoperability Interfaces (BII)* that enable the business processes to interoperate at pan-European level (which requires studying the definition of common BII standards)
- there should be *service level agreements* in order to formalise mutual expectations from the service providers
- the service providers should agree on a *common security policy*
- the *data elements* to be exchanged should be made interoperable
- the service providers should find a *single language*, based on XML, in order to make (legal) vocabularies interoperable
- technical interoperability should be provided at *front-office level as well as at back-office level*
- the technical operability of pan-European eGovernment services should be based on *common guidelines* developed by member state administrations and EU institutions
- these common guidelines should be based on recognised *open standards*
- citizens and businesses should have the opportunity to *submit requests in their own language* (or in a limited set of EU languages)
- top level EU portals should be fully multilingual, second-level pages should be offered in the official languages, and external links and related pages on the national websites should be available in at least one other language (e.g. English) in addition to the national language (in other cases machine translation software may be used)

- 3) Step 3: Via telephone interviews the research team will evaluate to which degree the eGovernment services listed in the IDABC eGovernment Good Practice Framework comply with these requirements. Based on this evaluation 12 services will be selected, from which later on 6 cases for the detailed case studies will be chosen. At current, the eGovernment Good Practice Framework<sup>5</sup> considers 12 eGovernment services to be pan-European:

- HELP (Austria)

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<sup>4</sup> <http://ec.europa.eu/idabc/servlets/Doc?id=19528>

<sup>5</sup> <http://www.egov-goodpractice.eu/>

- Belgian Social Security (Belgium)
- EDEN (Belgium)
- Danmarksdebatten (Denmark)
- ETHICS (Denmark)
- Bremen On-line Services (Germany)
- eVote (Greece)
- eJPA (Italy)
- STRADA (Italy)
- Norway Primar Stavanger (Norway)
- 3IP (UK)

Apart from this, we will also consider following eTen projects as candidates for the case study selection:

eTEN Projects - Possible candidates for eGov pan-European study			
CALL	PROJECT NAME	PO	DESCRIPTION
2004-1	E2SP	DIRY Peter	Validating the viability of the ASP model for an environmental data management service; collecting the environmental data and supplying value added services such as query and reporting, data analysis, forecast, scenarios via the Internet. The business case is in air quality management.
2004-1	eParticipate	DIRY Peter	eParticipate provides an easy to use and cost-effective online multimedia video service that allows citizens to participate in their local democratic meetings and events with the possibility of direct citizen feedback.
2003-1	E-Poll	JUNGER Jean-Francois	ePOLL provides a robust system for electronic voting including mobile polling equipment that offers ease of participation in local, regional and national elections. This flexible service supports new eDemocracy initiatives.
2003-1	e-PROCSEE	JUNGER Jean-Francois	Electronic Public Procurement in Europe
2004-1	EULIS Plus	DIRY Peter	Pan-European Land Information Service, aims at providing access to information about land and interests in land (held in cadastral systems) via the Internet.
2004-1	MAP	DIRY Peter	Project MAP helps public information offices and emergency services to increase the quality of life and the security of citizens.
2003-1	MICHAEL	JUNGER Jean-Francois	Michael provides a common, multilingual web access and interface to search and browse Europe's digitised cultural heritage, aiming to provide simple and quick access to the digital collections of museums, libraries and archives from different European countries.
2004-1	PPP	NORMANN Emilie	Support Action to provide e-Government good practices portability
2004-1	RISERac	HALMOS Andrea	Trans-European service offering the verification of address information through access to official registries of companies and citizens.
2003-1	SETS	JUNGER Jean-Francois	Public procurement process performed by European Public Administrations, addressing the preparation aspects, the knowledge and information management, the planning phase and the 'back-office' activity, also taking in consideration the legislative aspects.

At this moment the research team focuses on these services, but the detailed examination of other services listed in the IDABC database might lead to the selection of other cases. Factors such as “scope”, “high impact”, “innovativeness”, and “transferability” will probably play a key role in the case selection, which will be carried out by the whole project team after the results of the telephone survey are available.

Task 2.2 Comparative case studies:

- I. 1 Private sector ICT-for-service application
- II. 1 US and/or 1 Canadian case study analysis
  - 1) Identification of relevant cases, likely candidates are:

- Universal Licensing System (ULS) of the Wireless Telecommunications Bureau (WTB) of the US Federal Communications Commission (FCC) and
- The Canada Business service for entrepreneurs.

- 2) Case study analysis
- 3) Comparison of
  - private sector eServices and pan-European eGovernment services
  - innovative eGovernment Services in the USA / Canada and Europe

### 3.2.3 Interplay with other WPs

WP2 takes the criteria developed in WP1 to select a long list of 12 cases. It will apply and test the IAF of WP3. Also, the first outputs of WP3 fill provide input into the questionnaire that will be used to survey the short listed 6 case studies. In selecting the cases WP2 will support WP4 to identify the test case for its Adaptive Decision Making model (ADM).

### 3.2.4 Deliverables

- 1) 6 (or less) European case studies of high-potential eGovernment services, providing insight on:
  - Best practices, level of transferability, and potential for development at pan-European level
  - Pan-European eGovernment services: An assessment of their potential based on the IDABC good practice framework
  - Evolution patterns of pan-European eGovernment services
  - Institutional framework conditions for successful pan-European eGovernment services
- 2) 2 Comparative case study analysis
  - Pan-European eGovernment services and private sector eServices: analogies and synergies
  - Innovative eGovernment Services in the USA / Canada and Europe – a comparison

### 3.2.5 Timing

<b>Task</b>	<b>Period</b>	<b>Activities</b>	<b>Events</b>
2.1. EU case studies	October 2006 –April 2008	Surveys, Interviews, case study analysis	Workshop (tbd)
2.2. Comparative Case studies	January - March 2007	Interviews, case study analysis	

### 3.3 WP3: Impact assessment of current and future innovative eGovernment services and design of composite indicators

#### 3.3.1 Objectives

Design a number of intelligent policy instruments that can help inform policy decisions about the selection of eGovernment services that are most suited for up scaling to the pan-European level, and to give insight into the relevant scale and scope. These conceptual tools can help find a rationale with which cross-border, pan-European public sector services can be prioritized, based on a needs-based, user-centred, intelligent concept of cost-benefit ratios, and based on a clear understanding of the conditions for and barriers to success.

#### 3.3.2 Approach

##### Task 3.1. Development of an Impact Assessment Framework (IAF)

The possibilities for assessing the actual impact of pan-European eGovernment services are limited, since as yet there are not many. The assessment impact will therefore to some extent have the character of a foresight study, and will be set up accordingly. In order to assess the (potential) impact of pan-European eGovernment services, an assessment framework will be developed with the different types of impact (economic, social, organizational, cultural and political) and their relationships. This Impact Assessment Framework (IAF) will be thoroughly based on existing theory on innovation and institutional change, which represents a blend of perspectives on economics, sociology and political science. The framework will be an adaptation of the framework developed in the European Framework Project PUBLIN, which was developed to capture the progress towards and impact of integrated, user-centred public services. An important element will be the degree of networked government and its density, and the emergence of central 'nodes' in the growing cross-border government networks. The IAF will be developed in 3 steps

- 1) Preliminary version of IAF based on input of WP1, literature study and workshop
- 2) Draft IAF generates questions as input for WP2, to test usefulness of the draft IAF on case studies
- 3) Results WP2 feedback final version IAF

##### Task 3.2.: Development of two composite indicators (CIs)

There is a growing body of increasingly sophisticated indicators to measure different aspects of eGovernment. However indicators at the level of pan-European eGovernment are lacking. That is not surprising, since there is not yet much to speak of in terms of applications in this area, and therefore also not much to measure. However, there is a lot of information that is relevant for the question of the potential impact of certain pan-European eGovernment services, and that can give indications about the optimal scale and scope of these services. For example, the degree of interoperability in a certain domain is obviously an important variable; as is for example the degree of existing interaction between public service providers in different countries.

Approach of this task will be to:

- 1) Survey existing indicators for eGovernment to identify indicators for capturing (aspects of) pan-European eGovernment, likely to include:

complexity, interoperability, international interaction, resilience, vulnerability, transparency, costliness, social and economic benefits

- 2) Provide a set of questions as input for WP2 case study selection and questionnaires
- 3) Design of a composite indicator for readiness (CIR) and a composite indicator for impact (CII) Interplay with other WP's

### 3.3.3 Interplay between WPs

The IAF will draw heavily on the hypothesis and the scenario framework developed in WP1. The two conceptual tools will incorporate elements from WP4 and will be validated through case studies in WP2, at the same time providing input for WP2 (selection cases, questions).

### 3.3.4 Deliverables

- 1) *Framework* for policy-makers to organize and focus the discussion on the impact of pan-European eGovernment services for citizens
- 2) A *composite indicator*, reflecting the *readiness* of a certain public sector service to be up scaled to the pan-European level. This indicator should give a good idea about the costs related to doing this (in terms of time, effort and money to overcome existing barriers): a lower score on readiness reflecting a higher level of costs to achieve it nevertheless, and vice versa.
- 3) A *composite indicator*, reflecting the *impact* of (potential) pan-European eGovernment services, enabling comparison between the different potential services and thereby facilitating the process of prioritizing and selection of most promising pan-European eGovernment services

### 3.3.5 Timing

<b>Task</b>	<b>Period</b>	<b>Activities</b>	<b>Events</b>
3.1. Impact Assessment Framework design	October 2006 – July 2007	Literature study, analysis of WP1 outputs, structured discussion with working group	Workshop October 2006
3.2. Indicator development	October 2006-April 2007	Survey of existing indicators; profiling of essential characteristics; validation in case studies	Workshop April/May 2007

### 3.4 WP4: Development and testing of a generic concept of sustained innovation in eGovernment

#### 3.4.1 Objectives

Develop and test new adaptive decision making (ADM) paradigms that combine a variety of tools to deal with the fluidity of continuous change and need for innovation in (what we today call) the public sector.

ADM is intended to help a program or project adapt and respond to changes in its internal goals, priorities, and constraints, as well as to changes in externalities, including economic, political, technological, and social factors. Our prototype application of ADM will focus on those issues that appear most relevant to fostering innovation in the design, development, and deployment of pan-European eGovernment services, e.g

1. The degree to which the Services that a project produces are flexible and extensible, allowing them to evolve in innovative ways over their lifetimes
2. The degree to which the Services are interoperable with other Services and across borders
3. The degree to which Services develop or embody techniques and mechanisms that can be generalized and/or facilitate technology transfer to apply to other projects or programs.

The adaptive mechanisms of ADM apply both to the management of projects and to the technical design and implementation of systems and services. We believe that using ADM to help manage eGovernment service development projects has the potential both to improve the adaptability--and therefore the efficiency and effectiveness--of such projects and to help them produce products that are themselves more adaptive.

#### 3.4.2 Background and Applicability of ADM

Adaptive Decision Making (ADM) is an innovative technique that has been under development by RAND for several years. It was originally devised to help the U.S. Army improve its acquisition of systems of systems. These large-scale projects often consist of dozens of simultaneous, co-evolving development efforts whose resulting systems must interoperate effectively with each other to perform some overall function. ADM was inspired by Boehm's spiral software development approach, which is the oldest and most widely accepted of the popular iterative methodologies for developing complex ICT systems. However, whereas spiral development is tailored to the production of individual software systems, ADM addresses a broader range of issues, including interoperability among multiple systems and the evolution of their goals and requirements over extended periods of time.

In particular, ADM includes mechanisms for integrating the evolving needs of multiple stakeholders (funders, policymakers, developers, service providers, users, etc.) and for making repeated course corrections as the needs, constraints, and underlying assumptions of a project co-evolve. Unlike most methodologies (including spiral development), ADM recognizes that even the most basic assumptions behind a project may change over time, especially if the project is attempting to be innovative and/or is relying on cutting-edge technology. ADM therefore uses a Cyclic Process model and a Decision Knowledge Base to help a project's managers, developers, and other stakeholders re-examine and revise their priorities and decisions as appropriate. ADM shares its focus on assumptions with RAND's Assumption Based Planning

methodology, but ADM goes well beyond ABP by defining specific, tailored process models for each separate activity in a project (e.g., goal definition, policy implications, management, design, system development, deployment, upgrading, maintenance, community outreach, interaction with other projects, etc.) and by using its Decision Knowledge Base to coordinate and synchronize efforts among these activities and those of related projects.

Because ADM is a relatively new approach, it does not yet have an established track record of applications. However, it appears well suited to the task of fostering continuing innovation in the development of pan-European eGovernment Services. In the first place, it is specifically designed to improve interoperability among co-evolving systems, which is a key requirement for eServices--especially eGovernment services--and all the more so for pan-European eGovernment Services. Whereas interoperability is often addressed only as an afterthought, ADM helps developers design and build their systems to be interoperable from the start by alerting them to changes in the designs and assumptions of other systems with which their systems must interoperate and helping them coordinate their efforts with the designers of those systems. The Decision Knowledge Base allows relevant new and changed technical, policy, and social factors to be brought to the attention of managers and designers at the start of each new cycle of their respective activities, and it shows which other factors or decisions depend on those new or changed factors. This provides a minimally-disruptive mechanism for each activity to adapt to changes emanating from other activities and other projects. Moreover, ADM extends these same cyclic alerting and coordination mechanisms beyond the technical sphere to help projects adapt to exogenous changes in policy, funding, social priorities, the political context, etc.

#### Fostering and Motivating Innovation

*"Change and process management.. is one of the most delicate points of an eGovernment project. In many cases the processes do not evolve, and e-services on the Internet are only a window without modernisation of the processes, which support them. This is due to the fact that the administrative culture does not support transparency and the pooling of knowledge, an essential condition for optimising processes. However, by empowering agents, especially within the implementation of projects, it is possible to trigger an initiative spirit and to initiate a culture of change. Curiously, the higher levels of hierarchy are in fact those most often refractory to change." (Governance and ICT - Innovative eGovernment; actions at local and regional level, by European Union, Committee of the Regions, 2003, p.61.)*

ADM should be of particular value in enabling pan-European eGovernment Services projects to be more innovative. First, it should help each such project identify and take advantage of synergies arising from interactions with other related or complementary projects. Similarly, it should facilitate the coordination of multiple projects to produce emergent and consistent new pan-European functionality. In addition, ADM has the potential to improve portfolio management of pan-European eGovernment Services projects to produce rational, coordinated suites of services that offer new and better integrated capabilities to European citizens, businesses, and governments.

Furthermore, ADM should promote the development and use of best practices in eService design, development, and deployment. The Decision Knowledge Base serves as a repository of project history and decisions. This can be used for post-hoc analysis, which should in turn help managers and designers refine, improve, generalize, and disseminate architectures, ontologies, and processes that have been used successfully, thereby increasing technology transfer, the reuse of innovative designs, and the sharing

of good development practices. The Decision Knowledge Base also represents a highly traceable design rationale and a dynamically-updated specification for any system produced by ADM, which should make that system more readily adaptable and therefore reusable.

Finally, ADM offers mechanisms that can help motivate and incentivize both innovation and the development, use, and dissemination of innovative practices. For example, since the Decision Knowledge Base traces decisions and the factors leading to them, it can be used to justify course correction decisions and other innovative choices that might otherwise be avoided by risk-averse decision makers or designers. In addition, the Decision Knowledge Base can be used to record the attribution of decisions, choices, and inputs that led to positive outcomes, serving as a kind of "citation index" that scores each participant's contributions to the project's outcome. This information can then be used to recognize successful contributors, whether by promoting them, giving them bonuses, or simply publicizing their contributions. Of course, if attribution is used to penalize decision makers for negative outcomes, it may be counterproductive, potentially leading users to undermine the information in the Decision Knowledge Base in order to protect themselves; however, a policy that restricts the use of attribution to positive outcomes should foster innovative--rather than risk-averse or reckless--decision-making.

#### Tailoring ADM to the European Public Sector

In the case of pan-European services, interoperability stands out as a mayor concern that needs to be addressed. As stated before, ADM was developed to solve interoperability issues between systems and will be adjusted to perform in a European context. Other crucial issues that may arise from the analysis in WP1 may also be specifically addressed when tailoring and testing ADM.

ADM is a generic approach that is intended to be tailored to each specific application. Its Cyclic Process model consists of a repeating sequence of 8 generic steps that apply to any activity in any endeavour. Because the specific interpretation and implementation of each step in the generic Cyclic model may be somewhat different for each activity in each endeavour, these process models are intended to be tailored to each such activity.

The test case to be chosen for WP4 will provide the context in which this tailoring is performed: one of the products of WP4 will be a tailored set of Cyclic Process models for each relevant activity in the test case environment. This tailoring process will take into account relevant technical, organizational, and policy aspects of the test case, including (to the degree feasible) stakeholder participation and interaction with other relevant projects. The limited resources of WP4 make it unrealistic to produce an automated tool to embody or support the tailored process models for the test case, so paper models (descriptions) will be produced instead.

The Decision Knowledge Base is a similarly generic mechanism intended to encode assumptions, constraints, decisions, and other relevant factors that bear on the endeavour at hand. The WP4 test case will determine the kinds of knowledge that would need to be represented in a Decision Knowledge Base: a second product of WP4 will be a set of tailored knowledge specifications, along with a representative list of relevant knowledge sources and a set of examples showing how knowledge in the test case environment would be encoded and used to implement ADM. Again, the limited resources of WP4 make it unrealistic to attempt to produce a working Decision

Knowledge Base, so paper descriptions of the knowledge specifications and example encodings will be produced instead.

### 3.4.3 Approach

Task 4.1. Develop a model of sustained innovation based on Adaptive Decision making

- 1) Focus on interoperability and other key challenges (to be identified in WP1) to sustained innovation in designing and implementing pan-European eGovernment services.
- 2) Refine RAND's Adaptive Decision Making model to address these challenges.

Task 4.2. Choose a constrained but representative eGovernment test case for testing the model

In conjunction with WP2, choose a test case that:

- 1) Exemplifies the challenges identified in Task 4.1
- 2) Is representative of the eGovernment environment
- 3) Is constrained enough to be feasible but is not trivial
- 4) Is suited and receptive to serving as a test case for an Adaptive Decision-making approach

Our process for choosing a suitable test case will be:

- 1) Use the characteristics and challenges of pan-European Services identified in task 1.1 of WP1 to refine selection criteria 1 and 2 above.
- 2) Based on these criteria and the survey of pan-European Services performed in WP1, select 2-6 candidate project to serve as a WP4 test case
- 3) Interact with key personnel and other stakeholders for each candidate project to further evaluate its receptivity to the ADM approach, as well as its timeframe and any other constraints that bear on its suitability as a test case for WP4.
- 4) Choose the WP4 test case.

Receptivity is expected to be the overriding criterion for choosing a WP4 test case. However, the choice may also be based on other factors, such as the scale or scope of the project, its degree of interaction and interoperability with other projects or services, and the degree to which the services it is developing are truly pan-European or are easily generalized to the pan-European context.

Task 4.3. Adapt the model to the test case as needed

- 1) Adapt the model to relevant stakeholders, goals, priorities, issues, constraints, assumptions, etc.
- 2) Incorporate appropriate activities, coordination and synchronization mechanisms, decision cycles, etc.

Task 4.4. Apply the adapted model to the test case

- 1) Work with the test case organization to design cyclic process models and a Decision Knowledge Base to sustain innovation in the ongoing development of eGovernment services.
- 2) Explore the coordinated use of these process models and knowledge base to support innovative development of eGovernment services.

Task 4.5. Assess and report the potential of the model to support sustained innovation in eGovernment

- 1) Analyze and evaluate the potential effectiveness of the Adaptive Decision-making model to support sustained innovation in the provision of eGovernment services, both within the test case environment and more generally.
- 2) Analyze the policy implications of the model.

#### 3.4.4 Interplay between WPs

This WP will rely heavily on the work of WP1 and WP3 to identify and analyze specific challenges to sustained innovation and adaptation. This model will be tested against the findings of WP1, WP2, and WP3, with extra attention on the barriers and challenges for eGovernment development and the accrued findings of the 3 categories of case studies developed in WP2. This will allow the empirical findings that emerge from yesterday's and today's experience to be compared to a further reaching concept that may be better adapted to deal with the challenges of decision making in the future.

#### 3.4.5 Deliverables

##### Intermediate Deliverables

- 1) Concept paper describing an Adaptive Decision-making model for sustained innovation in eGovernment.
- 2) Test case
- 3) Description of refined Adaptive Decision-making model for the chosen test case
- 4) Conceptual specifications for Cyclic process models and Decision Knowledge Base
- 5) A report that analyzes and evaluates the potential of the model both in the test case context and in general and provides policy and technical recommendations for how to proceed

##### Formal deliverable

The fundamental mechanisms of ADM consist of a Decision Knowledge Base (DKB) and a set of coordinated Cyclic Process Models for each of the activities that constitute a given project that is utilizing ADM. Such activities include management, prioritization of goals, Service design, implementation and deployment, interaction with stakeholders, etc. The DKB supports the Cyclic Process Models to enable users to make more informed and adaptive decisions. Ideally, the DKB would be implemented in software as a computerized knowledge base, and the Cyclic Process Models would be supported by an interactive software environment that coordinates activities and their processes via the DKB. However, given the constrained resources of WP4, it is unrealistic to attempt to develop even prototype software to embody ADM for the WP4 test case.

The output of WP4 will therefore be paper prototypes, consisting of:

- Formalisms for representing the types of knowledge and relationships that would populate a DKB for the test case
- An informal, adaptable ontology of the specific knowledge and relationships that are most relevant to the test case

- Sequences of steps and decision points corresponding to tailored Cyclic Process Models for key activities that are performed by the test case project

### 3.4.6 Timing

<b>Task</b>	<b>Period</b>	<b>Activities</b>	<b>Events</b>
4.1. Develop ADM model	October 2006 – March 2008	Use key challenges identified in WP1 to define relevant knowledge relationships among eGov Service developers, users, funders, and other stakeholders	None
4.2. Select test case	October-December 2006	Use early results of WP1 and WP2 to help choose a test case that is representative, generalizable, and receptive to our novel approach	None
4.3. Adapt model	December 2006 – February 2008	Interact with the test case to refine and expand knowledge relationships and define process models for eGov Service design, development and deployment	None
4.4. Apply ADM	December 2006 – February 2008	Develop prototype Decision Knowledge Base representations and tailored cyclic process models that would enable the test case to use ADM	None
4.5. Assess effectiveness of ADM	December 2007 – April 2008	Assess the potential effectiveness of the ADM approach to the chosen test case and to the development of other Pan-European Government Services	None

### 3.5 WP5: Activities towards awareness and dissemination

#### 3.5.1 Objectives

The main objective of WP5 is to create awareness among different stakeholders of the opportunities, challenges and consequences of developing pan-European eGovernment services. Activities aim at dissemination of findings of the study and engaging stakeholders in addressing new challenges and solving old problems. Different methods will serve different dissemination purposes and different constituencies.

#### 3.5.2 Approach

##### Task 5.1: Drafting a communication and dissemination plan

Communication and dissemination activities are focussed at different stakeholder groups. The key target group of the project will be national and EU decision makers involved in developing eGovernment services and those who are in charge of European policy in this area. The project will therefore liaise closely with the i2010 high level group and the eGovernment sub group. Other groups that need to be involved are the eGovernment research community, systems and software suppliers and the users of eGovernment services (citizens and businesses)

The recipient profile determines what kind of information is provided and in what way it will be presented. The interested stakeholder can be easier supplied by a pull instrument like a website, whereas general consumers and citizen groups may have to be approached more actively if their contribution, engagement or awareness is sought. Below is an indication of how the communication and dissemination could be structured and prioritised:

Stakeholder	Importance	Ease of reach	Information pull or push	Measure
Internal Commission staff (workshop, internal publication)	High	High	Push/Pull	Workshop, Intranet publication; Hard copy report
Member State experts	High	High	Pull	Workshop; Dedicated Website; Presentation at international conference; publication of summaries of deliverables in professional newsletters or journals; Hard copy reports
Scientific community	High	Medium	Pull	Working group; Presentation at Website, International Conference; Hard copy report
Systems and software design sector	Medium	Medium	Pull	Working group, Dedicated Website; publication of summaries of deliverables in professional newsletters or journals
Consumers/Citizens	High	Low	Push	Website; Newspaper articles

The communication strategy will apply the best and most cost-efficient ways to reach key stakeholders, through targeted means and messages. The project team members will provide presentations at conferences and specific EC events. Presence at such events will be discussed with the project officer and coordinated with other eGovernment research projects. A rough list of such events would be:

- Best practices in eGovernment (Helsinki, 13 September 2006)
- Modinis eIDM workshop (Brussels, 12 September 2006)
- eChallenges Conference (Barcelona, 20 October 2006)

- Finnish presidency IST event (November 2006)
- UK BCS ISG
- CLUSIF, CLUSIB, CLUSIT events
- ISC2 / ISACA events
- Cablenet eGovt conference (Earls Court / QEII)
- Department for Trade and Industry event
- IA CSIA event (June 2007)
- BSI Germany
- eIDM conferences (September 2006 and February 2007)
- 2007 Ministerial eGovernment Conference (Portugal November)

#### Task 5.2: Engaging Key experts

A list of 10-15 key experts will be provided. They will be asked to participate in an initial workshop and will be used as a sounding board during the project. We expect the Working group members to be influential representatives of key constituencies. They shall not only provide their personal expertise into the project but also the voice of their constituencies and in turn also report back about the report to these constituencies. Therefore we see the importance of sufficient sectoral and geographical spread.

*Geographical spread:* To allow to break free from the usual suspects in the European world of eGovernment experts we suggest to have at least one expert from the country of the case study (Canada or the US) and to challenge our thinking about new development in fast growing and ambitious competing economies it is suggested that one expert is personally active in the development of eGovernment in Asia. We suggest either South Korea or Singapore, who are leading on a number of eGovernment performance indicators. Also RAND and UNU-Merit have contacts in both countries. In Europe we would include a CIO of a leading eGovernment country like Austria, Estonia or Finland, to all of whom RAND and Merit have easy access, through previous work and research activities.

In addition, we will propose experts who provide us with a good coverage of

- Citizen-centred viewpoints
- Small business interests
- ICT providers in eGovernment
- the financial sector

We suggest keeping space for a limited number (2-3) of additional members of the group to allow some flexibility to follow the outcomes of the work. We also may consider a certain rotation in membership to suit the evolving needs of the project.

#### Task 5.3: Website

UNU Merit will provide the website design and support. The website will be a branded centerpiece of the communication strategy around the project. It will support the work of the working group, and be a reference for all interested stakeholders like government and scientific experts, but also linked to the Commissions own intranet for informing

Commission staff. All deliverables will be uploaded. The registered URL will be: <http://www.euregov.eu>

### 3.5.3 Deliverables

These communication and dissemination actions should lead to informing stakeholders as well as engaging them in the process. Buy in of users and recipients of public services, is fundamental to the adoption and success of such services. Concrete deliverables will be:

- innovative eGovernment services working group, with a geographical and sectoral spread, representing influential networks for effective input and dissemination
- website, containing all documents and possibly interactive elements to involve stakeholder community
- A project folder
- meetings, workshops, presentation at conferences and other awareness raising and dissemination activities

## 3.6 WP6: Project Management

### 3.6.1 Objective

Project management is a crucial task to ensure timely and good quality delivery of results according to the work plan, however, it is intended that resources for this will be kept at a minimum to ensure that the research tasks are given as much attention as possible. Project management also relates to interaction on a regular basis with the Commission and ensuring that the Commission has a full oversight of the project's developments.

As an international consortium will execute the work, management will be done in a way that is based on factual communications and clear delegation, complemented with a continuous check against progress and plan. Whereas it is clear that several physical meetings will be needed to progress the work, project management will mainly rely on email, phone, audio meetings and file-sharing facilities. The project leader, Constantijn van Oranje is based in Brussels, which will facilitate the effective and timely communication with the European Commission.

This activity covers:

1. project management functions, including liaison with the Commission for all financial, administrative, legal and ethical matters, manage all human and budget resources, and ensure internal project meetings, communication and decision making are effective;
2. project quality control;
3. ensuring the timely production of all necessary project documentation, products and services in a coordinated way;
4. Meetings with the Commission to report on progress and discuss results and consequences of the reporting process.

Implementation will take place through the following:

### 3.6.2 Activities

#### Project management

Emphasis in the project will be placed upon strong and at the same time flexible management, which incorporates significant knowledge management and quality assurance elements as an on-going component over the whole duration of the project.

It is important that knowledge management, coordination and quality control are exercised in a visible and effective manner so that overall goals are kept clearly in sight and each participant and area of work does not function in isolation.

#### Result

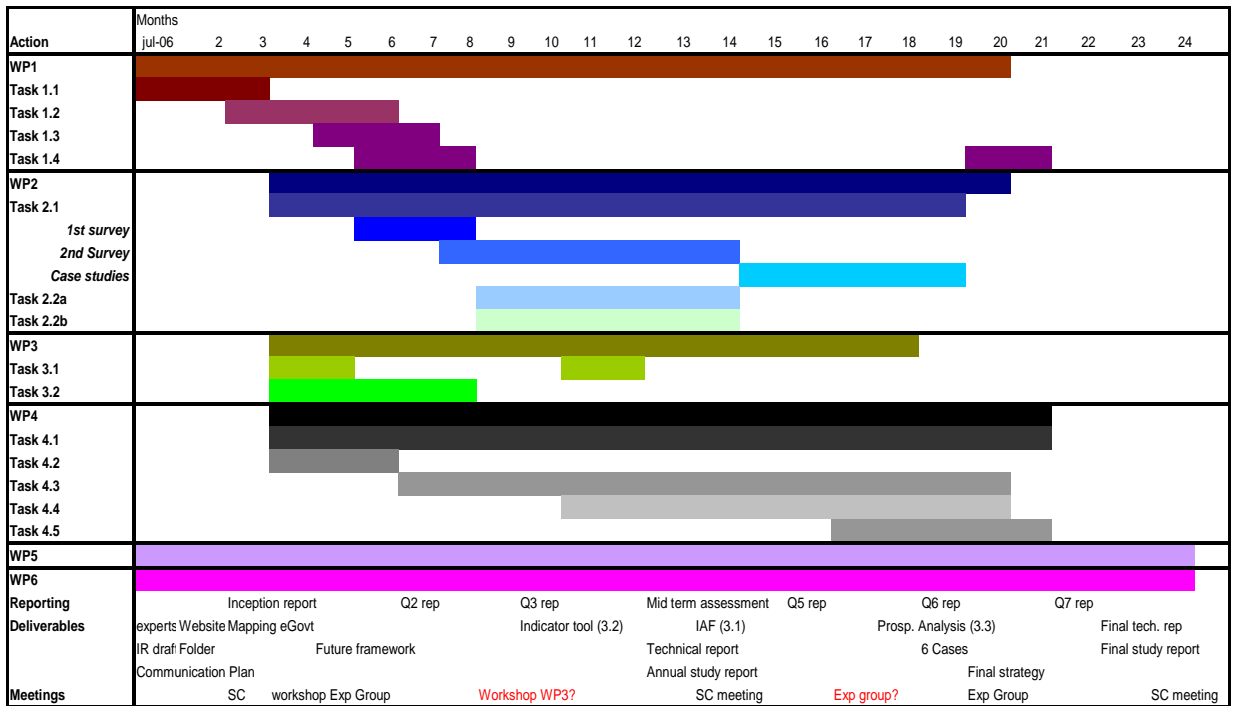
The result of this Work Package will be an efficient and effective management of the project and the delivery of several reports:

1. 6 Quarterly reports (M4, M7, M10, M13, M16, M19) that will include:
  - Report on the achievements so far, focussing on tangible deliverables and achievements and progress against project plan. Deviations of  $\pm 10\%$  on time or resource use require specific explanation and identification of corrective action.
  - Capture the outcome of interactions with experts, through the working group, and the wider community, through workshops and other interactions.
2. Annual technical report (M13): a coherent report of the methodology and tools used, and achievements and progress
3. Annual study report (M13): a full report of the human and financial resources used
4. Final technical report (M23). The report shall synthesise the overall results produced and shall contain:
  - An executive summary with precise findings, conclusions and recommendations.
  - A description of the issues/problems tackled.
  - The methodology and supporting evidence used.
5. A final study report (M23). This report shall include a breakdown of the use of human and financial resources for the whole duration of the action. It shall take the Project Management Plan as a reference.

### 3.7 Planning

The estimated time from start to completion is 24 months. The chart on the following page shows the timeline of the project.

Figure 1: Gantt chart of the project





## CHAPTER 4 Management and Staffing

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In order to carry out the work proposed it is important to present a team that has the necessary quality and experience to do so, which is well managed to ensure that objectives as indicated will be achieved at high level of quality, on time, and on budget.

### 4.1 Qualifications

#### 4.1.1 Experience

The team is designed to combine strong capabilities and experience in future oriented studies, case studies, impact assessment a deep understanding of what it takes to develop sustainable business models for government. Together the partners represent a broad and deep insight in sociological, economical, technological and behavioural aspects of eGovernment services. In addition, both RAND Europe and UNU MERIT have a significant track record in providing analysis, research and consultancy services for the European Commission. The project members involved in the study bring together an in depth understanding of the Commission's work, governance structures and culture, which enables the consortium to work effectively in close cooperation with the Commission's services.

#### 4.1.2 Staffing

The team assembled for this project provides a combination of experience and expertise that qualifies it to carry out the assignment. By working with a tight, but well qualified team we will be able to make the best use of information and knowledge developments against a minimum of project-internal coordination costs. The roles and responsibilities of the core team will be as follows:

Table 1: indicating WP leadership and support

Constantijn van Oranje	RAND	Overall project management and leader for WP5 and WP 6.
Herman Pijpers	UNU MERIT	Website design
Jonathan Cave	RAND	WP1 leader
Steve Simmons	RAND	WP 1 Support
Rüdiger Glott	UNU MERIT	WP2 leader
Kirstin Haaland	UNU MERIT	WP2 support
Tora Bikson	RAND	Support US Case study

Rifka Weehuizen	UNU MERIT	WP3 leader
Jeff Rothenberg	RAND	WP4 leader, US Case study (WP2)
Jennifer Rubin	RAND	WP4 support

In addition, the core team will be assisted by junior researchers, and advised by senior experts from UNU MERIT. These are:

- Luc Soete
- Robin Cowan
- Anthony Arundel
- Rhisab Ghosh

Continuous Quality assurance will be provided by Ed Balkovich from RAND

## 4.2 Time allocation

Table 2: Overview of time allocation by researcher, WPs and Tasks

WPs & Tasks	RAND Europe								UNU Merit								Nr of Days		
	JC	CvO	SS	JR	JM	Adm	QA	JGR	TB	LS	RC	Aar	RGh	RW	RGI	KH	HP	Days per Task	Totals
<b>Work Package 1</b>																			
Task 1.1	1		4		8														13
Task 1.2	1		4		6														11
Task 1.3	2		2		6														10
Task 1.4	2		5																7
Report writing	1		2																3
																			44
<b>Work Package 2</b>																			
Task 2.1:													3	28	16				47
Task 2.1b				4				1						1	0				6
Task 2.2:														4	2				6
Task 2.3:								3	1						1				5
Report writing								2							5				7
																			71
<b>Work Package 3</b>																			
Task 1										1	1	1	1	14					18
Task 2										1	1	1	1	13					17
Report writing																			0
																			35
<b>Work Package 4</b>																			
Task 4.1								3											3
Task 4.2								2											2
Task 4.3				4				6											10
Task 4.4				15				12											27
Task 4.5				7				7											14
Report writing				2				5											7
																			63
<b>Work Package 5</b>																			
Communication plan		1																	1
Working group		1			3					1	0,5	0,5	0,5						6,5
Website																5	18		23
Presentations		1						1		1			1						4
Workshops		1		2	3	5				0,5	1	1	1	1					15,5
Publications		2			2	3													7
																			57
<b>Work Package 6</b>																			
Kickoff meeting	1	1												1	1				4
Inception report		2																	2
St. group meetings		4																	4
Project management		9																	9
Study reports		2				2													4
QA							4												4
<b>DAYS PER RESEARCHER</b>	<b>8</b>	<b>24</b>	<b>17</b>	<b>34</b>	<b>28</b>	<b>10</b>	<b>4</b>	<b>42</b>	<b>1</b>	<b>4,5</b>	<b>3,5</b>	<b>3,5</b>	<b>4,5</b>	<b>32</b>	<b>40</b>	<b>23</b>	<b>18</b>		<b>297</b>

Table 3: Names of researchers and abbreviations

<b>Names of Researchers</b>	<b>Abbreviation</b>
Jonathan Cave	JC
Constantijn van Oranje	CvO
Jennifer Rubin	JnR
Steve Simons	SS
Jeff Rothenburg	JGR
Tora Bikson	TB
Judith Mathijssen	JM
Administration	Adm
Luc Soete	LS
Robin Cowan	RC
Anthony Arundel	AAr
Rishab Ghosh	RGh
Rifka Weehuizen	RW
Rüdiger Glott	RGI
Kirsten Haaland	KH
Herman Pijpers	HP

#### 4.3 Quality Assurance and peer review

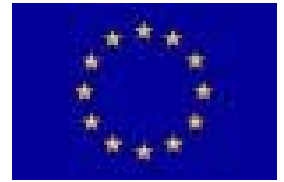
RAND Europe's work is objective, multidisciplinary and based upon the core value of quality. A strict quality assurance process supports this quality. At the start of the project an internal quality assurance plan is drawn up to mitigate potential risks and to ensure continuous quality control during the project. All RAND Europe products are peer-reviewed before final dissemination as part of our quality assurance procedures. The peer reviewers are senior experts who have not been involved in the project.

We will be reviewing the project's approach and deliverables on a regular basis to ensure a high-quality result that meets the Commission's needs and expectations. In view of the complexity of the study, we will use a continuous process of quality assurance. The reviewers will consequently be involved at crucial stages of the project, namely to review:

- The revised methodology
- Interim working reports
- (Interim) final report and associated deliverables

The reviewers report to the project management on the status of all public deliverables. The RAND Quality procedures are published at [www.rand.org/standards](http://www.rand.org/standards).





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