

Study on "eGovernment scenarios for 2020 and the preparation of the 2015 Action Plan"

Retrospective Analysis
(D4)

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Preface

Objectives

The objective of this study is to collect and analyse high quality inputs relevant for contributing to the elaboration of the eGovernment 2015 Action Plan as well as the identification of measurable targets. Focus has been on the support of European eGovernment policies that is primarily on:

- The development of applications and services with a cross-border dimension;
- Actions that add significant value to the individual actions of the Member States.

Our analysis has delivered concrete input to the eGovernment 2015 Action Plan in terms of validated priorities and a selection of proposed policy actions in support of these priorities.

Scope and purpose

The study delivers the required outcome through a balanced mix of existing (desk and literature research) and newly gathered (user survey, case studies, ePractice data base analysis) evidence; supported by expert opinions through interviews. The evidence has been analysed using a series of appropriate methods: assumption analysis, trend analysis, log frame analysis, scenario analysis and mapping of policy areas and options. Application of each methodology is further specified in individual reports.

Recognising that the study has contributed to an ongoing policy process the study team has worked closely with the European Commission, and, where possible, with the eGovernment subgroup, in order to ensure a continued relevance of the output, buy-in to the process, and shared ownership of the results. The period January-April 2010 in which the Action Plan has been drafted has been particularly critical, requiring both the Commission and the study team to be flexible and allowing adaptations to the research strategy if necessary; within the constraints of available resources, time and requirements of academic rigor and independence.

Project flow and Deliverables

The logical flow of the project and deliverables can be summed up as follows:

Deliverable 2 (D2): Starts with assessing the Malmö priorities: what are the underlying assumptions? On what hypotheses are these based? What evidence exists to back these up? How do priorities relate to each another?

Deliverable 3 (D3) : Reviews and presents trends in current and latent demand and future supply of eGovernment services and underlying technologies and infrastructures, based on quantitative input from surveys and as available in literature, and qualitative evidence from literature, interviews and case studies reviewing real practice applications. It brings together all evidence collected with regards to trends, and in particular, relevant uncertainties, drivers and barriers. In addition, it delivers criteria for selecting and assessing policy options based on the evidence of supply and demand expectations with regards to eGovernment services, and will suggest relevant policy options.

Deliverable 4 (D4): Conducts a retrospective analysis to establish the extent to which current policies and instruments could effectively contribute to delivering the Malmö priorities. The objective of the retrospective analysis is to review the currently ongoing and recently finished activities in the field with a particular focus on the work done by the Unit ICT for Government and Public Services and its predecessors, in order to understand the environment of policy options, the choices made, the trade offs and the effective results from implementation of the different policies. The analysis will not be an evaluation, but rather an assessment of the effectiveness, efficiency, appropriateness, proportionality, relevance in terms of added value and impacts, of coverage, results and processes in relation to the subject of the current study. Based on this we will develop criteria for assessing the effectiveness of policies and instruments, and identify where current activity supports new policy priorities and where gaps in coverage are likely to occur.

Deliverable 5 (D5): A final review of the Malmö priorities (and possibly others); recommending policies, and assessing the advantages and trade offs for users, their contribution to the single market, efficiency and effectiveness of government and empowerment of citizens and businesses, as well as their robustness in dealing with future uncertainty. Finally they will be validated and assessed for their proportionality and EU value added.

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Introduction

In support of development of the 2015 eGovernment Action Plan which is to pursue realisation of the vision as expressed in the Malmö Declaration, it is important to understand what developments in the recent past have changed the conditions for development and implementation of new and existing eGovernment applications. We can learn from the past and identify the key uncertainties that will shape that future and which have to be dealt with for a successful development of eGovernment. D4 brings together all evidence collected with regards to recent activities in the EU level programmes and through ePractice. It also analyses the full scope of activities over the past years that have been reported on. In addition, it will suggest relevant policy options.

The scope of this part of the study includes the following EU level eGovernment activities of DG INFSO¹:

- eTEN
- eParticipation
- CIP ICT PSP
- FP7

Where relevant activities from IDABC - Interoperable Delivery of pan-European eGovernment services to public Administrations, Businesses and Citizens and ISA - Interoperability Solutions for European Public Administrations are referenced and taken into account.

In Chapter 1 we look at the high level policy angle and match the Malmö priorities to i2010 action plan, in order to establish the link between the two policy steps and make explicit the gaps at policy level.

Chapter 2 contains a series of meta analyses of relevant existing studies and assessments of work that the Commission has recently undertaken in the field of eGovernment. The chapter also includes an overview of activities (projects) that address the priorities at various levels. The purpose of this meta analysis is to review the elements that are relevant for the Malmö priorities and implementation, and draw lesson from the past.

Chapter 3 has two faces, it describes and analyses the opinion of several experts and it analyses the cases reported by the practitioners in the ePractice database. A series of

¹ the scope of the retrospective analysis was predefined by the Terms of Reference

interviews with policy makers and stakeholders shed light on the background to the process of establishing previous and ongoing actions, and draw lessons from the process and the practical implementation. Another section in Chapter 3 focuses on the quantitative analysis of cases in the ePractice database to assess those activities been reported in the past years (since 2004) that bear relevance to the Malmö declaration and the Action Plan. Analysis of covariance and cluster analysis were adopted to identify associations and correlations.

In Chapter 4 we present the overall conclusions of the study, pulling together the results of the analysis and putting them into relation with the Malmö Strategies and the future development of eGovernment in Europe. We specifically focused on the measurement of eGovernment efficiency benefits, on multiple channels for eGovernment and the impacts on efficiency and effectiveness. The conclusions also highlighted the main enabling and hampering factors.

CHAPTER 1 **The policy context**

1.1 **Setting the policy context**

The i2010 eGovernment Action Plan was the key pillar for the EU level eGovernment activities in the previous years. The new Action Plan 2015 will replace the i2010 Action Plan and will be based on the ministerial declaration in Malmö. The new action plan will be an evolution from the previous phases and work rather than a radically new approach to eGovernment policy at EU level.

The purpose of this chapter is to analyse the core elements of i2010 in relation to the principles and key elements of the Malmö Declaration, thereby visualising the policy transition and identifying potential gaps and shifts.

1.2 **Matching objectives, the Malmö Declaration and the i2010 eGovernment Action Plan²**

1.2.1 **Citizens and Business Empowerment**

The i2010 plan aimed at inclusive eGovernment, addressing the issues of accessibility, usability and inclusion to strengthen the inclusion of socially disadvantaged groups by inducing European public administrations to deliver public information and services in ways that are more easily accessible and increasingly trusted by the public.

In addition, i2010 aimed to strengthen participation and democratic decision-making in Europe, ensuring wide and inclusive support for public policies to ensure effective implementation and avoid new democratic and societal divides.

The Malmö Declaration adopts a broader approach, placing citizens and businesses at the centre of eGovernment development and aiming at user-centric services that provide flexible and personalised interactions with public administrations; adopting multi-channel strategies to deliver eGovernment services in the most effective way and bringing down barriers experienced by digitally or socially excluded groups.

² COM(2006) 173 final. Brussels, 24.04.2006

The EU Ministers expect increasing trust in government services and user satisfaction. The citizen- and business-centred eGovernment strategy aims at involving third private entities parties in the development of eGovernment services.

The increased availability of public sector information should contribute to increased transparency of administrative processes and lead to the implementation of competitive value-added services by private entities.

A final point of the Declaration takes up the i2010 goal to use eGovernment to develop and improve participation and democratic decision-making. Actually it is the aim of European Governments to involve all stakeholders, including citizens and businesses, in public policy processes.

1.2.2 **Support to Mobility**

While the i2010 eGovernment Action Plan makes no direct reference to mobility, the Malmö Declaration places great importance on the role of eGovernment services concerned with setting up and running businesses and studying, working, residing and retiring anywhere in the European Union.

1.2.3 **Efficiency and effectiveness**

The i2010 Action Plan argues that *efficient* eGovernment services save time and money and that *effective* services are appreciated by: citizens and businesses; administrations; and society and the economy at large. Member States expect eGovernment to contribute to significantly lighten the administrative burden on themselves, businesses and citizens. The public sector should achieve considerable efficiency gains as well as increasing transparency and accountability.

The i2010 Plan addresses specific issues of: measurement of efficiency and effectiveness; sharing of best practice; and development of high impact key services for citizens and businesses. One of the priorities is the widespread adoption of electronic procurement by administrations: with cross-border e-procurement chosen as the first application.

The Malmö Declaration links efficiency and effectiveness to a constant effort to use eGovernment to reduce administrative burdens, improve organisational processes and promote a sustainable low-carbon economy.

Malmö commits Member States to reducing administrative burdens by taking advantage of interconnection and data exchange to redesign administrative processes. The Declaration also commits them to EU-wide experience exchange and joint investigation of process redesign to reduce the frequency of information submission to authorities.

Particular attention will be paid to privacy and personal data protection, which are crucial for enhancing confidence and trust.

The final commitment of the Member States in their declaration is to use eGovernment to achieve favourable impacts on the environment and in particular on the reduction of carbon emissions.

1.2.4 Key enablers and legal and technical preconditions

The i2010 Action Plan places great importance on key enablers of significant progress in eGovernment development. It emphasises interoperable electronic identification management (eIDM) for access to public services, electronic document authentication and electronic archiving. i2010 action points include: e-signatures; technologies for eIDM processes; a programme on cooperation on management, authentication and cross-border access to electronic records and archives in public administrations; and interoperability.

Through the Malmö Declaration, the Member States undertake to conduct studies to identify, evaluate and hopefully resolve legal, organisational, semantic, and technical obstacles that hinder the development of cross-border eGovernment services. Information exchange and administrative cooperation in the European Union will encourage intelligent interconnection of administrations, businesses, citizens and organisations.

Particular attention will be paid to cost-effectiveness benefits resulting from use of open specifications and standards. This includes the promotion of open specifications in national interoperability frameworks and the assessment of the validity of the Open Source model.

The Declaration aims to promote innovation in eGovernment services through specific mission-led research and development, pilot projects and other implementation schemes. Innovation is a central part of eGovernment and will contribute to the goal of making Europe a leading knowledge-based economy.

1.3 Synthesis: From the i2010 Action Plan to the Malmö Declaration

In general the i2010 Action Plan was based on a set of key issues identified at an earlier stage of the European integration process. The Plan highlighted a number of focus action areas for the European eGovernment which can be considered as the cornerstones of eGovernment development: e-inclusion, efficiency and effectiveness, high impact cross-border applications, enablers, and citizens participation.

These key issues appear to have been carefully developed to address main enabling factors.

The Malmö Declaration, which confirms the key elements of the i2010 Plan – people, efficiency, best practices, enabling factors, inclusion, cooperation, etc. – similarly addresses eGovernment development key factors, but these appear to have been considered in their wider context as they have been placed in the more general framework of the development of the European Union.

The more general concept of citizen and stakeholder-centric EU eGovernment development is defined to embed all the user-focus, the contrast of (digital) exclusion, the satisfaction of concrete user needs. Citizens, enterprises and stakeholders need to be one of the key players in the development of eGovernment.

The Malmö Declaration relates effectiveness to transparency, user needs and to the reduction of administrative burden, efficiency to the streamlining of processes and to

technological innovation. Interconnection and interoperability have a high value as has public sector information.

eGovernment is also considered as an enabler for the involvement of citizen in policy making and policy assessment: eParticipation.

The importance of key enablers is confirmed, but rather than focusing on specific items such as identification and authentication, the Declaration moves a step further to consider overarching issues which have a global impact on eGovernment development, such as legal, institutional, semantic and technical obstacles to be overcome.

It considers the area of open interoperability frameworks and the more general issue of the innovation culture.

In addition to the confirmation and refinement of consolidated key enabler areas, there are two new features: eGovernment enabling and supporting mobility in the internal market and the impact on the environment, and in particular on carbon emissions.

Table 1: i2010 and Malmö

i2010	Malmö		
i2010 Objectives	2 nd level objectives	First-level objectives	Second-level objectives
No citizen left behind: advancing inclusion through eGovernment so that by 2010 <u>all</u> citizens benefit from trusted, innovative services and easy access for all	Fighting digital divide and countering digital exclusion to ensure success of online public services Provide the opportunity of ICT-enabled inclusive policies offered by eGovernment	<i>Embedded in the user empowerment priority</i>	
Making efficiency and effectiveness a reality – significantly contributing, by 2010, to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains	Measuring, quantifying, benchmarking, measuring and comparing impact and benefit Developing a common impact/benefit-oriented framework using common indicators and case-based learning for benchmarking Developing economic models as complementary tools for evaluation Share experiences and best practices for risk control, economies of scale and investigation of innovative solutions Identify replicable building blocks for innovation and sharing good practices address sustainability of infrastructure services	Efficiency and Effectiveness	Organisational Processes Reduction of Administrative Burden Green Government

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i2010	2 nd level objectives	Malmö	
i2010 Objectives	First-level objectives	Second-level objectives	
authenticated access across Europe to public services	easier cross-border access to electronic records and archives in public administrations interoperability is a generic key enabler and common specifications, interoperability guidelines and re-usable software are all building blocks of high impact eGovernment an updated European Interoperability Framework shall be adopted		
Strengthening participation and democratic decision-making - demonstrating, by 2010, tools for effective public debate and participation in democratic decision-making	development of citizens and stakeholder participation in politics and policy making, most of all at European level respond to citizen's demand for greater involvement take advantage of the ICT potential to involve large numbers of citizens in public debate and decision-making, from municipal to European level develop eDemocracy as the interface between democracy, new technologies, new forms of social organisation and governance.	<i>Also embedded in the user empowerment priority.</i>	

1.4 The transition

The relationship between i2010 and the Malmö priorities has changed the level of relationship between desired impacts.

The i2010 objective “no citizen left behind” is embedded in the user empowerment priority of the Malmö Declaration. The fact that the EU is aiming at the development of eGovernment applications was stated explicitly in i2010. It becomes implicit in most of the priorities set by the Malmö strategy. In respect to the previous i2010 strategy, Malmö addresses four high-level impact areas:

- Efficiency and effectiveness, which is taken up from the previous policy statement. It also confirms the second level objectives, which address user satisfaction transparency and accountability, lighter administrative burden and efficiency gains. The Malmö Declaration in addition explicitly addresses the innovation in organisational processes of Public Administrations and their services;
- The support to the development of the Single Market. This policy priority was embedded in the more general implementation of high impact key services for citizens and businesses in i2010. In Malmö it becomes a self-standing policy priority which will inform the more concrete specifications of eGovernment application development. The new policy statement focuses on second-level impacts such as cross-border services, business mobility, personal mobility.
- User empowerment. Rather than concretely indicating the applications which shall be the subject of the eGovernment policy, the Malmö Declaration specifies that the application development shall be centred around user needs and inclusive. It therefore embeds the i2010 priority of advanced inclusion through eGovernment. The user-centric priority is further specified addressing the user involvement in policy issues, which in i2010 was a policy priority on its own. Additional second-level priorities to the Malmö User Empowerment objective are the Re-use of public sector information and the collaborative production of services, which were only indirectly addressed by the i2010 policy statement.
- The Malmö Declaration places a great importance on pre-conditions for eGovernment development. In this respect the Malmö statement adopts probably a broader scope, which embeds all the priorities originally set in the i2010 policy and integrating them with the inclusion of the infrastructure level interoperability.
- The policy priority on democratic decision making in i2010 is no longer a top level priority, but is embedded in the user-centricity objective of the Malmö Declaration.

All in all it seems that, while the i2010 tended to integrate both high level objectives of eGovernment and more operational-level impacts sought, the Malmö Declaration is oriented towards setting the high level strategic pillars for the EU eGovernment strategy. The more detailed specifications of operational impacts sought are now embedded in the main objectives or in the second level objectives.

The comparison of i2010 and the Malmö Declaration shows that the key impact areas are confirmed. The renewed strategy adopts a more consistent ranking of priorities, maintaining the strategic impacts within the high level policy framework and delegating the more operational directives at programme implementation level.

1.5 The Malmö declaration translated into operational and strategic goals

After mapping the i2010 onto the Malmö priorities and identifying both the gaps and the building blocks, we now concentrate on the Malmö declaration as the underpinning policy statement for the new eGovernment Action Plan 2015.

The table below analyses the different levels in the Malmö declaration and attaches strategic and operational goals to the main impacts sought. These goals are used in the rest of this report to analyse the levels of contribution of the different recent and ongoing activities.

Table 2: Malmö priorities , Impacts and goals

<u>Main Impacts sought</u>	<u>Strategic goals</u>	<u>Operational goals</u>
Citizens empowerment	- Design of user-centric services, demand-led eGovernment development, responding to socioeconomic needs. Develop sector related cross border applications. - Improvement of existing eGovernment services to foster integration and to cater for effective delivery through different mechanisms/channels - Reuse of public sector information by the public administration	- Involvement of (third parties) stakeholders, citizens and business in policy design process - Determination of cross-border demand for user-driven services, identification, quantification of real socioeconomic needs - Sector-specific application development - eGovernment services designed for integration of stakeholders - Involvement of third parties in the service design, delivery and evaluation process - eGovernment services design for usability, access, openness, efficiency and effectiveness (user driven delivery mechanisms/channels) considering the special needs for digitally or socially excluded groups

<u>Main Impacts sought</u>	<u>Strategic goals</u>	<u>Operational goals</u>
	- Reuse of public sector information to deliver value-added services - Application reuse	- functional design aimed at citizens and business trust in eGovernment services
Mobility in the single market	- Make sure that eGovernment facilitates citizens, businesses in their mobility across the EU, specifically as studying, working, residing and retiring is concerned - o Setting up and running business in the EU - o Personal mobility in the areas of studies, work, residence, retirement	- Integration and cooperation between Member States to develop cross border services in these areas - Service design to determine and respond to real cross border user needs - Identification citizens and businesses requirements in relation to mobility - Identification of eGovernment services related to mobility of citizens and businesses
Efficiency and effectiveness	- Reduction of the administrative burden - Improve the productivity of administrative processes - Improve the effectiveness of administrative processes in relation to citizen's, businesses and stakeholder needs and requirements - Reduce the carbon footprint:	- Redesign of administrative processes for citizens and businesses - Sharing of best practices, experience and eGovernment research - Initiation of an ongoing process of organisational and process review to increase effectiveness and efficiency - Improve skills and capabilities of civil servants, leveraging eGovernment for organisational improvement - Reduction of duplication of information submission - Single points of entry both for the society and for players in administrative

<u>Main Impacts sought</u>	<u>Strategic goals</u>	<u>Operational goals</u>
Key enablers: legal and technical preconditions	- Identification of legal, organisational, semantic and technical issues to be tackled to support the development of cross border eGovernment applications	processes - Survey, study, work out the general requirements for the development of cross-border eGovernment applications - Analyses the approaches to overcome the identified issues - Specifically address the issues of cross-border cooperation and identify the elements to foster collaboration and sharing activities - Include the competitive approach in the eGovernment service development to ensure the best value for money - Support the diffusion of a diffused innovation culture to support the EU-wide development of eGovernment - Support R&D and the diffusion of open and flexible architectures in eGovernment - Focus on - o strategic cooperation and joint objectives, preconditions and enablers for cross-border administrative cooperation - o process interoperability, alignment of national interoperability frameworks with applicable EU frameworks - o Application and network interconnection interoperability - o Technological openness, open specifications, cost-benefit assessment of the Open Source model, Standardisation - o Scalability

<u>Main Impacts sought</u>	<u>Strategic goals</u>	<u>Operational goals</u>
		o Trust, security and identification, Authentication, Privacy, data protection
Joint Governance	- Ensure the eGovernment development process by means of effective governance	- Implementation of joint governance tools - Put in place appropriate assessment and evaluation and monitoring mechanisms to ensure appropriate control, follow-up and feedback - Optimise the use of available resources - Coordinate projects across the EU - Define and implement studies on the eGovernment needs and requirements across Europe - Identify gaps in cross-border interoperability and mutual recognition - Support the exchange of experience and best practices

Horizontal impact items

	- Scale: geographical and subjects concerned - Openness (technological) - Openness (interoperability) - Cross-border collaboration - Cross-border integration	-
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	- Improve relationships between governments and the different areas of society - Consideration of user needs - Exploitation of knowledge and of technology - Identify requirements for studies	
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CHAPTER 2 **What are the building blocks, a meta analysis of EU initiatives**

2.1 Introduction

The present chapter aims at describing and analysing the principal policy instruments supporting the development of eGovernment in the European Union.

Each policy instrument is presented in terms of objectives, of implementation and if available, in relation to the experience achieved. Furthermore the chapter presents the lessons learnt for the Malmö Strategy.

2.2 eTEN and the development of EU eGovernment

2.2.1 Policy and Programme Overview

eTEN was a European Community programme which was run from 2001 to 2006, building on the unfruitful experience of TEN-Telecom. eTEN provided funds to support and make available e-services of social or economic interest throughout the European Union taking advantage of the interconnection and interoperability of national networks. eTEN was designed to mitigate the risks related to the investment in and the development of these cross-border services. These risks are related to enlarged scope, to regulatory, operational and technological interoperability and compatibility between involved Member States.

eTEN was one of a group of Trans-European Network (TEN) initiatives directly mandated by the treaty establishing the EU, with the purpose of increasing integration and sustainable development of the Union through trans-European networks. The rationale for eTEN was rooted in the identified need for Trans-European Networks of eServices.

The eTEN programme helped to stimulate of innovative, trans-European e-services intended to contribute to growth within the European Union, employment, social cohesion, and to help everyone participate in the new knowledge-based economy. It had the precise purpose of favouring cohesion, linking peripheral regions with the central regions of the Community to strengthen social and economic cohesion. The programme, which did not provide funding for infrastructures, supported consortia proposing projects for specific Trans-European e-services. eTEN focused on the critical launch phase, previous to the establishment of the service, assisting financially the prior validation phase

of the e-service. In this phase potential revenues, savings and public benefits of a service were put to the test before deciding whether to proceed with deployment.

One of the aims of eTEN was to promote partnerships between public and private players, taking SME's particularly into consideration.

The programme sought the general interest, supporting the development of cross-border services made available to citizen, company or public authority of the EU. In particular, the programme aimed at:

- Producing social benefit for excluded groups;
- Contributing to the introduction of innovative trans-European eServices in the general interest;
- Generating network externalities supporting larger scale deployment in more EU Member States
- Promoting learning effects of investments in market validation projects and spill-overs into other areas of IST innovation

2.2.2 Programme Implementation

From 2001-2006, eTEN supported the deployment of trans-European electronic services (eServices), which included cross-border services and services implemented in several countries to widen the deployment of such eServices including adaptation of services that had proved their success in one part of the EU to allow them to be implemented in another.

The projects funded by the eTEN programme belong to a number of priority areas³:

- **eGovernment.** This can cover on-line services provided by or for public administrations at all levels (local, regional and national) and services aimed at broadening participation in the democratic process. The objective is seamless eGovernment, enabling public bodies, citizens and businesses to interact electronically.
- **eHealth.** This includes services that promote health and improve the prevention of illness. The target is access to and quality and cost-efficiency of healthcare on a Trans-European level and increasing the impact of medical advances.
- **eInclusion.** This includes services that address the specific needs of people with disabilities, the elderly and the socially disadvantaged, and that help overcome socio-economic, educational, geographic and cultural and gender barriers. They focus on the promotion of independence and assistance to participation in society for the widest possible range of people.
- **eLearning.** This includes using multimedia technologies and the Internet to improve quality of and access to education; and delivering services promoting lifelong learning; reskilling the European workforce and promoting digital literacy for all.

³ It should be noted that the current report mainly takes into account the areas that have direct relevance to eGovernment, i.e. the eInclusion,, eGovernment area and parts of Trust and Security.

- **Trust and Security.** This includes all security aspects of e-services and related trust and confidence issues such as approved accreditation schemes and services to improve data confidentiality and integrity. Such services help to increase people's confidence in making use of Information Society technologies.
- **SME's.** This includes services for SME's that facilitate their participation in the e-economy. The objectives are to increase the competitiveness of SMEs by their use of e-Services and to facilitate the provision of cross-border e-services for SMEs.

The eTEN programme adopted several approaches to support the development of innovative, trans-European services based on consolidated technologies.

The eTEN programme has supported the technical and economic feasibility, validation and deployment of innovative, trans-European services based on proven technology. The services had to be launched in separate Member States with appropriate adaptation, or have been already deployed in a Member State and extended under the support this programme. In some cases, services of demonstrably trans-European interest could have been implemented in a single Member State, even if the programme encouraged participation from more than one Member State and implementation in more than one Member State are.

eTEN had a relatively small financial endowment: an expenditure of the order of 250 M€ in total over its six year life. It served the purpose of facilitating and activating cooperation activities to share, develop and disseminate across the EU successful experiences of services of collective interest which responded to specific demand issues from stakeholders.

The programme made available resources to progress towards the cross-border dimension, complementing the role of public and private players, who are unlikely to be motivated to autonomously develop sufficient accessible, affordable and interoperable applications for trans-European public eServices and the market will not show propensity to provide venture capital for large-scale development of cross-border eServices of public interest.

Another purpose of eTEN was to facilitate the participation of SMEs in the development of cross-border European public eServices.

The setup of the eTEN programme mentioned a number of financial modalities: grant co-financing; interest subsidies; loan guarantee fees; direct grants to investment; and risk-capital participation: eTEN used only the first modality. Most probably there are a number of reasons for this choice:

- Project proposers had a scarce knowledge of marketing scenarios and risks and therefore a low propensity to embark on the effort required by other potential funders;
- Low awareness of demand and market sustainability diminished motivation to explore other funding sources;
- They more closely focused on the requirements of the programme and refrained from undertaking additional efforts in different contexts;

The programme could have achieved a greater financial leverage, but projects would have had to comply with the policies and strategic objectives of third funding organisations.

These objectives could have been different from the eTEN intervention logic and possibly collide.

eTEN was set apart from other programmes since it provided initial funding to mitigate a project's risk and to overcome initial investment and potential launch obstacles. The focus of eTEN was not scientific research, which is the purpose of other EU Programmes. However eTEN showed to be well suited to the exploitation of successful research, helping to bring new developments to e-services market.

eTEN's programme design and management activities included:

- Work Programme and Call Development, upon consultations in matters of substance, budget allocation and modality;
- Pre-submission of proposals: Consortium Formation and Proposal Preparation, input from NCPs (National Contact Points) and from Programme personnel;
- Proposal evaluation, contracting and negotiating following highly formalised procedures
- Initial eligibility and completeness check by Commission officials;
- Ranking of Market Validation proposals within themes.

eTEN design included a set of key qualifying criteria for funding:

- Trans-European services, satisfying needs in several Member States.
- Projects had to be implemented in a minimum of two EU Member States.
- The involvement of a public sector organisation was not a mandatory requirement, but encouraged. The participation of public administrations and public bodies was an indicator of service sustainability.
- A consortium including all players in the value chain necessary for service implementation, set-up, deployment and operation.
- Funding proposals had to concern entirely new services, or services already existing on a national level and which would be given a Trans-European dimension.
- Clear obstacles preventing the project from being financed from private sources.
- E-service had to be in the common interest, providing widespread social or economic benefit.

2.2.3 Outcomes

The experience of the eTEN implementation, which spanned from 2001 to 2006 and also took advantage of the previous TEN-Telecom experience. The programme outcomes we present here are mainly drawn from the eTEN evaluation and assessment study by RAND et alii⁴.

⁴ Final Evaluation of the eTEN Programme – Final Draft Meta Evaluation Report. By RAND Europe. 29 January 2008

According to the final evaluation, the programme appears to have played an essential role in seeding or accelerating progress in previously absent or underdeveloped areas of service development. It added concrete expression to policy objectives. The ongoing work on the programme design and setup contributed to the development of new or modified policies.

One of the most important achievements of eTEN was the formation of new or modified policies. Furthermore it managed to promote the formation of new networks or communities of interest mobilising the eTEN constituency to raise the programme's profile, exchange good practice and drive the dissemination of its impacts beyond the borders of the programme.

In addition, eTEN addressed the wider context of innovation policy, the Information Society and potentially the a far greater set of Community policies.

Over the course of the programme a number of innovation in design and management were introduced. These determined a set of impacts on management, content and consortia formation:

- Sophisticated and well-developed communication and outreach activities. The EC project office had to deal with a high associated workload, but the valuable payoff was high. In 2003 the programme instituted an extensive communications strategy to widen service deployment across the Member States;
- A reduction of administrative burdens on SME's, and consequently,
- An extensive engagement of SME's;
- The involvement of public sector entities and participants from New Member States, particularly during the later stages of the programme;
- Direct line of contact with the National Contact Points (NCPs): a strongly formative factor in facilitating successful proposals and projects.

On the more "internal" side of relationships between projects and project officers, it must be highlighted that, even if overall the Commission has acted merely in a supervisory capacity, in several cases project officers have served as 'mentors'. Project mentoring included assistance in project management, raising public profile of the projects, exposing the project consortia to potential future sources of finance and demand and leveraging the impacts and future prospects of projects.

The project officers put in place two forms of formative engagement: periodic project reviews and peer-to-peer confrontation. This activity, alongside with the mentoring action contributed to the strengthening of networking and communities of interest and to the exchange of good practices.

Great care was placed towards the market orientation.

Beyond these impacts, eTEN has produced a set of impacts in terms of "seeding" new areas of activity and demonstrating the ways in which ICTs may contribute to policy achievement relating to innovation and the Lisbon and i2010 contexts. In particular we would like to consider:

- Formation of sector-based value chain communities;

- Advance of the Information Society due to the contributions of interoperable trans-European telecommunications networks;
- Multi-location deployment;
- “Technology transfer” from eTEN to other programmes, ranging from near neighbours like eCONTENT and eCONTENT+ to potential complements like IST-RTD;
- Real trans-European participation both in consortia and in service locations;
- eTEN in its nearly original form will find its continuation in CIP ICT-PSP Pilot B projects and in a modified form in Pilot A projects.

2.2.4 The eTEN learning process

eTEN from the beginning of its life was subject to a process of continuous improvement, also related to the complete re-design in respect to TEN-Telecom. It has been noted that the procedural burden of the eTEN participation was relatively high throughout the programme, which created initially an adverse selection. Over the programme development, however, reorientation gradually led to higher quality proposals and the procedural burdens achieved a positive selection effect.

The eTEN solicitation mechanism was in-between the highly prescriptive procedures of the other TENs and programmes such as IDA (later IDABC) and the relatively responsive-mode proposal mechanism used in the RTD Framework programmes. This combined control on the substantive focus, prototype and consortium composition with invitation to innovation, providing an innovative way to pursue eTEN objectives.

The programme developed a three phase evaluation procedure to run the novel solicitation mechanisms, respecting procurement Directives and taking the technical evaluation of ‘innovativeness’ or scientific excellence and maintaining the ranking across thematic lines in a transparent and rigorous fashion.

There were considerations on the proportion between governance, scrutiny and control structure in respect to programme’s size and in relation to the flexibility required by the technological area. It has to be underlined that, even if the budget of the overall programme was comparatively small to other programmes, the effort deployed for the service development was so large to justify a careful management.

The expected impacts of the programme tended to be defined in relatively loose or aggregated terms. As a result, evaluators and programme staff found it relatively difficult to measure progress precisely or to attribute progress to specific activities or the programme as a whole, where the most relevant expected and desired impacts were structural in nature.

The eTEN rationale indicated essentially qualitative objectives, making it difficult to deploy clearly-defined and concretely measurable success criteria to prove eTEN’s success in concrete terms.

The progress of the eTEN programme

Initially the programme rules kept the number of top quality proposals low. The EC did not interfere with the ‘engineering’ part of the innovation cycle (precompetitive development) to avoid market distortion. However, in the first phases of the programme most RTD consortia did not have business cases or know how to develop them and many RTD projects did not produce the results expected by the programmes. Early Market Validation projects were simply RTD continuation without any sustainable market perspective.

In the initial phases, the governance and management approach led to extensive and prolonged negotiations and to extended delays determined by the inclusion of public authorities. Experience has shown that time to market is often the key success factor. The uncertainty in respect of marketing and of return is most probably the main reason for not managing to obtain support from venture capital and other external finance. At the same time, the time to market uncertainty made it difficult to secure follow-on market finance and investment.

The programme evaluation, however, showed that the operational mechanisms improved continuously. Initially the Market Validation (MV) project modality was overused. The Initial Deployment (ID) project was taken advantage in the later stages of the programme and Support measures (SCA) were only moderately used.

The Evaluation Study showed that eTEN projects required a degree of flexibility not foreseen by the rigid TEN-derived standard form contract and administrative procedures. It was actually difficult to introduce major changes of direction during project implementation.

2.2.5 eTEN and the Malmö Strategy

We must state upfront that the comparison on the eTEN experience and the Malmö Strategy cannot be direct. eTEN is a programme which aims at determining certain concrete impacts. The Malmö Declaration is a general strategy and upon this strategy the new eGovernment 2020 scenarios will be defined and these will have an impact on the relevant eGovernment policy implementation programmes.

eTEN can therefore provide only an indirect input to the implementation of the Malmö Declaration.

The following table shows the connections between the Malmö strategic priorities and sub-priorities and the relationships with the eTEN experience.

The eTen programme is an important predecessor of the current eGovernment activities in the CIP ICT PSP and under FP7. Its experience is directly relevant to how Malmö will be implemented and it can provide some of the building blocks for further action. eTEN was strongly oriented towards eGovernment and Healthcare applications of collective interest and demonstrated the capability of sharing best practices across European borders involving administrations and different types of stakeholders, including small and medium enterprises.

eTEN also showed the importance of ‘demand-led’ and ‘top-down’ approaches to generate deployments in the public sector and built its success on the involvement of the whole value chain in project communities.

Table 3: eTEN and the Malmö priorities

<i>Citizens and businesses empowerment</i>	User-centric, needs based and Inclusive Services	eTEN is demand-led, aiming at making a business case for sustainability. It can provide a direct input on user involvement (in particular of public administrations) and on cross-border networking activities.
	Transparency	Is most likely an indirect impact of eTEN, in case it's an aim of the e-services developed. Transparency is now an explicit demand of Malmö and consequently will require to be addressed directly in future initiatives.
	Re-use of Public Sector Information	eTEN builds on existing experiences of e-services, most likely leveraging the information which is already in the possession of project proposers. Also in this case the request of the Malmö Declaration requires an explicit reference to reuse.
	User Involvement in Policy	Not directly the purpose of eTEN, even if there is the possibility that some of the e-services developed concern user/citizen involvement in policy. Requires to be addressed specifically.
	Collaborative Production of Services, third party involvement in implementation	One of the core elements of eTEN. The experience made can be directly fed into the concrete application of the Malmö strategy to eGovernment programmes. eTEN accumulated a significant experience in developing cross-border e-services of public interest
<i>Mobility in the Single Market:</i>	Cross-border Services	Exactly the focus of eTEN. The programme was successful in creating cross

<i>setting up and running business and for studying, working, residing and retiring</i>		border links to establish consortia and to leverage networking and communication. Excellent contribution in terms of communication, promotion and sharing for future programme action.
	Business Mobility	Not directly a requirement from eTEN to project proposals. It has been the subject of some important projects in public procurement. Has been indirectly addressed and requires a specific mention for future programmes.
	Personal Mobility	Also an indirect outcome related to the functional aspects of cross-border applications developed. Again, needs to be addressed explicitly in future programmes.
<i>Efficiency and effectiveness:</i>	Organisational Processes	eTEN was more about “federating” existing applications to develop cross-border e-services. In general, the way eTEN was set up did not require the consistent development of quantitative business cases addressing market sustainability after project completion. The final eTEN evaluation indicated that a projects should use verifiable quantitative indicators developed since the start of the project to allow consistent monitoring and assessment of results and impacts.
	Reduction of Administrative Burden	Not a direct pursuit by eTEN.
	Green Government	Not a direct pursuit by eTEN either.
<i>key enablers and legal and</i>	Open Specifications and	The RTD content of eTEN project had to be limited to the integration

<i>technical preconditions</i>	Interoperability	aspects to develop cross-border services. In fact eTEN was not about technological research. Demonstrating the use and effectiveness of open specifications and overcoming the challenges posed by the requirement of interoperability was more of a project-specific enabling factor than a general benefit acquired.
	Key Enablers	eTEN managed one key enabler for the type of projects which were promoted, which is the communication, motivation and communication effect which allowed to guarantee the cross-border feature of funded projects. It did not address technical enablers.
	Infrastructure Innovation	After TEN-Telecom infrastructures were no issue for eTEN. This strategic point of the Malmö Declaration probably has to be taken up to steer the coming policy and the related eGovernment programmes.

2.3 eParticipation

2.3.1 Policy and Programme Overview

The European Union considers eParticipation as a strategic instrument to reconnect ordinary people with politics and policy-making. New Information and Communication Technologies should make the decision-making processes easier to understand and follow.

In many European countries turnouts at national and European elections have been falling. The reasons may be that voters feel their vote will not “make a difference” or that their concerns and opinions are not being listened to or acted upon.

Another reason might be that some institutional instances are perceived as “very far” from the concrete needs of the citizens.

On the other hand there is a growing demand in respect to the quality and efficiency of public services as well as access to public institutions and elected politicians. There are higher expectations on public services and information to be customised to needs. Achieving this would require improvements in the way public services are provided today.

Governments and the EU institutions are working with citizens to identify ways of giving them more of a stake in the policy-shaping process. To this end, ICTs provide a range of tools which can give citizens easier access to information about what decisions are being taken which affect their lives and how the decision-making process works. ICT can support communication and interaction between politicians and government bodies, with citizens, enterprises and stakeholders. The new features of Web 2.0 greatly enhance the potential of intercommunication.

The Lisbon treaty reflects this commitment to improve Europe’s democratic processes and its transparency developing eParticipation. Digital technologies give new opportunities and instruments to improve access to information and give people ways to interact with governments and to provide input to policy making.

eParticipation is furthermore the fifth objective in the eGovernment Action Plan agreed by the Council in June 2006, which had the goal to demonstrate by 2010 the capability of developing tools for effective public debate and participation in democratic decision making.

EU Member States supported the introduction of the Citizens' Initiative, which will be the basis for requests to the European Commission to present a proposal in any of the EU's areas of responsibility.

Another action taken by EU Member States was the inclusion of eParticipation as one of the five priorities of the eGovernment Action Plan. eParticipation aims at demonstrating for 2010 the use of ICT for participation in democratic decision-making and the public debate. The development of participation has a positive impact on the cohesion of European society, promoting the feeling of ownership of the political processes.

2.3.2 eParticipation Programme Implementation

The eParticipation preparatory action contributes directly to the interaction between citizens and the European institutions, in particular ensuring equal attention to all citizens and enabling a greater role for the European Parliament and greater involvement of national parliaments.

eParticipation aims at:

- Fighting the *perceived democratic deficit*, which requires a new relationship between politicians and citizens, and which is particularly challenging *at EU level*;
- Reconnecting citizens with politics and policy-making, e.g. with a view to the European elections and sustaining citizens' involvement;
- Reducing the complexity of decision-making and legislation processes in an enlarged EU of 27 countries, in addition to the increasing number of cross-border issues.

The development and wide use of powerful new ICT applications (e.g. social networking technologies) is transforming the way citizens and civil society interact, debate and participate in public life. These new tools have the potential to enhance decision-making processes involving large numbers of EU citizens.

The eParticipation preparatory action, started in 2006, was designed to build on and consolidating the achievements of the programme implementation. In particular, the 2008 Work Programme aimed to prepare the ground for the future orientation of the eParticipation initiative.

Since the start of eParticipation in 2006 its purposes were to demonstrate concrete cases where modern tools and applications ICT could improve the legislative process and the resulting legislation. One key element of the initial objectives was the participation of the public in the decision-making process. The action adopted two perspectives:

- Citizen-driven, or proactive, civil society initiatives. The aim of this action line was to empower citizens to form, debate and voice opinions as input for decision-makers and politicians on concrete, significant topics;
- Decision-maker driven initiatives to open up to public participation. The core aim of this action line was to enable citizens and politicians to better appreciate the impact of legislation, making the complex political debate meaningful and interesting for all citizens.

The legislation levels included the national, regional and EU scope, considering issues of clear EU relevance.

A supplementary aim of the 2007 eParticipation action is to explore the possibilities and conditions for scaling up these efforts towards a mature and sustained implementation.

The objectives for the 2008 eParticipation were to strengthen and broaden citizens' participation in democratic decision-making and to use innovative ICT tools to improve interaction with stakeholders and consequently to better legislation. These objectives were:

1. Advancing eParticipation: exploring the future course of eParticipation by applying novel tools and applications to the EU decision-making processes,

including their scalability with a view to mainstreaming them within institutional environments;

2. Inter-parliamentary networking and cooperation: exploring ways to improve the connection and collaboration of national parliaments and parliamentary institutions on applications of eParticipation.

The 2008 Work Programme included also a specific assessment study of the Preparatory Action itself, which was awarded through an open procedure.

eParticipation had, over the course of its life and in particular in the 2008 Work programme, the objective to complement and advance the eParticipation activities currently covered by the trial projects in 2006 and 2007, which addressed specific policy making fields, like environment, energy or consumer protection. Furthermore, the 2008 placed emphasis on governance, transparency and engagement of civil society in legislative and decision-making processes.

Key areas in the last participation call were:

- Transparency in tracking legislation and decision-making processes: People need to understand what the EU does and why. It is not only related to greater openness to more effective ways of presenting information and communicating.
- Visualisation of impacts of legislation: develop and test the tools to better understand and visualise the possible impacts of legislation.
- Policy developments related to the Internet and its governance: Internet has become very important for citizens, the society as a whole and increasingly so in politics and raises many questions linked to civil liberties, privacy, security, diversity, access, intellectual property. eParticipation supported ways to allow stakeholders to provide input and interact with the EU institutions on this issue.
- Petitions: they are one of the most traditional ways for the general public to try and influence decision-making. E-petition systems have been introduced in some Member States. Tools should be developed that could be used to allow the public from across the EU to discuss ideas and create an online petition on EU issues.
- Inclusive social networking proposals had to enable people with the same interests to form groups which cross social administrative or geographic barriers, and help these groups to participate in decision-making on specific EU policies.
- Inter-Parliamentary Networking and Cooperation: to raise EU citizens' awareness of the role of national parliaments in EU decision-making. eParticipation stimulated innovative ways to create an inter-parliamentary network to enhance dialogue between Member State parliaments and enhanced inter-parliamentary cooperation.

eParticipation supported real-life pilot projects to demonstrate how using modern ICT tools can make it easier for people to participate in decision-making and can contribute to better legislation.

2.3.3 Outcomes

The eParticipation Preparatory Action was initiated by the European Parliament, it lasted from 2006 to 2008 and the final group of projects will run until the beginning of 2011. In the first year, 2006, six trial projects were selected. In 2007 seven trial projects as well as a support action to coordinate and promote the eParticipation projects – Momentum - were chosen. In 2008 an additional seven projects were selected for funding and started work early in 2009.

The European Parliament, national parliaments and local and regional authorities are actively involved and state-of-the-art ICT tools are being tested to facilitate the writing of legal texts, including translation into different languages, and the drafting of amendments, as well as making the texts easier for non-specialists to find and understand. New digital technologies are also being used to give citizens easier access to information and more opportunity to try to influence decisions that affect their lives.

2.3.4 Other Actions in this Policy Line

The Fifth and Sixth Framework Programmes for Research supported projects addressing the issue of citizen's participation and the ongoing Seventh Research Framework Programme is funding research projects on ICT governance and policy modelling, including the development of mass collaboration tools.

The Competitiveness and Innovation Programme ICT Policy Support Programme (CIP ICT-PSP) is funding a network focusing on regional and local eParticipation initiatives (PEP-NET).

PEP-NET has the target to achieve critical mass to promote interaction and cooperation in eParticipation initiatives building a European network of all stakeholders active in the field, which includes bodies, solution providers and citizen organizations as well as researchers and scientists. The network is open to all organizations willing and actively trying to advance the idea and use of ICT-enabled Participation in Europe. The network will act as a repository and disseminator of good practice and exchange of experience, and be a visible resource for all interested parties across the European Union. It will ensure wider access to European eParticipation projects and permit more effective dialogue between players and stakeholders.

More in general, the objectives of the CIP-PSP Programme are to support the EU policy for eGovernment as agreed in the eGovernment Action Plan by stimulating the best use and wider uptake of ICT in public administrations:

- Improving the efficiency and effectiveness of public administrations and facilitating the interactions of citizens and businesses with them;
- Opening up new market opportunities for innovative ICT based solutions for governments and administrations;
- Strengthening and broadening the citizens' participation in decision-making and contributing to better legislation through the use of innovative ICT based solutions;

The fifth CIP ICT-PSP programme objective is specifically focused on the demonstration and adoption of tools for effective public debate and participation in decision-making. It is

intended to support several pilot actions for up to 7 M€ of EU contribution. Projects are expected to start in early 2010.

2.3.5 The eParticipation learning process

The outcomes of eParticipation and of other initiatives supporting ICT-enabled project and their initiatives show that the development in this field is still very recent and quite focused on the more technical/technological aspects of the issue.

At high political level there has been an debate on policy making and stakeholder involvement. The question raised is whether Europe's established political institutions will be able to adopt best practice in eParticipation, or whether eParticipation in Europe will remain largely outside the formal governance sphere.

The debate confirms that Participation has become a highly political issue over the last few years, particularly considering citizens detachment from politics, declining voter turnout, decreasing membership of political parties.

The Participation policy and its foundation on ICT enabling tools have a considerable potential, but it is at the same time still a long way from full realisation. The eParticipation programme has set the basics to change the broader interactions between citizens and government.

The most active institutions in the field of eParticipation are the European Commission and the European Parliament, while the other agencies are less involved, except for some experimental participation. In the same vein, many of the European ICT-enabled Participation initiatives either offer information or provide deliberation and consultation facilities on a number of significant European issues, in most cases in more than one language with the most prominent being English, French and German.

Recent Council Presidencies have not directly involved citizens in agenda shaping activities, but instead tended to inform the public through a variety of channels and tools. Thus the effort has been concentrated mainly on the side of communication, rather than in listening and involvement.

There is a significant fragmentation of European agency initiatives, not allowing the citizens and stakeholders to be provided an overview of ICT-enabled Participation settings per thematic issue of interest.

The most active promoters of projects are non-governmental organisations and civil society organisations who focus mainly on information provision, campaigning, deliberation, and community building / collaborative activities, most taking place at the local and national levels. At the transnational level (across the borders of a limited number of countries) it has only been possible to identify two ICT-enabled Participation cases, both focusing on deliberation activities.

Despite the broad availability of tools, in the majority of cases the only channel used is the conventional internet channel through PC access. Emerging technologies are more widely used at the national and local levels than at the European level.

In brief:

- Targeted benefits are mainly information availability, better information exchange and stakeholders' accessibility, rather than participation;
- There is a low participation by governmental officials;
- One key issue is that in many cases EU policies are too complex and that only a limited number of participants have the expertise and capacity to provide high-quality input;
- Low ex-post evidence that participants' input is actually taken into consideration in the policy making process;

Which lead to a set of requirements which could be passed over to the ongoing programmes focusing on ICT-enabled Participation:

- Embedding ICT-enabled participation and engagement into Europe's overarching policy architecture;
- High level political backing;
- A concrete engagement from the political and practical point of view on the part of governments and institutions;
- Build citizen participation from the bottom and Listen;
- Need of enhanced project design and of the actual application of lessons learned, minimising re-learning and mistakes repetition;
- Full awareness and understanding of driving or hampering external factors;
- Clearer project objectives of implementation and research and clearer causal relationships of single Participation processes. Engaging design and communication, carefully focusing stakeholder interests and requirements to maximise audience participation. Communications have to be two-way, listening to citizens who have to be involved early in the policy lifecycle and have to receive feedback on the inputs they have provided;
- Clearly designed and implemented communication processes, which do not only pursue the specific objectives of the initiative, but also aim at the broader objective of creating a participative culture and maintaining it;
- Match technology and channels to the participation needs with the habits of citizen engagement, being aware of the digital divide.

2.3.6 eParticipation and the Malmö Strategy

The recent ICT-enabled Participation experience at EU level, in and outside the eParticipation programme can provide a valuable input for the design of future programmes.

The combination of the Malmö Strategy and these experiences can provide inputs to the design of concrete actions in the new action plan which will significantly contribute to the objectives of the Malmö Declaration.

Looking at the past activities on ICT-based participation, it is most probable that the initiatives could demonstrate effectiveness on a limited – pilot – scale. The success of eParticipation at EU level requires the firm commitment by national governments and institutions. This commitment must go beyond the mere participation in pilot projects but also promote the awareness and culture of participation and cope with the digital divide, which could exclude significant parts of the population from these democratic processes.

The experimentation on eParticipation is still in its early stages, but the elaboration of the mentioned conclusions and recommendations and their integration into the Malmö Strategy could be a huge benefit for the coming policy initiatives in this field. The implementation of the Malmö strategy should leverage the eParticipation experience.

Table 4: eParticipation and the Malmö strategy

<i>Citizens and businesses empowerment</i>	User-centric, needs based and Inclusive Services	eParticipation is demand-led, and therefore in-line with the indications of the Malmö Strategy.
	Transparency	Transparency is one of the building blocks of the ICT-based participation initiatives
	Re-use of Public Sector Information	Not directly addressed by ICT-based participation initiatives.
	User Involvement in Policy	The core goal of eParticipation and other ICT-enabled participation programmes. The experience made so far, even if brief, is of extreme value to the refinement of programme support in this area,
	Collaborative Production of Services, third party involvement in implementation	Most initiatives come from NGOs and Civil Society organisations. The success of eParticipation is based on a combination of efforts by institutions, governments, NGOs and civil society organisations and technical organisations.
<i>Mobility in the Single Market: setting up and running business and for studying, working, residing and retiring</i>	Cross-border Services	Not a primary focus of eParticipation and ICT-based participation programmes, but the cross-border experience of these programmes is beneficial for the further programme development according to the Malmö Priorities.
	Business Mobility	Only very indirectly related to eParticipation and related programmes. Citizens could address policy issues related to mobility.
	Personal Mobility	Only very indirectly related to eParticipation and related programmes. Citizens could address policy issues related to mobility.
	Organisational Processes	Indirect relationship of eParticipation.
<i>Efficiency and effectiveness:</i>	Reduction of Administrative	Not a direct pursuit by eParticipation.

	Burden	
<i>key enablers and legal and technical preconditions</i>	Green Government	Not a direct pursuit by eParticipation.
	Open Specifications and interoperability	Very important features of the ICT-enabled Participation initiatives. It should be possible to draw lessons and re-use best practices.
	Key Enablers	Fundamental for eParticipation. These enablers concern the overall policy framework, the creation of an eParticipation culture for citizens, stakeholders and members of Governments, Parliaments, Institutions and Political Parties. Other enablers are communication, design rules, inclusiveness and technological building blocks.
	Infrastructure Innovation	No issue in this field.

2.4 CIP ICT-PSP

To extract the key lessons and experiences from the CIP ICT PSP we have reviewed the Interim Evaluation Report of the CIP ICT-PSP Programme – completed in spring 2009 - to investigate its bearings on the coming i2010 strategy and on the eGovernment Action Plan.

The expert panel looked at the management and impacts of the programme, carrying out their own evaluation activities but also taking advantage of other evaluation studies.

In particular the evaluation exercise collected information and evidence to highlight:

1. The projects and the EU's objectives: programme strategies, project retention criteria, relation with policy objectives, stakeholder policy understanding, Project work plans and policy guidelines;
2. Appropriateness of programme instruments in relation to programme tasks;
3. Implementation and working of the programme;
4. Interoperability (Pilot A);
5. Innovation (Pilot B);
6. Sharing of best practice (Networks);
7. Leveraging;
8. Interactions with other DGs and their programmes;
9. Effectiveness of the programme in promoting sustainability, innovation and competitiveness.

The experts issued a series of remarks and recommendations on the several aspects which were considered in the evaluation activity.

2.4.1 Indicators

The experts highlight that the breadth of policy and practice covered by these themes and their accompanying target objectives will present challenges for concrete evaluation activities. Even if award criteria for Pilots A and B and for Thematic Networks provide a basis for indicator development, the indications are very high-level.

The recommendation is to clarify and embed project-level indicators since the beginning of the project design, and to require project applicants to take over the responsibility to frame specific indicators to track the delivery of impact in relation to ICT PSP's objectives, together with the indication on their use and reporting

2.4.2 **Utility and Relevance to EU Objectives**

The evaluation demonstrated in general a positive acknowledgement of the effectiveness of programme and call documentation which was generally judged satisfactory. It is worth to note that some corrections have been made after the initial stages of the programme.

The experts in the panel highlight that, despite what is mentioned in the programme self-assessment, that active deployment of new technologies is the means by which end-users become engaged, not from the fact that these technologies may in themselves be innovative. The panel is not yet clear to what extent ICT PSP is encouraging or facilitating this engagement with end users.

Concerning the more general EU objectives in particular those relevant to eGovernment, the expert panel was concerned with a possible overlap with the IDABC Programme and on the real capability of the programme to focus on innovations which in the end will prove to be truly marketable.

With a view on these concerns, we do take the results of IDABC (despite the fact that it falls outside the initial scope of programmes and activities to be considered) in account and analyse the overlaps and synergies between the CIP ICT PSP (and predecessors) and the IDABC activities in paragraph 2.8.6.

Project/Budget Balance

The expert panel has concerns with the fact that the scope of PSP's objectives and policy targets is very broad in relation to its budget and that this will lead to a thin spread of resources over projects and networks across its thematic priorities.

The panel makes a clear recommendation that in future the number of themes and activities should be limited to ensure that each theme can include a significant amount of projects than is currently the case to improve the visibility of ICT PSP's work on its selected themes and priorities and offer a better prospect of significant policy impact.

The ICT PSP Instruments

According the evaluation report, the mix of projects and Thematic Networks funded have the potential to meet the Programme's innovation and dissemination objectives.

Effectively 3 different instruments have been deployed:

- Pilot (Type A) - building on initiatives in Member States (MSs) or associated countries, also known as Large Scale Pilots with a focus on interoperability;
- Pilot (Type B) - stimulating the uptake of innovative ICT based services and products;
- Thematic Network (TN) - providing a forum for stakeholders for experience sharing and consensus building.

A-Pilots are conceived as a top-down approach, which the experts believe is appropriate where there are no competing technical solutions and deployment is the sole objective. Numbers of applications have been small. However the panel would like to see more clarity about the strategy behind these selections and that the selection means of Pilot A projects has offered the very best prospects for success, in terms of achieving the Pilot A objectives. In cases where there are still competing technical solutions, projects should be

concerned more with proof of concept, in which cases bottom up and competitive project selection may be more appropriate.

The panel believes that the Commission needs to provide more detailed justification to enable policymakers to be sure that its Pilot A strategies have in all cases resulted in the right projects being supported.

Concerning B-Pilots, the evaluation showed that the budget is spread too thinly across themes. According to the experts, the validity of the programme approach rests almost wholly on the capacity of relatively small and isolated projects or groups of projects to attract the interest and respect of other policymakers and practitioners. The Panel emphasizes that at present there is no evidence that this part so far has proved to be able to do so, and according to the experts, it is unlikely to be able to do so. The key recommendation of the Panel is to ensure a better concentration of Pilot B projects on chosen themes.

A major need for changes is indicated by the panel, which has doubts about the appropriateness as presently structured of the Thematic Networks. The key recommendation is to closely link Thematic Networks to relevant ICT PSP Pilot projects, either to identify new pilot projects or as a follow up to ensure further dissemination and uptake. In future calls for applications for Thematic Networks promoters should therefore be required either to show for instance how their actions could lead to future A or B pilots, or to build in some cross membership and interlinked work with relevant existing Pilot B (and where appropriate Pilot A) projects.

Further issues related to the ICT PSP Instruments concern the fact that they are as a whole are better adapted to be used by academic organizations and public bodies than to the needs of companies, especially SMEs', and other kinds of organizations. To this end, some National Contact Points have expressed doubts about the efficacy of a single grant agreement model for instruments as different from each other as Pilot A and B projects and Thematic Networks.

2.4.3 ICT PSP Implementation

The panel acknowledges that the Commission has made considerable efforts to ensure that ICT PSP is transparent to those best placed to enable it to achieve its policy objectives. This is confirmed by applicants who were able to take full advantage of the opportunity through the information provided.

In relation to the potential for impact, the expert panel clearly stated that is too early to comment on ICT PSP's effectiveness. Within this interim assessment, the initial concern was to ascertain whether the ICT PSP's structure and content offer a basis for achieving its impact, and second whether there is a methodology for tracking and disseminating impact in place.

The improvement areas indicated concern:

- The prospects for tracking and disseminating impact;
- The availability of better and more relevant indicators alongside ICT-PSP's objectives;

- The clear responsibility of project consortia and networks on the reporting on proceedings and impacts;
- the capacity to use the CIP ICT PSP experience and models to leverage adoption through other policy structures and programmes.

Leveraging has been indicated as the key factor for impact and the Commission has made it clear that there was a conscious decision to deploy a wide range of objectives for ICT PSP, accepting that the available funding would limit the coverage of each one and that the programme's broader objectives should be realized by leveraging its ideas, products and partnerships into other policies and programmes.

According to the experts such idea on leveraging is difficult to achieve concretely. They confirm that at this relatively early stage in the programme there is no evidence that the conditions for successful leverage are in place:

- Hardly cross participation from FPs;
- Case studies of projects have revealed plans to leverage on national and private funds, but actually no real development in this direction;
- Contacts with some of the National Contact Points showed little evidence that they were either willing or able to promote involvement with other funding programmes with complementary objectives (e.g. the Structural Funds);
- No indication that this has amounted to a strategic approach at European Commission level to achieving leverage of the coordination with DG Regio.

The experts panels recommends a concerted effort to lay the foundations for successful leveraging, which needs to be actively prepared for and promoted at European, national and network levels. Immediate collaboration should start between DG INFSO and DG Regio in respect of the European Regional Fund, with a view at very least to establishing relationships and joint dissemination between projects with related objectives.

The Panel states that Programmes aiming at the deployment of ICT services should be matched to other large EC Programmes in terms of budget, and that the existing Commission programmes that support deployment are too limited in scale. The greater the volume of completed research from R&D projects that have reached maturity, the greater the need for parallel investment in projects and networks designed to identify opportunities for wide scale deployment and encourage the public sector in particular to exploit them.

2.4.4 CIP ICT PSP and eGovernment

The evaluation report does not give a detailed assessment of the specific eGovernment related activities and policies in the CIP. The eGovernment (public administration) oriented objectives and actions have been addressed in all calls since 2007. Several large scale pilots (pilot A projects) have been launched, together with Pilot B projects in different areas and Thematic networks. In 2009 the eParticipation objective was added to the CIP.

Table 5: CIP ICT PSP and the Malmö priorities

Call	Theme	Instrument	Empowerment					Single Market			E&E			Preconditions		
			User-centric, needs based and inclusive Services	Transparency	Re-use of Public Sector Information	User Involvement in Policy	Collaborative Production of Services	Cross-border Services	Business Mobility	Personal Mobility	Organisational Processes	Reduction of Administrative Burden	Green Government	Open Specifications and interoperability	Key Enablers	Infrastructure Innovation
2007	Enabling EU-wide public eProcurement	Pilot A: Peppol						x	x					x		
	Towards pan-European recognition of electronic IDs (eIDs)	Pilot A: Stork												x	x	
	Innovative solutions for inclusive	Pilots B	x									x				

	and efficient eGovernment	Thematic network																		
	Experience sharing and consensus building in the uptake of innovative eGovernment services																			
2008	Preparing the implementation of the Services Directive	Pilot A: SPOCS																		
	Reduction of Administrative Burdens across the EU	Pilots B																		
2009	Inclusive eGovernance: flexible, personalised and multi-channel based service delivery targeted at the socially disadvantaged	Pilots B																		
	User Centricity for e-Governance	Thematic Network	x																	

[illegible]

2.5 IDABC⁵

2.5.1 Policy and Programme Overview

IDABC is the acronym for Interoperable Delivery of European eGovernment Services to public Administrations, Business and Citizens.

It leverages the opportunities of ICT to:

- Promote and support cross-border public sector services to citizens and enterprises in Europe;
- Improve the efficiency and collaboration between European public administrations, and
- Contribute to the development of the EU in socioeconomic terms.

For these purposes, IDABC issued recommendations, developed solutions and provided services that enable the electronic communication between national and European administrations and to offer modern public services.

The IDABC programme, which is managed by the European Commission's Directorate-General for Informatics, has also provided financing to projects on European policy requirements in the field of interoperable public services. The IDABC programme's management committee and expert groups includes national public sector policy-makers, making the programme a unique forum for the coordination of national eGovernment policies and contributing to the i2010 initiative of modernising the European public sector.

Decision No 2004/387/EC established IDABC for the period 2005-2009. It has the objective to identify, support and promote the development and establishment of pan-European eGovernment services and the underlying interoperable telematic networks.

IDABC supported the Member States and the Community in the implementation of Community policies and activities to achieve substantial benefits for public administrations, businesses and citizens.

The pillars of the programme⁶ are to:

- Enable the efficient, effective and secure interchange of information between public administrations at all levels, between administrations and the Community institutions or other entities;
- Support the development of information interchange to facilitate the needs-based delivery of services to businesses and citizens;

⁵ Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens (IDABC)

⁶ As presented by the IDABC Decision

- Support the development of related pan-European strategic framework;
- Achieve interoperability between European administrations, citizens and businesses, in particular on the basis of a European Interoperability Framework;
- Support the efforts of Member State public administrations and the Community to streamline operations, prompt implementation security, efficiency, transparency, service culture and responsiveness;
- Promote the spread of good practice and encourage the development of innovative telematic solutions in public administrations.

IDABC refers to 'Pan-European eGovernment services' as "cross-border public sector information and interactive services, either sectoral or horizontal, provided by European public administrations to European public administrations, businesses, and citizens by means of interoperable trans-European telematic networks. The services to be developed have to be of 'common interest'.

2.5.2 IDABC Programme Implementation

IDABC's concrete activities relate to:

1. Projects of common interest implemented in cooperation with the Member States. These projects should make use of the horizontal pan-European eGovernment and infrastructure services;
2. Horizontal measures, in cooperation with the Member States in support of projects of common interest. Horizontal measures shall provide, maintain and promote infrastructure services for public administrations on the basis of a common maintenance and access policy defined in IDABC;
3. The management of horizontal pan-European eGovernment services and strategic and support activities to promote pan-European eGovernment services;
4. Strategic analysis of related developments in the Community and Member States, and ensure the management of the programme and the spread of good practice.
5. The description of horizontal pan-European eGovernment and infrastructure services in terms of management, organisation, related responsibilities and cost-sharing as well as in terms of the strategy for their future development. The strategy shall be based on the assessment of project requirements and will be reviewed on a yearly basis.

The IDABC Decision requires the largest possible number of Member States and projects of common interest and horizontal measures shall consider all actions necessary for their establishment or enhancement. Projects of common interest and horizontal measures shall include, whenever appropriate, a preparatory phase, comprise a feasibility phase, a development and validation phase, and an implementation phase.

The implementation of project of common interest and horizontal measures has to take into account results achieved by other relevant Community and Member State activities and relate to the European interoperability framework.

The IDABC Decision includes a post-implementation review of each project to be carried out within one year after the end of the implementation phase. This review has to include a cost-benefit analysis. IDABC is based on a rolling work programme for the whole duration of the Decision.

IDABC's financial contributions are based on a concrete economic and financial plan for the maintenance and operational costs in the post-implementation phase. The programme may cover the full cost for the preparatory and feasibility phases, while the Community will bear the costs assigned to it in the development and validation phase and in the implementation phase. The Community funding will cease, in principle, after a maximum period of four years from the start of the preparatory phase. The Programme forbids the funding of projects which benefit from other sources of Community funding.

2.5.3 Outcomes

IDABC's initiatives use state-of-the-art information and communication technologies, developing common solutions and services and by finally, providing a platform for the exchange of good practice between public administrations, IDABC contributes to the i2010 initiative of modernising the European public sector.

IDABC's activities have led to recommendations, solutions and services that enable national and European administrations to communicate electronically while offering modern public services to businesses and citizens in Europe.

IDABC has funded a series of actions: Projects of Common Interest (PCIs) and Horizontal Measures (HMs), of which the more significant actions are described in the sections below.

The strategic and support activities include evaluation, quality management, financing and management options for cross-border eGovernment, Strategic issues for the implementation of eGovernment services to Businesses, Assessment of ICT implications of EU legislation.

Numerous IDABC's activities are strongly related to similar initiatives in other programmes, such as ICT-PSP: eProcurement is addressed in pilot PEPPOL (Pan European Public Procurement OnLine), ID management and electronic signatures is the topic of STORK (Secure Identity Across Borders Linked).

Security measures are consistent with similar Trust and Security measures in other EU activity areas. Certainly IDABC has developed a great deal of projects and horizontal activities which are sources of solutions and of best practices in the whole ICT domain. The degree of uptake of these experiences in comparable policy programmes and the size of demand for these solutions however remains unclear.

2.5.4 The IDABC learning process

The IDABC programme has been evaluated according to the prescriptions of the Decision. The key outcomes of the evaluation process are synthesised as follows.

The programme is in line with the Lisbon Strategy and with the European policy in the area of eGovernment and ICT interoperability and therefore relevant to the general policy outline of the EU in these areas. IDABC contributes to the i2010 initiative of modernising

the European public sector taking advantage of state-of-the-art ICT and providing a platform for the exchange of good practices between public administrations.

The IDABC strategy has been adjusted to the evolving European policy priorities and integrates its actions into the general eGovernment action plan. Furthermore, IDABC has become a recognised interlocutor for cross-border interoperability.

The EU Member States play an important role in driving the programme and in its future orientations and have contributed to make it a forum for the coordination of national eGovernment policies.

However the evaluation has recognised that the strategic alignment between the national and European priorities has margins of improvement, since cross-border interoperability is as yet not the first priority in several Member States.

In this respect, the IDABC management committee should be strengthened ensuring a higher-level engagement of senior policy and organisational management, in particular involving the Chief Information Officers (CIOs) of national administrations.

The evaluation study has also recognised that the number of actions directly initiated by the Member States is very limited and that the selection process of actions is almost completely driven by the Commission. The programme would therefore benefit from an enhanced bottom-up approach, in first instance promoting an improved information and communication activity.

Over 50% of the programme actions were running behind schedule at the time of the final evaluation. There are therefore margins of improvement of the efficiency of programme implementation, in particular making sure that contractual frameworks are in place in due time at the launch of the programme.

IDABC-financed actions have overall contributed to the construction of common infrastructure services for cross border information exchange between public administrations and IDABC financed studies have demonstrated a high added value, demonstrating a high effectiveness of the programme.

However there are significant margins of improvement of the communication of the achievement of results and there is the opportunity to fill the gap between the perception of the effectiveness by the stakeholders and real results obtained. A stakeholder management and communication strategy would greatly enhance the quality of stakeholder relations with the Member States and the “outside world”.

The budget of IDABC was evaluated against the tasks of the programme and seems adequate for the purpose. However it seems difficult to determine the exact cost/impact ratio, since the programme has not yet set up key performance indicators. The advice is to create a monitoring tool based on a strategic goals and objectives of the programme and actions should systematically include performance indicators to measure results and impacts.

The overall effectiveness of IDABC could have been higher if the programme was steered through a top-down strategy guiding it towards its broad objectives. The European Commission should work out a strategic framework based on a concrete analysis of needs and requirements for interoperability and data exchange across Europe, in particular

through the consultation of stakeholders. The European Interoperability Strategy will be the instrument to provide the guidelines for the coming interoperability and exchange policy instruments.

IDABC responds to the needs of interoperability and interconnection of public administrations. Its utility is unquestioned. No other programme satisfies the need for the development of common interoperability tools for cross border eGovernment services. However the evaluation study remarked that the response to business and citizens needs was more of an indirect kind. The EC established stakeholder interaction mechanisms, but the number of public consultations over the four years of the programme was considered low in respect to the number of actions launched. Programme owners should increase the number of public consultations to obtain a better understanding of stakeholders and their needs.

Nearly 50% of the IDABC budget is allocated to the maintenance of sTESTA, thus limiting the room for new actions. Sustainability of actions is obviously a trade-off between new experimental applications and maintaining existing ones. To this end, sustainability of measures should only be ensured if the actions are assessed to be useful and an open discussion on this issue should be held with Member States in due time.

IDABC is coherent with other eGovernment Community activities. There is a constantly improving collaboration between the IDABC unit and the DG Information Society and Media units responsible for the CIP ICT PSP. However, many stakeholders are not sufficiently familiar with the differences and similarities between the different programmes and projects. It would be useful to develop a coordinated communication and promotion strategy, focussing on the policy alignments and the synergies between the different eGovernment programmes.

The overall conclusion is that the programme is in line with the eGovernment Policy priorities of the European Commission and plays a unique role within the European instruments for the integration of the Union through interoperable public administration. It is on track as concerns the implementation. Lines of improvement are:

- The strategic environment;
- Stakeholder communication tools;
- The development of monitoring and evaluation tools.

2.5.5 IDABC and the Malmö Strategy

IDABC, as said, is about interoperability and interconnection of EU Public Administrations. The programme is somehow expanded vertically, since it deals with application development on the one hand, with infrastructures on the other and with horizontal studies and best practice management.

There is a clear link with the enabling elements in the Malmö Declaration, in first instance. IDABC complements eTEN in the field of infrastructures. There might be some overlaps in certain service and application areas of IDABC and the implementations in the CIP ICT-PSP.

The vertical range of IDABC activities can feed into many of the Malmö Strategy and the relevant field experience can help designing the future programmes which have to implement the Malmö guidelines.

The review of IDABC showed that there are ample margins of improvement in the field of monitoring and evaluation. In particular it seems that the generalised adoption of a consistent monitoring system and the ex-ante definition of a system of quantitative indicators, besides the qualitative ones could have a very positive impact on the evaluation of programme outputs and impacts. It has to be said that this issue arises in several of the reviewed eGovernment-related EU programmes.

Table 6: IDABC and the Malmö Priorities

<i>Citizens and businesses empowerment</i>	User-centric, needs based and Inclusive Services	Very important focus of IDABC on user needs and requirements in the area of interconnection. The IDABC experience is very important for the future implementation of related programmes. The programme experience furthermore can be integrated with the communication and interaction experience of other eGovernment related programmes.
	Transparency	Not directly related to IDABC, even if there is transparency concerned in the setting of interconnection priorities setting.
	Re-use of Public Sector Information	Very relevant for the part concerning the development of services.
	User Involvement in Policy	Not directly relevant, even if potentially the subject of services.
	Collaborative Production of Services, third party involvement in implementation	Relevant.
	Cross-border Services	One of the core elements of the IDABC programme. Integrated with interoperability and interconnection.
<i>Mobility in the Single Market: setting up and running business and for studying, working, residing and retiring</i>	Business Mobility	Only indirectly relevant, even if mobility is one of the principal applications of cross-border services, the Commission only

		deals directly with businesses to a very limited extent.
<i>Efficiency and effectiveness:</i>	Personal Mobility	Ditto.
	Organisational Processes	Relevant in the development of services. Putting in place evaluation and monitoring systems will be beneficial. IDABC in itself did not develop this aspect
	Reduction of Administrative Burden	Very relevant for the part concerning the development of services. IDABC committed resources to the demonstration of interconnected and interoperable services, which of course are also aimed at reducing the administrative burden (eCommission).
	Green Government	Not directly relevant, except for some environment-specific service applications.
	Open Specifications and interoperability	Core concerns of IDABC and one of the most significant outputs and contributions to future eGovernment programmes.
<i>key enablers and legal and technical preconditions</i>	Key Enablers	Ditto.
	Infrastructure Innovation	Ditto.

2.6 **FP7 eGovernance and policy modelling**

After a continued role for eGovernment in FP6, the actual need for further RTD activities under FP 7 was discussed extensively between the Commission and the Member States.

Agreement could be found on the pursuit of Objective 7.3: ICT for Governance & Policy Modelling, which objective was included in Call 4. The objective focuses on the following main areas:

- *Governance and Participation Toolbox*: Advanced tools embodying structural, organisational and new governance models to empower and engage all types of societal groups and communities enable them to utilise mass cooperation platforms and allow governments to incorporate their input while safeguarding against misuse;
- Modelling, Simulation and Visualisation: Real-time opinion visualisation and simulation solutions based on modelling, simulation, visualisation and mixed reality technologies, data and opinion mining, filtering and aggregation;
- Roadmapping and Networking for ‘participation, governance and policy modelling’.

The expected impact to a large extent is concentrated on the empowerment priority of the Malmö declaration. The projects at large aim to actively involve citizens and businesses, mine their opinions, but also to contribute to increased transparency in policy making and higher efficiency levels (in policy modelling and delivery) and embedding of privacy and security principles. The projects have only just started which makes it impossible to assess the results and impacts they will have. In section 2.8.5 below a detailed list of projects and a short description to how they contribute to the Malmö is provided.

2.7 **Public Sector Information**

2.7.1 **Policy and Action Overview**

The European Union is placing major attention on Public Sector information as a resource and foundation for new services and products.

Public Sector Information – PSI, is produced and collected by public bodies, such as personal registers, company registers, digital maps, meteorological, legal, traffic, financial, economic and other data. Most of the raw data recorded for collective interest purposes can be re-used or integrated into new products and services.

Public sector information has great economic potential: the 2006 MEPSIR study estimated the overall market size for PSI in the EU at EURO 27 billion.

Public Sector Information reuse means that individuals and companies can copy, publish and disseminate data for commercial and non-commercial purposes and that no particular player has exclusive rights on such data.

In 2003 the EU adopted the Directive on the re-use of public sector information. It has introduced a common legislative framework regulating how public sector bodies should make their information available for re-use and remove potential barriers to reuse.

The Directive has been implemented in all 27 EU Member States and its aims are:

- Facilitate the creation of Community-wide services based on or integrating public sector information;
- Enhance an effective cross-border re-use of information for added value products and services;
- Limit the distortions of competition on the Community information market: The PSI Directive forbids, as a general rule, the existence of exclusive agreements (EAs) and the transitional period laid down in the Directive for existing exclusive agreements ended on 31 December 2008.

Early in 2009 the Commission reviewed the PSI Directive and proposed a series of actions to maximise the potential of PSI re-use.

2.7.2 PSI Implementation Actions and Outcomes

There are several Community actions in the field of Public Sector Information reuse:

- The European Public Sector Information (PSI) platform: a "one-stop-shop" Web portal provides news on European PSI developments, good practices, examples of new products and services, and legal cases around PSI re-use. The platform stimulates action, report developments and monitor progress towards a stronger and more transparent environment for the growth of national and European PSI re-use markets. It is funded under the Commission's eContentplus programme and builds on the ePSIplus Thematic Network;
- The PSI expert group, an expert group for the exchange of good practices and initiatives supporting public sector information re-use;
- The Commission funds a series of projects in different programmes to raise awareness and bring out the potential of PSI under the Competitiveness and Innovation Framework Programme (CIP). The Information and Communication Technologies Policy Programme (ICT PSP) supports actions to increase the re-use of PSI in Europe, including policy development;
- A thematic legal network is looking at legal barriers to the re-use of PSI in the digital environment and at means to overcome them;
- Projects in the Geographical Information field deal with the wider access and re-use of spatial data.

The aim of the ePSIplatform is to stimulate action, report developments and monitor progress towards a stronger and more transparent environment for the growth of national and European PSI re-use markets. It constitutes an interactive one-Stop Shop providing:

- News about European and International PSI re-use Developments;

- Emerging Good Practices;
- Examples of New PSI Re-use Products and Services;
- Information about Legal cases on PSI Re-use;
- Discussion, Communication and Information Sharing across the European PSI community;
- Expert PSI Community Meetings (two meetings per year);
- Guest Bloggers from the European PSI Community;
- PSI Topic Reports - Analytical Briefings on PSI Re-use (across sectors and issues).

The Network of European Country Representatives provides support from the European community offering local insights and knowledge on experiences and best practices.

The Directory of PSI re-use products and services includes over 100 examples of how businesses re-use Public Sector Information (PSI) to create value added products and services and make significant contributions to the European Economy;

2.7.3 The Public Sector Information learning process and the Malmö Strategy

The activities in the field of Public Sector Information have an impact at different levels.

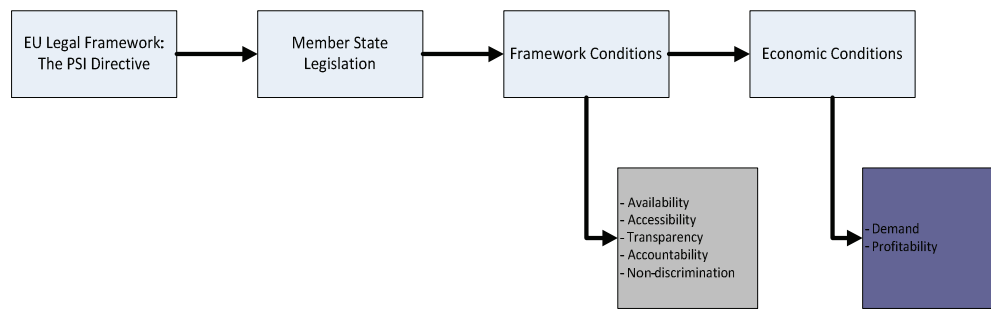
In first instance there is the general legal framework, which set the general rules at EU level and at Member State level for the handling of public sector information. The economic and non-economic value of PSI is high.

The exploitation of PSI requires a level playing field where limitations to the reuse should only be related to the protection of the general interest. The regulatory framework is therefore a key pre-condition to the full exploitation of these information resources.

The European regulation and operation on Public Sector Information is very important for the Implementation of the Malmö Strategy. First of all PSI policies and support actions are directly related to a number of first-tier and second-tier Malmö Priorities: transparency, re-use of public sector information, collaborative production of services, cross-border services, mobility services, reduction of the administrative burden.

On the operational side, the implementation of Public Sector Information-based services and business activities depends on the creativity of entrepreneurs and to the identification and development of markets.

The MEPSIR study proposed a very interesting schematisation:

Figure 1: PSI Framework and legal conditions

Framework and Economic Conditions
MEPSIR Study 2006

The success of the reuse of PSI depends on numerous factors as presented in the scheme. In the very end, when all preconditions are fulfilled and all potential hampering factors have been removed, the market has the final say in terms of demand and profitability.

In particular, the MEPSIR study concludes that in respect to the concrete development of a PSI reuse market there are still gaps to be filled, even after a full implementation of the PSI Directive.

On the positive side it is likely that the substantial number of exclusive arrangements will be reduced to nearly zero, even if some areas of “resistance” are expected.

The MEPSIR study expects

1. A decrease in the cost of PSI purchase (direct price effect);
2. A partial translation of PSI purchase costs decrease to the successive parts of the chain (Fading price effect);
3. Lower prices will lead to increased demand (quantity effect);
4. More suppliers of services based on PSI reuse (entry effect);
5. Diversification effects of PSI-based services, competition and quality effects;
6. Income of governmental agencies will decrease over time.

The MEPSIR study has considered the different sub-domains of PSI.

In these sub-domains the potential economic value can be very different from one category to the other (consider geological information in respect to cadastral or topographic information).

The MEPSIR study therefore considered different ‘Directive Impact typologies’:

1. The “closed shop”, where the production of very valuable information is in the core of the public task and the value chain, up to the level of distribution, is

controlled by the public sector. This area will have a low price elasticity and service provision will be very transparent;

2. The “battlefield”, where the information is very valuable but the position and involvement of the public sector is disputed, with the argument that the information is not a public task. In this area the stakes are high and private sector players will be ready to take over the value-adding using the Directive’s instruments;
3. The “playground”, where governmental agencies will provide data for low costs or for free, making it a non-economic good. Two cases are highlighted:
 - a. The government stepping in, leveraging the capabilities of information technologies to provide socially relevant information services. Private sector providers will have to focus on value-added services;
 - b. The government stepping out, just making available the raw data for free and leaving the value adding completely to the private sector. Here, a slight improvement in availability of this data for reuse can lead to all sorts of new services, as the potential in and readiness of the market is high.

The scenario of Public Information Reuse is therefore extremely differentiated. The value added of PSI is very variable, opening up different perspectives for market development.

There are numerous Community programmes which aim at the design and testing of applications and services taking advantage of PSI: from CIP ICT-PSP to Framework Research Programmes.

These initiatives have to demonstrate the collective benefit of services and technological applications and can positively stimulate the valorisation of Public Information.

On the other hand the role of market forces cannot be neglected. In this case the production of added-value services based on PSI is beyond the domain of public intervention. It just requires a transparent initial framework and the possibility to exploit favourable economic conditions.

Table 7: PSI and the Malmö priorities

<i>Citizens and businesses empowerment</i>	User-centric, needs based and Inclusive Services	PSI re-use is based on demand-led value-added creation. The developments in the field are therefore directly relevant to the operationalisation of the Malmö Strategy.
	Transparency	Can be relevant in two ways: (1) transparency of rules according to which PSI is provided and (2) the transparency determined by the availability of Public Sector Information.
	Re-use of Public Sector Information	Core priority.
	User Involvement in Policy	Only a very indirect link.
	Collaborative Production of Services, third party involvement in implementation	PSI-based value-added applications can be within or beyond the influence of administrations. In any case the private sector is deeply involved in the exploitation of PSI.
<i>Mobility in the Single Market:</i>	Cross-border Services	Indirectly related to PSI-based cross-border value-added services.
	Business Mobility	Ditto.
	Personal Mobility	Ditto.
<i>Efficiency and effectiveness:</i>	Organisational Processes	Quite unaffected.
	Reduction of Administrative Burden	Affected if the outsourcing of PSI-based services generates higher efficiency and effectiveness of administration services
	Green Government	Not affected.
	Open Specifications and interoperability	Quite unaffected.
<i>Key enablers and legal and technical preconditions</i>	Key Enablers	A properly enforced legal framework is the primary condition for

			PSI re-use.
	Infrastructure Innovation		Quite unaffected.

2.8 Overview of relevant actions and projects

2.8.1 Premise

The following projects of the considered programmes: CIP ICT-PSP, eTEN, IDABC, FP7 and eParticipation have been selected according to their relevance in respect to the new eGovernment Action Plan⁷.

The projects are mapped onto the Action Lines in the new plan, looking at the information available from programme documentation and websites, such as project abstracts and synopses.

There is one important caution to be considered: the relationships between the project objectives and impacts are those directly mentioned in the available documentation. There might be further, indirect and non explicit impacts which are not explicitly mentioned in the documentation which was consulted.

The listing below is not exhaustive but includes the main projects and initiatives that contribute to the Action Lines.

2.8.2 eTen

The main projects under eTen that have laid foundations for the current action plan are the following:

- RISER is a Trans-European eGovernment service offering the verification of address information through access on official registries to companies and citizens. Hence, one of the most frequented services of public administration becomes a seamless value-added cross-border service. RISER conforms to highest data security requirements and uses open standards.

RISER especially addresses the interoperability, to an extent to eId and the single market action lines.

- SETS supports the 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.

SETS addresses single market (business mobility) and interoperability.

- PEELS, The main objective of the PEELS project was to prove a web-based Digital Archive Service (DAS) as a reliable, secure and technologically advanced data repository service, enabling easy and secure archiving of legally enforceable digital documents in the European Union Member States.

PEELS contributes to user centric services, personal mobility, and efficiency; currently many 'Safe' projects are being undertaken by EU Member States

⁷ And to the Terms of Reference of this study

- CERTISERV, The CERTISERV project enables public authorities to interact with all their counterparts – citizens, business partners (companies) or other public authorities - electronically in a secure, trusted and seamless way.

The project directly contributes to eId and is at the heart of the PEPPOL project.

- GALENOS (Generic advanced Low-Cost Trans-European Network Over Satellite), aimed at validating a satellite communications network able to support a wide range of applications and generic services employing dynamic management of resources and pay-per-use accounting. The setup aimed at overcoming application-specific technologies which could restrict the potential end-user base.

GALENOS contributes to innovative infrastructures

- The EBR-TIC SERVICE aims to make official company information easily accessible directly from the company's website, allowed to display an "EBR trustmark". By clicking on the trustmark the user will get the basic set of data indicated on the EC Directive on electronic commerce. Sources of information are the Public Business Registers established in each EU Member State.

European Business Register Trust and Internet Confidence Service, mainly contributes to the Single Market priority.

- CERTIVER. Certification Revocation and Validation Service and Transaction securing:

The project implements the market validation for the deployment of a certification revocation service, with its corresponding On-Line Certificate Status Protocol (OCSP) publication, as outsource to any interested Certificate authority, mainly in Europe. Some benefits are expected: reduction in the delay in delivering the revocation information, greater security and reduction of costs (economy scales).

CERTIVER mainly contributes to the pre-conditions priority

- FASTeTEN: Fully Automated Secured Transactions. The project is examining how the FAST secure electronic document exchange system, developed in France, can be deployed for the benefit of administrations and citizens across Europe. It is being experimented in two areas: educational services and in eProcurement and it is streamlining the administration of these public services introducing applications for secure, fully trackable electronic document exchange, leading to time, effort and money savings.

FASTeTEN mainly contributes to the efficiency and effectiveness priority, in particular addressing the administration processes.

- Instant messaging: IM Enabled. Giving power to the local government agencies to create IM services using this software will help to expose the huge potential of IM services in general as well as validating the software developed.

The project contributes to User Empowerment priorities, especially user centricity and involvement.

- EULIS is a new service that aims to provide access to information about ownership and interests in land and property via the Internet, ultimately giving the public benefits in the form of lower housing costs. The service seeks to support a common European property market and the market for housing credit by providing easy electronic access to cross border land information. It aims to assist in property transactions and the mortgage process. The target customer group is a wide range of users including professional users in the real estate sector as well as the general public.

EULIS was originally funded under the eContent PSI programme, and fully addresses re-use of public sector information.

- NETC@RDS aims at achieving initial deployment of an online service for the electronic European Health Insurance Card (eEHIC). The existing service, successfully tested, during a market validation phase, in 85 pilots across 10 EU Member States, has progressively been extended to enable “non-planned” health care access for European mobile citizens who provide evidence of entitlement in any of the upcoming 260 project service units across the 16 participating European countries.

Netcard addresses interoperability and eID and is currently collaborating with STORK.

- Wesign - implemented by Chambers of Commerce in 9 countries – aims at enhancing the access of SMEs to digital certificates. These certificates allow SMEs to sign documents electronically or to access eGovernment services.

Wesign contributes to the mobility of business priority, interoperability and collaborates with Peppol and EIF.

Other projects that mainly contribute to User empowerment include Citizen and Local Authorities Interaction Management, Electronic Polling System for Remote Voting Operation, eParticipate - The eParticipation Trans-European Network for Democratic Renewal & Citizen Engagement, Electronic Platform for Regional Information Dissemination in Europe and EUROVOXBOX services for Improving Citizens' Participation in Democratic Life (eTEN).

2.8.3 eParticipation

- eMPower: is aiming to motivate and strengthen the involvement of NGOs and citizens in the decision-making process on environmental issues at a National and European level by providing method and tools for supporting citizens' participation and collection of signatures to promote relevant public initiatives and demands of civil society. It uses state of the art eParticipation ICT tools to support ePetitioning to enable transparent, interactive communication processes. It is initially focused on the environmental sector.

eMPower mainly contributes to the User Empowerment priority.

- EuroPetition: is providing a service to enable the general public to influence decision-making by organising a petition. This service is mediated by Local Authorities providing citizen engagement locally and distributed interaction with National Petitioning initiatives, the European Parliament's Petitions Committee and the

Commission's Citizens Initiative online procedures. It uses a proven open-source UK ePetitions service and experience, and builds on innovative and state-of-the-art Web 2.0 applications. EuroPetition will pilot trial the coordination and submission of cross-border and pan-European "EuroPetitions" from different Regional Clusters.

EuroPetition has a main bearing on the User Empowerment priority.

- VoiceS – Integrating Semantics, Social Software and Serious Games into eParticipation. It has the objective to promote the dialogue between citizens from European regions and "their" regional policy makers from the European Parliament or the Committee of the Regions. The project integrates Semantics, Social Software and Serious Games into eParticipation.

VoiceS mainly contributes to the User Empowerment priority

- Demos@Work aims at enabling and facilitating European-wide discussion between elected representatives and civil society. The project makes full use of the latest Web 2.0 technologies to create a web portal that will allow real-time exchanges of information and ideas between citizens and some of their elected representatives. It builds on a mobile platform to allow both citizens and Members of the European Parliament (MEPs) to access the project's services and applications and interact. The pilot activities are in the field of public health, particularly the harmful effects of smoking (eParticipation).

Demos@Work addresses the priority on User Empowerment.

2.8.4 CIP ICT PSP

The CIP ICT PSP as a currently running programme clearly has direct relevance and impact on the new action plan and the identified priorities. Especially the pilot A projects have critical weight towards EU level and cross border eGovernment services, shaping the pre conditions and providing a large scale basis for development of such services at different levels.

All large scale pilot A projects are highly relevant to the Action Plan:

- PEPPOL will make electronic communication between companies and government bodies possible for all procurement processes in the EU. It will connect existing national systems, crucial for allowing businesses to bid for public sector contracts anywhere in the EU.

PEPPOL directly contributes to the single market priorities, in addition it contributes to interoperability and indirectly to eId.

- STORK develops an EU-wide system for the recognition and authentication of electronic identity (eID via electronic cards or other means). It will enable businesses and citizens to securely use their national electronic identities and get help from public administrations in any Member State they live in or travel to. The pilot project aims to achieve the pan-European recognition of electronic IDs. This will be done without imposing one single solution but allowing national systems to work together.

STORK directly contributes to eID and interoperability.

- SPOCS, Simple Procedures Online for Cross-border Services (SPOCS) is a pilot project launched by the European Commission which aims to remove the administrative barriers European businesses face in offering their services abroad. SPOCS is expected to further enhance the quality of electronic procedures completion and has been designed for businesses that have an interest in cross-border activities. It will allow them to meet all the administrative obligations through a single contact point that will be available online.

SPOCS directly addresses the single market priorities and indirectly also the efficiency and effectiveness priorities

The following pilot B projects are highlighted for having particular relevance or contribution to the priorities:

- Diego is a Pilot B offering a highly scalable deployment model of inclusive eGovernment to deliver a full e-accessibility front end for eGovernment Services, integrating a new “user-centric” and accessible service provision model including trans-border services, according to preferred ICT media available, a “highly scalable Deployment Model”, based on a Software as a Service (SaaS) approach and widely accepted web service standards.

DIEGO clearly address user empowerment and in particular user centrality, in addition it has elements fitting into interoperability.

- The ECRN pilot B project will establish a secure and certified electronic infrastructure that will allow Civil Acts Registrars in different countries to exchange information on Civil Act certificates (birth, death, marriage, divorce).

ECRN directly contributes to the single market priorities and in particular to the personal mobility theme.

- Rural-Inclusion (eGovernment Lowering Administrative Burdens for Rural Businesses). The project aims at improving the way transactions between rural SMEs and public authorities are carried out. It incorporates leading edge Web technologies (Semantic Web / Web2.0) to increase the efficiency and flexibility of transactions. The platform also includes Web-based services support the creation of communities of learning and practice in rural settings, facilitating the communication and exchange of knowledge and experience between the rural businesses, as well as with the regional public authorities.

Rural-Inclusion mainly addresses the Efficiency and Effectiveness priority.

- iSAC6+ (A unique European Citizens' Attention Service) (CIP ICT-PSP). The project focuses on specialized services for citizens' attention (SAC). iSAC is an on-line citizen centric system created by listening citizens. It is an automated system allowing for a human specialist if required. iSAC6+ works to offer iSAC as the EU common SAC platform to: ease administration for all, citizens and business, access for all according to their capacities. It is an OSS tool, tested in the city of Terrassa (Catalonia-Spain), to be challenged at EU level for diversity and robustness.

iSAC6+ mainly contributes to the User Empowerment priority.

Two thematic networks have direct relevance:

- eGovMoNet CIP ICT-PSP Thematic Network that aims at establishing a clear baseline on the state of the art in eGovernment impact and user satisfaction measurement, including both methods and tools and Facilitate policy inputs beside on eGovernment impact and user satisfaction.

eGovMoNet contributes to the user Empowerment objectives in general and in particular to user centrality, and to an extent transparency.

- Universal eID: CIP ICT-PSP Thematic Network of stakeholders to prepare for the deployment of an eID management infrastructure. The TN aims at providing a platform for all the stakeholders of eID to work together and collaborate to prepare a strategy for the coming a large scale deployment of an electronic identity management (eIDM) infrastructure.

Universal eID directly contributes to eID and interoperability.

The following studies have been launched under the CIP programme that bear direct relevance the policy priorities:

- Cloud and Object Oriented Service Architectures for eGovernment, eHealth and other public services – CIP Study exploring of possibilities for and effects of new service architectures in eGovernment. The study directly contributes to Interoperability and innovative infrastructures.
- Collaborative Production in eGovernment – CIP Study carrying out an Inventory, analysis and proposals for collaborative work and service provision in eGovernment.

2.8.5 **FP 7 eGovernance and policy modelling**

In general the projects and activities funded by FP 7 fall predominantly under user empowerment.

- CROSSROAD FP7 SA: A Participative Roadmap for ICT Research in Electronic Governance and Policy Modelling. The roadmap will be based on a cross-analysis of present research directions and future scenarios of collaborative governance, including possibilities for disruptive scenarios of extreme collaboration. It will be presented as a self-standing report and as an online, dynamic knowledge base.

CROSSROAD especially contributes to collaborative policy.

- WeGov FP7 STREP aims at the development of new tools allowing policy makers to interact with citizens and to understand their opinions by using well established public SNS – Social networking Sites such as Facebook, Twitter, etc. Leveraging the potential of the SNS enabling introduction, detection, tracking and opinions and discussions presentation on policy oriented topics including their origins, bias and evolution. The tools will allow discussions to be seeded and stimulated through injection of policy discussion points into relevant communities.

WeGov FP7 addresses the priority on User Empowerment.

- +Spaces FP7 STREP: Policy Simulation in Virtual Spaces aims to provide novel technologies and instruments to integrate different technologies and services to

support government bodies in measuring public opinion on a large scale. It will provide governments with tools for testing their legislation in a number of virtual environments as well as data mining tools for tracking the users' reactions. The technologies developed by the project will allow the aggregation, filtering and analysing information, including reputation systems for the source reliability. It is developing +Spaces API and middleware, Common Infrastructure Services, Data Mining, Recommender and Reputation Systems, Statistical Analysis Tools Policy making applications, Business Modelling and a legal analysis.

+Spaces supports mainly the User Empowerment priority.

- PROGR-EAST FP7 SA: the project aims at developing Innovative PROcurement techniques to support the GRowth of competitiveness for public services in EASTern Europe. It bases on the encouragement of the use of Pre Commercial Procurement (PCP), introducing innovative PCP strategies to contracting authorities. The final objective of PROGR-EAST is to create a long term sustainable network of public and private stakeholders able to support PCP strategies and policies in Eastern Europe.

PROGR-EAST supports the single market priority in particular business mobility.

- UbiPol Ubiquitous Participation Platform for Policy Making. FP7 STREP, aims at developing an ubiquitous platform to enable the involvement of citizens in policy making processes (PMPs) regardless their current locations and time. The project provides context aware knowledge with regard to policy making, as well as a policy tracking functionality via a workflow engine and opinion tag concept to improve the transparency of the policy making processes. The wireless network is secured by a leading edge encryption algorithm in its communication kernels.

UbiPol supports the User Empowerment priority.

- OCOPOMO FP7 STREP: aims at Open Collaboration in Policy Modelling developing an integrated IT platform for efficient policy development by integrating formal policy modelling, scenario generation, and open collaboration supporting engagement of wide stakeholder groups in social and economic policy areas. The project builds on methods and tools of policy modelling and scenario-based foresight and integrates them into a platform of open collaboration among key stakeholders (policy analysts, policy operators, wider interest groups of specific policy domains, etc.) using e-participation tools.

OCOPOMO addresses the priority for User Empowerment.

- COCKPIT FP7 STREP: Citizens Collaboration and Co-Creation in Public Sector Service Provision. COCKPIT adopts a highly synergetic approach towards the definition of a new governance model for the next-generation public service delivery decision making process by combining the research areas of citizens' opinion mining in the context of Web 2.0, Service Science Management and Engineering in the context of the public sector, and deliberative engagement of citizens for forming informed judgements on public services' delivery. Web 2.0 social media will have very soon establish themselves as a very effective means for creating, sharing and tracking knowledge about citizens' opinions and wishes on public service delivery.

COCKPIT addresses the priority for User Empowerment.

- PADGETS FP7 STREP Policy Gadgets Mashing Underlying Group Knowledge in Web 2.0 Media. The project introduces the concept of Policy Gadget (Padget) – similarly to the approach of gadget applications in web 2.0 – to represent a micro web application that combines a policy message with underlying group knowledge in social media and interacts with end users in popular locations. Through the proposed platform any policy can become a reusable and communicable web application to be used in relation to underlying content and social activities over the web. Policy makers will be able to set up such applications on their own and use them to communicate their policies to the public.

PADGETS addresses mainly the priority for User Empowerment.

2.8.6 IDABC

- ECN-ET - electronic transmission of documents between the Commission and the Member States in the framework of the European Competition Network (IDABC). The main objective of the project is to avoid sending documents by paper mail in the European Competition Network. Security is a key feature of the ECN-ET application which will be restricted to the competition authorities of the Member States. The system acts as one way communication system between the Competition Authorities and the Commission services. It bases on the Fuseframe architecture framework of the EC DIGIT Data Centre.

ECN-ET supports mainly the pre-conditions priority.

- EESSI - Electronic Exchange of Social Security Information (IDABC). The objective of this project, which addresses the issue of strengthening the protection of the social security rights of citizens who are mobile modernising and speeding up the information exchanges. The objective is to undertake by electronic means all the information exchanges currently taking place through the use of nearly one hundred paper E (European) forms.

The main priority addressed by ESSI is Efficiency and Effectiveness.

- IMI: The fundamental objective of the Internal Market Information (IMI) system is to create the conditions in which day-to-day administrative cooperation between the Member States can take place, by supplying a cross-border eGovernment application to support Internal Market legislation. The system is an enabling mechanism. It will provide Member State administrations with a multilingual, open and flexible tool to support the mutual assistance and information exchange required to implement Internal Market legislation efficiently. The system will be operated and maintained by the Commission. European citizens and businesses will be able to rely on a fast and constructive response by administrations to help cross-border activities and enable them to take advantage of Internal Market opportunities. IMI mainly addresses the priority efficiency and effectiveness.
- eQuestionnaire. The project provides a tool for the instant and automatic processing of the information provided. eQuestionnaire contributes to a more efficient management of information, thus speeding up the administrative procedure. It plays

an essential part in order to obtain and exploit market information, and furthermore, draft convincing decisions supported by strong evidence.

eQuestionnaire contributes to the Pre-conditions priority.

- eProcurement aims at making available electronic Public procurement systems to improve and simplify the way government procurement operates. It will help enterprises to identify contract opportunities and to supply their goods and services across Europe's Internal Market, contributing to Europe's competitiveness and economic growth. Project activities concern interoperability in electronic public procurement, the provision of functional requirements, common tools or generic services for the contracting authorities, awareness raising, Analysis of standards and normalisation needs, Testing national solutions for eInvoicing in the European Commission environment, Study on standardisation and mutual recognition of business attestations.

eProcurement supports mainly the Efficiency and Effectiveness priority and the single market priority.

- STESTA: Secure Trans European Services for Telematics between Administrations aims at making available a telecommunications interconnection platform that responds to the growing need for secure information exchange between European public administrations. It is a European IP network, similar to the Internet in its universal reach, but dedicated to inter-administrative requirements and providing guaranteed performance levels. STESTA aims to provide telecommunication services for data exchanges required for the implementation of European policy. STESTA is a network of networks, composed of the EuroDomain backbone and Local Domain networks. Local Domains can be national or regional networks, European Institutions or Agencies. The EuroDomain is totally isolated from the public Internet, thus guaranteeing restricted access only to administrations.

STESTA focuses on the Pre-conditions priority.

- CIRCABC (Communication and Information Resource Centre for Administrations, Businesses and Citizens) is an application used to create collaborative workspaces where communities of users can work together over the web and share information and resources. CIRCABC will replace CIRCA (Communication and Information Resource Centre for Administrations), an eGovernment application supporting the online collaborative activities of the European Union's public administrations. CIRCABC supports the development of eGovernment best practice: it makes public administration documents more accessible and harmonised. With the CIRCABC Open Source release, businesses and private associations are given the opportunity to use this tool for their own needs. CIRCABC 3.0 is now available with enhanced features.

CIRCABC supports mainly the Pre-conditions priority.

- eLink is a middleware solution developed by IDA which provides a range of services for information exchange primarily between public sector authorities. It also caters for data exchange between citizens and the public sector, and enterprises and the public

sector. In short, eLink allows government bodies to cooperate and offer services online to businesses and citizens. The key objective of the pilot project was to determine eLink specifications, and identify common tools to be used by IDA sectors and Member State administrations. The final project should specifically meet government requirements for online services.

eLink concerns the Pre-conditions priority.

- Certification Services – A solid basis for secure communication, the IDABC Certification Services action, the continuation of an existing action of the IDA II Programme called PKI Services provide such a tool for security, and more precisely, organise and manage keys and electronic certificates which guarantee secure data communication.

Certification Services concerns the Pre-conditions priority.

- Common Identity Management Service (CIMS) – Protecting access to pan-European eGovernment systems, draws on previous and current activities in the IDA and IDABC domains: it aims to support the authentication policy, authentication over the public key infrastructure and requirements identified in the "Architectural Study for secure hosting of IDA's PCIs".

Common Identity Management Service (CIMS) concerns the Pre-conditions priority.

- Interoperability for European eGovernment Services analyses the eID and authentication interoperability requirements. Fully in line with the i2010 eGovernment action Plan, and specifically supporting the adopted eID Roadmap, this analysis will point to the required interoperability functions in eID, propose a global eID interoperability approach and solution based on existing technologies, propose and study the impact of a multi-level authentication mechanism and derive common specifications for interoperable eID in the EU.

eID concerns the Pre-conditions priority.

- State Aids Electronic Notifications. On the basis of the Commission Regulation No 794/2004 of 21 April 2004, the project will develop a communication system between the Member States and the Commission in the state aids area. This system will allow Member States to electronically notify the state aids and make it easier for the Commission to manage notifications. Through use of the system, it is expected to improve the quality of the notification, speeding up the processing of information, and consequently accelerating the procedure.

The project supports mainly the Single market and the efficiency and effectiveness priority.

- CPCS: Consumer Protection Cooperation System. The aim is to enable the information exchange between the various national authorities and equally serve as an information repository in order to improve EU-cooperation in the field of consumer protection enforcement. National authorities will be able to exchange information and cooperate with counterparts in other Member States as easily and seamlessly as with other authorities in their own country. Commission shall equally serve as an

information repository, maintaining an electronic database (the Consumer Protection Cooperation System) in which it shall store and process the information it receives.

CPCS supports mainly the single market priority.

- **SANREF: DG Sanco Reference Database system** The main objective is to create a common Food Safety data warehouse and data dictionary in order to ensure: Consistent and valid data across applications, across Food Safety, One central point of exchange for all reference data, Common structure for all exchanges of information with partners, One-stop service for partners, Correct and reliable data across the applications, Ability to validate and cross check received information across applications. Applications will be able to query the system for information through the interfaces and web services that will be provided.

SANREF supports mainly the efficiency and effectiveness priority.

- **TRACES: Trade Control and Expert System** This project is an operational system that is being enhanced by means of: Extending Trade Control and Expert System at the international level, addition of an export / import module, allow introduction of import and export certificates.

TRACES supports mainly the efficiency and effectiveness priority.

Table 8: Overview of contribution to the new eGovernment Action Plan 2015

Action	Preconditions			E&E			Single market			Empowerment				
	Open specifications	Key enablers	Infrastructure Innovation	Organisational processes	Reduction of Administrative Burden	Green Government	Cross-Border Services	Business Mobility	Personal Mobility	User-centric and Inclusive Services	Transparency	Re-use of Public Sector Information	User involvement in policy	Collaborative production of services
eTen	validation	deployment												
eParticipation														
CIP ICT PSP	Pilot A													
	Pilot B													
FP7	Projects													
IDABC	actions													



2.9 Conclusion on Evidence and Lessons for the Action Plan

The current and recent activities deployed by the Commission are all contributing directly or indirectly to the policy priorities as identified in the ministerial declaration and that will be the basis for the new eGovernment Action Plan 2015.

A few areas seems to have little or no 'seeding ground' in the current and recent activities, especially the activities under efficiency and effectiveness seem significantly less addressed than other priorities, green eGovernment (not surprisingly since it is a new area) is not addressed at all but also organisational processes and reduction of administrative burden seem hardly addressed. The latter is indirectly addressed by many activities, but very few directly focus on the topic as the centre of activity.

The priority of user empowerment is highly addressed, but not all areas are equally well represented. The most addressed action line is user centricity and inclusion, which is much due to the dedicated eParticipation activity and the focus on eInclusion. Also the FP 7 projects touch upon this area. The knowledge, experience and critical mass should have been built up by the recent and current activities to make major progress in the next years under the new action plan. Transparency on the other hand is only marginally or not addressed. Although some activities indirectly touch upon the subject, no dedicated activities could be identified. Being strongly related to trust, freedom of information and organisational processes, transparency can be seen as an enabler for successful eGovernment services, and more specific attention would be in place. Reuse of public sector information, comes from 'outside' the programmes an actions being considered and activities in this field have been ongoing since the mid 90's, nevertheless the majority of activities date back more than 5 years ago, and only now in the CIP new initiatives and projects are to be expected.

The theme user involvement in policy making is strongly addressed in eParticipation activities as well as in FP7 projects, the area is strong and diversified and can be a pillar for future work. Activates related to collaborative production of services is a new area, based on technology developments and is mainly addressed through preparatory work as studies.

The pre conditions are addressed in various ways, and through various activities. Interoperability is mainly addressed through the CIP ICT PSP and IDABC, while eID has roots in eTen and is strongly addressed in the CIP. Infrastructure innovation on the contrary seems only marginally addressed.

The most addressed priority has been the single market theme and sub themes. In eTen as well as in the CIP, key projects and activities have addressed cross border services, business mobility and to a lesser extent personal mobility.

CHAPTER 3

What do the experts and practitioners say?

3.1 The experts

3.1.1 Introduction

This chapter reports on the series of interviews with stakeholders and policy makers at national and EU level. The interviews were structured and focussed on the policy process, programme and action implementation as well as the results of past activities and identified needs for future activities. The interviews did not cover all previous eGovernment activities but concentrated on activities addressing the Malmö priorities and the new action plan.

As past and recent developments the interviews followed the scope of this study and predominantly looked at eTen, FP7, eParticipation, the CIP ICT PSP. In addition very closely related activities such as IDABC were taken on board.

3.1.2 The past and current

eTen as a predecessor to the CIP ICT PSP and the current Action Plan for eGovernment, is generally seen as a prominent contributor to these follow up activities, although it must be said that a mixed picture arises.

On the one hand there are some eTen eGovernment projects that clearly and directly feed into later CIP projects (including for instance Certiserv, Michael and Netcard) and there have been successful large Initial Deployment projects (such as PaySafeCard and Riser) but most of these were not eGovernment related, and as such the direct impact on the Action Plan and current eGovernment activities is to be seen as relatively small.

The CIP ICT PSP is generally described as the main vehicle for eGovernment policy implementation, with potentially successful large scale pilots (Peppol, STORK and SPOCS) some of the objectives of the current action plan can be reached and these projects are major feeders for the new action plan, especially regarding the preconditions and the single market priorities. The tendency is very positive towards the Pilot A's both in terms of operation and in terms of implementation (as a new instrument), even though concerns exist on the longer term viability and sustainability, especially after the

Commission funding has finished. Nevertheless the pilot A instrument at the moment seems to fulfil its promise, with Peppol as an example on how the instrument can create critical mass and generate EU wide results, especially after the extension to include all Member States. About STORK more doubts were expressed regarding the real sustainability at the end of the project. The main issues discussed concerned the lack of legal embedding (making it an option rather than compulsory to comply) as well as the current crisis situation which in several cases been brought forward as a potential reason for Member States to take a smaller interest in the project or even drop out.

The Commission could take a leading role in ensuring infrastructural embedding of (parts) of the services developed under the Pilot A projects, especially where they concern services that can be seen as Pan European services (PEGS)⁸, and where the Commission could provide certain centralised and infrastructural services or develop the standards for other structures (such as federated structures), without threading on the terrain of the Member States, in which case (parts of) the pilot A would be developed more or less as a PEG through a combination of bottom up (from the Member State level up) and a top down activities.

The other two Pilot A's SPOCS and the near future eJustice project have not yet been started and therefore no assessment on their contribution can be made.

The contribution of the pilot B's is not so clear. The overall feeling is that the responses to the calls for proposals have been sub standard as a whole, only marginally addressing the call objectives, and not always of sufficient quality. Therefore doubts are expressed by several interviewees if the anticipated outcomes will be achieved and whether B pilots will make a significant contribution towards the Malmö priorities.

The eParticipation actions (both as a separate activity and as part of the CIP ICT PSP) clearly have a direct impact on empowerment priorities.

Research activities in the FP's especially FP6 and FP7 have diverse impacts on the eGovernment activities. From FP6 projects as SMART cities and Eurocities were referenced as being pillars for the current eGovernment activities. FP7 projects have only just started, they mainly address the user empowerment issues related to policy development (either citizen involvement or collaborative development).

Activities under IDABC and currently ISA have an impact on especially interoperability, but do not have critical mass by themselves to foster EU wide change.

True Pan European Government Services (PEGS) seem to be far and few between, the general view is that at the current stage they do not need to be a focus of attention, but should be developed to address specific policy needs and thus be demand driven. The current economic recovery plans and subsequent budget cuts may be a stimulus for Member States to jointly develop PEGS in order to reach their cost reduction targets.

⁸ PEGS are defined as centrally run services (possibly using a federated structure) for all EU residents and businesses and accessible from everywhere in the EU

3.1.3 Barriers, obstacles and potential solutions

Legal embedding or the lack of it, has been indicated as a major barrier for progress in eGovernment developments. This is very clearly visible with the Large Scale Pilots in the CIP ICT PSP. STORK has been mentioned as an example where, even though results and political will from key partners are strong, the chance of eventual success and longer term sustainability could be reduced due to the lack of legal and regulatory embedding, whereas regulatory developments will see after the embedding of (part of) Peppol and where SPOCS is based directly on the requirements in the Services Directive. Especially in the current days of cost cutting, the lack of 'obligation' could lead to cutting further investments, or even abandoning projects. The legal embedding goes across the different activities however. Clear rules of engagement, legal frameworks, compulsory compliance have been indicated as cornerstones for progress especially in the areas of the pre conditions and the single market priorities. The actual implementation is complex however, since it involves (apart from the political will) all Member States and several DG's in the Commission. Leading by example (as for instance with eCustoms) or creating coalitions of the willing as forerunner groups (for example Peppol) were mentioned as potential break through methods.

Another important issue raised is the disconnection between R&D and the policy development and implementation. The disconnection exists at various levels, and in various instances (from policy formulation to implementation), potentially leading to technology push from the R&D efforts (largely because no clear demand is formulated from the implementation side) and disconnection between R&D results and subsequent uptake. This in the end is likely to reduce innovation efforts and maybe partially explain the poor average quality of the pilot B proposals. The need for looking at longer term needs rather than predominantly focussing on the immediate operational demands was raised as an issue in this context.

Longer term and cross border eGovernment goals however, especially at EU level, are not necessarily directly in line with national priorities. The higher level policies also generally produce less tangible results, at least on the short term. Many Member States therefore seem reluctant to jointly create longer term visions and an according R&D agenda aligned with longer term operational needs. Subsidiarity is often provided as an additional main reason for the reluctance. A mix of short term and longer term perspectives together with clear measurement methods were suggested as potential solutions for the deadlock, by building up evidence based hard indicators some of the resistance could be overcome.

An ongoing discussion is about the question whether eGovernment leads to internal cost saving. In times of crisis and cut backs on government spending proven cost saving can be of high relevance to a push towards eGovernment implementations. Measuring the cost effects of eGovernment is generally seen as highly complex and has many difficulties as cost attribution etc. As a result very little hard evidence is available. There is general agreement that eGovernment might save cost at micro level, but since eGovernment applications:

- Are often not replacing existing channels but adding a new channel; and
- Are often not accompanied by real organisational change and integration into different processes at back and middle office (leading to inefficiencies in the system),

there is likely to be a cost increase at the macro level in the organisation. Making eGovernment entirely cost effective requires a holistic and long term perspective. In general it was suggested that the focus should be on consolidation rather than on duplication.

A related issue is the high costs against low uptake of eGovernment services especially by citizens and in particular of services for the direct involvement of citizens in service and policy development, public debate, etc. Some services as tax filing are either enforced by law or generate benefits and incentives. Similar remedies could be investigated for other participatory services taking social networking incentive principles as an example.

A barrier of a different nature is the perceived lack of leadership at different levels (EU and national). The leadership issue is clearly related to subsidiarity.

The Commission as such could provide a leading by example role (especially towards the Member States) 'eCommission' even though the volume of transactions with business is low and with citizens almost nonexistent and most interactions between government and business and government and citizens are at national and local level. The Commission could however play a leading role in providing certain central harmonised services (for instance eID clearing) and guaranteeing infrastructure for deploying eGovernment services, nationally and internationally.

Setting standards at EU level could be enforced. To avoid subsidiarity issues, one could pursue setting de facto and ad hoc standards on confined topics and areas at EU and leave it to the Member States to implement. It should be kept in mind that common standards save money.

At national and local level there is equally a need for leadership. Local administrations (apart from large cities) often do not have the capacity, skills and knowledge for eGovernment development and deployment, and are often locked in to offerings from commercial suppliers. Eurocities and SMART cities are examples of local public administration cooperation, other initiatives could be deployed at EU level to support local administrations and overcome national barriers.

The leadership issue also plays a role at project level, especially with the Large Scale Pilots who are dependent on strong leadership for their successful implementation.

The stronghold of a limited number of commercial service and software providers thereby locking in the administrations and leaving little space for innovation was brought forward as a reason for cost increases (unnecessary duplications, lack of integration etc) and as a barrier to interoperability, integration and innovation. Replacement and pre-commercial procurement in eGovernment are seen as potential solutions to increase competition and stimulate innovation, as well as EU guidance and building knowledge and capacity at all levels of administration.

3.1.4 Towards implementation

A key element that repeatedly came back in the interviews with stakeholders as well policy makers was that the eGovernment in general but especially in the current financial and economic crisis needs tangible and measureable results in order to survive as a priority for investment in the coming years.

Clear value added and cost savings must be demonstrated in order to persuade policy makers to opt for investment rather than for cost cutting. Therefore the SMARTS principle (Specific, Measurable, Achievable, Reliable, Timely and Sustainable) should rigorously guide the action plan and its specific actions within it. Appropriate (and preferably standardised) ex ante impact assessments at all levels together with cost benefit analyses at organisational level should be fostered.

At project level, the general agreement was that projects and initiatives should be demand driven. In addition it is better to pick winners and have smaller groups of key players set examples and demonstrate feasibility rather than spend effort on trying to get all players on board, whereas strong leadership is central to the success of these projects, especially the Pilot A projects.

The general opinion is favourable towards the Pilot A as a key instrument for especially the pre conditions as interoperability and eId and for single market priorities, despite the potential legal issues the implementation of the instrument could have (but until now haven't materialised). More than for other instruments however, legal embedding is crucial to reach the real impact of these initiatives. The Pilot B instrument should be analysed to make it more effective and better fulfil its role as a linking pin between for instance R&D and deployment. The instrument should perhaps be better profiled and positioned between the other instruments and better targeted towards needs rather than being the front end of technology push.

3.1.5 **Conclusions on Evidence and Lesson for the Action Plan**

Conclusions from the interviews can be drawn at several levels. At the programme and action level, a few recommendations from the interviews can be extracted:

- Embed and sustain by setting up/providing a number of central services by EU would help;
- Leverage existing tools as the Internal Market Information system (IMI) as the basis for setting up and implementing;
- Reduce replication effort, dependence on 'commercial' knowledge and leverage knowledge and availability of tools and technology;
- Pre-commercial procurement to overcome stronghold by some industrial players, by allowing different suppliers (smaller and larger) to be selected in the different phases of development and gradually move towards the most appropriate solution (technically and economically) allowing innovative approaches to compete with each other and which more traditional ones;
- Focus on tangible and achievable goals is essential and should remain, each of the goals requires feasibility check: SMARTS should apply (specific, measurable, achievable, realistic, timely and sustainable);
- Make demand driven, create examples with forerunners rather than spend most effort to be all inclusive;
- Have simultaneous technical, legal and organisational tracks – currently not always in tune;

- Keep Pilot A's for achieving interoperability at EU level and creating forerunner groups;
- Keep Pilot B's for maintaining innovation potential and validation possibility of RTD and other technology developments;
- No emphasis on creating Pan-European Government Services, in general but focus on Cross border services to address specific policy targets;
- R&D effort/policy/direction should be better aligned, integrated and tuned to operational needs, overall eGovernment policy and eGovernment policy implementation.

And at the political level:

- Leadership at various levels is needed, to give direction to the process
 - Vision: supported by EU;
 - Implementation: emphasis by Member States;
- Provide guidance, support and leadership to local-regional administrations;
- Demonstrate viability and sustainability and above all value proposition.

The interviewed experts were almost unanimously agreeing on the three key elements for a successful eGovernment Action Plan that can be summarised in the following actions:

- Provide a strong and guiding legal framework and ensure embedding of the technical developments in this framework.
- Place emphasis on organisational change, at all levels the organisational change has to be expected and planned for, without accompanying organisational change eGovernment developments will not be effective and will incur additional costly.
- Ensure semantic interoperability: the interoperability of meaning of things is an essential pre condition to a wide variety of eGovernment applications and developments.
- Foster EU level standardisation while keeping subsidiarity issues in mind, creating de facto standards can pave the way.

3.2 What do the practitioners report?

3.2.1 Introduction

The ePractice case collection with its 1600+ cases is the largest sample of cases on eGovernment that can be analysed within the context of this study.

ePractice.eu is a portal created by the European Commission which offers a new service for the professional community of eGovernment, eInclusion and eHealth practitioners. It is an interactive initiative that empowers its users to discuss and influence open government, policy-making and the way in which public administrations operate and deliver services. It involves practitioners from all 27 Member States, EU-member candidate states and EFTA

countries. With a large knowledge base of real-life case studies submitted by ePractice members from across Europe, ePractice was used by the study team to analyse patterns and the coverage of the different priorities (from Malmö) from a different and more quantitative perspective.

In all analyses below it should be noted that despite the fact that the study team did not have another larger data source at its disposal, the ePractice case database does not pretend and is not a comprehensive overview of all eGovernment projects and cases in the EU. Cases are self declared and we have had no means of judging its representativeness, which means that in some findings the results could be biased due to the cases that are covered. The results we present here have to be seen in this light, but at the same time can serve as good indications, given the relatively high volume of cases analysed.

We have been provided with the raw data of the entire database and have cleaned and recoded the data to make them suitable for analytical purposes.

For this purpose we did a general data quality review on all the key variables which resulted in corrections (e.g. Pan-European projects should be cross-border as well or project rating above 5 points), and cases with inexplicable data were excluded from the dataset.

Some variables have considerably fewer observations than others. For example, project cost related information is available only in 40-60% of cases. By implication, the sample size varies with the variables in the analysis.

The following sections analyse the ePractice database in various steps.

- The first step analyses the data in terms of associations between variables, using the “topic” variable recoded to “action line” as the independent variable:
 - Geographic scope of the implementation;
 - Project sector;
 - Target users;
- The second step uses several levels of association to deduct certain profiles of project characteristics. In the first two steps only statistically significant results are taken into account;
- The third step contains a cluster analysis, in which clearly defined clusters are characterised along different variables;
- The final step includes a trend analysis (1998-2008).

The analyses together give a picture of the cases (as they have been reported), over time and along the dimensions of the current action plan. The usual caveats of these types of analyses apply such as representativeness, data quality, and selection bias.

3.2.2 Descriptive overview of cases

The following charts describe the sample on which the analyses have been done. Each variable can apply to more than one case, (for instance a case addresses business SME's, citizens, and self employed, thus appearing 3 times in the charts).

The target groups and scope table below shows that the majority of cases address citizens at a national level. Minorities and healthcare as target groups are only marginally addressed and if so, mainly at national level.

Figure 2: Cases: target groups and scope

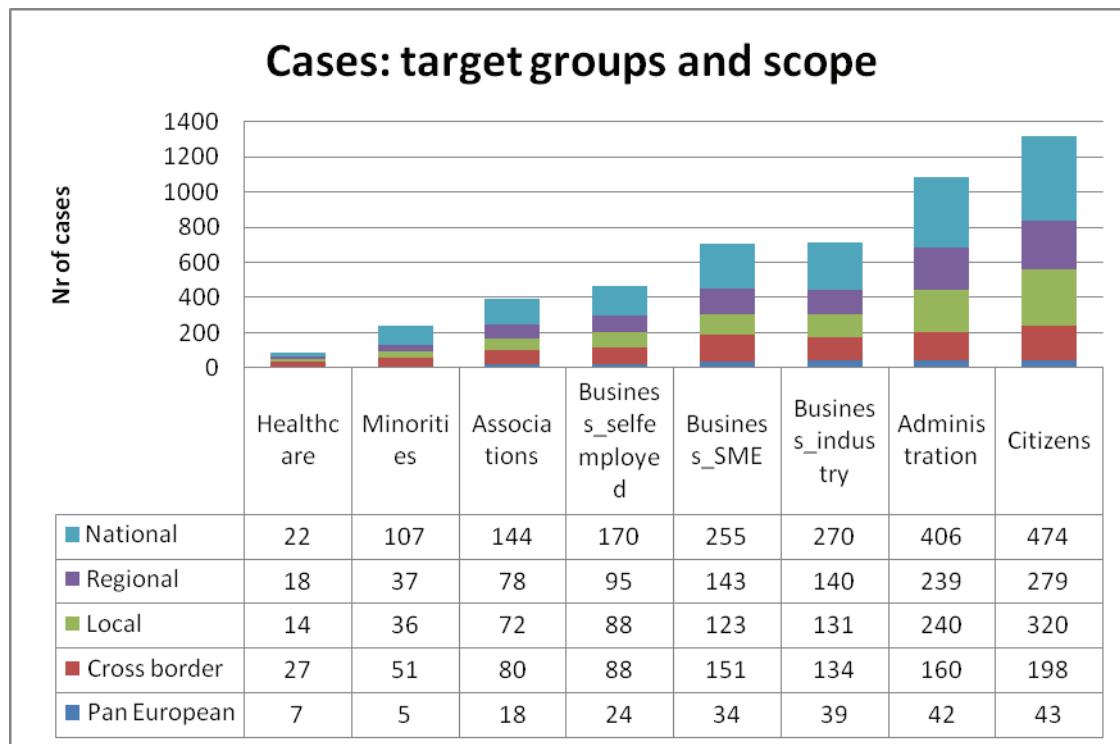


Figure 3: Cases: target groups and scope

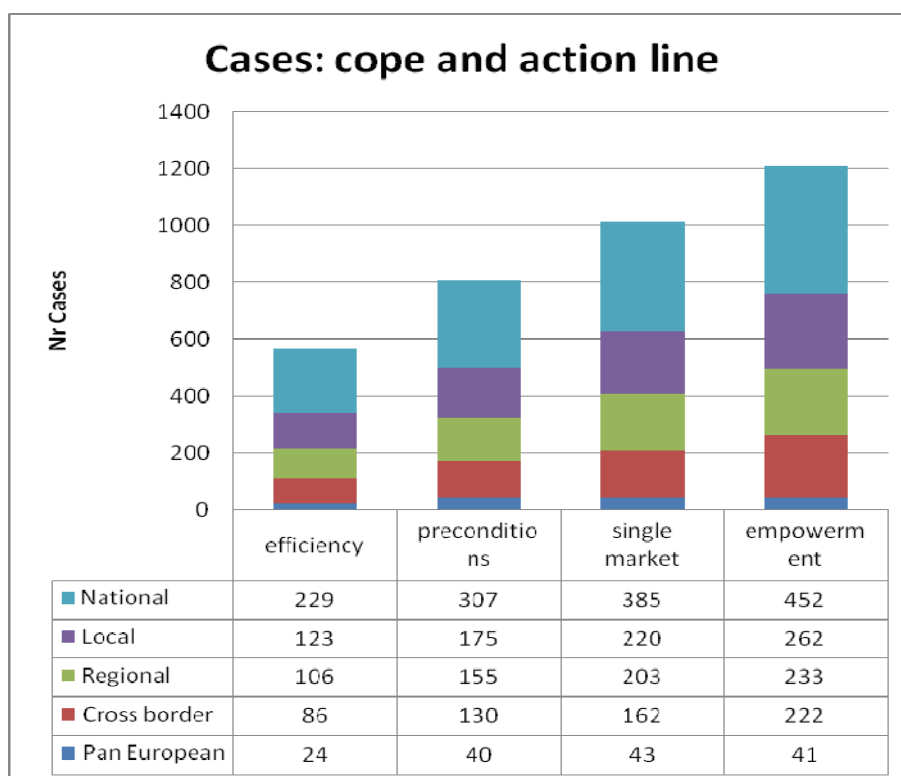
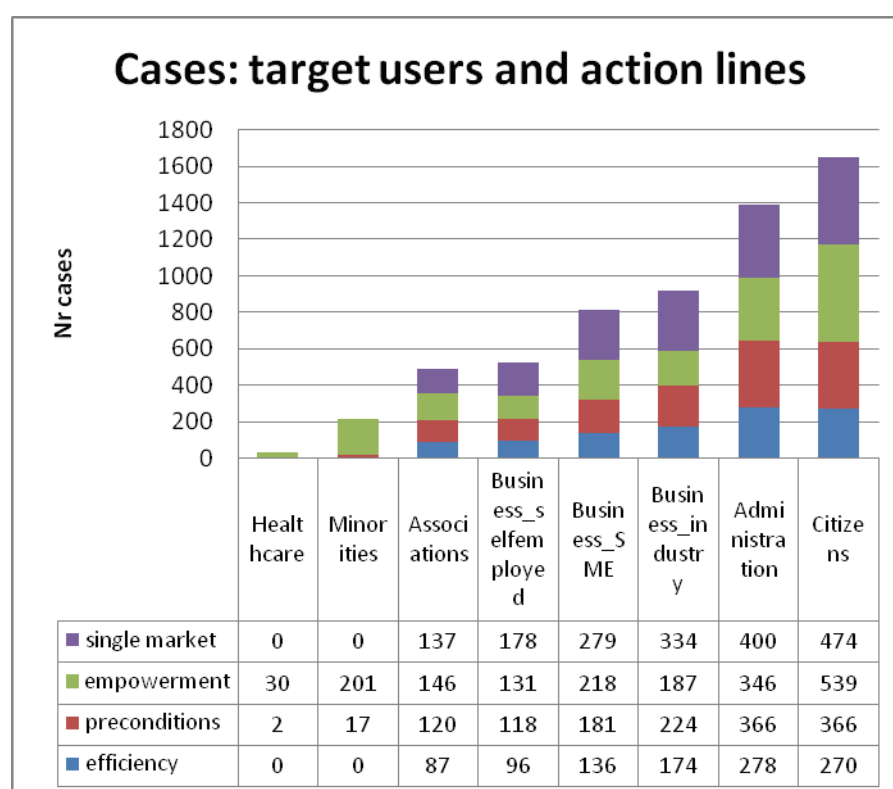


Figure 4: Cases: target users and action lines



3.2.3 Associations and Profiles

Introduction

On the basis of an association⁹ analysis we have looked at the statistical relationships among the different anticipated action lines.

The projects in the ePractice database have been related to the 14 action lines and impact areas according to three key dimensions:

- Scope of project;
- Sector of project;
- Project target users.

Scope of Implementation

The scope of projects considers several levels at which projects operate:

- The pan-European level;
- The cross-border level;
- The National level;
- The Regional level;
- The Local level.

Each single level has a bearing on the characteristics of the project application as well as on the potential impact.

Pre conditions

The association analysis indicates that interoperability issues are mainly addressed at national level and involving national players, while key enablers are principally dealt with at pan-European level and (less strong) when the scope of action is cross-border.

On the other hand, when the project scope is local or regional, projects are less likely to address interoperability, where the association is negative.

As expected, there appears to be a consistent correspondence between the geographical scope and the level of issues addressed: the national level seems to deal with very concrete process integration and application issues, in which real-world interoperability can be identified and coped with.

On the other hand, the higher stage of enabling factors, which are projected on a vaster horizon is dealt with at pan-European and cross-border level, where a clear “vision” is available and the potential for effectiveness is higher.

The regional level is negatively associated to interoperability issues. At this level, most probably, the project deal with even more concrete and with a close-focused scope, or there are strong incentives to limit interoperability (which limits local autonomy and power) and to avoid adopting things invented elsewhere (which gives little credit).

⁹ Pearson correlation

Single market

As expected, pan-European and cross-border projects in a large number of projects deal with the implementation of cross-border services.

The analysis shows a high association of business mobility with the national level and much less association with the pan-European scope. This could be related to the fact that, at least in an initial stage, mobility related projects stem from a territorially founded requirement, or a concrete demand, and possibly that the fruits of mobility are a matter of national rather than collective/EU interest.

Citizen mobility on the other hand is positively correlated with the local and regional level in the case database, while the association with the cross-border level is negative. As in the case of business mobility, it seems that these areas require a close connection to specific territorial dimensions. It also seems to suggest that mobility is most frequently approached bottom-up.

User empowerment

The collaborative production of services is negatively correlated to the national level scope, while there are no significant associations with other dimensions of the territorial level. This means that, in the considered ePractice projects, there is no strong drive to develop collaborative projects at the national level.

Sector of project

This section considers correlation between the new Action Lines and different sectors in which the projects were reported:

- Communication (infrastructure)
- Crime
- Culture and Media
- Customs
- Education
- Electricity/Gas
- Employment
- Environment
- Justice and Law
- Local/Regional Community Development
- Science and Research
- Social Security
- Social Services
- Tax
- Transports and Motoring

- Travel
- Fire Services
- Healthcare
- Internal market
- Procurement
- Water.

The analysis shows that communications infrastructure sector is strongly associated with interoperability issues, with actual infrastructure development and with the deployment of user centric applications.

Also projects for the crime sector are positively correlated with interoperability, most probably due to the complexity of the concerned processes and an even stronger association with key enabling factors. This is easily explained: the crime sector has highly diverse legal, technical and operational structures and systems throughout the EU, and requires a huge effort in regulatory harmonisation across the different legislations of the EU, including a significant preliminary effort to ensure that operations and processes are adequately covered by the necessary regulations. Crime sector projects are also positively correlated with the involvement of stakeholders in policy assessment and making.

While and projects for the culture and media sector show a significant association, and therefore focus on the development of user centric services, the analysis shows that the association with key enabling factors and with business mobility with the culture and media sector is negative.

The customs sector projects are likely to deal with the key enablers: technological, regulatory operational and organisational, as well as with the development of cross-border services and business mobility. This is due to the need of making available the key elements for processes and applications which are cross-border *per se*. On the other hand customs cross border projects are developed to support customs institutions and possibly customs agents, so there is a weak association with user centrality.

On the other hand, projects in the education sector show a strong association with user centric developments, while the association with the items interoperability, key enablers, business mobility, and citizen mobility is in all cases negative. The level of association is intimately related to the individual requirements and needs and it is highly probable that projects in this sector will focus on this aspect. On the other hand it seems that most projects in this area do not address sector unspecific elements.

Projects in the employment sector are correlated to the business mobility area and to user-centric project development, which responds to the logic of supporting professional mobility and the integration of the labour market, but no association emerges with citizen mobility, a feature probably not considered by most projects.

The association analysis shows that projects dedicated to the environment sector in general address interoperability issues, business and citizen mobility and citizen involvement in policy making. The explanation of this is on the one hand related to the close relationship

between environment and mobility and the impact that mobility management can have on environmental issues, and on the other to the need to interconnect several systems for environmental management. As to the involvement in policy making, it seems that environmental policies are an area where citizens are very sensitive and are easily involved in reviewing and assessing policies.

The actions in the justice sector have a high association ratio in the area of key enablers, and this is easily explained with the need of ensuring that the necessary regulatory preconditions are in place. The justice sector is particularly oriented towards interoperability issues. In general there is not a great focus on user-centric services, probably because justice projects are mainly oriented towards institutional players, rather than citizens and stakeholders, but on the other hand projects are oriented to involve them in the political process and in assessment.

Projects for the local and regional community development are very likely to focus on the development of infrastructures, with user centric services and citizen mobility. One of the key features of local and regional community development is the closeness to citizens. Furthermore they have to deal with concrete issues on the territory such as infrastructures and mobility. On the other hand the limited orientation of local and regional community development explains a relatively low result in the association with business mobility. The latter should be related to business attraction, which is a matter of territorial marketing, rather than of application building.

Social security projects and in the tax area most initiatives are related to interconnection and exchange between social security bodies in different countries and therefore concentrate on both interoperability issues and on user-centricity. Their perspective is mainly on end-users and not on businesses, which is supported by the negative association with business mobility. In the tax area particularly, the focus is also on business and citizen mobility.

Projects in the transport and motoring sectors, as well as those in the travel are strongly focused on business and citizen mobility, as can be expected, while no other significant association comes out of the analysis of the ePractice database.

In the healthcare sector there is a strong association with collaborative production of projects, most likely related to the use of ICT as an interconnection infrastructure and application to share healthcare services.

As expected there is a strong positive association of projects dedicated to public procurement with cross-border projects and business mobility.

Target Users

The third field of association deals with the target users for the developed projects. The following segmentation has been derived from the database:

- Administrations
- Associations
- Business SME
- Citizens

- Business industry
- Business self-employed
- Healthcare
- Minorities.

Projects developed for Administrations are positively correlated with interoperability, key enablers, infrastructures, cross border services, and stakeholder involvement in policy making. Strangely, projects for Administrations are not very likely to adopt a user-centric approach in service design.

SME's as users of projects are correlated to interoperability, on cross border services and on business mobility, while the business industry in general is related to interoperability, key enablers, infrastructure issues, cross-border service development, business mobility.

Actions aimed at the community of self-employed are positively correlated with interoperability, key enablers and with business mobility.

The target of citizens is positively correlated with citizen mobility and with stakeholder involvement in policy making and policy assessment

When services are related to healthcare users, the only significant positive association is with the issue of collaborative production. The service target for minorities is positively correlated with the development of user-centric services.

Association Profiles and Conclusions

The correlation analysis has shown that all chosen panel segments – scope, area of project, target users – show some more or less precise associations with some or several Action Lines. A first outcome of the analysis the following statements can be highlighted:

- Interoperability has been mainly addressed at national level, targeting administrations and in relation to projects in communications infrastructures;
- Key enablers have been dealt with at pan-European level, targeting administrations as well and mainly within the sectors crime and justice and law. The latter have been considered separately in the statistical analysis but often produce similar or the same association values;
- Infrastructures have shown no significant association with any of the analysed geographical levels. They are mainly targeted at administrations in relation to the actual communications infrastructure development;
- Cross-border services mainly seem to aim at the territorial cross border service development involving subjects of two or more Member States. The target users are Administrations and the service sector crime and justice and law;
- Business mobility is mainly aimed at at the national level, targeting principally at the industry, followed by SME's and self-employed (which could mean spread of operation). The services mainly concern the tax domain and the internal market area;

- Citizen mobility is dealt with locally and targets citizens. Service area is principally education and employment, from the data we cannot explain whether this is because they are the ‘low hanging fruits’ or because they were the biggest obstacles to tackle;
- User-centric service development shows no significant association to any geographical level. The targeted group are minorities and the main application areas are social services and the education tied by science and research;
- Stakeholder involvement in policy shows no significant association with the geographical scope. Principal target are citizens and main areas are environment in first instance and crime tied by justice and Law;
- Collaborative production occurs mainly at national level, is targeted at healthcare organisations on healthcare related services.

Besides the positive statements on associations we have also identified those associations which are based on a high underlying assumption and therefore *should* come out of the analysis, but which could not be demonstrated.

In the case of the scope variable, it is definitely positive that projects with a national scope are likely to deal with interoperability, but it might be advisable that interoperability was addressed also in projects with pan-European scope. Key enablers are mainly addressed in pan-European scope projects, but it could be supportive of the Malmö objectives if also projects with a national scope would address them.

In view of the implementation of the Malmö Declaration, it would seem reasonable that there is no association between projects working on infrastructure development and the implementation scope, even if it should be considered whether infrastructure development should be supported and governed mainly at national and pan-European level, producing some level of association.

As to be expected, cross-border services are most likely addressed in projects with pan-European scope. For the purpose of reaching the Malmö objectives it could be beneficial that the cross-border service development was likely to be addressed also at national level.

It should be evaluate whether it would be beneficial that at least some regional-scoped projects considered the issue of business mobility, as citizen mobility should be addressed also in project with a national and pan-European dimension.

Almost never there is a positive correlation between the project scope and the goal of developing user-centric project development, while it would be probably positive if national-level and pan-European projects address this feature, which is one of the constituents of the Malmö Declaration.

Citizen mobility should be considered in projects focused on the area/sector of employment. Collaborative production of services and applications should be increasingly addressed by projects in justice and law, local/regional/community development and environment, as well as in research and development projects.

Social security and social services projects should deal more with key enablers, cross-border services and collaborative production if they are to better support the Malmö objectives, while tax-related projects should increase their focus.

Collaborative production and user-centric design could concentrate more on the development of projects in the service areas fields as transport and travel. While user centric development should be increased in healthcare projects, interoperability could be better taken account of in healthcare projects.

Collaborative production could be quite beneficial in the case of internal market and procurement projects.

In relation to user groups, SME and healthcare projects should improve their address of key enablers and the issue of infrastructures, while more emphasis on cross-border service for healthcare, for the self-employed and for citizen.

Finally, the whole “business group” and relevant projects would benefit from a more significant emphasis on user-centric development.

3.2.4 Cluster analysis-results

Introduction

The ePractice database contains a wide variety of variables. For the purpose of this study some indicators are highly relevant: (1) geographic scope, (2) users targeted, (3) sector, and (3) action line (for this purpose we recoded topics to the new action lines) . The cluster analysis was based on these four variables in order to capture the most important characteristics of projects for the formation of clusters.

Cluster analysis was used to group the large number of projects into clusters with similar characteristics. The cluster analysis identified three clusters

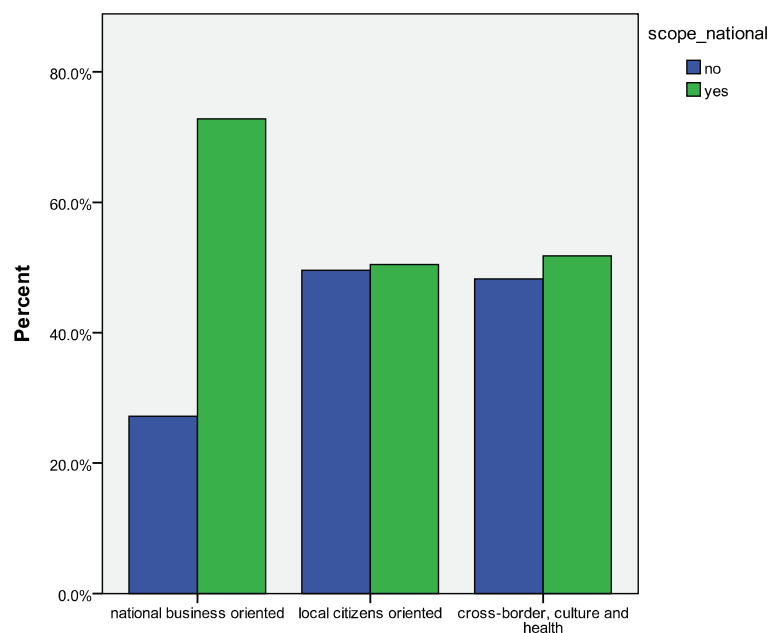
1. Chamber of Commerce: National, business targeted, in the sectors of tax, procurement, justice and law;
2. Communities of Interest: Local and regional, targeting citizens, in the sector of community development;
3. PEGS: Cross-border, targeting health care and minorities, in the sectors of education, science research, health care, culture and media.

In the following section we use the clusters to identify certain characteristics in relation to other variables such as the area of project and trends. Before that, we demonstrate the differences of the three clusters based on the constituent dimensions (scope, target user group, and project sector).

Constituent dimensions

Scope

The Chamber of Commerce cluster is predominantly populated by national projects.

Figure 5. Distribution of projects of national scope within each cluster, ePractice database

The two other clusters contain approximately the same share of national and non-national projects.

Only the Communities of Interest cluster contains a significant amount of local and regional projects.

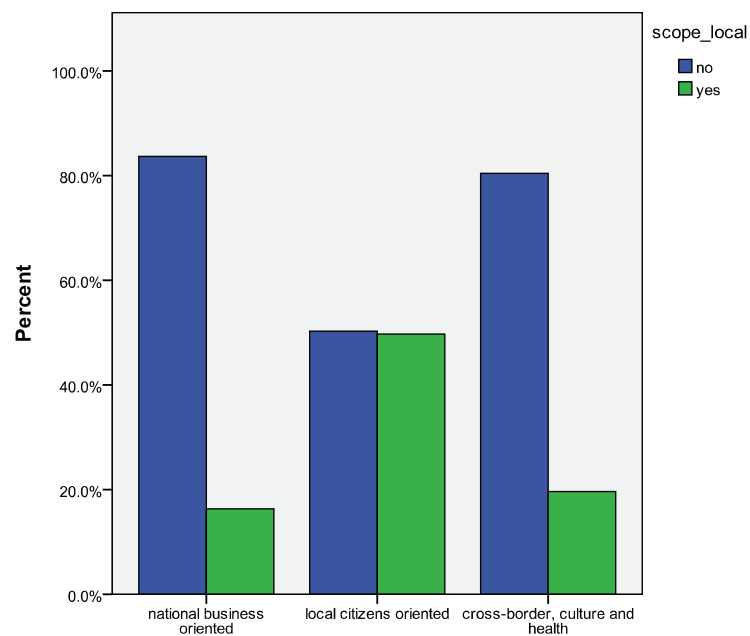
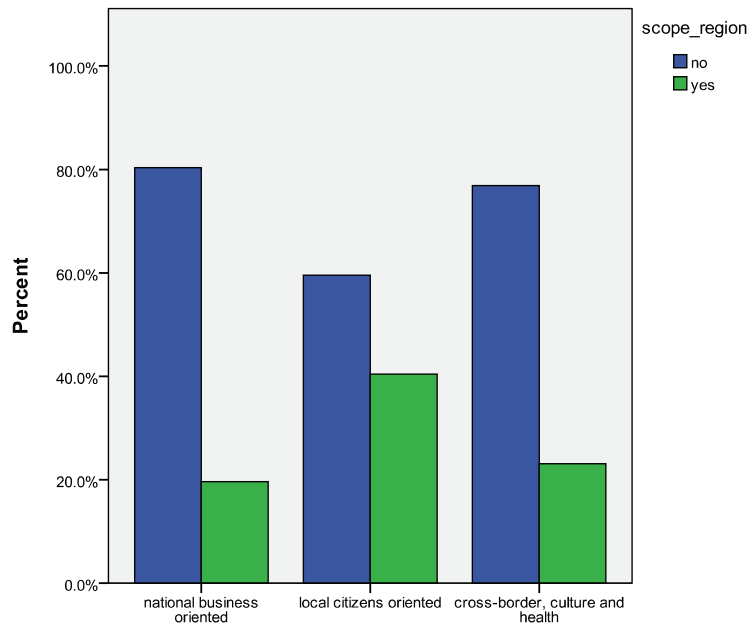
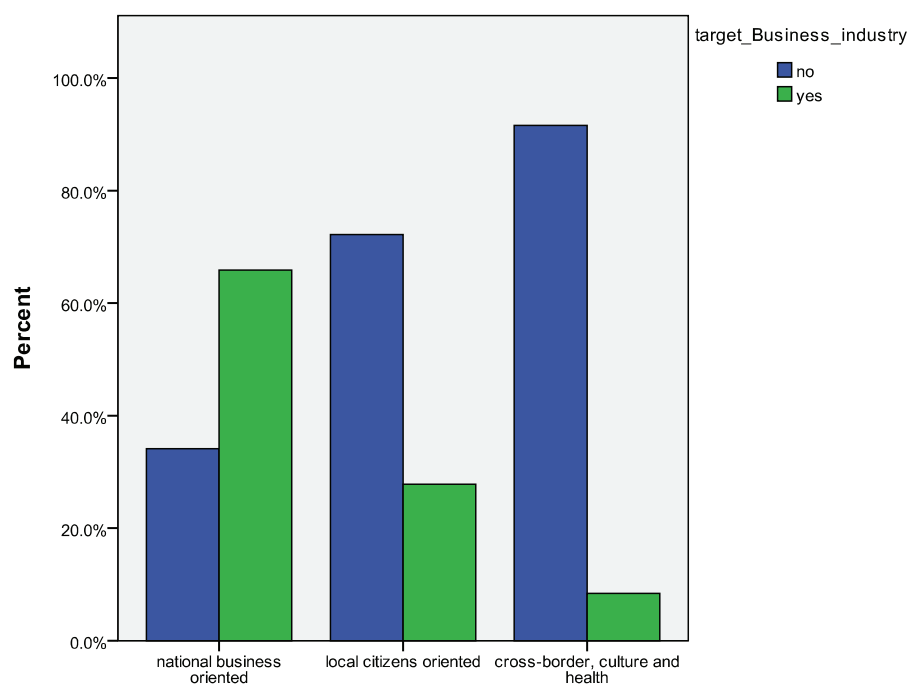
Figure 6. Distribution of projects of local scope within each cluster, ePractice database

Figure 7. Distribution of projects of regional scope within each cluster, ePractice database

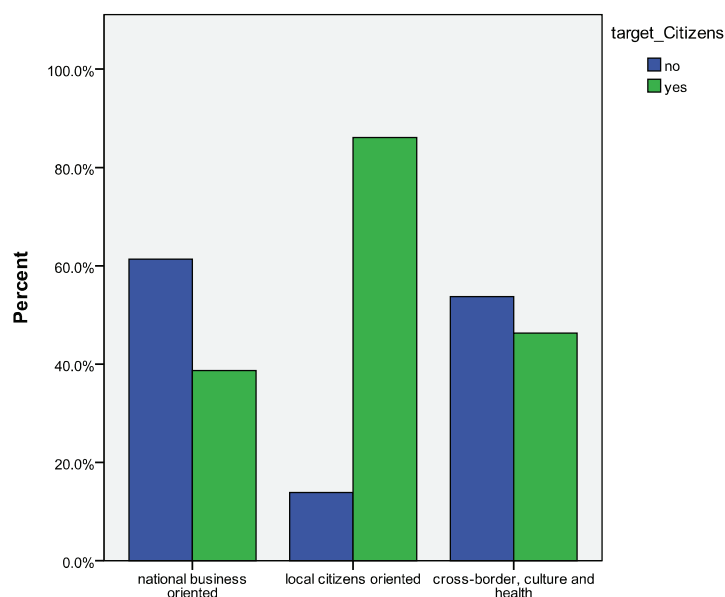
Target groups

The business industry target group is mostly associated with the national, business-oriented cluster, while only a few of business oriented projects relate to the local, citizen-oriented cluster and to the cross-border, healthcare and minorities cluster.

Figure 8. Distribution of projects targeting businesses and industry within each cluster, ePractice database

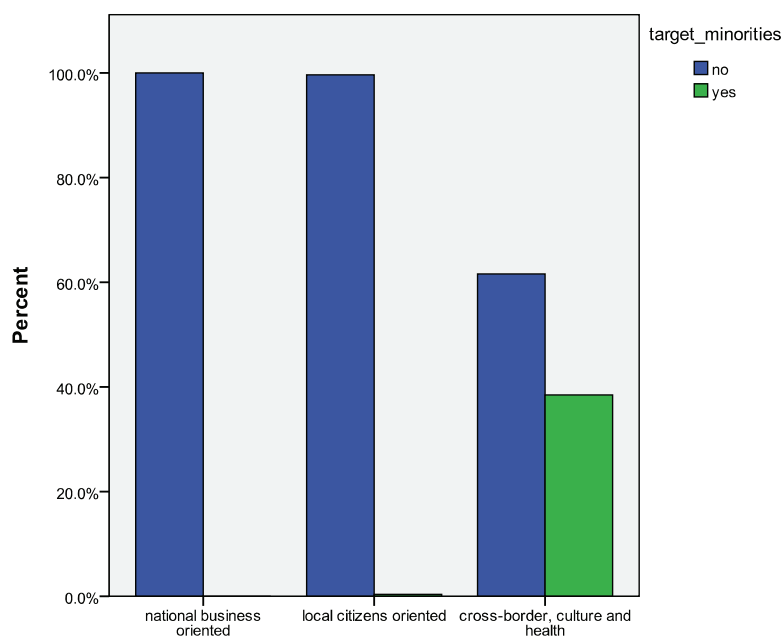
The local, citizen oriented cluster contains almost exclusively projects targeted at citizens, while a fair amount of projects relates to the national business cluster and to the cross-border, healthcare and minorities cluster.

Figure 9. Distribution of projects targeting citizens within each cluster, ePractice database



The minorities target group is never associated with the National, business oriented cluster and the Local, citizens oriented cluster, while a fair amount of projects targeted at minorities is associated with the cross-border, healthcare cluster.

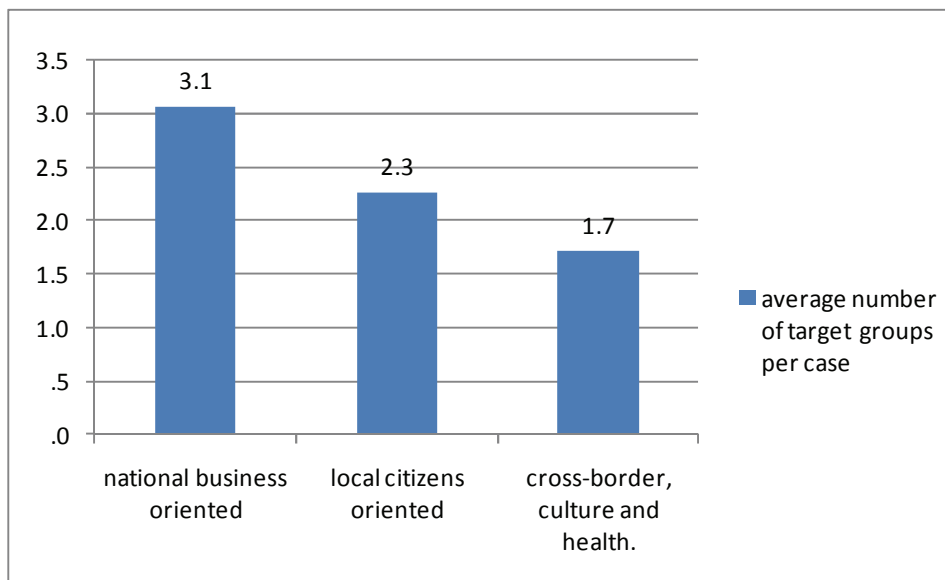
Figure 10. Distribution of projects targeting minorities within each cluster, ePractice database



Projects of the National business oriented cluster on average address over three target groups, whereas this figure is just above 2 for the local citizens oriented cluster and less

than 2 for the Cross-border culture and health cluster, as the chart below demonstrates. This implies that the projects of the National, business oriented cluster tend to be the most wide-ranging in terms of target groups.

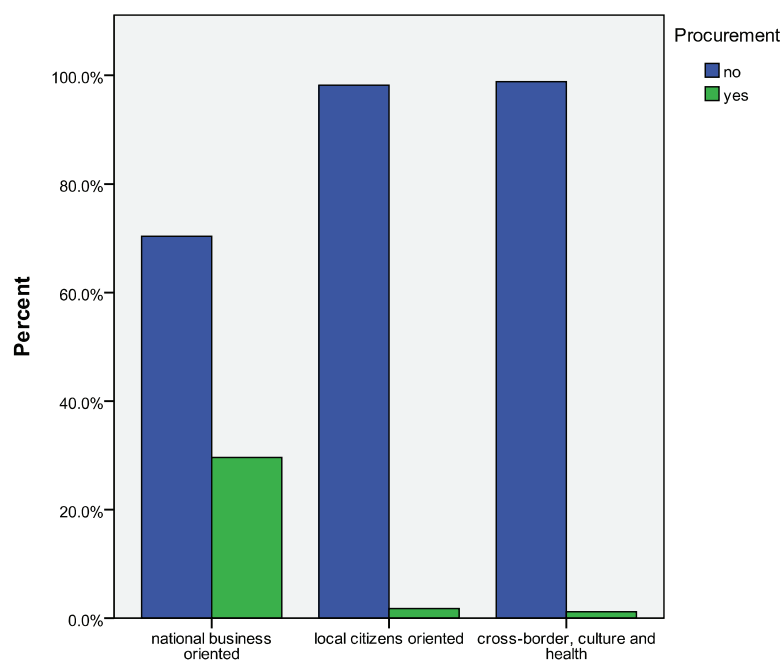
Figure 11. Average number of target groups per project in each cluster, ePractice database



Project Sectors

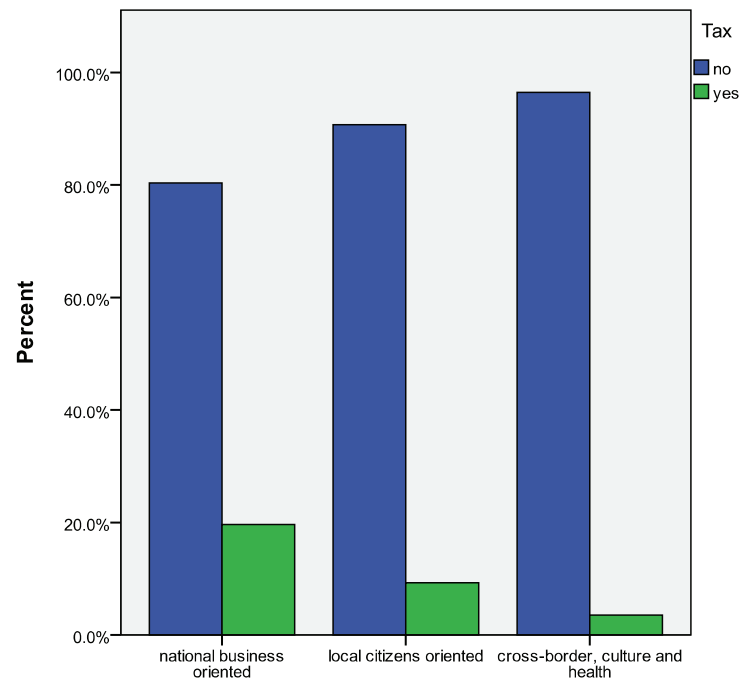
Projects related to procurement belong almost exclusively to the National, business oriented cluster.

Figure 12. Distribution of projects focusing on procurement within each cluster, ePractice database



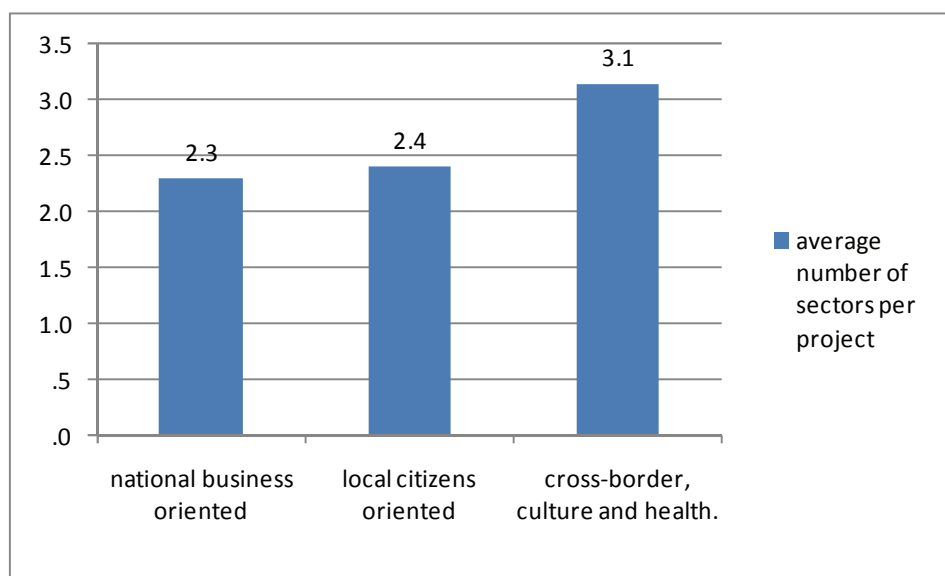
The highest proportion of tax-related projects is in the National, business oriented cluster. And they constitute only a minor proportion in the two other clusters.

Figure 13. Distribution of projects focusing on taxation within each cluster, ePractice database



The analysis of sectors per project shows that national business oriented projects and local citizens oriented projects address over 2 on average, while cross-border, culture and health projects address over 3 sectors on average. This implies that while national business oriented projects tend to address more target groups they are of more narrow scope in terms of sectors. The opposite is true for the cross-border, culture and health cluster.

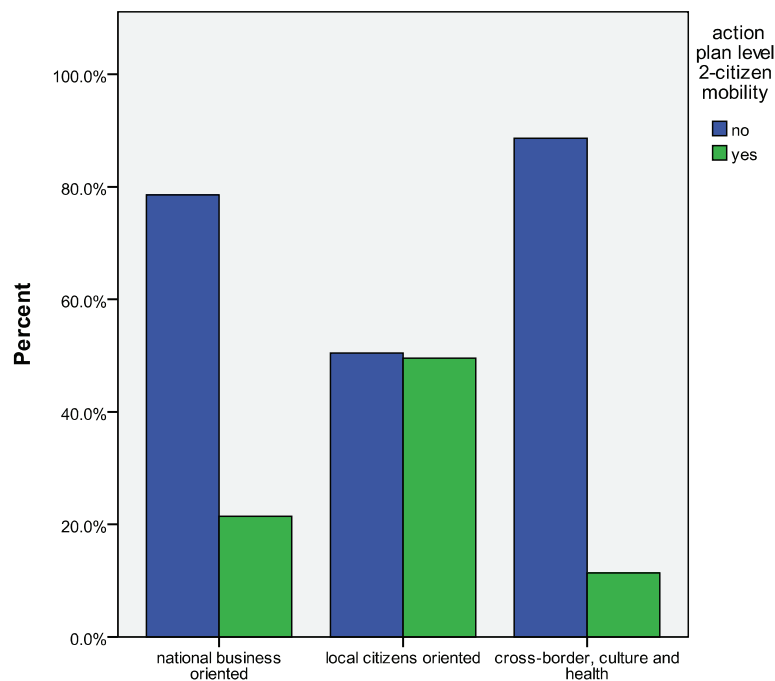
Figure 14. Average number of sectors per project in each cluster, ePractice database



Action Lines

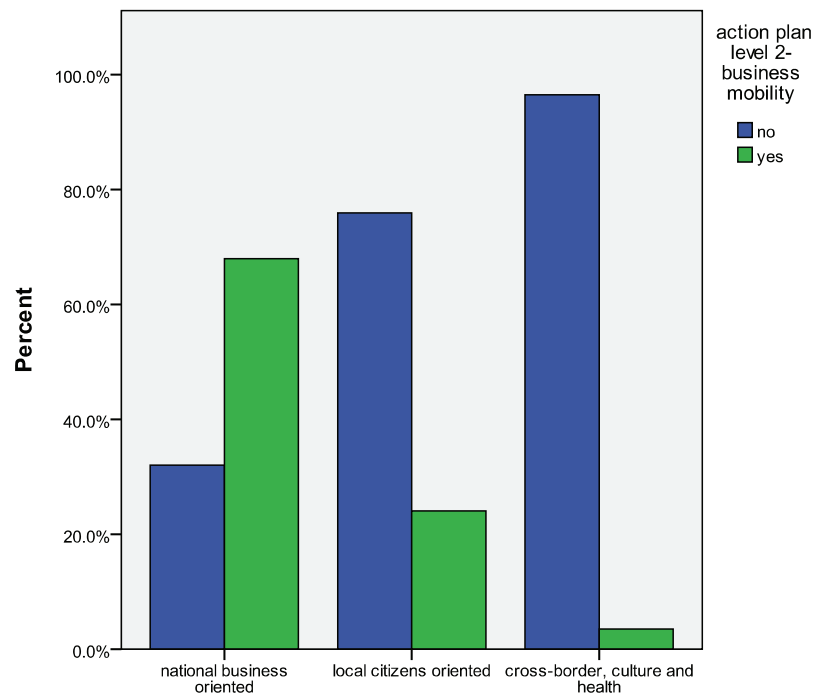
Citizen mobility is the objective of about half of the local, citizen oriented cluster projects, while a small amount of citizen mobility projects relates to the national, business oriented cluster and to the cross-border, healthcare and minorities cluster (the latter is more geared towards user centric solutions).

Figure 15. Distribution of projects focusing on citizen mobility within each cluster, ePractice database



Business mobility initiatives mostly related to the national, business cluster and to a much, much smaller degree to the local, citizen oriented cluster. Only very few belong to the Cross-border, health care and minorities oriented.

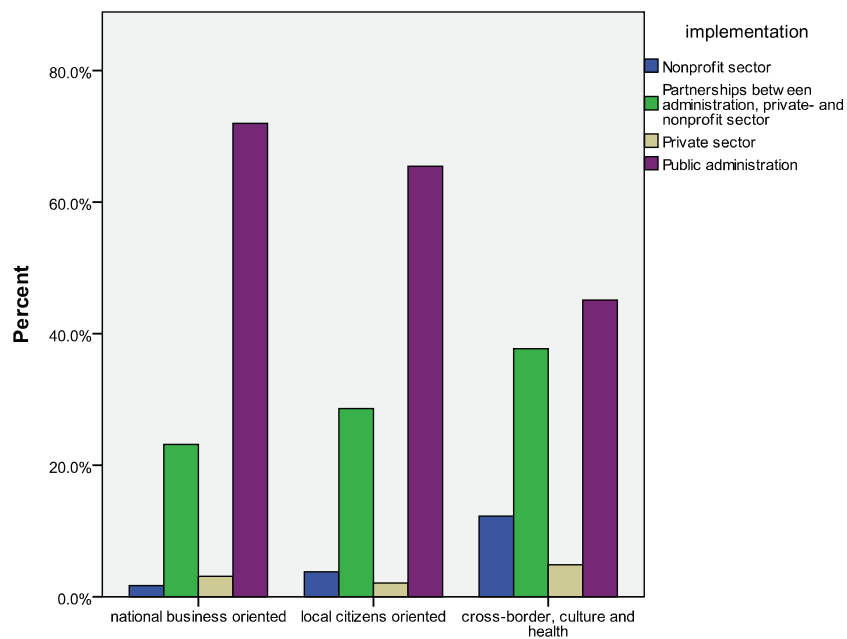
Figure 16. Distribution of projects focusing on business mobility within each cluster, ePractice database



Significant relationships: sector of implementation and project clusters

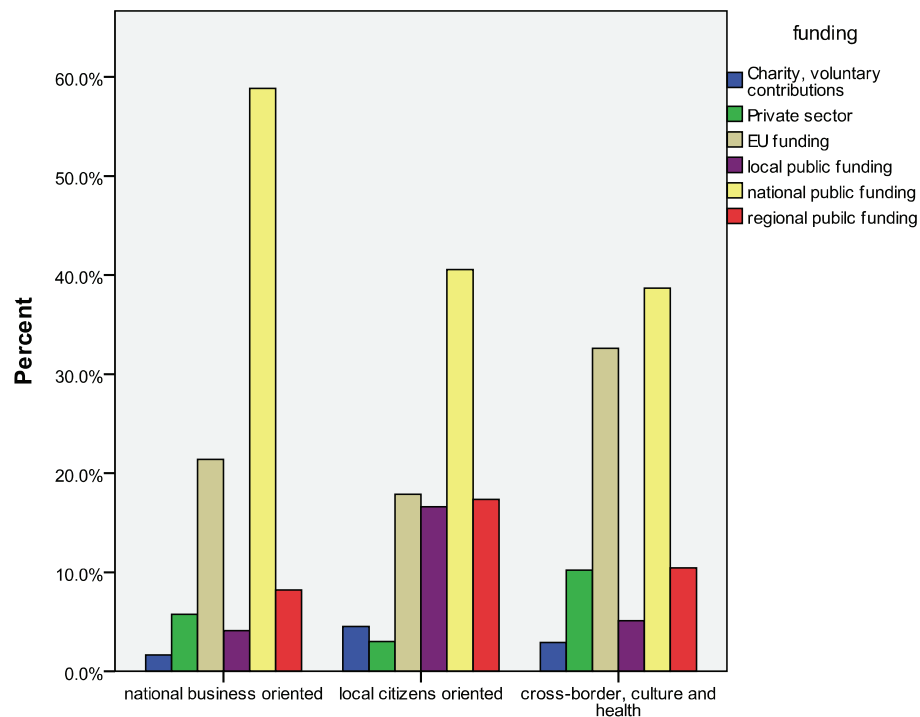
Public administrations are most of the times associated with all three clusters: mostly with national, business oriented clusters and a bit less with the local, citizen oriented cluster and the cross-border, healthcare and minorities oriented cluster. Implementation by public-private consortia is mainly connected to the Cross-border, health care and minorities oriented clusters, with the local, citizen-oriented cluster and lastly with the national, business oriented cluster. Apart from association of non-profit sector implementation with the cross-border, healthcare and minorities cluster, the other relationships are very low.

Figure 17. Distribution of projects of different implementing actor within each cluster, ePractice database

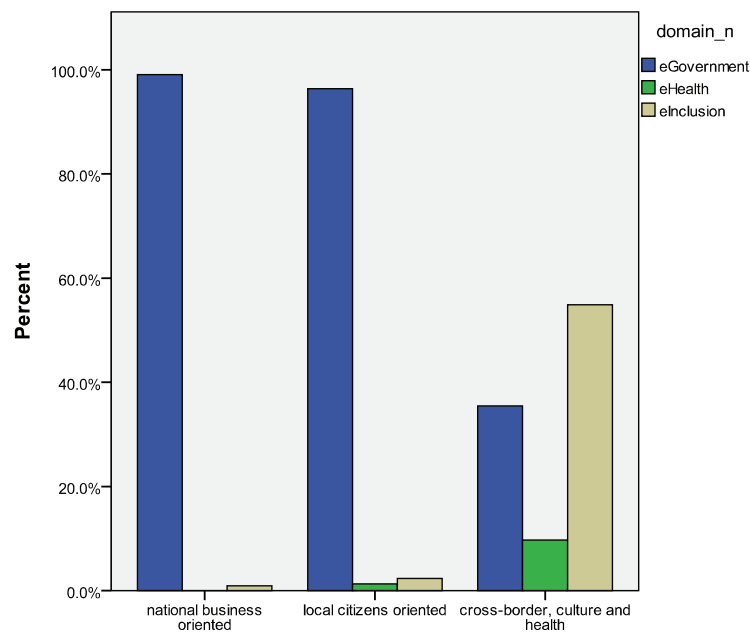


In relation to funding instruments, public national funding is the main source associated with the three clusters, followed by EU funding. The latter applies mostly to the Cross-border, health care and minorities oriented and to a lesser degree to the national, business oriented cluster and to the local, citizen-oriented cluster. Regional public funding is mostly associated with the cross-border, healthcare and minorities cluster. Local public funding is mainly associated with local, citizen-oriented projects. Interesting enough private sector funding has some bearing on the cross-border, healthcare and minorities cluster. Charity funding has an almost negligible relation to all three clusters.

Figure 18. Distribution of projects of different funding source within each cluster, ePractice database



The national, business cluster and the local, citizen oriented clusters mainly contain eGovernment domain-related projects, whereas other project domains are practically absent. The projects associated to the cross-border, healthcare and minorities cluster are more varied, the eInclusion being the most important domain, followed by a quite significant eGovernment domain. The eHealth domain has a fair representation, even if much lower than the other domains.

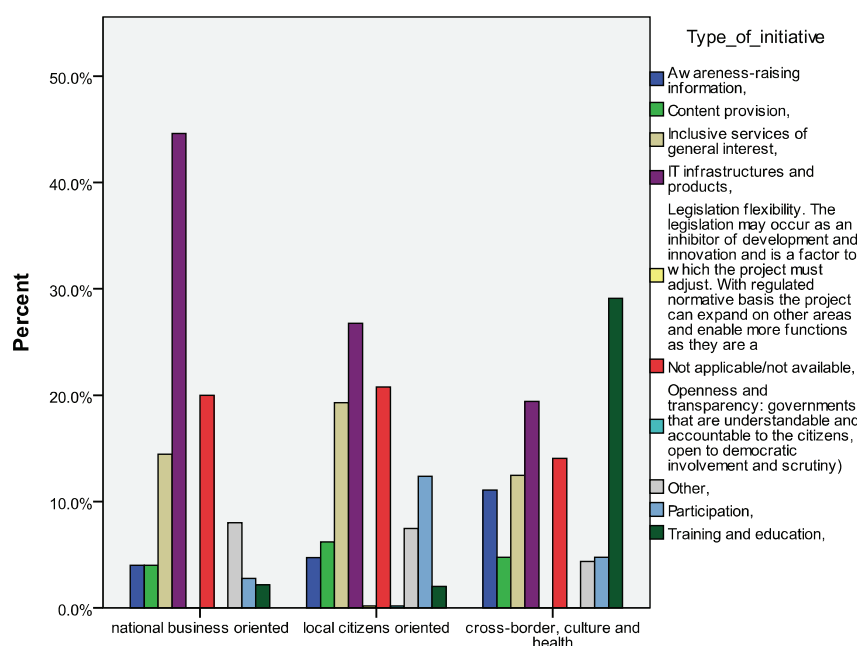
Figure 19. Distribution of projects of different domain within each cluster, ePractice database

Initiatives for IT infrastructures and products dominate all the clusters, followed by inclusive services of general interest.

Openness and transparency initiatives are associated mainly with the local, citizen-oriented cluster, whereas eParticipation projects happen mainly in the cross-border, healthcare and minorities cluster.

Training is negligible for the national, business oriented cluster and for the local, citizens oriented cluster but very relevant for the cross-border, healthcare and minorities cluster while awareness-raising initiatives are related in the cross-border, healthcare and minorities cluster.

Figure 20. Distribution of projects according to the type of initiative within each cluster, ePractice database



Project size and yearly costs are equally distributed across cluster membership.

pr_size									Total
€1-5,000	€5-15,000	€15-49,000	€49-299,000	€300-499,000	€500-999,000	€1,000,000-5,000,000	€5,000,000-10,000,000	Larger than €10,000,000	
10	3	5	54	26	28	64	11	6	207
28	6	19	115	34	54	83	23	13	375
29	7	35	72	45	37	86	26	14	351
67	16	59	241	105	119	233	60	33	933

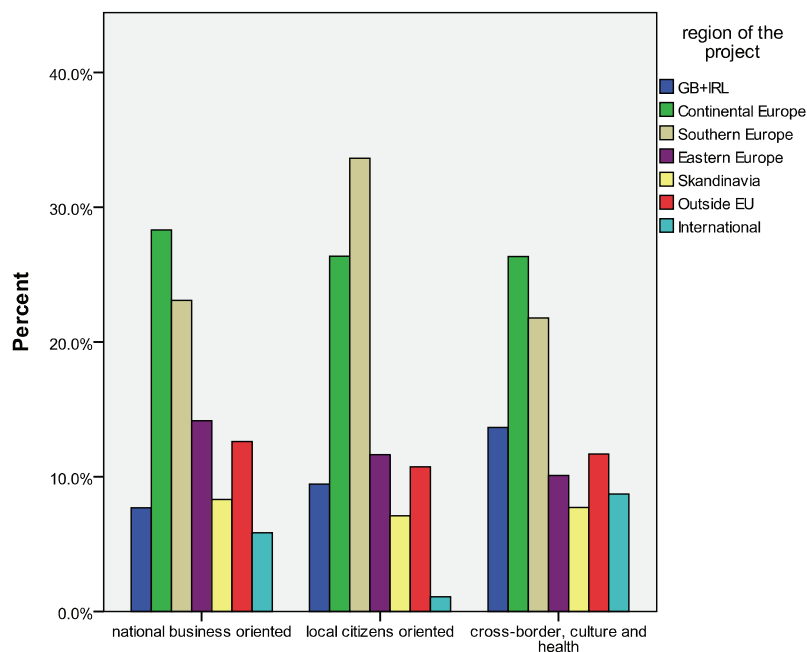
Regional distribution

Western Europe including the UK and Ireland and the Scandinavian countries show even distribution across the three clusters, while Southern European countries peak in the local and citizens oriented cluster.

Eastern Europe is evenly distributed across the three clusters, with a slight prevalence of the national, business-oriented cluster.

Projects from international areas mainly concentrate on the national, business oriented cluster and the cross-border, healthcare and minorities cluster, and are almost insignificant in the local, citizen oriented cluster.

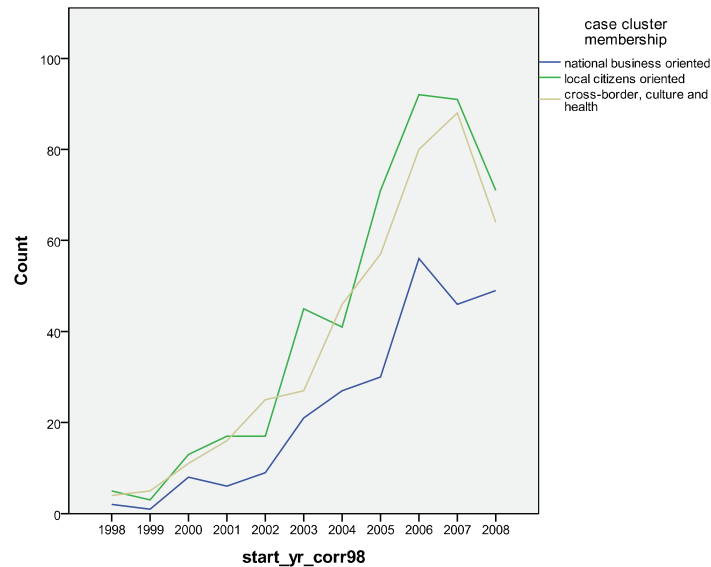
Figure 21. Distribution of projects according to the region of the project within each cluster, ePractice database



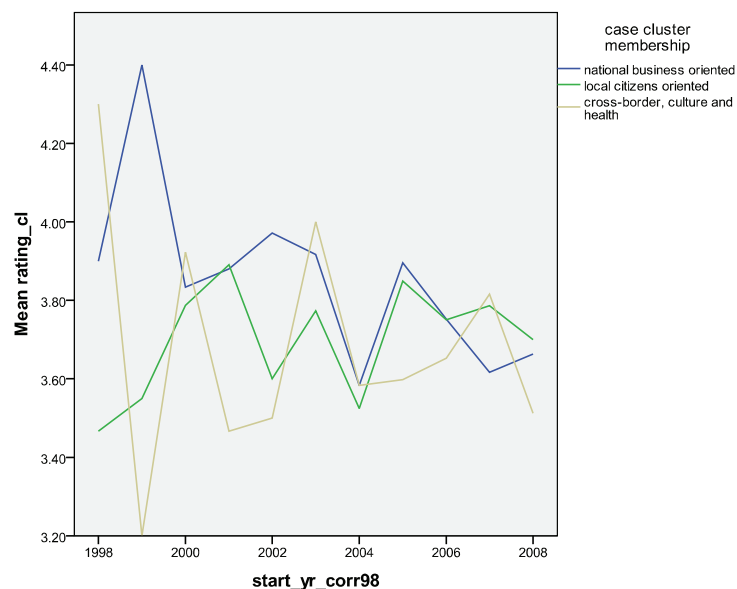
Projects by cluster between 1998 and 2008: number of project starts each year

The ePractice database records the starting year of each project which allows for the analysis of different cohorts of projects. It must be noted that some of the projects are still operating some don't. The project starting years span from 1989 to 2009; however, for the analysis only the period between 1998 and 2008 is used. The reason is that the early years contain less than 10 projects each which make the statistical analysis unreliable and the projects starting in 2009 are not yet completely recorded due to the time-lag between project start and entering the database.

The number of project in each cluster almost constantly increased. Local, citizens oriented, business oriented cluster projects raised from about five to nearly a hundred, declining slightly in 2007 and going down to about 70 in 2008. Cross-border, health care and minorities projects cluster rose at a similar pace from about five to over ninety in 2007 and then decline to slightly over 60 in 2008. National, business oriented project clusters grew to about sixty in 2006, decreased in 2007 and grew again in 2008.

Figure 22. Number of projects by project starting year

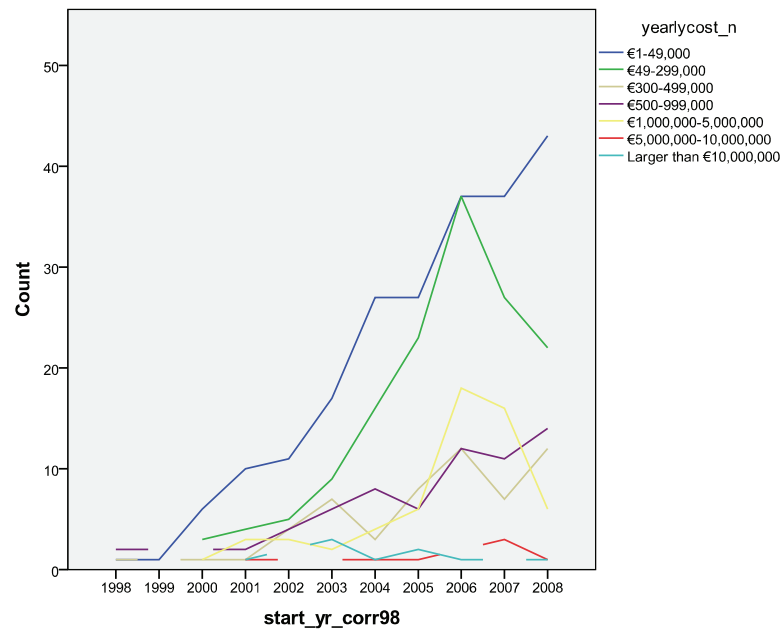
Projects have been user rated from 0-5 and the mean rating of each cluster between 1998 and 2008 have been calculated. The time series shows that all three series converge over time and that peak ratings are levelled out. The graph shows also that the ratings slightly decrease over time. In particular the national, business oriented shows quite a decrease in ratings, while the clusters local, citizen oriented and cross-border seem more stable, also taking into account the peaks.

Figure 23. Mean rating of projects by project starting year

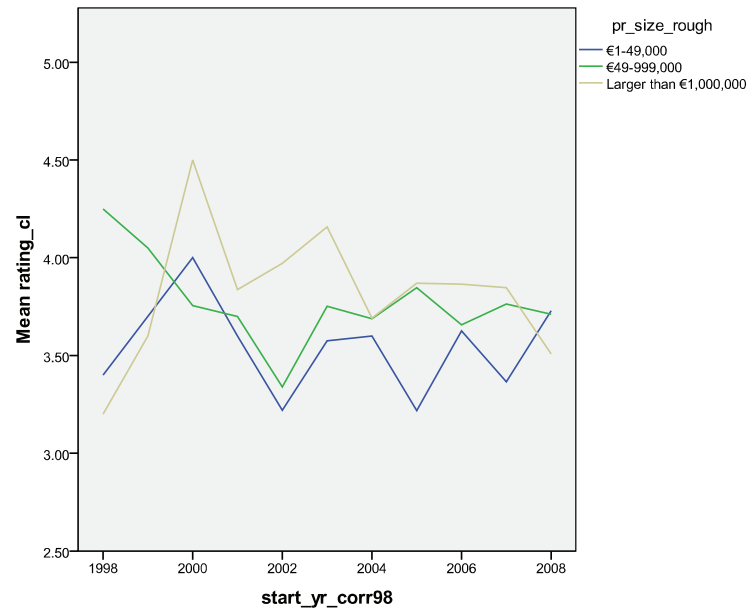
The time series showing the evolution of the yearly project maintenance costs demonstrates how the number of high-cost projects is relatively stable, while the numbers of projects which have relatively low costs have risen in numbers over the years. The graph shows that

the lower the yearly maintenance costs, the higher the growth, even if in some cost classes there are also negative variations.

Figure 24. Number of projects by project starting year and yearly cost

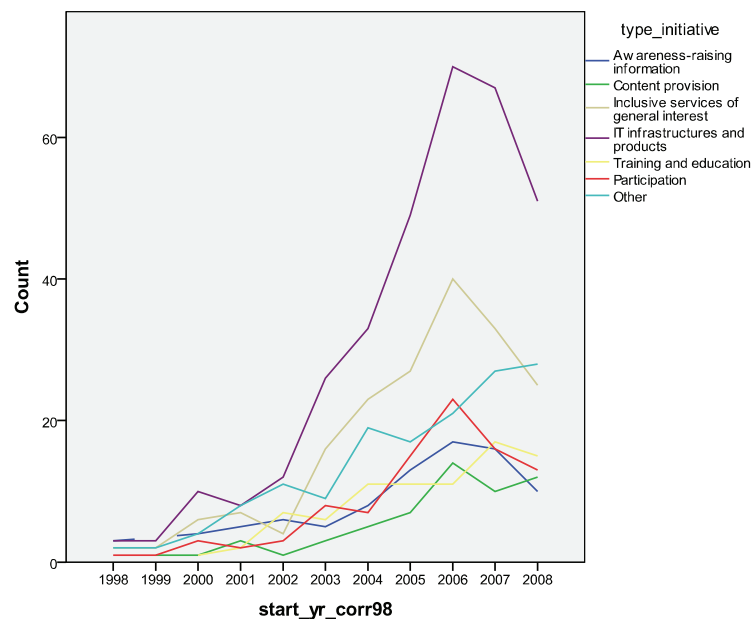


The following chart indicates that larger projects are slightly better rated than small and medium projects. Nevertheless, detailed analysis reveals that the scores of large projects are significantly different only from the scores of small projects, not from medium projects. This result appears to be persistent over time, nevertheless, there appears to be a convergence in scoring over time across the three groups.

Figure 25. Mean rating of projects by project starting year and yearly cost

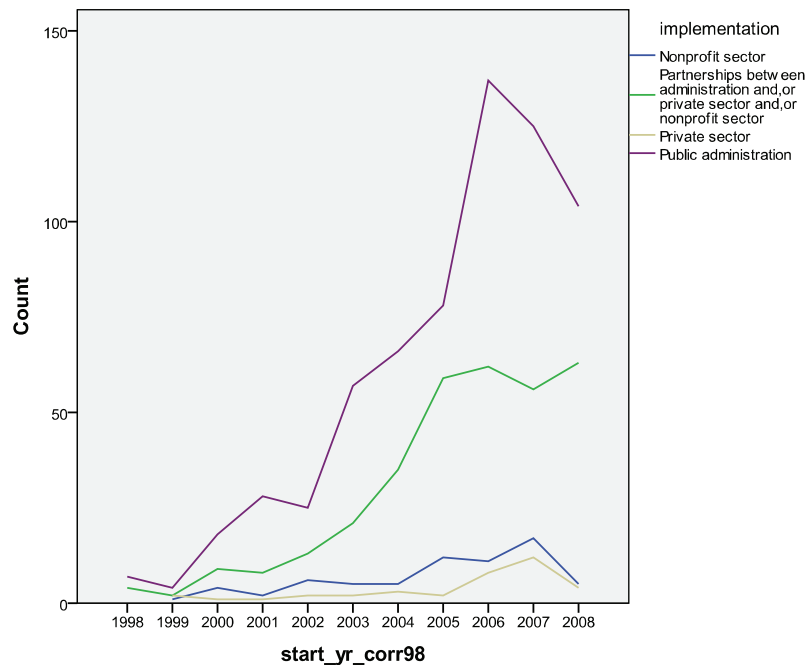
On a finer scale, the time-series confirm that projects larger than 10 million Euro perform better, even if their average scores decline from nearly 5.00 to 4.00 in 2008. Projects with budgets between 5M€ and 10M€ increase their rates after an initial weak performance.

Over the ten years considered here, the initiative type which showed the highest increase concerns IT infrastructures and products, followed by inclusive services of general interest. Both decline after 2006. Content provision, awareness raising information and training and education rise steadily.

Figure 26. Number of projects by project starting year and initiative type

The most important player in the projects considered is the public administration sector, which have been implementing the major part of projects considered. Second to public administration there are public-private partnerships. The private and the non-profit sector play a marginal role in the implementation of projects.

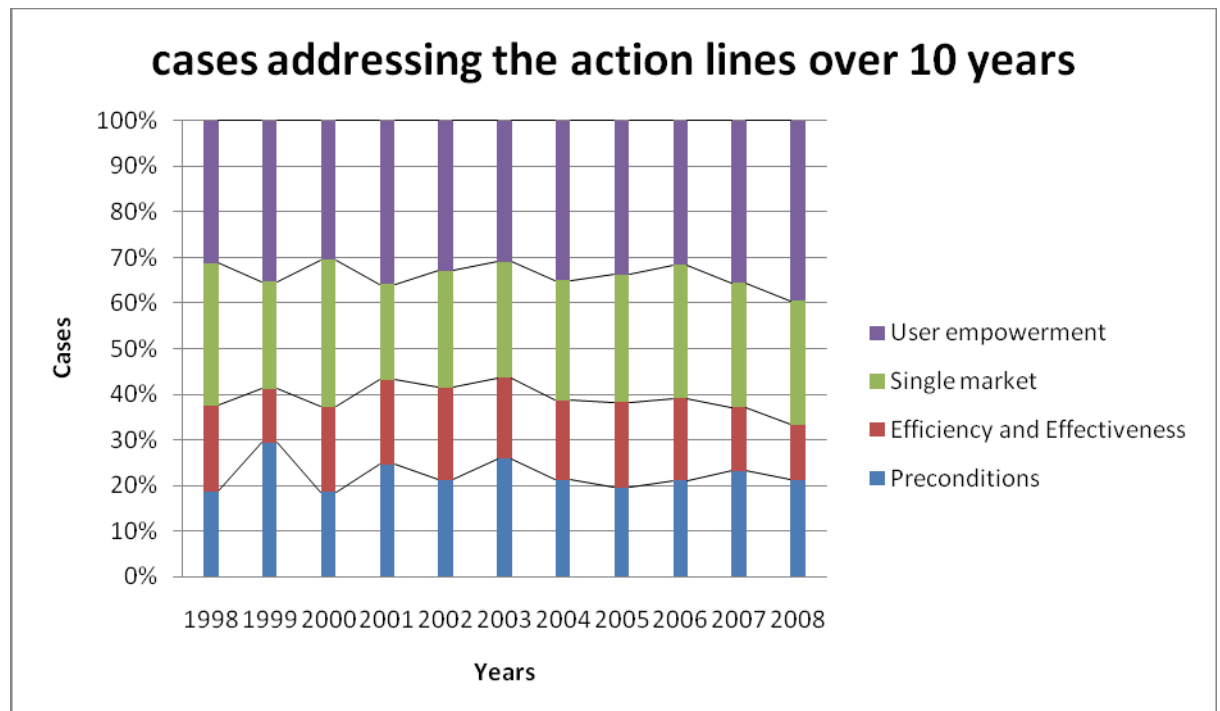
Figure 27. Number of projects by project starting year and actor of implementation



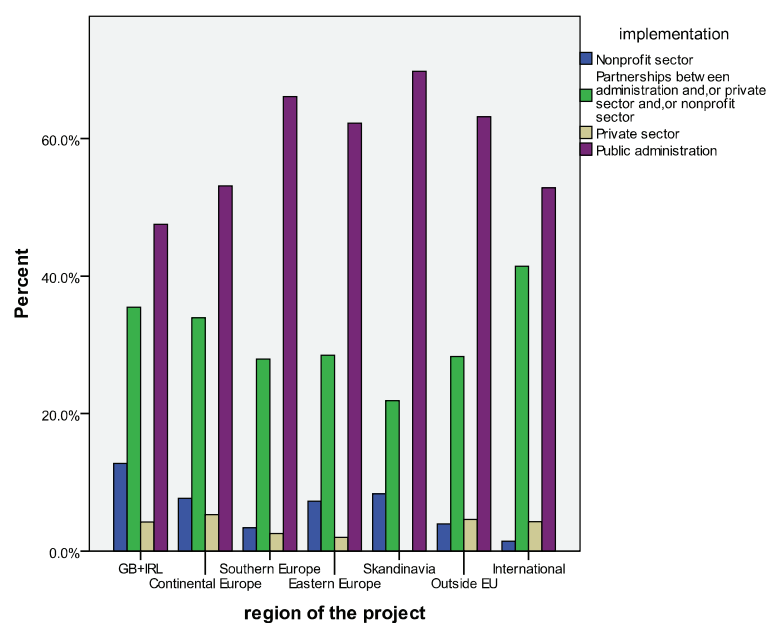
Over the years, the number of projects receiving national public funding is increasing until 2006 and then falls. A similar trend is shown in the case of EC funding. Over the years, also local public funding, regional public funding and private sector funding have a raise in share.

In the chart below we compare the projects addressing the action lines over a 10 year period. Over the years since 1998 we see a significant increase in projects seeking impacts on user empowerment, and a slight decrease of initiatives having a bearing on the single market, as well as those targeting efficiency and effectiveness. Apart from some oscillations probably due to the project sample orientation, projects addressing preconditions are pretty stable over the years.

The cumulative frequency of projects over the past ten years related to business mobility, shows that there is very little increase in projects dealing with this issue. In the case of stakeholder involvement in policy this contrast is even stronger, as in the case of citizen mobility. For citizen mobility, the gap is less clear, even if the increase in mobility unrelated initiatives is still much higher over time.

Figure 28. Number of projects by project starting year and action lines**Simple bivariate analysis of the whole sample**

Public administrations as implementers of project initiatives are mainly from Southern Europe and Scandinavia. In fact there has been a significant activity on the part of these countries. British and Irish project proposers largely build on public/private partnerships, where Southern and Eastern European players are less effective and Scandinavian players even less.



A set of indications from past experience

The cluster analysis of the ePractice database allows us to draw some general indications on the actions to focus on with a view to achieve the new objectives for eGovernment.

The cross border feature of projects needs to be increased to satisfy the internal market objective, particularly as concerns regional and local projects. It is necessary to increase the EU-wide character of citizen-oriented projects, which so far show a strong local focus.

The same applies for the projects in the healthcare sector, which needs a more significant EU-projection.

The focus of ePractice projects however shows a good consistency between the implementation scope of initiatives and the types and location of target users. This is an indicator of success of the project selection criteria applied so far.

National, business oriented initiatives are the most successful so far in diversifying their target groups. The new action plan could give a greater impulse towards diversification of users by local, citizen-oriented projects and cross-border health and science projects. In particular, increased diversification of healthcare projects and the emphasis on their European scope projection would be well consistent with the new eGovernment policy approach.

The procurement area of project – which is one of the key focus points of the new eGovernment strategy – seems so far very loosely linked to any of the three clusters calculated. An increased focus of procurement projects would have a positive effect on achieving the new strategic objectives.

Similarly, the tax application area is weakly linked with the cross-border feature of project, in other words, tax application project lack a cross border projection. This cross-border focus should be increased for the benefit of the strategic objective of citizen and business mobility, as highlighted in the Malmö Declaration.

Community development projects so far prove to be correctly associated with the local level. However, in the context of the new action lines, an increased focus on the national and cross-border levels could definitely improve the development and diffusion of EU-wide best practices, and their take up at local level in different territories, as well as the development of interregional projects.

The analysis shows that the linkage between S&T related projects and the business community is weak. The coming action plan, consistently with the Malmö objectives, should aim at placing an increased focus on this connection, which has a bearing on research and even more in technological innovation.

The issue of citizen mobility, which is quite central in the new eGovernment policy and action plan is only addressed at local level and hardly involves the business community. The reasons could be that citizen mobility is considered so far in respect to physical proximity. The new policy setup should seek a greater projection on the EU and a greater involvement of the business community, which will produce significant benefits a) in best practice development and sharing, and b) in supporting mobility at EU level, which is the actual policy target of the new strategy.

The cluster analysis shows appropriate correlations of business communities and with the cross-border features of projects. This is a very positive element which should be taken up in the new eGovernment action plan.

Public Administrations and public-private partnerships so far have been the main driver of ePractice projects, which demonstrates the effectiveness of current approaches in involving key players in project design and implementation.

Another positive outcome of project activities completed so far is the good mix of national, regional and local funding. The analysis also shows that the EU programmes have been successful in leveraging resources of Member States at different institutional levels.

The projects implemented have been largely targeted at the development of IT infrastructures and products, as well as inclusive services of general interest. The future approaches should place a greater emphasis on projects for openness and transparency, for participation and general interest content provision. All these areas have an impact on several new eGovernment Action Lines: efficiency, effectiveness, single market, user empowerment, and their second level actions.

The current management setup of eGovernment-related project guarantees an good geographical representation of EU MS. The selection criteria can therefore well be taken up for future action.

The cluster analysis shows that project ratings are getting lower over the considered decade, even considering fluctuations. However, there is a clear convergence in ratings, which could be a signal of maturity of rates. It would be useful to set up a transparent and universal rating system to be applied to eGovernment-related project, which would ensure consistency and have a positive effect on project assessment and indirectly on project quality and effectiveness.

There is furthermore a positive correlation of project size and project ratings, which in a sense supports the idea that critical mass is positive for the achievement of results and for their quality.

Data show a general increase of low-maintenance cost projects, while large project costs are quite constant. This could be the indicator of an increase in the efficient management of projects over the year, with a particular impact on maintenance costs.

In the considered decade, IT infrastructure and product projects show the highest increase. Most likely it was due to the need to develop and consolidate the basis for service development, putting in place the technological and infrastructure enablers. The new approach should gradually induce a shift towards eGovernment projects tailored to indicate objectives.

There are positive indications on the increasing focus on user empowerment, as supported by the Malmö Declaration, but on the other hand the share of projects aiming at the single market and at efficiency and effectiveness is decreasing, which requires corrective actions in future planning.

Looking at the cumulated frequencies of projects, it is clearly shown that the general focus on business mobility has to be increased, stakeholder involvement has to be emphasised and that also citizen mobility would benefit from a greater attention.

Lastly, considering the type of setup chosen by project promoters and implementing bodies, it seems that best practice in leveraging public private partnerships in northern Europe could be analysed and transferred to other geographical areas, in particular in southern and eastern Europe.

CHAPTER 4 **Conclusions and recommendations**

Several activities that addressed and affected eGovernment have been deployed over the past years by the European Commission. This study examined the most directly related activities, especially activities under eTEN, eParticipation, FP7 and CIP/ICT/PSP, to identify gaps and analyse what has delivered anticipated results and progress in these activities and what has not, through a meta-analysis of results, studies, evaluations and interviews with stakeholders as well as officials of the Commission. In addition we analysed cases in the ePractice database to assess those activities been reported in the past years (since 2004) that bear relevance to the Malmö declaration and the Action Plan. The following statements have to be read mainly within the framework of these activities.

Much attention has been given at EU and national level to the preconditions for eGovernment activities at all levels. Interoperability has been especially fostered by implementation of (large scale) pilots and work under IDABC and currently ISA. Steering the interoperability process (for instance through the EIF and SEMIC) and supporting standards (EU level *de facto* standards can pave the way) fall within the crucial leadership role at cross border level, in spite of potential constraints of subsidiarity, especially when the EU competences are less clear. The path breaking and facilitating/brokering roles are obvious and should be uncontested. More direct support and coercive measures, even if they amount to creating a standards body will be more controversial. Key enablers such as eId are being promoted through large scale pilots, but as the targets of the current action plan (i2010) have not been met, further effort is needed to ensure eId implementation and operation, including the potential for centralising parts of the related services and infrastructure in order to facilitate appropriate cross border collaboration, long term embedding and uptake.

With respect to efficiency and effectiveness there has been relatively less specific EU eGovernment activity within the scope of this study. This could be due to the fact that the role of eGovernment is expected to be fully integrated into other efficiency related activities. Concerns exist about the measurement of eGovernment efficiency benefits. Often eGovernment services exist in addition to or in parallel to traditional services, meaning that multiple channels have to be maintained (for instance to avoid exclusion, to provide full coverage, or due to legal constraints), thus creating additional cost, while in other cases the gains made in one part of the chain is cancelled out by reduced efficiency, bottle necks or 'double work' in other parts, thus cancelling out or reducing the cost benefits. Organisational change is essential to the successful implementation and roll out of eGovernment services, and a likely consequence as well, yet it has only been addressed

marginally until now. Also the co-development of services and potential Public Private Partnerships (from straight forward outsourcing to truly jointly developing and operating public services) will affect the organisational structure in deploying these services. Green eGovernment has not been on the agenda until recently, and doubts are being expressed whether the topic is specific for eGovernment or generic in the sense that no specific action is required and therefore eGovernment (as eHealth or eTransport) could contribute to lowering the carbon footprint by definition. In that case the targets for these should be set by Government as a more generic policy and not necessarily as part of a specific eGovernment action..

Most of the recent efforts (at EU and national level) have gone into activities and projects related to citizen empowerment (for instance 54% of the cases in the ePractice database relate to the topic), primarily through citizen participation in (user centric) processes (inclusive, targeting minorities, joint policy and decision processes etc) at various levels of action (from R&D to deployment and implementation) and with all kinds of scope, from local to Pan European. Both the Malmö declaration and the draft eGovernment Action Plan clearly focus on this area of activity. The high levels of previous activity in this area contain a wide range of building blocks and knowledge pools, the Action Plan should therefore concentrate on added value at EU level, providing leadership and avoiding costly and unnecessary duplications of effort that goes beyond a learning experience and a proper framework of communication and comparison (especially at local and regional authorities). Areas hardly covered in the ePractice cases or ongoing EU eGovernment projects include transparency and collaborative production of services. Reasons for the low number of cases for collaborative production of services could be manifold, such as concerns over IPR's political risks in case of failure or compaction issues.

A general conclusion from the recent actions is that if eGovernment activities at EU level are to succeed, the focus has to be on tangible and achievable goals. SMARTS (specific, measurable, achievable, realistic, timely and sustainable) should characterise each action, objective and anticipated outcome, especially in the areas where Member State collaboration is essential (for instance for the pre conditions and the single market action lines).

Clear leadership at various levels is needed in order to give direction to the process. At EU level this leadership role includes vision (providing direction to the various areas of activity, as to an extent has happened in the user empowerment field and through the Large Scale projects) and providing central services with a cross border function and nature (also reusing existing tools (e.g. the Internal Market Information system¹⁰ as the basis for setting up and implementing services).

Although it is evident that subsidiarity plays an important role, the current economic situation with cost cutting and cost saving, certainly from an EU perspective, seems to justify stronger (and pan European) leadership in standardisation and guidance to administrations at all levels, including local administrations, in order to reduce cost by using existing knowledge and avoiding duplication and reinventing (this should go much further than existing exchange of good practice and similar activities).

¹⁰ http://ec.europa.eu/internal_market/imi-net/

In terms of implementation, activities should be demand driven. The effectiveness to pick winners is under debate, where arguments against it stress that it reduces the richness and balance of the set of candidates, and probably could have counterproductive effects in terms of innovation. Other means such as Pre Commercial Procurement should also be seriously considered to create the wider pool and avoid market distortions. Creating examples with forerunners rather than spend most effort to be all inclusive does seem to be effective especially when aiming at short to mid term goals, it still has to proof itself on the long term and in realm market conditions. Instruments as the Large Scale pilot A projects have proven to be effective especially for achieving interoperability at EU level and creating forerunner groups, while the smaller Pilot B projects are needed to maintain the innovation potential and amongst others retain the possibility to validate RTD and other technology developments. The function of pilot B's as an instrument needs to be reviewed, and the activities should probably be more focused to get better tuned results.

There seems to be less need to emphasise on creating Pan-European Government Services in general but focus on Cross border services to address specific policy targets.

R&D efforts and policy direction should be better aligned, integrated and tuned to operational needs, overall eGovernment policy and eGovernment policy implementation.

A key barrier to be addressed is the coordination of various types of activity and have simultaneous coordinated technical, legal and organisational tracks. Three steps to take:

1. Legal framework and embedding is essential;
2. Expect (and plan for) organisational change;
3. Ensure semantic interoperability.

Another barrier is the lock in by suppliers (especially at local and regional level). Pre-commercial procurement could be a way to open the market to new (smaller) suppliers, reduce cost and allow for better innovation.

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