Stakeholder Identification and Community Building Strategy (D 1.1)

Work package:	WP 1 – Strategy Development

GA Number:	288136
Acronym:	eGovPoliNet
Title:	Building a global multidisciplinary digital governance and policy modelling research and practice community
Funding Scheme:	Coordination Action (CA)
Work Package Lead:	UBRUN
Contributors:	UBRUN, TUD, CERTH, INNOVA, VUB, UL, SUNY, UNU-IIST, UCDNUID, UKL
Editors:	Tony Elliman, Laurence Brooks, Anastasia Papazafeiropoulou (UBRUN)
Status and Date	Version 1.0 of 26/09/2012
Dissemination level:	Public
Document full name:	eGovPoliNet_D1_1_v1_0.docx
Abstract:	This document lays out a longer-term strategy and agenda for the project in the second and third year of funding and beyond. Future development of the Policy Community is presented as a series of strategic views of the community as it develops a concise mission statement; the scope or areas of expertise covered through (a) the relevant academic disciplines, (b) recent EU funding and (c) the relevant ICT artefacts; relevant target groups that eGovPoliNet should engage with as potential beneficiaries of the Policy Community's activities; and engagement with other EU supported networks or communities of interest. Finally, the document reports the online services the Policy Community needs to develop for members and the wider public.

CONTENTS

1   PURPOSE AND SCOPE OF THE DOCUMENT..5

2   OVERVIEW 6

   2.1   MISSION STATEMENT 6

   2.2   GOVERNANCE AND POLICY MODELLING 7

   2.3   E-GOVERNANCE, E-GOVERNMENT, E-PARTICIPATION AND E-DEMOCRACY 8

3   SCOPE OR AREAS OF EXPERTISE 9

   3.1   AREAS OF EXPERTISE: ACADEMIC DISCIPLINES 10

      3.1.1   Technology and Modelling 12

      3.1.2   Governance and Policymaking 14

      3.1.3   Policy Areas 14

   3.2   AREAS OF EXPERTISE: EU PROJECT FUNDING 15

      3.2.1   Policy modelling and simulation 15

      3.2.2   Citizen participation 16

   3.3   AREAS OF EXPERTISE: RELEVANT SOFTWARE 17

   3.4   THE SCOPE OF THE POLICY COMMUNITY 19

4   STAKEHOLDERS (POTENTIAL COMMUNITY MEMBERS)......................................19

   4.1   CITIZENS AT LARGE...20

   4.2   POLICY MAKERS – ELECTED REPRESENTATIVES 21

   4.3   POLICY ADVISORS AND INFORMATION PROVIDERS 21

   4.4   ORGANISATIONS (OR CONTACT POINTS) 22

      4.4.1   Government departments..23

      4.4.2   Think Tanks or Policy Leaders 24

      4.4.3   Research Groups 24

      4.4.4   Professional associations and other non-profits 25

      4.4.5   Private Business – Consultancies..26

      4.4.6   IT Suppliers 27

      4.4.7   Conference Series 27

      4.4.8   Journals and Magazines...29

      4.4.9   Research Projects 30

   4.5   RELEVANT ORGANISATIONS – SUMMARY 31

5   LINKS TO OTHER NETWORKS..31

   5.1   OTHER EU SUPPORTED NETWORKS 31

   5.2   SOCOLNET - SOCIETY OF COLLABORATIVE NETWORKS.....................................33

   5.3   BUILDING BRIDGES BETWEEN NETWORKS 33

6   SERVICES TO MEMBERS (PORTAL AND KNOWLEDGE BASE) 34

   6.1   AWARENESS – SPREADING THE MESSAGE. 36

      6.1.1   Awareness: The public at large 36

      6.1.2   Awareness: Within the professions..37

   6.2   KNOWLEDGE BASE 38

      6.2.1   Knowledge base: Content...39

      6.2.2   Knowledge base: Retrieval...39

      6.2.3   Knowledge base: Creation 40

1 Purpose and Scope of the Document

The role of WP1 in the project is to lead the development of a long-term strategic direction for the consortium and formulating a consolidated development strategy for the Policy Community[1]. That is the community of "*major actors and relevant stakeholders from research and practice working in or being strongly related to the field of ICT solutions for participation, governance and policy modelling*".

For the other work packages the first year of activity has been driven by the DOW. The longer-term strategy being developed here defines the agenda for the second half of the funding period and beyond. The notion of "community building" can be looked at from two perspectives; it can be viewed first as recruitment and retention of members, and second as the development of communication and group activity between members – integration of the membership. This document tends to take the former view although in considering retention section 6 does address some formal aspects of the latter. Work package 3 addresses more organic aspects of community building in its use of Linked-In and other social networking sites.

This document develops this longer-term recruitment and services strategy by considering the following sequence of issues:

1. A concise mission statement for the Policy Community.
2. Definitions of relevant terminology.
3. The scope or domain of interest. This delineates the subject matter or areas of expertise and types of software addressed by the Policy Community.
4. Identification of relevant target groups that should engage with, and benefit from, the network's activities. This analysis is exemplified using UK based organisations but similar profiles from the perspective of other partners are included as annexes.
5. A strategic review of out engagement with other EU supported networks or communities of interest.
6. A strategic review of the online services to members and the wider public. This is necessary because engagement with and retention of active members depends on the Policy Community's ability to provide attractive and useful services.

---

[1] Throughout this document references to the "Policy Community" or to the "digital governance and policy modelling community" are to the actual membership of the community that eGovPoliNet aims to establish. References to just the "community", the "constituency" or the "stakeholders" refer to the wider community engaged in relevant activities – that is the target for potential membership of the Policy Community.

2 Overview

The DOW states that we aim "*to build a researcher & practitioner community*" of "*experts from academia, industry and public organizations, and other interested stakeholders*". In the DOW the relevant stakeholder groups are identified as "*research and development organisations, industry, non-profit organisations and governments (e.g. policy makers). Particular focus will be given to the distinction between ICT solution providers (e.g. academia and industry) and potential users (e.g. government, policy makers and policy advisors).*"

In this first section we encapsulate this in a mission statement for the Policy Community and examine the significance of key terminology defining its role and scope.

2.1 Mission Statement

The drive to establish the Policy Community comes out of the recent social and economic crisis in Europe. Current policy analysis approaches failed to predict the crisis and seem to have little to offer by way of solutions. In particular there are significant technical difficulties linking social and economic models and the respective modelling communities are largely independent. This needs to be coupled with a failure to engage citizens within the policy making process and overcome their antagonistic response to the measures deemed necessary by policy makers. Similar problems exist when we consider climate change and energy issues.

The grand vision for the Policy Community is to overcome these problems by drawing the disparate groups into a single international community where the complexity of 21st century policy design could be tackled in collaborative activities.

A critical distinction that needs to be made here is between the funded project – eGovPoliNet – and the Policy Community that it aims to create. The former is ephemeral (projects begin and end) but the latter needs to be a relatively permanent institution (the community should go on forever). That is the Policy Community will be born out of, among other things, the eGovPoliNet project.

As a guiding light for the Policy Community the following mission statement was drafted at the kick-off meeting and refined in subsequent discussions:

> **"Our mission is to be the recognized leader in bringing policy analysts and researchers together to share knowledge, expertise and best practice in 21st century policy analysis, modelling and governance."**

The following was also developed as an extension of the above where a longer statement would be appropriate.

"Designing policy in the modern world must recognise that different policy areas and geographical regions interact to create a complex system where predicting a policy outcome is intellectually demanding. Predicting outcomes with confidence requires interdisciplinary collaboration and the development of simulation based models. To deliver good governance (better government policy) to our citizens, we need to build bridges between policy makers, citizens, problems, evidence, models and solutions. Our community portal facilitates collaboration, identifies the challenges and pinpoints the ICT solutions for our members."

2.2 Governance and Policy Modelling

The terms "*governance*" and "*policy modelling*" are very broad descriptors of activities that can be applied in a variety of contexts. If the Policy Community is to have a clear common focus, these terms need to be specifically qualified.

This terminology was used by EU FP7 funding calls in 2009[2] and 2011[3]. As an aid to understanding the implications of this terminology Annex A below presents an analysis of the projects funded in these calls together with other relevant EU funding[4].

As described in Annex A the EU Work Programme[3] refers specifically to "*the governance of our societies*" and requires that projects should address "*scenarios involving even greater complexity and citizens' involvement*". The target community for projects in these calls is, therefore, involved in the public sector policymaking activities, by organs of the state, rather than the governance of private sector bodies and corporate policymaking. In particular, the governance of specific organisations, such as the Policy Community itself, and the governance of specific activities, like ICT projects and departments, falls outside the remit of the Policy Community.

A critical concern expressed in discussions with Commission officers is the inability of traditional policy modelling techniques to predict the recent crises in banking and public finance. If the Policy Community is to be an effective organisation in bringing together expertise that will move beyond this, *policy modelling* needs to be interpreted broadly. Policy modelling is therefore taken here to include support for policy making through policy analysis and simulation.

---

[2] FP7 Updated Work Programme 2009 and Work Programme 2010 for Cooperation Theme 3: ICT – Information and Communications Technologies. European Commission. Available from: http://cordis.europa.eu/documents/documentlibrary/107236431EN6.pdf [Last accessed 29 July 2009].

[3] FP7 Work Programme 2011 for Cooperation Theme 3: ICT – Information and Communications Technologies. European Commission. Available from: ftp://ftp.cordis.europa.eu/pub/fp7/docs/wp/cooperation/ict/c-wp-201101_en.pdf [Last accessed 19 July 2010].

[4] Preparation of the report was prompted in a Brussels meeting with the project officer but with changes in staff assignments and priorities it was never presented to the Commission.

2.3 E-Governance, e-Government, e-Participation and e-Democracy

In addition to e-Governance popular terminology also includes e-Government, e-Democracy, and e-Participation, and it is necessary to address the relationship between these terms and the scope of the Policy Community. Unfortunately all of these terms have been widely used with varying meanings, sometimes to support a political agenda.

E-Government is defined by the European Commission[5] as being "*about using the tools and systems made possible by [ICT] to provide better public services to citizens and businesses. ... Effective eGovernment also involves rethinking organisations and processes, and changing behaviour so that public services are delivered more efficiently to the people who need to use them.*" More widely it is used as an umbrella term that refers to the use of either the Web or the Internet, or more generally ICT, to support the delivery of public services, democratic participation and public policy making. It has been used to cover all related front-, middle- and back-office operations and includes any services provided by the administration, local government or European agencies to both citizens and businesses. As such e-Government addresses a much broader range of ICT supported activity than the intended interests of the Policy Community.

E-Democracy is ICT support for the processes of democratic participation. Within Europe representative democracy is the norm and e-Democracy needs to be considered in this light. There has been a tendency to use this term in association with ICT for online voting or political campaigning but it could equally be applied to any activity that gives meaning to democratic processes. This includes systems aimed at influencing policy decisions (for example online petitions and consultations) or systems that give the citizen direct access to the policymaking process. Indeed there is significant debate about whether e-Democracy implies a move away from representative democracy and a return to the direct democracy of the Greek City State. Once again usage goes beyond the intended focus of the Policy Community and, in particular, systems related to electoral campaigning and electoral voting are excluded from the project's current interests.

E-Participation is defined by the European Commission as being "*about reconnecting ordinary people with politics and policy-making and making the decision-making processes easier to understand and follow*" by using ICT[6]. This definition aligns well with the intended interests of the Policy Community but the term has also been used elsewhere with wider connotations.

---

5   ICT for Government and Public Services – eGovernment, URL:
    http://ec.europa.eu/information_society/activities/egovernment/index_en.htm [last accessed 20/7/2012]
6   ICT for Government and Public Services – eParticipation, URL:
    http://ec.europa.eu/information_society/activities/egovernment/policy/eparticipation/index_en.htm
    [last accessed 20/7/2012]

E-Governance is defined by UNESCO[7] as "*the public sector's use of [ICT] with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective*". This broad definition makes it almost equivalent to e-Government and there is certainly confusion between the two terms in the wider community. As indicated above, the FP7 Work Programme uses ICT for governance (i.e. e-Governance) in a narrower sense that is almost synonymous with e-Participation.

In some senses both e-Participation and e-Governance might be given the wider connotation to include detailed policy implementation below the policy making level. However, the ICT tools and techniques engaged are likely to be similar, if not identical. For the purposes of the Policy Community the critical test is that the system is or can be linked to policymaking activity.

In setting out to build a world-wide community the project is faced with a dilemma over the use of these terms. All of them contain ambiguities about the type of ICT systems that fall within their purview. The definitions in Wikipedia[8] are an indication of how these terms are likely to be seen within the community at large and they suggest that, if any, e-Participation is the one most likely to be understood correctly as the intended interest of the Policy Community. However, for internal political reasons (see Annex A) the initial funding for building the Policy Community is from a source that favours e-Governance.

In conclusion the Policy Community should use both e-Participation and e-Governance in the sense discussed above as useful terminology when presenting its aims and scope. However, e-Government and e-Democracy are best avoided in describing the Policy Community aims.

3 Scope or Areas of Expertise

The full scope of the Policy Community's interests can be addressed from several different directions. First, we can approach this by defining the subject matter or areas of expertise relevant to the Policy Community. Second, appropriate members may be defined by the types of organisation in which they work or to which they already belong.

---

[7] UNESCO Activities by themes > Access to Information > E-Governance URL:
http://portal.unesco.org/ci/en/ev.php-URL_ID=3038&URL_DO=DO_TOPIC&URL_SECTION=201.html
[last accessed 20/7/2012]

[8] e-Government, http://en.wikipedia.org/wiki/E-Government [last accessed 20/7/2012]
E-democracy, http://en.wikipedia.org/wiki/E-democracy [last accessed 20/7/2012]
e-participation, http://en.wikipedia.org/wiki/E-participation [last accessed 20/7/2012]

This section looks at the scope in terms of the subject matter and the next considers the members' or stakeholders' affiliations.

The principle means for defining the relevant areas of expertise is to identify the academic disciplines or areas of study and expertise that contribute to the Policy Community knowledge base. However, other taxonomies may be useful, particularly in relation to defining the practitioner or user community. The eGovPoliNet project Community Support Action, which is intended to form a bridge between EU funded projects, and hence the range of funded activity should fall within the scope of the Policy Community. Finally the project is concerned with *ICT* for governance and policy modelling. Therefore, a taxonomy of the relevant software tools or packages provides a perspective of relevant expertise.

3.1   Areas of Expertise: Academic Disciplines

To be confident in identifying all the disciplines, areas of study or expertise that are relevant to the Policy Community knowledge base, we require a comprehensive taxonomy of academic endeavour. Fortunately, the UK conducts a regular appraisal of research excellence across the entire university sector and the 67 units of assessment (UOA) in the 2008 review provide just such a comprehensive taxonomy[9,10]. A scan of the titles and definitions for each UOA enables us to discard 51 areas that obviously have little or no relevance, leaving 16 areas of expertise that can be grouped under three main headings.

First, there is Technology and Modelling. These are the areas concerned with the development of technology artefacts and general knowhow relevant to the construction or analysis of policy models. Two (UOA 22 and 23) are obvious candidates. The other three are less obvious but they each include relevant sub-areas:

- UOA 23- Computer Science and Informatics
- UOA 22- Statistics and Operational Research
- UOA 37- Library and Information Management
  in particular the sub-areas addressing Information Systems (the information society; systems thinking; systems development; knowledge management systems and information retrieval)

---

[9]   Research Assessment Exercises (RAE 2008) Quality profiles by unit of assessment (UOA), URL: http://www.rae.ac.uk/results/selectUOA.aspx [accessed 12 Feb 2012].

[10]   Another advantage from using the RAE 2008 as a taxonomy is that the self-reported data and UOA alignment for every active academic research group in the UK is a matter of public record. When the time is ripe for amass approach to potential stakeholder this can be used to identify target institutions and groups within the UK.

- UOA 41- Sociology and UOA 44 Psychology
  in particular the sub-areas addressing behaviour and motivation are important in agent based modelling (social structures, … opinions, values, and institutions; human experimental psychology … individual differences; … social psychology).

Second, there is Governance and Policymaking. These are the disciplines associated with the general nature and processes of governance and policymaking in the public sector;

- UOA 39- Politics and International Studies
- UOA 36- Business and Management Studies
  in particular the sub-area addressing Public Administration

Third, there are the Policy Areas. These are the disciplines that address specific areas of public policymaking. The first two of these (UOA 31 and 34) are obvious candidates because they are focussed exclusively on major public policy areas. The remainder of these disciplines are the ones that are expected to be addressed in the policies of any 21st century state government. However, they all include significant areas of activity which are not directly linked to public policy. Bearing in mind the work programme injunction to address "*scenarios involving even greater complexity*", the Policy Community needs to facilitate building bridges between these 9 areas so that we can model the interactions between policy areas.

- UOA 31- Town and Country Planning
  in its entirety - the theory, analysis, policy, practice and governance of spatial planning, environment, communities, property markets, housing and transport
- UOA 34- Economics and Econometrics
  in its entirety - the study of factors that influence income, wealth and well-being with the intent of informing the design of economic policy[11]
- UOA 6- Epidemiology and Public Health
  in particular public health research, epidemiology and aspects of health economics, demography, modelling and health protection
- UOA 7- Health Services Research
  in particular healthcare, healthcare systems, services and policy including modelling, healthcare policy evaluation, health service organisation and management,

---

[11] The panel for this UOA provided no further breakdown of the area and this definition is taken from ther Quality Assurance Agency for Higher Education, Subject benchmark statement: Economics 2007, URL: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Subject-benchmark-statement-Economics.aspx, ISBN: 9781844826445

- UOA 17- Earth Systems and Environmental Sciences
  in particular global change and scientific aspects of environmental management,
  including pollution and conservation
- UOA 32- Geography and Environmental Studies
  in particular natural, environmental and human phenomena, and their
  interrelationships in particular systems, contexts and locations; and
  environmental governance, management and economics
- UOA 40- Social Work and Social Policy & Administration
  in particular social policy, criminal justice policy, policy and practice,
  policymaking processes, governance, management and service design
- UOA 43- Development Studies
  in particular the analysis of global and local processes in low and middle income
  parts of the world, with particular reference to development policy
- UOA 45- Education
  in particular education policy; social exclusion/inclusion and equity issues

3.1.1 Technology and Modelling

Four large areas of expertise were identified above as relevant to the creation of ICT for
governance and policy modelling. Computer Science (or Software Engineering) where
the advance of computer systems is studied as a way to improve the performance and
look of ICT systems and Information systems (UOA 37) where the adoption and use of
technology by individuals and organisations is studied. While Statistics and Operational
Research is the primary discipline for the study and analysis of operational models.
Finally, Sociology and Psychology were added for their insights in to behaviour and
motivation that underpin agent-based models.

Looking at each of these in turn brainstorming within the network identified specific
sub-areas that are relevant to the Policy Community. The process was systematised by
also referring to the subject benchmark statements from the UK Quality Assurance
Agency for higher education. These are summaries of a disciplinary area defined by a
panel of academics in the area and used as reference points in assessing the coverage of
undergraduate degree programmes.

- Computer Science (including Software Engineering)[12]
  - Artificial Intelligence: uncertainty, machine learning (pattern recognition)
    and agent based modelling.
  - Human Computer Interaction (HCI): information visualisation.

---

[12] Quality Assurance Agency for Higher Education, Subject benchmark statement: Computing 2007,
URL: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Subject-benchmark-
statement-Computing.aspx, ISBN: 9781844826780

- o Information Retrieval: data, information and knowledge management,
- o Intelligent Information Systems Technology: data mining, decision support systems, case based reasoning and information presentation.
- o Natural Language Computing: language parsing and understanding, text analysis and semantic networks.
- o Simulation and Modelling: continuous flow and discrete event models, model building, model validation, different approaches and types of simulation.
- o Systems and Cybernetics: including complex systems theory.
- o Emerging Topics: cloud computing and serious gaming.
- Information Systems[13]
  - o E-governance
  - o Policy Making and Analysis
  - o E-participation
  - o Social Networking
  - o Crowdsourcing
- Statistics and Operational Research[14]
  - o Mathematical theories: probability and game theory
  - o Mathematics-based problem-solving and model-building processes
  - o Models: scheduling, sequencing, queuing, simulation etc.
  - o In context interpretation of results
- Sociology[15] and Psychology[16]
  - o Relationships between individuals, groups and social institutions
  - o Processes underpinning social change
  - o Individual differences: emotion, motivation, gender and ethnicity
  - o Social psychology: attitudes, group processes and intergroup relations

---

[13] In this case, the QAA LIM subject benchmark statement is generic and focusses on broadly applicable knowledge of information management and skills. The analysis here focusses in the breakdown of IS by application area.

[14] Quality Assurance Agency for Higher Education, Subject benchmark statement: Mathematics, statistics and operational research 2007, ISBN: 9781844827794 URL: http://www.qaa.ac.uk /Publications/InformationAndGuidance/Pages/Subject-benchmark-statement- Mathematics-statistics-and-operational-research.aspx,

[15] Quality Assurance Agency for Higher Education, Subject benchmark statement: Sociology 2007, URL: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Subject-benchmark-statement-Sociology.aspx, ISBN: 9781844827114

[16] Quality Assurance Agency for Higher Education, Subject benchmark statement: Psychology 2010, URL: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Subject-benchmark-statement-Psychology.aspx, ISBN: 9781849792103

3.1.2 Governance and Policymaking

This area moves away from the ICT and modelling technology to focus on relevant expertise in governance and policymaking processes. It is already touched upon in the application areas picked out under Information Systems but here we move from a focus on technology support to the underpinning theories and practice.

The relevant sub areas are teased out using in the same way as the technology and modelling areas:

- Politics and International Studies[17]
  - Government and Society: the interaction of people, ideas and institutions from the local through the national to the global arena
  - Theories and practice of governance and policy-making
  - Normative and positivist political theories
- Business and Management Studies[18]
  - Public Administration: the study of public sector organisations and their purpose, structure, governance and management.

3.1.3 Policy Areas

All of the 9 areas identified by Research Assessment Exercise (RAE) 2008 analysis above include people trained, working in or researching these areas. These people are part of the constituency that we aim to serve (others may be added as the project progresses). It is in these areas that we expect to find practitioners and cases of policy analysis and decision-making - real examples of social entrepreneurs and innovative policies. Sucg activities can be observed in several areas, for example:

- International, European, national and sub-national, comparative analysis.
- Policy modelling, simulation, analytics including descriptive techniques, predictive techniques and prescriptive techniques – giving greater precision on policy choices and trade-offs.
- Policy-making, e.g. evidence-based, policy linking and trade-off, consultations, polling, rating, voting, crowdsourcing, etc.
- Policy implementation and monitoring.

---

[17] Quality Assurance Agency for Higher Education, Subject benchmark statement: Politics and International relations 2007, ISBN: 9781844826645 URL: http://www.qaa.ac.uk/Publications /InformationAndGuidance/Pages/Subject-benchmark-statement-Politics-and-international-relations.aspx,

[18] Quality Assurance Agency for Higher Education, Subject benchmark statement: General business and Management 2007, URL: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages /Subject-benchmark-statement-General-business-and-management.aspx. ISBN: 9781844826704

- Socio-economic and cultural impacts assessments and evaluations, both ex-ante and ex-post, feeding back into policy modelling and making.
- Social innovation and inclusion.

3.2   Areas of Expertise: EU Project Funding

The analysis of EU project funding in Annex A provides several insights into relevant areas that the Policy Community needs to address. This exercise cast the net fairly wide addressing recent funding from 2006 under:

- The FP7 "Information Society Technologies" research and technical development (RTD) programme in the area of "ICT for Governance and Policy Modelling".
- The special research fund to support 3 years of "e-Participation" research as a preparative action.
- The ICT Policy Support Program (PSP) funding framework pilot dissemination projects in "e-Participation".
- Other FP7 funding for relevant projects in other parts of the FP7 programme.

After discounting the networking and support actions, 55 projects were identified with theory building, research and development objectives. This represents just under €80M of public funding. For a full analysis of these projects see Annex A section A.7. From this we can draw the following insights into the scope of the Policy Community.

3.2.1   Policy modelling and simulation

Simulation techniques are widely used within and beyond the policy modelling community. There are three main approaches to simulation models that focus on different aspects of reality and use very different methods to produce computer animations of the model.

These are:

1. **System Dynamics** or continuous flow simulation views the world as containers with things flowing between them. The rates of flow are influenced by the amounts in the containers and other parameters set by the modeller. A typical use of such models in the policy domain is in macro-economic modelling.

2. **Discrete Event Models** view the world as objects (or individuals) moving through sequences of activities. The models usually include resource constraints and objects may wait (or queue) until the resources or conditions for an activity to start are met. Such models vary from representations of physical scenarios like product manufacturing to more abstract work flow or state models like petri nets.

A typical use in the policy modelling domain would be models of health service delivery.

3. **Agent-Based Models** focus on individual behaviour and negotiation to satisfy potentially competing or conflicting objectives. Individual agents have some form of decision making model and they may engage in negotiations to determine their individual actions. A typical use in policy modelling would be to explore market behaviours under different conditions or regulations.

Because of their wide applicability all three types of simulation model are well covered elsewhere in the research literature. As indicated in section 2.2 oben a critical concern is the inability of traditional policy modelling techniques to predict the recent crises in banking and public finance. There is no doubt that to meet the challenges of modern policy design, models that combine these techniques will be necessary, but developing mixed mode simulation techniques and tools are also a concern in this wider community.

Only 14 of the 55 projects analysed in Annex A address issues in policy modelling and simulation. However, only agent-based simulation and systems dynamics models are referred to explicitly in project outlines, none appear to address discrete event modelling and only two consider the merger of techniques. The only explicit approach to developing mixed mode simulation models is through the application of Artificial Intelligence techniques.

Looking at the recent funded research there is little consensus in the theories and models to be extended or applied in policy modelling. The different theoretical areas referred to by projects are:

- foresight scenario analysis
- game theory
- socio-economic models,
- models of governance
- ontologies

- decision support or optimisation
- citizen behaviour
- governance of risk
- models of legal elements
- complexity science

3.2.2 Citizen participation

The current funding programme has tended to support a significant number of projects (42) involving citizen participation of one sort or another. Far fewer of the projects (14) address policy-modelling issues – five address modelling exclusively and the other nine do so in conjunction with participation issues. The Policy Community needs to strike a better balance that links participation activities to the policy models being applied.

The 55 projects appear to be largely pragmatic with much less effort devoted to theory building (only 11 projects do so). There seem to be very weak links between theory and

practice. For example some projects are unclear about the stages of the policymaking cycle they address and of the four projects seeking a better understanding of citizen participation in governance as a phenomenon three are based in institutions with no links to any other project activities. The Policy Community needs to strengthen these links and encourage the leading theorists to engage with pragmatic consortia in new projects.

The review found a significant number of projects (69%) with citizen participation occurring at the start of the policymaking life cycle. In contrast only 17% deal with citizen engagement in the final, implementation stage.

Less than a quarter of projects address active participation on the OECD scale[19]. The predominant modes of participation are listening[20] (59% of projects) and consultation (29%) where citizen views and opinion are fed to elected representatives or committees but the extent to which they will influence the decision-making process is unclear. What stands out is that as the activity moves towards formalisation of a policy in legislation so participation moves away from modes where citizens can exercise any power in the process.

This, in common with the first challenge in Annex A, points to a key problem of governance that the Policy Community might classify as a "Grand Challenge". Within the representative democracies of Europe and the West, elected representatives want to respond to public concerns (agenda setting) but the nature of the response (legislation or regulation) is for them to decide. This has to be traded against the citizen's expectation of "direct democracy" where the effort of engagement needs to be recognised and repaid with a visible impact on the policy design.

3.3 Areas of Expertise: Relevant Software

The following software tools or packages fall under the umbrella of ICT for governance and policy modelling. People using, developing or researching this software are part of the constituency that we aim to serve:

- E-Participation
- E-Democracy
- Modelling and Simulation

---

[19] Citizens as Partners: OECD Handbook on Information, Consultation and Public Participation in Policy-Making. Paris, France: OECD. Available from: http://www.ezd.si/fileadmin/doc/4_AKTIVNO_DRZAVLJANSTVO/Viri/Citizens_as_partners_hanbook_oecd.pdf [Last accessed 20/7/2012].

[20] The OECD scale is extended with "listening" as distinct from consulting in that citizens have some control over the agenda but it falls short of active participation.

With the caution about the interpretation of e-Democracy (section 2.3), there is a good correlation between these types of tools and the expertise in technology and modelling discussed in section 3.1.1 oben.

There are also several other areas of public sector software development that have potential relevance to the Policy Community.

- E-Health, e-Learning, etc.
- E-Services
- E-Inclusion
- Technology (ICT) for electronic government

However, for these areas the focus is not on governance and policy modelling and many of the projects and artefacts created will fall outside the remit of eGovPoliNet. The relevance of any particular software package or project needs to be judged in the light of its specific capabilities or objectives.

The review of EU funded research in Annex A looked at the sorts of software tools being used, enhanced or created within the research projects. Unfortunately many of the project outlines are very vague on this point referring to their software outputs just as a "*multi tool platform*" or technical name-dropping with ill-defined terms like "*Web 2.0*".

Only four of the "modelling" projects give a clear indication of software outputs other than the relevant generic simulation tools. However, it was possible to identify a few specific modelling components. Turning to the "participation" projects a somewhat larger number of tools or components were identified. The components or areas of software development identified as relevant to the Policy Community were:

- knowledge management tools
  - o content management
  - o model repository
- serious games and virtual worlds
- group interaction
  - o social networking (including some references to Web 2.0)
  - o online debates or web conferencing
  - o discussion fora
- opinion or data mining (including its application to social network content)
  - o computational linguistics and semantics

- graphical GUIs and visualisation
  - argument visualisation
  - annotation of maps
- e-Petitions

3.4   The Scope of the Policy Community

Section 3.1 presented a comprehensive hierarchy of the disciplines relevant to the Policy Community. The alternative perspectives taken in sections 3.2 and 3.3 identify elements of detail that could be added lower down in this hierarchy but, significantly, they do not point to any significant omissions. This taxonomy defines the constituency that needs to be addressed in the project's outreach and awareness activities.

The majority of the partners in eGovPoliNet come from the Modelling and Technology area. A critical challenge for the project is to expand the community with members from outside this core by attracting people in public administrators and people with expertise in in areas where public policies need to be established and maintained.

The funded resources available to eGovPoliNet are limited and it is tempting to narrow down the constituency to make it manageable. However, to do so would be to defeat the project's aim to form a bridge building community that addressed the multi-disciplinary nature of 21st century policy analysis and design. We cannot evade the complexity of modern government intervention in our society.

Within the remaining two years of the project there will be parts of this constituency we do reach on a truly international scale. The project must, however, create the materials and the momentum to ensure that the Policy Community can continue to expand its outreach and awareness activities to fill the gaps.

4   Stakeholders (potential community members)

The previous section has established the scope of the expertise within the remit of the Policy Community. This section turns to a different issue that tries to identify the roles or types of people who would be members of the community. The DoW emphasises the inclusion of *researchers* and *practitioners* as possible members of the digital governance and policy modelling community. The reference to researchers is reasonably clear but the practitioner group can be further subdivided by their role within the practical policy making process.

This gives a top-level division of:

- Researchers – academics and other researchers whose role is to develop new theory and practice in a discipline relevant to the Policy Community.
- Policy makers – those in government and other political entities with the need to devise and advocate public policy. Typically these are the elected government but this group must also include those in opposition or pressure groups who devise and advocate alternatives.
- Information providers – Public sector employees who are involved in digital governance and are providers of information available to the public. Relevant information can also be provided by non-profit organisations, citizens at large, even the private sector, through for example crowd-sourcing and open data initiatives.
- Policy advisors – civil servants, think tanks and consultants who carry out consultation, policy analysis and modelling tasks to support and advise policy makers.
- Professional associations and other Formal non-profits – including, civil society organisations, NGOs, etc., who increasingly partner with government to develop and implement policy.
- Informal communities, networks and citizen groups – see next section.
- Tool developers and suppliers – the ICT industry suppliers of the simulation and other e-participation software tools used by policy advisors. This industry is now not only commercial firms but increasingly also composed of non-profits and ad-hoc groups developing tools and solutions.

On their own, these role-based descriptions are too generic to define the target constituency for the Policy Community. It will also be necessary to ask what 'sort' of researcher, policy maker, advisor or tool supplier would be a typical member. We will return to these professional roles in sections 4.2 and 4.3 unterhalb but first this report examines lay or non-professional interests in the work of the Policy Community.

4.1 Citizens at Large

Our aim is simply to enable government to deliver better policy decisions. Arguably, the ultimate stakeholder in the work of the Policy Community is the public or citizens at large. Concern about citizen involvement and how they can be brought into the consortium is also an issue raised by the project officer. Although they would not be contributors and users in the same way as researchers, policy makers, and tool suppliers they need to have a formal role that will enable interested individuals influence the direction and growth of the Policy Community.

To a large extent interested citizens will already be engaging in policy making activities through informal communities, networks and citizen groups. These are often temporary coalitions in pressure and campaign groups but increasingly they use ICT both to get organised and to have voice. While such temporary groups may be difficult to reach directly, the individuals that engage through them might possibly be reached via professional associations and other non-profits that support democratic ideals within society.

While some citizens might be willing to engage directly with the funded project eGovPoliNet, this has little value in itself because the focus of the project is in the creation of a Policy Community among policy related participants. On the other hand the citizen should have a significant role in planning and evaluation specific policies and the Policy Community needs to establish and promote practices that make this possible. In the longer-term the Policy Community will need to engage citizens as allies in this task. There is also a need to inform and encourage citizens to participate appropriately in policy making as it affects their own community. This will be explored further in looking public awareness and portal functionality in section 6.1 unterhalb.

However, the current priority needs to be the establishment of a professional community that, as part of its activity, engages with and informs citizens at large.

4.2   Policy Makers – Elected Representatives

The headline terms 'policy makers', 'policy advisors' and 'information providers' serve to distinguish between those who decide which policy to follow, those whose job it is to predict the implications of policy choices and finally people involved in the provision and management of information in digital governance. It is important to distinguish these three roles in policy formation because their interests, motivation and likely engagement with the Policy Community will be different.

In general the policy makers in a modern democracy – those with the authority to make decisions on the policy that will be enacted – are the elected representatives of the people. They come to power for a variety of reasons and, like citizens at large, they have varying degrees of expertise in policy design, modelling and analysis. The Policy Community will have important messages for such policy makers but they have other wider interests making it unlikely that many will engage significantly as network members.

4.3   Policy Advisors and Information Providers

In addition to researchers in the area the most important group, with whom we seek to engage, are those with direct professional interest in policy modelling. These are the policy advisors and information providers whose day to day activity will often involve

policy modelling, policy analysis and e-governance practices. The best indication of those who would join the Policy Community as practitioners would be the type of work they undertake. However, there is no obvious set of 'job descriptions' that would clearly identify relevant practitioners.

Relevant individuals will tend to have trained in one of the academic disciplines, be using the software tools, or both. However, the best indication probably comes through the organisations in which they are employed or with which they align. Tempting though it is to classify policy advisors simply as civil servants or "government" these terms are too wide to be useful. Focussing on government also excludes opposition parties, private sector companies and NGOs that engage in policy design and interact with government to influence the policies they adopt. These organisations are particularly relevant to our purpose and we must seek to involve them in our Policy Community.

4.4 Organisations (or contact points)

At this stage, it is an open question whether Policy Community membership will be on an individual, group or institutional basis. However, a detailed analysis of relevant organisations is important in identifying relevant researchers and practitioners. It also provides an indication of the main routes to access relevant individuals and recruit them into the Policy Community.

We should interpret organisations widely to be any group of individuals relevant to the aims of the Policy Community. The key criteria to apply are pragmatic ones, i.e. that it is possible for the Policy Community to engage with the group and its members. It should be:

- Identifiable – it has a specific membership. In other words, we could, in principle, identify the individuals involved.
- Focussed – there are defined common objectives or interests.
- Relevant – the group's objectives or interests overlap the areas of expertise defined for the Policy Community.
- Accessible – there are defined contact points enabling us to engage or communicate with the group as an entity.

We can identify several different types of organisations or groups relevant to the Policy Community.

- Government departments – relevant groups or divisions within the public or state infrastructure at all levels of government. Here we are primarily concerned with the identification of practitioners active within government agencies.

- Think tanks or policy leaders – organisations and divisions outside the government but which also have a need to devise and advocate policy alternatives.
- Research groups – an institute, centre, or other such grouping focussing on one or more relevant academic disciplines.
- Research projects – a time limited grouping with specific research objectives in a relevant area of expertise (discipline or software tool).
- Professional associations and networks and other formal non-profits including civil society organisations, think tanks and NGOs, etc. – with common interests overlapping those of the Policy Community. These can also help reach the informal communities, networks and citizen groups.
- Private business: consultancies – private sector organisations where the principle business is to offer policy analysis and modelling as a service to government and other public policy makers.
- IT suppliers – organisations where the principle business is to supply simulation and modelling software.
- Conference Series – that serve the academic and practitioner communities.
- Journals and Magazines – that serve the academic and practitioner communities.

We enlarge upon each of these definitions below and provide lists of relevant organisations as exemplars of the type of organisation described. There is no intention that the lists below are either complete or definitive. They are presented merely as illustrations of the groups that need to be identified by individual partners within their own geographical regions and sphere of influence.

4.4.1 Government departments

These are relevant groups or divisions within the public or state infrastructure at all levels of government (local, regional, national and international). Policy makers can also act sectorally across levels, for example in health, education, care, etc. Regulators may also be important given that regulation derives from policy and thus from policy-makers, but regulators have an important and distinctive role to play in implementing policy and may also develop regulations within a wider policy framework.

Here we are primarily concerned with the identification of practitioners active within government agencies. This will include both policy makers, or at least those who decide which policies to recommend, and policy advisors who provide analyses and models. As indicated in the discussion above, the policy advisors are the primary target as members of the Policy Community. The following table identifies several groups as examples of relevant government departments or agencies.

Public agency	Scope

Public agency	Scope
UNESCO	International
OECD	International
UK Regional Economic and Social Commissions	International
EU Ministerial Working Group on eGov	Europe
US Securities Exchange Commission	USA
US Environmental Protection Agency	USA
US Federal Communications Commission	USA
UN Groups on conflict, the environment or food	International
Canadian Government	Canada
Government of the Province of Quebec	Quebec
Dutch Environment and Nature Agency	Holland
Dutch Social and Culture Planning Agency	Holland

4.4.2 Think Tanks or Policy Leaders

This category addresses the need to devise policy alternatives outside the formal government in power. NGOs that independently devise and advocate policy alternatives have an important role to play in a democratic community. These may be affiliated with particular political groups (parties), attached to professional associations, or supported by major business interests.

This will include both policy makers and policy advisors. As indicated in the discussion above the policy advisors are the primary target as members of the Policy Community. The following table identifies several groups as examples of relevant think tanks or policy leaders.

Organisation	Scope	Discipline
World Bank	International	Financial Modelling
Brookings Institute	International	US and foreign policy
Potsdam Institute	National	Climate Change
Demos – a UK policy think tank	National	Across the policy spectrum

4.4.3 Research Groups

This is broadly interpreted as any institute, centre, or other such grouping focussing on research in one or more relevant academic disciplines. The principle target here is to bring in research members of the community,

Universities or Research laboratories are too broad based to be effective as relevant groups where most members would engage with the Policy Community. In some circumstances, an academic department or school may focus on a relevant academic discipline but, in general, we need to identify smaller, more specific groupings as potential research members. Depending on local conventions, they may have different

naming conventions. The following table identifies several organisations and internal groups as examples of relevant academic research groups.

Organisation, Group	Scope	Discipline
United Nations University (UNU-IIST), International Institute for Software Technology	Continental and Global	eGovernance and Sustainable Development
University of Maastricht, Economic and Social Research Institute on Innovation and Technology	The Netherlands	decision making support to the government agencies
Institute for Scientific and Technical Information of China	China	social, political and economic factors that drive technological innovation
Manchester Institute of Research and Innovation	UK	Foresight Policy
Khmelnitsky National University, Department Automated systems and modelling in economics	Ukraine	Economic Cybernetics – economic analysis and forecasting
SUNY Albany, Department of Public Administration & Policy	USA	System Dynamics

4.4.4 Professional associations and other non-profits

Both researchers and practitioners come together in formal or informal voluntary groupings with common interests overlapping those of the Policy Community. From our perspective, the key characteristic of these organisations is not their organisational structure but that they have a common disciplinary interest overlapping that of the Policy Community.

Once again we need to give a broad interpretation to the notion of professional association. Such associations may have a broad remit with large numbers of members, or they may be smaller and more focussed on a particular area of expertise. With the former we would need to identify an internal subdivision – sometimes called a special interest group (SIG) – with specific interests relevant to the Policy Community.

We also need to be liberal in interpreting what constitutes a professional association. They range from formal bodies to ad hoc voluntary networks. Formal bodies typically demand membership qualifications or registration, charge significant membership fees and enforce codes of professional conduct. The may have a statutory role in defining standards and eligibility for employment. At the other end of the scale, they may simply be a group of like-minded individuals informally coming together in voluntary meetings or networks. (Note: the Policy Community itself falls into this category of organisation.)

The following table identifies several professional associations and networks as examples with interests relevant to the Policy Community. See also the discussion of EU supported networks in section 5

Organisation	Scope	Discipline
IFIP WG 8.5: Inf. Sys. In Public Administration	International	Pub. Sect. IS
North American Digital Governance Society	USA & Canada	Pub. Sect. IS

W3C, eGov Interest Group	International	Pub. Sect. IS
Cities on the Internet (COI)	Poland	Pub. Sect. IS
Open Government Partnership	International	Governance and participation
SOCITM: Society of (public sector) IT Managers	UK	Pub. Sect. IS
CIPFA: Chartered Institute for Public Finance & Accounts IT network	UK	Pub. Sect. IS
AVB-LIST-NETHERLANDS	The Netherlands	Pub Policy
eGEM: An Association of Dutch Municipalities	The Netherlands	Pub. Administration
Association of Public Policy and Management	USA	Pub Policy
System Dynamics Society	USA	SD simulation
ESSA: European Social Simulation Association	Europe	Agent modelling
Pan-Asian Association for Agent-based Approach in Social Systems Sciences (PAAA)	Asia	Complex Social Simulation
North American Association for Computational Social and Organization Sciences	US	Complex Social Simulation
Open Agent Based Modelling Consortium	International	Agent modelling
Public Management Research Association	US and abroad	Public policy and management

This list is far from comprehensive but it identifies several groups with a significant national or international membership. Rather than just look to recruit individuals from their membership we need to consider how eGovPoliNet can be an agent in bridging between the networks themselves.

4.4.5 Private Business – Consultancies

The Policy Community needs to include private sector organisations where the principle business is to offer policy analysis and modelling as a service to government and other public policy makers. In some cases, the corporate business is much wider and it will be necessary to identify the relevant company division. The following table identifies public sector companies with relevant divisions as examples of consultancy services where staff might be interested to become members of the Policy Community.

Company	Country	Service
Accenture	International	government agencies and other public service organizations to develop the predictive capabilities
ACIL Tasman	Australia	Economic policy analysis & forecasting
MVA Consultancy Ltd.	UK	Analysis of transport policy outcomes
Cambridge Econometrics Ltd.	UK	Economic and statistical analysis for policy evaluation
Danish Technological Institute	DK	Evaluation, impact assessment and analysis of policy options and outcomes

4.4.6 IT Suppliers

The Policy Community also needs private sector organisations where the principle business is to supply simulation and modelling software. In some cases, the corporate business is much wider and it will be necessary to identify the relevant company division.

The main reason for including this category is to identify relevant ICT suppliers. Although most IT suppliers are commercial firms, non-profits and ad-hoc groups developing tools and solutions for their use or through open and collaborative sharing and open source arrangements are becoming increasingly important. The open source movement and collaborative software developers represent a significant source of relevant software.

The following table identifies public sector companies as examples of relevant IT software providers. Note, open source suppliers identified by their development site URL.

Company	Country	Package or product
Flexsim Software Products, Inc.	US	discrete event & continuous flow simulation
XJ Technologies Company, AnyLogic Europe	Russia	combined discrete event, system dynamics, and agent-based modelling in one package
ascape.sourceforge.net	N/A	general-purpose agent-based modelling
http://sourceforge.net/projects/eden-urbanmodel/	N/A	cellular automata based urban simulation models
INOVEM Inclusionware™, INOVEM Limited	UK	e-Consultation and e-Petition Software

4.4.7 Conference Series

Although not an organisation in the conventional sense regular conferences, meetings and workshops have some group of people behind them ensuring that they happen. These may have been identified under professional associations but some important series may not be captured by this mechanism. Conferences provide an important route for dissemination, membership recruitment and community building. They also provide a source of cases and information for the community knowledge base.

It is important to recognise that this is not a category of exclusively academic research conferences. We need to reach practitioners as well as researchers and their regular meeting arrangements may be more geared to best practice, issues of community awareness or even trade shows.

As with other types of organisation, there may also be conferences serving a much wider audience but with specific tracks or break out groups that focus on issues relevant to the Policy Community.

The following list identifies relevant conference series, and in some cases tracks, as examples of venues where the Policy Community should be active.

Public Administration Conferences

- EGPA: European Group for Public Administration Annual Conferences, Study groups on E-Government (ICT in PA), Public Governance of Societal Sectors, Public Policies, PATI (Public Administration, Technology and Innovation
- European Ministerial eGovernment Conferences
- APPM: Annual Public Practice Meeting of The Certified General Accountants Association of British Columbia
- PRIMA (Public Risk Management Association) Annual Conference series

Simulation and Modelling Conferences

- ESSA: European Social Simulation Association Annual Conference
- ECMS: European Conference on Modelling and Simulation series
- WCSS: World Congress on Social Simulation series

Major Policy Area Conferences

- SOAC: Biennial State of Australian Cities Conferences
- EASTS: East Asia Society for Transportation Studies Biennial Conference
- ICES: International Conference on Environmental Systems
- International Conference on Health Informatics
- iEMSs: Biennial Meeting of the International Environmental Modelling and Software Society

eGovernment Conferences

- The EGOV/ePart series sponsored by IFIP WG8.5
- tGov: Transforming Government Workshops in the UK
- ICEGOV series sponsored by the United Nations University (UNU-IIST) International Institute for Software Technology, Centre for Electronic Governance
- Dg.o: Annual International Conference on Digital Government Research
- ICDGS: International Conference on e-Democracy, e-Government and e-Society series sponsored by the World Academy of Science, Engineering and Technology
- Eastern European eGov Days

Main stream ICT Conferences with relevant tracks

- The Annual eChallenges Conference, Track on eGovernment, eParticipation & eDemocracy
- AMCIS: Americas Conference on Information Systems, Tracks on Decision support, eGovernment and the Strategic Use of IT
- ECIS: European Conference on Information Systems, Tracks on Public Sector ICT (Citizen Empowerment and Agency Transparency); IT for Global Welfare & Sustainability; and Serious Games & Simulations
- ICIS: International Conference on Information Systems, Tracks on Decision Support Systems; IT for Health Care Management and Knowledge Management & Business Intelligence

If we are going to build inter-disciplinary bridges it is important to reach out beyond the Computing and eGovernment conference series to those concerned with simulation, modelling, public administration and the major policy areas. However, there are a growing number of "eGovernment" conferences and tracks that could drain the limited

resources available. It will present a serious challenge to create a presence at even a few of the major policy area conferences.

4.4.8 Journals and Magazines

Another group of relevant organisations are the print or online media aimed at relevant academic and practitioner communities. As with conference series, these may have been captured indirectly through professional associations but many specialist journal series are produced by independent publishers like Springer, Elsevier and Emerald. They provide an important route for dissemination, membership recruitment and community building and they also provide a source for the knowledge base.

Once again, we need to reach practitioners as well as researchers and we must include relevant news and awareness magazines alongside academic journals. There is also the same challenge to reach out beyond the Computing and eGovernment domains in order to build inter-disciplinary bridges. It is important to identify journals that serve those in the simulation, modelling, public administration and the major policy areas.

The following list shows just a few of the journals and magazines that have published relevant articles as examples of the media channels used by potential members of the Policy Community.

Public Administration and Governance
- International Review of Administrative Sciences
- Government Information Quarterly
- Public Administration Review
- Information Polity
- Social Science Computer Review

Simulation and Modelling
- Journal of Policy Modelling
- European Journal of Operational Research
- Simulation Modelling Practice and Theory

Major Policy Areas
- Journal of Education Policy
- Journal of Economic Policy Reform
- Health Services Research
- Econometrica: journal of the Econometric Society
- Journal of Econometrics
- Environment and Planning B
- Environmental Science & Policy

- Energy Policy
- Ecological Informatics
- Agricultural Economics

e-Government

- Transforming Government: People, Process and Policy
- International Journal of Electronic Government Research
- Electronic Government: An International Journal
- Electronic Journal of E-Government

Relevant Current Awareness Magazines

- The Parliament Magazine
- Civil Service World
- UNPAN (UN Public Administration Network)

In 2010 the Australian Research Council's assessment of Excellence in Research for Australia identified 20,712 academic journals[21] and over 1000 of these were rated as top international publications (A*). No comparable comprehensive list of professional awareness magazines is available. eGovPoliNet partners mostly publish in the e-Government or ICT domain but the project needs target as many of the other journals as possible to react the target constituency for the Policy Community.

4.4.9 Research Projects

Another route to identifying relevant researchers and other practitioners is through research projects. Research projects are a time limited grouping with specific research objectives in a relevant area of expertise (discipline or software tool). These lack the long term or open-ended nature of a research group (above) because they are associations of researches limited by objectives and funding periods. Nevertheless, they represent import groups to engage in the Policy Community because they are a primary source for new cases and insights for the knowledge base. It is also envisaged that one of the services or outputs from the Policy Community will be researchers and practitioners coming together to produce new collaborative project proposals.

Annex A reviewed a comprehensive list of recent EU projects relevant to the work of the Policy Community. This list is presented in Annex B as an example of the type of projects that the Policy Community needs to encompass.

---

[21] http://www.arc.gov.au/era/era_2010/archive/era_journal_list.htm

4.5 Relevant Organisations – Summary

The example lists and tables within this section need to be developed in to relatively complete lists by each partner. This will give the Policy Community a comprehensive view of relevant organisations and routes to potential members.

This section has also reviewed the type of people we seek to bring in as community member and identified a significant number of organisations where they may be found or contacted. As with the range of academic disciplines in section 3, the list is too large to fully address with the resources available to eGovPoliNet partners. However, the project again needs to create the materials and the momentum to ensure that the Policy Community can continue to expand across these different groups.

5 Links to Other Networks

As illustrated in the DoW (page 12), one mode of operation envisaged for eGovPoliNet is as a catalyst bringing together existing groups. However, there are already several networks and working groups in relevant areas and this section looks at some of the more important ones for the Policy Community.

5.1 Other EU Supported Networks

The analysis of EU funding for ICT in governance and policy modelling (Annex A) produced the following diagram showing the links between several relevant support groups or communities of interest in terms of common moderators or founding partners:
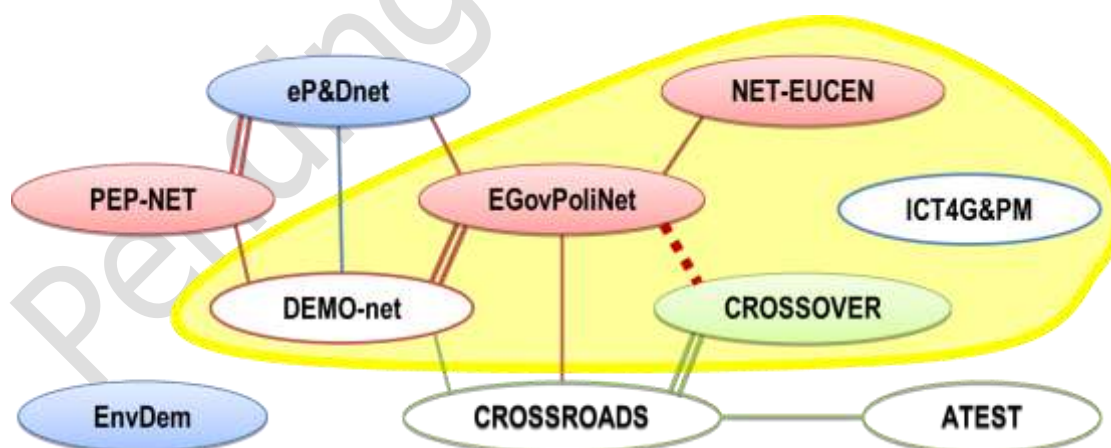
This identifies 7 projects classified as community support actions or thematic networks. These consist of three research road mapping exercises (green) and four network formation projects (red, including eGovPoliNet). This analysis also identified three

relevant "Communities" (blue) among the 43 on the ePractice portal[22]. However, in four cases the projects are completed or the groups are inactive (un-filled ovals).

The analysis in annex A recommends strengthening the European Research Base by sustaining and combining the communities rather than by forming new networks. In the DoW there is the notion of eGovPoliNet as building a community of communities (part B page 12) and it should act pro-actively in building bridges between communities.

The yellow outline on the diagram above shows where eGovPoliNet is already acting to draw the resources together. A substantial agreement has already been reached with the CROSSOVER project to perform jointly in establishing a single community and a single knowledge base. Also discussions have already taken place to arrange for eGovPoliNet to take over moderation of the quiescent ePractice community ICT for Governance and Policy Modelling (ICT4G&PM). There has also been some preliminary discussion with the original DEMO-net co-ordinator and in WP5 there is work on collaboration with NET-EUCEN.

Further actions that need to be taken to achieve greater integration between the relevant groups are:

DEMO-net: This now inactive network was widely supported when active and assembled a pool of online information that is still available. Two actions need to be considered. First, canvasing the DEMO-net membership as potential Policy Community members is likely to have a higher than normal success rate. Second, to negotiate with the IPR holders to incorporate data, such as the list of over 47 relevant research projects, on the Policy Community portal. (Agreed in principle but needs to be finalised)

CROSSROADS: The results and challenges output from this Roadmap for ICT Research in Electronic Governance and Policy Modelling should carry through to the Policy Community. Given the close links this project has to CROSSOVER the negotiation with the IPR holders might be best addressed through our agreement with them.

NET-EUCEN and **PEP-NET**: the Network of European Stakeholders for Enhancing User Centricity in eGovernance and the Pan European E-Participation Network are two successful and active networks funded by the EU but not through the FP7 IST programme. These have strong overlaps with the Policy Community's area of interest and eGovPoliNet should seek some sort of collaborative agreement with them. (See references to NET-EUCEN in D 5.1)

---

[22] For Partners the number of facilitators is listed for ePractice Communities and shared partners are determined from the facilitators' organisational affiliations.

eP&Dnet: This is the ePractice community "*eParticipation and eDemocracy Network*". This has a clear overlap with the ePractice community "*ICT for Governance and Policy Modelling*" for which eGovPoliNet is to be the new moderator. eGovPoliNet should seek some sort of collaborative agreement between the moderators of these communities.

ATEST: Analysing transition planning and systemic energy planning tools for the implementation of the energy technology information system. This FP7 ENERGY support action, which finished in March 2012, project has identified policy making (planning) tools for a specific policy area. eGovPoliNet should seek some sort of agreement with the IPR holders to include relevant outputs on the Policy Community portal. Some participants in ATEST may also be potential active members of the Policy Community.

EnvDem: This is the ePractice community "*Environmental Democracy via ICT*". Once again this is a specific policy area where part of the debate is clearly relevant to the Policy Community. Some collaboration with the list moderators would be appropriate.

5.2   SOCOLNET - Society of Collaborative Networks

EGovPoliNet and CROSSOVER are not alone in attempting to establish a bridge between different disciplines and create a sustainable community. Indeed the establishment of international collaborative networks is itself a subject of study and research. SOCOLNET[23] is an international technical and scientific association established for the specific purpose of promoting and stimulating scientific research, education, technological development, scientific and technical interactions among researchers in the area of Collaborative Networks.

eGovPoliNet is faced with challenges of recruitment, membership, active community building and presenting an adequate value proposition to members. This raises the question of how eGovPoliNet can build on this expertise and whether it should itself become a member or associate of SOCOLNET.

5.3   Building Bridges between Networks

The multi-disciplinary nature of the constituency eGovPoliNet seeks to address requires a bridge building strategy. The example list of groups and associations in sections 4.4.4 is far from comprehensive but it suggests there will be quite a few relevant groups with a significant national or international membership. Working with other networks to establish collaborative agreements including joint or reciprocal membership for

---

[23]   https://sites.google.com/a/uninova.pt/socolnet/home

individuals has the potential to reach a much larger part of the relevant constituency than individual membership recruitment drives. eGovPoliNet needs to establish how it will interact with other collaborative networks and it would benefit from developing a framework for such agreements so that each contact does not require an ad hoc approach.

6 Services to Members (portal and knowledge base)

This section develops a description of the services we anticipate being able to deliver to the membership of the community. These are not deliverables (which go to the EU funding body) but the services members can do or get from the Policy Community and its portal. The services and content available from the portal are a critical part of the value proposition that is made to members and potential members of the Policy Community. Delivery of a clear value proposition for different types of membership or engagement with the Policy Community will enhance both recruitment and retention of members.

The nominal time scales envisaged are:

- short-term: these would become available during the second year of the project (1½ years)
- medium-term: these would be available by the end of the project (3 years)
- long-term: these would only become available after the project (5 years)

The specific portal technology in use is the responsibility of Work Package 2 and subject to negotiation with other parties such as the CROSSOVER project. It must be kept in mind that eGovPoliNet is not funded to develop bespoke portal software, therefore this section makes no attempt to define relevant technology.

Services are outlined in broad terms to give an overview of their nature and the direction of development. In several cases developments are classified as medium- to long-term where early development could be beneficial but it is not clear whether the available portal software could deliver the functionality within the funding time-scale.

In general, we would expect services first coming online in the short- or medium-term would be available to members in a usable form. However, they would continue to be developed into more sophisticated versions even if there is no specific longer-term outcome envisaged in the text below.

As part of the service planning exercise a number of different scenarios have been developed by partners both in the initial kick-off meeting and in the various work

package groups. Some have been collated in Annex C and others are outlined in the deliverables from the portal design work package (WP2).

Broadly speaking we can divide the services provided into the following areas:

- Awareness – spreading the message.
    - To the public at large – both citizens and their elected representatives
    - Within the professions
- Knowledge base:
    - Content – what is in the Knowledge base
    - Retrieval – how you can find content
    - Creation – content creation practice
    - Notification – pro-active output
- Collaboration – bringing people together
    - Finding collaborators
    - Enabling members to collaborate
    - Meetings, workshops and conferences
- Leadership – taking a lead within the community
    - Professional education
    - Standards – avoiding re-inventing the wheel
    - Consultancy
    - Tools and Toolkits

The mission of the Policy Community is to supply services or outputs for the target constituency. However, a membership-based organisation needs to be giving something of value to committed members. This will be strategically important both in creating immediate added value for members and in creating sustainability beyond the end of the funding period. Services or outputs need to be identified in relation to either the wider constituency at large or the committed membership.

For each of the services we need to acquire and publish measures of success in our community building objectives. Feedback about the extent to which membership of the Policy Community has helped others is a useful tool in attracting new members. Work Package 3 has already defined a range of performance indicators to assess how well eGovPoliNet is doing with its aim to create a sustainable community. This document looks at performance from a different perspective. The comments here consider how specific elements of the service we provide might be judged not only within the funding period but also as an on-going management activity.

6.1 Awareness – spreading the message.

For both members and those outside the network we should be raising their awareness of the issues in evaluating the outcome of complex policy scenarios. We should also be raising awareness of the complementary disciplines that can be brought to bear on the problem of 21st century policy analysis and modelling. This is not simply disseminating awareness of the eGovPoliNet project but building awareness of the substantive problems in the domain and the means by which they can be addressed.

However, The Policy Community also has a role in raising general public awareness of policy-making and modelling practice; and it should promote constructive engagement with the policy making process. The Policy Community also needs to specifically address the needs of elected representatives because, in general, their knowledge of policy design, modelling and analysis is closer to that of citizens at large but they hold, or aspire to hold, the authority to make policy decisions.

6.1.1 Awareness: The public at large

The other element of creating awareness is again a concern raised by the project officer - the need for citizen outreach. Some current expectation of citizens and elected representatives (policy makers) seem to be unrealistic. Despite the social and economic crisis there is an expectation in some quarters that by strikes or electing an alternative government the problem will go away.

Citizens
A critical issue that needs to be addressed is the political and public demand for simplistic explanations and quick fixes. This is sometimes, though not always characterised by a NIMBY (not-in-my-back-yard) mind-set which only reacts when perceived personal interests are threatened. This negative mind-set is re-enforced by a media that often attempts to deal with issues in only a few column inches or a two to three minute air time slot.

Another factor is a failure to grasp that modern society with its reliance on technology and a global economy has become very complex. Policy responses often need to reflect that complexity and that to achieve an equitable policy trade-offs between different interests will be necessary. The direct democracy of the Greek City State carried with it the duty to be informed and a duty to engage with the debate, if citizens are to re-engage with policy making in the 21st century they need to accept these ideals as a necessary condition for effective engagement.

Elected representatives
Elected representatives cannot simply be addressed as citizens because they have the authority to make policy decisions. However, they also need to be addressed separately

from professional policy advisors, modellers and analysts. Unlike professionals, who spend their full time on policy issues, elected representatives have other demands on their time and interests. They also have much more widely varying experience and understanding of policy modelling, simulation and policy analysis.

Elected representatives also have a different view of governance and participation issues from that of the public administrator and the citizen at large. Participation in a representative democracy can be portrayed as a power struggle between citizens and the elected representatives. However, there are also representatives who wish to increase public participation in parts of the decision making process. Since governance and participation in the policy making process are key elements in the Policy Community's remit there needs to be a dialogue with elected representatives.

Medium- to long-term

The Policy Community, as envisaged in the DoW, focuses on policy makers and professionals in public administration. The extent to which it can and should adopt a more public face on behalf of the professional community is an issue for debate while the professional side of the network becomes more established.

Maintaining a public face also has implication for the Policy Community website (or public elements of the portal) and for the newsletters and brochures produced. If the Policy Community is to adopt a public face aimed at informing and educating both citizens and elected representatives appropriately this will need distinct website or portal content that conveys the desired messages in appropriate language. It will also need a presence in social media (ie. Twitter and Facebook) as well as the more professional sites (ie. Linked-in and Research Gate. This is a significant investment of resources.

Evidence of success

It will be hard to assess the level of awareness in the community at large where citizens and elected representatives don't choose to formally join the Policy Community. Once the public information on the portal has been put in place it may be possible to draw conclusions from the website's hit rate data. For example evidence of browsing beyond the front page in search of particular information.

6.1.2 Awareness: Within the professions

There are several key messages that need to be conveyed to practitioners with appropriate awareness and education. Policy makers need to understand the need to address complexity and the need for interdisciplinary teams to address policy issues. On the other hand policy modellers need to understand the realities of policy making.

Short-term

For the wider constituency this would be through the project web site, brochures and newsletters and through activities like presentations at conferences and articles in appropriate awareness magazines.

Added value for members would come through basic material in the knowledge base. Members should gain some advantage in understanding the complexity of 21st century policy modelling and analysis. For example, this could be information about what particular disciplines offer, mapping the terminology between disciplines and cases demonstrating the value of interdisciplinary approaches.

Medium-term

By the end of the funding period, the Policy Community should have developed the awareness activities to reach more of the wider constituency and give greater benefit to members.

Delivering multi-disciplinary workshops and special issues crossing disciplines in journals benefit the wider constituency and raise awareness of the issues and the need for the Policy Community. Another relevant action would be the establishment of affiliations with or sponsorship of key conferences.

All of these activities depend on active contributions from members, not just the eGovPoliNet consortium. We need to consider providing support to help members contribute to these activities. For example, we could provide materials for a practitioner to run an awareness workshop within their own group, organisation or geographical area.

Evidence of success

This should lead to increased membership and passing milestones in the size of the membership would indicate significant success in developing awareness of the need for a concerted effort to address the problems. The social networking and collaboration metrics detailed in WP3 may further qualify this crude measure of size.

6.2 Knowledge base

The envisaged knowledge base (WP4) needs to develop a rich content right across the spectrum of disciplines and software tools discussed in section 3 oben. In the long-term the main source will be contributions from the membership rather than the founding consortium members. This section outlines the functionality needed to support both the community creation of content and access to the knowledge base.

6.2.1 Knowledge base: Content

Short-term

From the outset, we need to give clear messages about the scope of the Policy Community. Also (as indicated above) the knowledge base should advance understanding of the complexity of 21st century policy modelling and analysis. For example, these requirements could be providing:

- A taxonomy of relevant topics or disciplines
- Information about what particular disciplines offer
- Maps of the terminology differences between disciplines
- Cases demonstrating the value interdisciplinary approaches
- Models of how policy is made
- Information about past and current research activity within the field.

Answering some of these questions of terminology, taxonomy and scope was necessary in developing this deliverable. This can form the seed corn for some of these items.

Medium-term

The knowledge base should be significantly increased and should extend the types of content available. For example, by the inclusion of:

- Paper collections and reviews addressing relevant issues
- Benchmarking of cases
- Research results and solutions to problems
- Linking existing solutions to R&D studies
- Demonstrable examples of usage
- Comparisons of different approaches

6.2.2 Knowledge base: Retrieval

Retrieval of data from the knowledge base needs to be carefully planned so that relevant items can be easily located. In addition to a clear taxonomy and good indexing, it will be necessary to ensure appropriate search tools are available.

Members should gain some advantage from their membership. An open question here is the extent to which the content of the knowledge base should be available to the wider constituency or restricted to committed members.

Medium- to long-term

Added value for members would be in the form of enhanced search techniques that support problem oriented searches for solutions. For example, search tools that use some form of semantic engine (e.g. ontologies and semantic matching) to retrieve relevant content. These requirements go beyond the capability of most CMS packages available in 2011/12 but more sophisticated retrieval is being actively researched by organisations (eg. Google) and can be expected to come into open source systems in the near future.

6.2.3 Knowledge base: Creation

Content creation should be one of the privileges available to committed members of the Policy Community. This service needs to develop alongside the content and retrieval capability and no separate outcomes are defined.

Managing the knowledge base structure will need care once it is opened up for members to create content. Terminology, taxonomy and structure need to be in place as standards for the knowledge base so that additions can be made in a consistent manner. There also needs to be some form of moderation or editorial control to prevent abuse and deal with IPR issues.

Open access to the material collected is critical and as much of the content as possible should be freely usable. Our policy should be to produce all content under some form of creative commons licence.

6.2.4 Knowledge base: Notification

In addition to the passive knowledge base, we need to consider the provision of proactive distribution of knowledge in the form of newsletters or specific notification services.

It would be useful to have periodic reports from government organisations themselves. However, it is beyond the means of an independent body like the Policy Community to do more than pass on what such organisations choose to make available.

Short-term

At regular intervals, the Policy Community needs to be distributing a newsletter with information about how the community and how the knowledge base is developing.

Medium- to long-term

As the volume of information and activity grows, revisiting the knowledge base and browsing to see what is new becomes less and less practicable. It would, therefore, be valuable for member's to have available some form of "watch" mechanism that allows them to select part of the knowledge base and receive notification of changes and additions.

6.3 Collaboration

The ability to find potential collaborators within the Policy Community and fostering these joint ventures is an important element of the objectives defined for eGovPoliNet. The ability to build bridges between the members of the community is an important element in the community building and maintenance strategy.

6.3.1 Collaboration: Finding Collaborators

The portal needs to provide tools that enabling members to find potential collaborators (see scenarios C.1, C.2 and C.6). In effect, we need to provide members with some form of online "dating agency" with the ability to search profiles and find relevant expertise outside their own discipline.

Short-term
In the first instance, this might be by simple matching of profile fields.

Long-term
Member search facilities would be enhanced to support question-oriented searches for people who can answer them. For example by using semantic matching and making use of the content the member has contributed to the knowledge base. (See also sections 6.2.2 Knowledge base: Retrieval and 6.4.4 Leadership: Consultancy.

Evidence of success
Success in finding collaborators should result in the formation of new collaborations to deliver joint papers and research proposals. The metrics proposed in WP3 suggest this may be gathered from an annual membership survey but metrics should also be available from the portal software to help assess this functionality.

6.3.2 Collaboration: Enabling members to collaborate

Members need support in collaborative activities. However, there are widely available services for collaboration already available in many research centres and through organisations like Google. At least in the first instance this will support collaborative paper and proposal writing activities once collaborators have been identified.

As part of the community building process, there is a need to stimulate debate within the community about the issues and challenges in policy analysis and modelling. This form of collaborative activity in special interest groups (SIGs) also needs supporting in the members' area on the portal.

Short-term
Facilities for SIGs to explore and debate issues will be provided in the form of online forums. For example, these could support both interactions via web

interfaces and using email as in the open source packages eg. phpBB (http://www.phpbb.com/about/features/) or Vanilla Forums (http://vanillaforums.org/)[24].

Evidence of success
Evidence of success would come in the formation of strong groups that actively exchange information and generate or deliver training for policy makers. Some form of recognition for forums that mature into SIGs is needed so that we can monitor such statistics as:

- both practice (e.g. urban planning) and research based (e.g. social simulation) groups
- the volume of interaction and the material they contribute
- the ability to continually attract new contributors to a SIG may also be a useful indicator

Such rich group based statistics are readily available on platforms like Linked-In and they would complement the survey based metrics that WP3 has put in place for assessing collaboration within the eGovPoliNet project.

6.3.3 Collaboration: Meetings, workshops and conferences

Another form of collaborative activity is coming together in meetings, workshops and conferences. One type of functionality that is needed to support this is the ability to schedule meeting times, which is already freely available on sites such as Doodle[25]. The other capabilities are those needed to promote workshops and conferences to get both papers and attendees from the membership of the Policy Community.

Short-term
In the short-term the portal needs to provide an events calendar where organisers who are also members of the Policy Community can add events with appropriate keywords and links to the conference or workshop website. There may be the need to include some form of calendar moderation to avoid abuse.

Anyone querying the event calendar (member or non-member) should be able to see a list of relevant events.

The Policy Community needs to be distributing a newsletter at regular intervals and this should include a standard section listing up and coming workshops and conferences.

---

[24] The packages are quoted only by way of example to show what is possible. The initial platform functionality is being discussed with CROSSOVER and it may not be possible to achieve this in the short term but it should have a high priority in expanding portal functionality.

[25] Doodle: Easy scheduling – Free of charge and without registration, http://doodle.com/

Medium- to long-term

It would be valuable for member's to have available some form of "watch" mechanism that allows them to identify relevant keywords and receive notification of conferences and workshops that match their interests.

6.4 Leadership – taking a lead within the community

Another important area of activity for a professional community or association is through taking a lead in the community – that is in some way speaking for the membership at large.

6.4.1 Leadership: Education

One way of providing leadership within the community is through the provision of guidance and support for education in relevant areas.

Short-term

An early service to members and their organisations would be provision of teaching and training resources addressing specific issues relevant to the community.

Medium-term

The discussion on awareness in section 6.1.1 oben highlighted the need to have a public face addressing the needs of citizens at large and their elected representatives (key policy makers). In addition to education for professional members there is a need to consider the provision of educational material for these groups.

Medium- to long-term

A critical area in 21st century policy analysis and modelling is handling the complexity of the modern world. Establishing an appropriate education policy in this area would be a useful outcome.

Long-term

In the longer-term it would be appropriate for Universities and others to offer programmes that are relevant to students who plan to specialise in ICT for governance and policy modelling. The Policy Community could take the lead in developing relevant curricula.

6.4.2 Leadership: Standards

Several critical questions arise in the area of policy modelling and governance. Sophisticated ICT creates situations where access to data and models gives rise to generic problems such as:

- Accessing various social networking sites (SNS) with different and unstable APIs
- Determining how to address privacy issues when harvesting data from SNS
- Differences in terminology across different domains
- Interaction between models addressing different policy areas within the same administrative area requires parallel execution and synchronous interchange of data between the models

The Policy Community can significantly improve the effectiveness of research activity by fostering the establishment of common standards and principles for the area.

Short-term

In the short-term this activity should address issues, like terminology, that affect communication between disciplines

Medium-term

In the longer term a mechanism needs to be established for defining Policy Community standards that address technical issues such as APIs and code of practice for dealing with issues like privacy.

6.4.3 Leadership: Research directions

An established area of leadership expected of The Policy Community is in the area of future research directions. The eGovPoliNet project includes the identification of grand challenges as part of the knowledge base (WP4). The project officer has also asked for input to the commission on the current research portfolio and future directions.

The analysis in Annex A offers critical recommendations about:

- The need for theories and models of citizen participation in policy design to underpin ICT development.
- The need for more research on policy modelling and analysis, which includes participation but not as the primary focus of the research.
- Some particular combinations of participation mode and policy life-cycle stages are under explored.
- A need for more work on serious games, map based interfaces, complex policy interactions and models of motivation and behaviour.

The study also identifies the need to "understand how the institutions of government can possibly adapt to encompass the aspirations of citizens to participate in a meaningful way when the nature and impact of policy decisions are becoming harder for the expert or professional decision-maker to understand" as a major challenge.

Critical issue

This goes beyond editorial control of knowledge base content; however, there is currently no structure for the Policy Community to continue to generate such a lead as a representative view from the community at large.

6.4.4 Leadership: Consultancy

Effective impact on practice and good government depends on appropriate expertise being available to policy makers such as political parties and think tanks. In part, this will be achieved by the relevant policy analysts participating in the Policy Community as members.

However, this is an indirect route and it raises the question of whether the network should offer a consultancy service. This would be a major undertaking and is out of scope for most professional associations.

The facility for finding collaborators already creates a form of knowledge bartering community. It can also identify members, who may themselves be part of organisations offering consultancy services.

Short-term

To facilitate members who need to find consultancy support the member profiles should include whether a member belongs to an organisation offering consultancy services. Since this is a form of advertising, it might also justify a premium on any membership fee. This is of course a decision to be taken by the consortium as a whole when considering what constitutes formal membership of the policy community,

Medium-term

A simplistic approach to a consultancy service would be some sort of question answering service. This has been established in other communities with mixed success. This would allow members to post an open questions, which any other member may respond to. To make this a success also requires members both to be willing to answer questions and to be aware of the questions being asked. This needs a more sophisticated system than a conventional forum.

6.4.5 Leadership: Tools and Toolkits

The Policy Community has a specific focus on the organisation that design and deliver ICT (software) for governance and policy modelling.

This raises the question of whether the community should provide a toolbox or e-Platform. As with direct consultancy, this would be a major undertaking and is out of scope for many professional associations. However, part of the knowledge base would be reviews of the software available and it would contain links to the suppliers.

The second of the challenges identified from the analysis in Annex A looks specifically at the funding model for public sector ICT and the moves to open source software (for example the CRISIS and SOWIT projects and the work of organisations like MySociety). Given the current economic situation and pressures to reduce demand on the public purse the development of open source software is likely to increase. The Policy Community portal could facilitate the location of and access to such software.

Medium-term

To facilitate the reuse of well-defined components in research and development exercises the portal would could provide a catalogue of open source components linked to the development community and download sites. Possible components would be:

- SNS data harvesting tools
- semantic analysis tools
- modelling and simulation tools
- visualisation tools
- policy development and evaluation tools

Long-term

In the longer term the collection might also include policy games software for education and training.

7 Recommend Strategy

This last section summarises by work package the recommended strategy over the second and third years of the project. In some places possible strategic direction go beyond the thinking in the DoW and need to be addressed by the management board before any action is taken. These are identified first with the Management work package (WP6)

The chosen mission for the Policy Community (section 2.1) is ambitious:

> **"Our mission is to be the recognized leader in bringing policy analysts and researchers together to share knowledge, expertise and best practice in 21st century policy analysis, modelling and governance."**

Section 3 has shown that we need to make bridges between 15 different academic disciplines if we are to address policy interactions. Section 4 has also identified a wide range of organisations where researchers, policy analysts, decision makers and suppliers may be active. World-wide there are thousands of people for whom the Policy Community is relevant. We can only be "*the recognised leader*" if the majority are aware of the Policy Community and a substantial number have become members.

It will be impossible to achieve this scale of activity within the remaining two years of the project.

However, this vision is one for the long-term future of the Policy Community. What we must create is the nucleus or seed corn from which this community will grow. When the EU funding ends we need to be presenting a clear value proposition that continues to draw researchers and practitioners into the Policy Community.

In particular potential members need to see:

- A nuclease of active members of all types and disciplines with planned activities going on beyond the end of eGovPoliNet.
- A portal and populated but growing knowledge base that is of immediate value to new members both in terms of its content and the services provided.
- A continuing public awareness and recruitment activity working to reach groups and communities that were not covered in the three years of EU funding.
- A membership and management structure that ensures the continuity of the Policy Community

Strategically we must behave, at least in public, as if the end of EU funding is not a major issue. If we plan to stop we will lose momentum and never achieve the mission.

To reach this point by the end of the EU funding it is important to focus on putting these things in place now. In particular:

- Both WP3 and WP5 must reach out beyond the ICT community that regularly bids for EU funding under the ICT for governance and policy modelling banner.
- Both WP2 and WP4 need to launch a portal and knowledge base so that we can begin to build a membership and body of knowledge. These are critical to presenting a persuasive value proposition for new members.

7.1 WP 6 Project Management

In preparing this strategic review and in discussions with the project officer the following issues have arisen which need to be considered within the project's management structure:

- Rather than just reaching out to professional groups the Policy Community must decide how the project and the Policy Community should engage with both citizens and elected representatives (sections 4.1, 4.2 and 6.1.1).
- The Policy Community needs a membership structure (classes and privileges). This has to address both individual and institutional membership and it must address both elected representatives and citizen at large (sections 4.1 and 4.2).

- Working with other networks to establish collaboration has the potential to reach a much larger part of the relevant constituency and grow the community much faster than individual membership recruitment drives. This strategy would benefit from developing a framework for such agreements (sections 4.4.4 and 5.3).
- How far should the project or the Policy Community go with setting the lead in:
  - o Education – public and professional (section 6.4.1)
  - o Standards (section 6.4.2)
  - o Research direction (section 6.4.3)
  - o Consultancy (section 6.4.4)
  - o Tools and Toolkits (section 6.4.5)
- We need to consider how eGovPoliNet can build on the expertise of SOCOLNET and whether it should itself become a member (section 5.2).

7.2 WP4 Knowledge base

A good knowledge base for the Policy Community is potentially very large and well beyond the resources of eGovPoliNet. The role of the funded project must be to establish the structure and core content as a seed corn (section 6.2).

The work package also includes some elements of planning the research directions for the area through establishing grand challenges (section 6.4.3).

Year 2

Terminology and taxonomies of the Policy Community's area of interest are important elements to establish early on. Sections 2.2 and 2.3 illustrate some of the terminology issues that need addressing and section 3 oben and A.6 unterhalb illustrate some of the core taxonomy issues for the area.

Other content where collection would be underway in year 2 (section 6.2.1) would include:

- Cases demonstrating the value of interdisciplinary approaches
- Models of how policy is made
- Information about past and current research activity within the field
- Teaching and training resources (section 6.4.1).

Year 3

Content collection should have expanded to include:

- Paper collections and reviews addressing relevant issues
- Benchmarking of cases
- Research results and solutions to problems

- Linking existing solutions to R&D studies
- Demonstrable examples of usage
- Comparisons of different approaches

Critical issues

- IPR policy for the knowledge base – i.e. publication under a creative commons licence (section 6.2.3)
- Policy on editorial control or moderation of additions to the knowledge base (section 6.2.3) and contributions in SIG forums
- As the knowledge base grows browsing to find changes and additions will become impracticable. Pending the availability of a watch function in the portal there will need to be some sort of pro-active announcements in the newsletter or otherwise to help members find new content (section 6.2.4)

7.3 WP2 eGovPoliNet Portal

For the most part the short-term functionality for the portal described in section 6 oben is addressed by the detailed technical requirements already developed in WP2.

In year 2 (short-term)

- Basic search facilities for the knowledge base (section 6.2.2) and to find collaborators (section 6.3.1),
- Online forum facilities for groups of members (SIGs) to explore and debate issues (section 6.3.2).
- An online event calendar with keywords and links to the event website (section 6.3.3).
- Ability for Policy Community members to create content (section 6.2.3),

Subsequent medium- to long-term development mostly beyond eGovPoliNet

- Pro-active distribution of information about the knowledge base content (section 6.2.4).
- Some form of semantic engine search for the knowledge base.
- Some form of pro-active electronic "watch" mechanism linked to the knowledge base and the event calendar.
- Extension of the semantic engine search for finding collaborators and consultants.

Critical issues

- Policy on membership privileges in accessing portal services.

7.4 WP3 Community and constituency building

As an FP7 CSA eGovPoliNet needs to draw together the European funded activities as a nucleus to catalyse the growth of the international community. This provides low hanging fruit which should be harvested at the earliest opportunity and recommended actions are:

- Extend the existing liaison with CROSSOVER to draw in other CSAs and research communities as discussed in section 5 oben.
- Make use of the DEMOnet membership and project lists for adding potential members (see section 5 oben).
- Target all of the projects identified in Annex A, in particular try to include the relevant ones outside the ICT for governance and policy modelling funding umbrella
- Approach all the partners from consortia identified in Annex A.

Targeting areas of recruitment for new members is important because the resources are not there to address all of the people identified in sections 3 and 4 oben. It is already agreed that in the first instance eGovPoliNet will initially focus on collecting together researchers while the CROSSOVER project will focus on practitioners.

Early recruitment of researchers to the Policy Community will be advantageous because they are likely to be the most effective in contributing to the knowledge base. On the other hand it is anticipated that practitioners (section 4.2) will be more willing to engage as part of the Policy Community if it has achieved a substantial resource in the portal and knowledge base. For that reason it is recommended that recruitment focusses researchers in year 2 and more on practitioners and suppliers in year 3.

At the start of the project the local knowledge of each partner was used to identify relevant contact points for practitioners and for research communities in the international context.

Although it needs to be tackled in stages going on beyond the end of EU funding it is desirable to get a complete picture of the relevant domains. The example lists of contact points in section 4.4 above need to be extended and prioritised. Also, where local practice gives access to a comprehensive taxonomy of academic research or teaching groups, such as the one used in section 3.1 oben, this too needs to be captured to profile the research community. Armed with this knowledge every partner needs to exploit every opportunity to reach new groups and potential members of the Policy Community.

Year 2

Recruitment should continue to draw in EU funded groups (as above) and focus on relevant researchers from across the academic community using the local taxonomy to determine relevance and contact points:

- Research Groups (section 4.4.3)
- Research Projects (section □)
- Conference Series (section 4.4.7)
- Journals and Magazines (section 4.4.8)

As indicated at the beginning of this document the focus is on formal recruitment and retention of members. However WP3 needs to continue its activities to foster group activity between members and integration of the membership. In addition to widening the awareness and recruitment activities the work package will continue to organise workshops and panels, and its work to identify appropriate case studies and best practices.

Year 3

Recruitment should expand to include practitioners and suppliers through contact points:

- Government departments (section 4.4.1)
- Think Tanks or Policy Leaders (section 4.4.2)
- Professional associations and other non-profit (section 4.4.4)
- Private Business – Consultancies (section 4.4.5)
- IT Suppliers (section 4.4.6)

Critical issues
- Policy on membership classes professional, institutional and citizen (section 4.1).
- Identifying activities and motivators to get people actively involved
- Sustainability of the community

7.5 WP5 Dissemination and sustainability

This work package needs to be mindful of the distinction between dissemination of the information and output from the funded project – eGovPoliNet – and dissemination of information and sustainability of the Policy Community that it aims to create. The recommendations here tend to address the needs of a more permanent Policy Community as envisaged in the mission statement (section 2.1).

WP5 is responsible for creating the general awareness of and within the community (section 6.1). This activity is well underway in the ICT for Governance and Policy modelling community with a project website, a presence on professional social network sites and appropriate presentations and publications. In collaboration with other

communities of interest (section 5) this needs to evolve into the public face of the Policy Community.

Year 2 and 3

The scope of dissemination activity needs to become broader as WP3 widens the net to bring in researchers from across different academic disciplines (sections 3.1 and 6.1.1).

At this early stage in the development of the portal the newsletter is critical in being the only pro-active output from the project or the portal. (It may be appropriate to regularly include information about the growing knowledge base content from WP4 – see sections 6.2.4 and 6.3.3)

Critical issues

- In the long-term the intensive recruitment drive from WP3 will end with the project funding and sustained growth will depend on the website and other promotional materials left behind by WP5 and on the portal created by WP2. We also need to address retaining committed members when the Policy Community becomes self-funding.
- How should the Policy Community be presented to citizens at large rather than just professional groups (section **Fehler! Verweisquelle konnte nicht gefunden werden.**)? In general a website aimed at researchers and practitioners (section 4.2) would not be appropriate in either language or content for engaging members of the public either as citizens or elected representatives.

An initial response to the need for public awareness would be to select the contents that could be of interest for the public at large. Their engagement could be envisaged by involving the users/citizens' associations in events such as workshops forecasting the users' involvement in the public domain. These associations might be able to express the major expectations of users and citizens and can support and drive their involvement within the policy community.

The resources able to stimulate the interest of the public at large shall be provided through simple documents explaining the purpose and the outcomes of the project and providing insights and suggestions to boost their active participation.

The problem related to the technical language could be faced providing a section for users/citizens characterised by a more user-friendly interface. This could be simplified by re-considering the possibility to create a Facebook page for discussing with different target users / citizens. In this aim Facebook is the most common social network (nowadays used also by many public / private entities) involving a variety of users' categories and able to overcome the criticalities related to technical constraints both in terms of language and functionalities.

Annex A EU Funding of ICT for Governance and Policy Modelling

This draft report on future directions for the "*ICT for Governance and Policy Modelling*" was prepared by UBRUN for the European Commission as an interim output from the eGovPoliNet project at the suggestion of the project officer. However, changes in the staff assignments and priorities within the Commission meant that the suggestion was not followed up and delivered.

A.1   Executive Summary

The terms "*governance*" and "*policy modelling*" are very broad descriptors of activities that can be applied in a variety of contexts. The target community for projects addressed here focuses on public sector policymaking activities, by organs of the state. We include projects under the umbrella of *eParticipation* and *eDemocracy* in so far as they address direct citizen involvement in policymaking rather than electoral campaigning or voting.

The report looks at 64 projects of which 62 were EU funded from 2005 onwards[26]. In total, this represents grant funding of about 80M€. Seven of these projects are support actions, the others can be divided between FP7 RTD (31), and post research CIP PSP projects (26). All 21 of the preparative actions (PSP) projects are complete but only five of the RTD projects have been completed. Many of these projects are still in progress.

Recent funding has focussed on what appear to be largely pragmatic projects with little effort devoted to theory building. The development of appropriate theory is more often funded through ERC or Marie Curie actions with very weak links to the RTD programme.

Recommendation 1: New funding should seek projects that explicitly build on or extend relevant theoretical insights as part of their objectives. Theory building institutions need to be encouraged to become part of the project consortia to ensure that these links are strengthened.

Only 20 of the 358 organisations funded have engaged in both the research (RTD) and policy support (PSP) programs. Of all the different organisations that took part in the portfolio of projects, 296 organisations (83%) only engaged in a single project or support action. The support actions are also fragmented and some have not been sustained. In particular, the links between strong eGovernance networks and strong eParticipation networks are weak reflecting the distinct terminology and funding routes.

---

[26] For strategic reasons discussed later two other projects DEMO-net and SOWIT are included in the review.

Recommendation 2: The European Research Base would be strengthened by targeting support action(s) at sustaining and combining the communities rather than forming new networks.

The current funding programme has tended to support a significant number of projects (42) involving citizen participation of one sort or another. Far fewer of the projects (14) address policy-modelling issues.

Recommendation 3: New funding needs to redress the balance between ICT to support participation and development of policy modelling techniques. The focus of new projects should therefore be the development of policy modelling techniques with public participation as secondary but necessary part of the way such models are used in decision-making.

The predominant modes of participation are those where citizen views and opinion are fed to elected representatives or committees either by listening (passive input) or consultation (solicited input) but the extent to which they will influence the decision-making process is unclear. What stands out is that as policy making moves towards formalisation in legislation so mode of participation moves away from one where citizens can exercise any power in the process. By and large the research responds to the reality of Europe's political structures as representative democracies rather than, as some had hoped (Morris, 2001), challenges them.

Recommendation 4: Where new funding is applied to ICT for participation the project should clearly identify the intended mode(s) of participation and how that links to the intended stage in the policy life cycle. Preference should be given to areas which are underrepresented in the current portfolio – consultation at the agenda setting or implementation stages, and listening at the legislation stage.

The analysis of software outputs was quite difficult with several projects referring to just a "*multi tool platform*" or technical name-dropping with ill-defined terms like "*Web 2.0*". There is, however, a clear emphasis on technology rather than on specific functionality. Areas that are clearly addressed in the current portfolio are opinion or data mining; support for real time online debates or web conferencing; and graphical output and information visualisation.

Recommendation 5: Where new funding is applied to ICT for participation the project should clearly identify the new functionality to be developed rather than assume new technology must inevitably bring some added value for the stakeholders. Areas that appear to be under developed are:

- Serious games to solicit views, engage, and educate stakeholders.
- Map based interfaces to facilitate interaction areas like local planning policy.
- Mixed mode simulation to address complex policy interactions.

- Agent-based models to reflect citizen and industry motivation and behaviour.

The project portfolio has reasonable coverage of different levels of government, scale and relevant policy areas. Coverage of the EU nation states shows a small bias towards the Mediterranean and currently excludes Finland, Luxemburg, Slovenia, Romania, Malta and Cyprus. There are also no projects with partners in candidate countries.

On the one hand there is the desire from both politicians and civil servants to see greater engagement with policy making. On the other there is the citizen who sees little point in engagement without some hope of influencing the policy making process. Our understanding of the role of ICT for governance and participation in a representative democracy is limited. It has been argued that progress in the last decade has not been completely satisfactory and challenges remain for the EU programme.

Challenge 1: We cannot, except by accident, build ICT to enhance governance without first understanding the institutions of governance and the way these can be supported or undermined by ICT. The challenge is to understand how the institutions of government can possibly adapt to encompass the aspirations of citizens to participate in a meaningful way when the nature and impact of policy decisions are becoming harder for the expert or professional decision-maker to understand.

Challenge 2: Significant ICT for public engagement in governance and policy modelling may come from the self-organised activity of citizens themselves and often have no need or intention to create an industry or revenue stream. How can public funding initiatives driven by an economic growth model, like FP7, facilitate or support this type of community based ICT research and development?

A.2   Background

In 2005 (DG Infso, 2006) the Commission obtained a special research fund to support 3 years of "eParticipation" research as a preparative action leading into the ICT Policy Support Program (PSP) funding framework. Then in call 7 of the FP7 "Information Society Technologies" research and technical development (RTD) programme (FP7, 2009) added the closely related area of "ICT for Governance and Policy Modelling" as an objective 7.3. FP7 made a further call for research in this area as objective 5.6 in 2011 (FP7, 2010). In parallel with these FP7 calls for RTD the PSP called for pilot dissemination projects in "eParticipation" (DG Infso, 2009). Both programmes also called for support actions in the form of thematic networks and road mapping. In all 37 projects were funded at a cost of over 61M€. About half of them are completed but others will run on to late 2013.

The purpose of this report is to review the projects funded and make recommendations about the content of the 2013-14 Programme for EU funding of RTD ICT for Governance and Policy Modelling.

A.2.1 Scope and Terminology

The terms "*governance*" and "*policy modelling*" are very broad descriptors of activities that can be applied in a variety of contexts. If this report is to have a clear common focus, they need to be qualified. The EU Work Programme (FP7, 2010 p 62) refers specifically to "*the governance of our societies*" and requires that projects should address "*scenarios involving even greater complexity and citizens' involvement*". The target community for projects in these calls is, therefore, involved in the public sector policymaking activities, by organs of the state, rather than the governance of private sector bodies and corporate policymaking. On the other hand, the governance of specific organisations, such as the Policy Community itself, and the governance of specific activities, like ICT projects and departments, falls outside the remit of this report.

In addition to *eGovernance* popular terminology also includes *eParticipation*, *eGovernment* and *eDemocracy* and we need to address how these terms relate to this study. The notion of eGovernment embraces all interaction between citizens and public bodies making it much broader than the intended focus on governance and policymaking. As a reference point it is therefore excluded from this study.

Citizen interactions that focus on their involvement in policymaking can as easily be labelled eParticipation as they can eGovernance. In some senses both eParticipation and eGovernance might be given the wider connotation to include detailed policy implementation below the policy making level. However, the ICT tools and techniques engaged are likely to be similar, if not identical. For the purposes of this study projects

labelling themselves eParticipation are as relevant as ones under the banner eGovernance. The critical test being that there is a link to policymaking activity.

Within Europe representative democracy is the norm and eDemocracy needs to be considered in this light. There has been a tendency to use this term in association with projects looking at online voting or political campaigning but it could be applied to any activity that gives meaning to democratic processes. In so far as eDemocracy projects encompass direct access to the policymaking process (for example online petitions) they are considered here, but those relayed to electoral campaigning and voting are excluded.

A.2.2 Sources of Project Information

The main source of EU investment in projects has been the cordis website[27], for FP7 funded projects, and the research section of "ICT for Government and Public Services" on europa website[28]. The eurapa.eu website also identified relevant projects funded in the "preparative action" in eParticipation[29] and the follow on activity in the CIP-ICT-PSP programme.

In addition to projects funded under the two ICT for Governance and Policy Modelling calls (ICT-2009.7.3 and ICT-2011.5.6) a search was made.

However, the information on these official websites does not consistently identify the same set of projects and in some cases the project factsheet was not traceable. As an alternative source both the e-Forum[30] and e-Practice[31] websites were used to search for references to:

- policy modelling, policy making and policy analysis
- simulation
- governance
- participation (eParticipation and e-Participation)

These sites filled the gaps and uncovered one other interesting project – SOWIT – that appears to be running without funding.

A.3 Projects Funded by the EU

The EU has funded projects related to ICT for eGovernance and Policy Modelling under several different programmes. Most of the projects funded fall either within the FP7

---

[27] http://cordis.europa.eu
[28] http://ec.europa.eu/information_society/activities/egovernment/research/index_en.htm
[29] http://ec.europa.eu/information_society/apps/projects/index.cfm?prog_id=EPART
[30] http://www.eu-forum.org/search
[31] http://www.epractice.eu/

research and technical development (RTD) programme or the post research Competitiveness and Innovation Policy Support Programme (PSP).

A.3.1 FP7 RTD Projects

The two ICT for Governance and Policy Modelling calls (ICT-2009.7.3 and ICT-2011.5.6) resulted in 18 funded projects 3 of which were support actions. This is a total investment of over 40M€ in EU support for this research. These 18 consortia are made up of 139 partners in 22 European countries. Most of these are 3-year projects and only two of them are completed. Four more will complete by the end of 2012 but the funding commitment for the other 12 projects extends right through to September 2015.

The wider review of FP7 project identified a further 17 projects adding another 18M€ of EU research support within the RTD programme. These projects span a range of different calls and programmes. Not surprisingly four project are in the Environment Programme and another is a support action in Energy. One project was funded in the research infrastructure development programme (INFRA-2007-2.1). The remaining support is in the form of institutional grants under the ERC (European Research Centre) programme or Marie Currie actions. Of these grants 4 are completed and 3 more will complete by the end 2012 but the funding commitment for the remaining 10 projects extends to the end of 2016.

A.4 FP6 RTD Projects

Under FP6 eGovernment related research focussed on the service and procurement functions of eGovernment with only one project was devoted to participation in policy development. The exception (DEMO-net, ref: FP6-2004-27219, 0.6M€) still has website which has 382 members and list 47 other projects, some of which were EU funded, for example:

- EVOICE: This project aimed to enhance the interest and the engagement of European citizens in general political issues within a representative democracy (funded by European Regional Development Fund).
- eParticipate: This project aimed to produce an operational platform running in the four European regional sites, generating a quantifiable increase in citizen participation with their local democratic institutions (funded under eTEN).

However, the last DEMO-net project newsletter was issued in December 2008 and the network appears to have ceased effective operation.

A.4.1 PSP Projects

In parallel with FP7 EU funding was also applied to ICT for governance projects under a special eParticipation preparative action initiative. This invested in 11M€ of EU support for 21 projects[32] between January 2007 and February 2009. Most of these were 2-year projects with the last of them finishing at the end of January 2011.

This was followed up in the Policy Support Programme with 7 projects, two of which were thematic networks (support actions). This programme has invested a total of 10.19M€ in grant support. Funding for one support action was completed in 2010 but the network (PEP-NET) appears to have become self-sustaining at least as an online forum. One of the 5 projects will complete by the end of 2012 and the others will all be completed by September 2013.
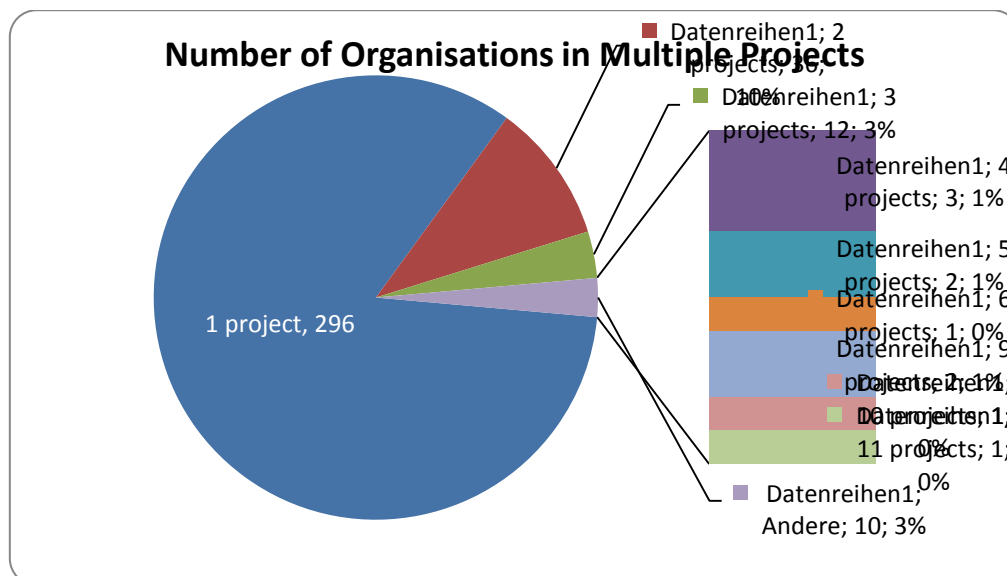
A.5   The project Portfolio

In total this report identifies 64 projects with grant funding of about 80M€. Seven of these projects are support actions, the others can be divided between RTD (31), and post research PSP projects (26). All of the 21 preparative action projects are complete but only 5 of the RTD projects have been completed.

A.5.1 Links between projects

Carryover of know-how and IPR between projects and across the FP7 RTD activities and the policy support program (which should build on RTD) are important, as is engagement in both development projects and the support actions. The extent to which organisations engage in multiple projects is examined as an indicator of the potential for crossover of know-how and IPR.
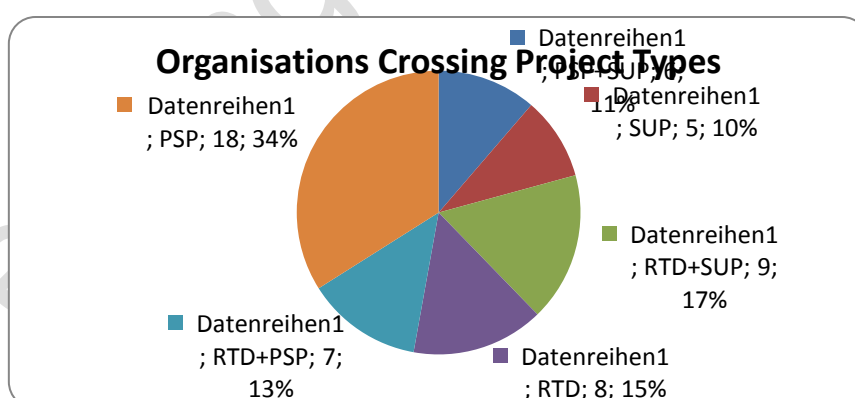
In all 354 different organisations took part in the portfolio of 63 projects, and of these, 296 organisations only engaged in a single project or support action.

---

[32] The projects reviewed included the DALOS project but it is unclear whether this should be listed as the 21st project funded under this initiative.

Number of Organisations in Multiple Projects

- Datenreihen1; 2 projects; 36; 10%
- Datenreihen1; 3 projects; 12; 3%
- Datenreihen1; 4 projects; 3; 1%
- Datenreihen1; 5 projects; 2; 1%
- Datenreihen1; 6 projects; 1; 0%
- Datenreihen1; 9 projects; 2; 1%
- Datenreihen1; 11 projects; 1; 0%
- Datenreihen1; Andere; 10; 3%
- 1 project, 296

Of particular interest with the partners involved in multiple projects are the potential links between development projects and support actions, and those between RTD and PSP funded projects. Interestingly 64 of the founding partners in the support actions only engage with one or two networks and received no grant aid as partners in technical projects.

The four organisations involved in large numbers of projects have participated in both funding areas and in support actions. None of the other organisations with participation in multiple projects have been engaged in all three areas. Their involvement is as follows:

Organisations Crossing Project Types

- Datenreihen1; PSP+SUP; 6; 11%
- Datenreihen1; SUP; 5; 10%
- Datenreihen1; RTD+SUP; 9; 17%
- Datenreihen1; RTD; 8; 15%
- Datenreihen1; RTD+PSP; 7; 13%
- Datenreihen1; PSP; 18; 34%

Since both the FP7 RTD programme and the CIP PSP programme involve funding support actions it is worth ignoring these as a separate category and just looking at how many organisations received funding in both programmes. Only 20 of the 358 organisations funded have engaged in both the research (RTD) and policy support (PSP) programs.

Another aspect of the carryover of IPR between projects is to examine the relationship between extensions to underlying theory and its application in more pragmatic projects focussed on delivery of technology. At one extreme there is the assumption of the CIP PSP programme that the projects are developing larger scale demonstrations that existing technology can be rolled out on a large enough scale to be realistic. At the other end of the scale are projects within the Marie Curie actions within FP7 where the output is targeted at improved understanding or theory building. The FP7 IST programme and the eParticipation preparative action both fall between these extremes.

Only 12 projects have a clear aim to develop new theoretical understanding of the phenomena. The following diagram illustrates these projects and traces their links to more pragmatic ICT development and deployment projects.
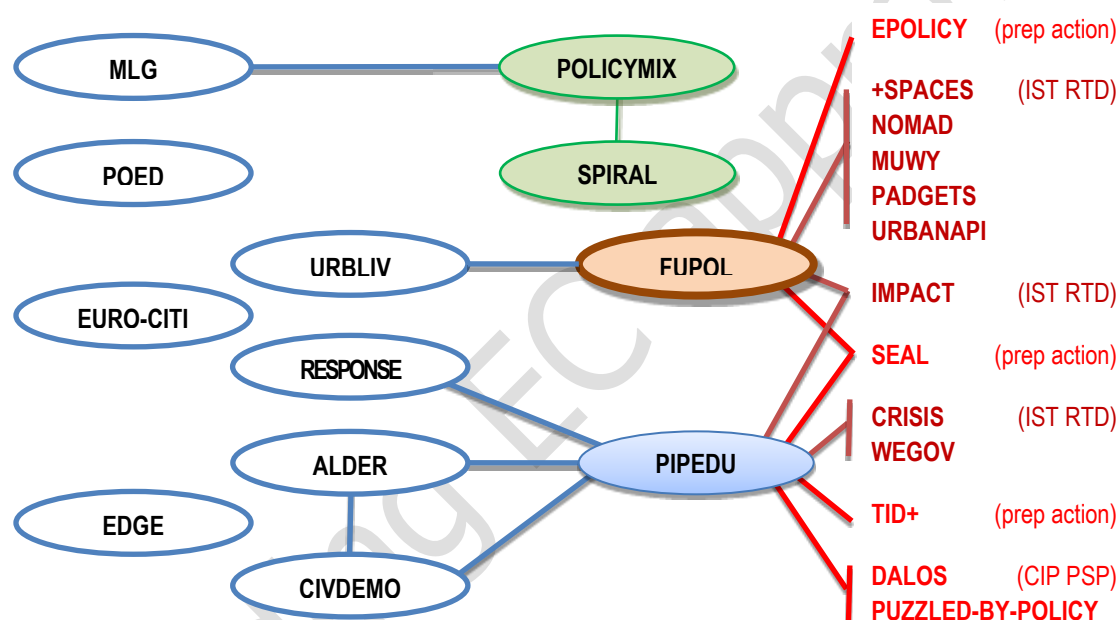
The majority (8 projects open blue) are supported as single institutions through ERC grants or Marie Curie actions. The other 4 "theory producers" are FP7 RTD projects in the Environment (2 projects green), Infrastructure (blue) and IST (brown) programmes. Ideally the IPR created in these projects informs and underpins the pragmatic ICT development and deployment projects. One indication of this would be partners engaging in the both types of project and links to the PSP (red) and FP7 RTD (brown) projects are shown on the right.

Only 13 projects (30%) benefit from direct access to explicit theory building actions. The diagram already shows weak or non-existent links between the "theory builders" and the RTD programme but the position is, if anything worse. Some projects to the right of the diagram pre-date the key common projects FUPOL and PIPEDU.

Recommendation 1: New funding should seek projects that explicitly build on or extend relevant theoretical insights as part of their objectives. Theory building institutions need to be encouraged to become part of the project consortia to ensure that these links are strengthened.

A.5.2 Thematic networks and Support actions

Within the set of projects identified, the EU has funded 7 community support actions or thematic networks and supported 3 communities on epractice.eu as shown below.

Project (Acronym: Title)				
Type	Start	Partners	Membership (members)	Current status
ATEST: Analysing transition planning and systemic energy planning tools for the implementation of the energy technology information system				
Energy roadmap[33]	Oct 2009	9	N/A	Funding ends Mar 2012
CROSSOVER: Bridging Communities for Next Generation Policy-Making				
IST roadmap	Oct 2011	5	N/A	Funding ends Mar 2013
CROSSROADS: A Participative Roadmap for ICT Research in Electronic Governance and Policy Modelling				
IST roadmap	Jan 2010	5	N/A	Completed
DEMO-net: The democracy network				
IST network	Jan 2006	22	Individual (382)	Funding ended, no activity
EGOVPOLINET: The Policy Community				
IST network	Aug 2011	18	-	Funding ends Aug 2014
eParticipation and eDemocracy Network (eP&Dnet)				
epractice.eu	Feb 2008	8	Individual (238)	Moderate activity
Environmental Democracy via ICT (EnvDem)				
epractice.eu	Sep 2009	3	Individual (81)	Some activity
NET-EUCEN: Network of European Stakeholders for Enhancing User Centricity in eGovernance				
PSP network	Apr 2010	23	Organisations (92)	Funding ends Mar 2013
PEP-NET: Pan European E-Participation Network				
PSP network	May 2008	20	Organisations (58)	Funding ended, very active
ICT for Governance and Policy Modelling (ICT4G&PM)				
epractice.eu	Jul 2008	1	Individual (156)	Moderator inactive

---

[33] ATEST is funded as a coordination (or networking) actions contract but the objectives and activity are those of a roadmap exercise rather than a networking action.

The diagram below maps the relationship between these support activities. They consist of three research road mapping exercises (green) and four network formation projects (red). There are also three relevant "Communities" among the 43 on the ePractice portal[34] (blue). The following diagram shows the links between these support actions in terms of common moderators or founding partners, (an analysis of the members might show tighter links):
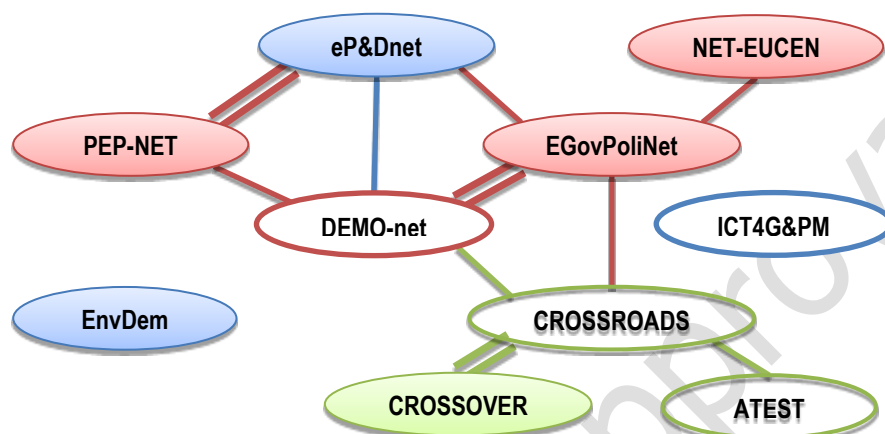
The projects or communities shown as unfilled shapes are past the end of their funding and appear to have become inactive. Interestingly 59 of the founding partners in these support actions only engage with one network and received no grant aid as partners in technical projects. These support actions are fragmented and some have not been sustained. In particular, the links between strong eGovernance networks and strong eParticipation networks are weak reflecting the distinct terminology and funding routes as identified above.

Recommendation 2: The European Research Base would be strengthened by targeting support action(s) at sustaining and combining the communities rather than forming new networks.

A.6   Framework for technical project evaluation

Since this paper is concerned with the coverage of research in this area, the framework for evaluation needs to address the scope of the work undertaken in different projects. This can be categorised from several different perspectives:

- Type or characteristics of the software being produced
- Type or characteristics of engagement with citizens
- Type or characteristics of the policy modelling, simulation or analysis

---

[34]   For Partners the number of facilitators is listed for ePractice Communities and shared partners are determined from the facilitators' organisational affiliations.

- Level of government (local, regional, national or international)
- Area of policy making supported (single issue, multiple issues or generic)
- Scale and geographical coverage of any trials

The software produced can be divided into tools to support citizen participation (or engagement) and simulation and modelling tools. In the following analysis, these will be addressed separately in conjunction with the relevant aspect of the project. However two other – non-software producing categories of project have been identified – Support actions (or networks) and Theory building projects. Although each of these has a role to play in the research portfolio, they are not directly comparable activities.

A.6.1 Characterising Governance or Citizen Participation

Various scales of democratic engagement have been proposed. For the most part these derive from Arnstein's ladder (1969) and run from non-participation, where the state manipulates public opinion, to full citizen power to determine the outcome of the decision-making process. Åke Grönlund (2009) presents a thorough review of such scales in relation to eParticipation and shows that no one scale adequately captures the variations in eParticipation projects.

Arnstein's view of participation focuses on the decision making power and the degree of control given to citizens in determining the outcome. This has as its ideal direct citizen democracy, which is unrealistic in the representative democracies of modern Europe. Here we use the OECD model (OECD, 2001) that defines three levels of participation:

- Informing – one-way provision of information to the citizen.
- Consulting – limited two-way interaction where the public body sets the agenda but seeks feedback from the citizen.
- Active participation – more open two-way interaction where citizens are able to set or influence the agenda.

This scale is extended with a "listening" category to address projects, like SOWIT, that are intended to facilitate interaction with elected representatives or members of a public body. This is distinct from consulting in that citizens some control over the agenda but falls short of (or at least at the lower end of) active participation because it falls outside the decision-making process.

Another dimension to the type of participation is to consider the policymaking cycle and the stage at which citizen participation occurs:

- Agenda setting – deciding which areas are appropriate for public policy.
- Policy determination – formulation of policy and, policy modelling and selection.

- Legislation – drafting statutes, byelaws or regulations to define a chosen policy.
- Implementation – practical implementation of a policy decision

In some participation initiatives, there is the intent to engage a particular audience or sector of the public. Objectives like this are identified in the analysis of project coverage.

Finally, we analyse the software tools being delivered to support this type of engagement with citizens. Typically, projects promise "state-of-the-art" software without being very clear about what this implies. The critical issue here is to understand the functionality being offered.

A.6.2 Simulation, Policy Models and Theory

Simulation software falls into three major types based on distinct models of "reality":

- Systems dynamics – assumes that real world factors can be modelled by reservoirs of "materials" and flows between them. Flows are dependent on the volumes in the reservoirs and can be defined by appropriate differential equations.
- Discrete event – models assume real world object pass through cycles of activities. The model is defined by the conditions that must be fulfilled for an activity to start and assumes that given the start event the end event time can be predicted.
- Agent based – focus on scenarios where individual real world entities follow independent and possibly conflicting agendas within a world where they depend on other entities to achieve their goals. The model is defined by the rules of interaction (or negotiation) and the different agendas followed by groups of agents.

Each of these approaches has strengths and weaknesses, which limit its ability to analyse policy implications. For example the major economic models, which are systems dynamics based, cannot predict chaotic change like the banking and financial crises that have hit Europe in recent years. It is important, therefore, to identify research addressing mixed simulation models and alternative theories of system behaviour.

Exploration of models and theory does not necessarily lead to software embodying that theory and a theory may be so embodied in different ways. We therefore analyse the software tools developed by projects as a separate category from the theories and models.

A.6.3 Level of Government, Scale and Geographical Coverage

Policy making occurs at all governmental levels from the local district or municipality up to the European or international level. Some projects are not specific about the level of government with the objective of creating tools that can be used at any level. Others target specific levels of government and one analysis of the projects simply looks at how well they cover the different levels.

- Trans-national or International
- European
- National
- Regional
- Local

As well as targeting a particular level of government, the project may target support for particular roles of professions such as urban planners or elected representatives. Engagement with citizens is addressed in some detail above but, where relevant, the analysis needs to identify other target groups.

Most projects are also limited in scope by the trial structure chosen for the project. This is analysed by identifying the areas (countries) where trials will take place and, where available, the scale of the trial. An understanding of the geographical areas covered is also important because of the legislative and cultural differences across Europe and the globe.

A.6.4 Policy Area Addressed

Ideally, the research programme should deliver ICT tools that can be applied to any area of policymaking. However, it is not clear that this is possible and some policy areas may have idiosyncratic characteristics requiring a specific tool set – for example traffic simulation in urban planning (Elliman and Taylor, 2008). The limited scope and funding, particularly of STREPs, often means the project develops tools around a specific policy area. If too many projects target high profile areas, like energy and the environment, that may leave other important policy areas unexplored.

A.7 Analysis Results

After discounting the networking and support actions addressed above there were 55 projects with theory building, research and development objectives. These are categorised as follows:
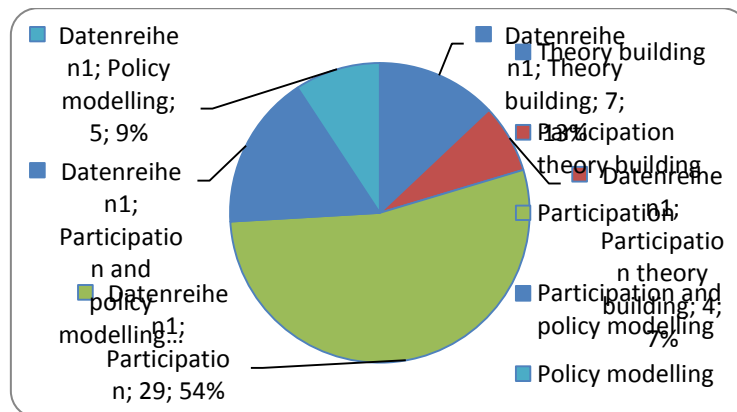
This excludes the project SEAL, which does not appear to have any objective to contribute in any of these three areas, but it cannot be completely excluded from the portfolio because it was judged fundable in the eParticipation preparative action. As would be expected, given the exclusive focus on Participation in the policy support programme the preponderance of projects (42 or 88%) involve citizen participation activates of one sort or another. Of the 11 theory-building activities, four can be identified as developing a better understanding of citizen participation in governance as a phenomenon. However, three of these four are based in institutions with no links to any other part of the EU funded programmes. Fewer of the projects (14) address policy-modelling issues – five address modelling exclusively and the other nine do so in conjunction with participation issues.

Recommendation 3: New funding needs to redress the balance between ICT to support participation and development of policy modelling techniques. The focus of new projects should therefore be the development of policy modelling techniques with public participation as secondary but necessary part of the way such models are used in decision-making.

A.7.1 Characteristics of Governance or Citizen Participation

Of the 42 projects addressing participation five are either unclear about the stages of the policymaking cycle addressed or they appear to address the whole cycle. The other 37 projects are divided as follows:

There are a significant number of projects with citizen participation occurring at the start of the policymaking life cycle. Some 29% of projects involving citizens at the agenda setting stage and 53% in the policy design stage. Only 14% just deal with citizen engagement at the end, implementation stage, of the cycle. However, these results need to be interpreted with care. First, the project may only address implementation issues. Second, value of participation is affected by the style of interaction and the citizen's power to influence the outcome. Arnstein (1969) is critical of modes that fall short of direct democracy as "Tokenism" suggesting that they are more to appease the public desire to be heard rather than any real intent enrich the democratic process.

When we look at the style of participation on the extended OECD scale defined above the results are:

Less than a quarter of projects address active participation where citizens take the lead in the interaction with some expectation of influencing the policy-making outcome. The predominant modes of participation are listening (59% of projects) and consultation (29%) where citizen views and opinion are fed to elected representatives or committees but the extent to which they will influence the decision-making process is unclear.

In the next figure the data on life-cycle stage is combined with the type of participation.
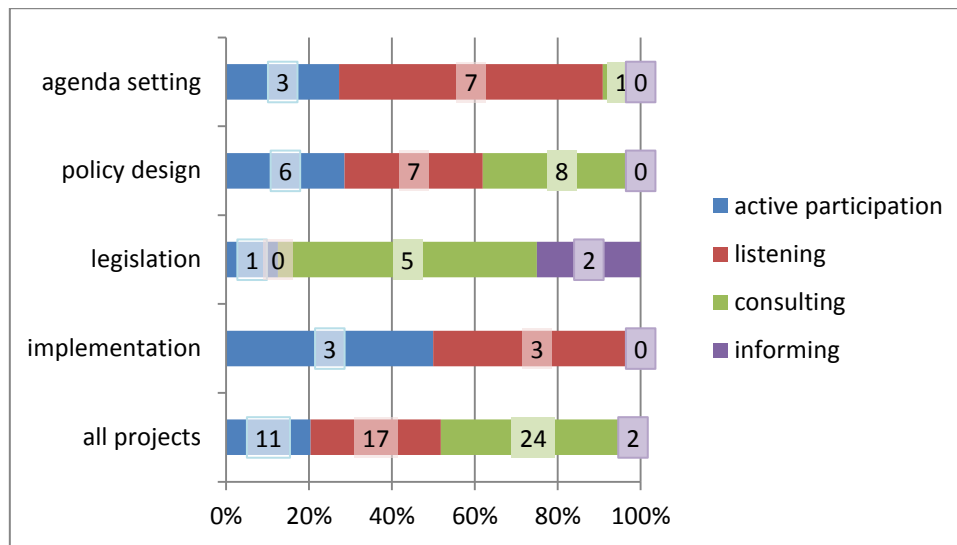
What stands out in this is that as the activity moves towards formalisation of a policy in legislation so the type of consultation moves away from one where citizens can exercise any power in the process. However, this is hardly surprising in the representative democracies of Europe. As to be expected elected representatives want to respond to public concerns (agenda setting) but the nature of the response (legislation or regulation) is for them to decide. By and large the research responds to the reality of European political structures rather than, as some had hoped (Morris, 2001), challenges them.

Recommendation 4: Where new funding is applied to ICT for participation the project should clearly identify the intended mode(s) of participation and how that links to the intended stage in the policy life cycle. Preference should be given to areas which are underrepresented in the current portfolio – consultation at the agenda setting or implementation stages, and listening at the legislation stage.

Only six projects declare themselves to be targeting a specific audience. Of these three (HUWY, VEP and OURSPACE) target young people and another (PUZZLED BY POLICY) aims at "*all citizens – regardless of their … IT or literacy skills*". Both these areas are where the democratic deficit (Morris, 2001) is seen to be at its greatest. All four projects are categorised as addressing policy design or agenda setting and policy design and all four use some form social networking or "*Web 2.0*" to provide a listening style of engagement.

One of the other targeted projects (EMPOWER) focuses on NGOs as well as individuals and the need to express political power through petitioning and similar activities. The last of the targeted projects (EURO_CITI) focuses on the "retired … *economic elite*" with the aim of understanding how this migrant European population achieves active participation across the policy-making life cycle.

Finally, this section looks at the sorts of software tools being used, enhanced or created in the search for eParticipation. This analysis is quite difficult with several projects referring to their software outputs just as a "*multi tool platform*" or technical name-dropping with ill-defined terms like "*Web 2.0*". The following is list shows the range of software tools being developed and, in descending order, the number of projects involved:

- Web 2.0 (11) – in two cases it is clear this is being used a synonym for social networking
- opinion or data mining (8) – in 3 cases this is explicitly applied to social network content
- social networking (7)
- online debates or web conferencing (5)
- visualisation (5) – in 3 cases this is specifically linked to argument visualisation
- ePetitions (3)
- serious games (3) – in one case this is within a specific virtual worlds
- content management (2)
- computational linguistics and semantics(2)
- mobile technology (2)
- annotation of maps (1)
- polling (1)
- discussion forum (1)

There is a clear emphasis on technology rather than on specific functionality aimed at the support of participation.

Eight projects address opinion or data mining and two of these also explicitly address visualisation of the results. There are also three more overlapping projects with a focus on argument visualisation. Of these 11 projects, eight are still in progress. Much lower down the list with five projects is the support for real time online debates or web conferencing. These are a mix of real world town meetings and virtual world interactions. One of these projects exploits serious gaming suggesting that policy makers can gauge public response to a policy by watching its effect in a virtual world environment.

The development of ePetitions goes back to the Scottish Parliament accepted its first ePetition on March 14, 2000 (McMahon, 2004) and their establishment of a full online service in 2004 (Seaton, 2005). Of the three ePetioning projects EMPOWER is notable for extending ICT support to the signature collection process. Although a large number of systems have been implemented (Panagiotopoulos et al., 2011a) there is evidence that

even when online debate on an issue is significant it does not lead to signatures (Panagiotopoulos et al., 2011b).

Only one project mentions polling explicitly but others referring to Web 2.0 highlight its tagging and rating schemes. Survey tools of some form are likely to be part of most participation tool kits. More interesting at the bottom of the list is software for the annotation of maps. This project (U@MARENOSTRUM) made use of the technique in local and regional environmental planning.

A.7.2 Simulation, Policy Models and Theory

The smaller group of 14 modelling projects five refer to agent-based simulation and three systems dynamics models. Two of these six projects aim to merge the two techniques. None of the modelling projects explicitly address discrete event modelling. The three types of simulation model are well covered elsewhere in the research literature. The critical problem for policy modelling is how to combine the models and only two currently in progress projects explicitly address this. One (MOSIPS) aims to do so through Artificial Intelligence techniques and the other (CRISIS) is less clear about the principles it will apply to bridge the models.

There is little consensus in the theories and models to be extended or applied in policy modelling. The different areas referred to by the projects are:

- foresight scenario analysis (2)
- game theory (2)
- socio-economic models,
- models of governance
- ontologies

- decision support or optimisation (2)
- citizen behaviour
- governance of risk
- models of legal elements
- complexity science

Turning to the software being developed only four projects give a clear indication of software outputs other than the relevant simulation tools. Two refer to a model repository or knowledge management tools. The other two refer to a graphical GUI and visualisation. Given the current economic situation and pressures to reduce demand on the public purse, the CRISIS project interestingly refers to the production of open source software.

Recommendation 5: Where new funding is applied to ICT for participation the project should clearly identify the new functionality to be developed rather than assume new technology must inevitably bring some added value for the stakeholders. Areas that appear to be under developed are:

- Serious games to solicit views, engage, and educate stakeholders.
- Map based interfaces to facilitate interaction areas like local planning policy.
- Mixed mode simulation to address complex policy interactions.

- Agent-based models to reflect citizen and industry motivation and behaviour.

A.7.3 Level of Government, Scale and Geographical Coverage

Within the portfolio of projects analysed 32 target specific levels of government as follows:
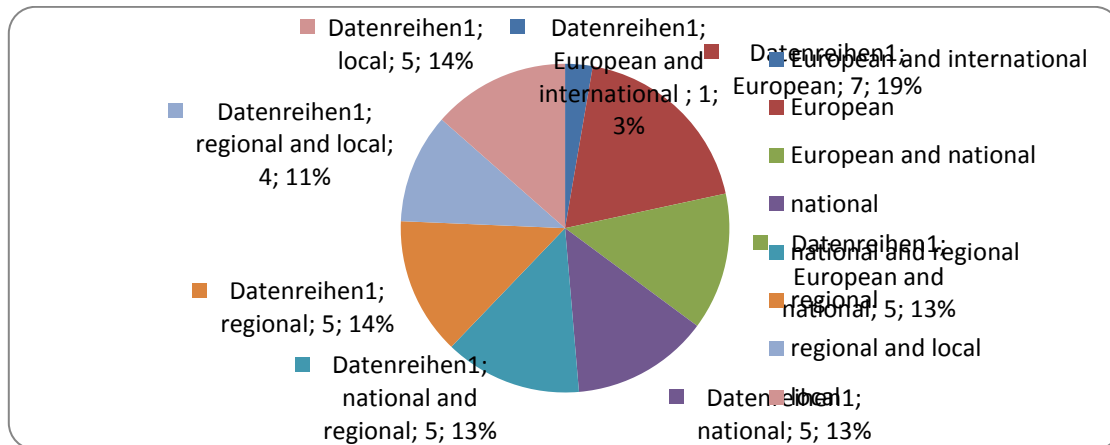
There is a good spread of projects addressing each level of government.

Only a few projects target specific roles in government. Three projects target engagement with MEPs, two projects target legislative drafters and one project targets local councillors.

Relatively few projects quantify the scale of their engagement with citizens. The four that do quantify their experimental population are aimed at national or European government and identify their scale as follows:

- European – 6 committee sessions
- European – 600 participants
- national – 100 local authorities
- national – 6,600 users

Stakeholder Identification and Community Building Strategy,
version 1.0

Date: 26/09/2012

The distribution of project trials across the European map is shown below:

There is perhaps some bias towards the Mediterranean end of the EU but in general, project trials are spread across most nation states. Notable exceptions are Finland, Luxemburg, Slovenia, Romania, Malta and Cyprus. There are also none in candidate countries.

A.7.4 Policy Areas Addressed

The final area of analysis to be addressed is to examine the policy areas covered.

- environment (12)
  - … and climate change (4)
  - … and water protection (2)
  - … and urban management
  - … and bio-diversity
- sustainable development (4)

- Immigration (2)
- impact on SMEs
- anti-smoking policy
- bio-diversity and economics
- economics and finance

- o … urban planning and land management (2)
- o …renewable energy
- Internet regulation

Way ahead of other policy areas is the environment and sustainable development. The motivation for these choices is unclear but it involves big issues where national and international policy formation is complex. Whether they are issues that will motivate public engagement is more questionable.

A.8   The Challenges

The European Participation Report summarises the position in 2009 as

> *"Never before have there been such contradictory and auspicious developments in thinking about how all sections of European society can engage in policy making and political debate. On the one hand, it is clear that many have disengaged from formal politics, voter turnout is falling, membership of political parties is declining, and there is a widespread sense of a loss of trust in government and politicians. On the other hand, there is a surge of grass-root, often single issue engagement in policy making, people generally are more aware of public policy issues, and there are more outlets and channels enabling participation."* (Millard et al., 2009)

This points to what remains as one of the grand challenges for ICT in Governance research. On the one hand there is the desire from both politicians and civil servants to see greater engagement with policy making. On the other there is the citizen who sees little point in engagement without some hope of influencing the policy making process. This dichotomy needs to be set against the trend to greater complexity in our modern society and the need for more sophisticated policy making tools.

Our understanding of the role of ICT for governance and participation in a representative democracy is limited. Indeed the whole basis of the funding for the projects reviewed above has been questioned (Prieto-Martín et al., 2012). This article argues that the progress of eParticipation in the last decade has not been completely satisfactory and attributes this to three factors. First lack of a proper understanding and theory for the field – a problem also identified above. Second the 'founding biases' that come from the way e-Government has evolved into eParticipation as a centrally provided service. And third the inadequacy of the FP7 and PSP instruments to incentivize innovation in the eParticipation field.

Challenge 1: We cannot, except by accident, build ICT to enhance governance without first understanding the institutions of governance and the way these can be supported or undermined by ICT. The challenge is to understand how the institutions of government can possibly adapt to encompass the aspirations of

citizens to participate in a meaningful way when the nature and impact of policy decisions are becoming harder for the expert or professional decision-maker to understand.

A second challenge arises specifically from the public funding of RTD in ICT for governance. The funding model assumes that the public purse should support RTD that will lead to an industry that will eventually sell ICT for governance and policy modelling back to the government. This model is challenged by projects that aim to create open source ICT (for example CRISIS) and by ones that develop as grass roots initiatives like SOWIT[35] and the work of organisations like My Society[36]. These development initiatives don't fit the conventional funding model and instruments like a STREP contract are likely to constrain rather than facilitate such work.

Challenge 2: Significant ICT for public engagement in governance and policy modelling may come from the self-organised activity of citizens themselves and often have no need or intention to create an industry or revenue stream. How can public funding initiatives driven by an economic growth model, like FP7, facilitate or support this type of community based ICT research and development?

---

[35] SOcial Web for Inclusive and Transparent democracy. See http://www.sowit.eu/.

[36] My Society is a UK Charity that builds websites to give the public simple, tangible ways to connect with and improve their society. As well as offering tools directly to the public they provide integration and development services for local authorities, corporates and government. They open source their projects and encourage international adaptation. See: http://www.mysociety.org.

A.9   References

ARNSTEIN, S. R. 1969. A Lader of Citizen Participatiopn. *Journal of the American Institute of Planners,* 35**,** 216-224. 2006. Brussels: European Commission. Available from: http://www.erepresentative.org/docs/workprogramme2006final.pdf [Accessed 9 Apr 2012].

DG INFSO 2009. Competitiveness and Innovation Framework Programme (CIP), ICT Policy Support Programme, ICT PSP Work Programme 2009, Version 2. Brussels: European Commission. Available from: http://ec.europa.eu/information_society/activities/ict_psp/documents/ict_psp_wp 2009_v2_june_2009.pdf [Accessed 9 Apr 2012].

ELLIMAN, T. & TAYLOR, S. 2008. Stakeholder enfranchisement: The need for tools to support stakeholders in traffic assessment activities. *Transforming Government: People, Process and Policy,* 2**,** 119-127.

FP7 2009. Updated Work Programme 2009 and Work Programme 2010 for Cooperation Theme 3: ICT – Information and Communications Technologies. European Commission. Available from: http://cordis.europa.eu/documents/documentlibrary/107236431EN6.pdf [Accessed 9 Apr 2012].

FP7 2010. Work Programme 2011 for Cooperation Theme 3: ICT – Information and Communications Technologies. European Commission. Available from: ftp://ftp.cordis.europa.eu/pub/fp7/docs/wp/cooperation/ict/c-wp-201101_en.pdf [Accessed 9 Apr 2012].

GRÖNLUND, Å. 2009. ICT is not Participation is not Democracy - eParticipation Development Models Revisited. *In:* MACINTOSH, A. & TAMBOURIS, E. (eds.) *First International Conference on Electronic Participation, ePart 2009.* Linz, Austria: Springer.

MCMAHON, M. 2004. E-petitioning the Scottish Parliament", . *Parliamentarian,* LXXXV**,** 236-238.

MILLARD, J., NIELSEN, M. M., WARREN, R., SMITH, S., MACINTOSH, A., TARABANIS, K., TAMBOURIS, E., PANOPOULOU, E., EFPRAXIA, D. & PARISOPOULOS, K. 2009. Summary of the "Study and Supply of Services on the Development of eParticipation in the EU", prepared for the European Commission. http://ec.europa.eu/information_society/activities/egovernment/docs/reports/eu_e participation_summary_nov_09.pdf [Accessed 9 Apr 2012].

MORRIS, D. 2001. Direct Democracy and the Internet. *Loyola of Los Angeles Law Review,* 34**,** 1033-1053.

OECD 2001. Citizens as Partners: OECD Handbook on Information, Consultation and Public Participation in Policy-Making. Paris, France: OECD. Available from: http://www.ezd.si/fileadmin/doc/4_AKTIVNO_DRZAVLJANSTVO/Viri/Citize ns_as_partners_hanbook_oecd.pdf [Accessed 10 Apr 2012].

PANAGIOTOPOULOS, P., MOODY, C. & ELLIMAN, T. Year. An overview assessment of ePetitioning tools in the English local government. *In:* 3rd International Conference on eParticipation (ePart 2011),, 29 August - 1 September 2011 2011a Delft, The Netherlands,. 204- 215.

PANAGIOTOPOULOS, P., SAMS, S., ELLIMAN, T. & FITZGERALD, G. 2011b. Do
Social Networking Groups Support Online Petitions? *Transforming Government:
People, Process and Policy; Special Issue on Electronic Citizen Participation,* 5**,**
20-31.

PRIETO-MARTÍN, P., DE MARCOS, L. & MARTÍNEZ, J. J. 2012. The e-(R)
evolution will not be funded. An interdisciplinary and critical analysis of
European eParticipation developments and troubles. *European Journal of
ePractice,* 15**,** 62-89.

SEATON, J. 2005. The Scottish Parliament and e-democracy. *Aslib Proceedings,* 57**,**
333-337.

Annex B   Recent EU Project List

This Annex presents a listing of the 55 research and technical development projects reviewed by the report in Annex A. This data is based mainly on entries for projects at www.cordis.lu and www.europa.eu.

Acronym	Title	Call	Project type	Start date	Duration (months)
LEGESE	Drafting legislation with ontology-based support	eParticipation Preparatory action	ePart Prep	01/01/2007	21
LEXIPATION	An advanced ICT tool for enhancing citizen's participation in the legislative process	eParticipation Preparatory action	ePart Prep	01/01/2007	15
LEX-IS	Enabling participation of the youth in the public debate of legislation among parliaments, citizens and businesses in EU	eParticipation Preparatory action	ePart Prep	01/01/2007	24
SEAL	Smart environment for assisting the drafting and debating of legislation	eParticipation Preparatory action	ePart Prep	01/01/2007	18
TID+	Enabling citizens' initiative to eParticipation	eParticipation Preparatory action	ePart Prep	01/01/2007	not known
CITIZENSPACE	eParticipation in legislation implementation	eParticipation Preparatory action	ePart Prep	01/01/2008	24
DEMOS@WORK	Enable European-wide discussion between elected representatives and civil society	eParticipation Preparatory action	ePart Prep	01/01/2008	24
E-COMMITTEE	Encouraging citizens to participate	eParticipation Preparatory action	ePart Prep	01/01/2008	24
FEED	Federated eParticipation Systems for Cross-Societal Deliberation on Environmental and Energy Issues	eParticipation Preparatory action	ePart Prep	01/01/2008	24
IDEAL-EU	Social networking to save the planet	eParticipation Preparatory action	ePart Prep	01/01/2008	24
MOMENTUM	Monitoring, coordinating and promoting the European Union eParticipation projects and initiatives	eParticipation Preparatory action	ePart Prep	01/01/2008	30
VEP	Participating in a virtual European Parliament	eParticipation Preparatory action	ePart Prep	01/01/2008	24

Acronym	Title	Call	Project type	Start date	Duration (months)
VOICE	Giving citizens a voice in EU policy-making	eParticipation Preparatory action	ePart Prep	01/01/2008	24
PIREDEU	Providing an infrastructure for research on electoral democracy in the European Union	INFRA-2007-2.1-01 Design studies for research infrastructures	STREP(?)	01/02/2008	36
POED	Political economies of democratisation (PEOD)	ERC-SG-SH2 ERC Starting Grant	ERC Grant	01/07/2008	48
EURO_CITI	European citizenship practice: political participation of transnational European senior migrants	PEOPLE-2007-2-1.IEF Marie Curie Action	IEF	01/07/2008	24
EMPOWER	Empowering citizens to influence the decision making and policy formulation on environmental issues	eParticipation Preparatory action	ePart Prep	01/01/2009	24
EUROPETITION	eParticipation through Petitioning in Europe	eParticipation Preparatory action	ePart Prep	01/01/2009	24
HUWY	Hub Websites for Youth Participation	eParticipation Preparatory action	ePart Prep	01/01/2009	25
U@MARENOSTRUM	Strengthening Public Participation for water protection and management	eParticipation Preparatory action	ePart Prep	01/01/2009	24
VIDI	VIsualising the impact of the legislation by analysing public DIscussions using statistical means	eParticipation Preparatory action	ePart Prep	01/01/2009	24
VOICES	VoiceS – Integrating Semantics, Social Software and Serious Games into eParticipation	eParticipation Preparatory action	ePart Prep	01/01/2009	24
WEGOV	Where eGovernment meets the eSociety	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2009	36
WAVE	Welcoming Argument Visualisation to Europe	eParticipation Preparatory action	ePart Prep	01/02/2009	24
PRIMUS	Policies and research for an integrated management of urban sustainability	ENV.2008.4.2.3.2. Enhancing connectivity between research and policy-making in sustainable development	STREP	01/05/2009	36
ALREG	Analysing learning in regulatory governance	ERC-AG-SH2 ERC Advanced Grant	ERC Grant	01/09/2009	48

Acronym	Title	Call	Project type	Start date	Duration (months)
RESPONSE EU	Public opinion trends and policy-making in the European Union	FP7-PEOPLE-IEF-2008 Marie Curie Action	IEF	18/09/2009	24
+SPACES	Policy Simulation in Virtual Spaces	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2010	30
IMPACT	Integrated Method for Policy making using Argument modelling and Computer assisted Text analysis	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2010	36
OCOPOMO	Open Collaboration for Policy Modelling	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2010	36
PADGETS	Policy Gadgets Mashing Underlying Group Knowledge in Web 2.0 Media	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2010	36
COCKPIT	Citizens Collaboration and Co-Creation in Public Sector Service Provision	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/01/2010	36
UBIPOL	Ubiquitous Participation in Policy Making	ICT-2009.7.3 ICT for Governance and Policy Modelling	STREP	01/04/2010	36
POLICYMIX	Assessing the role of economic instruments in policy mixes for biodiversity conservation and ecosystem services provision (POLICYMIX)	ENV.2009.4.2.3.1 Assessment of economic instruments to enhance the conservation and sustainable use of biodiversity	STREP	01/04/2010	48
MLG	Causes and Consequences of Multilevel Governance (MLG)	ERC-AG-SH2 ERC Advanced Grant	ERC Grant	01/05/2010	60
SPIRAL	Science-Policy Interfaces for Biodiversity: Research, Action, and Learning	ENV.2009.4.2.3.2 Enhancing connectivity between research and policymaking in sustainable development	STREP	01/05/2010	39

Acronym	Title	Call	Project type	Start date	Duration (months)
IMMIGRATION POLICY 2.0	Immigration Policy 2.0	CIP-ICT-PSP.2009.3.4 - ICT for government and governance	Pilot B	01/09/2010	36
PARTERRE	Electronic Participation Tools for Spatial Planning and Territorial Development	CIP-ICT-PSP.2009.3.4 - ICT for government and governance	Pilot B	01/09/2010	24
MYUNIVERSITY	MyUniversity: Decision making for a united higher education	CIP-ICT PSP-2009-3bis - Objective 3.5	Pilot B	01/10/2010	30
PUZZLED BY POLICY	Puzzled by Policy	CIP-ICT-PSP.2009.3.4 - ICT for government and governance	Pilot B	01/10/2010	36
EDGE	Evaluating the Delivery Of Participatory Environmental Governance using an Evidence-based Research Design	ERC-SG-SH3 ERC Starting Grant - Environment and society	ERC Grant	01/04/2011	60
PACT	Innovative public administration: social cohesion through local public transport	FP7-PEOPLE-2010-IRSES Marie Curie Action	IRSES	01/04/2011	36
URBLIV	Building just and liveable cities: Participation and contestation in neighbourhood revitalization ()	FP7-PEOPLE-2010-IIF Marie Curie Action	IIF	15/06/2011	24
CIVDEMO	The contribution of Civil Society Organizations to representative democracy in the EU	FP7-PEOPLE-2010-IEF Marie-Curie Action	IEF	01/09/2011	24
MOSIPS	Modelling and Simulation of the Impact of Public Policies on SMEs	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/09/2011	36
URBANAPI	Interactive Analysis, Simulation and Visualisation Tools for Urban Agile Policy Implementation	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/09/2011	36
FUPOL	Future Policy Modelling	ICT-2011.5.6 ICT Solutions for governance and policy modelling	IP(?)	01/10/2011	48
EPOLICY	Engineering the POlicy-making LIfe CYcle	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/10/2011	36

Acronym	Title	Call	Project type	Start date	Duration (months)
UNITEEUROPE	Social Media Monitoring and Decision Support Tools Enabling Sustainable Integration Policies and Measures	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/10/2011	36
CRISIS	Complexity Research Initiative for Systemic InstabilitieS	ICT-2011.5.6 ICT Solutions for governance and policy modelling	IP(?)	01/11/2011	36
FUTUREPOL	A Political History of the Future : Knowledge Production and Future Governance 1945-2010	ERC-SG-SH2 ERC Starting Grant	ERC Grant	01/01/2012	60
NOMAD	Policy Formulation and Validation through non moderated crowdsourcing	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/01/2012	30
LIVE+GOV	Reality Sensing, Mining and Augmentation for Mobile Citizen/eGovernment Dialogue	ICT-2011.5.6 ICT Solutions for governance and policy modelling	STREP	01/02/2012	30
GINE	General Institutional Equilibrium - theory and policy implications (GINE)	ERC-SG-SH1 ERC Starting Grant	ERC Grant	01/07/2012	48
OURSPACE	Ourspace	CIP-ICT-PSP.2009.3.4 - ICT for government and governance	Pilot B	not known	not known

Annex C   Scenarios

These scenarios are simply a series of thought experiments describing different views of what interaction with the Policy Community and its portal might be like at some unspecified point in the future. They were developed by different members of the consortium and are reproduced here as a reference point for the discussion of services in section 6. They should be interpreted as illustrations of needs rather than definitive specifications of portal functionality.

C.1   Joe's Practitioner Query

Joe is a Civil Servant in the UK Ministry of Justice and he is involved in modelling changes in the prison and probation populations in response to changes in law and sentencing policy. A current political concern of the party in power is to have a "green" energy policy permeating the party's approach to problems. A junior Minister has asked what the impact planed policy changes will have on the nation's energy consumption.

Joe needs to find some way of responding to this but lacks knowledge of energy demand modelling. As a member of the Policy Community, Joe (or one of his staff) goes to the portal and posts a request: "Can anyone help me with deriving energy consumption models from the demographics of prison or probation populations?"

A year ago Simon did work on predicting energy consumption from population and demographic data. He contributed an outline of this case to the Policy Community knowledge base and his profile indicates that he is willing to respond to practitioner enquiries. Simon is a policy consultant and sees responding to practitioner queries as a good way of making contact with potential clients.

The Policy Community Portal identifies Simon and 5 other members of the community who are willing to respond to practitioner queries and have interests relevant to this query. It sends emails to these 6 members advising them that a query they may be interested in has been received. The portal also identifies Simon's case and 3 other entries in the knowledge base as potentially relevant. Links to these documents are sent to Joe.

Simon reviews the query and posts a response to Joe suggesting a particular approach to the problem. He allows the portal to release his contact details in the reply.

Fred Doe, an engineering research student, is also a portal member. He is interested in linking energy demand modelling to wider policy issues but he has not asked to be alerted to practitioner queries. When he logs on to the portal, his list of recent relevant

activity also includes Joe's query. He too sends a response indicating his interest in the problem and releasing his contact details.

Simon, Joe and Fred discuss the problem in an exchange of emails that lead to Fred spending a two-month internship with Joe at the Ministry. The Policy Community work on harmonisation and interconnection of models means Fred can rapidly extend the penal system model with some consultancy support from Simon and thus enable Joe to provide the informed advice required by the Minister.

Fred acquires a useful case for his PhD and a year later an article by Doe et al., "*The environmental cost of retribution*", appears in Resource and Energy Economics.

(developed from discussions at the lick-off meeting)

C.2   Simone's Research Proposal

Simone and Tammy are Information Systems technologists working in discrete event simulation and HCI at Middlewhich University. A recent local event has motivated them to look at traffic modelling within the UK's planning process. They are struck by the imbalance between big business interests and local community groups when it comes to accessing and interpreting information from the modelling tools.

They hit on the idea of a project to design an open web based modelling environment for use by non-experts. They need partners with specific skills in traffic modelling and data visualisation to complete the project consortium. As a member of the Policy Community, Simone searches the membership and knowledge base for potential collaborators. She identifies:

- Jane, a traffic modelling consultant in GMPK Plc,
- Nancy, a professor of data visualisation at the University of Spires,
- CARSIM, an open source traffic simulation package.

After making contact with Jane and Nancy they draw up a research proposal to design the open modelling environment and create a demonstrator using the CARSIM package as the core. Simone will co-ordinate the project at Middlewhich University with GMPK Plc and the University of Spires as members of the consortium.

(developed from discussions at the lick-off meeting)

C.3   Introducing a new member to the Policy Community

Igor is a member of the Policy Community. Looking at the news on the portal Igor notices that two people – Sam and Susan – are working on a problem to resolve synchronisation between agent models of behaviour in the labour market and national

economic models based on system dynamics. Igor knows that a colleague in his institution – Reginald – is working on the same problem.

However, Reginald is not registered on the portal as a member of the Policy Community. Igor requests that Reginald be registered in the portal. After Reginald has been registered Igor introduces him to Sam and Susan and invites them to collaborate on the problem.

(from Igor Hawryszkiewycz WP2)

C.4   Finding someone to work on a problem

Rodney, a researcher, wants to collaborate with someone in the Policy Community to work on the problem of feed in tariffs (FITs) and domestic purchaser behaviour in the renewable energy market. Rodney posts the problem description on the Policy Community portal with keywords – "renewable energy", "FITs", and "purchaser behaviour". The portal searches other researcher interests based on the keywords and finds researchers with similar interests. It then notifies Rodney of these researchers and also lets them know that Rodney has similar interests. Rodney then contacts the other researchers and initiates collaboration with them.

(from Igor Hawryszkiewycz WP2)

C.5   Publishing an event for community members

Vijay is organising an economic modelling workshop next Easter and adds the dates of the workshop to the portal event calendar a conference with a link to the conference website and the keywords "economics", "simulation", "modelling" and "citizen participation". The portal informs other members who have asked to be notified about conference activities with key words. Also if people enquire about events and specify appropriate keywords then the event will be displayed for them.

(an expansion of scenario 6 from WP2)

C.6   Researcher in the field of electronic government

'Res' is a researcher in the field of electronic government. She has done a PhD on back-office integration, for which she participated in a collaborative project with other research institutes and a number of government organisations in her country. Based on this project she knows quite a number of people in her country, both from practice and academia. After graduation, she started work in an international research project that involves research institutes, companies and government agencies of different countries.

She has a LinkedIn profile in which all the people she knows from these projects are added as contacts. Also, people she knows from the international conferences are connections on LinkedIn. Two things struck her in the course of her academic career. One is that in the domain of e-government, the number of multi-country comparative research projects is limited. The other is that the relationships between policy and researcher often resemble a sort of contract relationship, in which the government actors are often considered some kind of customer of the research. At the same time, she noticed that these government organisations have to be actively involved and real collaboration between policy and academia is required to understand the issues at play and to bring them to a solution.

Based on these two issues, 'Res' is now looking for a way to identify colleagues abroad that have a similar or complementary background and are also willing to collaborate in a cross-border comparative research project. Furthermore, she wants to identify government parties that are willing to play an active role in such a project and can offer access to organisations to study. For enabling comparison, it is necessary that a proper insight be given in the types of organisations that are willing to participate and the sort of issue they would like to contribute to studying. If possible, she would like to respond to a request already made by one or a number of actors in the field, to maximise real world usefulness.

Typically, 'Res' has to go to different places, both online and offline, to get into contact with government organisations and researchers from various backgrounds. The process of selecting cases is often troublesome. She would like to use a portal in which all of the functions are combined and both types of actor groups can be involved. The LinkedIn website offers the network, but only offers limited discussion facilities and almost no functionalities to share cases and collaboratively work on setting up a new research venture. She is willing to create a new profile on a new portal, but only if that is an active community in which the same connections she already has might also be willing to participate.

(from TUD scenario on draft membership in eGovPoliNet – WP3)