Analysis of the Value of New Generation of eGovernment Services and How Can the Public Sector Become an Agent of Innovation Through ICT

Brussels

INSO & CIP Policy and Networking Meeting

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pwc

OPEN EVIDENCE

Institute of Baltic Studies

Objectives & Scope

First key objective: to define and then carry out an analysis of the value, including costs and benefits (tangible and intangible), of the new generation of eGovernment services.

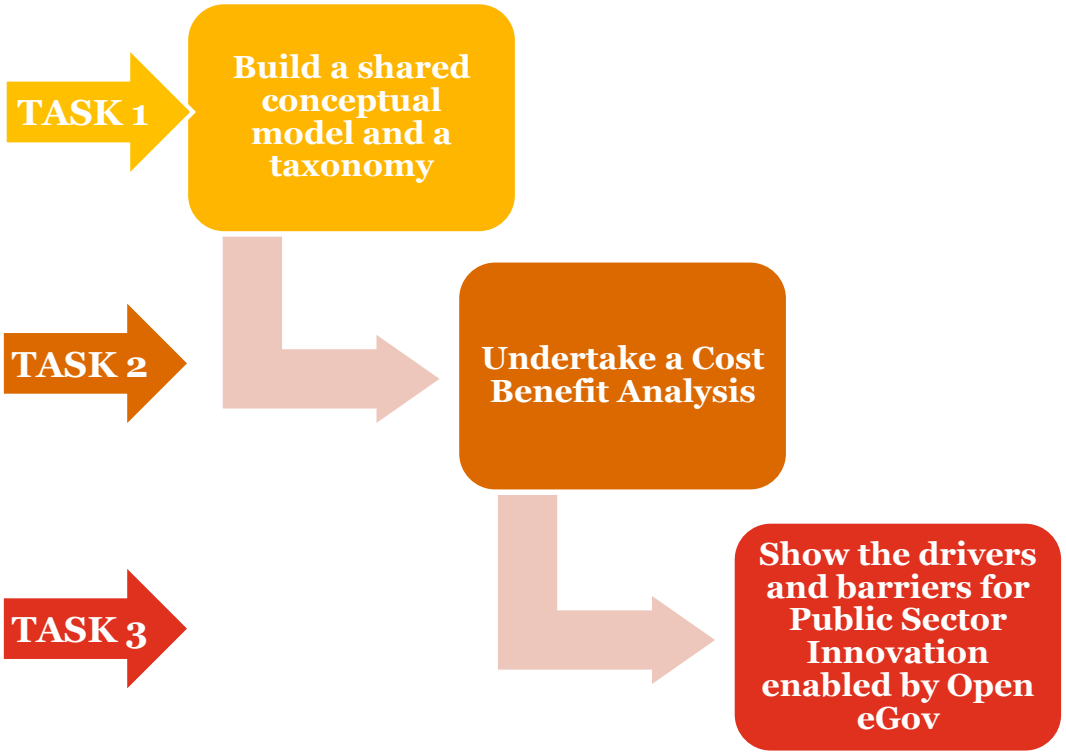
Second key objective: to analyse how can the public sector can become an agent of innovation.

The study project is organised in **three Tasks,** each interrelated:

WHAT do we mean exactly by "new eGov services", by "open and collaborative eGovernment"?

WHY are "Open eGovernment Services" important?

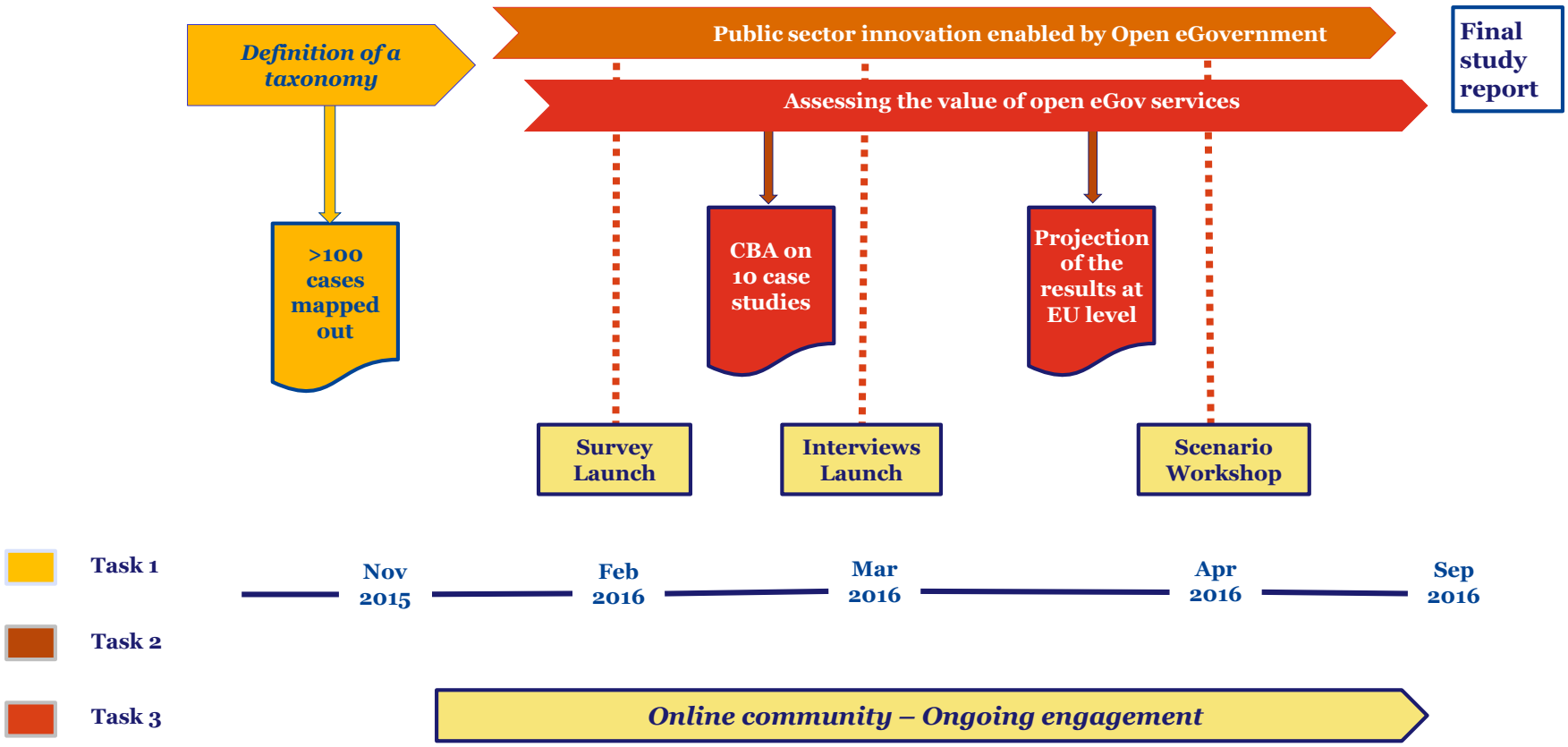
HOW can "Open eGovernement Services" be fostered by the public sector, in terms of innovation culture and enabling factors



The study team

	Pricewaterhouse Coopers (PwC)	*One of the world's leading advisers for the public sector, with a strong focus on technology and innovation, eGovernment and cost-benefit analysis across all industry sectors* • *Extensive European reach* • *Measurement approaches* • *eGov specific expertise*
	Open Evidence (OE)	*A central player in the design of the European open government environment, carrying out transversal research and providing advise in a number of key domains* • *Research Infrastructure for eGov & Open engagement* • *Expertise in impact evaluation and modelling*
	Institute of Baltic Studies (IBS)	*An independent research and consultancy firm supporting the formulation, monitoring and evaluation of innovative public policies and decisions* • *Innovation policy definition* • *Social cohesion evaluation* • *Impact assessment approaches*
External expert	***Paul Waller***	*eGovernment and social innovation expert Visiting Fellow, Brunel Business School at Brunel University* *Previous: Cabinet Office, City of London*

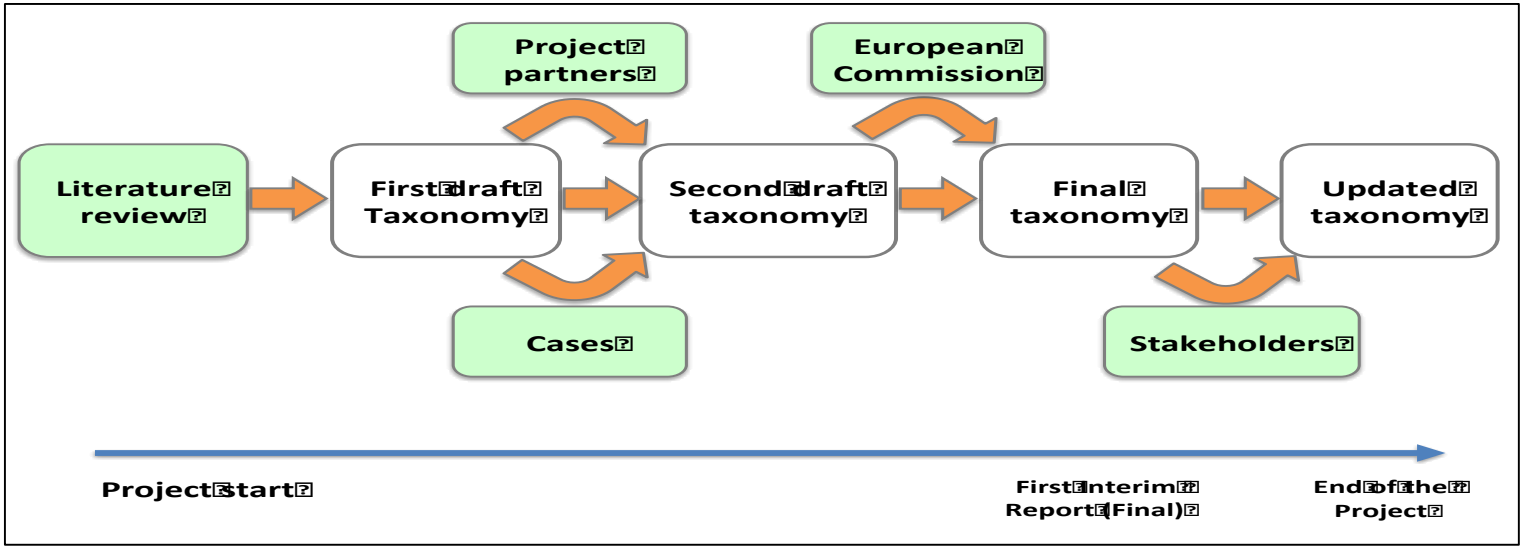
Timeline of the project & Stakeholder Engagement



Task 1: Taxonomy definition: what are Open eGovernment Services?

The three main activities which have been carried out through Task 1 were:

- A **systematic literature review** taking into account the most up to date available evidence and definitions. We also identified potential costs and benefits from existing literature, as well as the different typologies of public sector innovation
- A **dynamic online engagement** to inform communities about our study and involve them in the different phases of the project
- A **thorough mapping of relevant cases** of new eGovernment services that enables the creation of a taxonomy and prepares the Cost-Benefit Analysis



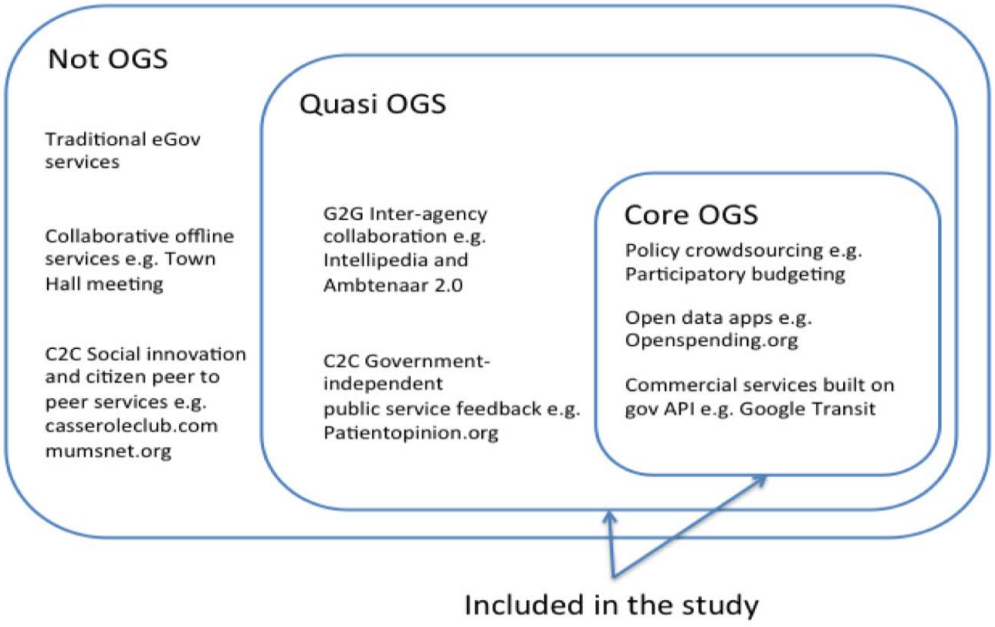
Task 1: Definition of "Open eGovernment Services": What Is in and What Is Out (1)

Characteristics of OGS

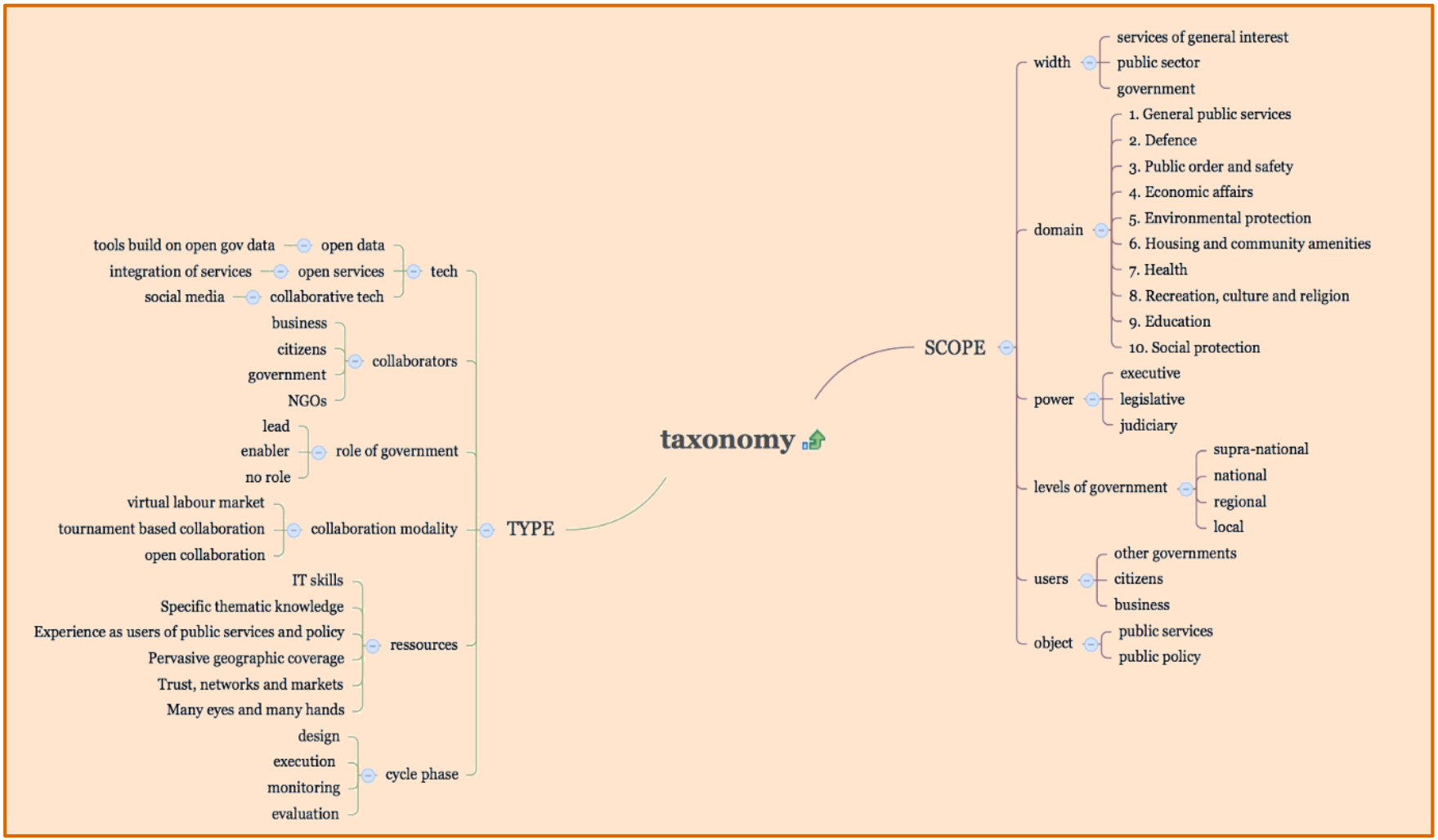
Openness:	• OGS include an evident effort to **publish elements and components of the service** (data, service components, decision support), in comparison with traditional eGovernment. Increased openness aims to ensure accountability and enable collaboration • Publication of open data that were not available before; or to the production of reusable software objects that can be re-composed as in the concept of Service-Oriented Architecture.
Collaboration:	• OGS posit that government should not only aim at fulfilling societal and economic needs by direct service provision, but should **enable and deliberately pursue the collaboration of third parties** in order to deliver added value services: citizen, companies, research centres, NGOs etc. • Services fully designed and provided by private players without the awareness of government but that help solving issues related to public services, such as in the case of Fixmystreet.com.
Technology:	• OGS are fundamentally **reliant on digital technology to deliver services**. • Digital technology is used to provide disruptive innovation in the way services are delivered and is by definition collaborative, through open data, open web tools or collaborative platforms.

Task 1: Definition of "Open eGovernment Services": What Is in and What Is Out (2)

OGS is a deliberate, declared and purposeful effort to increase openness and collaboration through technology in order to deliver increased public value



Task 1: Taxonomy of the new generation of Government services based on the open government aspects



Task 1. Taxonomy of Scopes

Level 1 **Level 2**

Width	Services of general interest (safety net), Public sector (various government services), Government
Domain	General public services, Defence, Public order and safety, Economic affairs, Environmental protection, Housing and community amenities, Health, Recreation, Education, Social protection
Branch	Executive, Legislative, Judiciary
Level	Supra-national, National, Regional, Local
Users	Other governments, Citizens, Businesses
Objects	Public services: activities that are publicly funded and arise from public policy and that are for the collective benefit of the public
	Public policy: guide to action taken by the administrative executive branches of the state with regard to a class of issues in a manner consistent with law and institutional customs

Task 1. Taxonomy of Types (1)

Level 1 Level 2

Collaboration	**Virtual labour market**: reward for each participant for the work carried out through platforms (Amazon Turk)
	Tournament based collaboration: this refers to competition where the monetary reward goes only to the winner. Inducement prizes and hackatons are organised in this way, and platforms such as challenge.gov
	Open collaboration: OGS leverage the voluntary and collaborative effort of citizens to contribute to the public good through any of the resources listed above.
Role	**Lead**: government can launch OGS. The UK NHS give possibility for users of health services to provide feedback
	Enabler: any service built thanks to the increased openness and collaboration, based on the initiative of citizens business or NGOs. Typically all the apps built on top of open government data fit into this case
	No role: OGS can be built by third parties without the authorisation nor awareness of government: services that for instance scrape government data and build services on top of it (e.g. Fixmystreet and Farmsubsidy)
Technology	Initiatives based on **open government data**, released typically in bulk formats through open data portals. An example is http://wheredoesmymoneygo.org/, which visualizes data based on open government data.
	Composable services: initiatives reusing software components: different object composing the service are separated in terms of responsibility from a business oriented point of view and they interact through API
	Other technologies can also be used to support different forms of human collaboration, such as **collaborative tools and social media**. E.g. Commentneelie.eu allowed anyone to comment on speeches by former EC VP
Collaborator	**Citizens**: individuals and NGOs can have an active role by providing data or launching online tools (e.g. Fixmystreet.com is a platform launched by an NGO and which enables citizens to provide data)
	Business: involved in the design phase (e.g. NemHandel) or build services on top of government data (Google Transit)
	Other government agencies and civil servants: services can be collaboratively built by public service and individual civil servants. For instance, http://ambtenaar20.ning.com/ is a social network for civil servant

Task 1. Taxonomy of Types (2)

Level 1 Level 2

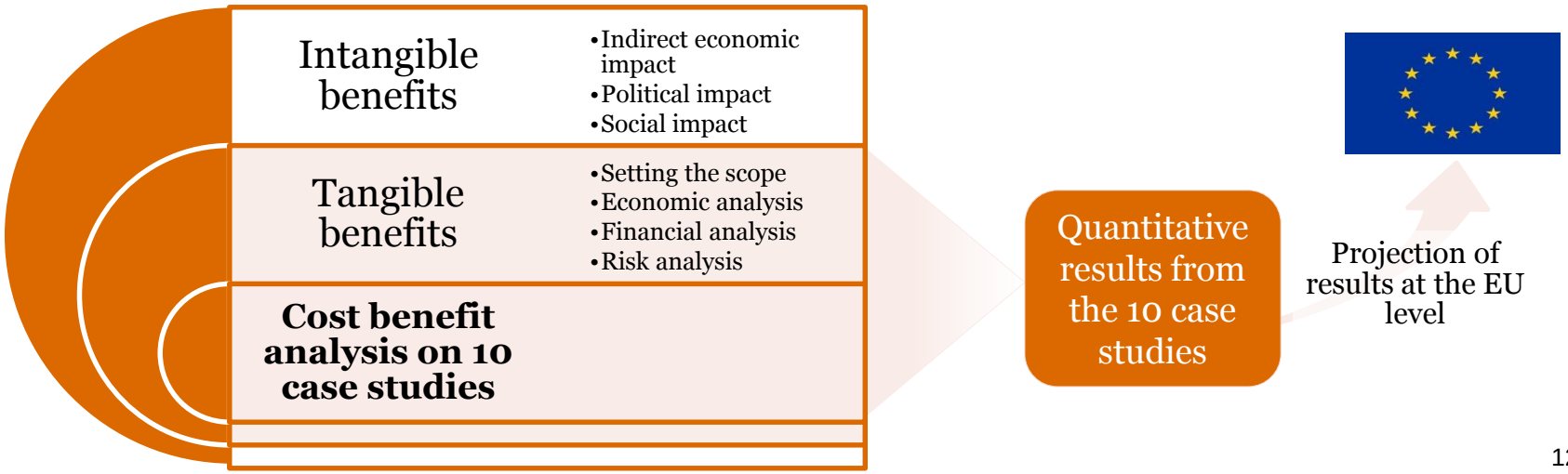
Resources	**IT skills**: developers are more skilled than governments at creating applications. Opencorporates.com is a more sophisticated service that government have implemented on managing company information
	Specific thematic knowledge: Wikipedia teaches us that everyone has something (s)he's expert on. Peertopatent exploits the technological knowledge on things such as parallel simulation
	Experience as users of public services: it is costly and difficult for government to understand the perspective of users of public services. Open feedback channels such as PatientOpinion help with it
	Pervasive geographic coverage: citizens have a more pervasive coverage of the territory than government, such as in the case of crisis where citizens on the ground can share valuable information (Ushahidi.org)
	Trust and networks: when it comes to daily lifestyle choices, citizens make choices trusting friends and experts more than civil servants (e.g. live a healthier life as in ActiveMobs)
	Many eyes and many hands: citizens are numerous and it is therefore more effective to let them monitor the quality of the data or to help doing large collaborative works such as in the case of DigitalKoot
Cycle Phase	**Design**: third parties are involved in the collaborative definition of the service and policy. For instance, companies have been involved in the design of NemHandel, or mid-term review of the DAE in 2012
	Implementation: third parties help delivering the service or policy by providing data or work con as in the case of DigitalKoot where citizens helped to digitize ancient journals of National Library of Finland
	Monitoring: third parties can be involved by providing public open review of public spending (e.g. Monithon)
	Evaluation: citizens can be involved in the open evaluation of public services, for instance by providing feedback on hospitals (as in Patient Opinion).

Task 2: Assessing the Value of Open eGovernment Services

Many studies have assessed the potential value of eGovernment; in contrast **research in Open eGovernment Services has been lagging behind**.

Step-by-Step Cost-Benefit Analysis

- **Definition of a Cost-benefit framework** and of the **baseline** to ensure the accuracy and methodological solidity of the CBA.
- Drawing from the long list of cases **identification of the 10 case studies**.
- Cost-Benefit Analysis of the 10 case studies. **Collection of evidence using both classic and innovative tools** (sentiment analysis, log analysis…). The main results will be **project trough extrapolation at the EU level.**



Task 2: Identifying Case Studies for our Cost-Benefit Analysis

We have shortlisted case studies for our CBA from the original long list of over 180 examples.

What cases are we looking for?

Timeline and data availability:

- ✓ Project with minimum 1 year activity
- ✓ Availability of quantitative data
- ✗ Project ended after pilot phase

Concrete initiative using:

- ✓ Open services technology
- ✓ Open data technology
- ✗ Open data portals themselves

Main features of the initiatives

- ✓ Open, inclusive & collaborative
- ✗ Classic eGoverment services
- ✗ Government strategies for open data and services

Role of the Government

- ✓ Asset provider
- ✓ Enabler/collaborator
- ✓ Responsive role
- ✗ Passive role

Collaborators

- ✓ Citizens
- ✓ Business/NGO
- ✓ Governments

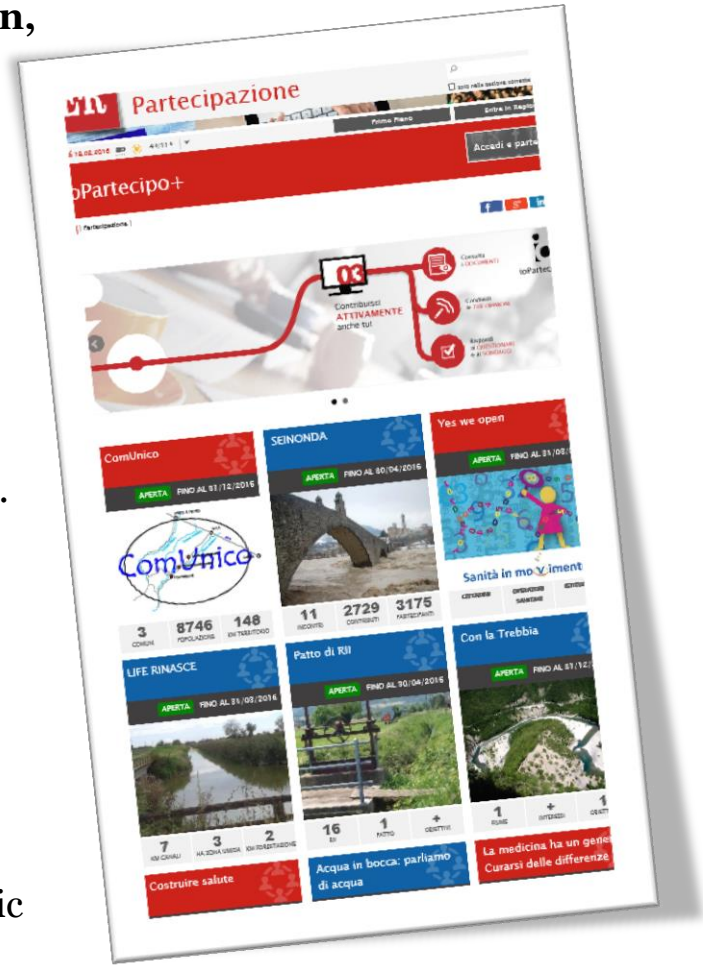
Task 2: Identifying Case Studies for our Cost-Benefit Analysis

Short-listed cases for the Cost-Benefit Analysis which are already collaborating

Name of the initiative	Brief description	Location	Scope	Domain	Technology	Collaborators	Type of Collaboration	Resources
IoPartecipo+	Service allowing participation in public projects and public decision making. Users become active "service producers"	Italy	Executive	General public services	Open decision	Citizens	Co-production/co-design	IT skills
FixMYStreet	Service allowing citizens to report problems related to street maintenance, potholes, lighting. Reports are then sent to the relevant authority to get the problem fixed. The citizen can monitor whether the issue as been addressed.	UK	Executive	General public services	Open services	Citizens/ government	Co-production	Pervasive geographic coverage
Social eSecurity	The social eSecurity system uses application building blocks that are usable in many different information systems requiring their functionalities, actively stimulate collaboration within the government.	Slovenia	Executive	Social Protection	Open services	Goverment	Co-production	IT skills
Kublai	Kublai develops in a collaborative way projects that have a social impact and an impact on the territory. Kublai do not offer tenders but creates collaborative relationship with project leaders.	Italy	Executive	General public services	Open Data	Citizens	Co-production	IT skills
Tartu Participative Budgeting	Tartu is the first city in Estonia that opens up its budget designing process for citizens and experiments Participatory Budgeting. Citizens of Tartu can decide how their city should about 1% of yearly investment budget.	Estonia	Legislative	Economic affairs	Open decision	Citizens	Co-design	Specific thematic knowledge
Delib	Delib is a platform that allows citizens to participate at different level of the decision making process (especially but not limited to consultations)	UK	Executive	General public services	Open decision	Citizens/ business	Co-production	Many eyes many hands
Patient Opinion	An independent site that enables user of health services to provide feedbacks on their experience. The citizen can check whether its comments have been taken into consideration by the relevant health organisation.	UK	Executive	Health	Open Services	Citizens/ government	Co-production	Experience as user of public service and policy

IoPartecipo+ (1/2)

IoPartecipo+ connects citizens and Public Administration enabling an active participation to regional policy-making. It has been implemented by the Emilia-Romagna Region, Italy.



Who?

Several actors are involved, such as citizens, private companies, NGOs and local governments.

How?

Different levels of participation are proposed, such as consultations, co-projecting, co-designing and process-empowerment.

What?

Diverse policy-making phases are considered: policy analysis, design, projecting, implementation and evaluation.

Where?

Participation processes are allowed through "**virtual squares**", public spaces where projects are presented and where citizens can share information, discuss ideas and propose solutions.

IoPartecipo+: Identified Costs and Benefits (2/2)

COSTS	Sub-categories	Examples of Costs
Set-up costs	System planning and development	Hardware server system and software/application customised software
	Co-design	**Experts partecipation**
	System acquisition and implementation	Partners research and engagement costs
	Transition costs	Reorganisation/ change management/ education or organisational redesign
	Functionning check	Compliance with technical provisions
Operational costs	Costs for running the system	Network infrastructure costs
	Costs for monitoring and evaluating the system	Performance management of the e-services
	Dissemination costs	Costs for analysing e-participation inputs
Maintenance costs	System maintenance costs	Hardware and software maintenance/ Software support license fees
Use costs	**Timing costs**	Time spent for getting informed and use the service **Time spent to participate to the codesign exercise**
	Other costs	Telecommunications and web access charges
BENEFITS	**Sub-categories**	**Examples of Benefits**
Operational	**Time Saving**	**Time saving of public servants supporting regional political structures**
Strategic	Future cost avoidance	Lower costs for future projects through shared infrastructure and valuable knowledge
	Increase users'value	Enhanced customer service
Organisational	Information benefits	Capacity for greater information sharing across government
	Co-production and collaboration	Improved access to citizens' know-how and knowledge
IT infrastructure	**Scalability of the system**	**Reduced cost for further expansion within other regional public entities and within the service itself**
Socio-political	Enhancement to policy process	New ideas for policy making
	Enhancement to democracy	Increase in civic participation

Task 2: Methodology for the Cost-Benefit approach

Data analysis and extrapolation

1 Projections of the analysis of the value will be done **for each type of analysed case**

What are the benefits of implementing at the EU 28:

- Open government services allowing a citizen to report and provide feedback to the public authority (such as Fixmystreet)
- Services allowing participation in public decision making by providing legislative suggestions or voting on some legislative proposals (such as Delib)
- ……

2 Identification of the hypothesis and variables to rescale the CBA results

Variables used in the admin burden study: the population as a proxy for the size of countries

- the level of progress in the adoption of technologies;
- average cost per hour of a Public Official

Other indexes we could take into consideration:

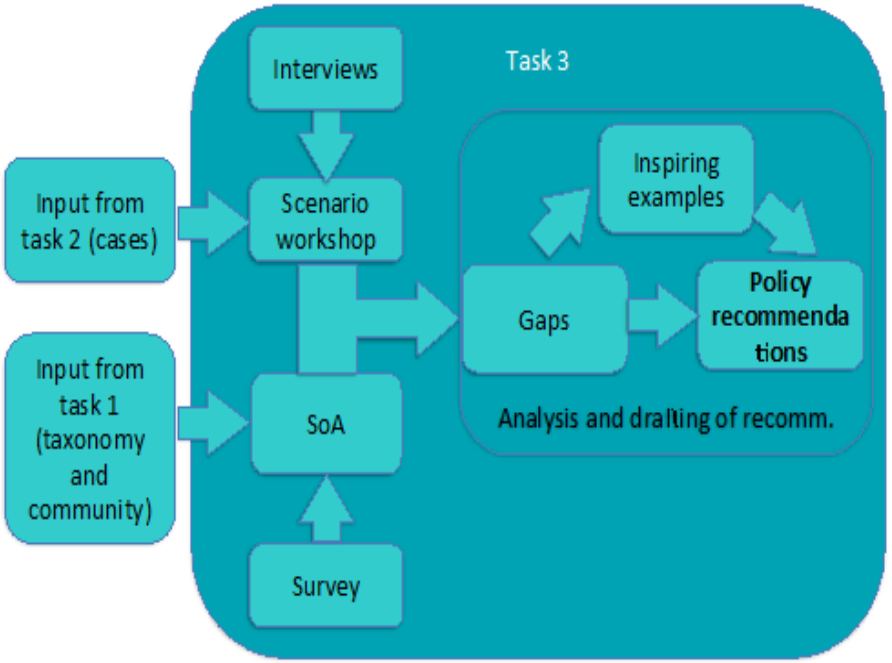
- UN eParticipation Index (eInformation, E-consultation, E-decision-making: Empowering citizens through co-design of policy option and co-production of service components and delivery modalities
- Extent of open government initiatitive (World Wide Web Foundation)

Task 3: How Can the Public Sector Innovate to Deliver OGS?

Task 3 refers to public sector innovation in the open government context, where we aim to untangle the different aspects of "**HOW to deliver the next generation of public services**", by addressing these interrelated questions:

- How does public sector innovation enable open government, through methods such as innovation labs, hackathons, co-creation methodologies?

- How ICT can help public sector innovation, in terms of increasing its impact and removing the bottlenecks to wider use of OGS?



Ultimately, Task 3 aims at delivering a **clear understanding of public sector innovation in the open government context**, and a set of actionable recommendations on how the public sector can become an agent of innovation through ICT.

The Web-based Survey

Objectives and research questions

The survey focuses on understanding how stakeholders perceive the **barriers and drivers for the Public sector innovation in Open eGovernment Services.**

- What are actual awareness and usage levels of Open eGov Services?
- What is their potential?
- How does public sector innovation enable open government? Through which methods?

Structure & Target

The web-based survey is targeted to **5 main typologies of respondents**

1. *Individuals*
2. *Members of Public Administration*
3. *Researchers and policy analysts*
4. *Business representatives*
5. *NGO representatives*

Time frame

The survey was launched on the: **16 of February and will remain open up to mid-March**

Visit our Open Government Joinup page, click on Forum/Open discussions
you will find a link to participate to our newly launched web-based survey!

Interviews

Objectives

Uncovering additional insights on:

1. the **results of the web-survey** (e.g., on most important barriers and drivers to OGS).
2. **what are the most effective instruments used today for encouraging Open eGovernment Services innovation?** How **future Open eGovernment Service could be developed**
3. uncovering **other insights** on the future **Open eGovernment Service scenarios**

Targeted interview participants

- 20 members of public administrations and academics
- 20 business representatives
- 20 civil society representatives.

Criteria for identification of interview participants

- Geographic representativness
- Activity area of the candidate relevant for public sector innovation and opengov

Time frame

Interviews have started yesterday and will run until **the end of March**

Save the Date: The Scenario Workshop

Scope of the workshop

On the one hand the workshop will present and validate **the study results**, and on the other, it will organize **small group discussions on two scenarios of public sector innovation in the open government context**

Approach of the workshop

The selected scenario design approach is meant to be:

- **Evidence-based**,
- **Expertise-based**,
- **Interactive**

The scenarios will be prepared after evaluating the gaps stemming from the interviews and the SoA analysis. **Two opposite scenarios** will be designed & published **online before the workshop**

The workshop will take place on Thursday 28th of April at the European Commission - DG CONNECT - Avenue the Beaulieu 25, Brussels

You are more than welcome to join!
Stay tuned for more details

Thank you!

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