



eGovRTD2020: Roadmapping eGovernment research 2020

What new Programmes are needed?
Where do we need research?

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Agenda



■ Presentations

- eGovRTD2020 research roadmap details
 - ❖ Maria Wimmer, Uni Koblenz, DE
- eGovernment Research Roadmap of EPFL
 - ❖ Pierre Rossel, EPFL, CH
- Research Assessment and Proof of Concept
 - ❖ Ali Arifoglu, METU, TR

■ Moderated discussion

■ Wrap-Up





eGovRTD2020 research roadmap details

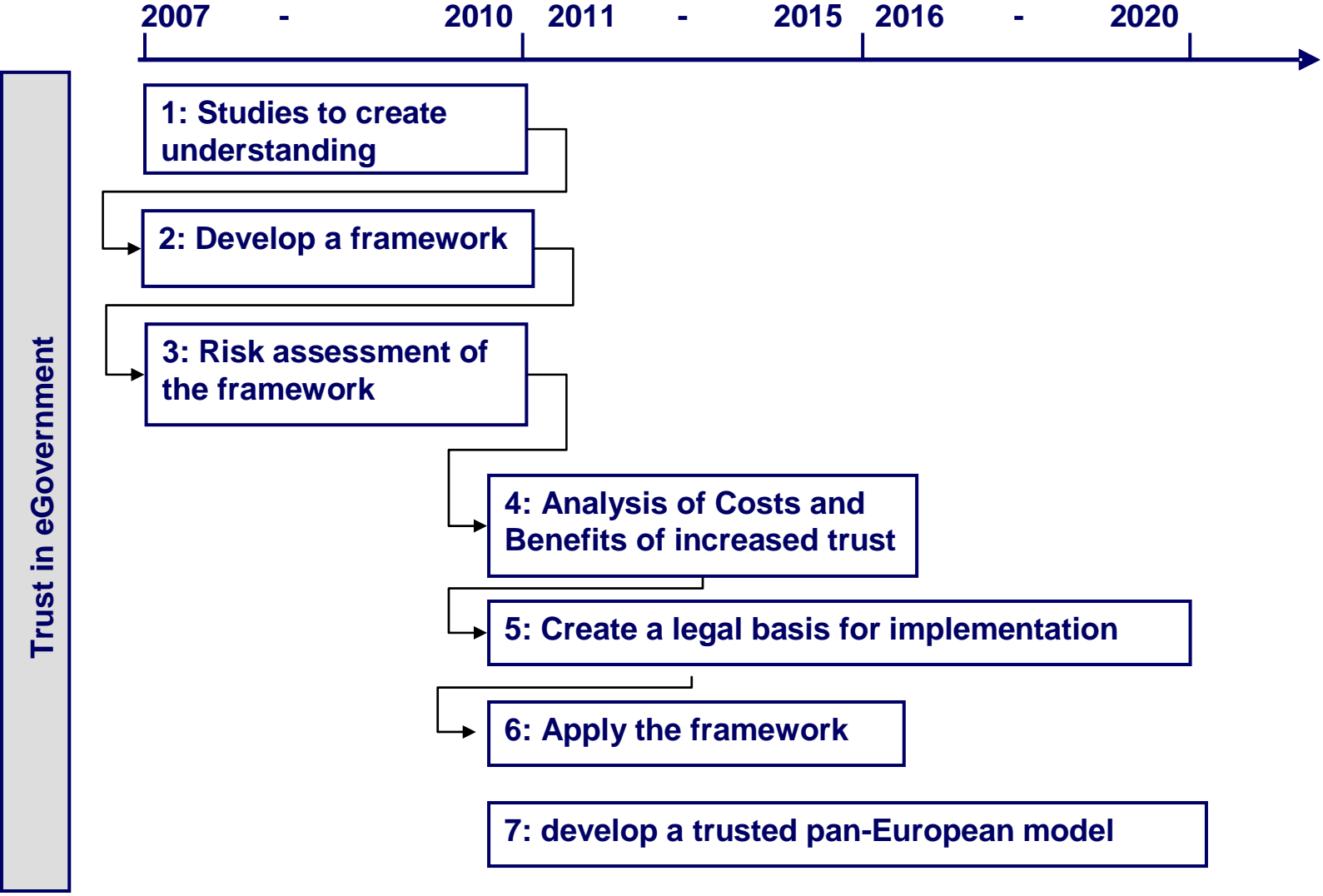
Trust in eGovernment



- **Abstract:** Trust is a fundamental element in all aspects of government, including eGovernment. However, the processes by which trust is built, destroyed, used, or abused are poorly understood and differ from one culture to another. What conditions are necessary and what mechanisms are needed to build and maintain trust in eGovernment processes and services?
- **Keywords:** trust requirements, civic culture, reliability



No	Description	Means	Actors	Timeframe
1	<p>Studies to investigate a proper understanding of trust in eGovernment, incl.:</p> <ul style="list-style-type: none"> • Understanding the differences among key trust relationships in C2G, B2G, G2G • Understanding different types of trust (trust in service delivery, IT, participation...) • How do trust impact to different kinds of eGovernment efforts? • How can trust be fostered for the right reasons? • To what degree do we need trust in order to offer sophisticated eServices? 	Action research, Analysis, Desk research	Research with key players from Government & some support of research	now -> 2010
2	<p>Develop a framework of mechanisms for trusted control relationship between government & citizens?</p> <ul style="list-style-type: none"> • Can ICT enable fair behaviour? • What kind of behaviour is acceptable? • How to prevent unfairness? 	Action research, Gap analysis	Governments, Research and Consulting	now -> 2010
3	<p>Risk assessment of new eGovernment framework - Defining potential threats (what is acceptable?)</p>	Action Research	Res, Consult, Gov & key players ICT industry	Now -> 2010
4	<p>Analysis of costs and benefits of increased trust in eGovernment:</p> <ul style="list-style-type: none"> • What are the costs of fostering trust in eGovernment? • What are the benefits of increased trust in eGovernment? • What investments are needed for implementing new trusted eGovernment framework? 	Desk res, Comparative Analysis, Impact anal., Action Res, Case studies	Res and Consulting with key players from Governments and ICT industry	2010 -> 2015
5	Creation of legal basis for new trusted eGovernment FW implementation?	Legislation	Governments, Consulting	2010 -> 2020
6	<p>Apply the framework of "fair behaviour"</p> <ul style="list-style-type: none"> • Reengineering (rationalization) of old procedures and rules • Pilot cases • Benchmarking at micro-level • Benchmarking across countries (macro-level) 	Pilot projects, Reengineering the conceptual design, Benchmarks	Governments, Consulting	2010 – 2015
7	Development of trusted eGovernment international model (Pan-European model)	Conceptual design	Gov, Res, Cons & key players from ICT i.	2010 -> 2020

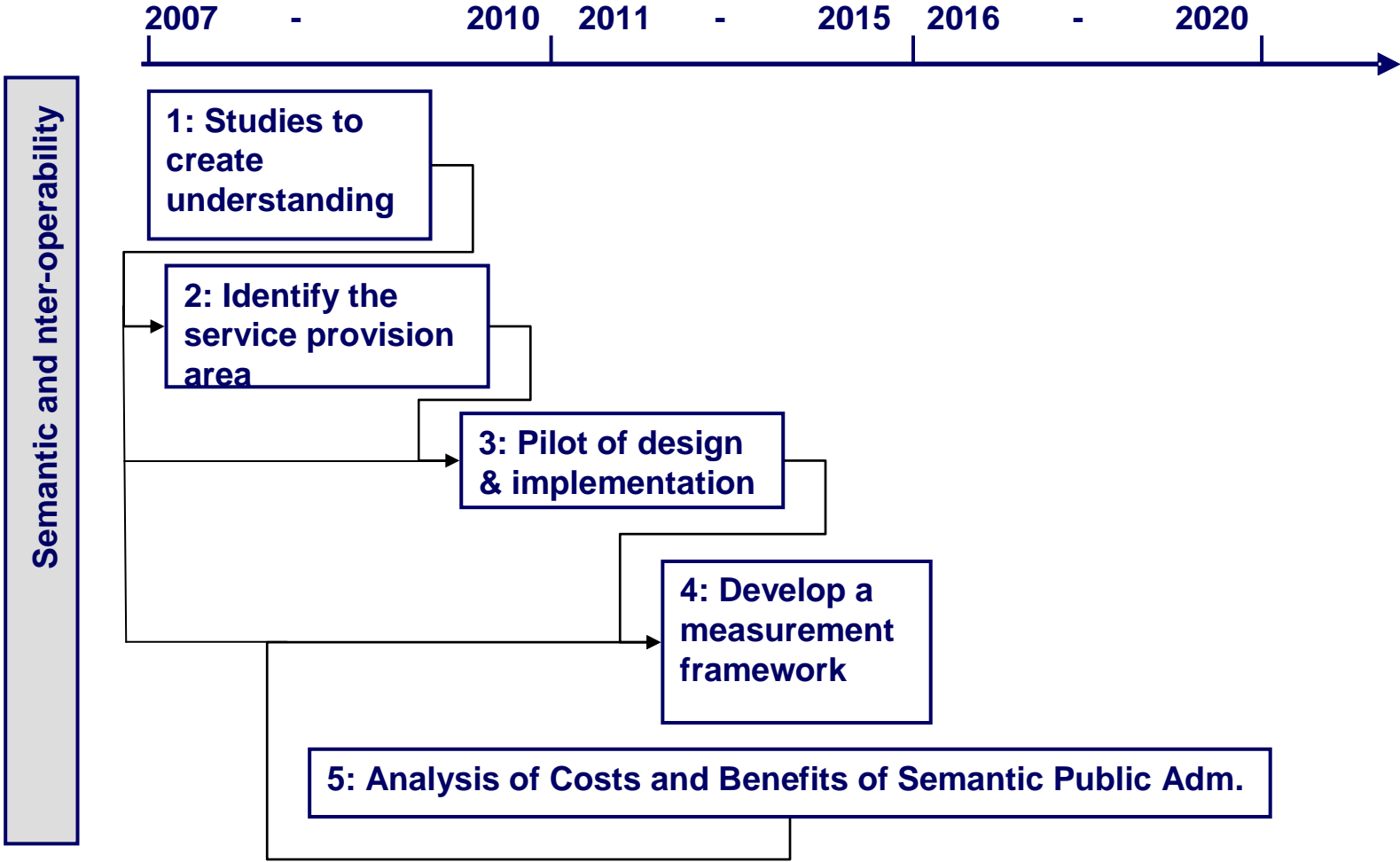


Semantic and cultural interoperability of public services



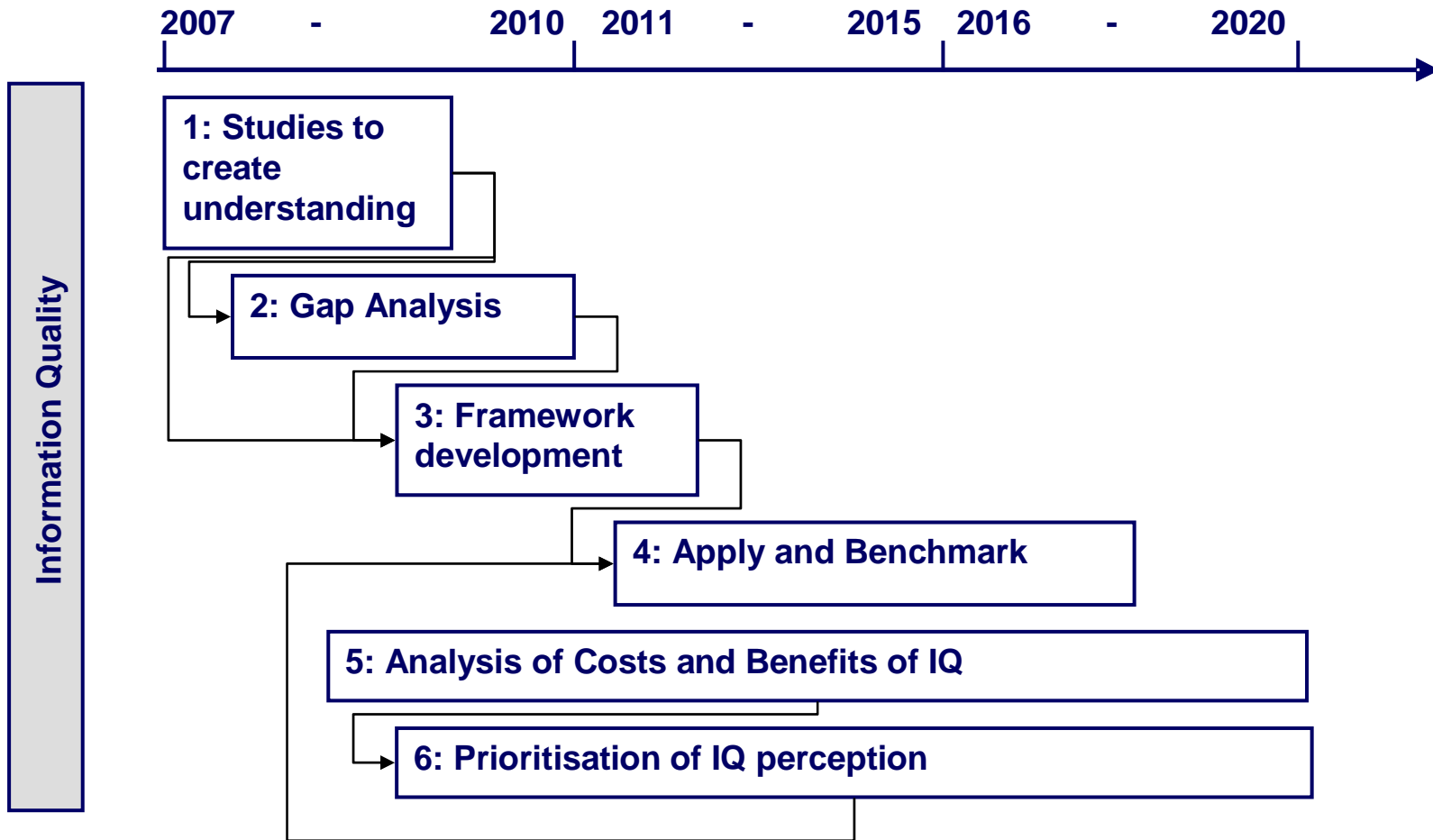
- **Abstract:** Globalization and population movements are making societies increasingly multicultural. In principle, increased Internet access and the potential of the web for communication and education should bridge cultural boundaries. Yet, cultural and language differences continue to block effective communication and action across different countries, groups, and governmental functions. How can semantics, ontologies, or other approaches address this cultural interoperability problem? How can consistent public services be provided across cultures and languages?
- **Keywords:** socio-cultural inclusion, pan-European services, cultural diversity, multilingualism





Information quality

- **Abstract:** Governments, the market, and individuals increasingly need well-defined, timely, accurate, reliable and appropriate information drawn from many sources. In the future, guaranteeing information quality will become both more important and more difficult as the number and variety information sources (including informal sources such as wikis and blogs) continues to grow. What mechanisms are needed to find, select, evaluate, and authenticate information that is appropriate for a given use?
- **Keywords:** information quality assurance, evaluation mechanisms, certification and trustworthiness of information sources

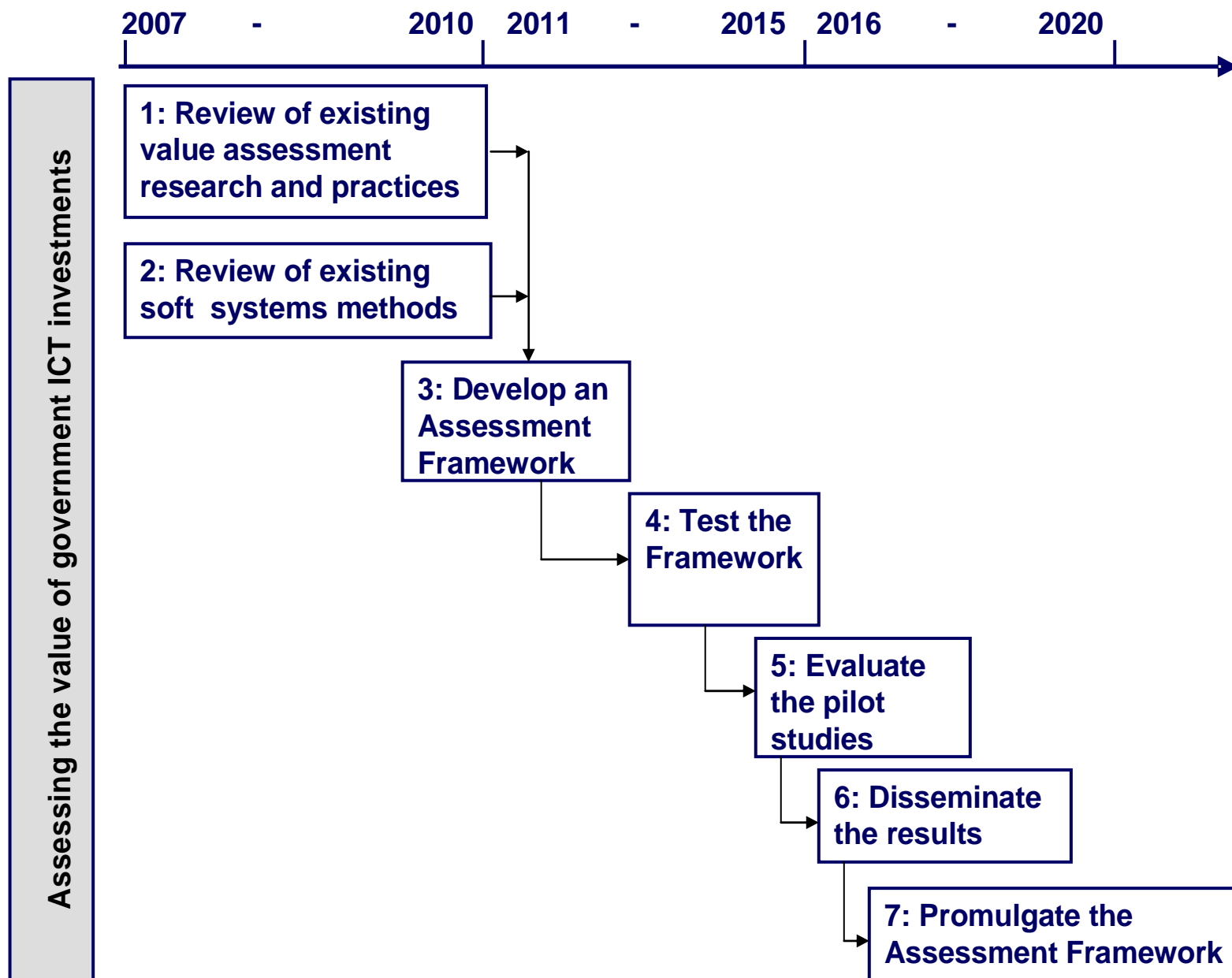


Assessing the value of government ICT investments



- **Abstract:** After years of substantial investments of public funds, the potential benefits of eGovernment can no longer be assumed, but must be demonstrated. What frameworks, methods, and metrics are needed to appropriately monitor, evaluate, and communicate the costs and benefits of these investments? What internal and external factors influence the value of eGovernment for different stakeholders?
- **Keywords:** ICT investment criteria, measurement frameworks, value of ICT in government





E-participation, citizen engagement and democratic processes

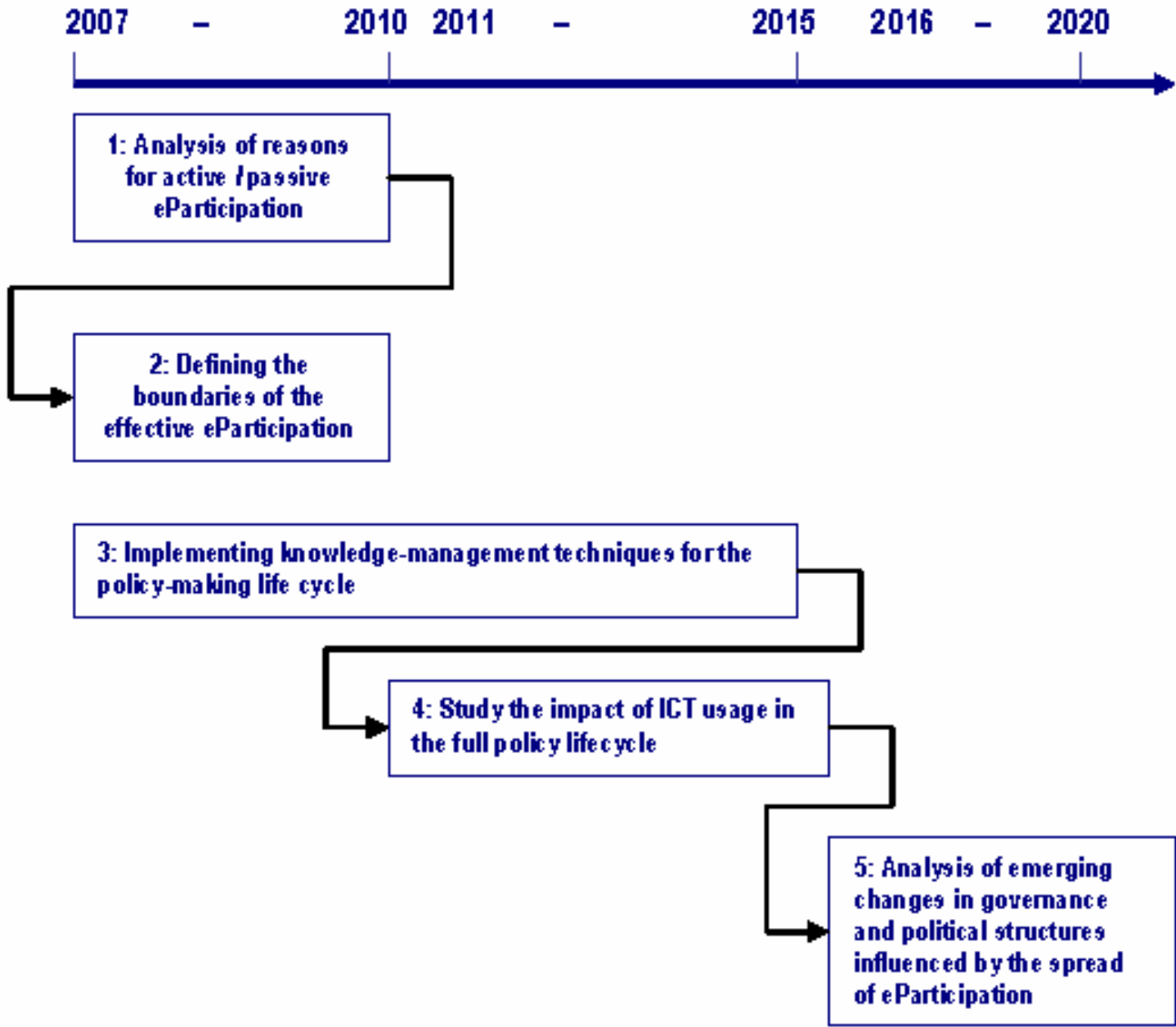


Contract no: IST-4-27139

- **Abstract:** In using ICT, elected officials and civil servants must remain open and accountable in their activities, behavior, and decision-making. At the same time, government must ensure that those individuals and groups who wish to participate in democratic processes have the opportunity and means to do so. What are the social and technical dimensions of participatory democracy? How can the health of democratic discourse be measured?
- **Keywords:** eParticipation, citizen engagement, participative policy processes



eParticipation, citizen engagement & enhancing democratic principles



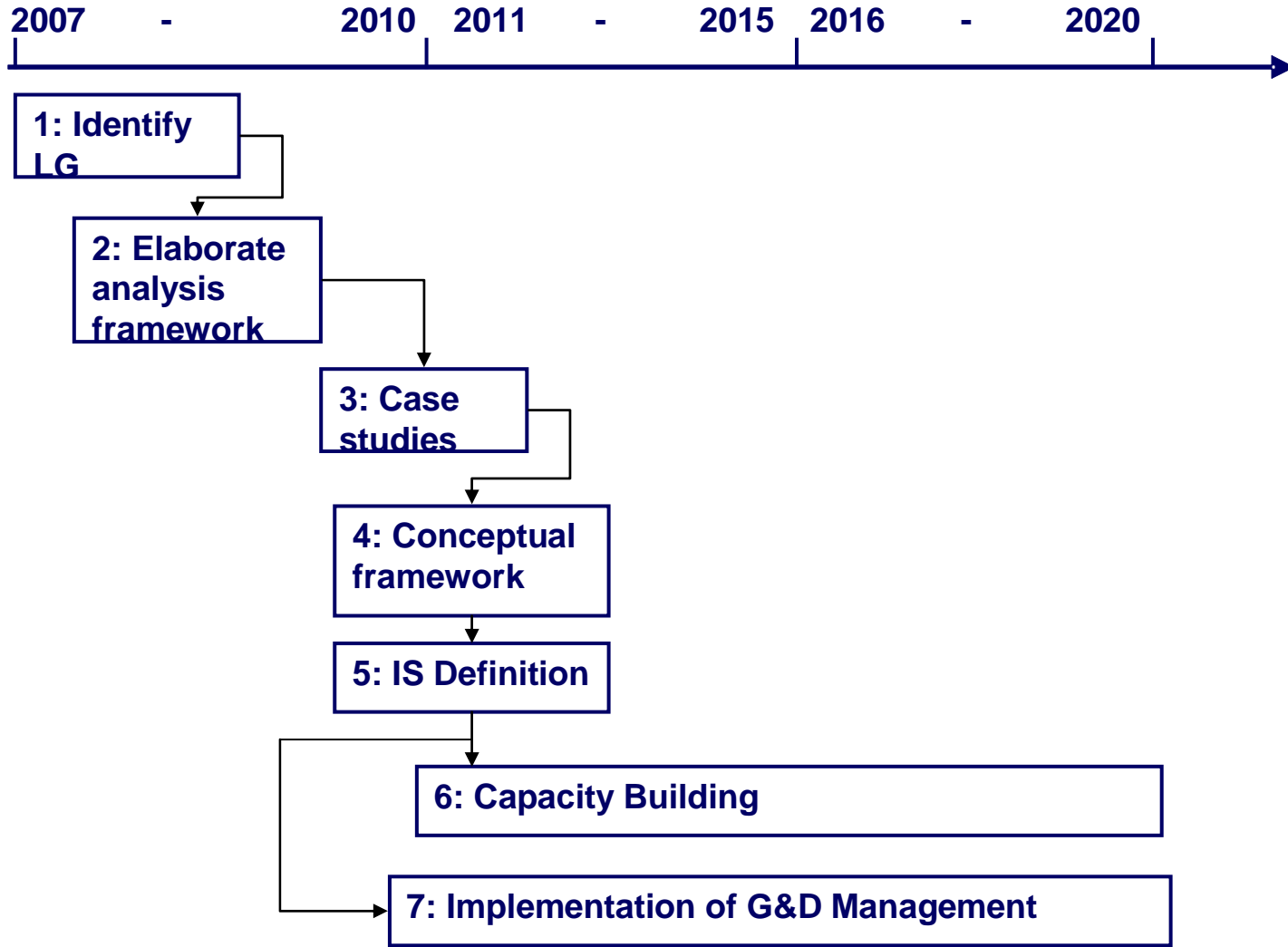
Mission-oriented goals and performance management



- Abstract: Many eGovernment projects do not start with the primary mission of government in mind. Instead, they are often dominated by a technology-driven approach. This is similar to the situation in which a budget is structured and evaluated by the nature of expenses rather than by the public service goals that expenditures support. In both cases management attention is diverted away from the core mission. How might a mission-centric view of eGovernment change priorities, investments, practices, and assessment of results?
- **Keywords:** performance management, mission-centric public services, balanced scorecard



Mission Oriented Goal and PM



Cyberinfrastructures for eGovernment

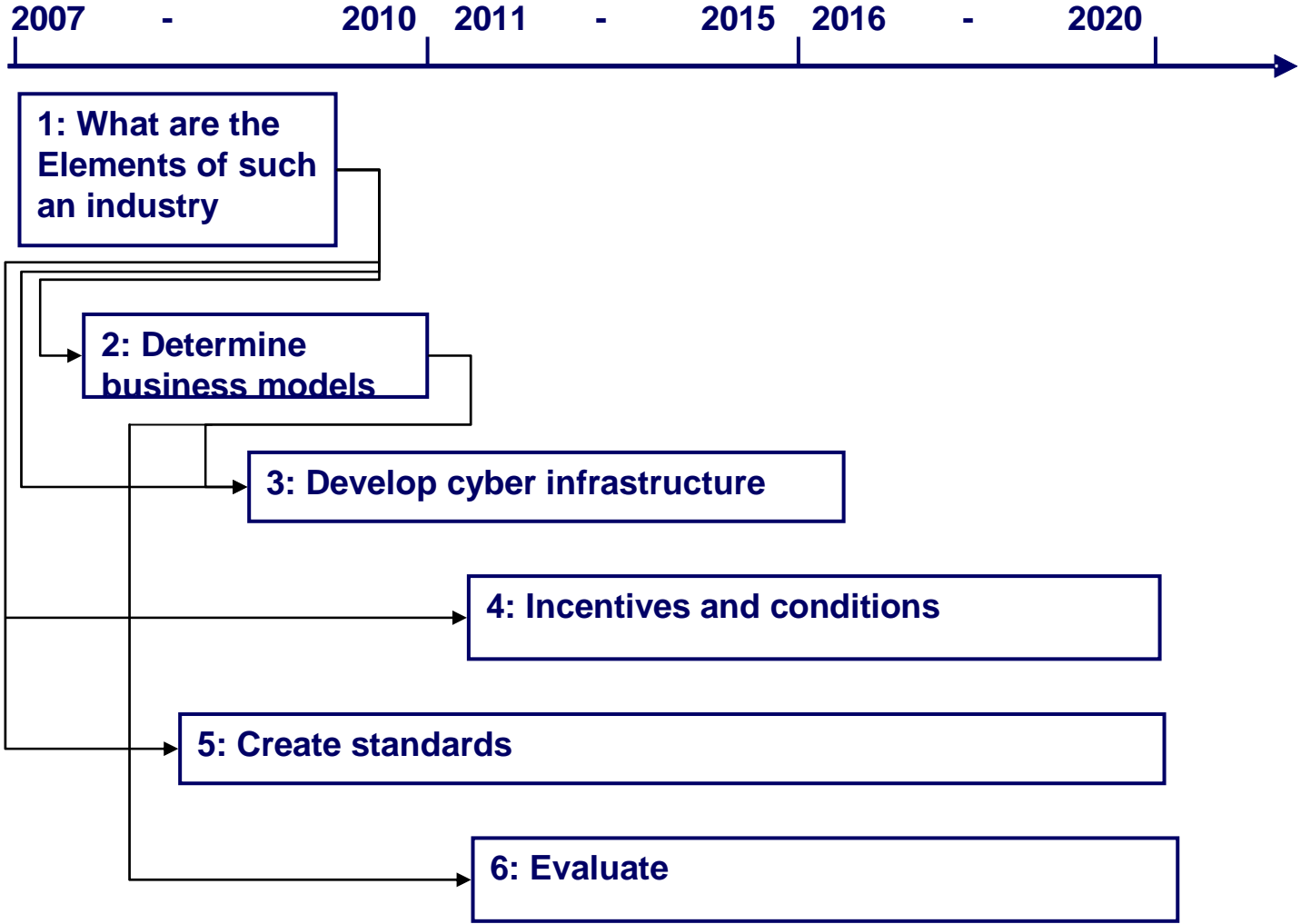


Contract no: IST-4-27139

- **Abstract:** Future eGovernment technology platforms could consist of a reliable, ubiquitous infrastructure that supports systems and applications assembled out of readily-available, re-usable components. However, realization of this possibility requires research in various domains including whether and how a building block-oriented ICT-industry could develop, and what types of architectures, building blocks, and standards are needed.
- **Keywords:** infrastructures, building blocks, architectures, standards



Cyber infrastructure and building blocks industry



Ontologies and intelligent information and knowledge management

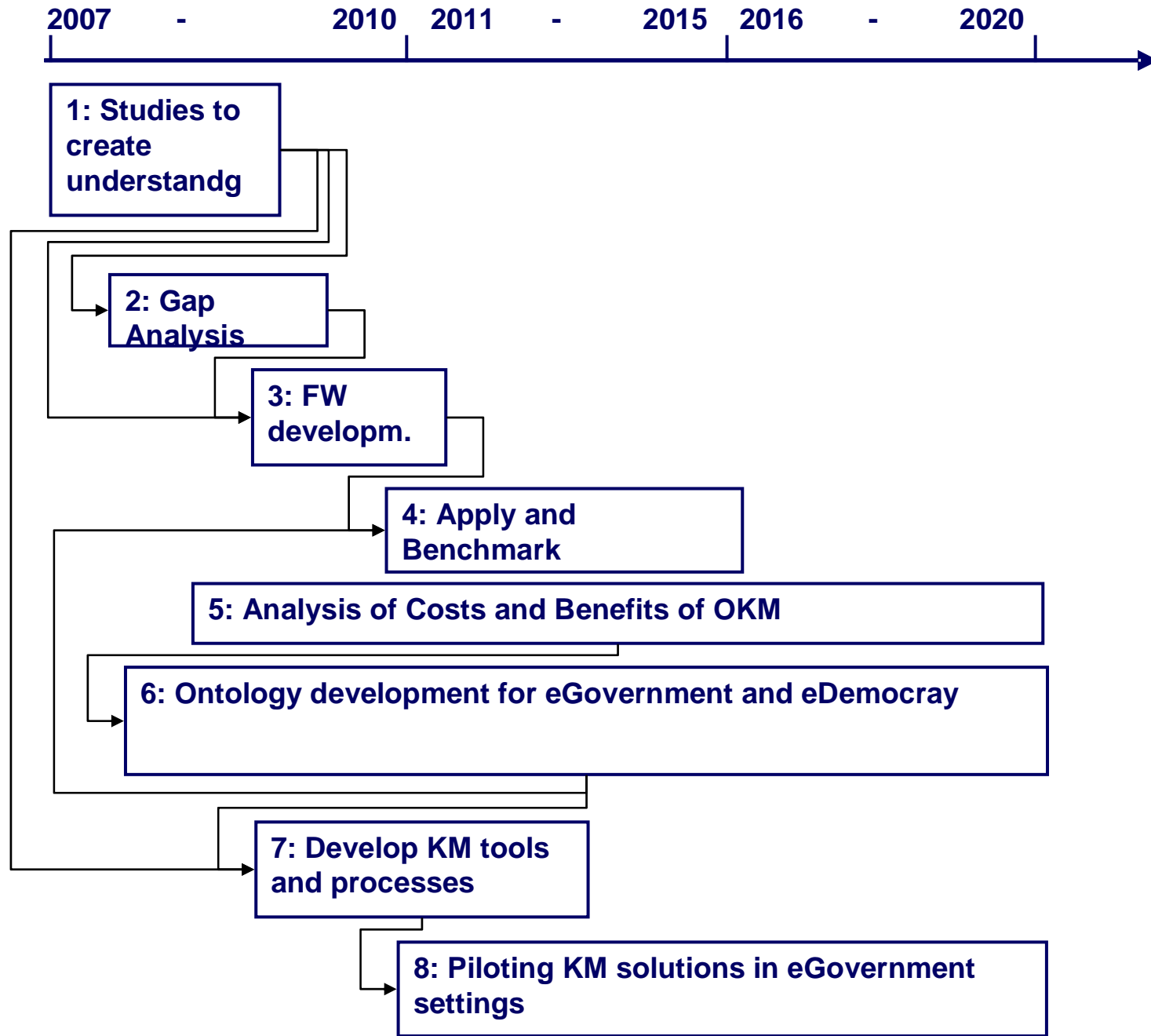


Contract no: IST-4-27139

- **Abstract:** Governments are currently struggling with huge information overloads, with new and emerging ICT capabilities, and with a shortage of information management skills and human expertise. How can ontologies and KM facilities (such as search, retrieval, visualisation, text mining, and intelligent reasoning) be exploited to achieve information quality and economy, and to support KM processes in eGovernment settings?
- **Keywords:** Information and knowledge management, intelligent reasoning, ontologies



Ontology development and Knowledge Management

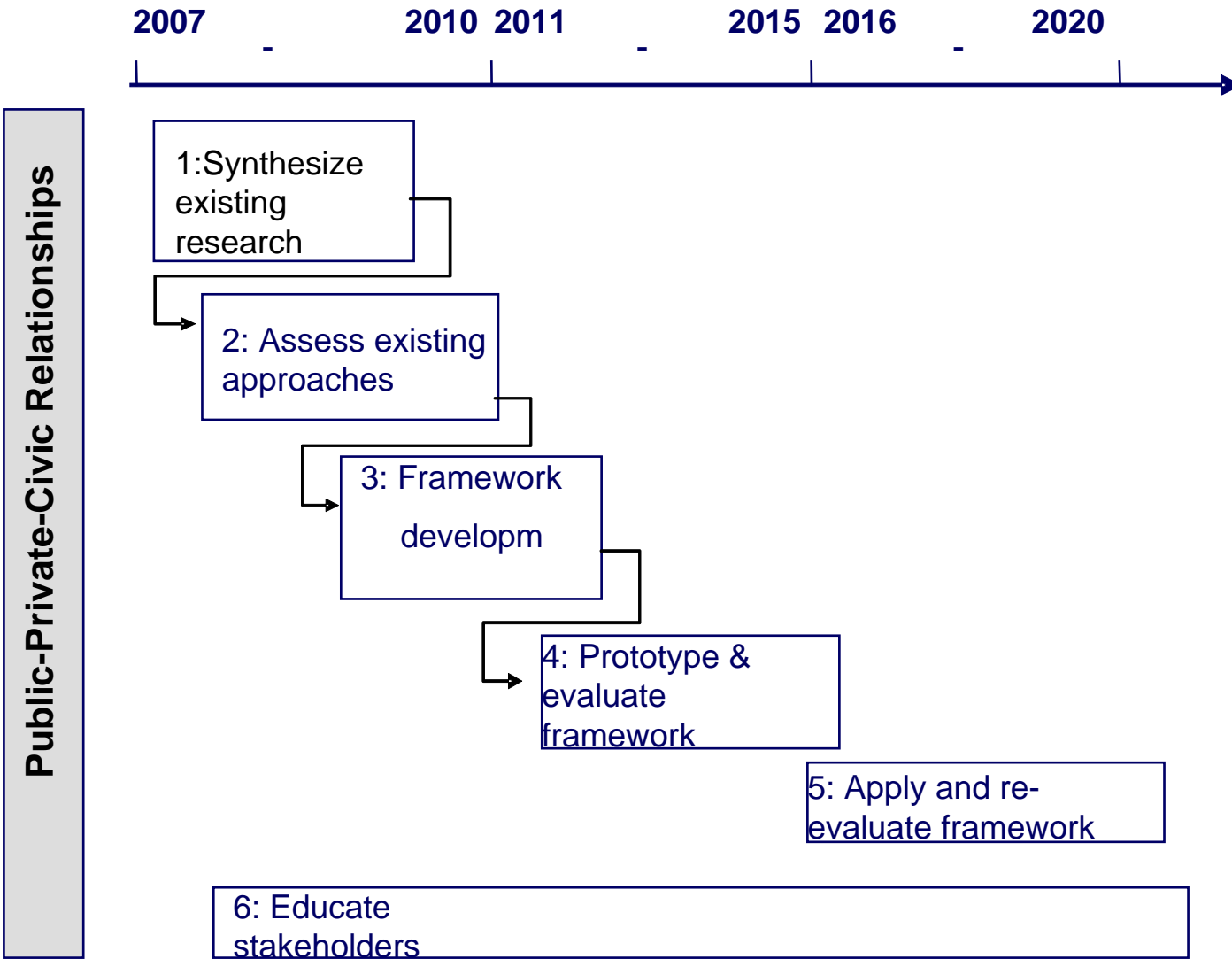


Governance of public-private-civic sector relationships



- **Abstract:** Increasingly, governmental functions and public services incorporate significant roles for private sector or civic organizations. These roles play out in a variety of relationships from advisory, to collaborative, to contractual, to full partnerships. What principles and frameworks are needed for sharing responsibilities and exchanging information among networks of diverse organizations in ways that generate public value and satisfy public requirements for fairness, accountability, and competence?
- **Keywords:** inter-sectoral relations, network governance, partnerships





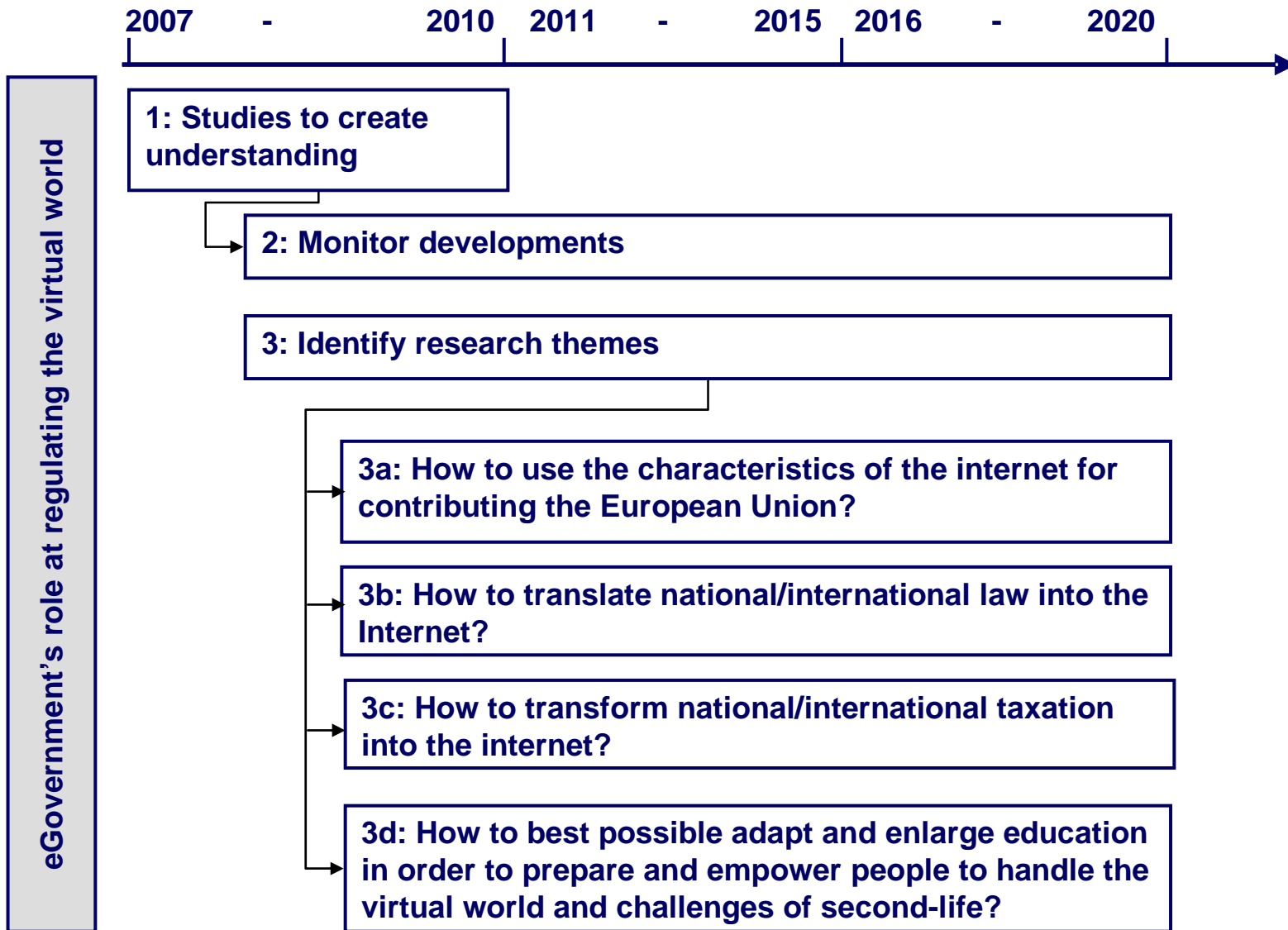
Government's role in the virtual world



Contract no: IST-4-27139

- **Abstract:** Global electronic markets, virtual organizations, virtual identities, virtual products and services, and Internet-related crime are growing in prominence and importance. In a world that is increasingly non-physical and borderless, what are government's roles, responsibilities and limitations?
- **Key words:** intellectual property, government in cyberspace, regulating the virtual world





Crossing borders and the need for governance capabilities

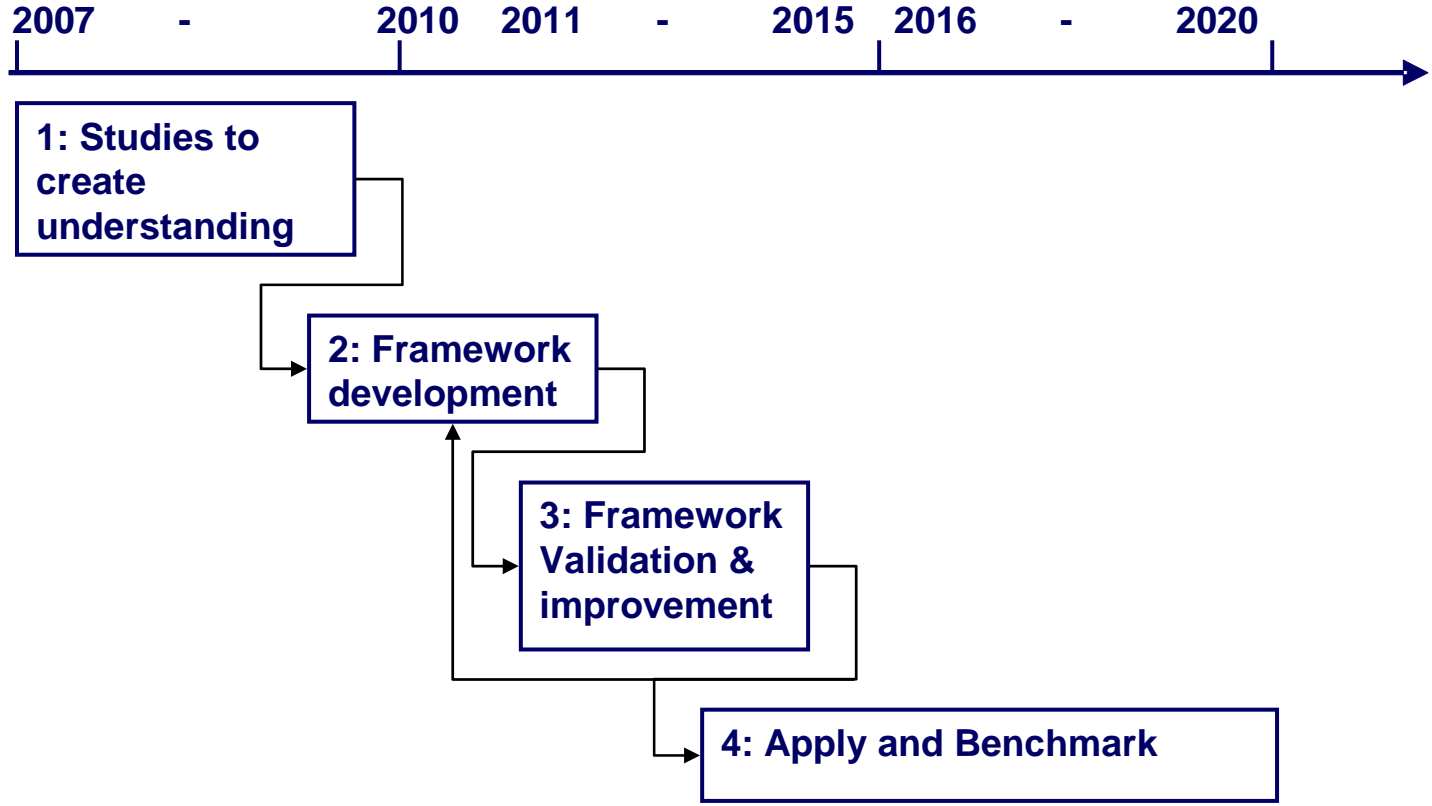


Contract no: IST-4-27139

- **Abstract:** The scope of problems and trends that governments need to cope with vary widely in size, intensity, and complexity. Social networks, gender issues, environmental concerns, political movements, etc. reach beyond local, regional or national borders. How can government support communication, action and services across traditional borders and what governance networks are needed in such diverse cultural / technical / political contexts?
- **Key words:** cross-border issues, networks, governance capabilities



Cross borders and governance capabilities



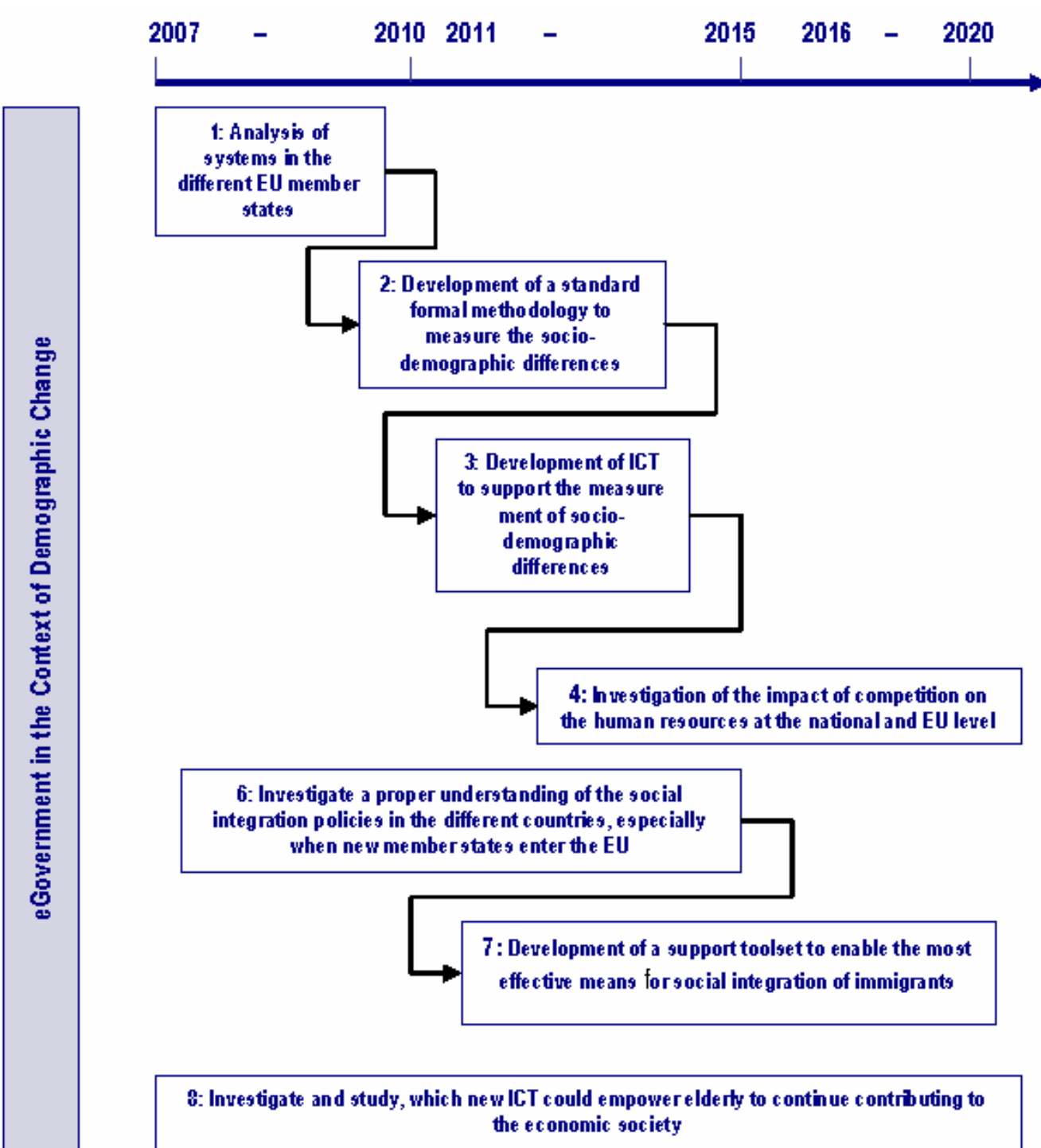
eGovernment in the context of socio-demographic change



Contract no: IST-4-27139

- **Abstract:** Demographic trends with global consequences (such as age distribution, wealth distribution, immigration, and mobility and distribution of workers) are generating pressing issues in both developed and developing countries. What opportunities and risks do these demographic movements imply for governments at the various administrative and political levels? What ICT and eGovernment services will be needed in such an environment?
- **Key words:** demographic change, ageing, geographic mobility





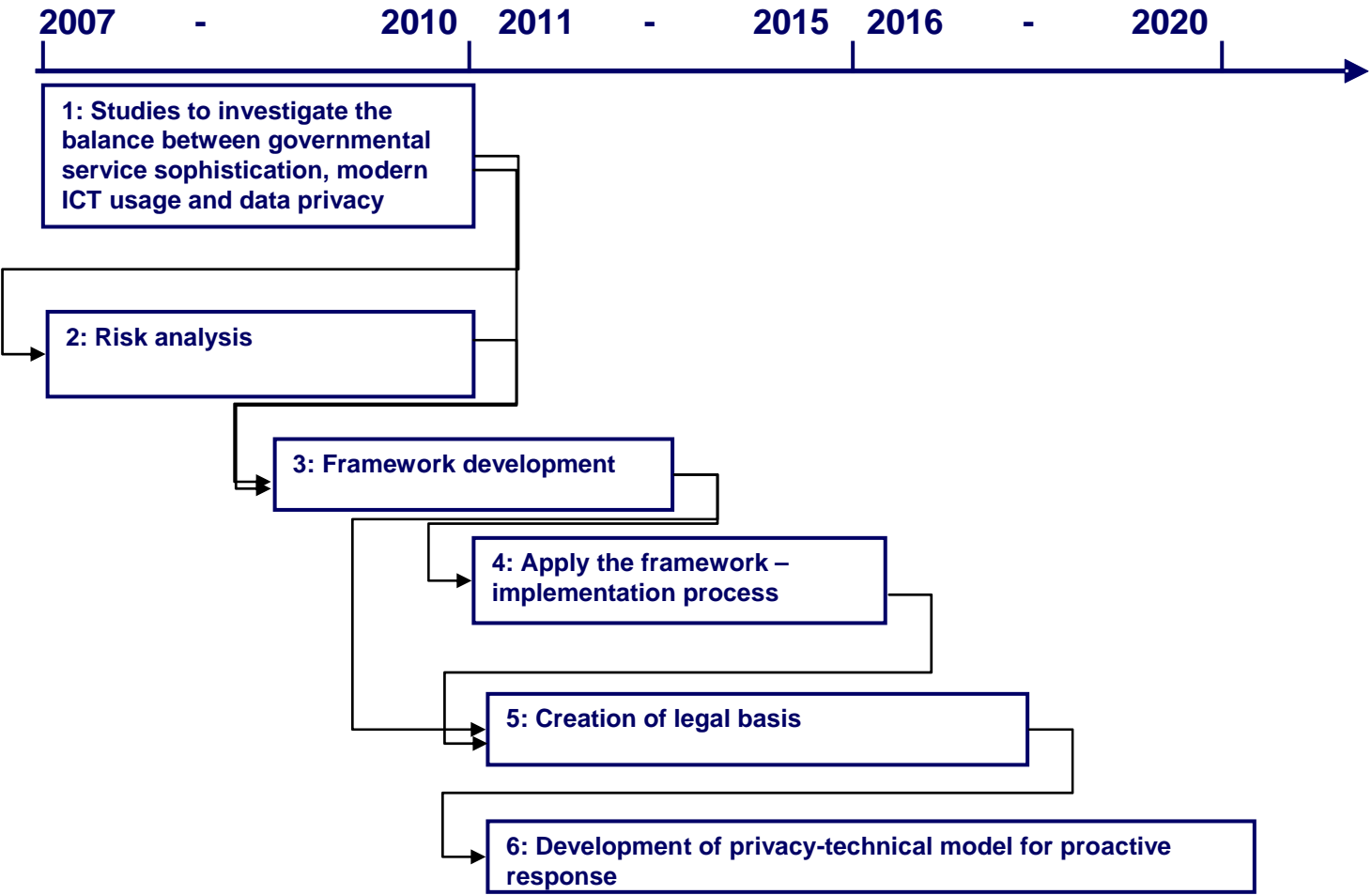
Data privacy and personal identity



- **Abstract:** Data privacy and personal identity have become important aspects in the Information Society. On the one hand, the potential of modern ICT could be exploited to take advantage of personal information to improve the performance and quality of government services. On the other hand, privacy and personal data need to be secured and protected in order to prevent misuse and fraud. What policies, protocols, and data management mechanisms are needed to balance individual privacy protection with effective and efficient use of that information by government?
- **Key words:** data privacy, identity management, efficiency of services



Data privacy in eGovernment service provision



Key activities suggested in the roadmap (1/2)



- Studies to better understand the issues and their interrelations
- Analyses of strengths and weaknesses of concepts, impact analysis, cost-benefit analyses etc.
- Frameworks for issues
 - Development
 - Assessment of success, efficiency, public value, etc.
- Provide means and instruments to deal with the multidisciplinary of the research field
- Methods and tools for management of change and ICT projects



Key activities suggested in the roadmap (1/2)



- Methods and tools for management of change and ICT projects
- Strategy development support
- Skills development and education
- Development of new and emerging technical means for ICT in government settings (applied research development)
 - Systems design
 - Systems development
 - Systems integration and interoperation
- Reflections on research impact, research benefits and results



Presentations



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Discussion: What next ?



- What is the impact of e-government research?
- What new Programmes are needed?
- Where do we need research?





Further details and the deliverables
from the project are available at:

<http://www.egovrtd2020.org/>