Engineering the policy making life cycle

ePolicy is aimed at supporting policy makers in their decision process. It encompasses a multi-disciplinary effort aimed at engineering the policy making life-cycle. For the first time, global and individual perspectives on the decision process are merged and integrated. The project focuses on regional planning and promotes the assessment of economic, social and environmental impacts during the policy making process (at both the global and individual levels). For the individual aspects, ePolicy aims to establish likely social impacts through opinion mining of e-participation data extracted from the web. To aid policy makers, citizens and stakeholders, ePolicy heavily relies on visualization tools providing easy access to data, impacts and political choices.

Objectives of the project

ENGINEERING THE POLICY MAKING LIFE CYCLE

ePolicy is aimed at providing policy makers with tools that support their decision process at each step. The main objectives are

- Supporting policy makers in their decision process. This encompasses a multi-disciplinary effort aimed at the engineering of a policy making life-cycle.
- Integrating global and individual perspectives into the decision process.
- Evaluating the economic, social and environmental impacts during policy making (at both the global and individual levels).
- Establishing likely social impacts through opinion mining of e-participation data
- Aiding the policy maker, citizens and stakeholders with visualization tools

Project Description

The ePolicy project provides a decision support system for aiding policy makers in their decision process. It does this by engineering the policy making life-cycle. The life-cycle uniquely integrates global and individual perspectives into the decision process, bringing to policy makers' attention both global concerns (for example - impacts, budget constraints and objectives), and individual concerns (i.e. opinions, reactions), giving guidance towards better policy implementation strategies. Global and individual perspectives rely on the extensive use of optimization and decision support techniques and social simulation. An innovative game theory approach guides the interaction and conflict management between these two levels. In addition, the ePolicy project proposes the evaluation of the economic, social and environmental impacts of policy at both the global and individual levels. Social impacts are derived from data retrieved from e-participation tools and social networks. Both policy maker and citizens are assisted in the decision-making and participation processes through advanced visualization tools.

The proof of concept of ePolicy will be an open source decision support system specifically designed for regional planning. In particular, the energy plan of the Emilia Romagna region of Italy will be modelled by taking into account strategic directions in energy production from renewable energy sources. EU guidelines such as the 20 20 20 initiatives will be considered as well as social impacts and implementation costs.
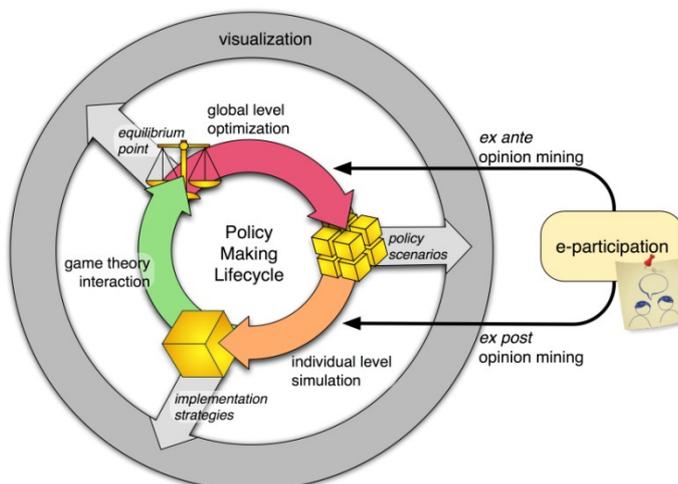
Expected Results & Impacts

The expected outcomes from ePolicy are:

- A flexible tool for optimization and decision support for policy making at global (regional) level taking into account objectives, constraints, financial issues and impacts on the environment, the economy and society.

- An agent-based simulation approach at an individual level for identifying the best policy implementation strategies.

- A game theory approach for the interaction between the global and the individual levels.

- A novel application of visual analytics techniques for supporting policy makers in the decision process and helping citizens and stakeholders in providing a more informed evaluation. Techniques for opinion mining of social impacts derived from e-participation data

- An open source tool which integrates the above-mentioned components and is open, accessible and reusable in other policy contexts.

- Extensive activities aimed at achieving the highest level of dissemination of the results of the project and which prepares for the exploitation of the overall proposed solution and of each of its individual components.

The expected societal and economic benefits are the following:

- Improved prediction of policy impacts leading to more efficient implementation of regional policies and better identification of the benefits and consequences for citizens and business.

- Increased engagement of citizens and wider use of ICT tools resulting in innovative interactions between citizens and government

- Improved transparency of information on the impact of economic decisions on society

- Improved capacity to react to the main societal challenges, and increased trust of stakeholders and the public at large in governance.
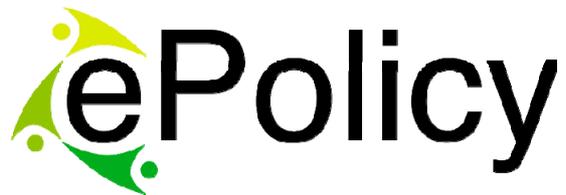
ePolicy
Engineering the policy making life cycle

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- PPA Energy (UK)
- ASTER (Italy)
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Information to citizens
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