



CONSENSUS project aims to model existing real world user-cases and deliver the tools that can, in an easy and comprehensive manner, provide policy makers with optimal choices based on a number of relevant criteria.

AT A GLANCE

Project title:

Multi-Objective Decision Making Tools through Citizen Engagement

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Website:

www.consensus-project.eu

CONCEPT

Policy makers are faced on daily basis with different policy choices and objectives that, more often than not, are subject to inherent conflicts, implying underlying trade-offs that need to be taken into account. For example, if a policymaker wishes to construct a road, he has to consider a number of factors amongst others, the cost of the investment, its socio-economic return in terms of social cohesion and economic trade, environmental aspects, safety considerations and so on. How can a policymaker be certain that he has calibrated these different elements in a balanced way? In what could be potentially the solution, the CONSENSUS project will strive to model existing real world user cases and deliver the tools that can, in an easy and comprehensive manner, provide policy makers with optimal choices based on a number of relevant criteria. This investigation is meant to cover two important real world user-cases in the project: One dealing with Biofuels and Climate Change (EU Renewable Energy Directive), and the other dealing with the Trans-European Transport Networks (TEN-T).

Last but not least, one of the goals of CONSENSUS is to involve citizens' in the policymaking scheme since their input can potentially become highly valuable in various stages, from the gathering of the necessary data, through formulating public opinion as one of the objectives in the model, to eventually playing the role of exploring the attained trade-offs and contributing to their weighing.

OBJECTIVE

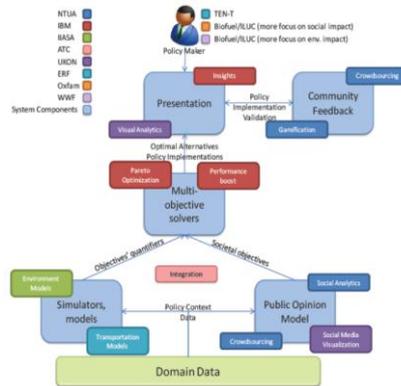
CONSENSUS aims to simplify, predict and visualise the consequences of decisions in the policy making process by:

- **Maximising the impact of policies by accurately predicting policy implementation effects in multiple domains.** CONSENSUS employs multi-objective optimisation methods in order to identify the rich set of optimal alternatives. This information will allow the policy makers to confront the realistic side-effects of their decisions, eventually leading to maximisation of impact.
- **Empowering citizens and echo the increasingly growing importance of public opinion in policy making.** This is achieved through an analysis of public opinion as it is currently formed in social media and crowdsourcing platforms. Gamification techniques will also be used to incentivise people to participate.
- **Mapping policy implementation alternatives to actual policy decisions.** CONSENSUS fosters human-computer interaction mechanisms that will visually highlight the consequences of certain options and based on users' feedback and will further suggest solutions that are more appropriate.
- **Educating citizens on policy issues and increasing transparency in decision making.** CONSENSUS attempts to educate the citizens about the consequences of each decision by providing them with a tool that will enable them to visualize the various optimal alternatives.

APPROACH

CONSENSUS brings together a multidisciplinary partnership between experts from the fields of operational research, decision science, social technologies (gamification, crowdsourcing and social analytics), applied system analysis and visual analytics. The outcomes of this project are expected to enable policy makers to tackle large-scale planning problems, by (semi)automatically breaking them into smaller questions (partial problem instances with respect to the original questions). CONSENSUS plans to examine the correlation of multi-criterion decision making with crowdsourcing and gamification in the context of policy making. Crowdsourcing will be used in various phases of the project – from refining criteria, to gathering input, and to examining resulting visualization and assisting in the actual decision making. Citizens' involvement in decision making and the transparency of the

process will also support better acceptance of any decision.



IMPACT

CONSENSUS is expected to make significant impact in EU policymaking by improving the validation of the potential impacts of policies through evidence. By incorporating all the parameters that comprise the policy context, the policy maker will be able witness the balance between them in view of the existing constraints. Furthermore, by allowing the citizens to visualise the impact of various policy implementations and gathering their feedback, Consensus will help promote a greater social acceptability of future policies and thus, increasing the chance of these policies' success.

Also, mapping the entire spectrum of objectives that define the policy context allows the close monitoring of the benefits and side-effects of a specific policy implementation. Even though it can be clear how the objectives need to be optimised, the existence of limited resources means that in practice, not all of them will be able to be fully achieved.. . Nevertheless, it is possible to arrive at a scenario of a maximum overall impact and by linking existing resources to cost the Consensus project by default, will help ensure that the maximum possible gain is achieved at the lowest possible cost.

The inclination of younger people to games is well established. By introducing gaming concepts in real everyday considerations, CONSENSUS, hopes to increase the participation of younger citizens in policy making. These games will be disseminated and manifested in the most popular social media, ensuring that younger generations (which are in fact most active within these spaces) will be engaged. All these, make CONSENSUS an attractive tool, ensuring take up for policy makers.