

Smart Governance Monitor: the H2020 project proposal overview

“RDI of key enabling digital transformation methods and tools for smart sustainable governance”

Horizon 2020 Call: CO-CREATION-06-2017 RIA Research and Innovation action

Call topic: Policy-development in the age of big data: data-driven policy-making, policy-modelling and policy-implementation

Overview: As societal, economic and climate challenges are growing, becoming more complex and interlinked, the managing capacity of governments to respond decreases while the action response time increases leading to gradual deterioration of sustainability. The use of latest ICT achievements provides major and, probably, the only opportunity to improve the effectiveness, efficiency, timeliness and the quality of decisions in the public sector helping to cope with accelerating rate of change and uncertainty to ensure sustainability of governance. Despite all these are widely used in business, industries and research, the governmental ICT applications are still not available. Such applications shall allow use of wide range of data sources in real time including perceptions data, supporting open policy-making and integrating the citizens' perspectives, engagement of relevant social actors, support a participatory, open and collaborative vision of government, identify bottlenecks to policy reforms and assess the performance of past reforms.

Objectives and Scope: The project Smart Governance Monitor aims at research, development of methods and demonstration of innovation tools for smart sustainable governance. Based on novel concepts of digital transformation and system modelling of complex socioeconomic-cyber-physical ecosystems, it empowers integrated assessment of the multidimensional performance and sustainability for evidence-based policy design and implementation. The new methods and ICT tools will facilitate the interpretation of big data for public communication and help to deal with underlying complexity of the modern society opening new outcome-based integrated vision of real world processes in real time. The governments at all levels will benefit from the growing availability of relevant data and foster effective innovative policies, allow public administrations to experiment with the new possibilities offered by big data through policy modelling, monitoring, enforcing, simulation, testing, analysis and prediction, policy compliance.

The new digital governance methodology will be applied to policy areas addressing socioeconomic challenges in all its dimensions providing the novel holistic view of overall sustainability of the Society as big and complex System of Systems having multiple objects of distributed governance at its various levels such as local and regional and national for a country and multinational for a group of countries. The status of whole big system and each of its elements (similar to “the State of the Union address”), its nexus and all necessary metrics relevant to each structural component such as economics, industries, finance, energy, environment, climate, migration, radicalisation, inequalities, unemployment, etc, all are calculated and presented in the Smart Governance Monitor in real time revealing ongoing processes of change.

The platform will allow easy integration and linking with existing and newly available data sources such as databases, IoT, sensors, automation systems, social networks, mobile devices and quantitative tools as used in sociological and behavioural sciences. The piloting of smart governance applications will take into

consideration the fundamental social principles and its transformation trends in the transition to Digital Society.

Expected Impact: The project will further explore the concepts proved by the basic prototype developed by 2016 and applied internationally (<http://unido.org/pharos>). Its RDI will result in the novel knowledge, intelligence, governance methods and new key enabling technology Smart Governance Monitor to support policy making in new digital society. The advanced prototype will run the open integrated socioeconomic assessment model of interlinked multinational societies and tools supporting customized applications at different levels of governance including European Union, Country, Country national sectors (or areas of social life and activities), and local community governance (Smart Cities), public and private organizations.

The project will develop at least 4 demonstrator prototypes for distributed real-world domains of smart governance at 4 main levels such as **(1) the European Union as a whole, (2) the Country, (3) The Region, (4) the City**. The prototypes will be implemented in European cloud linked to each other and operating in a proactive and dynamic style to take full advantage of the new open generic nexus model of modern multinational society customized for EU countries. It will provide holistic vision of interlinked processes in each urban area and its further aggregation by every upper level of governance. The major metrics and KPIs which are common for each area such as finance, energy, environment, waste, politics, social, industrial and economic development, migration, employment and labour markets, population dynamics, etc will be applied to the model. The open interfaces allow integrating emerging forms of IoT and interactions, including augmented and virtual reality, speech, etc across wearable and mobile devices.

The project consortium brings together interdisciplinary team of partners from several EU countries with strong expertise in the governance, social sciences, economics, ICT, software engineering, big-data analytics and digital transformation domains in order to reliably achieve the project objectives. The consortium partners will be supported by selected municipalities in different European countries which agreed to participate in a realistic demonstrator prototyping, case studies, experimentation and evaluation.

Consortium: The anticipated structure of the consortium under formation

1. Project Coordinator/Main Applicant/ Proposal writing and project management
2. RDI Partner for socioeconomic model building
3. RDI partner, digital transformation from big data streams, linking to IoT and systems
4. Social, macroeconomics and finance modelling
5. Legal frameworks for digital society
6. Use case partner at the multinational union governance level (Smart Union)
7. Use case partner at regional level (Smart Region)
8. Use case for local city governance (Smart City)
9. Communication and Dissemination

Proposal status: The draft project proposal is available. The underlying project concepts are proved by the basic prototype. Its demo is available at: <https://smartcity.win2biz.com>

We encourage prospective partners interested in this RDI proposal and in joining the consortium to contact us promptly by info@asidees.org or info@golem.at