Advanced Decision Support for Smart Governance (SmartGov)

Smart Cities

- ‘Smart Cities’ provide new ways of designing and managing public services, infrastructure, sustainable mobility, economic development and social inclusion.

- The two-way communication between citizens and urban policymakers is lacking strongly. Smart cities seek to offer decision support and two-way communication between citizens and governmental organizations.

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SmartGOV

- Duration: 2016-2019
- Internet: www.jpi-urbaneurope.eu/smartgov
- Budget: 1.232.120 EUR

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SmartGOV Aim

- The SmartGov project aims to create new support tools that effectively incorporate Linked Open Data and Social Media into Fuzzy Cognitive Maps (FCMs).

- FCMs are a useful modelling and visualization tool for discussing policy scenarios between citizens and governments. The developed tools will be tested and implemented in four European cities.

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Consotrium

- Cyprus
  - Cyprus University of Technology
  - Interfusion Services Limited
  - Lemesos (Limassol) Municipality
- Austria
  - Danube University Krems
  - Active Solution AG
- The Netherlands
  - Delft University of Technology (TU
- Spain
  - City of Quart de Poblet
  - Kenus Informática

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Involved Cities

- Pilots
  - Limassol (Cyprus)
  - Quart de Poblet (Spain)
- Supporting
  - Amsterdam (Netherlands)
  - Vienna (Austria)

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SmartGOV objectives

- Create new governance methods and supporting ICT tools
- Simulate impact of policies for urban planning in Smart Cities
- Support two-way communication with large stakeholder groups

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SmartGOV methods

- Visualization & modeling of complex problems in Smart Cities
- Fuzzy Cognitive Maps: Linked Open Data & Social Media
- Research on governance processes for urban planning

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SmartGOV results/impacts

- FCMs: Provide new decision methods, tools and guidelines
- Increase transparency and trust through visualization of decision scenarios
- Create knowledge and awareness for new policies of sustainable mobility

FCMs

- Fuzzy Cognitive Maps are a dynamic visualization and modelling tool that enable quantitative modelling of interrelated complex problems and the simulation of behaviour of the factors underlying these problems.
- FCMs are used as a means to help decision-makers to represent complex problems by capturing and organizing the knowledge of domain experts and stakeholders in the form of a ‘mental model’.

FCMs – 2

- This model is visually depicted by an acyclic directed graph composed of nodes and edges.
- The nodes represent the **concepts** that describe a problem as perceived by domain experts.
- Concepts can have either positive or negative states and are expressed as quantities or as qualities.
- The edges that connect the nodes in the map denote **causal relationships** between these

THANKS FOR YOUR ATTENTION!

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