ICT-enabled Web 2.0 based Policy Deliberation, Analysis and Simulation: PADGETS and NOMAD Projects

Loukis E., Charalabidis Y.

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PADGETS at a glance

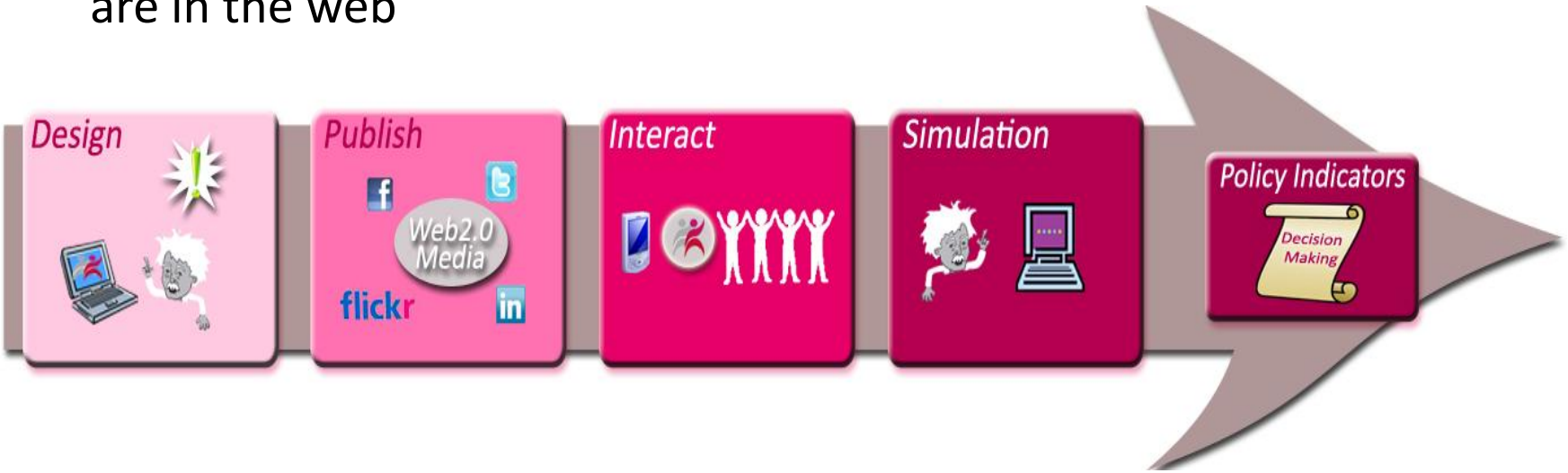
- ***Start Date***
  - *01/01/2010*
- ***Duration***
  - *36 months (finish date 31/12/2013)*
- ***Project Coordinator***
  - *University of the Aegean (Greece)*
- ***Project Partners***
  - *Whitehall Reply srl (Italy)*
  - *Athens Technology Center S.A. (Greece)*
  - *Google (United Kingdom)*
  - *University of Regensburg (Germany)*
  - *Politecnico di Torino (Italy)*
  - *National Technical University of Athens (Greece)*
  - *Tech4i2 (United Kingdom)*
  - *Piedmont Region (Italy)*
  - *The Observatory for the Greek Information Society (Greece)*
  - *Centre for eGovernance Development for South East Europe (Slovenia)*
  - *Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V – FOCUS (Germany)*

Rationale

- Governments make big investments for constructing and operating participative websites in order to communicate to the citizens information on current and future public policies
- However, the use of these websites has been in general limited and below expectations
- At the same time there is an explosive growth of various Web 2.0 social media
- Therefore governments should exploit these Web 2.0 social media
- But in an efficient systematic and centrally managed manner
- for communicating to the citizens their policies and collecting from them feedback and knowledge
- This feedback will undergo advanced processing in order to estimate the awareness, interest, acceptance and impact of policies on society

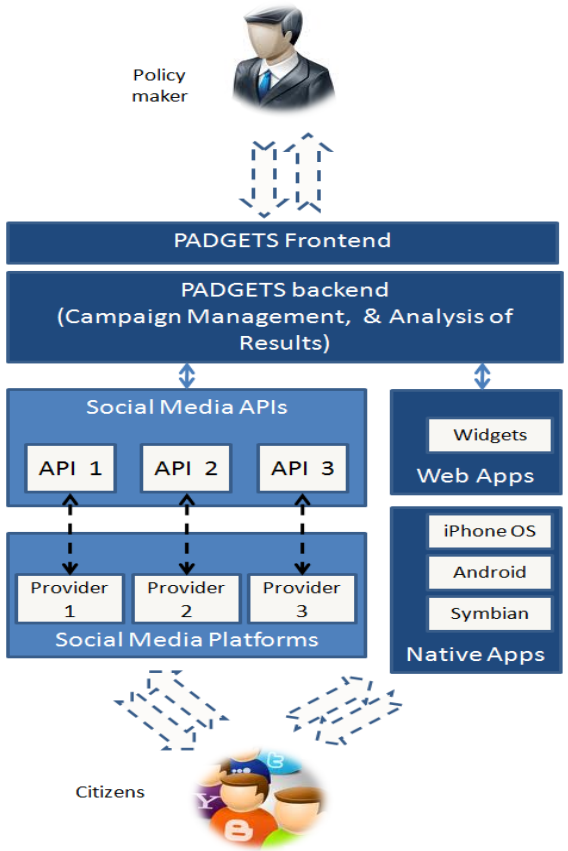
PADGETS Basic Concept

- PADGETS presents a novel approach in policy making by applying the WEB2.0 philosophy of "going directly where users are in the web“



- Using “Policy Gadgets”, policy makers will be capable of disseminating their policy messages through multiple social media simultaneously, using a single integrated communication interface.
- They will be able to reach large user groups in these platforms and collect their feedback

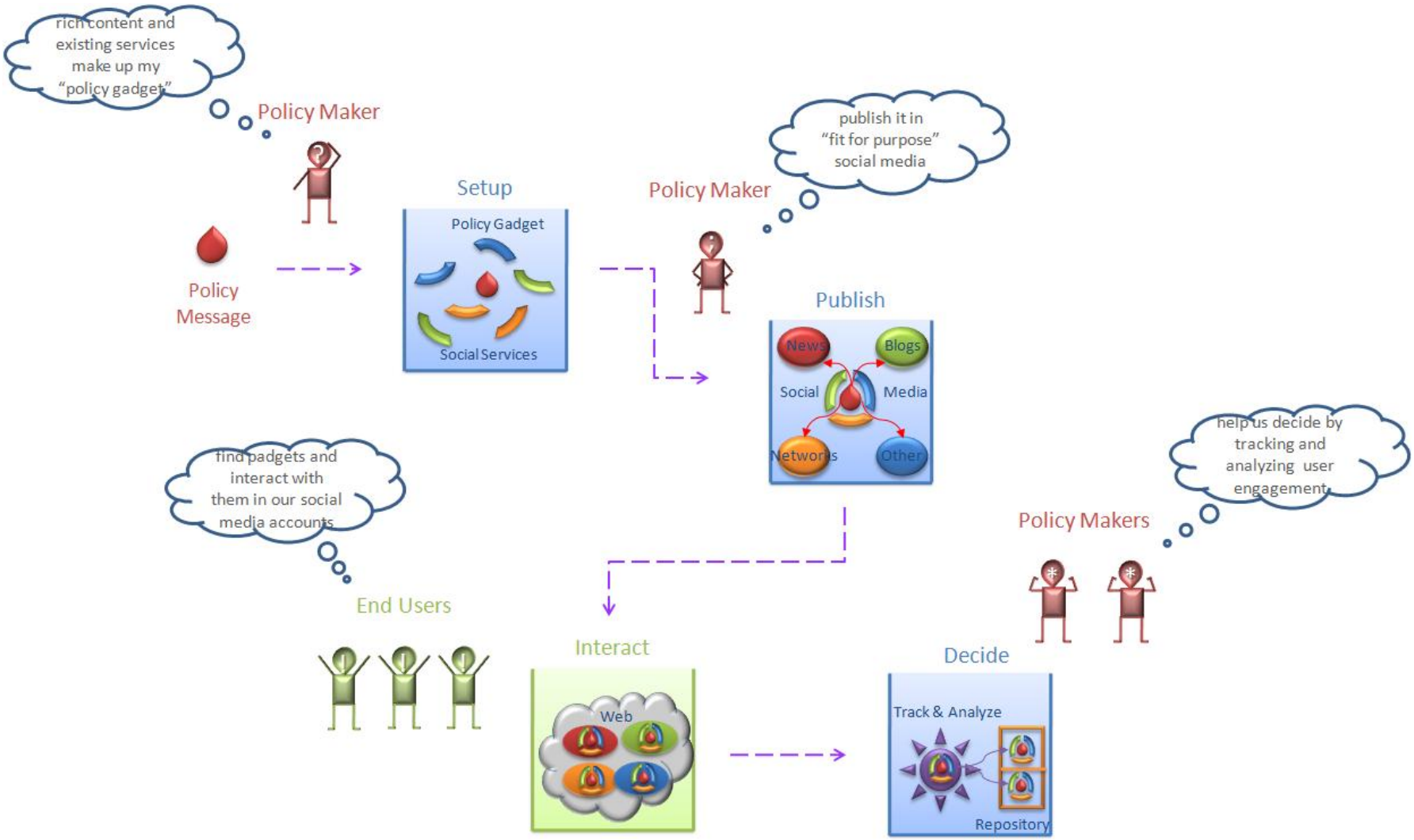
PADGETS Basic Idea



Key Definitions

- Policy Gadget
  - A padget is a resource (application or content), typically instantiating within a social media platform, created by a policy stakeholder, providing interactivity with the citizens
- Padget Campaign
  - A padget campaign is a set of activities covering creation, distribution, interaction, monitoring and termination of one or more padgets for a specific goal.

PADGETS Application Scenario



What will be the impact of PADGETS?

- “Policy Gadgets” are a breakthrough approach to public discourse that will:
  - Provide easy and intuitive access to Web 2.0 media for communicating policy proposals and collecting feedback
  - Leverage the network effects of existing social media to involve users and online communities in the policy formulation process
  - Increase citizen trust and transparency through public and established social channels
  - Assist in forecasting public response and the impact of policy measures
- Through this unique approach, we expect significant benefits for citizens and policy makers by complementing and promoting the democratic political process;

Value Proposition & Role in the Policy Cycle

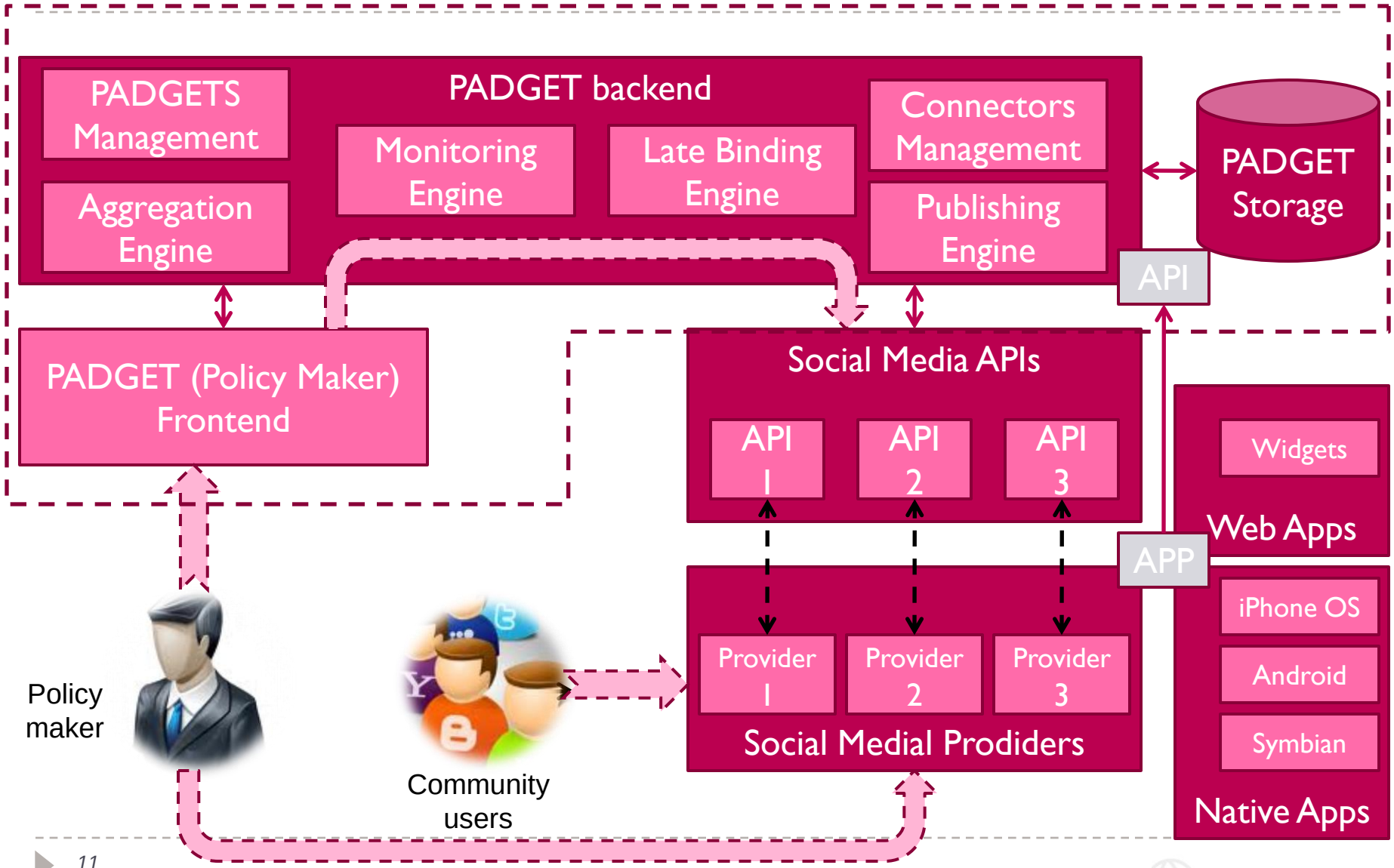
- Value Proposition
  - Policy gadgets shorten the distance between policy making and stakeholders' needs by providing a clear and dynamic view of people's opinions and priorities
- Role in the Policy Cycle

Stage in Policy-Making Cycle	Padget Campaign Value Proposition
Agenda-Setting	Needs and priorities elicitation
Analysis	Opinions gathering
Formulation	Acceptance estimation
Implementation	Awareness and interest assessment
Evaluation	Impact perception evaluation

Novelty with Respect to SOTA

- The creation of an "open and dynamic" decision support system bringing together simulation models and Social Media/Networking Platforms
- A relaxation of current constraints in terms of size, frequency and quality of participation
- An integrated management of multiple SNP platforms
- Better analysis and exploitation of data stemming from interaction with the public on Social Media

PADGETS Platform Architecture



Analysis of APIs

- More and more social networks are conforming with open API standards in order to be more open and public.
- They provide more and more functionalities through their APIs while they try to engage more developers to create applications based on their service
- The general trend is exposing methods through their APIs that “go deeply” into their innermost functionalities and provide developers with an ever growing set of capabilities
- Mainly content push and retrieve functionality
- That content can be text, images, videos or more complex forms of media such as “events” , “albums” etc.
- A large portion of the API is dedicated to the creation, (or uploading), modification and deletion of such content.
- There also exists functionality that supports the direct retrieval of specific content.
- and functionality allowing the collection of data about any platform-specific content, such as “user ratings”, “unique visits” or retransmission to other nodes of a social network.

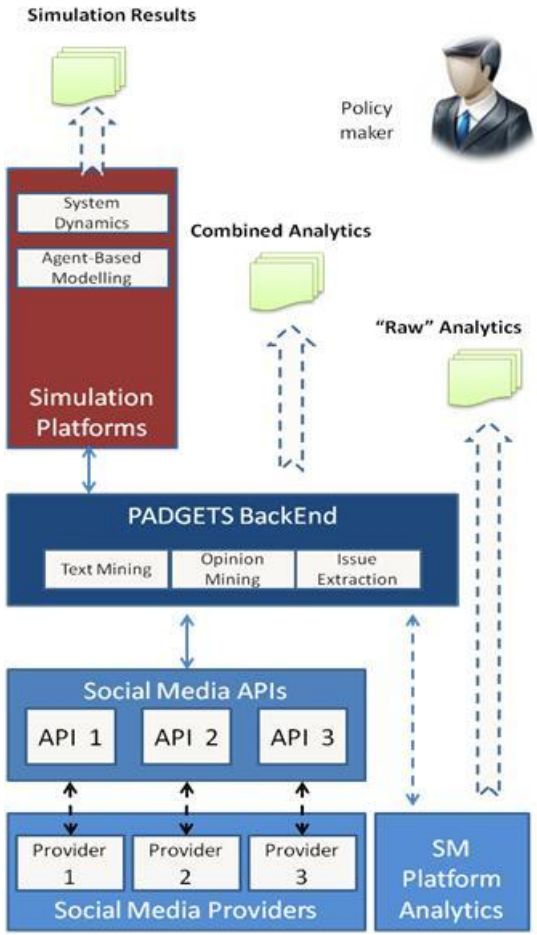
Analysis of APIs

- One of the major difficulties and at the same time an important element of social media APIs is their fluidity (continuous change)
- Most platforms are relatively new and their programming interfaces have not yet reached full maturity, so they are evolving
- At the same time they attempt to better conform to their users' needs and the demands of software developers, resulting in continuous evolution
- Therefore developers need to adopt only the most common and stable subset of commands,
- If they want to ensure that the functionality of their system will be maintained across time

Analysis of APIs

- Also, we examined whether they allow hosting of gadgets, i.e. individual microapplications, in their websites
- Our analysis demonstrated that the primary functionality concerns the publishing and retrieval of user-generated (or mediated) content,
- while on the contrary many platforms do not support the creation and hosting of “gadgets”
- Therefore the project should adopt a flexible ‘mixed’ approach,
- deploying Padgets in the platforms that allow this,
- and exploit the APIs for pushing content to and retrieve content from the others

Decision Support Component (DSC)



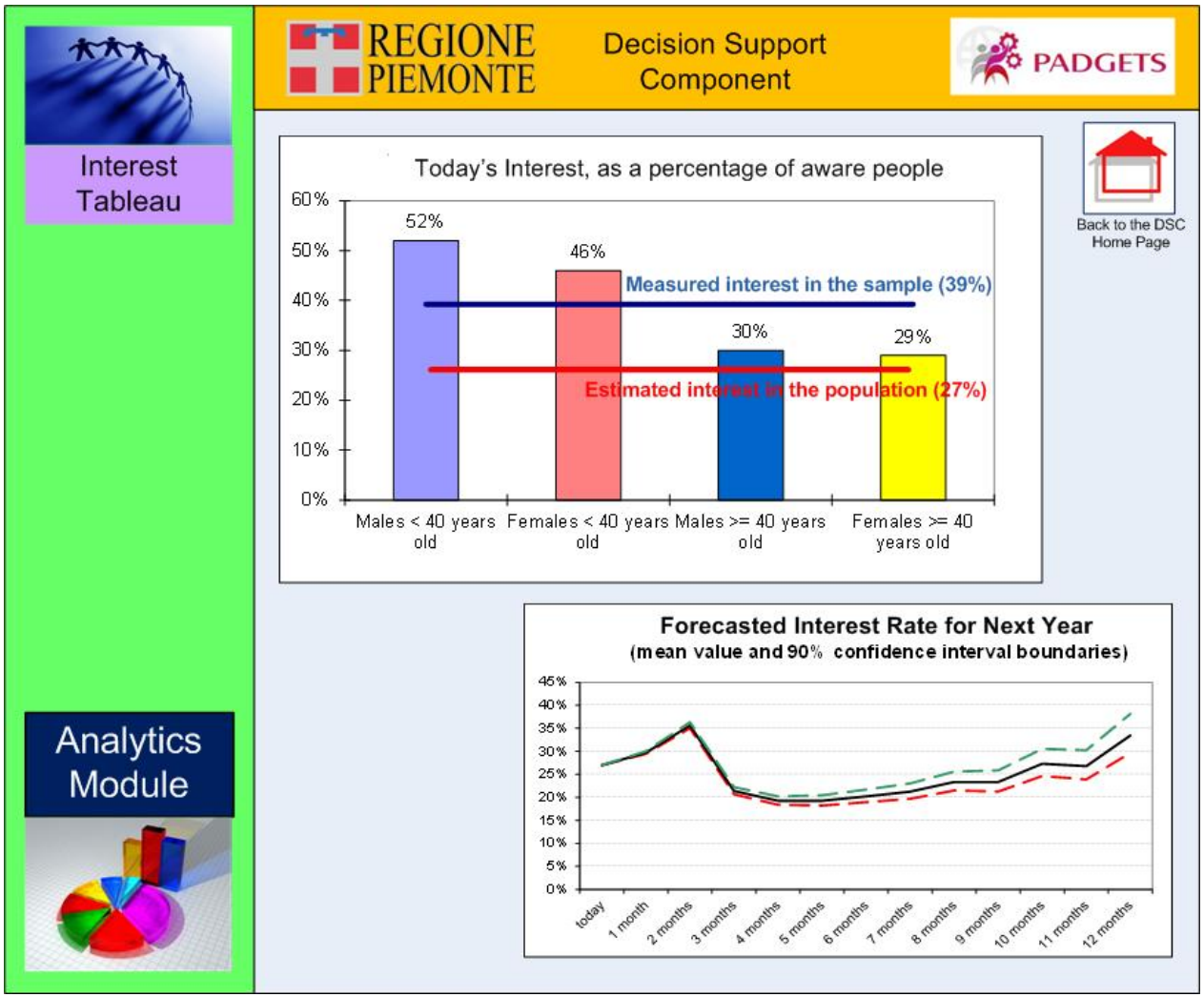
Opinion Mining

- A useful body of knowledge has been developed in this area consisting of methods for addressing mainly the following three problems:
  - classification of an opinionated text as expressing as a whole a positive, negative or neutral opinion (document-level sentiment analysis),
  - classification of each sentence of such a text as objective (a fact) or subjective (opinion), and then focus on the latter and classification of each of them as expressing a positive, negative or neutral opinion (sentence-level sentiment analysis),
  - extraction of the particular features/subtopics commented by the authors of these texts, and for each of them identification of the orientation of the opinions expressed about it as positive, negative or neutral (feature-level sentiment analysis).

System Dynamics

- It has been extensively used for modeling and analyzing many types of systems,
- such as industrial, urban, social, ecological, etc.
- It models a real-life activity or process
- as a set of ‘stocks’ (of quantities gradually accumulated, e.g. technology potential users, technology adopters, money, material, etc.),
- ‘flows’ between these stocks (citizens adopting a technology)
- and also ‘information’ that determines the levels of these flows.

The DSC in a real policy scenario (cont'd)



Potential Pilots

- Three partners will support the pilots of PADGETS project. The identified potential pilots are:
  - Centre for eGovernance Development, Slovenia

  Migration, ACTA: Tanya Facion (MEP)

  - Information Society Organization, Greece

  Migration, ACTA: Greek MEP

  - Regione Piemonte, Italy

  Telemedicine program (large scale application)

Conclusions & Open Issues

- Policy Gadgets may:
  - help in harnessing the value of Web 2.0 media
  - represent a step towards the creation of an «extended government» model
  - help governments to become more aware of the importance of social connections in policy making
- Open issues about:
  - New culture and skills in government
  - Integration of society's voice into Government's decision making