

IST PROJECT 2001-35399



SmartGov

A Governmental Knowledge-based Platform for Public Sector Online Services

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The SmartGov Consortium consists of:

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University of Athens	UoA	Project Coordinator	Greece
T-Systems Nova	TNB	Partner	Germany
Indra Sistemas S.A.	Indra	Partner	Spain
Archetypon S.A.	ARC	Partner	Greece
Napier University	NU	Partner	United Kingdom
General Secretariat for Information Systems	GSIS	Partner	Greece
City of Edinburgh Council	CEC	Partner	United Kingdom

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1 Main goal(s)

SmartGov aims to develop a platform to enable public administration employees to create and maintain online transaction services. To this end SmartGov will design and implement a knowledge-based platform, along with the necessary tools and services to simplify the generation of both the front-end (user interface) and the back-end (data validation and processing, interconnection with other IT systems).

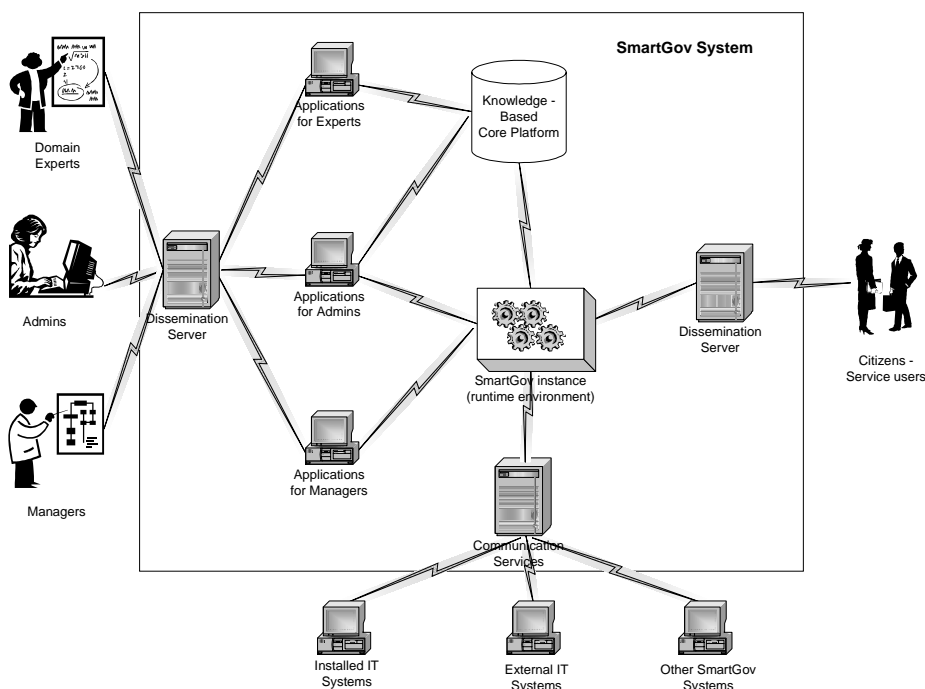


Figure 1: Overview of *SmartGov* system

The SmartGov platform caters for three main user groups: domain experts, administrators and managers. Each of these user groups has its own tasks to perform and consequently its own functional requirements. Domain experts possess all the necessary knowledge from the corresponding public sector domain, but usually lack technical expertise. On the hand administrators may possess the technical expertise but lack the necessary domain background. Finally, managers require an abstracted, processed view of the underlying data. This interdependence of the involved user groups requires increased effort to manage the development process. Any shortcoming in communication results in implementation delays, inconsistencies in the user interface and problems in the validation and processing part of the service. Furthermore, the final result is a service within which high-level domain knowledge has been mapped to low-level programming elements, rendering maintenance and re-usability problematic.

To this end, the SmartGov platform will help public sector employees at all levels, perform their duties efficiently and with a minimum of effort. The knowledge-base component of the platform will store all domain expertise, separating it from the program code, enhancing ease of maintenance and re-usability. The platform will capitalise on emerging standards (such as XForms by W3C) to create an open

architecture that ensures interoperability between installed IT systems and to develop new applications to exploit that architecture.

SmartGov will contribute to electronic national, regional and local government by adopting principles of knowledge management and transferring them in the area of online services, enhancing thus the efficiency and effectiveness of public sector, reducing bureaucracy, bringing government services faster, easier and closer to the citizen. Furthermore, the SmartGov platform will support the creation of multilingual electronic services and conform to design-for-all standards and principles (such as ISO 14307 and the W3C Web Accessibility Initiative) securing participation for all.

The platform will be tested in two participating Public Administration Authorities: the General Secretariat for Information Systems, of the Ministry of Finance in Greece and the City of Edinburgh Council in Scotland. The pilot applications and SmartGov methodology will be evaluated by means of quantitative metrics (development and maintenance time, developer errors, etc.) and qualitative metrics gathered by means of user questionnaires and/or interviews.

2 Key issues

By the end of the 6th month of the project user requirement analysis will have been carried out and system specifications will have been drawn and be related to the levels of service, and to the overall functionality. Low level specifications of the knowledge-based core platform, the design and creation of the Services Knowledge Database and the implementation of the platform for the expression of the government domain knowledge will be concluded by the end of month 12. Implementation of the platform's various components will progress in parallel and will end at month 16.

By the end of the SmartGov project a development environment will have been built that will enable public sector employees in different levels to develop and maintain services for both citizens and for other public authorities. In such an environment an employee with basic IT skills and the necessary domain knowledge will be able to use a predefined form template or create a new form in order to implement a new service or to edit an existing service. The employee will be assisted by the development environment, which will offer tips and will automate parts of the development process.

3 Technical approach

On the technical side the SmartGov project introduces and incorporates the key notion of the *transaction service element* (TSE), which is perceived as the main building block of transaction services. A TSE is the equivalent of a form field (such as the input space for a citizens id number or surname) but also contains metadata and domain knowledge that is attached by the form developer. Metadata may encompass the object's type, range of values, multilingual labels, on-line help, while domain knowledge includes information about the relation of the object to other elements, legislation information etc.

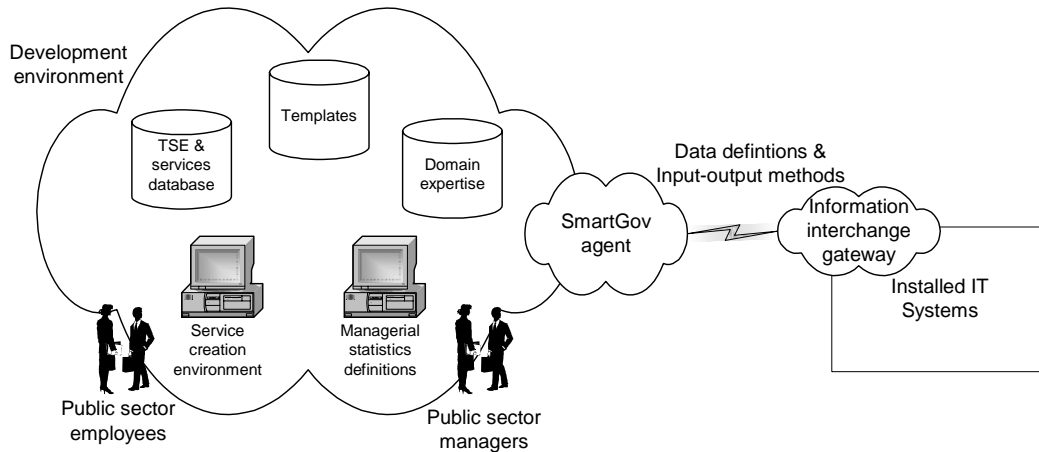


Figure 2. SmartGov development environment

Following the SmartGov approach, in order to implement a new service a public sector employee will (a) Select appropriate TSEs to be included within the service, (b) choose from a template library the layout that will be used to present the service to its users or design a new layout, (c) attach rules that govern the service and (d) define MIS data and statistics to be captured for further processing.

The SmartGov project innovations are focussed on three main areas: the knowledge-based core repository that will encompass domain knowledge on governmental transaction services, the set of services and applications that are based on emerging open standards and the new process models for public administrations. The successful mixture of these novel technologies will enable administrations to adapt quickly to new methods of working, to transform old public sector organisations and provide faster, more responsive services.

4 Expected achievements/impact

At the end of the project the consortium will have implemented and evaluated a technically sound and operational platform, accompanied by studies, models and methodologies, that support the appropriate treatment of the highly important social and organisational aspects of knowledge management. The project's result will have an impact on PA employees, PA managers and the end-users who may be other PA employees, businesses or citizens. It is anticipated that all these stakeholders will directly or indirectly benefit from the project's development. PA employees will benefit because the time and effort needed for the development of a new service will decrease, while maintenance will be facilitated. PA managers will benefit since they will be able to acquire management critical information easily and on time. Finally, end users will benefit from quicker and more efficient response of public servants.

5 Coordinator contact details

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