

SAKE PROJECT: AGILE CHANGE MANAGEMENT IN KNOWLEDGE – BASED E-GOVERNMENT BACK OFFICE

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ABSTRACT

Information Society is progressing and is penetrating also into public administration. This process is correlated with development of the knowledge-based economy. Public administration organizations are becoming knowledge-based institutions and thus the status of public servants is moving towards knowledge worker. Knowledge within PA is subject of frequent changes, what can cause several problems. Knowledge management can contribute to solution to some of these problems. One of possible approaches is presented by the SAKE project funded by the EU within FP6 IST Programme. SAKE project is aimed at development of an integrated knowledge space, instead of a set of isolated and heterogeneous knowledge resources. The project will also create a suitable change management system.

KEY WORDS

e-Government, knowledge management, semantic technologies, semantic web, change management, web content management, groupware.

1. Introduction

Present world is characterised by informatization of society, where the role of information and communication technologies (ICT) is increasing. E-Government does not only mean the use of all sorts of new information and communication technologies by public institutions to improve both their relations with their users and their internal operation. eGovernment means much more: It is different from but builds on the administrative reform policies inspired by New Public Management (NPM) implemented throughout the EU over the past twenty years. However, eGovernment goes even further. Its aim is to fundamentally transform the production processes in which public services are generated and delivered, thereby transforming the entire range of relationships of public bodies (G2C (Government-to-Citizens), G2B (Government-to-Business) and G2G (Government-to-Government)) [1].

Further we have to realize, that the public administration processes are based on knowledge of their employees (public servants as knowledge-workers).

2. Problems in Public Administration

At present, in many areas of public administration (PA) frequent changes occur and large amount of new information has to be absorbed in a very short time. The public administration processes are influenced by external changes (mainly political, legislative and economic), as well as internal changes (e. g. organizational).

A change in one activity in an administrative process may require changes in other parts of the same process or system. Therefore, there is a need for resolving changes in a systematic manner, ensuring overall consistency.

Furthermore, these changes impose the need if updating the knowledge needed to perform the administrative process. These changes are more frequent in the case of New Member States, since their full integration heavily depends on the possibility to adapt their public administrations to the existing EU regulations in a very short period of time [2].

Figure 1 illustrates the As-Is Situation.

3. SAKE Project

One of possible solutions of the mentioned problem is the research project SAKE – *Semantic-enabled Agile Knowledge-based e-Government*. The project is co-financed by the European Commission within the 6th Framework Programme. It started on 1st March 2006 and the duration of the project is 36 months. The total budget of the project is 2,5 mil. EUR. The overall objective of the SAKE is to specify, develop and deploy a holistic framework and supporting tools for an agile knowledge-

based e-government that will be sufficiently flexible to adapt to changing and diverse environments and needs.

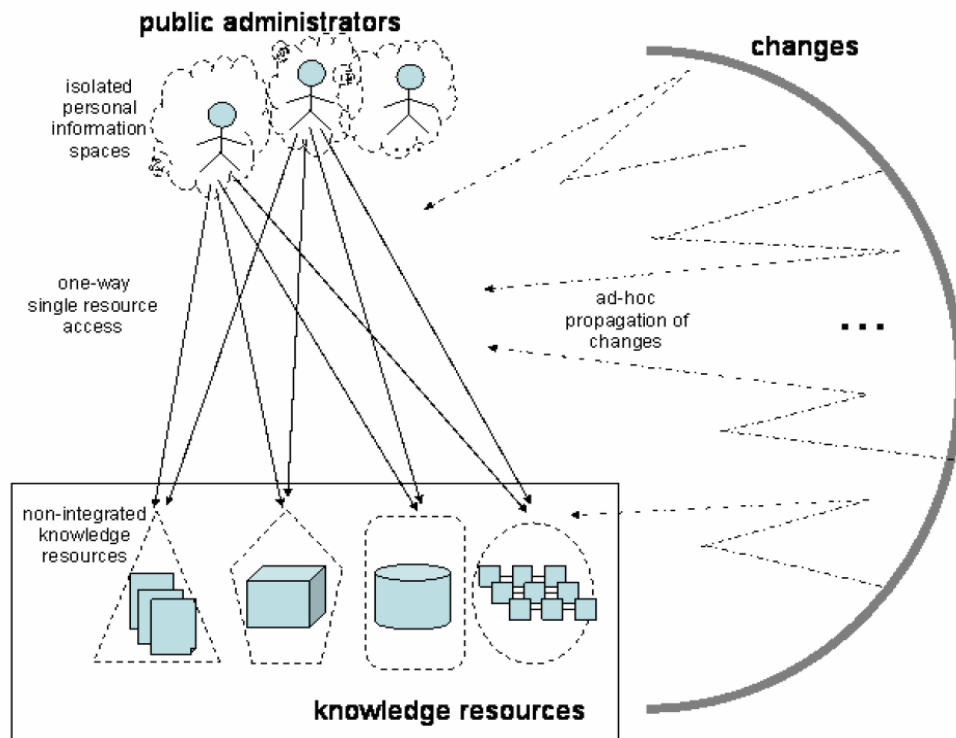


Fig. 1: As-Is Situation

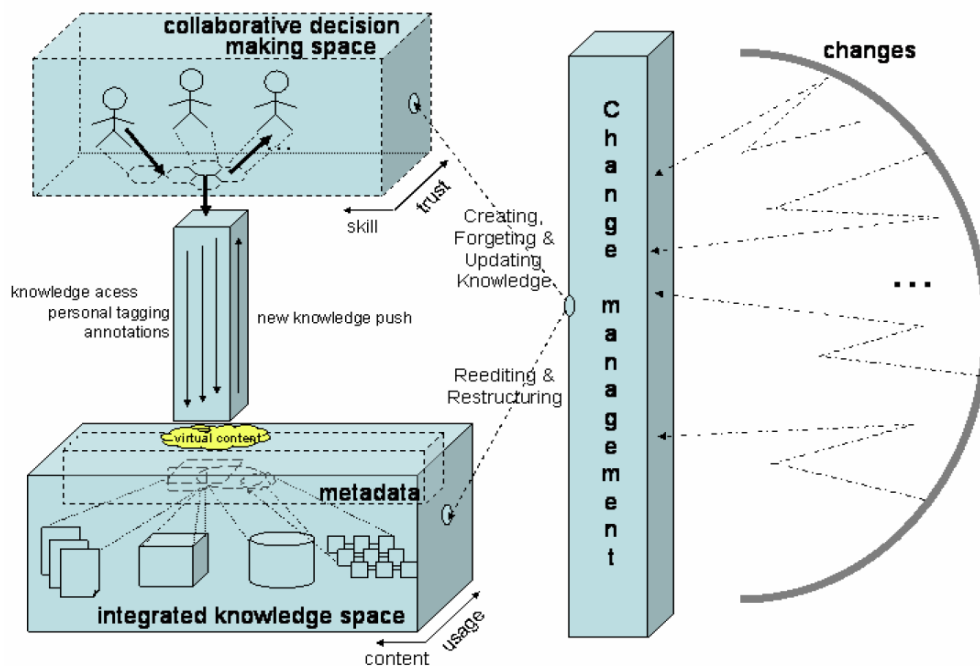


Fig. 2: To-Be Situation according to SAKE Project

It will ensure continual improvement of the quality of the decision making process, through the application of semantic technologies, by enabling consistent change propagation while enhancing personal/organisation productivity. Next, it will enable fully empowering of public administrators, by providing efficient access to knowledge needed to resolve cases rapidly and accurately. Moreover, the SAKE project should lay a foundation of a learning e-government that will be able to stimulate mobilisation and conversion of tacit knowledge on-demand and to foster trust and transparency, in order to achieve greater understanding, awareness and agility.

Fig. 2 shows how SAKE will address the problem mentioned above (see Fig. 1).

SAKE is targeting the following goals:

- (1) Support managing changes in laws and propagate these changes from the national to the regional level.*
- (2) Trace the impact of changes in laws to the business processes, knowledge artefacts and case handling.*
- (3) Facilitate the decision-making process by providing content and supporting the participation of all stakeholders.*
- (4) Improve the quality in decision-making in domains that are affected by the changes in laws.*
- (5) Allow the addition, modification and commenting of changes in legal documents.*
- (6) Support collaborative work among civil servants who are working on cases affected by the changes in law.*

There are eleven partners involved in SAKE project: PLANET S. A. (Greece); Research Center for Information Technologies at the University of Karlsruhe (Germany); Institute of Communication and Computer Systems, National Technical University of Athens (Greece); The Association of Town on Internet (Poland); Technical University of Košice (Slovakia); Korvinus University in Budapest (Hungary); Synergon Information Systems plc. (Hungary); Town of Czestochowy Town Hall (Poland); Ministry of Informatics and Communication (Hungary); Košice – City Ward Ťahanovce (Slovakia), University of Piraeus Research Center (Greece).

4. Pilot Applications

Within SAKE project pilots will be performed in three public administration authorities.

The Hungarian pilot carried out by the Ministry of Informatics and Communication with support of Korvinus University in Budapest deals with receiving and processing the changes in legislature in e-gov system and

recommending actions resulting from these changes. Similar philosophy has the Polish pilot (performed by the Town of Czestochowy Town Hall supported by The Association of Town on Internet). The application is focused on processing the changes in legislature and the consecutive identifying of fields influenced by the change. The Slovak pilot application (performed by the Košice – City Ward Sidlisko Ťahanovce supported by the Technical University of Košice) is focused on process of making local legal regulations.

5. SAKE Technological Components

SAKE will develop three technological components:

- **Semantic-based change management** for ensuring the high quality of the knowledge update (reediting) process. This will be performed by the change ontology that models what changes, why, when, by whom and how are performed in a knowledge-based e-government. It will also consist methods and tools for change management that will enable the consistent propagation of changes to each knowledge stakeholder in order to ensure the quality of the decision making process. It will include modules for change harmonisation, change propagation, change implementation and knowledge verification.
- **Semantic-based content management system** for fostering collaborative problem solving that will take into account the increased granularity of knowledge resources and the manifold semantic differences in dealing with these resources.
- **Semantic-based groupware system** for enabling the mobilisation and conversion of tacit knowledge and fostering trust and transparency, in order to achieve greater understanding, awareness and agility.

6. Conclusions

The paper deals with the role of e-Government in the “modern society”, where the role of information and communication technologies is increasing. It describes briefly e-Government and problems of public administration authorities implied by changes, e. g. by change of legislation. SAKE is focused on solving the problems connected to knowledge and their application in public administration. More information on the project can be found at <http://www.sake-project.org/>. Three pilot applications performed by public administration organizations in Hungary, Poland and Slovakia are planned in the third project year. The pilots will be followed by evaluation and implementation of recommendations resulted from the pilots.

7. Acknowledgement

The work presented in the paper is supported by the EC within the FP6 IST Project “Semantic-enabled Agile Knowledge-based e-Government”, contract No. 027128.

8. References:

[1] LEITNER, Christine: *eGovernment in Europe: The State of Affairs*. eGovernment 2003 Conference, Como, Italy, 7-8 July 2003. ISBN 90-6779-182-2, pp. 13 – 14.

[2] SAKE - Semantic-enabled Agile Knowledge-based eGovernment (IST 027128): *Annex 1: Description of Work*.