

## **1) Title of the case**

Enabling efficiency and transparency through information technology (IT) governance.

## **2) General description of the organisation and the project**

This paper concerns the IT governance provisions designed and being implemented in the European Commission. The aims of this activity are:

- To ensure that IT supports and extends the Commission's strategies and objectives.
- To optimize the IT expenses.
- To strengthen coordination and knowledge sharing in the area of information systems.

The Commission is the executive body of the European Union. About 27.500 permanent and almost 8.000 external staff from all 25 Member States are presently working for the Commission. The vast majority of staff is employed in Brussels and Luxembourg; other locations concern the delegations and representations that are installed virtually in all countries world wide as well as research plants installed in some of the EU countries.

The internal structure of the Commission is decentralised and implemented in 27 directorates general and a number of services and administrative offices (structures abbreviated by "DG" for the sake of simplicity in the rest of this document). DGs are either policy area specific (agriculture, customs, information society, research etc) or dealing with horizontal matters, such as programming and decision making, budget, translation, information technology etc.

## **3) The main content of the case**

The case will present the processes designed and implemented in the Commission for the improvement of IT governance. These are essentially strategy and portfolio management, methodology and enterprise architecture.

## **4) The reasons behind the case**

The Commission's IT structure has been decentralised in 1991. Its initial challenges have been the introduction of office automation facilities in the organisation and support the administration and policy areas by the design and implementation of specific information systems. During these years IT governance at the common level has been looking at the definition, procurement and operation of products responding to the needs of all directorates general. This policy brought beneficial results in terms of coherence of the equipments and software employed in the organisation, as well as in efficiency of our procurement processes which through volume and coherence is capable in obtaining good value for money.

However over the years the creation of solutions for specific policy areas of administration parts has not been coordinated other than from a budget allocation perspective. It gradually created many information systems, which are not interoperable, may have overlapping functionality and are specific to each DG. At the start of this exercise, in 2003, we thought we own about 600 information systems. Mid 2006 the inventory created shows more than 1250 entries and we do believe there are some more around.

The increasing number of information systems had a number of negative effects, some of them are: staff complains of the many systems necessary to do its work and of interoperability problems generating errors in the data or of the need to recapture information from one system to the next; information is organised per organisation silo and is difficult to find and combine; our support and maintenance budget is increasing; the quality and maturity of the IT systems and services supplied throughout the organisations differ significantly among DGs; mobility of staff among DGs necessitates significant IT training and adaptation in the new environment; etc.

Interoperability problems were reported in annual activity reports of directors generals in 2002 and gave rise to a first report on how to reduce the interoperability problems in the organisation.

In 2003, the Internal Audit Service of the Commission published an extensive report on IT governance in the Commission.

These two reports, which overlap in some of their findings and conclusions, have formed the basis of the activities reported in this case.

## **5) The actors behind the case**

The audit report, through its 89 recommendations, triggered numerous consultations between the Commission services. A reflection committee on IT governance has been set-up under the chairmanship of the director of IT and the participation of many directors of resources of directorates general and made recommendations to the Commission's top management on how to improve IT governance in the Commission.

During this period, the IT staff of the organisation was kept informed of the progress made and the Information Resource managers, heads of the IT in the DG, were systematically consulted.

A Commission decision on the improvement of IT governance in the Commission adopted in 2004 defined the structure, principles and processes that are necessary for a sound and effective IT governance in the Commission. The Commission also decided to create the directorate general for IT, in charge of defining the Commission's IT strategy, hence increasing the role and visibility of IT in the organisation.

A complementary communication on interoperability has been adopted in 2004.

On the basis of these foundations and their implementation outlined later in this paper, the Commission adopted a communication on "e-Commission 2006-2010: enabling efficiency and transparency"; this communication spells out the IT strategy for the next 5 years. Indeed the objective of the improvement of IT governance is to support the Commission's decision to be among best practice organisations in the e-government and e-administration fields by making sure that the necessary transformations in this undertaking are performed in a well coordinated and controlled manner, with the right quality of IT products and services

## **6) The process leading to success**

The Commission decision on the improvement of IT governance relies conceptually on 3 processes:

### a) Strategy and portfolio management

In order to be in position to control the existing portfolio of systems and their evolution, system and project portfolio management processes have been implemented. They extend the elaboration of IT strategy, which identifies the targets to be reached. These processes provide transparency throughout the organisation on the activities planned by each service as regards information systems and allow its gradual optimisation and quality improvement. An annual IT governance cycle has been defined and run in 2005 and 2006. Peer reviews have been implemented to advise DGs on the pertinence or quality of definition of new systems or on major evolutions of existing ones.

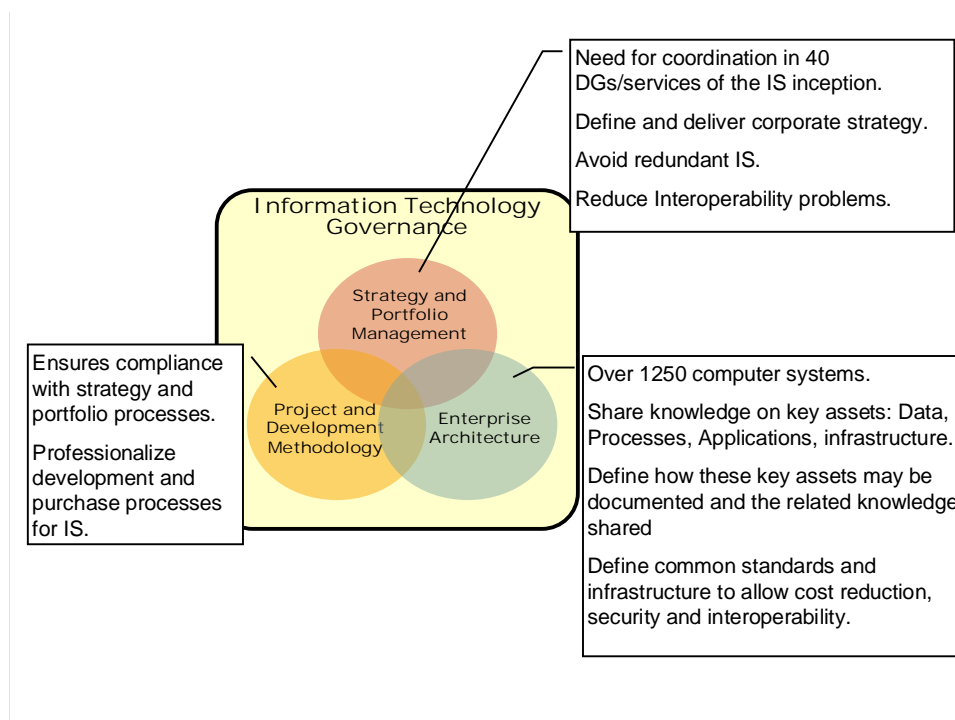
**b) Common methods for the project management and development of information systems**

In order to improve the quality and predictability of the development of information systems, as well as the mobility of IT staff among DGs and the exchange of best practices between them, the principle of the adoption by all services of a common methodology has been agreed. Starting in 2004, a methodology has been selected and implemented in the Commission. A 4 years strategy for its implementation in DGs has been adopted and the necessary support tools, training plan and support structure have been set up.

**c) Definition of an enterprise architecture**

The enterprise architecture describes who does what, when, why, how, using what means. The need for gradually building this knowledge has been agreed. The Commission IT architecture framework has been developed and agreed in 2005. It promotes the inventory and description of the business processes of the organisation and the description of the related IT assets – data and information systems. . It explains how this description guides to better planning, better transparency and business to IT alignment..

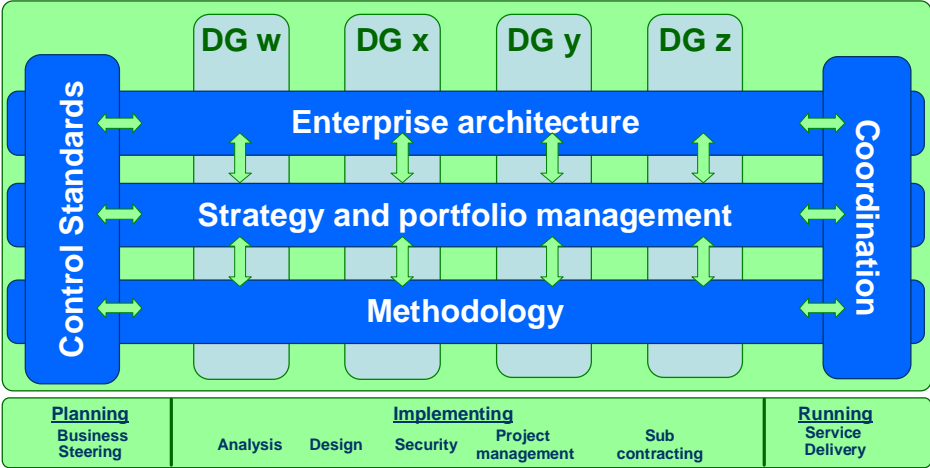
The above disciplines are interrelated and implemented in an integrated manner as depicted in the figure below :



**Structure and organisation of IT in the Commission**

The above disciplines have been implemented in our organisation and the structures have been adapted accordingly. The figure below outlines the implementation model.

### IT governance model in the Commission



The structure is essentially federal or, said differently, is based on the subsidiarity principle. That means that each directorate general is responsible for the elaboration of its strategy concerning IT, in line with the strategies adopted at Commission level; they are furthermore responsible for the local governance of this strategy and its implementation and reporting, following agreed methods and standards defined by the methodology, portfolio management and enterprise architecture processes. Overall coherence and decision making is assured at interservice level through committee structures defined in the Commission decision for the improvement of IT governance. Control is implemented through the extension of the Commission's internal control framework.

### 7) Results indicating the success.

As indicated above, the quality and quantity of information on systems and projects around the organisation has increased dramatically over 2005. Whilst we are still away from perfection, we start being in the position to make some analysis of the portfolio and produce advice. In 2005 we could already identify overlap areas between DGs and generate activity to remove this redundancy. In 2006 with the improved information available we will be in the position to further develop our analysis and rationalisation capability.

The methods developed have been implemented in 2005 in some pioneering services who report back their satisfaction in addition to their positive criticism, allowing improvement. The methodology team offers its services to a continuous growing list of customers (some 30 DGs at the present time)

The number of projects run with the set methodology increases steadily. The number of trainees increases. More than 230 professionals have been authorised to use the associated methodology tools and projects have started adopting bug-tracking tools (50 projects), requirements management tools (13 projects) and versioning tools (69 projects).

Business process management, one of the disciplines advocated in the enterprise architecture framework, is effectively used in some services. The planning of a large complex system for the management of structural funds has benefited from the use of the enterprise architecture approach and allowed consensus with a large number of stakeholders from member state organisations.

We have been able to elaborate a 5 years strategy for IT in the Commission and are now in position to elaborate a more detailed roadmap.

## **8) The main obstacles of the case**

The primary "obstacle" is the need to implement a number of changes.

- The introduction of the business to IT alignment calls for specific roles for the business side of the organisation, such as project sponsoring, business process analysis, planning of IT matters. There are some parts of our organisation that considered IT as a purely technical matter and need to change approach in that regard by acquiring new skills.
- The introduction of common working methods also meets some resistance. Indeed one or two of the services had already an established methodology that has to be taken into account; others do not see the benefit of common methods and tools. We have then a very large range of maturity of the groups of persons we need to make evolve.
- The introduction of a project management approach also conflicts with some working practices which are based on funding of information systems and not specific improvement objectives.
- The introduction of a project definition or vision at the beginning of any project is felt by some as additional bureaucracy.

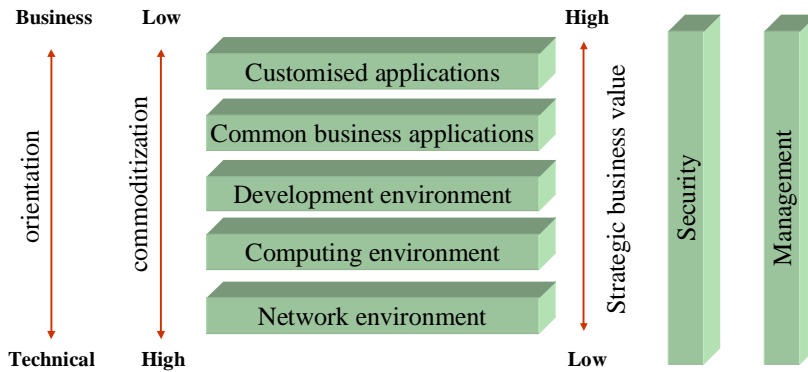
The above list is certainly not exhaustive. To tackle these challenges we use a combination of training, evangelisation, motivated decision making, exercise of peer pressure and transparency.

Overcoming these difficulties takes time and consistency in the approach. It necessitates (and to a certain extent still necessitates) the involvement of all stakeholders in the various groups and committees composing the IT governance structure to avoid the feeling that a central entity disconnected from the reality actually imposes its views. Secondly, trainings are organised targeting all the impacted populations, from IT developers to Commission's top management. Furthermore awareness raising activities are done on a continuous basis, in particular on the successes reached in the services that do adopt the proposed methods. Quality of supplies designed to help services adopt the various methods and tools is also a fundamental element for the elaboration of trust. Last but not least, sponsorship at political level is definitely a critical success factor.

## **9) Main sources of inspiration behind the case**

- a) COBIT. The audit of our IT governance has been made using the Cobit framework.
- b) Participation in a number of seminars by many consulting groups on enterprise architecture, IT governance, value of IT. Networking with peers in these occasions.

c) Related publications of the IEEE. In particular the model below<sup>1</sup> concerning the IT value chain.



d) Experiences of Commission services in managing trans-European systems, which involve a multi-administration IT governance structure.

## 10) The most important lesson learnt

We have experienced and are still experiencing a typical change management process. That makes us think of the saying of Jean Monnet, father of Europe, on 12 May 1954:



*« Ce qui nous arrête, c'est la peur du changement. Et pourtant, c'est du changement que dépend notre salut »*

Free translation : "what stops us is the fear of changing. However, our salvation depends on change"

<sup>1</sup> Inspired from the article "Successful CIOs : pushing the IT business value envelope", ITPro March/April 2004