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Master's Thesis  
**INTEROPERABILITY IN E-GOVERNMENT  
SYSTEMS**

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# I. INTRODUCTION

## **I. INTRODUCTION**

The European Council, meeting in Lisbon in March 2000, adopted conclusions aimed at preparing the transition of the European Union by 2010 to the world's most competitive, dynamic, and knowledge-based economy, capable of sustainable economic growth with more and better jobs and greater social cohesion.

On the one hand, it seems obvious that the administrations of each country play an important role to achieve these objectives; on the other hand, it is well known that the information technologies are bringing lots of advantages. By joining together both of them we have what is called e-Government which is one of the activities of the Information Society.

A real e-Government, which actually contributes to improve the way they work with their customers, requires interchanging of data between the different administrations, and consequently, interoperability.

As we will see, achieving interoperability requires the cooperation and coordination of all the parts involved. This is a complicated task at national level, thus trying to reach this goal in a pan-European dimension is a Titan's work.

This document is divided into seven chapters which intend to give an overview of the state and development of the interoperability in the European Union.

The Chapter II, "Reference Framework", describes the motivations and objectives of this document as well as the development period and the work method used on it.

The Chapter III, "The Interoperability Activities Promoted by the European Institutions", sets out the measures taken by the European Institutions in the matter of interoperability to achieve the pan-European dimension of the e-Government. We will talk about the IDA Programme and about the projects and research areas on interoperability and explain in detail the European Interoperability Framework.

The Chapter IV, "The BundOnline Initiative", explains the German initiative for e-Government. It is a description of its objectives and the strategy followed for having by the year 2005 most of their services online. At the same time, it is an introduction to the framework on which it is developed SAGA, the central document that we will study in the next chapter.

The Chapter V, "The Interoperability in BundOnline: SAGA", aims to compare the national interoperability frameworks developed in Europe. We will contrast the German initiative with the British and French ones to emphasize their similarities and differences and at the same time we will analyse the fulfilment of the recommendations of the European Interoperability Framework.

The Chapter VI, "Conclusions and Future Directions", contributes to clarify all the ideas developed throughout the document. Moreover, we do not want to finish this work without considering those aspects which, in our opinion, will be of outstanding importance in the future.

Finally, I would like to thank his support and help in the development of this document to Prof. Dr. Antonio Alabau Muñoz holder of the Jean Monnet Chair in Telecommunications and Information Society Policy in the European Union and Professor of the Telecommunications Engineering School in the Polytechnic University of Valencia, as well as to Prof. Dr. Michael Breitner and Dr. rer. pol. Günter Wohlers from the Institute for Information Systems Research (Institut für Wirtschaftsinformatik) in the Hanover University for supporting this Master's Thesis.

## **VI. CONCLUSIONS AND FUTURE DIRECTIONS**

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As we have seen throughout the document, even when the interoperability is an essential part of the development of the e-government, is difficult to achieve due to the lack of administrative power of the Communitarian Institutions in the running of the public administration at any of its levels, namely: state, regional or of the municipalities. For this reason, the only thing that the Community can do is waiting for the cooperation of the Member States and the fulfilment of the given recommendations.

And as if that was not enough, in some countries the state government can neither exercise a control over the administrations of regions and municipalities. This was, for example, the situation in Germany.

With all these, we can see that an essential aspect of the development of the e-government depends on the cooperation and collaboration of 25 countries and a never-ending of regions and municipalities which have their own principles and interests.

IDA, with the European Interoperability Framework, its Horizontal Actions and Measures and the Projects of Common Interest, tries to coordinate the development of the national interoperability frameworks so that the final objective of obtaining pan-European interoperability can be achieved.

To add more difficulty, if possible, to the development of the electronic administration, it must be taken into account the realities of the country, i.e. the level of technology in the country, the economic disparities between regions, the socio-economic disparities between groups of citizens, the cultural and language differences or the different legal systems that may hinder integration. All these disparities are increased with the recent incorporation of 10 new Member States to the European Union.

On the other hand, we have seen that not even the national systems are finished and that the highest level of service development, that is the one which allows carrying out transactions with the administrations, is not ready in any country.

It is obvious that the different Governments give priority to their interests and are not very worried about the pan-European needs, even more when the development of these services demands a high initial investment. It is true that these new services will bring benefits; nevertheless the investments will be recovered in long term.

From our point of view, the future direction to achieve interoperability in medium and long term should be the improvement of the semantic aspect of the interoperability, as it is the present key in the interchange of data between administrations. It has no sense interchanging data which have not the same meaning for both parts because this will lead to erroneous information processes.

In our opinion, this lack of pan-European dimension in the development of the electronic administrations of the different Member States will mean problems in the future when all these administrations must be joined together. In that moment, it will

arise difficulties that will come from the lack of cooperation and coordination. To solve them it will be needed to find specific solutions for each of them and this will mean delays on the implantation of the system and increment of costs.

There is still a lot of work to do to achieve a real interoperability between the systems; the Commission is trying to do its best to persuade the Member States of the importance of the interoperability. More studies and more supervision of the different national frameworks will be still needed. Nevertheless, this will only be possible with coordination of the European Commission and the collaboration of the Member States.