Chapter 8
The Semantic Interoperability Centre Europe: Reuse and the Negotiation of Meaning

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ABSTRACT

This chapter presents a case of a centralised and collaborative approach to interoperability in public administration: SEMIC.EU, the Semantic Interoperability Centre Europe. SEMIC.EU is a horizontal measure of the European Commission implemented with the primary purpose of enhancing semantic interoperability in public administrations and projects across Europe. The European Commission service calls on projects and individuals alike to share their solutions for semantic interoperability (so called “assets”) or to find them through a joint effort. A standardised clearing process governs the evolution of the contributed data models, XML schemas, code lists and ontologies and gives guidance to potential re-users. The chapter argues that especially at a high level of administration like the European one, the guiding principles for common solutions to semantic interoperability coordination must be exchange of existing practices and community-based negotiation of purposes and meanings.

INTRODUCTION

In a modern eGovernment environment standards for data exchange are at the core of technological developments. The European Commission supports efforts in European eGovernment with a number of programmes. One of the key implementations is the establishment of the Semantic Interoperability Centre Europe. With a repository for open exchange of solutions for semantic interoperability, it is a “horizontal measure” of the Commission’s programme “Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens” (IDABC). Its purpose is to deliver eGovernment infrastructure services which are not confined to any specific policy field.

The Semantic Interoperability Centre Europe operates as a coordinated network of eGovernment projects and communities. The service calls on projects and individuals alike to share their build-
Seamless data interchange is a core objective in efficient pan-European eGovernment services. Data interchange between different data systems facilitates the implementation of easy-to-use cross-border eGovernment services and applications across the EU at large, or within its Member States. Questions of semantic and organisational interoperability have to be solved and integrated in appropriate technical infrastructures.

The European Interoperability Framework for pan-European eGovernment Services (EIF v 1.0) points towards the necessities and objectives of the European Commission’s efforts in this field and provides guidance to EU institutions and Member States. In 2005, the project “Developing Content Interoperability Strategy: A Feasibility Study on an XML-Clearinghouse for pan-European eServices” was launched. It represents the first step towards the “European XML-Clearinghouse” established as SEMIC.EU.

Now a continuous service by the European Commission, the centre facilitates the reuse of syntactic and semantic assets needed for semantic interoperability. A standardised clearing process, supported by platform functionalities, governs the evolution of the data models, XML schemas, code lists, ontologies and taxonomies which are shared through the open repository. This chapter spells out why the platform as the permanent face of SEMIC.EU depends on online and offline, personal exchange and face-to-face meetings and how this reflects the general nature of semantic interoperability.

**MULTIPLE LAYERS OF ADMINISTRATION**

IDABC put pan-European eGovernment Services (PEGS) at the centre of its activities. The pan-European scope requires coordination at the European level and also opens up opportunities for a coordinated validation and quality assurance process. This has been implemented with the Semantic Interoperability Centre Europe. SEMIC.EU’s Quality Framework and Clearing Process provide the tools and environment for a collaborative enhancement of interoperability assets and at the same time, they help to avoid any restrictive top-down standardisation of data models.

It is self-evident that the inclusion of public administrations at all levels in Europe means that the activities are located at the more heterogeneous end of the spectrum of possible stakeholder environments. This heterogeneity is characterised by the following dimensions of the actors’ fields of work:

- administrative level (European/supranational, national, regional, local)
- territory: the respective territory, e.g. Italy, Finland, Asturias, Flemish Brabant, Vienna, Warsaw
- domain: the administrative/government domain is responsible for, e.g. business registration, health care
- scope: the total of its responsibilities and dependencies on other authorities, executive power
- language(s) used (both on working level and in official communications)

An additional level of administration besides the local, regional and national ones generates new challenges as well as opportunities:

In a situation of multi-level governance, this increases the already high significance of the semantic dimension of interoperability even more. In this context, multi-level governance is defined as a two-fold process: the shifting of administrative