## Interoperability Factsheet - Greece

### I. Interoperability as a strategic goal

**Strategic Priority on Interoperability**: Yes

The Greek eGovernment Interoperability Framework is part of the overall design of the Greek Public Administration aiming to provide eGovernment services to enterprises and citizens. It is the cornerstone of the Digital Strategy for the period 2006-2013, and it is also directly related to the objectives and guidelines of EU Policy 2010, European Information Society 2010. The Framework aims to support eGovernance at central, regional and local level and to achieve interoperability at the information systems level, processes and data by defining the standards, specifications and rules for the development and deployment of web-based front and back-office systems [11].

**National Interoperability Strategy Status**: Not planned yet

### II. National Interoperability Frameworks

<table>
<thead>
<tr>
<th>National Interoperability Framework Status</th>
<th>Published</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong>: Greek eGovernment Interoperability Framework</td>
<td>[1]</td>
</tr>
<tr>
<td><strong>Version</strong>: v3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Release date</strong>: January 2009</td>
<td></td>
</tr>
<tr>
<td><strong>Focus/Scope</strong>: - (C) Conception, - (I) Implementation, - (O) Operation</td>
<td></td>
</tr>
</tbody>
</table>

The Framework defines standards, specifications and rules for the development and deployment of web-based front and back office systems for the Greek Public Administration at National and Local level. Although it refers to vision and strategy it is not a systematic approach. The conception, the implementation and the operation are analyzed adequately.

- **Audience**: Government
- **Status**: Published

**European Interoperability Framework Incorporation Status within National Interoperability Frameworks**

High. The Greek Interoperability Framework is in conformance with the European Interoperability Framework (EIF).

### III. Interoperability Projects and Activities

**National Interoperability-related Activity: Number of interoperability-related projects funded from national resources**

Moderate

Indicative projects:

- The National Cadastre project and portal aiming at the simplification of the real estate property transactions, enabling online submission of applications, electronic secure payments and transferring of documents [11].
- The Hellenic Police Network (Police Online) connecting more than 1100 police departments and offering new electronic services to citizens [11].
• TAXISnet portal for online tax and customs services, including e-filing of VAT forms with payment through banking systems services, e-filing of income Tax forms, personalized information for Income Tax assessment and e-delivery of tax certificates ([https://www.taxisnet.gr/](https://www.taxisnet.gr/)) [11], [61].
• Online issuing of criminal records in six major cities [11].
• The Management Information System of the Hellenic Selective Service offering information services, citizen guide, online submission of military service redemption applications and numerous other forms [11].
• The portal of the Supreme Court of Audit the information system of the Council of State allowing online follow up of cases by the litigants or the attorney with the use of passwords, online application for certificates, etc [11].
• GRNET project - Greek Research and Technology Network ([http://www.grnet.gr/default.asp?pid=27&la=2](http://www.grnet.gr/default.asp?pid=27&la=2)), supporting the electronic interconnection of academic and research institutions among themselves as well as with relevant academic networks world-wide through research and education networks [11].

**EU Interoperability Research Involvement: Number of EU-funded interoperability-related projects**

**Moderate**

**Indicative projects:**
• SPOCS ("Simple Procedures Online for Cross-border Services") project to remove the administrative barriers that European businesses face before offering their services abroad and ensure service and system interoperability ([http://www.eu-sposc.eu/](http://www.eu-sposc.eu/)) [38].
• GENESIS ("Enterprise Application Interoperability via Internet-Integration for SMEs, Governmental Organisations and Intermediaries in the New European Union") addressing the interoperability issues that hinder electronic transactions among enterprises and organizations today and focusing on the research, development and pilot application of the needed methodologies, infrastructure and software components that will allow the typical, usually small and medium European enterprise to conduct business transactions over the internet ([http://www.genesis-ist.eu](http://www.genesis-ist.eu)) [60].
• FUSION (Business process fusion based on Semantically-enabled Service-oriented Business Applications) project aiming to promote efficient business collaboration and interconnection between enterprises (including SMEs) by developing a framework and innovative technologies for the semantic fusion of heterogeneous service-oriented business applications [58].
• INTEROP-NoE (Interoperability Research for Networked Enterprises Applications and Software - Network of Excellence) project focusing on the integration of main thematic components of interoperability research roadmaps, the development of new knowledge and the promotion of interoperability research on enterprise applications at a European level [59].
• NEXES ("Supporting Healthier and Independent Living for Chronic Patients and Elderly") project, aiming to support the deployment of ICT-enabled integrated healthcare programs ensuring at the same time organizational interoperability among the actors involved [31].
• SAKE ("Semantic-enabled Agile Knowledge-based eGovernment") project to facilitate knowledge management (knowledge personalization, proactivity and transferring as well as integration of structured and unstructured data) in the public sector ([http://www.sake-project.org/](http://www.sake-project.org/)) [32].
• SWEB ("Secure, interoperable cross-border m-services towards a trustful European cooperation with the non-EU member Western Balkan countries") project to develop a secure, interoperable, open, affordable platform upon which secure cross border government services will be built ([http://www.sweb-project.org/](http://www.sweb-project.org/)) [33].
• CALLIOPE ("CALL for InterOpeRability") project, aiming to promote an effective uptake of and advance eHealth interoperability ([http://www.calliope-network.eu/](http://www.calliope-network.eu/)) [34].
• Access-eGov ("Access to e-Government Services Employing Semantic Technologies") project to develop and validate a platform for composition of government services into complex process definitions (covering life events/business episodes) enabling semantic interoperability of particular e-Government services ([http://www.access-egov.org/acegov/web/uk/index.jsp](http://www.access-egov.org/acegov/web/uk/index.jsp)) [35].
• EPSOS ("European Patients Smart Open Services") project aiming to build and evaluate a service infrastructure demonstrating cross-border interoperability between Electronic Health Record Systems in Europe ([http://www.epsos.eu/](http://www.epsos.eu/)) [36].
• VIDE ("Visualize moDel drivEn programming") project, focusing on the development of a Unified Modelling Language (UML)-compliant action language including visual notation, mainly suited to business applications ([http://www.vide-ist.eu/](http://www.vide-ist.eu/)) [37].
• SemanticGov ("Providing Integrated Public Services to Citizens at the National and Pan-European level with the use of Emerging Semantic Web Technologies") project to build the infrastructure necessary for enabling the offering of semantic web services by public administration in order to achieve among others interoperability amongst PA agencies both within a country as well as amongst countries (http://www.semantic-gov.org/)[39].
• COMMIUS ("COMMunity-based Interoperability Utility for SMEs") to develop an innovative interoperability technology supporting new business models for the European SMEs (http://www.commius.eu/)[40].
• SELIS ("SEcure EElectronic Invoicing Service"), a cross-border service for the secure exchange of eInvoices, based on an innovative architecture that adopts the most advanced standards for the secure provision of interoperable services (http://sellis.unipi.gr/selis/main/index.html)[41].
• NETC@RDS project on the deployment of an online service for the “electronification” of the European Health Insurance Card (EHIC) in 16 EFTA/EU countries and a trans-European interoperable infrastructure (http://www.netcards-project.com)[46].
• eMARK project, to optimize the protection of trademarks through image-based searches of trademarks or industrial designs kept by Industrial Property offices to provide among others a new interoperability standard for the harmonization of Intellectual Property Office data collections (http://emarks.jisa-innov.com/)[49].

IV. National Interoperability Practices

<table>
<thead>
<tr>
<th>Number of Interoperability Cases with Good Practice label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
<tr>
<td>- ERMIS – Interoperability Infrastructure and National Portal of Public Administration for one-stop, automated, interoperable digital services provision for citizens and businesses at national and local administration levels. (<a href="http://www.ermis.gov.gr">http://www.ermis.gov.gr</a>) [30].</td>
</tr>
<tr>
<td>- The network of multi-channel Citizen Service Centers (KEP) as the administrative one-stop public service delivery centers, where citizens and businesses can have access to public service information and to over 1000 standardized administrative procedures, regardless of their digital capabilities, social orientation or locality, and the online platform (e-KEP), (<a href="http://www.kep.gov.gr">http://www.kep.gov.gr</a>) [11], [29].</td>
</tr>
<tr>
<td>- TAXISnet portal for online tax and customs services, including e-filing of VAT forms with payment through banking systems services, e-filing of Income Tax forms, personalized information for Income Tax assessment and e-delivery of tax certificates (<a href="https://www.taxisnet.gr/)%5B11">https://www.taxisnet.gr/)[11</a>], [61].</td>
</tr>
</tbody>
</table>

Best Interoperability Practice

Title and Short Description:
ERMIS – Interoperability Infrastructure and National Portal of Public Administration (http://www.ermis.gov.gr) [30], consisting of 4 main components:
- The Service Registry, a web-based repository of services, documents, systems and organisations descriptions, containing currently 18,000 Public Sector Entities, 2066 Services, 3912 Documents, 1434 Unique Document Field Definitions, 614 BPMN Models for Services, 404 XML Schemas for Documents, 132 Core Components, 66 Data Types and several taxonomies for standardised information.
- The Greek National Interoperability Framework, including a complete set of guidelines and standards.
- The Service Delivery Platform, a multi-channel front-end, one-stop gateway for citizens, businesses and public organizations.
- The Service Transformation Toolkit, containing guidelines and patterns for transforming public services.

Status:

IOP aspects covered:
- Business Process Management, Modelling, Simulation and Reengineering
- Service Registries
- Data Modelling
- Semantics
- Metadata Management
- Content Syndication
ERMIS offers:
- A systematic, collaborative toolset to manage service transformation, from paper-based to electronic, already populated with a substantial set of information on services and documents.
- A set of guidelines and standards for managing portal creation and operation, back-office and front-office interoperability, eID management and service documentation – the main pillars of eGovernment.
- A centralised interoperability infrastructure that can be the delivery point of truly interoperable, one-stop, highly automated services while also federating on-line content from a variety of sources.
- An infrastructure for publishing available or needed Web Services on-line, so that service composition and mashing-up can be further promoted.
- Digital services that can be fulfilled in one stop, in one second and at no extra cost. This is extremely important especially for services that span several organisations and thus take a lot of time during manual fulfillment.
- Full on-line documentation of the whole spectrum of governmental services, the providing organisations and the legal framework, in four languages, with advanced semantic search mechanisms.
- A set of guidelines and standards for offering high-quality ICT services to the public sector, through the Greek NIF (for the ICT industry).
- The ERMIS Service Delivery Platform provides more than 100 highly sophisticated interoperable, cross-organisational digital services, in levels 3 and 4. More than 1,000 services currently exist at level 2. The most important services, provided at full-online availability, are the birth, citizenship, and family certificates.
- The next phase of the portal’s evolution involves the implementation of ten of the most important daily transactions between companies and the Social Security Institute (IKA), such as the updating insurance.
- Compound financial gains, including both the administration and the citizens cost, amount to 30 EUR per certificate issued, generating an annual gain of more than 10 million EUR.

Lessons Learnt:
- Nation-wide initiatives for one-stop service provision have to combine content syndicating portals, service registries and relevant standardisation in a coordinated effort.
- Service digitization has to be coupled with transformation, in order to ensure service delivery to citizens but also long-term growth and sustainability.
- Interoperability standardisation has to be supported by collaborative platforms, than just be in paper format, in order to assist diffusion within the public sector.
- Service registries can greatly assist in managing service transformation, as they provide a consistent infrastructure for sharing information across the Public Sector.
- Training and dissemination has to get a significant amount of a large project effort and budget, as diffusion within the public sector and citizens is of key importance.
- Language issues are extremely important in an Interoperability Infrastructure: all relevant metadata descriptions should be in local language – for the government officials to understand, modify and approve - and at least in English - for easiness of communication with other governments and practitioners in anticipation of cross-border e-Government services.
- Adequate time and effort needs to be spent for communicating and working together with government officials at various levels, for the actual agreement on the standards and the e-Government service-related definitions and for the final adoption.
- Interoperability Infrastructures need to be supported by appropriate changes to the legal framework at national level.
- The follow-the-service approach, by means of structuring the majority of standardisation, development, transformation or management efforts around the provision of the key services
towards citizens and businesses is a very valuable tool, greatly assisting focusing on actual and measurable goals.

<table>
<thead>
<tr>
<th>V. e-Government Interoperability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interoperability Level of core e-Government services to citizens</td>
</tr>
<tr>
<td>Interoperability Level of core e-Government services to businesses</td>
</tr>
<tr>
<td>Connected Government Status</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VI. e-Business Interoperability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-organizational Business Processes Integration Level</td>
</tr>
<tr>
<td>Cross-organization Integration Level</td>
</tr>
<tr>
<td>Cross-organization Application-to-Application Integration Level</td>
</tr>
<tr>
<td>e-Invoicing Status: Percentage of companies sending e-invoices:</td>
</tr>
<tr>
<td>Percentage of companies receiving e-invoices from suppliers:</td>
</tr>
<tr>
<td>Average share of sent e-invoices (as % of total invoices):</td>
</tr>
<tr>
<td>Average share of received e-invoices (as % of total invoices):</td>
</tr>
<tr>
<td>Average share of turnover stemming from e-invoices (as % of total turnover):</td>
</tr>
<tr>
<td>B2B Data Standards Usage (“Percentage of companies using...”)</td>
</tr>
<tr>
<td>... EDI-based standards:</td>
</tr>
<tr>
<td>... XML-based standards:</td>
</tr>
<tr>
<td>... proprietary standards:</td>
</tr>
<tr>
<td>... other technical standards:</td>
</tr>
<tr>
<td>Interoperability Awareness- (“Percentage of companies saying that interoperability is important for e-business...”)</td>
</tr>
<tr>
<td>... within their sector:</td>
</tr>
<tr>
<td>... between sectors:</td>
</tr>
<tr>
<td>... for producing or providing products and service</td>
</tr>
</tbody>
</table>