

## Estonia

The Estonian government has published an extensive Information Society Strategy. Focusing more on the short- to medium term, The Implementation Plan of the Estonian Information Society Strategy emphasises stimulation of IT knowledge throughout the country and further implementation of open, interoperable eGovernment services. The Implementation Plan has indicators and SMART-defined targets for each year.

Version 2.0 of the Estonian National Interoperability Framework was published in 2005, with a new version currently under public review (in wiki form). It is owned by the Department of State Information Systems (RISO), part of the Ministry of Economic Affairs and Communications.

The Framework is mature, mainly because it has originated from the X-Road infrastructure and related eGovernment service developments. The Framework could be considered a generalisation of standards introduced by the X-Road infrastructure and KIT citizen portal. Furthermore, semantic standards and IT architecture are published separately.

The objectives of the architecture and interoperability framework are the following:

- To cut down on the expenses of public administration systems through centrally implemented middleware;
- To help in achieving interoperability through the use of open standards, the Estonian PKI infrastructure and ID card, the middleware X-Road for the integration of databases, and the citizens' environment KIT;
- To improve coordination of the development processes of information systems for public administration and to accelerate the development of E-services;
- To achieve the independence of public information systems by following the principles of organisational, semantic and technical interoperability that are described within the framework;
- To create facilities for free competition among IT companies in the area of public procurement.

The implementation of new services is driven by a strong focus on middleware (the X-Road infrastructure) that takes care of secure exchange of information, the authentication and authorisation of citizens and government officials, and access to services in a consistent manner. New services connecting to X-Road are assessed and certified by RISO, mandating the usage of the published standards.

The Framework and other publications are updated when necessary. RISO is end-responsible, but is open to input from all stakeholders (including the public) on all published documents.