

Country: Estonia



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NSDI and INSPIRE

Relation and on-going activities



- **Institutional framework**

- Spatial data & infrastructure are parts of general national IT infrastructure
- National IT policies (www.riso.ee)
 - first 1994
 - 2004-2006: special action line for environment and spatial data
 - Starting of Environmental Register
 - Open access to Environmental monitoring, fisheries and forest registers
 - Development of land information system, especially e-services for public sector
 - **ELB gets a role to coordinate geoinformation activities in governmental sector**
 - **INSPIRE is mentioned first time (2006)**
 - **budget 35 million EEK (2.2 million EUR) in 2005 and 30 million EEK (1.9 million EUR) in 2006**
 - Draft 2007-2013: more access to spatial data and services for private and third sector
- Legal framework takes shape
 - Environmental Register Act 2002, latest amendments 2005
 - geodetic system 2005
 - geodetic database Jan. 2006
 - Estonian National Topographic Database June 2006
- INSPIRE roundtable (Jan. 2005) - representatives from all ministries and gov. agencies having interests in spatial data

NSDI and INSPIRE

Relation and on-going activities



- **Geodata and spatial information - Annex 1**
 - **Coord. Ref. systems.** Regulation exists, all spatial data must conform to the Regulation starting from June 1, 2005, **web**
 - **Geographical grid systems.** No general purpose systems exists, only specific (forest manag.). Basic Map (1:10000) sheet grid, projection grid, **web**
 - **Geographical names.** Register exists (name, location), linked to Basic Map, Min. Internal Affairs, **web**
 - **Administrative units.** Classifier (Statistics), boundaries from cadastre (1:10000, ELB), **web, vector data downloadable (ELB)**
 - **Transport networks.** Road database – very detailed (Road Admin.), spatial (ELB) + attributes, spatial linked to Basic Map, **web (roads)**. Other (rail (web), air, water) smaller scales, not connected
 - **Hydrography.** Base Map (1:50000) has network. Basic Map – network creation under development, **web**
 - **Protected sites.** National and Natura 2000, 1:10000, **web**

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Relation and on-going activities



- **Geodata and spatial information - Annex 2**
 - **Elevation.** Base Map (DTM). Lots of more detailed data (1:10000) exists but no OTS products, under development. Problem – forested areas. **Web application for computing heights from sea level from WGS84 (GPS) heights.**
 - **Addresses of properties.** Under preparation, **web (some)**
 - **Cadastral Parcels.** 1:10000, **web**
 - **Land Cover.** Base & Basic Map land cover layers, **web.** **Corine Land Cover**
 - **Orthoimagery.** 1:10000, **web**
 - **Geology.** 1:50000 (linked to Base Map), partly coverage, **web**

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Relation and on-going activities



- **Geodata and spatial information - Annex 3 (1)**
 - **Statistical Units.** Yes, by admin. and settlements units (census, environmental, social, economics) , linked to Basic map, **web, some data downloadable (census statistics)**
 - **Buildings.** Basic Map buildings layer, linking with Constructions Register under preparation
 - **Soil. Yes,** 1:10000 (not linked to Basic Map), **web. No slopes and water storage capacities**
 - **Land Use.** County, municipality and city land use plans, **web. Agrig. field massives for managing EU subsidies, web**
 - **Human Health and Safety ?**
 - **Utility, governmental services.** Utilities – as map features on the Basic Map (power lines, gas pipes). Governmental services – some municipalities and cities. **some in web**

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Relation and on-going activities



- **Geodata and spatial information - Annex 3 (2)**
 - **Environmental monitoring facilities.** Some (wastewater, air pollution sites, dumping sites, envir. monitoring sites), **some in web**
 - **Production and industrial facilities.** Some, no complete national coverage
 - **Agricultural and aquaculture facilities.** Some (cattle sheds)
 - **Population distribution – demography.** Yes, census data, linked to Basic Map, **web**
 - **Area management/restriction/regulation zones & reporting units.** Some, no complete national coverage.
 - **Natural risk zones.** Not now, will be included in the Environmental Register (operative 2007)
 - **Atmospheric conditions.** ?

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Relation and on-going activities



- **Geodata and spatial information - Annex 3 (3)**
 - **Meteorological geographical features:** 'all standard data'. Estonian Meteorological and Hydrological Institute, **some in web**
 - **Oceanographic geographical features.** Some, no complete national coverage, usability will depend on impl. rules of INSPIRE
 - **Sea regions.** Some, no complete national coverage, usability will depend on impl. rules of INSPIRE
 - **Bio-geographical regions.** Some, no complete national coverage, usability will depend on impl. rules of INSPIRE
 - **Habitats and bitopes.** Some, no complete national coverage, usability will depend on impl. rules of INSPIRE
 - **Species distribution.** No aggregated distribution, relatively easy to compute from existing data.
 - **Energy resources.** Some?
 - **Mineral resources.** Yes, State Register of Mineral Deposits

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Relation and on-going activities



- **Geodata and spatial information**
 - Metadata - weakest point
 - no standards based services yet
 - ELB:
 - OpenGIS project will give a framework
 - Metadata exists (layers, reality and info models, spatial coverage etc), relatively easy to convert when the framework is ready
 - EEIC: More problematic, hundreds of layers



NSDI and INSPIRE



Relation and on-going activities

- **Geodata and spatial information**
 - Web-Map server at ELB www.maaamet.ee
 - Public service - viewing, queries, tools (distance etc), free
 - Targeted services – ELB's internal tasks, for surveyors, governmental sector, local governments
 - Web atlas
 - Cadastre
 - Natura 2000 and nature protection (with EEIC)
 - Cultural heritage objects (with National Heritage Board)
 - Regional planning (targeted for local governments)
 - Historical maps ((with EEIC)
 - Administrative and settlement division (with Statistics Board)
 - Geology
 - Roads (with Road Administration)
 - Waste treatment sites
 - Soil
 - Agrig. field massives and nitrate vulnerable areas

NSDI and INSPIRE

Relation and on-going activities



- **Geodata and spatial information**
 - EELIS (Estonian Nature Information System, EEIC)
www.keskkonnainfo.ee
 - Public and targeted services
 - Protected areas
 - Protected nature monuments
 - Protected species
 - Waterbodies
 - Environmental Monitoring Sites database (EEIC)
 - local governments web-map servers
 - Public and targeted services
 - www.tallinn.ee (interface also in English), www.tartu.ee
 - Public transport
 - parking
 - Cultural objects
 - Accommodation, restaurants, entertainment
 - Operational info (road reconstructions etc)
 - Physical planning

NSDI and INSPIRE

Relation and on-going activities



- Interconnections between INSPIRE, NSDI, e-Government
 - IT policy action lines
 - OpenGIS project, ELB, 2005-2006
 - Infrastructure incl. remote servers and system for data dissemination
 - Web applications (thin and thick clients) for data presentation and registration with various toolsets (incl. measurements, geocoding, digitizing etc.)
 - Catalogue service about data and application availability
 - Data will be accessible via services implemented according to OpenGIS standards (WMS, WFS, etc)
 - Test site open (internal)
 - **Funding: 400 000 €**

NSDI and INSPIRE

Relation and on-going activities



- Interconnections between INSPIRE, NSDI, e-Government
 - Spatial data interface to X-Road (Crossroad)
 - cadastral alphanumeric database already linked to X-Road
 - interface to handle also spatial data in X-Road
 - Environmental Register
 - The objective is to consolidate all environmental data into one main national register
 - The essence of the Environmental Register is its full public access
 - Spatial data in Environmental Register takes into account the INSPIRE principles. Register will offer network services - in the first stage discovery and view services (by the end of 2006)
 - Proposal to establish Environmental Spatial Data Infrastructure, sept 2006

Recent involvement in the INSPIRE development and planning



- Internationally
 - Projects: Envifacilitate Project (LIFE Environment Project, EEIC from Estonia) – an attempt to integrate existing initiatives in spatial environmental info field
 - ELB is registered as LMO
 - EEIC will be registered as LMO in the near future
 - Why so little: limited resources
- Preparatory activities in the country
 - INSPIRE roundtable
 - experts inform other parties about the status of INSPIRE
 - data producers have identified ‘their’ layers
 - ELB counts on INSPIRE when planning its activities, funding, etc
 - ELB and EEIC are waiting implementing rules!

Awareness-raising & capacity building



- Activities and events focused on NSDI and/or INSPIRE
 - Several presentations at the 2005 GIS Day Conference (INSPIRE, ELB and EEIC spatial data services) and at the Estonian Statistics Conference May 2006
 - Plans to have more presentations (2006 GIS Day Conference, etc)
 - Plans to publish articles in Ministry's info letter and trade magazines
 - Info Days for policy makers to involve different organisations into process and to get more fundings
 - Info Days for specialists only after consensus over the Directive text is achieved and it is clear it will be accepted. Consecutive Info Days when implementing rules are ready.
- Main holders of these activities
 - Governmental organizations (ELB & EEIB at the moment)
- Main funding of these activities
 - Subsidies from the state budget
- Main barriers and gaps
 - too little resources for awareness-raising work

Suggestions for organizing of the National INSPIRE Info Days



- Audience
 - Targeted Info Days for policy makers
 - Targeted Info Days for specialists
 - For general public promotional events, posters, etc at conferences
- Needs
 - Supporting materials - certainly, no time to compose itself, english OK, translation and copying will be done locally