

Air quality data e-reporting

Overview on status and requirements

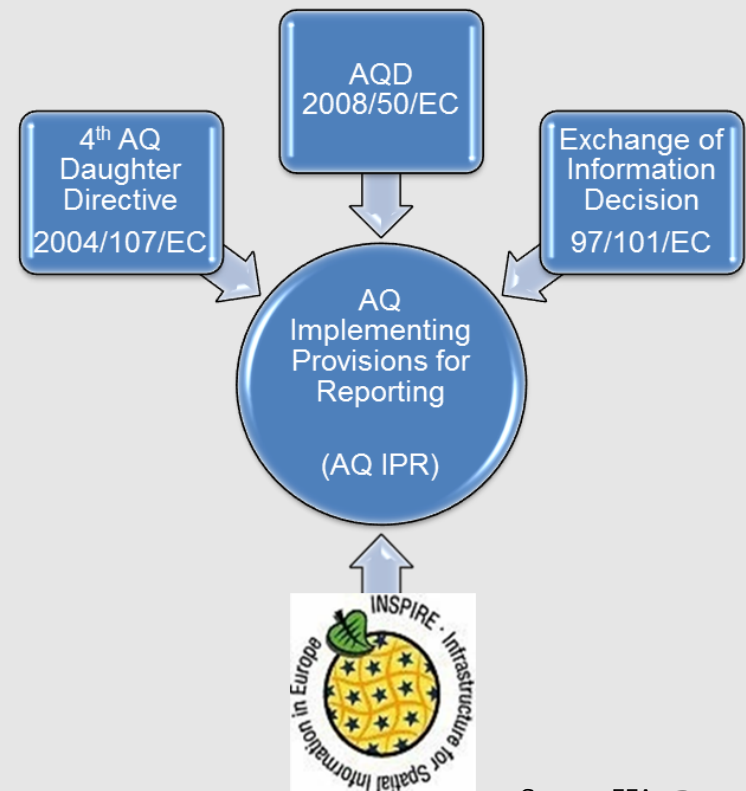
Legal framework

General requirements for Air Quality
assessment and management:
AQD and 4thDD

New requirements for technical format
of reporting AQ data:
Decision 2011/850/EC

Replaces

- 97/101/EC
- 2004/461/EC
- 2004/224/EC

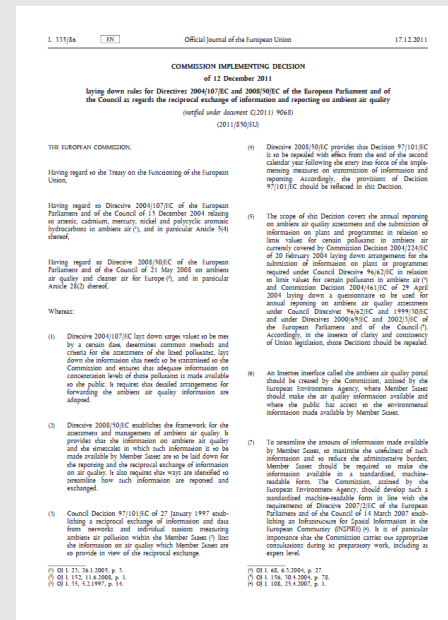


What's new in 2011/850/EC and its implementation („e-Reporting“)?

- No major change of **contents** compared to former reporting obligations
- Unifying existing reporting obligations
- Compatibility to INSPIRE-Directive (2007/2/EC)
- Electronic streamlining – minimize manual input

Technical aspects:

- Unified Modelling Language (UML) data-model
- Submission as xml
- INSPIRE Services



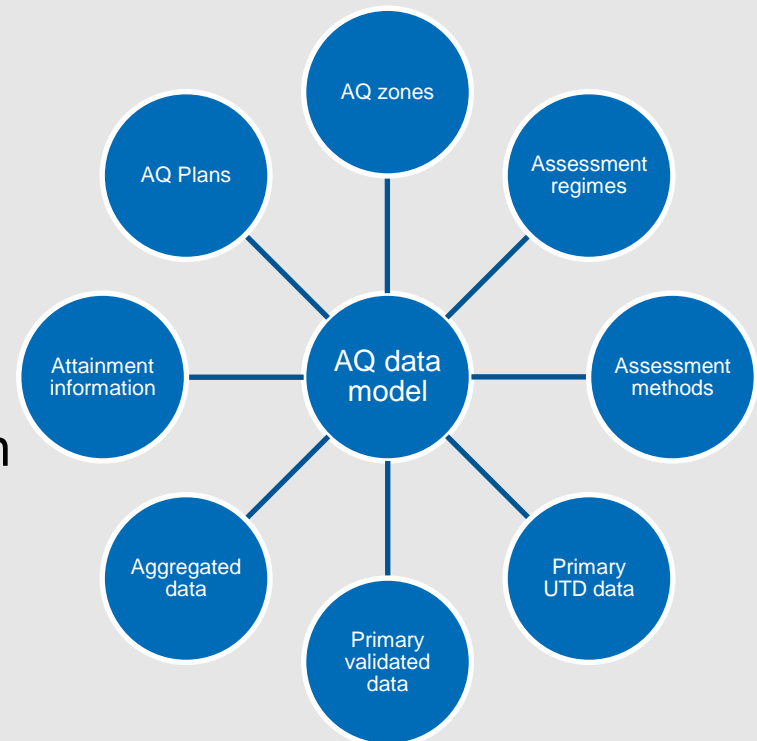
What needs to be reported?

■ Air quality data & meta information

- Zones (B)
- Assessment regimes (C)
- Assessment methods meta-data (D)
- Primary assessment data (E)
- Aggregated assessment data (F)
- Attainment information (G)

■ Air quality management information

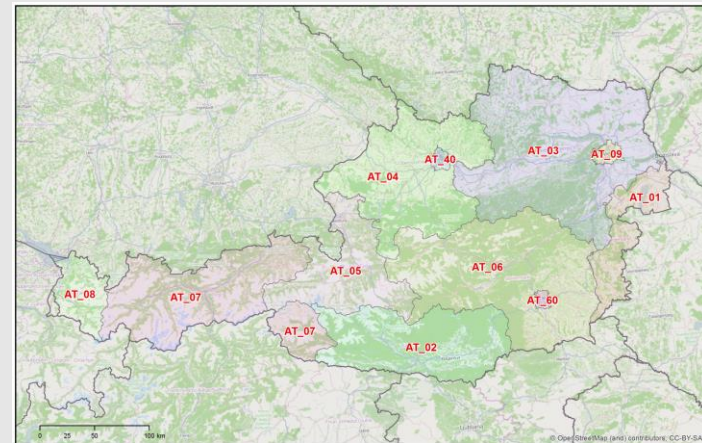
- Air Quality plans (H)
- Source apportionments (I)
- Scenarios (J)
- Measures (K)



Zones (B)

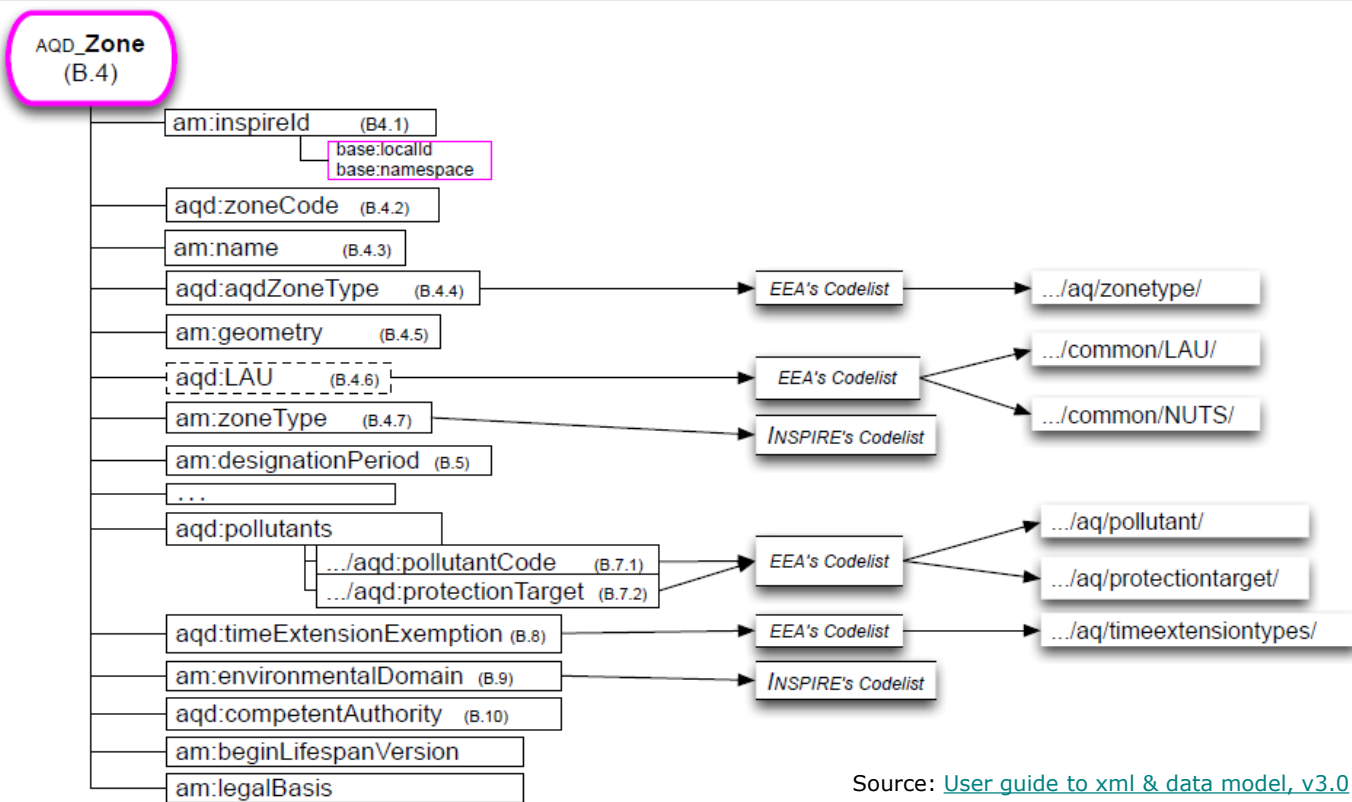
■ Description of AQ zones

- Zone code
- Name
- Pollutants
- Protection target
- Geographical delimitation
- Population
- Area



Currently in forms 0-2 of Questionnaire 2004/461/EC

Data flow (B) in practise



Example:
[AT Zones.xml](#)

Assessment Regimes (C)

■ How air quality is assessed?

- Zone
- Pollutant
- Protection target / Objective
- Information on general levels
- Methods

AT_09

PM₁₀

LV annual mean

> upper assessment threshold

Fixed measurements at locations
A, B, C,...

Currently in forms 3-6 and 10 of Questionnaire 2004/461/EC

Assessment methods meta-data (D)

- Information on methods for assessment

- Type of method

fixed, indicative, modelling,
objective estimation

- Information on

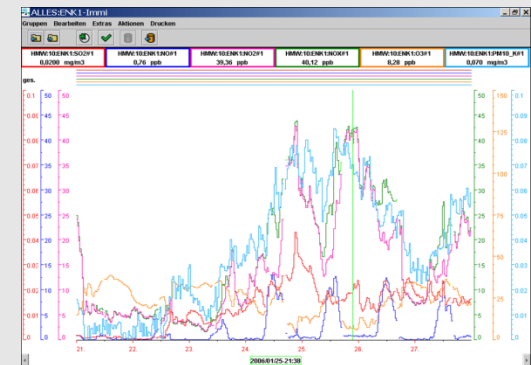
- Sampling point
 - Station
 - Network

Currently in DEM measurement configuration

Primary assessment data (E)

- Measurement raw data
 - Reference to (D)
 - Time period of data set
 - Value
 - Start & End-time
 - Validity & Validation status

- Additional information for finally validated data
 - Information related to data quality objectives
 - Attainment check



Currently in DEM data delivery and NRT data exchange

Aggregated assessment data (F)

■ Statistics

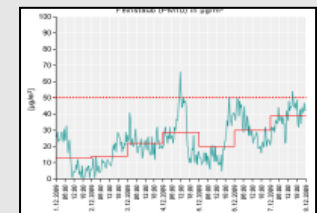
- Annual mean, daily mean
- Number of exceedances per year
-

■ Data quality

- Data capture
- Time coverage

→ Aggregation by EEA based on primary assessment data (E)

Currently in AirBase and NRT system for SOR statistics



Attainment information (G)

- Compliance with Directive?
 - Year
 - Zone
 - Pollutant
 - Environmental Objective
- Exceedance description
 - Numeric value or number of exceedances
 - Deduction method for natural sources/winter sanding & salting
 - Exceedance area (km²)
 - Exposed population
 - Exposed sensitive ecosystem area

Currently in forms 8, 9, 19, 21, 23 and 24 of Questionnaire 2004/461/EC

Air Quality Plans (H)

- Links and short description of relevant publications
- AQ Plan is referenced by
 - Source apportionment (I)
 - Evaluation Scenario (J)
 - Measure(s) (K)

Currently in form 1 of Questionnaire 2004/224/EC



Source apportionment (I)

- Link to Attainment information (G) – Exceedance Description
- Source contributions to
 - Regional background
 - Urban background
 - Local
- Source categories
 - Road transport
 - Industry & power production
 - Domestic and commercial
 - Agriculture
 -

Currently in form 3 of Questionnaire 2004/224/EC

Evaluation Scenario (J)

- Link to Attainment information (G) – Exceedance Description and Source Apportionment (I)
- Baseline Scenario
- Projection Scenario
 - Expected emissions
 - Expected concentrations
 - Link to measures

Currently in form 4 of Questionnaire 2004/224/EC

Measures (K)

- Link to AQ Plan (H), Source Apportionment (I) and Evaluation Scenario (J)
- Description of measures
 - Type of measure
 - Administrative responsibility
 - Costs
 - Impact on emissions
 - Spatial scale
 - Time scale

Currently in forms 5, 6 and 7 of Questionnaire 2004/224/EC

When has to be reported?

Timeline of AQD e-Reporting data flow deliverables

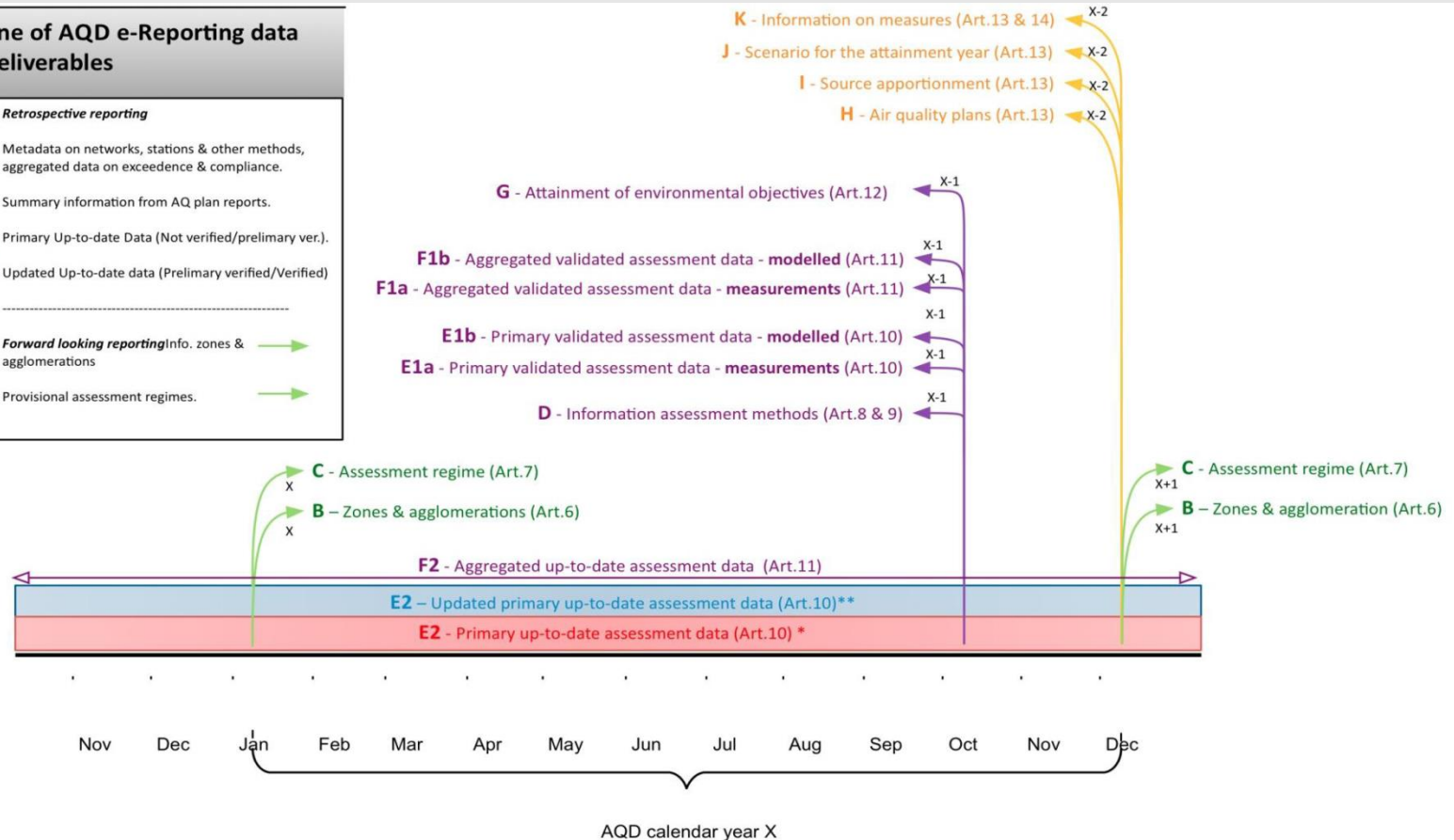
Retrospective reporting

- ← Metadata on networks, stations & other methods, aggregated data on exceedance & compliance.
- ← Summary information from AQ plan reports.
- Primary Up-to-date Data (Not verified/preliminary ver.).
- Updated Up-to-date data (Preliminary verified/Verified)

Forward looking reporting

Info. zones & agglomerations

Provisional assessment regimes.



Note:* The primary up-to-date assessment data shall be made available on a provisional basis with the frequency appropriate to each pollutant assessment method and within a reasonable timeframe after the data has been made available to the public according to Article 26 of Directive 2008/50/EC, for the pollutants specified for that purpose in Part B of Annex I to this Decision.

** Member States may update the primary up-to-date assessment data following further quality control. The updated information shall replace the original information and its status shall be clearly indicated.

Support by European Environment Agency

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Acronyms
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EIONET
The Air Quality Portal

SERVICES REPORTNET TOOLS TOPICS (ETCS)

You are here: Eionet» AQPortal

Services

- » Pilot meetings
- » HELPDESK for E-REPORTING
- » Back to AQ portal

Links

- » AQ Directive 2008/50/EC
- » 4th Daughter Directive 2004/107/EC
- » Commission Implementing Decision 2011/850/EU
- » EC Ambient Air Quality web pages
- » EC Ambient Air Quality CIRCA BC IG
- » EEA Air Pollution data centre
- » ETC/ACM
- » EIONET account information

Home
The toolbox
AQUI
Official repository
Summer Ozone
Meetings
About the pilot
Test area

Welcome to the ambient air quality portal

The rules for the reciprocal exchange of information and reporting on ambient air quality for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council are set out in the [COMMISSION IMPLEMENTING DECISION 2011/850/EU](#) and Commission's guidance documents [IPR guidance part I](#) and [IPR guidance part II](#). Information related to the implementation of this Decision including the data repository is provided through this portal.

- [Schemata for reporting in September 2014 \(1.0\)](#). [Direct link to v1.0](#) - ****UPDATED****
- **NEW** ["USER GUIDE TO XML & DATA MODEL - v3.0"](#) - released on 24/07/2014 - newly updated
- [AQUI 2.0: LATEST VERSION](#) for September 2014 reporting - including patch 2.1 (released 16 July 2014).

By the **end of September 2014**, countries must report information for 2013 calendar year under Decision 2011/850/EC on:

- Zones & Agglomeration (B) - [Article 6](#),
- Assessment Regimes (C) - [Article 7](#),
- Assessment Methods metadata (D) - [Article 8 & 9](#).
- Primary validated assessment data - measurements (Article 10) (E1a) - [Article 10](#).
- Primary validated assessment data - modelled (E1b) - [Article 10](#).
- Generated aggregated data from primary validated measurements (F) - *Generated by EEA*.
- Attainment of environmental objectives (G) - [Article 12](#).

Throughout **2014**, countries must report information on up-to-date primary data:

```

graph TD
    A[4th AQ Daughter Directive 2004/107/EC] --> D((AQ Implementing Provisions for Reporting AQUI))
    B[AQD 2008/50/EC] --> D
    C[Exchange of Information Decision 97/101/EC] --> D
    
```

<http://www.eionet.europa.eu/aqportal>

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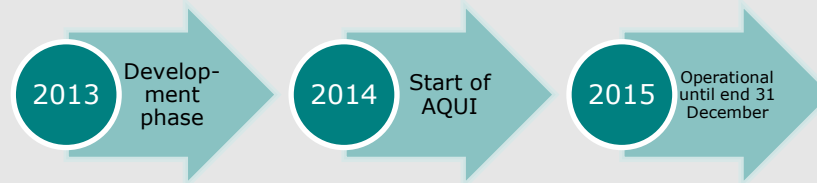
Air Quality Portal - Toolbox



- Guidelines & reports for e-Reporting
<http://www.eionet.europa.eu/aqportal/guidelines>
- Controlled code lists and vocabularies for e-Reporting
<http://www.eionet.europa.eu/aqportal/codelists>
- The latest data model & AQD schemata
<http://www.eionet.europa.eu/aqportal/datamodel>
- Central repository for data deliveries – piloting phase
<http://www.eionet.europa.eu/aqportal/Drep1>
- Helpdesk for reporting
<https://helpdesk.eionet.europa.eu>,  aqipr.helpdesk@eionet.europa.eu

AQ e-Reporting User Interface (AQUI)

- Interim tool for 2 years



- Extension of DEM interface and DEM database
- Generation of XML-files for data flows B to G
- Prefilled with historical information (AirBase 8.0, Questionnaires)
- AQUI 2.0
 - Download [aqui_v20.exe](#)
 - Manual [aqui_v2_manual.doc](#)
 - Patch AQUI 2.1 (release date: 16 July 2014) [aqui_v21.exe](#)

AQ e-Reporting User Interface (AQUI)

Deliveries for 2014/15:

- **1 Oktober 2014:** validated data 2013: dataflows B, C, D, E1a and G with 2013 data (final AQ-report of the assessment results of reference year 2013).
- **31 December 2014:** prognosis zones, assessment regimes and fixed assessment methods 2015: dataflows B, C and D with 2015 data.
- **1 Oktober 2015:** validated data 2014: dataflows B, C, D, E1a and G with 2014 data (final AQ-report of the assessment results of reference year 2014).

INSPIRE

- “Infrastructure for Spatial Information in the European Community”
- What is INSPIRE? [INSPIRE in a nutshell](#)



How to Start...

- <http://inspire.jrc.ec.europa.eu>
- Which of my data have a geographical context?
- To which annex belong my data to?
- Is there a (national) coordination?

INSPIRE
Infrastructure for Spatial Information in the European Community

European Commission > INSPIRE >

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INSPIRE library
INSPIRE Conferences

Implementation
Roadmap
Monitoring and Reporting
IOC
INSPIRE GeoPortal
Maintenance and Implementation

Adoption
Roadmap
Implementing Rules
Monitoring and Reporting
Metadata
Data Specifications
Network Services
Spatial Data Services
Data and Service Sharing

Stakeholder Participation
Stakeholder Participation
List of registered Organisations
Consultations
Register your interest

INSPIRE DIRECTIVE
In Europe a major recent development has been the entering into force of the INSPIRE Directive in May 2007, establishing an infrastructure for spatial information in Europe to support Community environmental policies, and policies or activities which may have an impact on the environment.
INSPIRE is based on the infrastructures for spatial information established and operated by the 27 Member States of the European Union. The Directive addresses 34 spatial data themes needed for environmental applications, with key components specified through technical implementing rules. This makes INSPIRE a unique example of a legislative "regional" approach.
Legislation
Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) was published in the official Journal on the 23rd April 2007. The INSPIRE Directive entered into force on the 15th May 2007.
To ensure that the spatial data infrastructures of the Member States are compatible and usable in a Community and transboundary context, the Directive requires that common Implementing Rules (IR) are adopted in a number of specific areas (Metadata, Data Specifications, Network Services, Data and Service Sharing and Monitoring and Reporting). These IRs are adopted as Commission Decisions or Regulations, and are binding in their entirety. The Commission is assisted in the process of adopting such rules by a regulatory committee composed of representatives of the Member States and chaired by a representative of the Commission (this is known as the Comitology procedure).
• Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) 14.03.2007
• INSPIRE Metadata Regulation 03.12.2008
• Commission Decision regarding INSPIRE monitoring and reporting 05.06.2009
• Commission Regulation (EC) No 976/2009 of 19 October 2009 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the Network Services 19.10.2009
• Corrigendum to INSPIRE Metadata Regulation 15.12.2009
• Regulation on INSPIRE Data and Service Sharing 29.03.2010
• Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets and services 08.12.2010
• COMMISSION REGULATION (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services 08.12.2010
• Commission Regulation amending Regulation (EC) No 976/2009 as regards download services and transformation service 08.12.2010
• COMMISSION REGULATION amending Regulation 1089/2010 as regards interoperability of spatial data sets and services 05.02.2011
• COMMISSION REGULATION (EU) No 1253/2013 of 21 October 2013 amending Regulation (EU) No 1089/2010 implementing Directive 2007/2/EC as regards interoperability of spatial data sets and services 10.12.2013

Featured News
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NEWS
22-Aug-14 INSPIRE Call for Facilitators – Thematic Clusters
07-Aug-14 INSPIRE-GWF 2014: call for abstracts

INSPIRE

Data & themes

Annex I

1. Coordinate reference systems
2. Geographical grid systems
3. Geographical names
4. Administrative units
5. Addresses
6. Cadastral parcels
7. Transport networks
8. Hydrography
9. Protected sites

Annex II

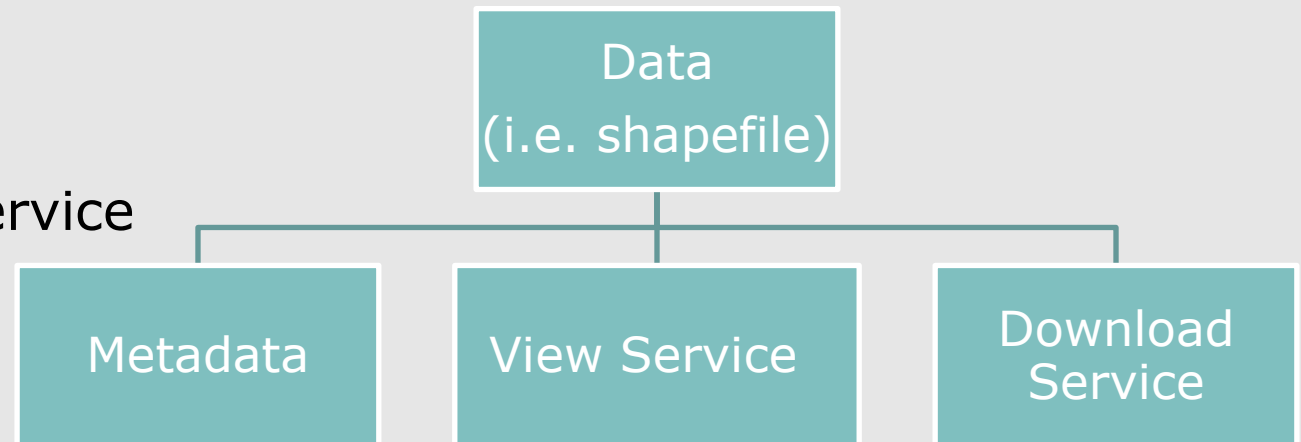
1. Elevation
2. Land cover
3. Orthoimagery
4. Geology

Annex III

1. Statistical units
2. Buildings
3. Soil
4. Land use
5. Human health and safety
6. Utility and government services
- 7. Environmental monitoring facilities**
8. Production and industrial facilities
9. Agricultural and aquacultural facilities
10. Population distribution - demography
11. Area management/restriction/regulation zones and reporting units
12. Natural risk zones
13. Atmospheric conditions
14. Meteorological geographical features
15. Oceanographic geographical features
16. Sea regions
17. Bio-geographical regions
18. Habitats and biotopes
19. Species distribution
20. Energy resources
21. Mineral resources

Implementing INSPIRE

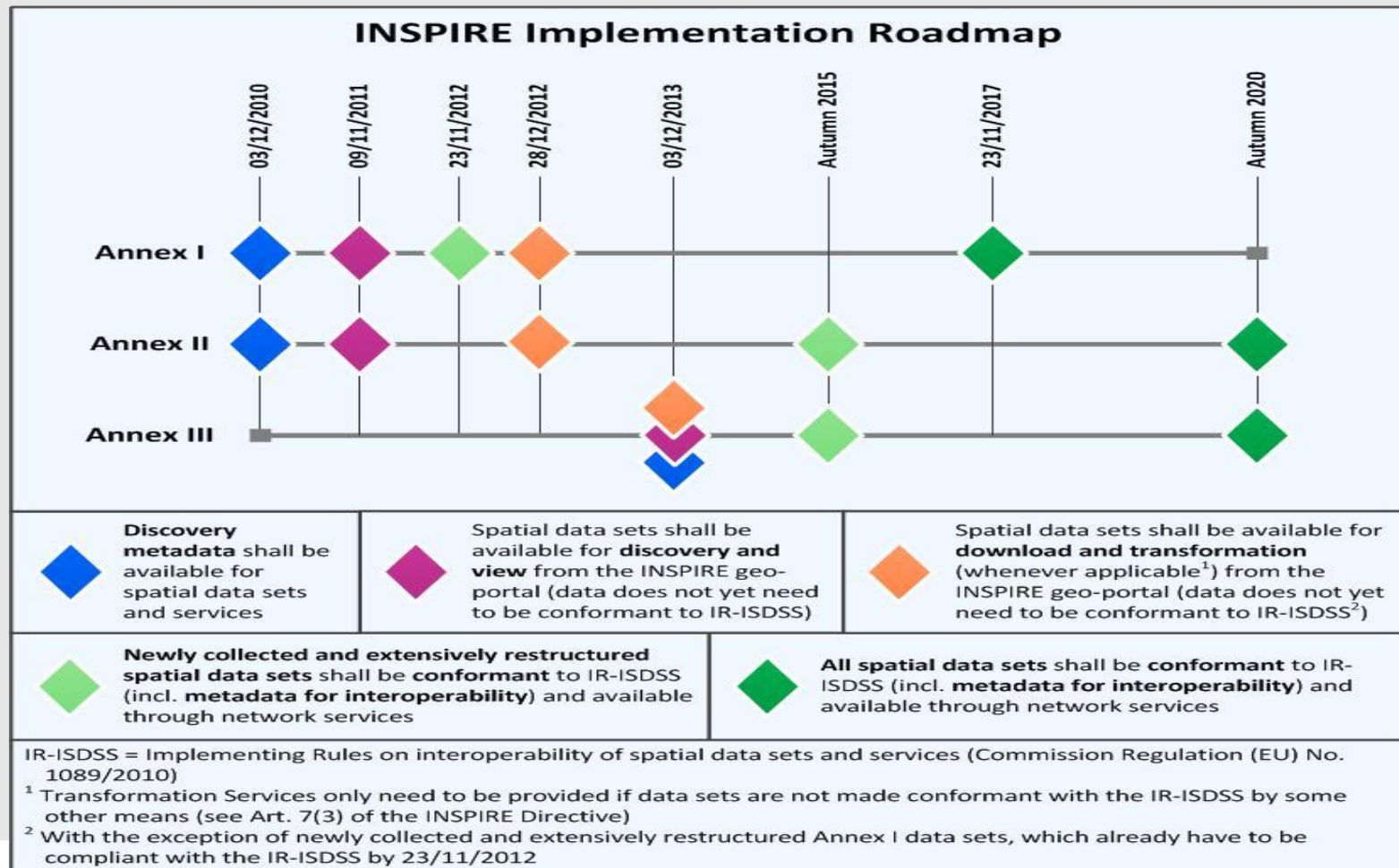
- Metadata
- View Service
- Download Service



Implementing INSPIRE

- **Identification** of relevant datasets
 - Assign to reporting schema
- **Data analysis**
 - How do my data conform to the application schemas and proposed data structure
 - Are all mandatory attributes available?
 - Is the identifier management and life cycle management compliant with INSPIRE requirements?
- **Data harmonisation**
 - Decision to keep the original data and set up transformation tools to compile INSPIRE conform datasets or to amend the data structure and data model of the original data
- Preparation of **metadata**
- Preparation of **view/download service**
- Provision of harmonised data (Annex I 2017, Annex II & III 2020)

Roadmap





INSPIRE GEOPORTAL

Enhancing access to European spatial data

EUROPEAN COMMISSION > INSPIRE > INSPIRE GEOPORTAL

[What's new](#)

Welcome to the INSPIRE geoportal

The INSPIRE Directive requires the Commission to establish a community geo-portal and the Member States shall provide access to their infrastructures through the geo-portal as well as through any access points they themselves decide to operate.

[More...](#)

Discovery / Viewer

Search, discover and access geographic information provided by European governmental, commercial, and non-commercial organizations.

[More...](#)



Validator

The purpose of the INSPIRE Metadata Validator is to test the compliance of INSPIRE metadata with the INSPIRE Metadata Regulation.

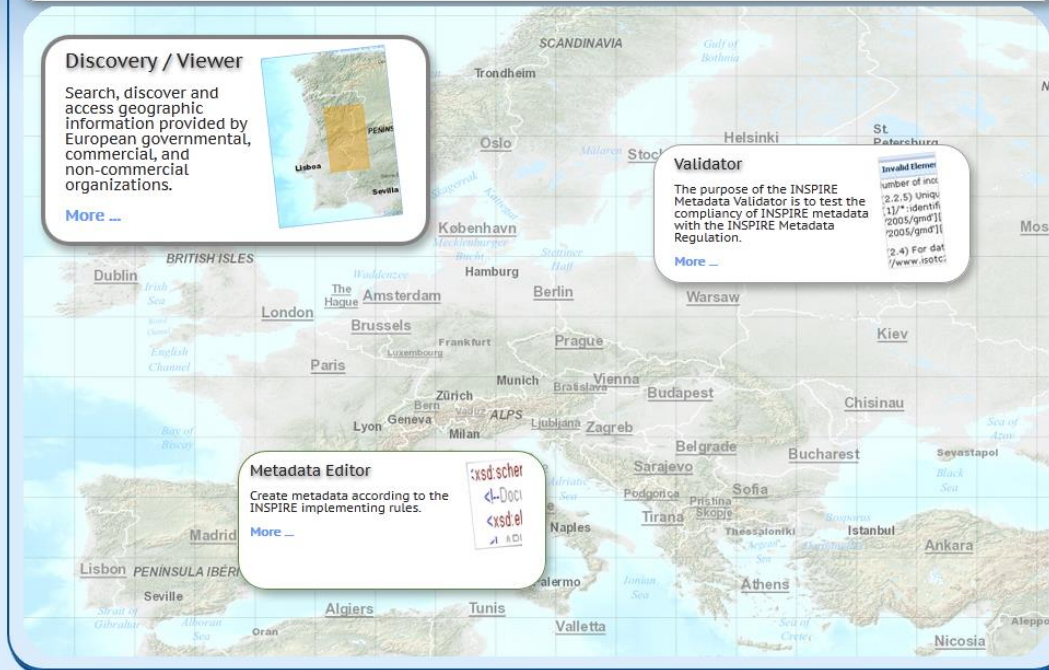
[More...](#)

Invalid Element
Number of inst
(2.2.5) Unique
(1)* identifier
2005/gmd]]
(2.4) For dat
/www.isotc

Metadata Editor

Create metadata according to the INSPIRE implementing rules.

[More...](#)



<http://inspire-geoportal.ec.europa.eu/>

Contact & Information

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Umweltbundesamt
www.umweltbundesamt.at

TAIEX-ECRAN Air Quality Directive
Podgorica ■ 30 September 2014