



Koninklijk Nederlands  
Meteorologisch Instituut  
*Ministerie van Verkeer en Waterstaat*



## *EUMETNET / INSPIMET*

### Status report

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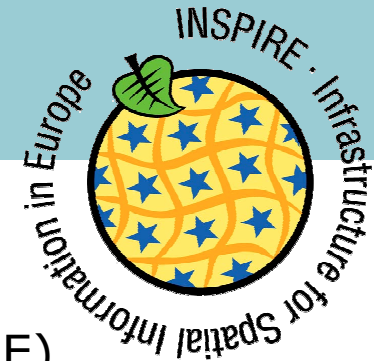
11-8-2009



## Outline

- Reminder: what is INSPIRE?
- Current status of INSPIRE
- INSPIRE impact for EUMETNET
- INSPIMET activities for INSPIRE
- Issues raised, solved and remaining
- Future plans
- Concluding remarks





## INSPIRE in a nut shell

- Infrastructure for Spatial Information in Europe (INSPIRE)
- Laid down in INSPIRE Directive (accepted by EC May 2007), in Implementing Rules, and guideline documents
- Aim:  
*"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"*  
→ enable exchange of spatial information between the member states to support environmental policies
- Keywords: Harmonization, Metadata, Services, Infrastructure

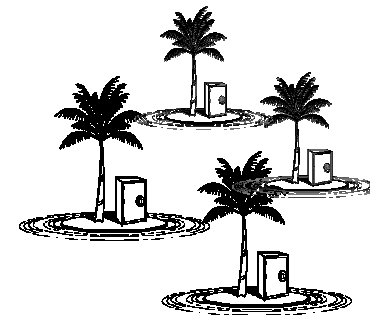


## What Data?

- Specifically laid down in 3 Annexes
- Annex III most relevant for KNMI
- ...but Annex I o.a. contains generic data model, geo-reference model

### Annex III Data

- 7.5 Human Health and Safety  
Air quality ( $O_3$ ,  $NO_2$ ,  $SO_2$ , UV, aerosols).
- 7.7 Environmental quality  
Air quality, synoptic observations, **climate data**.
- 7.12 Natural Risk Zones  
Seismograms, wind products (radar, scatterometer, model output).
- 7.13 **Atmospheric conditions**  
Precipitation, wind, clouds, lightning, temperature, UV.
- 7.14 **Meteorological geographical features**  
Synoptic observations, clouds, precipitation.
- 7.15 **Oceanographic geographical features**  
VOS (Volunteering Observation Ships), remote sensing, waves, model output.
- 7.16 Sea Regions  
Sea water temperature, sea level





# INSPIRE Milestones

## Relevant milestones:

- 3 December 2013:  
Metadata available for spatial data corresponding to Annex III.
- January 2015:  
Newly collected and extensively restructured Annex II and III spatial data sets available.
- 30 May 2019:  
Other Annex II and III spatial data sets available.
- Many more milestones and detailed planning are available on the INSPIRE website <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/44>



## Current status of INSPIRE (November 2009)

- INSPIRE Directive is translated into National legislation by many European countries (deadline was May 2009)
- IR Inspire metadata regulation, 12/04/2008
- Annex I themes, relevant IRs and guidelines established. May 2009
- Commission decision on monitoring and reporting, 05/06/2009
- Draft IR on INSPIRE Discovery and View Services, 02/06/2009
- Draft IR on INSPIRE Data and Service Sharing, 05/06/2009
- Draft INSPIRE Network Services Regulation adopted, 20/10/2009 (Discovery and view services)
- Have been agreed upon, are in process of being adopted
- For the latest information, check the INSPIRE website  
[http://inspire.jrc.ec.europa.eu/documents/INSPIRE\\_/INSPIRE\\_Status%20Report\\_OCT\\_09.pdf](http://inspire.jrc.ec.europa.eu/documents/INSPIRE_/INSPIRE_Status%20Report_OCT_09.pdf)



## Issues raised, solved and remaining

### Raised and Solved:

- Data sets for meteorology and climate: pragmatic approach → only relevant data (initially: all meteo and climate data)
- Data formats: data may stay in native formats like BUFR and GRIB, GML as 'envelope' (initially: all data in GML)
- Coordinate Reference Systems (CRS): adjusted to be able to cope with hydro/meteo reference systems

### Raised and Remaining:

- Selection criteria for Annex-III datasets.
- Governance of pan-European datasets.
- Services (WCS) & data models for raster data.
- Catalog services State of Art.



## So, why worry now?

First relevant mile stone is in three years!

But:

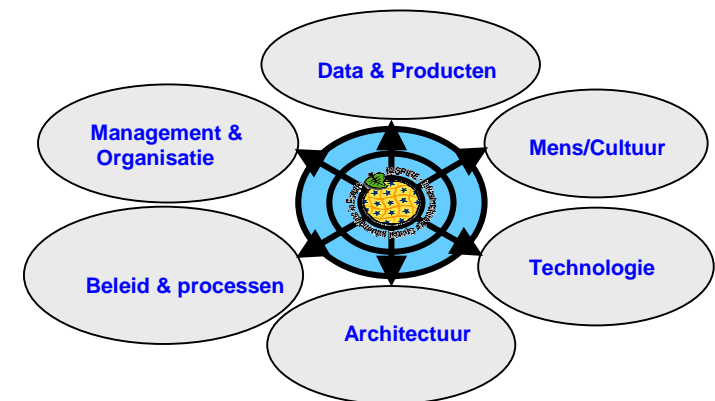
- Implementation rules relevant and impacting NMHS's are defined now
- Reference Data model is already defined
- Metadata model is defined
- Infrastructure is being defined and tested now





## INSPIRE impact on NMHS

- EU Legislation, we all have to comply:
  - Annex III dataset metadata must be provided by 3 December 2013
  - Annex III datasets must be provided by 30 May, 2019
- Which datasets exactly?
  - unclear, will be defined in Technical Working Groups
- What technology to be used?
  - not completely clear, IRs need implementation guidelines and best practices
- We need to organize our efforts:
  - National level
  - INSPIMET within EUMETNET
  - Discover issues and discuss with INSPIRE
  - What impact on operational meteorology?





## EUMETNET INSPIRET Expert team

### E-INSPIRE-ET main tasks:

- Networking and sharing ideas and best practice on implementation
- Involvement and likely representation on appropriate INSPIRE TWGs
- Providing a resource for the NMHSs to seek consultancy advice (under cost recovery)
- Coordination of activity amongst members to enable sharing of ideas and approaches to implementation to ensure interoperability across the community.
- Co-ordinate its activities with the EUMETNET programme Eumetrep,
- Bring to the attention of EUMETNET issues related to INSPIRE, particularly those which require separate resolution, through further funding, resourcing and training,
- Acquire and maintain contacts with technical development groups (e.g. INSPIRE TWGs, OGC working groups and WMO Expert Teams) in order to influence and coordinate progress on modelling and implementation of EUMETNET data exchange,



## Minimal effort for each NMHS

The INSPIRE Directive will be transposed into national law, to which the NMHS has to comply.

The minimal effort required by NMHS comprises:

- Provide dataset metadata by 3 December 2013 specified by the Metadata IR.
- Provide datasets by 30 May 2019 in a form yet to be specified in an IR, to delivery mechanisms which are partly specified in draft IRs.
- Provide monitoring reports to the national contact point for INSPIRE.



## Concluding remarks

- INSPIMET team successfully contributed to the INSPIRE IRs and guidelines
- Impact analysis was useful
- Establishing of INSPIRE INSPIMET Expert Team at EUMETNET
- Issues remaining:
  - › Selection criteria for Annex-III datasets.
  - › Governance of pan-European datasets.
  - › Services (WCS) & data models for raster data.
  - › Catalog services State of Art.
  - › Soap vs REST.
- Call for experts by INSPIRE is out:  
Call for Expression of Interest for participation in development of  
INSPIRE Data Specifications for Annex II and III  
Deadline: December 14