



Implementation of WFD & GWD, EC Blueprint

Hydrogeological Requirements

Contents

- Water Framework Directive - Milestones
- Common implementation Strategy (CIS) and WG Groundwater
- GW-Management in a cyclic procedure
- First results
- Blueprint to safeguard Europe´s Water Resources
- Way Forward and Conclusions



WFD

Adopted on 20.12.2000

River basin districts
Delineation water bodies

Analysis of pressures
and impacts

Design of monitoring
programmes

RBMP

Programmes of
measures

WFD key elements Need for action

Characterisation of bodies

Classification of bodies 'at risk'

Account of classification:

- ☑ **Surveillance monitoring**
- ☑ **Operational monitoring**

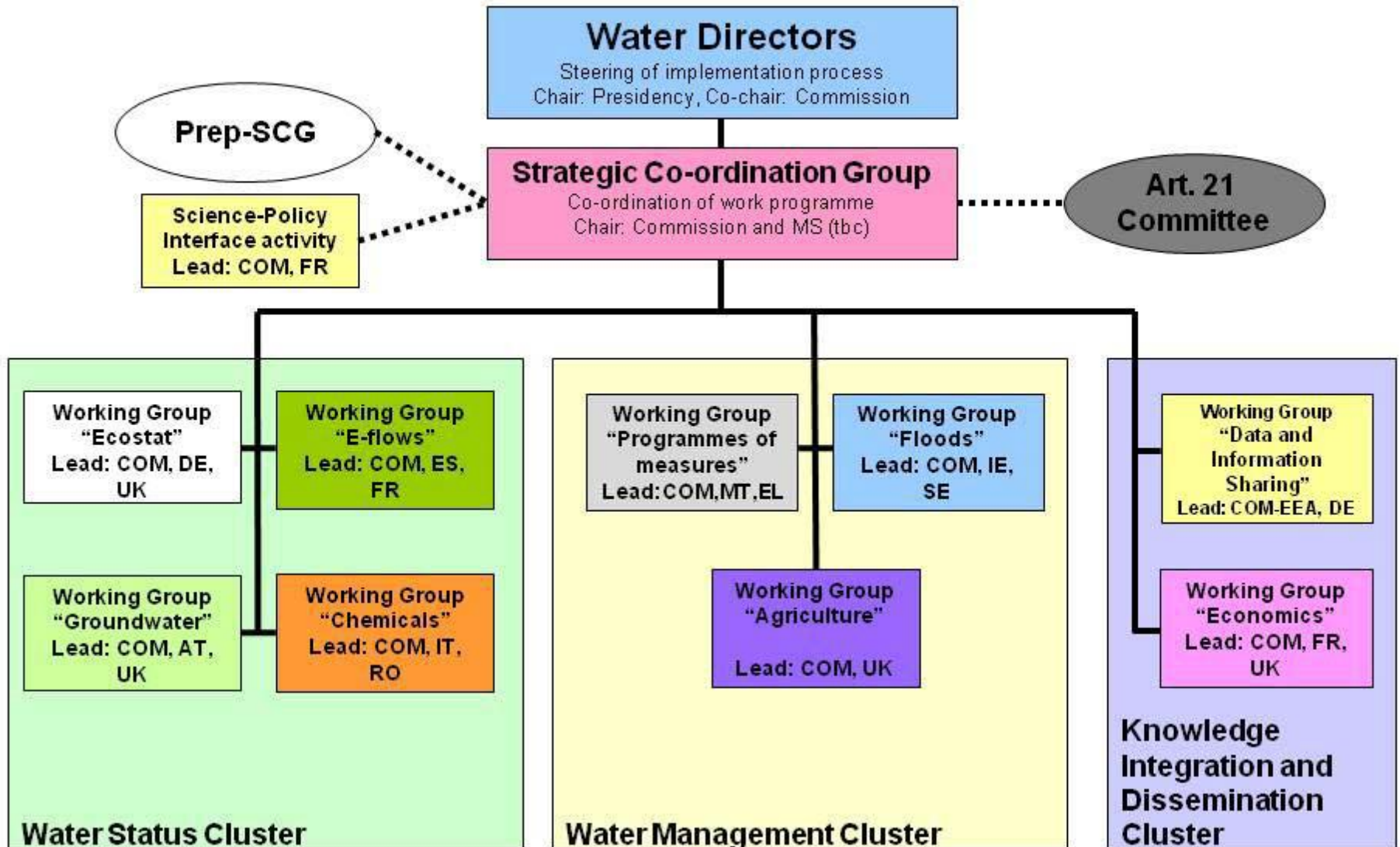
6 years cycle / Review

**GOOD STATUS
OBJECTIVE**

Common Implementation Strategy

- The Water Directors of the Member States, Norway and the Commission agreed to establish a Common Implementation Strategy CIS in order to:
 - develop a common understanding and approaches;
 - elaborate informal technical guidance including best practice examples;
 - share experiences and resources;
 - avoid duplication of efforts;
 - limit the risk of bad application.
- Furthermore, the Water Directors stressed the necessity to involve stakeholders, NGOs and the research community in this joint process as well as to enable the participation of Candidate Countries in order to facilitate their cohesion process.

CIS Organisation 2013-2015

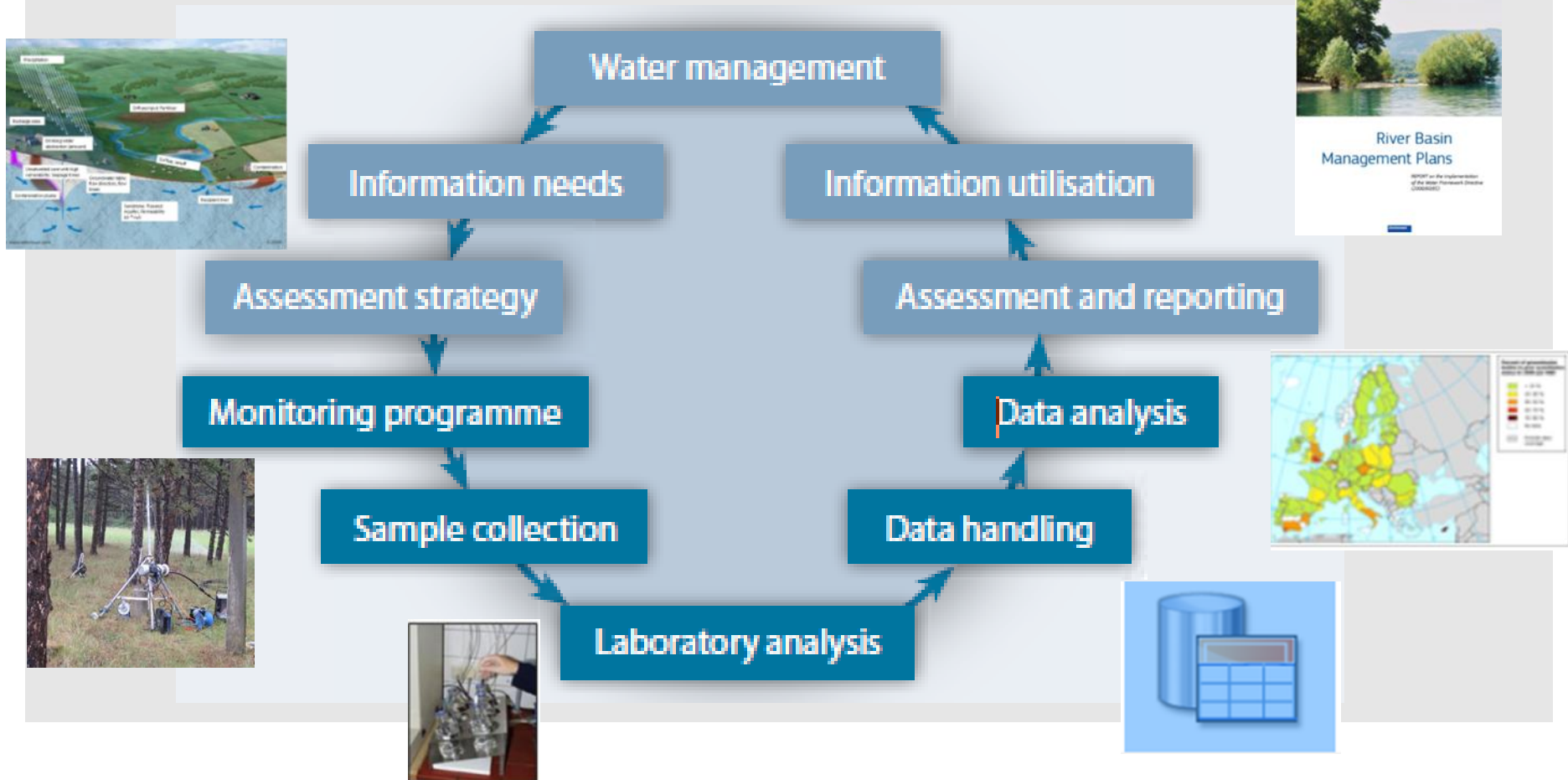


GW-specific Guidance doc's and reports

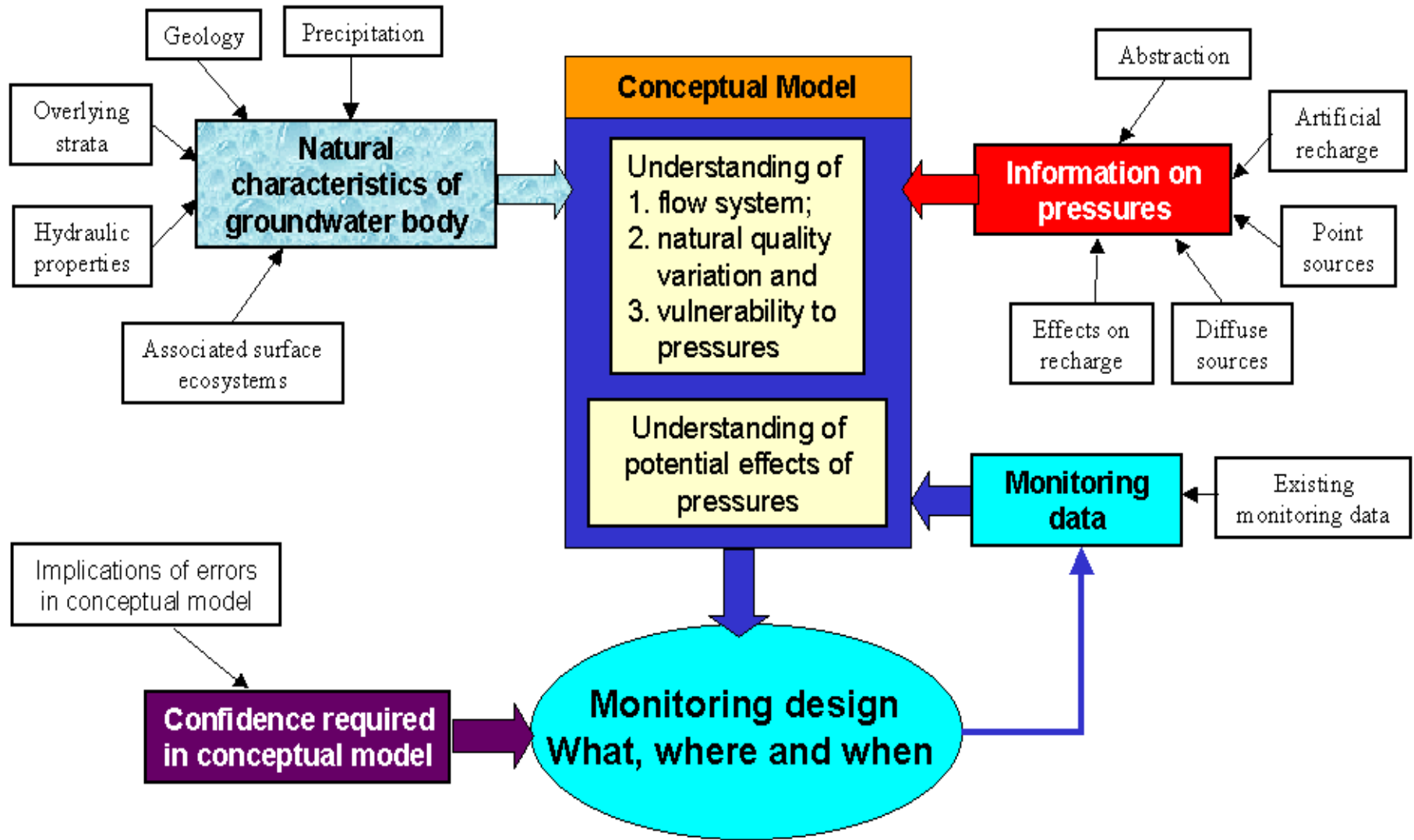
- No 15: on Groundwater Monitoring
- No 16: on Groundwater in Drinking Water Protected Areas
- No 17: on Preventing or Limiting Direct and Indirect Inputs (in context of GWD)
- No 18: on Groundwater Status and Trend Assessment
- No 26: on Risk Assessment and the Use of Conceptual Models for Groundwater

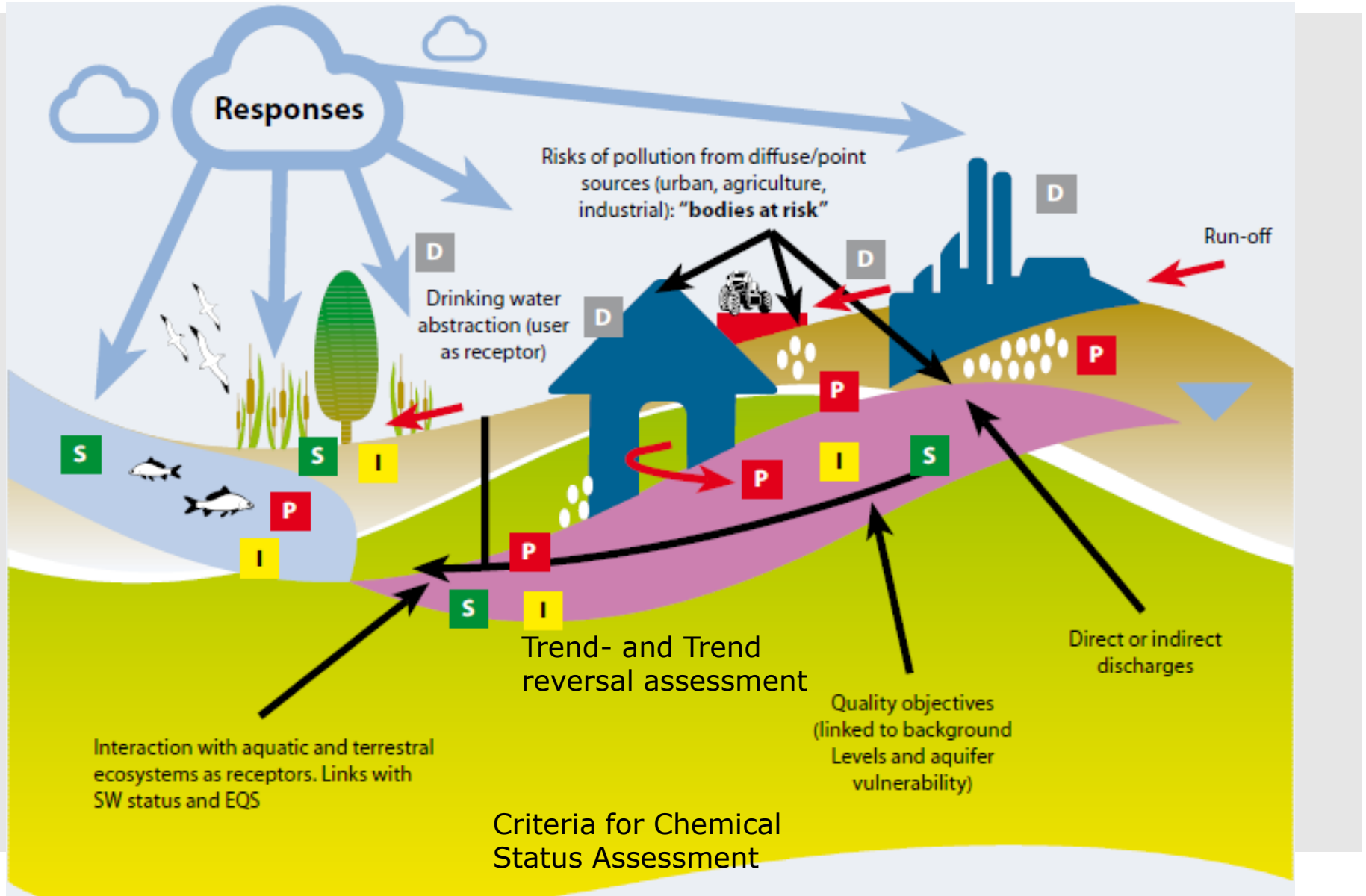
- Technical report No. 1: Groundwater trends
- Technical report No. 2: Groundwater characterisation
- Technical report No. 3: Groundwater monitoring
- Technical report No. 4: Groundwater risk assessment
- Technical report No. 5: Groundwater management in the Mediterranean
- Technical report No. 6: on Groundwater Dependent Terrestrial Ecosystems
- Technical report No. 7: on the Recommendations for the Review of Annexes I-II of the Groundwater Directive 2006/118/EC
- Workshop Report: Climate Change impacts on groundwater (with case studies and inventory of relevant research)

GW-Management in a cyclic procedure

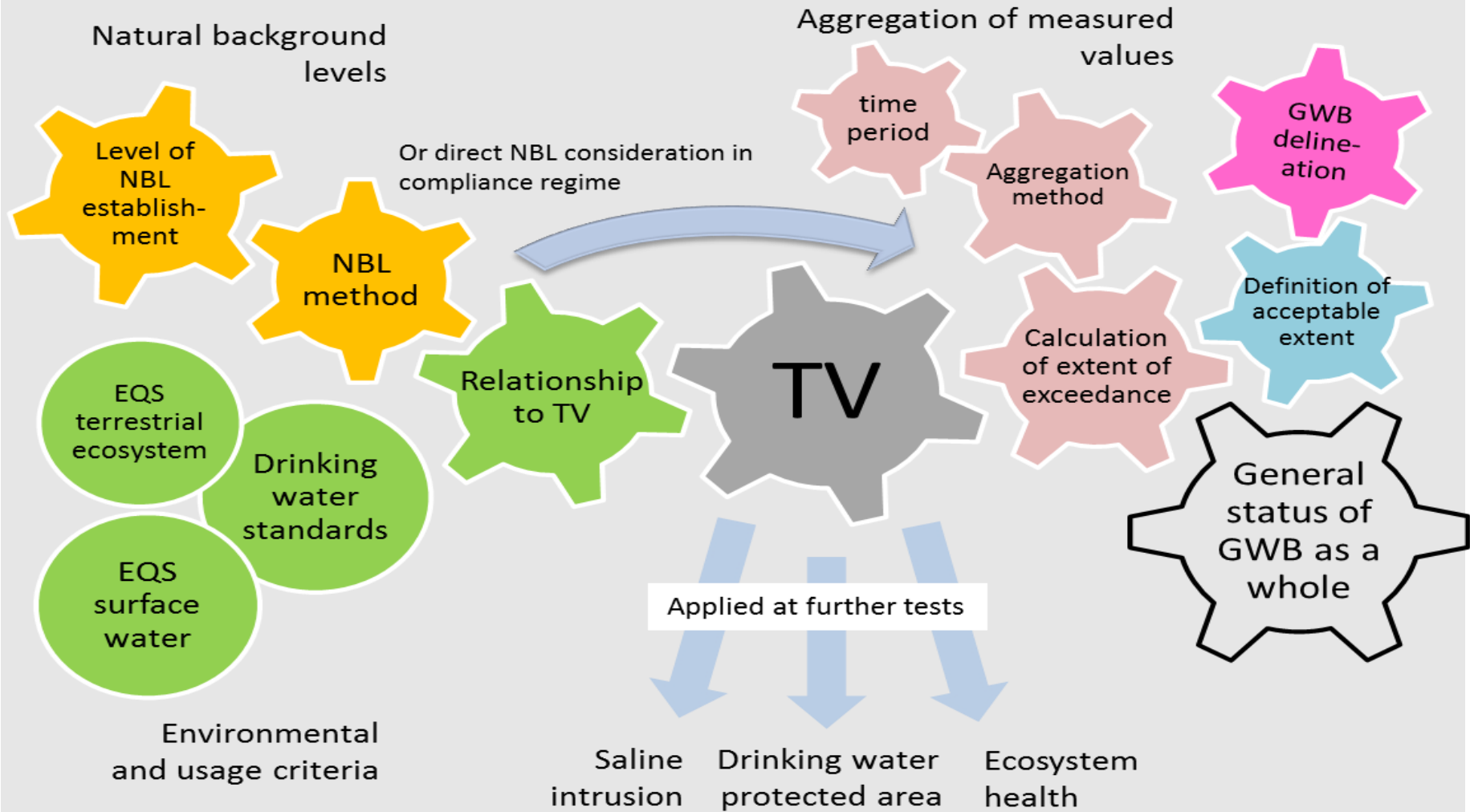


The Conceptual Model/Understanding





Criteria for TVs and compliance regime (GW-Body as a whole)



GWB delineation - Experiences

Groundwater body = **Management Unit**

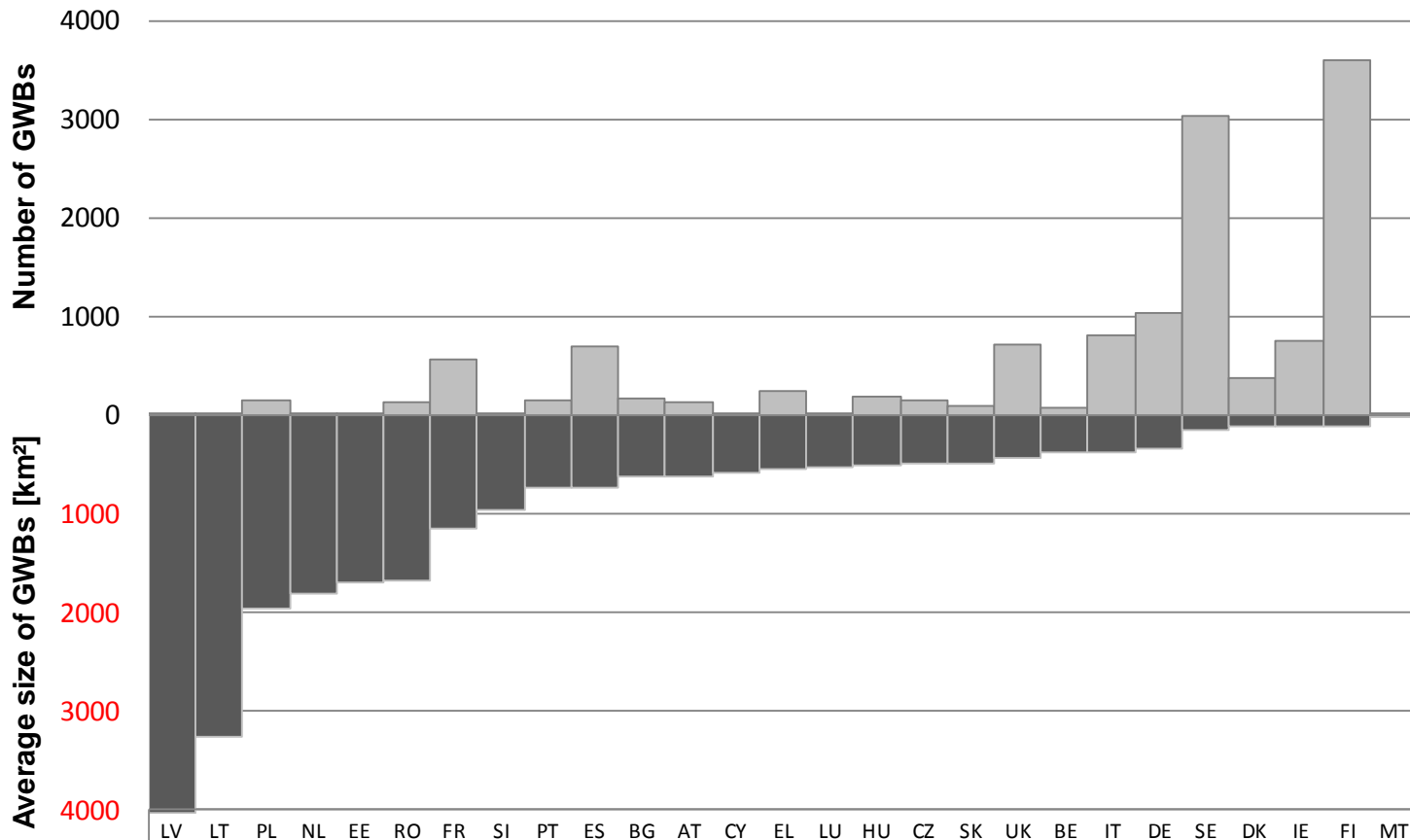
- For adequate description of status
- For comparing to environmental objectives and
- For implementing measures
- **Aim:** efficient and practical management units considering administrative burden
- **Size:** depends on variation of characteristics and pressures
- Grouping of bodies supports efficiency
- An iterative and on-going process

Experience - Most Member States started with:

- Hydrogeological boundaries;
- Vulnerability maps, subsoil, risk potential, utilisation and protection need, economic importance ...

GW-Bodies in Europe

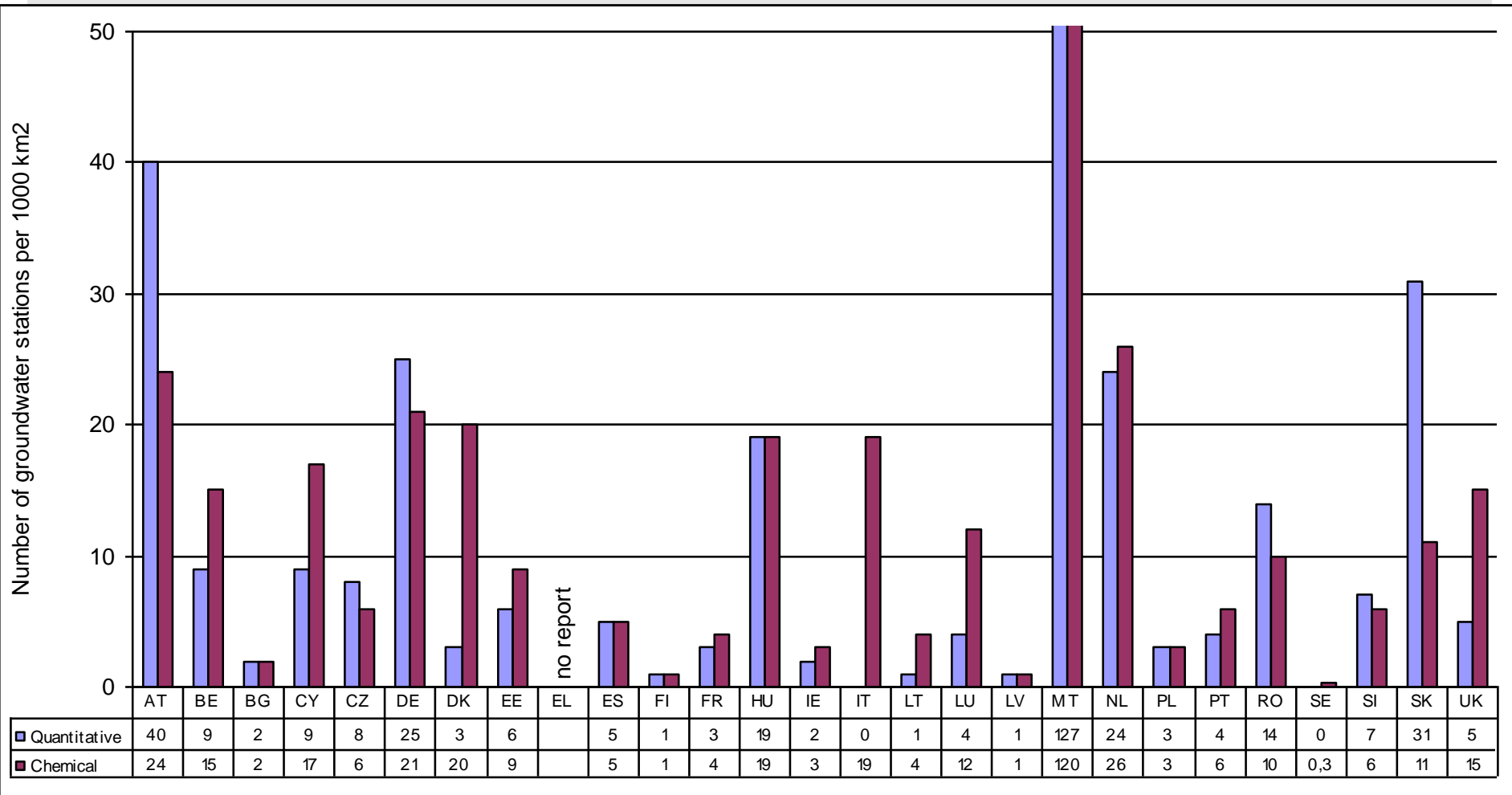
Total number and average size of GWBs in EU 27



■ Number of GWB	16	20	160	23	26	142	560	21	149	699	178	136	19	241	5	185	161	101	716	80	814	1036	3031	383	757	3608	16
■ km2/GWB	4037	3265	1955	1817	1687	1679	1148	965	735	725	624	617	580	548	517	503	490	485	441	384	374	346	150	113	111	103	25

Datenquelle:
WISE

GW-Monitoring



Blueprint to safeguard Europe's Water Resources

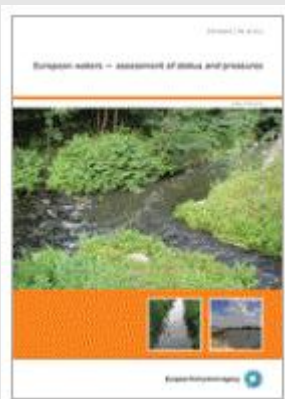
- outlines actions that concentrate on
 - better implementation of current water legislation,
 - integration of water policy objectives into other policies, and
 - filling the gaps in particular as regards water quantity and efficiency
- Blueprint is based on an extensive evaluation of the existing policy
 - RBMPs assessment including Member State specific annexes
 - Review of the Policy on Water Scarcity and Droughts;
 - Fitness Check of EU Freshwater Policy;
 - EEA State of Water report etc.
- Contains conclusions, recommendations and proposals for action

http://ec.europa.eu/environment/water/blueprint/index_en.htm

EEA report

European waters - assessment of status and pressures

- <http://www.eea.europa.eu/publications/european-waters-assessment-2012>



Maps and graphs

1 2 next 8

Changes in water quality variables during

Percentage of natural, heavily modified,

Percentage of rivers, lakes, groundwater,

Chemical status of groundwater bodies

Proportion of classified water bodies in

Proportion of classified surface water bodies in

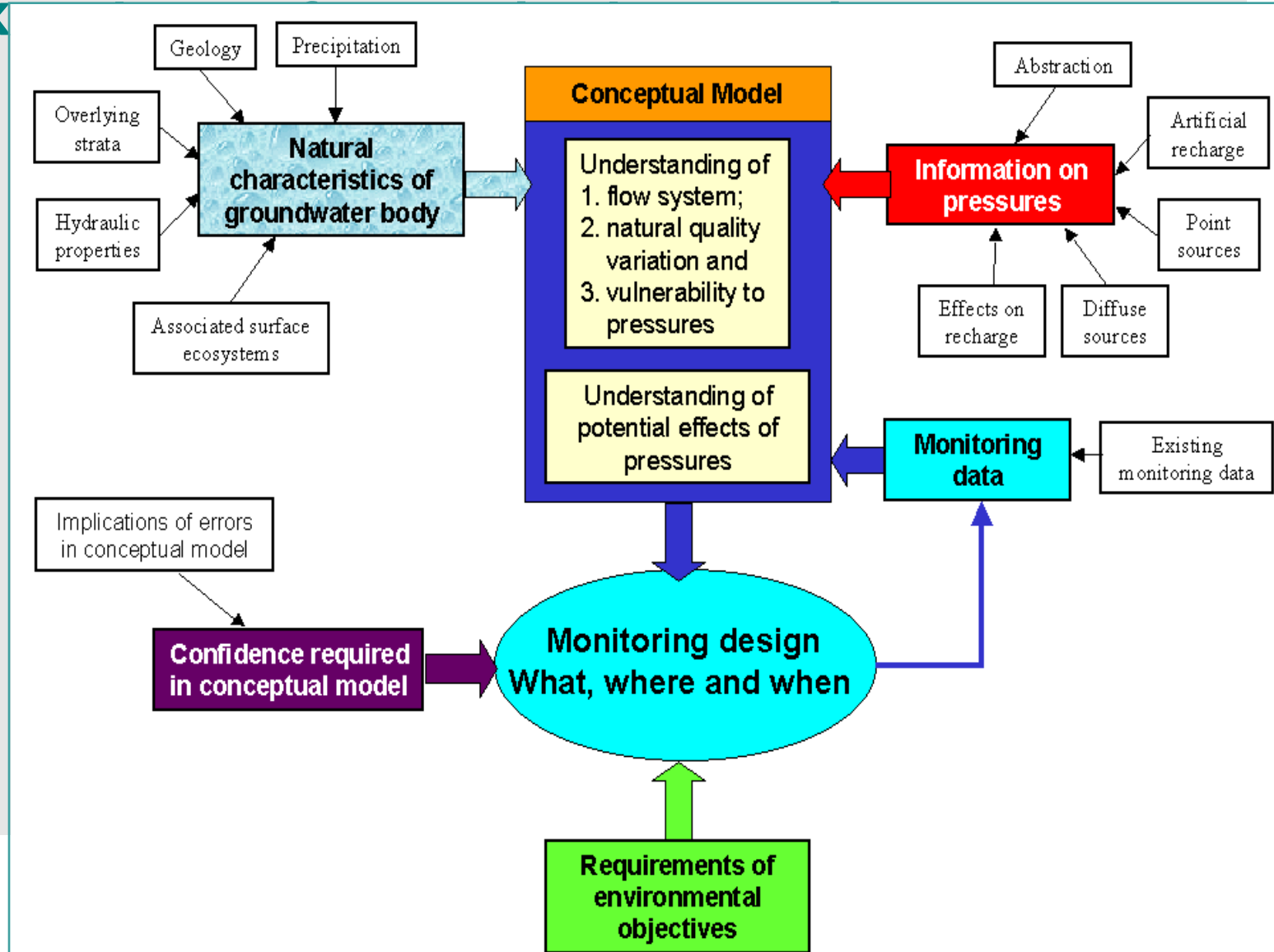
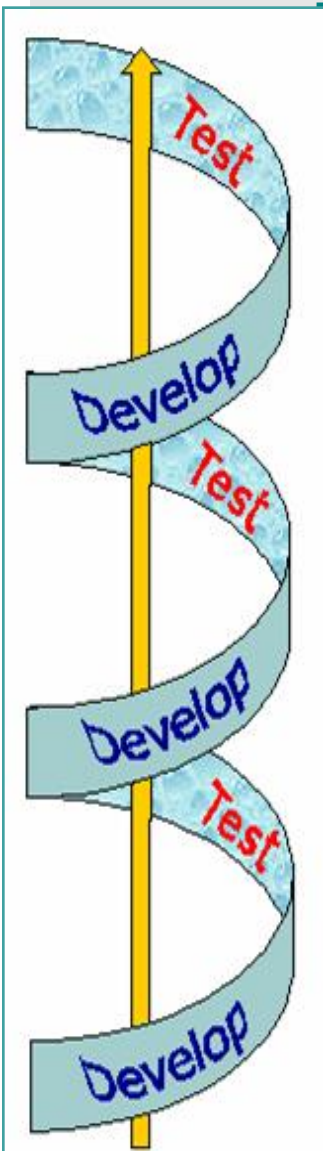
Ecological status or potential of classified

Ecological status or potential of lake water

Selected GW-specific recommendations

- "GW dependent **ecosystems** and GW **associated surface** water bodies should always be considered.
- "Methodologies for the establishment of **threshold values** need to be transparent and better harmonised among Member States."
- "Information on the status of **drinking water protected areas** should be included in the RBMPs."
- "Methodologies to calculate the **balance between recharge and abstraction** of groundwater should be transparent and better harmonised between Member States. **Ecological flow** should be considered."
- "**Delineation** and reporting of **GW bodies** should be better harmonised.

The Conceptual Model/Understanding



Way Forward: WG Groundwater – activities for the period 2013 - 2015

- Support to review of GWD Annex I/II
- GW dependent terrestrial ecosystems
- GW associated surface water bodies
- Integration of Drinking Water Directive aspects into River Basin Planning
- Threshold values - support to harmonisation
- Trend and trend reversal assessment
- Water quantity
- Delineation & assignment of GWBs to horizons

Conclusions

- WFD implementation and elaboration of 1st RBMPs - big first step
 - Work performed was based mainly on existing information,
 - In cooperation of numerous institutes and experts
 - with joint forces
- Analyses under the Blueprint showed some gaps
 - Activities for the 2nd RBMPs already started - revision and improvement based on new knowledge → Cyclic procedure according to WFD
- Gap analyses encourages enhanced cooperation within and between disciplines at each level

Contact & Information

Johannes Grath (co-Chair WG Groundwater)

Johannes.grath@umweltbundesamt.at

Tel.: +43 1 31304 3510

Umweltbundesamt
www.umweltbundesamt.at

■ Brussels, November 2013