State of implementation of the Water Framework Directive 2000/60/EC

2019 IMPEL Water and Land Conference
Rome – 8 and 9 October 2019
The EU Water Framework Directive – objectives and instruments

Common Implementation Strategy 2019-2021

2nd RBMP assessment report

Fitness Check

Droughts – Water Reuse Regulation Proposal
Objectives

The EU Water Framework Directive 2000/60/EC

No Deterioration of status

By 2015 or at the latest by 2027

- Good ecological status/potential surface water
- Good chemical status surface and groundwater
- Good quantitative status of groundwater

Exemptions under certain conditions
## Water status classification

### Good surface water status

<table>
<thead>
<tr>
<th>Good ecological status</th>
<th>Is an expression of the quality of the structure and functioning of aquatic ecosystems including: <strong>biological, hydromorphological and physico-chemical elements</strong></th>
<th>High</th>
<th>Good</th>
<th>Moderate</th>
<th>Poor</th>
<th>Bad</th>
</tr>
</thead>
</table>

| Good chemical status | Means meeting all **environmental quality standards** for chemicals set at EU level in Directive 2008/105/EC (priority substances) as amended by Directive 2013/39/EU | Good | Failing to achieve good |

### Good groundwater status

<table>
<thead>
<tr>
<th>Good quantitative status</th>
<th>Means ensuring a <strong>long-term balance</strong> between abstraction and recharge, protecting as well associated surface waters and ecosystems.</th>
<th>Good</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good chemical status</td>
<td>Means meeting all standards for chemicals, either set at EU level (pesticides and nitrates) or at national level (threshold values)</td>
<td>Good</td>
<td>Poor</td>
</tr>
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</table>
Instruments

- **Status assessment**
  Reference conditions - Pressures and impacts – monitoring methodologies - harmonised classification

- **Gap assessment** towards good status/potential

- **Exemptions** – Balance environmental protection and economic development – cost calculations

- **Programmes of measures** in 6 yearly River Basin Management Plans – monitoring – review

- **Basic mandatory and supplementary measures** – abandon unsustainable practices – repair – improve - cost effective combination of measures

- **Reporting - Public participation - International cooperation**
Main pressures

Diffuse pollution
- Nitrates and pesticides from agriculture

Point-source pollution
- Untreated urban and industrial discharges

Hydromorphological alterations
- Physical alterations and structural changes
- Energy production (hydropower), flood protection, inland navigation

Water over-abstraction
- Over-abstraction and over-use
- Illegal abstraction
Monitoring parameters – examples

- **Water flow** (volume and level or rate)
- **Pollution parameters** (e.g. organic and nutrient pollution, chemicals and pesticides)
- **Biological parameters** (aquatic flora and fauna, e.g. fish stocks and macro-invertebrates)
- **Hydromorphological elements** (e.g. river continuity and morphology)
- **Groundwater**: Chemical and quantitative parameters
Programme of measures – Art 11 WFD

Basic

Measures under existing legislation
Article 11.3 (a)

- Nitrates Directive addressing **agriculture** (91/676/EEC)
- **Industrial emissions** Directive (2010/75/EU)
- Birds and Habitats Directive (79/409/EC and 92/43/EC)
- Etc.
Programme of measures – Art 11 WFD

Basic

- Cost recovery
- Safeguarding drinking water
- Controls over abstraction
- Emission controls for point and diffuse sources
- Controls over hydro-morphological alterations
- Prohibitions on direct discharges to groundwater
- Eliminating/controlling pollution by priority substances and reducing pollution by other substances

Additional WFD basic measures
Article 11.3 (b-l)

Supplementary

Supplementary measures
Article 11.4

- Those measures designed and implemented as needed on top of the basic measures, with the aim of achieving the objectives established pursuant to Art.4. To be defined by Member States.
Examples for Key Types of Measures (KTMs)

<table>
<thead>
<tr>
<th>KTM element</th>
<th>Description</th>
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<tbody>
<tr>
<td>KTM1 – Construction or upgrades of wastewater treatment plants</td>
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<tr>
<td>KTM10 – Water pricing policy measures for the implementation of the recovery of cost of water services from industry</td>
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<tr>
<td>KTM11 – Water pricing policy measures for the implementation of the recovery of cost of water services from agriculture</td>
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<tr>
<td>KTM12 – Advisory services for agriculture</td>
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<tr>
<td>KTM13 – Drinking water protection measures (e.g. establishment of safeguard zones, buffer zones etc)</td>
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<tr>
<td>KTM14 – Research, improvement of knowledge base reducing uncertainty</td>
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<tr>
<td>KTM15 – Measures for the phasing-out of emissions, discharges and losses of Priority Hazardous Substances or for the reduction of emissions, discharges and losses of Priority Substances</td>
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<tr>
<td>KTM16 – Upgrades or improvements of industrial wastewater treatment plants (including farms)</td>
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<tr>
<td>KTM17 – Measures to reduce sediment from soil erosion and surface run-off</td>
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<tr>
<td>KTM18 – Measures to prevent or control the adverse impacts of invasive alien species and introduced diseases</td>
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<tr>
<td>KTM19 – Measures to prevent or control the adverse impacts of recreation including angling</td>
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<tr>
<td>KTM22 – Measures to prevent or control the input of pollution from urban areas, transport and built infrastructure</td>
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<td>KTM21 – Measures to prevent or control the input of pollution from forestry</td>
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<tr>
<td>KTM23 – Natural water retention measures</td>
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<tr>
<td>KTM24 – Adaptation to climate change</td>
<td></td>
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<tr>
<td>KTM25 – Measures to counteract acidification</td>
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<tr>
<td>KTM99 – Other key type measure reported under PoM</td>
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</table>

**Investment needs:**

- Measures to improve and maintain water status

**But not to forget about investments in...**

- Effective and efficient administrations
- Trained and educated staff
- Required skills going beyond "traditional" water management

Source: WFD Reporting Guidance 2016
Common Implementation Strategy (CIS)
EU Member States (MS), EFTA countries, Commission and stakeholders from industry and civil society address challenges in a cooperative and coordinated way since 2001.

To date: 36 guidance documents endorsed by Water directors, prepared by specific Working Groups.

Enlargement countries invited to actively participate as well.

Strategic Coordination Group

Ad-hoc Task Groups will work, *inter alia*, on

- Technical report on Good practices for identifying investment needs and financing sources for Programmes of Measures
- Technical report on Approaches to cost recovery for water services (Art 9 WFD)
- update CIS guidance on exemptions and climate change
Working Group on Ecological Status (ECOSTAT) will work on, inter alia:

- Intercalibration of new and updated methods for the classification of Ecological Status
- Finalising the guidance on Good Ecological Potential
- Exchange info on use of River Basin Specific Pollutants for the classification of ecological status
- Exchange info on innovative methods in classification (e.g. e-DNA, remote sensing), plastics..

Working Group on Chemicals will work on, inter alia:

- Completing guidance on the implementation of Environmental Quality Standards for metals
- Contributing to next Commission Decision watch list of pollutants
- Exchanging good practices on monitoring, assessment and reporting
- Exchanging good practices on micro-plastics and pharmaceuticals
Working Group on Groundwater

- a first voluntary watch list for contaminants of emerging concern
- Improved comparability of methods to set (national) threshold values for groundwater pollutants

Working Group on Floods

- Exchange on good practices, projects, research and new approaches for flood risk management
- Exchange info on determining severity of floods based on damage rather than on extent

Working Group on Data and Information Sharing

- Prepare reporting of 3rd RBMPs
- Coordinate with reporting under Floods and Marine Strategy Framework Directives
- Support annual reporting by Member States on the Watch List required by the EQS Directive
Europe’s waters today

Surface water: 40% in good ecological status
Main pressures – hydromorphological alterations, diffuse and point source pollution – over-abstraction

Surface water: 38% in good chemical status
Mostly due to mercury and other ubiquitous substances

Groundwater: 74% in good chemical status

Groundwater: 89% in good quantitative status

Percentage of water bodies, not in good chemical status, with uPBT, per river basin district

- 0%
- 100%

Legend:
- No data reported
- EEA countries not implementing WFD
- Outside coverage

Notes:
- Second river basin management plans
- uPBT: ubiquitous, persistent, bioaccumulative and toxic substances
What has the Commission assessed?

Comprehensive picture has been presented in previous implementation reports

**Current assessment focuses on** progress since first cycle - follow-up to Commission recommendations

**Basis for analysis** = RBMPs, WISE reporting - complementary information

**Main areas**: Governance – Monitoring - Status assessment and classification - Heavily Modified Water Bodies - Environmental objectives and exemptions - Diffuse pollution - Economic analysis - Droughts etc.
Conclusions - main topics

**Knowledge of causes**

- Much improved knowledge of
  - Status and reasons for failure of good status
  - Interaction between pressures required measures

But justification for excluding some pressures should be improved and drivers behind some hydromorphological alterations still need to be better understood.

**Governance**

- Broad participation stakeholders mostly ensured
- Improved international cooperation

**Monitoring**

- Monitoring networks and their coverage have been revised
- Less uncertainty in status

However, still some gaps (HyMo, monitoring frequency)

Measurement of Priority Substances very diverse across the EU
Conclusions - main topics (cont)

**Status assessment**
Progress on methods to assess good status and potential – increased confidence

More efforts needed for:
- coastal and transitional waters
- translating results of intercalibration exercise into national methods

**Exemptions**
Some improvement in justifications but still too often applied
More Article 4(7) exemptions for new infrastructure projects and even more projects in pipeline and possibly future exemptions

**Programmes of Measures**
Progress made but lack of finance is a significant obstacle
Gap towards good status reasonably well identified by most Member States for each significant pressure and required level of implementation of measures
Conclusions - main topics (cont)

**Impacts from Agriculture**
Basic measures mostly in place
But in half the cases, the recommended gap assessment was not carried out

**Pressures other than agriculture**
Measures generally in place, including substance-specific but more progress needed
Conclusions – main topics (cont)

**Hydromorphology**
- Measures in place - link with economic sectors better understood
- More progress needed on defining and implementing (minimum) ecological flows

**Economic analysis – cost recovery of water services**
- Many countries apply wide definition (hydropower, navigation, flood protection, self-abstraction)
- Limited number of Member States upgraded water pricing policies
- Incomplete implementation of cost recovery - limited use of economic instruments

**Protected areas**
- Additional efforts needed to ensure appropriate protection and management (drinking water, nature, shellfish production areas, bathing waters, etc.).

**Droughts**
- Considered relevant in about half of Member States; not all relevant basins have Drought Management Plans
Main conclusions – overall

Knowledge levels substantially improved
Reporting more comprehensive and reliable

Compliance with WFD objectives = increasing
Groundwater bodies largely in good status
Surface water bodies lagging behind, even if individual quality elements have improved in many cases

WFD implementation

Improved implementation of Urban Waste Water Treatment, Nitrates and Industrial Emissions Directives, and EU chemical law, have had a positive effect on water status

BUT... significant efforts needed to overcome remaining challenges by the end of the third cycle (i.e. by 2027)

Implementation urgently needs to accelerate
Fitness Check
What is ongoing in the water area?

- Water Framework Directive (WFD)
  - 2 Daughter Directives
  - Floods Directive
  - Basic measures
  - Water re-use Regulation
  - Groundwater Directive
  - Environmental Quality Standards Directives
  - Urban Waste Water Treatment Directive
  - (Recast) Drinking Water Directive
  - Strategic approach to pharmaceuticals in the environment

Other related instruments:
- Plastics Strategy
- Industrial Emissions Directive
- ...
Fitness check - Evaluation criteria

- Efficiency
- EU-added value
- Effectiveness
- Coherence
- Relevance
## Fitness Check

### Some important issues raised during the evaluation

<table>
<thead>
<tr>
<th>Apparent insufficient progress on achieving WFD objectives</th>
<th>One-out-all-out principle</th>
<th>Governance</th>
<th>Non-deterioration obligation</th>
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<tr>
<td>Definition of 2 different status - chemical and ecological</td>
<td>Flexibility through exemptions</td>
<td>2027 final deadline for application of exemptions</td>
<td>Quantification of costs and benefits</td>
</tr>
<tr>
<td>Reporting tools (WISE)</td>
<td>Policy coherence (agriculture, energy, transport)</td>
<td>Climate change and water quantity / water quality</td>
<td>Water pricing, and polluter pays principle</td>
</tr>
<tr>
<td>Floods Directive – overarching progress indicator</td>
<td>Duration of the RBMPs cycles, and reporting cycles of other related law</td>
<td>Integration of the objectives of protected areas within the RBMPs</td>
<td>Link drivers-pressures-measures</td>
</tr>
</tbody>
</table>
Fit for the Future? What our Fitness Check tells us:

- Water deterioration halted
- Only 40% of surface water bodies and 74% of groundwater bodies in good status
- Significant progress in reducing pressures
- Better monitoring, more transparent information
- More integrated water management in place
- Significant investments made

- Slower progress than expected (2027 just over 7 years away)
- Long-standing problems: agriculture, hydromorphology, persistent chemicals
- Uneven implementation, uneven monitoring
- New problems: pharmaceuticals, micro-plastics, climate change
- The price for water is still not ‘right’
- Legislation could be more efficient
In conclusion...

- Deterioration of water quality halted across Europe’s 130,000 fresh water bodies.
- Quality slowly improving, with 60% of surface water not yet at overall good status.
- Persisting pollution from nitrates, pesticides, chemical substances, including microplastics and pharmaceuticals, calls for better prevention of pollution at source.
- A well implemented UWWTD supports the delivery of good status.
- Adoption of recast Drinking Water Directive and new Water Reuse Regulation are priorities.
- EC ready to further support implementation and boost innovation.
Thank you for your attention!