



Global Environment Monitoring System for Freshwater (GEMS/Water) Programme

Input to the

Expert Meeting on Monitoring, Assessment and Data Exchange

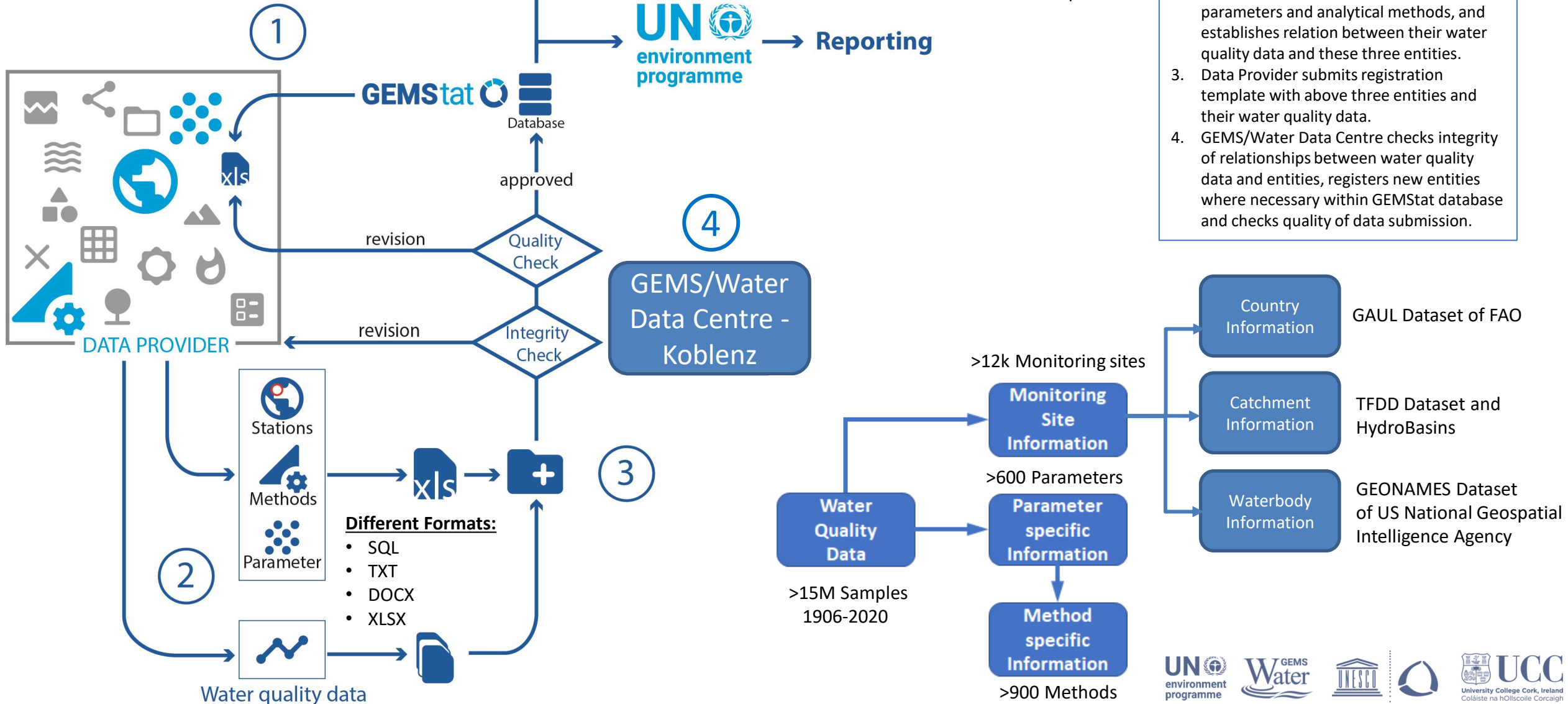
Session 2: Overview of the existing guidelines on monitoring and assessment of
transboundary rivers, lakes and groundwaters

1st April 2021

GEMS/Water Data Architecture

Data Providers:

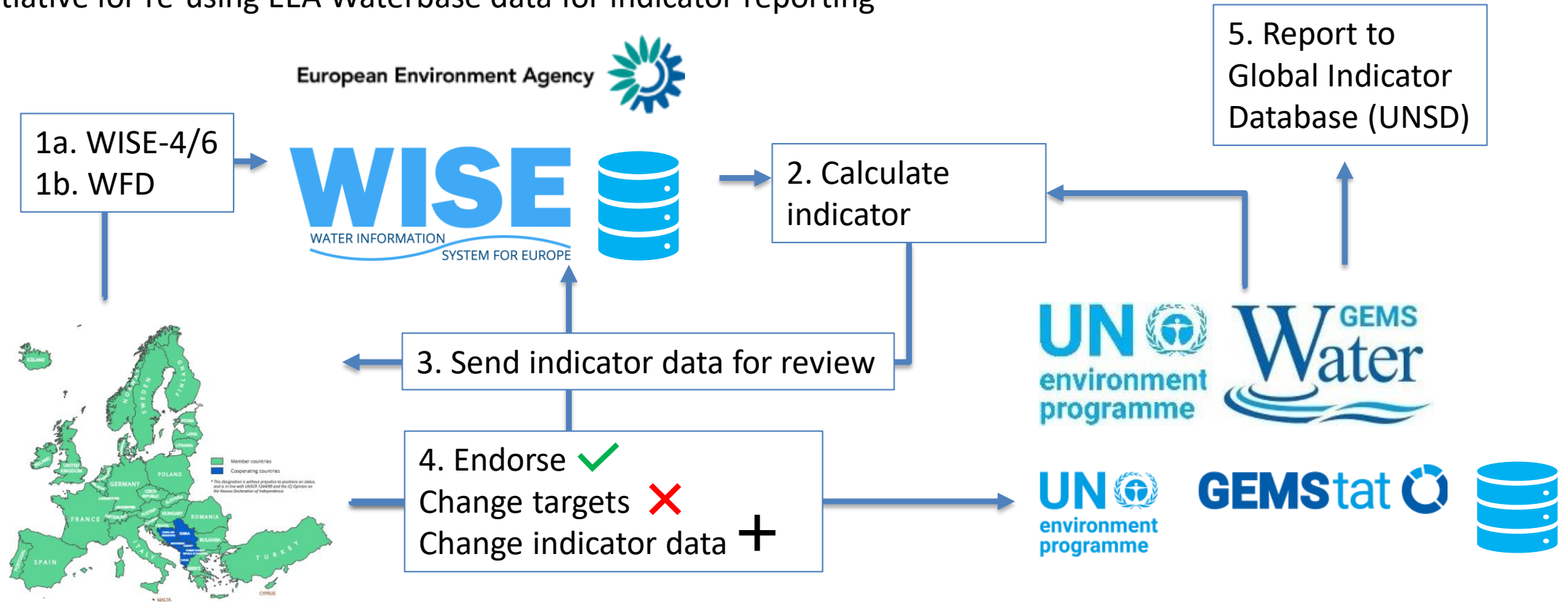
117 National Focal Points
88 Countries have provided Data to GEMStat





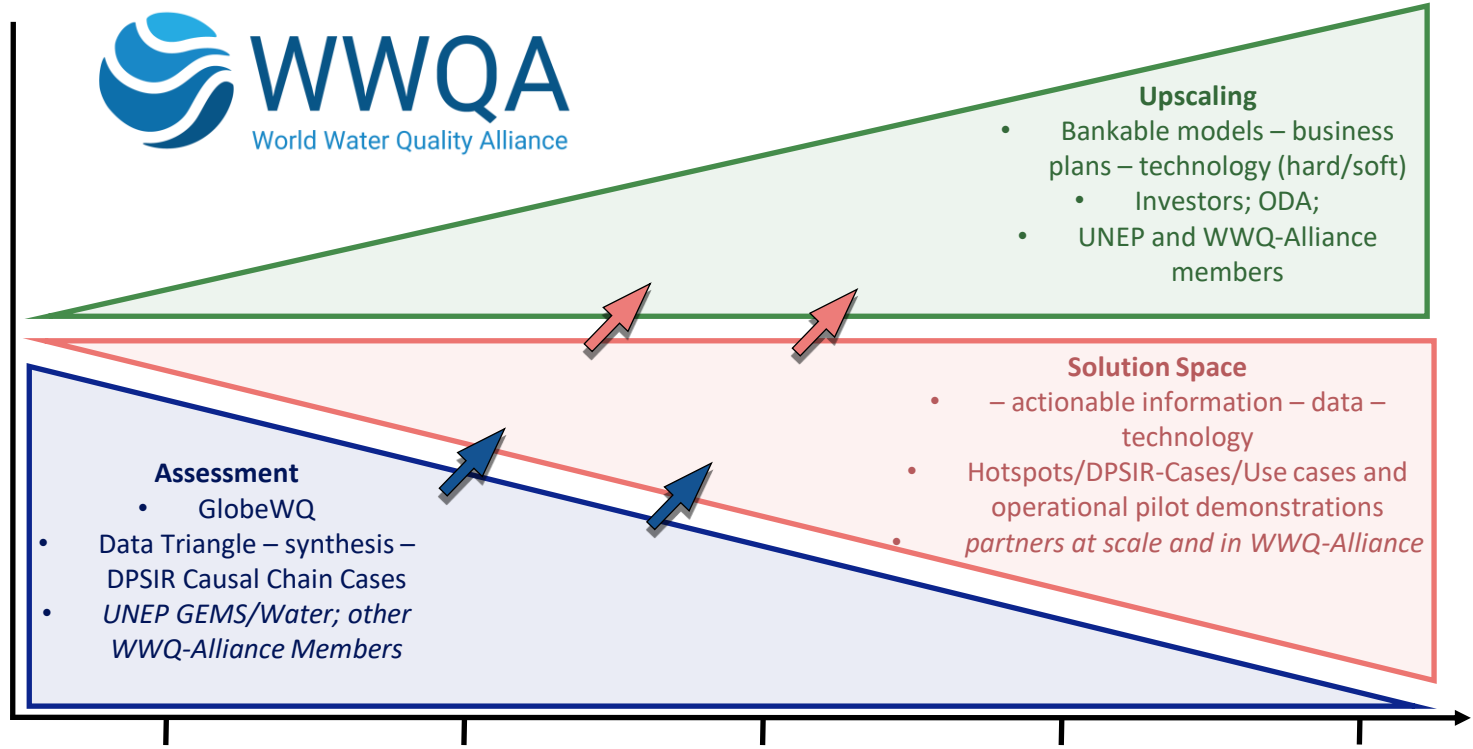
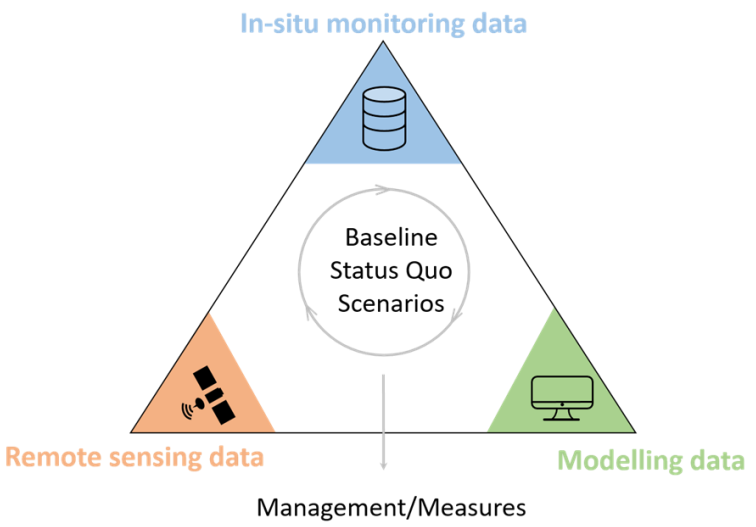
Reporting on SDG Indicator 6.3.2

Pilot initiative for re-using EEA Waterbase data for indicator reporting



Discussions are ongoing with AMCOW on how to align reporting under WASSMO and SDG 6 and similar approaches can be used for other regions/ transboundary systems as well

WWQ Alliance – and Assessment Framing – the Big Picture



- 11 models
- 4 remote sensing products
- 1 in-situ WQ database (used for model validation and testing)
Triangulation of available data

2021/2022
UNEA 5.1/2
Inf Doc and initial Cases
(useable/operationally tested 1-2);
WESR examples

2023
UNEA 6
Full Baseline, Cases (DPSIR Causal chain; and solution products at scale (useable/operationally tested); WESR examples

2023-2030
Assessment regular updates incl. SDG 6 and continued triangle application

Social Process/ Outreach
Engagement/ Validation

Future Outlook and Areas of Collaboration

- Current Use Case for data triangulation in Lake Victoria Basin has shown limitations for fusion of different data sources – joint visualization and overlay however possible
- Need for standardization of monitoring (e.g., method, frequency, parameters, reporting etc.)
- Standardized terminologies, formats and information models (i.e., OGCs Water ML 2.0 – currently being further developed to include water quality)
- Need for standardized APIs between data platforms for easier data exchange
- Current availability of in-situ data not sufficient for global assessment – need to integrate other types of data (within their limitations)/ partners/networks
- Need for more collaboration and data exchange beyond National Focal Points (i.e., River Basin Organizations, Regional Organizations (EEA, AMCOW etc.), GTN-H, Water Convention etc.)
- Plan to engage with GTN-H partners to jointly bring together all water data tracks accessible under one umbrella
- Collaboration with UNECE:
 - Review and provide input on new monitoring and assessment guidelines
 - Participation in regional training workshops as required
 - Jointly engage on standardization processes for monitoring and assessment

