



Water Reuse Regulation

The Value of Water(s) – public seminar

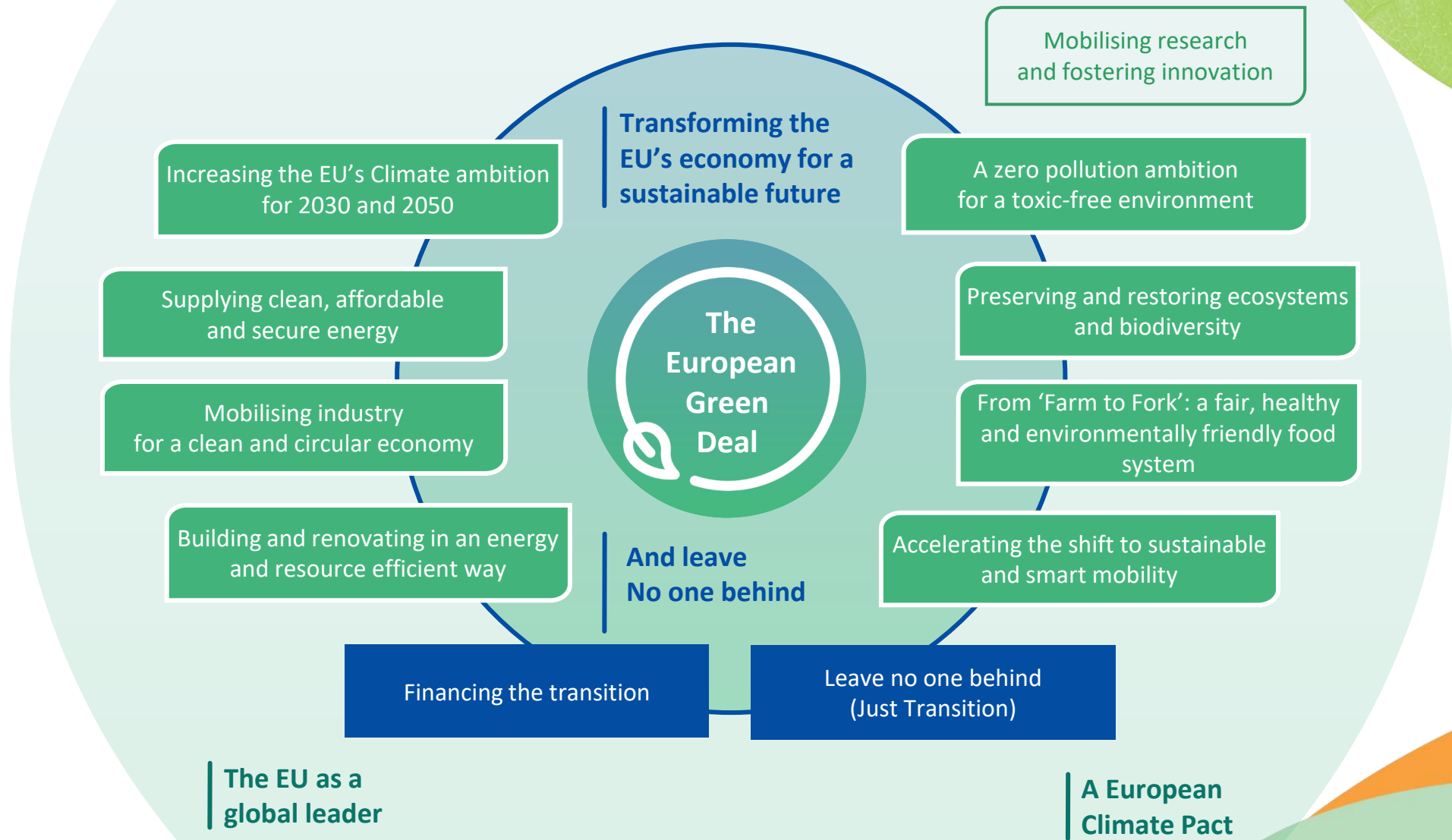
*30 March 2023 – hybrid
Aqua Public Europea and Aguas de Gaia*

*Sustainable Freshwater Management
DG ENV Unit C1*

Policy background

- Water stress affects at least a third of the EU territory all year round
- Frequency and intensity of droughts on the rise
- Policy context:
 - Communication on water scarcity and droughts in the EU (2007) – *water reuse identified as a potential alternative water source*
 - Blueprint to safeguard Europe's water resources (2012) - *identified the untapped potential of water reuse*
 - Sustainable Development Goal 6 (2015) - *“Ensure access to water and sanitation for all including “substantially increasing recycling and safe reuse globally”*
 - Circular Economy Action Plan (2015 and 2020) - *include actions to facilitate the uptake of water reuse*

The European Green Deal



The European Green Deal

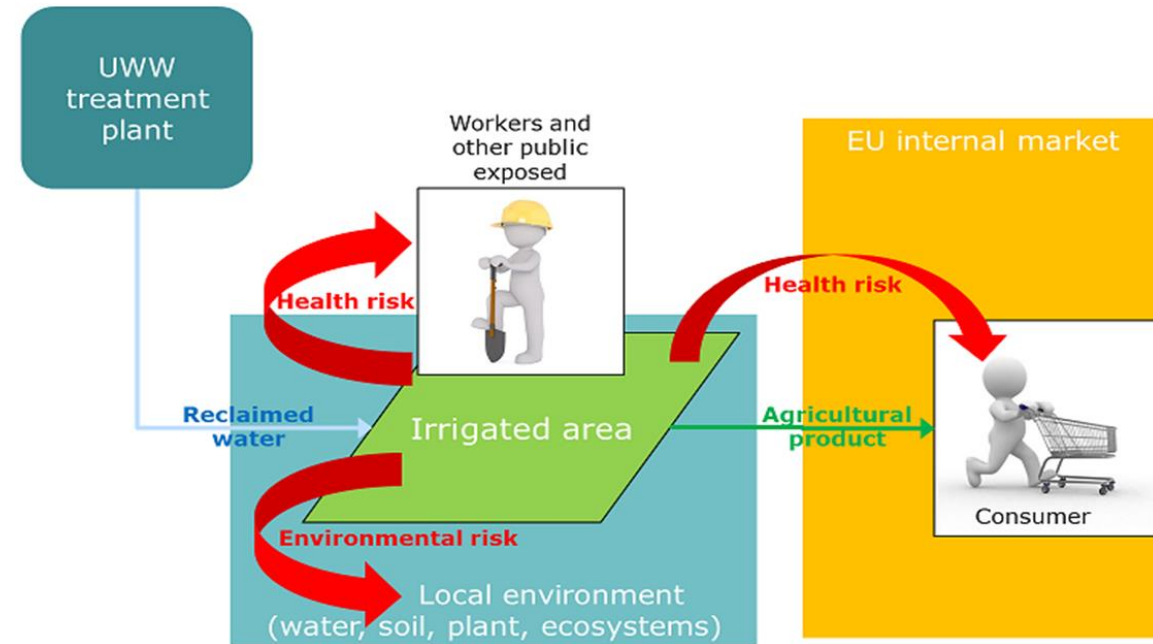


Circular Economy Action Plan – 2020

- Key product value chains – Food, water, nutrients
 - *“The new Water Reuse Regulation will encourage circular approaches to water reuse in agriculture. The Commission will facilitate water reuse and efficiency, including in industrial processes.”*
 - *“The Commission will also consider reviewing directives on wastewater treatment and sewage sludge [...] “*
- Circularity in production processes
 - *“Review of the Industrial Emissions Directive, including the integration of circular economy practices in upcoming Best Available Techniques reference documents”*

Water Reuse Regulation (EU) 2020/741

- Aims:
 - address water scarcity and drought
 - increase efficiency in the use of resources
 - safeguard public health and the environment
- The Regulation:
 - regulates water reuse in agricultural irrigation
 - fit-for-purpose instrument – different quality classes
 - origin of water for reclamation – water already treated up to Urban Waste Water Treatment Directive standards



Impact Assessment

- Water reuse potential in the EU
 - In 2015 – 1.1 billion m³/year of water reused
 - In 2025 - around 6 billion m³/year of water reused
- Costs and benefits:
 - estimated investments ≤ EUR 700 m for treating over 6.6 bn m³ water /year at a cost of ≤ EUR 0.5/m³
 - estimated 5% - 10% reduction in water scarcity

State of play

- Regulation in force since June 2020
- Rules to apply as of June 2023
- Support to application:
 - Guidelines on application – published in August 2022
 - Technical specifications on risk management – work in progress
 - Data reporting format – work in progress
- Evaluation – June 2028

Main provisions

- Minimum requirements for water reuse in agricultural irrigation (Annex I):
 - parametric values for the quality of reclaimed water; and
 - monitoring requirements
- The requirements:
 - address **HEALTH** risks
 - parameters set per class of reclaimed water, per crop category and irrigation method
- Technical background:
 - Joint Research Centre report on minimum quality requirements for water reuse
 - WHO, ISO standards, Australian Guidelines...

Main provisions

- Requirements to develop a risk management plan for each water reuse project to ensure safety:
 - addressing **ENVIRONMENTAL** risks and potential additional health risks
 - key risk management elements (Annex II)
- Permitting requirements and compliance checks
- Requirements on transparency and access to information

Parametric values – Annex I

■ Quality parameters:

- *E.coli*
- BOD
- TSS
- Turbidity
- Other (*legionella spp* and intestinal nematodes)

■ Monitoring parameters:

- Established frequency
- EN ISO19458 (Water quality – Sampling for microbiological analysis) or equivalent

■ 4 classes of water (A, B, C and D) with different quality:

- depending on the crop (intended use) and
- irrigation method – e.g. drip irrigation may allow lower quality water use for a given crop, then e.g. spraying

Risk management key elements – Annex II

- Permits to produce and supply – based on risk management plan
- Competent authorities – responsible that risk management plan established
- Risk management plan drafted by responsible parties (carrying out role or activity in water reuse system):
 - reclamation plant operator; urban wastewater treatment plant operator; authorities (other than designated competent authority); distribution operator; storage operators
- 11 key elements of risk management:
 - system description; actors and roles; environments and populations at risk; exposure routes; environment and health risk assessments; additional requirements; preventive measures; quality control systems; environmental monitoring systems; emergency management; coordination

Transparency and information

- Member States to organise awareness campaigns
- Publicly available information:
 - the quantity and quality of reclaimed water supplied;
 - the percentage of the total amount of treated urban waste water that the reclaimed water represents, where this data is available;
 - the results of compliance checks;
 - the designated contact points; and
 - any Article 2(2) decision.

Application of the rules

- Member States preparing for application
- Guidelines published in Official Journal:
 - The guidelines clarify or provide an interpretation of prescribed rules
 - Structured around two main chapters:
 - General and administrative obligations - chapter 2
 - Technical aspects - chapter 3
 - Explanation of the rules
 - Several examples to illustrate the rules

Guidelines - chapter 2

- Scope:
 - agricultural irrigation
 - MS decision not to use in certain areas
- Sections on roles and responsibilities:
 - competent authorities and contact points
 - responsible parties
- Information on permits, compliance checks and penalties
- Information on awareness raising and information sharing

Guidelines - chapter 3

- Risk management approach:
 - information on administrative set up
 - clarifications on key risk management elements and examples
- Type of crops and reclaimed water classes:
 - crop type/irrigation method/water quality class relationship
 - examples of analysis to be performed and use of barriers
- Validation monitoring:
 - approach to putting together a validation protocol
 - examples of validation protocols

Annexes

- 5 Annexes to further illustrate analysis needed:
 - Annex 1 – Glossary
 - Annex 2 – Examples of health and environmental hazards and routes of exposure
 - Annex 3 – Examples of risk assessment methodologies
 - Annex 4 – Examples of preventive measures and barriers
 - Annex 5 – Examples of management of emergencies and protocols

Thank you!

For more information

- European Commission dedicated page: https://environment.ec.europa.eu/topics/water/water-reuse_en
- Water Reuse Regulation: [Regulation \(EU\) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse](#)
- Commission Guidelines on water reuse: [Commission Notice Guidelines to support the application of Regulation 2020/741 on minimum requirements for water reuse 2022/C 298/01](#)