



Smart water for resilient cities

Dr Claudia Castell-Exner – EurEau President

Blue Planet Berlin – 25 February 2021

Who we are

- ~ EurEau is the **European Federation of Water Services** (*founded 1975*)
- ~ **34** national associations of **drinking and waste water operators** from **29** European countries
- ~ Providing **essential services**
- ~ Realising the **human right to water and sanitation**
- ~ Protecting **public health** and the **environment**



WHERE DOES YOUR **WATER** COME FROM



We supply 499 million people (96% of the European population) with fresh water, daily.

The European drinking and waste water pipe network is over 7 million kilometres long...



... which will get you to the Moon and back almost 20 times!



We deliver and treat 44.7 billion m³ of water annually, protecting the environment all the time.



This is all brought to you by the 476.000 people employed in the sector!



SOURCE:
www.eureau.org

INVESTING IN OUR WATER FUTURE

MAKING CLEAN WATER A REALITY



ANNUALLY

The European water sector's turnover is 86 billion euros.



INVESTMENT

We invest 52% of this - 45 billion euros - into renewing infrastructure.



INDIVIDUALLY

That's 93 euros per person.



IT'S FINANCED

Through your water bill, taxes and transfers from public authorities.



WHICH MEANS

We bring you clean, healthy water and return treated waste water safely to the environment.

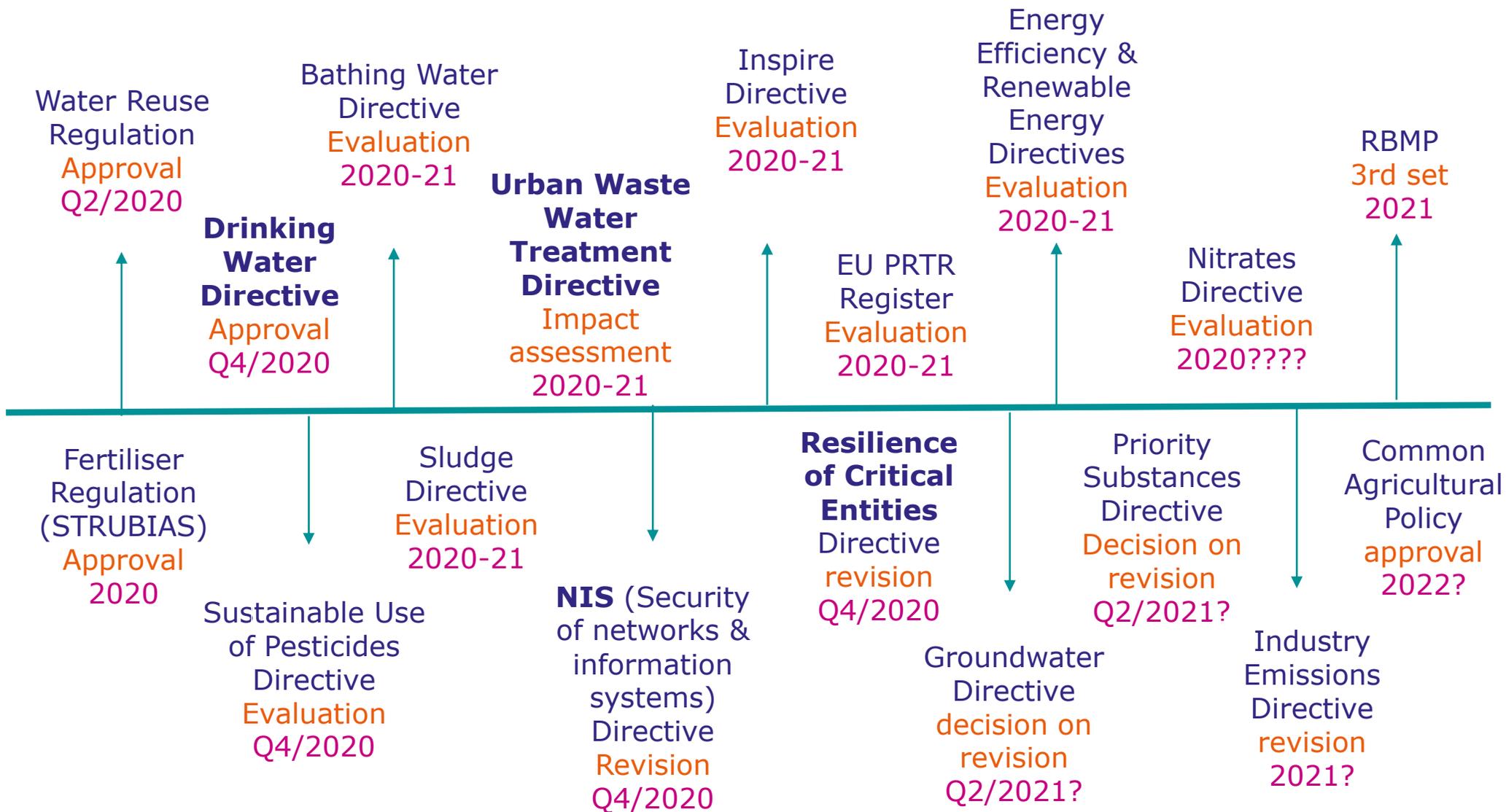
for more info: eureau.org



Timeline for EU initiatives



EurEau





INNOVATING FOR A GREENER FUTURE:

European water service
priorities



EurEau

May 2020

Innovation needs - *Smart water utilities*



Climate change adaptation and mitigation:

- ~ Develop technical solutions to reduce the CO₂-footprint of water services
- ~ Develop new approaches to make existing assets resilient towards climate change
- ~ Develop new approaches to integrate water resource protection in CC-adaption

Pollutants of emerging concern and AMR:

- ~ Investigate the impact and risks of contaminants of emerging concern and derive sound monitoring requirements
- ~ Develop new technologies to remove pollutants of emerging concern

Analytical methods:

- ~ Develop new sensors for rapid screening of chemical substances, rapid bacteriological analyses, on-line monitoring of contaminants of emerging concern
- ~ Develop cost-effective and reliable analytical methods for micro and nano plastics in different matrix (mass and particle count)

Maximising energy efficiency:

- ~ Develop new technologies for energy generation from sewage sludge
- ~ Develop new approaches for thermal energy recovery from water infrastructure

Innovation needs - *Smart water utilities*



Sustainable business models of the future:

- ~ Develop new ways of promoting innovations to decision makers aside from regulatory obligations

Digitalisation of the water sector:

- ~ Develop new approaches combining data mining and real time communication for water asset mgt
- ~ Develop new digital tools and services for water services to improve communication with customers
- ~ Develop methodology to sort valuable data in already available data to improve water infrastructure mgt.
- ~ Develop a digital environment and data treatment capabilities to optimise water treatment, water distribution and wastewater collect and treatment

Security of the water sector:

- ~ Develop methodologies to protect IT/OT infrastructure of water services / asset protection

Demonstration platform & „living labs“:

- ~ Promote the implementation of new treatment technologies within water services infrastructure

Communication:

- ~ Develop new communication methods to treat information and feedback from water services customers (bottom-up)

Human resources

Policy side

Technological
developments



Resilience

Asset management

Smart water cities

Digital water

Digitalisation

Innovation
needs

Integrity of water services

Innovation: barriers



A number of barriers may slow down innovation in the water sector:

- ~ inflexible and prescriptive legislation
- ~ missing life cycle assessment (LCA) data showing that new solutions do not only address one particular issue, but provide wider sustainability benefits
- ~ a lack of knowledge on innovative solutions
- ~ a lack of innovative financing solutions
- ~ technological solutions not adapted to the needs of water service providers
- ~ a lack of public support



Thank you for your attention



EurEau

Rue du Luxembourg 47-51,
B-1050 Brussels, Belgium
Tel: +32 (0)2 706 40 80
secretariat@eureau.org