



EU Environmental Policy Framework in Support of Digitalisation in the Water Sector

JASPERS Network

28 October 2021

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ENV.C.2 - Marine Environment and Water Industry

New Commission's Six Headline Ambitions

A European Green Deal

I want Europe to strive for more by being the first climate-neutral continent

A Europe fit for the digital age

I want Europe to strive for more by grasping the opportunities from the digital age within safe and ethical boundaries

An economy that works for people

I want Europe to strive for more when it comes to social fairness and prosperity

A stronger Europe in the world

I want Europe to strive for more by strengthening our unique brand of responsible global leadership

Promoting our European way of life

I want Europe to strive for a Union of equality and diversity, building consensus on migration and enhancing resilience to hybrid threats

A new push for European democracy

I want Europe to strive for more in nurturing, protecting and strengthening our democracy

The European Green Deal

Transforming the EU's economy for a sustainable future



“The European Green Deal should become Europe’s hallmark. At the heart of it is our commitment to becoming the world’s first climate-neutral continent.”

EC President Ursula von der Leyen

© Image: European Commission 2020

- New growth strategy
- Transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy
- No net emissions of greenhouse gases in 2050
- Economic growth decoupled from resource use
- Protect, conserve and enhance the EU's natural capital
- Protect the health and well-being of citizens from environment-related risks and impacts.
- This transition must be just and inclusive



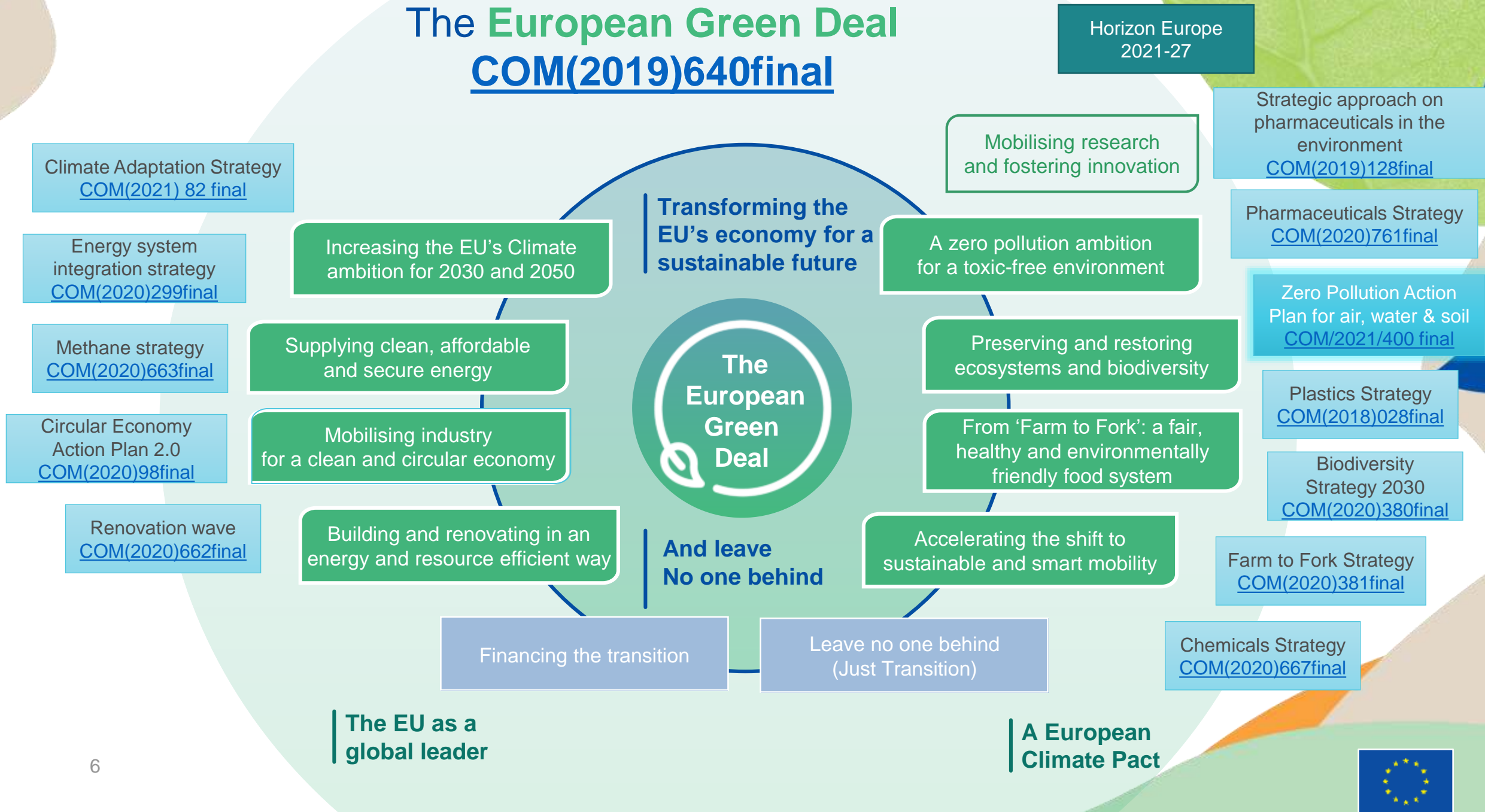
Annual Sustainable Growth Strategies 2020-21

[COM\(2019\)650final](#) / [COM\(2020\)575final](#)



The European Green Deal

COM(2019)640final



EU digital strategy (COM/2020/67final)

Everyone is experiencing the digital transformation in the life, the EU digital strategy will make it work for people, businesses and the planet, in line with EU values

Who will benefit from the EU's digital strategy?



EVERY EUROPEAN

Technology improves every citizen's daily life.



BUSINESSES

Businesses start, grow, innovate and compete on fair terms.



THE PLANET

Digital technologies help the EU reach climate neutrality.

What will we do?

Technology that works for people

A fair and competitive digital economy



An open, democratic and sustainable society



COMMUNICATION FROM THE COMMISSION

EU Action Plan: ‘Towards Zero Pollution for Air, Water and Soil’

“Pathway to a Healthy Planet for All”

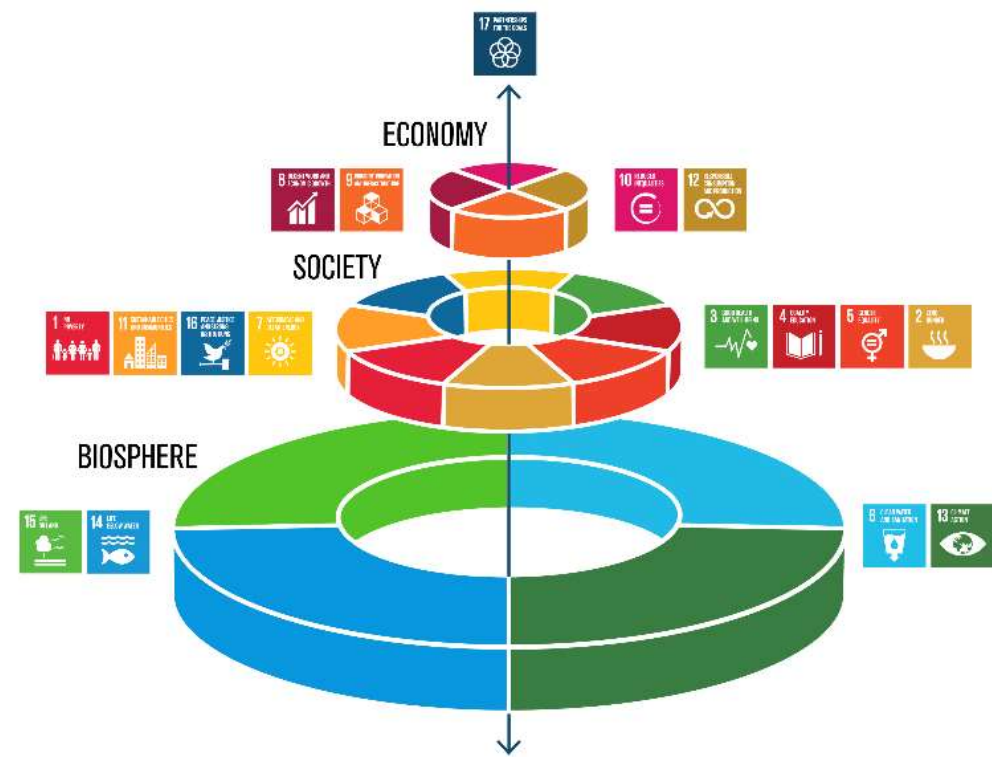
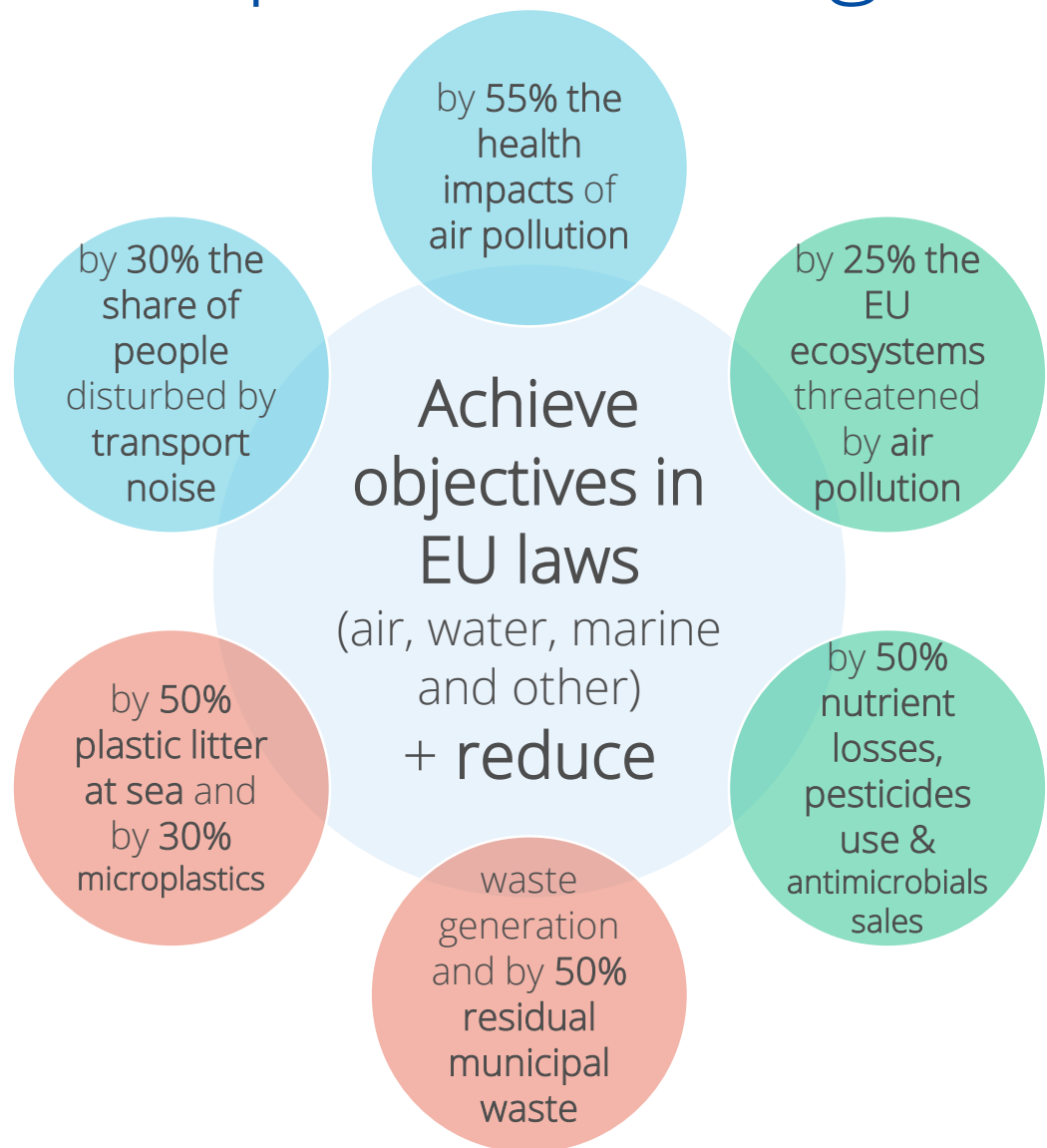
[COM/2021/400 final](#)



The zero pollution vision for 2050

“Air, water and soil pollution is reduced to levels no longer considered harmful to health and natural ecosystems and that respect the boundaries our planet can cope with, thus creating a toxic-free environment.”

Zero pollution targets for 2030



Digital Solutions for Zero Pollution



Brussels, 12.5.2021
SWD(2021) 140 final

COMMISSION STAFF WORKING DOCUMENT

Digital Solutions for Zero Pollution

Accompanying the document

**Communication from the Commission to the European Parliament, the Council, the
European Economic and Social Committee and the Committee of the Regions**

Pathway to a Healthy Planet for All
EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'

{ COM(2021) 400 final } - { SWD(2021) 141 final }

10 Action areas for digital solutions

(SWD(2021) 140)

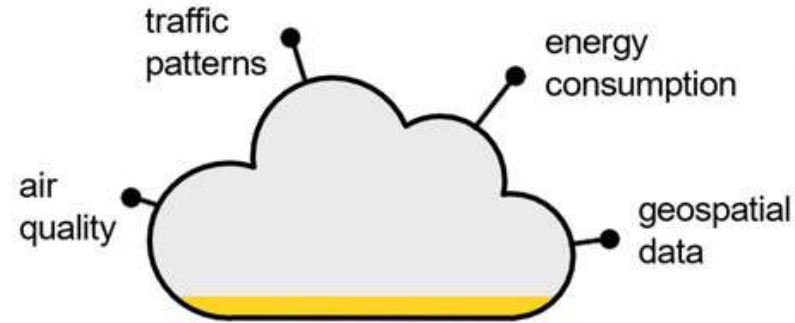


Digital opportunities in cities

By **2021:**

83 billion

connected devices and sensors will be creating large, diverse datasets on a wide range of topics:

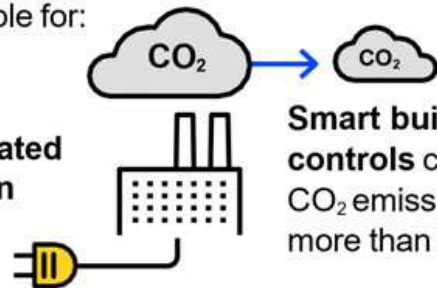


Only **10%** of this data is currently being analysed and put to use

In 2019 electricity consumption was responsible for:

40%

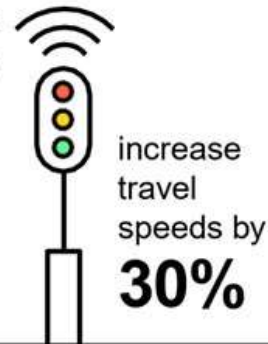
of energy-related global carbon emissions



Smart building controls can reduce CO₂ emissions by more than 350 Mt

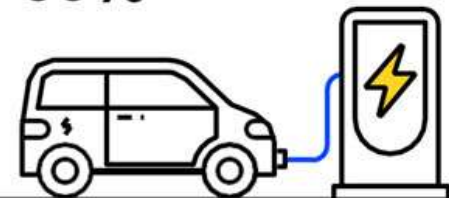
Smart traffic management systems can:

reduce congestion by **8%**



Smart charging can reduce EV impact on peak demand by

60%



Energy efficiency in water treatment plants can save municipalities

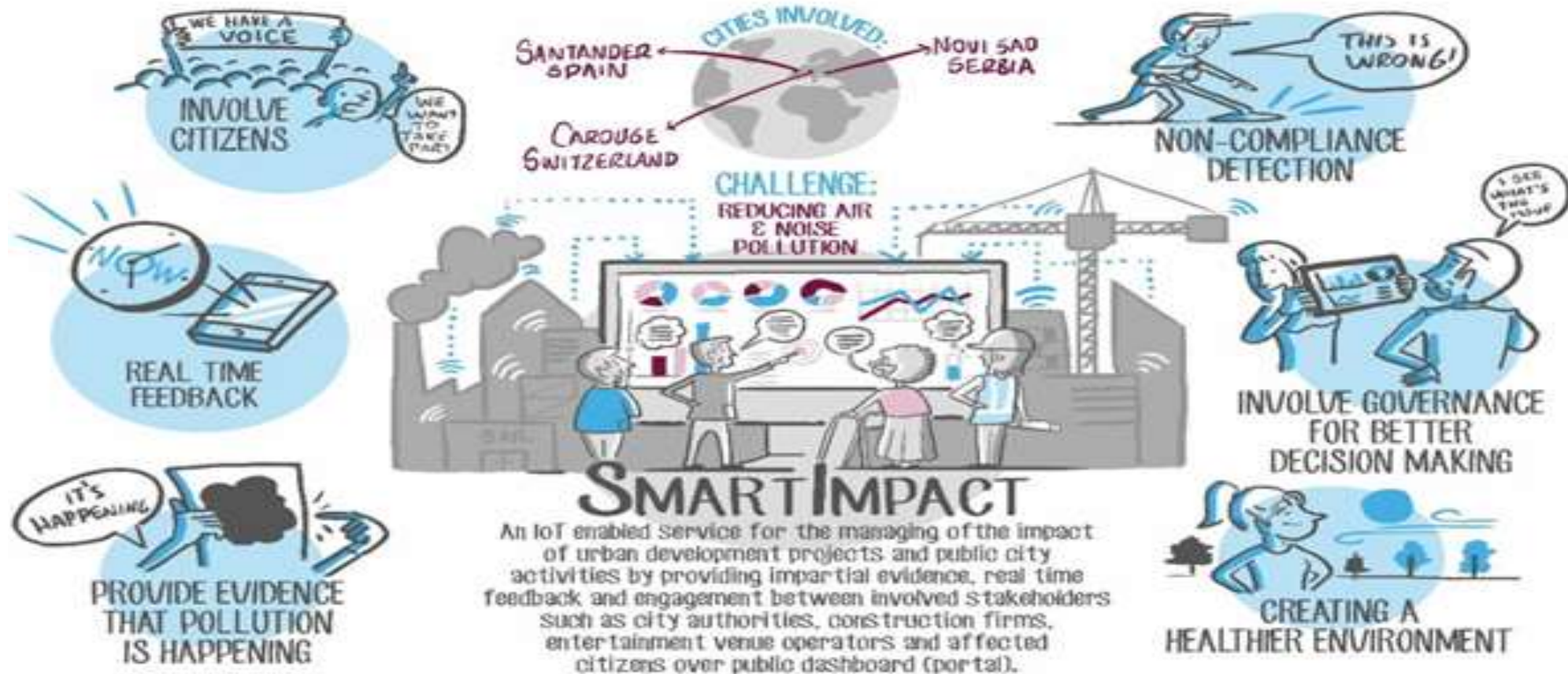


15-30% of their expenditure

Source : <https://www.iea.org/reports/empowering-cities-for-a-net-zero-future>



Digital solutions for environment policy



[INSPIRE Conference 2020 presentation by Srdan Krco \(DunavNET\)](#)

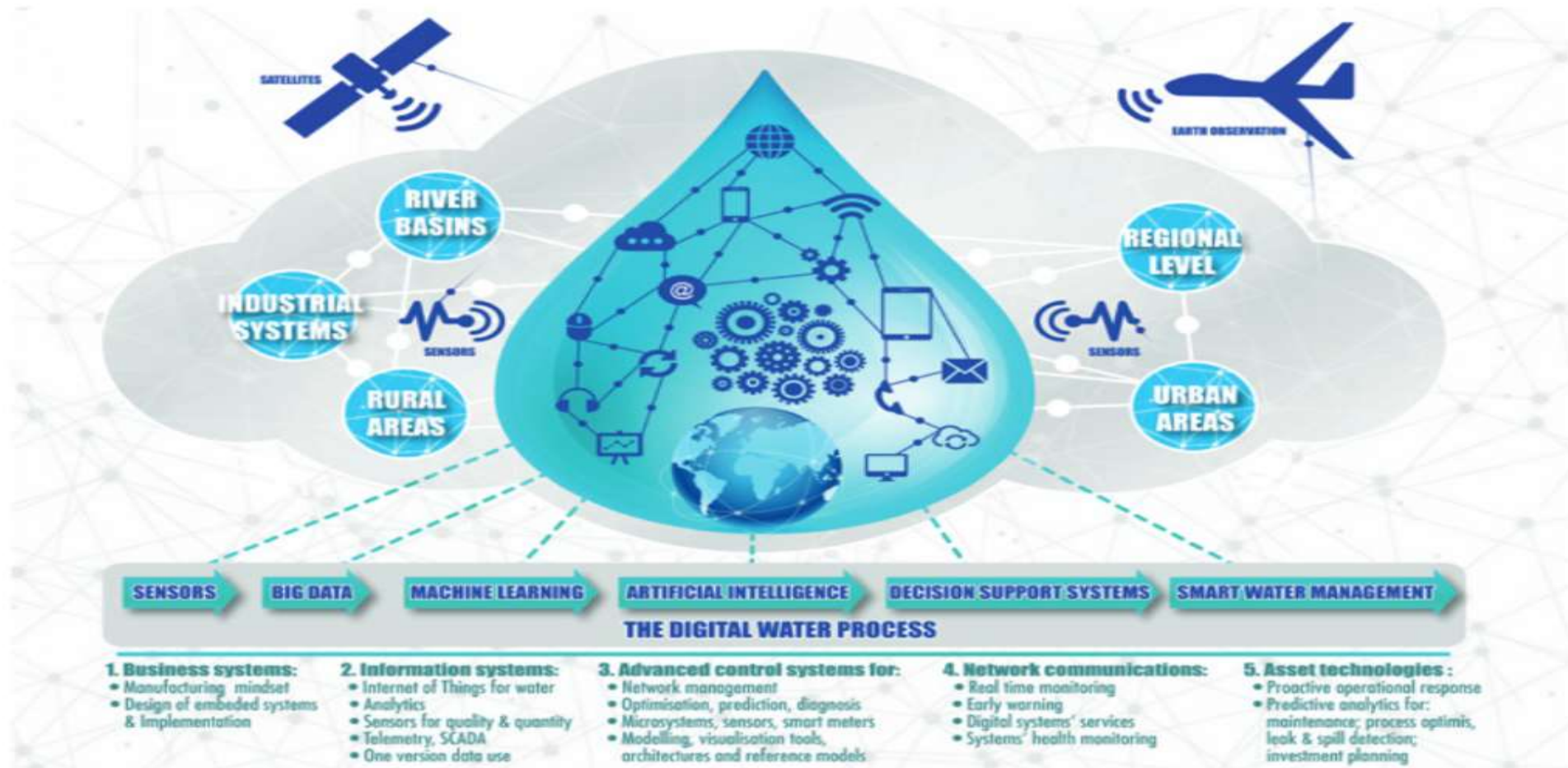
Digital opportunities for zero pollution

- Traceability, transparency and visibility
- Empowering consumer and awareness
- 'Virtualisation' / Digital twins
- Products as a service



- Pollution tracking (smart sensors, blockchain)
- Pollution data analysis using artificial intelligence
- Less-polluting consumer choices (zero pollution consumption)
- Less polluting industrial processes (zero pollution production)

The digital water process



Source: Water Europe

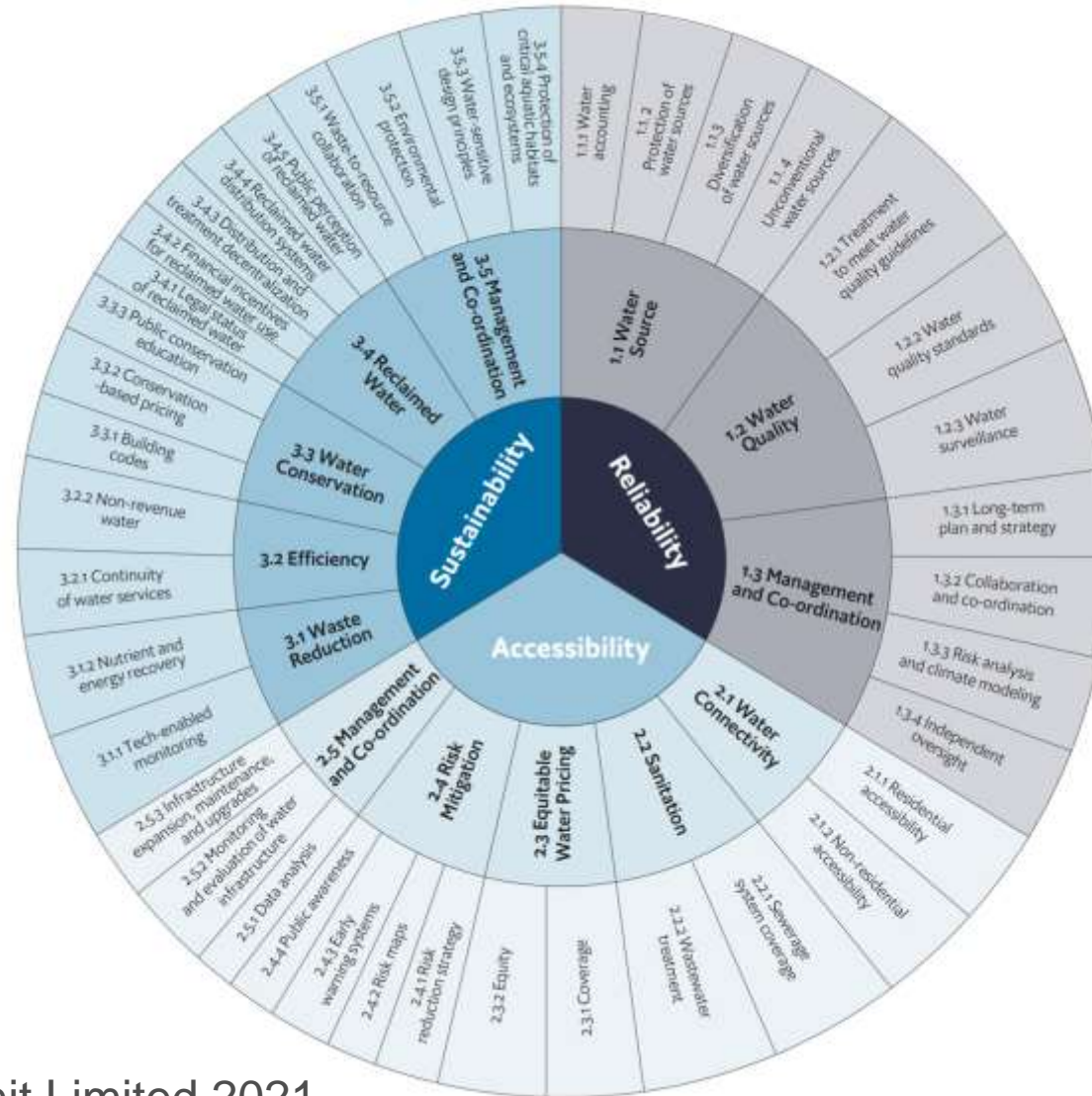
Conclusions

- *Deployment of digital solutions for zero pollution must be sustainable*
- *Take advantage of the digital component of green investments*
- *Empower citizens for achieving zero pollution through better use of digital tools*
- *Exploit possibilities offered by digital solutions for compliance and enforcement of environmental legislation*
- *Use digitalisation to modernise administrations*
- *Enhance digital skills and capacity building*
- *Open zero pollution data as an important contribution to European Data Spaces*
- *Big data contribution to solving pollution problems by translating information to knowledge*
- *Need to create networks of environment and digital experts*

EU Water policy

- New Drinking Water Directive – [Directive \(EU\)2020/2184](#)
- Revision Urban Waste Water Treatment Directive (2022Q2)
- Revision Bathing Water Directive
- Revision Industrial Emissions Directive (2021Q4)

City water optimization framework



To mobilise the necessary investments, the Commission is putting forward a two-fold response:



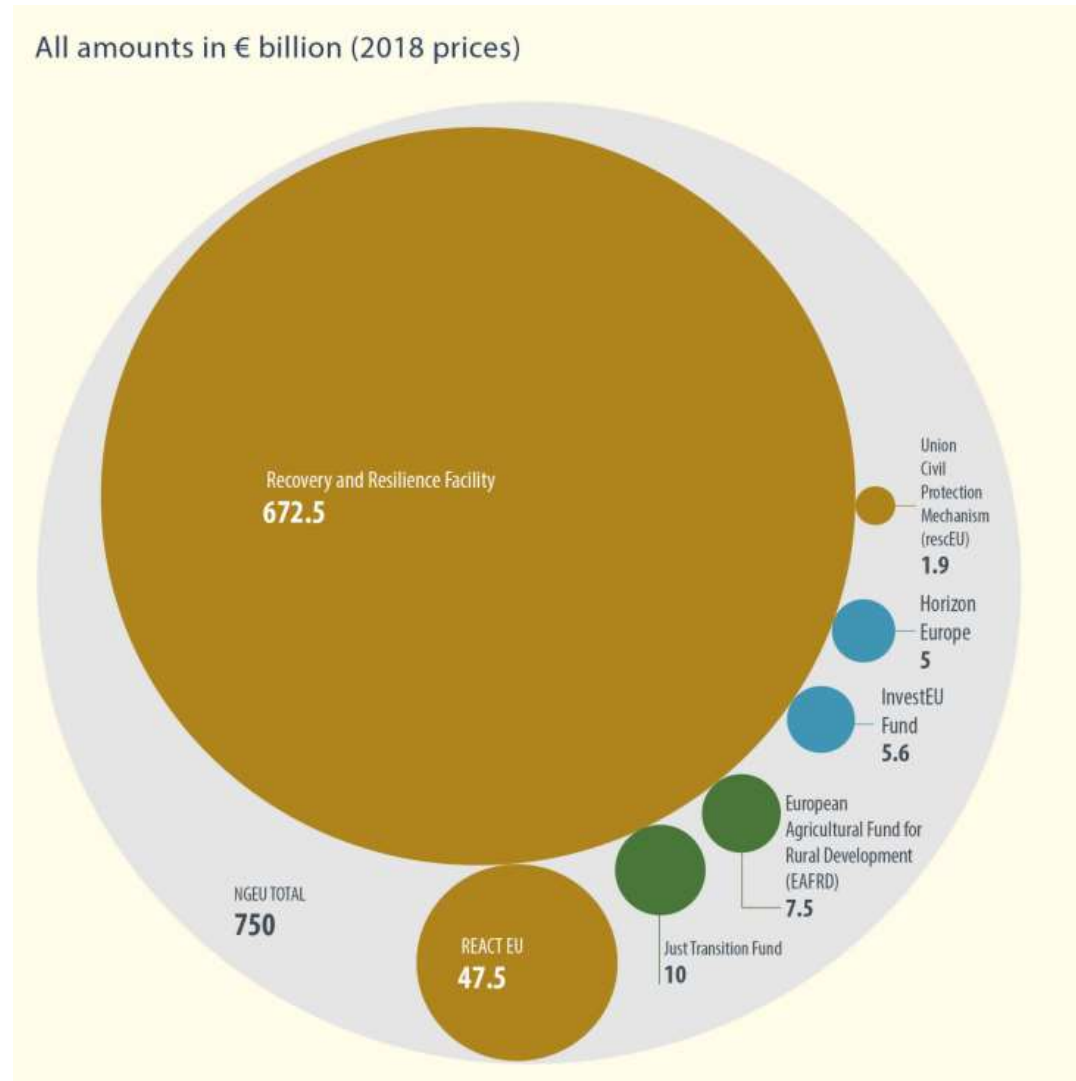
Next Generation EU

a new recovery instrument of €750 billion which will boost the EU budget with new financing raised on the financial markets for 2021-2024



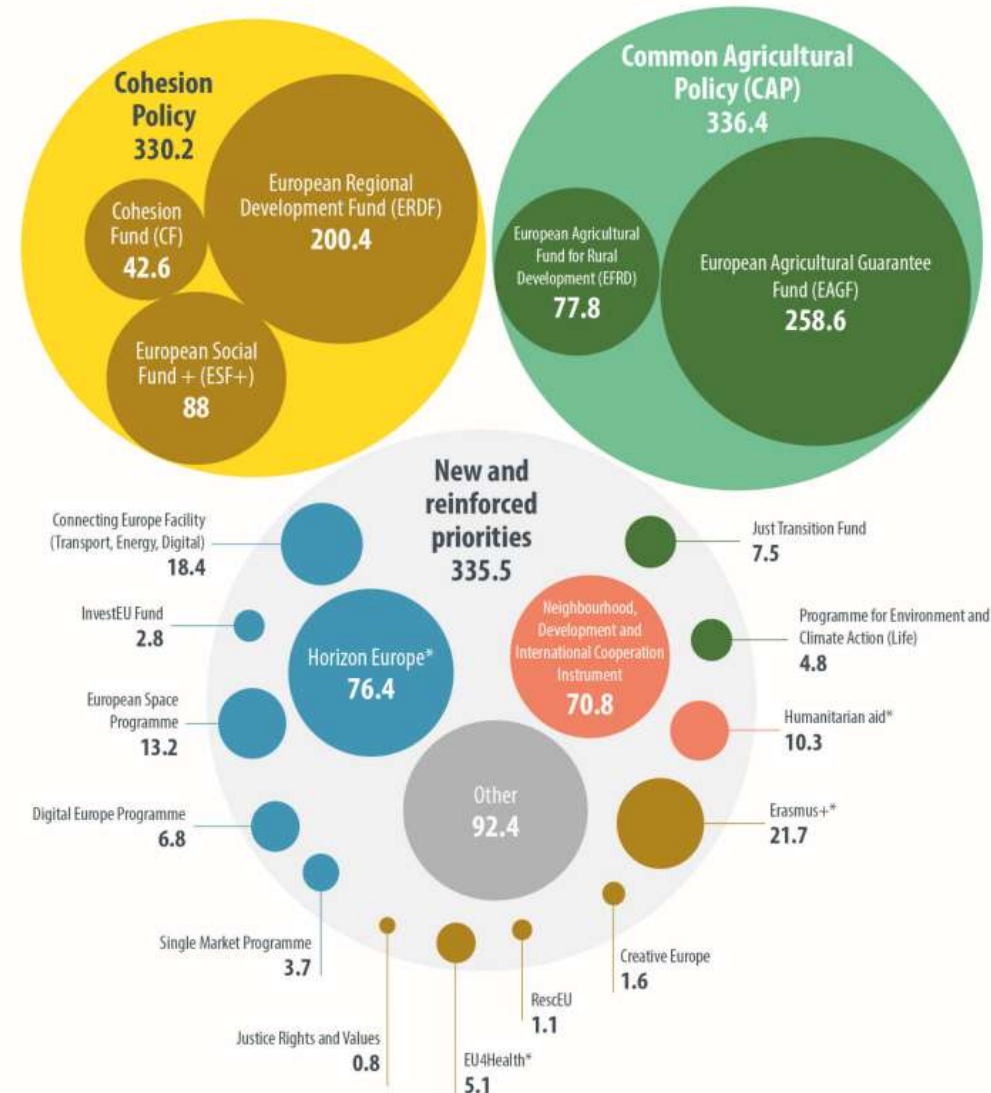
A reinforced long-term budget of the EU
for 2021-2027

Next Generation EU (2021-27)

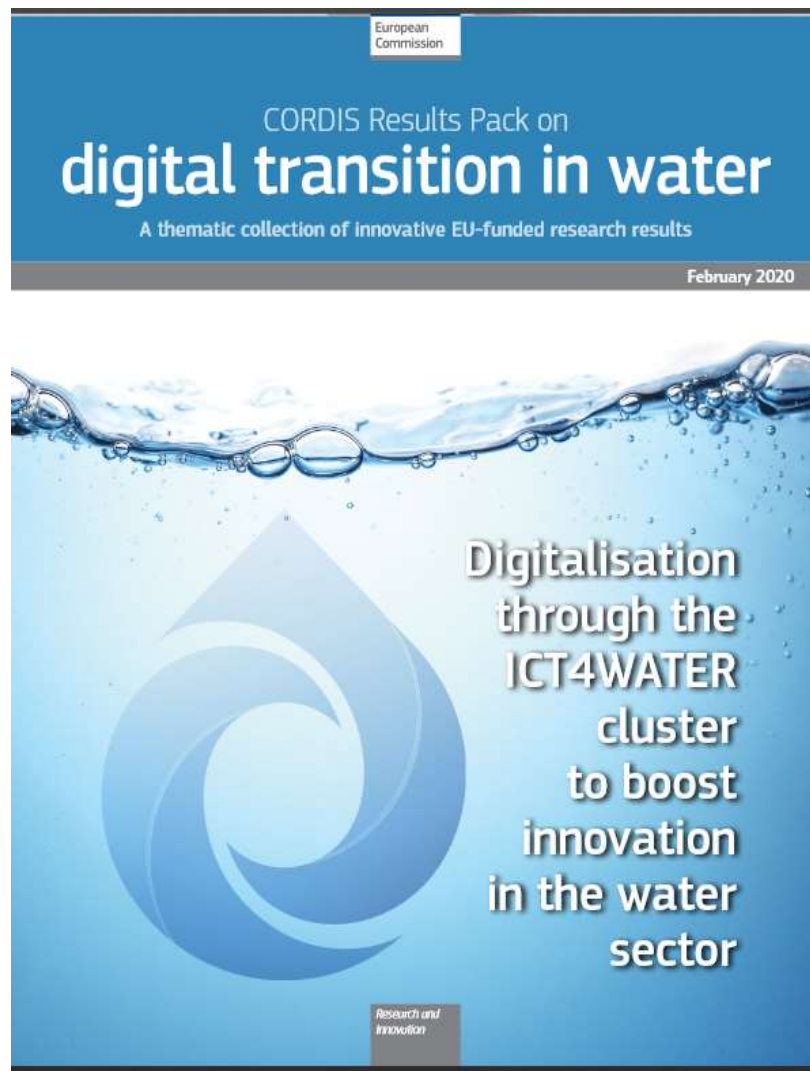


Programmes/Funds under MFF (2021-27)

All amounts in € billion (2018 prices)



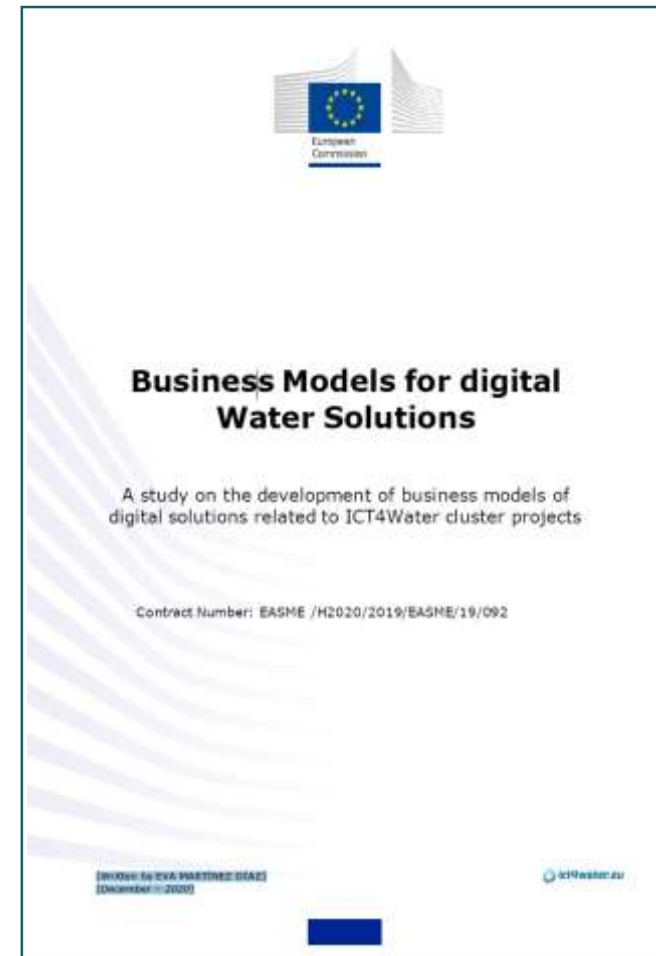
ICT4WATER - Innovation in the Water Sector



Projects:

- Flexible IoT platform supports open innovation in farmland irrigation
- Multi-sector natural resource management – the nexus concept and serious games
- Recruiting microorganisms in wastewater treatments
- Closing the loop: Wastewater treatment becomes more sustainable and nearly carbon neutral
- Drones can support massive reductions in lost drinking water
- User-friendly boats seek out water pollutants in European rivers and lakes
- Co-designing citizen participation in environmental monitoring
- Water-savvy knowledge is POWER – for citizens, communities and policymakers
- Innovative technologies take the ‘waste’ out of wastewater
- Smart water treatment solution expands water reuse in the oil and gas industry
- Nature gives technology a hand to enhance water treatment processes
- Adaptable, scalable and cost-effective local solution to urban flooding prevention

EISMEA Publications on Digital Water



Messages & Outlook

- The Green and Digital transition is top priority for the European Commission, they are closely linked
- Data are the foundation for digitalisation – the value of (non-personal) data should be exploited much better in the EU, this is a joint endeavour of the public and the private sector
- Investments in the water sector should be forward looking, using the recovery to modernise and digitise all parts of the water management
- Necessity for water administrations to modernise (eGovernment) and for water business sector to use opportunities from digitalisation

Thank you

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More Information

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