

The Value of Industry Water:

Integrated multiple waters, Digitally Connected and Smartly Managed

Durk Krol
Andrea Rubini



Water Supply and Sanitation Technology Platform
WssTP

Henk Pool



Platform for Sustainable Chemistry
SusChem

- Since 2003
- **Industry-led** stakeholders' fora
- Without dedicated public funding
- Strategic Innovation and Research Agenda (**SIRA**) R&I priorities in a technological area
- ETPs helping define topics of R&I programmes at **European**, **national** and **regional** level
- **36 ETPs**

Energy	ICT	Bio-based economy	Production and processes	Transport
Biofuels	ARTEMIS	FABRE TP	ECTP	ACARE
SmartGrids	ENIAC	Food	ESTEP	ERRAC
TPWind	ISI	GAH	ETP SMR	ERTRAC
Photovoltaics	eMobility	NanoMedicine	Manufuture	Waterborne
ZEP	NEM	Plants	FTC	ESTP
SNETP	NESSI	Forestry	WSSTP	
RHC	EUROP		SusChem	
	EPoSS		EuMaT	
	Photonics21		IndustrialSafety	

SusChem ETP- Sustainable Chemistry

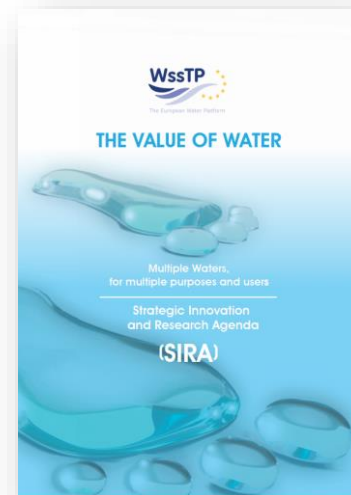
- SusChem was officially launched in **2004**
- Revitalise and inspire **European chemistry and industrial biotechnology R&I in a sustainable way**
- A forum that brings together industry, academia, policy makers and the wider society



SusChem SIRA: <http://www.suschem.org/publications>

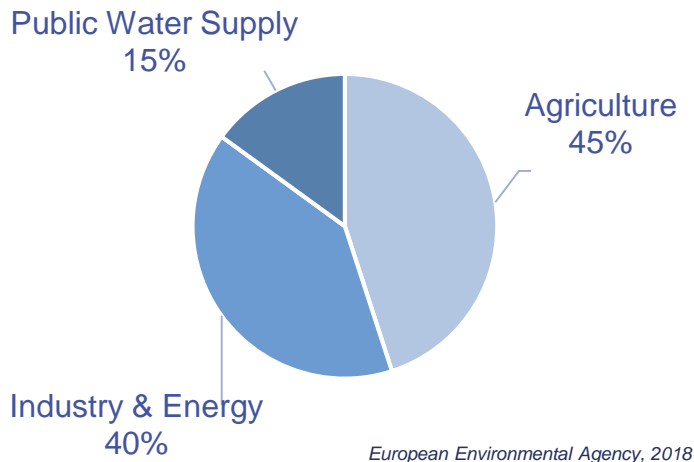
WssTP is the Water Supply and Sanitation Technology Platform.

- WssTP was initiated in 2004
- **Research and Technology Development** in the water industry
- A forum that brings together industry, academia, policy makers and the wider society
- Transformed into an independent legal entity in 2007

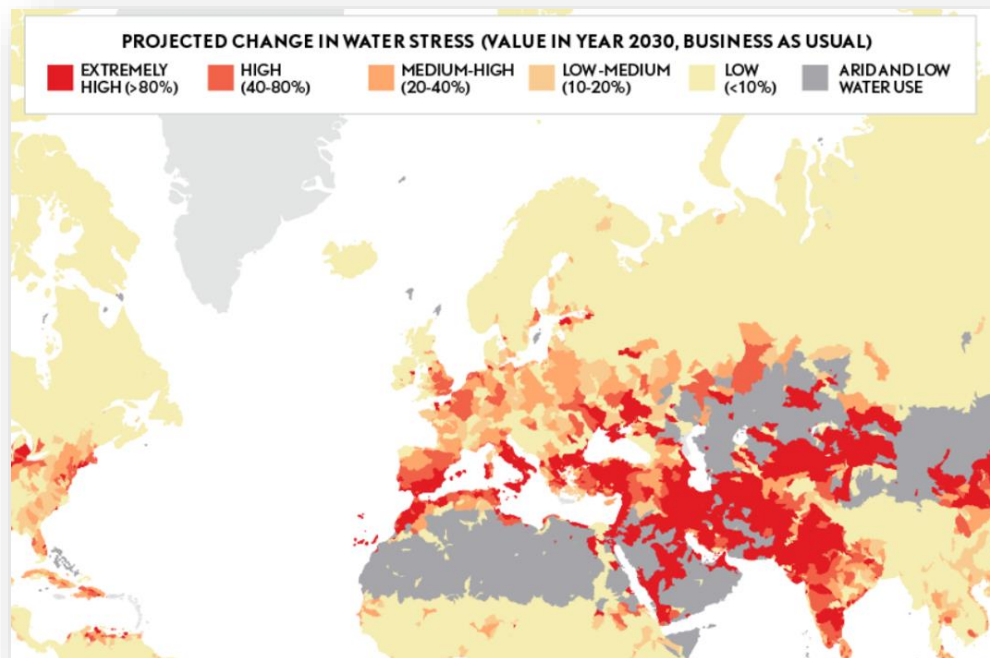


WssTP SIRA:
http://wssTP.eu/wp-content/uploads/sites/102/2017/01/WssTP-SIRA_online.pdf

European Water Use (main sectors)

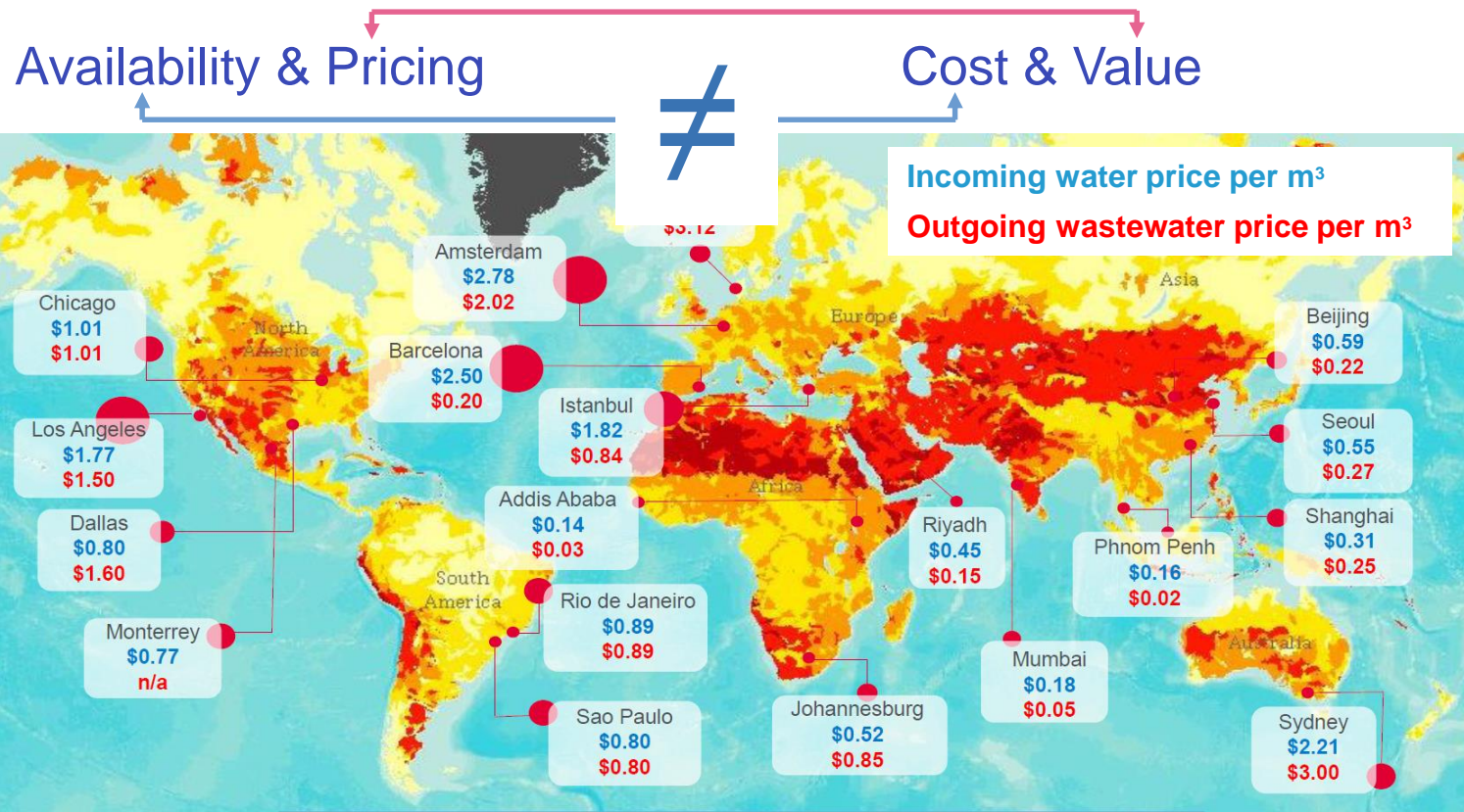


River Basins with High Risk of Water Stress 2030



David Forster Graphics

The Value of (Industry) Water



Data from ECOLAB, 2017

The Value of (Industry) Water



Question: *What is (or makes) the Value of Water?*

Four elements for a **Sustainable Solution**:

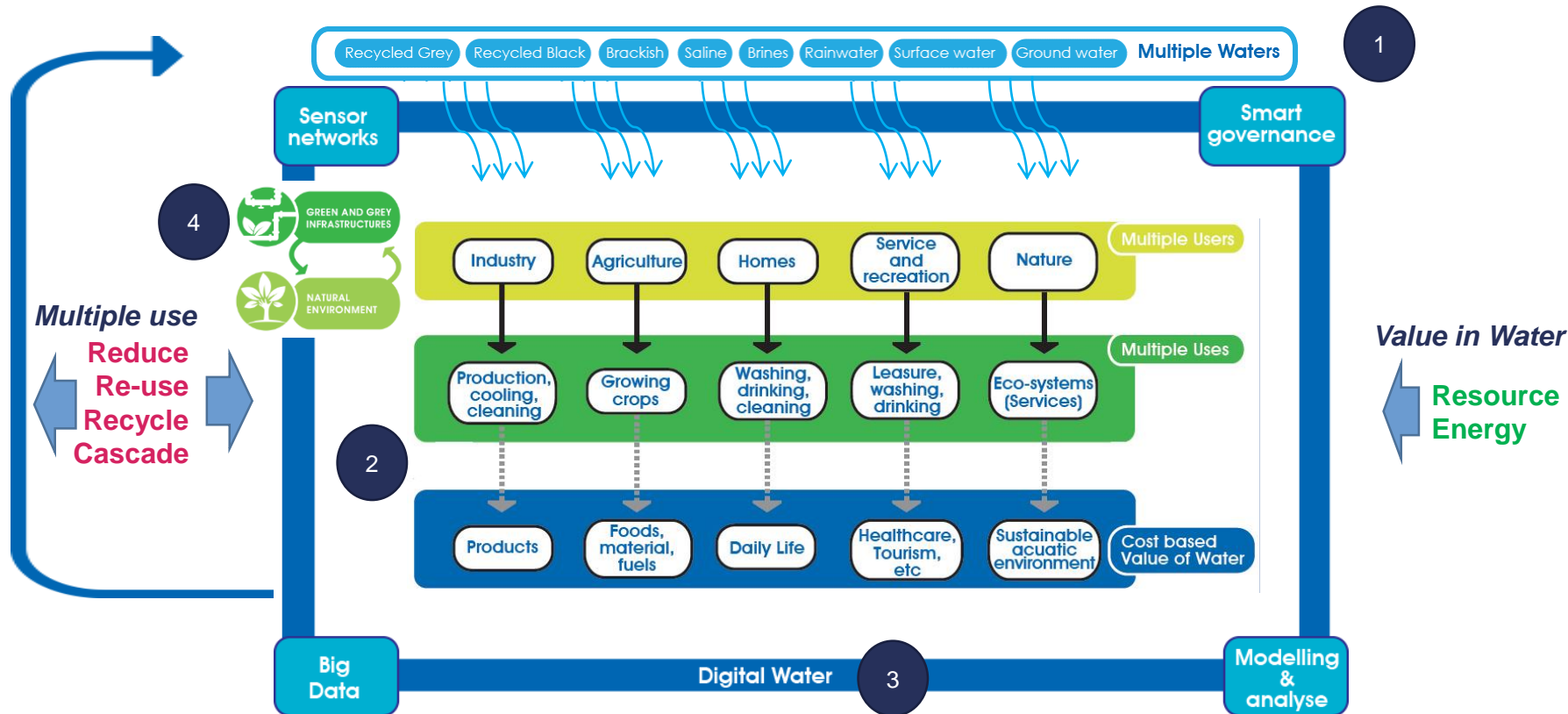
- Concept of Multiple **Waters**
- Integrated **Water** Management
- Digital **Water**
- **Water** Infrastructure

Technology

Technology, Models, Governance

Data → New Opportunities

Investment



Two Workshops to identify the Innovation Needs

April 2017: Brussels September 2017: Porto

SENSORS

Measure things we cannot yet
Work with dynamic systems and sensor dynamics
Cheap & Easy to operate and maintain sensors

BIG DATA

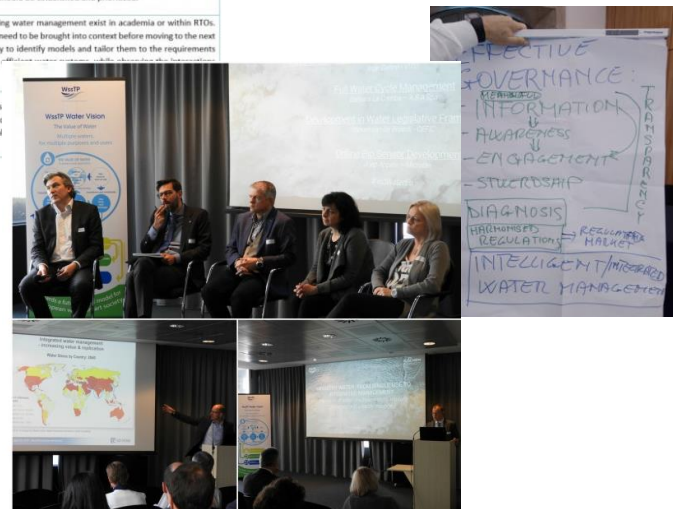
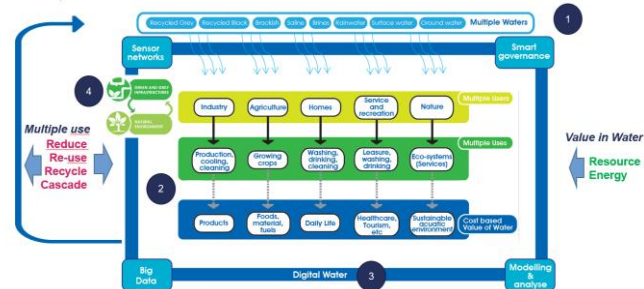
Is the value in the data, in the water or in both?
Data security & trust in sharing data
Data silo's or pockets of data – establish connections

SMART GOVERNANCE

SMART Governance Design considerations
SMART Governance Communication and Education needs

MODELLING

Model Development Considerations
Model Use and Interactions





The Value of Industry Water



- **Value:**

Right Quality – Right Quantity – Right Cost – Right Time

- **Governance:**

≠ Crisis Management

Efficient – Systemic / System focus – Sustainability

- **Living Labs:**

Global solutions; Regional implementation & focus

2-4-6-x Partners (exponential)

Invest to make things work together



Thank you

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Integrated multiple waters, Digitally Connected and Smartly Managed

SECURING WATER FOR ALL

A life changing opportunity for citizens and regions

A mission in Horizon Europe to counter water challenges