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# International and policy perspective on alternative water resources in coastal regions

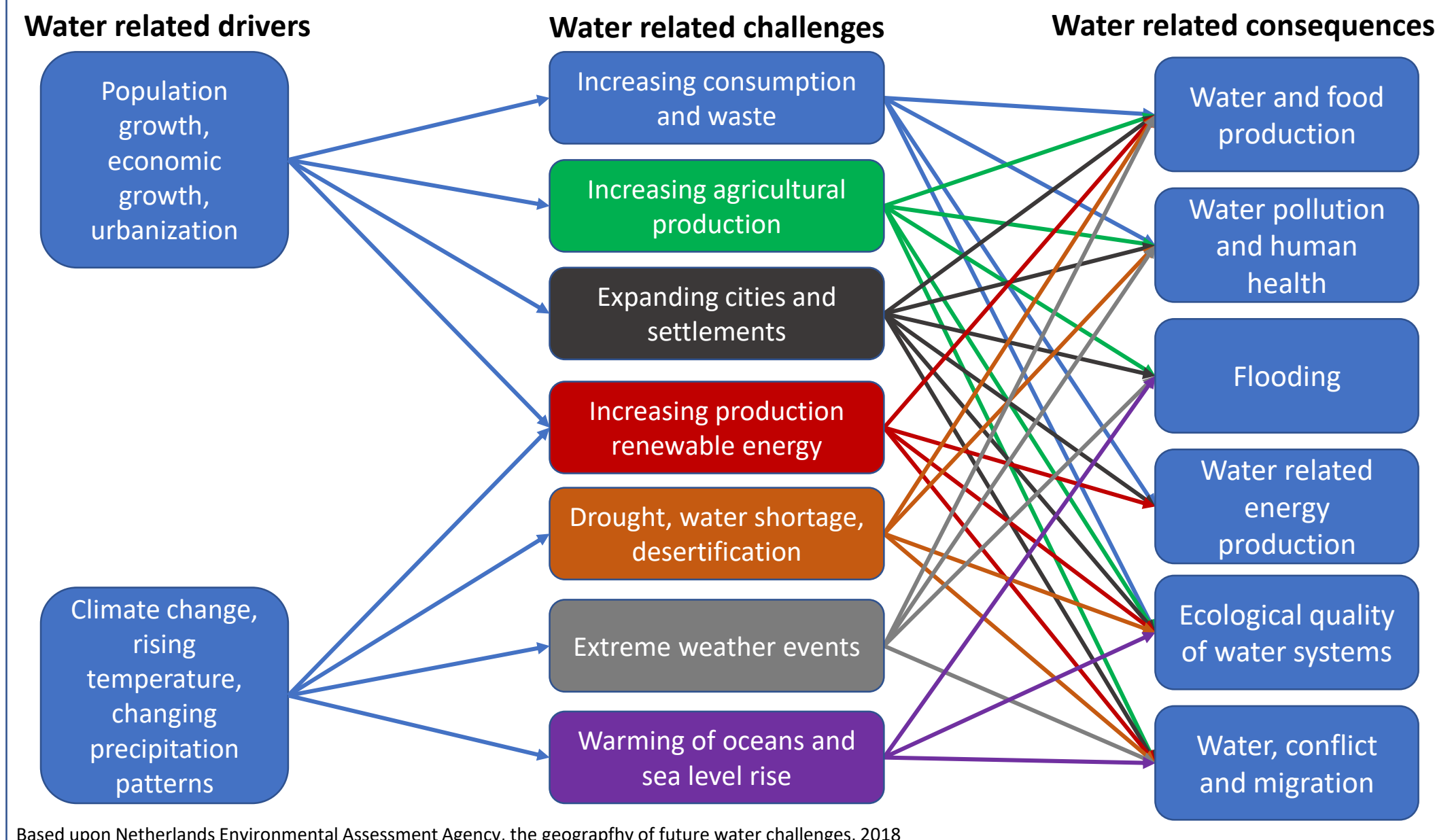
**Jan Verheeke – Secretary, Flemish Environmental and  
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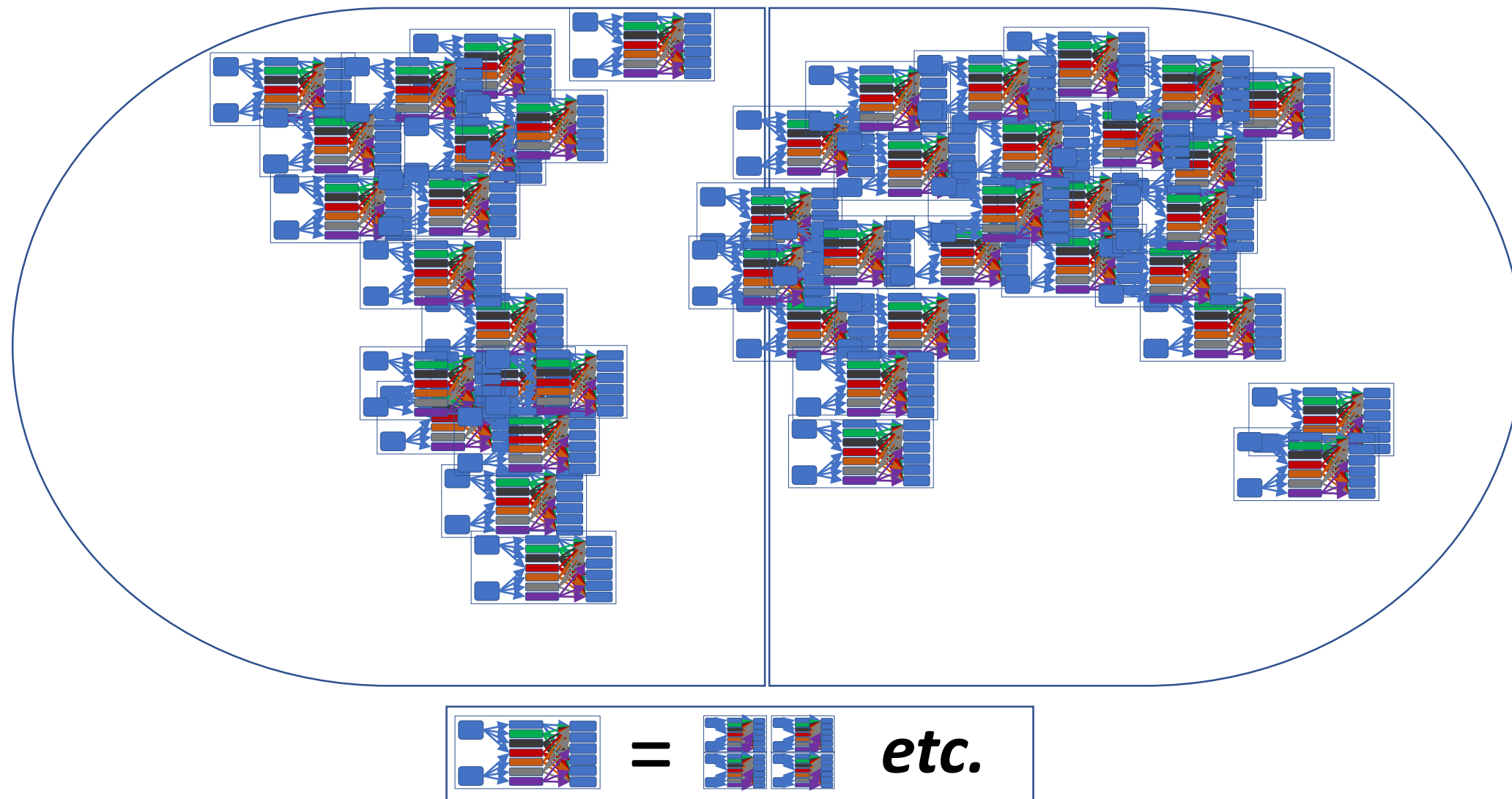
# **The international water challenge**

# Drivers, challenges and consequences



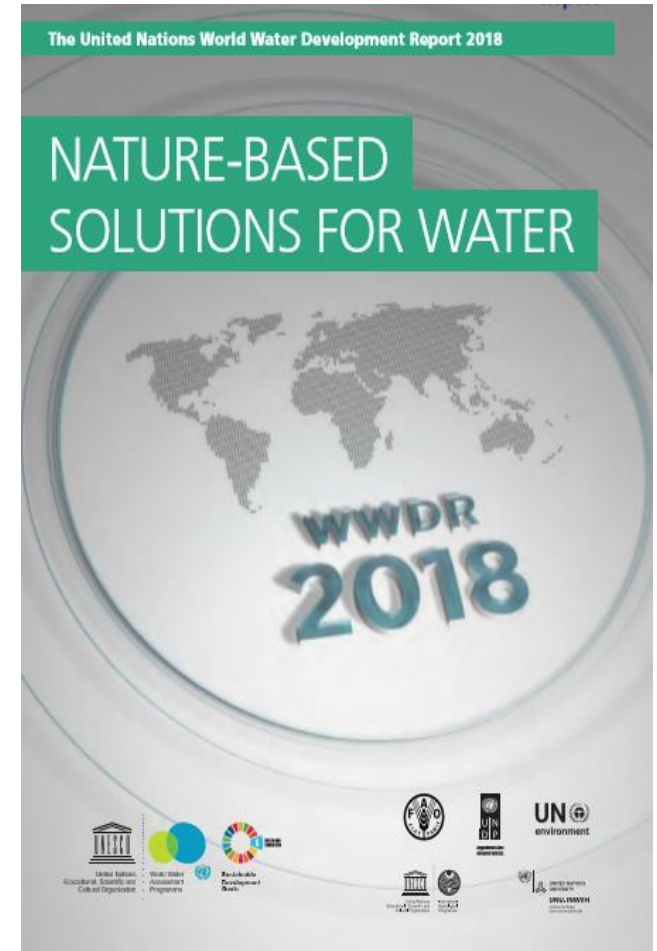
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# *Challenges repeat themselves on all scales*

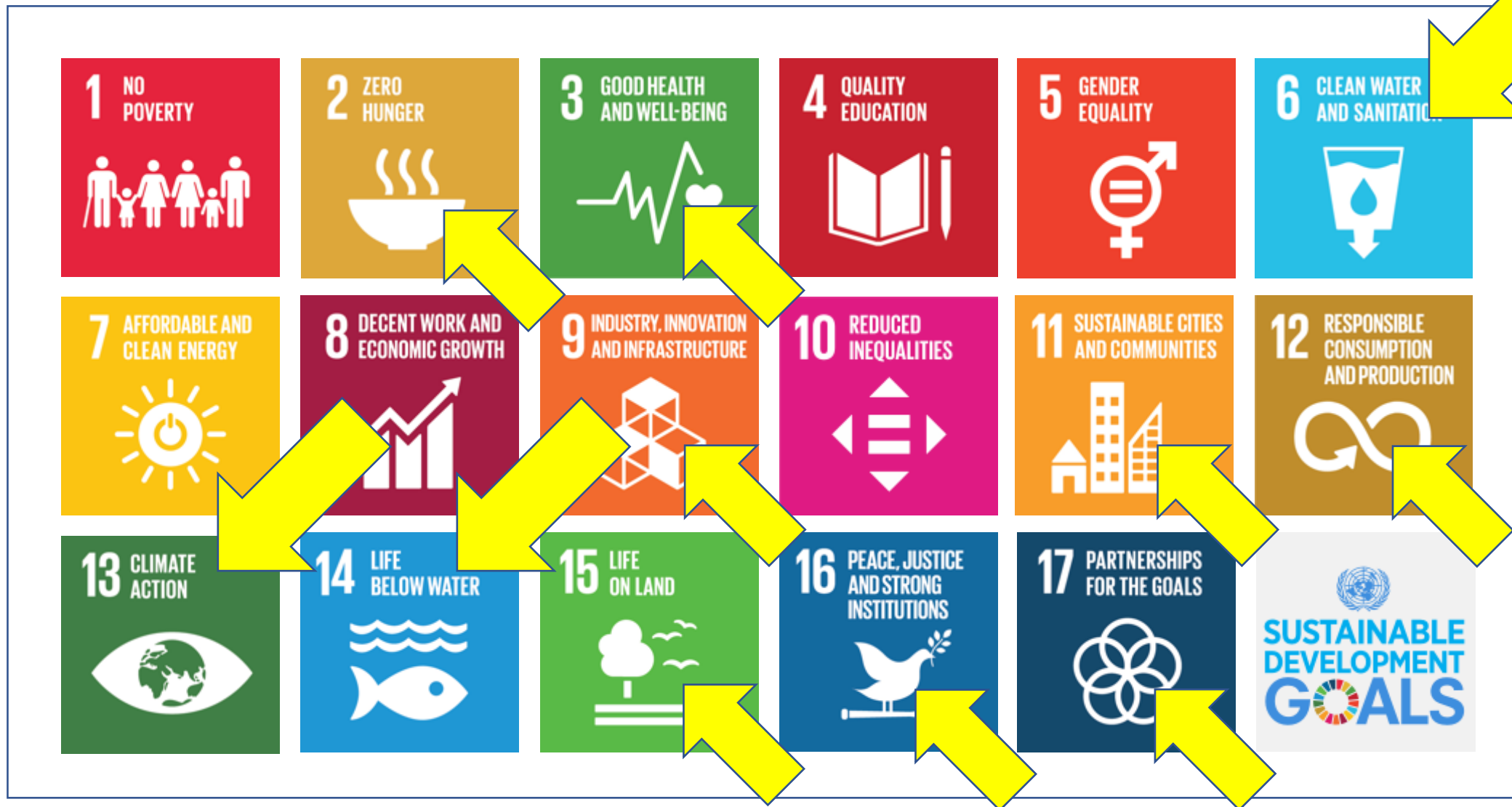


# ***International water policy – “soft policy”***

- There is no such thing as an Global Water Agreement, nor an international agreement on “*sustainable water use in the production of goods and services*” (= trade policy).
- The *Paris Agreement*, art. 7, stipulates that adaptation is country-driven.
- *UN-Water* is, in the United Nations, an inter-agency coordination mechanism for freshwater related matters.
- Still, there is the yearly *UNESCO World Water Development Report* is the UN-Water flagship report on water – 2018 on *nature based solutions*.



# Water in the Sustainable Development Goals

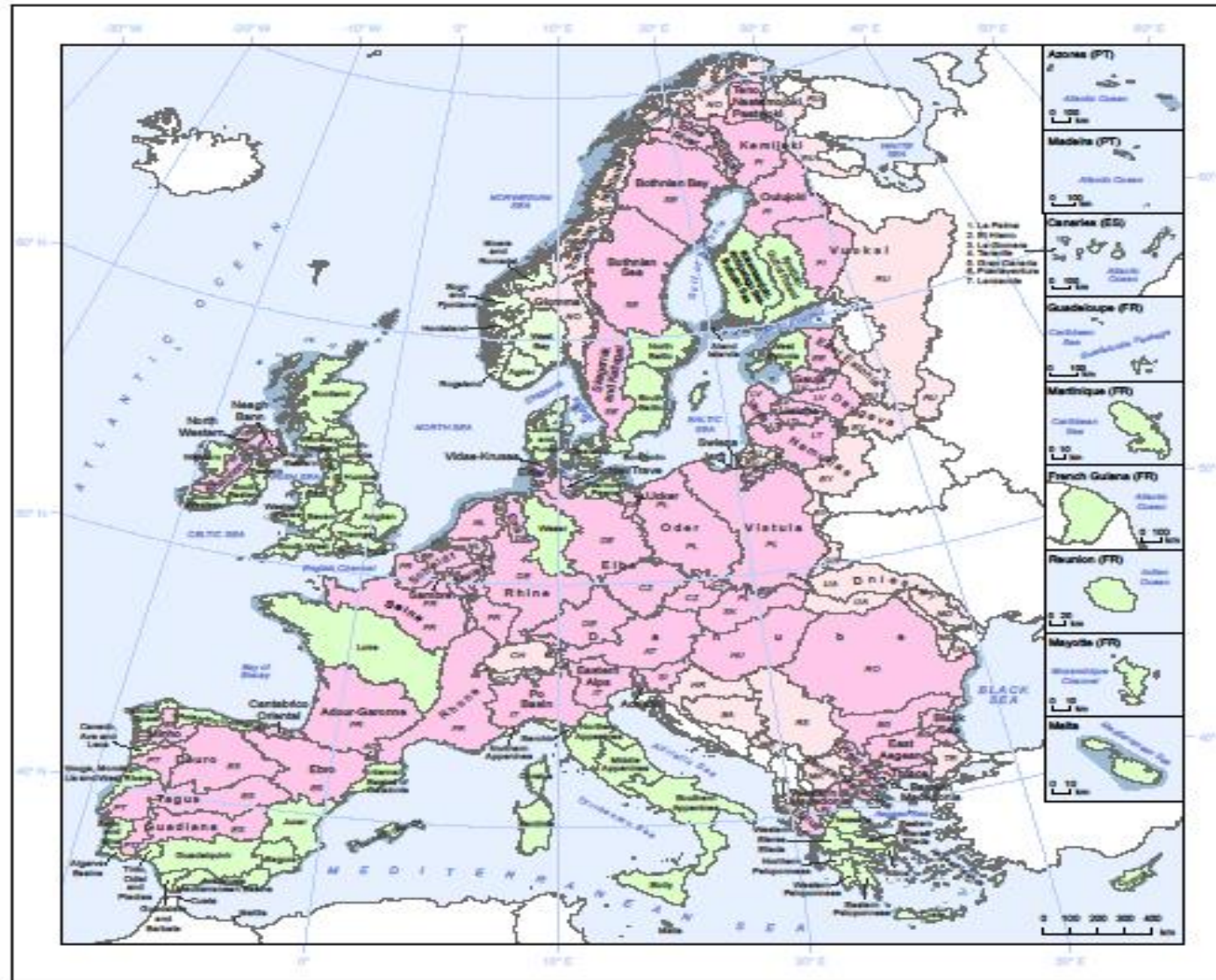




# **The Water Framework Directive ... as a framework**



# A water bodies / water systems approach ...



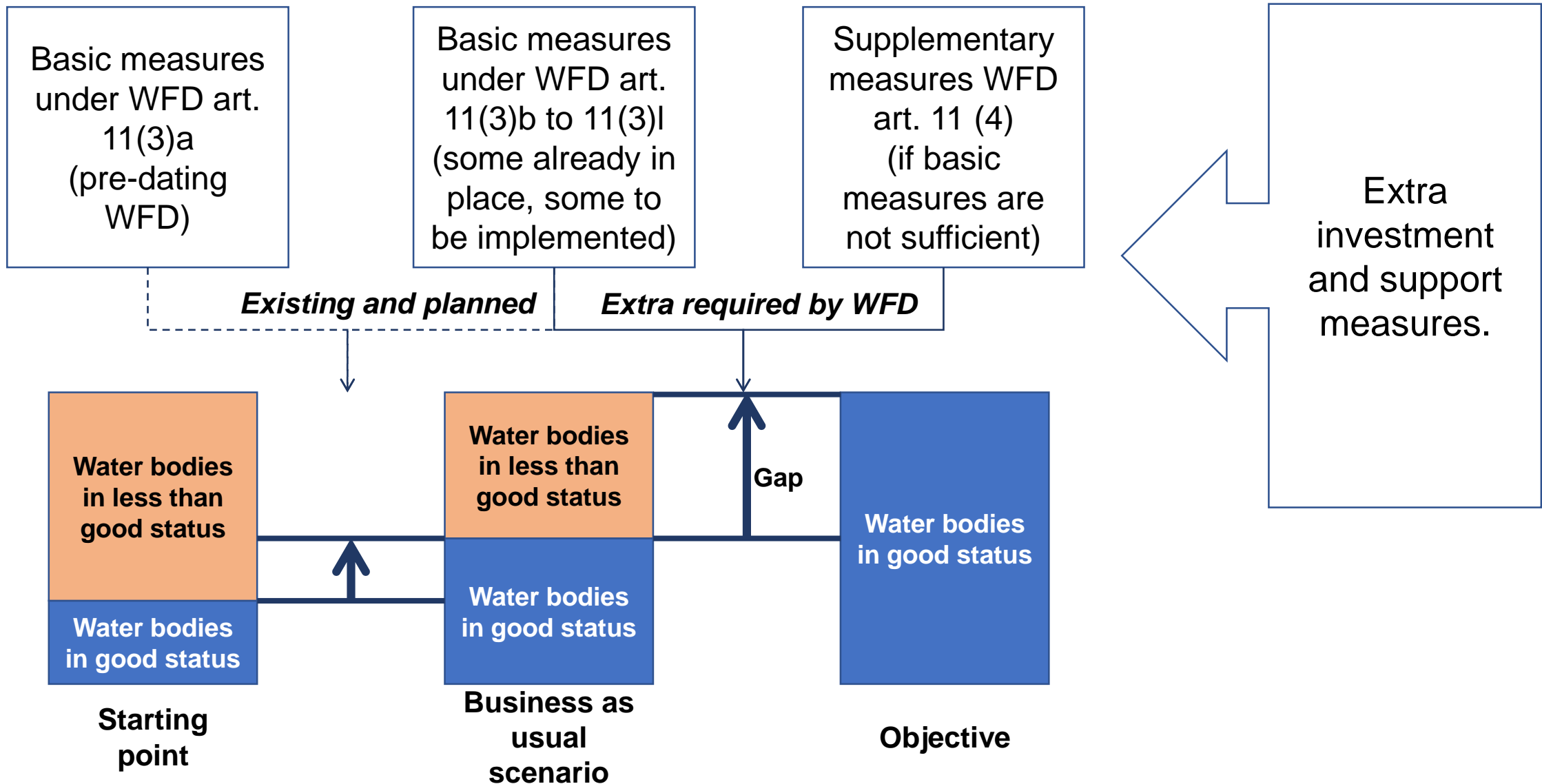
- Systems approach is projected upon river basins and water bodies
- Member States ought to reach and keep the “good status”.
- “*Good status*” is essentially the situation whereby the water system and the social systems that depend upon it, are functioning in equilibrium and can remain so in a sustainable way.



# *... a directive of the 3<sup>rd</sup> generation ...*

1 <sup>st</sup> generation	"Compartmental" water directives	separate directives on surface water, fish water, shellfish water, groundwater, on dangerous substances and on measurement methods for freshwater quality
2 <sup>nd</sup> generation	Pollution abatement water directives	(1) Urban Waste Water Treatment Directive, (2) Nitrates Directive, (3) Drinking Water Directive, (4) Industrial Emissions Directive
3 <sup>rd</sup> generation	Systems oriented water directives	(1) Water Framework Directive, (2) Floods Directive, (3) Marine Strategy Framework Directive, (4) Environmental Quality Standards (Priority Substances) Directive

# ... leading to programmes of measures



# ***The WFD – a partial success***

## OUTPUT

- Common implementation strategy
- River basin districts
- Competent authorities
- River basin management plans (RBMP)
- Programs of measures
- Monitoring programs
- Subsequently: Flood Risk management plans (FRMP)

## OUTCOME ± 2015

	Number of member states	Number of water bodies	good status or potential 2009 (%)	good status or potential 2015 (%)
Ecological status of surface waters	25	89.000	38 %	40 %
Quantitative status of groundwater	25	13.400	81 %	86 %
Chemical status of groundwater	25	13.400	68 %	70 %



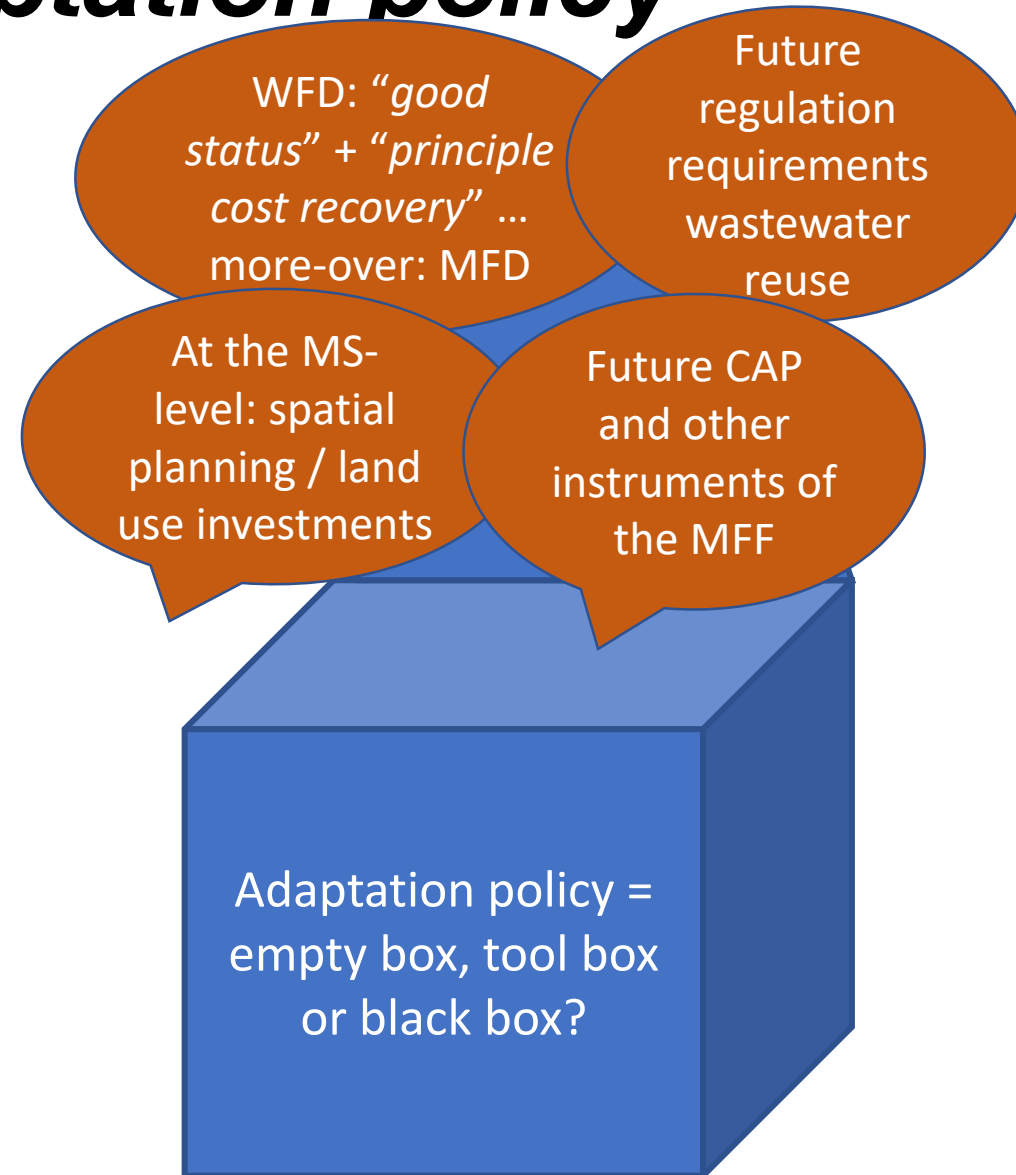
**Alternative water resources ...  
co-operating for water**

# Water and watersystems as economic goods

*“Increasing the **ecosystem-based adaptation capacity** to climate change and associated effects is particularly important in the 2 Seas area, which is particularly prone to the risks and effects of climate change, in a context of potentially increasing vulnerability and reducing **public resources**. Local and regional authorities, environmental agencies, emergency services and coast guard centres, universities and research centres and local communities will be among the **beneficiaries**. A particular attention will be given to **the most vulnerable sectors** and those likely to be affected by stronger impacts.”*

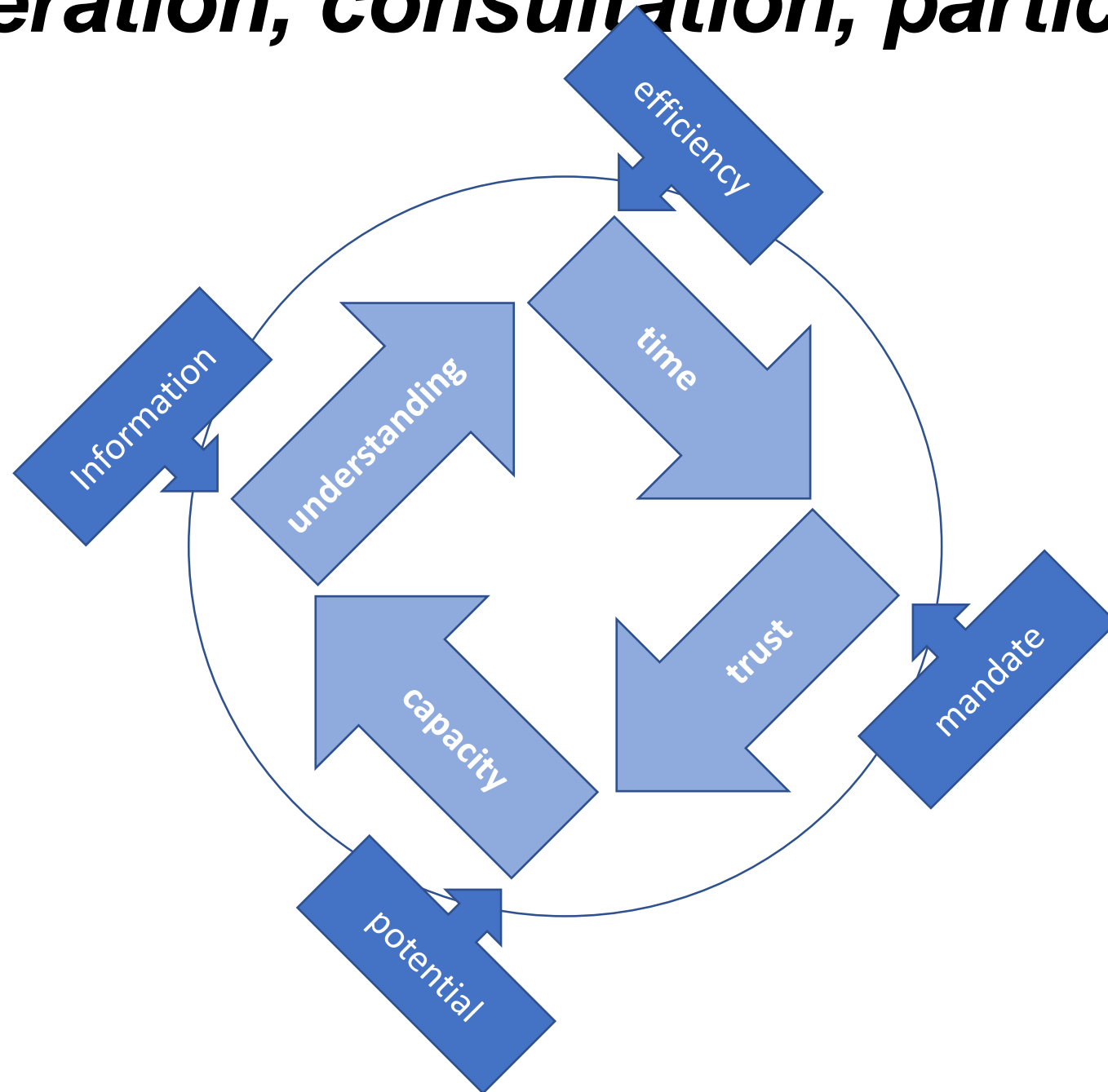
	Rival usage or consumption	Non rival usage or consumption
Users are excludable / good can be exclusive	<i>Surfaces and soils / Specific water quantities</i>	<i>Water structures (= blue infrastructure)</i>
No excludability	<i>Water (eco-) systems</i>	<i>Services from water (eco-) systems</i>

# Water resources and adaptation policy





# ***Co-operation, consultation, participation***





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# Conclusions

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- **The international challenges being what they are, most action will be local, regional and/or water-body oriented.**
- **The Water Framework Directive provides in a basic framework for the many policies that relate to the water challenge... but there is no clear-cut regulation, directive or instrument that specifically tackles water resource management.**
- **The challenge is to construct the appropriate willingness-to-pay or -to-invest and fitting management structures.**
- **Only with feasible projects, and with proper consultation and/or participation ... we'll be able to tackle the challenges.**

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