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International and policy perspective on alternative water resources in coastal regions

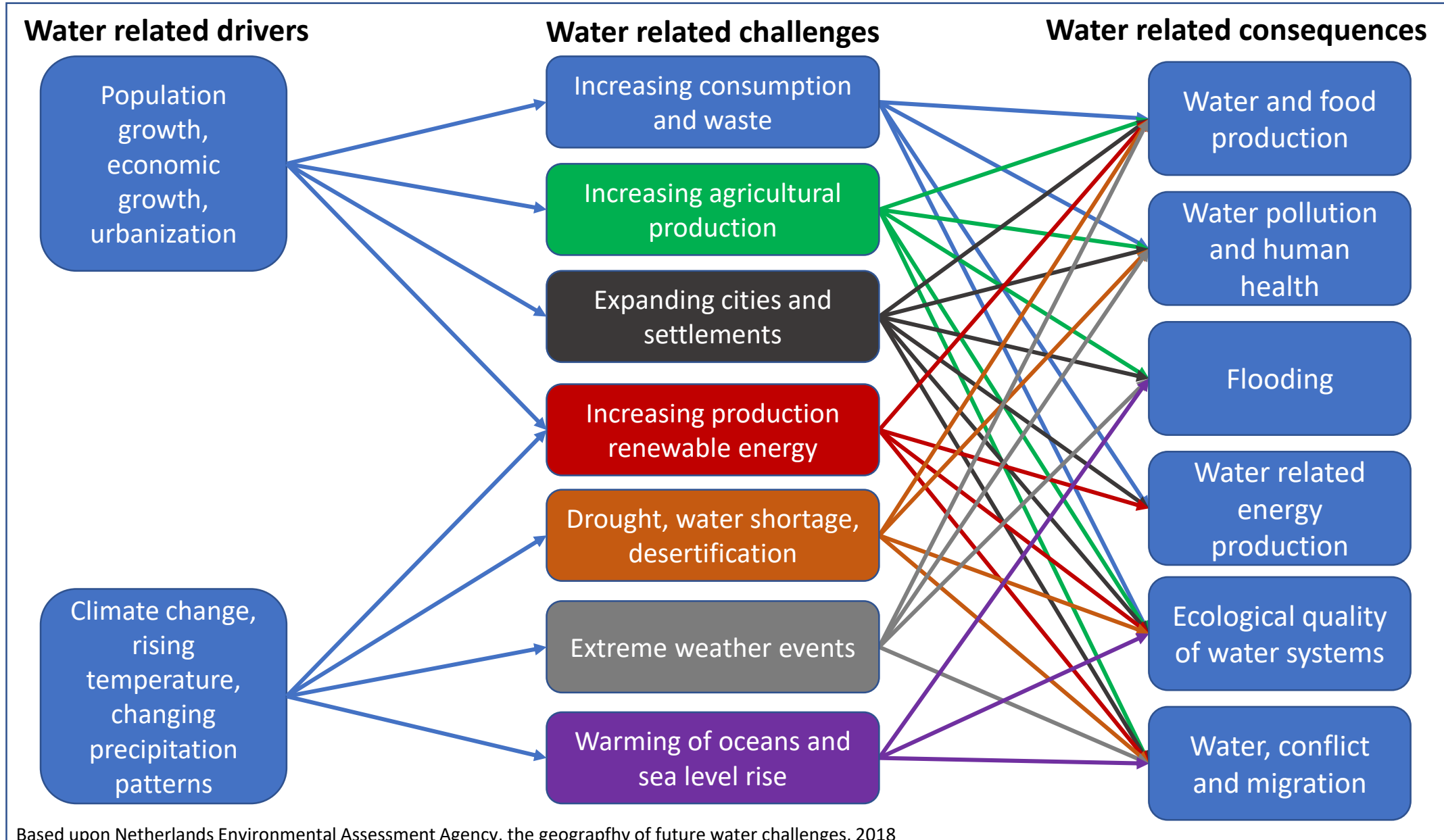
**Jan Verheeke – Secretary, Flemish Environmental and
Nature Council**

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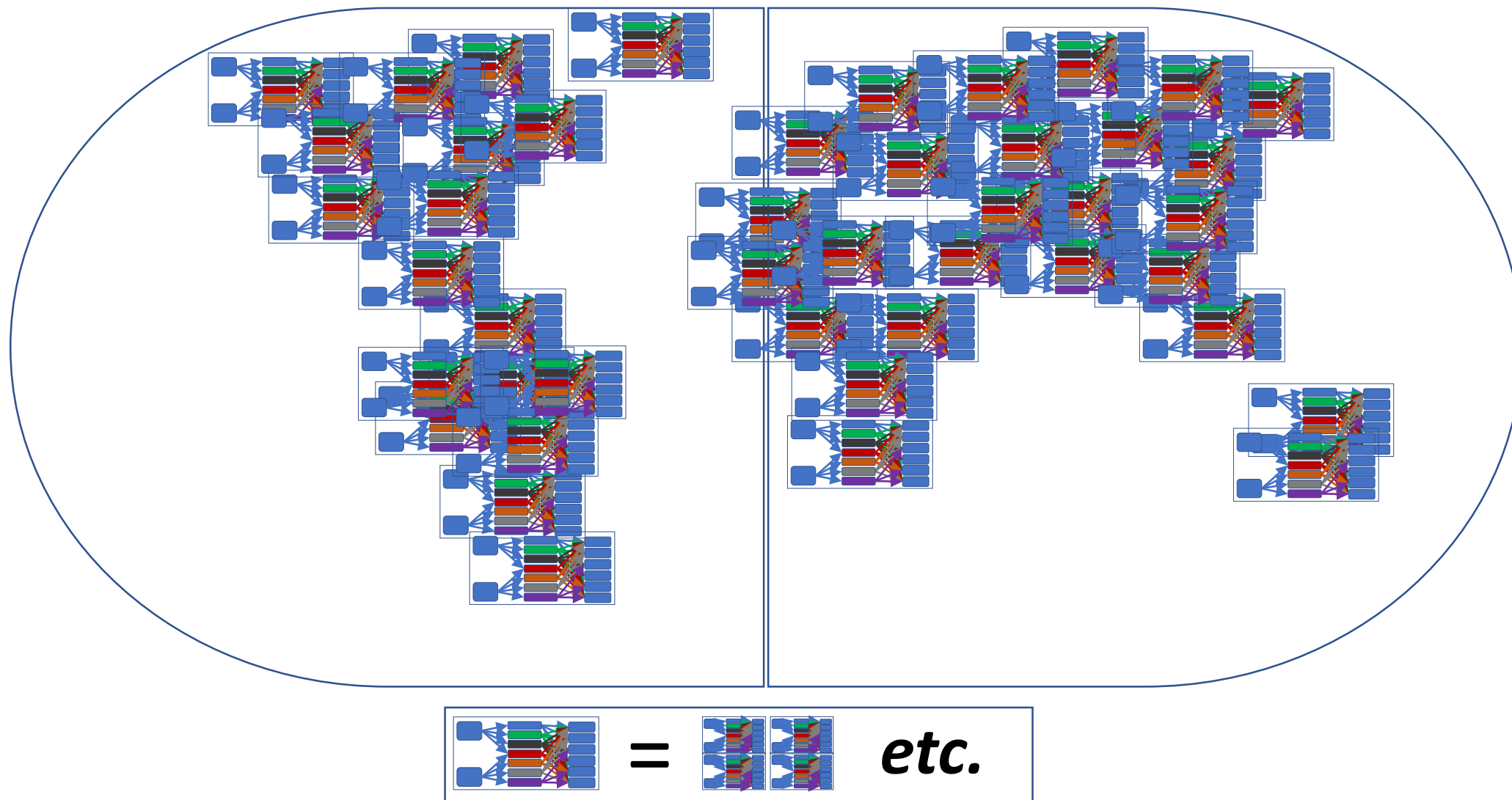
The international water challenge

Drivers, challenges and consequences



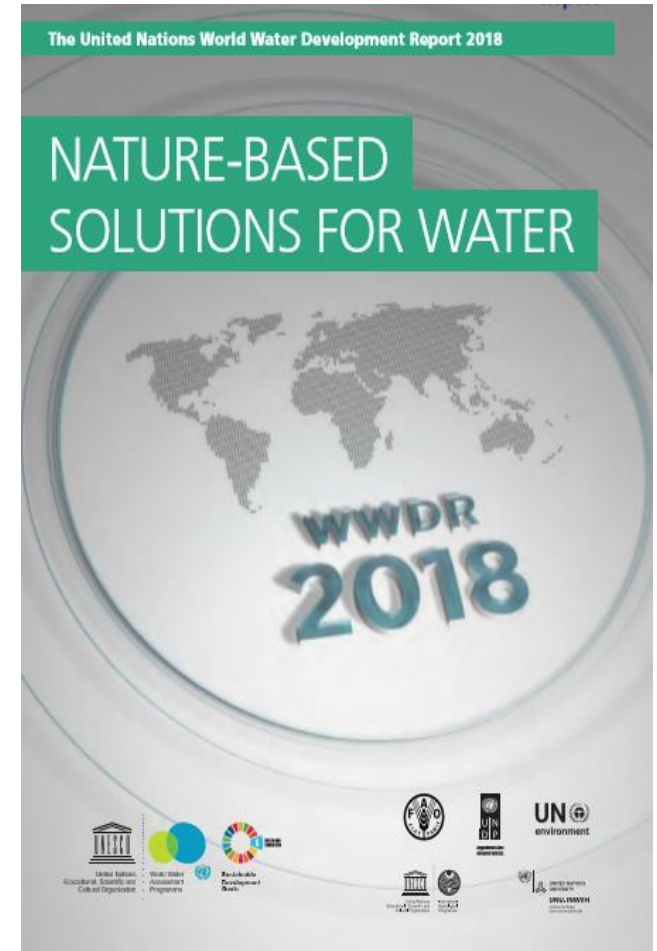
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Challenges repeat themselves on all scales

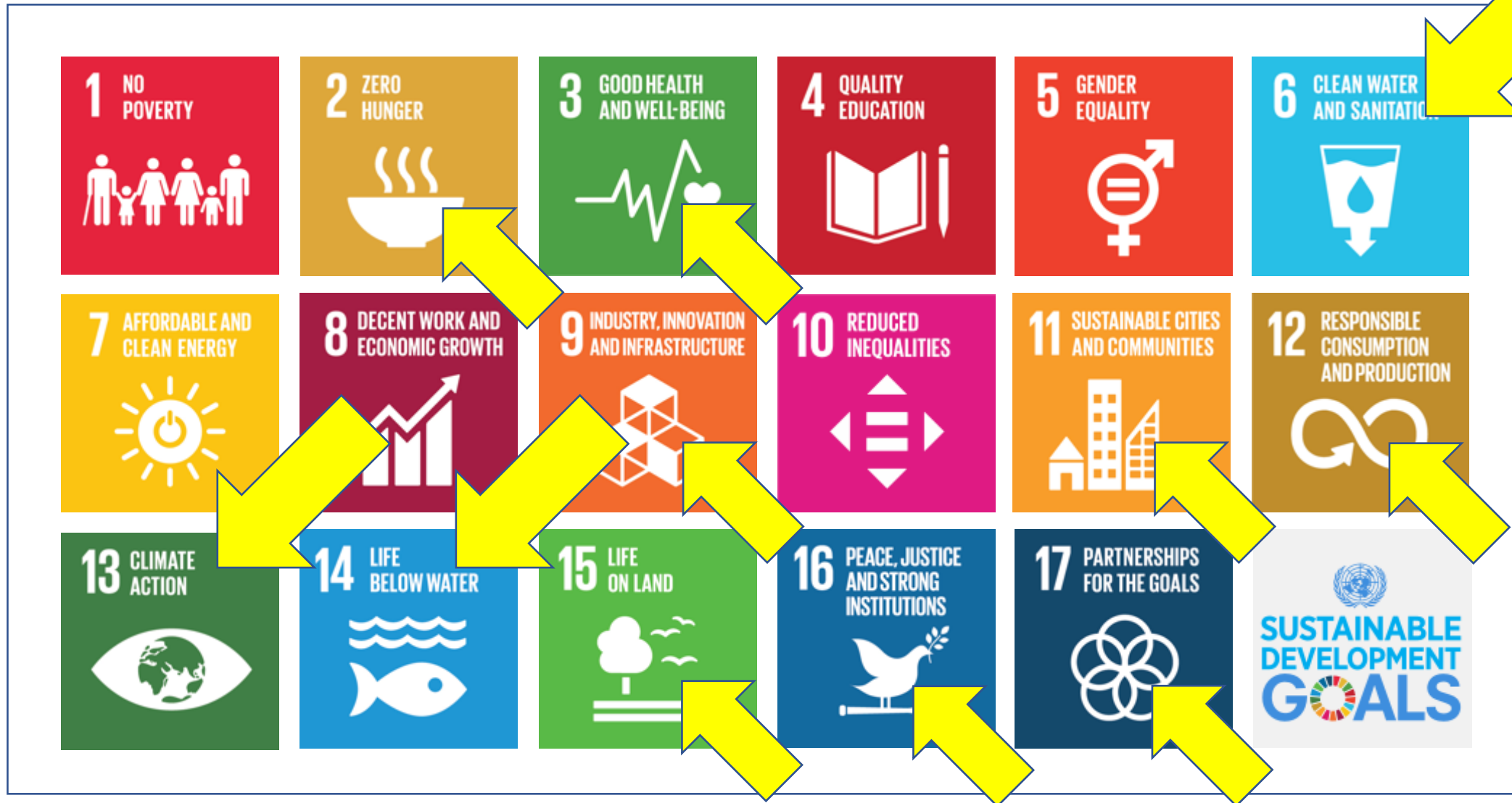


International water policy – “soft policy”

- 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*.



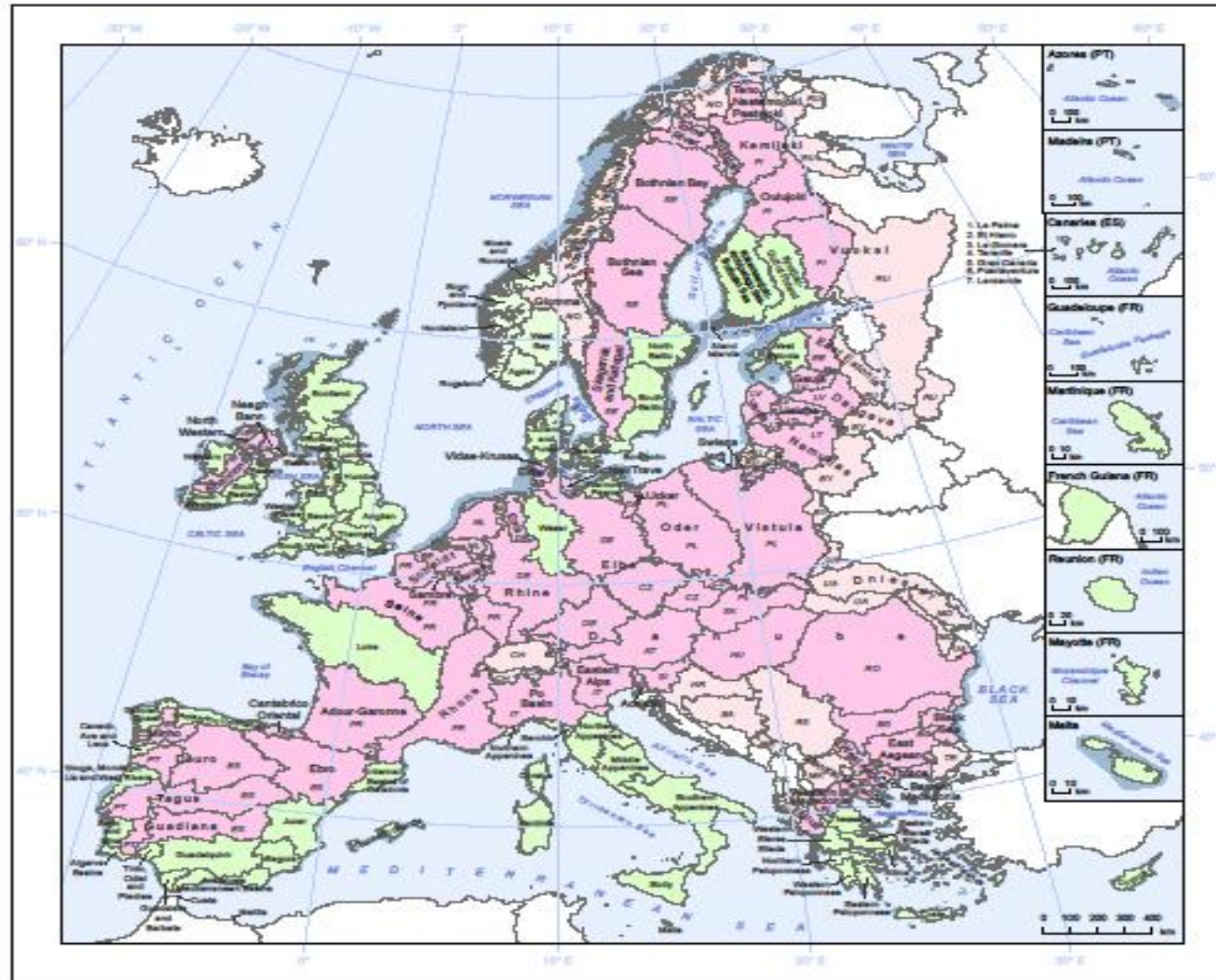
Water in the Sustainable Development Goals





The Water Framework Directive ... as a framework

A water bodies / water systems approach ...

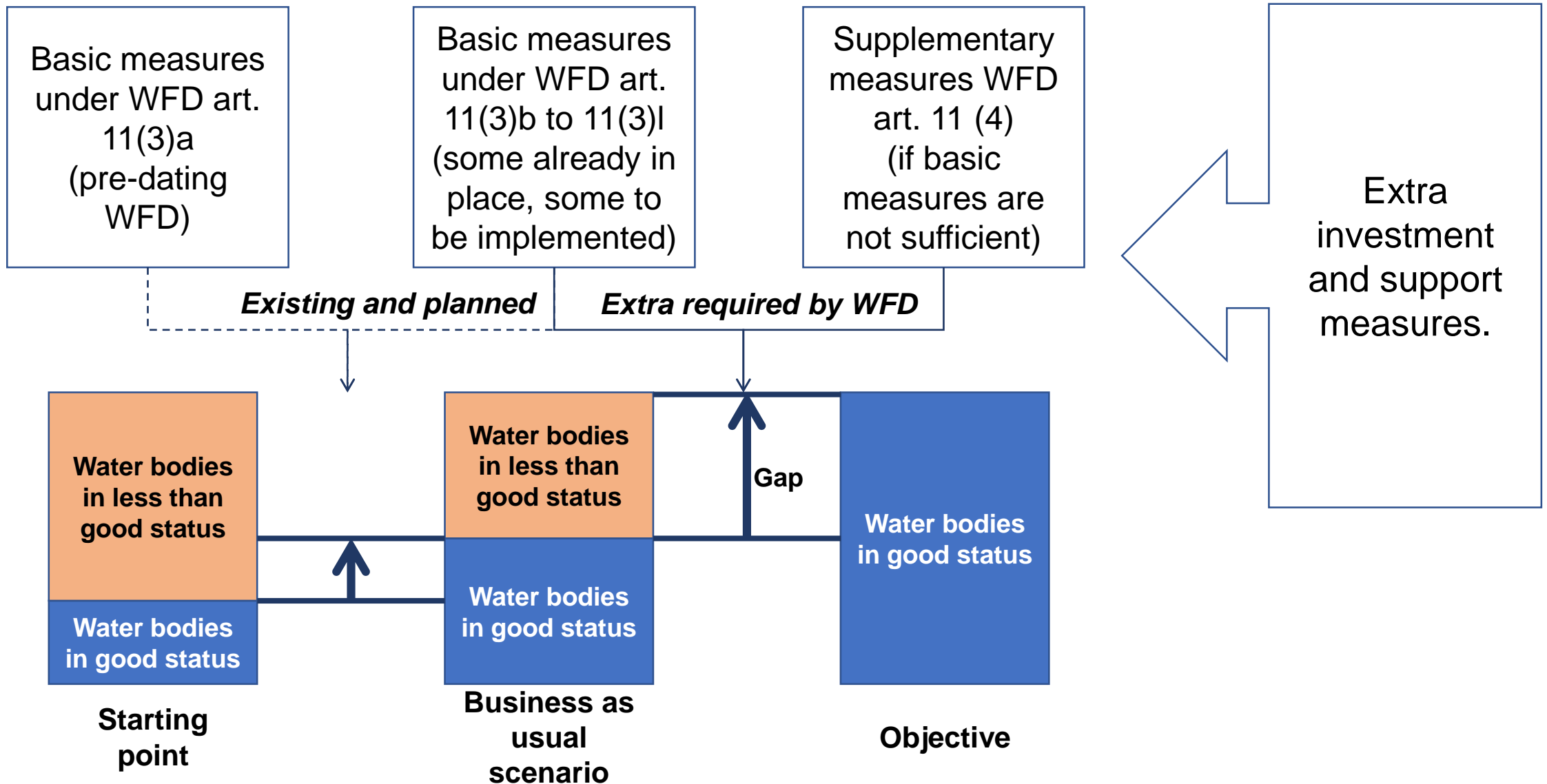


- Systems approach is projected upon river basins and water bodies
- Member States ought to reach and keep the “good status”.
- “*Good status*” is essentially the situation whereby the water system and the social systems that depend upon it, are functioning in equilibrium and can remain so in a sustainable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

... a directive of the 3rd generation ...

1 st 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 nd generation	Pollution abatement water directives	(1) Urban Waste Water Treatment Directive, (2) Nitrates Directive, (3) Drinking Water Directive, (4) Industrial Emissions Directive
3 rd 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.”*

Users are
excludable /
good can be
exclusive

No
excludability

Rival usage or
consumption

Non rival usage or
consumption

Private goods

Club goods

Common goods

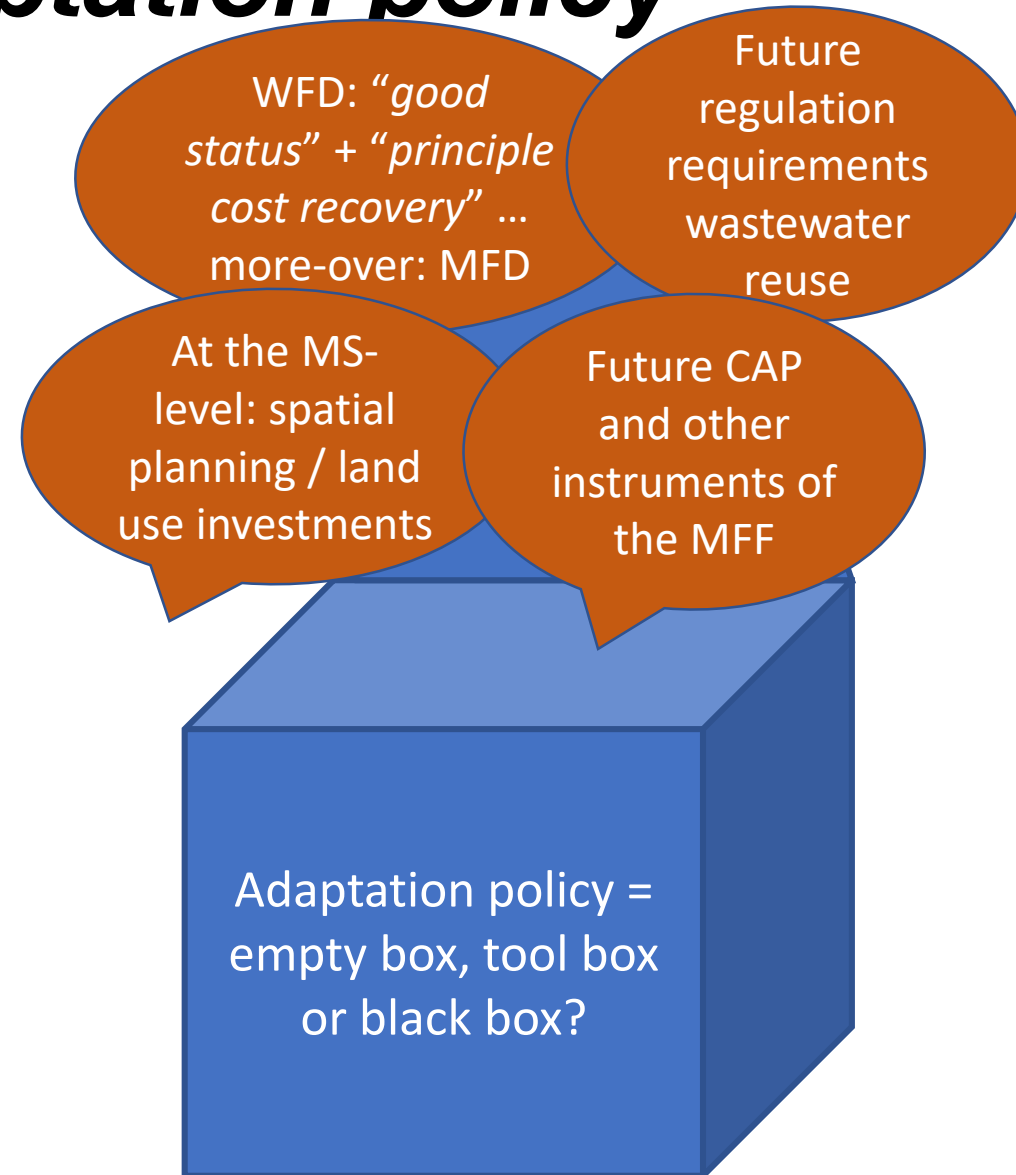
Public goods

Water and watersystems as economic goods

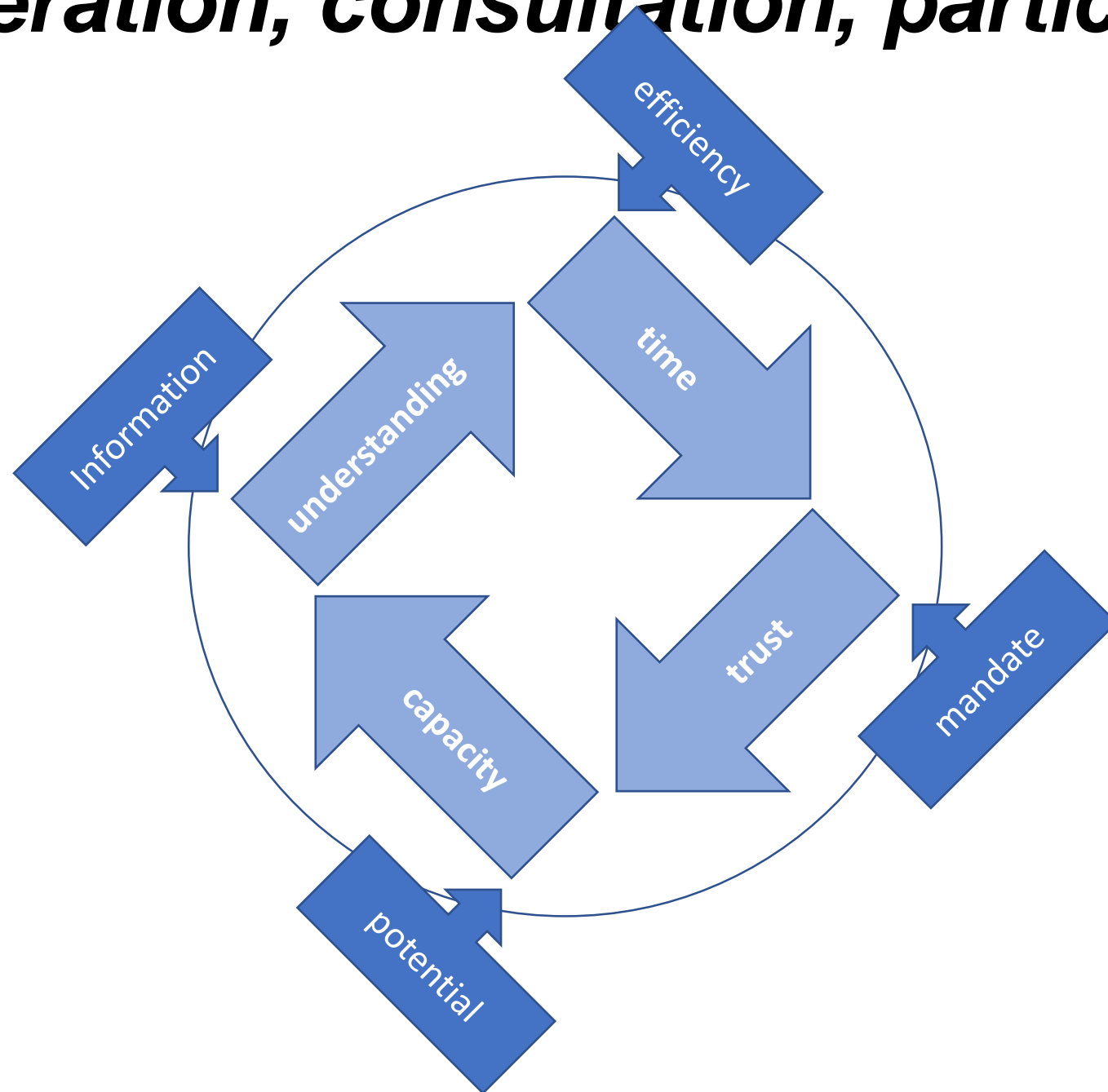
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	Rival usage or consumption	Non rival usage or consumption
Users are excludable / good can be exclusive	<i>Surfaces and soils / Specific water quantities</i>	<i>Water structures (= blue infrastructure)</i>
No excludability	<i>Water (eco-) systems</i>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