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# EMERGING ENVIRONMENTAL ISSUES, AUSTRIAN PERSPECTIVE

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# A LOT ACHIEVED!

## 1. RBMP 2009-2015

**Deterioration stopped**

**Point source pollution significantly reduced due to wastewater treatment and adaptation of industrial processes**

Ecological minimum flow (basic flow)  
~ **200 river stretches**



Restoration of river continuity  
(ca. **1.000 migration barriers**)



~ **250 morphological restoration measures**



# SIGNIFICANT WATER MANAGEMENT ISSUES



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## River - Hydromorphology:

53% of rivers not in good status/potential

- Flood protection
- Hydropower production

**200-years constructions can't be removed at once**



**Migration barriers: 33.000** (1/km)  
ca. 10% due to hydropower

## Groundwater - Pollution due to Nitrogen/Pesticides

- Highly related to areas of agricultural production; Austrian wide programmes in place

**Long renewal rates of groundwaters**

**!!! Remaining challenges beyond 2027 !!!**

# EMERGING CONTAMINANTS AND HAZARDOUS SUBSTANCES

## Hazardous substances

- Ubiquitous substances (e.g. bad status due to Hg); no solution from water sector or Austria alone
- How to deal with new contaminants (Non-target-analysis)?

## Micropollutants and pharmaceuticals

- Prioritize measures at source, as far as possible
- No Austria-wide end of pipe solutions like 4<sup>th</sup> treatment stages in UWWTPs.

## Antibiotic resistances

- Are urban wastewater treatment plants multipliers for antibiotic resistance of faecal bacteria like *Escherichia coli* and *Enterococci spec*?
- Currently not part of the monitoring programmes in rivers

# PLASTICS / MICROPLASTICS

## Plastics/Microplastics

- Plastics should not be part of the environment;
- More **research is needed**, if and how this **marine issue** (MSFD marine litter) is also **relevant for freshwater environment**.
- Awareness raising: Austrian study on microplastics in the Danube River, 2015
- **Austrian cooperation** and information exchange with „marine countries“ in **River Protection Commissions** (ICPDR, ICPR, IKSE).
- **Measures at source**: Minister agreement with Chemical Industry on „Zero-pellet-loss“, ban of plastic bags
- Enforcement of common monitoring standards on EU level



# CIRCULAR ECONOMY

## Nutrient recovery

- Phosphorous recovery from urban wastewater or from sewage sludge
- New concept in cooperation with waste sector

## Water re-use

- Important in water scarce countries but not relevant for all EU MS.
- In Austria no reuse of urban wastewater, while reuse of industrial processwater is state of the art.
- EC proposal for Regulation on minimum standards for wastewater reuse expected.

# CLIMATE CHANGE - DROUGHTS

- Austria on average abundant of water, but regions with low precipitation (<500mm/a)
- Currently only 3% of available water resources used → no water scarcity
- **Droughts increasing?** Dry years 2003, 2013, 2015, 2017 (summer) with different regional and sectoral intensity of effects, 2 examples:

## Public water supply secured

- In 2015 effectiveness of measures introduced after 2003 drought proofed (e.g. regional service networks; multiple resource use as basis for supply security)

## More need for agricultural irrigation

- Only 5% of water uses for agricultural irrigation (special cultures: wine, fruits, vegetables)
- High losses for agri-sector due to droughts (2013: 444 Mio. €, 2015: 175 Mio. €).
- Increasing need for irrigation in dry season and to avoid frost damages in blooming-period

# ENVIRONMENT OUT OF POLITICAL FOCUS



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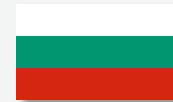
## EC letter of intent from 13 September 2017 (Juncker/Timmermans)

- Environment not explicitly mentioned!
- ***Circular Economy package to boost innovation, jobs and growth, including: [...]*** a proposal for a Regulation on Waste Water Reuse; a revision of the *Drinking Water Directive*;



## Trio Presidency Programme of EE, BG and AT from 2 June 2017

- One main objective: ***A union for jobs, growth and competitiveness***
- Environmental sustainability at least mentioned



Lesson learnt: Environmental protection plays a quite subordinate role and shall support the economy → Find the right arguments!



# COOPERATION OF PARTNERS



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## Integration of measures – Cooperation of partners

- **OECD Water Governance Initiative**
- Trust and **engagement of users and stakeholders** one of the 3 pillars
- Principles on Water Governance (2015) and Indicator Framework (end 2017)



## Example: More room for rivers

- In Austria highest rate of ground-sealing: **20 ha per day** (= 30 soccer fields) are covered due to construction of buildings, infrastructure, ...
- Loss of agricultural land, but also **loss of water retention areas**
- Issue of better **coordination of spatial planning, floods protection and river restoration** (multifunctional approach); pilot projects are in place;



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Thank you for your attention!

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