(WASTE) WATER LEGISLATION IN AUSTRIA

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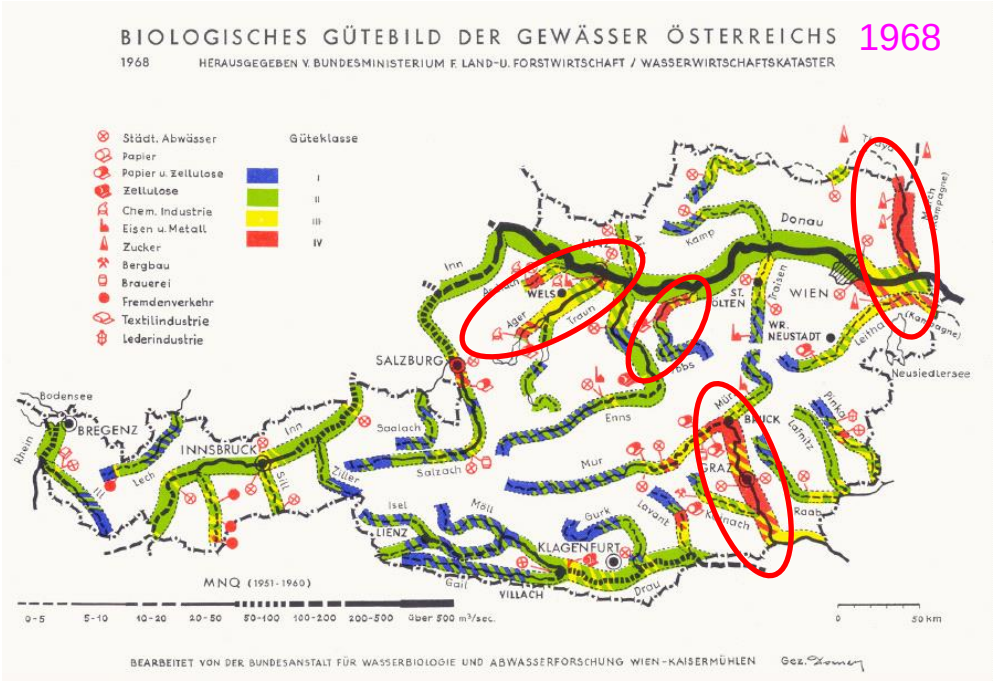
HISTORY OF WATER QUALITY IN AUSTRIA I



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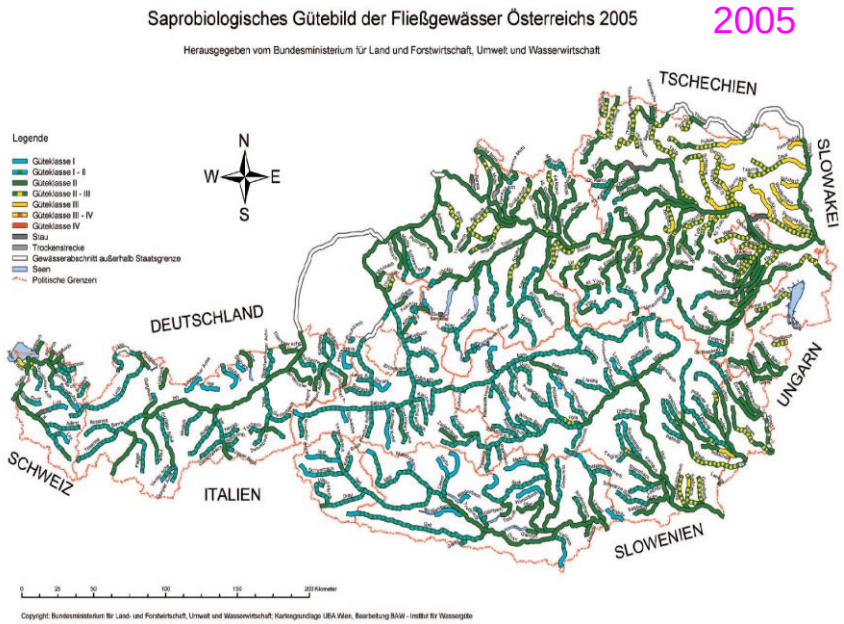

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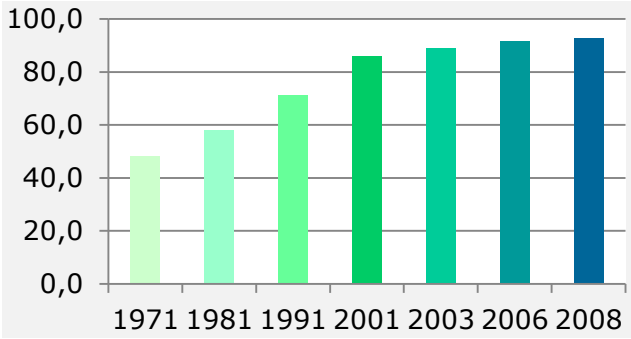
HISTORY OF WATER QUALITY IN AUSTRIA II

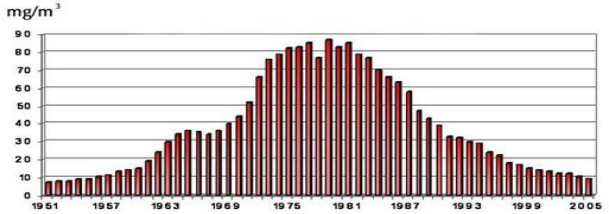
- **Improvement of:**
  - Urban wastewater collection and treatment
  - Industrial wastewater treatment
  - Monitoring of water quality and wastewater quality
- **Establishment of a regulatory framework**
  - Federal Water Act (1959), basis for
    - ✓ Regulations (e.g. wastewater emission regulations, water quality monitoring)
    - ✓ Permitting regime
  - Implementation of EU-legislation (e.g. IED, UWWTD)

Population connected to sewer system and WWTP (in %)



Source: BMLFUW 2010, Austrian Situation Report 91/271/EEC

Phosphorus in lake Bodensee (1951 – 2005)



Source: http://www.bafu.admin.ch/dokumentation/fokus/05968/05973/index.html?lang=de

CONTENT

- Introduction to water legislation and industrial wastewater legislation in Austria
- The Federal Water Act (BGBl 1959/215)
  - Combined approach
  - Wastewater Emission Regulations (AAEV & AEVs)
  - Austrian Water Information System (WISA)
  - Emission Register Regulation (EmRegV-OW, BGBl. II 207/2017)
  - Permits
- PRTR Regulation (166/2006)
- Industrial Emission Directive (IED, 2010/75/EU)
- Urban Wastewater Treatment Directive (UWWTD, 91/271/EC)

INTRODUCTION I

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- Austria is a federal state, and governmental responsibilities are allocated to four levels of territorial authority:
  - the federal state;
  - the nine provinces;
  - around 100 district authorities
  - the local authorities (around 2100 municipalities).
- Pursuant to the Federal Constitution, governmental responsibilities for environmental issues are divided between the federal state and the nine provinces (and district authorities). Municipalities as such have no legislative powers.
- EU has become the main policy driver for environmental law. While Directives have to be transformed into Austrian law, regulations are directly applicable in Austria.

INTRODUCTION II

- Environmental law is mainly based on administrative public law
  - Certain environmental issues (e.g. construction and maintenance of waterways) are entirely the responsibility of the federal state (direct federal administration).
  - Other issues (e.g. nature conservation, sewage sludge) rest entirely with the provinces.
  - For certain areas (e.g. water protection legislation), the federal state acts as legislator, while the provinces are responsible for administering environmental law (indirect federal administration).

INTRODUCTION III

- Main legislation as regards water:
  - Federal Water Act of 1959 (last amended in 2017, accompanied by different regulations)
- Main legislation as regards industrial wastewater:
  - Federal Water Act
  - Wastewater emission regulations: General wastewater emission regulation, 2 urban wastewater regulations, 62 branch-specific regulations for different industries/services
  - PRTR-regulation
  - EU Industrial Emission Directive (IED, BAT- conclusions implemented in branch-specific wastewater ordinances)

FEDERAL WATER ACT I

- Art 10 Abs 1 Z 10 Constitution: Legislation and enforcement for water issues within responsibility of Federal State
- Federal Water Act of 1959 (last amended in 2017) is the central law regulating water management in Austria and covers
  - utilization of waters
  - protection of waters
  - protection of man against damaging effects of waters
- Federal Water Act provides authorizations for the issue of regulations.
- Substantial amendments of the Federal Water Act through the transposition of EU Water Legislation (e.g. Water Framework Directive).

FEDERAL WATER ACT II

The regulations of the Federal Water Act apply to water „in its natural cycle“, no matter whether is is polluted, above or below ground, whether it is flowing or stationary, including artificial and heavily modified water bodies.

- Legal status of waters (§1 to §4)
  - Public waters
  - Private waters
- Use of waters (§5 to §29a)
- Sustainable management, in particular the protection and prevention of pollution (§30 to §37)
  - Combined approach (§30g)
  - Emission limit values for pollutants in wastewater (§33b)

FEDERAL WATER ACT III

- Defense and maintenance of the waters (§ 38 to 49)
- General water service obligations (§ 50 to 54)
- Catchment-based planning and implementation of measures for sustainable management to the protection and pollution control, as well as for defense and for the maintenance of water
  (§ 55 to 59b)
  - River Basin Management Plan §55h (RBMP)
  - Flood Risk Management Plan §55l (FRMP)
  - Water Information System Austria (WISA) (§ 59)
  - Electronic Registry of pressures and impacts (§ 59a) → Emission Register Regulation (EmRegV-OW)

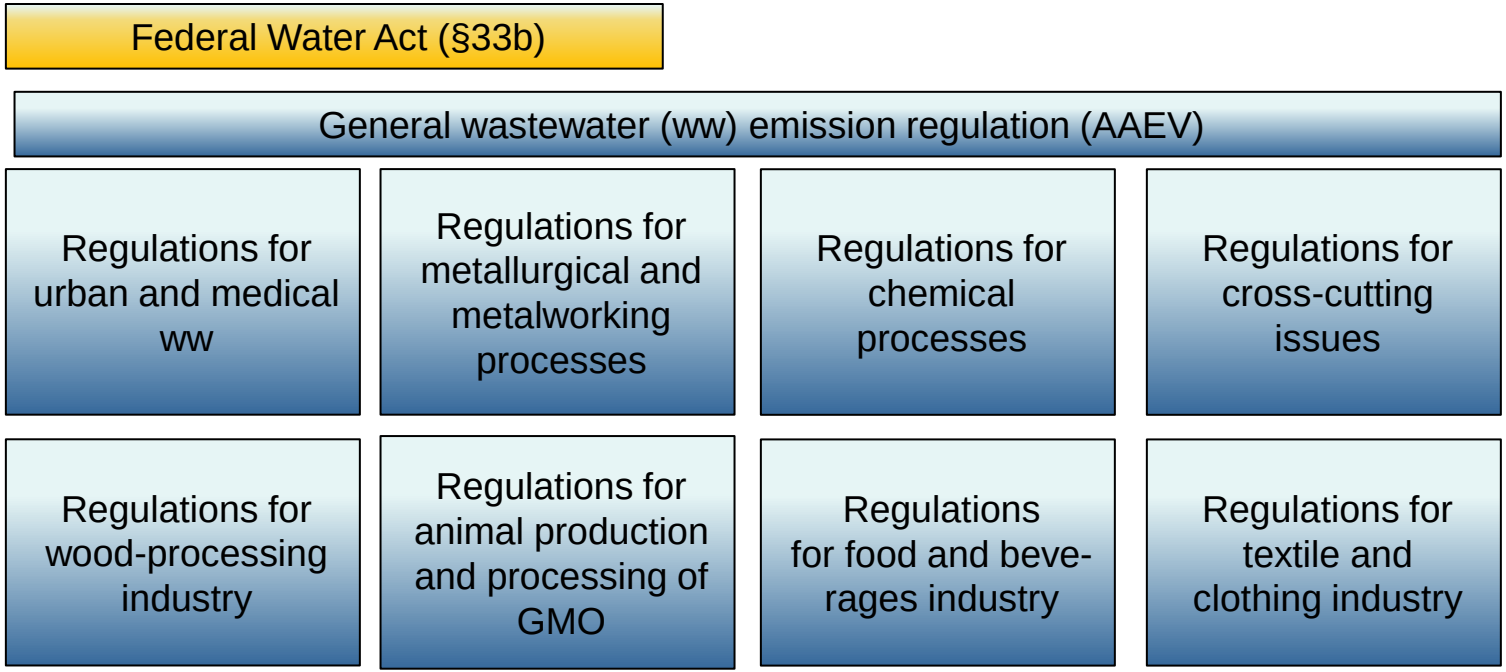
FEDERAL WATER ACT IV

- Monitoring the status of water - water cycle and water quality (Hydrography) (§ 59c to 59i)
- Forced rights (§ 60-72)
- Water cooperatives (§ 73 to 86)
- Water boards (§ 87 to 97)
- Authorities and permitting procedure (§ 98 to 129)
- Supervision of water and water systems (§ 130 to 136)
- Offenses and penalties (§ 137, 138)
- Final and transitional provisions (§ 139 to 145b)

FEDERAL WATER ACT V - COMBINED APPROACH

- Regulated in § 30g of the Federal Water Act
- consideration of emission limit values (emissions) and quality standards (immissions). In case quality standards in the receiving waters are not met, stricter emission limit values (than foreseen in the branch-specific wastewater ordinances) can be prescribed on a case by case basis in the water permit

FEDERAL WATER ACT VI - EMISSION LIMIT VALUES FOR POLLUTANTS IN WW



2 regulations for urban www
65 branch-specific regulations

FEDERAL WATER ACT VII - WATER INFORMATION SYSTEM AUSTRIA (WISA)

What is the purpose of data management?

- Water assessment: characterisation of rivers, lakes, groundwater, riverbasins
- Water evaluation: e.g. water quality for status evaluation
- Water Foresighting: prediction of impacts
- Water related measures: planning and implementation
- Water Accountability: for water statistic, generation of SDGs
- Water education: information and education of the public

Types of water data

① Meteorological data: rainfall, humidity, temperature,…

② River Data: water level, discharge (low/medium/bankfull)

③ Groundwater data: water level, aquifer thickness, groundwater age

④ Water storage data: storage volume, storage inflow/outflow, offtakes,…

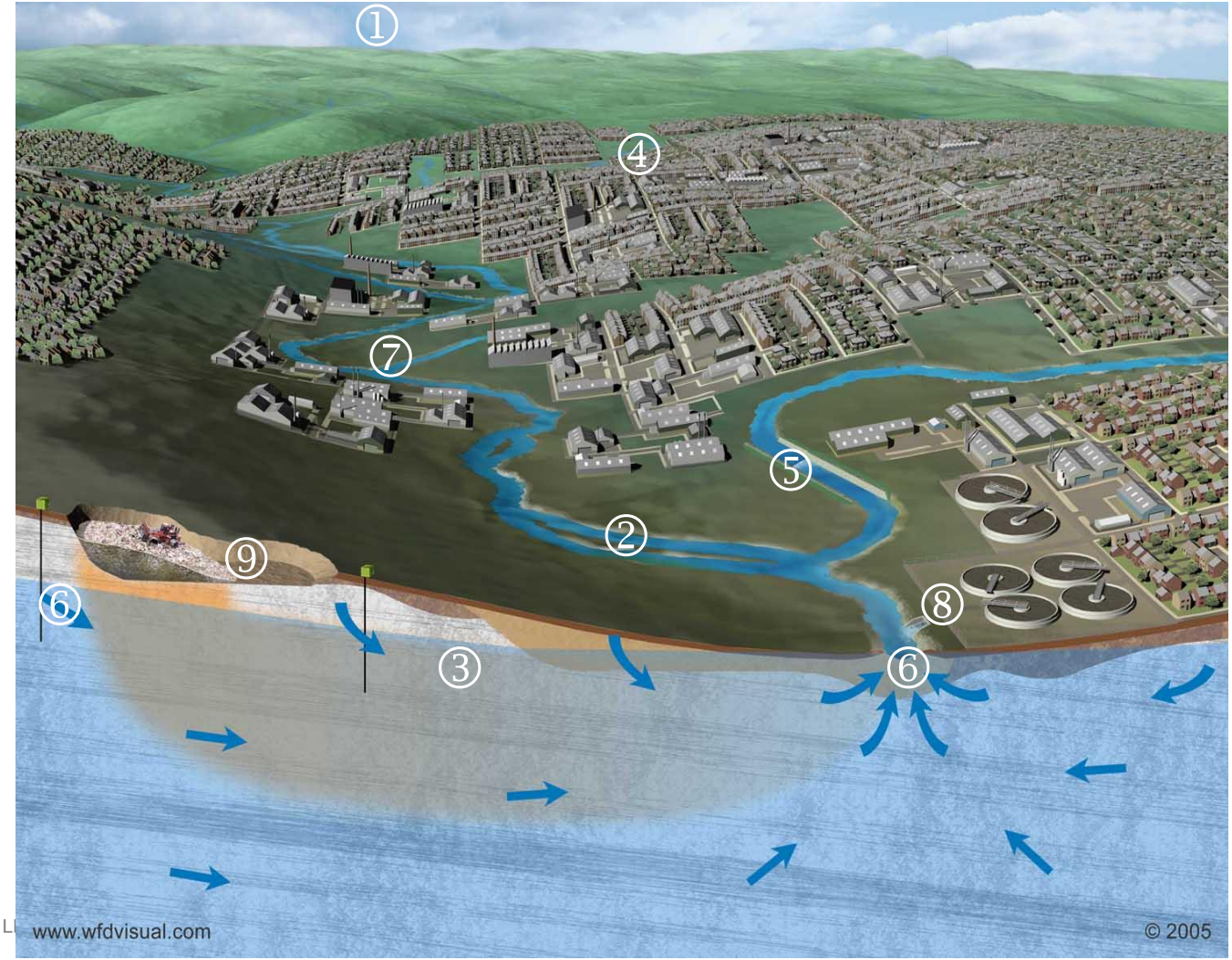
⑤ Water use data: water taken from rivers, groundwater and storages, water demand, available water,…

⑥ Water quality data: Electrical conductivity, temperature, pH, oxygen, biological quality elements, hydromorphological data,…

⑦ Water pollutant data: concentrations of plant protection products, Pharmaceuticals, heavy metals,…

⑧ Waste water data: discharge point, emission load,…

⑨ Water rights data: Water ownership, water permits,…



FEDERAL WATER ACT VIII - EMISSION REGISTER REGULATION (EMREGV-OW)

- Implemented in 2009, revised in 2017
- Who has to report?
  - All UWWTPs ≥ 2,000 p.e.
  - Wastewater treatment plants, which treat wastewater from food-processing industries > 4,000 p.e. (UWWTD Art. 13)
  - Until 2017: PRTR-facilities, from 2017 onwards: IED-facilities
    In case there is a permit for direct discharge into water or indirect discharge into a collecting system
- What is reported?
  - All substances regulated in the permits (kg/a), branch specific priority substances (kg/a), wastewater volumes (m^3/a)

FEDERAL WATER ACT IX - PERMITS

- General water use (§ 8.1 and 8.2) without permit
  - Usual use of public water which occurs without the use of any special equipment, is referred to as “major general use”: water for bathing, washing, watering animals, soaking, dipping, in addition to watering plants, creating mud, earth, sand, gravel, stones and ice.
  - Limited use of private waters, or “minor general use”, allows for the use of water in private rivers, streams and lakes for watering and dipping with hand-held containers. Bathing only if authorized access provided by owner.
- All other water uses require permit (§ 9)
  - In the case of public waters, use is possible if a water use permit is obtained from the relevant authority.
  - In the case of private waters, permission needs to be obtained from the owner, which may have to be accompanied by approval from the authorities.

FEDERAL WATER ACT X - PERMITS

- An application is always needed in order to start the process of granting a permit in accordance with water legislation. This application must be submitted to the competent water legislation authority. (§103)
- Pre-check process – effects on public interests expected? (§ 104)
- Investigation – wide range of evidence is considered, involvement of experts (§ 108)
- Hearing – to be carried out at the concerned location (§ 107)
- Decision via administrative ruling (§ 111)
- Review procedure after completion

FEDERAL WATER ACT XI - PERMITS

- Provisions of regulations are only legally binding by their consideration in individual permits
- Permits are usually provided for a reference period of 15 years
- Meeting of ELV by dilution is strictly forbidden
- Authority can oblige the owner of a permit to wastewater emission control (cost for controls have to be taken by permit owner)
- Water authority UWWTPs: UWWTPs >20,000 p.e. provincial government, UWWTPs ≤ 20,000 p.e. district authority

PRTR-REGULATION I

- PRTR: REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC
- Goal: to establish an integrated pollutant release and transfer register at Community level in the form of a publicly accessible electronic database
- 65 activities in 9 sectors:
- Regulation:Legally binding and directly applicable EU-wide

1. Energy sector	6. Paper and wood production and processing
2. Production and processing of metals	7. Intensive livestock production and aquaculture
3. Mineral industry	8. Animal and vegetable products from the food and beverage sector
4. Chemical industry	9. Other activities
5. Waste and wastewater management	

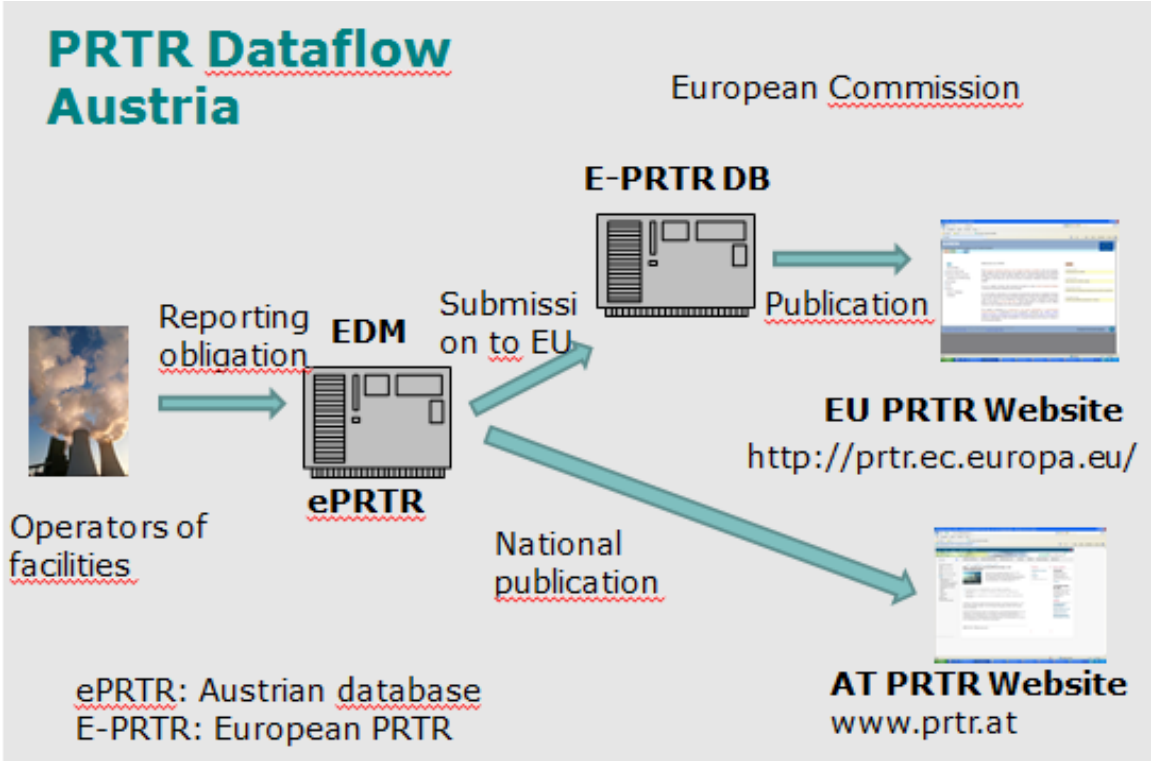
PRTR-REGULATION II

- The Register includes
  - pollutant releases to air, water and land
  - off-site transfers of hazardous and non-hazardous waste and of pollutants in waste water
  - from a list of 91 key pollutants including heavy metals, pesticides, greenhouse gases and dioxins
  - for the year 2007 onwards
- Information on releases and transfers resulting as totals of all deliberate, accidental, routine and non-routine activities at the site of the facility
- For each pollutant it has to be indicated whether the data has been measured (M), calculated (C) or estimated (E)

PRTR-REGULATION III

- Operaters have to report in the case that:
  - activities that are listed in Annex I of the EU PRTR Regulation are carried out and the capacity thresholds for the Annex I activity is exceeded
  - If the first point applies:
    the annual pollutant releases and transfers to air, water and soil exceeding the Annex II pollutant thresholds
- About 280 facilities in Austria
- About 28,000 facilities in EU and EFTA countries

PRTR-REGULATION IV



- In AT there is one database for PRTR-data and one database for the emission register to surface water (EMREG-SW)
- Reason: different scopes, different data coverage

INDUSTRIAL EMISSION DIRECTIVE I

Objectives and requirements (1)

- main EU instrument regulating pollutant emissions from industrial installations
- protection of human health and the environment taken as a whole by reducing harmful industrial emissions across the EU, in particular through better application of **Best Available Techniques (BAT).**
- Around 50,000 installations undertaking the industrial activities listed in Annex I of the IED are required to operate in accordance with a permit (granted by the authorities in the Member States).
- This permit should include **Emission Limit Values (ELV)** based on BAT.

INDUSTRIAL EMISSION DIRECTIVE II

Objectives and requirements (2)

- IED is based on several pillars, in particular (1) an integrated approach, (2) use of best available techniques, (3) flexibility, (4) inspections and (5) public participation.
- **Integrated approach**: permits must take into account the whole environmental performance of the plant (e.g. emissions to air, water and land, generation of waste, use of raw materials, energy efficiency, noise, prevention of accidents, and restoration of the site upon closure)
- **Best available techniques (BAT):** permit conditions including emission limit values must be based on BAT (IPPC-bureau in Sevilla: BAT Reference Documents (BREFs))

INDUSTRIAL EMISSION DIRECTIVE III

Objectives and requirements (3)

- BAT conclusions contained in BREFs are adopted by the Commission as Implementing Decisions. BAT conclusions need to be the reference for setting permit conditions
- Flexibility
- **Inspections:** IED sets mandatory requirements on environmental inspections. Inspection plans need to be drawn up. Visit to take place at least every 1 to 3 years, using risk-based criteria
- **Public participation**: public needs to have access to permit applications, permits and the results of the monitoring of releases

URBAN WASTEWATER TREATMENT DIRECTIVE I

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Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment (Urban Waste Water Treatment Directive, UWWTD)

- Aim: To protect the environment from adverse effects of urban waste water discharges and discharges from waste water from certain industrial (agro-food) sectors.
- Scope: agglomerations above 2,000 p.e. (inhabitants).
- Concerns the collection, appropriate treatment and discharge of urban waste water.
- Designation of sensitive areas or covering whole area of Member States.
- Regular information of citizens; reporting on urban waste water collection and treatment.

URBAN WASTEWATER TREATMENT DIRECTIVE II

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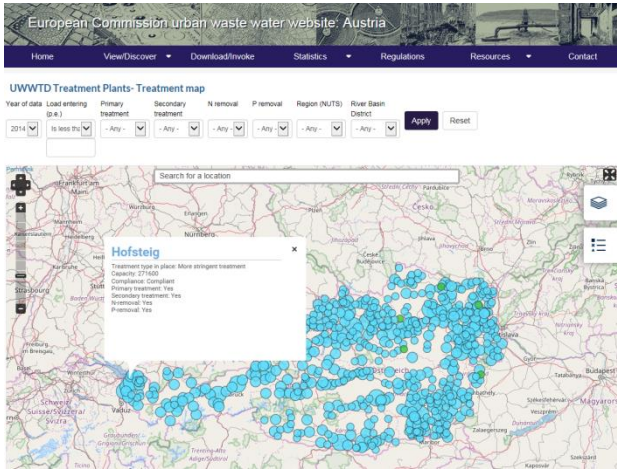
- UWWTD served as pilot for the implementation of the SIIF-concept (Structured Implementation and Information Framework)
- UWWTD SIIF: improved data management for information of public/ policy makers on how legislation is practically implemented. It includes information on implementation programmes on how to reach or maintain the compliance for a policy.
- 2018: Evaluation of the UWWTD



Source: European Commission, http://ec.europa.eu/environment/water/water-urbanwaste/info/index_en.htm

URBAN WASTEWATER TREATMENT DIRECTIVE III

Implementation in AT:

- General wastewater (ww) emission regulation (AAEV) (BGBl. 186/1996)
- 1st wastewater emission ordinance for urban wastewater (1. AEV) (BGBl. 210/1996): For UWWTP > 50 population equivalents (p.e.)
  - Stricter requirements than the UWWTD
  - UWWTD: secondary treatment, only in N- or P-sensitive areas: more stringent treatment in agglomerations >10,000 p.e.
  - 1st AEV: N-removal in all UWWTPs > 5000p.e., P-removal in all UWWTPs >500 p.e.
- 3rd wastewater emission ordinance for single buildings in extreme locations (BGBl. 249/2006)

URBAN WASTEWATER TREATMENT DIRECTIVE IV

Implementation in AT:

Parameter	Requirement	Austrian legislation (1st wastewater ordinance)	Urban wastewater treatment directive (91/271/EEC)
BOD_5	Effluent concentration (mg/l)	UWWTPs with a treatment capacity >500 p.e. – 5,000 p.e.: 20 mg/l UWWTPs with a treatment capacity >5,000 p.e. – 50,000 p.e.: 20 mg/l UWWTPs with a treatment capacity >50,000 p.e.: 15 mg/l	UWWTPs with a treatment capacity ≥ 2,000 p.e.: 25 mg/l
	Minimum reduction rate (%)	UWWTPs with a treatment capacity >1,000 p.e.: 95%	UWWTPs with a treatment capacity ≥ 2,000 p.e.: 70 - 90%
	Minimum annual number of samples	UWWTPs with a treatment capacity >500 p.e. – 5,000 p.e.: 12 UWWTPs with a treatment capacity >5,000 p.e. – 50,000 p.e.: 52 UWWTPs with a treatment capacity >50,000 p.e.: 104	UWWTPs with a treatment capacity 2,000 p.e. – 9,999 p.e.: 12 in the first year and 4 in the following years, in case the requirements of the UWWTD are met in the first year UWWTPs with a treatment capacity 10,000 p.e. – 49,999 p.e.: 12 UWWTPs with a treatment capacity ≥ 50,000 p.e.: 24
COD	Effluent concentration (mg/l)	UWWTPs with a treatment capacity >500 p.e. – 5,000 p.e.: 75 mg/l UWWTPs with a treatment capacity >5,000 p.e. – 50,000 p.e.: 75 mg/l UWWTPs with a treatment capacity >50,000 p.e.: 75 mg/l	UWWTPs with a treatment capacity ≥ 2,000 p.e.: 125 mg/l
	minimum reduction rate (%)	UWWTPs with a treatment capacity >1,000 p.e.: 85%	UWWTPs with a treatment capacity ≥ 2,000 p.e.: 75%
	Minimum annual number of samples	UWWTPs with a treatment capacity >500 p.e. – 5,000 p.e.: 26 UWWTPs with a treatment capacity >5,000 p.e. – 50,000 p.e.: 104 UWWTPs with a treatment capacity >50,000 p.e.: 260	UWWTPs with a treatment capacity 2,000 p.e. – 9,999 p.e.: 12 in the first year and 4 in the following years, in case the requirements of the UWWTD are met in the first year UWWTPs with a treatment capacity 10,000 p.e. – 49,999 p.e.: 12 UWWTPs with a treatment capacity ≥50,000 p.e.: 24

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Study Visit Tour Austria in the Frame of SEIS
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