For our Environment

UNECE PRTR Workshop Minsk

The German PRTR
Data management and quality

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Section II 2.2 (Discharges and Inputs to Surface Waters)
Structure

1 FACTS ON GERMAN PRTR

2 PROCESS CHAIN – REPORTING AND QA

3 GENERAL TECHNICAL FEATURES AND SOFTWARE

4 CHALLENGES IN IMPLEMENTATION

5 DATA ASSESSMENTS AND PUBLICATION

6 FUTURE ACTIVITIES
1 Facts on German PRTR

• more than 5000 facilities report every year (increases since 2007, in 2014 – 5282)

• by activity: the most: waste and waste water management (1772) and production and processing of metals (1084), the lowest: paper and wood production (162)

• by federal state: the most: North-Rhine-Westfalia (1268) and Bavaria (715), the lowest: Bremen (10) and Hamburg(62) - city states

• by medium: the most: hazardous waste (3959) , the lowest: releases to land (2)

• by pollutant: release to air – the most: Ammonia (679)

• by pollutant release to water – the most: TOC (234)
1 Facts on German PRTR

Number of facilities releasing air pollution by sectors 2014

- Intensive livestock production: 623
- Waste and waste water management: 253
- Energy sector: 185
- Mineral industry: 124
- Metal industry: 102
- Chemical industry: 91
- Other industry: 60
- Paper-and wood industry: 46
- Food industry: 18
1 Facts on German PRTR

Number of facilities releasing water pollutants by sectors 2014

- Waste and waste water management: 220
- Chemical industry: 52
- Paper-and wood industry: 33
- Energy sector: 33
- Mineral industry: 27
- Metal industry: 19
- Other industry: 4
- Food industry: 3
1 Facts on German PRTR
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2 Process chain, reporting and QA

- report twice a year (autumn corrections of former datasets, spring new data and corrections)

- complete electronic reporting with a common tool (BUBE-online)

- integrated QA Checks

- complete reporting process based on OpenSource Software
2 Process chain, reporting and QA

QA Steps

• QA: has to begin as early as possible in the process chain to avoid problems at the end, short before publishing.

• 1st Instance: Company/Operator (has to ensure the quality according to the requirements – data should be complete, coherent and plausible)

• 2nd Instance: agency of the federal State – checks the data quality

• 3rd Instance: Federal Environment Agency (UBA) – second official supervisoral authority

• in case of errors: the data delivery will be not accepted and returned up to the company to correct and redeliver it
3 General technical features and software

• Examples:
  – Reporting: BUBE-online
  – CMS: TYPO3
  – Database: PostgreSQL/PostGIS
  – Interactive Map: OpenStreetmap, Openlayers, Mapserver, Mapproxy
  – Documentation: Wiki (Mediawiki)
  – Helpdesk/Ticketsystem: OTRS
  – Statistical Analysis: R
  – GIS: Quantum GIS, gvSIG
  – Project Servers: Linux Debian and Xubuntu 16.04 LTS

• only Open Source Software (free and unrestricted access)
4 Challenges in implementation

• Coordination with the competent authorities from the federal states

• Common work on implementations and future work, national PRTR working group (members UBA and federal states)

• annual financing of PRTR splitted between federal states and UBA, (50 % of costs national authority, 50 % federal states) - administrative agreement between both sides

• ensure a very good data quality over the total amount of reporting facilities

• establishing standardized and fully automated QA checks and data control instances
5 Data assessments and publications

• Thru.de – national German PRTR Webportal (lang. German/English)

• background information about the German PRTR

• different possibilities to search data (detailed or preselected)

• the complete dataset as SQLite Database (all data since 2007) for download

• own statistical analysis, text, graphics, maps, information

• interactive map, geodata as WMS
5 Data assessments and publications

About Thru.de
How much pollution is the facility in my neighborhood producing? Which chemicals are still contained in wastewater released from sewage treatment plants into the environment? You will find the answers to these and many other questions here at Thru.de.

Quick guide

Key topics

New PRTR-data 2014 in thru.de
Since 31.03.2016 data has been made available at www.thru.de/. This concerns data of the reporting year 2014 and corrected data covering the period 2007 – 2013 of the PRTR (Pollutant Release and Transfer Register).

Exactly 5,282 facilities in Germany exceeding threshold values reported data on pollutants and waste transfer operations.
5 Data assessments and publications
6 Future activities

- continuously keeping the data in a high quality – work on the methods and checks
- Implementation of data of diffuse sources
- Implementation of data of the UWWTD
- first trend analysis after nearly ten years of reporting
- different activities to advertise the data and the results to a bigger amount of users
- focus on a much more scientific view on the data, validation with the help of additional data sets from other reporting processes (e.g. UWWTD)
- Projects and support implementing PRTRs in other countries, e.g. “Support Establishment and Advancement of Pollutant Release and Transfer Registers (PRTR) in Western Balkan Countries and in Moldova”
Thanks for your attention!

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