'INDUSTRIAL PLANT DATA VIEWER' (SNEAK PREVIEW)

Providing access to environmental information on industrial plants

(V1: Large Combustion Plants)
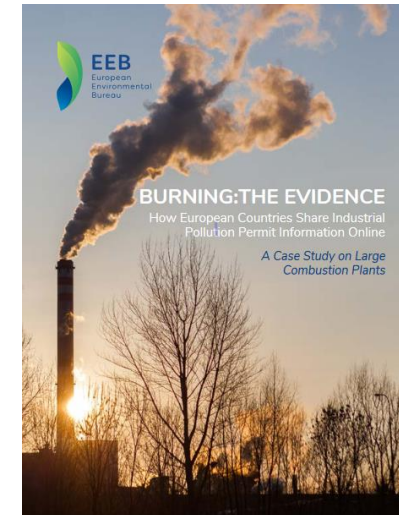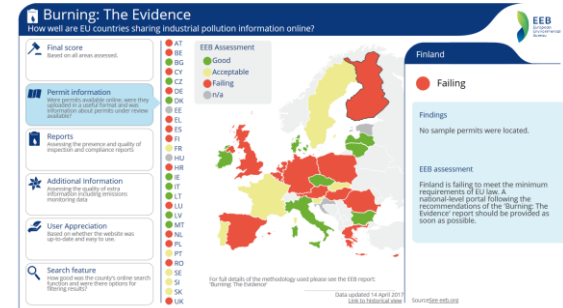
EEB
European Environmental Bureau

WHY WE SET UP THIS DATABASE?

WHY WE SET UP THIS DATABASE?

- Follow up "Burning: the evidence" publication (Nov. 2017)
- Promotion of public participation and access to environmental information (Aarhus and PRTR related)
- Enable environmental benchmarking (BAT uptake – gap potentials, derogations, consumption of water, land grab, outputs etc) with appropriate data filters and automatic calculation of results in terms of impacts
- Benchmarking of countries (permit writers) and companies (mother companies)
- Support legal + campaign work
- Current scope: energy generation (LCP >50MWth all fuels incl. waste co-incineration)
- Future scope: cement, refineries, iron & steel, etc?

MAIN FEATURES

THE HOMEPAGE

THE HOMEPAGE

Methodology Note in finalisation

Here are some tips for using Tableau to get you started:

Tooltips
When hovering over graphs, a tooltip will often appear containing more information about a data point.

Reset
In the Tableau toolbar at the bottom on the page there is a button to reset the viewer. You can also refresh your browser.

Download
To download data, select a graph, then click download in the Tableau toolbar.
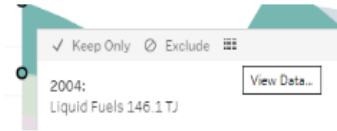
View Data
When data is selected, more options will appear in the tooltip, including the option to view the underlying data.

Map Tools
You can use CTRL to multiselect points. In a map you can also use the map tools in the top left to select an area.

COMPARE PLANTS SECTION

Compare Plants

In this sheet you can compare air pollutant emissions, associated health costs and permit limit values of different plants. There are also aggregated rankings for health costs by country and parent company, and number of derogations granted by country.

Use the "Show data by" menu to select which parameter to display, and filters to select the subset of plants, years and pollutants you would like to see.

Show data by
Health Costs by pollutant (€) ▼

Select pollutants
(Alle) ▼

Year
2017 ▼

Main Fuel Type
(Alle) ▼

Member State
(Alle) ▼

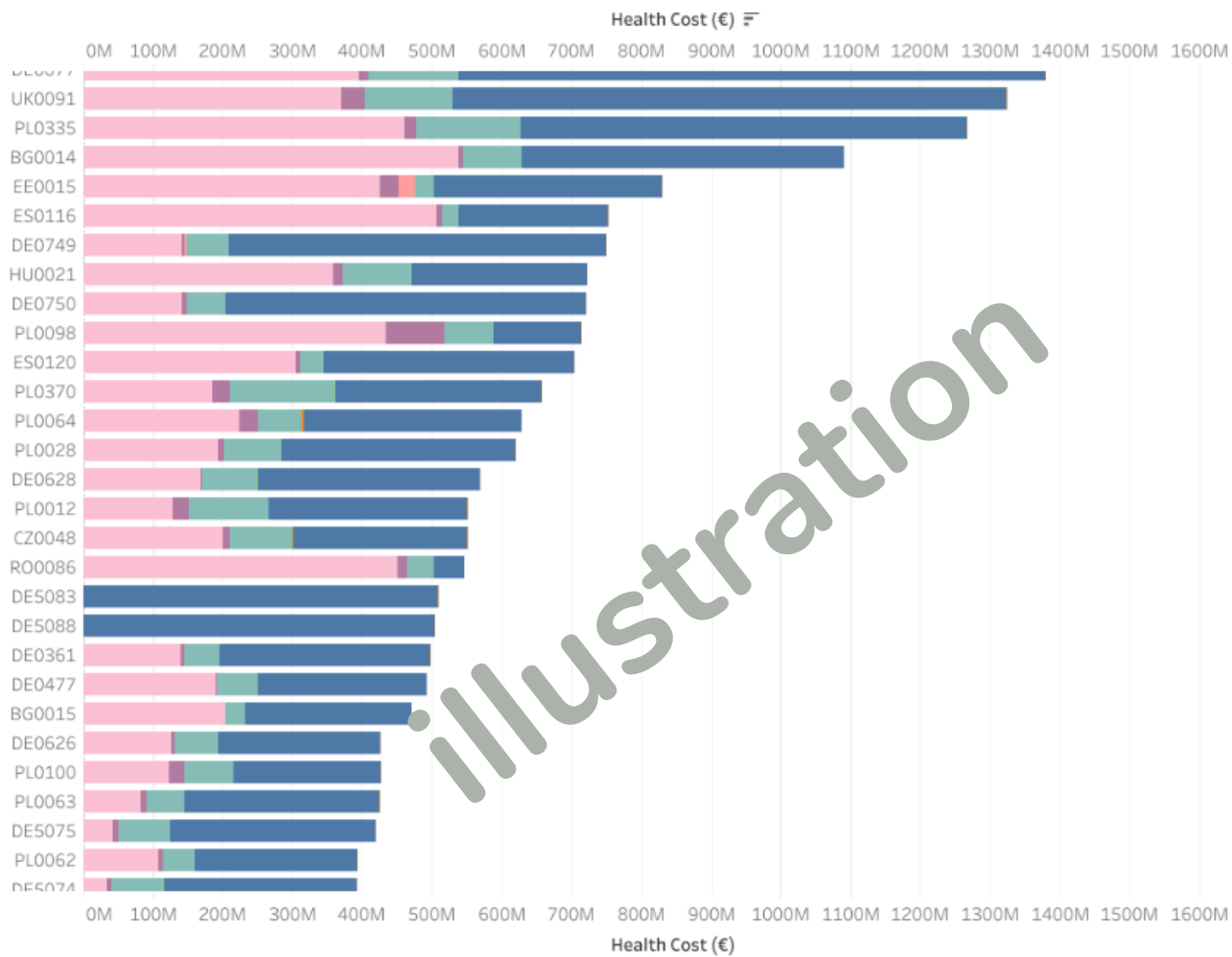**Capacity (MWth)**
(Alle) ▼

sections

Emissions (tonnes)
Emissions (concentration)
Health Costs by pollutant (€)
Health Cost per TJ fuel used (€)
Health Cost by Country (€)
Count of derogations by Country
Permit limits (mg/Nm³)
Health Cost by Parent Company (€)

pollutants

☑ (All)
☑ As
☑ Benzene
☑ CO_2
☑ Cr
☑ HCl
☑ Hg
☑ NH_3
☑ Ni
☑ NMVOC
☑ NO_x
☑ PAHs
☑ Pb
☑ PM
☑ SO_2

Health Cost (€)

Pick a Plant

Please select a plant by clicking on a point on the map or row of the table. Use the filters to narrow down the options. You can select multiple plants to view aggregated data, though some figures will only display data correctly for a single plant.

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1

2

Search for a Plant Name

EPRTR ID

LCP ID

Parent Company
(Alle) ▼

Member State
(Alle) ▼

Capacity (MWth)
(Alle) ▼

Type of Combustion Plant
(Alle) ▼

Main Fuel Type
(Alle) ▼

LCP Sector
(Alle) ▼

Derogations
(Alle) ▼

Abatement Techniques
(Alle) ▼

Compliance with BAT Upper AEL
(Alle) ▼

Norwegen

Weißrussland

Ukraine

Frankreich

Spanien

Türkei

© 2019 Mapbox © OpenStreetMap

| ■ Peat | ■ Other gases | ■ Natural gas | ■ Lignite | ■ Biomass |
| ■ Other solid fuels | ■ No fuel used | ■ Liquid fuels | ■ Coal | |

Overview Table

3
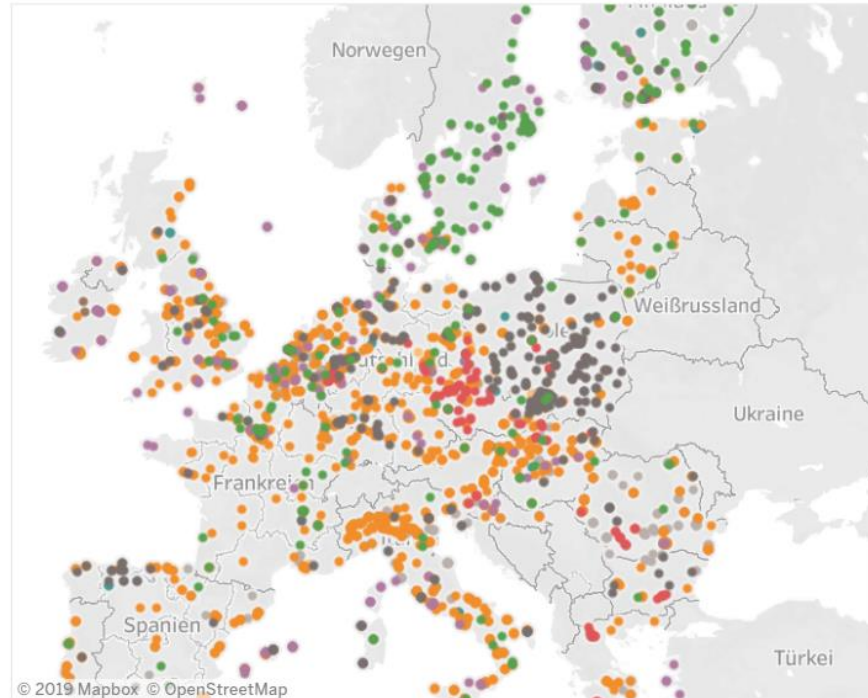
Plant ID	EPRTR National ID	Plant Name	Main Fuel Type	LCP Size (MWth)	Derogations	
AT0001	20000.00273	Energie AG Oberösterreich Kraftwerke GmbH, Standort Timelkam, KW Time..	Natural gas	300-1000		●
AT0002	20000.00051	EVN AG, EVN AG Kraftwerk Korneuburg, KWK Block B	Natural gas	300-1000		●

DETAILS AND DOCUMENTS

Details and Documents

In this tab you can view administrative details for the plants, see what abatement techniques are used and whether any derogations are granted. In the last panel, the URLs will take you to a SharePoint page to view plant documents.

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Selected Plants: BG0014

Details

Plant ID	BG0014
EPRTR ID	13000002
Plant Name	"TETs Maritsa iztok 2" EAD
Country	BG
City	Kovachevo
Coordinates	42.256, 26.1320
Start Date of Operation	1966-10-25
Competent Authority	Executive Environment Agency
Parent Company	TETS MARITSA IZTOK 2

Abatement Techniques

Not available	Not available	Not available

Derogations

Article 15.4	ⓘ
Article 31	✓
Article 32 TNP Derogation for Dust	✗
Article 32 TNP Derogation for NOx	✗
Article 32 TNP Derogation for SO2	✗
Article 32 Unspecified	✗
Article 33 (3)	✗
Article 33 Opt-out plant	✗
Article 33 Unspecified	✗
Article 34 Small isolated system	✗
Article 35 District heating plant	✗
Article 72.4b	✗

Documents

Subfolder	URL	Documents available?
CEM	https://eebidp.sharepoint.com/:f:/s/IndustryDatabase/Eh1bXs93tydCiUK3..	✓
Compliance Report	https://eebidp.sharepoint.com/:s/IndustryDatabase/Eul-IWlWpKJGs9JO..	✓
Derogation	https://eebidp.sharepoint.com/:f:/s/IndustryDatabase/EuEGMdyllqtPlp8F4..	✓
Inspection Report	Not available	✗
Other Documents	Not available	✗
Permits	Not available	✗

When you hoover over the derogations, a description appears.

Plant: BG0014

Article 15(4): Allows for emission limit values less strict than the emission levels associated with the best available techniques (BAT-AELs) if the BAT-AELs would lead to disproportionately higher costs.

Derogation	Status	Duration	Pollutants	Points Made	No Changed
Article 15.4	Granted	Time Limited	1	None	No

Plant: BG0014

Article 31: Combustion plants and co-incinerators that burn high sulphur indigenous solid fuel may apply lower rates of desulphurisation

FUEL USE AND EFFICIENCY

Fuel Use and Efficiency

On this tab you can view plant fuel use, operating hours and electricity generation. Data on electricity generation is from the ENTSOE database (https://transparency.entsoe.eu/), split/aggregated as necessary to match the LCP database.

Selected Plants: BG0014

Fuel Use

Operating 51.589 hours in 2017 (589% of year)

Legend: Biomass, Lignite, Natural Gas, Other Solid Fuels, Coal, Liquid Fuels, Other Gases, Peat, × Flagged data point
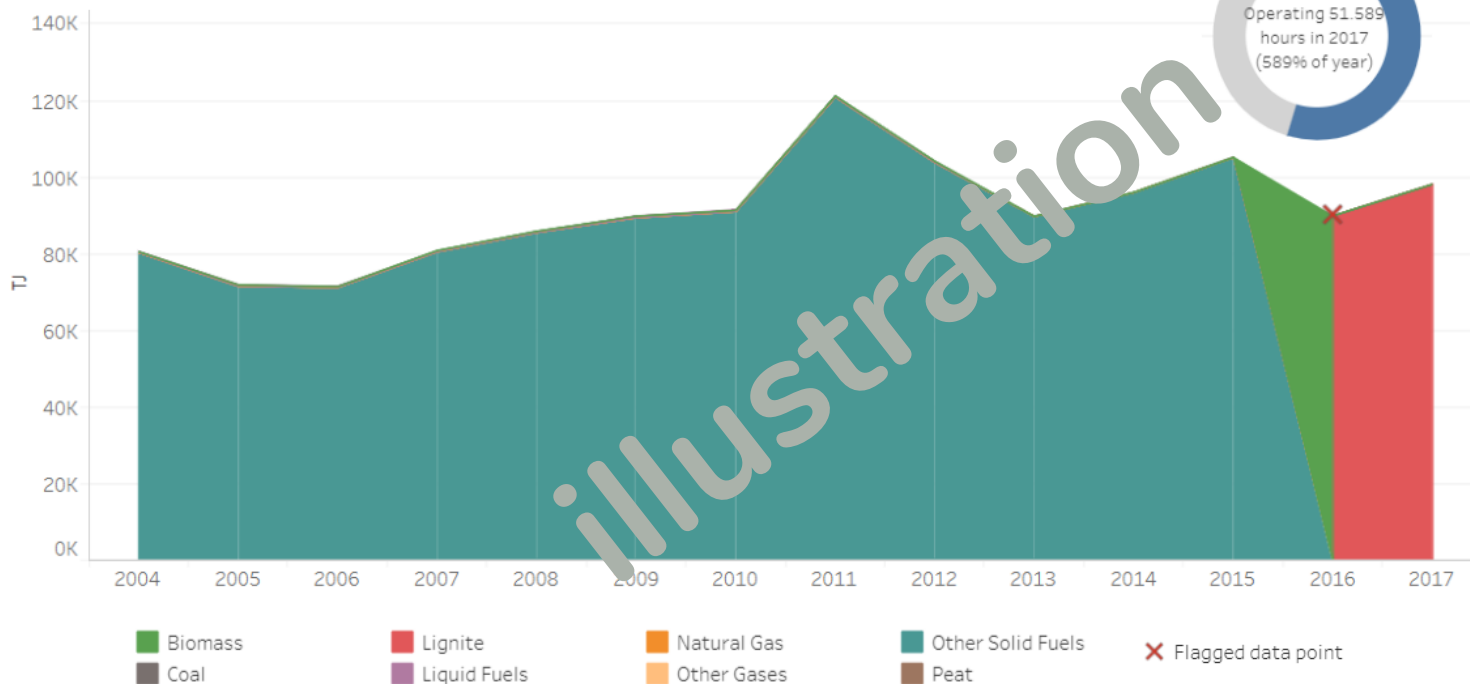
Electricity Generation

Electrical Efficiency

■ Electrical Efficiency BAT Lower Limit   ■ Electrical Efficiency BAT Upper Limit
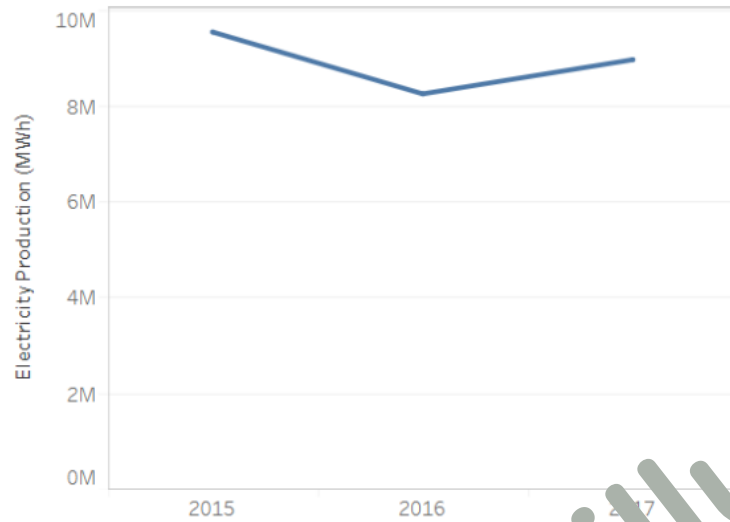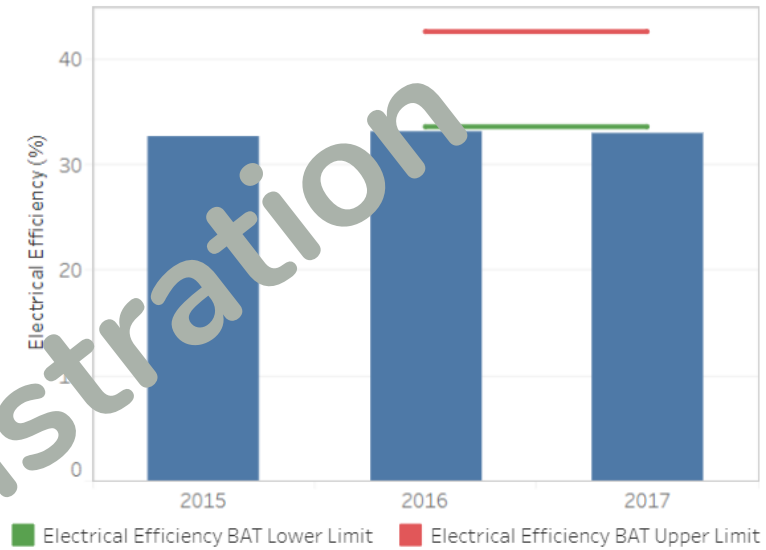
EMISSIONS AND COMPLIANCE

Emissions and Compliance

On this tab you can find detailed information on plants emissions and limit values. The data is given in both tonnes and concentration. Limit values are converted into to tonnes using estimated flue gas volume.

Please select a pollutant:
NOₓ ▾

Selected Plants: BG0014

Total NOₓ emissions
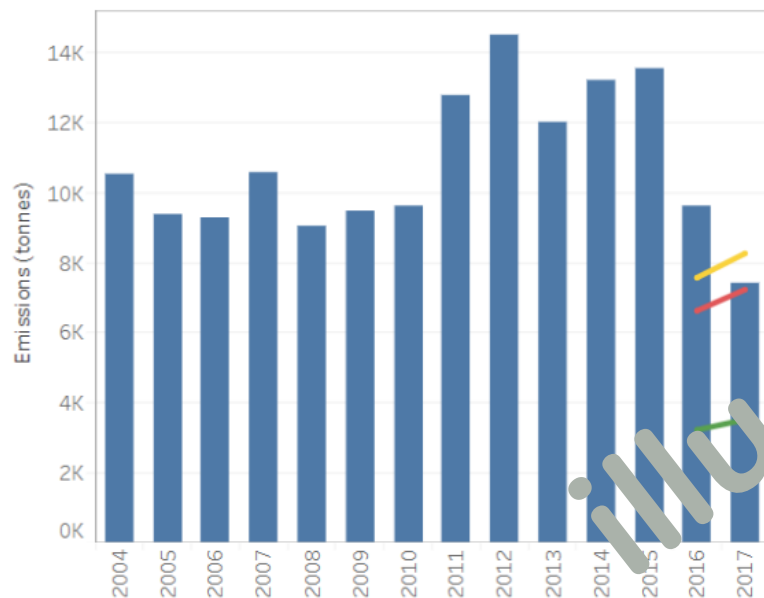
NOₓ concentration

Emissions data plausibility
- OK
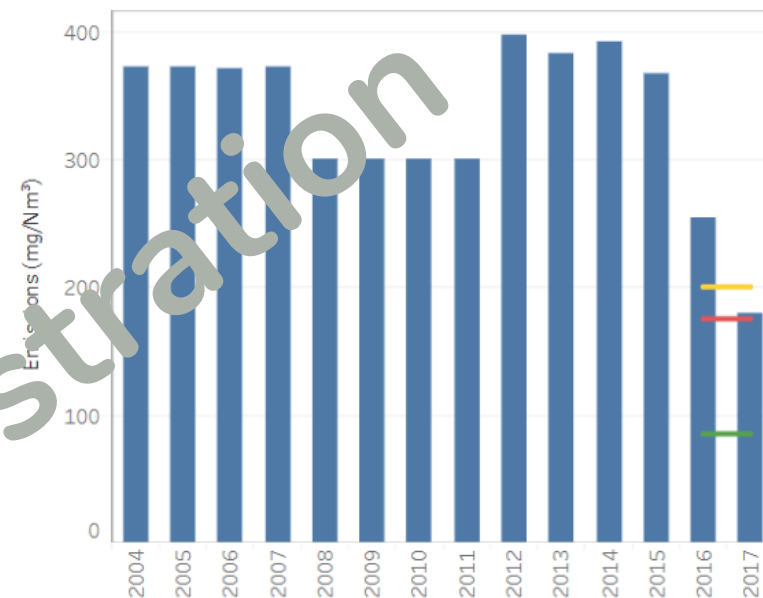
Limit values and CEM data
- BAT AEL Lower Limit
- BAT AEL Upper Limit
- IED Safety Net ELV
- Permit Limit
- CEM Data

Concentrations in 2017

"Worst in category "

"Lowest in category "

✓ Keep Only   ⊘ Exclude   ▦

Highest in this category: 173.70 mg/Nm3

Highest facility ID: BG0015
Lowest facility ID: PL0098

■ Highest in this category   ■ Lowest in this category
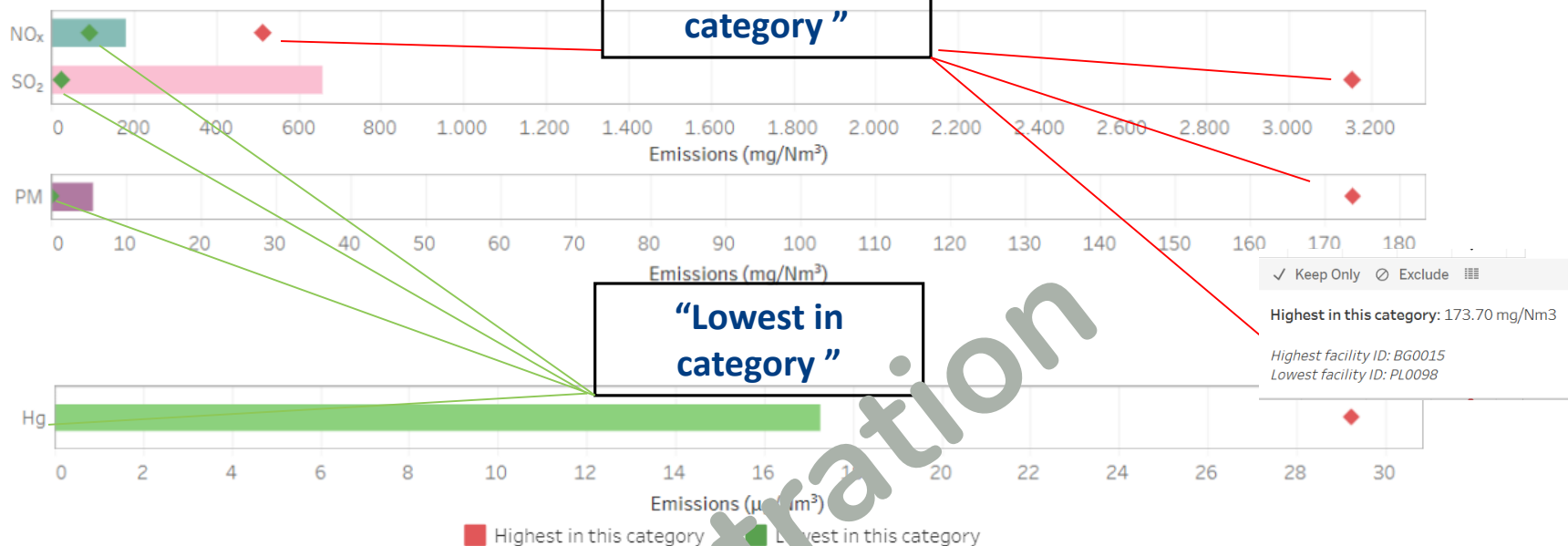
NOx Implied emission factor

IMPACTS

Selected Plants: BG0014

Select Pollutants

NOₓ ▼

Health costs of actual emissions
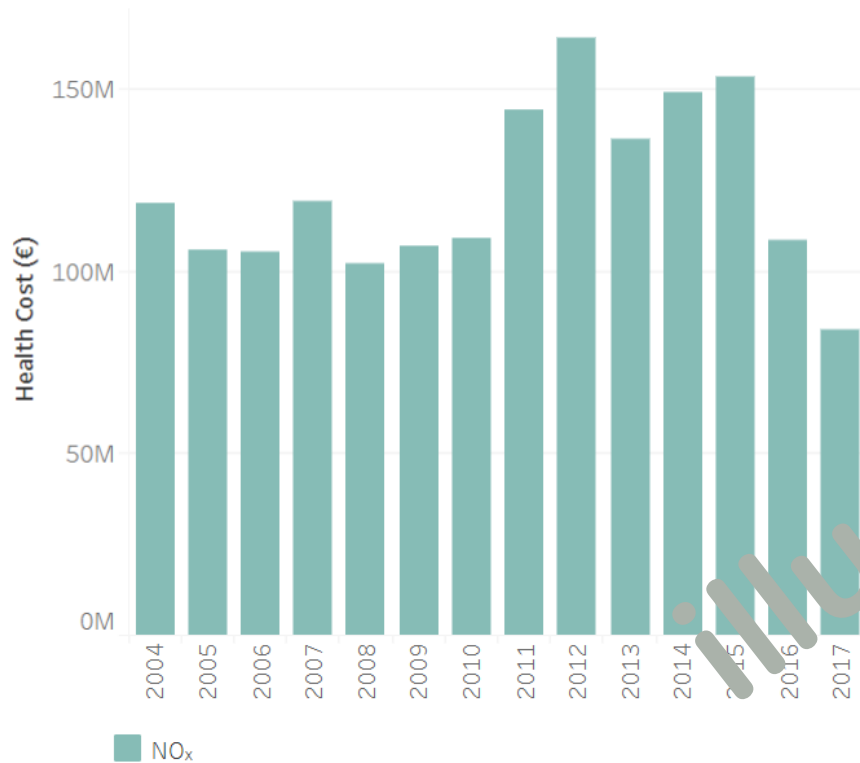
Health costs under compliance scenarios

Actual Health Cost

Health Cost IED Safety Net ELV

Health Cost Lower BAT-AEL

Health Cost Upper BAT-AEL
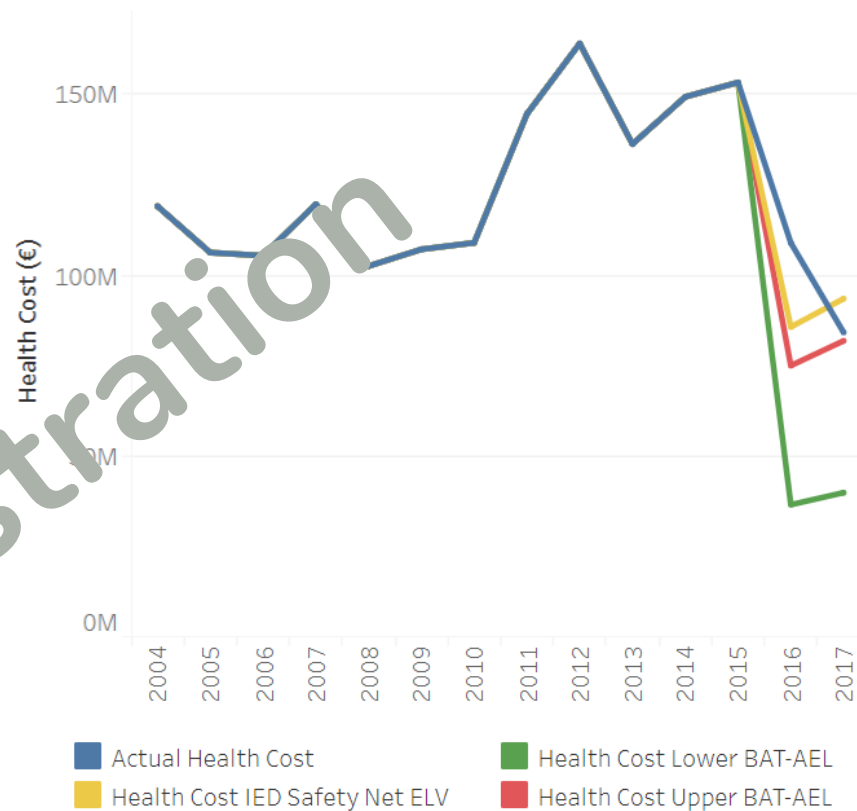
Water: data-matching+ import in progress
- **Av. & max Temp in C°**
- **Annual flow rate + emission load Tss, cd, hg**
- **Type of receiving body**
- **Discharge type**
- **Water consumption (withdrawal) (m3/year)**
- **Cooling technique applied**

"Land grab"
Looking for more soil/agriculture related metric e.g. XX crop yield equivalent / fed people etc

2010 water consumption

Data not available

Source: BATIS (2010)

Latest year land grab

41M tonnes earth ≈ 3M double decker buses
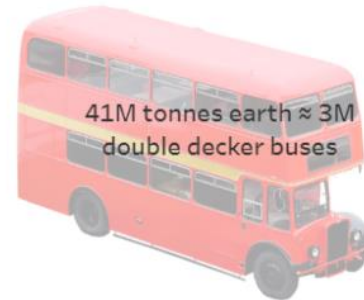
Source: EEB calculation

ISSUES AND NEEDS FOR THE DATABASE

SITUATION ON ATD REQUESTS
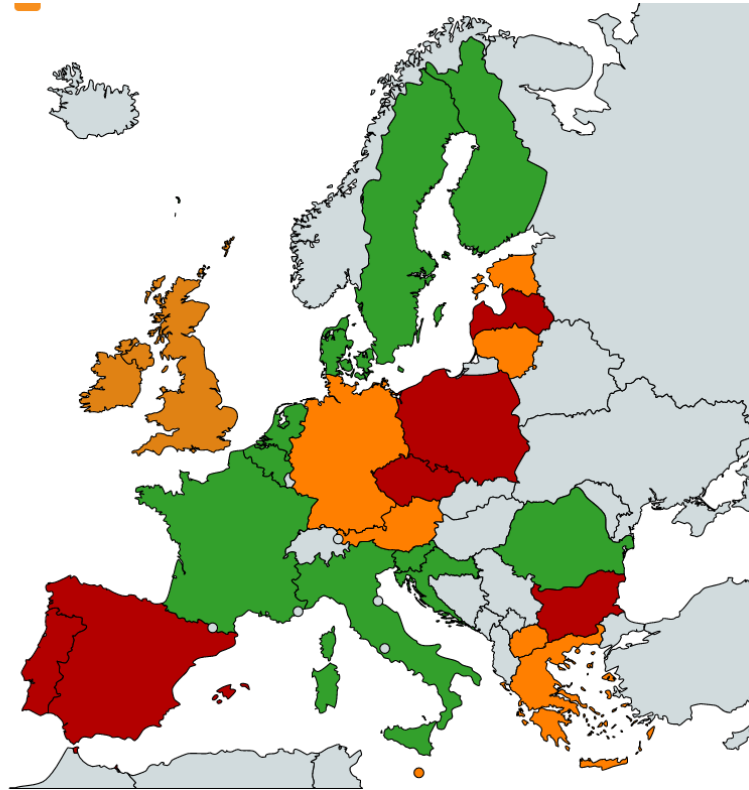
COLLABORATIVE AUTHORITIES

Country	
Croatia	Scotland
Estonia	Northern Ireland
Austria	England
Wales	Denmark
Germany	Finland
Italy	Belgium
Slovenia	Sweden
Romania	France
Malta	Netherlands
Spain	Lithuania

AUTHORITIES NOT COLLABORATIVE

Country	Status
Bulgaria	**Not collaborative**
Poland	**Not collaborative**
Portugal	No response yet
Greece	No response yet
Cyprus	No response yet
Latvia	Just sent
Slovakia	Just sent
Hungary	Just sent

COUNTRIES WHERE WE ENCOUNTER A LANGUAGE BARRIER

Country (no of LCPs)	
ESTONIA (17)	SWEDEN (152)
POLAND (277)	PORTUGAL (48)
FINLAND (189)	
DENMARK (67)	
BULGARIA (23)	
LITHUANIA (28)	
SLOVENIA (19)	

DEROGATIONS

Countries we require help with for derogations (15.4 - Art 32 TNP) :

- United Kingdom
- Poland
- Spain

❖ ENTSO-E energy output matching with LCP-D entries very difficult / impossible

❖ Many data entry errors on fuel inputs e.g. problem with German lignite plants co-firing waste

❖ Art 15.4 derogation templates to be filled ([link](#))

❖ Reality check on Art 32 TNP derogated plants to be done

 –> *get in touch with* [*Andreea.Popa@eeb.org*](mailto:Andreea.Popa@eeb.org) *and* [*Valentina.Weiskopf@eeb.org*](mailto:Valentina.Weiskopf@eeb.org)

FURTHER STEPS

- ✓ Still finalising plausibility checks and manual corrections
- ✓ Manual import of permit ELVs applied for main pollutants (air and water)
- ✓ Manual import of CEM data result for the plants
- ✓ Manual import of the documents received and making publicly available via sharepoint
- ✓ Updating of the Art 15.4 derogation templates + reality check on TNP opted in plants
- ✓ Land Grab metric to be updated. More suitable land grab metrics? 'typical wheat fields' or 'crop yields' or 'how many people could have been fed' -> kg of food produced

- Launch date V1: expected to be End-January 2020.

- We would like to combine with reactivation of the 'Burning the Evidence' demands (access to info and public participation IED installations / IED Registry

For V2:

- ✓ to present emission intensity per output
  e.g. X g pollutant/KWel output for CO2, NOx, SO2, dust and hg
- ✓ Scorecards per plant / mother companies and also for countries (ambition level permit limits, health impacts etc)
- ✓ Strictest top / most laxists flop 30 permit limits
- ✓ Integrate the water consumption and emissions impacts
- ✓ Extend the lignite mining information e.g. average heating value, Sulphur content and mercury content (also to calculate plausible hg emissions), number of people expropriated, liability info etc
- ✓ Update on the abatement techniques implemented
- ✓ Extend to other industry sectors (cement, iron and steel, refineries…)
- ✓ Implement improvement suggestions (tbc)

ANY QUESTIONS?

THANK YOU!

www.eeb.org

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META news: https://meta.eeb.org/