

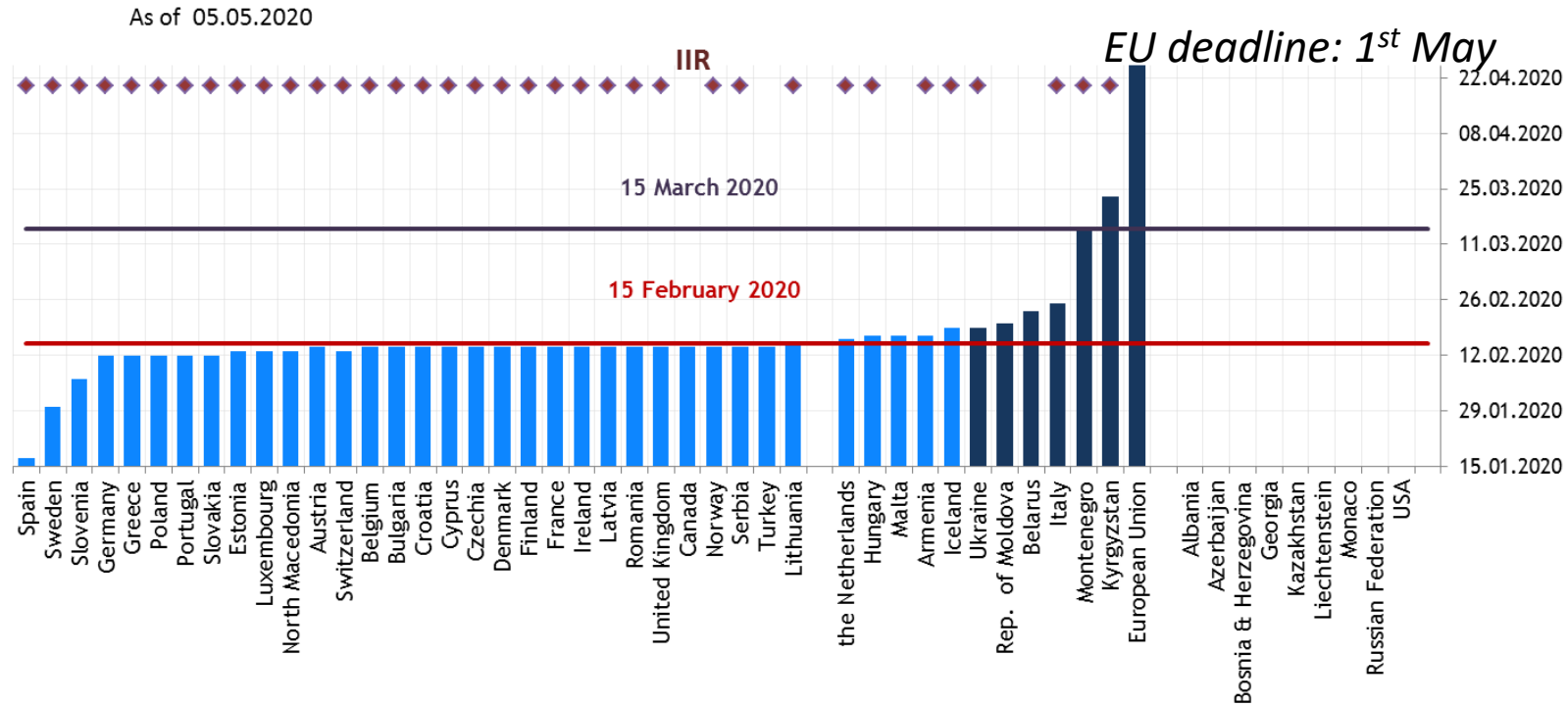


Reporting and review of emission inventories 2020

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TFEIP meeting, May 2020, webconference

Status of reporting



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- 42 Annex I tables
- 26 resubmissions
- 36 Parties provided AD
- 36 IIRs (27 in 2010)
- Completeness of time series reporting improved over last year

Gridded and LPS emissions – persisting challenges

- Exchanged longitude/latitude coordinates
- LPS placed outside country borders (Also some E-PRTR LPS data used as proxy information were placed outside country borders)
- **Missing data: Emissions for more than 50% area have to be gapfilled by expert estimates**
- Short time between grid-reporting and delivering gridded data to modelers

Main Pollutants, PM and BC: Gap filling update

- Documentation and implementation has been partially automatised (R codes):
 - Step 1 – Quality control
 - Step 2 – Implementation of gapfilling and compilation of EMEP Dataset to be gridded
- The routine utilises reported data (current and previous year), gapfilled data from previous year, independent estimates from GAINS and EDGAR as well as economic statistics

Technical review of air emission inventories

- Initial checks – formal criteria (timeliness, completeness,..)- all countries
- Extended checks – consistency, comparability, recalculations, KCA, trends, .. (national totals, (GNFR), pollutants)- all countries
- **Findings** are provided to countries **2 times**, beginning March (before resubmission deadline) and end March
http://www.ceip.at/review_results/
- Tests are regularly extended
- **In-depth review** – consistency, comparability, recalculations, KCA, accuracy (NFR sectoral level) -selected countries (up to 10 annually)

In-depth review 2020

Revised review plan approved by EMEP SB meeting in Sept. 2018,
Harmonized with EU/EEA

2020

Liechtenstein

Switzerland

Iceland

Kyrgyzstan

Kazakhstan

Monaco

North Macedonia

EU

- Preparatory phase – first questions to Parties; May – (beginning June)
- Meeting 25-28 June 2019 in Copenhagen cancelled - webconferences instead
- Finalisation of reports during summer and publication before EB meeting
- All info and data for reviewers are at **wiki**

B&H – no data, no communication

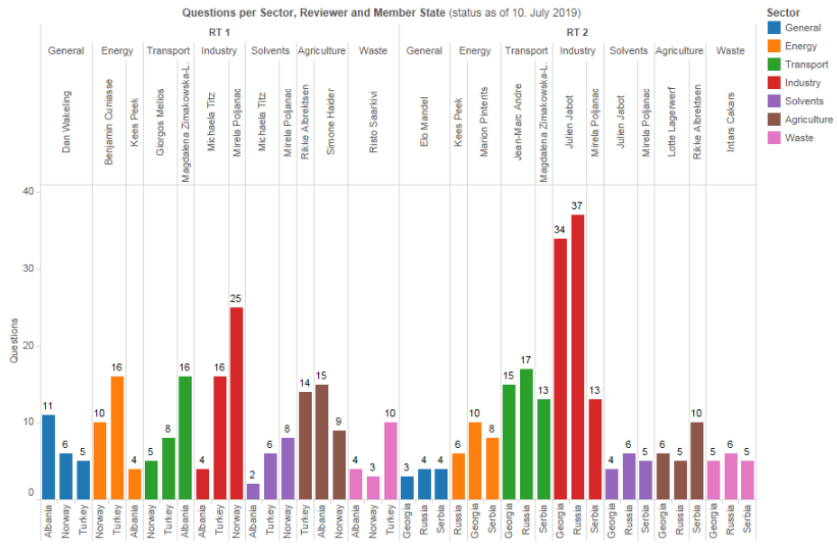
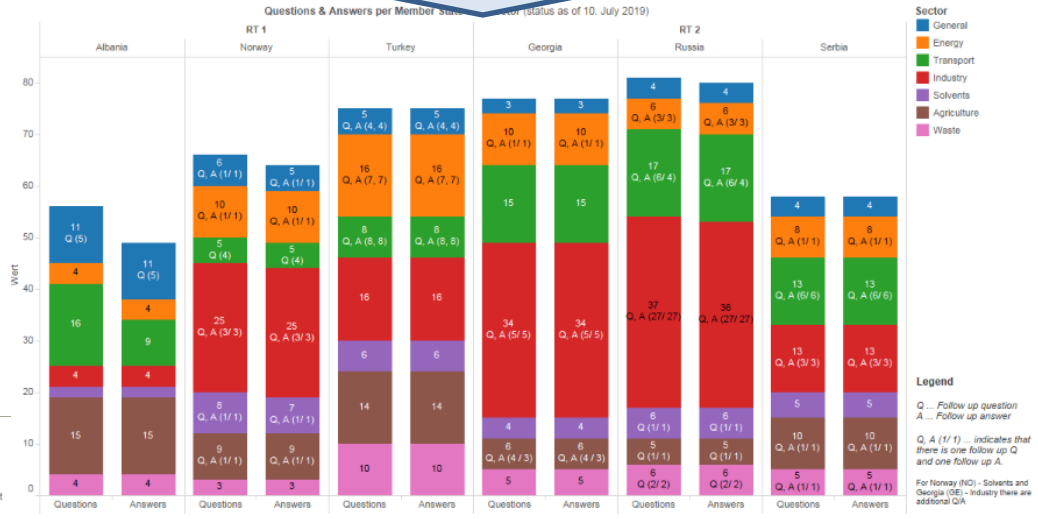
http://www.ceip.at/review_results/stage3_country_reports/

Stage 3 Review 2019

55 - 80 questions/answers per Party

Review of 6 Parties completed

- Rather late feedback from most countries
- RR completed by teams

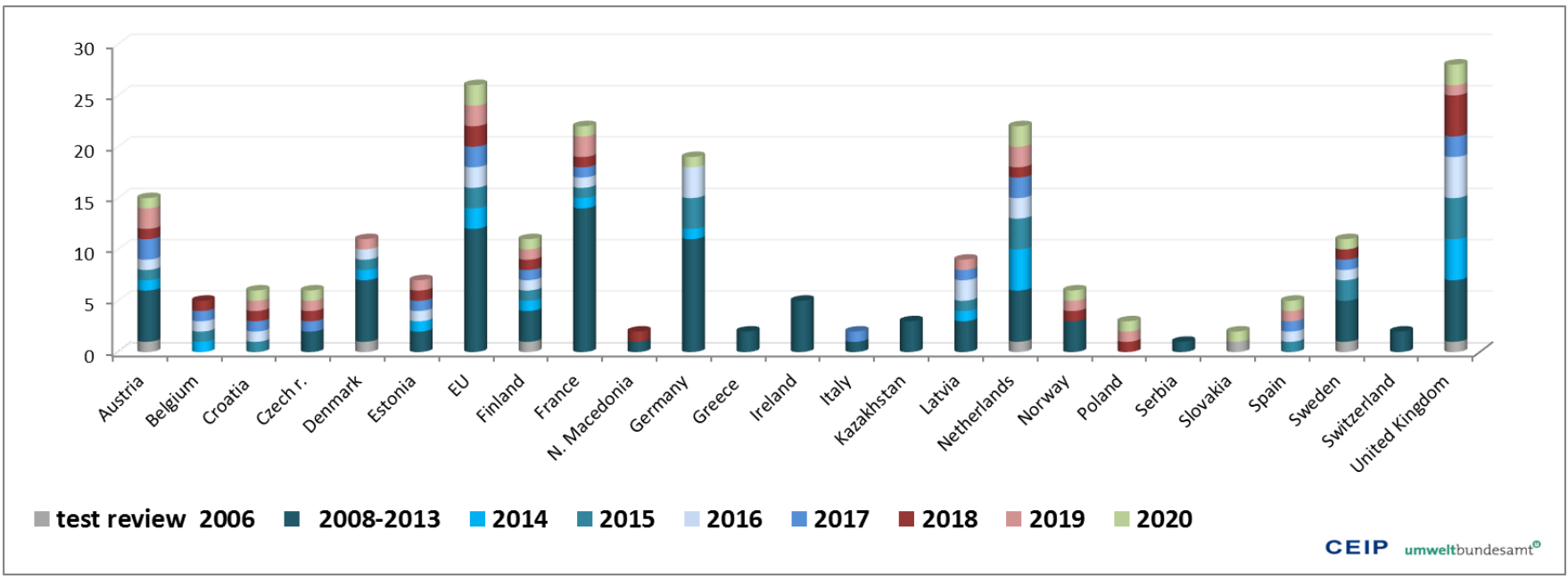


per reviewer

10-71 questions/answers per reviewer

Roster of experts

Total Number of experts participating in Stage 3 review per country since 2008



In depth review after 2020

- **Review in 2021:**
 - Check 4 remaining countries : Montenegro, Monaco, Liechtenstein and Kazakhstan
 - Evaluate the process- most frequent findings
 - Check for selected sectors if recommendations of Expert Review Teams are implemented...
- **Review after 2022/after revision of GP ceilings:**
 - Strategy to be proposed in cooperation with experienced Lead Reviewers and TFEIP
 - e.g. focus on certain topics for all Parties
 - selected sectors
 - selected pollutants
 - gridded data
 - LPS data
 - Projections
 - uncertainty
 - inclusion of condensables in PM...
 - Review of adjustments???

Adjustment review 2020

- ✓ 10 countries - approved Adjustments for approx. 35 sector/pollutant cases

https://webdab01.umweltbundesamt.at/cgi-bin/adj_GP.pl

- ✓ 1 NEW application: Czechia, NH₃ and NMVOC in Agriculture

- Approach and review harmonised with NECD review
- Initial checks of submitted adjustment applications, assessment of formal criteria (CEIP in cooperation with TFEIP and UNECE secretariat)

• Time schedule:

- Desk review: May – mid June (webconferences will be organised as needed)
- Status report to EMEP SB: end June !!!
- Finalisation of country report (CZ) July
- **Adoption of expert review team recommendations: Sept (EMEP SB meeting)**

Condensable Component of PM

- recommended structure for IIR contains a table with information on the inclusion of the condensable component from PM₁₀ and PM_{2.5} emission factors
- 21 Parties provided information in 2020 with a varying level of detail
- Conclusion from reporting in 2019: often it is not clear for Parties if the condensable component is included in the used Emission Factors and often the reported data is a mix of “included” and “not included”
- Workshop on the topic was organised by MSC west in March
- Conclusion of the workshop will indicate which supporting information provided by Parties would be helpful for the interpretation of the reported PM data

Black Carbon Reporting

40 Parties reported BC in the submission 2020
39 Parties reported BC data for 2018

Party	Black Carbon	Party	Black Carbon
Austria		Albania	
Belgium	2000 - 2018	Armenia	2018
Bulgaria	1990 - 2018	Azerbaijan	
Croatia	1990 - 2018	Belarus	2018
Cyprus	2000 - 2018	Bosnia & Herzegovina	
Czechia	1990 - 2018	Canada	2013-2018
Denmark	1990 - 2018	Georgia	
Estonia	2000 - 2018	Iceland	1990 - 2018
Finland	1990 - 2018	Kazakhstan	
France	1990 - 2018	Kyrgyzstan	2018
Germany	2000 - 2018	Liechtenstein	
Greece	1990 - 2018	Monaco	
Hungary	2000 - 2018	Montenegro	1990 - 2018
Ireland	1990 - 2018	Norway	1990 - 2018
Italy	1990 - 2018	Republic of Moldova	1990 - 2017
Latvia	1990 - 2018	North Macedonia	1990 - 2018
Lithuania	1990 - 2018	Russian Federation	
Luxembourg		Serbia	1990 - 2018
Malta	2005 - 2018	Switzerland	1980 2018
Netherlands	1990 - 2018	Turkey	
Poland	1990 - 2018	Ukraine	2017, 2018
Portugal	1990 - 2018	United States	
Romania	1990 - 2018		
Slovakia	1990 - 2018		
Slovenia	2000 - 2018		
Spain	2000 - 2018		
Sweden	2000 - 2018		
United Kingdom	1990 - 2018		
EU	1990 - 2018		

- **Extended Annex I was tested in 2019**
 - No problems reported by users and during import into DB system
 - Approved by SB/EB meeting in 2019 to be used 2020 onwards
 - CEIP in cooperation with EEA revised accordingly extended guidance

All countries used revised Annex I

CEIP wishlist

- Report
- Report in time
- Report Activity Data
- Report LPS and gridded data in the right format
- Follow the recommended structure of the IIR
- Include Information on uncertainty in the IIR
- Nominate Reviewers for the Roster of experts
- Communicate with us (during the Stage 3 Review and throughout the year)

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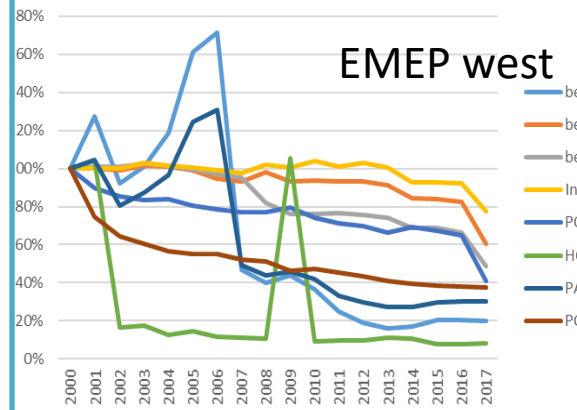
TFEIP Meeting - Workshop

2020

Emission trends in EMEP area (POPs reported data 2018)

Reporting of POPs is quite incomplete and shows high peaks and inconsistent time series

The high reductions of HCB from 2001 to 2002 are due to the strong drop of emissions reported by **Germany** and the peak in 2009 is mainly due the reporting of **Albania**. The high increase from 2000 to 2006 and the strong drop in 2007 of PAHs and B(a)P is due to the reporting of **Bulgaria** whereas the trend of PAHs and B(a)P emissions in the period 2007-2017 is dominated by **Portugal**. The strong drop in 2017 PAH emissions and its four compounds is mainly due to the gap in reporting of **Greece**. The drop in PCB emissions for 2000 – 2002 is mainly due to the reporting of **Portugal**. The drop in B(k)F emissions for 2007-2008 is mainly due to the reporting of **Poland**. It has to be mentioned that **Austria, Spain, Italy and Finland** report total PAH emissions but do not report the four PAH compounds B(a)P, B(b)F, B(k)F and IP.



EMEP east

Russia reported some POPs for the years 2000 and 2005 only and **Turkey** did not report any POPs at all. **Belarus** did not report data for the year 2000 and incomplete data for 2001. **Ukraine** reported very high levels of POPs for the years from 2010 to 2013 (constant values) and 2017 only. The following figure shows 2002 to 2017 POPs emissions for EMEP East without emissions of **Ukraine**. The strong peak of PCDD/F and HCB emissions 2005 is mainly due to the reporting of **Russia**. The drop in PCB and PAH emissions 2017 is mainly due to missing data of **Kazakhstan** for this year.