Bastian Zeiger I 16 October 2019 I OECD PRTR 3rd WG in Paris

EU Registry on Industrial Sites

25 1994-2019
European Environment Agency

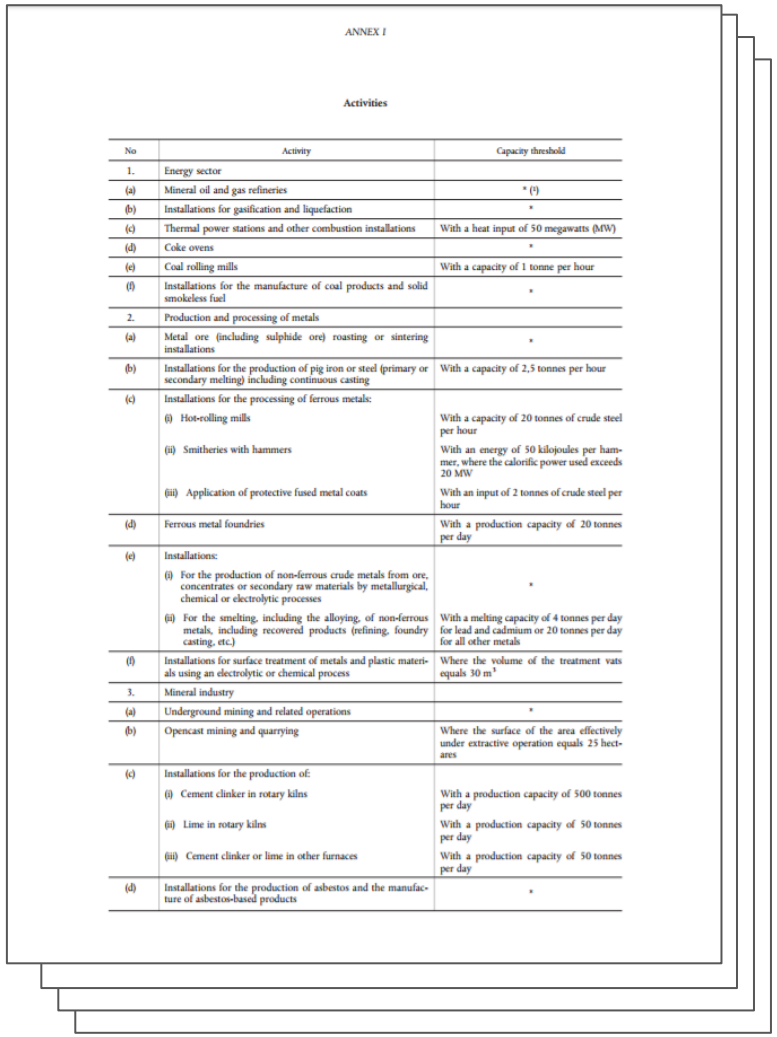
Overview

- The EU Registry in a nutshell
- Status of reporting
- A new apporach to quality assurance

Scope of EU Registry on Industrial Sites

- EU Registry contains all adminstrative information for:
  1. E-PRTR facilities & associated sites which are subject to **Annex I** of the E-PRTR Regulation (without consideration of **Annex II or Article 5 thresholds**)
  2. IED installations subject to **Annex I** of the IED
  3. Installation parts (either **LCP** or **waste incinerators** under the IED)
- Thematic reporting will deliver data for each of these elements:
  1. E-PRTR
  2. LCPs

  Data required for CLRTAP LPS reporting may be reported voluntarily.

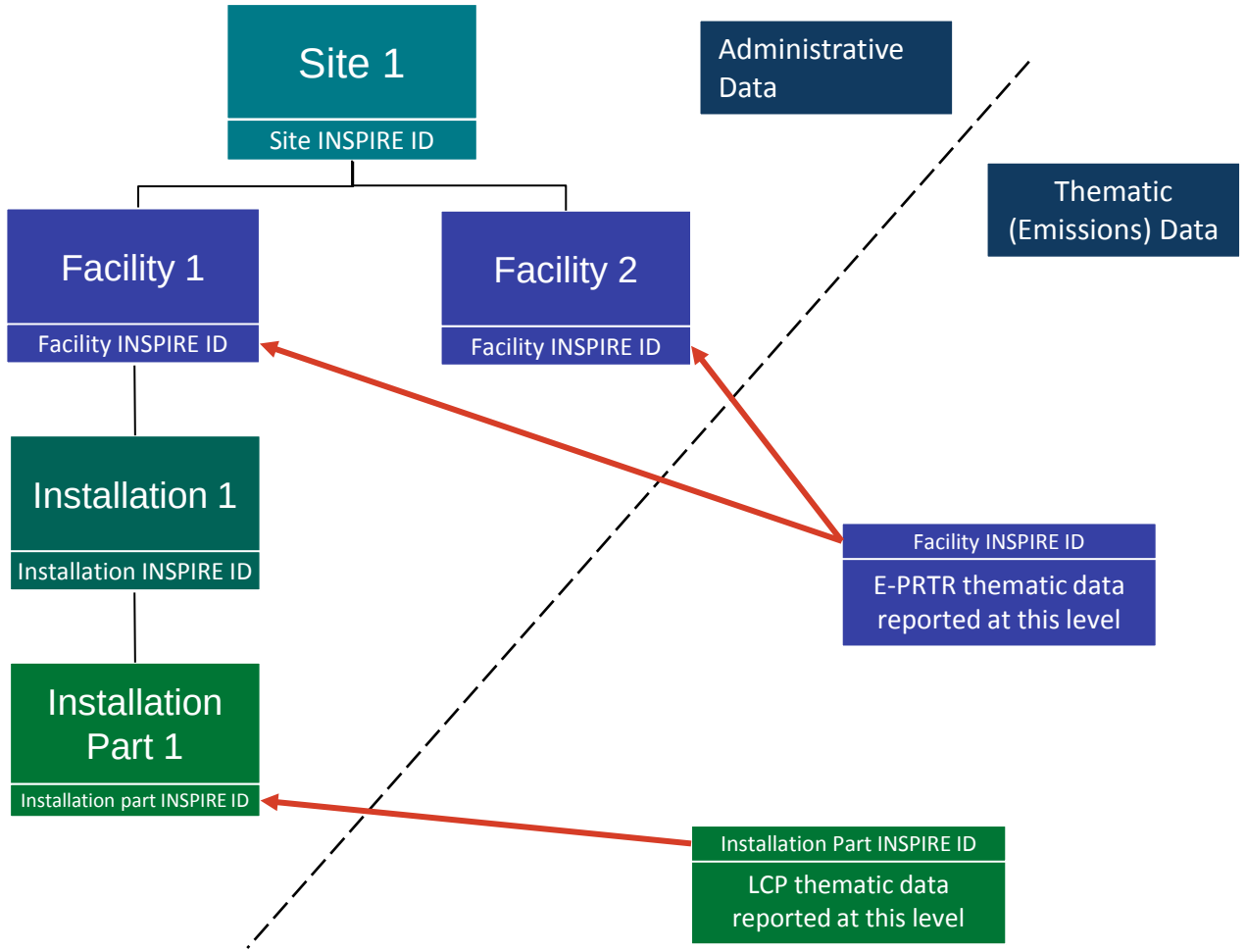


ANNEX I

Activities

No	Activity	Capacity threshold
1.	Energy sector	
(a)	Mineral oil and gas refineries	* (1)
(b)	Installations for gasification and liquefaction	*
(c)	Thermal power stations and other combustion installations	With a heat input of 50 megawatts (MW)
(d)	Coke ovens	*
(e)	Coal rolling mills	With a capacity of 1 tonne per hour
(f)	Installations for the manufacture of coal products and solid smokeless fuel	*
2.	Production and processing of metals	
(a)	Metal ore (including sulphide ore) roasting or sintering installations	*
(b)	Installations for the production of pig iron or steel (primary or secondary melting) including continuous casting	With a capacity of 2,5 tonnes per hour
(c)	Installations for the processing of ferrous metals:	
	(i) Hot-rolling mills	With a capacity of 20 tonnes of crude steel per hour
	(ii) Smitheries with hammers	With an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW
	(iii) Application of protective fused metal coats	With an input of 2 tonnes of crude steel per hour
(d)	Ferrous metal foundries	With a production capacity of 20 tonnes per day
(e)	Installations:	
	(i) For the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes	*
	(ii) For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.)	With a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals
(f)	Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process	Where the volume of the treatment vats equals 30 m^3
3.	Mineral industry	
(a)	Underground mining and related operations	*
(b)	Opencast mining and quarrying	Where the surface of the area effectively under extractive operation equals 25 hectares
(c)	Installations for the production of:	
	(i) Cement clinker in rotary kilns	With a production capacity of 500 tonnes per day
	(ii) Lime in rotary kilns	With a production capacity of 50 tonnes per day
	(iii) Cement clinker or lime in other furnaces	With a production capacity of 50 tonnes per day
(d)	Installations for the production of asbestos and the manufacture of asbestos-based products	*

EU Registry structure & thematic connectivity

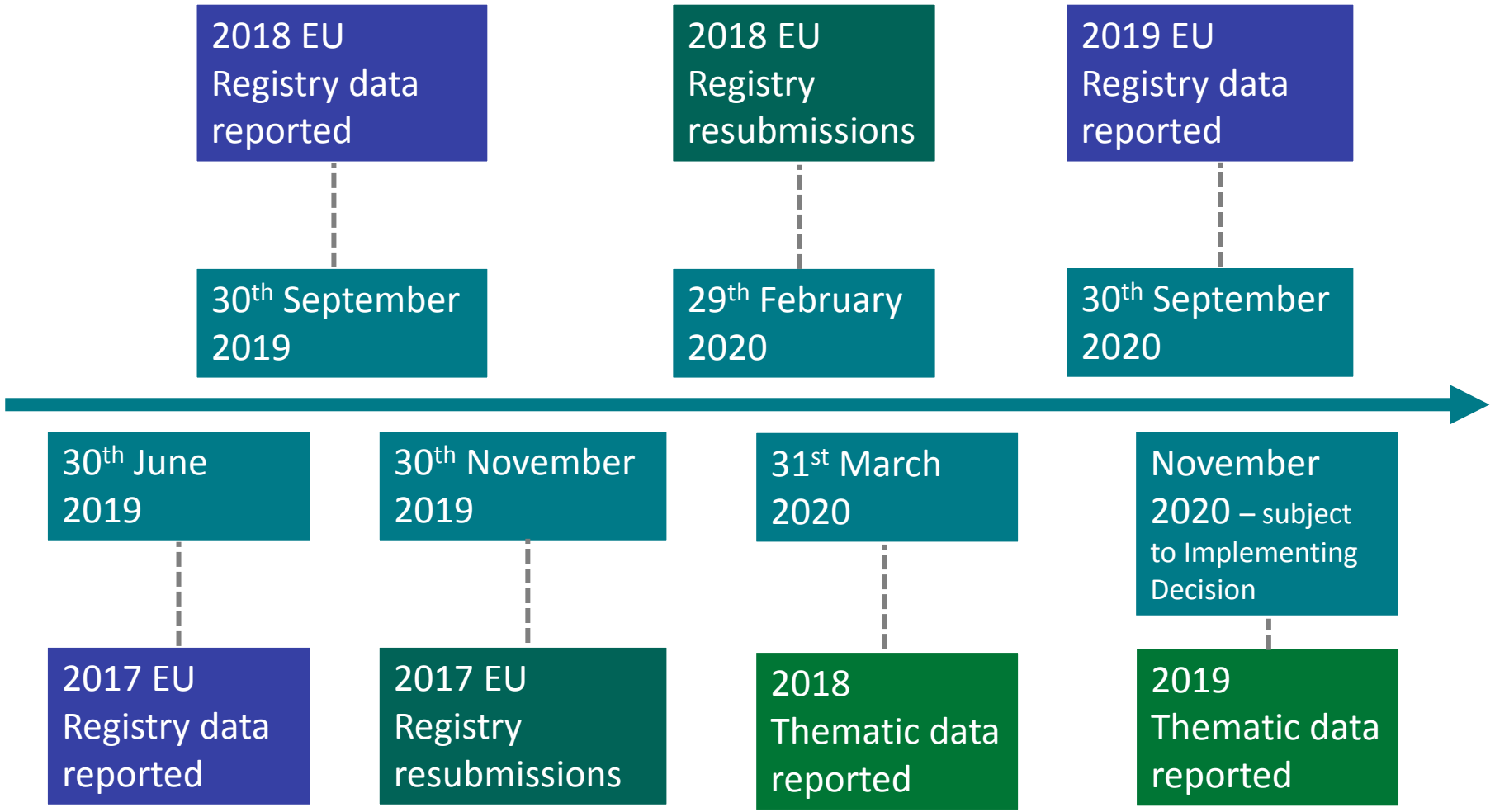


Why an EU Registry on Industrial Sites?

- Streamlining environmental reporting of industry
- Modular reporting infrastructure
- Inspire compliance (restricted to EU Registry)
- Enables coherent overview of industrial activities in EU
- Focus on improving data quality through automation

25 1994-2019 European Environment Agency

Reporting Timeline



Status quo

- Now completed 2 rounds of reporting
- Focus on data quality and temporal integrity seems to be paying off
- Process being refined based on lessons learned
- Communications is key
- Thematic reporting infrastructure about to be launched

A new approach to quality assurance

- ’Old’ E-PRTR reporting:
  - Required weeks of manual checks
  - Automated checks were already crucial for structural issues with submitted files
- **Mission: automate many of the previously manual QA checks**

Overview of automated checks (EU Registry)

1. Data control checks
2. Code list checks
3. InspireID checks
4. Duplicate ID checks
5. Geographical checks
6. Activity checks
7. Status checks
8. Data checks
9. Permits and CA checks
10. Derogation checks
11. LCP and WI checks
12. Confidentiality checks
13. Other ID and misc checks

http://cdr.eionet.europa.eu/help/euregistry

Overview of automated checks (E-PRTR/LCP)

1. Code list checks
2. InspireID checks
3. Comprehensive reporting checks
4. Reporting form plausibility checks
5. Duplicate ID checks
6. LCP and E-PRTR facility interrelation checks
7. Thematic validity checks
8. Derogation
9. Confidentiality checks
10. Expected pollutant ID
11. ProductionFacility cross-pollutant ID
12. ID of release and transfer outliers
13. Overview on inter-annual reporting consistency
14. Verification of emissions against EU-level data
15. Verification of national emissions against external DBs
16. Misc checks

https://cdr.eionet.europa.eu/help/eprtr_lcp

Overview over remaining manual checks

EU Registry:

1. This year: Transitional checks
   - Moving from E-PRTR/LCP to EU-Registry
2. Next year (2020): Temporal checks
   - Changes across years (3 or more)
3. Every year: Specific checks
   - QA/QC checks on a single year reported dataset

E-PRTR/LCP thematic reporting:

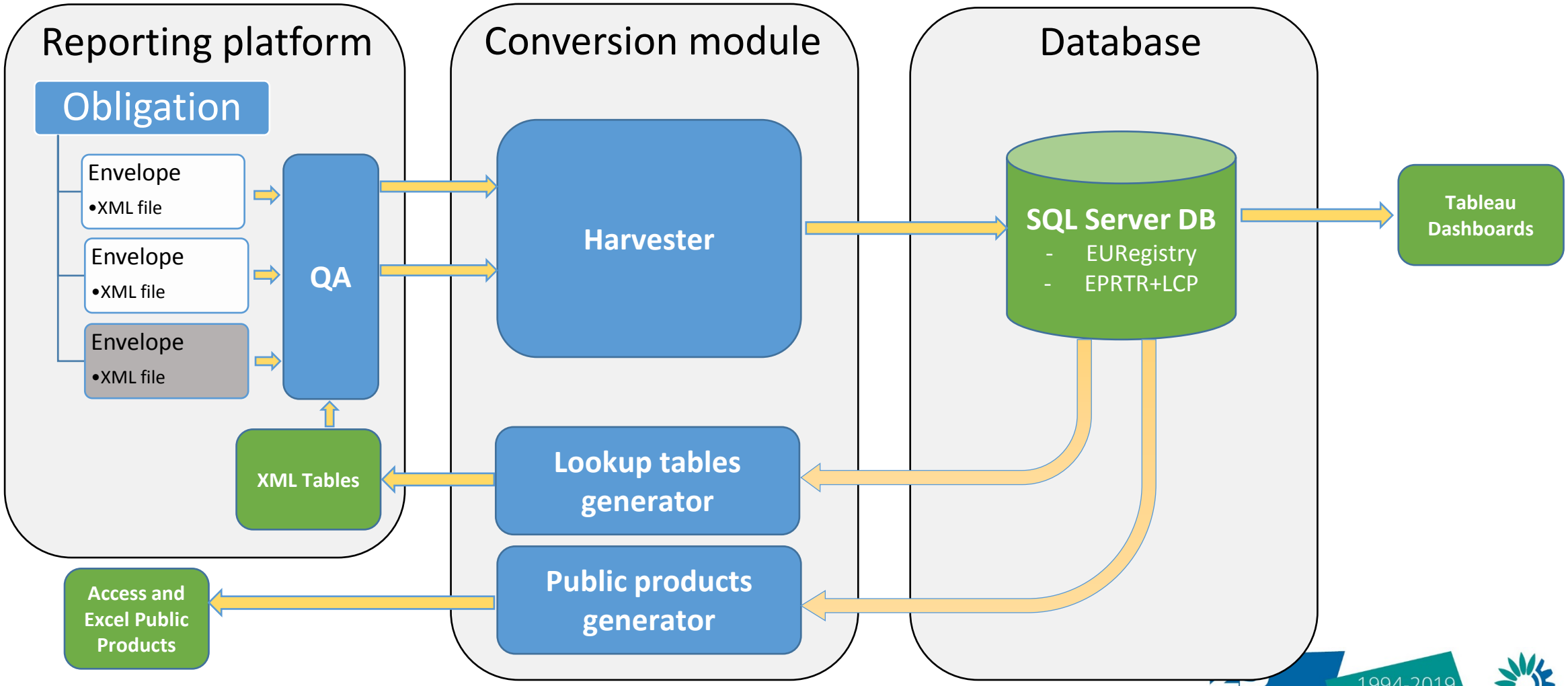
Still under development

Example of new automated check

C5.6 – Coordinate continuity

- Compares all coordinates of submission with coordinates of previous year's submission per InspireID
- 10-30m changes = info message
- 30-100m = warning
- >100m = blocking

Look-up tables and resubmissions



Learnings from QA automation

- Need for optimising calculation-heavy QA chec
- Reporters need to take automated c
  improve data quality
- Up-front inves
- Ad
- I
- Da

Various automated QA checks are used by some countries on a sub-national level!

due to temporal

gn and maintenance crucial

y and consistency over time improves

Acknowledgements

- European Topic Center Air Quality, Transport, Noise and Industry partners Aether, NILU, INERIS and CHMI
- Epsilon Italia – Inspire expertise
- EEA internal Inspire and IT staff
- Cooperation with European Commission

25 1994-2019 European Environment Agency

Thanks everyone!

European Environment Agency

Bastian Zeiger

Expert – Industry and Environment

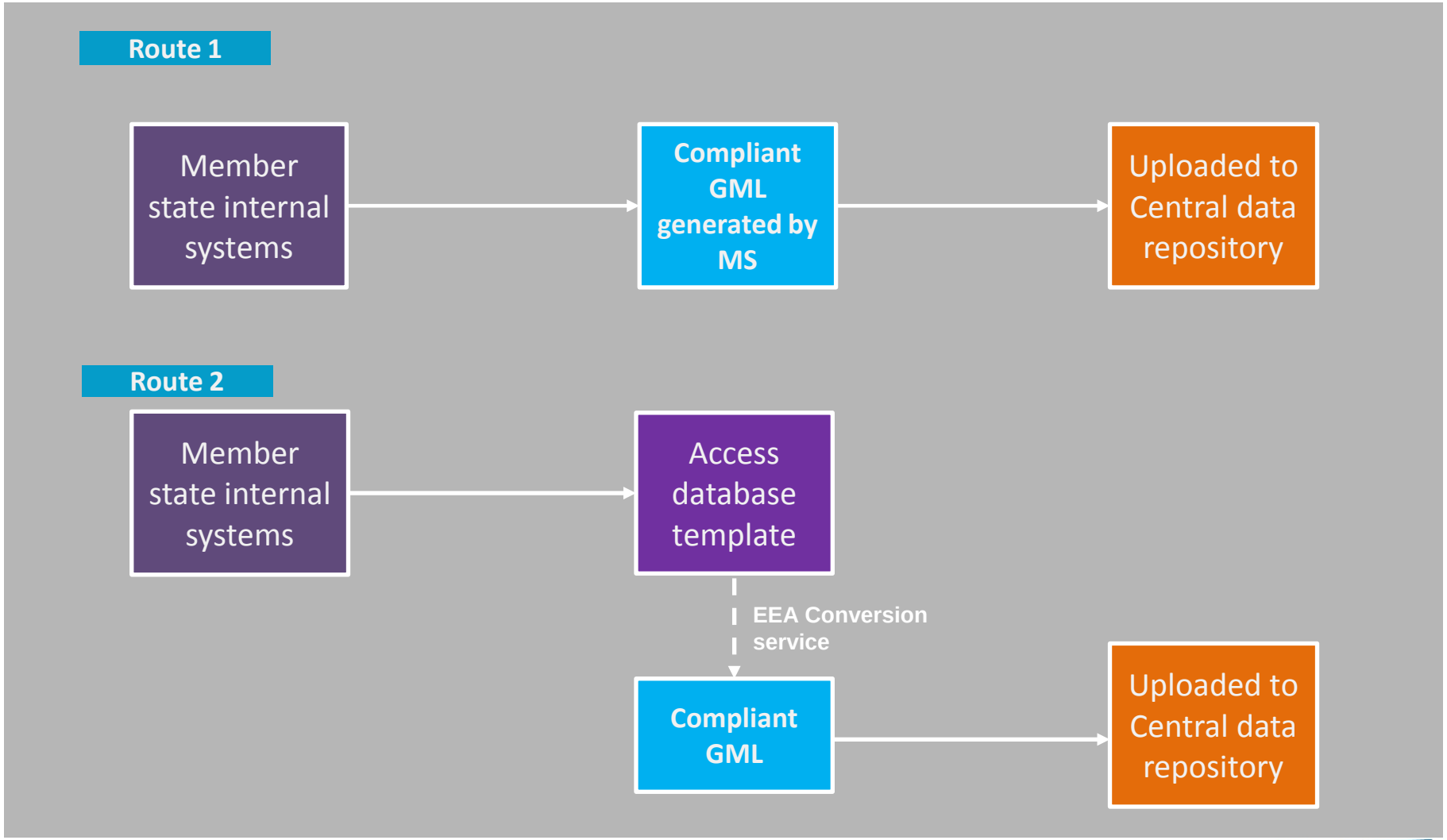
bastian.zeiger@eea.europa.eu

Phone: +45 3336 7233

Skype: Bastian_EEA

25 1994-2019 European Environment Agency

The future?

- New web-portal to disseminate data
- Getting to 3 months: Move QA to facility level?
- AI and machine learning to understand patterns and use them as QA tools
- Block chain to ensure data integrity and tracking of changes

Reporting workflow: XML or Access