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REFIT evaluation of Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register (E-PRTR)

Accompanying the document

Report from the Commission to the European Parliament and the Council on progress in implementing Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register (E-PRTR)

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1. INTRODUCTION

Purpose of the evaluation

To check that European Union (EU) legislation is ‘fit for purpose’, the Commission routinely reviews selected policy instruments through its Regulatory Fitness and Performance (REFIT) programme¹. REFIT is about ensuring that EU legislation effectively and efficiently pursues public policy objectives that are best achieved at Union level.

In its Communication *Regulatory Fitness and Performance (REFIT): Results and Next Steps*², the Commission announced that the European Pollutant Release and Transfer Register (E-PRTR) Regulation would be assessed for its effectiveness, efficiency, relevance, coherence and EU added value.

The assessment looked at both the benefits delivered by the E-PRTR, as well as the potential for simplification and reduction of regulatory costs and burdens. Furthermore, it took account of Article 17 of the E-PRTR Regulation which requires that the Commission reviews E-PRTR implementation every three years on the basis of Member State returns. The second such review was exceptionally extended to four years (2010-2013) to fit with the evaluation timing.

In the interests of efficiency, the REFIT evaluation and the review were considered together.

Scope of the evaluation

The E-PRTR Regulation supports the EU in meeting the obligations of the (United Nations Economic Commission for Europe) UNECE Kiev Protocol on pollutant release and transfer registers³. The E-PRTR and the Kiev Protocol have aligned objectives around enhanced public access to information through the establishment of coherent, nationwide pollutant release and transfer registers (PRTRs).

Since the EU would have to deliver Kiev Protocol obligations even if the E-PRTR Regulation did not exist, the REFIT evaluation concentrates on requirements that are additional to those required by the Kiev Protocol, or in other EU law. In practice, distinction between the two was sometimes difficult for evaluation purposes.

The evaluation looked at E-PRTR implementation from its 2006 inception to the end of 2013 (for which the most recent data were available). In view of the improvements made during this period, more weight is given to issues that are still prevalent. And because Croatia only joined the EU in 2013, the geographical scope of the evaluation covers the other 27 Member States.

¹ Commission Communication on Regulatory Fitness and Performance (REFIT) http://ec.europa.eu/smart-regulation/better_regulation/documents/com_2013_en.pdf

² Regulatory Fitness and Performance (REFIT): Results and Next Steps, COM/2013/0685 final http://ec.europa.eu/smart-regulation/docs/20131002-refit-annex_en.pdf

³ UNECE Kiev Protocol <http://www.unece.org/env/pp/prtr.html>

A contractor conducted a supporting study⁴ to assist the REFIT evaluation, while also addressing the routine triennial check on implementation. This Staff Working Document summarises the REFIT evaluation's findings and the Commission's responses to them.

2. BACKGROUND TO THE INITIATIVE

Objective of the E-PRTR Regulation

The main aim of the E-PRTR Regulation is to transpose the Kiev Protocol in Europe and to assist Member States in implementing it consistently. Flowing from this, the E-PRTR helps improve public access to environmental information on pollutant releases and transfers from Europe's largest industrial facilities. By establishing a coherent and integrated database with clear data on the annual mass emissions (and transfers) of pollutants, the E-PRTR enables the public to become more closely involved in environmental decision-making.

An informed public is able to influence the behaviour of operators and thus encourage lower pollutant releases and transfers. So although the E-PRTR relates to information on pollutants, rather than setting controls on actual pollutant releases *per se*, it exerts downward pressure on emissions since companies do not want to be identified as among the biggest emitters.

Policy-makers also use the knowledge and evidence base provided by E-PRTR data to assess other policy instruments that deal with emissions from industrial sources, such as the Industrial Emissions Directive (IED)⁵.

Legal context of the E-PRTR

UNECE Kiev Protocol: The E-PRTR Regulation is the EU's sole means of delivering obligations under the Kiev Protocol⁶. The Protocol binds its Parties "to enhance public access to information through the establishment of coherent, nationwide pollutant release and transfer registers (PRTRs)" that:

- are publicly accessible through the Internet, free of charge;
- can be searched using separate parameters (facility, pollutant, location, etc.);
- are user-friendly in their structure and provide links to other relevant registers;
- present standardised, timely data on a structured, computerised database;
- cover releases and transfers of at least 86 pollutants covered by the Protocol;
- cover releases and transfers from certain types of major point sources;

⁴ Supporting the evaluation of Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register and its triennial review – Final report. August 2016, Amec Foster Wheeler Environment & Infrastructure UK Ltd and IEEP https://circabc.europa.eu/sd/a/fd585562-0c60-48f0-ad62-9d1ff7151059/E-PRTR%20evaluation_Final%20report%20.pdf

⁵ Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010L0075>

⁶ Kiev Protocol on Pollutant Release and Transfer Registers to the UNECE Aarhus Convention http://www.unece.org/fileadmin/DAM/env/pp/prtr/Protocol%20texts/PRTR_Protocol_e.pdf

- accommodate available data on releases from diffuse sources (e.g. transport and agriculture);
- have limited confidentiality provisions;
- allow for public participation in their development and modification.

Such PRTRs should be based on a reporting scheme that, as a minimum, is: mandatory, annual, multi-media (i.e. covers air, water, and land), facility-specific and pollutant-specific.

To date the Protocol has been ratified by the European Union and 34 countries, including all EU Member States, except for Greece and Italy.

UNECE Aarhus Convention: The Kiev Protocol is part of the broader Aarhus Convention⁷ which establishes a number of people's rights as regards to the environment and for involvement in decision-making. Parties to the Convention are required to take steps so that public authorities (at national, regional or local level) deliver the right to:

- receive the environmental information that is held by public authorities;
- participate in environmental decision-making;
- review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general.

E-PRTR Regulation: The E-PRTR Regulation was adopted in 2006 to implement the Kiev Protocol at EU level and to ensure consistent implementation by Member States of their obligations arising from the Protocol. The E-PRTR provides pollutant emission and waste data on large industrial facilities, spanning not only the EU Member States, but also the European Free Trade Area (EFTA) nations and Serbia. This data covers:

- emissions and transfers covering 65 economic activities from nine main industrial sectors⁸ (as defined in Annex I to the Regulation)
- 91 pollutants (as detailed in Annex II to the Regulation) including heavy metals, pesticides, greenhouse gases and dioxins. In all, there are five additional water pollutants above the minimum requirements of the Kiev Protocol.

Contribution to the 7th Environmental Action Program:

The E-PRTR is crucial to several objectives of the 7th Environmental Action Programme (7th EAP)⁹. Priority objective 5 (*to improve the knowledge and evidence base for Union environment policy*), states that Union environment policy is based on *environmental*

⁷ UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters <http://live.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf>

⁸ Energy; production and processing of metals; mineral industry; chemical industry; waste and waste water management; paper and wood production and processing; intensive livestock production and aquaculture; animal and vegetable products from the food and beverage sector; others.

⁹ Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet' (OJ L 354, 28.12.2013, p. 171–200) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013D1386>

monitoring, data, indicators and assessments linked to the implementation of Union legislation. The 7th EAP recognises that there has been considerable progress on strengthening this knowledge base, raising awareness and improving the confidence of policy-makers and the public in the evidence which underpins policy, including policies where the precautionary principle has been applied. This has facilitated better understanding of complex environmental and societal challenges (see paragraph 66 of the Annex to the Decision).

Paragraph 69 goes on to acknowledge improvements in the way environmental information and statistics are collected and used at Union and at national, regional and local level, as well as globally. However, data collection and quality remain variable and the multiplicity of sources can make access to data difficult. Continuous investment is therefore needed to ensure that credible, comparable and quality-assured data and indicators are available and accessible to those involved in defining and implementing policy. Environmental information systems need to be designed in order to enable new information on emerging themes to be easily incorporated. Union-wide electronic data-exchange should be further developed, with enough flexibility to encompass new areas.

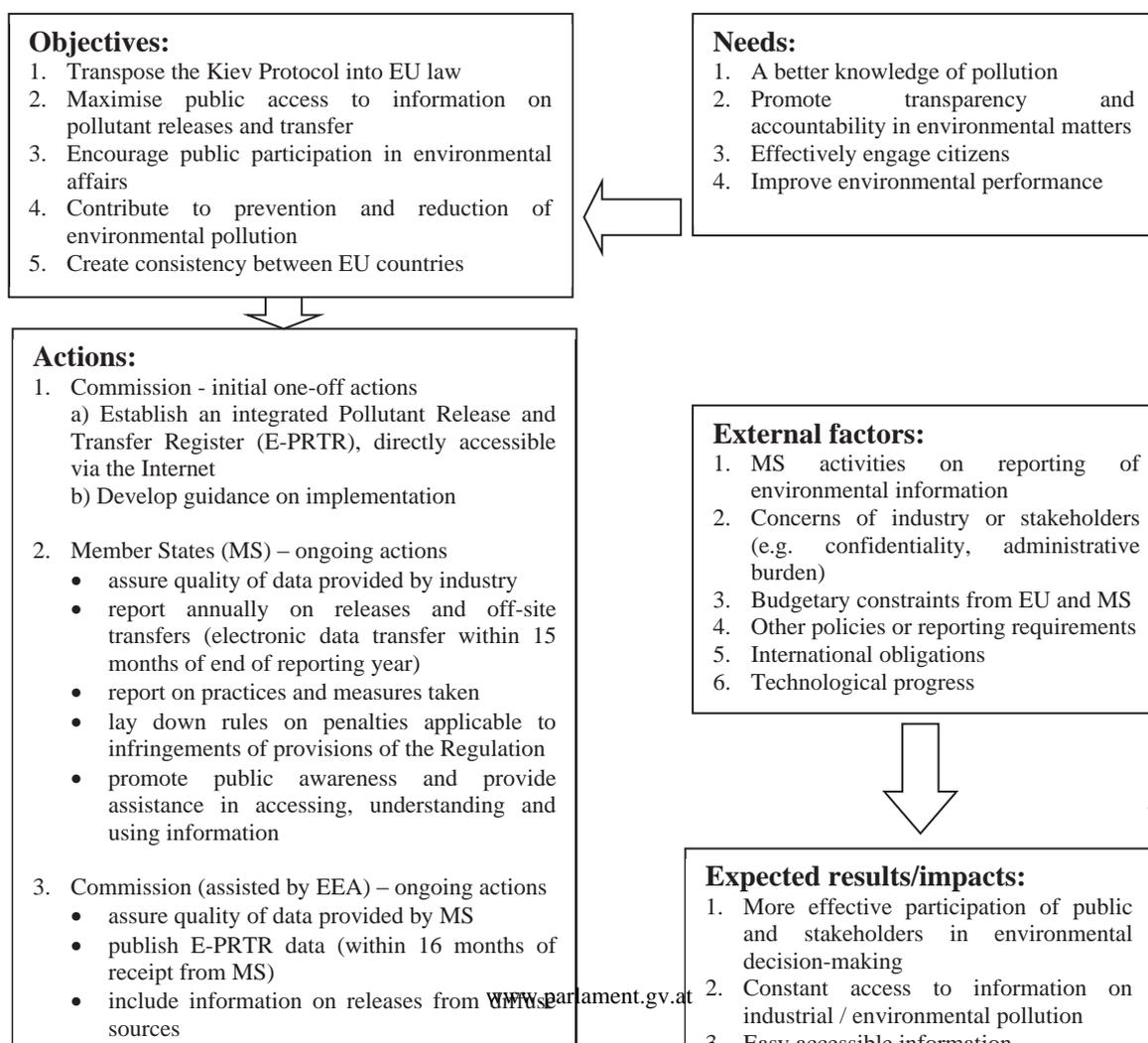
Baseline

The first E-PRTR data cover 2007 and succeed a previous EU-initiated industry registry, the European Pollutant Emission Register (EPER), under which data were reported for the years 2001 and 2004. The fact that the EPER pre-dated and evolved into the E-PRTR makes it difficult to establish an exact baseline for assessing the E-PRTR's additional impact.

No impact assessment was prepared for the E-PRTR Regulation, which is designed to transpose the EU's international obligations.

Intervention logic

The following intervention logic provides an overview of the main E-PRTR actions and their expected outcomes.



3. IMPLEMENTATION / STATE OF PLAY

All Member States have adopted national legislation and procedures to implement the requirements of the E-PRTR Regulation. Appendix D of the supporting study summarises implementation measures in each Member State. The following are general observations:

E-PRTR website

According to Article 10(1) of the Regulation, the Commission must make the register publicly accessible free of charge on the Internet. The E-PRTR website (<http://prtr.ec.europa.eu>) is hosted and maintained by the European Environment Agency (EEA), allowing for further integration of E-PRTR data with other datasets that the EEA manages.

The website is designed to maximise ease of public access and the information is continuously and readily accessible. At present, the E-PRTR website provides online access to data reported by more than 30 000¹⁰ major industrial facilities covering 65 economic activities¹¹ in the main industrial sectors. For each facility, it provides information on the quantity of pollutant releases to air, water and land, together with off-site transfers of waste and of pollutants in waste water for 91 key substances. In addition to those core datasets, which are the main point sources of pollution, the E-PRTR also contains spatially disaggregated data on releases from diffuse sources into air and water.

Every year, industrial establishments with pollutant emissions above certain thresholds report their pollutant emissions to Member States' competent authorities. These data take the form of total masses of pollutants released to air, water and land, as well as off-site transfers of waste and of pollutants in wastewater.

In turn, Member States check these data and electronically report them annually to the Commission via a portal managed by the EEA. The reporting deadline is 15 months from the end of the reporting year (e.g. the deadline for reporting 2014 data was 31 March 2016). Since the first reporting year (2007), the deadline has by and large been met by Member States. Some minor delays (of up to a few months) have occurred but no structural issues are apparent.

The EEA then incorporates the information reported by Member States into the E-PRTR database within 16 months of the end of the reporting year (e.g. the target for publishing 2014 data was 30 April 2016)¹².

The EEA publish the data on the E-PRTR's interactive website and also separately make it available for detailed use in its data service facilities. Emission data can be accessed in different ways on the E-PRTR website i.e. by searching on criteria such as pollutant, industrial activity type, country, or river-basin. The website includes a link to the EEA website, from which the full E-PRTR database and summary tables can be downloaded.

¹⁰ In the year 2014, data was reported by 33,246 facilities.

¹¹ See Annex I of the E-PRTR Regulation

¹² In practice two months are needed for the necessary consistency tests and addressing Member State reporting issues.

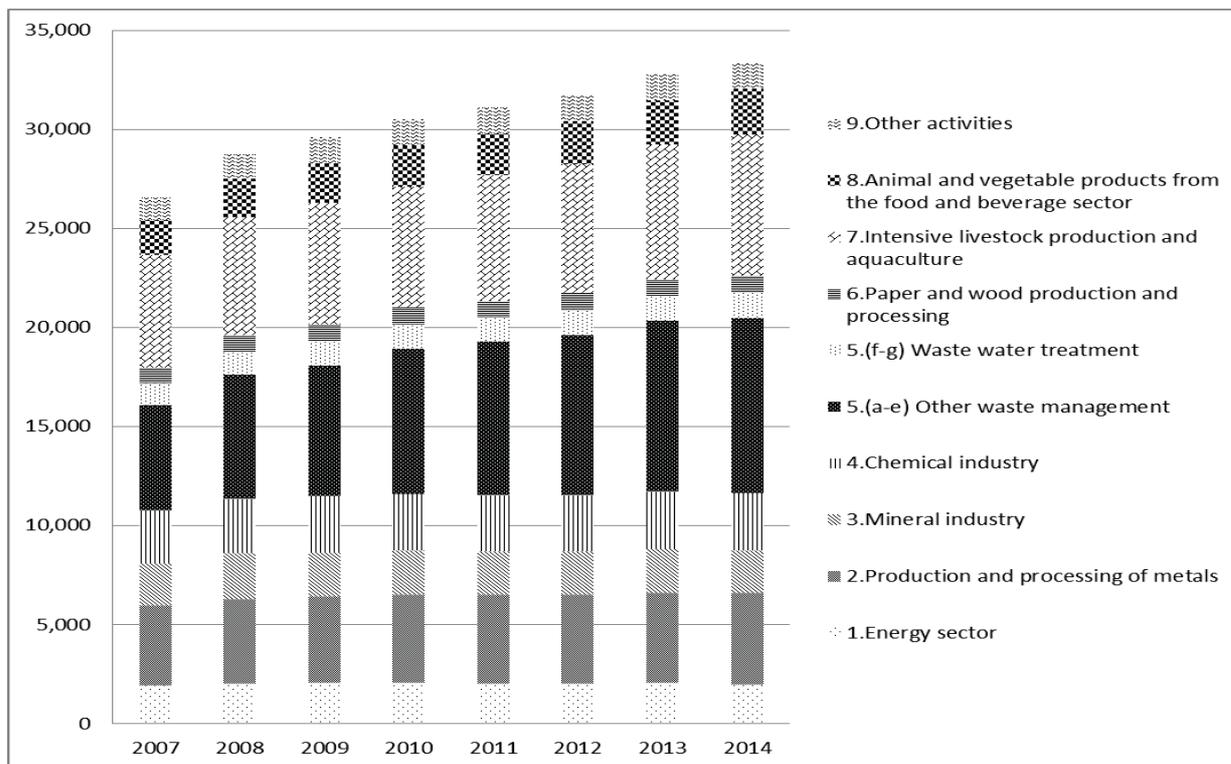
Reporting 2014

The EEA's *E-PRTR Summary Report 2014*¹³ presents overall statistics for 2014 E-PRTR data and shows selected data time series since 2007. Some key observations are listed below:

- In 2014, emissions were reported by 33,084 facilities in 33 countries – the EU-28, Iceland, Liechtenstein, Norway, Switzerland and Serbia. This was an increase of about 2% over the 32,480 facilities that reported in 2013.
- Of the E-PRTR facilities that reported in 2014, 46% had reported every year since 2007. The level of continuity is probably higher still as it does not include facilities that have changed name or are close to the reporting thresholds in Annex II of the Regulation (and so do not need to report every year).
- 11% of facilities reported for the first time in 2014, including those in Croatia.
- In 2014 the largest number of facilities carried out *waste and waste-water management* (31%), followed by *intensive livestock production and aquaculture* (21%).
- Between 2007 and 2014, some industrial activities saw significant increases in the number of facilities reporting emissions. For instance, the figure for waste and waste water management was up 58% and for food and beverage industries it rose by 28%. This probably reflects higher reporting by existing facilities, rather than the opening of new facilities.

The following figure shows the number of E-PRTR facilities per main activity over the period 2007 to 2014.

¹³ EEA Summary Report on 2014 E-PRTR Data <https://circabc.europa.eu/sd/a/fb8035be-a0b3-4b0f-9de1-58e2c602063f/E-PRTR%20Summary%20Note%202014.pdf>



Quality assurance

After receiving annual data returns from facility operators, Member States carry out quality checks before transmitting their compiled data to the EEA.

An automated validation tool developed by the EEA helps Member States validate E-PRTR data and assure compliance with the agreed reporting format. The validation covers information such as: pollutant types, industrial sector codes, geographical coordinates, mandatory checks for formatting, quantitative checks of release / waste values (including outliers), and checks for confidential data. If errors are found, Member States may resubmit data.

To help implement the Regulation, the EEA also checks the quality of data in the E-PRTR annually through a process known as the 'informal review', after which:

- Member States are provided with detailed feedback on the quality and completeness of their submitted data. EEA checks cover an evaluation of the number of facilities and release reports, the amounts of releases and transfers reported, confidentiality claims and accidental releases;
- to identify and address potential inconsistencies, E-PRTR data are also subsequently compared with data reported under other reporting obligations (e.g. the National Emission Ceilings Directive¹⁴, the Emissions Trading Scheme¹⁵, the Urban Waste-Water Treatment Directive¹⁶ and the Waste Statistics Regulation¹⁷).

¹⁴ Directive 2001/81/EC <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3A128095>

Commission guidance

As required under Article 14 of the Regulation, the Commission published a guidance document¹⁸ in 2006 to support implementation of the E-PRTR. The guidance covers practical matters such as who should report, what information is required and how data should be submitted. It also includes an indicative list of sectors and pollutants for which data reporting is expected.

Enforcement action

The Commission has had little need to resort to formal action against Member States to enforce the requirements of the Regulation. There has only been one pilot action (now closed) and that hinged on whether an activity carried out at a facility was covered by the Regulation. While there have been some delays with the annual submission of data by Member States, these have been resolved through informal reminders and have not necessitated formal action.

4. EVALUATION METHOD

As summarised in Annex 1 to this document, the evaluation of the E-PRTR Regulation started in mid-2014 and was overseen by an Inter-service Steering Committee. Whilst every effort has been made to comply with the Better Regulation guidelines published in May 2015, the supporting work, including an external consultation, was commissioned before these rules were adopted. The evaluation roadmap¹⁹, outlining the scope, purpose and approach to the evaluation, was published in 2014.

Annex 2 details the wide range of evaluation methods used to assess the E-PRTR Regulation. They included reviews of yearly implementation reports, a literature review, stakeholder consultations, an expert workshop and a supporting study by an external contractor.

Targeted consultation: A targeted stakeholder consultation was held in April 2015. The competent authorities in the Member States first received an introductory letter alerting them to an upcoming consultation. One week later the two questionnaires (each with 30-40 questions) were sent to stakeholders: one for data providers and managers, the other for data users. A sample of 150 stakeholders was consulted. The number of replies totalled 78 (from 31 European or national industry associations, 23 Member States and a number of NGOs, research institutes and others). As follow-up to this targeted consultation, 31 phone interviews were organised with academics and selected respondents.

¹⁵ Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1488376075580&uri=CELEX:32003L0087>

¹⁶ Directive 91/271/EEC

¹⁷ Regulation (EC) No 2150/2002 <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32002R2150>

¹⁸ Guidance Document for the implementation of the European PRTR http://prtr.ec.europa.eu/docs/EN_E-PRTR_fin.pdf

¹⁹ E-PRTR roadmap: http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_env_062_e-prtr_en.pdf

Public consultation: Between 23 July and 15 October 2015, all stakeholders were invited to make representations on the REFIT evaluation using a questionnaire published on the *Your Voice in Europe* portal. Stakeholders were alerted to the consultation through emails, personal contacts and announcements on the Directorate General Environment and the E-PRTR websites²⁰. A total of 67 responses were received; almost all came from stakeholders, with a small minority (9%) from interested individuals. In all, 63% of the replies came from private companies, followed by local authorities (12%), industrial associations (9%) and others.

Literature review: As detailed in Appendix C of the Supporting Study, the literature review included academic publications, reviews of E-PRTR data quality, the EEA's informal analysis and industry guidance for emissions reporting. Of particular relevance were a variety of EEA reports e.g. Summary Report on 2014 E-PRTR Data²¹. There were also useful insights from a study²² of the visitors to the E-PRTR website.

Expert workshop: A workshop was held in Brussels on 4 November 2015, chiefly to discuss and validate the draft findings of the Commission's REFIT evaluation.

Limitations of data and method: Overall, the available data and information appear sufficiently robust to allow for an appropriate evaluation. However, the following limitations should be noted:

- a) The nature of the E-PRTR objectives (i.e. maximising access to information, encouraging public participation, contributing to prevention and reduction of environmental pollution, creating consistency between EU countries), dictated that the evaluation was largely based on a qualitative analysis. Data sources were used whenever possible, but the character of the Regulation is such that a quantitative evaluation is a challenge.
- b) The E-PRTR is one of a group of EU measures that work together to reduce the impact of industrial emissions. It is therefore difficult to distinguish the E-PRTR's individual contribution from measures such as the IED, industrial accidents directive²³ and VOC directive²⁴.
- c) When considering costs and benefits, it is important to distinguish those deriving from the underlying Kiev Protocol and those attributable to the E-PRTR. In general terms,

²⁰ <http://prtr.ec.europa.eu/> and <http://ec.europa.eu/environment/industry/stationary/eper/implementation.htm>

²¹ <https://circabc.europa.eu/sd/a/fb8035be-a0b3-4b0f-9de1-58e2c602063f/E-PRTR%20Summary%20Note%202014.pdf>

²² Supporting the evaluation of Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register and its triennial review <https://bookshop.europa.eu/en/supporting-the-evaluation-of-regulation-ec-no-166-2006-concerning-the-establishment-of-a-european-pollutant-release-and-transfer-register-and-its-triennial-review-pbKH0616137/>

²³ Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, OJ L 197, 24.7.2012, p. 1–37 <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1482161174784&uri=CELEX:32012L0018>

²⁴ Directive 1994/63/EC concerning emissions of volatile organic compounds (VOC) from the storage of petrol and distribution from terminals to service stations (OJ L 365, 31/12/1994, p. 24–33) <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1482161093316&uri=CELEX:31994L0063>

the largest costs and benefits are attributable to the Kiev Protocol because it is the underlying driver for the majority of E-PRTR obligations.

- d) A significant number of experts responded to the various consultations, resulting in a good participation rate (78 replies from 150 requests). However, due to the specialised nature of the Regulation, there were limited responses from the general public (only 9% of the 67 replies to the public consultation were from individuals). This is important as a primary audience for the E-PRTR is the general public.

5. ANSWERS TO THE EVALUATION QUESTIONS

This section summarises the key findings for the five main evaluation criteria. In the interest of efficiency, some evaluation questions from the initial Roadmap were refined during the evaluation and, for presentational reasons, have been grouped here into more logical combinations. Fuller analysis of the evaluation questions (EQ) can be found in Appendix A to the supporting study.

Effectiveness

EQ1: Does the progress towards the objective of the E-PRTR Regulation match the initial expectations? EQ2: Can the progress made be linked to measures in the E-PRTR Regulation? What other influencing factors (e.g. implementation by Member States, action by stakeholders, interaction between industry and authorities) can be identified, that contributed to the changes?

The objectives of the E-PRTR Regulation as identified by the 'intervention logic' are to:

1. Transpose the Kiev Protocol into EU law
2. Maximise public access to information on pollutant releases and transfer
3. Encourage public participation in environmental affairs
4. Contribute to prevention and reduction of environmental pollution.
5. Create consistency between EU countries.

With regard to the Kiev Protocol, the E-PRTR Regulation provided an effective means of transposition. As a Regulation it became immediately enforceable as law in all Member States and thus avoided the potential for delay and deviation that could have arisen from an EU directive.

Importantly, for objectives 2, 3 and 4 the E-PRTR Regulation is a contributing instrument and does not aim for complete delivery on its own. In addition, some Member States kept existing national registers predating the E-PRTR and were already working towards achieving these objectives. However, Member State implementation reports, plus stakeholder feedback from the consultations and the workshop, indicate that these objectives are being achieved overall and have encouraged a better knowledge of pollution and exposure to pollutants. Industry stakeholders were more emphatic that E-PRTR has fostered public participation in environmental affairs, since they are witnessing more scrutiny of their actions.

Workshop participants discussed how the current lack of contextual information reduces effectiveness since E-PRTR data could be misinterpreted. The public may find it difficult to

understand the meaning of emission data e.g. whether facilities are compliant with their legal obligations and what a tonne of a specific pollutant actually means for the environment and human health (i.e. its impacts). There is a suggestion that including additional information on production data could aid the assessment of environmental effectiveness and provide a basis for benchmarking. Such additional information could add value and purpose to the data already held on the register.

On the fifth objective (consistency), there was an initial risk that Member States would avail themselves of the different options provided by the Kiev Protocol. For instance, Annex 1 of the Protocol allows the scope of activities to be defined by a threshold either based on production capacity or the number of employees. The E-PRTR, with its pan-European approach, has therefore minimised variations in Member State interpretations and improved the consistency of data reporting. It is clear, from Member State implementation reports and from stakeholder responses, that the E-PRTR has made it easier to compare emissions from different countries and industrial sectors. This is directly attributable to the establishment of the E-PRTR as a mechanism for implementing the Kiev Protocol.

Overall, it is concluded that the E-PRTR is working as expected and that this is due to the Regulation (i.e. it would not have happened without the Regulation in place).

With regard to other influencing factors that may have contributed to these changes, the evaluation did not identify any notable contributions.

EQ3. What unexpected changes resulting from the Regulation can be identified?

The Member State implementation reports and responses to the stakeholder consultations did not point to any major unexpected or unintended changes stemming from the E-PRTR Regulation.

On the positive side, it is notable that most of the signatories to the Kiev Protocol use the E-PRTR model – presumably because it is a well-established system. This means that there is not only harmonisation of data reporting within the EU-28, but further afield as well.

By contrast, stakeholders indicated some limited confusion arising from the E-PRTR reporting thresholds, including difficulties in applying them to the complex scenarios that actually exist on industrial facilities. While these thresholds have been set to capture the majority of emission sources (and thus limit the E-PRTR's administrative burden), some industry operators incorrectly see them as dictating whether emissions monitoring is needed.

There was also mention of the potential for E-PRTR data to differ from data collected under the reporting obligations in other environmental instruments. Again, this was partially attributed to E-PRTR reporting thresholds, but can also occur because of the different scopes of reporting obligations (e.g. pollutant load versus pollutant concentration) and differing expressions of pollutants (e.g. SO₂ versus SO_x – sulphur dioxide versus sulphur oxides).

EQ4. Do the reported data and possibilities for data searching serve the objectives of the Regulation?

Since its implementation, the E-PRTR has provided the EU's largest single dataset on industrial pollutant information. The register is accessible to anyone with Internet access and provides data encompassing all EU Member States, European Free Trade Association (EFTA) nations

and Serbia. The annual provision of data means that the importance of this dataset has grown year on year as additional use of the data for trend analysis has become possible.

The data, in aggregated and disaggregated form, are presented in a comprehensive manner and are easy to access. These positive findings have been echoed by users outside the EU and several non-EU countries have shown an interest in using the European system as the basis for development of their own national registers.

An analysis of the E-PRTR website user patterns and the *ad hoc* user survey have shown that the E-PRTR website is accessed by a variety of users, including public services, commercial enterprises and the general public. In general, users consider the website design suitable and convenient. They feel that the data, in aggregated and disaggregated form, are presented in a comprehensive manner and in a format that is easy to access. These positive findings have been echoed by users outside the EU and several non-EU countries have shown an interest in using the European system as the basis for their own national registers.

The number of visitor sessions is a key measure of activity on the E-PRTR website and, in the two and a half years between 1 July 2011 and 1 January 2014, a total of 221,712 sessions were recorded. This equates to an average of 88,300 sessions per year or 242 sessions per day²⁵. This is down on the average for the previous reporting period (589 sessions per day), although the reasons for this are not clear.

73% of website users were returning visitors. This suggests that the site has a well-established following. Peak website activity is observed in May – when new data comes online.

According to website analytics, most sessions were by direct traffic i.e. typing the website address or using a previously saved bookmark. However, another important source of website traffic is online media; an online news article references E-PRTR data and readers follow through to the E-PRTR website as the original source of data. As a result of Italian media coverage, Italy therefore tops the list of most active countries to use the site (with 20% of sessions).

A pop-up website survey conducted by the EEA in 2016 elicited 498 responses which showed that the most common reasons for using E-PRTR data were:

- academic purposes (40% of answers);
- public participation in decision-making / access to environmental information (25%);
- business (20%);
- policy-making (15%).

The pop-up survey also asked visitors what kind of information they were looking for. The responses showed a fairly even split between EU-wide, country-specific, sector-specific and facility-specific information.

As for the kinds of visitors: 39% were individuals, 37% were public organisations and 24%

²⁵ From Appendix E of the supporting study

were commercial organisations.

The accessibility and scale of the E-PRTR website means that can be used in multiple ways. The E-PRTR enables data to be collated in a format which can be used by industry and policy-makers. This data allows for the high-level assessment and monitoring of environmental performance across a range of industry sectors, in particular for installations covered by the industrial emissions directive (IED). For example, the EEA relies on E-PRTR data for its regular reports on the state of, and outlook for, the European environment (SOER), and for special studies on the costs of air pollution from industrial facilities.

Stakeholders highlighted that better publicity - using new media or introducing analytical commentaries on issues to help interpretation - could increase the use and visibility of the E-PRTR. There were also suggestions about providing data in new formats e.g. apps to run on smartphones and other mobile devices. Joining together with other reporting processes – for example on waste, with the Water Information System for Europe²⁶ (WISE) information – could make for greater effectiveness, particularly in communicating with the public.

Several stakeholders stressed the importance of data quality, since data errors undermine the credibility of the overall register. Industry, Member States and the EEA are already working hard on this, but further strengthening the existing quality assurance measures would be beneficial.

The automated validation tool and the possibility for data resubmission are very useful for Member States. The informal review is considered equally useful in promoting good practice by helping to identify inconsistencies and possible errors in the reported data. However, there remains a need for Member States to continue improving the upstream quality of their reported data.

Efficiency

EQ5. Are the costs justified compared to the benefits and usability of the reported information?

5a. What are the overall costs associated with implementation?

The costs of implementing the E-PRTR are borne by operators (initially providing data), Member State authorities (collecting, collating, checking and providing data) and the European Commission and EEA (collating, checking and making data available).

Since the E-PRTR Regulation implements the Kiev Protocol in EU law, most of the costs and benefits arising from its implementation stem from the Protocol. The incremental impacts arising from the E-PRTR Regulation are relatively minor and relate to these additional obligations:

1. Facility operators report on five additional water pollutants and, where needed, report on dioxins and furan emissions to all media (thresholds have been lowered compared to the Kiev Protocol).

²⁶ <http://water.europa.eu/>

2. Member State authorities report annually to the Commission, and the Commission, assisted by the EEA, incorporate the reported information into the E-PRTR.
3. The Commission has drawn up a guidance document supporting the implementation of the European PRTR (under Article 14).
4. Member States report to the Commission every three years on implementation of the E-PRTR (under Article 16).

For the first such 'additional' obligation, the extent of the costs will depend on the number of facilities affected. In 2013, only 147²⁷ from a total of 32,777 facilities reporting under E-PRTR were affected by the additional E-PRTR requirements (i.e. 0.5% of facilities). The average cost of reporting (for all pollutants) is estimated at 22 working hours per operator²⁸, leading to a total cost of about 400 working days for all EU Member States together. As operators usually report several pollutants, this is likely to be a high estimate.

The second 'additional' obligation covers reporting activities for both Member States and the Commission, assisted by the EEA. Member States' reporting to the Commission involves data transfer and queries linked to the data. Collecting and compiling data is not part of the E-PRTR costs as they are required by the Kiev Protocol. The additional costs of the data transfer are negligible. The reporting costs incurred by the European Commission and EEA cover the gathering, checking and publishing of all the requested data. The Commission estimates its E-PRTR involvement at EUR 150 000 for operational expenditure and one full-time equivalent (FTE) per year. The total costs of EEA staff, IT specialists and the Environmental Topic Centre are approximately EUR 320 000 and two FTE i.e. around EUR 520 000 per year²⁹.

The third 'additional' obligation of drawing up a guidance document supporting the implementation of the European PRTR has already been implemented. This cost has already been absorbed. All the consulted stakeholders considered the guidance document to be extremely useful in the reporting process, although the 2013 implementation review identified a number of minor areas where it could be improved.

The final 'additional' obligation (Member State triennial reporting to the Commission) gives feedback on implementation issues and therefore provides a basis for improving the reporting process. The Commission uses these returns to prepare a report to the European Parliament and the Council (under Article 17)³⁰. The supporting study to the horizontal REFIT exercise for environmental monitoring and reporting³¹ estimated the time required for these actions to be 196 working days for all Member States and 72 working days for the Commission.

²⁷ In 2013 this was: 63 for fluoranthene, 40 for octyphenols and octyphenol ethoxylates, 34 for benzo(g,h,i)perylene, 8 for isodrin and 2 for hexabromobiphenyl (data from supporting study, p. 41).

²⁸ Supporting study (pages 45 and 294)

²⁹ Table 6.1 of the supporting study to the REFIT exercise for Environmental Monitoring and Reporting

³⁰ COM(2013) 111: Final Report from the Commission to the European Parliament and the Council on progress in implementing Regulation (EC) 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register <http://eur-lex.europa.eu/procedure/EN/202443>

³¹ See Fiche 13 in Annex 3 (Reporting Obligation Fiches) to the support study prepared by ICF, IEEP and Denkstatt (2017): 'Support to the Fitness Check of monitoring and reporting obligations arising from EU environmental legislation', [published online](#) (ISBN: 978-92-79-6626-5 / EUR - KH-01-17-202-EN-N – EN).

5b. What are the overall benefits associated with implementation?

Due to the qualitative nature of most E-PRTR objectives, the benefits are difficult to measure. However, as demonstrated in the section on 'effectiveness', responses to the consultations indicate that the E-PRTR largely meets its stated objectives and thus delivers benefits to a number of stakeholders. These involve:

- providing public access to information on pollutant releases and transfer through an easily accessible database.
- encouraging public participation in environmental affairs by equipping stakeholders with valuable information.
- contributing to the prevention and reduction of environmental pollution by highlighting poor performers and large emitters that may require other regulatory intervention.
- creating consistency between EU countries in the way that emissions are reported.

E-PRTR data on environmental releases from industrial facilities are also useful for 'state of the environment' reporting and for informing policy-makers.

Industrial stakeholders consider that the E-PRTR is a useful investment as it provides transparency on their emission data through an established and accepted system. This provides industrial operators with some certainty on information demands.

5c. Are the costs proportionate and are there any inefficient provisions?

While it is difficult to make a quantified comparison of E-PRTR costs and benefits, stakeholders judge the estimated costs of the E-PRTR to be relatively small when compared to the E-PRTR's significant contributions to data transparency and public participation.

Overall, consultations have shown that stakeholders view the benefits of the E-PRTR to be greater than the costs. This view was strongest among Member States' competent authorities.

The absence of stakeholder complaints also supports the view that the costs are proportionate to the benefits.

Regarding inefficient provisions, the Commission's has observed that the triennial implementation returns made by MS under Article 16 contain much descriptive text (which makes them difficult to compare) and are very repetitive from one year to the next. In view of this, the returns are considered to provide relatively little useful information for the Commission. This is inefficient in view of the resources that MS use to compile the returns.

EQ6. Are there significant costs differences for the implementation of the E-PRTR Regulation between countries? What can be regarded as baseline costs on the basis of a complete implementation of the Regulation? What good practices in terms of cost-effective implementation can be identified?

There were no significant indications of differences in Member State implementation costs. However, one stakeholder noted that the more decentralised a country (especially federal countries), the higher the costs for implementing any reporting obligation, including E-PRTR.

This was attributed to additional data movements and associated quality assurance.

For countries with advanced e-governance, the implementation costs were lower because most of the E-PRTR activities were handled electronically. The implementation analysis demonstrated that the E-PRTR is fully integrated in the national mechanisms of many countries³². Actions to enhance efficiency are Member State initiatives but commitments to integrate reporting at EU level could boost this efficiency still further.

With regard to baseline costs, the responses to the various evaluation procedures did not allow this to be quantified.

On good practices for cost-effective implementation of the Regulation, the targeted stakeholder consultation noted that several Member States were pursuing the streamlining of reporting activities between the E-PRTR and other reporting activities.

EQ7. How do implementing costs compare to other similar reporting measures?

Although there are no other directly comparable reporting obligations, most stakeholders expressed the view that the E-PRTR implementing costs as similar to those required by other environmental reporting obligations.

EQ8. Has evidence been detected for simplifying or streamlining with other applicable regulations in the field of industrial emissions and reporting?

The various consultations highlighted some opportunities for simplification:

- E-PRTR efficiency would be improved by a multi-query search function with additional reporting parameters and/or access to other key information.
- Further harmonisation between E-PRTR and IED scope/definitions could make for better streamlining of the data flow management. This could reduce the administrative burden for reporting facilities and also reduce mistakes caused when similar datasets are provided in different reporting formats.
- Streamlining IT tools and registers that have often been developed in silos. Here, the European Commission and EEA are working on possibilities to streamline the reporting on industrial emissions, for example by linking E-PRTR reporting to the reporting on large combustion plant (LCP) emission inventories.

Coherence

EQ9. Is the E-PRTR Regulation coherent internally?

Most competent authority and industry stakeholders in the targeted consultation considered that

³² The E-PRTR is fully integrated in the national reporting mechanisms in Bulgaria, Czech Republic, Ireland, the Netherlands and the United Kingdom. Integration has started in Romania and Slovakia.

the E-PRTR Regulation is internally coherent to a large extent.

Their main comment about possible incoherence related to having different reporting units for different environmental media i.e. kilograms for emissions to air and water, but tonnes for waste transfers. However, these are considered to be well-established and appropriate units for their respective media and quality assurance procedures exist to minimise errors in data-entry.

From the Commission's own observations, another source of possible inconsistency is the variety of methods that are used to produce reported E-PRTR data i.e. estimations, calculations and measurements. While there are guiding principles for each method, there are no standard methods.

The E-PRTR Regulation is therefore considered to have good internal coherence.

EQ10. Is the E-PRTR Regulation coherent with other applicable legislation? What, if any, overlaps, discrepancies, contradictions or similar issues can be identified which hamper achievement of the E-PRTR objectives?

The E-PRTR is considered by stakeholders to be generally consistent with EU law in the fields of air, water and waste. The following observations were made on the interfaces with other legislation that requires reporting on the mass releases of pollutants:

Industrial emissions law: The IED and E-PRTR cover very similar industrial sectors and, moreover, they cross-reference each other. However, there is not an exact match, since the E-PRTR covers more activities (e.g. urban waste-water treatment plants) and there are some different capacity thresholds (e.g. for ceramics production).

This strong overlap with the IED presents an opportunity to develop tools for streamlining reporting activities. D-G Environment and the EEA have been working on this coherence in practice and there is an ongoing initiative to develop a single reference dataset for consistency in identifying all industrial point (the so-called EU Registry on Industrial Sites). A first beneficiary of this initiative will be the annual reporting on LCPs under Article 72(3) of the IED.

Water law: In order to streamline with the Water Framework Directive and its Annexes IX and X (Priority substances), the E-PRTR added five substances to the Kiev Protocol's list.

There is a strong E-PRTR interface with Directive 2008/105/EC on environmental quality standards in the field of water policy (the EQSD) since, under Article 5, Member States must produce inventories of emissions, discharges and losses that include E-PRTR information³³. However, other data sources are needed to cover emissions, discharges and losses from facilities below the E-PRTR reporting thresholds. Several stakeholders considered the E-PRTR water pollutant list to be outdated, since the EQSD is evolving more quickly to take account of new threats, e.g. endocrine disrupters.

³³ As Recital 21 of Directive 2008/105/EC states "in order to avoid duplication of work by establishing those inventories and to ensure the coherence of those inventories".

The Water Information System for Europe (WISE) currently relies on E-PRTR data and information provided by Member States on concentrations of organic parameters in surface water. However some substances do not feature in the E-PRTR or are not reported, due to the high thresholds.

E-PRTR requires reporting on discharges from plants covered by the Urban Waste-Water Treatment Directive (UWWTD) when the population equivalent exceeds 100 000. However, the UWWTD has a number of different (and much lower) thresholds, so it is difficult to tally the requirements of the two instruments.

Waste law: On the E-PRTR's coherence with EU waste law, many of the issues identified by stakeholders derive from the complex waste *acquis*. For example, different waste definitions and categorisations are found in the Regulation on waste statistics (EC/2150/2002) and the Regulation on waste shipments (EC/1013/2006); the latter uses waste codes derived from the Basel Convention. Many of the different information flows on waste are not themselves considered coherent. E-PRTR, in its collection of data on off-site waste transfers, is an element in this complicated landscape.

The proposed circular economy package includes a proposed revision³⁴ to the Waste Framework Directive³⁵ that would see information on hazardous waste collected and made available through new nationwide electronic registries. The proposal also states that Member States should build on E-PRTR data when such data is relevant. This would be a significant improvement in the external coherence of the E-PRTR and waste legislation.

INSPIRE: Most stakeholders viewed the E-PRTR Regulation as generally coherent with the practical requirements of the INSPIRE Directive³⁶. The EEA, supported by the Joint Research Centre as technical coordinator of the INSPIRE directive, is developing an approach for integrating information on the location of industrial entities in Europe. This will streamline reporting under the E-PRTR and IED in a combined data submission.

National Emission Ceilings Directive (NECD) and European Monitoring and Evaluation Programme (EMEP): There is general coherence with national air pollutant emission inventory reporting under Directive 2001/81/EC on national emission ceilings and EMEP. Some discrepancies were noted in the past, including several instances where countries report greater emissions for certain pollutants in the E-PRTR than are reported in their national total emission inventories. Furthermore, no stack height information is required in the E-PRTR but it is needed for reporting under EMEP. Similarly, SO_x emissions are required in the E-PRTR and EMEP, as opposed to SO₂ emissions in the NECD. In view of apparent overlaps between the reporting of emissions from NECD 'large point sources' and the E-PRTR, there is ongoing work to consider streamlining these obligations on Member States.

EU Emissions Trading System (ETS): There is general coherence between the E-PRTR and the

³⁴ COM (2015) 595

³⁵ Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0098>

³⁶ Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:108:0001:0014:en:PDF>

ETS. However:

- activities and thresholds are not the same and the two laws differ in scope;
- CO₂ emissions are hard to compare because of the different definitions of an ETS 'installation' and an E-PRTR 'facility';
- E-PRTR data include all CO₂ emissions, while ETS data are net emissions that do not include renewable sources (although the E-PRTR has voluntary fields to reconcile this).

The overall view is that:

- The E-PRTR has a high level of external coherence, especially with existing EU legislation on Public Access to Environmental Information, Public Participation in Decision making and Access to Justice.
- There is some incoherence between the E-PRTR and EU legislation on air, water and waste. However, the E-PRTR Regulation was not established with the intention of creating a one-stop shop for all reporting. Nevertheless, there are opportunities to further extend the ongoing initiatives on E-PRTR alignment and to use the E-PRTR as a building block for related reporting obligations. Possible streamlining is already being investigated for reporting obligations under the UWWTD and the NECD.
- Some of these opportunities are identified in the horizontal Fitness Check on environmental reporting³⁷ which ran concurrently with the E-PRTR Fitness Check.

Relevance

EQ11. Do the objectives of the E-PRTR still correspond to current needs within the EU?

The evidence collected from the various consultations shows that the E-PRTR is still very relevant to the EU's current needs and is consistent with the aims identified in the intervention logic. In particular, there was strong public and stakeholder support that the Regulation encourages access to information and public participation, and improves the prevention and reduction of environmental pollution.

The analysis of visitors of the E-PRTR website demonstrated that 73% - mainly academics, general public and policy-makers - had returned to the website. This suggests that the website and its content are relevant to them. This well-established group of users is familiar with the website and frequently refers to its data. Although it is unclear exactly how visitors use the data, it is apparent from website hit data that they seek access to the full range of aggregation possibilities offered by the website, i.e. facility-specific, sectoral, national and EU-level data.

Very wide use of the website by the general public should not be expected as the E-PRTR will always be a niche product providing very specific information.

For the Commission, the E-PRTR Regulation was driven by the international imperative to enact the Kiev Protocol. In doing so, it has created data consistency across the EU which

³⁷ http://ec.europa.eu/environment/legal/reporting/fc_overview_en.htm

greatly enhances the data's power.

It is therefore concluded that the objectives of the E-PRTR still correspond to current needs within the EU.

EQ12. Are there obsolete, unnecessary or missing provisions in the Regulation that are affecting its performance?

None of the stakeholder consultations identified any obviously obsolete or unnecessary provisions in the E-PRTR Regulation.

However, the Commission is assessing the benefit derived from the information that Member States are required to report to the Commission, every three years, under Article 16 of the E-PRTR Regulation. This additional information relates to the practices and measures taken by Member States to deliver their national registers. The Commission uses it to prepare its Article 17 report to the European Parliament and the Council³⁸. However, the information gathered through these reports has proven to be of limited added value in undertaking this evaluation.

With regard to missing provisions, some stakeholders consider that the E-PRTR gives an incomplete picture of the environmental impact of industry as there is no production capacity for each facility. The absence of such contextual information limits the E-PRTR's value in environmental benchmarking - i.e. generating a more objective metric of pollutant emissions per unit of output. There is room for improvement in this area.

There was also stakeholder comment on the following issues:

- The levels at which reporting thresholds are set and whether these are still set at the right level. The general principle is to capture the main emissions without imposing an administrative burden on a large number of small sources. Some stakeholders questioned whether the thresholds for waste transfers were potentially too high as a significant proportion of data were not included within the E-PRTR.
- Noting that some Member States require data reporting on more pollutants in order to gain an insight into their emission profiles, stakeholders discussed whether emerging pollutants should be included in the E-PRTR scope.
- The need to address some data gaps e.g. improve the quantification of diffuse emission sources.

It is concluded that there are no obviously unnecessary or missing provisions in the E-PRTR Regulation. Member State reporting to the Commission under Article 16 appears to have limited usefulness, which suggests that there is scope for simplification.

³⁸ A first report assessed experience gained during the first three years of operating the E-PRTR i.e. 2007, 2008 and 2009. See COM(2013) 111: Final report from the Commission to the European Parliament and the Council on progress in implementing Regulation (EC) 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register <http://eur-lex.europa.eu/procedure/EN/202443>

EQ13. Does the Regulation contribute to the 5th objective of the 7th Environment Action Programme 'to improve the knowledge and evidence base for Union environment policy'?

The 7th Environment Action Programme highlights the need to improve the knowledge and evidence base for Union environment policy. It further notes that data collection and quality remain variable and multiple sources make access difficult.

The E-PRTR provides data on mass emissions of a wide range of pollutants from industrial activities and hence displays information on industrial pollution performance. As such, it is a source of data for environmental policy development and it is important for providing data to the public.

The E-PRTR is frequently referenced in academic writings and consultant reports, suggesting that it is indeed a relevant and useful means of improving the knowledge base on environmental policy.

E-PRTR data is also used extensively by the Commission services as an evidence base. For example, it feeds into DG Environment's own seminal report on the *Contribution of industry to pollutant emissions to air and water*³⁹ and the EEA's annual reports on the state of, and outlook for, the European environment (SOER)⁴⁰.

It is therefore concluded that the E-PRTR makes a significant contribution to the EU's knowledge and evidence base by collating EU-wide emission data and simplifying the process of comparison / analysis.

EQ14. Has the adaptation of the Regulation to scientific and technical progress been appropriate and involved stakeholders. EQ15. Are there new needs that should be reflected in the E-PRTR Regulation?

The Regulation has not been formally adapted to scientific or technical progress through either of the potential legislative routes i.e. amendment through the ordinary legislative procedure or amendment of Annex II to the Regulation through comitology.

Any legal change at EU level should be for aspects of the E-PRTR that are not prescribed by the Kiev Protocol. Alternatively the EU and Member States would first have to seek amendment of the Protocol before amending the EU law.

However, adaptation of IT systems to reflect progress in technology does not require changes to the E-PRTR Regulation and has already been taking place. Technical progress is important for data transfer processes, as such systems evolve rapidly. The E-PRTR Regulation establishes the principles for data transfer, making system adaptation possible. Adaptation can also be effected through revision of the E-PRTR guidance document but this has not yet been done.

Stakeholders noted that recent IED scope extensions have not all been reflected in the E-PRTR

³⁹ <https://circabc.europa.eu/w/browse/b0435e80-9ef3-4275-8a00-c06a3bafd5a9>

⁴⁰ <http://www.eea.europa.eu/soer>

Regulation. Stakeholders highlighted that taking the following steps could be beneficial:

- Reviewing the thresholds for some of the parameters. In an interview, one competent authority said that the E-PRTR threshold for ammonia emissions to air (10 000 kg/year) was too high as only 10% of ammonia emissions from agriculture are reported to the E-PRTR. This is important for many Member States in meeting their NECD emission ceilings.
- More accessible information e.g. disclosure through apps, etc.;
- More commentaries and explanations about the environmental significance of the reported pollutants;
- The E-PRTR should complement new environmental reporting schemas e.g. IED;
- The addition of certain activities that are now covered by the IED.

Participants at the stakeholder workshop also discussed emerging needs and concluded that the value of E-PRTR data could be enhanced by including the production capacity of facilities and providing better granularity on the production activities undertaken at each facility.

EU added value

EQ16. What is the additional value of the E-PRTR Regulation, compared to what could be achieved at national level? EQ19. Do the issues tackled by the Regulation still require action at EU level?

As a party to the Aarhus Convention and its Kiev Protocol, the EU is required to implement its commitments. In theory, since Member States are parties to the Protocol as well, all the obligations it contains could have been established in national legislation. However, there would have been no guarantee of consistent application across the EU in this case, since the Protocol contains options for the implementation of some provisions. For instance, the activities falling within its scope can be defined using either capacity or employee thresholds.

In addition, adoption of the E-PRTR Regulation delivered indirect compliance with the Kiev Protocol, even in those Member States that were not initial signatories to the Protocol.

Thus, as the Commission's original proposal for the E-PRTR⁴¹ states, it was decided to minimise the scope for inconsistency by creating an appropriate legal act at Community level to ensure compliance with the obligations of the Protocol. This EU-level instrument also was also expected to provide a more efficient delivery mechanism, as the E-PRTR was able to build on an existing Community-level intervention in this field, in the form of the EPER.

The E-PRTR adds value, as it has led to the development of an EU-wide Guidance document with rules and advice on such issues as data collection, quality checking and presentation. This

⁴¹ COM(2004)634 in Explanatory Memorandum

guidance improves data consistency, and hence comparability, between Member States. Due to occasional, but significant, differences between the data reported (e.g. carbon dioxide emissions from biomass combustion) some stakeholders call for improvements to the guidance.

Further quality assurance checks carried out by the EEA address both the completeness of data (i.e. their presence / absence) and their accuracy. These EU-level checks identify issues which are then rectified at national level – a correction mechanism that would not exist without a European register.

Furthermore, EU-level processes such as expert groups, workshops and analytical reports also provide support, helping the Member States deliver their national registers.

For members of the public, the E-PRTR adds significant EU value by allowing the easy comparison of emission data for different industry across the EU and for providing cumulative emissions data for the whole of Europe. This information would be much harder to derive from 28 separate national registers.

The added value of the E-PRTR is therefore considered to be significant, compared with what could have been achieved by national action in 28 countries, and the issues addressed by the E-PRTR Regulation continue to justify action at EU level.

EQ17. What is the perception of E-PRTR and available information on industrial pollution?

EQ18. How have the different provisions of the Regulation been accepted by stakeholders?

Both the public and stakeholder consultations demonstrate that most respondents have a positive overall view of the E-PRTR. This encouraging perception is strong, especially among competent authorities. The large majority of respondents stated they trust E-PRTR data and that the E-PRTR was valued by users.

Some stakeholders believe that the E-PRTR data could be more useful if additional contextual information was added to it, e.g. facility production capacity and an indication of whether the emissions were compliant with permit conditions.

It is apparent from user numbers for the website that the E-PRTR serves a small but niche demand for information. For those users, there is a strong positive perception of the available information on industrial pollution.

6. CONCLUSIONS

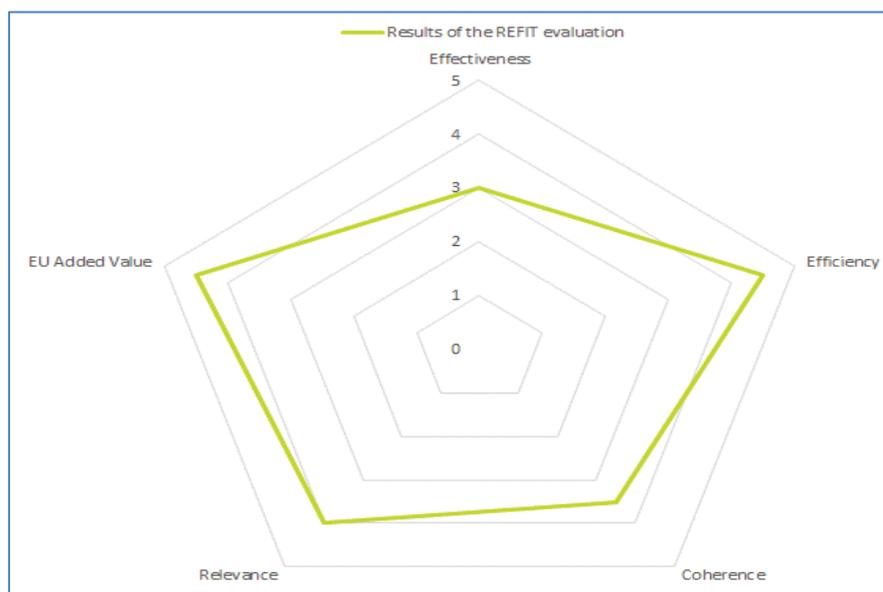
Overall it is concluded that the E-PRTR Regulation is fit for purpose. It is an important instrument in the EU's environmental *acquis* because of the information it makes publicly available on the performance of large industry.

The evaluation showed that there is wide stakeholder appreciation of the value that the E-PRTR brings to the topic of access to environmental information. The E-PRTR is seen as an easily accessible and valuable dataset, with no comparable alternative when it comes to a consistent data inventory on industrial emissions across the EU.

In terms of the formal evaluation criteria:

- The E-PRTR was judged to be a fairly **effective** tool for a range of informed stakeholders, and, in combination with other instruments, contributes to the achievement of wider environmental objectives. However, data interpretation could be further supported. For the general public, additional background information would be needed to better understand and use E-PRTR data. Additional context would be beneficial if E-PRTR data is to be more used for benchmarking the environmental performance of industrial activities (i.e. specific activity data, production capacity).
- The E-PRTR is appreciated as an **efficient** tool and the evaluation did not identify an excessive administrative burden. Most stakeholders considered that the effort required of data providers was minimal. Data managers also found the level of effort to be appropriate to the benefits provided by the disclosure of E-PRTR data. However, the resources required by the E-PRTR could be further reduced by harmonising its reporting with other environmental legislation.
- The E-PRTR is generally internally and externally **coherent** with related environmental legislation. Some concerns were raised on how E-PRTR data submissions fit with data reported under related legislation. The ongoing work in implementing the INSPIRE Directive in the context of the E-PRTR and the IED is a first step in tackling some of the inconsistencies raised.
- The E-PRTR is a **relevant** tool for general environmental awareness and policy development. E-PRTR is a detailed and comprehensive dataset and, together with its ease of access, means that it is a valuable EU-wide information source. Some concerns were raised that the available data mainly covers large point sources and more should be done to ensure that information on diffuse emissions is better represented in the Register. While the E-PRTR website is frequently used as an authoritative source of emission data and is accessed by a variety of users, there remains potential to raise awareness of its existence and to increase user numbers.
- Finally, as expected, the E-PRTR provides **added value** beyond the requirements of the Kiev Protocol by ensuring consistent implementation of the Protocol across the EU and allowing for easy data comparison. This benefit has increased further because some non-EU Kiev Protocol signatories have decided to use the E-PRTR.

Based on the weight of evidence from the evaluation and using expert opinion to score each criterion out of five, the supporting study (page 66) usefully visualised the results as follows:



The E-PRTR already makes some use of good practices that Article 70 of the 7th EAP promotes i.e. the Shared Environmental Information System (SEIS) principle of ‘produce once, use often’. The implementation of the INSPIRE Directive is ongoing. This creates the conditions for avoiding the duplication of effort and eliminating any unnecessary administrative burden on public authorities.

Looking to the future, the 7th EAP identifies some ongoing gaps in knowledge which are relevant to the priority objectives. Investing in further data collection and research to fill those gaps is essential to ensure that public authorities and businesses have a sound basis for taking decisions which fully reflect the true social, economic and environmental benefits and costs. The E-PRTR will be a key instrument in helping close the information gaps identified in paragraph 73 of the 7th EAP, which refers to the aim of ensuring that by the year 2020:

- *policy-makers and stakeholders have a more informed basis for developing and implementing environment and climate policies, including understanding the environmental impacts of human activities and measuring the costs and benefits of action and the costs of inaction;*
- *the environment science-policy interface is strengthened, including the accessibility of data for citizens and the contribution of citizens’ science.*

There is no obvious potential for simplification of, or major improvement to, the existing Regulation. Neither are stakeholders clamouring for major change. However, these are seen as the main areas for possible refinement:

- whilst Member States appear to be converging on good practices, further gains in consistent interpretation can be delivered by updating the existing EU-level guidance.
- the E-PRTR can be made more efficient and coherent if there is further harmonisation with closely-related environmental reporting obligations.
- the triennial obligation on Member States to report on implementation of the E-PRTR appears to have limited usefulness, which suggests that there is scope for simplification.

- adding more contextual data to the existing E-PRTR would improve its effectiveness as a comprehensive source of environmental information.

ANNEX 1: PROCEDURAL INFORMATION

The evaluation was conducted by the Directorate-General for Environment in response to Annex 2 to the 2016 Commission Work Programme⁴² which listed new REFIT Initiatives to be undertaken in 2016. The roadmap⁴³ was published in June 2015.

Organisation and timing: The evaluation was conducted in coordination with an Inter-service Steering Committee, which was established early in the evaluation process and met three times. The Committee consisted of Directorates-General with immediate links to the E-PRTR Regulation:

- DG Environment (ENV)
- DG Internal Market, Industry, Entrepreneurship and SMEs (GROW)
- DG Climate Action (CLIMA)
- DG Mobility and Transport (MOVE)
- DG Agriculture and Rural Development (AGRI)
- DG Energy (ENER)
- Joint Research Centre (JRC ISPRA)
- Eurostat (ESTAT)
- European Environment Agency (EEA)

Timeline of the REFIT evaluation

| Date | Activity |
|----------------------------------|---|
| 09/07/2014 | 1 st meeting of the Inter-service Steering Committee: kick-off, mandate, terms of reference for the evaluation study |
| 10/07/2015 | Interim supporting study received from consultant |
| 15/08/2015 - 15/10/2015 | Public consultation |
| 17/09/2015 | 2 nd meeting of the Inter-service Steering Committee: comments on interim supporting study |
| September 2015 – January 2016 | Targeted stakeholder consultation |
| 04/11/2015 | Stakeholder workshop on the findings of the evaluation and the interim supporting study |
| 02/06/2016 | Draft final supporting study received from consultant |

⁴² https://ec.europa.eu/info/publications/work-programme-commission-key-documents-2016_en

⁴³ http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_env_062_e-prtr_en.pdf

| Date | Activity |
|---------------|---|
| 22/06/2016 | 3 rd Meeting of the Inter-service Steering Committee: presentation of draft quality assessment form. Discussion on draft final supporting study and next steps |
| 03/08/2016 | Final supporting study received from consultant |
| 10/10/2016 | Supporting study published in EU Bookshop |
| February 2017 | Inter-service Steering Committee correspondence round: discussion of the Staff Working Document and the Commission Report to the Parliament and Council |
| Q2 2017 | Inter-service Consultation on the Staff Working Document and the Commission Report to the Parliament and Council |
| Q4 2017 | Adoption by the Commission |

Regulatory Scrutiny Board: This evaluation was not selected for assessment by the Regulatory Scrutiny Board (which did not yet exist in its current form when the evaluation started).

External expertise and evidence: External expertise was used for this evaluation through such fora as a targeted stakeholder consultation (using telephone interviews) and a stakeholder workshop which was attended by some 30 participants.

In addition, the Commission contracted an external consultancy to conduct a supporting study and gather specific information on key topics. The Annex to the supporting study includes a list of all data sources used and also describes in more detail how the information and data was assessed for its quality and robustness, the analytical method applied including the approach to evaluation questions.

ANNEX 2: EVALUATION METHODS AND ANALYTICAL MODELS

Literature review

The consultant's supporting study included a literature review of academic publications, E-PRTR data quality reviews, the EEA informal analysis and industry guidance for emission reporting. Full details and references to the papers can be found in Appendix C to the supporting study.

Website review

A review of the E-PRTR website was conducted to understand how it performs against the criteria of the Regulation and also how data is accessed and used. The review was supported by stakeholder consultation with key user groups, particularly on the access and use points.

During the period 1 July 2011 to 1 January 2014 a total of 221,712 web sessions were recorded. This corresponds to an average of 242 sessions per day. The average has declined significantly since the previous reporting period for which the average number of sessions per day was 589. The total number of sessions cannot be compared as the period of time is not the same (the first review covered 1.5 years between March 2010 and June 2011). Although the daily average from the previous reporting period is recognised as being an overestimate (due to peak activity in the last few months drove up the average), similar peak activity was observed in the current reporting period and so the daily averages are relatively comparable⁴⁴.

The website usage indicates that the E-PRTR has a well-established following (with 73% of visitors returning). Previously it was reported that peak activity on the E-PRTR website was linked to the publication of data (i.e. in May).

According to the website analysis, an important source of website traffic is online media: an online news article references E-PRTR data and readers follow through to the E-PRTR website as the original source of data. This was found to be the case in both the current and previous reporting periods – although more traffic was previously redirected from a wider variety of online media sources than is the case now.

Consultations

Part of the remit of the E-PRTR Regulation is to raise awareness of its existence and allow members of the community, including the general public, to get involved in how policy is shaped to address environmental concerns. The stakeholder consultations were therefore designed to gauge opinion and understand how the E-PRTR is used within the EU.

The following consultation activities were undertaken:

⁴⁴ Environment Agency Austria (2012) final report: Three years of implementation of the E-PRTR. Supporting study for the European Commission
http://ec.europa.eu/environment/industry/stationary/eper/pdf/Final%20report_20120605.pdf

- a public consultation hosted on the ‘*Your voice in Europe*’ website – to obtain views from the general public;
- a targeted survey of key users based on an agreed questionnaire;
- follow-up consultations by telephone to verify and explore issues identified in the targeted survey; and
- validation workshop for plenary discussion on identified issues.

Public consultation (by electronic survey)

To collect evidence from the wider public, and in accordance with the Better Regulation guidelines, a public consultation was undertaken as part of the evaluation. This public consultation also fulfilled the obligation included in Article 13 of the Kiev Protocol to provide public participation in the development of PRTRs.

A public consultation was held between 23 July 2015 and 15 October 2015. Stakeholders were informed about the public consultation through emails, personal contacts and announcements on the DG Environment and E-PRTR websites. The questionnaire was published on the *Your Voice in Europe* portal

The questions were structured around the following themes:

- the scope of the E-PRTR;
- providing data to the register;
- checking and forwarding data;
- understanding the register website; and
- the usefulness of the register.

A total of 67 responses to the public consultation were received. Almost all came from stakeholders, with a minority (9%) from interested individuals. In all, 63% of the replies came from private companies, 12% from local authorities and 9% from industrial associations.

The key messages to emerge from the responses are:

- most respondents use the E-PRTR to consult their own data, followed by comparing emissions with other sources. Emissions to air and water are the most often examined;
- for those responding about their national PRTR registers, just under twice as many thought that data were easy to provide, compared with other monitoring and reporting activities. For those responding on the E-PRTR, there was an even split between those who thought data provision was easy and those who did not;
- all respondents indicated that data collection was time-consuming. The activities highlighted as such were data collection, calculation of mass emissions, verification and uploading of data;
- suggestions on making the registers more useful were: adding links to web pages of national competent authorities' webpages, including links to data from previous years to allow for comparisons and providing more feedback on how emissions were reached (e.g. estimated or calculated); and
- broader comments included the difficulty to combine the E-PRTR based on mass emissions with the information included in permits that set concentration limits as a basis for monitoring. The reporting thresholds were also highlighted by some respondents as raising issues of comparability between sectors, and being set too high (i.e. not capturing 90% of the release of the specific pollutant).

Targeted consultation (by electronic survey)

Part of the objective of the E-PRTR Regulation is to raise awareness of its existence and allow members of the community, including the general public, to get involved in how policy is shaped to address environmental concerns. Stakeholder consultations were therefore designed to gauge opinion and understand how the E-PRTR is used within the EU, and to contribute to the analysis of information required under both the review of the implementation and the evaluation of the Regulation.

Considering the large number of interested stakeholders, a representative sample was selected for the targeted consultation. Approximately 150 stakeholders were consulted to obtain information from all categories. Stakeholders were divided up as follows:

| Stakeholder | Role |
|---|--|
| Member State competent authorities | Gathering data from national sites to provide to E-PRTR |
| Industry operators | Data providers |
| European Environment Agency | Gathering, QA checking and maintenance of E-PRTR website |
| European Commission Directorates-Generals | Likely a heavy data user |
| Non-governmental organisations | Likely a heavy data user |
| Private researchers and consultancies | Likely a heavy data user |
| Academia | Data user |
| International organisations (UNECE, WHO, OECD, UNEP) | Data user |
| Broader public | Data user |

The targeted stakeholder consultation was held in April 2015. To boost participation in the survey, Member State competent authorities first received an introductory letter alerting them to an upcoming consultation. One week later, the two questionnaires (each containing 30-40 questions) were sent to stakeholders: one for data providers and managers and the other more relevant to data users. The full questionnaires are included in Appendix G to the supporting study.

Those stakeholders consulted included Member State competent authorities, European trade and industry associations, NGOs, international organisations and academic institutions.

A sample of 150 stakeholders was selected and consulted. By the closing date (25 May 2015), the targeted consultation had received 78 responses, with the main contributions from European or national industry associations (31 responses) and Member States (23 responses).

Follow-up consultation (by phone interviews)

Following the targeted consultation, 22 informal phone interviews were organised with selected respondents between September 2015 and January 2016. The aim of this additional consultation was to gain a deeper understanding of some specific topics (e.g. the use of the E-PRTR data by academics and the context of other PRTRs).

Five academics were chosen and contacted as part of the research task for this study. One provided feedback on the use of the E-PRTR for academic purposes. In addition, 26 other stakeholders were approached for follow-up conversations. Discussions were successfully held with 17 of them. The details from the discussions are presented in Appendix H to the supporting study.

The key messages to emerge from the responses to the stakeholder consultations were that:

- the E-PRTR is a useful and valuable tool for policy-makers and academics;
- aggregation of data can be complicated and there are some difficulties in matching activities with reporting activity codes under the E-PRTR;
- despite improvements, there are data gaps e.g. on diffuse emissions;
- there are varying views on the value of the thresholds and for some stakeholders it leads to additional complications in the reporting which is unhelpful;
- there are challenges for engaging the public and increasing public participation; and
- the use of E-PRTR for other environmental reporting is useful but could be improved (e.g. for waste reporting and urban waste-water reporting).

Workshop of Member State stakeholders

A workshop was held in Brussels on 4 November 2015. In advance, attendees were provided with an 'issues paper' providing the draft findings of the Commission's REFIT evaluation. The main aim of the workshop was to discuss and validate these findings, with a particular focus on the following tasks:

- discuss the E-PRTR and its value at the European and wider international levels.
- help identify issues and areas for improvement against the intervention logic and the five REFIT themes.
- provide feedback to the delegates on the finalised set of issues identified to seek opinions on those in greatest need of prioritisation
- share views on the register's contribution to capacity building, public awareness and support in decision-making.

At the workshop, the following key conclusions were drawn for the five REFIT criteria:

Effectiveness

- the value of the E-PRTR Regulation was highlighted. The E-PRTR website is one of few tools that provide comprehensive data over a long time span;
- there was a clear difference in perspective between industry operators and competent authorities on fostering public participation: the former believe that the E-PRTR does a good job of fostering public participation, while the latter believe public participation is poor. This difference in views may stem from how each interprets the meaning of 'public participation' in environmental policy-making;
- the barriers to making better use of the E-PRTR were acknowledged but there was resistance to transforming the E-PRTR too radically. Contextual information on pollutants and their source of emissions, data quality and metadata were welcomed. Information such as production outputs was deemed more difficult to obtain;
- to be of more use when defining benchmarking, and to be able to use the E-PRTR as a tool for environmental performance, it was felt that more data was needed; for instance on environmental performance ratings, production data, size/ age of plant, abatement technology used; and
- some users highlighted data quality issues / data gaps as a possible barrier to making the E-PRTR as effective as it could be. Reporting thresholds are especially important as they affect data completeness across the EU. Likewise, the emission calculation method (estimated, calculated or measured) was a big variable.

Efficiency

- Feedback was uneven on the differences in the systems used for the E-PRTR and the IED. For some Member States this does not appear to be an important issue; for others it uses much of their support resources. However, respondents highlighted that the sectors covered by the Annex I economic activities were defined in a way that does not allow for a useful comparison with other environmental legislation, particularly the IED.

Coherence

- discussions focused on how to increase the E-PRTR's potential as a tool to help gauge the industry performance (e.g. with Best Available Techniques - BAT). There was no clear agreement about whether the E-PRTR should be used for this purpose;
- Member State stakeholders reiterated that the extended time-series allows the assessment of trends. This is an important component of the dataset and needs to be maintained; and
- the difference between installation level and facility level can be valuable and warrants further discussion.

Relevance

- the boundaries of the E-PRTR's scope (e.g. thresholds for reporting; activities included) mean that, although a useful dataset can be compiled to help public participation in environmental matters, data completeness issues (data gaps, below-threshold data, diffuse emissions) are such that the dataset limits the capacity to see the whole picture. One example of this is total emissions as made up of industrial emissions vs diffuse emissions;
- industry highlighted the importance of the E-PRTR in assessing environmental performance and benchmarking against other operators in the same industry sector. However, this has proven difficult due to a lack of context or metadata; and
- reporting on the treatment of waste under the Waste Statistics Regulation is not complementary to the requirement to report on the transfer of waste under the E-PRTR Regulation, such as in relation to on-site waste generation and management and the use of EU waste codes. This question then arises of how well the E-PRTR correlates to the waste shipment and waste statistics data and what needs the E-PRTR fulfils in this area.

EU added value

- the findings showed strong support for the value of the EU-level register and the processes to deliver it under the Regulation. The specific areas of added value that were cited include the provision of an EU-wide database; harmonisation of reporting; harmonisation of monitoring practices; development of a common approach and understanding in data collection and reporting; enhanced comparability across reporting countries; and higher quality of data thanks to the EEA's quality assurance efforts. However, national data quality was highlighted as an area of uncertainty; and
- the purpose of the database (against which EU added value needs to be judged) is public information provision and any related benefits. The findings showed that public

use of the E-PRTR is sporadic and may be linked to specific events or news items. Its users are more likely to be professionals (policy-makers, industry, NGOs, etc.). Public engagement with registers was more evident at national level.

Based on the wide range of information and evidence it collected, the workshop thought it appropriate to cluster the key messages received and focus the evaluation on: completeness and quality of data; level of public participation; overlaps between reporting for the E-PRTR and other regulations; use of E-PRTR data in other policy areas; and implementation.

ANNEX 3: ABBREVIATIONS AND GLOSSARY

| Abbreviation / Term | Explanation |
|---------------------|---|
| 7-EAP | 7 th Environment Action Programme |
| EEA | European Environment Agency |
| EFTA | European Free Trade Association |
| EMEP | European Monitoring and Evaluation Programme |
| E-PRTR | European Pollutant Release and Transfer Register |
| ETS | Emissions Trading Scheme |
| FTE | Full-time equivalent |
| IED | Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (aka Industrial Emissions Directive) |
| INSPIRE | Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community |
| NECD | Directive 2016/2284 of the European Parliament and of the Council on the reduction of national emissions of certain atmospheric pollutants (National Emission Ceilings Directive) |
| PRTR | Pollutant Release and Transfer Register |
| REFIT | Regulatory Fitness and Performance |
| SEIS | Shared Environmental Information System |
| SOER | EEA report on the state of, and outlook for, the European environment |
| UWWTD | Council Directive 91/271/EEC concerning urban waste-water treatment |
| WISE | Water Information System for Europe |