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Meeting of the Parties to the Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters

Working Group of the Parties to the Protocol

Fifth meeting

Geneva, 23 and 24 November 2016

Item 4 (d) of the provisional agenda

Promotion and capacity-building: global promotion of the Protocol

Report on the second Global Round Table on Protocol on Pollutant Release and Transfer Registers

Joint report by the secretariat of the Protocol on Pollutant Release and Transfer Registers and the Organization for Economic Cooperation and Development

Summary

Following up on the success of a first joint Global Round Table on Pollutant Release and Transfer Registers (Geneva, 19 November 2013), the Meeting of the Parties to the Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and the Task Force on Pollutant Releases and Transfer Registers under the Organization for Economic Cooperation and Development entrusted their respective Bureaux to explore an opportunity to organize a second global event and tasked the secretariat with producing the related documents and meeting report (ECE/MP.PRTR/2014/4, para. 18 (d)).

Consequently, a second Global Round Table on Pollutant Release and Transfer Registers (Madrid, 24–25 November 2015) was held with a view to promoting the transfer

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of knowledge and fostering environmental democracy around the globe. The Round Table was co-organized by the United Nations Economic Commission for Europe (ECE) and the Organization for Economic Cooperation and Development (OECD), in cooperation with the United Nations Institute for Training and Research and the United Nations Environment Programme. The initiative for the event came from the ECE Working Group of the Parties to the Protocol on Pollutant Release and Transfer Registers and the OECD Task Force on Pollutant Release and Transfer Registers. The format and content of the Round Table was agreed at the meetings of those two bodies over the course of 2013 and 2014, pursuant to proposals from those bodies' Bureaux.

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I. Introduction

1. Following the success of the first Global Round Table on Pollutant Release and Transfer Registers (Geneva, 19 November 2013), a second Global Round Table was held in Madrid on 24 and 25 November 2015 at the invitation of the Government of Spain. The Global Round Table was co-chaired by Tina Skårman (Sweden), Chair of the Meeting of the Parties to the Protocol on Pollutant Releases and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), and Noriyuki Suzuki (Japan), Chair of the Task Force on Pollutant Releases and Transfer Registers under the Organization for Economic Cooperation and Development (OECD).

2. Representatives of Governments, non-governmental organizations (NGOs), industry, intergovernmental organizations and academic institutions from different continents came to Madrid to discuss pollutant release and transfer registers (PRTRs) — one of the key tools for environmental transparency and monitoring releases of pollutants into the environment. The event helped foster the exchange of experience between different Governments and stakeholders as well as build experts' capacities and promote synergy on PRTR-related issues. The presentations and discussions during the event were centred on good practices, common challenges and new opportunities related to the development of PRTRs.

3. PRTRs allow access to specific environmental information for everybody, with virtually no restriction. Free web-based access to geo-referenced environmental data empowers the public, decision makers in government and industry, scientists and journalists to make informed choices. Furthermore, by making data publicly available, PRTRs allow industries to validate their efforts to reach sustainability. The United Nations Economic Commission for Europe (ECE) Protocol on Pollutant Release and Transfer Registers is the only legally binding instrument on PRTRs to ensure minimum standards for equal rights and transparency in the use of environmental data. It sets common standards for data comparability and offers a solid legal framework for enhancing public access to information and moving towards sustainable and environmentally sound development, thereby protecting the health of present and future generations.

4. The Global Round Table, co-organized by ECE and OECD, in cooperation with the United Nations Environment Programme (UNEP) and the United Nations Institute for Training and Research (UNITAR), was a remarkable example of synergy. The four organizations matched their expertise and capacities to organize the joint meeting to promote the transfer of knowledge and foster environmental democracy around the world.¹

A. Attendance

5. The meeting was attended by delegations from the following Parties to the Protocol: Albania, Austria, Bulgaria, Croatia, Czech Republic, Estonia, European Union, Finland, France, Germany, Hungary, Israel, Netherlands, Norway, Republic of Moldova, Serbia, Slovakia, Spain, Sweden, Switzerland and the Former Yugoslav Republic of Macedonia.

6. The following signatories to the Protocol were also present: Armenia, Bosnia and Herzegovina, Georgia, Malta, Tajikistan and Ukraine.

¹ Statements and other materials from the round table are available from http://www.unece.org/prtr_grt2015.html.

7. The following States also sent delegations to the Global Round Table: Azerbaijan, Belarus, Cambodia, Canada, Chile, Ecuador, Egypt, Japan, Kazakhstan, Kyrgyzstan, Morocco, Peru, Turkmenistan and the United States of America.

8. Also attending were representatives of OECD, the Organization for Security and Cooperation in Europe (OSCE) Office in Tajikistan, UNEP, UNITAR and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). Furthermore, representatives of international, regional and national environmental NGOs participated in the meeting, many of whom coordinated their input within the framework of the European ECO Forum. In addition, representatives of the Regional Environmental Centres for the Caucasus and for Central and Eastern Europe were present.

B. Proceedings

9. Pablo Saavedra Inaraja, State Secretary for Environment at the Ministry of Agriculture, Food and Environment of Spain, delivered a keynote speech, highlighting PRTRs as crucial tools to disseminate environmental information to stakeholders. He noted that membership in the Protocol on Pollutant Release and Transfer Registers — which was open to global accession — was an important first step to achieve full transparency, facilitate access to information and streamline reporting to related international obligations. Moreover, the use of PRTRs was increasing on the global level, and often went beyond the mere scope of the Protocol, or the basic guidelines made available through the work of the OECD Task Force on PRTRs. The Round Table’s conclusions would draw the lines for future work that would help to respond to PRTR challenges, and would enhance their role as essential tools for achieving sustainable development. The co-Chairs of the Round Table also made introductory statements.

10. Following the adoption of the agenda, the Round Table was divided into four thematic sessions. During the first session “PRTRs across the world” participants learned about the current status of the establishment of PRTRs across the world, including major challenges in implementing or developing PRTRs, and relevant activities carried out by international organizations.

11. The second session “Next-generation PRTRs” provided an opportunity to address the potential of PRTRs to be used as a knowledge platform and to provide “knowledge-on-demand” by adding contextual information to data on pollution and waste. The added value of that new role was to offer users not only environmental data, but also knowledge about the meaning of data, e.g., in relation to human health and living conditions, which would help Governments and stakeholders to make more effective and diverse use of PRTR data for pollution-related decision-making across sectors.

12. Emerging challenges in development, implementation and use of PRTRs were discussed at a third session on “Emerging PRTR challenges”.

13. The fourth session, “PRTRs for different stakeholders”, aimed to showcase the experiences and views of different stakeholders in relation to the use of PRTRs and to discuss how PRTRs could contribute to sustainable development.

14. The second joint Global Round Table concluded with the “Madrid statement on PRTR perspectives for a sustainable future” delivered jointly by the co-Chairs.

15. In addition, time was allocated for bilateral and small group discussions centred on the issues of data handling and the use of PRTR data in relevant international reporting.

II. Pollutant release and transfer registers across the world

A. Presentations

16. Iñigo de Vicente-Mingarro, Chair of the International PRTR Coordinating Group, presented a global map on PRTRs that showed countries that had active PRTRs, initiated related activities such as pilot projects, or expressed their interest in building PRTR systems. The map aimed not only to provide information about the status of PRTRs globally, but also to facilitate international cooperation. He requested participants to help further develop the map, among others, by sending relevant information about their national activities to the ECE secretariat.

17. Kevin Munn, Programme Officer at the Chemicals and Waste Branch of UNEP, presented UNEP PRTR-related activities in three areas: (a) as an implementing agency for the Global Environment Facility-funded project to help countries identify PRTRs as a mechanism for reporting under the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention); (b) with regard to work under the Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) and its Mediterranean Action Plan; and in the context of outreach to the private sector within the UNEP Chemicals in Products Programme, specifically in the textile sector. Parts of the private sector also recognized PRTRs as the best mechanism to inform the public about the environmental performance of production facilities and communicate with local governments and communities about the improvements in chemicals management that they sought from those facilities.

18. Fabrice Clavien, from the Chemicals and Waste Management Programme of UNITAR, also spoke about the execution of the recent Global Environment Facility-funded project on the implementation of PRTRs as a tool for reporting on persistent organic pollutants, dissemination of information and awareness-raising, for which UNEP was the implementing agency. The main goal of the project was to demonstrate that PRTRs were an important tool to meet the reporting obligations under multilateral environmental agreements, such as the Stockholm Convention, and to collect lessons learned and develop guidance material for that purpose.

19. On the regional process in Latin America and the Caribbean, Carlos de Miguel, Chief of the Policies for Sustainable Development Unit of ECLAC, noted that development of PRTRs was based on three major drivers: environmental agreements with mandatory reporting obligations, which PRTRs could facilitate; trade agreements; and laws that had an environmental component and could require the development of national PRTRs.

20. Mr. de Miguel noted that one of the lessons learned in implementing PRTRs was that before legislation was in place, other steps were hard to implement. A regional instrument on Principle 10 of the Rio Declaration on Environment and Development (Rio Declaration) currently under negotiation in the Latin America and Caribbean region included the obligation to establish a PRTR. Twenty countries were currently involved in negotiating that agreement and it was hoped that it would become a legally binding agreement similar to the Aarhus Convention and the Protocol on PRTRs.

21. Tatjana Hema, Programme Officer with the Mediterranean Pollution Assessment and Control Programme of the Barcelona Convention secretariat, said the Barcelona Convention was an action-oriented cooperation framework of the Mediterranean coastal States and the European Union for the protection of the Mediterranean Sea and its coastal regions and promotion of sustainable development. One of the pillars of its work was to combat and assess marine pollution coming from land-based sources and activities. In that context, work had been done to enhance the capacities of Mediterranean countries with

regard to assessment and reporting of inventories of pollutant releases affecting directly or indirectly the water quality of the Mediterranean Sea.

22. Ms. Hema said a recent project implemented in collaboration with the European Environment Agency included the establishment of small-scale pilot PRTRs, which had been implemented in six Mediterranean countries. Among lessons drawn from that exercise were that:

(a) There was good potential to further consolidate PRTRs in the region as a tool to record and report pollutant loads from different sources;

(b) Legal frameworks related to PRTRs were often missing in the pilot countries but were imperative to make PRTR systems sustainable;

(c) From a technical point of view, there was a need to better align the work with the Protocol on PRTRs;

(d) There was a need to strengthen the institutional framework with regard to data flows and their quality assurance.

23. Svetlana Bolocan, Head of the Department of Pollution Prevention and Waste Management at the Ministry of Environment of the Republic of Moldova, said that PRTR-related activities were part of overall efforts to achieve a cleaner environment and healthier people. Priorities for rendering the national PRTR fully operational included: (a) enhancing public awareness and public participation on environmental matters; (b) building capacity of authorities as well as operators responsible for reporting with regard to the online reporting mechanism; and (c) increasing the level of priority given by enterprises to environmental management issues.

24. Ms. Bolocan noted that the ratification of the Protocol on PRTRs in 2013 had facilitated the strengthening of the national regulatory and institutional framework, thus ensuring the establishment and long-term maintenance of the national PRTR. Furthermore, being a Party to the Protocol provided better access to international good practices and methodological support and helped with the mobilization of additional external and internal financial resources. It had also led to the development of implementation activities, in particular to the establishment of a PRTR interministerial coordination group and had improved communication with operators.

25. Amina Halim, Chief of the Environment and Health Service of the Ministry of Environment of Morocco, outlined the lessons learned in the creation of a regional pilot PRTR in northern Morocco. The pilot project had been developed within the framework of the Barcelona Convention to help fight against the pollution of the Mediterranean. The project included: the development of a self-monitoring system for industry and training on how to calculate emissions; an analysis of the institutional and regulatory framework with the aim of establishing a national PRTR; an analysis of the different industrial processes and the creation of a list of chemical products used and emitted by industry; and awareness-raising on reporting and regarding the role of PRTRs with a view to lowering levels of pollution in the Mediterranean.

26. For the authorities, the pilot had been an important first step, Ms. Halim said. Among others, it had provided information about the scale and location of emissions in the region. Furthermore, it had been shown that without a legal and regulatory basis it would be difficult to obtain the required participation of industry. It also became clear that it was in the interest of Morocco to adapt the common PRTR practice to Moroccan realities by, for example, including mid-sized and smaller facilities. Those were, when combined, significant sources of pollution and therefore relevant when aiming to use the PRTR as a tool to support decision-making and management related to chemical substances.

27. Daniel Nunez, PRTR Coordinator at the Ministry of the Environment of Peru, reported that in 2015 the implementation of a PRTR as a cross-sectoral and simplified emission reporting tool had begun following a number of preparatory steps. The steps included a PRTR pilot project as well as the validation of the electronic reporting procedure that would be applied in Peru. The Peruvian PRTR covered 150 chemical substances, 12 physical and biological parameters, 50 categories of hazardous waste, as well as chemical substances listed in international conventions that had been ratified by Peru. In addition, the PRTR was open to modification, for example, there was a possibility of gradually including other substances over time. At its final stage the PRTR would include all economic sectors, with seven priority sectors defined as a start.

28. Mr. Nunez said that among the lessons learned from implementation activities was that a clear strategy should be defined to raise public awareness about the responsible use of information released through PRTRs. Also, should a PRTR be integrated with other systems for the registration and dissemination of environmental information in the country (monitoring networks, surveillance systems, etc.), it would help to achieve efficient environmental management and increase the usefulness of the information provided for stakeholders. A key outcome from the preparatory phase of the PRTR was that the active participation of all major stakeholder groups had made the PRTR an important tool for building trust among those groups.

B. Discussion

29. In the discussion, participants emphasized that development of PRTRs was increasing on the global level. Different approaches existed to foster the proliferation and possible harmonization of PRTR systems. For example, countries in the Latin America and Caribbean region were in favour of developing a regional instrument on Principle 10 of the Rio Declaration, which would also include a section on PRTRs. Countries from other regions might wish to accede to the Protocol on PRTRs, which was open for accession by all United Nations Member States. It was noted that a country's ratification of the Protocol on PRTRs would demonstrate strong commitment to the development of PRTRs.

30. Considerable efforts had been undertaken by countries in the Mediterranean region with the support of the Barcelona Convention. A representative of Egypt outlined the country's continuing efforts to establish a PRTR. Results from pilot PRTR projects showed the value of gaining insight into the amounts of pollution discharged into the Mediterranean Sea. One of the reported challenges identified through the pilot project in Egypt was to develop emission factors that reflected the local conditions and applied production techniques. The role of industry, and in particular how to engage companies and persuade them to volunteer to participate in pilot PRTRs, was a key issue during the pilot phases of PRTR, where participation was not required by national legislation.

31. Participants further mentioned the need to apply a transparent strategy on how to build trust among stakeholders and evoke the competitive spirit of companies. It was also stressed that to raise public awareness was important in that respect, as with an unaware public the motivation for industry was less pronounced. In addition, once the information was available, the public should be enabled to use the information in an effective way.

III. Next-generation pollutant release and transfer registers

Data visualization

32. Sho Ohnishi of the Chemical Management Centre at the National Institute of Technology and Evaluation of Japan presented a “PRTR map” interactive website. The site provided two interactive databases: a “Released Amount Map”, displaying the total amount of pollutants releases by location; and the “Concentration Map”, presenting the estimated concentrations in the atmosphere of the monitored pollutants by location, calculated using PRTR-reported data and other relevant information.

33. Mr. Ohnishi also explained how to use the PRTR map for chemical risk management. For example, risk assessment could be conducted by comparing the maximum atmospheric concentration in the target area, or risk identification could be done by displaying the distribution of the population and certain chemicals in the target area. PRTR maps could be useful tools for risk management.

34. Karen Mailhiot, Director of the Programme Integration Division at Environment Canada, presented the National Pollutant Release Inventory and the system to visualize the Inventory data on a map. Canada provided information from the Inventory, including the geo-reference information (longitude and latitude) for each facility, which enabled users to create custom maps in various geographic information system and mapping applications. In addition, Canada provided a map layer for the use of Google Earth to display all the facilities reporting data to the National Pollutant Release Inventory, together with the reporting data.

35. Ms. Mailhiot pointed out that it was quite important to maintain and improve the quality of geographical information reported from each facility. To do so, it was useful to periodically and proactively seek input from data users to understand their needs in terms of data dissemination and visualization.

PRTR for addressing social issues and cross-cutting applications

36. Luis Tapia, Manager of the Chilean PRTR at the Ministry of the Environment of Chile, presented the single-window system of that national PRTR. The Chilean PRTR provided one portal for a reporter to comply with all the reporting requirements from different institutions, which facilitated homologation of data and avoided duplication of reports.

37. Mr. Tapia also reported that the green tax regulation — comprised of a tax on carbon dioxide (CO₂) emissions, a tax on local pollutants, such as sulphur dioxide (SO₂), nitrogen oxides (NO_x) and particulate matter (PM), and a tax on the first sale of vehicles according to their urban performance and NO_x emissions — had been approved in Chile in 2014. The PRTR and its single-window system was expected to be used for monitoring, measurement, recording and verification of emissions for those taxes.

38. Uri Shilav, PRTR Coordinator with the Ministry of Environmental Protection of Israel, introduced several cross-cutting ways in which the Israeli PRTR was used. For instance, the PRTR was as a major component in the Environmental Impact Index² for industrial facilities and it was used by investors and others as a component of the decision-making process, including through integration with other inventories. It also served as a data source to assess and follow-up on the implementation of the Ministry’s objectives.

² See http://www.sviva.gov.il/English/env_topics/IndustryAndBusinessLicensing/Pages/PRTR-and-Environmental-Impact-Index.aspx.

39. Mr. Shilhav gave examples where data from the Israeli PRTR were used to assess policy on the disposal of non-hazardous industrial waste, hazardous waste recovery and the national plan for reduction of air emissions, including a case study for the city of Haifa. In Haifa, the geographic localization of sources of pollution, together with data on the kind of emitted substances, available from the PRTR had enabled the government to design a number of discrete measures to address specific cancers caused by air pollution.

IV. Emerging pollutant release and transfer register challenges

A. Presentations

Data handling

40. Linda Linderholm, Scientific Adviser at the Swedish Environmental Protection Agency, gave a presentation on data from diffuse sources. To make available data from diffuse emissions to air, the Swedish PRTR used data reported to the ECE Convention on Long-range Transboundary Air Pollution (Air Convention) and the United Nations Framework Convention on Climate Change (UNFCCC).

41. Since January 2016, data on diffuse emissions to water had also been added to the Swedish PRTR. Together with the previously available PRTR data from point sources, such as industrial facilities, it was possible to compare emissions according to their origin as diffuse or point sources. Results from such comparisons showed the overall levels of pollution and the share of diffuse sources. Ms. Linderholm noted that emissions from diffuse sources could in many cases largely exceed those from point sources, as was the case for lead, mercury, nitrogen and phosphorous in Sweden. Gathering information on emissions from diffuse sources and making it available through PRTRs was key for both better decision-making and the completeness of pollution control.

42. Ulrike Schüler, a Scientific Officer at the Federal Environment Agency of Germany, outlined the steps for quality assurance and quality control within the PRTR process chain in Germany and addressed related challenges. In Germany, both facility operators and competent authorities were responsible for aspects of data assurance in terms of completeness, coherence and reliability, including by comparison with data submitted to authorities on different reporting obligations, licence data and PRTR data from previous years. With regard to quality assurance and quality control, it was recommended to:

- (a) Check data as early as possible in the process chain;
- (b) Apply stringent controls at the starting point of the data flow, as the bottleneck was at the beginning of the process chain, not at the end;
- (c) Use flexible and easy-to-expand tools along the chain;
- (d) Use different tools for different tasks in a pragmatic and flexible way;
- (e) Include information on any corrections made to the base data set .

43. Furthermore, Ms. Schüler noted that relations between quantities of emissions from specific pollutants (cross-pollutant relations), such as between mercury (Hg) and CO₂, were used as indicators and were key to analysing potential outliers and the completeness of the reported data. In that regard, the European Topic Centre for Air Pollution and Climate Change Mitigation had established 174 cross-pollutant relations on releases to air, which, however, were not currently installed as part of the European Environment Agency validation tool.

44. Mr. de Vicente-Mingarro gave a presentation on the use of combined data from different PRTRs and the further harmonization of codification and data-collecting procedures and methodologies. Even if the type of data was comparable between different PRTRs, the scope, including defined activities, chemical substances or thresholds, might not be identical. Also other elements of PRTRs, such as procedures of data collection, technical methodologies for quality assurance, or how the question of data confidentiality was approached, might hinder the accurate comparison of data between PRTRs and thus needed to be taken into account when data was compared or equivalences were defined.

45. Furthermore, harmonization and standardization of, among others, applied definitions, nomenclatures, scopes and reporting thresholds, were key to an improved data comparability between PRTRs globally and would need to be implemented to the extent possible. Harmonization could be achieved through the application of international standards or instruments, such as the work under the OECD Task Force on PRTRs and the Protocol on PRTRs. In that context, guidelines, recommendations and the sharing of good practices were valid tools to minimize difficulties in comparing data from different PRTRs. Mr. de Vicente-Mingarro further highlighted the importance of basing such efforts on the needs and particularities in different countries and, in parallel, developing equivalence-correspondence tables. Using the example of Spain, it was shown how that could be done, for example, by the development of tables comparing code classifications, and should aim at facilitating decision-making processes as well as providing the best available information to the public.

Use of PRTR-data in relevant international reporting

46. Nebojsa Redzic, Head of Department of the national PRTR register at the Environmental Protection Agency of Serbia, said the Serbian national PRTR was used as a cost-effective way to comply with international reporting obligations. Among others, the PRTR was used to report to the greenhouse gas inventory under UNFCCC, the Air Convention inventory, the large combustion plants database (for reporting under the European Union Large Combustion Plant Directive),³ the European PRTR (E-PRTR), Eurostat, the Water Information System for Europe (WISE) database, the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), the National State of Environment Report and the European Environment Agency State of the Environment Reporting Information System (SERIS), as well as for reporting on other environment indicators, including on the generation, landfilling, reuse, recovery and recycling, export and import of waste. The national PRTR further helped to apply the polluter pays principle in Serbia.

47. Mr. Redzic noted that, to allow for that kind of pragmatic use of the pollutant and waste register, two cornerstones were most relevant: (a) identifying similarities between the different international reporting obligations, e.g., equivalences between reporting facilities and the categories they were organized under; and (b) addressing differences through a modular computer software approach, with strong information technology support. Furthermore, in addition to covering the provisions of the annexes of the Protocol on PRTRs, in Serbia information on raw materials consumption, fuel consumption, the amount of products, as well as technical data about stacks (chimneys), wastewater outlets and waste management were collected and used for quality assurance and quality control and emission modelling.

³ Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants.

48. Andreas Grangler, policy officer with the German Federal Land Baden-Wuerttemberg participating on behalf of the European Commission Directorate-General for Environment, presented interim findings from the Regulatory Fitness and Performance (REFIT)⁴ evaluation of the E-PRTR. The evaluation aimed to assess whether E-PRTR was fit for purpose by taking into account existing and evolving needs of stakeholders. Provisional findings showed that the original objectives of the E-PRTR, such as maximizing the ease of public access to environmental information on large point sources and diffuse releases of pollutants, remained relevant also for future work. E-PRTR was also found to be a valuable tool, among others, for decision-making processes, with increasing benefits for more detailed trend analysis for each year of existence of the E-PRTR database. In addition, significant European Union added value had been created by increased comparability of PRTR data between countries, with harmonized reporting and monitoring processes having been largely achieved.

49. Mr. Grangler noted that the exercise had furthermore helped to identify new needs, such as interpreting the E-PRTR data sets and putting the data into perspective, including for a comparison of emission data with national totals of emissions, assessment of performance and benchmarking, and consequently the potential need for additional contextual information to be integrated in E-PRTR. Among challenges identified were that a lack of quality and completeness of data were barriers to making E-PRTR as effective as it could be.

B. Discussion

50. During the ensuing discussion it was noted that, while in many countries a lot of data was available owing to international reporting obligations, making active use of those data sources was often challenging given the different format and slightly different scope and definitions that were applied to collect the data in each case. Among solutions, speakers said there was a need to work on harmonizing data sources and to identify equivalences between different sources of data before it was possible to make use of those data for meaningful comparison.

51. Another solution proposed was to collect data once, with sufficient detail, and to share it for the different uses, such as reporting to a variety of international obligations. Collecting data using a single database was less resource intensive and avoided overlapping of data sources, while making it simple in comparison to add scope to the database, such as including information on water consumption, fuel consumption or amount of production output, as was the case in Serbia. In that context, it was mentioned that Serbia had 11 staff working with their modular information technology approach. The modular approach made it possible to streamline processes and work with less employees on the system. Without the use of that information technology approach the same work would have required some 50 employees.

52. It was also noted that to ensure a good quality of the data it was important to start with quality assurance from the very first stages of data collection and to continue with it along the different steps of data treatment. That should be established from the start when implementing PRTRs. Furthermore, PRTR data could be crosschecked with data received from, for example, licensing processes and other reporting obligations. In addition, systematic checks that could be performed by the inspector who was familiar with the

⁴ For more information, see “REFIT — Making EU law simpler and less costly”, http://ec.europa.eu/smart-regulation/better_regulation/key_docs_en.htm (accessed on 29 August 2016).

specific facility, as was the case in France, made it possible to ensure the reliability and correctness of data provided by the industry. In general, international guidelines were available and provided effective support in addressing the issue of data quality assurance.

53. When using emission factors to provide data on emissions, it was important to review the existing factors with regard to changes in techniques applied in the production process. New techniques might have a significant impact on the composition and quantity of emissions.

V. Pollutant release and transfer registers for different stakeholders

A. Presentations

PRTRs to monitor success in sustainable development

54. Steve Devito, a Senior Scientist at the United States Environmental Protection Agency, gave a presentation on the use of the United States Toxics Release Inventory to assess the impact of green chemistry practices, using an example from the pharmaceutical manufacturing sector.

55. Mr. Devito said the green chemistry approach had succeeded in reducing chemicals, but questions remained as to whether the reductions from green chemistry were reflected in the PRTR data, and whether the PRTR could be used as a tool to measure green chemistry progress. To assess that relationship, links between releases monitored by the Toxics Release Inventory and potential drivers for those emissions — such as economic trends, outsourcing and changes in regulations — were examined. For that data analysis, the pharmaceutical manufacturing sector was targeted, because green chemistry progress seemed to be widespread in that sector and many green chemistry examples were available in the literature. The results of the analyses indicated that the implementation of green chemistry by the pharmaceutical industry was reflected in the Toxics Release Inventory data, and therefore suggested a potential use of PRTR data as a tool to track implementation of green chemistry and sustainability progress.

56. Pedro Mora, Vice-Chair of the Committee for Sustainable Development and Environment of the Spanish Confederation of Business and Industries, outlined the Spanish business experience on PRTRs. The advantage of PRTRs was the possibility to compare data between different polluters, nationally, across Europe and also potentially at the global level. Yet, misinterpretation of the information provided through PRTRs was a key issue that would need to be addressed successfully in order to make PRTRs work.

57. Mr. Mora noted that one reason for misinterpretation of PRTR data was that not all relevant information was currently made available to the public. For example, in the case of air pollution from traffic, information was not as easily searchable as emissions from factories while at the same time it was a dominant source of emissions. Thus, a distorted image of the main source of pollution could develop, with negative consequences for the public image of individual businesses as well as for the use of PRTRs as a tool for sound decision-making processes. However, wrongful use of PRTR data could be minimized. For that to happen, PRTRs would have to become more complete and comparable and thus more useful and fit to deliver on their objectives.

PRTRs as a communication tool for producer, retail and consumer

58. Mr. Munn said the aim of the UNEP-led Chemicals in Products Programme was to ensure that stakeholders throughout the product life-cycle could access the information they

needed to make sound decisions on how to manage the chemicals in the product. To achieve that goal it was necessary that information be accurate, current and adapted to the recipient.

59. Mr. Munn observed that, in practice, that meant that within all links of a supply chain, stakeholders should know and exchange information on chemicals in products, associated hazards and sound management practices. Furthermore, those within the supply chain should disclose information of relevance to stakeholders outside the supply chain. Those aims were closely related to Sustainable Development Goal 12 on responsible consumption and production. The Chemicals in Products Programme and PRTRs thus helped to achieve the Sustainable Development Goals, in particular targets 12.4, 12.6 and 12.8.

Fostering public participation

60. Roland Ritter, Scientific Officer with the Swiss Federal Office for the Environment, raised questions about the extent and scope of the right to know with regard to environmental data and how far it was possible to go with data interpretations. As an example, a controversial article had used PRTR data to draw lurid and tendentious conclusions about the “dirtiest places in Switzerland”. Authorities could not stop lurid or tendentious presentation of data from PRTRs since that was part of the freedom of press. On the other hand, as a secondary effect, that kind of publicity clearly raised awareness about the pollution register, which had been demonstrated by a spike in access to the Swiss PRTR web page following the publication of the article.

61. Mr. Ritter said that the case of the article raised the question of how data needed to be presented in order to minimize the risk of false interpretation and to maximize the usefulness of the database for the general public. Universities, in particular, had proven to be interesting partners to foster public participation and awareness of the Swiss PRTR through projects such as data visualization. The example of lurid journalism he had presented also highlighted the need for the authorities to play an active role in communicating PRTR-related specifics in sufficient detail to the broader public, including the difference between reporting thresholds and thresholds for harm for human health.

62. Begoña Maria Tome Gil, Climate Change and Energy Adviser with the Union Institute of Work, Environment and Health of Spain, said that workers were first in line with regard to the effects on health and environment caused by emissions from facilities. Given their exposure to toxins, they needed to know how to interpret the data provided through PRTRs and which pollutants were emitted at their workplace. Workers would benefit directly from improved PRTRs that supported learning about monitoring of emissions, participation in environmental management systems implemented in facilities, technical adaptation of facilities and the detection of risks.

63. Ms. Tome Gil said a number of issues could be addressed through PRTRs that would make them more relevant for stakeholders. PRTRs could provide a platform for participation in environmental management systems, including through the possibility to more easily submit proposals for an improved chemicals management. Additional relevant information could also be included in PRTRs, namely on production data, the number of workers employed and working hours, relevant permits, links to government reports deriving from environmental inspections and the environmental profile of facilities, as well as population density at the location of the emissions and other information that would enable a better analysis of risks based on site-specific circumstances.

64. Christian Schaible, Policy Manager with the European Environmental Bureau, said that well-developed public participation in environmental matters would improve various aspects that were closely linked to successfully implemented PRTRs. For instance, public

participation was an integral part of sustainable development and had helped advance the environmental performance of industry.

65. Mr. Schaible also noted that large amounts of data were generated and became available through PRTRs. Providing the public with tools supporting the use of that data was thus key to making public participation through PRTRs a success story. Timely access to information relating to key phases of decision-making opportunities throughout the life cycle of an industrial activity — for example, timely updates about permit reviews or changes in operation — should also be ensured so that the public could effectively participate.

PRTRs for science and education

66. Louise Sörme, Senior Adviser at Statistics Sweden, presented a case study on first steps in establishing a national chemicals footprint for Sweden. Such a footprint would make it possible to estimate the impact of chemicals on human life and the environment and how that impact was changing over time. Data used in the study included releases to air and water taken from Swedish E-PRTR data, the reallocation of substances into products by using the System of Environmental-Economic Accounting and Life Cycle Impact Assessment, as well as information on the impact from industry and products on human toxicity and freshwater ecotoxicity by making use of USEtox.⁵

67. Ms. Sörme said the study had helped to provide an estimate of the overall impact of certain industries as well as for specific substances on human toxicity. The project had also been used to identify knowledge gaps that needed further study, such as the lack of data on chemicals used in agriculture and diffuse emissions. Creating knowledge on other, less persistent substances would be the aim of the following steps, which would require further work and cooperation across institutions.

B. Discussion

68. In the subsequent discussion several aspects of the above presentations were highlighted by participants and addressed in more depth.

Cost-effectiveness and usefulness of PRTRs

69. Speakers noted that, to fully benefit from the cost savings that PRTR systems could provide, it was important to make maximum use of the potential of the pollutant databases, including to link them with a variety of related governmental activities across sectors. To succeed in such an effort was a question of harmonized formatting of the reports received from industry and of how to extract the data. For example, it was possible to extract the permit emission limits and correlate them under the same format and reference conditions that were used with the measured emissions; then people could understand in a different way what the numbers actually meant and could also help the operator or the authority to explain why those numbers were different.

Public interested in PRTR data

70. It was highlighted that the public could make use of PRTRs only if they knew they existed. It was the duty for Governments and relevant experts to disseminate that information and make sure the population was well aware of PRTRs. Furthermore, when data were presented in a way that was easily accessible to different groups of users, as was the case with the Toxics Release Inventory in the United States, the database had also been

⁵ See USEtox: www.usetox.org.

used extensively by many different types of people. The public, NGOs and industry were all big users of the Toxics Release Inventory, and non-PRTR government workers also used it for their work. A detailed discussion on different types of uses was available online⁶ as well as in the document “How Are the Toxics Release Inventory Data Used”.⁷

Role of the industry

71. In the United States, implementation of green chemistry practices for the manufacture of pharmaceuticals was primarily driven by a reduction in the costs associated with the managing of production-related wastes. Pharmaceutical manufacturers realized that using environmentally friendly processes in turn reduced the use of toxic chemicals during the manufacture of pharmaceuticals and thus also minimized the generation of large quantities of toxic wastes. As a result, substantial reductions in the overall manufacturing costs were possible. Facilities that manufactured pharmaceuticals were required to report the quantities of toxic chemicals they released to the environment, or otherwise managed as wastes, to the Environmental Protection Agency’s Toxics Release Inventory Program. The Environmental Protection Agency used those data to assess the environmental improvements that pharmaceutical manufacturers had made, and publicized their performance achievements. That had encouraged industry to voluntarily disclose additional information when reporting to the Agency’s Inventory Program. The Agency had made that voluntarily disclosed additional information also available to the public, which in turn enabled consumers to make use of that information when choosing a product to buy.

Completeness of reporting and comparability of data

72. For PRTRs to be relevant for decision-making, data had to be complete and comparable speakers agreed. Currently PRTRs could penalize more efficient plants, as they were often facilities with bigger capacities allowing for better resource and economic efficiency. While smaller companies with emissions beneath the reporting thresholds might not be searchable in a PRTR, large and probably more efficient facilities were negatively perceived as pollution “hot spots”. Analysing emissions in relation to other information, such as production output, was therefore key to improve the usefulness of the data, including for the promotion of environmentally friendly and resource-efficient producers.

73. Furthermore, it was observed that it was often difficult to understand whether facilities did not emit a specific substance at all or whether they did, but the emissions were underneath the reporting thresholds. A solution to that issue was transparency and that all sources of emissions should be made visible to allow adequate comparability of data and proper use of data in the support of decision-making. A speaker noted that, after all, the aim of PRTRs was not to list negative examples but to provide the most complete picture of pollutant releases in order to allow informed decision-making, among others giving choices to consumers.

74. In that context the work of the OECD Task Force on PRTRs was mentioned as it provided guidance on how PRTR data could be more easily comparable on a global level and between national PRTRs by developing a harmonized list of pollutants. Moreover, the

⁶ “TRI Data Uses”, available from <https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-uses>.

⁷ United States, Environmental Protection Agency, EPA-260-R-002-004 (Washington, D.C., 2003). Available from <https://www.epa.gov/toxics-release-inventory-tri-program/how-are-toxics-release-inventory-data-used>.

guidance documents on elements of a PRTR Part I and Part II explained how PRTRs could be built in a way that helped to make them comparable.⁸

75. It was also highlighted that the willingness of the industry to establish PRTRs was largely dependent on receiving clear benefits from making data publicly available. That was, however, only realistic if data were indeed comparable, both across sectors and between countries.

Link to circular economy

76. PRTRs could support the implementation of a circular economy that produced no waste or pollution, if they demonstrated what type of resources had been used in the production process and also covered output releases from products after they were placed on the market. Several countries, including, Japan, Norway and the Republic of Korea had good examples of how such data could be made available to inform the public about the types of hazardous components contained in products.

VI. Chairs' statement and closure of the Global Round Table

77. The Chairs closed the meeting with the following joint statement.

A. Madrid statement on pollutant release and transfer register perspectives for a sustainable future

78. Every day hazardous chemical substances are released into the environment from industrial or agricultural sites that could affect our daily lives. PRTRs help to effectively record these pollutants and make this information accessible to the public. But PRTRs are not static inventories; they are dynamic systems. They needed to be steadily improved, both at the national and multilateral levels.

79. The second Global Round Table on PRTRs in Madrid took stock of PRTR-related activities across the regions. Remarkably, participants brought forth not only challenges, but also numerous solutions that are already being put into practice. This is an encouraging message for countries that are in the process of establishing PRTRs.

80. As implementers of PRTRs and stewards of the environment, Governments need to contribute more to current efforts to protect the environment and achieve a sustainable future through promoting the establishment of new PRTRs and improving uses of existing ones. Relevant international organizations, such as ECE, OECD, UNEP and UNITAR, should continue supporting this work in synergy. To achieve this, a number of measures should be taken by Governments in cooperation with relevant stakeholders, taking into consideration circumstances in individual countries. These measures include the following.

(a) Promoting next-generation PRTRs

81. Expand the use of PRTRs as global fundamental tools for policymaking and implementation to prevent pollution, curb climate change, preserve biodiversity and promote resource efficiency.

82. Go beyond the current role of PRTRs to use them:

⁸ Available from <http://www.oecd.org/env/ehs/pollutant-release-transfer-register/publicationsintheseriesonpollutantreleaseandtransferregisters.htm> (item 2 (a) on the web page).

(a) As sources of “knowledge-on-demand”, by enhancing the access to other environment- and health-related information, using for example an “environmental impact index” and improving their visualization;

(b) As tools to facilitate implementation of several economic- and management-related measures, such as green tax systems;

(c) As means to assess implementation and impact on the environment of green chemistry practices.

83. Strive for inclusion of releases from diffuse sources when implementing PRTRs in order to get the full picture of the releases.

84. Strive for better global comparability of different PRTRs.

85. Render PRTR data more intelligible to the public so as to make use of its potential for assisting countries to achieve the Sustainable Development Goals.

(b) Acting collaboratively to address emerging challenges:

86. Overcome challenges to making national PRTR data compatible internationally, and promote internationally compatible PRTR data (e.g., by applying internationally harmonized methodologies and tools in installing new PRTRs or reviewing the existing PRTRs to assure comparability of the data), in order to facilitate the development and implementation of PRTRs and share validated PRTR data globally.

87. Promote sharing of information and practice to reduce the burden of data handling, especially through consolidating knowledge on estimation techniques and data validation.

88. Share good practices on the use of PRTRs for reporting to different international programmes and agreements.

(c) Fostering stakeholder collaborations:

89. Promote dialogue and collaboration among all relevant stakeholders at the national and international levels as to make PRTRs more useful for different target groups.

90. Enhance the development of communication tools, and promote capacity-building, awareness raising and education on PRTR data and its usage.

91. Promote research activities involving PRTR data and information.

92. Promote activities on using PRTR data by NGOs, academia and other stakeholders.

(d) Following-up on above actions

93. Governments and stakeholders should promote widely good practices shared during this meeting.

94. Countries with well-developed PRTRs should share their experience through bilateral cooperation with those in the process of establishing PRTRs.

95. The International PRTR Coordinating Group should continue serving as a global platform for exchanging experiences and identifying areas for cooperation and synergy. Interested countries and stakeholders are encouraged to join its work.

96. The progress in the implementation of the above measures should be monitored and reported at the relevant ECE and OECD meetings, as appropriate.

97. Pursuant to the numerous statements made by participants, the Chairs note that there were an ample number of valuable suggestions shared during the meeting, which will support implementation of the future PRTRs. The meeting therefore was indeed useful for

those participating, and importantly, also for countries with established PRTR systems. The Chairs conclude that the Global Round Table demonstrated once again outstanding synergies between the four partner organizations, which matched capacities and expertise to co-organize a joint meeting. There is general support for a possible third joint event in the future.

B. Closure of the meeting

98. The Chairs thanked the participating countries and organizations for sharing their achievements, challenges and solutions with regard to the implementation of PRTR systems, and expressed their appreciation to the Government of Spain for the excellent organization of the event.
