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Organisation de Coopération et de Développement Économiques  
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**ENVIRONMENT DIRECTORATE  
JOINT MEETING OF THE CHEMICALS COMMITTEE AND  
THE WORKING PARTY ON CHEMICALS, PESTICIDES AND BIOTECHNOLOGY**

**APPLICATION, USE AND PRESENTATION OF POLLUTANT RELEASE AND TRANSFER  
REGISTERS (PRTR) DATA**

**Series on Pollutant Release and Transfer Registers No. 14**

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**OECD Environment, Health and Safety Publications**

**Series on Pollutant Release and Transfer Registers**

**No. 14**

**GLOBAL POLLUTANT RELEASE AND TRANSFER REGISTER  
PROPOSAL FOR A HARMONISED LIST OF POLLUTANTS**

**IOMC**

**INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS**

A cooperative agreement among FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD

**Environment Directorate**

**ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

**Paris 2013**

### **Publications on Pollutant Release and Transfer Registers**

*Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development. Guidance Manual for Governments (OECD/GD(96)32) (1996).*

#### *PRTR Series*

*No. 1: Proceedings of the OECD International Conference on Pollutant Release and Transfer Registers (PRTRs). PRTRs: National and Global Responsibility. Tokyo, 9-11 September 1998. Part 1 (1999).*

*No. 2: Proceedings of the OECD International Conference on Pollutant Release and Transfer Registers (PRTRs). PRTRs: National and Global Responsibility. Tokyo, 9-11 September 1998. Part 2 (1999).*

*No. 3: Presentation and Dissemination of PRTR Data: Practices and Experiences, Getting the Word and Numbers Out (2000).*

*No. 4: How Pollutant Release and Transfer Registers Differ: A Review of National Programmes (2001).*

*No. 5: Resource Compendium of PRTR Release Estimation Techniques, Part 1: Summary of Point Source Techniques (2002).*

*No. 6: Resource Compendium of PRTR Release Estimation Techniques, Part 2: Summary of Diffuse Source Techniques (2003).*

*No. 7: Uses of Pollutant Release and Transfer Register Data and Tools for Their Presentation: A Reference Manual (2005).*

*No. 8: Resource Compendium of PRTR Release Estimation Techniques, Part 3: Summary of Techniques for Off-site Transfers (2005).*

*No. 9: Framework for Selecting and Applying PRTR Release Estimation Techniques (2005).*

*No. 10: Scoping Study on the Inclusion of Releases and Transfers from Small and Medium-Sized Enterprises (SMEs) in PRTRs (2008).*

*No. 11: Considerations for Ensuring Quality PRTR Data (2008).*

*No. 12: Resource Compendium of PRTR Release Estimation Techniques, Part 4: Summary of Techniques for Releases from Products (2011).*

*No. 13: Global Pollutant Release and Transfer Registers, Proposal for a Harmonised List of Pollutants (2012).*

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The Inter-Organisation Programme for the Sound Management of Chemicals (IOMC) was established in 1995 following recommendations made by the 1992 UN Conference on Environment and Development to strengthen co-operation and increase international co-ordination in the field of chemical safety. The Participating Organisations are FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD. The purpose of the IOMC is to promote co-ordination of the policies and activities pursued by the Participating Organisations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

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## FOREWORD

Since the 1990's, OECD has been supporting the design and implementation of Pollutant Release and Transfer Registers (PRTR) in member countries by developing guidance manuals and technical documents. Publicly available PRTRs provide access to environmental information according to the public right-to-know principle and can stimulate interested or potentially affected parties to ask questions and to seek improvements to human health and environmental well-being. Non-governmental organisations can both use and disseminate PRTR data to reflect their individual purposes and goals, as well as those of their constituencies. Researchers and academics can use PRTR data for modelling or other studies, and the financial sector for the evaluation of investment proposals or for considering insurance or sustainability issues.

The fourteenth meeting of the Task Force on Pollutant Release and Transfer Registers (TFPRTR) in 2011 agreed to compile PRTR-related information focusing on use, application and presentation of PRTR data in member countries. To this end, a survey was conducted in November 2011 to describe the current status of such efforts among OECD members and to identify gaps for further improvements in the way PRTR data are applied, used or presented. This work was led by Switzerland and the United States.

This report outlines the results of this work. It includes four inventories of available guidance or tools and best practices for better use and presentation of PRTR data, and identifies gaps for which little information appears to be available. The four inventories are 1) available guidance on the use of PRTR data, 2) GIS mapping systems of PRTR data, 3) resources related to PRTR and risks including hazard information for PRTR data, and 4) activities related to pollution prevention/sustainability and PRTR.

The results also identify two principal gaps (i.e., for which little information appears to be available): 1) presentation of PRTR data with other data sets for any use or reason (e.g. such as risk ranking, hazard ranking (or use descriptors of hazard), and exposure assessment or providing guidance or tools on how to use PRTR data to assess risk or exposure), and 2) presentation of PRTR data for sustainable development or pollution prevention. How to fill these gaps are important issues to consider for further development of PRTRs.

This document is published under the responsibility of the Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, which has agreed that it be unclassified and made available to the public.

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## 1. PURPOSE

The 1996 OECD Guidance Document *Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development - Guidance Manual for Governments* [OECD/GD(96)32] identified possible benefits of PRTR programs and the uses and value of information generated by such programs:

- PRTR systems should provide data to support the identification and assessment of possible risks to humans and the environment by indicating sources and amounts of potentially harmful releases and transfers to all environmental media;
- PRTR data should be used to promote prevention of pollution at the source, e.g., by encouraging implementation of cleaner technologies; and
- National governments should use PRTR data to evaluate the progress of environmental policies and to assess to what extent national environmental goals are, or can be, achieved.

PRTRs are not policy instruments that directly regulate activities associated with chemical use or release. Instead, PRTRs collect and compile a range of site-specific chemical use, release and transfer information that has proven useful to stakeholders including the public, industries, researchers and governments. PRTR programs and other users are continuing to add contextual information to PRTR data to create new and innovative information products and analyses that service their interests and concerns.

OECD members have a long-standing commitment to collaboration as a means of exchanging information and best practices, which fosters OECD goals. In 2010 the Task Force on PRTRs (TFPRTR) was contemplating developing a comprehensive guide on how PRTR data and information can be applied, used and presented. To this end, in 2011 the TFPRTR conducted a survey of member countries and other organizations represented on the TFPRTR, to gather information on documents or other materials developed by environmental authorities or other organizations that pertain to the application, use or presentation of PRTR data and information, to determine the extent and breadth of information already available on the application, use or presentation of PRTR data and information. This is the first survey focusing on available documentation or tools pertaining to the application, use and presentation of PRTR data and information by the TFPRTR.

This brief report summarizes the results and findings related to the survey including inventories of available guidance and tools, and identified gaps. Detailed responses to the survey are included in Appendix: Responses to Primary Questions and Inventory of Referenced Documentation and Tools.

## 2. BACKGROUND OF THE SURVEY

In 2010 at its 13<sup>th</sup> meeting, the TFPRTTR discussed development of a comprehensive guide on how PRTR data and information can be applied, used and presented. At the 14<sup>th</sup> meeting of the TFPRTTR, the above was further discussed, and the TFPRTTR members agreed to contribute information about their current documentation or tools on the application, use and presentation of PRTR data and information. A survey instrument was developed by the two lead countries, Switzerland and the United States together with the Secretariat and administered to TFPRTTR members in November 2011. The survey consisted of 17 questions (see Appendix). Responses were received from the following OECD member countries and/or organizations: Canada, Czech Republic, Germany, Israel, Republic of Korea, Spain, Switzerland, the United States and Commission for Environmental Cooperation.

In general, the survey focused on determining if PRTR programs kept (current) information regarding who used PRTR data and for what purposes it was used. The 17 survey questions focused on:

- Documenting the range of uses by government programs
- Enabling access and documenting uses of PRTR data by external users
- Inventorying ways to present PRTR data with other information to increase the value of PRTR data

Where responses to any question was missing, a value of “Yes”, “No”, “Internal Only”, or “Planned” was derived from the PRTR program’s responses to the follow-up question(s).

### 3. SURVEY RESULTS AND OBSERVATIONS FROM THE SURVEY RESULTS

#### 3.1 Summary of Results

There exists a significant amount of documentation and tools that address basic operations of PRTRs. The *Results* of the survey (section Section 3.2 below) provide inventories of available guidance or tools and best practices for better use and presentation of PRTR data.

The results also identify two principal gaps (i.e., for which little information appears to be available): 1) presentation of PRTR data with other data sets for any use or reason (e.g. such as risk ranking, hazard ranking (or use descriptors of hazard), and exposure assessment or providing guidance or tools on how to use PRTR data to assess risk or exposure), and 2) presentation of PRTR data for sustainable development or pollution prevention. How to fill these gaps are important issues to consider for further development of PRTRs.

#### 3.2 Results

The results of the survey show:

1. A significant amount of documentation and tools exist
  - All programs document and promote PRTR access. There is, however, significant variability regarding knowledge of external uses and level of engagement with these users. For example, programs have undertaken episodic inventories of end users and PRTR data usage, but few have a standing mechanism for exchanging ideas with and gathering feedback from the range of users.
  - Most of the existing documentation and tools provide guidance on appropriate means of aggregating, summarising or displaying PRTR data, with little interpretation.
2. Gaps for which information is scarce
  - 1) Presentation of PRTR data with other data sets for any use or reason
    - There appears to be little documentation, existing guidance or tools on how PRTR data and information can be used to:
      - assess exposure to toxic chemicals; and
      - assess health risks posed by toxic chemicals.

- Few of the survey respondents reported that their organizations do any risk ranking, hazard ranking or use descriptors of hazard or conduct exposure assessments when they make their PRTR data available.
- 2) Presentation of PRTR data in sustainable development or pollution prevention
- None of the survey respondents claim that their respective organizations have developed guidance or documentation that describes how PRTR data or information can be used as a means to measure progress (or lack thereof) in preventing pollution or achieving sustainability.
  - Few survey respondents reported that they have developed or use descriptors of sustainability or pollution prevention as a way to present or interpret their PRTR data.

The results of the survey also identify available guidance or tools across different PRTRs. Table 1 provides an inventory of available guidance on the use of PRTR data. Table 2 provides an inventory of GIS mapping systems associated with PRTR data. Table 3 provides an inventory of resources related to PRTR and risks including hazard information for PRTR data. Table 4 provides an inventory of activities related to pollution prevention/sustainability and PRTR. These inventories help to identify the best practices on how to provide PRTR data.

**Table 1. Guidance**

<b>Program</b>	<b>URL (language/s)</b>	<b>Description</b>
Canada	<a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1">www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1</a> <i>(English)</i>  <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=Fr&amp;n=B5C1EAB8-1">www.ec.gc.ca/inrp-npri/default.asp?lang=Fr&amp;n=B5C1EAB8-1</a> <i>(French)</i>	<p>General guidance on the use and interpretation of Canada's PRTR, the National Pollutant Release Inventory (NPRI), data is made available as an online guide for NPRI data users. This guidance can be applied to a number of purposes including the ones listed below, however, it is generic.</p>
Canada	<a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=D994FD23-1">www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=D994FD23-1</a> <i>(English; French)</i>	<p>Environment Canada obtains information on how NPRI data is used primarily through:  Engagement of federal officials that use NPRI data (e.g. for risk assessment and risk management) for input on priorities and potential changes to the NPRI; External, multi-stakeholder consultations on proposed changes to the NPRI; Periodic consultations and surveys on the needs of NPRI data users; and Monitoring of external reports that use NPRI data."</p> <p>Information regarding consultations and proposed changes to the NPRI are published.</p>
Czech Republic	<a href="http://www.irz.cz">www.irz.cz</a> <i>(Czech)</i>  <a href="http://www.irz.cz/sites/default/files/IRZ_prirucka_ohlasovani_2011.pdf">www.irz.cz/sites/default/files/IRZ_prirucka_ohlasovani_2011.pdf</a>	<p>Czech Ministry of the Environment (in cooperation with CENIA (Czech Information Agency for the Environment) issues every year two main documents that help to understand to national PRTR (IPR – Integrated Pollution Register).</p> <ul style="list-style-type: none"> <li>• The first document is General Guidance which is primarily focused on reporters (how to report, which data, examples, FAQ, etc.</li> </ul>

Program	URL (language/s)	Description
	<p>(Czech)</p> <p><a href="http://irz.cz/sites/default/files/Souhrnna_zprava_IRZ_2009.pdf">http://irz.cz/sites/default/files/Souhrnna_zprava_IRZ_2009.pdf</a></p> <p>(Czech)</p> <p><a href="http://www.irz.cz/Node/24">www.irz.cz/Node/24</a></p> <p>(Czech)</p>	<ul style="list-style-type: none"> <li>• The second publication is mainly for public. Its name is Summary Report.</li> <li>• Summary Report for 2010 will be available soon) showing progress of selected pollutants. Summary Report describes especially aggregated information based on data reported by the entities under reporting obligation in the selected year.).</li> <li>• Special FAQs are publicly available.</li> </ul>
Germany	<p><a href="http://www.prtr.bund.de">www.prtr.bund.de</a></p> <p>(German)</p>	<ul style="list-style-type: none"> <li>• Practical Guidance on Implementation of the PRTR for competent authorities (in German)</li> <li>• Advisory comment concerning the application of Confidentiality for competent authorities (in German)</li> <li>• Advisory comment concerning Art. 5 Nr.1 and Art. 5 Nr. 5 of the E-PRTR-Regulation for competent authorities (in German)</li> <li>• Guideline concerning the quality assessment for competent authorities</li> <li>• Different handbooks for the software tool</li> <li>• Platform with FAQs</li> <li>• Organization provides or makes available its own interpretation of its own data when it releases data to the public.</li> </ul>
Republic of Korea	<p><a href="http://ncis.nier.go.kr/prtr">http://ncis.nier.go.kr/prtr</a></p> <p>(Korean)</p>	<p>General guidance on the use and limitation of Korea's PRTR</p>
Spain	<p><a href="http://www.en.prtr-es.es">www.en.prtr-es.es</a></p> <p>(Spanish)</p> <p><a href="http://www.en.prtr-es.es/">www.en.prtr-es.es/</a></p> <p>(English)</p> <p><a href="http://www.boe.es/boe/dias/2011/06/29/pdfs/BOE-A-2011-11176.pdf">www.boe.es/boe/dias/2011/06/29/pdfs/BOE-A-2011-11176.pdf</a></p> <p>(Spanish)</p>	<ul style="list-style-type: none"> <li>• PRTR data are usually used by Competent Authorities as a tool to monitor the compliance of the environmental permit conditions.</li> <li>• It is also used to check the information under other National reporting requirements such as National Inventories, ETS, Greenhouse Gases (GHG) inventory, National Statistics, etc...</li> <li>• The PRTR data were the first criteria used to adopt the Ministerial Act (Ministerial Order) relating to the industrial activities prioritization to establish the obligatory financial guaranties under the Environmental Liability Legislation.</li> <li>• Not only about how PRTR data can be used but also what kind of information is offered</li> <li>• Public information on emissions and transfers both at facility level and aggregated level;</li> <li>• Complete inventory of facilities registered on PRTR-España, not only the "public" ones but all the facilities which have to report</li> <li>• Download complete file with public information</li> </ul>
Switzerland	<p>[No URL Provided]</p>	<p>It is foreseen to support industries/facilities to communicate their achievements in pollution prevention. Information for individual citizens or public interest groups is planned for 2013 and later, and will focus on how to find data, their interpretation, and how to use them as basis for communication</p>
Switzerland	<p><a href="http://www.bafu.admin.ch/chemikalien/prtr/06989/index.html?lang=en">www.bafu.admin.ch/chemikalien/prtr/06989/index.html?lang=en</a></p> <p>(English; French; German; Italian)</p>	<p>Among the frequently asked questions, there are sections on data quality and interpretations.</p>
USA	<p><a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a></p> <p>(English)</p>	<p>For documents, see:</p> <p>"How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses"</p> <p>"The Toxics Release Inventory (TRI) and Factors to Consider When</p>

<b>Program</b>	<b>URL (language/s)</b>	<b>Description</b>
	<a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a> <i>(English)</i>  <a href="http://www.epa.gov/opptintr/rseipubs/using_rsei.html">www.epa.gov/opptintr/rseipubs/using_rsei.html</a> <i>(English)</i>  <a href="http://www.epa.gov/tri/triexploretutorial/index.html">www.epa.gov/tri/triexploretutorial/index.html</a> <a href="http://iaspub.epa.gov/triexplorer/tri_release.chemical">http://iaspub.epa.gov/triexplorer/tri_release.chemical</a> <a href="http://www.epa.gov/tri/tridotnet/index.html">www.epa.gov/tri/tridotnet/index.html</a> <a href="http://www.epa.gov/enviro/facts/tri/search.html">www.epa.gov/enviro/facts/tri/search.html</a> <a href="http://www.epa.gov/tri/trichip/index.html">www.epa.gov/tri/trichip/index.html</a> <a href="http://www.epa.gov/tri/myrtk/index.html">www.epa.gov/tri/myrtk/index.html</a> <a href="http://www.epa-echo.gov/echo/tricomparative">www.epa-echo.gov/echo/tricomparative</a> <a href="http://toxmap.nlm.nih.gov/toxmap/main/index.jsp">http://toxmap.nlm.nih.gov/toxmap/main/index.jsp</a> <a href="http://www.epa.gov/oppt/rsei/index.html">www.epa.gov/oppt/rsei/index.html</a> <i>(English)</i>	<p>Using TRI Data”</p> <p>“A Guide to the Use and Application of TRI Data and Information” [expected to be released in Summer of 2012.]</p> <p>“How to Use and Not Use RSEI” (EPA’s Risk Screening and Environmental Indicators tool).</p> <p>For tools, see:</p> <ul style="list-style-type: none"> <li>• TRI Explorer Tutorial</li> <li>• TRI Explorer</li> <li>• TRI.NET</li> <li>• Envirofacts</li> <li>• TRI-CHIP</li> <li>• MyRTK mobile application</li> <li>• TRI Comparative Analysis Tool )</li> <li>• ToxMap (from National Library of Medicine)</li> <li>• Risk Screening Environmental Indicators (RSEI) tool</li> </ul>
USA	<a href="http://www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm">www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm</a> <i>(English, Spanish)</i>	<p>Considerable resources are devoted to developing what is called the “TRI National Analysis”. The annual TRI National Analysis is a comprehensive report that provides the public with EPA’s interpretation and evaluation of the most recently reported data and information on how toxic chemicals were managed, where toxic chemicals ended up, and how these data compare to that of previous years. The TRI National Analysis can be used along with other information as a starting point in understanding how the environment and communities may be exposed to toxic chemicals.</p>
CEC	<a href="http://www.cec.org/takingstock">www.cec.org/takingstock</a> <i>(English; French; Spanish)</i>	<p>The Taking Stock report offers a comparative analysis of PRTR data collected by the PRTR systems in North America (Canada, United States and Mexico). Taking Stock Online offers data search capabilities of the integrated North American PRTR database, a PRTR data summary chart generator, data exporting capabilities in Excel and KML formats, and a search tool to explore cross-border transfers.</p>
CEC	<a href="http://www.cec.org/Page.aspx?PageID=749&amp;SiteNodeID=651">http://www.cec.org/Page.aspx?PageID=749&amp;SiteNodeID=651</a> <i>(English; French; Spanish)</i>	<p>The Annual Public meeting of the North American PRTR project provides an opportunity to stakeholders to discuss and present on issues related to PRTR data. The 2010 meeting focused on the use of PRTR data to support community environmental health and green economy initiatives."</p>

Table 2. GIS mapping

<b>Program</b>	<b>URL (Language/s)</b>
Canada	<a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=en&amp;n=1D892B9F-1">www.ec.gc.ca/inrp-npri/default.asp?lang=en&amp;n=1D892B9F-1</a> <i>(English; French)</i>
Czech Republic	<a href="http://geoportal.gov.cz/web/guest/map?wmc=http%3A//geoportal.gov.cz/php/wmc/data/4e6e77e">http://geoportal.gov.cz/web/guest/map?wmc=http%3A//geoportal.gov.cz/php/wmc/data/4e6e77e</a>

<b>Program</b>	<b>URL (Language/s)</b>
	7-39b4-4e35-b262-24f6c0a80138.wmc Note: data presentation is very limited (Czech; English)
Spain	www.en.prtr-es.es/Informes/gis.aspx, www.en.prtr-es.es/informes/facilitylevel.aspx  Geographical information is given to the public just to locate the facilities. Very simple queries can be made (by activity sector and by regions/RBD). Internally some documents with geographical information can be prepared by Competent Authorities using the PRTR data, but this information is not directly published. " (Spanish; English)
Switzerland	http://map.bafu.admin.ch/ (German; French; Italian; English)

Table 3. Risk-Related Resources

<b>Program</b>	<b>URL (Language/s)</b>	<b>Description</b>
Canada	http://www.ec.gc.ca/toxiques-toxics/default.asp?lang=En&n=98E80CC6-1 (English; French)  http://www.chemicalsubstanceschimiques.gc.ca (English; French)	Environment Canada makes toxicity information available for substances that have been declared to be toxic in accordance with the Canadian Environmental Protection Act, 1999 (CEPA 1999). These substances are managed under Schedule I of the Act, the List of Toxic Substances, available.  In general, information regarding the risk assessment of chemicals in Canada is available through the Government of Canada Chemical Substances Portal.
Germany	www.prtr.bund.de (German)	Different analysis of the data with excel tables with comments, glossary of PRTR pollutants
Republic of Korea	[No URL Provided]	The Ministry of Environment uses Korea's PRTR data as a base data to identify priorities for regulations, to support risk assessment and risk management.
Switzerland	www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en (English; German; French; Italian)	As a glossary of pollutants with explanations on origin and toxicity.
Switzerland	www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en (English; German; French; Italian)	Release of benzene into air
Switzerland	www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en (English; German; French; Italian)	Release of zinc into water
Switzerland	www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en (English; German; French; Italian)	Transfer of AOX into waste water
USA	www.epa.gov/oppt/rsei/index.html (English)	The U.S. EPA has developed and makes available its Risk-Screening Environmental Indicators (RSEI) tool, which uses TRI emission data and enables anyone to perform risk-rankings in a variety of ways. The RSEI tool is a computer-based screening tool developed by EPA that analyzes factors that may result in chronic human health risks. These

<b>Program</b>	<b>URL (Language/s)</b>	<b>Description</b>
		<p>factors include the amount of toxic chemical releases, the degree of toxicity, and the size of the exposed population. RSEI analyzes these factors and calculates a numeric score. To give the score meaning, it must be ranked against other scores also produced by RSEI. The model highlights releases that pose the highest potential risk or potentially pose the highest risk. This way, RSEI helps policy makers and communities quickly identify situations that require further evaluation and set priorities for action.</p> <p>RSEI considers the following information: Amount of chemical released; Location of that release; Toxicity of the chemical; Fate and transport through the environment; Route and extent of human exposure; Number of people affected.</p> <p>This information is used to create numerical values (RSEI scores) , which can be added and compared in limitless ways to other RSEI scores to assess the relative hazard and risk of chemicals, facilities, regions, industries, or many other factors. The scores are for comparative purposes and are only meaningful when compared to other scores produced by RSEI. Again, the result does not provide a detailed or quantitative risk assessment, but offers a screening-level perspective for relative comparisons of chemical releases.</p>
USA	<a href="http://www.epa.gov/tri/tri-chip/index.html">www.epa.gov/tri/tri-chip/index.html</a> (English)	Toxicity information is made available through the TRI-CHIP, Toxics Release Inventory Chemical Hazard Information Profile, tool.
CEC	[No URL Provided]	Information on the Toxicity Equivalency Potential (TEP) score for selected substances is provided.

Table 4. Pollution Prevention (P2) and Sustainability

<b>Program</b>	<b>URL(Language/s)</b>	<b>Description</b>
Canada	[No URL Provided]	The Government of Canada uses NPRI data as a key input to track progress, identify priorities for action and to support risk assessment, risk management and regulatory initiatives.
Canada	<a href="http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&amp;n=402A9845-1">www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&amp;n=402A9845-1</a> (English)  <a href="http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=Fr&amp;n=402A9845-1">www.ec.gc.ca/indicateurs-indicators/default.asp?lang=Fr&amp;n=402A9845-1</a> (French)	The Canadian Environmental Sustainability Indicators - Air Emission Indicators, including indicators for sulphur oxides, nitrogen oxides, volatile organic compounds, ammonia, particulate matter, carbon monoxide
Spain	<a href="http://www.prtr-es.es/data/images/PRTR_Espa%C3%B1a-2_CONAMA10_2.pdf">www.prtr-es.es/data/images/PRTR_Espa%C3%B1a-2_CONAMA10_2.pdf</a> (Spanish)	<p>The system allows to the Competent Authorities work on this issues with the functionalities developed in “member area” to management the data. Evaluated the emissions of SOx in Combustion plants, from to 2001 to 2009 at national level.</p> <p>It is also possible to follow the evolution for specific pollutant emissions per each facility, taking into account all</p>

Program	URL(Language/s)	Description
		validated data, not only above thresholds. But this functionality is only developed, by the time being, for the administrator (Ministry) role.
USA	[No URL Provided]	Some programs within the U.S. EPA have on occasion used PRTR data to evaluate if and where (i.e., which industry sectors) progress has been made in preventing pollution or achieving sustainability
CEC	[No URL Provided]	Sector specific analyses have been done for the Taking Stock report

Table 5 presents survey responses for the 17 survey questions. In general, the core functions of monitoring and publishing PRTR data is being delivered by all programs (Questions 1-4). To a lesser degree, PRTR programs incorporate additional information that provides users with greater context about the PRTR data or interpret the meaning of PRTR trends and findings (Questions 5-9). Preparing risk assessments, exposure assessments, and hazard assessments is done more often for internal purpose and are infrequently published (Questions 10-14). Fewer than three programs mentioned that they prepare descriptors and analyses of pollution prevention and sustainability progress (Questions 15-17). The first four questions probe PRTR programs' experiences with additional information and interpretations. (The most frequent response to each question is colored in Table 5.)

**Table 5. Survey Responses**

Survey Questions	Yes	No	Internal Only	Planned
1. Does your organization make available any documents, tools (e.g., software) or other materials (e.g., website) that pertain to how the PRTR data collected by your organization can be applied in government program prioritization or decision-making?	7	1	0	0
2. Does your organization track how other organizations apply the PRTR data collected by your organization? (These other organizations may include specific offices or departments within your organization, private organizations, researchers, public interest groups, and others.)	8	0	0	0
3. PRTR data and information can and is used by many different types of individuals and organizations for a wide variety of reasons. Does your organization make available to the users of its PRTR data any documents, tools (e.g., software) or other materials (e.g., website) that provide general guidance, insight or examples of how PRTR data can or should be used?	7	1	0	0
4. Does your organization make available to the users of its PRTR data any documents, tools (e.g., software) or other materials (e.g., website) that provide insight or examples of	5	2	0	0

Survey Questions	Yes	No	Internal Only	Planned
how PRTR data can or should be used (or not be used) for individual citizens, communities, researchers, public interest groups, insurance companies, investment bankers, competent authorities, industries/facilities? (multiple answers)				
5. Does your organization know who uses its PRTR data?	7	1	0	0
6. Does your organization make available any documents, tools (e.g., software) or other materials (e.g., website) that provide insight or examples of how PRTR data can or should be used (or not be used) for risk assessment, exposure assessment, measuring progress in preventing pollution or achieving sustainability? (multiple answers)	2	3	1	0
7. Does your organization provide any guidance on how PRTR data should (or should not) be interpreted?	8	0	0	0
8. Does your own organization provide or make available its own interpretation of its own data when it releases its data to the public?	6	2	0	0
9. If Yes, does your organization provide context to the data as it is released? (e.g., Does it factor in economic factors that may contribute to a decline in total releases from the previous year? Does it make comments about the types of emissions, and their relation to overall risk? (e.g., total releases have increased, but releases to air have decreased while releases to landfill have increased, therefore, there may be less of an exposure potential overall.)	4	3	0	1
10. Does your organization do any risk ranking when it makes its data available?	1	6	1	0
11. Does your organization do any hazard ranking, or use descriptors of hazard when it makes its data available?	0	7	1	0
12. Does your organization do any exposure assessment when it makes its data available?	0	7	1	0
13. Does your organization provide or make available toxicity information on the chemicals in your PRTR?	7	0	1	0
14. Does your organization provide or make available exposure information with PRTR data? (e.g., presentation of emission geographically (with GIS), presentation with	4	1	1	2

Survey Questions	Yes	No	Internal Only	Planned
meteorological data)				
15. Does your organization use its PRTR data to evaluate if and where (i.e., which industry sectors) progress has been made in preventing pollution or achieving sustainability?	5	1	0	2
16. When presenting or releasing its PRTR data, does your organization make any statements as to whether data indicate progress in pollution prevention or achievements in sustainability (or lack thereof).	2	6	0	0
17. Has your organization developed or does it use descriptors of sustainability or pollution prevention as a way to express its PRTR data or interpret it, in the context of sustainability?	1	5	0	2

### 3.3 Observations about Survey Responses and Referenced Materials

Based on the PRTR uses cited or documented by survey respondents, virtually all end-uses can be categorized into one the following categories:

#### 1. Estimating Risks

- Estimating hazards or risk screenings when PRTR data is re-combined with chemical toxicity data – typically for a geographical area or chemical
- Emergency management planning and response
- Priority setting for and evaluation of risk-based environmental programs

#### 2. Evaluating Performance and Efficiency

- Identifying pollution prevention opportunities and measuring pollution prevention prevalence and effects
- Operational efficiency analyses - benchmarking and trends in PRTR reported data by facility, sector, corporate parent
- Sustainability analyses – using a range of PRTR data (releases, production efficiency) with measures of, for example, ambient conditions or health status
- Priority setting for and evaluation of process and performance based environmental management programs and PRTR program

### 3. Determining Compliance Status

- Using PRTR reporting to determine the active status of a facility, level of pollutant releases versus permitted activities

### 4. Characterizing facility universes and operations of interest

- Identify facilities with particular characteristics – e.g., to market pollution control equipment, consulting services, substitutes or evaluate a market or competitors, or other research

### 5. Characterizing Data Quality

- Comparing PRTR information to information reported to or collected by other (environmental) programs

Most respondents provided greater detail about activities and uses undertaken directly by the PRTR program, and either gathered or reported less information about other significant user groups and the range of end-uses most important to these users:

- Other environmental programs within the government
- Non-environmental government programs
- The public (individual citizens, NGOs, advocacy groups)
- Researchers
- Facilities and trade associations of sectors subject to PRTR reporting

Because of the nature of PRTRs as a soft policy tool that promotes information exchange and only indirectly drives behavior change among reporting facilities, regular tracking of the full range of users and uses is important feedback for improving PRTR programs and maximizing the return on investment of PRTR data.

While not directly queried, the responses and documentation provided across programs revealed some characteristics about the PRTR program, IT infrastructure and tools that facilitated use of PRTR data:

- Transparency of a PRTR program
- Awareness of PRTR information value
- Access to PRTR dataset, analytical tools, and contextual information (e.g., chemical toxicity, GIS layers)

- Readily available linkages to records in other information sources. Such linkages can tie together information based on common chemicals, facilities, corporate owners and/or geographic areas
- Engagement of PRTR program staff with stakeholders

## APPENDIX: RESPONSES TO PRIMARY QUESTIONS AND INVENTORY OF AVAILABLE DOCUMENTATION AND TOOLS

1. Does your organization make available any documents, tools (e.g., software) or other materials (e.g., website) that pertain to how the PRTR data collected by your organization can be applied in government program prioritization or decision-making?

Canada= Yes	<p>General guidance on the use and interpretation of Canada's PRTR, the National Pollutant Release Inventory (NPRI), data is made available as an online guide for NPRI data users. This guidance can be applied to a number of purposes including the ones listed below, however, it is generic.</p> <p>This information can be found at:  <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1">www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1</a>(English) or at  <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=Fr&amp;n=B5C1EAB8-1">www.ec.gc.ca/inrp-npri/default.asp?lang=Fr&amp;n=B5C1EAB8-1</a>(French)</p>
Czech Republic = Yes	<p>Czech Ministry of the Environment (in cooperation with CENIA (Czech Information Agency for the Environment) issues every year two main documents that help to understand to national PRTR (IPR – Integrated Pollution Register – <a href="http://www.irz.cz/">www.irz.cz/</a>). The first document is General Guidance which is primarily focused on reporters (how to report, which data, examples, FAQ, etc. - <a href="http://www.irz.cz/sites/default/files/IRZ_prirucka_ohlasovani_2011.pdf">www.irz.cz/sites/default/files/IRZ_prirucka_ohlasovani_2011.pdf</a>). The second publication is mainly for public. Its name is Summary Report. It is available on the czech IPR website - <a href="http://irz.cz/sites/default/files/Souhrnna_zprava_IRZ_2009.pdf">http://irz.cz/sites/default/files/Souhrnna_zprava_IRZ_2009.pdf</a> (Summary Report for 2010 will be available soon). Summary Report describes especially aggregated information based on data reported by the entities under reporting obligation in the selected year.). Special FAQs are publicly available.</p>
Germany = Yes	<p>Practical Guidance on Implementation of the PRTR for competent authorities (in German)          Advisory comment concerning the application of Confidentiality for competent authorities (in German)          Advisory comment concerning Art. 5 Nr.1 and Art. 5 Nr. 5 of the E-PRTR-Regulation for competent authorities (in German)          Guideline concerning the quality assessment for competent authorities          Different handbooks for the software tool          Platform with FAQs</p> <p>All documents are available on the German PRTR-Website <a href="http://www.prtr.bund.de">www.prtr.bund.de</a></p>
Republic of Korea = Yes	<p>General guidance on the use and limitation of Korea's PRTR  <a href="http://ncis.nier.go.kr/prtr">http://ncis.nier.go.kr/prtr</a> (Korean)</p>
Spain = Yes	<p>PRTR data are usually used by Competent Authorities as a tool to monitor the compliance of the environmental permit conditions. (see all public information on <a href="http://www.prtr-es.es">www.prtr-es.es</a>, Spanish, and <a href="http://www.en.prtr-es.es/">www.en.prtr-es.es/</a>, English)          It is also used to check the information under other National reporting requirements such us National Inventories, ETS, Greenhouse Gases (GHG) inventory, National Statistics, etc...</p>

	<p>The PRTR data were the first criteria used to adopt the Ministerial Act (Ministerial Order) relating to the industrial activities prioritization to establish the obligatory financial guaranties under the Environmental Liability Legislation.  <a href="http://www.boe.es/boe/dias/2011/06/29/pdfs/BOE-A-2011-11176.pdf">www.boe.es/boe/dias/2011/06/29/pdfs/BOE-A-2011-11176.pdf</a></p>
Switzerland = No	
United States = Yes	<p>See the following documents:          "How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses"          (see: <a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a>)          "The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data"          (see: <a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a>)          "A Guide to the Use and Application of TRI Data and Information" [expected to be released in Summer of 2012.]</p>
CEC = Yes	<p>The Taking Stock report offers a comparative analysis of PRTR data collected by the PRTR systems In North America (Canada, United States and Mexico). The integrated North American PRTR database (Taking Stock On-line) is available at <a href="http://www.cec.org/takingstock">www.cec.org/takingstock</a>. Taking Stock Online offers data search capabilities of the integrated North American PRTR database, a PRTR data summary chart generator, data exporting capabilities in Excel and KML formats, and a search tool to explore cross-border transfers.</p>

2. Does your organization track how other organizations apply the PRTR data collected by your organization? (These other organizations may include specific offices or departments within your organization, private organizations, researchers, public interest groups, and others.)

Canada= Yes	<p>Environment Canada obtains information on how NPRI data is used primarily through: Engagement of federal officials that use NPRI data (e.g. for risk assessment and risk management) for input on priorities and potential changes to the NPRI; External, multi-stakeholder consultations on proposed changes to the NPRI; Periodic consultations and surveys on the needs of NPRI data users; and Monitoring of external reports that use NPRI data."</p> <p>Information regarding consultations and proposed changes to the NPRI are published on Environment Canada's web site at the following URL: <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=D994FD23-1">www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=D994FD23-1</a>)</p>
Czech Republic = Yes	<p>Yes Czech Ministry of the Environment wants to know how other organizations or entities apply or use PRTR data for different purposes. On IPR website is information that on the voluntary basis Ministry of the Environment welcomes information about applying IPR data from other organization. We also very precisely monitored newspapers, magazines, websites and expert journals.</p>
Germany = Yes	<p>Yes The information has not been published.</p>
Republic of Korea = Yes	<p>Yes We registered any requests on PRTR data to our Office, but we do not have any statistical information on web site. The information is documented only for internal purpose.</p>
Spain = Yes	<p>Yes In Spain, facilities have to report all releases and off-site transfers of wastes. There are no thresholds for reporting, only for publication. All public information (data above PRTR thresholds) is available for any type of organization which would like to use it, directly on the web. (<a href="http://www.prtr-es.es">www.prtr-es.es</a>). In PRTR-España, there is also a specific role for ""other authorities"", identified as "OT" by the informatic system. They have access to the database with their own password for consultation and management all the information they are interested in its field of application. These "other authorities" are usually departments and organizations of the Central Government (other departments of the Ministry of Environment, other Ministries, National Agencies, etc..) or regional governments (other departments from Autonomous Communities) that have been authorized. (<a href="https://areaprivada.prtr-es.es/login.aspx?ReturnUrl=%2fdefault.aspx">https://areaprivada.prtr-es.es/login.aspx?ReturnUrl=%2fdefault.aspx</a>). All the validated information below thresholds, which is not published directly on the website, is, however, available for use by any person, organization or institution that might be interested. But in this case it is requested that such application is made to PRTR-España by email (<a href="mailto:info@prtr-es.es">info@prtr-es.es</a>), indicating what is its purpose. In PRTR-España a register is kept of these additional requests for other information than published. This register is not public. Only the administrator of the PRTR-España has access to it. It is used just to know who is requesting more information and especially, what it is used (R+D and technological private institutions, press, ONG's, etc...).</p>
Switzerland = Yes	<p>Yes Until now, we registered any question and known use of the PRTR data, mostly citations of press releases from our Office as well as statistical information on web site access and data queries. This information has not been published, but is used internally to assess the effect of our communication</p>

United States = Yes	Yes We don't make every specific user or use of our PRTR data available to the public, but we do summarize the users and uses in generic terms (e.g., citizens use the data for ..... purposes.)
CEC = Yes	Yes The information is documented for internal purposes. It can be made available upon request.

3. PRTR data and information can and is used by many different types of individuals and organizations for a wide variety of reasons. Does your organization make available to the users of its PRTR data any documents, tools (e.g., software) or other materials (e.g., website) that provide general guidance, insight or examples of how PRTR data can or should be used?

Canada= Yes	General guidance on the use and interpretation of National Pollutant Release Inventory (NPRI) data is made publicly available as part of an online guide for NPRI data users (see link provided above).
Czech Republic = Yes	
Germany = Yes	On the German PRTR-Website ( <a href="http://www.prtr.bund.de">www.prtr.bund.de</a> ) are many different documents and materials available concerning different aspects of PRTR
Republic of Korea = Yes	
Spain = Yes	(see. <a href="http://www.en.prtr-es.es/data/images/20120224_Application_Use_Presentation_PRTR_España_EN-D79BEC709FB2F952.pdf">www.en.prtr-es.es/data/images/20120224_Application_Use_Presentation_PRTR_España_EN-D79BEC709FB2F952.pdf</a> ) See different sections on public website ( <a href="http://www.prtr-es.es">www.prtr-es.es</a> , Spanish; <a href="http://www.en.prtr-es.es">www.en.prtr-es.es</a> , English version). Not only about how PRTR data can be used but also what kind of information is offered on website: · Public information on emissions and transfers both at facility level and aggregated level; · complete inventory of facilities registered on PRTR-España, not only the “public” ones but all the facilities which have to report, <a href="http://www.en.prtr-es.es/Informes/InventarioInstalacionesIPPC.aspx">www.en.prtr-es.es/Informes/InventarioInstalacionesIPPC.aspx</a> ; · download complete file with public information, <a href="http://www.en.prtr-es.es/Informes/Descargas.aspx">www.en.prtr-es.es/Informes/Descargas.aspx</a> ; · Documents and references: <a href="http://www.en.prtr-es.es/fondo-documental/documentos-prtr,15499,10,2007.html">www.en.prtr-es.es/fondo-documental/documentos-prtr,15499,10,2007.html</a> , · <a href="http://www.en.prtr-es.es/fondo-documental/manuales-prtr-y-otros-documentos,15501,10,2007.html">www.en.prtr-es.es/fondo-documental/manuales-prtr-y-otros-documentos,15501,10,2007.html</a>
Switzerland = No	Not yet
United States = Yes	For documents, see: “How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses” (see: <a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a> ) “The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data” (see: <a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a> ) “A Guide to the Use and Application of TRI Data and Information” [expected to be released in Summer of 2012.] “How to Use and Not Use RSEI” (EPA’s Risk Screening and Environmental Indicators tool). (see: <a href="http://www.epa.gov/opptintr/rsei/pubs/using_rsei.html">www.epa.gov/opptintr/rsei/pubs/using_rsei.html</a> ) For tools, see: TRI Explorer Tutorial ( <a href="http://www.epa.gov/tri/triexplorertutorial/index.html">www.epa.gov/tri/triexplorertutorial/index.html</a> )
CEC = Yes	Taking Stock Online ( <a href="http://www.cec.org/takingstock">www.cec.org/takingstock</a> ) provides a section on “Using and Understanding PRTR data”. Data on the toxicity of individual PRTR substances is also provided.

4. Does your organization make available to the users of its PRTR data any documents, tools (e.g., software) or other materials (e.g., website) that provide insight or examples of how PRTR data can or should be used (or not be used) for individual citizens, communities, researchers, public interest groups, insurance companies, investment bankers, competent authorities, industries/facilities? (multiple answers)

Canada= No	General guidance on the use and interpretation of National Pollutant Release Inventory (NPRI) data is made publicly available as part of an online guide for NPRI data users.
Czech Republic = Yes	Summary Report – see response to question no1
Germany = Yes	Individual citizens or communities (how to access/find out about toxic emissions or other waste management practices in a given neighbourhood) individual citizens or communities (how to use your PRTR data to take action) researchers (e.g., academicians) public interest groups insurance companies investment bankers competent authorities (e.g., governmental organizations other than your own including local governments) industries/facilities other, please specify: NGOs
Republic of Korea = No	No general guidance on the use and limitation of Korea PRTR data is made public available.
Spain = Yes	(see. <a href="http://www.en.prtr-es.es/data/images/20120224_Application_Use_Presentation_PRTR_España_EN-D79BEC709FB2F952.pdf">www.en.prtr-es.es/data/images/20120224_Application_Use_Presentation_PRTR_España_EN-D79BEC709FB2F952.pdf</a> )  For every type of users (individual citizens or communities: researchers (e.g., academicians), public interest groups, insurance companies, investment bankers, competent authorities (e.g., governmental organizations other than your own including local governments), industries/facilities, others) See different sections on public website ( <a href="http://www.prtr-es.es">www.prtr-es.es</a> , Spanish; <a href="http://www.en.prtr-es.es">www.en.prtr-es.es</a> , English version)." Some examples of links/sections where the public can find general guidance about the information included in PRTR-España are: · “Información pública”: <a href="http://www.prtr-es.es/informacion-publica-/informacion-publica-,15374,00,00.html">www.prtr-es.es/informacion-publica-/informacion-publica-,15374,00,00.html</a> ; · “PRTR-España” Register, Public information <a href="http://www.en.prtr-es.es/prtrespana-register-public-information/prtrespana-register-public-information,15734,00,00.html">www.en.prtr-es.es/prtrespana-register-public-information/prtrespana-register-public-information,15734,00,00.html</a> , (English version). · “Know more about PRTR-España”, <a href="http://www.en.prtr-es.es/know-more-about-prtrespana/what-information-will-be-available,15733,11,2007.html">www.en.prtr-es.es/know-more-about-prtrespana/what-information-will-be-available,15733,11,2007.html</a> , · “Sepa más de PRTR-España”: <a href="http://www.prtr-es.es/sepa-mas-sobre-prtrespana/que-informacion-ofrece-prtrespana,15472,10,2007.html">www.prtr-es.es/sepa-mas-sobre-prtrespana/que-informacion-ofrece-prtrespana,15472,10,2007.html</a> , <a href="http://www.prtr-es.es/sepa-mas-sobre-prtrespana/que-informacion-no-incluye-prtrespana,15473,10,2007.html">www.prtr-es.es/sepa-mas-sobre-prtrespana/que-informacion-no-incluye-prtrespana,15473,10,2007.html</a> , <a href="http://www.prtr-es.es/sepa-mas-sobre-prtrespana/que-sustancias-se-encuentran-incluidas,15475,10,2007.html">www.prtr-es.es/sepa-mas-sobre-prtrespana/que-sustancias-se-encuentran-incluidas,15475,10,2007.html</a> .
Switzerland = Yes	individual citizens or communities (how to access/find out about toxic emissions or other waste management practices in a given neighbourhood) individual citizens or communities (how to use your PRTR data to take action) public interest groups industries/facilities other, please specify: It is foreseen to support industries/facilities to communicate their

	<p>achievements in pollution prevention. Information for individual citizens or public interest groups is planned for 2013 and later, and will focus on how to find data, their interpretation, and how to use them as basis for communication</p>
<p>United States = Yes</p>	<p>For documents, see:          “How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses”          (see: <a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a>)          “The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data”          (see: <a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a>)          “A Guide to the Use and Application of TRI Data and Information” [expected to be released in Summer of 2012.]          “How to Use and Not Use RSEI” (EPA’s Risk Screening and Environmental Indicators tool).          (see: <a href="http://www.epa.gov/opptintr/rsei/pubs/using_rsei.html">www.epa.gov/opptintr/rsei/pubs/using_rsei.html</a>)          For tools, see:          – TRI Explorer (<a href="http://iaspub.epa.gov/triexplorer/tri_release.chemical">http://iaspub.epa.gov/triexplorer/tri_release.chemical</a> ;and <a href="http://www.epa.gov/tri/triexplorertutorial/index.html">www.epa.gov/tri/triexplorertutorial/index.html</a>)          – TRI.NET (<a href="http://www.epa.gov/tri/tridotnet/index.html">www.epa.gov/tri/tridotnet/index.html</a>)          – Envirofacts (<a href="http://www.epa.gov/enviro/facts/tri/search.html">www.epa.gov/enviro/facts/tri/search.html</a>)          – TRI-CHIP (<a href="http://www.epa.gov/tri/tri-chip/index.html">www.epa.gov/tri/tri-chip/index.html</a>)          – MyRTK mobile application (<a href="http://www.epa.gov/tri/myrtk/index.html">www.epa.gov/tri/myrtk/index.html</a>)          – TRI Comparative Analysis Tool (<a href="http://www.epa-echo.gov/echo/tricomparative">www.epa-echo.gov/echo/tricomparative</a>)          – ToxMap (from U.S. National Library of Medicine) (<a href="http://toxmap.nlm.nih.gov/toxmap/main/index.jsp">http://toxmap.nlm.nih.gov/toxmap/main/index.jsp</a>)          – Risk Screening Environmental Indicators (RSEI) tool (<a href="http://www.epa.gov/oppt/rsei/index.html">www.epa.gov/oppt/rsei/index.html</a>)</p>
<p>CEC = Yes</p>	<p>All of the above</p> <p>The Annual Public meeting of the North American PRTR project provides an opportunity to stakeholders to discuss and present on issues related to PRTR data. The 2010 meeting focused on the use of PRTR data to support community environmental health and green economy initiatives."</p> <p>The agenda and archived webcast are available at :  <a href="http://www.cec.org/Page.asp?PageID=749&amp;SiteNodeID=651">www.cec.org/Page.asp?PageID=749&amp;SiteNodeID=651</a></p>

5. Does your organization know who uses its PRTR data?

Canada= Yes	<p>To some extent –Yes. Based on past surveys, internal and external inquiries, multi-stakeholder interactions and web site traffic monitoring, key NPRI data users include the following:</p> <p>All levels of Government in Canada (Federal, Provincial/Territorial and Municipal)          Academia and students (scientific, economic, health/medicine, business/financial)          Companies          Industry associations          Non-governmental organizations and Community Groups          Aboriginal and First Nations groups          Individuals          Financial sector          Mass media</p>
Czech Republic = Yes	
Germany = Yes	<p>Direct inquiries          OTRS (Open Ticket Request System)          Webserver Statistic          Different stakeholder meetings</p>
Republic of Korea = Yes	<p>We have information on some users, but not on all users.</p>
Spain =Yes	<p>Mainly:</p> <ul style="list-style-type: none"> <li>· As “members” in “member area access”</li> <li>· Visits/download/consults/ etc.. statistics of the public website (weekly/monthly/annually)</li> <li>· Request by e-mail (info@prtr-es.es).</li> </ul> <p>Apart from the Facilities, Competent Authorities and the Ministry, the most important users are the R+D and technologic Institutions, including Universities (Spanish and also from other countries), and ONGs.</p>
Switzerland = No	
United States = Yes	<ul style="list-style-type: none"> <li>· individual citizens</li> <li>· communities</li> <li>· researchers (e.g., academicians)</li> <li>· public interest groups</li> <li>· insurance companies</li> <li>· investment bankers</li> <li>· Different offices within the U.S. EPA</li> <li>· Other federal governmental organizations, and state and local governments</li> </ul>
CEC = Yes	<p>We have information on some users, but not on all users</p>

6. Does your organization make available any documents, tools (e.g., software) or other materials (e.g., website) that provide insight or examples of how PRTR data can or should be used (or not be used) for risk assessment, exposure assessment, measuring progress in preventing pollution or achieving sustainability? (multiple answers)

Canada= No	<p>Measuring Progress:          NPRI data is used to inform and explain national indicators such as:          The Canadian Environmental Sustainability Indicators - Air Emission Indicators, including indicators for sulphur oxides (<a href="http://www.ec.gc.ca/indicateurs-indicateurs/default.asp?lang=en&amp;n=402A9845-1">www.ec.gc.ca/indicateurs-indicateurs/default.asp?lang=en&amp;n=402A9845-1</a>), nitrogen oxides, volatile organic compounds, ammonia, particulate matter, carbon monoxide          Annual reports to Canadian Parliament and Canadians on the implementation of the Government's priorities, such as Environment Canada's 2010-2011 Departmental Performance Report, p. 53-54: <a href="http://www.tbs-sct.gc.ca/dpr-rmr/2010-2011/inst/doe/doe00-eng.asp">www.tbs-sct.gc.ca/dpr-rmr/2010-2011/inst/doe/doe00-eng.asp</a></p> <p>Exposure models are used in risk assessment reports. For example, in the Screening Assessment for Hydrazine (<a href="http://www.ec.gc.ca/ese-ees/default.asp?lang=En&amp;n=17647095-1">www.ec.gc.ca/ese-ees/default.asp?lang=En&amp;n=17647095-1</a>), p. 44 – 45, NPRI land release data for hydrazine was used to estimate exposure to hydrazine through soil, in the absence of data on hydrazine concentrations in soil or sediments in Canada.</p>
Czech Republic =	<p>Summary Report shows measuring progress of selected pollutants or group of pollutants (more information about Summary report are listed above). Summary reports contain short information about monitored substances.</p> <p>(All documents related to PRTR are published on IRZ website and it is possible to download them (see <a href="http://www.irz.cz/Node/24">www.irz.cz/Node/24</a>))</p>
Germany = Yes	<p>geographical model, calculation of substance inputs to waters (MoRE, modeling of regionalized emissions, <a href="http://iswww.iwg.kit.edu/MoRE.php">http://iswww.iwg.kit.edu/MoRE.php</a>)</p>
Republic of Korea = No	
Spain = Internal	<p>All this type of assessment, by the time being, are made for internal use by the Competent Authorities. In "member area", both Competent Authorities and Ministry/administrator have many functionalities to facilitate not only the validation process but also the management of all data reported. Then they can easily evaluate each reporting cycle and comparing with the previous ones. These functionalities are very useful then to prepare reports (to be published or not) about many of the indicated issues or other.</p> <p>The Ministry usually prepares such reporting report to be published in the National Congress of Environment Events (biennial event). One example can be found in: <a href="http://www.en.prtr-es.es/data/images/PRTR_España-1_-CONAMA10_1.pdf">www.en.prtr-es.es/data/images/PRTR_España-1_-CONAMA10_1.pdf</a>, <a href="http://www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf">www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf</a>.</p> <p>Some studies on these issues are being developed by several Research Center (Universities) using the PRTR data but they are not finished yet. In Public Administrations some assessment are developed but only for internal uses.</p>
Switzerland =	
United States = Yes	<p>Risk assessment: Yes to some extent          Exposure assessment (i.e., Does your organization provide information on how emission data reported to its PRTR program can be used in the estimation of exposure to the chemical(s) for which the data were reported?): Yes to some extent          Measuring progress (or lack thereof) in preventing pollution or achieving sustainability: No</p>

	<p>geographical model  multimedia (fugacity) model  diffusion model</p> <p>For Documents:  “How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses”  (see: <a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a>)  “The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data”  (see: <a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a>)  “A Guide to the Use and Application of TRI Data and Information” [expected to be released in Summer of 2012.]  “How to Use and Not Use RSEI” (EPA’s Risk Screening and Environmental Indicators tool).  (see: <a href="http://www.epa.gov/opptintr/rsei/pubs/using_rsei.html">www.epa.gov/opptintr/rsei/pubs/using_rsei.html</a>)</p> <p>For Exposure and Risk Assessment Tools:  The U.S. EPA is currently developing a tool called “Community-Focused Exposure and Risk Screening” (“C-FERST”) tool. This tool uses TRI emission data as input to estimate exposure and risk.  The C-FERST beta test version 1.0 is currently on the EPA Extranet, and is being pilot tested and used by several CARE program (<a href="http://www.epa.gov/care">www.epa.gov/care</a>) communities and their EPA regional project officers. Future versions of C-FERST will incorporate additional features and research including: ongoing human exposure science; collaboration/integration with ecological research; integration with other tools; more fully populated exposure/risk maps and environmental issue profiles; building capacity for more complete cumulative assessment and risk ranking; incorporation of EPA cumulative risk guidance and non-chemical stressors research; "what-if" scenarios for assessing impacts of community actions; incorporation of more sustainability aspects.  C-FERST can be accessed through:  <a href="http://www.epa.gov/care">www.epa.gov/care</a> or <a href="http://cfpub.epa.gov/cferst">http://cfpub.epa.gov/cferst</a></p> <p>The U.S. EPA has developed and makes available its Risk-Screening Environmental Indicators (RSEI) tool, which uses TRI emission data and enables anyone to perform risk-rankings in a variety of ways. The RSEI tool is a computer-based screening tool developed by EPA that analyzes factors that may result in chronic human health risks. These factors include the amount of toxic chemical releases, the degree of toxicity, and the size of the exposed population. RSEI analyzes these factors and calculates a numeric score. To give the score meaning, it must be ranked against other scores also produced by RSEI. The model highlights releases that pose the highest potential risk or potentially pose the highest risk. This way, RSEI helps policy makers and communities quickly identify situations that require further evaluation and set priorities for action.  RSEI considers the following information:</p> <ul style="list-style-type: none"> <li>· Amount of chemical released</li> <li>· Location of that release</li> <li>· Toxicity of the chemical</li> <li>· Fate and transport through the environment</li> <li>· Route and extent of human exposure</li> <li>· Number of people affected</li> </ul> <p>This information is used to create numerical values (RSEI scores) , which can be added and compared in limitless ways to other RSEI scores to assess the relative hazard and risk of chemicals, facilities, regions, industries, or many other factors. The scores are for comparative purposes and are only meaningful when compared to other scores produced by RSEI. Again, the result does not provide a detailed or quantitative risk assessment, but offers a screening-</p>
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	level perspective for relative comparisons of chemical releases. More information on the U.S. EPA's RSEI tool can be found at: <a href="http://www.epa.gov/oppt/rsei/index.html">www.epa.gov/oppt/rsei/index.html</a>
CEC = No	

## 7. Does your organization provide any guidance on how PRTR data should (or should not) be interpreted?

Canada= Yes	<p>General guidance on the use and interpretation of National Pollutant Release Inventory (NPRI) data is made publicly available as part of an online guide for NPRI data users.</p> <p>The information is published as part of an online guide for NPRI data users (see: <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1">www.ec.gc.ca/inrp-npri/default.asp?lang=En&amp;n=B5C1EAB8-1</a>)</p>
Czech Republic = Yes	Summary Report offers brief recommendations how to interpret collected data.
Germany = Yes	FAQs on the PRTR-Website ( <a href="http://www.prtr.bund.de">www.prtr.bund.de</a> )
Republic of Korea = Yes	General guidance on the use and limitation of Korea PRTR data is made public available.
Spain = Yes	See different sections on public website ( <a href="http://www.prtr-es.es">www.prtr-es.es</a> , Spanish; <a href="http://www.en.prtr-es.es">www.en.prtr-es.es</a> , English version).
Switzerland = Yes	Among the frequently asked questions, there are sections on data quality and interpretations: <a href="http://www.bafu.admin.ch/chemikalien/prtr/06989/index.html?lang=en">www.bafu.admin.ch/chemikalien/prtr/06989/index.html?lang=en</a>
United States = Yes	<p>The U.S. EPA offers several different guidance documents. These are:</p> <p>“How are the Toxics Release Inventory Data Used? Government, business, academic and citizen uses” (see: <a href="http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf">www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf</a>)</p> <p>“The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data” (see: <a href="http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf">www.epa.gov/tri/triprogram/FactorsToConPDF.pdf</a>)</p> <p>“A Guide to the Use and Application of TRI Data and Information” [expected to be released in Summer of 2012.]</p> <p>“How to Use and Not Use RSEI” (EPA’s Risk Screening and Environmental Indicators tool). (see: <a href="http://www.epa.gov/opptintr/rsei/pubs/using_rsei.html">www.epa.gov/opptintr/rsei/pubs/using_rsei.html</a>)</p>
CEC = Yes	Some information on using and understanding , and the limitations of PRTR data, are provided on the Taking Stock Online website <a href="http://www.cec.org/takingstock">www.cec.org/takingstock</a> )

8. Does your own organization provide or make available its own interpretation of its own data when it releases its data to the public?

Canada= Yes	When the data is published, a high level web summary is made available online that outlines the largest sources and pollutants reported. Facility location maps and information are also published.
Czech Republic = Yes	Summary Report
Germany = Yes	
Republic of Korea = No	
Spain = Yes	Partially See for instance: <a href="http://www.en.prtr-es.es/data/images/PRTR_España-1_-CONAMA10_1.pdf">www.en.prtr-es.es/data/images/PRTR_España-1_-CONAMA10_1.pdf</a> , <a href="http://www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf">www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf</a> .
Switzerland = No	
United States = Yes	In fact my organization devotes considerable resources to developing what it calls its "TRI National Analysis". The annual TRI National Analysis is a comprehensive report that provides the public with EPA's interpretation and evaluation of the most recently reported data and information on how toxic chemicals were managed, where toxic chemicals ended up, and how these data compare to that of previous years. The TRI National Analysis can be used along with other information as a starting point in understanding how the environment and communities may be exposed to toxic chemicals. For the most recent example of the U.S. EPA's TRI National Analysis, see: <a href="http://www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm">www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm</a>
CEC = Yes	

9. If Yes, does your organization provide context to the data as it is released? (e.g., Does it factor in economic factors that may contribute to a decline in total releases from the previous year? Does it make comments about the types of emissions, and their relation to overall risk? (e.g., total releases have increased, but releases to air have decreased while releases to landfill have increased, therefore, there may be less of an exposure potential overall.)

Canada= No	
Czech Republic = Yes	Summary Report
Germany = Yes	Different analysis of the data with excel tables with comments, glossary of PRTR pollutants; see <a href="http://www.prtr.bund.de">www.prtr.bund.de</a> (Glossary)
Republic of Korea = No	
Spain = Planned	These issues are ones of the main challenge for the future re-styling of the Spanish PRTR website. Some actions are foreseen for the next month such as, to improve the contextualized information for the public in industrial activities, etc... Also the inclusion of trend assessments from the beginning of the Register to now (2001-2011) relating to pollutant emissions per each environmental media/activity sector/region/etc... And to develop the Public information on Diffuse sources emissions.
Switzerland = No	
United States = Yes	The annual TRI National Analysis report does all of this, and much more. For the most recent example of the U.S. EPA's TRI National Analysis , see: <a href="http://www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm">www.epa.gov/tri/tridata/tri10/nationalanalysis/index.htm</a>
CEC = Yes	context is provided in the data presentation

## 10. Does your organization do any risk ranking when it makes its data available?

Canada= No	
Czech Republic = No	
Germany = No	
Republic of Korea = No	
Spain = Internal	<p>Competent Authorities and Ministry (administrator system) usually do some ranking of main pollutant emissions when validation process is carrying out, but this type of information is not directly publish.</p> <p>The public can also sort the queries they make on the website just clicking on the specific option in tables shown on the public information section (see for instance in "search by pollutant": <a href="http://www.en.prtr-es.es/Informes/Pollutant.aspx">www.en.prtr-es.es/Informes/Pollutant.aspx</a>." "(Example from the public information on PRTR-España website (<a href="http://www.en.prtr-es.es">www.en.prtr-es.es</a>, English version).)</p> <p>These types of queries are also possible in other sections of public information. This issue is also included to be developed deeply in near future in order to improve the public website.</p>
Switzerland = No	
United States = Yes	<p>Generally not. However, The U.S. EPA has developed and makes available its Risk-Screening Environmental Indicators (RSEI) tool, which uses TRI emission data and enables anyone to perform risk-rankings in a variety of ways. The RSEI tool is a computer-based screening tool developed by EPA that analyzes factors that may result in chronic human health risks. These factors include the amount of toxic chemical releases, the degree of toxicity, and the size of the exposed population. RSEI analyzes these factors and calculates a numeric score. To give the score meaning, it must be ranked against other scores also produced by RSEI. The model highlights releases that pose the highest potential risk or potentially pose the highest risk. This way, RSEI helps policy makers and communities quickly identify situations that require further evaluation and set priorities for action.</p> <p>RSEI considers the following information: Amount of chemical released; Location of that release; Toxicity of the chemical; Fate and transport through the environment; Route and extent of human exposure; Number of people affected.</p> <p>This information is used to create numerical values (RSEI scores) , which can be added and compared in limitless ways to other RSEI scores to assess the relative hazard and risk of chemicals, facilities, regions, industries, or many other factors. The scores are for comparative purposes and are only meaningful when compared to other scores produced by RSEI. Again, the result does not provide a detailed or quantitative risk assessment, but offers a screening-level perspective for relative comparisons of chemical releases.</p> <p>More information on the U.S. EPA's RSEI tool can be found at: <a href="http://www.epa.gov/oppt/rsei/index.html">www.epa.gov/oppt/rsei/index.html</a></p>
CEC = No	No; however, risk scores for a select number of substances is provided

11. Does your organization do any hazard ranking, or use descriptors of hazard when it makes its data available?

Canada= No	
Czech Republic = No	
Germany = No	
Republic of Korea = No	
Spain = Internal	
Switzerland = No	
United States = No	Usually not. We did once, a few years ago. We do have, however, our Risk-Screening Environmental Indicators (RSEI) tool, which is described in the answer to the preceding question. This tool uses a hazard-ranking scheme.
CEC = No	

12. Does your organization do any exposure assessment when it makes its data available?

Canada= No	
Czech Republic = No	
Germany = No	
Republic of Korea = No	
Spain = Internal	
Switzerland = No	
United States = No	
CEC = No	

## 13. Does your organization provide or make available toxicity information on the chemicals in your PRTR?

Canada= Yes	<p>Environment Canada makes toxicity information available for substances that have been declared to be toxic in accordance with the Canadian Environmental Protection Act, 1999 (CEPA 1999). These substances are managed under Schedule I of the Act, the List of Toxic Substances, available at this URL: <a href="http://www.ec.gc.ca/toxiques-toxics/default.asp?lang=En&amp;n=98E80CC6-1">www.ec.gc.ca/toxiques-toxics/default.asp?lang=En&amp;n=98E80CC6-1</a>.</p> <p>In general, information regarding the risk assessment of chemicals in Canada is available through the Government of Canada Chemical Substances Portal at this URL: <a href="http://www.chemicalsubstanceschimiques.gc.ca">www.chemicalsubstanceschimiques.gc.ca</a></p>
Czech Republic = Yes	
Germany = Yes	Glossary of PRTR pollutants; see <a href="http://www.prtr.bund.de">www.prtr.bund.de</a> (Glossary)
Republic of Korea = Yes	
Spain = Internal	
Switzerland = Yes	as a glossary of pollutants with explanations on origin and toxicity ( <a href="http://www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en">www.bafu.admin.ch/chemikalien/prtr/07159/index.html?lang=en</a> )
United States = Yes	Through its TRI-CHIP (Toxics Release Inventory Chemical Hazard Information Profile) tool. See: <a href="http://www.epa.gov/tri/tri-chip/index.html">www.epa.gov/tri/tri-chip/index.html</a>
CEC = Yes	Information on the Toxicity Equivalency Potential (TEP) score for selected substances is provided.

14. Does your organization provide or make available exposure information with PRTR data? (e.g., presentation of emission geographically (with GIS, etc.), presentation with meteorological data)

Canada= Yes	PRTR data is presented geographically as part of map layers for use with Google Earth ( <a href="http://www.ec.gc.ca/inrp-npri/default.asp?lang=en&amp;n=1D892B9F-1">www.ec.gc.ca/inrp-npri/default.asp?lang=en&amp;n=1D892B9F-1</a> )
Czech Republic = Yes	Yes, but data presentation is very limited – see <a href="http://geoportal.gov.cz/web/guest/map?wmc=http%3A//geoportal.gov.cz/php/wmc/data/4e6e77e7-39b4-4e35-b262-24f6c0a80138.wmc">http://geoportal.gov.cz/web/guest/map?wmc=http%3A//geoportal.gov.cz/php/wmc/data/4e6e77e7-39b4-4e35-b262-24f6c0a80138.wmc</a>
Germany = Yes	The PRTR facility is presented geographically; an overview map presents all German PRTR facilities
Republic of Korea = Planned	(We have plan to make available exposure information with PRTR data)
Spain = Internal	<p>Geographical information is given to the public just to locate the facilities (see: <a href="http://www.en.prtr-es.es/Informes/gis.aspx">www.en.prtr-es.es/Informes/gis.aspx</a>, and <a href="http://www.en.prtr-es.es/informes/facilitylevel.aspx">http://www.en.prtr-es.es/informes/facilitylevel.aspx</a>). Very simple queries can be made (by activity sector and by regions/RBD).</p> <p>Internally some documents with geographical information can be prepared by Competent Authorities using the PRTR data, but this information is not directly published. "</p> <p>"In many cases is quite difficult to get good conclusions from PRTR data since most of them come from point sources. Depending on the pollutant/sector/etc. this information is enough or not to go beyond than simple indicate the point where the pollutant is being emitting to the environment.</p> <p>However, this issue is also a point foreseen to be improved in near future</p>
Switzerland = Yes	presentation of point sources on a map ( <a href="http://map.bafu.admin.ch/">http://map.bafu.admin.ch/</a> ) with links to the detailed report
United States = Planned	<p>Not exactly, but we are working on tools that can enable one to estimate exposures and risk that result from emissions of TRI chemicals. The U.S. EPA was in the process of developing a tool for assessing inhalation and cancer risk from TRI (the U.S.' PRTR) emission data. However, only an internal (EPA-only) version of this tool this exists. This tool has not yet been made available to the public. See <a href="http://www.epa.gov/oei/symposium/2007/palma.pdf">www.epa.gov/oei/symposium/2007/palma.pdf</a> for more details.</p> <p>The U.S. EPA is currently developing a tool called "Community-Focused Exposure and Risk Screening" ("C-FERST") tool. This tool uses TRI emission data as input to estimate exposure and risk. The C-FERST beta test version 1.0 is currently on the EPA Extranet, and is being pilot tested and used by several CARE program (<a href="http://www.epa.gov/care">www.epa.gov/care</a>) communities and their EPA regional project officers. Future versions of C-FERST will incorporate additional features and research including: ongoing human exposure science; collaboration/integration with ecological research; integration with other tools; more fully populated exposure/risk maps and environmental issue profiles; building capacity for more complete cumulative assessment and risk ranking; incorporation of EPA cumulative risk guidance and non-chemical stressors research; "what-if" scenarios for assessing impacts of community actions; incorporation of more sustainability aspects.</p>
CEC = No	Map layers are provided on the location of the PRTR reporting facilities, but not on exposure

15. Does your organization use its PRTR data to evaluate if and where (i.e., which industry sectors) progress has been made in preventing pollution or achieving sustainability?

Canada= Yes	The Government of Canada uses NPRI data as a key input to track progress, identify priorities for action and to support risk assessment, risk management and regulatory initiatives.
Czech Republic = Yes	Summary Report
Germany = No	Not yet, but provided
Republic of Korea = Yes	The Ministry of Environment uses Korea's PRTR data as a base data to identify priorities for regulations, to support risk assessment and risk management.
Spain = Yes	For instance to evaluate the emissions of SOx in Combustion plants, from to 2001 to 2009 at national level ( <a href="http://www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf">www.prtr-es.es/data/images/PRTR_España-2_CONAMA10_2.pdf</a> ). Besides, the system allows to the Competent Authorities work on this issues with the functionalities developed in "member area" to management the data. It is also possible to follow the evolution for specific pollutant emissions per each facility, taking into account all validated data, not only above thresholds. But this functionality is only developed, by the time being, for the administrator (Ministry) role.
Switzerland = Planned	Not yet, but this is foreseen in the future. We have only three years published by now, and the economic development during the last three years dominates most eventual effects.
United States = Planned	Some programs within the U.S. EPA have on occasion have done this.
CEC = Yes	Sector specific analyses have been done for the Taking Stock report

16. When presenting or releasing its PRTR data, does your organization make any statements as to whether data indicate progress in pollution prevention or achievements in sustainability (or lack thereof).

Canada= No	
Czech Republic = Yes	Press release, news on the website, articles in some newspapers and specialized magazines, etc.
Germany = No	
Republic of Korea = No	
Spain = No	
Switzerland = No	
United States = No	Generally not. Although on occasion the United States Environmental Protection Agency has made some pollution prevention-related statements in its official reports when it has made its annual release of PRTR data.
CEC = Yes	Yes, as long as the available data can support the statement.

17. Has your organization developed or does it use descriptors of sustainability or pollution prevention as a way to express its PRTR data or interpret it, in the context of sustainability? If Yes, please provide a reference of your descriptors. (Including the name, URL if applicable)

Canada= Yes	via the Canadian Environmental Sustainability Indicators - Air Emission Indicators, including indicators for sulphur oxides ( <a href="http://www.ec.gc.ca/indicateurs-indicateurs/default.asp?lang=en&amp;n=402A9845-1">www.ec.gc.ca/indicateurs-indicateurs/default.asp?lang=en&amp;n=402A9845-1</a> ), nitrogen oxides, volatile organic compounds, ammonia, particulate matter, carbon monoxide
Czech Republic = No	
Germany = No	
Republic of Korea = No	
Spain = Planned	It is also an issue to be developed in future in order to improve both the public information and the management of data by the Competent Authorities.
Switzerland = Planned	No, but we are interested in doing so, and try to develop indicators that eliminate the effect of economic development (also see response to question 15).
United States = No	
CEC = No	