



PRTR and synergies with other multilateral agreements, EU legal acts and EEA reportings

Tina Skårman, IVL
Katarina Hansson, IVL
Johanna Mietala, Statistics Sweden
Eva Brorström-Lundén, IVL

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SMED is short for Swedish Environmental Emissions Data, which is a collaboration between IVL Swedish Environmental Research Institute, SCB Statistics Sweden, SLU Swedish University of Agricultural Sciences, and SMHI Swedish Meteorological and Hydrological Institute. The work co-operation within SMED commenced during 2001 with the long-term aim of acquiring and developing expertise within emission statistics. Through a long-term contract for the Swedish Environmental Protection Agency extending until 2014, SMED is heavily involved in all work related to Sweden's international reporting obligations on emissions to air and water, waste and hazardous substances. A central objective of the SMED collaboration is to develop and operate national emission databases and offer related services to clients such as national, regional and local governmental authorities, air and water quality management districts, as well as industry. For more information visit SMED's website www.smed.se.

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Summary

Swedish Environmental Emissions Data (SMED) has, on behalf of the Swedish Environmental Protection Agency (Swedish EPA) compiled an overview of the multilateral agreements, EU legal acts and EEA reports, which is listed in Table 1, together with identified similarities and differences between these and the UNECE (United Nations Economic Commission for Europe) Protocol on Pollutant Release and Transfer Register, i.e. the PRTR Protocol.

Relevant general information regarding each agreement has been collected from the Internet and, based on the summarized information, possible synergies with the PRTR protocol have been analyzed.

Table 1. Multilateral agreements, EU legal acts and EEA reports that are included in the project.

Multilateral agreements	EU legal acts	EEA reports
Minamata Convention	EU ETS	EEA EMISSIONS
Stockholm Convention	IED	EEA TCM
Rotterdam Convention	Water Framework Directive	
HELCOM (PLC annual, PLC periodical)	Marine Directive	
OSPAR (RID)	Urban Waste Water Directive	
	Sewage Sludge Directive	

The study shows that there are synergies between regulations that are included in the project and the PRTR. Furthermore, the results also show that even though similarities can be identified, each regulation requires different information and is thus unique. In Table 2, identified general synergies are presented, and it can be concluded that the regulations that have most in common with the PRTR protocol are the Minamata Convention and the Industrial Emissions Directive.

Table 2. General synergies between the PRTR Protocol and those regulations which are included in the project (x=synergy).

Content	PRTR	Minamata Convention	Stockholm Convention	Rotterdam Convention	HELCOM	OSPAR	EU ETS	IED	WFD	Marine Directive	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
Public register	x	x ¹	x ²	x ³			x	x	x ⁴				x	x
Reported point sources (facility-specific information)	x	x			x	x ⁵	x	x	x		x		x ⁵	x
- Activities	x	x	x		x	x ⁶	x	x	x				x ⁶	x ⁶
- Activities, capacity threshold values	x						x	x						
- Substances	x	x	x	x	x	x	x	x	x	x	x	x	x	x
- Substances, threshold values	x													
- Receiving medium, air	x	x	x				x	x						
- Receiving medium, water	x	x	x		x	x		x	x	x	x		x	x
- Receiving medium, land	x	x	x											
- Receiving medium, transfer wastewater treatment plant	x													
- Receiving medium, transfer waste	x													
- Administrative information	x													
- Reporting mechanism, SMP ⁷	x	x ¹	x ²		x	x		x	x		x	x	x	x
Diffuse sources (aggregated)	x				x ⁸				x				x	
Annual reporting	x				x	x	x	x ⁹	x				x ¹⁰	x
Public participation	x	x	x	x			x	x	x	x				
Capacity building	x	x	x	x	x	x	x				x			
Number of synergies (x)	17	10	9	4	8	7	9	10	9	3	5	2	8	7

1 The Parties shall use existing mechanisms, e.g. PRTR, for collection and distribution of information.

2 The Parties shall consider developing the PRTR for collection and distribution of information.

3 Does not include information on emissions.

4 Applicable as of 2016.

5 Facility-specific data is aggregated per water district/ocean basin.

6 Specified for industries and treatment plants; not single operations.

7 Swedish Portal for Environmental Reporting. Reported (SMP) data is based solely or partly on information which is reported to SMP.

8 Applies to Helcom PLC Periodical, but not Helcom PLC Annual

9 Applies to certain activities, e.g. large combustion plants for emission year 2016 onwards.

10 Yearly reporting up until 2012 year's data, reporting frequency under investigation (2015).

Background

In October 2009, the Protocol on Pollutant Release and Transfer Register (the PRTR Protocol) was entered into force. In the Geneva declaration, which was adopted at the first Meeting of the Parties in April 2010, several international agreements and initiatives were identified, and Parties were encouraged to investigate potential synergies between these and the Protocol¹¹. For the first Meeting of the Parties, SMED, on behalf of Swedish EPA, compiled a report describing these international agreements and initiatives on a general level, and identified potential synergies with the PRTR Protocol¹².

In the Geneva declaration that was adopted at the second Meeting of the Parties to the PRTR Protocol in July 2014, the importance of investigating synergies between the PRTR Protocol and other multilateral agreements in order to facilitate and streamline its implementation was yet again emphasized¹³.

As of a few years, the chairman and the secretariats for the various UNECE Multilateral Environmental Agreements (MEA) have had regular meetings. Within this forum, it has been made clear that continuous communication on all levels is of high importance in order to achieve synergy between the agreements. Concerned authorities for the respective UNECE-MEA are:

- National points of contact
- The secretariats
- Bureaus

Also on EU level, coordinated efforts are in progress for the purpose of finding reporting synergies among EU legal acts in order to streamline and alleviate the reporting burden.

To enable relevant and substantial discussions on all levels, it is of uttermost importance to obtain an overall picture of which information is required by different regulations with regard to the PRTR.

¹¹

http://www.unece.org/fileadmin/DAM/env/documents/2010/pp/ece_mp_prtr_2010_L_1_e.pdf

¹² Skårman, T. and Danielsson, H., (2010): Förberedelsearbete inför first MOP-PRTR, SMED report (in Swedish)

¹³

http://www.unece.org/fileadmin/DAM/env/pp/mop5/HLS/ece.mp.pp.2014.27.Add.1_e.pdf

PRTR and E-PRTR

In May 2003, Sweden signed, together with the European Union and 23 member states, a UNECE protocol under the Aarhus Convention on register of releases and transfers of pollutants “Pollutants Release and Transfer Register” (PRTR) in Kiev. The Protocol was drawn up for the purpose of satisfying the Aarhus Convention provision that each Party shall establish a register on releases and transfers of pollutants, in order to enable public participation in policy making concerning environmental issues and to contribute to the prevention and reduction of environmental pollution. Sweden ratified the Protocol in October 2008 and the Protocol entered into force on October 8th 2009.

Through the European register (E-PRTR), the UNECE’s protocol on register on release and transfer of pollutants has been introduced on an EU level. The European register succeeds the previous pollution register EPER, to which data has been reported for the years 2001 and 2004. The first report to the E-PRTR was submitted 2009-06-30 and contained data for year 2007. Thereafter, data is reported to the E-PRTR on March 31st each year.

The central elements in the PRTR and the E-PRTR are described below in short. They both require information on point sources and diffuse releases.

The PRTR is regulated by the following documents:

- Protocol on Pollutant Release and Transfer Registers¹⁴
- Guidance to Implementation of the Protocol on PRTRs¹⁵

The E-PRTR is regulated by the following documents:

- Regulation (EC) No 166/2006 of the European Parliament and of the Council¹⁶
- Guidance Document for the implementation of the European PRTR¹⁷

Public register

The register on releases and transfers of reported point sources and diffuse sources shall be made available to the public, preferably on the Web.

¹⁴ <http://www.unece.org/env/pp/prtr/docs/PRTR%20Protocol%20English.pdf>

¹⁵

http://www.unece.org/env/pp/prtr/docs/2007/PRTR_final_guidance_rev_2007_02_23b.doc

¹⁶ [http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:033:0001:0017:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:033:0001:0017:EN:PDF](http://ec.europa.eu/environment/industry/stationary/eper/pdf/en_prtr.pdf)

¹⁷ http://ec.europa.eu/environment/industry/stationary/eper/pdf/en_prtr.pdf

Reported point sources

Operations

In Annex I to the PRTR¹⁸ and the E-PRTR¹⁹, the activities that are encompassed by reporting requirements are presented. 65 activities are included in both the PRTR and the E-PRTR. Whether an operation shall be reported is determined based on threshold values for the activity. If several activities within the same Annex I activity are pursued, the capacities of these shall be summarized.

Substances

The operator shall report total releases of a substance and releases resulting from accidents. In Annex II to the PRTR¹⁸ and E-PRTR¹⁹, those substances that are encompassed by the reporting requirements are listed. A threshold value is connected to each substance and if the threshold value is exceeded, the substance shall be reported. In Annex 1 to this report, the substances that are to be reported to the PRTR and E-PRTR are listed (86 and 91 substances respectively).

Receiving medium

Operators that pursue one or more activities that are listed in Annex I to the PRTR and the E-PRTR, are encompassed by the reporting requirements if the activity is generating:

- releases to air, water or land (releases to land do not occur in Sweden) of any of the substances which are listed in Annex II to the PRTR and the E-PRTR and that exceed the threshold value in column 1 of the Annex, or
- transfer of hazardous waste exceeding 2 tonnes per year, or transfer of other waste exceeding 2 000 tonnes per year, or
- transfer in wastewater to external wastewater treatment plant by any of the substances that are listed in Annex II and that exceed the threshold value in column 1 b of the Annex.

¹⁸ <http://www.unece.org/env/pp/prtr/docs/PRTR%20Protocol%20English.pdf>

¹⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:033:0001:0017:EN:PDF#page=8>

Administrative information

Operators that are encompassed by reporting requirements shall also report administrative information regarding the facility, e.g. facility ID, facility name, address information, contact information (telephone, email), parent company, coordinates, river basin district and NACE code (activity code).

Reporting mechanism

In order to avoid that the operator is subjected to double reporting, the reporting is to be integrated with existing reporting systems, connected to e.g. the permit or regulatory system. In Sweden, the collection of the operators' data is carried out by the Swedish Portal for Environmental Reporting (SMP).

Diffuse sources

The register on releases and transfers shall also include information on releases from diffuse sources. Diffuse sources include road traffic, navigation and shipping, aviation, agriculture, construction, use of solvents, domestic fuel consumption, distribution of fossil fuels and small and medium-sized enterprises (SME). Small and medium-sized enterprises are defined as:

- Point sources below the threshold value that is listed in Annex I.
- Activities that are not listed in Annex I.

Annual reporting cycle

Those operators that are encompassed by reporting requirements shall report the information that is required by the PRTR and the E-PRTR to the competent authority on an annual basis. Releases from diffuse sources shall be reported annually by respective Party according to the PRTR, whereas, according to the E-PRTR, reporting of diffuse releases is conducted by the European Commission. The Commission bases its information on diffuse releases on existing reports by the member states (e.g. UNFCCC²⁰, CLRTAP²¹ etc.).

²⁰ United Nations Framework Convention on Climate Change

²¹ Convention on Long-Range Transboundary Air Pollution

Quality assurance

It is the operators' own data that is to be reported according to the PRTR and E-PRTR. A large part of the responsibility of the data quality is thus assigned to the operators. The competent authority shall, however, assure the quality in the reported data, particularly with regard to completeness, consistency and credibility.

Public participation

The public shall be given the opportunity to be involved in the development process of the register. Each Party shall make information regarding its register available, and facilitate its accessibility.

Capacity building

The Parties of the Protocol shall work towards improving the public's knowledge of the register and provide guidance on how to interpret and use its information. International cooperation is an important mechanism for the implementation of the Protocol and collaborations between the Parties and international organizations with regard to capacity building, information exchange and public awareness are encouraged. In particular, technical assistance to developing countries and countries with transitional economies are emphasized.

Objective

The aim of the project is to review the regulating documents of the multilateral agreements, EU legal acts and EEA reportings that are listed in Table 3 below, and to identify potential synergies with the PRTR Protocol.

Table 3. Multilateral agreements, EU legal acts and EEA reportings that are included in the project.

Multilateral agreements	EU legal act	EEA reporting
Minamata Convention ²²	EU ETS ²³	EEA-WISE SOE EMISSIONS ²⁴
Stockholm Convention ²⁵	IED ²⁶	EEA-WISE SOE TCM ²⁷
Rotterdam Convention ²⁸	EU Water Framework Directive ²⁹	
HELCOM ³⁰ (PLC annual, PLC periodical)	Marine Directive ³¹	
OSPAR ³² (RID)	Urban Waste Water Directive ³³	
	Sewage Sludge Directive ³⁴	

²² <http://www.mercuryconvention.org/Home/tabid/3360/Default.aspx>

²³ http://ec.europa.eu/clima/policies/ets/index_en.htm

²⁴ <http://dd.eionet.europa.eu/datasets/2873>

²⁵ <http://chm.pops.int/default.aspx>

²⁶ <http://eur->

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:334:0017:0119:en:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:334:0017:0119:en:PDF)

²⁷ <http://dd.eionet.europa.eu/datasets/2622>

²⁸

<http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx>

²⁹ http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF

³⁰ <http://www.helcom.fi/>

³¹ <https://www.havochvatten.se/download/18.b62dc9d13823fbe78c80003939/134891277677/HVMFS2012-18-ev.pdf> (available in Swedish)

³² <http://www.ospar.org/>

³³ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0271&from=EN>

³⁴ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31986L0278&from=EN>

Methodology

General information regarding respective regulation that is included in the project has been collected from the Internet.

The process of identifying potential synergies between respective regulation and the PRTR has been based on central elements of the PRTR (see Background section above). If the element is fully or partially included in a certain regulation, it is identified to be consistent with the Protocol, and if the element is missing, it is identified to be inconsistent with the protocol.

The following PRTR elements have been evaluated:

- Public register on releases and transfers of reporting point sources and diffuse sources
- Reporting point sources, i.e. facility-specific reporting:
 - Activities and activities connected to threshold values with regard to production capacity
 - Substances and substances connected to threshold values
 - Receiving medium (air, water, land, transfer by wastewater treatment plants and transfer of non-hazardous and hazardous waste)
 - Administrative information
 - Reporting mechanism
- Diffuse sources reported on national level
- Annual reporting cycle
- Public participation
- Capacity building

Multilateral agreements

Below is a short summary of the multilateral agreements that are included in the project, what is applicable to the EU and Sweden for respective agreement, and potential synergies with the PRTR.

Minamata Convention

General information

The Minamata Convention on mercury was established in January 2013 and was formally adopted in the Japanese city of Minamata in October 2013. The Convention enters into force when 50 countries have ratified it, which is believed to occur at the earliest in 2017³⁵. General facts and relevant links regarding the Convention are presented in Table 4.

Table 4. General facts regarding the Minamata convention.

General facts and relevant links	
Issued by	UN Environment Programme (UNEP)
Reporting theme	Chemicals
Geographical scope	Global
Entered into force	-
Link to homepage	UNEP Minamata Convention

Objective

The Minamata Convention aims to protect human health and environment from anthropogenic releases of mercury and mercury compounds. This will be achieved by implementing a series of measures regulating all parts of the lifecycle of mercury, from extraction, commerce and usage to waste management and emissions to air from point sources³⁶.

³⁵ <http://www.naturvardsverket.se/Miljoarbete-i-samhallet/EU-och-internationellt/Internationellt-miljoarbete/miljokonventioner/Kvicksilver/> (available in Swedish)

³⁶ http://www.mercuryconvention.org/Portals/11/documents/Booklets/Minamata%20Convention%20on%20Mercury_booklet_English.pdf

The Convention limits usage of mercury in many product application areas, industrial processes and small-scale gold extraction. In the long-term, also mining of mercury will be prohibited and the usage of amalgam will be reduced³⁷.

Reporting

The convention regulates elemental mercury (CAS No 7439-97-6) and mercury compounds (see Annex I of the report). Mercury compounds are defined as “any substance consisting of atoms of mercury and one or more atoms of other chemical elements that can be separated into different components only by chemical reactions”.

According to Article 21, each Party shall report to the Conference of the Parties on the measures it has taken to implement the provisions of the Convention and on the effectiveness of such measures and the possible challenges in meeting the objectives of the Convention. Each Party shall in its reporting include information on how the commitments that are specified in the following articles are fulfilled:

- Article 3 on access and mercury handling
- Article 5 on production processes according to Annex B of the Convention, in which mercury and mercury substances are used.
- Article 7 on small scale gold extraction
- Article 8 on emissions to air from point sources according to Annex D of the Convention.
- Article 9 on releases to land or water for relevant point sources, e.g. significant anthropogenic point sources that otherwise are not regulated in the Convention.

Since the convention has not yet entered into force, there is neither a set time plan nor a set format for the reporting pursuant to the Convention. However, it is stated that the Conference of the Parties is expected to make decisions concerning this issue at its first meeting and that it is desirable that the reporting is coordinated with other relevant conventions concerning chemicals and waste.

³⁷ <http://www.naturvardsverket.se/Miljoarbete-i-samhallet/EU-och-internationellt/Internationellt-miljoarbete/miljokonventioner/Kvicksilver/> (available in Swedish)

Public participation, capacity building

Pursuant to Article 17, the Parties shall facilitate information exchange regarding reduction or elimination of production, usage, commerce and releases of mercury and mercury compounds.

Pursuant to Article 18, the public shall be informed of and educated in mercury and its compounds. Cooperation with non-governmental organizations on the issue is encouraged. Each Party shall use existing mechanisms, such as the PRTR, or consider the development of such mechanisms for collection and distribution of information on estimations of annual releases.

Pursuant to Article 14, the Parties shall cooperate to contribute with appropriate capacity building and technical support to Parties that are developing countries. Particular emphasis is placed on the least developed countries, small island developing states and countries with transitional economies.

EU and Sweden

Neither the EU nor Sweden has yet ratified the Minamata convention; however, Sweden has been one of the more proactive countries during the negotiation process. The Ministry of Environment and Energy has, with aid from the Swedish Chemicals Agency (KemI) and Swedish EPA, taken the lead of the negotiation process for Sweden. During 2015, the EU will revise its policy in order to adapt to the requirements of the Convention. It is believed that the EU and its member states will be able to ratify the Convention at the end of 2015.

Swedish data

Since Sweden has not yet ratified the Convention, data has not been compiled according to its requirements. However, national statistics regarding mercury are compiled as a consequence of a series of international agreements such as the PRTR, CLRTAP and HELCOM.

Synergies with the PRTR

Since the Convention has not yet entered into force, there is neither a set time plan nor a set format for the reporting pursuant to the convention. Since Sweden has not yet ratified the convention, a competent authority is not yet appointed and procedures for data collection are not established.

Consistencies

- Reporting point sources:
 - Substance, one substance corresponds, i.e. mercury (see Annex I)
 - Activities, activities that are encompassed by the reporting are listed.
 - Receiving medium, releases to air, water, land for listed activities are addressed.
- Reporting mechanism and public register, direct referral to the PRTR in Article 18 on using existing mechanisms for collection and distribution of information on annual releases (release register).
- Public participation, addresses knowledge transfer to the public and encourages cooperation with NGOs.
- Capacity building, encourages knowledge transfer to developing countries.

Inconsistencies

- Does not address releases from diffuse sources.
- Receiving medium, does not include transfers by wastewater treatment plants and waste.
- Substances, does not include threshold values regarding releases of substances.
- Activities:
 - No capacity thresholds regarding activities.
 - Activities are not identical to those that are requested by the PRTR.

Stockholm Convention

General information

The Stockholm Convention on persistent organic pollutants was adopted in Stockholm in May 2001. General facts and relevant links regarding the convention are presented in Table 5.

Table 5. General facts regarding the Stockholm convention.

General facts and relevant links	
Issued by	UN Environment Programme (UNEP)
Reporting theme	Chemicals
Geographical scope	Global
Entered into force	2004-05-17 ³⁸
Link to homepage	UNEP Stockholm Convention

Objective

The Stockholm Convention aims to protect human health and environment from persistent organic pollutants (POPs)³⁹. This will be achieved by prohibiting or limiting production, usage and storage, and minimize releases of unintentionally formed POPs where possible.

Reporting

In Annex A (prohibited), B (limited) and C (unintentionally formed) to the Convention, twelve original POPs that have adverse effects on humans and environment are listed. According to a decision by the Conferences of the Parties in 2009, 2011 and 2013, an additional eleven POPs have been added and amendments made to the Appendices⁴⁰. In Annex 1 to the report, those substances that are in agreement with the PRTR are listed.

Pursuant to Article 7, each Party shall develop a National Implementation Plan (NIP) and report it to the Conference of the Parties within two years of the day when the Convention enters into force in the state. The National Implementation Plan shall entail information on how respective Party fulfills the objectives of the Convention. General facts regarding reporting pursuant to Article 7 are presented in Table 6.

³⁸ <http://chm.pops.int/Countries/StatusofRatifications/tabid/252/Default.aspx>

³⁹ <http://chm.pops.int/TheConvention/Overview/tabid/3351/Default.aspx>

⁴⁰ <http://chm.pops.int/Convention/tabid/54/language/en-US/Default.aspx#convtext>

Table 6. General facts regarding reporting pursuant to the Stockholm Convention, Article 7.

Reporting pursuant to Article 7	
Reporting guidelines	Guidance for Developing a National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants
Official reported data	National Implementation Plans transmitted pursuant to Article 7(b) of the Stockholm Convention
Reporting frequency	Once, update as necessary

Pursuant of Article 15 of the Convention, Parties shall report to the Conference of the Parties on measures that have been taken to implement the provisions of the Convention and on the effectiveness of those measures to fulfill the objectives of the Convention. General facts regarding Article 15 are presented in Table 7.

The Parties are encouraged to submit their reports in an online format. The format consists of four parts:

- General information on the Party that is submitting the report, and date of submission.
- Information on measures that have been taken to implement the convention. In addition, statistics on import, production and export of those substances that are included in Annex A and B are to be reported. For unintentionally formed POPs, annual releases of substances and activities that are included in Annex C shall be reported (see Table 7).
- Specific information on the progress towards eliminating PCB pursuant to Annex A, part II, paragraph (g).
- Opportunity to give further information and comments.

Table 7. General facts regarding reporting pursuant to the Stockholm convention pursuant to Article 15.

Reporting pursuant to Article 15	
Reporting format	UNEP/POPS/COP.6/26/Add.1
Reporting guidelines	http://www.pops.int/Art15/Home/home.aspx ⁴¹
Official reported data	http://chm.pops.int/Countries/NationalReports/SecondRoundofPartYReports/tabid/1315/Default.aspx
Reporting frequency	Every four years
Reporting level	National totals per industry
Substances	POPs pursuant to Annex A, B and C to the convention
Statistics	Production, import, export, releases of unintentionally formed POPs
Receiving medium	Air, water, land, products, waste ^{*)}

*) Applies to unintentionally formed POPs pursuant to Annex C.

Public participation, capacity building

Pursuant to Article 10, the public is to be informed and educated with regard to POPs. Each Party shall consider developing a PRTR register for collection and distribution of the information that is requested in Annex A, B and C.

In Article 11, it is stated that the Parties shall conduct research and monitoring regarding POPs. Pursuant to Article 12, Parties that can provide technical aid to developing countries and less developed economies in order to implement the Convention in these countries shall do so.

EU and Sweden

Both the EU and Sweden have ratified the Convention. The Convention is implemented in EU legislation through regulation (EG) no 850/2004, the so-called POPs regulation. The POPs regulation applies directly in all EU member states in the same way as national legislation. This implies that the regulation does not need to be implemented explicitly in Swedish legislation. KemI is appointed official contact authority towards the Convention, however KemI and Swedish EPA together are responsible for reporting to the Stockholm Convention on the implementation with regard to NIP and on usage and releases of persistent organic pollutants⁴². General

⁴¹ If you would like to test the system you can login with userID=Art15 and Password=test

⁴² <https://www.kemi.se/sv/Innehall/Internationellt/Konventioner-och-overenskommelser/Stockholmskonventionen-POPs/> (available in Swedish)

information on the EU and Sweden with regard to the Stockholm Convention is presented in Table 8.

Table 8. General information on the EU and Sweden with regard to the Stockholm Convention.

	EU	Sweden
Ratification	2004-11-16	2002-05-08
Legislation	EG/ 850/2004 ⁴³	-
Competent authority	European Commission	KemI

Swedish data

Sweden presented its National Implementation Plan on May 23 2006. According to the plan, Sweden considers that it has fulfilled its commitments under the Convention for those POPs that are listed in Annex A and B. For the unintentionally formed substances in Annex C, Sweden has taken several measures to limit formation and dispersion. The plan was updated in 2012 due to the fact that new substances had been added (Swedish EPA report 6498)⁴⁴. The update was carried out by Swedish EPA in collaboration with KemI and the Swedish Agency for Marine and Water Management (SwAM)⁴⁵.

Statistics on usage and releases of persistent organic substances, which are used for the report, are compiled from several sources, e.g. from the pesticide register, environmental monitoring data and reported data pursuant to the Convention on Long-range Transboundary Air Pollution (CLRTAP). Data is reviewed within the framework of each statistic compilation activity.

Synergies with the PRTR

Consistencies

- Substances, 19 out of 23 substances correspond to the PRTR(see Annex I).
- Substance, activities and media, inventory of releases of unintentionally formed POPs (HCB, PeCB, PCB and PCDD/PCDF)

⁴⁴ <http://www.naturvardsverket.se/Om-Naturvardsverket/Publikationer/ISBN/6400/978-91-620-6498-3/>

⁴⁵ <http://www.kemi.se/sv/Innehall/Internationellt/Konventioner-och-overenskommelser/Stockholmskonventionen-POPs/> (available in Swedish)

and listed operational activities according to Annex C to air, water and land.

- Public participation, collection mechanism and public register:
 - Addresses knowledge transfer to the public and direct referral to the PRTR and how the PRTR can be used for collection and distributing knowledge to the public as requested in Annex A, B and C.
 - Capacity building, encourages knowledge transfer regarding technical assistance.

Inconsistencies

- Point sources:
 - Does not include facility-specific reporting of point sources.
- Substances, does not include threshold values regarding releases of substances.
- Operations:
 - Does not include capacity thresholds regarding operational activities.
 - Operational activities, not identical to those requested by the PRTR.
- Public register and reporting mechanism, Parties shall only consider using the PRTR for collection and distribution of information that is requested by Annex A, B and C.
- No annual reporting
- Does not address releases from diffuse sources.

Rotterdam Convention

General information

The Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted in Rotterdam on September 10th 1998. The Rotterdam Convention enables receiving countries to be informed prior to receiving hazardous chemicals that are prohibited or strictly limited in the exporting countries. General facts and relevant links regarding the Convention are presented in Table 9.

Table 9. General facts regarding the Rotterdam Convention.

General facts and relevant links	
Issued by	UN Environment Programme (UNEP)
Reporting theme	Chemical
Geographical scope	Global
Entered into force	2004-02-24 ⁴⁶
Link to homepage	UNEP Rotterdam Convention

Objective

The aim of the Rotterdam Convention is to further shared responsibility and unified efforts between Parties in the international trade with certain hazardous chemicals in order to protect human health and environment from potential damage and to contribute to an environmentally friendly usage of such chemicals. This is to be achieved by facilitating information exchange regarding the properties of such chemicals, by the way of introducing a national decision-making procedure for import and export of such chemicals (the so-called PIC procedure⁴⁷) and distributing information of decisions to the Parties. The PIC procedure and information exchange are the most important provisions of the Rotterdam Convention.

Reporting

The focus of the Rotterdam Convention does not lie on releases of specific substances, but rather in the regulation of a functional decision-making process for those chemicals that are included.

⁴⁶ <http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>

⁴⁷ PIC= Prior Informed Consent.

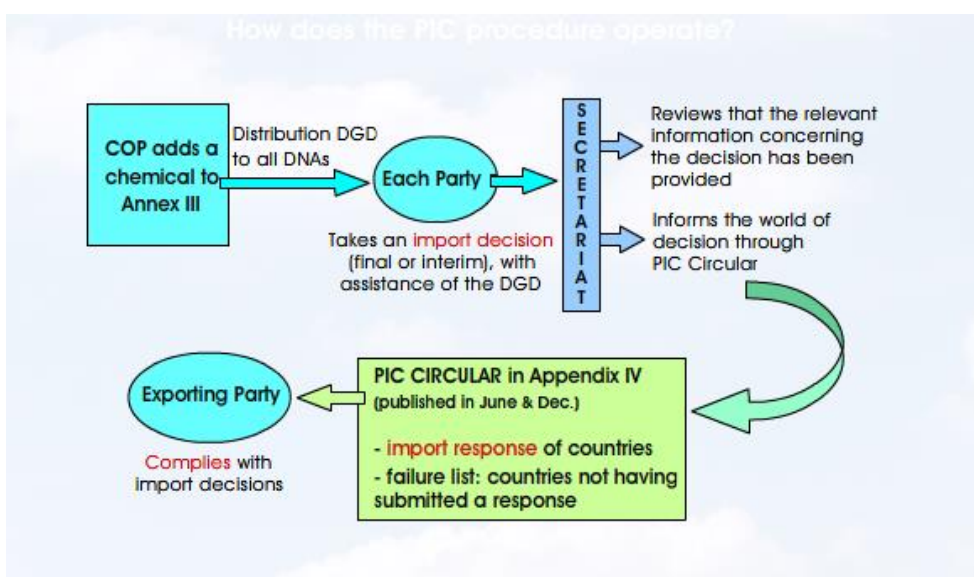


Figure 1. Illustration of the PIC procedure⁴⁸. PIC= Prior Informed Consent. COP= Conference of the Parties, DGD= Decision Guidance Document, DNA= Designated National Authority.

The PIC procedure is a mechanism to formally obtain and share decisions regarding whether importing Parties wish to receive future shipments of those chemicals that are listed in Annex III to the Convention and to ensure that exporting Parties comply with these decisions (see Figure 1). Those chemicals that are listed in Annex III are pesticides and for health or environmental reasons prohibited or strictly limited industrial chemicals. There is a total of 47 chemicals listed in Annex III; 33 are pesticides (including 4 very hazardous blends of pesticides) and 14 are industrial chemicals. Each Party shall produce an import decision based on a Decision Guidance Document (DGD) for respective chemical according to Annex III. The secretariat has produced a standard form for import decisions, including an instruction on how to fill in the form. The import decision shall be sent to the secretariat, which compiles these twice yearly and publishes them through the so-called PIC Circular. Exporting Parties of these chemicals have committed to comply with other Parties' import decisions. The Decision Guidance Document aims to aid the governments in evaluating the risks connected to handling and usage of the chemical and making more legitimate decisions about future import and usage of the chemical, considering local circumstances.

The export of prohibited or strictly limited regulated chemicals and chemicals that are included in the PIC procedure shall be labeled and

⁴⁸ <http://www.pic.int/Implementation/ELearningTool/TTORC/tabid/1153/language/en-US/Default.aspx>

accompanied by basic information on health and safety, compiled in a safety data sheet.

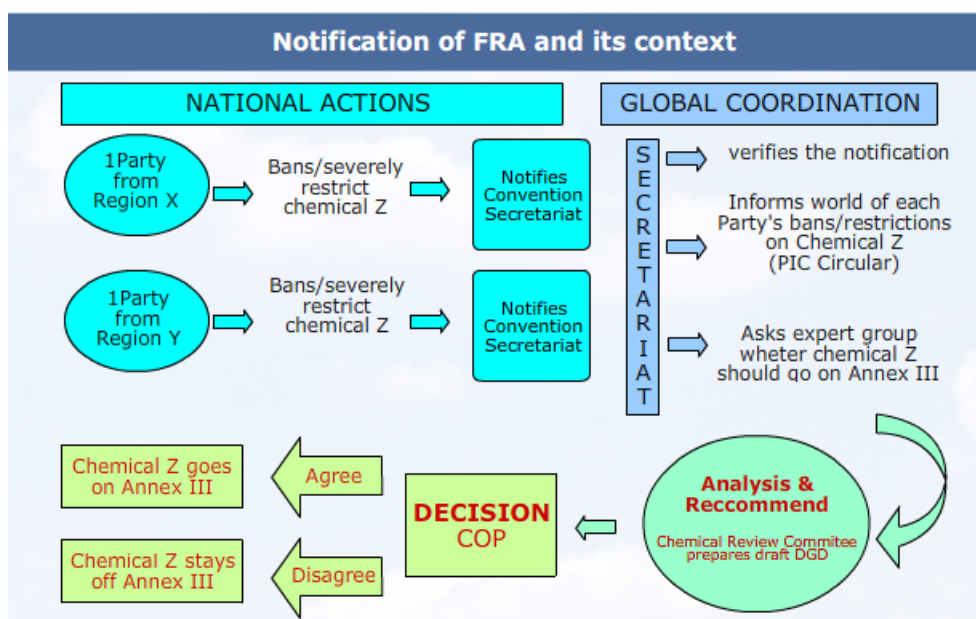


Figure 2. Illustration of the notification procedure of a new legislation⁴⁹. FRA= Final Regulatory Action, COP= Conference of the Parties, DGD= Decision Guidance Document.

A Party shall, as soon as possible, notify the secretariat in writing as a final act or ordinance has been adopted with regard to prohibited or strictly limited chemicals (Figure 2). The notification shall contain information on the chemical's properties, identification and areas of application in accordance to Annex I to the Convention. The secretariat shall inform other Parties regarding those chemicals that respective Party has chosen to prohibit or limit. The secretariat shall, in addition, forward the notification to the Chemical Review Committee, which will issue recommendations to the Conference of the Parties whether the chemical should be included in Annex III to the Convention. The recommendations of the Chemical Review Committee shall be based on those criteria which are listed in Annex II. The Conference of the Parties makes the decisions whether the chemical shall be included in Annex III.

⁴⁹ <http://www.pic.int/Implementation/ELearningTool/ITORC/tabid/1153/language/en-US/Default.aspx>

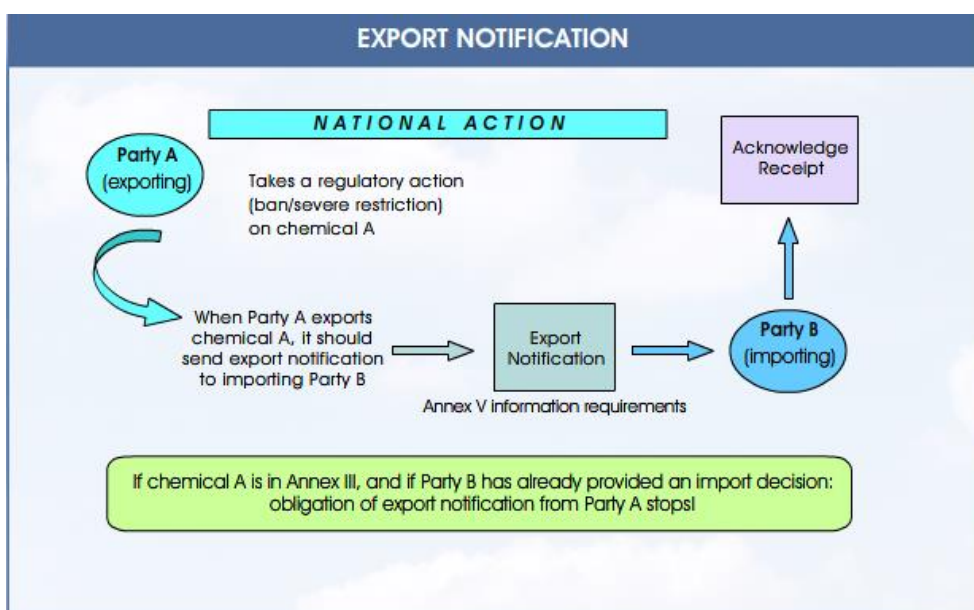


Figure 3. Illustration of the export notification procedure⁵⁰ COP= Conference of the Parties, DGD= Decision Guidance Document.

If a Party exports a chemical that is under prohibition or restrictions, an export notification must be submitted to the importing country, which in turn must confirm that the notification has been received (see Figure 3). An export notification shall contain information stipulated in Annex V to the Convention. The requirement regarding the export notification ceases to exist as the chemical is listed in Annex III, the importing Party has reported an importing decision regarding the chemical of interest, and the secretariat has published the import decision through the PIC circular.

General facts regarding reporting pursuant to the Rotterdam Convention are presented in Table 10.

⁵⁰ <http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>

Table 10. General information regarding the reporting pursuant to the Rotterdam Convention.

Reporting pursuant to Article 15	
Reporting format	Import Responses Notifications of Final Regulatory Action Export Notification
Reporting guidelines	Forms and Instructions
Official reported data	Database of Import Responses Database of Notifications of Final Regulatory Action
Reporting frequency	Reporting when changes of the national legislation that concerns the Convention are carried out
Reporting level	National
Substances	Pesticides, industrial chemicals according to Annex III of the convention
Statistics	-
Receiving medium	-

Public participation, capacity building

Pursuant to Article 15, each Party shall, if possible, ensure that the public has access to information on handling of chemicals, accident management and alternatives to those chemicals listed in Annex II, which are safer for human health or the environment.

Pursuant to Article 16, the Parties shall, with special consideration to the needs of developing countries and countries with transitional economies, cooperate in order to further technical assistance for the development of necessary infrastructure and capacity that is required for the handling of chemicals during the entire lifecycle.

EU and Sweden

General information regarding the EU and Sweden in relation to the Rotterdam Convention is presented in Table 11. Usage of certain chemicals is prohibited or strictly regulated within the EU. Both the EU and Sweden have ratified the Convention. The Convention is implemented in the EU legislation through regulation (EG) no 289/2008, the so-called PIC regulation. In Annex I to the PIC regulation those chemicals for which a prior export notification is required are listed, and Annex V contain a list of

those chemicals for which export is prohibited⁵¹. The regulation contains information requirements that are, in part, more extensive than the requirements under the Convention. For example, it includes more substances and the procedure regarding an explicit consent applies for export to all countries, not only those that are Parties to the Convention⁵². Annex 1 to the regulation is continuously updated whenever new prohibitions are issued within the EU, in general at least once every year. The PIC regulation also requires that chemicals which are exported shall be labeled with information regarding its hazardousness. They shall also be packaged according to the EU's classification and labelling rules and a safety data sheet must be included.

The regulation applies directly to all EU member states in the same way as national legislation. This implies that the regulation does not have to be implemented through a separate Swedish act or provision. KemI is appointed the competent authority for Sweden in regards to the Rotterdam Convention.

Table 11. General information regarding the EU and Sweden relative to the Rotterdam Convention.

	EU	Sweden
Ratification	2002-12-20 ⁵³	2003-10-10 ⁵⁴
Legislation	EG/689/2008 ⁵⁵	
Competent authority	DG-Environment, European Commission	KemI

⁵¹ <http://www.kemi.se/sv/Innehall/Lagar-och-andra-regler/EU-forordningar/Export-och-import-av-farliga-kemikalier/Mer-om-export--och-importforordningen/> (available in Swedish)

⁵² http://www.kemi.se/Documents/Publikationer/Trycksaker/Rapporter/Rapport1_12.pdf (available in Swedish)

⁵³ <http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>

⁵⁴ <http://www.pic.int/Countries/Statusofratifications/tabid/1072/language/en-US/Default.aspx>

⁵⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:204:0001:0035:EN:PDF>

Swedish data

If the substance is listed in Annex I to the PIC regulation, the exporter shall notify KemI through a web form⁵⁶. The information is then transferred to a database ([EDEXIM](#)), which the European Chemicals Agency (ECHA) is in charge of. When the exporter has filled in the information, KemI submits it to the correct contact person in the receiving country. When the receiving country has given its approval, the database generates a certain toll number, which the exporter shall use at the shipment. The replies are published in the database for import replies. However, the exporter must always register the export in the database.

Synergies with the PRTR

Consistencies

- Joint public register, does not, however, include information on releases.
- Substances, 18 out of 47 substances correspond to the PRTR (see Annex 1).
- Public participation, encourages public participation.
- Capacity building, encourages knowledge transfer (technical assistance).

Inconsistencies

- Does not include reporting requirements with regard to releases (to air, water or land) or transfer (to wastewater treatment plants or of waste) for listed point sources and diffuse releases.
- No annual reporting.
- Joint public register, does not include information on releases and transfers.

⁵⁶ <https://www.kemi.se/sv/Innehall/Lagar-och-andra-regler/EU-forordningar/Export-och-import-av-farliga-kemikalier/Mer-om-export--och-importforordningen/> (available in Swedish)

HELCOM (PLC annual, PLC periodical)

General information

The Convention on the Baltic Marine Environment Protection, also called the Helsinki Convention, entered into force in 2000. The Convention has been adopted by the countries with a shoreline along the Baltic Sea (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Sweden, Poland and Russia) and the EU. General facts and relevant links regarding the Convention are presented in Table 12.

Table 12. General facts regarding the Helsinki Convention.

General facts	
Issued by	Helsinki Commission (HELCOM)
Reporting theme	Releases to the Baltic Sea
Geographical scope	Countries with a shoreline along the Baltic Sea and the EU
Entered into force	2000-01-17 ⁵⁷
Link to homepage	Helsinki Convention

Objective

To prevent and reduce pollutants from land based sources and ships to the marine environment in the Baltic region.

Reporting

For the purpose of monitoring the Parties' work to limit releases to the Baltic region, the Helsinki Commission (HELCOM) divides data into two reporting sets, one annual reporting (HELCOM Pollution Load Compilation Annual) and one periodical reporting, which occurs every six years (HELCOM PLC Periodical). In the annual reporting, discharges from coastal point sources and information on waterborne loads of estuaries, unmonitored watercourses and intermediate regions, are included. In the periodical reporting, in addition to coastal and inland point sources, also diffuse sources, background load and information on retention, are included. The most recent available results were published in 2013 in a revised version of the 2011 report on the development of water releases in 1994 to

⁵⁷ <http://helcom.fi/about-us/convention>

2008⁵⁸. General information regarding the reporting pursuant to Article 16 is presented in Table 13.

Table 13. General information on the reporting pursuant to the Helsinki Convention, Article 16.

Reporting pursuant to the Helsinki convention, Article 16	
Reporting format	Is distributed via email to the Parties
Reporting guidelines	http://helcom.fi/Lists/Publications/Guidelines%20for%20monitoring%20waterborne%20pollution%20loads%20to%20the%20Baltic%20Sea%20(PLC).pdf
Official reported data	http://maps.helcom.fi/website/mapservice/index.html
Reporting frequency	Annually and every six years
Reporting level	Annually: Per estuary station and per facility for point sources, Every 6 years: Per ocean basin
Substances	Nutrient salts, organic material, heavy metals
Statistics	Releases
Receiving medium	Water

Public participation, capacity building

Pursuant to Article 17 of the Helsinki Convention, the Parties shall provide the public with information regarding the environmental state of the Baltic Sea and the specific conditions that apply in the catchment areas of the countries. In addition, measures and follow-up of measures that are taken in order to prevent and eliminate releases of pollutants to water shall be communicated. Pursuant to Article 7 of the Convention, countries with transboundary water areas shall cooperate regarding measures to reduce the impact on the Baltic Sea. In Annex III to the Convention, it is stipulated that knowledge regarding environmental issues shall be communicated to the agricultural sector⁵⁹. In practice, the Helsinki Convention encourages capacity building between countries with a shoreline along the Baltic Sea and the EU by continuous meetings and by compilation and producing guidelines of best practice methods.

EU and Sweden

Both the EU and Sweden have ratified the Convention, which was introduced in the EU by Council Decision 94/157/EC. SwAM is the competent authority for reporting to HELCOM. General information

⁵⁸ <http://helcom.fi/Documents/Ministerial2013/Associated%20documents/Supporting/PLC-5.5%20Extended%20Summary%20for%20MM2013.pdf>

⁵⁹ <http://helcom.fi/about-us/convention/annexes/annex-iii>

regarding the EU and Sweden relative to the Helsinki Convention is presented in Table 14.

Table 14. General information regarding the EU and Sweden in relation to the Helsinki Convention.

	EU	Sweden
Ratification	1992-09-24	1993-06-17 ⁶⁰
Legislation	94/157/EG ⁶¹	SÖ 1996:22
Competent authority	European Commission	SwAM

Swedish data

Sweden reports categorized data for the following catchment areas: The Gulf of Bothnia, the Bothnian Sea, the Baltic proper, Oresund, Kattegat and Skagerrak (ocean basins).

Data on releases from point sources are collected from national compilations of environmental reports, which are reported by the operators to SMP. Information on water flow and loads from watercourses are obtained from the Swedish estuary programme. These data are subject to quality assurance and they are stored by the Swedish University of Agricultural Sciences (SLU). Data from unmonitored watercourses and intermediate areas are also added to the data set.

Information on the point sources that are reported to HELCOM PLC Annual, OSPAR RIS, EEA WISE TCM and EEA WISE Emissions (and the material that are produced for the Urban Waste Water Directive and to the Sewage Sludge Directive) are based on the same information. Data is reviewed annually by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA. Information on smaller wastewater treatment plants, separate sewer systems and storm water loads is also collected for the HELCOM periodical reporting through surveys in combination with available register data.

Sweden reports all mandatory substances to the annual reporting, excluding P-PO₄ for wastewater treatment plants and BOD₇ for the watercourse information.

⁶⁰ <http://www.regeringen.se/contentassets/e10a194133aa45bfa5e33a7de4a5c321/1992-ars-konvention-om-skydd-av-ostersjoomradets-marina-miljo> (available in Swedish)

⁶¹ <http://eur-lex.europa.eu/legal-content/SV/TXT/?qid=1417790397630&uri=CELEX:31994D0157>

Synergies with the PRTR

Consistencies

- Annual report to HELCOM PLC Annual.
- Reported point sources:
 - Substances, 10 out of 12 substances correspond with HELCOM PLC Annual. For HELCOM PLC Periodical, two substances correspond with the PRTR (Annex 1).
 - Receiving medium, treats releases to water.
 - Facility-specific information.
 - Reporting mechanism, in Sweden, the operators report information to SMP.
- Diffuse releases, are reported to HELCOM PLC Periodical approximately every six years.
- Capacity building, encourages knowledge transfer between the Baltic Sea countries.

Inconsistencies

- The area of releases and capacity thresholds do not correspond with what is requested by the PRTR⁶².
 - Only coastal operations that require a permit are included in HELCOM PLC Annual (however, inland operations are included in HELCOM PLC Periodical).
 - No threshold values for releases are applied.
- To the HELCOM PLC Periodical report, which is submitted approximately every six years, all wastewater treatment plants with population equivalents exceeding 200 are included.
- Point sources, definition of point sources and diffuse releases do not correspond with the PRTR. In the PRTR, releases from wastewater treatment plants/industries below a certain capacity are classified as diffuse. These releases are reported as point sources under other conventions regarding water releases, but are defined as diffuse releases in the PRTR.
- Presentation of releases, in HELCOM, releases are presented according to the catchment area that the point of releases is in. The catchment area are in turn connected to the ocean basins the Gulf of Bothnia, the Bothnian Sea, the Baltic proper, Oresund, Kattegat and

⁶² For emission year 2013, this resulted in 17 waste water treatment plants that were included in the reporting to the E-PRTR compared to 127 waste water treatment plants that were included in the reporting to HELCOM PLC Annual.

Skagerrak. On the other hand, the PRTR requires releases presented by water district, i.e. the Gulf of Bothnia, the Bothnian Sea, North Baltic, South Baltic or Skagerrak and Kattegat.

OSPAR-RID

General information

The Convention for protection of the marine environment in the North-East Atlantic, also called the OSPAR Convention, entered into force in 1998. General facts and relevant links regarding the convention are presented in Table 15.

Table 15. General facts regarding the OSPAR Convention.

General facts	
Issued by	The OSPAR Commission
Reporting theme	Releases in the North-East Atlantic
Geographical scope	Countries, which releases may affect the North-East Atlantic and the EU
Entered into force	1998-03-25 ⁶³
Link to homepage	OSPAR-konventionen

Objective

The aim of the Convention is to limit pollution from land-based sources and navigation and aviation to protect the marine environment in the North-East Atlantic.

Reporting

Data collection of releases from point sources and discharges from estuaries, unsupervised watercourses and intermediate areas are conducted by the means of an annual reporting procedure, OSPAR Riverine Inputs and Direct Discharges (RID).

The most recent published results were compiled 2005⁶⁴ and are based on collected data for the period 1990-2002. General information regarding

⁶³ <http://rod.eionet.europa.eu/instruments/170>

⁶⁴ OSPAR Commission, 2005: Assessment of data collected under the RID programme for 1990 – 2002. (<http://www.ospar.org/documents?v=7005>)

reporting according to recommendations made by the OSPAR Commission is presented in Table 16.

Table 16. General facts regarding reporting pursuant to the OSPAR Convention.

Reporting pursuant to the OSPAR convention	
Reporting format	http://www.ospar.org/work-areas/hasec/other/reporting-formats
Reporting guidelines	Distributed by email to the Parties
Official reported data	http://rod.eionet.europa.eu/obligations/452/deliveries
Reporting frequency	Annually
Reporting level	By catchment area and ocean basin
Substances	Nutrient salts, organic matter, heavy metals
Statistics	Releases
Receiving medium	Water

Public participation, capacity building

Pursuant to Article 9 of the OSPAR Convention, countries shall make information regarding the marine state available to individuals, without them having to name a reason for wishing to obtain the information. In practice, knowledge transfer occurs by reoccurring meetings between the Parties and the OSPAR Commission⁶⁵ and through best practice methods that are made available through the OSPAR guidelines.

EU and Sweden

Both the EU and Sweden have ratified the Convention, which is mandatory through decision (EG) no 340/2000. SwAM is the competent authority for the Convention in Sweden. General information regarding the EU and Sweden in relation to the OSPAR Convention is presented in Table 17.

⁶⁵

http://www.ospar.org/site/assets/files/1290/ospar_convention_e_updated_text_in_2007_no_revs.pdf

Table 17. General information regarding the EU and Sweden in relation to the OSPAR Convention.

	EU	Sweden
Ratification	2000-08-30	1993-06-17 ⁶⁶
Legislation	2000/340/EG ⁶⁷	SÖ 1994:25
Competent authority	The European Commission	SwAM

Swedish data

Similar to the reporting to HELCOM PLC Annual, as described above, data for point sources are available through national compilations of environmental reports that are submitted by the operations to SMP.

Reported data is categorized by the catchment area within the OSPAR RID reporting area that are relevant to Sweden: Kattegat and Skagerrak. Water flow and discharges from watercourses are obtained from the estuary programme. Data undergoes quality assurance, is stored by SLU and complemented with data from unsupervised watercourses and intermediate areas.

The annual reporting of point sources to HELCOM PLC Annual, OSPAR RID, EEA WISE TCM and EEA WISE Emissions, and the material that is produced for the Urban Waste Water Directive and to the Sewage Sludge Directive, is based on the same information. Data is reviewed annually by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA.

Sweden reports all mandatory substances to OSPAR, except for releases to watercourses and from point sources for a few substances. Sweden does not report any higher or lower load levels for values below the reporting threshold value of a specific laboratory, although there is such a possibility in the reporting format.

Synergies with the PRTR

Consistencies

- Annual reporting.
- Substances:

⁶⁶

<http://www.regeringen.se/contentassets/23a738320a1c4fbfaf9076413bc140e4/konventionen-for-skydd-av-den-marina-miljon-i-nordostatlanten-so-199425> (available in Swedish)

⁶⁷ <http://eur-lex.europa.eu/legal-content/SV/TXT/?qid=1417873319901&uri=CELEX:32000D0340>

- Seven out of eight substances correspond (see Annex 1).
- Receiving medium, treats releases to water.
- Capacity building, encourages knowledge transfer.
- Reporting mechanism, Swedish operators report information to SMP.

Inconsistencies

- Areas of releases and capacity threshold values do not correspond to the PRTR⁶⁸.
 - Only coastal operations in Skagerrak and Kattegat that require a permit are included in the OSPAR reporting.
 - No threshold values for releases are applied.
- Point sources:
 - Does not include facility-specific reporting of point sources; only information aggregated by main catchment area for the wastewater treatment plants and the ocean basin for the industries.
 - The definition of point sources and diffuse releases do not correspond with the PRTR. Under the PRTR, releases from wastewater treatment plants/industries below a certain threshold capacity are defined as diffuse. These releases are reported as point source releases in other conventions or directives, but are defined as diffuse releases for the purpose of the PRTR.

⁶⁸ For emission year 2013, this resulted in 17 waste water treatment plants that were included in the E-PRTR compared to 127 plants that were included in HELCOM PLC Annual.

EU legal acts

Below, a brief summary of those EU legal acts that are included in the current project are presented, including information on how they are applied in Sweden and synergies with the PRTR. The aim of respective description is to clarify the reporting of releases and transfers.

EU ETS

General information

The EU Directive on emissions trading system for greenhouse gases (EU ETS⁶⁹) entered into force on October 25th 2003. The emissions trading system was introduced in 2005 and has, since the beginning, been expanded in a stepwise manner to include more operations and greenhouse gases. Carbon dioxide is the main greenhouse gas that is included in the EU ETS, but also other greenhouse gases are included for some sectors. For aluminium production, emissions of perfluorochloro hydrogens (PFCs) are included, and nitrous oxide (N₂O) is included for parts of the chemical industry. As of 2012, also aviation is included in the EU ETS.

In the emissions trading system, there is an emission ceiling; a limit of how much can be emitted of a certain greenhouse gas from those operations that are included. Within the emission ceiling, companies can receive or buy emission permits, and are allowed to trade with each other if needed. Each year, companies included in the EU ETS must hand in enough emission permits to cover their emissions during the previous year, or they are subjected to large penalties. If a company reduces its emissions, for example by introducing improved technology, they can either save the extra emission permits for the future, or sell them to another company. General information and relevant links regarding the Directive is presented in Table 18.

⁶⁹ EU Emissions Trading System (EU ETS)

Table 18. General information on the EU Emissions Trading System for greenhouse gases.

General information	
Issued by	The European Parliament and the Council
Reporting theme	Climate change
Geographical scope	EU, Norway, Iceland and Liechtenstein
Entered into force	2003-10-25
Legislation	2003/87/EC: 2003/87/EC 6001/2012/EU on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC 600/2012/EU on the verification of greenhouse gas emission reports pursuant to Directive 2003/87/EC 389/2013/EU, establishing a Union Registry

Objective

The objective of the EU Emissions Trading System is to help the EU member states to fulfill their commitments to limit or reduce greenhouse gas emissions in a cost-effective manner⁷⁰.

Reporting

By the development of the Directive 2003/87/EG, emphasis was placed on emissions that can be measured, reported and verified with high accuracy. The Directive shall be applied to emissions from those operations that are stated in Annex I of the Directive, and to those emissions that are included in Annex II of the Directive (see Annex 1), which in short entails the following substances/group of substances (greenhouse gases) and operations:

- CO₂ from energy producing facilities, energy demanding facilities and civil aviation
- N₂O from certain chemical industry
- PFC from primary aluminium production

Pursuant to Article 67 of the Regulation 601/2012/EU on reporting of greenhouse gas emissions pursuant to the Directive (2003/87/EG), the operator or aviation operator shall, no later than March 31 every year, submit an emission report to the competent authority, which encompasses the annual emissions during the reporting period. The annual emission

⁷⁰ http://ec.europa.eu/clima/policies/ets/faq_en.htm

reports shall at least contain the information that is given in Annex X to Regulation 201/2012/EU. The content of the report shall be inspected pursuant to Regulation 600/2012/EU on verification of reports on greenhouse gas emissions and inspectors shall be accredited pursuant to Directive 2003/87/EG.

Pursuant to Article 73 of Regulation 601/2012/EU, each operation that is listed in Annex I to Directive 2003/87/EG and that is run by an operator or aviation operator, shall be labeled according to the following codes:

- The common reporting format for national inventory system for greenhouse gases, pursuant to the United Nations Framework - Convention on Climate Change (UNFCCC).
- The facility register number according to the European register on release and transfer of pollutants pursuant to the E-PRTR Regulation (166/2006/EG).
- Measures pursuant to Annex I to the IPCC regulation (166/2006/EG).
- NACE code pursuant to Regulation 1893/2006/EG.

Pursuant to Article 18 of the 2003/87/EG, member states shall take those administrative measures that are required to implement the provisions of the Directive, among others to appoint one or several suitable competent authorities. If more than one competent authority is appointed, the authorities' operations within the framework of the Directive must be coordinated.

Pursuant to Article 19, the European Commission shall adopt a regulation for implementation of a joint register on the Emissions Trading System, in the form of a structured database. The public shall be given access to the register. The joint union registry is treated in Regulation 389/2013/EU.

In Article 21 of the Directive, it is stated that the member states shall submit an annual report to the Commission on the implementation of the Directive. The report shall be constructed according to a questionnaire, which the Commission has developed. General information on the reporting pursuant to the EU ETS is presented in Table 19.

Table 19. General information on reporting pursuant to the EU ETS.

Reporting pursuant to the EU ETS	
Reporting format	Commission implementing decision on questionnaire for reporting on the application of Directive 2003/87/EC
Guidelines	General guidance for installations
Official reported data	European Union Transaction Log
Reporting frequency	Annually
Reported to	The European Commission
Reporting level	By facility, operation according to Annex I of the Directive
Substances	CO ₂ , N ₂ O, PFC
Statistics	Emissions, fuel consumption
Receiving medium	Air

Public participation, capacity building

Pursuant to Article 17 on access to information, the competent authority shall make decisions regarding the distribution of emission allowances available to the public, together with the emission reports that are required according to the permit for greenhouse gas emissions.

According to Article 17, the Commission and the member states shall work towards capacity building in developing countries and countries with transition economies, in order to help them to utilize the mechanisms of the Kyoto Protocol, JI (Joint Implementation) and CDM (Clean Development Mechanism).

Sweden

General information on the reporting pursuant to the EU ETS in Sweden is presented in Table 20. In Sweden, the Directive is implemented through the Emissions Trading Act (SFS 2004:1199) and the Emissions Trading Ordinance (SFS 2004:1205).

The government and several authorities cooperate in order to implement the Emissions Trading System in Sweden. The Swedish Energy Agency is administering the Swedish part of the Union Register. Swedish EPA makes decisions on allocation of emission permits and is responsible for the follow-up of the companies' annual reporting of CO₂, N₂O and PFC emissions. The County Administrative Boards makes decisions regarding the permits of the operations, The Swedish Board for Accreditation and Conformity Assessment (SWEDAC) is responsible for the accreditation of Swedish inspectors that verify the emission reports (STAFS 2012:6) and

permit applications, and the Swedish National Debt Office is responsible for managing the government's income from emission permit auctions⁷¹.

Table 20. General information regarding Sweden in relation to the EU ETS.

Sweden	
Legislation	SFS 2004:1199, SFS 2004:1205, NFS 2012:9, STEMS 2012:1, STAFS 2012:6
Link to the operators' reporting database	http://eco2.naturvardsverket.se/ (available in Swedish) (the database is protected with password)
Competent authorities	The Swedish Energy Agency, Swedish EPA, The County Administrative Boards, SWEDAC, the Swedish National Debt Office (see above)

Available data and data review

The Emissions Trading System for greenhouse gas emissions includes approximately 800 Swedish facilities within the industry and energy sector and aviation.

Swedish EPA is responsible for the database "E-CO2", to which operators submit their annual report no later than March 31 (see Table 20). Log-in information is required to access the reporting database. The report shall be verified by an accredited inspector.

The operators shall also have registered their emissions in the Union Register by March 31⁷². On May 15 every year, the Swedish Energy Agency presents a Compliance list on those companies that have reported their emissions and the emission permits they have handed over⁷³.

Synergies with the PRTR

Consistencies

- Reported point sources:
 - Operations connected to capacity threshold values.
 - Substances (greenhouse gases), three out of three substances/substance groups (see Annex 1).

⁷¹ <https://www.naturvardsverket.se/sv/Miljoarbete-i-samhallet/Miljoarbete-i-Sverige/Uppdelat-efter-omrade/Utslappshandel/Vem-for-vad/>

⁷² <http://www.energimyndigheten.se/Foretag/Utslappshandel/Ett-ar-i-utslappsrattssystemet/> (available in Swedish)

⁷³ <http://www.energimyndigheten.se/Foretag/Utslappshandel/Unionsregistret/Rapporter/> (available in Swedish)

- Administrative information and E-PRTR ID (i.e. facility number) and NACE code (Nomenclature of Economic Activities).
- Receiving medium, includes emissions to air.
- Annual reporting.
- Joint public register (see above), containing emissions to air and administrative information among other information.
- Encourages public participation.
- Capacity building, encourages knowledge transfer.

Inconsistencies

- Operations and capacity threshold values are not identical to those required by the PRTR.
- Does not treat emissions from diffuse sources.
- Aviation is not regulated as a separate operation in the PRTR.
- The fossil and biogenic parts of CO₂ emissions are reported separately for the facility to the EU ETS, e.g. not as total CO₂ emissions for the facility, which is required by the PRTR.
- Reporting mechanism, the operators in Sweden report their information to E-CO₂ and not to SMP.

IED

General information

The EU Industrial Emissions Directive (IED) entered into force on January 6th 2011 and is implemented in the Swedish legislation as of January 7th 2013. The directive replaced seven other directives - Integrated Pollution Prevention and Control (IPPC), Large Combustion Plants (LCP), Waste Incineration Directive (WID), Volatile Organic Compounds (VOC), and three directives regarding the production of titanium dioxide, which does not occur in Sweden. General information and relevant links regarding the Directive is presented in Table 21.

Table 21. General information regarding the EU Industrial Emissions Directive.

General information	
Issued by	The European Parliament and Council of the European Union
Reporting theme	Air
Geographical scope	EU, EES
Entered into force	2011-01-06 ⁷⁴
Legislation	2010/75/EU

Objective

The purpose of the EU Industrial Emissions Directive is to prevent and limit pollutants originating from industrial activities. To achieve this goal, the Directive includes provisions to prevent or, when prevention is not possible, reduce releases to air, water and land and to prevent waste generation, in order to obtain a high level of protection for the environment as a whole.

The IED is based on several principles:

- An integrated course of action
- Best available technology
- Flexibility
- Supervision
- Public participation (see section Public participation, capacity building regarding the IED below)

An integrated course of action means that the permit for an industrial operation takes into account the environmental impact of the entire facility, e.g. releases to air, water and land, waste generation, raw material consumption, energy use, noise, prevention of accidents and restoration of the site after closure.

Permit conditions, including emission limits, shall be based on the Best Available Technology (BAT). At the assessment of permit conditions, referrals to BAT conclusions (documents containing information on those emission levels that correspond to the best available technology) shall be made. BAT conclusions are established by the European Commission and are made public in the Official Journal of the European Union. When the European Commission has adopted a BAT conclusion, also the underlying

⁷⁴ http://europa.eu/legislation_summaries/environment/air_pollution/ev0027_en.htm

reference document, i.e. the BREF document (Best Available Techniques Reference Document) ⁷⁵ is made public. The BREF contains, in addition to the BAT conclusions, information on applied technology, current emissions and consumption levels and technologies that are considered by the assessment of best available technology. Member states, industry representatives, NGOs and the Commission cooperate in producing the BREF documents.

The IED allows for some flexibility in permitting the licensing authority to issue less stringent emission limit in certain cases. Such measures are only to be applied if an assessment shows that achieving the emission limits of the BAT conclusions would result in costs disproportionate to the environmental gain. The competent authority shall always document the reasons for applying the flexibility provision to the permit, including the cost-benefit analysis.

The IED stipulates mandatory requirements on inspections. Member states shall put an environmental inspection system in place and establish inspection plans. The IED also requires that an on-site visit takes place at least every three years.

Reporting

The Directive applies to the activities according to Annex I of the Directive that amounts to, or exceed, the limit values that are given in the annex. In Annex II, the substances that are regulated by the Directive are listed, however in some cases only the substance group is named, e.g. pesticides and carcinogens.

Article 62 regulates compliance, and stipulates that the operator shall, upon request, provide the competent authority with such information as to enable the competent authority to control that emission limit values are not exceeded.

Pursuant to Article 72, member states shall electronically report information on the following issues to the Commission:

- implementation of the Directive
- information on emissions and other pollution
- emission limit values
- application of best available technology (pursuant to Article 14 and 15)
- progress regarding development and application of new technology

⁷⁵ <http://eippcb.jrc.ec.europa.eu/reference/>

Reporting format, type and frequency for the information on the implementation of the IED that the member states are to make available, are given in the implementation decision of the Commission (2012/795/EU), see Table 22. The reporting procedure consists of filling in the questionnaires that are given in Annex I and II of the decision. The questionnaires treat the following issues:

- Annex I – relates to the period of year 2013 and contains issues regarding measures taken in order to fulfill the additional requirements as a result of the IED. The answers to the questionnaire in Annex I shall be submitted no later than September 30th 2014.
- Annex II – relates to the period 2013-2016 and the answer to the questionnaire in Annex II shall be submitted no later than September 30th 2017. The questionnaire treats issues regarding:
 - information on emissions and other pollution
 - emission limit values
 - application of Article 14 and 15 of 2010/75/EU
 - progress regarding development and application of new technology

Annex II aims to provide the Commission information on:

- general implementation measures
- establish a source of information regarding separate installations that are adapted to the E-PRTR
- confirm that the best available technology has been used correctly
- Control that sectoral minimum requirements are applied

For all combustion plants that are encompassed by chapter III in the IED, the member states shall, as of January 1st 2016, establish an annual inventory of emissions of sulphur dioxide, nitrogen oxides, dust and energy input. Annual information for each facility in this inventory shall, upon request, be made available to the Commission. Data regarding emission year 2016 shall be reported to the Commission no later than March 31st 2018. An inventory summary shall be made available to the Commission every three years, within twelve months from the end of the three year period. Within this summary, information on combustion plants within refineries is to be reported separately.

At the point of adoption of the IED, the European Parliament and Council have among other things stated that the Commission shall, in order to facilitate reporting and reduce unnecessary administrative work, establish methods to adjust the procedure of obtaining information subject to the IED to other requirements within the Union legislation, and in particular to the

E-PRTR regulation. Starting a few years ago, rigorous discussions are taking place within the Commission, the EEA and within both expert groups of the IED and E-PRTR on how future reporting regarding the two directives should be coordinated and streamlined. General facts regarding the reporting on implementation of the IED are presented in Table 22.

Table 22. General information regarding reporting in pursuant to the IED.

Reporting pursuant to the IED	
Reporting format	Annex I and Annex II (2012/795/EU)
Reporting guidelines	-
Official reported data	Annex I
Reporting frequency	2014 (Annex I), 2017 (Annex II)
Reported to	The European Commission
Reporting level	National and facility-specific, activities according to Annex I to the IED
Substances	Substances according to Annex II to the IED. Air pollutants, metals, organic substances, hydrocarbons.
Statistics	Emissions, fuel consumption
Receiving medium	Air, water

Public participation, capacity building

Article 24, including Annex IV, regulates the access of information and public participation of the permit procedure by ensuring that the public has the right to participate in the decision making. Article 64 treats the issues of access to information and the public's right to information regarding:

- permit applications
- permits
- results of emission monitoring
- emission data that are reported by member states are made available through the E-PRTR

The IED does not regulate capacity building.

Sweden

Sweden has a well-established system of environmental regulations, which are found in the central legislation the Environmental Code, and regulations that are adopted based on the Environmental Code. The second chapter of the Environmental Code describes the general rules of consideration, which, among other things, includes requirements regarding the best possible technology in professional operations. This term is in general considered

more stringent than the BAT of the IED. In chapter 9, environmentally hazardous activities are regulated, e.g. by requirements of permits or registration. Sweden has chosen to implement the IED mainly through several regulations that contains general, binding rules. Unless the requirements of the IED can be considered to be covered by the existing environmental regulations, these added regulations complement the existing regulations. The regulations, through which the IED is implemented, and other general facts regarding the reporting in pursuant to the IED in Sweden, are presented in Table 23.

Table 23. General information regarding Sweden in relation to the IED.

	Sweden
Legislation	SFS 2013:250, SFS 2013:251, SFS 2013:252, SFS 2013:253, SFS 2013:254, SFS 2013:255
Operators' reporting database	https://smp.lansstyrelsen.se/ (available in Swedish)
Competent authority	Swedish EPA

Available data and data review

About 1 100 industrial facilities of about 30 types of business are affected by the industrial emissions regulations, which are a consequence of the implementation of the IED in Swedish legislation⁷⁶. The operators' environmental data is annually reported to the SMP, and the environmental reports are audited and approved by the licensing authority. The environmental reports do not, however, contain all the information required by the IED, and thus complementing information from the operators will likely be required to fulfill the reporting requirements. Emission declaration data that exceeds the limit values stipulated in the E-PRTR, and data that is included in the reporting pursuant to the LCP directive is reviewed annually by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA. All emission data that is reported by the operators in the emission declaration of the environmental report is made public on the Swedish EPA webpage for the Swedish Pollutant Release and Transfer Register. Data subject to the E-PRTR regulation is reported to the Commission and made public through the E-PRTR. In general, the environmental reports are public documents that are available to the public.

⁷⁶ <http://www.naturvardsverket.se/Stod-i-miljoarbetet/Vagledning/Industriutslappsdirektivet--IED/> (available in Swedish)

Synergies with the PRTR

Consistencies

- Reported point sources:
 - Operations connected to capacity threshold values.
 - Substances, 66 substances correspond to the PRTR (see Annex I). It should however be noted that the Directive sometimes only specifies a group of substances, e.g. pesticides and carcinogens and not specific substances.
 - Receiving medium, emissions to water and air.
 - Administrative information, including E-PRTR ID (facility ID).
 - Reporting mechanism, in Sweden, the operators will in part report the information through SMP.
- Public register, emission data that is reported by the member states are to be made public through the E-PRTR.
- Public participation, encourages public participation.

Inconsistencies

- Operations, activities and capacity threshold values are not identical to those required by the PRTR.
- Information regarding large combustion plants under the IED is to be reported by combustion unit and not for the entire facility.
- Does not include emissions from diffuse sources.
- Does not regulate capacity building.

EU Water Framework Directive

General information

The EU Water Framework Directive 2000/60/EG⁷⁷ (WFD), establishes a framework for the European Community's cooperation within water policy. The Directive entered into force on December 22nd 2000.

The Directive stipulates that the countries' water management shall be based on catchment area (the water boundaries in nature) and not based on administrative borders, in order to take measures to restore water environments and water quality.

⁷⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:l28002b>

Since the implementation of the WFD, six amendments have been made to the Directive, of which two are of greater importance. In December 2008, Directive 2008/105/EG⁷⁸ was added, which aims at establishing environmental quality standards for priority substances (33 substances) and certain other pollutants subject to Article 16 of Directive 2000/60/EG. The purpose is to achieve a good chemical status of bodies of surface water in accordance with the objectives and provisions in Article 14 of that directive. Furthermore, it is stipulated that the member states shall establish a register on releases and spills. In August 2013, Directive 2013/39/EU⁷⁹ on amendments in the Directives 2000/60/EG and 2008/105/EG regarding priority substances and environmental quality standards within water policy was added.

General information and relevant links regarding the WFD is presented in Table 24.

Table 24. General information regarding the WFD.

General information	
Issued by	The European Parliament and the Council
Reporting theme	Water
Geographical scope	EU
Entered into force	2000-12-22
Legislation	2000/60/EC ; 2008/105/EC ; 2013/39/EU

Objective

The objective of the WFD is to establish a framework for the protection of inland surface waters, groundwater, transitional waters and coastal waters (not oceans) and that all water bodies shall achieve good status by 2015.

The overall goals of the WFD are:

- To prevent further deterioration, protect and improve the status of aquatic ecosystems and also terrestrial ecosystems and wetlands that are directly dependent on aquatic ecosystems.

⁷⁸ Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council

⁷⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:226:0001:0017:EN:PDF>

- To further sustainable water usage based on long-term protection of available water resources.
- To aim at increased protection and improvement of the environment, for example by specific measures for a gradual reduction of releases and spills of priority hazardous substances and by eliminating or gradually eliminating releases and spills of priority hazardous substances.
- Ensure a gradual reduction of pollution of groundwater and prevent further pollution.
- Contribute to mitigate the effects of flooding and draught.

The final aim of this Directive is to stop all pollution by priority hazardous substances and to contribute to achieve concentrations in the marine environment that are close to background levels of naturally occurring substances.

Reporting

The Directive is implemented through a joint planning cycle that lasts for six years. The planning cycle consists of the following steps:

1. Survey and analysis of those water bodies that are affected by the directive. This step entails inventory, description and assessment of those water bodies that occur within the area (Article 5). It also entails to register protected areas and to identify pollution sources and other disturbances that can threaten water quality. The survey and analysis constitutes the decision basis for the environmental quality standard for water.
2. Environmental objectives and standards – establishing the quality requirements: good ecological water status, good chemical status and for groundwater, good quantitative status (Article 4).
3. Programme of measures – specifies which measures need to be taken to achieve the environmental objective, good status. One programme of measures for each river basin district in respective member state is established in order to ensure that the environmental objectives are achieved.
4. Monitoring – environmental monitoring are carried out in order to follow the development of the environmental state in our waters and to assess whether measures are effective (Article 8).
5. Management plans and reports – summary of all the elements that are included in the water management. The management plan serves as planning and information base for authorities and as a tool for public communication (Article 13).

The European Commission requests copies of the management plans for each river basin district. Member states shall also submit summarized reports on those analyses that are required pursuant to Article 5 and those monitoring programmes that are established pursuant to Article 8. Member states shall, within three years of the publication of each river basin management plan or update under Article 13, submit an interim report describing the progress in the implementation of the planned programme of measures.

Pursuant to Articles 5 and 8 of Directive 2000/60/EG and pursuant to regulation (EG) no 166/2006 (the PRTR regulation) and other available information, the member states shall establish a register, including maps when available, on releases and spills for all the prioritized and polluting substances that are listed in Annex I to the Directive 2013/39/EU. This shall be done for each river basin district or part of river basin district within the member state's territory, including the concentration in the sediment and biota where appropriate. General information regarding the reporting pursuant to the EU Water Framework Directive is presented in Table 25.

Table 25. General information regarding reporting pursuant to the WFD.

Reporting Guidelines	http://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm
Official reporting	http://www.eea.europa.eu/data-and-maps/data/wise_wfd
Reporting frequency	At least every six years
Reporting level	Water bodies, catchment districts (water districts)
Substances	45 substances according to Annex I to 2013/39/EU (33 original priority substances and 12 added priority substances, see Annex 1)
Statistics	Environmental concentrations; classification of status; Environmental quality standards, in the long-term also emission data
Receiving medium (concentrations)	Water

Public participation, capacity building

The Directive includes guidelines regarding information to, and consultation with, the public. Member states shall, for each river basin district, make available to the public the following pieces of information:

- A timetable and a work programme for development of the plan and information on what consultations shall be carried out.
- An interim overview on important water management issues.

- Copies of drafts to the management plan for the river basin district.

In addition, in order to facilitate active participation and consultations, it shall be possible to submit written comments to these documents. The public shall be able to participate before final decisions concerning necessary measures are taken.

Sweden

In 2004, the WFD was implemented in Swedish legislation through the fifth chapter of the Environmental Code, Regulation (2004:660⁸⁰) on management of water environment quality and Regulation (2007:825⁸¹) regarding instructions for the County Administrative Boards.

There is no appointed competent authority responsible for the implementation of the WFD, but the responsibility is shared among several parties. The County Administrative Boards have the joint responsibility of managing the water environment quality throughout the country. Sweden is divided into five water districts and one County Administrative Board in each district is appointed to Water authority and is responsible for decisions and coordination. Furthermore, on a local level, a large part of the responsibility lies with the municipalities. They are responsible for e.g. drinking water supply, waste water treatment and environmental inspection.

The Swedish participation in the Common Implementation Strategy (CIS) is coordinated by SwAM. SwAM cooperates with other authorities in order to enable the implementation of the Directive in Sweden to contribute to improved water quality, and to harmonize the implementation in other member states.

Under the guidance of SwAM, based on Reporting Guidance 2016⁸² and CIS Guidance 28⁸³, the Water authorities shall produce registers on releases and spills (applicable as of 2016) pursuant to the Water Quality Management Ordinance and the information that is to be reported pursuant to the WFD. SwAM suggests that the Water authorities produce information according to the minimum requirements of CIS Guidance 28. The minimum requirements for the first inventory include emissions on priority substances (45 substances) from point sources (industries and wastewater treatment plants) and discharges from estuaries. SwAM is working on a specification

⁸⁰ <http://rkrattsdb.gov.se/SFSdoc/04/040660.PDF> (available in Swedish)

⁸¹ <http://rkrattsdb.gov.se/SFSdoc/07/070825.PDF> (available in Swedish)

⁸² http://cdr.eionet.europa.eu/help/WFD/WFD_521_2016

⁸³ <https://circabc.europa.eu/sd/a/6a3fb5a0-4dec-4fde-a69d-5ac93dfbbadd/Guidance%20document%20n28.pdf>

on which information is to be reported (simplifying and translating relevant parts of the WFD reporting guidance), which is expected to be finalized in February 2015.

General information regarding Sweden in relation to the WFD is presented in Table 26.

Table 26. General information regarding Sweden in relation to the WFD.

	Sweden
Legislation	SFS 2004:660, SFS 2007:825
Competent authority	Several
Link to national data	http://www.viss.lansstyrelsen.se/ (available in Swedish)

Available data and data review

Water management is carried out in cycles of six years. The first cycle ended in 2009 and in the same year the other cycle, which runs until 2015, begun. The first monitoring programme for the water districts was decided in 2006 and reported to the EU in March 2007. The Swedish report received comments from the EU regarding severe deficits of the data. Sweden committed therefore to revise the monitoring programme no later than 2012. The next monitoring plan will be included in the Water authorities' management plan 2015-2021 and the revision was initiated in 2014.

The Water authorities do not conduct any separate monitoring, but they utilize selected stations that are used for monitoring at national and regional level. In the database WISS (Water Information System Sweden⁸⁴), more information regarding monitoring is provided, such as information on status classification, environmental quality standards and environmental monitoring. VISS is also a tool that is used to report the Water authorities' information to the EU.

⁸⁴ VISS - <http://www.viss.lansstyrelsen.se/>

Synergies with the PRTR

Consistencies

- Reported point sources:
 - Substances, of the 45 substances/substance groups that are listed as priority substances in the water policy field (Directive 2013/39/EU), 35 are in accordance with the PRTR, see Annex 1.
 - Receiving medium, treats releases to water.
- Diffuse sources, on a long-term basis, the register on releases and spills can be extended to include diffuse sources.
- Public register, PRTR data will be used within the register on releases and spills.
- Encourages public participation – in that way “water solidarity” is created in the community. The entire planning process within the river basin districts shall be infused by this fundamental principle of the WFD.

Inconsistencies

- Operations, activities and capacity threshold values are not identical to those requested by the PRTR.
- Does not regulate capacity building.

Marine Directive

General information

The Marine Directive (or the Marine Strategy Framework Directive) encompasses all marine regions within the EU up to the outermost economic zone boundary, and overlap thus the EU Water Framework Directive in coastal waters. Member states shall define Good Environmental Status and assess the environmental state of their marine regions. Based on the evaluation of the environmental state, environmental targets and associated indicators are to be established as guidance to achieve Good Environmental Status. The environmental objectives have been introduced in the Swedish legislation as environmental quality standards. In addition, monitoring programmes shall be established for continuous assessment of the environmental state, and measures to achieve or sustain Good

Environmental Status shall be identified and compiled in a programme of measures⁸⁵.

A general description of Good Environmental Status can be found in Article 3, item 5 in the Directive and further specification are described in a Commission Decision⁸⁶, and is based on the eleven qualitative descriptors as listed in Annex I to the Directive. The eleven qualitative descriptors are as follows: Biological diversity, Non-indigenous species, Fish and shellfish, Marine food webs, Eutrophication, Sea-floor integrity, Hydrological conditions, Contaminants, Contaminants in fish and other seafood, Marine litter, and Introduction of energy. The process of producing the decision basis for the Commission Decision was led by the International Council for the Exploration of the Sea (ICES) and the EU research Centre JRC on behalf of the European Commission, and was developed together with experts from the member states. General information and relevant links regarding the Directive is presented in Table 27.

Table 27. General information regarding the Marine Directive.

General information	
Issued by	The European parliament and Council
Reporting theme	Good environmental status in marine regions
Geographical scope	Marine regions within the EU
Entered into force	2008-07-07 ⁸⁷
Legislation	2008/56/EG ⁸⁸

Objective

Within the Marine Directive, a common framework for the member states regarding measures within marine environment policy is established. The framework includes guidelines to achieve or sustain good environmental status in the marine environment no later than 2020⁸⁹.

⁸⁵ <https://www.havochvatten.se/hav/samordning--fakta/miljomal--direktiv/havsmiljodirektivet.html> (available in Swedish)

⁸⁶ Commission Decision 2010/477/EU of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:232:0014:0024:EN:PDF>

⁸⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056>

⁸⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&from=EN>

⁸⁹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy

Reporting

The marine directive is implemented, similar to the Water Framework Directive, according to a joint planning cycle. Each cycle runs for six years, and reporting of information regarding the implementation of the Marine Directive in Sweden occurs three times during each cycle. The following steps are included in the first cycle, which runs from 2010 to 2015:

1. Introductory assessment of the state of marine waters in Sweden. This was reported in 2012 pursuant to Article 9.2.
2. The definitions of Good Environmental Status and associated environmental quality standards and indicators. This was also reported in 2012 pursuant to Article 10.2.
3. The monitoring programme was established and reported in 2014 pursuant to Article 11.3.
4. The programme of measures shall be established and reported in 2015 pursuant to Article 13.9.

In the reporting cycle 2016-2021, the implementation of measures will begin, assessments updated, Good Environmental Status and associated environmental quality standards and indicators revised, and the environmental monitoring programme and programme of measures will be revised.

Public participation and capacity building

Pursuant to Article 19.2 of the Directive, member states shall make public and accept comments from the public regarding the introductory assessment of environmental status, the definition of Good Environmental Status, environmental quality standards, together with monitoring programmes and the programme of measures.

Sweden

The Directive was implemented in Swedish legislation in 2010 through chapter 5 of the Environmental Code and the Marine Environmental Ordinance (SFS 2010:1341)⁹⁰.

SwAM is the competent authority for the Directive in Sweden, and has regulatory rights according to the Ordinance. A provision establishing the

(Marine Strategy Framework Directive) <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&from=EN>

⁹⁰ http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Havsmiljoforordning-20101341_sfs-2010-1341/?bet=2010:1341 (available in Swedish)

definition of Good Environmental Status, the environmental quality standards and associated indicators was finalized in 2012 and was last updated in 2014⁹¹. General information regarding the EU and Sweden related to the Directive is presented in Table 28.

Table 28. General information regarding Sweden in relation to the Marine Directive.

	Sweden
Legislation	SFS 2010:1341
Competent authority	SwAM
Link to national data	-

Available data and data review

Sweden reports data on pollution from land to marine regions to international actors within several different reportings. There is no separate collection of data specific to the Marine Directive, but data reported to other multilateral agreements and EU legal acts are used. However, other aspects of the Marine Directive have given rise to new requirements of data collection, such as information on marine litter and noise.

There is an on-going process to develop a system for sharing data and information between the EU and multilateral agreements concerning marine environment. The aim is to facilitate the upcoming reporting of Article 8 of the Directive, which is due in 2018⁹².

According to Article 19.3 of the Marine Directive, the European Commission and EEA shall be granted access and full rights to use data and information from the introductory assessment pursuant to Article 8, and from the monitoring programmes pursuant to Article 11. Among these data, releases to marine waters and other interference from human activities are included (see Annex 3, Table 2 of the Marine Directive).

⁹¹

<https://www.havochvatten.se/download/18.42fe4e69146abc8fd4a5a114/1404226300448/HVMFS2012-18-keu-20140701.pdf>

⁹² Further information on the background and objective of this work is to be found in the document in the following link: https://circabc.europa.eu/sd/a/cdb72ef0-7cc2-4799-8b3d-4063b2e02758/DIKE_9-2014-05_IntegrationStreamliningMarineReporting.doc

Synergies with the PRTR

Consistencies

- Receiving medium, the Directive treats releases to water similar to the PRTR.
- Substances, specific substances are not listed in the Directive, but only as groups of substances (e.g. hazardous substances, nutrients).
- Treats public participation.

Inconsistencies

- The Marine Directive treats only the marine waters in Sweden contrary to the PRTR, which encompasses all waters.
- Substances, specific substances are not listed in the Directive, but only as groups of substances (e.g. hazardous substances, nutrients).
- Does not include releases from separate point sources.
- Does not include releases from diffuse sources.
- Does not regulate capacity building.
- No annual reporting, but reporting every six years.
- No public register on releases and transfers.

Urban Waste Water Directive

General information

The Urban Waste Water Directive⁹³ is an EU directive from 1991, in which the member states agreed on joint requirements on cleaning of wastewater from urban regions. Within the Urban Waste Water Directive, there are provisions regarding requirements on releases of phosphorous, nitrogen and oxygen consuming substances (BOD₇, COD_{cr}, and suspended particles) in outgoing water, and regulations on controls and sampling. General information and relevant links regarding the Directive is presented in Table 29.

⁹³Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0271&from=en>

Table 29. General information regarding the Urban Waste Water Directive.

General information	
Issued by	The Council of the European Union
Reporting theme	Fulfillment of cleaning requirements for wastewater from urban areas
Geographical scope	EU
Entered into force	1991-05-21
Legislation	91/271/EG ⁹⁴

Objective

To regulate and have joint requirements on cleaning of wastewater from urban areas within the member states.

Reporting

Reporting is carried out in order to inform the Commission on how the Swedish wastewater treatment plants are managing the requirements pursuant to Article 15 of the Urban Waste Water Directive⁹⁵. Member states are required to report information on whether the wastewater treatment plants have managed the requirements on releases of phosphorous, nitrogen and oxygen consuming substances. For each wastewater treatment plant, the urban agglomeration from which the wastewater treatment plant is receiving wastewater is presented, together with the size of the agglomeration, point of discharge, cleaning technology and certain information on releases.

In connection with the reporting pursuant to Article 15, Swedish EPA also compiles a pamphlet for the public regarding wastewater treatment in Sweden, pursuant to Article 16 of the Directive⁹⁶. The most recent reporting pursuant to Article 16 was published by Swedish EPA in 2014⁹⁷. Sweden submits a report every second year pursuant to Article 17 of the Directive⁹⁸.

General information regarding reporting pursuant to Article 15 of the Directive is presented in Table 30.

⁹⁴ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31991L0271>

⁹⁶ Further information on reporting pursuant to Article 16 of the Urban Waste Water Directive: <http://rod.eionet.europa.eu/obligations/387>

⁹⁷ Treatment of waste water in Sweden: <http://www.naturvardsverket.se/Om-Naturvardsverket/Publikationer/ISBN/8700/978-91-620-8703-6/> (available in Swedish)

Table 30. General information regarding reporting pursuant to Article 15 of the Urban Waste Water Directive.

Reporting pursuant to Article 15 of the Urban Waste Water Directive	
Reporting format	http://rod.eionet.europa.eu/obligations/613
Reporting guidelines	Available for downloading from the EEA database for the member states CIRCABC.
Official reported data	http://rod.eionet.europa.eu/obligations/613/deliveries
Reporting frequency	Every second year
Reporting level	Per facility and agglomeration
Substance groups/Substances	Nutrient salts, organic material
Statistics	Releases
Receiving medium	Water

Public participation and capacity building

The Urban Waste Water Directive encourages, similar to the PRTR, capacity building within the member states through the requirement that member states shall publish a pamphlet for the public, informing about wastewater cleaning (pursuant to Article 16 of the Directive).

Sweden

Sweden has implemented the Urban Waste Water Directive in Swedish Legislation through the Environmental Code, the Environmental Impact Assessment Ordinance, the Ordinance on Environmentally Hazardous Activities and Health Protection, and in provisions by Swedish EPA⁹⁹. Swedish EPA is the competent authority for the Directive in Sweden.

All Swedish waters are identified to be sensitive areas pursuant to Article 5 (1) and 5 (2,3) of the Urban Waste Water Directive. For Sweden, the criteria for eutrophication and more stringent cleaning requirements for phosphorous in urban agglomerations with a load more than 10 000 population equivalents (pe.) apply. The southern coastal areas of Sweden are sensitive regarding nitrogen and phosphorous, whereas the northern coast and inland waters are judged only to be sensitive regarding phosphorous. General information regarding the EU and Sweden in relation to the Urban Waste Water Directive is presented in Table 31.

⁹⁹ Swedish EPA's Regulation on treatment of wastewater from urban areas SNFS (1994:7) <http://www.naturvardsverket.se/Stod-i-miljoarbetet/Rattsinformation/Foreskrifter-allmanna-rad/NFS/1994/SNFS-19947---Rening-av-avloppsvatten-fran-tatbebyggelse/> (available in Swedish)

Table 31. General information regarding the EU and Sweden in relation to the Urban Waste Water Directive.

	Sweden
Legislation	SFS 1998:808, SFS 2013:251, SFS 1998:899 ¹⁰⁰
Competent authority	Swedish EPA
Link to national data	-

Available data and data review

Data is available through SMP, where the legally liable person, or those responsible for the wastewater treatment plant, reports the releases, information on whether they have managed the cleaning requirements of the Directive, and on what terms they have done so. The same wastewater treatment plants that report information pursuant to the Urban Waste Water Directive are also included in the national statistics on releases to water and sewage sludge production¹⁰¹. Data is reviewed by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA.

Synergies with the PRTR

Consistencies

The Urban Waste Water Directive does not require the member states to report actual releases from the wastewater treatment plants. Member states, however, have the option of submitting information on concentrations of phosphorous, nitrogen, BOD₇, and COD_{cr} in outgoing water from wastewater treatment plants.

- Point sources:
 - Substances, 3 out of 4 substances correspond to the PRTR (see Annex 1)
 - Receiving medium, treats releases to water.
 - Facility specific information by operation is required.
 - Reporting mechanism, in Sweden, the operators report their information to SMP.
- Capacity building, encourages to capacity building.

¹⁰⁰ <http://www.naturvardsverket.se/Stod-i-miljoarbetet/Rattsinformation/Direktiv/EU-register---forfattningar-inom-miljobalkens-omrade/Vatten/Avloppsvatten/> (available in Swedish)

¹⁰¹ <http://www.scb.se/mi0106> (available in Swedish)

Inconsistencies

- Reporting occurs every second year.
- Point sources:
 - No threshold values for releases are applied¹⁰²
 - The definition of point sources in the Urban Waste Water Directive differs from the PRTR definition (but correspond to that of HELCOM, OSPAR and EEA). See point regarding inconsistencies in the section on HELCOM.
- Does not treat releases from diffuse sources.
- Does not regulate public participation.
- No public register on releases and transfers.

The Sewage Sludge Directive

General information

The Sewage Sludge Directive¹⁰³ is an EU directive in which member states in 1986 agreed to regulate the usage of sewage sludge within agriculture. The purpose of the Directive is to minimize adverse effects to land, vegetation, animals and people that rise from using sewage sludge on farmland. At the same time, the usage of sludge for this purpose is described as a positive measure in the Directive. General information and relevant links regarding the Directive is presented in Table 32.

Table 32. General information regarding the Sewage Sludge Directive.

General information	
Issued by	The Council of the European Union
Reporting theme	Waste and resources
Geographical scope	EU
Entered into force	1991-05-21
Legislation	86/278/EG ¹⁰⁴

¹⁰² This resulted in the reporting of 17 waste water treatment plants to the E-PRTR in 2013, compared to the 411 plants that were included in the reporting of 2012 pursuant to the Urban Waste Water Treatment Directive.

¹⁰³ Council Directive of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture (86/278/EEG) <http://eur-lex.europa.eu/legal-content/SV/TXT/PDF/?uri=CELEX:31986L0278&from=SV>

¹⁰⁴ <http://rod.eionet.europa.eu/instruments/514>

Objective

To regulate the usage of sewage sludge within agriculture in such manner that hazardous substances do not spread to land, vegetation, and in extension, humans.

Reporting

Pursuant to Article 17 of the Sewage Sludge Directive, member states are required to report the following information every three years: Total amounts of sludge that are produced at the wastewater treatment plants, amounts of sludge that have been spread on farmland and the heavy metal and nutrient content of the sludge that has been spread on farmland¹⁰⁵. General information regarding reporting pursuant to the Directive is presented in Table 33.

Table 33. General information regarding reporting pursuant to Article 17 of the Sewage Sludge Directive.

Reporting pursuant to Article 17 of the Sewage Sludge Directive.	
Reporting format	http://rod.eionet.europa.eu/obligations/69/overview
Reporting guidelines	http://rod.eionet.europa.eu/obligations/69/overview
Official reported data	http://rod.eionet.europa.eu/obligations/69/deliveries
Reporting frequency	Every three years
Reporting level	National totals
Substances	Nutrient salts and heavy metals in sewage sludge
Statistics	Releases, concentrations
Receiving medium (releases, concentrations)	Sludge, Sludge concentrations

Public participation and capacity building

No specific measures to promote public participation and capacity building regarding sewage sludge are described in the Directive.

Sweden

Sweden has implemented the Sewage Sludge Directive in Swedish legislation for example through the Environmental Code, the Ordinance on Environmentally Hazardous Activities and Health Protection, the Waste

¹⁰⁵ For further information regarding reporting pursuant to the Sewage Sludge Directive, see <http://rod.eionet.europa.eu/obligations/69>

Ordinance and in Swedish EPA provisions¹⁰⁶. Swedish EPA is the competent authority for the Directive in Sweden (Table 34).

Table 34. General information regarding Sweden in relation to the Sewage Sludge Directive.

Sweden	
Legislation	SFS 1998:808, SFS 1998:944, SFS 2013:251, SFS 1998:899, 2001:1063 ¹⁰⁶
Competent authority	Swedish EPA

Available data and data review

Data is available through SMP, to which the legally responsible person or the responsible person for the wastewater treatment plant reports information on sludge production and use of sludge within agriculture. Some of this information is published in the official statistics of Sweden regarding releases to water and sludge production¹⁰⁷, with the difference that heavy metal concentrations are reported for total sludge production and not only for those sludge quantities that have been spread on farmland. Data is reviewed annually by SMED within the framework of the coordinated review of SMP data that is carried out on behalf of Swedish EPA.

Synergies with the PRTR

Consistencies

- Substances
 - Nine out of nine substances correspond to the PRTR (see Annex 1).
- Reporting mechanism, in Sweden, operators report their information to SMP.

Inconsistencies

- In the PRTR, substances in sewage sludge is not reported, as spreading of sludge is not defined as release to land, but as recycling according to the Protocol.
- Does not treat releases from diffuse sources.
- No public register on releases and transfers
- No annual reports, but every three years.
- Does not regulate public participation or capacity building.

¹⁰⁶ <http://www.naturvardsverket.se/upload/stod-i-miljoarbetet/vagledning/avloppsslam/regler-avloppsslam-20130213.pdf> (available in Swedish)

¹⁰⁷ <http://www.scb.se/mi0106> (available in Swedish)

EEA reportings

Below, a brief summary of the reportings under EEA that are included in the current project are presented, including information on how they are applied in Sweden and synergies with the PRTR. The aim of respective description is to clarify the reporting of releases and transfers.

EEA WISE SoE Water emissions quality

General information

The EEA (European Environment Agency) compiles independent information on the European environment to the public and to policy makers, based on data that Sweden and other European countries report. Data is collected through a network for environmental data and information (Eionet) and a selected amount of the reported data is compiled and presented to the public in WISE (Water Information System for Europe). EEA WISE SoE (State of the Environment) Water emission quality¹⁰⁸ (from 2009) consists of an annual reporting of emission data to water. General information and relevant links regarding EEA Emissions is presented in Table 35.

Table 35. General information regarding EEA Emissions.

General information	
Issued by	EEA
Reporting theme	Water
Geographical scope	EEA region
Entered into force	Trial year 2008, reporting from 2009
Legislation	Not legal requirement, but refers to EEA Annual Management Plan . Establishment of EEA is regulated: (EC) No 1049/2001 .

Objective

Releases to water are an important part of evaluating the state of the European environment. The aim of the EEA Emissions reporting is to provide material and complementing material for the evaluation of the European environment.

¹⁰⁸ WISE SoE-Water Information System Europe State of Environment, <http://rod.eionet.europa.eu/obligations/632>

Reporting

The EEA Emissions reporting includes data on ten nutrient salts and 299 hazardous substances, of which 75 are priority hazardous substances. General information regarding EU and Sweden in relation to EEA Emissions is presented in Table 36.

The EEA requests emission data from industries and wastewater treatment plants directly to inland waters, aggregated by water district and year. Also coastal point sources are requested. In addition, data on coastal and sea region loads through watercourses are requested. Data that are included in other international reportings, such as the E-PRTR, is not requested, but the member states are asked to report complementing or missing data.

Both diffuse sources and point sources are included. Point sources were reported annually up until 2013. At the moment, a revision of the reporting commitment is in progress, which may result in a less frequent reporting (emissions every three years and emissions from diffuse sources every six years). Data is made available through the EEA data service, Waterbase, where all reported data can be viewed, analyzed and downloaded.

Table 36. General information regarding the reporting the EEA Emissions.

Reporting guidelines	http://dd.eionet.europa.eu/datasets/latest/Emissions
Official reported data	http://www.eea.europa.eu/data-and-maps/data/waterbase-emissions-4
Reporting frequency	Up until 2013: annually, as of 2015: every three years (point sources), six years (diffuse sources) (suggested)
Reporting level	Water district
Substances	Nutrient salts, hazardous substances
Statistics	Releases from industries and wastewater treatment plants, loads through estuaries
Receiving medium (releases/load)	Water

Public participation, capacity building

Treats neither capacity building nor public participation; however data is public through EEA Waterbase.

Sweden

SwAM is responsible for the Swedish reporting to EEA Emissions. General information and relevant links regarding EEA Emissions in Sweden is presented in Table 37.

Releases of substances (nutrients and hazardous substances) are reported for industries (Industrial Waste Water Discharges total) and wastewater treatment plants that require a permit (Urban Waste Water Treated Discharges total) separately and aggregated by water district. Environmental reports and emission declarations that the operations report to SMP constitute the basis for the compilation. The number of chemical substances for which transports and releases is reported is limited to what is available in national databases.

Wastewater treatment plants that lack emissions of nitrogen and phosphorous in the database are assigned emissions in order to keep a complete population, this also applies to pulp mills.

Data on nutrient salts emissions and metals from watercourses (Riverine Input to Coastal Water) is obtained from the national environmental monitoring of estuaries. Sweden also reports loads from intermediate areas and unmonitored smaller watercourses.

So far, Sweden has reported diffuse emissions of metals and nutrient salts, phosphorous and nitrogen, at two occasions; data for 2003 (2009) and 2005 (2011).

Table 37. General information regarding the Swedish reporting to EEA Emissions.

	Sweden
Legislation	-
Competent authority	SwAM
Link to national data	http://www.eea.europa.eu/data-and-maps/data/waterbase-emissions-4

Available data and data review

Data is reviewed annually by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA. SMED is responsible for compiling Swedish data on behalf of SwAM.

Data is made available through the EEA data service, Waterbase, where all reported data can be viewed, analyzed and downloaded.

Synergies with the PRTR

Consistencies

- Reported point sources
 - Substances, 64 substances correspond, see Annex 1.

- Operations that require a permit.
- Receiving medium, treats releases to water.
- Reporting mechanism, in Sweden, the operators report their information to SMP.
- Diffuse sources
- Public register

Inconsistencies

- Operations, activities and capacity threshold values are not identical to those requested by the PRTR.
- Point sources. Definition of point sources and diffuse emissions are not in accordance with the PRTR. Under PRTR, releases from wastewater treatment plants/industries below a certain threshold capacity are defined as diffuse. These releases are reported as point source releases in other conventions or directives, but are defined as diffuse releases for the purpose of PRTR.
- Does not regulate capacity building.
- EEA does not request data that is already reported to the E-PRTR.

EEA-WISE SoE TCM

General information

The EEA (European Environment Agency) compiles independent information on the European environment to the public and to policy makers, based on data that Sweden and other European countries report. Data is collected through a network for environmental data and information (Eionet) and a selected amount of the reported data is compiled and presented to the public in WISE (Water Information System for Europe). EEA WISE SoE (State of the Environment) Transitional, Coastal and Marine Waters (TCM)¹⁰⁹ consists of an annual reporting of emissions to water and data on the state of the marine environment. This overview only describes the emission part of the reporting. General information and relevant links regarding the reporting is presented in Table 38.

¹⁰⁹WISE SoE-Water Information System Europe State of Environment, <http://dd.eionet.europa.eu/datasets/2622>

Table 38. General information regarding EEA TCM.

General information	
Issued by	EEA
Reporting theme	Emissions to water, marine data
Geographical scope	EEA region
Entered into force	Data available for 1978-2012
Legislation	Not legal requirement, but refers to EEA Annual Management Plan . Establishment of EEA is regulated: (EC) No 1049/2001 .

Objective

Releases to water are an important part of evaluating the state of the European environment. The aim of the EEA TCM is to provide material and complementing material for the evaluation of the European environment.

Reporting

General information and relevant links regarding EEA TCM is presented in Table 39. Member states are encouraged to report emission data regarding transition, coastal and marine waters. The EEA only requires those data that are not reported to Marine Conventions.

EEA requests data regarding:

- point sources with direct emissions to coastal waters (DirectDischarges).
- loads in coastal and marine regions through watercourses (RiverineInputLoads and FluxStations TCM).

Table 39. General information regarding reporting to EEA TCM.

Reporting guidelines	http://dd.eionet.europa.eu/datasets/3113
Official reported data	http://www.eea.europa.eu/data-and-maps/data/waterbase-transitional-coastal-and-marine-waters-10
Reporting frequency	Annually
Reporting level	Facility level (emission data)
Substances	See Annex 1.
Statistics	Emissions from point sources, environmental concentrations
Receiving medium (emissions/concentrations)	Water

Public participation, capacity building

Treats neither capacity building nor public participation; however data is public through EEA Waterbase.

Sweden

SwAM is responsible for the reporting to EEA TCM. General information and relevant links regarding EEA TCM in Sweden is presented in Table 40.

The Swedish reporting (of emission data) to EEA TCM includes data sets regarding loads on coastal and marine regions through monitored watercourses (RiverinInputLoads and FluxStations TCM), population density (Pressures TCM), and point sources with direct emissions to coastal waters (DirectDischarges).

The number of chemical substances for which transports and emissions are reported is limited to those that are available in national databases.

A compilation of emissions from point sources includes coastal industries and wastewater treatment plants that require a permit. Environmental reports and emission declarations that the operations are reporting to SMP constitute the basis for the compilation.

Table 40. General information regarding the Swedish reporting to EEA TCM.

	Sweden
Legislation	-
Competent authority	SwAM
Link to national data	http://www.eea.europa.eu/data-and-maps/data/waterbase-transitional-coastal-and-marine-waters-10;

Available data and data review

Data is reviewed annually by SMED within the framework of the coordinated review of SMP data, which is carried out on behalf of Swedish EPA. SMED is responsible for the compilation of Swedish data on behalf of the Swedish Agency for Marine and Water Management.

Data is made available through the EEA data service, Waterbase, where all reported data can be viewed, analyzed and downloaded.

Synergies with the PRTR

Consistencies

- Reported point sources:
 - Substances, ten substances correspond to the PRTR (see Annex 1)
 - Receiving medium, treats releases to water.
 - Includes operations that require a permit.
 - Reporting mechanism, in Sweden, operations are reporting their data to SMP.
- Diffuse sources, smaller point sources.
- Public register

Inconsistencies

- Operations, activities and capacity threshold values are not identical to those requested by the PRTR:
 - Only coastal operations are included in the reporting.
 - No threshold values for emissions are applied.
- Point sources, the definitions of point sources and diffuse releases do not correspond to the PRTR. Under the PRTR, releases from wastewater treatment plants/industries below a certain threshold capacity are defined as diffuse. These releases are reported as point source releases in other conventions or directives, but are defined as diffuse releases for the purpose of the PRTR.
- Does not regulate capacity building or public participation.

Conclusions and recommendations

The study shows that there are synergies regarding operations, substances, receiving medium, public participation and capacity building between the PRTR and those regulations that are included in the project. At the same time, the study also shows that although common traits can be identified, the same information is not required by any two regulations, but each regulation is unique. In Table 2, general synergies that have been identified are presented, and it is clear that those regulations that have the most in common with the PRTR are the Minamata convention and the IED.

Regarding the Minamata convention, it is important to emphasize that the reporting frequency is not yet determined. The Sewage Sludge Directive has least common traits with the PRTR.

It is recommended that:

- The persons that are responsible for the PRTR within Swedish EPA are included in the ratification process of the Minamata Convention, as existing mechanisms, such as the PRTR, shall be used for collection and distribution of information on estimates of annual emissions, or development of such mechanisms shall be monitored.
- The E-PRTR ID, i.e. the facility ID, that is reported to the E-PRTR is included in the EU ETS reporting. This would help to improve follow-up and verification of data at EU level.
- The possibility or benefit to coordinate efforts of capacity building between various multilateral agreements is reviewed. If a country is about to introduce an emission inventory system, it is beneficial to include information regarding the PRTR, and vice versa.
- The process regarding public participation is coordinated between the various reportings, and that a general strategy for increased public participation is developed.
- A national network is established, that provides points of contact for environmental reportings that come from multilateral agreements and EU legal acts. Such a contact net would facilitate communication and create opportunities for synergy. The contact net would preferably be divided into two groups: multilateral environmental agreements and EU environmental legal acts through which for example meeting reports can be communicated.

Annex 1

Table 1. PRTR/E-PRTR substances, for which releases to water (W) and air (A) shall be reported, and which PRTR/E-PRTR substances are requested of the regulations included in this report. Receiving medium not specified in the regulation (x), Sewage sludge (s) and land (l). The Marine Directive is not included in the table as specific substances are not listed in the Directive.

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
1	74-82-8	Methane (CH ₄)		A	A													
2	630-08-0	Carbon monoxide (CO)		A	A							A						
3	124-38-9	Carbon dioxide (CO ₂)		A	A								A					
4		Fluorinated hydrocarbons (HFC)		A	A													
5	10024-97-2	Nitrous oxide (N ₂ O)		A	A								A					
6	7664-41-7	Ammonia (NH ₃)		A	A													
7		Non-methane volatile organic compounds (NMVOC)		A	A							A						
8		Nitrogen oxides (NO _x /NO ₂)		A	A							A						
9		Perfluorocarbons (PFC)		A	A								A					
10	2551-62-4	Sulfur hexafluoride (SF ₆)		A	A													
11		Sulfur oxides (SO _x /SO ₂)		A	A							A						

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
12		Total nitrogen		W	W				W	W	W	W			W	S	W	W
13		Total phosphorous		W	W				W	W	W	W			W	S	W	W
14		Chlorofluorohydrocarbons (HCFC)		A	A													
15		Chlorofluorocarbons (CFC)		A	A													
16		Halons		A	A													
17		Arsenic and arsenic compounds (as As)	In part	A, W	A, W							A, W					W	
18		Cadmium and cadmium compounds (as Cd)	In part	A, W	A, W				W		W	A, W		W		S	W	W
19		Chrome and chrome compounds (as Cr)	In part	A, W	A, W				W			A, W				S	W	W
20		Copper and copper compounds (as Cu)		A, W	A, W				W		W	A, W				S	W	W
21		Mercury and mercury compounds (as Hg)	In part	A, W	A, W		X	A, W, L	W		W	A, W		W		S	W	W
22		Nickel and nickel compounds (as Ni)	In part	A, W	A, W				W			A, W		W		S	W	W
23		Lead and lead compounds (as Pb)	In part	A, W	A, W				W		W	A, W		W		S	W	W
24		Zinc and zinc compounds (as Zn)		A, W	A, W				W		W	A, W				S	W	W
25	15972-60-8	Alachlor	Complete prohibition (1978)	W	W							A, W		W			W	
26	309-00-2	Aldrin	Complete prohibition (1970)	A, W	A, W	X						A, W					W	

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
27	1912-24-9	Atrazine	Complete prohibition (1989)	W	W							A, W		W			W	
28	57-74-9	Chlordane	Complete prohibition (1971)	A, W	A, W	X	X					A, W					W	
29	143-50-0	Chlordekone	Complete prohibition (1978)	A, W	A, W	X						A, W						
30	470-90-6	Chlorfenvinphos	Complete prohibition (2001)	W	W							A, W		W			W	
31	85535-84-8	Chlorinated alkanes C10-C13	In part (2004)	W	W							A, W		W			W	
32	2921-88-2	Chlorpyrifos	Limited use	W	W							A, W		W			W	
33	50-29-3	DDT	Complete prohibition (1975)	A, W	A, W	X						A, W					W	
34	107-06-2	1,2-dichloroethane (EDC)	In part	A, W	A, W		X					W		W			W	
35	1975-09-02	Dichloromethane (DCM)	In part	A, W	A, W							W		W			W	
36	60-57-1	Dieldrin	Complete prohibition (1970)	A, W	A, W	X						A, W					W	

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
37	330-54-1	Diuron	Complete prohibition (1993)	W	W							A, W		W			W	
38	115-29-7	Endosulfan	Complete prohibition (1996)	W	W	X	X					A, W		W			W	
39	72-20-8	Endrin	Complete prohibition (1966)	A, W	A, W	X						A, W					W	
40		Halogenated organic compounds (as AOX)		W	W							W					W	
41	76-44-8	Heptachlor*	Complete prohibition	A, W	A, W	X	X					A, W		W			W	
42	118-74-1	Hexachlorobenzene (HCB)	Complete prohibition (1980)	A, W	A, W	A, W, L	X					A, W		W			W	
43	87-68-3	Hexachlorobutadiene (HCBd)		W	W	X						W		W			W	
44	608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)	Complete prohibition	A, W	A, W	X	X					A, W		W			W	
45	58-89-9	Lindane	Complete prohibition (1989)	A, W	A, W	X	X					A, W		W			W	
46	2385-85-5	Mirex	Complete prohibition (1968)	A, W	A, W	X						A, W					W	

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
47		PCDD+PCDF (dioxins + furans) (as Teq)		A, W	A, W	A, W, L						A, W		W				
48	608-93-5	Pentachlorobenzene		A, W	A, W	X						W		W			W	
49	87-86-5	Pentachlorophenol (PCP)	Complete prohibition (1978)	A, W	A, W		X					A, W		W			W	
50	1336-36-3	Polychlorated biphenyles (PCB)	Complete prohibition (1995)	A, W	A, W	A, W, L	X					A, W					W	
51	122-34-9	Simazine	Complete prohibition (1995)									A, W		W			W	
52	127-18-4	Tetrachloroethylene (PER)		A	A, W													
53	56-23-5	Tetrachloromethane (TCM)		A	A, W												W	
54	12002-48-1	Trichlorobenzenes (TCB) (all isomers)	No intentional use since 1988	A	A, W							W		W			W	
55	71-55-6	1,1,1-trichloroethane	Complete prohibition (1996)	A	A												W	
56	79-34-5	1,1,2,2-tetrachloroethane	In part	A	A												W	
57	1979-01-06	Trichloroethylene	In part	A	A, W													

No	CAS-no	Pollutant	Swedish regulation	PRTR	E-PRTR	Stockholm Convention	Rotterdam Convention	Minamata Convention	HELCOM PLC Annual	HELCOM PLC Periodical	OSPAR	IED	EU ETS	WFD	Urban Waste Water Directive	Sewage Sludge Directive	EEA Emissions	EEA TCM
58	67-66-3	Trichloromethane	In part	A	A, W							W		W			W	
59	8001-35-2	Toxaphene	Complete prohibition	A, W	A, W	X	X											
60	1975-01-04	Vinyl chloride		A, W	A, W												W	
61	120-12-7	Anthracene		A, W	A, W							A, W		W			W	
62	71-43-2	Benzene	To a large part, not gasoline	A, W	A, W							A, W		W			W	
63		Brominated diphenyl ethers (PBDE)	In part	W	W	X						A, W		W			W	
64		Alkylphenol and alkyl phenol ethoxilates (NP/NPE)		W	W							A, W		W			W	
65	100-41-4	Ethylbenzene		W	W												W	
66	75-21-8	Ethyleneoxide	Complete prohibition (1991)	A, W	A, W		X											
67	34123-59-6	Isoproturon	Limited use	W	W							A, W		W			W	
68	91-20-3	Naphtalene		A, W	A, W							A, W		W			W	
69		Organic tin compounds (as total Sn)	In part	W	W							W						
70	117-81-7	Bis(2-ethylhexyl) phthalate	In part	A, W	A, W							W		W			W	
71	108-95-2	Phenol (as total C)		W	W												W	

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72		Polycyclic aromatic hydrocarbons (PAH)		A, W	A, W							A, W		W			W	
73	108-88-3	Toluene		W	W												W	
74		Tributyltin and tributyltin compounds	Limited use	W	W		X					W		W			W	
75		Triphenyltin och triphenyltin compounds		W	W													
76		Total organic carbon (TOC) (as total C or COD/3)		W	W				W			W			W		W	W
77	1582-09-8	Trifluralin	Complete prohibition (1990)	W	W							A, W		W			W	
78	1330-20-7	Xylene		W	W												W	
79		chlorides (as total Cl)		W	W												W	
80		Chlorine and inorganic chlorine compounds (as HCl)		A	A							A						
81	1332-21-4	Asbestos		A, W	A, W							A						
82		Cyanides (as total CN)		W	W							A, W					W	
83		Fluorides (as total F)		W	W							A					W	
84		Fluorine and inorganic fluorine compounds (as HF)		A	A							A					W	
85	74-90-8	Hydrogen cyanide (HCN)		A	A													
86		Particulates (PM10)		A	A							A						
87	1806-26-4	Octylphenol and octylphenol ethoxylate			W							A, W		W			W	

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88	206-44-0	Fluoranthene			W							A, W		W			W	
89	465-73-6	Isodrin	Not registered in Sweden		W							A, W					W	
90	36355-01-8	Hexabromobiphenyl	Complete prohibition		A, W	X	X					A, W						
91	191-24-2	Benzo(g,h,i)perylene			W							A, W		W			W	
		Number of substances that correspond to the E-PRTR		86	91	19	18	1	10	2	7	66	3	37	3	9	64	10