

# Data requirements questionnaire

## Statistics division

### Introduction:

This questionnaire is aimed at collecting information about the implementation costs of the Protocol on Pollutant Release and Transfer Registers (PRTR). In order to be able to measure the costs, we would like you to fulfil the following document by giving the more data that you can. This questionnaire contains 5 questions all related to the country's statistical institute. Thanks for your cooperation

**Question 1:** what is the current corporate tax rate?

**Question 2:** what is the current discount rate?

**Question 3:** what is the current income tax rate of facility employee?

**Question 4:** What are the annual private sector salaries (US\$) for managers, engineers, in-house lawyers and accountants?

**Question 5:** What is the current number of facilities present in a given activity (see following table) ?

No	ISIC 3.1	Activity	Number of facilities	Average number of employee per facility
<b>1</b>	<b>E</b>	<b>Energy sector</b>		
a	D232	Mineral oil and gas refineries		
b	E402	Installations for gasification and liquefaction		
c	E401	Thermal power stations and other combustion installations		
d	D2310	Coke ovens		
e	C101	Coal rolling mills		
f	C101	Installations for the manufacture of coal products and solid smokeless fuel		
<b>2</b>		<b>Production and processing of metals</b>		
a	D721	Metal ore (including sulphide ore) roasting or sintering installations		
b	D723	Installations for the production of pig iron or steel (primary or secondary melting) including continuous casting		
c	D28	Installations for the processing of ferrous metals: (i) Hot-rolling mills (ii) Smitheries with hammers (iii) Application of protective fused metal coats		
d	D2731	Ferrous metal foundries		
e	D2732	Installations: (i) For the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes (ii) For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc...)		
f	various ISIC codes	Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process		
<b>3</b>		<b>Mineral industry</b>		
a	C101	Underground mining and related operations		
b	D141	Opencast mining		
c	D269	Installations for the production of: Cement clinker in rotary kilns Lime in rotary kilns Cement clinker or lime in other furnaces		
d	D269	Installations for the production of asbestos and the manufacture of asbestos-based products		
e	D261	Installations for the manufacture of glass, including glass fibre		
f	D269	Installations for melting mineral substances, including the production of mineral fibres		

		Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain		
g	D269			
<b>4</b>	<b>D24</b>	<b>Chemical industry</b>		
		Chemical installations for the production on an industrial scale of basic organic chemicals, such as: (i) Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic) (ii) Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins (iii) Sulphurous hydrocarbons (iv) Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates (v) Phosphorus-containing hydrocarbons (vi) Halogenic hydrocarbons (vii) Organometallic compounds (viii) Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres) (ix) Synthetic rubbers (x) Dyes and pigments (xi) Surface-active agents and surfactants		
a	B241			
		Chemical installations for the production on an industrial scale of basic inorganic chemicals, such as: (i) Gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride (ii) Acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids (iii) Bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide (iv) Salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate (v) Non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide		
b	B241			
		Chemical installations for the production on an industrial scale of phosphorous-, nitrogen- or potassium based fertilizers (simple or compound fertilizers)		
c	B2412			
		Chemical installations for the production on an industrial scale of basic plant health products and of biocides		
d	B2421			
		Installations using a chemical or biological process for the production on an industrial scale of basic pharmaceutical products		
e	B2423			
		Installations for the production on an industrial scale of explosives and pyrotechnic products		
f	B2429			
<b>5</b>		<b>Waste and waste-water management</b>		
		Installations for the incineration, pyrolysis, recovery, chemical treatment or landfilling of hazardous waste		
a	O90			

b	O90	Installations for the incineration of municipal waste		
c	O90	Installation for the disposal of non-hazardous waste		
d	O90	Landfills (excluding landfills of inert waste)		
e	O90	Installations for the disposal or recycling of animal carcasses and animal waste		
f	O90	Municipal waste-water treatment plants		
g	O90	Independently operated industrial waste-water treatment plants which serve one or more activities of this annex		
<b>6</b>	<b>D210</b>	<b>Paper and wood production and processing</b>		
a	D2101	Industrial plant for the production of pulp from timber or similar fibrous materials		
b	D2102/D2103	Industrial plants for the production of paper and board and other primary wood products (such as chipboard, fibreboard and plywood)		
c	D202	Industrial plants for the preservation of wood and wood products with chemicals		
<b>7</b>	<b>A012</b>	<b>Intensive livestock production and aquaculture</b>		
a	A0122	Installations for the intensive rearing of poultry or pigs		
b	B0502	Intensive aquaculture		
<b>8</b>	<b>D15</b>	<b>Animal and vegetable products from the food and beverage sector</b>		
a	D151	Slaughterhouses		
b	D151	Treatment and processing intended for the production of food and beverage products from: Animal raw materials (other than milk) Vegetable raw materials		
c		Treatment and processing of milk		
<b>9</b>		<b>Other activities</b>		
a	D171	Plants for the pretreatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles		
b	D19	Plants for the tanning of hides and skins		
c	various ISIC codes	Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating		
d	D242	Installations for the production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization		
e	D3511	Installations for the building of, and painting or removal of paint from ships		

# Data requirements questionnaire

## Facilities

### Introduction:

This questionnaire is aimed at collecting information about the implementation costs of the Protocol on Pollutant Release and Transfer Registers (PRTR). In order to be able to measure the costs, we would like you to fulfil the following document by giving the more data that you can. This questionnaire contains 14 questions all related to your facility. Thanks for your cooperation

**Question 1:** what is your annual turnover?

**Question 2:** what is your current corporate tax rate in your facility?

**Question 3:** Do you have an idea of the number of facilities working in the same activity as yours?

**Question 4:** what current discount rate do you use?

**Question 5:** what is the current income tax rate of facility employee?

**Question 6:** What are the gross annual salaries (US\$) for the 4 facility staff types (manager, engineer, in-house lawyer and accountant) in your firm? Do you forecast an evolution of these salaries over the next few years? (Please answer by fulfilling following table)

	Current salary in US\$	Expected % change within 5 years
Manager		
Engineer		
In-house lawyer		
Accountant		

**Question 7:** what are the employee benefits (as % of salary) in your firm? Do you forecast any changes about employee benefits in the coming years? If yes to what extent?

**Question 8:** How much time do you expect to work for a given initial action and final action? Do you see an evolution of the time for that work in the coming years?

**Question 9:** How much time do you expect to pass in order to fulfil with MCE actions (this question is very close to the former one but the division of the work is not the same)?

**Question 10:** In how many years do you expect to be completely familiar with the protocol?

**Question 11:** Do you have an environmental monitoring system in place? If so, what pollutants do you release? (the following table indicates the pollutants concerned by the protocol; it may help you in order to answer this question)

No.	CAS number	Pollutant	Released pollutants
1	74-82-8	<b>Methane (CH<sub>4</sub>)</b>	
2	630-08-0	<b>Carbon monoxide (CO)</b>	
3	124-38-9	<b>Carbon dioxide (CO<sub>2</sub>)</b>	
4		<b>Hydro-fluorocarbons (HFCs)</b>	
5	10024-97-2	<b>Nitrous oxide (N<sub>2</sub>O)</b>	
6	7664-41-7	<b>Ammonia (NH<sub>3</sub>)</b>	
7		<b>Non-methane volatile organic compounds (NMVOC)</b>	
8		<b>Nitrogen oxides (NO<sub>x</sub>/NO<sub>2</sub>)</b>	
9		<b>Perfluorocarbons (PFCs)</b>	
10	2551-62-4	<b>Sulphur hexafluoride (SF<sub>6</sub>)</b>	
11		<b>Sulphur oxides (SO<sub>x</sub>/SO<sub>2</sub>)</b>	
12		<b>Total nitrogen</b>	
13		<b>Total phosphorus</b>	
14		<b>Hydrochlorofluorocarbons (HCFCs)</b>	
15		<b>Chlorofluorocarbons (CFCs)</b>	
16		<b>Halons</b>	
17	7440-38-2	<b>Arsenic and compounds (as As)</b>	
18	7440-43-9	<b>Cadmium and compounds (as Cd)</b>	
19	7440-47-3	<b>Chromium and compounds (as Cr)</b>	
20	7440-50-8	<b>Copper and compounds (as Cu)</b>	
21	7439-97-6	<b>Mercury and compounds (as Hg)</b>	
22	7440-02-0	<b>Nickel and compounds (as Ni)</b>	
23	7439-92-1	<b>Lead and compounds (as Pb)</b>	
24	7440-66-6	<b>Zinc and compounds (as Zn)</b>	
25	15972-60-8	<b>Alachlor</b>	
26	309-00-2	<b>Aldrin</b>	
27	1912-24-9	<b>Atrazine</b>	
28	57-74-9	<b>Chlordane</b>	
29	143-50-0	<b>Chlordecone</b>	

30	470-90-6	Chlorfenvinphos	
31	85535-84-8	Chloro-alkanes, C <sub>10</sub> -C <sub>13</sub>	
32	2921-88-2	Chlorpyrifos	
33	50-29-3	DDT	
34	107-06-2	1,2-dichloroethane (EDC)	
35	75-09-2	Dichloromethane (DCM)	
36	60-57-1	Dieldrin	
37	330-54-1	Diuron	
38	115-29-7	Endosulphan	
39	72-20-8	Endrin	
40		Halogenated organic compounds (as AOX)	
41	76-44-8	Heptachlor	
42	118-74-1	Hexachlorobenzene (HCB)	
43	87-68-3	Hexachlorobutadiene (HCBd)	
44	608-73-1	1,2,3,4,5,6-hexachlorocyclohexane (HCH)	
45	58-89-9	Lindane	
46	2385-85-5	Mirex	
47		PCDD+PCDF (dioxins+furans) (as Teq)	
48	608-93-5	Pentachlorobenzene	
49	87-86-5	Pentachlorophenol (PCP)	
50	1336-36-3	Polychlorinatedbiphenyls (PCBs)	
51	122-34-9	Simazine	
52	127-18-4	Tetrachloroethylene (PER)	
53	56-23-5	Tetrachloromethane (TCM)	
54	12002-48-1	Trichlorobenzenes (TCBs)	
55	71-55-6	1,1,1-trichloroethane	
56	79-34-5	1,1,2-tratrachloroethane	
57	79-01-6	Trichloroethylene (TRI)	
58	67-66-3	Trichloromethane	
59	8001-35-2	Toxaphene	
60	75-01-4	Vinylchloride	
61	120-12-7	Anthracene	
62	71-43-2	Benzene	
63		Brominated diphenylethers (PBDE)	
64		Nonylphenol ethoxylates (NP/NPEs) and related substances	
65	100-41-4	Ethyl benzene	
66	75-21-8	Ethylene oxide	
67	34123-59-6	Isoproturon	
68	91-20-3	Naphthalene	
69		Organotin compounds (as total Sn)	
70	117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP)	
71	108-95-2	Phenols (as total C)	
72		Polycyclic aromatic hydrocarbons (PAHs)	
73	108-88-3	Toluene	
74		Tributyltin and compounds	
75		Triphenyltine and compounds	
76		Total organic carbon (TOC) (as total C or COD/3)	
77	1582-09-8	Trifluralin	
78	1330-20-7	Xylenes	
79		Chlorides (as total Cl)	
80		Chlorine and inorganic compounds (as HCl)	



81	1332-21-4	Asbestos	
82		Cyanides (as Total CN)	
83		Fluorides (as total F)	
84		Fluorine and inorganic compounds (as HF)	
85	74-90-8	Hydrogen cyanide (HCN)	
86		Particulate matter (PM <sub>10</sub> )	

**Question 12:** Do you know the differences between the waste specific approach and the pollutant specific approach? If so, which approach has been chosen by your firm?

**Question 13:** How are non-hazardous waste and hazardous waste defined? Regarding waste, do you produce over 2000 t/year of non-hazardous waste and/or over 2 t/year of hazardous waste?

**Question 14:** How much does it cost you to assess whether your non-hazardous waste / hazardous waste is above or not the threshold (2000 t/year and 2 t/year)?

# Data requirements questionnaire

## Regulator / Government

### Introduction:

This questionnaire is aimed at collecting information about the implementation costs of the Protocol on Pollutant Release and Transfer Registers (PRTR). In order to be able to measure the costs, we would like you to fulfil the following document by giving the more data that you can. All questions refer only to your national data. This questionnaire contains 11 questions. Thanks for your cooperation

**Question 1:** How many hours do your employee work per year (Please answer by fulfilling following table)

	Current year	Previsions for the initial year of implementation of protocol	Previsions for the second year on implementation of protocol
Administrator			
Engineer			

**Question 2:** If possible, could you be more precise by giving the expected amount of fixed hours and of variable hours (depending of the amount of PRTR received) spent by your employees when the protocol is implemented (Please answer by fulfilling following table)?

For the first year of implementation

	Variable	Fixed
Administrator		
Engineer		

For the second year

	Variable	Fixed
Administrator		
Engineer		

**Question 3:** What figure for overhead costs do you use for your employees (Please answer by fulfilling following table)?

	OH costs
Administrator	
Engineer	

**Question 4:** What are the IT costs (Please answer by fulfilling following table)?

	Variable	Fixed
IT costs		

**Question 5:** Do you have a waste specific approach or a pollutant specific approach system?

**Question 6:** How do you define hazardous and non-hazardous waste?

**Question 7:** How many facilities are concerned by the protocol (i.e.: how many facilities are present in one of the activities described by the protocol)? Do you forecast an evolution of this number in the coming years (concentration of the sector...)?

**Question 8:** If you have a monitoring system in place, what is the current number of facilities reporting in a given activity (Please answer by fulfilling following table)? Do you see any evolution of these numbers in the coming years (application of the protocol, concentration of the sector...)?

No	ISIC 3.1	Activity	Number of facilities	Average number of employee per facility
1	E	Energy sector		
a	D232	Mineral oil and gas refineries		

b	E402	Installations for gasification and liquefaction		
c	E401	Thermal power stations and other combustion installations		
d	D2310	Coke ovens		
e	C101	Coal rolling mills		
f	C101	Installations for the manufacture of coal products and solid smokeless fuel		
<b>2</b>		<b>Production and processing of metals</b>		
a	D721	Metal ore (including sulphide ore) roasting or sintering installations		
b	D723	Installations for the production of pig iron or steel (primary or secondary melting) including continuous casting		
c	D28	Installations for the processing of ferrous metals: (i) Hot-rolling mills (ii) Smitheries with hammers (iii) Application of protective fused metal coats		
d	D2731	Ferrous metal foundries		
e	D2732	Installations: (i) For the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes (ii) For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc...)		
f	various ISIC codes	Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process		
<b>3</b>		<b>Mineral industry</b>		
a	C101	Underground mining and related operations		
b	D141	Opencast mining		
c	D269	Installations for the production of: Cement clinker in rotary kilns Lime in rotary kilns Cement clinker or lime in other furnaces		
d	D269	Installations for the production of asbestos and the manufacture of asbestos-based products		
e	D261	Installations for the manufacture of glass, including glass fibre		
f	D269	Installations for melting mineral substances, including the production of mineral fibres		
g	D269	Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain		
<b>4</b>	<b>D24</b>	<b>Chemical industry</b>		

a	B241	<p>Chemical installations for the production on an industrial scale of basic organic chemicals, such as:</p> <p>(i) Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic) (ii) Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins (iii) Sulphurous hydrocarbons (iv) Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates (v) Phosphorus-containing hydrocarbons (vi) Halogenic hydrocarbons (vii) Organometallic compounds (viii) Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres) (ix) Synthetic rubbers (x) Dyes and pigments (xi) Surface-active agents and surfactants</p>		
b	B241	<p>Chemical installations for the production on an industrial scale of basic inorganic chemicals, such as:</p> <p>(i) Gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride (ii) Acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids (iii) Bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide (iv) Salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate (v) Non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide</p>		
c	B2412	<p>Chemical installations for the production on an industrial scale of phosphorous-, nitrogen- or potassium based fertilizers (simple or compound fertilizers)</p>		
d	B2421	<p>Chemical installations for the production on an industrial scale of basic plant health products and of biocides</p>		
e	B2423	<p>Installations using a chemical or biological process for the production on an industrial scale of basic pharmaceutical products</p>		
f	B2429	<p>Installations for the production on an industrial scale of explosives and pyrotechnic products</p>		
<b>5</b>		<b>Waste and waste-water management</b>		
a	O90	<p>Installations for the incineration, pyrolysis, recovery, chemical treatment or landfilling of hazardous waste</p>		
b	O90	<p>Installations for the incineration of municipal waste</p>		
c	O90	<p>Installation for the disposal of non-hazardous waste</p>		

d	O90	Landfills (excluding landfills of inert waste)		
e	O90	Installations for the disposal or recycling of animal carcasses and animal waste		
f	O90	Municipal waste-water treatment plants		
g	O90	Independently operated industrial waste-water treatment plants which serve one or more activities of this annex		
<b>6</b>	<b>D210</b>	<b>Paper and wood production and processing</b>		
a	D2101	Industrial plant for the production of pulp from timber or similar fibrous materials		
b	D2102/D2103	Industrial plants for the production of paper and board and other primary wood products (such as chipboard, fibreboard and plywood)		
c	D202	Industrial plants for the preservation of wood and wood products with chemicals		
<b>7</b>	<b>A012</b>	<b>Intensive livestock production and aquaculture</b>		
a	A0122	Installations for the intensive rearing of poultry or pigs		
b	B0502	Intensive aquaculture		
<b>8</b>	<b>D15</b>	<b>Animal and vegetable products from the food and beverage sector</b>		
a	D151	Slaughterhouses		
b	D151	Treatment and processing intended for the production of food and beverage products from: Animal raw materials (other than milk) Vegetable raw materials		
c		Treatment and processing of milk		
<b>9</b>		<b>Other activities</b>		
a	D171	Plants for the pretreatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles		
b	D19	Plants for the tanning of hides and skins		
c	various ISIC codes	Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating		
d	D242	Installations for the production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization		
e	D3511	Installations for the building of, and painting or removal of paint from ships		

The question of the decentralization of the system of regulation is one of the core problems raised by the guidance on PRTR implementation. Following questions are related to this subject

**Question 9:** Could you briefly sketch out which entities have a role in environmental regulation and what that role is?

**Question 10:** Are any of these entities coordinated at a centralized level?

**Question 11:** Do you have an estimate of how much time it would take to streamline the relevant environmental data into a centralised database?