Final Report

Twinning Light Project ‘Development of Information and Reporting Systems – SL02/IB/EN/01/TL’

Submitted by

Ulrike Stärk
Project Manager MS
staerk@ubavie.gv.at

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1. Identification

Twinning Light Project Number: Sl02/IB/EN/01/TL

Twinning Light Project Title: Development of Information and Reporting Systems

Period covered by the Report: 29 January – 28 July 2003

Submitted by: Ulrike Stärk, Project Manager of the Member State

2. Executive summary

Overall it can be concluded that the expected results were achieved in the given timeframe and within the budget.
In the course of the lifetime of this Twinning Light Project (28 January – 28 July 2003) a total of 29 expert missions were carried out. 70 days were spent on site in Slovenia, and five study tours to Austria were organised.
A detailed work plan is attached to this report as Annex 1.

3. Background

The Republic of Slovenia is presently completing a process of institutional, political and legislative reform in order to strengthen the work on European integration and attaining EU Membership in 2004. Since 2002, Slovenia has already been a full member of the European Environment Agency (EEA) and as such is under the same obligations as the EU Member States with regard to reporting of national data towards EEA via the European Environmental Information and Observation Network (EIONET).

Although Slovenia has a sound infrastructure regarding technical and legislative aspects pertaining to environmental protection, it still does not yet have a well developed information system on environmental issues. EIONET will in the short and medium term satisfy Slovenian needs for collecting, elaborating and disseminating existing environmental information for policy formulation and realise into the public domain. It will help to improve harmonisation and comparability of data and establish a system of monitoring and reporting. EIONET and the developing Reportnet structure for the Shared European Environmental Information System will be the channel for Slovenian reporting links to EEA, EC and International Conventions, and will provide guidance on the effectiveness of environmental monitoring on the one hand and environmental policy on the other.

An overview of the main pieces of legislation of the Acquis communautaire relevant to the implementation of the project at hand is given in Annex 2.

The co-ordination of environmental monitoring and reporting is assured by the newly formed Environmental Agency of the Republic of Slovenia (EARS), which acts as National Focal Point of the EIONET, as the Federal Environment Agency does for Austria.

Good co-operation and high flexibility on both sides, especially with regard to planning expert missions, characterised the working environment during the implementation of the Twinning operation.

4. Activities during the reporting period

During the inception visit of MS PL Ulrike Stärk and Johannes Mayer in Ljubljana on January 29 and 30, 2003, introductory meetings took place with the EC Delegation (Environment PHARE Manager Emanuelle Guiheneuf) and CC Twinning Project Manager Andrej Vrcon. In a series of meetings with experts of all involved sectors all planned activities were checked against the updated needs and the present work situation of EARS.

During the visit and its follow-up, the following persons were identified or confirmed as responsible for implementing the co-operation on the themes listed below (this list was extended during the project lifetime):

Theme	Persons in charge
Institutional Issues	**SL**: Andrej Vrcon, +386-1-4787-421, Fax 425, andrej.vrcon@gov.si Irena Rejec Brancelj, +386-1-478-4554, Fax 4052, irena.rejec-brancelj@gov.si Barbara Bernard Vukadin, +386-1-478-4423, fax 4052, barbara.bernard@gov.si **AT: Ulrike Stärk, +43-1-31304-3240, Fax 5959, staerk@ubavie.gv.at (Project Manager – to be informed on all organisational & financial issues)** Georg Rebernig (Managing Director), +43-1-31304-5424, Fax 5400, rebernig@ubavie.gv.at Michaela Stanek, +43-1-31304-5550, Fax 5959, stanek@ubavie.gv.at **CFCU**: Peter Škofič, +386 1 478 6305, Fax.: 6204, e-mail: peter.skofic@mf-rs.si **EC Del**: Emmanuelle Guiheneuf, +386-1-2528803, Fax +386-1-4252085, emmannuelle.guiheneuf@cec.eu.int
Air Quality	**SL**: Melanija Lešnjak, +386-1-478-4554, Fax 4051, melanija.lesnjak@gov.si Polona Blaznik, +386-1-478-4042, Fax 4052, polonca.blaznik@gov.si Anton Planinsek, +386-1-478-4035, Fax 4052, anton.planinsek@gov.si Natasa Kovac, +386-1-478-4476, Fax 4052, natasa.kovac@gov.si Tadej Komavec, +386-1-478-4044, Fax 4052, tadej.komavec@gov.si Maja Klemen Dzeroska +386-1-478-4194, maja.klemen-dzeroska@gov.si **AT**: Wolfgang Spangl, +43-1-31304-5861, spangl@ubavie.gv.at Johann Weigl (IT), +43-1-31304-5348, weigl@ubavie.gv.at Gerhard Stuhlpfarrer, +43-1-31304-5358, stuhlpfarrer@ubavie.gv.at Wladislaw Tietze, tietze@ubavie.gv.at

Air Emissions	**SL**: Bojan Rode, +386-1-478-4038, bojan.rode@gov.si *Tajda Mekinda - Majaron,* +386-1-478 4427, Fax + 386 1 478 4051 tajda.mekinda-majaron@gov.si Matej Gasperic, +386-1-478-4558, matej.gasperic@gov.si Damijana Marolt, +386-1-478-4068, damijana.marolt@gov.si **AT**: * Bernhard Gugele, +43-1-31304-5952, gugele@ubavie.gv.at Manfred Ritter, +43-1-31304-5951, ritterm@ubavie.gv.at *Manuela Wieser +43-1-31304-5957, wieser@ubavie.gv.at *Ortner Roman +43-1-31304-5552, ortner@ubavie.gv.at
Groundwater Quality	**SL**: Mojca Dobnikar-Tehovnik, +386-1-4784-183, mojca.dobnikar-tehovnik@gov.si Polona Mihorko, +386-1-478-4574, polonca.mihorko@gov.si **AT**: * Andreas Scheidleder, +43-1-31304-3541, scheidleder@ubavie.gv.at * Steffen Uhlig, +49-35201-81770, uhlig@quodata.de * Norbert Schick, +49 (35201) 815071, schick@quodata.de * Johannes Grath, +43-1-31304-3510, grath@ubavie.gv.at Stephan Nemetz, +43-1-3134-3570, nemetz@ubavie.gv.at
Emissions to Water	**SL**: Mario Zec, +386-1-4784-553, mario.zec@gov.si Natasa Zitko Stemberger, +386-1-478-4544, natasa.zitko-stemberger@gov.si **AT**: Michael Nagy, +43-1-31304-5409, nagy_m@ubavie.gv.at Alfred Rauchbüchl, Alfred.rauchbuechl@relay.baw.at (Institute für Water Quality of the Federal Agency for Water Management)
Waste	**SL**: Katja Buda, +386-1-478-4557, Fax 4051, katja.buda@gov.si Marjana Ulrich-Supovec, +386-1-478-4559, Fax 4051, marija.ulrich-supovec@gov.si Brigita Šarec, : +386 1 478 4523, brigita.sarc@gov.si **AT**: Thomas Weissenbach, weissenbach@ubavie.gv.at * Brigitte Karigl, +43-1-3134- 5568, karigl@ubavie.gv.at * Bernhard Klausner +43-1-31304-5336, klausner@ubavie.gv.at * Martin Scheibengraf +43-1-31304-5512, scheibengraf@ubavie.gv.at Hans-Jörg Krammer, +43 463 341 50 – 20, krammer@ubavie.gv.at Manfred Domenig, +43 463 341 50 – 28, domenig@ubavie.gv.at Brigitte Sebesta, +43 463 341 50 – 26, sebesta@ubavie.gv.at
Nature Protection	**SL**: Aleksander Golob, +386-1-4784-422, aleksander.golob@gov.si Urša Mežan (GIS), +386-1-478-4502, Fax 4052, ursa.mezan@gov.si Mirjam Galičič, mirjam.galicic@zrsvn.si Irena Nartnik, irena.nartnik@gov.si **AT**: Gebhard Banko, +43-1-31304-3330, banko@ubavie.gv.at Monika Paar, +43-1-31304-3370, paar@ubavie.gv.at Thomas Ellmauer, +43-1-31304-3360, ellmauer@ubavie.gv.at Peter Zulka, +43-1-31304-3391, zulka@ubavie.gv.at Martin Götzl, +43-1-31304-3380, goetzl@ubavie.gv.at Wolfgang Suske, wolfgang.suske@noel.gv.at (Provincial Government of Lower Austria)
Contaminated Sites	**SL**: Franc Lobnik (Centre for Soil and Environmental Science),+ 386 1 423 1161, Fax: 1088 , franc.lobnik@bf.uni-lj.si Marko Zupan (Centre for Soil and Environmental Science), + 386 1 423 1161, Fax: 1088, marko.zupan@bf.uni-lj.si Petra Krsnik, +386-1-478-4184, petra.krsnik@gov.si

	AT: * Martha Wepner, +43-1-31304-5925, wepner@ubavie.gv.at Martin Schamann, +43-1-31304-5921, schamann@ubavie.gv.at Georgia Spausta, +43-1-31304-5916, spausta@ubavie.gv.at Dietmar Müller, +43-1-31304, 5913, mueller@ubavie.gv.at
Horizontal Co-ordination and EEA co-operation	**SL**: Irena Rejec-Brancelj, +386-1-478-4554, Fax 4052, irena.rejec-brancelj@gov.si Barbara Bernard-Vukardin, +386-1-478-4423, Fax 4052, barbara.bernard@gov.si Urška Povše, +386-1-478-4403, Fax 4052, urska.povse@gov.si **AT**: Ulrike Stärk, +43-1-31304-3260, staerk@ubavie.gv.at Johannes Mayer, mayer@ubavie.gv.at Bettina Götz, goetz@ubavie.gv.at
IT (www, GIS)	**SL**: Albert Kolar, +386-1-4784-464, albert.kolar@gov.si Marjan Štrukelj, +386-1-4784-436, marjan.strukelj@gov.si Jelko Urbancic, +386-1-478-4564, jelko.urbancic@gov.si **AT**: Erwin Knappitsch, +43-1-31304-5352, knappitsch@ubavie.gv.at Michael Hadrbolec (IT/WebGIS), +43-1-31304-5326, hadrbolec@ubavie.gv.at Hedwig Kaisersberger, +43-1-31304-3220, kaisersberger@ubavie.gv.at
GMOs	**SL**: Biserka Strel (Ministry of Environment Spaltial Planning and Energy), +386-1-478-7338, Fax 7422, biserka.strel@gov.si , Julijana Lebez-Lozej, +386 1 478-7318, Fax 7422, julijana.lebez-lozej@gov.si **AT**: * Helmut Gaugitsch, +43-1-31304-3133, gaugitsch@ubavie.gv.at * Marianne Miklau, +43-1-31304-3120, miklau@ubavie.gv.at * Andreas Heissenberger, +43-1-31304-3032, heissenberger@ubavie.gv.at Dietmar Vybiral, +43-1-71100-4486, dietmar.vybiral@bmgf.gv.at Alice Schmatzberger, +43-31304-3125, schmatzberger@ubavie.gv.at

For the respective themes, following an assessment of needs during the inception period by the two partners, several activities were carried out (a detailed work plan has been added to this report as Annex 1):

4.0 Institutional Issues / Project Co-ordination:

MS Project Manager Ulrike Stärk visited Slovenia several times to monitor the progress of the project. In meetings with CC project co-ordinator at the Environmental Agency of the Republic of Slovenia (the project beneficiary) Ms Irena Rejec-Brancelj, details of the ongoing project were discussed to allow the detection of problems at an early stage and to ensure the smooth running of the project. Administrative details were regularly discussed with CC project manager Andrej Vrcon of the Ministry of Environment, Spatial Planning and Energy, whose advice has always been greatly appreciated.

To evaluate project progress and exchange experience at a more executive level on establishing and managing National Environment Agencies within the EU/EEA system, a visit of the Austrian Federal Environment Agency's Managing Director Georg Rebernig to the Slovenian Environment Agency's top management (Director Andreja Čerček-Hočevar, Head of Environment Directorate) took place on the 27th of

May 2003 after the first series of expert visits. Focus of the event was to present the activities of EARS, and experiences of the Austrian Federal Environment Agency, esp. regarding institutional framework, internal co-operation between departments, international project implementation and public information services.

On the 5th of June a Steering Committee Meeting, which was convened be the EC Delegation, represented by Ms Emmanuelle Guilleneuf, took place.
Present: Irena Brancelj (EARS, CC project co-ordinator), Andrej Vrcon (CC project manager, Ministry of Environment, Spatial Planning and Energy) und Ulrike Stärk (MS project leader).

The key areas of work were presented by Ulrike Stärk.

All members of the Steering Committee expressed their satisfaction with the work delivered and the progress made during the project.

Since all project results could be obtained by the 28th of July (planned project end), no extension was requested.

On the 14th of July a Priority Dataflow Workshop was held at EARS. For details please see paragraph 6 National EIONET Portal / Reportnet.

On the 15th of July a Final Workshop was held.
Present: Andreja Cercek-Hocevar (director of EARS), Irena Rejec-Brancelj (Slovenian project co-ordinator), Ulrike Stärk (MS Project leader), appr 40 Slovenian experts.

Introduction by Andreja Cercek-Hocevar. Ulrike Stärk gave a summary of the project content and progress. Overall, the project was considered a great success. All results were achieved within the given time and budget. 21 MS experts have made a total of 29 on site visits (70 mission days) to pass on knowledge in the expert areas covered by the project: presentation of air quality data on the www, reporting of air quality data, reporting on air emissions, water quality, emissions to water, waste data, Natura 2000 network, register of contaminated sites, Genetically Modified Organisms, integrated monitoring and assessment, and last but not least the integration and documentation of national environmental reporting toward European institutions within the Reportnet initiative of the EEA.

Irena Rejec-Brancelj presented her ideas on how to establish an environmental information system at EARS (incl information to the public and for national and international reporting).

Then the Slovenian experts presented the project results from their point of view. Presentations received great interest from EARS staff, which strengthened the institution-building effectiveness of the project.

Ulrike Stärk handed over the certificate for 1 year license for the statistical software tool WaterStat to Mojca Dobnikar Tehovnik. Whereas the programming of the interface between the national database and WaterStat could be financed from the project budget, Austrian Federal Environment Agency agreed to provide the WaterStat license as bilateral Austrian support.

Hermann Peifer (EEA) gave an overview on the progress of Slovenian reporting to EEA, which has continuously improved over the years. Slovenia now occupies rank 8 of 31 European countries in the latest ranking of national priority dataflow contributions established by the EEA in May 2003.

This was followed by a round of questions and answers.

A detailed analysis of Slovenian priority dataflow reporting contributions can be found in part 6 National EIONET Portal / EEA co-operation / Reportnet.

4.1a Presentation of Air Quality Data on www:

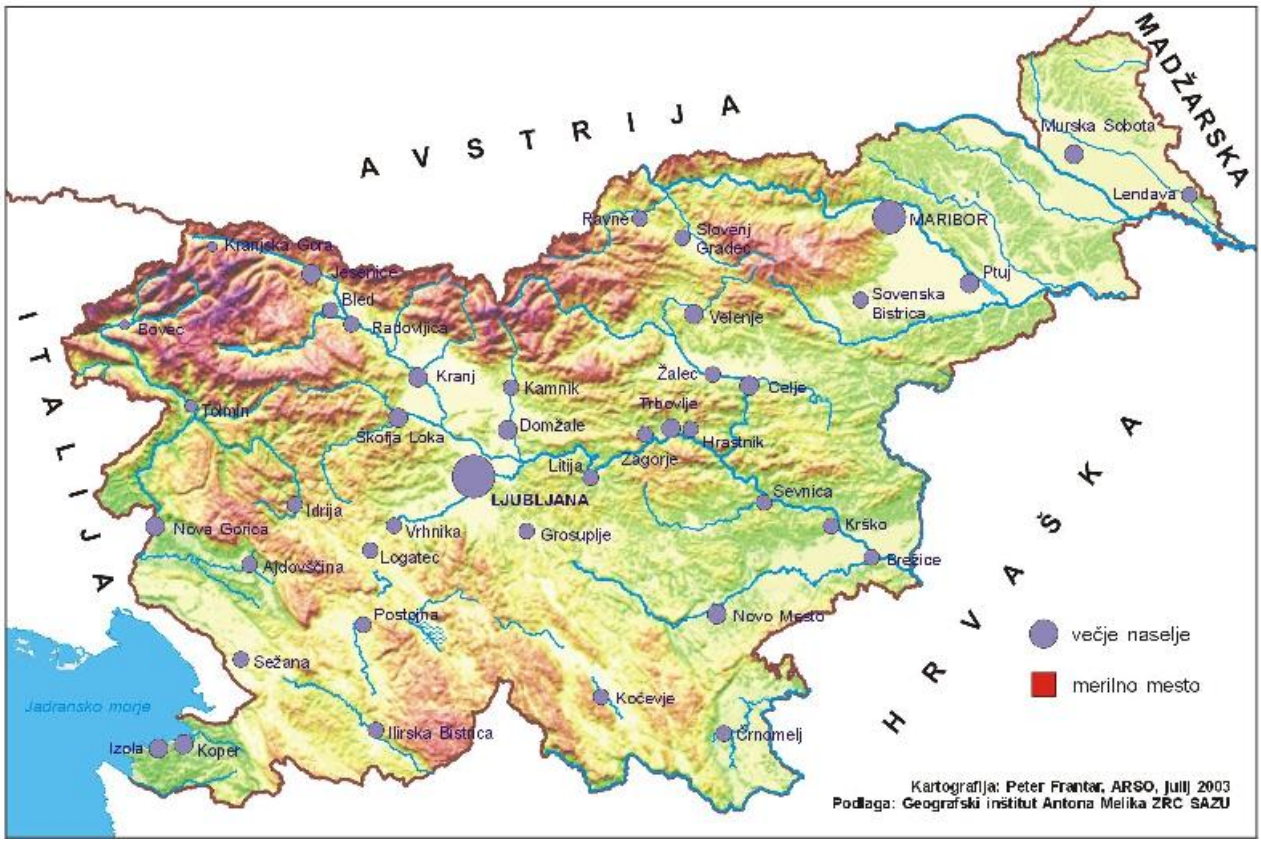
Building on preliminary work carried out during the previous twinning projects (SI98/IB/EN-01 and SI02/IB/EN/03/TL respectively), the presentation of up-to-date Slovenian air quality data on www was further developed and made operational.

The IT infrastructure of the Environmental Agency (EARS) was analysed and two possible solutions for the technical implementation of the Austrian Federal Environment Agency applications at EARS were identified: Due to local security policy it was not possible to directly access data of the database server (AQ data in this context). As a consequence, additional steps were necessary to fulfill the project's main goal – public access to AQ data. To this end, the Slovenian AQ database was replicated to a server in the unsecured part of the network.

Further implementation followed the example of the presentation of Austrian Air Quality data by the Austrian Federal Environment Agency at http://www.ubavie.gv.at, with the option to select air quality stations from a map and pollutants as well as a time period from last day to last month, in order to receive a graph of half-hourly mean values for the selected period with reference to relevant limit values. This www interface was connected to the Slovenian EARS-Server with continuous data transfer provided by the Office for monitoring of EARS.

As the following screenshots show, this graphic presentation is an attractive enhancement in providing air quality information on the www. The presentation is accessible on the Intranet: *http://aq.arso.sigov.si/map* .

GRAPHICAL VIEW ON AIR POLLUTION DATA



click on the map to review the latest AQ data for the three nearest stations

TABULAR VIEW ON AIR POLLUTION DATA

Oddaljenost Merilno mesto	
O_3	
SO_2	
NO_x	
PM10	
NO	
CO	
NO_2	
11.8 km **Ljubljana - Bežigrad**	
121.7	ug/m
(25.07-13:00)	
6.0	ug/m
(25.07-13:00)	
7.0	ug/m
(25.07-13:00)	
12.5	ug/m
(25.07-13:00)	
1.1	ug/m
(25.07-13:00)	
0.45	mg/m
(25.07-13:00)	
5.9	ug/m
(25.07-13:00)	
30.5 km **Zagorje**	
101.6	ug/m
(25.07-13:00)	
10.6	ug/m
(25.07-13:00)	
9.9	ug/m
(25.07-13:00)	
34.1 km **Trbovlje**	
100.1 ug/m3	
(25.07-13:00)	
7.3	ug/m
(25.07-13:00)	
47.1	ug/m
(25.07-13:00)	
7.8	ug/m

(25.07-13:00)
14.2 ug/m
(25.07-13:00)

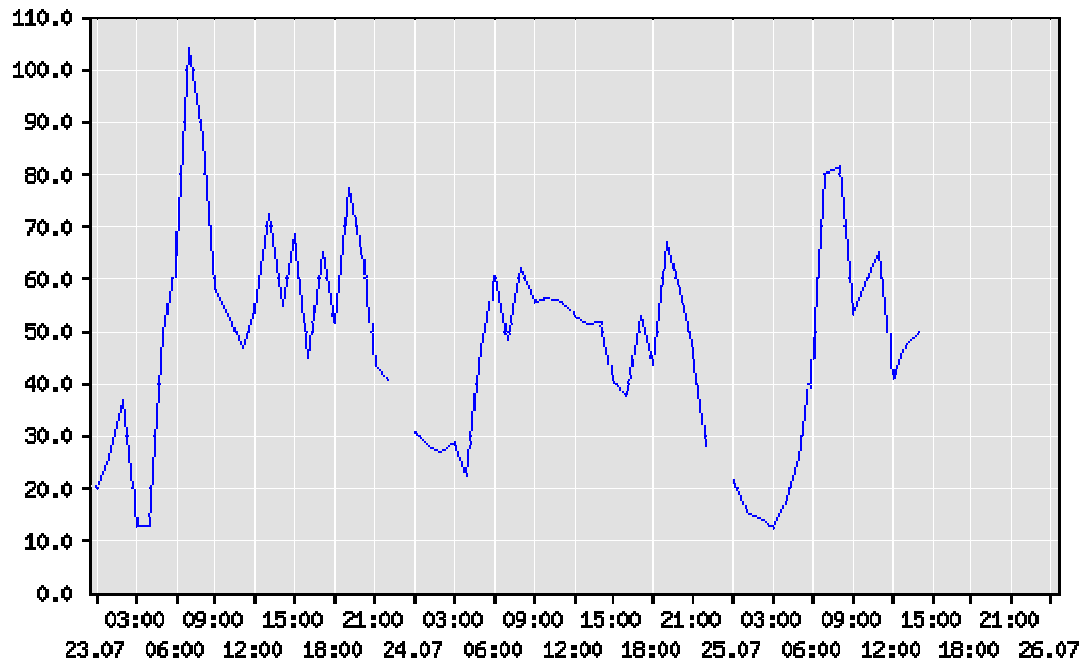
32.8 ug/m
(25.07-13:00)

Click on a value: graphical view of concentrations for the time period chosen

GRAPHICAL VIEW ON AIR POLLUTION DATA

Period: 3 dni end (LLLL-MM-DD): 2003-07-2

Trbovlje - NO_X (Urna koncentracija dušikovih oksidov v ug/m3)



Hourly concentration of NO_X in ug/m3

Conclusions and recommendations:

As the above screenshots show, presentation of air quality data was fully implemented as foreseen.

4.1b Reporting of Air Quality Data:

Following the full establishment of the Slovenian Air Quality Database, the Austrian Federal Environment Agency experts Stuhlpfarrer, Spangl, Tietze and Weigl provided Slovenia with electronic tools, which were developed for automated retrieval of air quality data from the Austrian Air Quality Database for both

- fulfilling European reporting obligations and for

- national reports published on www.

Following a survey of the (technical and institutional) working environment, the Umweltweltbundesamt database interface and the WWW presentation software were installed and tested. As a next step, the WWW presentation software was customised. Then the reporting software was installed, tested and customised and all elements tested all over again.

The main purpose of the next mission of the Austrian AQ experts Spangl and Weigl was the official start-up of the software tools (WWW presentation of AQ data and statistical analyses tool) and the training of EARS AQ experts.

Another series of quality assurance tests were carried out. For the time being, the software tools are accessible over the Intranet by EARS AQ experts.

The following screenshot shows the air quality data statistical analysis tool at the Environmental Agency of the Republic of Slovenia:

Air Quality Data - Statistical Analysis Tool (Environmental Agency SI)

Component	419 - PM10 [ug/m3]
Datapoints	7 datapoint(s) available: ☐ Ljubljana - Bežigrad SI:E21:419[ug/m3] ☐ Maribor SI:E22:419[ug/m3] ☐ Celje SI:E23:419[ug/m3] ☐ Murska Sobota SI:E24:419[ug/m3] ☐ Nova Gorica SI:E25:419[ug/m3] ☐ Trbovlje SI:E26:419[ug/m3] ☐ Zagorje SI:E27:419[ug/m3]
Meantype	DM - Mean of day
Period (YYYY-MM-DD hh:mm)	Start: 2003-06-01 00:00 End: 2003-07-01 00:00
Value format	0.0 (e.g. 0.00 -> 2 digits after point)
Exceedances	180.00 seperate values with space - digits after point indicate compare precision
Percentiles	50 90 95 99.9 separate values with space
create xls file(s)	☐ Statistic result values ☐ Mean values ☐ Ozone directive 92/72/EC datasheet

	(be sure to select ozone in ug/m3, non-overlapping 1 hour meantype and 180 as exceedence value)
Start analysis ->	(opens new window ...)

Time elapsed: 0.54 seconds

Preparations for public access to AQ data in Slovenia are completed – the decision, whether on-line queries (of a database replica) or static charts produced in batch mode will be used for public information will be made by local decision makers.
The software accesses EARS AQ database correctly (no errors were discovered) and shows a very good performance (response time).
IT experts were trained for the future maintenance and adaptation of the software.
AQ experts were introduced to the software and received detailed training on how to use it for meeting the requirements of EU reporting obligations.
User manual and system documentation were delivered.

Furthermore, upon demand of the Slovenian counterparts, Austrian experts gave an overview of the Austrian experience on institutional aspects of reporting in the co-operation of Environment Ministry and the Federal Environment Agency, especially with regard to shared responsibilities, approvals/controls and the actual transmitting of data.

Conclusions and recommendations:

With the installation of the air quality data statistical analysis tool the expected project result has been achieved.

4.1c Reporting of Air Emission Data:

EARS (Bojan Rode, +386-1-4784-038, bojan.rode@gov.si, Tajda Mekinda - Majaron, +386-1-478 4427, tajda.mekinda-majaron@gov.si) is already well experienced in reporting emission data to the Convention on Long-Range Transboundary Air Pollution (CLRTAP).

Data were uploaded to the Central Data Repository (CDR) of the EEA before the deadline of 15 February 2003.

Austrian Experience was shared on reporting Greenhouse gas emissions and according the National Emissions Ceilings Directive; the links to both Austrian reports and data files on CDR were provided as an example. On the 17th of April Slovenia uploaded the emission tables from the National Communication to UNFCCC to CDR.

2-4 April 2003 - Workshop in Vienna:
The purpose of the workshop was an exchange experience in compiling and reporting air emission inventories. This included the identification of goals and concrete steps for the improvement of the Slovenian air emission inventory system (in particular the usefulness of the inventory improvement program). Slovenian experts completed the table of emissions factors and established a workflow for the reporting of air emissions.

The Austrian experience with Air Emission Inventories was presented and potential conclusions / concrete steps for Slovenia (for details see below) were discussed regarding the following areas:

- Reporting obligations and inventory review with a focus on European reporting and UNFCCC inventory reviews
- Inventory system
- Database management and reporting tools
- Estimating air emissions from transport
- Link between national inventories and emission trading/EPER

The Austrian reporting practice regarding liquid fuels was explained as well.

European reporting:
It has been emphasised that the reporting to the European Commission requires reporting of data in the same technical format as under the two international conventions (UNFCCC, UNECE/CLRTAP). Only the time schedule is different. Under the EIONET priority data flow, the EEA member countries are requested to post a copy of each official submission to the international conventions and the European Commission on the Central Data Repository (CDR) of the EEA.

Concrete goals/steps:

- Improve the evaluation of reporting under the EEA/EIONET priority data flow (smileys)
- Stick to the time schedules of reporting: 31 December (EU Monitoring Mechanism, NEC Directive), 15 February (UNECE/CLRTAP), 15 April (UNFCCC)
- Post a copy of each of these official submissions on the EEA CDR
- Closely link with the Slovenian NFP in order to assure the information flow
- AUSTRIAN FEDERAL ENVIRONMENT AGENCY-V will provide details of the concrete submission to UNFCCC secretariat/DG ENV/EEA

UNFCCC review

The UNFCCC review process has been discussed and Austrian experience with the in-country review 2001 was shared. It has been concluded that:

- The UNFCCC review is a very useful exercise in order to improve the quality of the inventory. The review is carried out by international experts and provides guidance on which parts of the inventory need further improvement. Therefore, the review findings also document the resource needs associated with the further improvement of the inventory.
- It is also useful to participate as an expert in the UNFCCC review process in order to share experience with other experts and to learn about approaches in other countries; also the change of perspective from inventory preparation to inventory review helps to increase the transparency of the inventory;
- Reviewers focus on the national inventory system and the transparency of the inventory and inventory report.

Concrete goals/steps:

1. Take part in the UNFCCC review process at expert level.
2. Establish clear responsibilities and procedures within the national inventory system (e.g. who has the overall responsibility for the inventory, what is the role of the different institutions/persons involved in compiling the inventory, make sure that the relevant statistical body copies the IEA energy balance to EARS)
3. As the main focus of the inventory report is to increase the transparency of the inventory, document also problems and flaws of the inventory (together with improvement plans, if possible).

Inventory system

The Austrian inventory system has been presented. The presentation included the history, the legal framework and the structure of the national inventory system, a short overview of the situation concerning emissions and emission targets in Austria and the actual inventory preparation process. Responsibilities within the inventory team, tasks of sector experts and problems occurring in Austria concerning data availability/data collection have been discussed. Furthermore the Quality Management System of the Austrian inventory has been presented. It has been concluded:

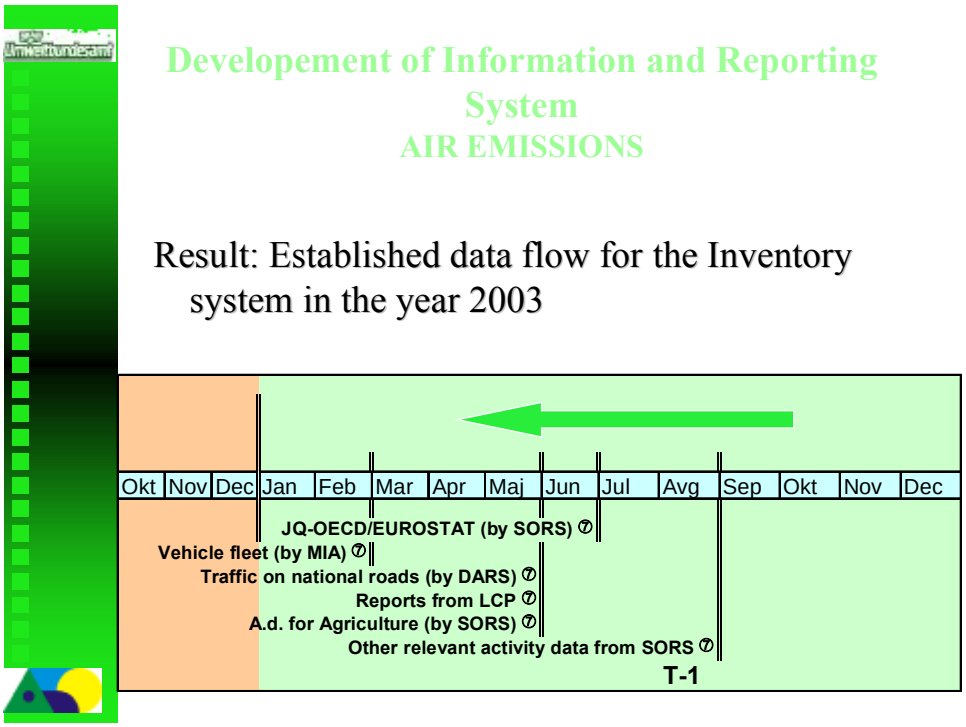
- Documentation is an important element to increase the transparency of the inventory process.
- There is the need for a legal basis for collection of data which is not yet collected by statistical authorities.
- The data flow can be improved by establishing a Slovenian national inventory system with clear responsibilities.

- A decision for a database system has to be made (should the database be built on SNAP [Selected Nomenclature for Air Pollution] or on CRF/NFR [CRF: Common Reporting Format (reporting format under the UN Framework Convention on Climate Change); NFR: Nomenclature For Reporting (reporting format under the UN/ECE Convention on long-range transboundary air pollutants)] ?
- Improvement of emission factors (in particular on Heavy Metals, Particulate Matter, Persistent Organic Pollutants) is required. In this context, the establishment of an 'expert pool' was mentioned as a possible longer term goal.
- Uncertainty analysis and key source analysis need to be carried out.

Concrete goals/steps (for the future):

1. Prepare an inventory improvement program which outlines future step-by-step improvements of the Slovenian inventory (system)
2. Prepare a paper on future reporting requirements under the international conventions and a strategy how to meet these reporting requirements

As a result of this workshop, during the lifetime of the project the responsibilities within the Slovenian inventory team have been established, as well as the dataflow for the year 2003. The picture below shows the data flow established for the year 2003:



Database

The current data management tools at the Federal Environment Agency Vienna were presented including:

- The general structure, functionality and data of the OLI 2002 inventory database.
- The full path from statistical energy data input to reported emissions by means of examples.
- The process of considering emission declarations in the inventory and handling of incomplete data.
- The documentation and archiving of inventory input data.
- The automatic generation of CRF and NFR-reports including the use of notation keys.

It has been concluded:

- The goal for Slovenia is to have one database for calculating GHG and non-GHG emissions (currently there are two separate processes).
- The documentation of the calculation and of emission factors has to be improved.
- A similar approach as in Austria could be taken; therefore, further cooperation might be helpful.
- It has to be further explored if a totally new database has to be established or if the old system can be adapted. At the workshop there was some preference for a new system. In any case, a decision on the basis of the new database will have to be made (SNAP versus CRF/NFR).
- The use of notation keys has to be improved.
- Separate input and output tools have to be programmed (e.g. an input tool for IEA energy balances)

Transport

The Austrian methodology for estimating air emissions from transport was presented. Emissions from road transport are based on the 'Handbook of Emission Factors for Road Transport in Austria'. A copy of the handbook has been provided to the Slovenian experts.
It has been concluded:

- The Austrian emission factors will be very useful for estimating air emissions from transport in Slovenia.
- The weak point in Slovenia is the activity data.
- Questionnaires for activity data should be sent at shorter intervals.
- Further cooperation between EARS and AUSTRIAN FEDERAL ENVIRONMENT AGENCY-V might be useful. In addition to the handbook, information on the ARTEMIS project will be provided.

Emission trading/EPER

The state-of-play of emission trading at EU and at national level was presented. Also the current experience with EPER reporting was mentioned.

It has been concluded:

- The questionnaire on EPER has been seen as a useful template. It might be useful to include activity data in equivalent Slovenian questionnaires.
- Make companies responsible for calculating and reporting emissions, as far as possible.
- The consistency between data reported for emission trading and under EPER with the national inventory will be one of the big challenges.

Conclusions and recommendations:

The workshop in Vienna was very useful for Slovenian experts. It helped them to establish the working plan for reporting on greenhouse gases. They got an introduction into how to compile such document - how to calculate data, deadlines, data checking, etc.

Also in the field of estimating air emissions data, the Slovenian experts decided on a similar approach to the Austrian one: Austrian experts have much more measurements and more precise emissions factors. Slovenian experts assume that conditions in Slovenia are similar to those in Austria and will use Austrian emission factors for estimating the data in 2003.

Overall, it is recommended to carry out further work in the field of air emission monitoring and reporting, with a focus on PRTR, EPER, IPPC.

4.2a Reporting on Water Quality:

EARS (Mojca Dobnikar-Tehovnik, Tel: +386-1-4784-183, mojca.dobnikar-tehovnik@gov.si) requested guidance from the Austrian Federal Environment Agency esp. for reporting on groundwater data. As partner of the European Topic Centre on Water, the Austrian Federal Environment Agency collects and analyses the groundwater data provided by the Member States to the European Environment Agency.
Thus, the objective of the first mission was to clarify open questions with regard to the data delivery in the framework of EUROWATERNET (EWN) with regard to groundwater quality data. Since the European Topic Center/Water had visited Slovenia regarding the implementation of EWN a few weeks before that, there were no open questions.
Therefore the main emphasis was put on the public presentation of water quality data on www. A series of online databases and web-GIS applications were presented and discussed.

An upgraded version WaterStat was presented by QuoData programmers Steffen Uhlig and Wolfgang Schick.
The objective of their first mission was to clarify the applicability of the freeware GW-STAT and the statistical software tool WaterStat for the assessment of groundwater data in the groundwater quality database.

First, a comparison was made between GW-STAT and WaterStat: GW-STAT was developed to demonstrate the algorithms for the GW-WFD. It includes no database and no interface to a database or to GIS data. Data have to entered manually or via EXCEL files. Since GW-STAT is freeware, there is no maintenance of the program. For these reasons the statistical software tool WaterStat has been developed. WaterStat contains extended and optimised algorithms of GW-STAT, a flexible database and comfortable import features (such as import of GIS data). Due to these advantages, it was decided to focus further discussion on WaterStat.

Then, the WaterStat database was compared to the Slovenian GW database in order to identify requirements for the data interface between WaterStat and the national GW database. Data of several groundwater bodies were prepared and transferred into the WaterStat database. In the course of this process, some inconsistencies were detected. After fixing these, the abilities of WaterStat to assess chemical status and trends were demonstrated. Finally, the requirements of a data interface were discussed.

As a result of this first mission, it was concluded that WaterStat was an appropriate tool for the assessment of trends and chemical status and should therefore be licensed. The import module of WaterStat was to be extended and linked to the Slovenian database (in order to allow automated import).

Objective of the second mission carried out by Norbert Schick, 7 – 18 July 2003, was to program an interface between the statistical programming system WATERSTAT and the groundwater database of the Environmental Agency of the Republic of Slovenia. The interface was to allow an automated transfer of data of the database into the internal database of WATERSTAT.

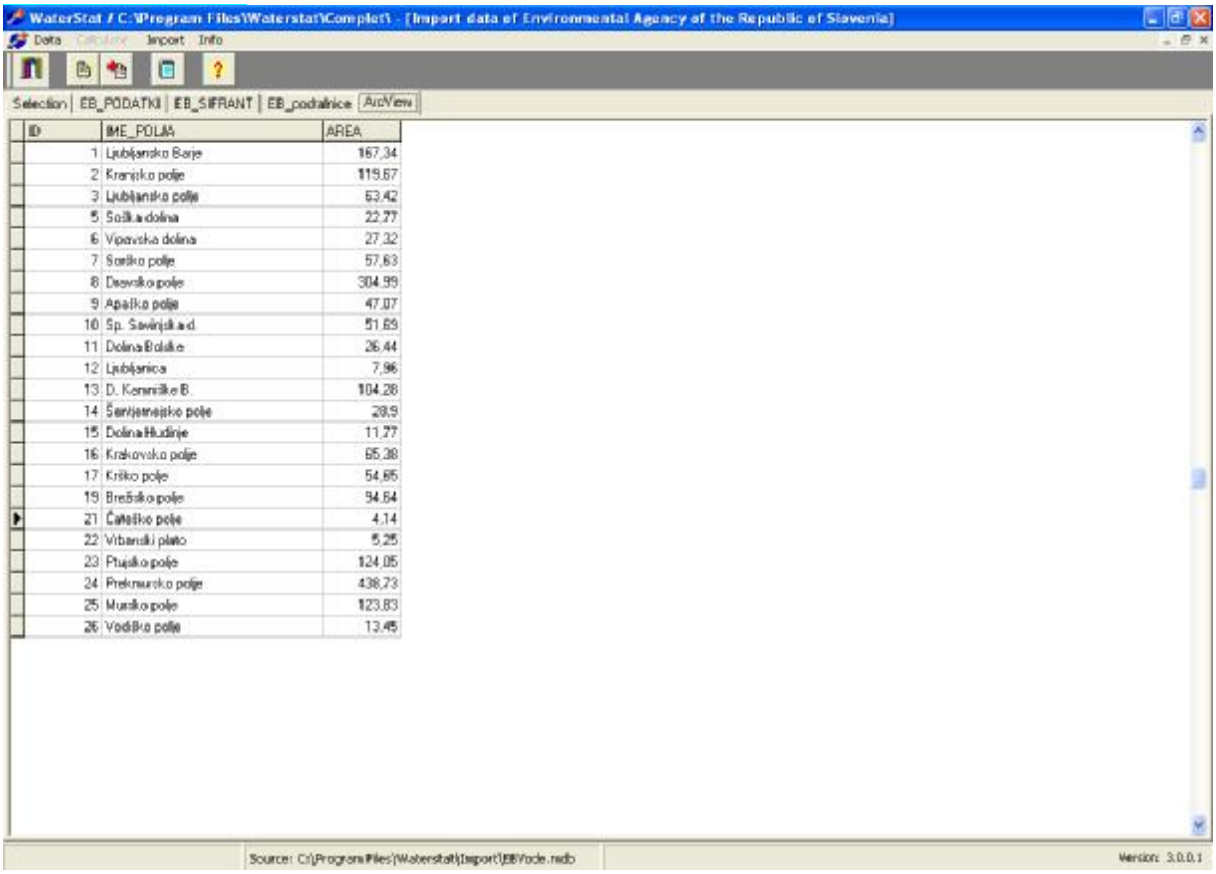
The work consisted of the following steps:

1) Analysis of the database structure: There are three tables (Microsoft ACCESS) with data required in WATERSTAT. Some data used in WATERSTAT are not available, therefore some adaptations in WATERSTAT are necessary. Furthermore it turned out that keys for referential integrity are missing. Missing referential integrity implies a high risk of database errors.
2) Design of forms to control the process: Forms for the user interface were developed to allow intuitive working.
3) Programming of code to import the data: Aim of programming was to increase the speed of data transfer. Since in the original database existed some inconsistencies, a module was implemented to check this kind of error. Furthermore a module was implemented to correct data during the transfer. This concerns the linear transformation of geographical coordinates of sites, and the input of missing data of stations. Finally the log window for information concerning the transfer process was redesigned and extended.
4) User documentation: A user description of the program module extending the WaterStat manual was written.
5) Installation and test: the program was installed and successfully tested on the computer of the responsible staff.

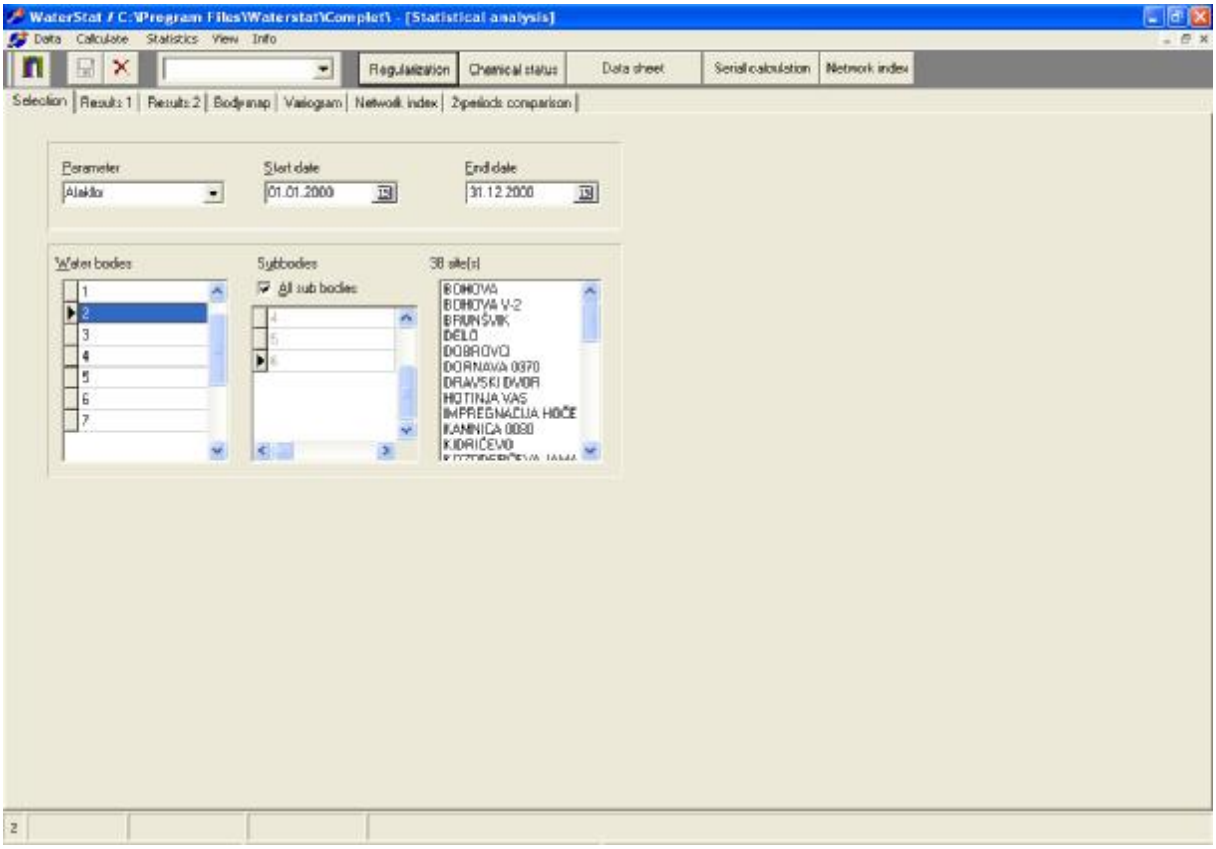
6) Presentation: the program was presented to the staff of the Water Quality Section of EARS. After fixing several inconsistencies in the database, no more errors could be detected.

Since there were no project funds available, the Waterstat License for 1 year was financed from bilateral funds of the Austrian Federal Environment Agency.

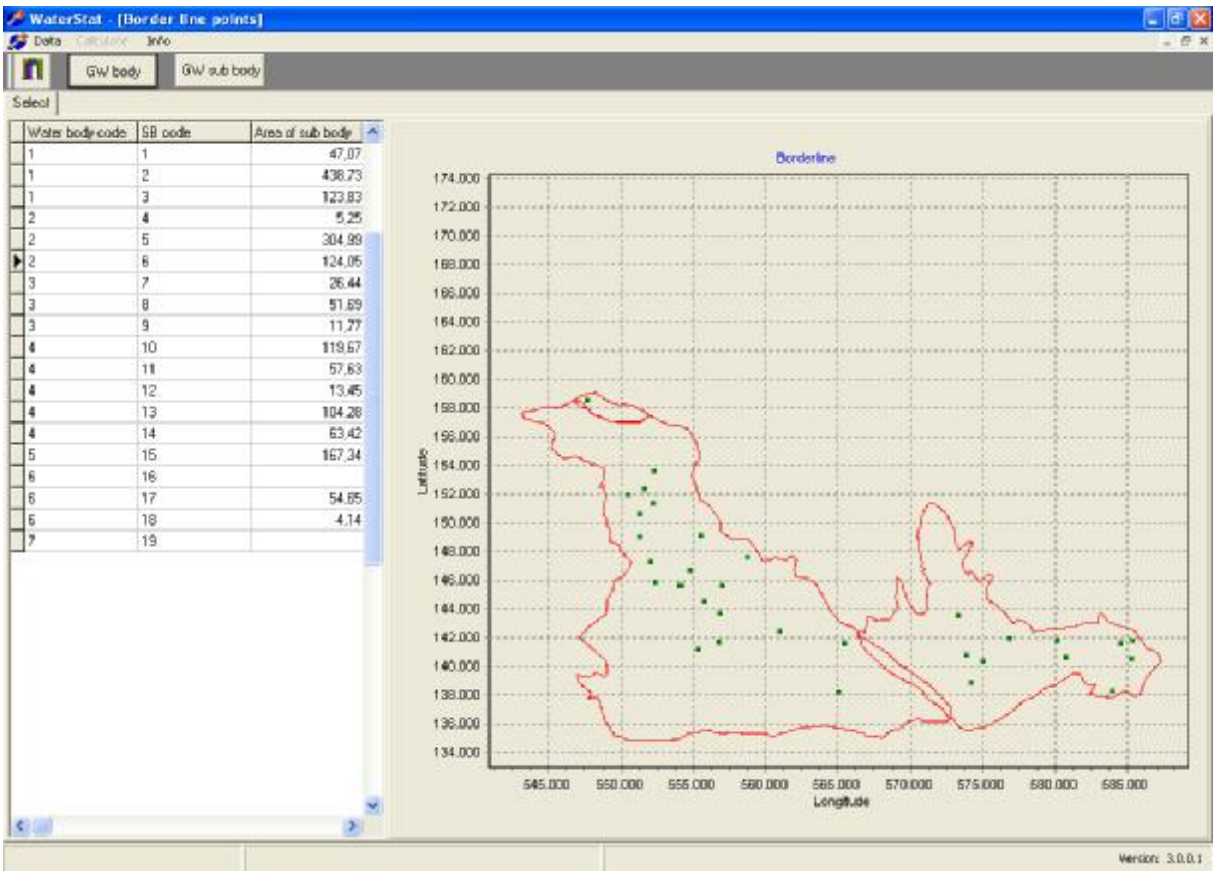
Waterstat has been successfully implemented and the interface programmed allows the use of Waterstat in the Slovenian database.
The following screenshots show some options given by Waterstat:



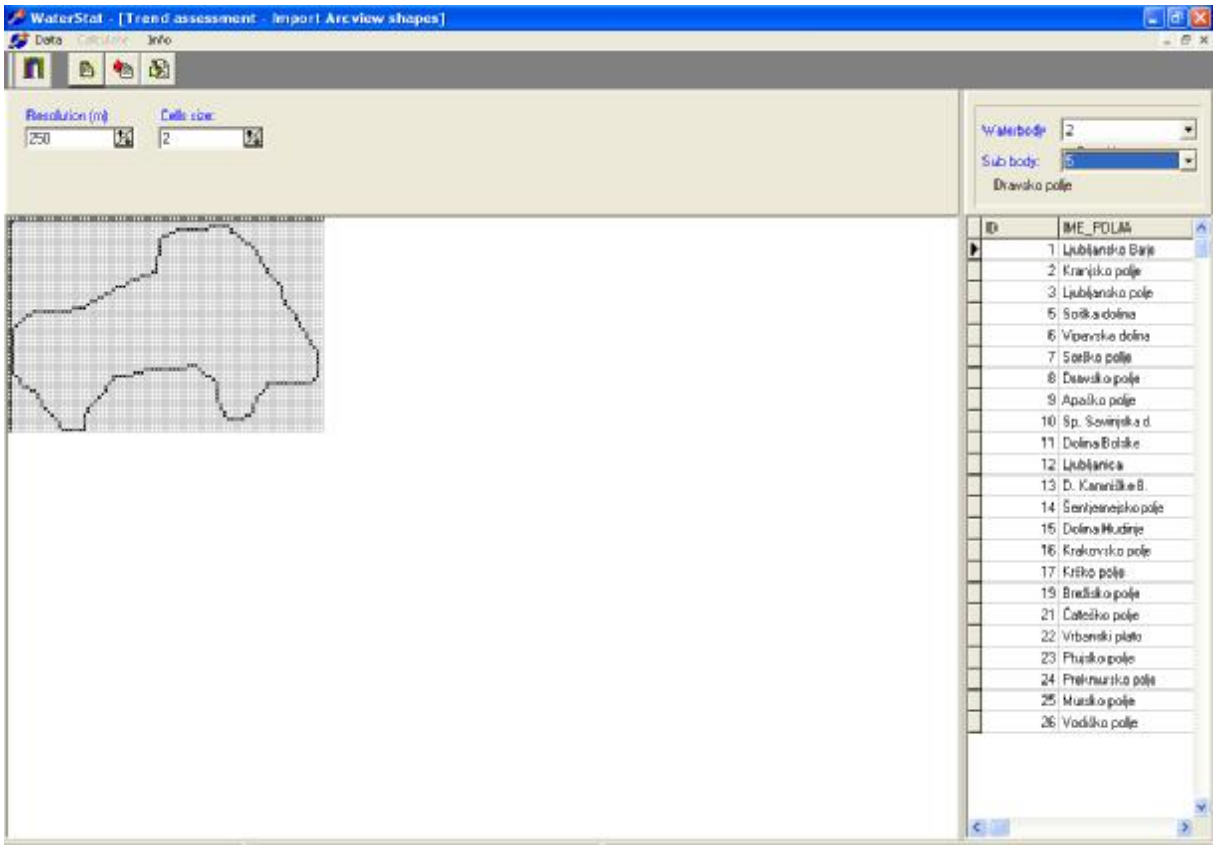
Picture 1: The import of data of the Environmental Agency of Republic of Slovenia.



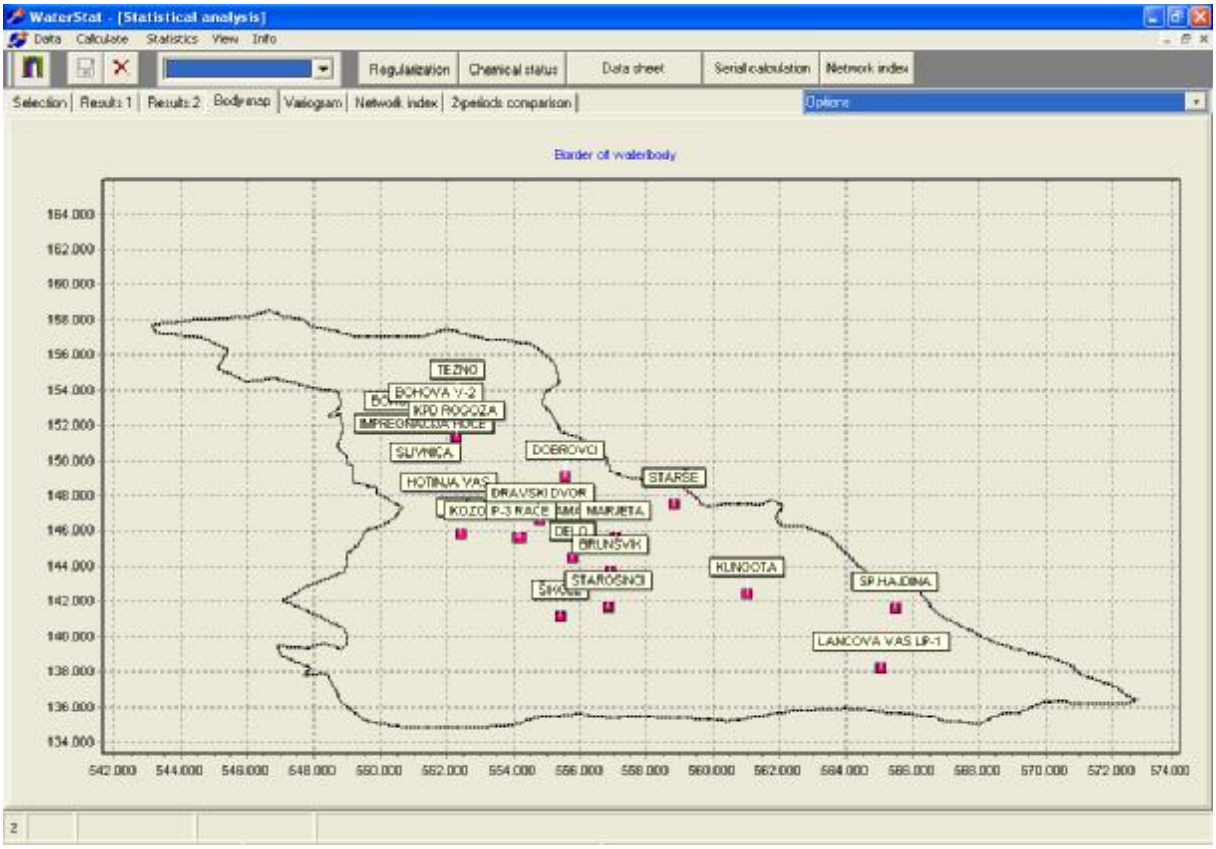
Picture 2: Statistical analysis – selection of parameter, start date, end date, waterbodies and subbodies. Statistical analysis is used for the assessment of chemical status and trend analysis.



Picture 3: Border line points – a survey about stored geographical information – a view of the borderline of a waterbody and a location of sample sites.



Picture 4: Import of geographical data: import of a selected shape to form and selection of a waterbody and a subbody.



Picture 5: Statistical analysis: water body map

Conclusions and Recommendation:

The Slovenian experts considered particularly useful information obtained on the (internal/intranet) organisation of the new database on groundwater data (according to the Water Framework Directive) as a basis for their future work.

Since the chemical status algorithm had already been included in the national legislation, Waterstat was directly applicable. Programming the interface allows direct access to national database and will therefore be very useful for the implementation of the draft Groundwater Directive.

The work carried out during the lifetime of the project, especially the implementation of Waterstat and the programmed interface, has meant a great step forward in implementing the Environmental Acquis. In continuation of the work carried out so far, it is recommended to create a GIS presentation of water quality data (GW and surface water) on the internet, to allow the general public easy access to information (in line with Directive 2003/4/EC on public access to environmental information).

In addition, more work should be dedicated to implementing the Nitrate directive and the preparation of respective operational programmes and to implementing the Water Framework directive, especially in the field of ecological status of water bodies.

4.2b Reporting on Emissions to Water:

EARS (Mario Zec, Tel: +386-1-4784-553, mario.zec@gov.si) installed an emission data base on point sources, which the Austrian expert considered to be of excellent quality. No information gaps concerning reporting obligations to the European Commission (incl. Eurostat) and the European Environment Agency could be identified.

However, the database does not include all information required for the implementation of the Dangerous Substances Directive (76/464/EEC). This question was resolved in the course of another expert visit, for which Austrian Federal Environment Agency included Mr Alfred Rauchbüchl from the Austrian Institute for Water Quality of the Federal Agency for Water Management.

Since, at present Slovenia is in the stage of selecting the relevant substances and the adoption of the monitoring network under Directives 76/464/EEC and Directive 2000/60/EC, work focussed mainly on the selection of dangerous substances, derivation of EQS (environmental quality standards) and the establishment of a surface waters monitoring network fulfilling the obligations of the WFD.

Conclusions and recommendations:

In the field of reporting on emissions to water, Slovenia is well on its way.

4.3. Reporting of Waste Data:

Mr Scheibengraf and Mr Domenig of the Austrian Federal Environment Agency shared their experiences in the national and European reporting of waste data. In the beginning of the project it was agreed to focus work on the Packaging and Packaging Waste Directive and on the Landfill Directive.

a) Slovenia has transposed the packaging and packaging waste directive into national legislation, and has to reach targets in 2007 (transition period). 2002 was the first reporting year in Slovenia which covered around 1000 reports.

The legal basis in Austria in the field of packaging and packaging waste was presented, together with types of packaging, responsible parties; obligations to keep notes, to provide evidence, to report to the competent authority, to inform the last user and to take back packaging placed on the market. An overview was given on collection and recovery systems in Austria (required documents for authorisation, basic requirements and tasks, tariff system), an introduction into the Austrian database for packaging and packaging waste and how to fulfil the reporting obligations to the EU (data sources, calculations and estimations).

Besides consulting representatives of the Environmental Agency of the Republic of Slovenia, a workshop was held with representatives of the Federal Ministry for the Environment of Slovenia, EARS, the chamber of commerce of Slovenia, and the Statistic Agency of Slovenia.

Conclusions and recommendations:

The legal basis on packaging and packaging waste in Slovenia is very similar to the Austrian one, which means that in this field EU legislation has been properly implemented. The Slovenian project partners have already established a database to collect and calculate reported data.

Currently only few data are available on packaging waste from households, because the Slovenian collection and recovery system "Slopak" will start operating only in January 2004. Once "Slopak" is fully operational, it is expected that sufficient data will be available.

It is recommended to avoid manual gathering of data. The responsible parties should report data electronically. The best solution would be to establish a database with the possibility to capture data online. The current existing database in Slovenia is considered a good approach for further technical developments.

In order to fulfill the reporting obligations to the EU, it is recommended to follow the Austrian practice of calculating the total amount of packaging and packaging waste from accumulated waste and not from the amount of packaging manufactured.

b) In order to implement the Landfill Directive 1999 and Council decision about landfilling waste, a landfill database will have to be established. In Slovenia 15 landfills will be operating after 2008.

To this end, information was exchanged concerning the reporting of waste data.
Information was provided about the data flow for the Austrian Federal Waste Management Plans since 1992; data flow for a regional Waste Management Plan (example: country „Carinthia"); data collection on amount, recycling, treatment and dumping of several waste types;
Furthermore, an overview was given on the Austrian Databases to manage waste data and information, including

- Data Network for Hazardous Waste;
- Waste Register and Waste Management Facilities Database;
- Landfill Database.

Finally, the legal basis regarding data collection, especially collection for waste data from landfills were explained, which included the acceptance criteria for wastes, definition as hazardous or non-hazardous waste.

Conclusions and Recommendations:

The intensive exchange of information between Austrian and Slovenian experts should be a sound basis for the establishment of a Slovenian landfill database. It is recommended to work develop an (integrated) waste management database as soon as possible.

4.4. Natura 2000-Network:

Slovenia is in the process of preparing its proposal for the national Natura2000 network until May 2004. Most of the analysis on habitats and species has been completed. Now the data needs to be adequately analysed and documented (GIS/Arcview).

A 2-day visit to Vienna of three Slovenian experts (Ms. Urša Mežan, Ms. Irena Nartnik, Ms. Mirjam Galičič) was organised. The Slovenian activity regarding the documentation of Natura2000 was presented as well as the Austrian efforts for the definition of favourable conservation status of habitats and species, the mapping of habitats and species within the sites, data management, the definition of the conservation objectives and impact assessment.

In addition, issues of public participation were discussed and a WWF-representative explained the role of NGOs in the Natura 2000 process.

The second day was dedicated to the implementation of the Habitats-Directive and management of Natura 2000-Sites on regional level with a visit to the Nature Protection Offices of the Provincial Government of Lower Austria.

Due to the strong interest in the Habitat Types Database of the Provincial Government of Lower Austria and in the determination of the habitats of species, Mr Suske and Mr Ellmauer visited Slovenia on the 7th of July to further discuss issues such as the determination of Natura 2000 sites (for species) + relevant GIS application (establishing of individual species distribution maps). This visit also allowed a more in-depth study of the FFH Habitat types database of the provincial government of Lower Austria.

Conclusions and Recommendations:

The exchange of experience on Natura 2000 documentation and administration was considered very useful by both Austrian and Slovenian experts.

4.5. Register of Contaminated Sites

So far, EARS does not have activities regarding a register of contaminated sites, but is responsible through the National Focal Point of EEA for the reporting of Slovenian data towards the EEA on the priority data flow re contaminated sites.

Hence, the objective of an expert mission (Martha Wepner, Georgia Spausta) was to clarify open questions and responsibilities with regard to EIONET priority dataflow and data delivery in the field of local (and diffuse) soil contamination. Furthermore, an introduction was given on the management and legislation of contaminated sites in Austria.

In Slovenia, data on soil contamination have been handled at the University of Ljubljana since Slovenia started to deal with soil threats. The University of Ljubljana (Biotechnical Faculty, Centre for Soil and Environmental Science) is also data holder. The Environment Agency of the Republic of Slovenia (Service for Water Pollution Assessment, with a soil department still to be developed) on the other side is member of EIONET and therefore responsible for delivering priority data regarding soil issues to the EEA. However, there is no bilateral agreement between the Agency and the University regarding this information.

The first meeting on June 5th was held at the University of Ljubljana with Frank Lobnik, Marko Zupan and Borut Vrscaj from the Centre for Soil. An overview was given regarding the priority dataflow indicators in the field of local and diffuse soil contamination. Additionally, the upcoming EIONET questionnaire was discussed. The questionnaire will include priority dataflow indicators as well as new indicators. Mr. Lobnik presented the work done so far in the field of soil issues in Slovenia.

The afternoon sessions were held at the Environment Agency with Petra Krsnik and four colleagues from the Service for Water Pollution Assessment as well as Frank Lobnik from the University. Since Slovenia is only starting to tackle the problems regarding soil contamination an overview was given on the historical development of handling local soil contamination in Austria – from legislation, registration, investigation, assessment to financing and funding.

Conclusions and recommendations:

One of the main outcomes was that in the course of the Austrian experts' visit to Ljubljana, the University as the data holder on one side and the Environmental Agency as the responsible institution regarding reporting on the other side were brought together. Both sides agreed on bilateral meetings to find a (financial) solution for distributing data and ensuring continues dataflow to EIONET.

In view of the EU Soil Thematic Strategy with the aim to establish a soil monitoring directive, it is highly recommended to start developing a contaminated sites management system. In addition, an information system on soil monitoring data should be developed.

4.6. National EIONET-portal / EEA co-operation / Reportnet:

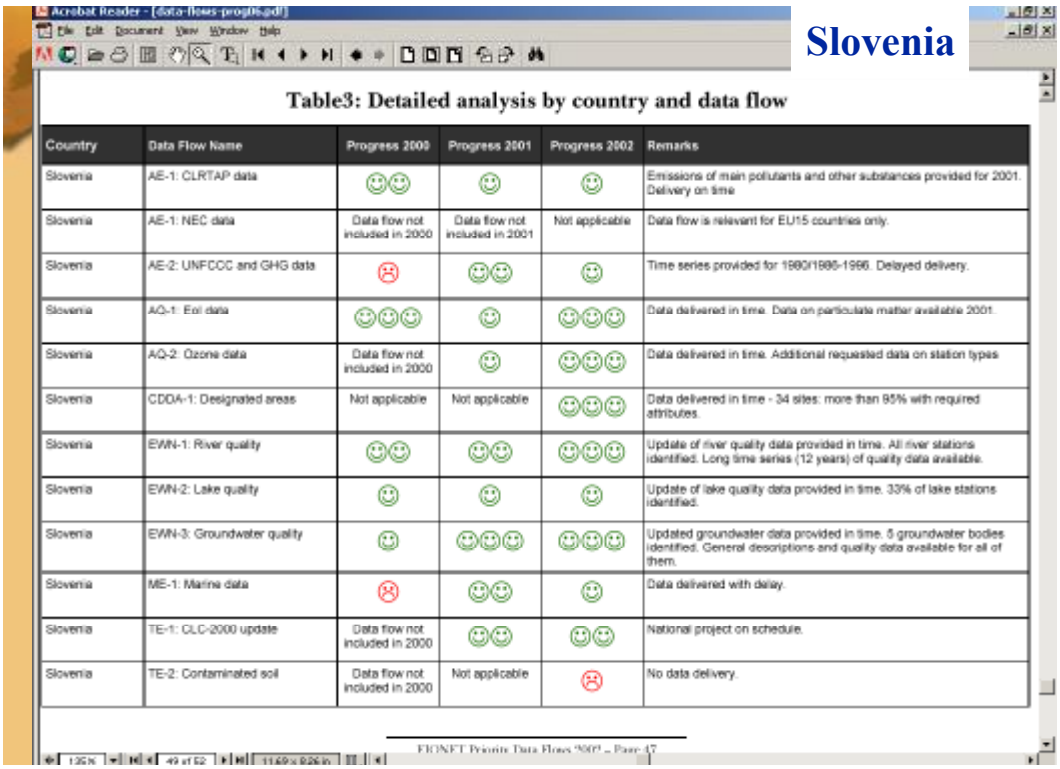
EIONET, short for Environmental Information and Observation Network, is the technical and organisational network of the EEA. EEA member countries are encouraged to provide one point of access to national environmental information, an environmental portal, which may consist of many different elements, for example the national state of the environment report, or the results of the annual EEA Priority Dataflow Assessments (the performance of the EEA member states in reporting in 10 priority dataflow areas is assessed once a year).

National EIONET

On the 14th of July a Priority Dataflow Workshop was held at EARS.
Representatives of about 12 National Reference Centers participated. Also present were Barbara Bernard Vukardin and Irena Rejec-Brancelj (Slovenian project co-ordinators). Hermann Peifer (EEA) gave a general overview of Reportnet and EIONET (see Annex 3).

Then the results of the 6th progress report on EIONET Priority Dataflows (published May 2003, assessing 2002 data) were presented (see Annex 4).

The following screenshot shows an overview of Slovenian PDF-Reporting:



Slovenia

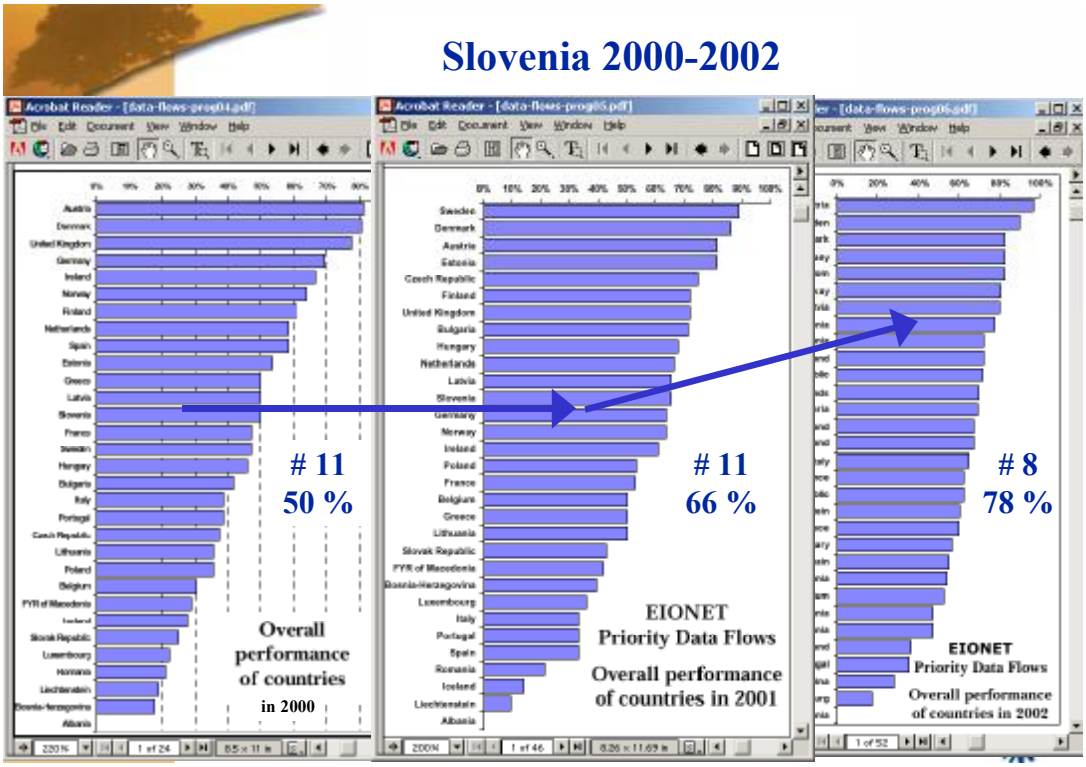
Table3: Detailed analysis by country and data flow

Country	Data Flow Name	Progress 2000	Progress 2001	Progress 2002	Remarks
Slovenia	AE-1: CLRTAP data	☺☺	☺	☺	Emissions of main pollutants and other substances provided for 2001. Delivery on time
Slovenia	AE-1: NEC data	Data flow not included in 2000	Data flow not included in 2001	Not applicable	Data flow is relevant for EU15 countries only.
Slovenia	AE-2: UNFCCC and GHG data	☹	☺☺	☺	Time series provided for 1990/1995-1999. Delayed delivery.
Slovenia	AQ-1: EoI data	☺☺☺	☺	☺☺☺	Data delivered in time. Data on particulate matter available 2001.
Slovenia	AQ-2: Ozone data	Data flow not included in 2000	☺	☺☺☺	Data delivered in time. Additional requested data on station types
Slovenia	CDDA-1: Designated areas	Not applicable	Not applicable	☺☺☺	Data delivered in time - 34 sites: more than 95% with required attributes.
Slovenia	EWN-1: River quality	☺☺	☺☺	☺☺☺	Update of river quality data provided in time. All river stations identified. Long time series (12 years) of quality data available.
Slovenia	EWN-2: Lake quality	☺	☺	☺	Update of lake quality data provided in time. 33% of lake stations identified.
Slovenia	EWN-3: Groundwater quality	☺	☺☺☺	☺☺☺	Updated groundwater data provided in time. 5 groundwater bodies identified. General descriptions and quality data available for all of them.
Slovenia	ME-1: Marine data	☹	☺☺	☺	Data delivered with delay.
Slovenia	TE-1: CLC-2000 update	Data flow not included in 2000	☺☺	☺☺	National project on schedule.
Slovenia	TE-2: Contaminated soil	Data flow not included in 2000	Not applicable	☹	No data delivery.

Slovenia is involved in 9 out of the 10 priority dataflow areas, which are used for comparing results (CLC 2000 and Contaminated Soil data are regarded as "additional information"). NEC reporting is only obligatory for EU MS and will only become obligatory for Slovenia in 2004.

Slovenia has made considerable progress and now occupies rank 8 of 31 European countries in this latest ranking of national priority dataflow contributions, achieving about 78% of the total Priority Dataflow reporting obligations.

The next picture shows the progress made by Slovenia in Priority Dataflow Reporting 2000 – 2003:



Preparation of the Slovenian State of the Environment Report

The Slovenian Ministry for the Environment, Spatial Planning and Energy, similar to the Austrian Federal Environment Agency, is the institution, appointed by law, responsible to prepare a report on the state of the environment in Slovenia every year.

Urška Povše from the Environmental Agency of the Republic of Slovenia, EU reporting Service, visited the Austrian Federal Environment Agency (24-25 July 2003) for an exchange of experience with the preparation of the State of the Environment Report.

Dr. Wilhelm R. Vogel, who hosted the visit, has been nominated leader of the co-ordinating group for next Austrian State of the Environment Report, which will be issued in summer 2004. Preparation started already in 2002. A big emphasis is given to the selection of the topics to be presented in the report - it should not be a report describing the work of the Federal Environment Agency, but a report, which presents topics about the actual state of the environment, including sectoral development (tourism, households) and quality of life of inhabitants (health). For the consistency and the transparency of the report, a co-ordinating group prepared guidelines for contributors (experts, mainly working at the Federal Environment Agency Austria) with very precise information on the structure, format, length of chapters, etc. Of the experts of the co-ordinating - editorial group considerable engagement is expected.
Experiences on the use of the environmental indicators and indicators on sustainable development in Austria were presented as well.
Austrian experts also made available some documents and other material, which could be very useful for preparing the next State of the Environment Report in Slovenia.

Exchange of information on laboratories and environmental analyses (and reporting)

EARS is the competent institution in Slovenia for dealing with environmental data and it runs a water quality laboratory. On July 16th, the Director of EARS Ms. Andreja Čerček Hočevar and 2 experts, Ms. Irena Rejec Brancelj and Mr. Silvo Žlebir visited the laboratories of the Federal Environment Agency in Vienna.
Beside an introduction into the work of the agency's laboratories, the Austrian experts presentations covered the following topics:

- Water management in Austria
- Monitoring of ground- and surface water in Austria
- Monitoring of Soil in Austria

The Slovenian experts got an overview of the main role of the Austrian laboratories, topics they are dealing with and work organization. This will be in great help for future work organisation in Slovenia.

IT (www, GIS)

EARS is in the phase of integrating its information systems. In the frame of the project the
2- days visit of 2 Slovenian experts (Albert Kolar and Marjan Štrukelj) to Vienna was organised.
The main goals of visit were:

- To become familiar with information system of the Federal Environment Agency Austria
- To become familiar with the organization and methods of work in the Data directorate of the Federal Environment Agency Austria

During the visit, MORIS – the Austrian Monitoring and Research Information System was presented to Slovenian experts and some web applications, such as: *AbfallDatenVerbund* – a database including information on producers, collectors and processors. Other topics discussed were EPER - European Pollutant Emission Register Export - EPER, Validation Tool, as well as Thesauri and UDK. Austrian experts also presented the organisation chart of the Federal Environment Agency, methods of work and the conditions of their Information System.

Conclusions:

A future cooperation and exchange of experience regarding the applications developed by Austrian experts for EEA as well as defining common standards and strategies would be very useful.

Reportnet

Slovenia is one of the Member States of the European Environment Agency, which most actively follow up the issue of developing national portals within the EIONET. In continuation of this active contribution to European Integration, EARS will also participate at institutional and/or expert level in the development of the "Reportnet" of the EEA, which is aimed at the establishment of a Shared European Information Infrastucture in environmental reporting (as it is foreseen within the Framework Directive on Reporting presently prepared by DG Environment). The ultimate goal of these initiatives is a fully transparent documentation of international environmental reporting in Europe for both administrators/ experts and the general public.

The Austrian Federal Environment Agency will support the participation of EARS and/or Slovenian experts in the "Reportnet" Project of the European Environment Agency, in order to allow adequate further development of the Slovenian national Reportnet initiative.

Conclusions:

Overall, it can be said that the various initiatives carried out under the heading National EIONET-portal / EEA co-operation / Reportnet contributed to the improvement of the Slovenian work within EIONET in general, and with regard to priority dataflow reporting in particular, and has induced several steps forward in the development of the national EIONET portal.

4.7. GMOs:

The Slovenian Ministry for the Environment, Spatial Planning and Energy is at the moment in the stage of developing and establishing a comprehensive national system concerning public information, public participation and reporting in the field of GMOs – as a result of the Slovenian Act on Genetic Engineering and relevant ordinances, implementation of directive 2001/18/EG, ratification of the Cartagena Protocol incl. establishing a national Biosafety-Clearing-House mechanism.

The objectives of a workshop in Ljubljana, 14-15 May 2003, was therefore to provide thorough information on the following topics:
- Competent authorities concerning GMOs in Austria, their responsibilities, other authorities to be included at national level
- Existing systems and procedures (in Austria) concerning public information and participation (procedures according to relevant ordinances, web-pages etc.)
- Consequences resulting from implementation of directive 2001/18/EG (deliberate release and placing on the market of GMOs)
- Establishing of electronic systems for applications/notifications
- Content and management of a national register as a public document
- Cartagena Protocol; content, establishing and management of the national BCH webpage
- Developments at EU-level (register for placing on the market et al.)

Conclusions and recommendations:

In-depth discussions of the current state-of-the-art and the expected next steps regarding GMOs in Slovenia have revealed a need for further information, especially in the area of public participation.

5. Financial Statement

The work plan agreed during the start-up phase of the project was implemented within the budget limits set by the Contract.

Proposed changes in experts were made WITHOUT any changes in the budget.

3 civil servants with a total of 5 working days were included in the Austrian Twinning Team:
- Alfred Rauchbüchl (Institute for Water Quality of the Federal Agency for Water Management)
- Dietmar Vybiral (Federal Ministry of Health and Women's Affairs)
- Wolfgang Suske (Provincial Government of Lower Austria).

Their fees were invoiced under the budget line for class 1 experts with the lower civil servant fee of EUR 200.-/working day.

SL02/IB/EN/01/TL - Breakdown of costs to Member State

Item	Unit	nr	rate	EUR	units used	amount used	amount available
Expert class 1 fees (days in SL)	day(w)	63	326,00	20.538,00	43,00	13.388,00	7.150,00
	%			30.807,00		20.082,00	10.725,00
Expert class 1 fees (days in AT)	day(w)	25	0,00	0,00			
Expert class 2 fees (days in SL)	day(w)	48	441,00	21.168,00	26,00	11.466,00	9.702,00
Flat rate 150%	%			31.752,00		17.199,00	14.553,00
Expert class 2 fees (days in AT)	day(w)	20	0,00	0,00			
Expert class 3 fees (days in SL)	day(w)	2	550,00	1.100,00	1,00	550,00	550,00
Flat rate 150%	%			1.650,00		825,00	825,00
Expert class 3 fees (days in AT)	day(w)	1	0,00	0,00			
Per Diems (per night in SL)	Day(c)	90	199,00	17.910,00	52,00	9.358,00	8.552,00
Travels (average rate with assumption: 60% train, 20% air weekend, 20% air without weekend)		40	300,00	12.000,00	-	7.540,58	4.459,42
per diems for SL study trips to AT (8*2 SL participants * 3 nights)		48	122,00	5.856,00	17	2.074,00	3.782,00
Audit Costs				3.500,00		2.280,00	1.220,00
Total				**146.281,00**		**84.762,58**	**61.518,42**
2,5 % Contingencies				3.657,03			
Total Institution Building				**149.938,03**			

6. Evaluation of the twinning light project

In the course of the first visit to the CC, the work plan was adapted to reflect the updated needs of the Environmental Agency of the Republic of Slovenia (EARS). While some of the subject areas, due to fast progress of the Slovenian administration with regard to EC and EEA requirements, needed less attention than originally expected, additional elements were added to several thematic areas such as air pollutant emissions, waste management and the issue of GMOs.

These changes could be accommodated within the original timeframe and budget structure of the project.

Good co-operation and high flexibility on both sides, especially with regard to planning MS expert missions and the availability of CC staff to work with them, characterised the working environment during the implementation of the Twinning operation.

From an institution building point of view, implementing this project with the involvement of all three directorates of EARS has considerably contributed to consolidate the internal structures of the only recently formed Agency and provided useful training on the implementation of international project co-operation.

All project activities have contributed towards further implementing the EU environmental Acquis. By way of example, the authors would like to point out the following achievements (for further details please see the detailed account of the project activities given in part 4 of this report):

Presentation of Slovenian Air Quality Data on the worldwide web (Activity 1a)
Installation of a statistical analysis tool for the automated reporting of Air Quality Data (Activity 1b)
Workshop on Air Emission data with a focus on establishing emission inventories (Activity 1c), during which Slovenian experts gained a thorough knowledge on air emission reporting.

Public presentation of water quality data on the www including the installation and programming of an interface between the Slovenian water quality database and the statistical software tool Waterstat for automated file preparation (Activity 2a).
Improvement of the reporting on emissions to water (Activity 2b).

Reporting on waste data (Activity 3) focused on the Packaging and Packaging Waste Directive and on the Landfill Directive.

Work on Natura 2000 focussed on the implementation of the Habitats Directive and the management of Natura 2000 sites on the regional level (Activity 4).

As far as contaminated sites are concerned (Activity 5) an expert visit was dedicated to clarify open questions and determine responsibilities with regard to Priority Dataflow Reporting and data delivery in the field of local (and diffuse) soil contamination.

The main achievement of the work carried out under Activity 6 (National EIONET portal / EEA co-operation / Reportnet) was the progress Slovenia made in Priority Dataflow Reporting: In the latest EEA assessment carried out in May 2003, Slovenia occupies rank 8 of 31 European countries in the ranking of national priority dataflow contributions, achieving about 78% of the total Priority Dataflow reporting obligations. With the experience and knowledge gained from the project this result can be expected to be even better in next year's evaluation.

In the area of GMOs (Activity 7) a workshop in Slovenia provided support and information regarding the establishing of a comprehensive national system concerning public information, participation and reporting.

7. Conclusions and recommendations

The present Twinning Light project resumed a successful co-operation initiated under the Phare Twinning Programme SI98 with the Slovenian Environment Ministry, during which the creation of an Environment Agency had been confirmed as an adequate way to increase administration efficiency by concentrating and co-ordinating the technical expertise of several relevant institutions.

The Environmental Agency of the Republic of Slovenia has proved to be an efficient partner in the successful implementation of the present twinning programme.

Due to the combined efforts of both the Slovenian and Austrian experts the expected project results were achieved within the given timeframe and budget (for details please refer to the conclusions and recommendations per subject area).

Recommendations for the future:

Although the work carried out in the various subject areas has marked a big step forward in implementing the environmental acquis, it is highly recommended to continue work in the field of the environment.
In the course of the implementation of the present Twinning Light project it has become apparent that more work is needed in the following areas:

Waste: the authors recommend to start work on an integrated waste management system in line with EU legislation as soon as possible. Such a system would ideally include a Waste Management Facilities and Waste Register Database and a Landfills Database.

Soil contamination: In order to ensure continued data supply to EU and EEA it is very important to reach an agreement between the different holders of soil data in Slovenia. In view of the EU Soil Thematic Strategy with the aim to establish a soil monitoring directive, it is highly recommended to start developing a contaminated sites management system including a contaminated sites register. In addition, an information system on soil monitoring data should be developed.

Air: Following the workshop in Vienna, which provided the Slovenian experts with a profound knowledge on **air emission reporting**, the concrete goals defined should be implemented as soon as possible. Further work should focus on the (further) development and improvement of the national Slovenian air emission **inventory**. (PRTR, EPER, IPPC) Responsibilities and procedures need to be clearly defined together with an increased awareness of future reporting obligations, and transparency must be increased.
The Slovenian air emission **database** needs to be improved/adapted in order to allow full compliance with EU reporting obligations. It is, for example, recommended to establish one integrated database for calculating Greenhouse Gas (GHG) and non-GHG emissions. Also, documentation of the calculation and of emission factors has to be improved.

Water: In continuation of the work carried out so far, it is recommended to a create an application for web presentation for geo-referenced water quality data (GW and surface water), to provide the general public easy access to information (in line with Directive 2003/4/EC on public access to environmental information).

Financial coverage of additional Twinning Light activities in the environment area within the SL2002 PHARE budget could be assured e.g. from unused funds of the present project on information and reporting systems and the equally successfully completed project SL02/IB/EN/03/TL in the air sector. Those remaining funds make up around 120,000 EUR in total.

Finally, the author would like to thank all the involved experts who, through their continuous efforts, have made the project a success.

Ulrike Stärk
(Project Manager MS)

Annex 1: Detailed Work plan
Annex 2: Reference to the Acquis communautaire
Annex 3: Presentation Hermann Peifer (EEA) on Reportnet and EIONET
Annex 4: 6th EEA Priority Dataflow Progress Report published in May 2003.

Annex 1

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Task No.	Task	Task co-ordinator	MS Experts	Visit to CC	Study tour to MS	Short description
0	Project co-ordination	Stärk	Stärk / Mayer	29-30 Jan 2003		Start-up visit, definition of detailed workplan and next steps
	Discussion of Institutional Issues	Stärk	Stärk / Rebernig	27 May		Evaluation of project progress; exchange of experience on establishing and managing national environment agencies
	Steering Committee Meeting	Stärk	Stärk	5 June 2003		SCM convened upon request by the EU Delegation; discussion and evaluation of project progress; clarification of open issues
	Final Conference	Stärk	Stärk	13 - 15 July 2003		summary of the project content and progress; individual presentations of experts
	Final Report /Recommendations	Stärk	Stärk	23 - 25 July 2003		discussion on aspects of the final report: concrete results of the project, to what degree expectations were met, main achievements and recommendations for further work
1a	Presentation of Air Quality Data on www	Weigl	Spangl, Stuhlpfarrer, Weigl	31 Mar 2 Apr 03		Preparation of Air Quality reporting to the public via the Internet
1b	Reporting of Air Quality Data	Spangl	Stuhlpfarrer, Tietze	23 - 27 June 03		Installation and test of Umweltbundesamt database interface; installation, test and customisation of www presentation software; installation, test and customisation of reporting software
			Spangl, Weigl	1-2 July		Official startup of the software tools (WWW presentation of AQ data and statistical analyses tool) and training of EARS AQ experts.
1c	Reporting of Air Emission Data	Gugele	Gugele, Wieser	-	1-4 April 2003 Bojan Rode and Tajda Mekinda-Majaron	Workshop on Air Emission reporting with a focus on establishing and maintaining air emission inventories
	Quality of liquid fuels	Gugele	Ortner	-	issue discussed during the WS 2-4 Apr 03	-
	VOC emissions	Gugele	Wieser	-	discussed during the WS 2-4 Apr 03	-
2a	Reporting on Water Quality	Scheidleder	Scheidleder, Uhlig, Schick	5-6 May 2003		Discussion of EEA data delivery problems; demonstration of Waterstat and demonstration of www presentation of water quality data
			Schick	7 - 18 July 2003		Programming of an interface between the statistical programming system WATERSTAT and the groundwater database of EARS
2b	Reporting on Emissions to Water	Nagy M	Nagy M	23 - 24 Apr 03		Evaluation of the Slovenian data available. Presentation of the Austrian reporting under the UWWT Directive (91/271/EEC), gap analysis, first recommendations
		Nagy M	Nagy M, Rauchbüchl	17 - 18 Juni 03		Joint development of a guidance document / requirements for a Reporting System for Slovenia
3	Reporting of Waste Data	Domenig	Domenig;	19-21 May 2003		Issues discussed: technical description of landfills - contents of a landfill database - reporting obligations by landfill operators - definitions, criteria and acceptance of different waste types
	Packaging Waste	Karigl	Scheibengraf	10-12 June 2003		Introduction into Reporting Obligations from the Waste and Packaging Waste Directive and the Austrian control activites concerning the fulfillment of these reporting requirements
4	Natura 2000-Network	Ellmauer	Ellmauer, Suske, Paar	-	15 - 16 May 2003: Workshop in Vienna and St. Pölten; Slovenian participants: Urša Mežan, Irena Nartnik, Mirjam Galic	Introduction into the Austrian approach to Natura 2000 and visit of the office of the Provincial Government of Lower Austria
		Ellmauer	Ellmauer, Suske	6-7 July 2003		Determination of Natura 2000 sites (for species) and relevant GIS application (establishing of individual species distribution maps)
5	Register of Contaminated Sites	Wepner	Wepner	4 - 6 June		EEA Priority Dataflows questionnaire
		Schamann	Spausta	4 - 6 June		Contaminated Sites Register: Terminology (contaminated sites, potentially contaminated sites) Scope of the register and definition of end users Definition of data sets Priority setting for data entries
6	National EIONET-Portal / EEA co-operation / Reportnet	Knappitsch	Knappitsch; Weigl; Hadrbolec	-		To facilitate the participation of EARS and/or Slovenian experts in the “Reportnet” Project of the European Environment Agency
				-	2 - 4 July: Slovenian Participants: Marijan Strukelj; Albert Kolar	Integrated environmental information systems; EPER, thesauri, environmental data catalogue
		Stärk		14 July 2003		Priority Dataflow Workshop (in the framework of the final conference at EARS): presentation of the 6th progress report on EIONET Priority Dataflows ;
				-	16 July 03: Participants: Andrea Cercec Hocevar, Irena Rejec-Brancelj; Silvio Zlebir	Introduction into the organisation and working methods of the laboratories of the Austrian Federal Environmental Agency
		W. Vogel		-	24-25 July 2003: visit of Urska Povse	State of the Environment Reports
7	GMOs	Gaugitsch	Gaugitsch, Schmatzberger, Vybiral	14 - 15 May 2003		2-day workshop in Ljubljana: approach to public information and reporting in the area of GMO decision making on the basis of the relevant EU Directives ; Aarhus convention

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List of Relevant Laws and Regulations

Acquis related to air quality Council Directive 92/72/EEC on air pollution by ozone

- Council Directive 96/62/EC on ambient air quality assessment and management (Air Quality Framework Directive)
- Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (first daughter directive of 96/62/EC)
- Directive 2000/69/EC of the European Parliament and of the Council of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air (2nd daughter Directive of 96/62/EC)
- Council Decision 1999/296/EC (amending Decision 93/389/EEC) for a monitoring mechanism of Community CO2 and other greenhouse gas emissions.
- Council Decision 97/101/EC establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the Member States.

Air emission

- Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emissions ceilings for certain atmospheric pollutants
- Council Decision 1999/296/EC (amending Decision 93/389/EEC) for a monitoring mechanism of Community CO2 and other greenhouse gas emissions.
- Council Directive 1996/61/EC of 24 September 1996 concerning integrated pollution prevention and control
- Commission Decision of 17 July 2000 on the implementation of a European pollutant emission register (EPER) according to Article 15 of Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC)
- Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants

Horizontal legislation:

- Directive 2003/4/EC of the European Parliament and Council on the access of the public to environmental information
- Directive 2003/35/EC of the European Parliament and Council providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment.

- The Reporting Directive (Council Directive 91/692/EEC standardising and rationalising reports on the implementation of certain Directives relating to the environment (OJ L 377, 31.12.91 p.48-54)

- The European Environment Agency Regulation (Council Regulation (EEC) No.1210/90 on the establishment of the European Environment Agency and the European Environment Information and Observation Network (OJ L 120, 11.5.90, p.1-6) as amended by Council Regulation (EC) No.933/19

Water

- The Groundwater Directive (Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances)

- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive)

- Nitrate Directive (Council Directive 91/676/EEC concerning the protection of water against pollution caused by nitrate from agricultural sources)

- Drinking Water Directive (Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption)

- Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (Dangerous Substances Directive)

- Council Directive 84/156/EEC of 8 March 1984 on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry

- Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment, as amended by Commission Directive 98/15/EC of 27 February 1998 (Urban Waste Water Treatment Directive)

Nature

- The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

- The Wild Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds

- The Endangered Species Regulation (Council Regulation (EC) No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein

Reporting on waste

- Council Directive 91/692 standardising and rationalising reports on the implementation of certain Directives relating to the environment

- Commission Decision 94/741/EC and Commission Decision 97/622/EC, both concerning questionnaires for Member States reports on the implementation of certain Directives in the waste sector (implementation of Council Directive 91/692/EEC) and covering the following directives in the waste sector:
  - Council directive 75/439/EEC on the disposal of waste oil
  - Council directive 75/442/EEC on waste
  - Council directive 86/278/EEC on the protection of the environment, and in particular the soil, when sewage sludge is used in agriculture
  - Council Directive 91/689/EEC on hazardous waste
  - European Parliament and Council Directive 94/62/EEC on packaging and packaging waste.

- Other Directives concerning waste with a reporting obligation:
  - Council directive 96/59/EC on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)
  - Council directive 96/61/EC concerning integrated pollution prevention and control
  - Council directive 91/157/EC on batteries and accumulators containing certain dangerous substances

- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as well as
- 97/138/EC: Commission Decision of 3 February 1997 establishing the formats relating to the database system pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste (Official Journal L 052 , 22/02/1997 p. 0022 – 0030)
- Waste Statistics Regulation (Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2002 on waste statistics)

Contaminated Sites

- Council Directive 1999/31/EC of 26 April 1999 on the landfilling of waste

- Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC (2003/33/EC)

GMOs

- Directive 2001/18/EC (deliberate release and placing on the market of GMOs)
- Directive 90/219/EC (application of GMOs in contained use)

Annex 3

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