

Annex 2

Finland's "Vahti" compliance monitoring system

A Case Study

Introduction

The CLEAR Info project aims to reduce the burden of collecting regulatory data on businesses. In order to deliver this objective, the Environment Agency is exploring how the mechanisms used to collect regulatory data from Companies could be improved.

The project has the benefit of having Finland's Ministry for the Environment as a project Partner, and as an EU Environmental Regulator implementing legislation based on many of the same European Directives; we believe this provides a valuable opportunity to learn from each other.

We have taken the opportunity to compare the data systems used in Finland with those used in England and Wales, and to learn from the approach taken by our Partner.

This Case Study will be provided to Environment Agency teams working on the development of new data systems, to inform and evidence the future approach to data collection.

The Finnish data systems

The four regional permit authorities writes a single Environmental Permit for each facility to comply with, and the permit information is all kept in a single case management system called "Ahjo". They also have a single system for storing the monitoring returns submitted by the Permitted Facilities. This is called "Vahti" (meaning "watchman" or "guard").

There is a separate web based system for Operators to report data to the authorities called TYVI. This allows several people at each facility to have a username and password, and to report data either using one of the electronic forms available, or download their data into an XML schema, in order to submit it.

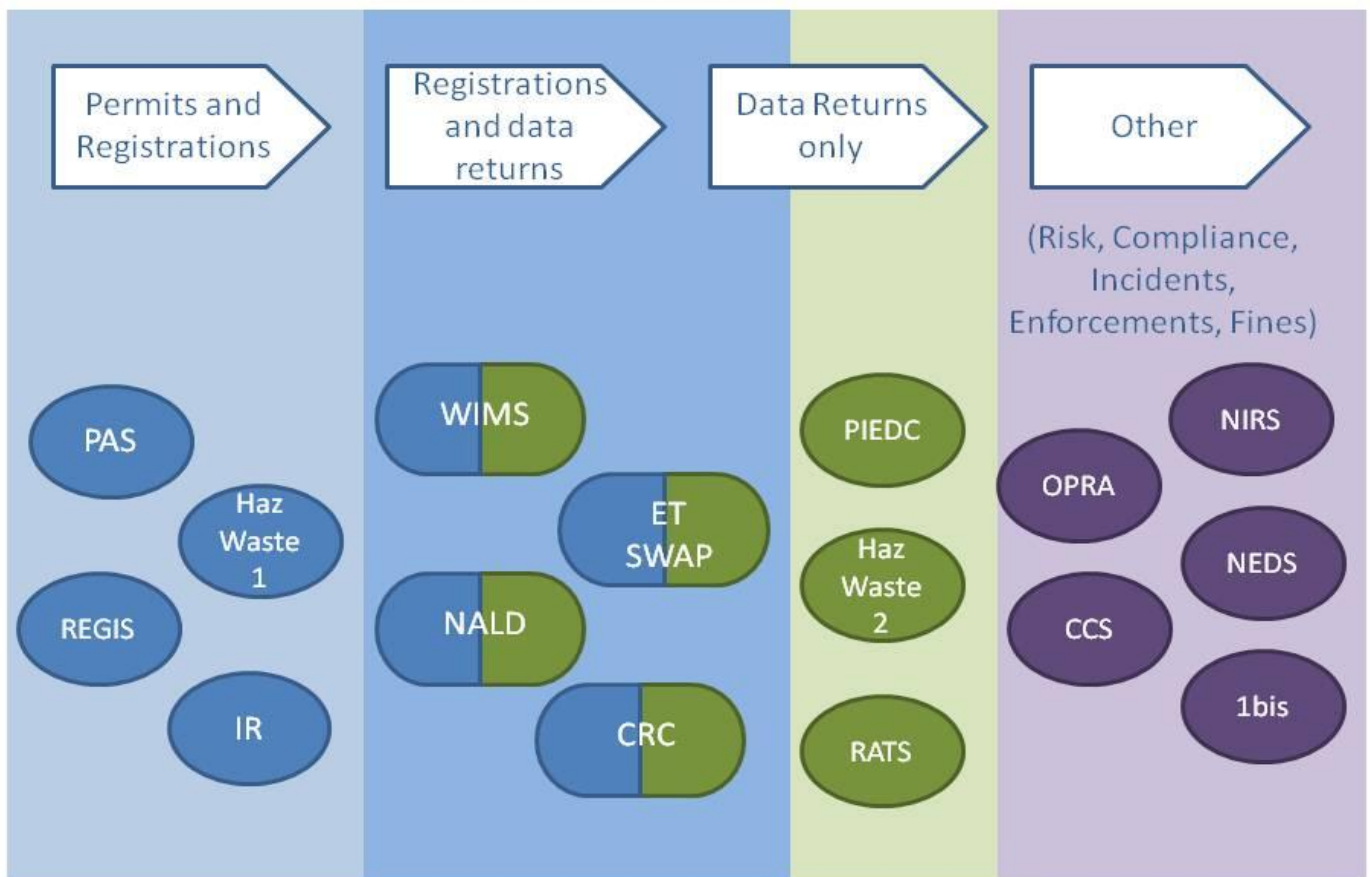
TYVI can also be used by the Regulator to notify the Operator of the data forms they need to complete and submit.

Figure 1: The three elements of the Finnish System



Figure 2: Environment Agency Data Systems

Environment Agency Data Systems – to be integrated by CLEAR Info



The CLEAR Info project will aggregate site data up to a global parent owner, but it must also link together a number of different data sets held about each individual site.

Permitting in Finland

Figure 3 shows the permit systems which are separate in England and Wales, but which are combined in a single permit for facilities in Finland.

The Single Permit is issued by one of the four permitting units (in the State Regional Authorities) for large facilities (about 6000 facilities in Finland) and Municipalities give permits for smaller facilities (about 20 000). The permits are made in consultation with other authorities and the public.

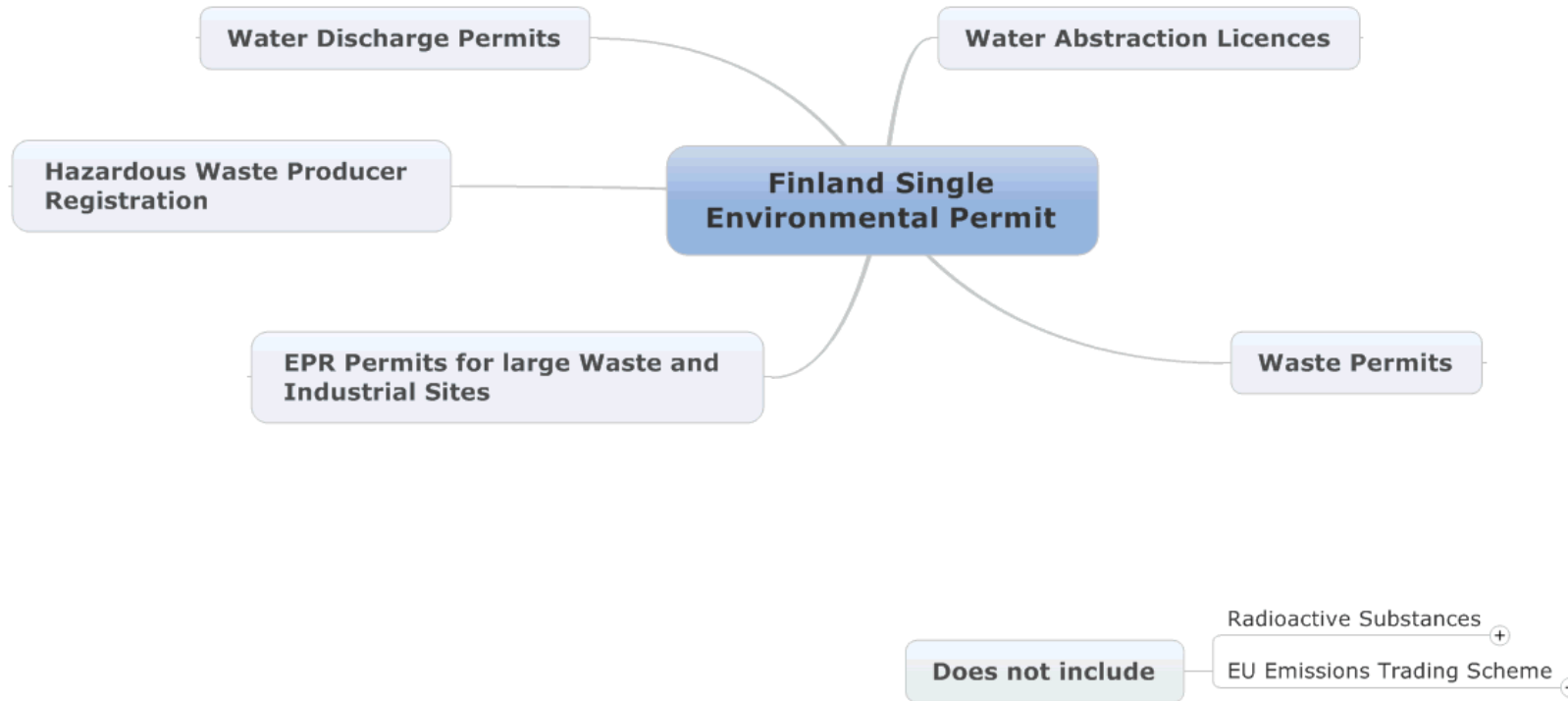
The Permit does not include registration for the EU Emissions Trading Scheme, which is regulated by the Energy Market Authority in Finland. It also does not include Radioactive Substances. These are controlled by the Radiation and Nuclear Safety Authority.

The Finnish system primarily uses bespoke permits. They do not use exemptions or standard permits, but they do use registrations for some lower risk activities inspected by the Municipalities, such as petrol stations and crushers.

The limits on emissions set in the Permit are tied to the production levels, so operators report emissions and use of materials alongside production levels.

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Figure 3: Permit Data



Data reporting in Finland

Figure 4 shows the various data returns held in different systems in England and Wales, but all held together in the Vahti system.

Vahti does not include the following data:

- Environment Incidents. These are held on a different system.
- EU Emissions Trading Scheme. These are regulated by the Energy Market Authority.
- Enforcement information. This is held by the Police and Prosecutors.
- Control of Major Accident Hazards / Seveso III. This is regulated by the Finnish Safety and Chemicals Agency

Raw materials, fuels and emissions are reported at timescales reflecting the size of the operation; monthly for large operations, every two or three months for medium sized operations, and annually for small operations.

Any exceedance of permitted limits is reported on the day it occurs, and would trigger investigation by an Inspector, by either a phone call or a site visit, depending on the circumstances.

Vahti links the facility name to official Company Name data (the equivalent of Companies House data in the UK). This is a live feed which updates when companies change name or ownership.

Data can be submitted on a "general" electronic form or XML schema. There are also different forms for different data topics, and based on sector the inspector selects the forms which the operator must fill in. When the operator fills in data he or she can see what they have reported in previous years.

Operators can ask their Inspector for help with using the reporting system, or there is a telephone help line.

The CLEAR Info project has found that for data in England and Wales, not all records give a company name, and of those that do, they cannot all be matched to the Companies House list of registered companies. A proportion of this is due to the company names being entered in a different format from the Companies House data, for example spelled incorrectly, or the party being a public sector organisation, or company ownership having changed since the record was entered.

We plan to undertake Data Fixing to address these problems and reduce the number of records we cannot match to a Companies House record, and more details of this will be explained elsewhere in the project documentation.

If Finland were to implement the CLEAR Info approach, they would find most of the data they need is already linked together in Vahti, but they may wish to link to the other data sets which are not included in Vahti, as shown bottom right in the Figure 4. Most of these other



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data sets are held by other Authorities, and Vahti has already shown that data can be shared between different Authorities.



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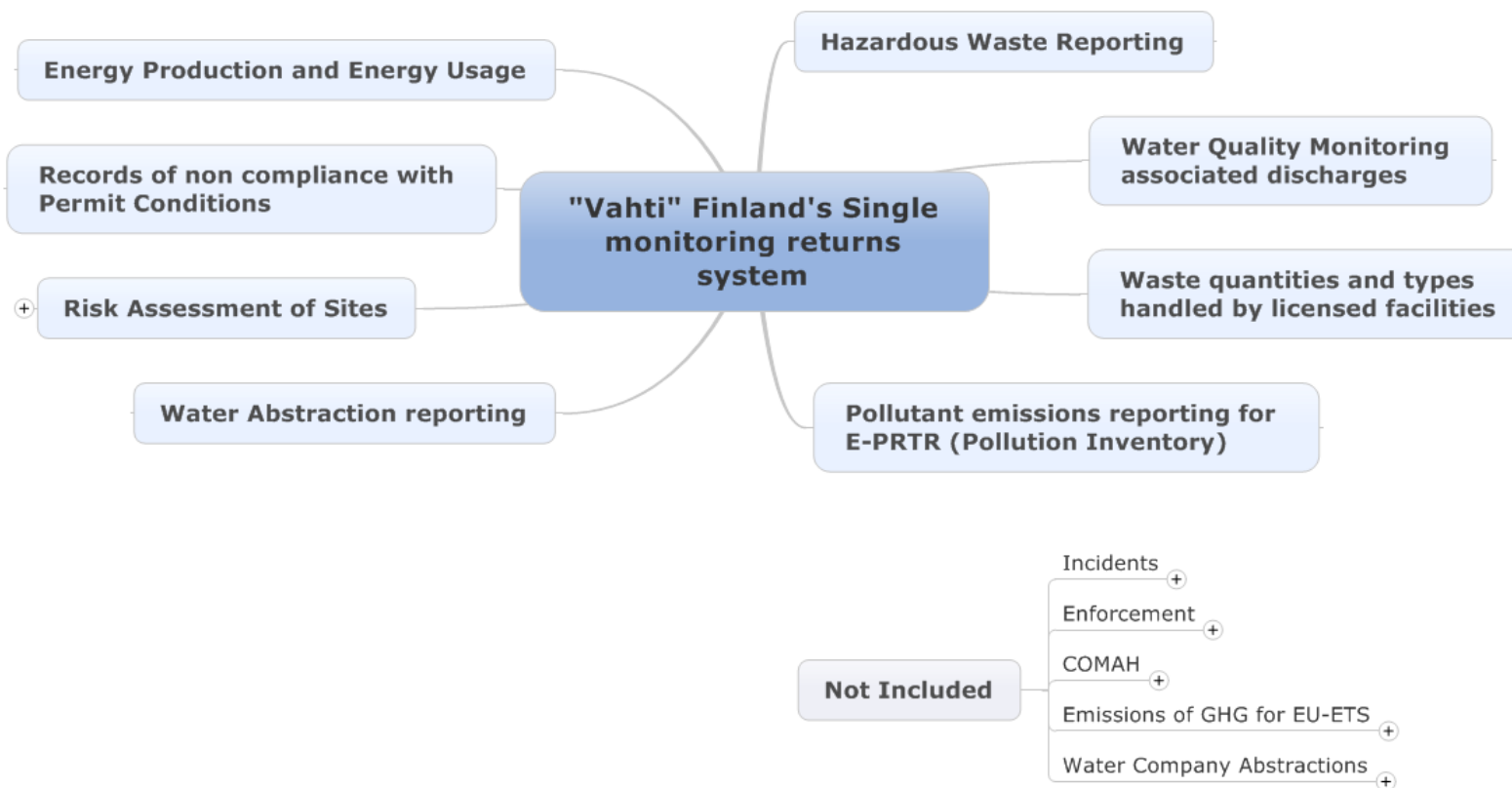


YMPÄRISTÖMINISTERIO
MILJÖMINISTERIET
MINISTRY OF THE ENVIRONMENT

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Figure 4: Monitoring and other data returns



Multi Agency Data Sharing

A number of Agencies have access to Vahti. It is used by the 103 Regional Inspectorates, which are independent of each other. When a data submission is made to Vahti, the appropriate Inspectorate Officer receives an automatic email notifying them to check the report.

The system is also used by some of the 345 Municipalities for facilities that they regulate. Not all municipalities have decided to use it but an Act is under preparation to require the municipalities to use the state IT systems.

Static Finland (the national statistics office) receives the data relating to Peat production through same system as inspectors and the Finnish Customs Office has access to the system so they can cross check the data against the information they collect for Waste taxes.

This facility to share data with other organisations is currently only available for these specific purposes, but is a model that could be useful in other Member States for example to share data with Tax Authorities, Government Departments, and other regulators such as Health and Safety Executive, to reduce the need for Operators to make multiple submissions of similar data to separate authorities.

Set Up and Future Improvements

Vahti was established in 1996 and is now in its third version.

The Finnish Authorities consulted business sectors on what the new monitoring system should be like, and tailored the system for each sector's needs. This was important because Finnish authorities collect more detailed data than environmental legislation directly requires. The consultation had the benefit of giving business sectors a sense of ownership and engagement with the reporting system.

They are now reviewing the data required to be reported from each business sector, and they have a programme of consultations with Operators to decide what data should be asked for in each Sector. This is the continuation of a long tradition of co-operation between the Operators and the Regulators, and will ensure the burden of regulation on business is kept down to the necessary level.

A new version of Vahti is currently in development. The improvements include

- The addition of error checking at the point of submission.
- The system will automatically compare emissions to the limits set, and to the emissions reported in previous years and highlight significant changes to the Operator.
- The data reporting system is going to be integrated with the permit application system, so one system can be used for both purposes.
- A new operator interface is being developed, which is quicker and less costly to make changes to.

→ The Finnish authorities are promoting the wider uptake of XML schema for reporting.

Advantages of the Finnish systems

The single system follows many of the recommendations we have made in the CLEAR Info review of the GOR system. It also has a number of additional advantages compared to the systems used in the Environment Agency for England and Wales:

- Facility Operators only need to present data to one system, in one way. This makes reporting more simple for the Facility Operator.
- The data on separate environmental regulatory regimes is all held in one place, and give the Inspectorates a cross cutting view of the environmental performance of the site against a range of environmental measures.
- The system links to the national register of company names, so companies must choose from an existing name. This means they have good quality company ownership data and records are automatically updated when a company changes owners.
- The system is used by a number of different regulating authorities, and the data is shared with other regulators. This helps to achieve maximum benefits from the data collected, and removes the need to report the same data to separate authorities.
- The system allows the Operator to view the data they have reported in previous years.

This system would be much easier to link to global parent company and to implement the CLEAR Info approach, because the data is already in one system for each individual facility, and is also linked to the official company name, for many of the data sets of interest for CLEAR Info. However, some data sets that will be integrated into the CLEAR Info collation tool are held by separate authorities in Finland, such as the water abstractions by Water Companies.

Next Steps

The CLEAR Info project proposes to share this Case Study within the Environment Agency, to inform the development of new data systems, with a focus on:

- improving the quality of the data collected from Regulated Business
- maximising the benefits and uses of the data collected from Regulated Business, and
- simplifying the methods provided by the Environment Agency for Companies to submit data, and thereby reducing the burden on business of submitting data.

End