



YMPÄRISTÖMINISTERIÖ  
MILJÖMINISTERIET  
MINISTRY OF THE ENVIRONMENT

# The Finnish Database for Soil Status

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Environment Finland  
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# ● History

- Two inventories:
  - early 1990's, 10 000 sites
  - and 1998 -1999, 18 000 sites
- Potentially contaminated/contaminated sites
- Including present and past activities
- The level of detail in this data varied greatly, since information has been compiled from very different sources, including:
  - other data systems run by the environmental authorities
  - regional environment centres and local authority environmental officials
  - companies that have conducted soil surveys
  - archives maintained by the national or local authorities
  - military and civil guard archives, old local maps, aerial photographs or other such sources
  - interviews

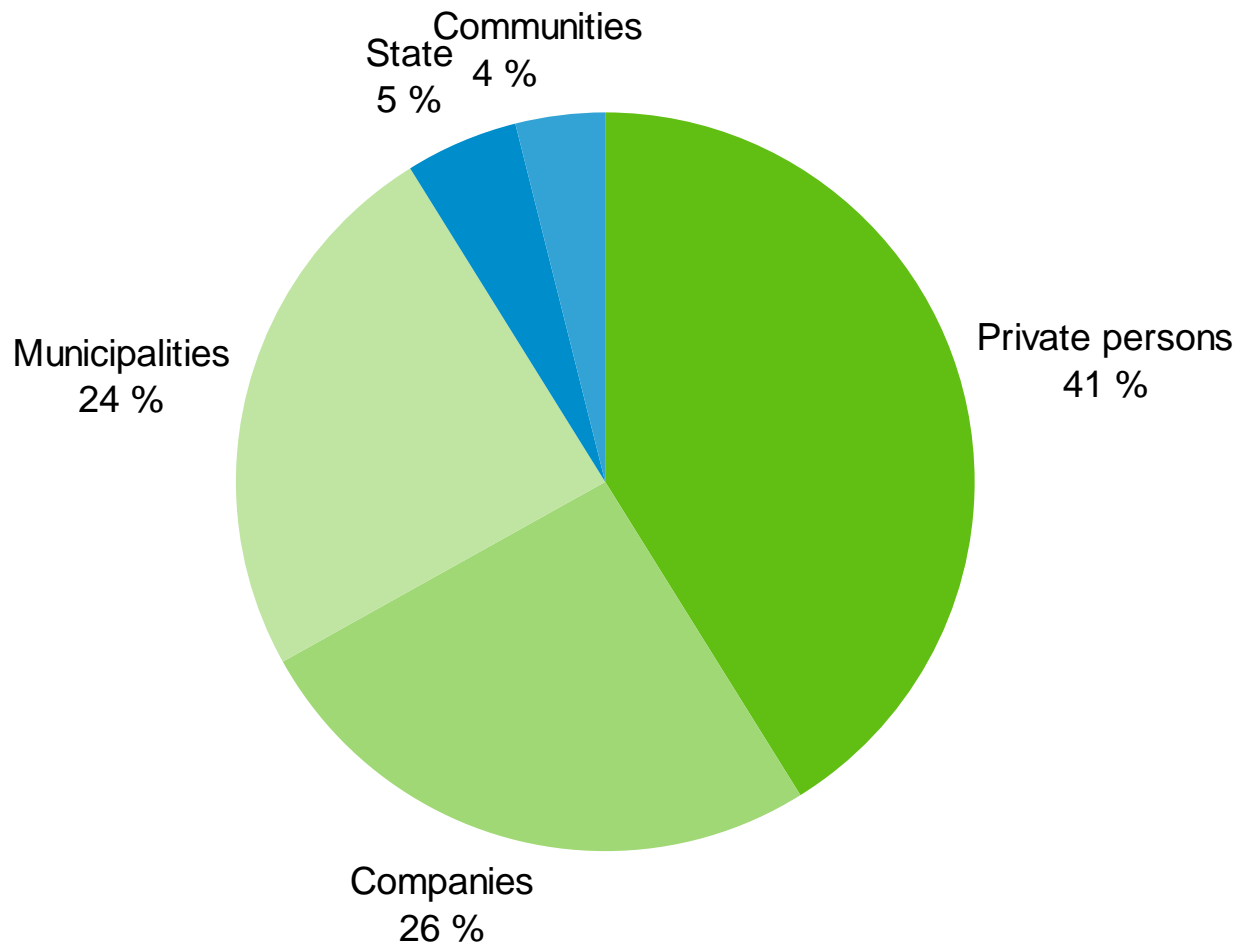
## ● Objectives for the database

- Everyday tool for authorities in managing possible contaminated sites
- Continuously maintained and updated information
- Enhanced protection of groundwater and the environment
- Improved risk management
- No more new buildings on contaminated sites
- Fewer delays and unexpected costs
- More effective planning of soil remediation work

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- **New national database for soil status "MATTI"**

- Information from 13 regional environment centres and Helsinki environment centre has been transferred into a new national database
- About 22 000 sites
- Almost all landowners were contacted personally in writing – may 2007
  - "site report"
  - request for help in order to get more information/ amendments
- Centres are now working on the feed back.
- The data base will be gradually taken into wider use

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- Landowners





# Public information

- **Public information**

- most of the information in the soil data system will be available to the public.
  - environmental quality data
- BUT: the data system as a whole will only be directly accessible to authorities and state institutions
- reports on specific properties are available on request from the regional environment centres
- not (yet) in the internet

- **Organized**

- owned by the Ministry of the Environment,
- maintained by the regional environment centres and the Finnish Environment Institute
- used also by local authorities
  - environmental, land use and building supervision officials

# Three categories

- **Sites requiring assessment 82 %**
  - Such sites are known by the authorities to have been used for activities involving substances that can harm the environment, and which may also have entered the soil.
  - In many such sites the potentially harmful activities are no longer pursued.
- **Sites which must be investigated or remediated as necessary 9 %**
  - In such sites wastes or other substances are known to have reduced soil quality, creating potential health risks or damage to the environment.
  - Such contamination may also reduce the amenity value of sites.
- **Sites where no remedial action is needed 9 %**
  - Such areas include sites where
    - soils have been cleaned up according to the authorities' requirements,
    - detailed surveys have shown that soils are not significantly contaminated.
  - In some such sites certain forms of land use and development may still be limited.

# ● Rationale for the categories

- **Why not use categories like possible contaminated and contaminated sites?**
  - The assessment of soil contamination and remediation need is based on effects of hazardous substances on human health and environment, not on concentrations
    - Finnish Environmental Protection Act; 7 § *Soil pollution prohibition* (86/2000)
    - Government Decree on the Assessment of Soil Contamination and Remediation Needs (214/2007)
- **Why include “clean sites”?**
  - **It is very important information, that should not be lost**
  - **If/as the assessment is made risk-based, the situation can change along with circumstances (e.g. due to land use change)**
  - **It is important to write down the possible limitations**

# Coverage

- previous uses of sites
- substances that may be present as contaminants
- distances to groundwater areas, water supply intakes, lakes, rivers, homes and/or protected areas
- quantities of soils affected and possible remediation methods
- details of any sampling sites and sampling data
- geographical locations of sites
- details of landowners and other actors
- preliminary risk assessment model (in the near future)

Maaperän tilan tietojärjestelmä

Etusivu | Kohdetiedot | Pilaantuneisuus- ja Kunnostustiedot | Asianhallinta | Lisätiedot | Vain lukuoikeus

Mouhijärven vanha kaatopaikka Hyynilänkangas » Kohdetiedot » Kohteen perustiedot

**Kohderekisterin tiedot**

Nimi	Mouhijärven vanha kaatopaikka, Hyynilänkangas
Kohde ID	91384
Kunta	Mouhijärvi (PIR)
Käyntiosoite	Vedenottamontie 114, Hyynilänkangas

**Kohteen perustiedot**

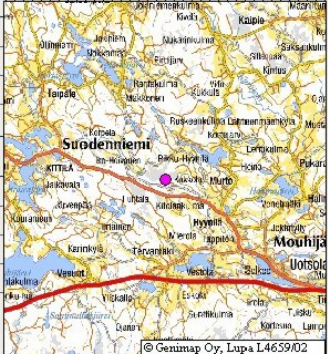
Selite	kaatopaikka
Koordinaatit	ykj-i: 3282077 ykj-p: 6833666
Toiminnan tila	Lopetettu
Vesistö	35.165 Kortejärven va
Pohjavesialue	Nimi: Hyynilänkangas Tunnus: 0249302 Luokka: 1 Etäisyys (m): 0
Laji	Ei puhdistustarvetta
TOL PIMA	14.1 Yhdyskuntakaatopaikka
TOL95	90002 Jätehuolto
Diarinumero	<a href="#">PIR-2004-Y-196</a>

**Kohteen lisätiedot**

Peruskarttalehti	212109
Koordinaatit	Kki: 2441500 Kkp: 6827299
Priorisointiluokat	Priorisointiluokka 1: B Priorisointipisteet: 68,2532
Syvyys kallion pintaan (m)	22
Syvyys pohjaveden pintaan (m)	6
Päämaalaji	Hiekka
Pohjaveden virtaussuunta	Poispäin ottamolta

**Pilaavat prosessit**

Nimi	Tyyppi	Tila
Yhdyskuntajätteen kaatopaikka	Yhdyskuntajätteen läjitys	Lopetettu
Öljysora-asema	Teollisuusjätteen läjitys	Lopetettu
Lietteen läjitys	Lietteen kaato	Lopetettu



[Peruskartta](#) [Tiekartta](#)

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- **Linked to other databases**
- e.g. groundwater and surface water databases, environmental permits and notifications

## MATTI

site identification, location, remediation,  
distances, contact information

**AHJO**  
measure and  
document  
management

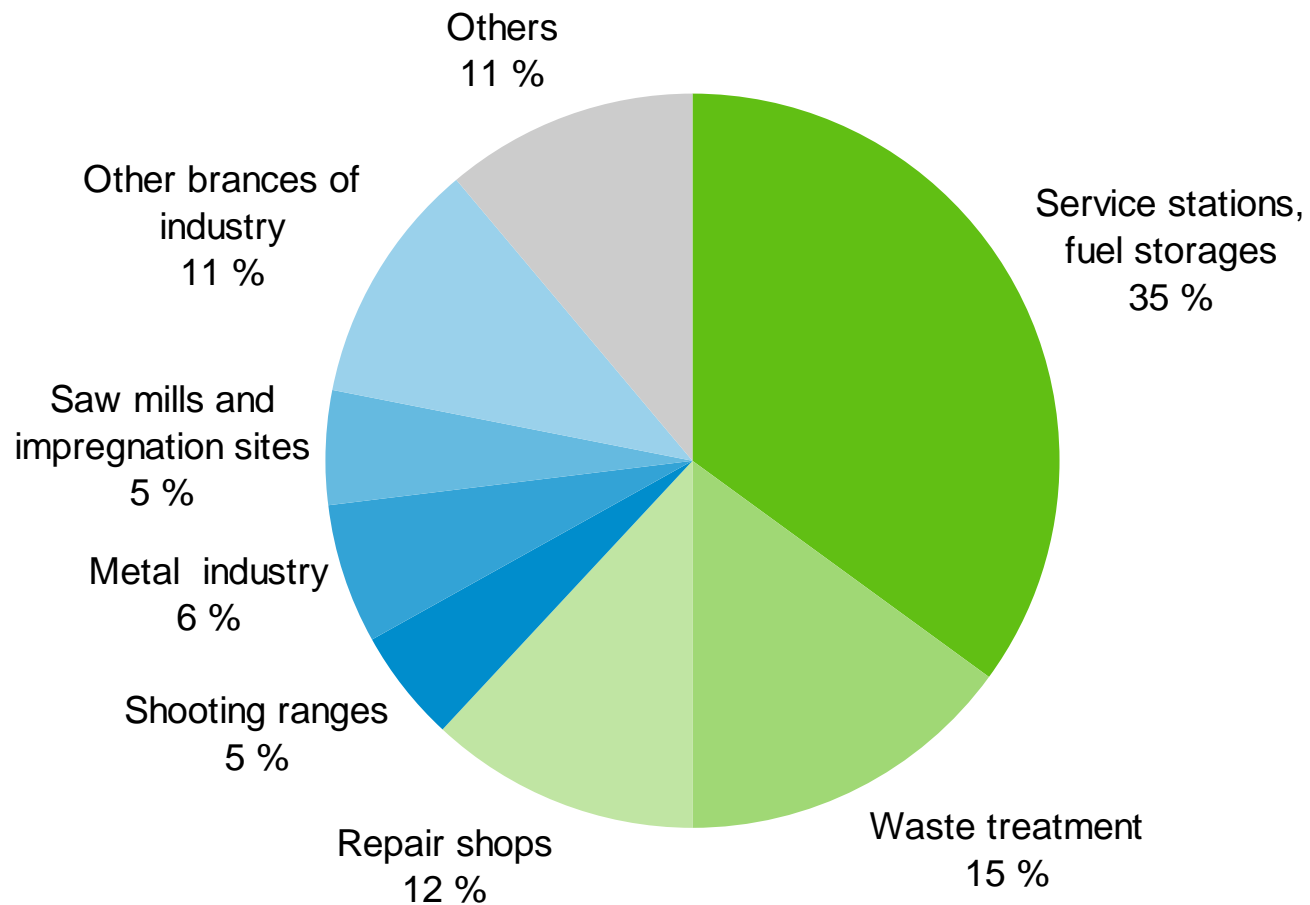
**ARTTU**  
client  
information

**HANKE**  
project  
management  
financing

**VAHTI**  
treatment  
facility data

**POVET ja PIVET** water sample data

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- Activities



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- Risks – groundwater areas

SITES / DISTANCES	Assessment	Investigation or Remediation	No need for remediation	
0 – 100 m	<b>3648</b>	<b><u>454</u></b>	482	1 2 3 4
>100 – 500 m	1442	144	120	1 2 3 4
> 500 – 1000 m	1468	157	172	1 2 3 4

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- Risks – settlements

SITES / DISTANCES	Assessment	Investigation or Remediation	No need for remediation	
0 – 100 m	<b>9404</b>	<b><u>610</u></b>	1106	1 2 3 4
>100 – 500 m	5638	798	503	1 2 3 4
> 500 – 1000 m	954	301	109	1 2 3 4

# Challenges

- Database is never going to be comprehensive
- There will always be uncertainties in the data
- Publicity of the information
- It is troublesome to locate landowners!
- Huge amount of work is still needed to go through the feedback
- At the moment 82 % of the sites are logged into the database based only on the information about the past/existing activity
- Building up a prioritization tool
- Soil framework directive !?



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Thank You!

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