

The description of the Petra Waste Benchmarking

1. Background

The Petra Waste Benchmarking is a web application designed to follow up and to estimate the waste amount in companies and public organisations. The Petra Waste Benchmarking compares the waste amounts of a private company or public organisation with other companies and organisations in the same line of business and in the similar kind of properties.

The use of the Petra Waste Benchmarking encourages to a reduction in waste amount and more efficient recycling. In Petra Waste Benchmarking, the companies and organisations can follow up both the total amount of waste and utilisation rate in relation to the number of personnel, turnover or production volume.

When the waste amount reduces, the costs caused by waste are lower and money can also be saved in procurement. The comparison to other operators in the same line of business helps to determine if one's own operations are producing too much waste.

The Petra Waste Benchmarking can be used free of charge on Helsinki Region Environmental Services Authority HSY's web-page (www.hsy.fi/petra). It is meant for all companies and organisations operating in Helsinki Metropolitan Area. The waste data is always handled as confidential. The Petra Waste Benchmarking includes the annual waste data of about 500 workplaces starting from 2003.

The Petra Waste Benchmarking was improved in 2011 by adding the calculation of greenhouse gas emissions of waste. The Finnish Environment Institute has estimated the greenhouse gas emission factors for various types of waste. The development work is co-financed by EU Life+.

2. The structure of the Petra Waste Benchmarking

The main structure of the Petra Waste Benchmarking is in Table 1. Basic Information, Waste reporting and Results are the main sections for the companies and organisations. There are also instructions for estimating the waste amount in the Petra Waste Benchmarking. The waste data is combined as Statistics of service industries and different kind of property types.

Basic Information	Waste Reporting	Results	Waste Statistics	Help	Contact Info	Login
		Benchmarking according to the type of property	Service industries	Express guide to using Petra	Contact Information	
		Benchmarking according to the line of business	Property types	Guide to companies	Message to Webmaster	
		Benchmarking in numbers		Guide to schools	Feedback to HSY	
		Other benchmarking		Guide for calculating the amount of waste		
		Greenhouse gas emissions		Problem waste		
				Guide for waste in general		

Table 1. The structure of the Petra Waste Benchmarking.

Benchmarking according to the type of property	Benchmarking according to the line of business	Benchmarking in numbers	Other benchmarking	Greenhouse gas emissions
Total amount of waste / person	Total amount of waste / person	Total amount of waste / person	Company's own waste fractions per year	Combined waste fractions
Total amount of waste/turnover	Total amount of waste/turnover	Waste amount by waste fractions / person		Combined waste fractions by year
Total amount of waste/production	Total amount of waste / production	Waste amount by waste fractions / turnover		Greenhouse gas emission / person according to property type
Recovery	Recovery	Waste amount by waste fractions / production		Greenhouse gas emission / turnover according the property type
Waste fractions	Waste fractions			Greenhouse gas emission / production according the property type
				Greenhouse gas emissions / person according to line of business
				Greenhouse gas emissions/turnover according to line of business
				Greenhouse gas emissions/production according to line of business

Table 2. The structure of the Result section in the Petra Waste Benchmarking.

3. The function of the Petra Waste Benchmarking

The company or organisation can register to the service on HSY's webpages. With the help of a user id and password the company or organisation can enter into the service the data concerning the waste amounts yearly. HSY checks and accepts the entered data. When the waste data is accepted, the service user receives an e-mail and can look at the results of the comparison.



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Basic Information Waste Reporting Results Waste Statistics Help Contact Info Login

Basic Information

Please fill in the basic information of your company. Fields marked with an asterisk are compulsory.

Do not forget to click the Save button to save the changes.

Company name:*	<input type="text" value="Esimerkkiyitys Oy"/>
Business identity code:*	<input type="text" value="999999"/>
Name of the workplace:	<input type="text" value="Kaupunginosan kauppi"/>
Postal address:	<input type="text" value="Katu"/>
Postal code:	<input type="text" value="99999"/>
City:	<input type="text" value="Helsinki"/>
Phone number:	<input type="text"/>
Homepage:	<input type="text"/>
Name of the contact person:*	<input type="text" value="Esko Esimerkki"/>
Phone of the contact person:	<input type="text"/>
E-mail of the contact person:*	<input type="text"/>
Company name of the contact person (if other than the company's):	<input type="text"/>
Postal address of the contact person (if other than the company's):	<input type="text"/>
Postal code of the contact person (if other than the company's):	<input type="text"/>
City of the contact person (if other than the company's):	<input type="text"/>
Type of property (in finnish only):*	<input type="text" value="Liikerakennus - päivittäistavara"/>
Line of business (in finnish only):*	<input type="text" value="Valitse"/>

Picture 1. The Basic Information section in the Petra Waste Benchmarking.



Petra - Waste Benchmarking

- Basic Information
- Waste Reporting
- Results
- Waste Statistics
- Help
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Reporting Of Waste Data

First calculate the amounts of all types of waste in kilograms and then enter these numbers in one go in the report of hazardous and non-hazardous waste. Also calculate the number of personnel in man-years, turnover and other data concerning the workplace. Besides general waste, also hazardous waste must be reported. Note! Do not use commas, dots or letters in waste numbers. Do not include any wastes received from your clients in the report.

- New waste report:
 - First select the year and then click Create a new waste report.
- Temporarily saved:
 - Click the words Temporarily saved for each respective year, so that you can proceed with the report
- Reports of former years:
 - You can look at the earlier reports by clicking the words Accepted or Ongoing process for each year in question.
 - If you wish to make changes to these, please send a message to the administrator.

Former waste reports:

2010	Accepted
2009	Accepted
2008	Accepted
2007	Accepted
2006	Accepted
2005	Accepted
2004	Accepted
2003	Accepted

Former hazardous waste reports:

2010	Accepted
2009	Accepted
2008	Accepted
2007	Accepted
2006	Accepted

Picture 2. The Reporting of waste data in the Petra Waste Benchmarking.

The service user receives several graphic results. The results of the company or organisation are compared to the average values in the same line of business and similar kind of properties.

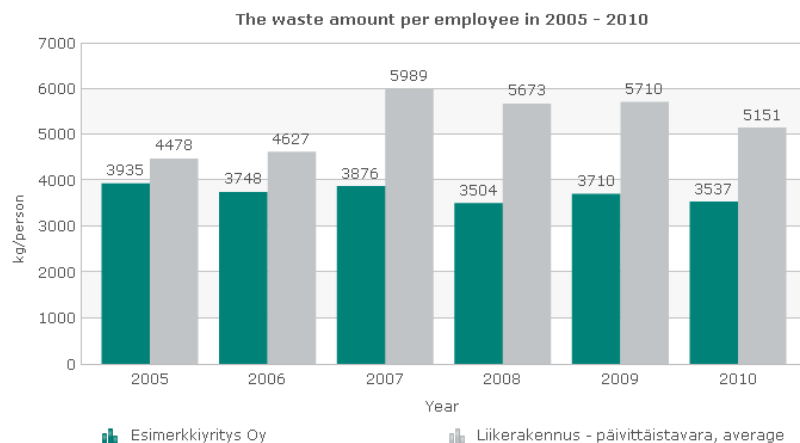


Petra - Waste Benchmarking

- Basic Information
- Waste Reporting
- Results
- Waste Statistics
- Help
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Results

- Benchmarking according to the type of property
 - Total amount of waste/person
 - Total amount of waste/turnover
 - Total amount of waste/production
 - Recovery
 - Waste fractions
- Benchmarking according to the line of business
- Benchmarking in numbers
- Other benchmarking
- Greenhouse gas emissions



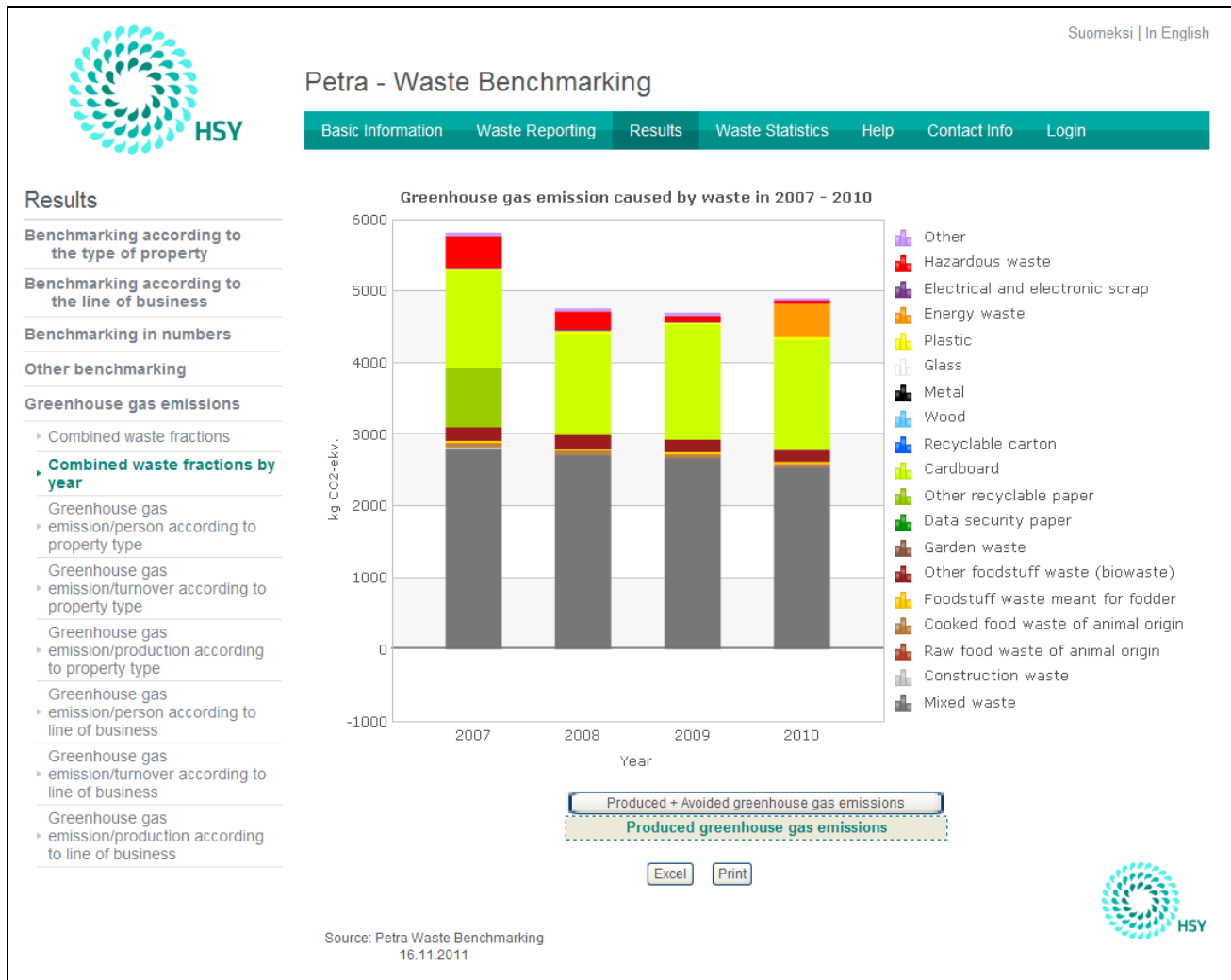
Excel Print



Source: Petra Waste Benchmarking 16.11.2011

Picture 3. The Result section in the Petra Waste Benchmarking.

From 2007 the Petra Waste Benchmarking counts CO₂-equivalent emissions caused by company's waste. Greenhouse gas emission factors are plus or minus for different waste fractions. This depends on how much the collecting and transport of waste causes emissions. On the other hand, the emissions of energy and raw material production can be avoided by waste utilization. The Petra Waste Benchmarking shows both the produced and the produced plus avoided greenhouse gas emissions.



Picture 4. The greenhouse gas emission results in the Petra Waste Benchmarking.

The Petra Waste Benchmarking includes the annual waste data of about 500 workplaces starting from 2003. Most of these workplaces represent the service industries. This statistic data is sorted according to line of business and property type.



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Basic Information Waste Reporting Results Waste Statistics Help Contact Info Login

Waste Statistics

Service industries

Property types

Petra Waste Benchmarking

Waste Statistics Of Service Industries In 2009

Click the name of the line of business in the table and you will receive the statistics concerning that line of business in graphs.

Industry	n	Total amount of wastes kg/person	n	Total amount of wastes kg/MEur	Recycling %	Recovery %	Greenhouse gas emission kg CO ₂ -eq./person
Sale of motor vehicles, maintenance and repair garages and service stations	29	1276	19	1654	72	80	149
Wholesale of food	5	3180			50	68	-178
Other wholesale	38	1956	32	2659	74	83	-555
Grocery store	48	5710	47	13751	64	69	431
Other retail sale	38	2136	21	7391	59	78	-830
Hotels	6	2084	4	12767	62	66	109
Restaurants	9	1315	6	16405	48	57	162
Offices of the public administration	7	238			52	63	-25
Upper secondary schools	5	85			66	66	6
Universities and other institutions of higher education, other educational institutions	5	58	4	2423	63	74	-8
Hospitals	8	387			35	63	79
Other health services	12	820	5	3134	24	24	157
Day care centres	7	117			42	56	5

Picture 5. The Waste Statistics section in the Petra Waste Benchmarking.

4. The Saver of Natural Resources competition

HSY encourages companies and public organisations to prevent waste by awarding every second year the best one with the Saver of Natural Resources prize. The prize is given to a company or organisation which has reduced the waste amount in an exemplary manner. All companies or organisations which have entered data to the Petra Waste Benchmarking from Helsinki Metropolitan Area participate automatically in the competition.

The most important criteria in the competition is the total amount of waste in relation to the number of personnel, turnover or production volume. The reduction of waste amount should be based on active measurements which the company or organisation has realised as a forerunner in its own line of business. The winner receives a certificate of honour and the right to use the Saver of Natural Resources symbol for one year.

5. Greenhouse gas emission factors

The Finnish Environment Institute has estimated the greenhouse gas emission factors for various types of waste. Detailed description of these factors can be found here <http://www.hsy.fi/julia2030/en/project/waste/Pages/default.aspx>