UMEÅ, Sweden

City Information

**Population:** 118 349 (in Umeå municipality)

**Area (km²):** 2 317 km² (Umeå municipality)

**Climate:** The climate of Umeå is subarctic, with short and fairly warm summers. Winters are lengthy and freezing but considering the latitude very mild due to the influence of the Gulf Stream.

**Main Economic Activities:**
Key research fields of the University are life sciences (especially medical and cell and the molecular biology of plants), human technology interaction, social welfare, ecology and gender perspectives.

Umeå municipality, The County Council and Umeå University are the biggest employers and The Swedish University of Agricultural Sciences (SLU) is a major site of research and education. Other notable companies based in Umeå are:

- Volvo Lastvagnar – Truck cabins
- Ålö AB - World market leader in front end loaders for tractors.
- Komatsu Forets – Forestry machinery
- Konftel – Conference telephones
- GE Healthcare – Laboratory Instruments

**City website:**

[http://umea.se/kommun](http://umea.se/kommun)
Country Information

Population: 9,658,301

Area (km²): 449,964 km²

Economy and GNI/Capita
[according to WB classification http://data.worldbank.org/about/country-classifications low, lower middle, upper middle and high income; GNI/Capita in USD]

High income; 59,139 (2013)

Main Economic Activities
Sweden is the seventh-richest country in the world in terms of GDP (gross domestic product) per capita and a high standard of living is experienced by its citizens. Sweden is an export-oriented mixed economy. Timber, hydropower and iron ore constitute the resource base of an economy with a heavy emphasis on foreign trade. Sweden's engineering sector accounts for 50% of output and exports, while telecommunications, the automotive industry and the pharmaceutical industries are also of great importance.

The 20 largest (by turnover) registered Swedish companies in 2007 were Volvo, Ericsson, Vattenfall, Skanska, Sony Ericsson Mobile Communications AB, Svenska Cellulosa Aktiebolaget, Electrolux, Volvo Personvagnar, TeliaSonera, Sandvik, Scania, ICA, Hennes & Mauritz, IKEA, Nordea, Preem, Atlas Copco, Securitas, Nordstjernan and SKF. The vast majority of Sweden's industry is privately controlled, unlike many other industrialized Western countries.

Government Agencies responsible for guidance on waste legislation

Swedish Environmental Protection Agency is the government's central environmental authority. EPA supports the other authorities in their environmental efforts by:
• develop and disseminate knowledge
• formulate requirements and levels of ambition
• monitor and evaluate.

http://www.swedishepa.se/

Ministry of Environment is responsible for coordinating the Government's environmental policy and also represents Sweden in the EU.

http://www.government.se/sb/d/2066
**MSW Sector Overview: City Level**

**Classification of MSW**
[what waste types are classified as Municipal solid waste (MSW), only households or also commercial entities like restaurants; hospitals etc.]

Municipal waste consists of household waste both from households and businesses. The household waste is collected in two fractions; combustible waste and food waste.

UMEVA only takes care of the household waste (not industrial waste), but also collects household bulky waste at recycling centers.

All businesses should have a household waste subscription operated by UMEVA because there is household waste in all workplaces. Business waste/industrial waste can be divided into various groups and some waste can belong to several groups. Business waste/industrial waste can be left to various players in the waste market.

**MSW Generation**
[total in tonnes/year and per capita in Kg/year]

Total amount of MSW collected from households, business and recycling centers: 56 539 tonnes (2013).

In 2013 the inhabitants of Umeå generated about 451 kg household waste/person.

**Collection Coverage and Type**
[e.g. approximately 80% of the waste generated is formally collected and disposed. State if source segregated collection of different waste streams takes place or not, e.g. Publicly sited collection bins for paper & cardboard; glass and metals]

Approximately 100 % of the waste generated is formally collected and disposed. Umeå has source segregated collection of different waste streams through publicly sited collection bins for paper, cardboard, glass, metal and plastic.

**Waste Composition**
[Actual composition if known for organics; metals; plastics; glass; paper & cardboard etc. or a descriptive]
idea of the composition such as “the waste stream has a high organic waste content estimated to be around 70% with low levels of recyclable materials such as plastics, paper and glass”

Most of the waste stream goes to incineration with energy recovery; around 60%. The level of recyclable materials is about 25% and the rest, about 12%, is organic waste, such as food waste and garden waste. Only a few percent goes to landfill.

**Waste Management Practice**
[identify what is predominant practice e.g. open dumps, no biological treatment or formal recycling; include disposal, recycling and recovery rates where known; type of materials reused, types of materials recycled; ]

In Umeå only about 2% of the waste is put on landfills. In 2012 about 55% of the waste was incinerated and 43% was material recycled (glass, cardboard, metal, plastic and paper, organic waste). The food residuals is sent to Skellefteå, about 150 km north of Umeå, and made into bio fuels for vehicles.

**Formal Waste Sector**
[type of ownership and management e.g. publically owned and operated, PPP etc; outline the different waste operations in place locally e.g. landfill; composting plants; energy recovery; recycling and what waste types are exported for treatment, e.g. separated recyclables]

UMEVA is a company 100% owned by the municipality and responsible for the waste management in Umeå. UMEVA owns the landfill, and the combined heat and power plant (CHP) is owned by the municipal energy company, Umeå Energi. UMEVA collects the household waste of which most is incinerated. Publicly sited recycling stations enables for recycling.

Some of the plastic and paper packages are exported to separating plants abroad. Aluminum is sold to Europe and much of the steel is sent to Germany. Glass and newspaper is treated in Sweden.

**Informal Waste Sector**
[collection coverage, type of materials, if the informal sector makes up a large or small part of the waste sector]

Collection coverage is about 100% and there is almost no informal waste sector in Sweden.

**Financing of MSW**
[what type of model is used to finance waste services e.g. through household fees, general tax, etc. Is the cost a significant part of the city budget?]
Waste management in Umeå is financed solely by sanitation fees, no taxes. The waste tariff is divided into three parts; the basic charge, a vessel fee and a variable weight-based fee. The base charge covers costs for recycling centers and recycling stations. The vessel fee covers the cost for waste collection and transport as well as the purchase and maintenance of the vessels. The vessel fee depends on size of vessel and method of collection. The weight surcharge for combustible waste mainly covers the cost of treatment of the collected waste, which is delivered to Umeå Energi who charge for incinerate the waste at Dåva CHP. Food waste is also weighed, but not charged.

The cost for waste services is a very small part of the city budget, just over 1 %.

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**MSW Sector Overview: Country Level**

**General description and overview of common practice**

*e.g. approximately 85% of waste generated is not collected and disposed of in a sanitary manner. Improper disposal methods include burning, household burying, and open dumping along streams and roads*

A very small part of waste generated in Sweden is not collected and disposed of in a sanitary manner.

**Waste Generation (per capita/year)**

461,2 kg/capita 2013.

**Collection Coverage**

[% of population receiving collection services]

Almost 100 % of the population in Sweden receives collection services. (Only a few exceptions.)

**Number of Landfills/MSW Disposal rate (tonnes/year)**

33 300 tonnes of household waste were put on 47 landfills in 2013.

**Recycling Rate**

*[if known; ideally for different fractions: metals, glass, plastics, paper & cardboard. If no figures are available descriptive information can be given]*

Recycling rate 2012:

Glass: 88,20 %
Cardboard: 75,60 %
Metal: 60 %
Plastic: 26.90%  
Newspaper: No numbers  
(Source: [http://www.ftiab.se/180.html](http://www.ftiab.se/180.html))

**Waste management of Organic fraction (composting, anaerobic digestion)**  
*Are practices like AD and composting in place and on what scale*  
711,450 tonnes of household waste were biologically treated in 2013 through anaerobic digestion or composting. Biological treatments stand for 16% of the treatment of household waste.

**Energy Recovery Rate**  
*Mention if energy is recovered from waste, and if so by what means (landfill gas; anaerobic digestion; thermal treatment etc.) and from what quantities of waste, if known.*

Energy recovery through waste incineration is very common in Sweden. In 2013, 50.3% of the household waste (2,235,930 tonnes) was incinerated.

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**Plans, Strategies, Policies [including financial instruments] and National Objectives**

**City Level**

Aimed at improving Waste Management in General

- Umeå municipality’s master plan (1998)
- The Aalborg commitments (2007)
- Environmental objectives (national, regional and local) (1999)

Aimed at addressing Climate change and reducing Short Lived Climate Pollutants (SLCPs) through waste related activities


**Country Level**

Aimed at improving Waste Management in General

- The national waste plan 2012-2017
- The EU’s waste hierarchy
Climate and Clean Air Coalition Municipal Solid Waste Initiative

http://waste.ccacoalition.org/

RECO Baltic 21 Tech - A common waste strategy for the 10 Baltic countries

National Environmental Objectives

Aimed at addressing Climate change and reducing SLCPs through waste related activities

**Legislation**

**City Level**

Legislation governing MSW management

The Environmental Code (1998)

Regulations on waste management and sanitation (2013)

**Guidance for MSW management (after legislation, before inspection activities)**

The Swedish Association of Local Authorities and Regions, SALAR, is an organization that represents and advocates for local government in Sweden. All of Sweden's municipalities, county councils and regions are members of SALAR. The Swedish Waste Management and recycling association is another organization with 400 members from both the public and the private waste management and recycling sectors. Both organizations provide guidelines for their members.

**Inspection activities/supervision and enforcement of legislation**

The Environment- and Health Board are responsible for inspection activities within the municipality. The County Administrative Board has the responsibility for supervision of transportation of hazardous waste.

**National Level**

**Legislation governing MSW management**

The Environmental Code (1998)

The waste decree (2011:927)

The Producers responsibility
Guidance for MSW management (after legislation, before inspection activities)
The Swedish Association of Local Authorities and Regions, SALAR, is an organization that represents and advocates for local government in Sweden. All of Sweden’s municipalities, county councils and regions are members of SALAR. The Swedish Waste Management and recycling association is another organization with 400 members from both the public and the private waste management and recycling sectors. Both organizations provide guidelines for their members.

Inspection activities/supervision and enforcement of legislation
Responsible for supervision of legislation for waste management is the Swedish Environmental Protection Agency.

Involvement to date in CCAC MSW Initiative
UMEVA/Umeå municipality has not been involved in CCAC MSW Initiative so far.

Current Projects or activities aimed at reducing SLCP Emissions
Umeå municipality does not have any major projects regarding this matter, but the municipal environment- and health department is working with soot particles from wood burning; together with the energy advisors, information efforts on how to burn firewood properly has for example been made.

As for HFC, the environmental inspectors require reports for refrigerants from companies in the municipality.

Key Stakeholders

[Provide Name of Organisation and Weblink]

- UMEVA (Umeå Water and Waste Ltd) [www.umeva.se](http://www.umeva.se)
- Umeå municipality [http://umea.se/umeakommun/funktionsmappar/sprak/languages/english.4.bbd1b101a585d704800067778.html](http://umea.se/umeakommun/funktionsmappar/sprak/languages/english.4.bbd1b101a585d704800067778.html)
Additional useful information

Areas in which Umeå can provide assistance and cooperation:

- Elaboration of waste management plans
- Recycling of food waste
- Secure, environmentally friendly landfiling
- Energy recovery, incineration
- Hazardous waste
- Communication to municipal inhabitants
- Sorting, material recycling/ recycling centrals

Contacts

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