



CASE STUDY – EMAS IN THE WASTE SECTOR

April 2018



BACKGROUND

Like any other industrial activity, the treatment of waste can have negative environmental impacts: for example, in the areas of land occupation, fossil and other finite resource depletion, production of GHG emissions, water pollution, and traffic and noise in cities.¹

On the other hand, apart **from waste prevention, using waste as a resource can avoid considerable environmental impacts linked to the extraction of resources and manufacture of new products.** As the goal of a circular economy is pursued, the waste sector is increasingly considered to be a fundamental player that provides an important environmental service.

In 2014, 2,502 million tonnes of waste were generated in the EU² (20% more than in 1990)³. Only 36% of this was recycled, and the rate of recycling varied considerably among Member States, from 80% in some areas to less than 5% in others.⁴

Circular economy strategies at EU and Member State level demand that all sectors increase the efficiency of their use of resources to comply with the new targets by 2020. They must prepare to re-use and recycle 50% of certain waste materials from households and other origins similar to households, and prepare to re-use, recycle and recover 70% of construction and demolition waste.⁵ The European Commission adopted even stricter post-2020 targets in May 2018, following an extensive discussion with the Council and the Parliament. **Organisations operating in the waste sector play a key role in the transition to a circular economy.** They manage a significant part of the materials' flows and produce resources which can be re-injected into the economy, either as materials or as energy. **The sector also provides an essential environmental service for our society,** both from a citizens' point of view and from the perspective of the industrial, agriculture, and service sectors. It frees every household and organisation of their waste, and it reduces related risks.

This case study will highlight the importance of the waste sector for the economy and sustainable development of the EU, and the role that EMAS plays in the waste sector.

1. Best Environmental Management Practices for the Waste Management Sector. <http://susproc.jrc.ec.europa.eu/activities/emas/documents/WasteManagementBEMP.pdf>
2. Eurostat
3. European Commission (1999) EU Focus on Waste Management
4. Environmental Data Centre on Waste, Eurostat : <http://ec.europa.eu/environment/waste/>
5. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste

Facts & figures on the waste sector

Waste collection activities generate a turnover of 50,000 million €, waste treatment activities around 35,000 million €, and material recovery 62,000 million €. ⁶

Of a total of more than 44,000 companies operating in the waste sector, 77% are micro organisations (fewer than 10 employees) and 99.7% are SMEs (fewer than 250 employees) ⁷. Big players in Europe currently manage more than 40% of Municipal Solid Waste (MSW). In terms of turnover, the waste management sector is dominated by medium and large companies ⁸.

According to data available from the OECD, 1,055 new patents related to the waste sector were registered in the EU Member States in 2014. ⁹ **More cost-efficient and accurate sorting techniques, smart data collection and analysis, and innovative processes for recycling secondary raw materials are just some of the examples of technology innovation in the waste sector.**

THE WASTE SECTOR AND ENVIRONMENTAL MANAGEMENT

The waste sector is strictly regulated across the EU Member States. This requires organisations to adopt a methodical approach in order to ensure that they constantly comply with the various requirements affecting their activity. This task can be easier if carried out with the support of EMAS, which allows organisations to identify and implement their legal obligations and provides the necessary evidence in the event of inspections.

The reference document on *Best Available Techniques (BAT) for the Waste Treatments Industries* ¹⁰ recommends the implementation of an Environmental Management System (EMS). EMS are implemented by organisations to assess and decrease their environmental impacts. If the EMS follows the requirements of the EMAS regulation, the organisation can become EMAS-registered. This means legal authorities will require the implementation of an EMS when reviewing the permits of waste management sites, and EMAS can be used to demonstrate the organisation's compliance.

An extra added value of EMAS with regard to other EMS schemes is that it implies third-party verification (the quality of the EMS and environmental data is checked by a specifically trained verifier) **and a further check from a public authority** (the EMAS Competent Body, which is in charge of administering EMAS at national level, checks the organisation's legal compliance before the EMAS registration). EMAS registration therefore

proves the **reliability and quality** of an organisation's environmental policy. **EMAS-registered organisations annually publish indicators on their environmental performance in a report validated by an independent EMAS verifier** (EMAS environmental statement). This report substantially facilitates the collection and publication of data for different purposes, and follows the recommendation of the United Nations Sustainable Development Goals ¹¹.

The 12th goal, "Ensure sustainable consumption and production patterns", encourages companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle.



According to the EU register of EMAS-registered organisations ¹², 396 European companies have implemented EMAS in the waste sector. They account for 1,099 sites and more than 50,000 employees. These figures mean that waste is the sector with the most EMAS registrations.

Nearly 89% of those organisations are SMEs. This data debunks the common but inaccurate belief that EMAS is designed predominantly for large companies.

⁶ European Commission (2016) Background Report on Best Environmental Management Practice in the Waste Management Sector

⁷ Eurostat

⁸ Best Environmental Management Practices for the Waste Management Sector <http://susproc.jrc.ec.europa.eu/activities/emas/documents/WasteManagementBEMP.pdf>

⁹ OECD.Stat

¹⁰ Competent authorities responsible for issuing permits in EU Member States are required to take into account best available techniques (BAT) when determining conditions for permits. The reference document for the waste sector (2006) is available at: http://eippcb.jrc.ec.europa.eu/reference/BREF/wt_bref_0806.pdf

¹¹ United Nations Sustainable Development Goals were adopted on September 25th 2015, in order to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda

¹² EU Register, as of January 2018: http://ec.europa.eu/environment/emas/emas_registrations/register_en.htm

EXPERIENCE OF EMAS-REGISTERED COMPANIES IN THE WASTE SECTOR

URBASER and **CLD** are two of the four contractors currently involved in the municipal waste service of the city of Barcelona. They are both EMAS-registered. While URBASER is one of the biggest transnational waste companies and operates in multiple countries, CLD initially started as a cooperative and is today a corporation mainly operating at regional level.

URBASER



Barcelona's division of **URBASER** was the first to implement and attain EMAS in 2008. It counts more than 880 employees. According to Meritxell Miquel, Head of Service, the organisation decided to upgrade to EMAS in order to provide evidence of full legal compliance and extra added value to its customer, the municipality of Barcelona.

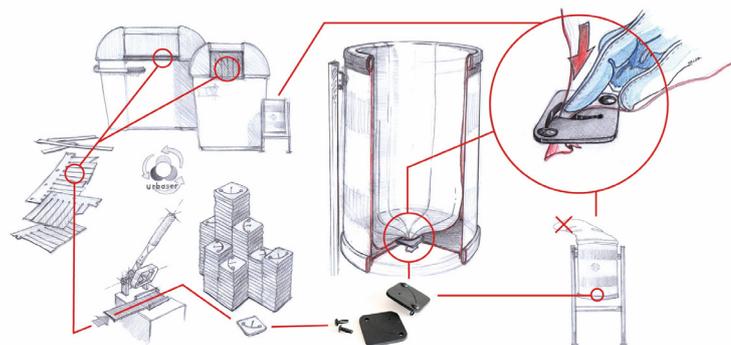
"The adoption of an environmental management system in a company belonging to this sector was seen as a basic requirement, as its service is to provide sanitation to the city and to improve the quality of life of its citizens. Doing so without reducing its negative environmental impacts to the maximum meant doing a bad job", Ms Miquel said.

At that time, **the majority of the organisation's competitors were ISO 14001-certified, and obtaining EMAS was a way to give it a competitive edge.** The company improved its use of resources. The EMAS environmental statement forces the organisation to find out the causes when an environmental indicator is not what it should be.

Adopting EMAS also had a positive influence on its interactions with its stakeholders. According to Ms Miquel, "One of the main impacts of the implementation of EMAS has been the development of synergies and the strengthening of relations with our network and other stakeholders such as customers or citizens". For example, URBASER involved students from the Elisava Design School to find a solution to reuse the work uniforms used by all the staff. This eco-design project was honoured with the Catalan Design for Recycling Award 2011.

URBASER has also organised open-door days to communicate the relevance of their work to the neighbours and to the employees' families. The objective was to show the technology behind the job carried out in the streets and enhance the social value placed on people involved in waste management.

In the municipal waste management sector, public contractors always ask for improvements and actions that can enhance the added value of the proposal. URBASER has benefitted from EMAS because it provides the framework to develop environmental innovations. One of its latest initiatives has been the development of a new product as an answer to one of the main challenges that windy cities face. In Barcelona, the wind pulls plastic bags off the trash bins located in the streets. This increases not only the dirtiness of the streets, but also the risk of marine litter in coastal cities. URBASER has developed a very simple and circular solution: a small device made with the rubber part of old containers is placed at the bottom of the bin and firmly holds the plastic bag. The production process is simple and is currently being done by a social association. This device named "antivolabossa" (no-blowing bag) was cited in a United Nations publication as one of the top 25 innovative actions to reduce marine litter.



Sketches illustrating the concept of Antivolabossa. Credits Salvador Fàbregas

CLD



CLD

CLD's EMAS registration covers eight sites and involves about 720 employees.

The management decided to upgrade to EMAS in 2014 because other competitors were going in this direction and the company wanted to deepen the process of continual improvement of its services. EMAS consolidated the organisation's previous 10 years of environmental management.

Josep Ganyet, Head of Environment, Quality and Health & Safety of CLD, states that the main achievement since the EMAS registration has been their current environmental database: a robust, detailed, and accurate data collection procedure. Although the company already had a monitoring

system in place, verification by an external auditor and publication of data and indicators under EMAS require an extra effort to ensure the accuracy and traceability of data.

This has enabled the company to gain a very deep knowledge of its performance, which is a useful tool that supports the organisation's decision-making processes.

Among the organisation's best environmental results between 2015 and 2016 is the reduction of 13% of global energy consumption, which includes the electricity consumed in buildings and electric vehicles, natural gas for buildings and vehicles, and gasoline and diesel for vehicles. CLD is currently implementing new actions that will help reduce water consumption – an issue that strongly concerns Mediterranean cities – by treating and reusing waste water from sinks and showers for use in the cleaning of vehicles.



Through a **Life Cycle Analysis** of its services, CLD found out that the consumption of oils and lubricants had a significant environmental impact. In 2017 it introduced a filtering system, which reduced its consumption by nearly 13%, meaning a reduction of 2,000 of the 15,000 litres of oils and lubricants consumed per year. It now buys less oils and lubricants and saves costs on hazardous waste management.

Since its EMAS registration, CLD has also benefited from specific **regulatory relief**¹³ applied in Catalonia. The company can use the legal check carried out by the EMAS verifier as a substitute for the environmental license controls performed by public authorities. **This saves them time and money.**

CLD has the opportunity to be involved in projects that allow for closer relations with public administrations and other interested parties. They can, for example, discuss the possibility of introducing new regulatory relief for EMAS-registered organisations, and they can collaborate with NGOs on biodiversity projects.

Val di Non

The **Val di Non Community in Trentino (Italy)** is a public authority with waste management responsibilities. According to Adriana Borghesi, who is responsible for EMS, "We already had a robust monitoring system for waste collection,

but EMAS helped us to involve further our stakeholders".

The Val di Non Community works with the local population through projects such as:

- RI-PIAZZA, a party for schools, children and families that takes place annually to encourage the reuse of different materials through creative activities and exhibitions.



¹³ Regulatory relief is financial and administrative advantages provided to EMAS-registered organisations by public authorities because of their commitment to environmental improvement, legal compliance and transparency.

- The RICREA Centre that enables schools and associations to have access to clean materials that are discarded by companies in the area and that can be used for the creation of new objects.
- The Solidarity Centre for Reuse, which collect items that families no longer want that can be useful to cover

the needs of other families or people in need.

Although the Val di Non Community started these activities on its own, over time it has involved local associations that are now participating in the training activities, thus expanding its base of positive allies for waste prevention.

BENEFITS OF EMAS FOR THE WASTE SECTOR

EMAS offers various benefits for organisations operating in the waste sector. It specifically:

- Facilitates the organisation's compliance with legal requirements and provides an extra check through the activities carried out by the EMAS verifier and the EMAS Competent Bodies.
- Supports the optimisation of resources (energy and materials), and therefore reduces costs.
- Creates potential for innovation as it deeply integrates environmental thinking into business processes.
- Provides a robust measuring and monitoring system
- or strengthens the existing one in the organisation, increasing the reliability of data and decision-making.
- Increases the level of staff participation and interaction with other stakeholders.
- Increases the credibility of the organisation's environmental commitment as the validated environmental statement provides transparent information.
- Enables the organisation to benefit from forms of regulatory relief in place for that sector in certain EU Member States and regions.¹⁴

OUTLOOK

The management of waste at local level plays a key role in the ability of communities to use resources efficiently and make progress towards achieving a more circular economy. Many waste authorities and waste management companies are interested in improving their waste management performance, for instance by promoting waste prevention and by re-using and recycling at a higher rate.

This can be achieved through the **implementation of Best Environmental Management Practices (BEMPs)**¹⁵. BEMPs provide specific guidance for the waste management sector based on actions and techniques that have been implemented by frontrunner organisations and proven successful. Organisations can use the document to identify the most relevant areas for action and to find detailed information on best practices to address their environmental impacts, as well as environmental performance indicators and related benchmarks of

excellence to track sustainability improvements. EMAS-registered organisations must take the BEMPs into account when implementing their environmental management system, but any organisation is free to access them and identify potential opportunities for improvement.

Another way to innovate and improve its environmental performance is to participate in specific working groups, for example within existing EMAS Clubs, workshops and other meetings organised by EMAS Competent Bodies, or other environmental sectoral platforms such as waste associations, circular economy platforms, etc.

Last but not least, interaction and networking with other interested parties such as NGOs or neighbours' associations can give the organisation a different perspective and potentially be the source of future actions and improvements.

For more information on EMAS, the registration process and its benefits, please visit the EMAS website: http://ec.europa.eu/environment/emas/emas_publications/publications_studies_en.htm

¹⁴ For more information about existing regulatory reliefs for the waste sector in the EU, consult the RAVE study: http://ec.europa.eu/environment/emas/emas_publications/publications_studies_en.htm

¹⁵ BEMPs documents are prepared by the Joint Research Centre of the European Commission. The one for the waste sector is available at: <http://susproc.jrc.ec.europa.eu/activities/emas/documents/WasteManagementBEMP.pdf>