



European
Commission

CIRCULAR ECONOMY

Closing the loop

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SUCCESS STORIES



EMAS, A STEPPING-STONE TOWARD THE CIRCULAR ECONOMY






The EU Eco-Management and Audit Scheme (EMAS) is a management instrument developed by the European Commission to help companies and other organisations evaluate, report, and improve their environmental performance. EMAS is open to any type of organisation eager to improve its environmental performance. It spans all economic and service sectors and is applicable worldwide. Today, about 4 000 organisations, and more than 8 000 sites are EMAS-registered.

EMAS can be a very effective tool for establishing a more circular model in any kind of organisation.

The EMAS-registered organisations highlighted below are just a few examples, which show how EMAS can contribute to the transition towards more circular and sustainable models. More examples can be found on www.emas.eu

Organisation	Sector	Achievement	CE aspects	Country	Link
gorenjegrup	Manufacturer of household appliances	<p>Gorenje takes into account the very last stage of its products' life cycle (when they will be no longer in use and discarded as waste) as early as the product planning stage. Products are planned and produced to allow simply disassembly and recycling in the last stage of their life cycle.</p> <p>The company has developed a new fridge design that offers innovative solutions to help maintain the quality of the food stored for longer, and to improve the interior of the appliance to make handling more user-friendly, to ensure high energy efficiency, and to provide a modern design that is in line with current trends.</p>	Eco-design	Slovenia	www.gorenjegrup.com 

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<p>The Municipality of Ljubljana is the first public administration institution in Slovenia to be registered in the EMAS system. It is the first EU capital to adopt a Zero Waste strategy and is the winner of European Green Capital Award 2016.</p>	Public administration	<p>The municipality has gradually implemented environmental standards in its business operations.</p> <p>It is carrying out a pilot project in the Environmental Protection Department due to the dispersed locations of the different departments and agencies of the Municipality of Ljubljana City Administration.</p> <p>It collects separately 60% of municipal waste and generates less than 150 kg of residual waste per person per year.</p> <p>It has made a commitment to increase separate waste collection to 78% and to decrease the amount of residual waste to 60 kg per person per year by 2025.</p> <p>Sustainable transformation has been achieved in several areas, including local transport and the pedestrianisation of the city centre.</p> <p>It has preserved and protected green spaces.</p> <p>Progress has been achieved in the treatment of waste and waste water.</p>	Waste management, Transport	Slovenia	<p>www.ljubljana.si/en/green-capital/green-news/81913/detail.html</p> <p>www.zerowasteeurope.eu/2014/09/ljubljana-first-eu-capital-to-adopt-a-zero-waste-strategy/</p> <p>www.zerowasteeurope.eu/2015/05/new-case-study-the-story-of-ljubljana-first-zero-waste-capital-in-europe/</p> <p>www.ljubljana.si/en/green-capital/</p> <p>ec.europa.eu/environment/europeangreencapital/winning-cities/2016-ljubljana/</p>
 <p>The Regional Centre for Water and Wastewater Management Co. (RCGW S.A.) Poland is the Polish and European leader in the production and usage of renewable energy in the water and waste water sector.</p>	Water and Waste water Management	<p>The company's average monthly production of renewable energy from waste water biogas exceeds 150%, in relation to the energy consumption in the waste water treatment plant.</p> <p>The company has achieved impressive results through the continuous improvement of management processes and the optimisation of technical and technological solutions.</p>	Recycling Renewable energy (biogaz)	Poland	<p>www.rcgw.pl/en</p> 

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 <p>STMicroelectronics is a global leader in the semiconductor market serving customers across the spectrum of sense and power technologies, automotive products, and embedded-processing solutions.</p>	Semiconductor	<p>In 2014, some 92 % of the company's waste was recycled and reused.</p> <p>Finding ways to recycle cured epoxy resin culls on the Maltese Islands is a challenge, due to limited recycling possibilities, combined with environmental restrictions on more conventional recycling options, such as using backfilling material in the construction of roads. Normally, ST's Back-end manufacturing sites send spent-resin culls to cement manufacturing companies, where they are granulated and mixed with cement powder. However, this is not economically feasible in Malta. Therefore, ST Kirkop found a solution for recycling spent-resin culls with a local waste broker, who is involved in manufacturing concrete blocks. The spent-resin culls are mixed whole with wet concrete and shaped in blocks with a base of one square meter. The blocks are then used as barriers for construction sites.</p>	Recycling Re-use	France – Italy – Malta	www.st.com/web/en/resource/corporate/financial/quarterly_report/ST_sustainability_report_2014.pdf 
 <p>UPM The Biofore Company</p> <p>UPM leads the integration of bio and forest industries into a sustainable future.</p>	Paper (and much more)	<p>Biofore means the versatile use of recyclable and renewable wood biomass, combined with innovation, efficiency and responsibility.</p> <p>Many biofuels are criticised for utilising raw materials from the food chain. However, UPM's renewable diesel, UPM BioVerno, is produced 100 % outside the food chain.</p> <p>It is also produced 100 % inside the integrated mill – offering true production efficiency and good environmental performance.</p>	Eco-design, Industrial Symbiosis Recycling	Finland and Germany	www.upm.com  <p>Finland</p>  <p>Germany</p>

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	Heating	<p>The company integrates recycling and re-engineering thinking from product design onwards.</p> <p>Components are traceable to facilitate their re-use in the production process.</p> <p>Minimal emissions are produced.</p>	Eco-design Recycling	Germany	www.viessmann.com/com/en/company.html 
 <p>Part of 'Your Mover Logistics'</p>	Office facilities and furniture	<p>Based on its experience as a mover/logistician, the company has developed a new business model.</p> <p>Production of new office furniture is based on the recycling of clients' old furniture.</p>	New business model, Recycling	Belgium	www.nnof.be 
	Printing	<p>The company has dramatically changed its business model from selling printers to selling printing services (pay per print vs. pay for a machine).</p>	Business model shift (from material sales to services)	Belgium (EMAS registration) and many other countries	www.ricoh.be www.ricoh.be/fr/a-propos-ricoh/nos-principes/environnement/concept-of-sustainable-society/ www.ricoh.be/fr/a-propos-ricoh/ricoh-belgique/environnement/index.aspx (3 years EMAS registration)
 <p>Brand:</p> 	Household cleaning	<p>Frosch products are produced using a circular approach, both in term of composition (biodegradable) and packaging (80% recycled PET).</p> <p>Both production sites are EMAS registered, resulting in the constant monitoring and improvement of environmental performance.</p>	Eco-design, Recycling	Germany	http://integrally-sustainable.com/index_en.html 
 <p>Mahou San Miguel is the leading and best known international brewer in Spain. The company produces 75% of all Spanish beer consumed worldwide.</p>	Brewing industry	<p>The company has developed waste management in line with circular economy principles. It also has made a commitment to ensure that its energy consumption is 100% from renewable resources.</p> <p>It revalues 99.83% of its total waste, thanks to recycling and eco-design.</p>	Eco-design Recycling	Spain	www.mahou-sanmiguel.com 