

Circular Economy Through Plastic Recycling in Romania



Recycled PET consumes 45 per cent less energy than is needed to produce virgin material. Picture: Greentech S.A.

This carbon offset project promotes the recycling of used PET bottles and other plastic waste. The PET flakes and granulate obtained from the recycling process are reused, for example, in the packaging industry or for insulation in the construction sector. As a result, resources are saved and the burden on the climate is reduced.

In Europe, 29 million tonnes of plastic waste are produced each year; and this number continues to increase. Only 32 per cent of this is recycled, almost 40 per cent is burned to generate energy. A further quarter, that is over 7 million tonnes, ends up in landfill sites – precious resources, which can no longer be used and are hardly biodegradable.

The European Plastic Strategy, published in 2018, envisions a number of measures to address this problem across the whole of Europe. Among other things, from 2030 all plastic packaging on the EU market must be recyclable. Likewise, a better, standardised system for segregation, collection and sorting of waste must be established across the entire EU. These new provisions should enable the EU member states to meet a recycling of 55 per cent of plastic packaging waste by 2030.

Many EU member states are a long way from achieving this goal. In the south-eastern European countries, the recycling rate for plastic and other synthetic materials is considerably lower, in the project country Romania it is just 14 per cent.

Plastic recycling creates jobs in Romania

Since 2003, GreenTech Romania has been working on increasing the plastic recycling capacity in Buzău, north-east of Bucharest. From the once small factory with a capacity of 12, 000 tonnes of plastic recycling per year, a modern business group has developed, which, with a capacity of 100 000 tonnes per year, produces recycled PET flakes, PET strapping and

Project type:

Waste Management and Compost

Project location:

Buzău, Romania

Project status:

In operation, credits available

Annual CO₂ reduction:

Approx. 58,000 t

Situation without project

Production of plastic from virgin (fossil) materials

Project standard

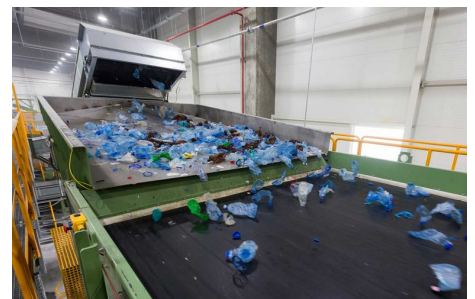
Gold Standard[®]

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Impressions



Children are the future. On-site environmental education. Picture: Greentech S.A.



Conveyor belts carry PET bottles between sorting and washing facilities. Picture: Greentech S.A.

PET granulate. These products are used in the automotive and construction sectors and in the manufacture of hygiene products and filters. GreenTech's sister company GreenFiber processes PET flakes into recycled polyester fibres. With more than 1,100 jobs, the two companies have become the biggest employers in Buzău, a somewhat underdeveloped region in which the rate of unemployment is twice as high as the national average.

The work at GreenTech has definitely changed my perception of waste. We are not talking about garbage or waste here, but valuable materials and resources. It is astounding to see how much we can save through recycling and the extent to which our activities are preventing plastic waste from simply being dumped in landfill sites and polluting our country.

Tudor Mihail Aurel, employee at GreenTech since 2005

GreenTech sees itself as an ambassador for a circular economy, promoting an efficient use of resources and a keen awareness for the importance of recycling and waste prevention. In this way, the company's goal is to help curb the increasing marine and countryside pollution through plastic waste.

School classes and communities gained as partners

For many years the company has been running awareness campaigns and workshops for school classes and communities, including trips to the plant, which enable visitors to see first hand the importance of the topic and learn about the processes involved in recycling. More than 50,000 children have taken part in the workshops to date. In so-called "circular economy partnerships", together with the city of Buzău and other communities in Romania, the project partner encourages the implementation of better waste separation and recycling infrastructures.

With income from the sale of carbon credits, they plan to establish capacities for the professional recycling of hazardous waste materials, such as e-waste or medical waste, which do not yet exist in Romania. In addition, the development of recycling activities in other regions of Romania and Eastern Europe is planned in order to promote the collection, separation and recycling of plastic waste in the spirit of a circular economy. GreenTech is the first and only recycling company in Europe to have its activities as a carbon offset project certified by Gold Standard. The company and its employees take particular pride in their role as pioneers and ambassadors.

The project contributes to 6 SDGs:



Among other things, polyester fibres made from recycled PET bottles are used in textile production. Picture: Greentech S.A.



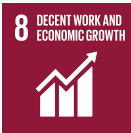
Laboratory check. Picture: Greentech



More than 50,000 school pupils have taken part in the awareness campaigns to date. "Circular economy partnerships" are being established with cities and communities.



GreenTech places particular importance on equality. Many female employees work in management positions right up to the CEO leadership level.



GreenTech and GreenFiber employ 1,142 staff members. They are the biggest employers in the city of Buzău and offer many people from disadvantaged backgrounds training and employment.



Nearly 100,000 tonnes of used plastic, primarily PET bottles, are entered into the recycling process and kept away from landfill or incineration each year.



Each year GreenTech produces 65,000 PET flakes, which are used to manufacture new products.



Through its activities, the company prevents nearly 60,000 tonnes of CO2 emissions each year.