

Cutting CO₂ in Belgium by Improving Structural Integrity and Safety with Geotextiles

Ostend-Bruges International Airport, known as Ostend Airport, is a partnership between the French Egis airports' network group and Flemish government. The popular interchange reportedly welcomed 386,000 passengers in 2023, a rise of 4.6% on 2022. Travellers can fly to 14 destinations with routes set to expand.



Increasing demand takes its toll on the infrastructure and runway areas needed an upgrade. This was not only to improve flight and passenger safety, but to directly impact sustainability outcomes by lowering CO₂ and other emissions, as well as noise pollution.

As part of this, construction of a new aircraft parking apron (paved areas where planes refuel, load/unload, and board/disembark passengers) took place. Gravel was substituted with a woven geotextile to stabilize the ground and separate two reusable layers from each other. This approach was chosen because of the important economic and ecological advantages of material savings, installation time and the overall construction costs.

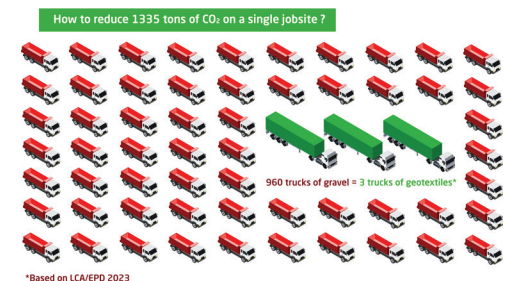
The ongoing positive impact had been considerable with CO₂ emissions reduced by more than 77% compared with using gravel, as well as a dramatic saving of more than 97% in microplastics (MP) emissions. This is because the geosynthetic materials require less construction traffic compared to transporting gravel. Truck tires are therefore less vulnerable to constant wear and related MP release.

The use of geosynthetics has boosted the positive environmental impact of Ostend Airport, drastically reducing the impact of CO₂ and microplastics emissions.

Company: Beaulieu International Group
Client: Ostend-Bruges International Airport
Location: Ostend, Belgium
Application: Reducing CO₂, noise pollution and microplastics release by replacing gravel with geotextiles
Benefits: Carbon savings, cost savings, time savings, conserves natural resources



The International Geosynthetics Society (IGS) is a learned society dedicated to the scientific and engineering development of geotextiles, geomembranes, related products, and associated technologies. We are registered as a non-profit corporation.



To find out more, contact Beaulieu International Group email simon.de.meyer@bintg.com.

The IGS Sustainability Committee is committed to communicating the positive environmental impact of using geosynthetics, improving worldwide understanding of the sustainability benefits of geosynthetic materials, and supporting the geosynthetics industry maximize the sustainability potential of their projects. For more information, visit our webpage at www.geosyntheticsociety.org/sustainability.

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