



CASE STUDY

Waste Management Centre (WMC) Biljane Donje



- **Location** North of the city of Zadar, Croatia.
- **Area** 46,3 hectares.
- **Capacity** 180,000 tonnes of waste per year in 46 hectares.
- **Products used:** Alvatech Geomembrane HDPE 2 FIX 2,5mm / GCL 4500 gr / Geotextile 1200 gr

Background

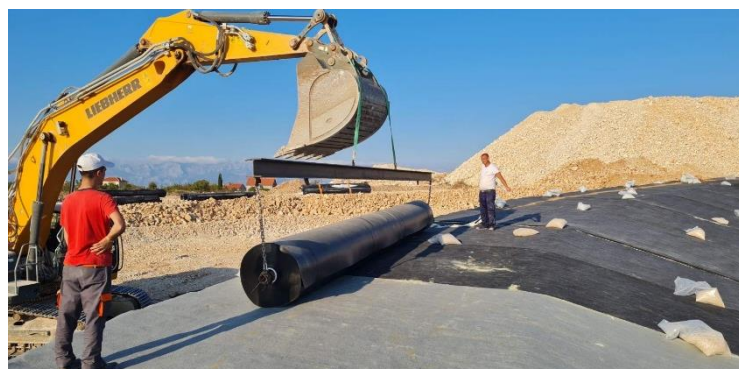
The number of waste management sites in south-eastern Europe continues to grow, increasing the need for efficient, flexible, and cost-effective **solutions** for the **treatment of highly loaded effluents**, complying at the same time with the European environmental standards.



Challenge

The new waste management centre in Zadar will be built and designed by Slovenian contractor **RIKO**. The operator of the landfill, Waste Management Centre (WMC) Biljane Donje, has approximately 88,000 tonnes of mixed waste per year, which will be treated in a Mechanical-Biological Waste Treatment (MBT) plant and deposited on site.

The wastewater treatment facility is designed for an average capacity of 30 m³/d but allows for treatment of up to 50 m³/d and consists of a high-performance Membrane Bioreactor (MBR).



■ The solution

The WMC project includes the construction of an administrative building, access roads, infrastructure and roads within the centre, an open-type recycling field, a construction waste recycling area, two different waste landfills, a transport centre, a roofed warehouse, a wastewater and landfill gas treatment area and a Mechanical-Biological treatment plant.

Our partner in the Balkans, **BELMONT INZENIRING** presented to the property the complete Geosynthetics package that was chosen for the construction of the two landfills.

In the case of the installed Geomembrane, the success was based on bringing to the project the higher safety coefficient that is achieved with the friction angle of **ALVATECH HDPE 2FIX** (double-sided textured) due to its spikes height >0.90mm.

The new waste management centre in Zadar represents a **contemporary and high quality alternative** to existing landfill sites. This project is **the second reference in Croatia**.



Corporate Member 2022