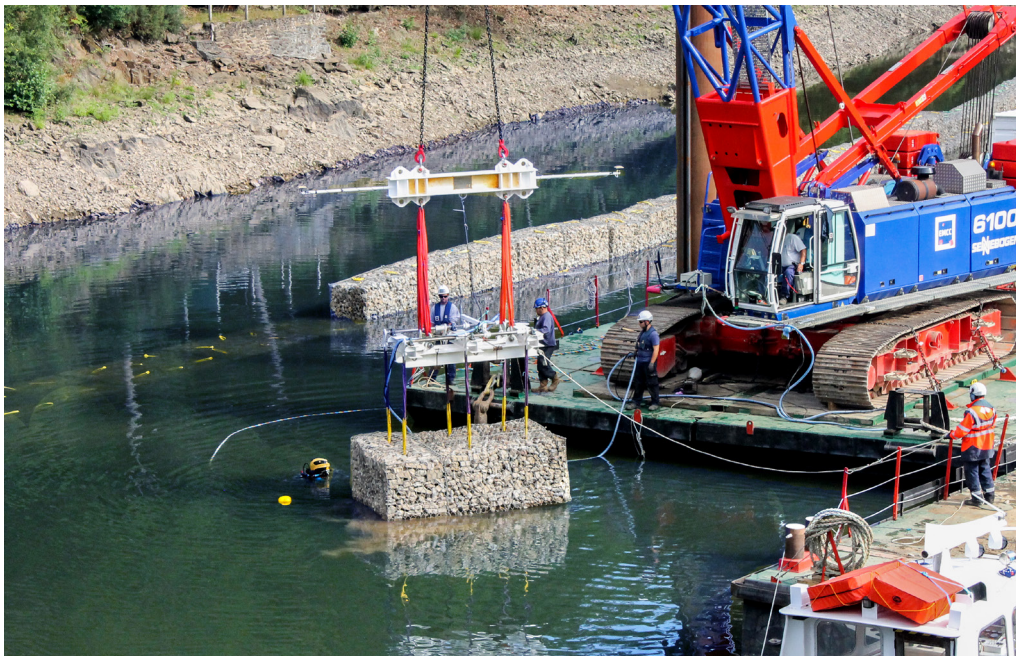


## Preventing pollution and protecting biodiversity in Mont-Saint-Michel Bay

Located between Brittany and the Normandy peninsula of Cotentin in Northern France, the beautiful bay of Mont-Saint-Michel spans some 500 km<sup>2</sup> and is a UNESCO World Heritage Site. The 91 km long Sélune River empties into the bay. So, when go-ahead was given to remove two dams in the river, a solution was needed to prevent polluted sediments from flooding the bay and to avoid an ecological disaster. Maccaferri was tasked with developing and installing a sediment retention solution: highly porous and permeable, the gabion walls developed by Maccaferri were specifically designed to oppose the increase in unconsolidated

sediments resulting from the dam removal project. They were made of 9,000 m<sup>3</sup> of CubiMac pre-filled double-twist gabions, which have the benefit of being able to be installed underwater by boat. Prior to installation, the gabions were assembled in a quarry and fitted with lifting cables. Once the foundation in the river had been cleaned and reinforced with 8,000 m<sup>2</sup> of Reno Mattresses, the gabion units were installed under water using a crane. Both the mattresses and gabions are flexible enough to adapt to the river's uneven floor and differential settlements. Additionally, MacTex® filtration textile was installed upstream of the wall to provide further protection against any sediments passing through the gabions.





Since the solution needed to have a service life of 100 years, we applied our polymer coating to both the CubiMac and Reno Mattresses. As well as being stronger and more durable than traditional ones, this coating is environmentally friendly as it contains no heavy metals, phthalates or other chemicals.

The geotextile fulfilled its filtration function perfectly. According to environmental monitoring of water downstream of the dams, the water did not become significantly cloudier and the concentration of pollutants remained at a normal level – protecting the beautiful bay of Mont-Saint-Michel for years to come.

