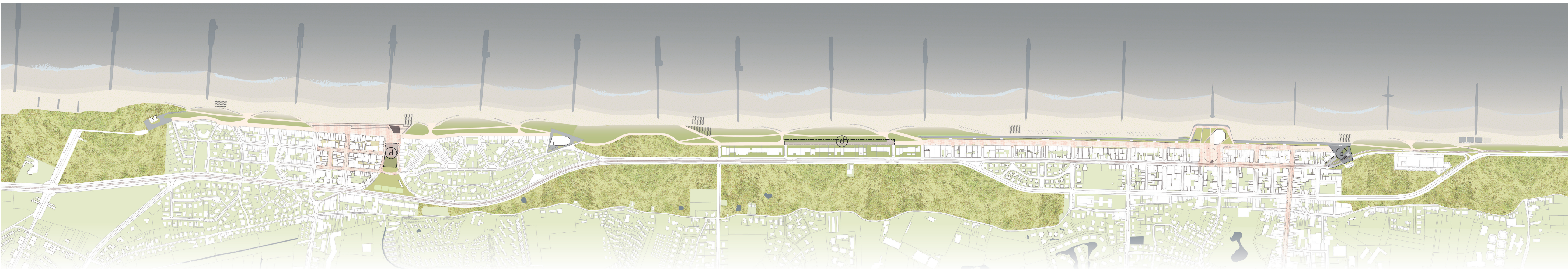
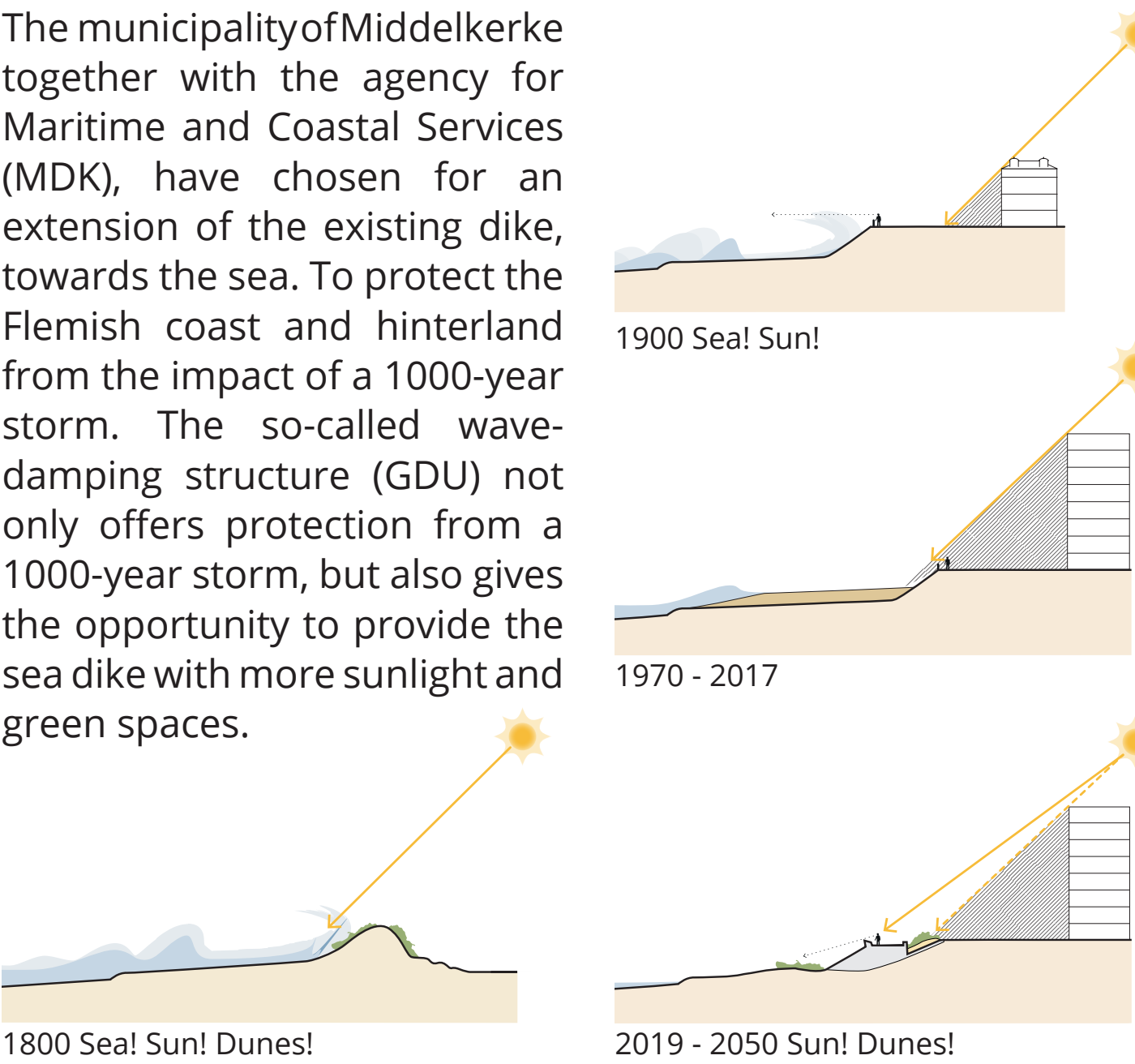


SEA DIKE MIDDELKERKE AND WESTENDE



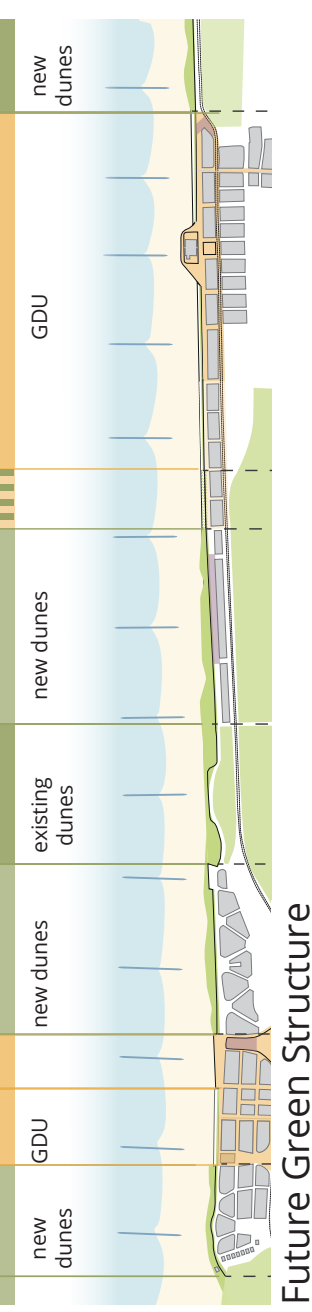
BACK TO NATURE AS IT USED TO BE

The municipality of Middelkerke together with the agency for Maritime and Coastal Services (MDK), have chosen for an extension of the existing dike, towards the sea. To protect the Flemish coast and hinterland from the impact of a 1000-year storm. The so-called wave-damping structure (GDU) not only offers protection from a 1000-year storm, but also gives the opportunity to provide the sea dike with more sunlight and green spaces.



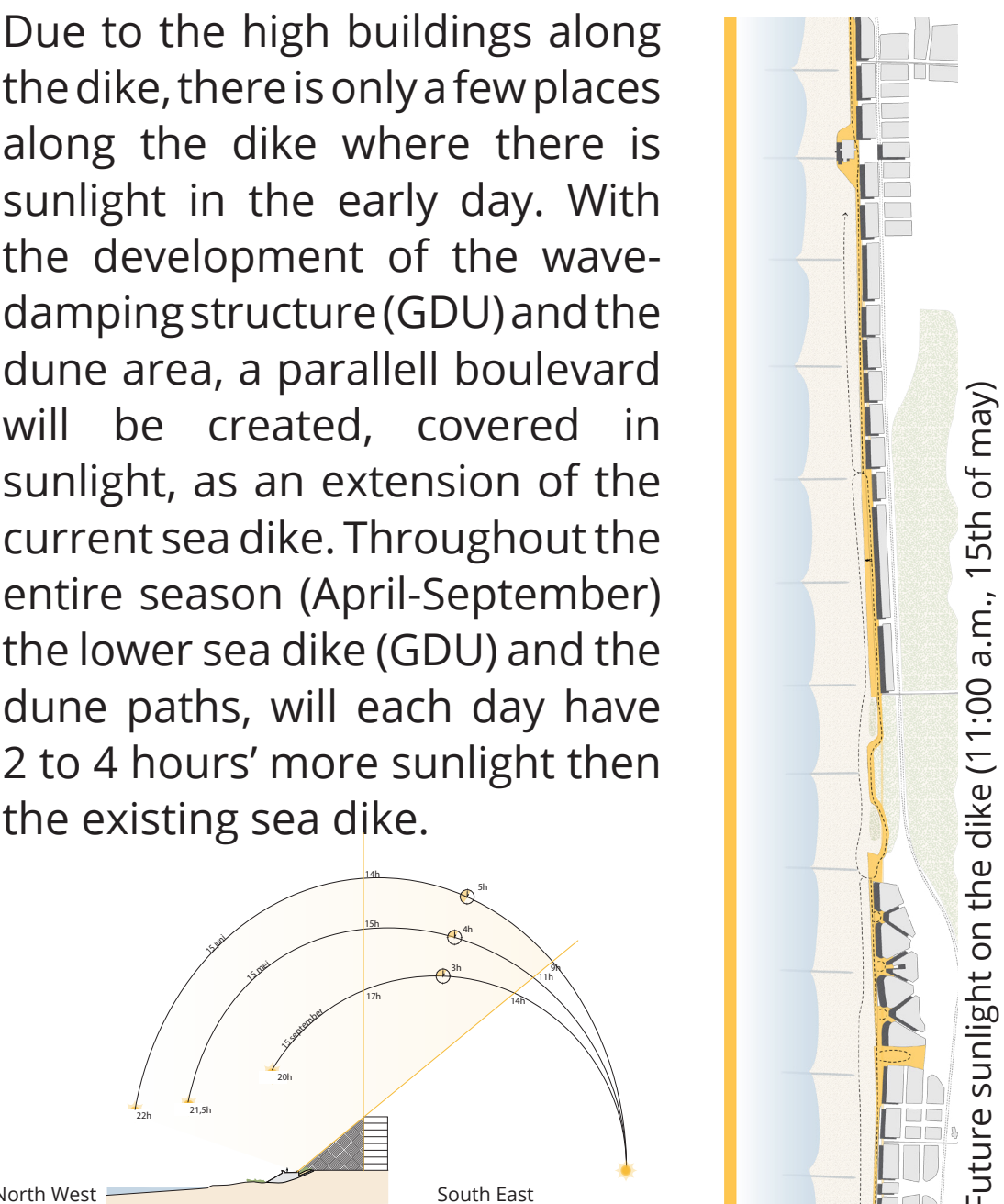
MORE GREEN DUNES FOR 2/3 OF THE DIKE

Middelkerke-Westende has the potential to be the green paradise of the Flemish coast. By bringing back more green spaces and connecting the new dune structures with the surrounding dune areas, Middelkerke-Westende wants to become the greenest municipality at the coast. These green spaces can provide a living environment of quality, greater sustainability, sand collection, and offers a natural shelter against the wind.



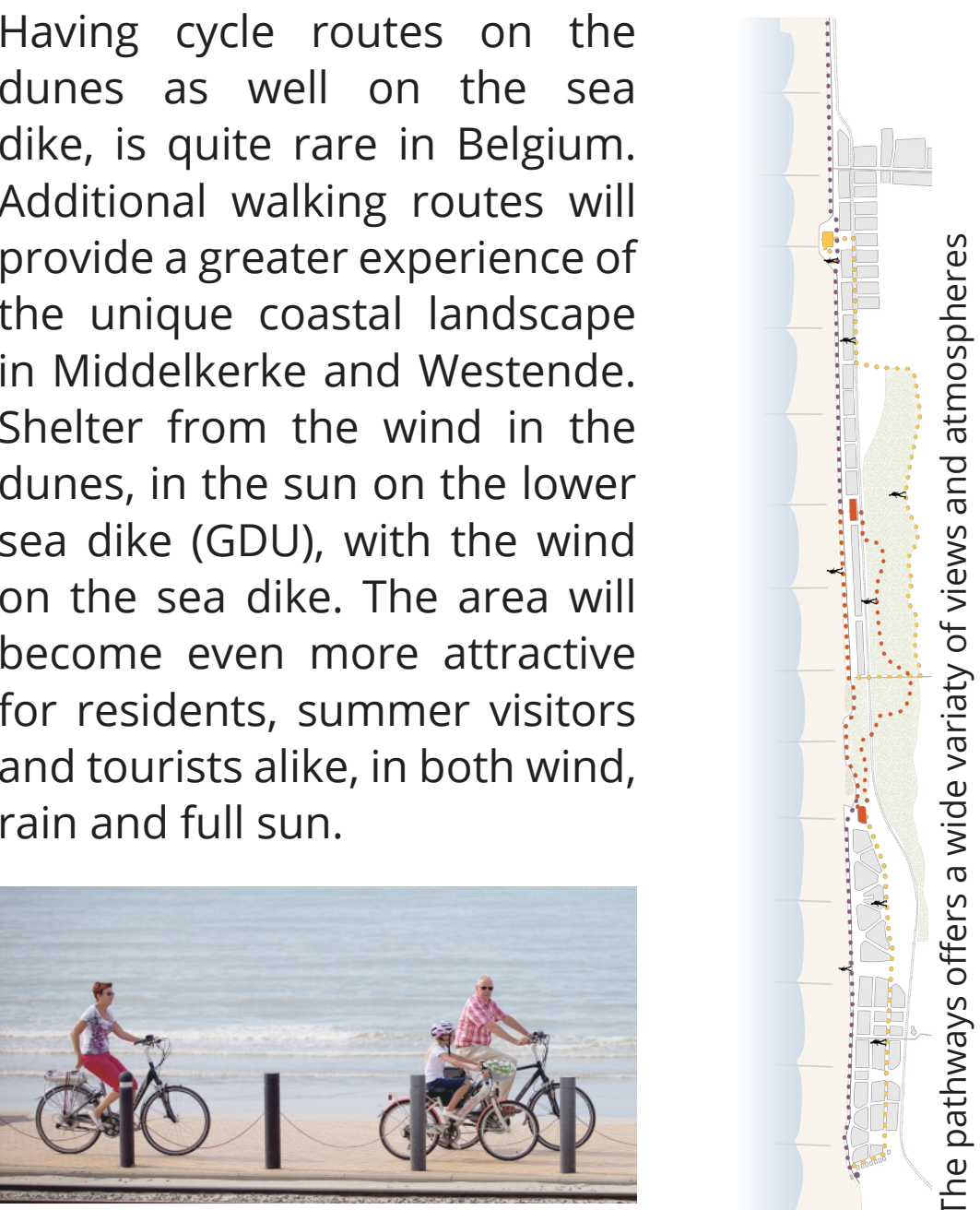
MORE SUN THROUGHOUT THE ENTIRE SEA DIKE

Due to the high buildings along the dike, there is only a few places along the dike where there is sunlight in the early day. With the development of the wave-damping structure (GDU) and the dune area, a parallel boulevard will be created, covered in sunlight, as an extension of the current sea dike. Throughout the entire season (April-September) the lower sea dike (GDU) and the dune paths, will each day have 2 to 4 hours' more sunlight than the existing sea dike.



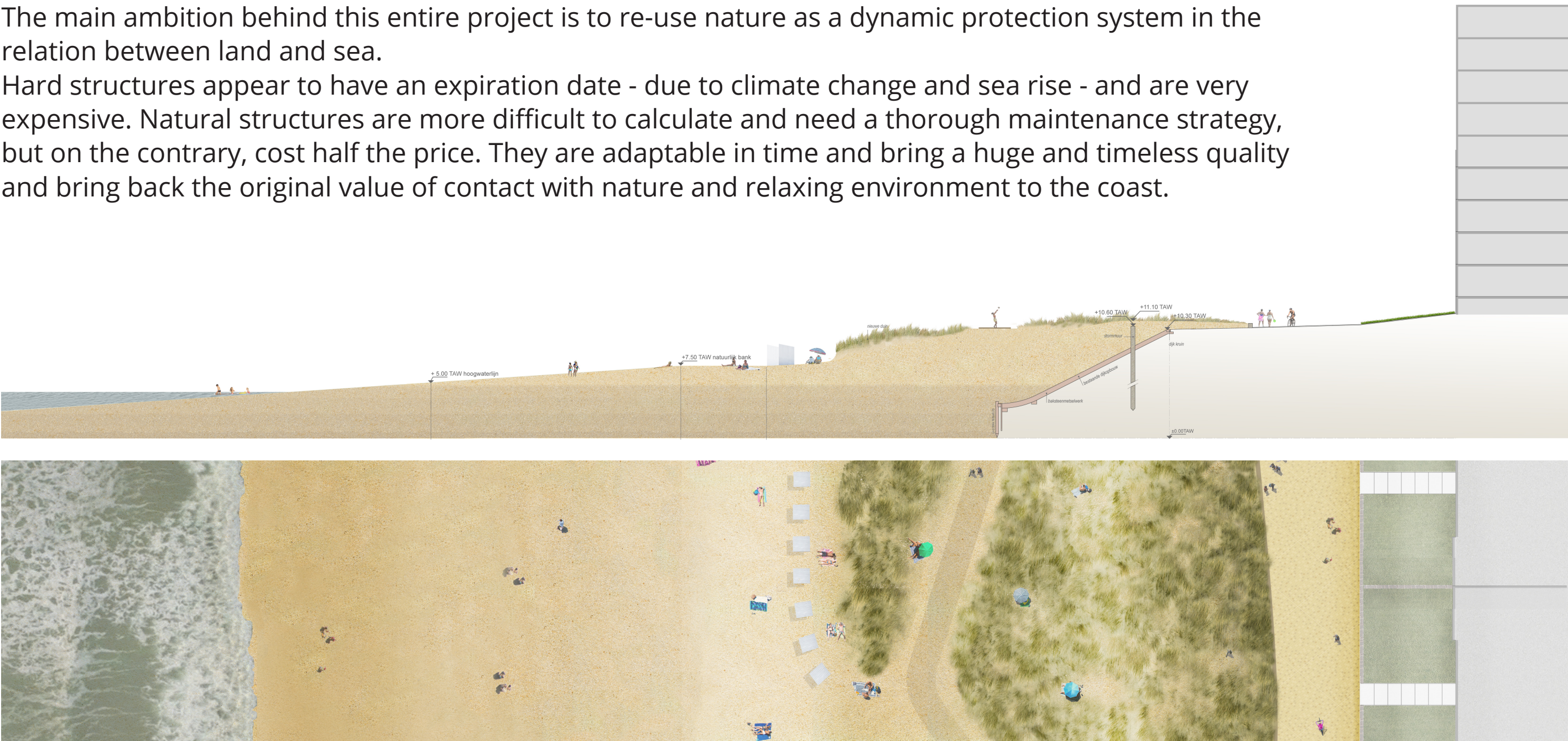
MORE ACTIVITIES MORE WALKING AND CYCLE ROUTES, MORE VARIETY

Having cycle routes on the dunes as well on the sea dike, is quite rare in Belgium. Additional walking routes will provide a greater experience of the unique coastal landscape in Middelkerke and Westende. Shelter from the wind in the dunes, in the sun on the lower sea dike (GDU), with the wind on the sea dike. The area will become even more attractive for residents, summer visitors and tourists alike, in both wind, rain and full sun.



MAIN STRATEGY

The main ambition behind this entire project is to re-use nature as a dynamic protection system in the relation between land and sea. Hard structures appear to have an expiration date - due to climate change and sea rise - and are very expensive. Natural structures are more difficult to calculate and need a thorough maintenance strategy, but on the contrary, cost half the price. They are adaptable in time and bring a huge and timeless quality and bring back the original value of contact with nature and relaxing environment to the coast.

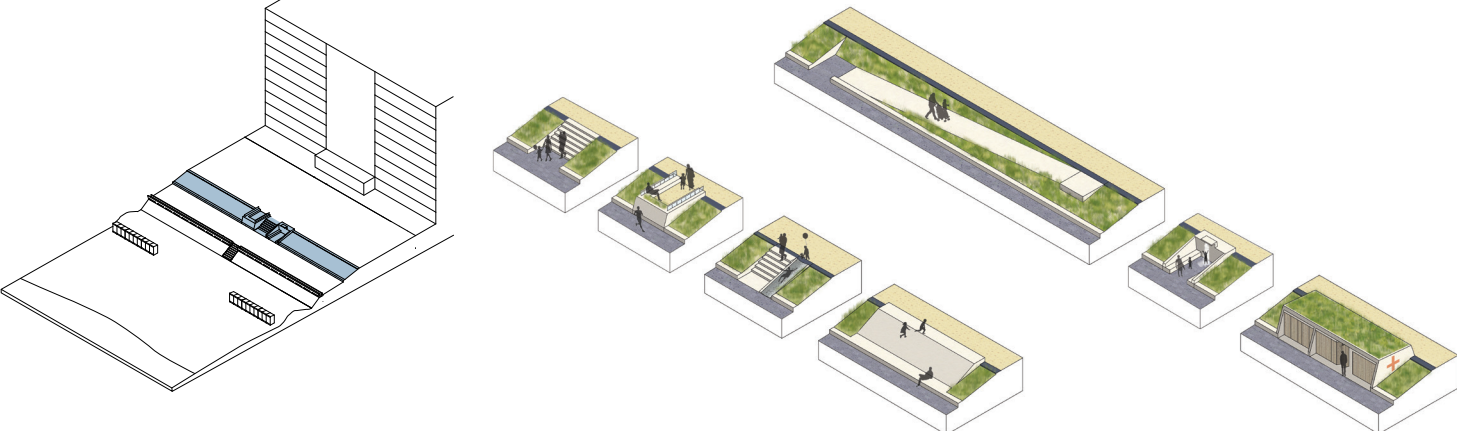


DUNE SEA DIKE

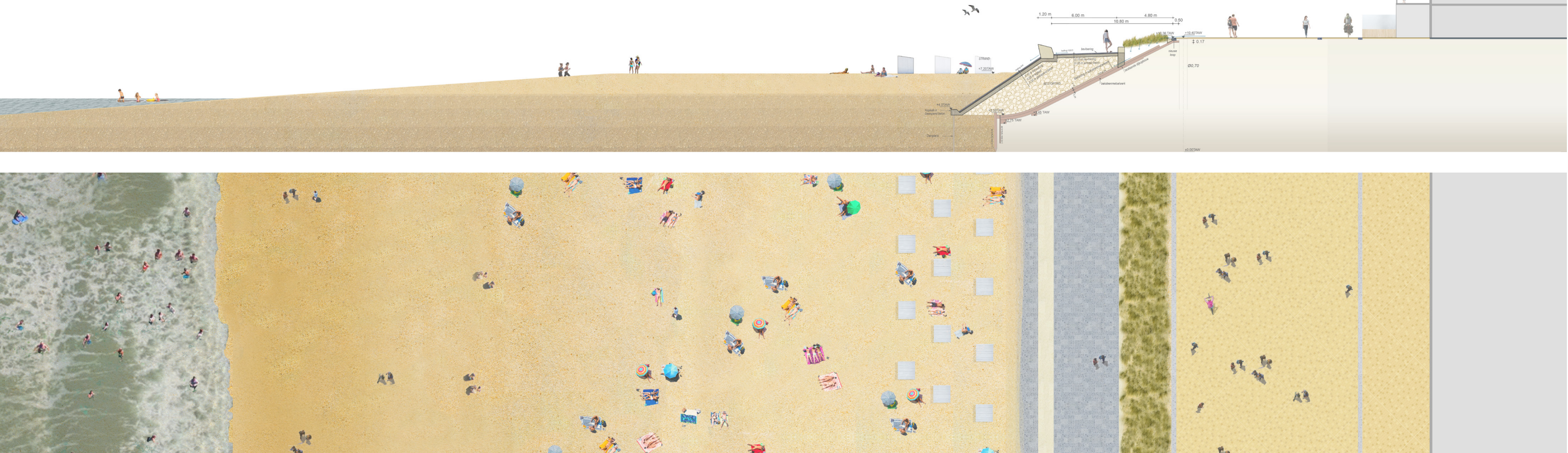
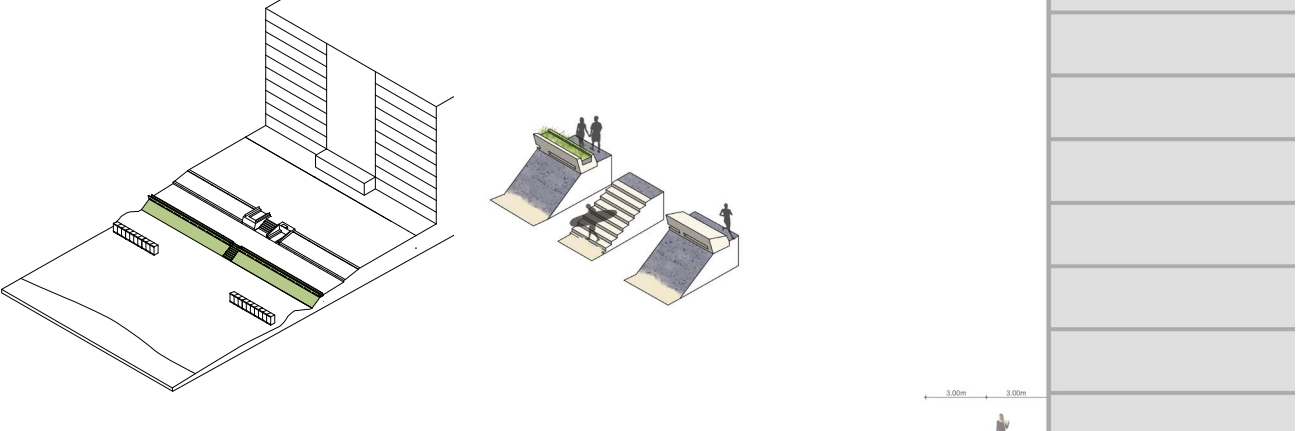
Using a dune (soft structure) as a coastal defence is relatively new in Belgium. 60% of the new coastal line of Middelkerke-Westende will become dune zones, constructed against the existing dike.



The transition between the GDU and the existing dike.



The parapet of the lower sea dike (GDU)



GDU SEA DIKE

This project considers the wave-damping structure (GDU) more as an integral part of the beach and an extension of the sea dike.

