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Tidal nature as a climate buffer

Flood control area



Turning the tide together with nature



- Carbon storage.** Mud flats and marshes store carbon from the air.
- Habitat for water birds and migratory birds.** Birds find shelter in the willow tidal forests and reed beds in the marshes and food in the mud flats.
- Spawning and breeding ground for fish.** Fish find a quiet spot to breed and their young can grow in a protected location.
- Levee protection.** The marshes reduce the strength of the river water. The waves no longer batter the river levees as hard, thereby preventing erosion.
- Higher oxygen level.** The water here is relatively shallow. This ensures considerable contact between the water and air, resulting in more oxygen in the water. Sunlight is also well able to penetrate the water, enabling algae to create more oxygen.
- Transfer and intake of nutrients and source of silicon.** Mud flats and marshes filter out excess nitrogen from the water, while enriching it with silicon. This helps repair the food chain.
- Tidal nature as a sponge.** At high tide, the nature absorbs water and, during dry periods, releases it gradually into the surroundings. This is crucial during long droughts.

LIFE Sparc is being carried out on behalf of the European Union as part of the LIFE Climate Action programme.

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Climate change: a challenge for the Scheldt Valley

The Scheldt has one of the largest estuaries in Europe, a funnel-shaped river mouth where river water and seawater meet and where tides are distinctively clear. In the last few centuries, we have forced the Scheldt and its tributaries into a straightjacket by impoldering areas and straightening the rivers. This has resulted in less room for them to overflow their banks, affecting the risk of flooding. This risk is also increasing as a result of climate change: sea levels are rising, storms are increasingly intense and flooding more frequent. Other consequences are hot summers and droughts.

Together with these partners, we are creating a climate-resilient and future-proof Scheldt Valley:



Hoogtij, festivities in the Scheldt Valley!
Discover all the Scheldt Valley has to offer while sailing, cycling and walking during the annual Hoogtij event.

www.hoogtijscheldevallei.be



Better protection against flooding

Flanders has formulated the Sigma Plan to create a climate buffer against rising sea levels and extreme weather conditions. How? By offering the Scheldt and its tributaries more space through flood control areas (to capture excess river water) and depoldering (to slow down storm water). The European LIFE project Sparc – Space for Adapting the River Scheldt to Climate Change – includes the creation of eight Sigma areas (see map on back) with funding from the European Union.

Nature as an ally

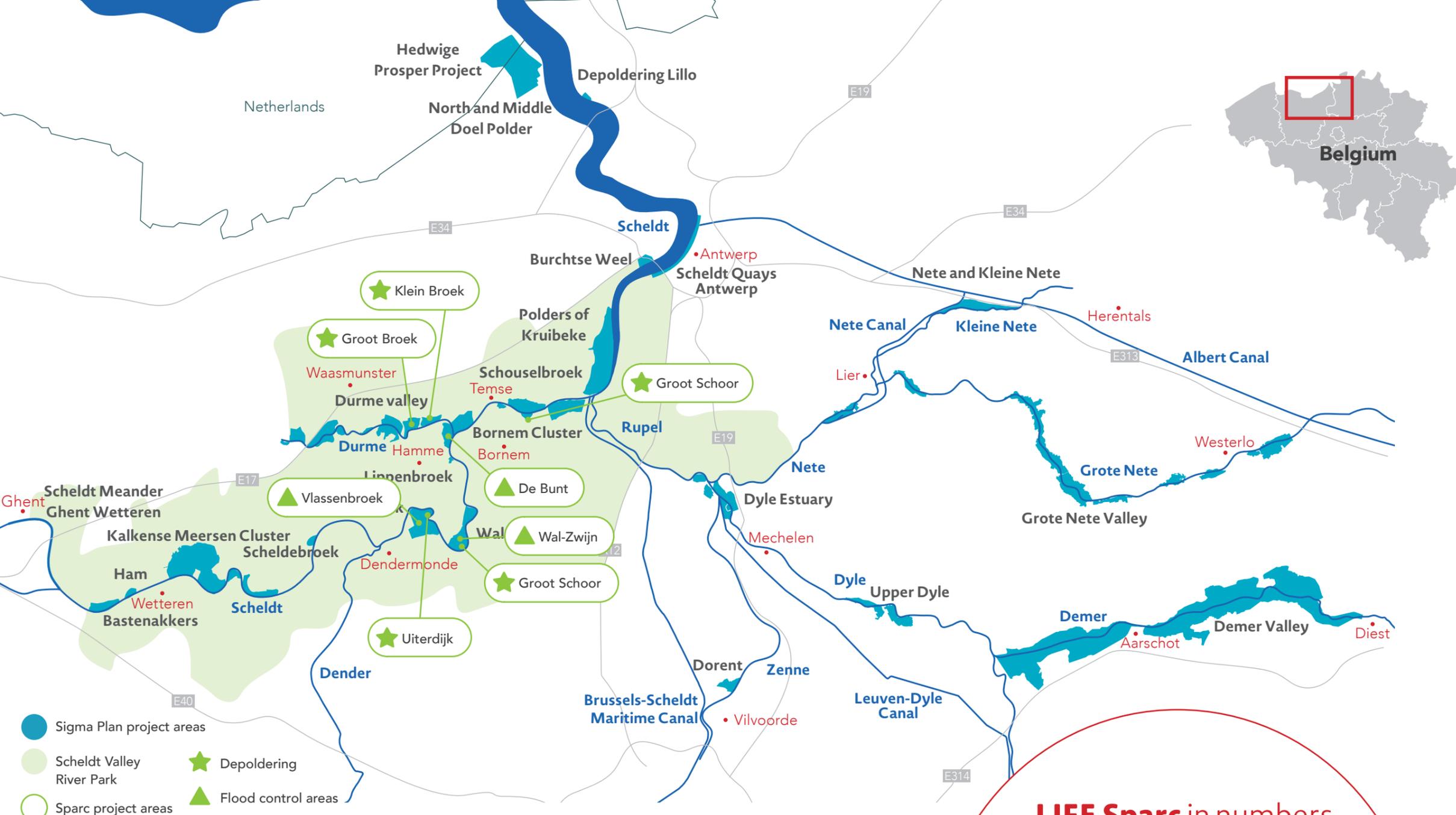
Tidal nature consists of low-lying mud flats and higher-lying marshes that flood either in full or in part during high tide. In the past few decades, a tremendous amount of tidal nature has disappeared, while wetlands are a necessary ally against the consequences of climate change. A resilient river with a sufficient amount of mud flats and marshes can protect the entire region from extreme weather conditions. Tidal nature subdues tidal waves and the strength of the tides. But investing in this type of nature offers far more advantages - for people, plants and animals. This is explained in the drawing above.



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The LIFE Sparc project lets us jointly work towards better protecting the Scheldt Valley from climate change. The project is based on four pillars:

Room for the river

We depolder and create flood control areas. The flood control areas collect water during storms, while depoldering helps reduce the strength of the tides, as well as the pressure on the levees.

Nature development

We restore the original tidal nature: mud flats, marshes, channels and creeks, which form a habitat for numerous species of animals and plants. We explore ways to make this nature more resilient against rising sea levels, higher temperatures, longer droughts and more severe storms.

Knowledge sharing

We share these unique solutions with custodians of other tidal areas in Europe through, for example, workshops and site visits. Sharing our experiences lets us combine our strengths.

Discovery

Visitors can enjoy all the Scheldt Valley has to offer. The annual Hoogtij event, nature experience trails, 'climate parents', school packages and other initiatives provide a unique experience. Our ambassadors welcome all visitors with open arms!

LIFE Sparc in numbers

- 8** climate buffers
- 428** hectares of freshwater tidal nature
- Budget of **8,5 million euros** including a European subsidy
- 3** climate trails
- 90** Scheldt Valley ambassadors: 30 recreational businesses, 30 'climate parents' and 30 guides
- Runs from **2017 to 2022**
- 6000** visitors expected for cycling, walking and sailing during the annual Hoogtij event

Visit the Sparc areas!

Come explore these areas in the company of an enthusiastic guide. The Sparc project runs until 2022 and will offer more and more to experience as it progresses: birdwatching, cycling, walking, climate experience trails, pubs and more. In other words, something for everyone! This approach enables LIFE Sparc to tie in perfectly with the goal of the Rivierpark Scheldevallei (Scheldt Valley River Park) to make the Scheldt region a 'green' attraction that is perfect for a day out.

More info on the Rivierpark Scheldevallei can be found at www.rivierparkscheldevallei.be/en.



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