

# Factsheet Business Case pilot salt march development Marconi

## About Salt march development Marconi

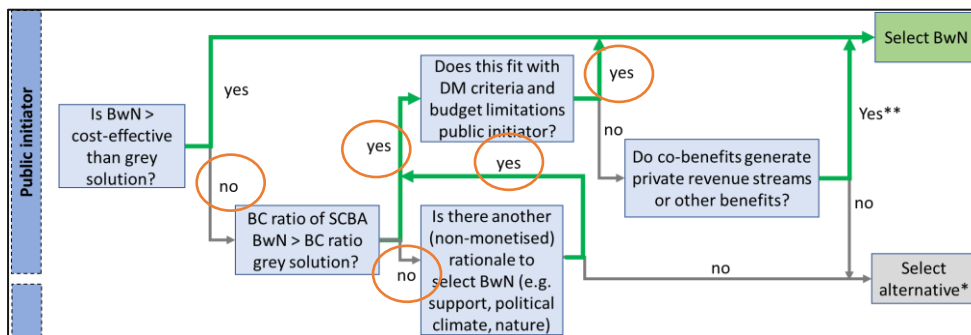
The Marconi program of the municipality of Delfzijl (in the north of the Netherlands) consists of various projects. One of them is the Marconi Buitendijks project, including the pilot project salt marsh development Marconi. The aim is to investigate the best way to restore salt marshes by re-using dredged sludge and sand. At the same time a nature area is formed which contributes to the water quality, ecology, coastal safety and attractiveness of the coast. The area consists of multiple experimental fields with different percentages of silt, and different types of wave-inhibiting structures such as sowing samphire seed<sup>1</sup>.

## Business case approach

What type of business case was used to compare BwN to alternative solutions, and what role did it play in realizing funding for the project?

A cost-benefit analysis<sup>2</sup> and cost overview were made for the larger Marconi Buitendijks project, including pilot project salt marsh development Marconi. The cost and benefits of the business case was especially important for the client, Delfzijl municipality, to decide from different dike reinforcement designs. The Waddenfonds<sup>3</sup>, a co-financer, joined the Marconi project after the Municipality of Delfzijl had already made the business case. For the Waddenfonds the important reason to fund the project was that the project was in line with their own goals.

For the pilot project salt marsh development Marconi alone no business case was made.



## Reason for investors to select BwN approach

The reason why a Building with Nature approach was chosen is due to the wishes of the stakeholders. Several stakeholders were involved in this project, all benefiting from this project in their own way. The municipality was particularly interested in improving the attractiveness of the city. The Waddenfonds saw a need to improve the ecological quality of the Wadden Sea and knowledge development of salt marshes. For the EcoShape partners, Deltares and Wageningen Marine Research, the research component was the most important factor. The consultancies Royal HaskoningDHV and Arcadis had an interest in gaining practical experience in salt marsh creation with soft sediments. There was also an overarching need for all partners, to play a role in improving the value of the area and developing sustainable solutions for adaptation.

## Coping with uncertainty in the business case

Dynamics in sediment behavior and salt marsh development were partly predictable, based on existing (scientific) research. A dam and brushwood dams were constructed to limit the erosion. According to the respondent(s), the pilot project had inherently large uncertainties. However, because the project was a pilot the risks were low. A fraction of the total budget was reserved for potential risks or unforeseen post as on every project budget.

<sup>1</sup> <https://www.ecoshape.org/nl/projecten/marconi-delfzijl/>

<sup>2</sup> Cost-benefit analysis: The costs of the project are compared to the welfare effects/ benefits. These are determined in relation to a reference situation that includes autonomous development. If possible, all effects are expressed in monetary terms to ensure comparability.

<sup>3</sup> The Waddenfonds is a joint scheme of the Wadden provinces of Frysland, Groningen and North-Holland. The fund invests in initiatives and projects that strengthen the ecology and sustainable economic development of the Wadden area.

The municipality of Delfzijl is currently responsible for maintenance (until the end of 2020). It is still unclear how management and maintenance will be arranged for the coming years.

## Barriers and opportunities in BC approach

Because there was no business case made for the pilot project salt marsh development Marconi no barriers or opportunities can be addressed.

## Finance

### Who funded the project and how was the financing arranged?

Total costs of the EcoShape Marconi project (pilot salt marsh) were 560K euro. The Waddenfonds funded 58% of the project, EcoShape funded 37% and the Marconi Partners funded 5% of the total budget. The Marconi partners are the Delfzijl Municipality, the province of Groningen, the Water Boards of Noorderzijlvest, Hunze & Aa's, Rijkswaterstaat North of the Netherlands, Eemsmond Municipality, the Groningen Seaports and the Groningen landschap foundation.

Funder	Source of finance	% of initial investment costs	Motivation	Type of finance	Conditions of finance
Waddenfonds	Subsidy	58%	Improving nature and knowledge development	Public – domestic governance	Subsidy with conditions
EcoShape partners (WMR <sup>4</sup> , Deltares, RHDHV <sup>5</sup> , Arcadis)	Work performed on basis van IKP-rates	37%	Knowledge development and experience	Business – working capital	Construction of a trial salt marsh for research purposes
Marconi Partners		5%	Multiple motivations, i.a. nature improvement and coastal safety	Multiple	Implementation

### What are the motives to invest in BwN?

This project is only possible because there were multiple stakeholders who all benefit from this project in different ways. Other motivations to invest in this Building with Nature approach are the ecological gain, the knowledge gain and the innovative approach.

### Barriers in financing BwN

It was a wish of the municipality of Delfzijl to make the coastline more interesting and an appealing for both own citizens as tourist. The salt marsh fulfilled these wishes. The municipality of Delfzijl experiences a population decline and does not have sufficient funds to develop a salt marsh area. But, they could get 2/3 of the costs as subsidies from the Waddenfonds. No other funds have been applied for.

### Enablers in financing BwN

The pilot project salt marsh development Marconi was in line with the goals of the Waddenfonds so the pilot project could get 2/3 of the pilot costs subsidies by the Waddenfonds.

## Procurement, how is it arranged and does it affect the BwN approach?

From the start of the project the municipality of Delfzijl was responsible to arrange the procurement procedures. The municipality used a Research & Development contract. Under this contract the project was given to EcoShape. The contract for the contractor was a design-build-maintain contract. As such, the pilot project salt marsh development Marconi was developed by EcoShape under the Research & Development contract, while the contractor made the final design and was responsible for the construction, operation and maintenance in the first two years after delivery of the project.

<sup>4</sup> Wageningen Marine Research

<sup>5</sup> Royal HaskoningDHV