

Project Category	Best Operational Project
Project Name	N31 Motorway, the Netherlands
Operating Consortium	Waldwei.com
Public Sector agency and/or Procurer	Rijkswaterstaat
Public Sector Contact	Michiel de Beer, Rijkswaterstaat's Project Manager
Project Capital Value	€61 million
Signing Date	Financial Close 08 December 2003 Handback to Client, at end of concession period, 13 December 2022

Headline and sub-line:

19 years of successful partnership on the N31:

How the first-ever DBFM project in the Netherlands paved the way for an enduring concept

Subheads and body copy:

Introduction

In 2003, the Wâldwei stretch of the N31 motorway in the northern Dutch province of Friesland was in urgent need of an upgrade in order to prevent the many serious accidents that were occurring.

Using a novel Design, Build, Finance and Maintenance (DBFM) arrangement, the Dutch Highway/Water Authority (Rijkswaterstaat) awarded the commission to Wâldwei.com on 10 December 2003. This consortium consisted of Invesis (formerly BAM PPP), providing equity and project management, with Dura Vermeer and Ballast Nedam Concessions providing construction and maintenance services.

With a capital value of €61 million, the DBFM contract represented Rijkswaterstaat's willingness to try a novel approach intended to make the entire process more cost-effective and collaborative.

Crucially, the project also involved 15 years of maintenance after the 4-year construction period, thereby necessitating a long-term commitment from the consortium: Wâldwei.com was aware that the quality it delivered must be able to stand the test of time.



The new Fonejacht bridge with the N31 and a local road passing over the Prinses Margrietkanaal in Friesland



The new aqueduct Langdeel over the N31

A long-term commitment

The PPP project that Rijkswaterstaat tendered in 2003 consisted of doubling the N31 to create a four-lane road and constructing an aqueduct, new connections and a bridge.

The subsequent 15-year maintenance period included:

Maintaining the existing live road during the 4-year construction period

- Operating and maintaining the ensuing structures over the following 15 years, including:
 - The road structure and street lighting;
 - Newbuild and existing civil structures (including a movable bridge and pumps);
 - Roadsides (green verges) and waterways;
 - Life-cycle replacements; and
 - Surfaces (e.g. mowing and maintaining the surrounding grassy area, maintaining the bridge, and ensuring drainage).

A cost-effective and on-time solution

During the 2003-2007 construction period, the existing section of the N31 motorway remained operational.

The works were completed on 13 December 2007, and the Availability and Completion certificates were both obtained on the same day, four months ahead of schedule.

By tendering the contract as a PPP project, Rijkswaterstaat ensured the best price-quality ratio at the time. Moreover, this PPP model promoted efficiency and innovation, while also expanding cooperation between the government and the market.

An additional benefit was that the pioneering DBFM procurement method delivered cost savings of 31% below the public-sector comparator, due to maintenance efficiencies and financial savings.

On 13 December 2022, precisely 19 years and 5 days after taking on this innovative commission, Wâldwei.com transferred the management and maintenance of the road back to Rijkswaterstaat. The success of the project gave the Dutch government the confidence to stipulate that all transport infrastructure projects worth over a set amount must now be tendered in the form of a PPP.

N31 Motorway		Invesis	
Timetable of Events		Summary of Parties Involved	
Financial Close:	08 December 2003	Client:	Rijkswaterstaat Noord-Nederland
Construction Period:	4 years	Client's Financial Adviser:	PWC
Handover to Client:	13 December 2007	Project Company:	Wâldwei.com <u>bv</u>
Maintenance Period:	15 years	Sponsor / Investor:	Invesis (formerly BAM PPP (66.7%) Dura Vermeer (33.3%))
Concession Period:	19 years 8 December 2003 – 13 December 2022	Design, build and facilities management contractor:	<u>Bouwcombinatie Wâldwei vof</u> , including BAM Infra, Ballast <u>Nedam & Dura Vermeer</u>
<u>Handback</u>	13 December 2022		

Cooperation with governmental bodies

Rijkswaterstaat's PPO Noord-Nederland department was responsible for this contract. It liaised with other Rijkswaterstaat departments, the Province of Friesland and local municipalities.

Wâldwei.com worked closely with Rijkswaterstaat to keep it informed of any planned maintenance on the project, such as works necessitating lane closures.

An innovative and alternative approach to tendering

This was the first DBFM contract for Rijkswaterstaat in the Netherlands. It was tendered as a PPP project in collaboration with the Knowledge Centre for Public-Private Partnerships and the Ministry of Finance.

- Rijkswaterstaat's three aims were to:
 - achieve the best value for money;
 - encourage efficiency and innovations; and
 - expand cooperation between the government and the market.

Pioneering DBFM contracts in the Netherlands

The initial contract developed was based on various international examples. It deviates in many ways from the standardised contract used for many subsequent DBFM projects: for instance, the penalties (for lane closures and quality points) are relatively mild compared to later versions.

Being the first DBFM contract used in the Netherlands, Wâldwei has always been regarded as a case study from which the Dutch government and construction companies can learn. This factor certainly contributed to a very good cooperation between the SPV and Rijkswaterstaat.

For fifteen years, Wâldwei.com took care of the maintenance of the N31, before returning this task to Rijkswaterstaat in 2022. It was important that the road met the requirements for handback that were drawn up at the start of the concession. But due to the novelty of the DBFM contract, it turned out that these requirements were not 100% clear.

Invesis noticed this four years ahead of handback, and therefore started specifying the requirements together with Rijkswaterstaat. In order to formulate clear agreements, we decided to align our mutual expectations to state exactly what must be delivered and which documents should be transferred. It was crucial to prepare the various phases very carefully, to avoid surprises on the transfer date.

Flexibility over the lifetime of the project

There were four main adjustments over the years, all of which were resolved to everyone's satisfaction:

1. The contract originally required the handover documentation to be updated on paper, but that method became outdated over the years. From 2007 onwards, all documentation and files needed to be updated electronically according to the latest standards in the Client's systems. Rijkswaterstaat issued a variation order for this, and the Invesis consortium digitalised its updates accordingly.
2. The main life-cycle maintenance activity planned was the replacement of the asphalt top layer, which was scheduled for 2017 - 2019. The replacement actually took place later than planned, because the quality of the asphalt laid by Wâldwei.com was better than originally expected. This allowed Rijkswaterstaat to request the SPV to postpone the last part of the works for a year to allow Leeuwarden to celebrate becoming the European Capital of Culture in 2018.
3. Following a change of legislation in 2020,, Wâldwei.com had to change its method of mowing roadside verges to allow for inspections checking for the presence of endangered species. The contract was varied accordingly.
4. As handback arrangements lacked precision at the time the contract was signed, Rijkswaterstaat and Wâldwei.com agreed a detailed list in early 2021, more than 18 months before the handover. Joint inspections throughout 2021 and 2022 were part of the process.

A long-term commitment from everyone concerned

The strength of the DBFM approach was that Wâldwei.com could oversee the entire life cycle of the project. Invesis never sells projects that it has been awarded, as many developers do. Wâldwei therefore remained our asset for the entire contract period till its successful handback to Rijkswaterstaat on 13 December 2022, enabling us to deliver a stretch of road that had been maintained to the highest standards for the past 15 years.

In addition to signing the DBFM contract in 2003, Rijkswaterstaat and Wâldwei.com also signed a separate agreement (called Partnerskip, which is Frisian for partnership). This underlined the intention of both parties to make this new type of contract a success in the Netherlands. It was essentially an agreement to meet periodically at senior management level to discuss progress and to solve any issues quickly and in good cooperation. The

Partnership was used regularly during construction, and less frequently – but at some crucial moments – during the maintenance phase.

During the Handback ceremony, the success of the Partnership was extensively celebrated and was even the theme of the Handback: ‘19 years of successful Partnership DBFM N31’. This echoed the positive feeling of all parties involved. Many of the people working on in the project at the tender stage were still involved at the end of the concession, and were present during the handback ceremony.

The handback marked a milestone not only for the team at Inveis and its partners but also for the world of DBFM contracts in the Netherlands, as Wâldwei is only the second Dutch PPP project to reach the end of its contract and be returned to Rijkswaterstaat.



The handover ceremony marking 19 years of successful partnership

Beneficial innovations

The renewed N31 is now safer and more sustainable than before. AVI bottom ash was used for the entrances and exits of the new Fonejachtbrug to optimise the use of this waste product. The entire road is now checked annually using 3D scanning rather than manually as it was at the start of operations, thereby improving both road availability and road safety.

Continuity, communication and clarity from start to finish

Inveis’s Project Director Philip Kröner is happy to share some key lessons learned along the way:

“It is important for those involved in a PPP project to maintain continuous communication with all parties. This way, you can be sure that everyone’s interests are met.”

Michiel de Beer, Rijkswaterstaat's Project Manager, agrees that good collaboration is key to success:

"A characteristic of the DBFM way of working is that everyone always tried to look for a solution if a problem arose. There were technical challenges, but we all tackled them pragmatically and with a view to finding a solution. All stakeholders agree the project has been a success, and the collaboration was simply good."

End.