

Desah

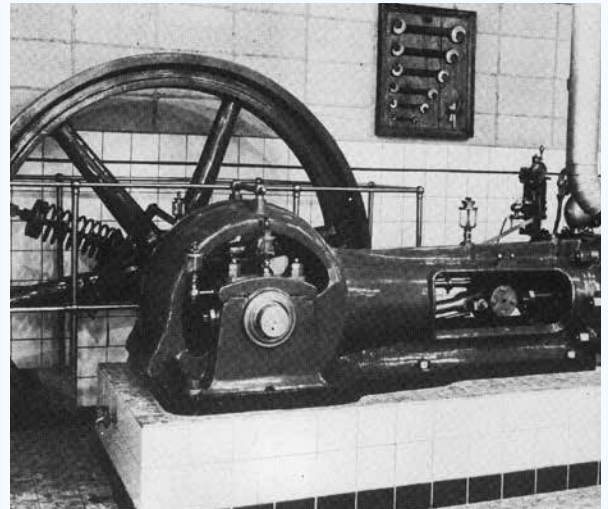
# Local wastewater treatment

# Over 250 years of experience

## 2024 : a new chapter begins

The journey of our collective “water power” began in 1880 with the foundation of Hubert, followed by the establishment of Landustrie in 1913. Since the early days of our shared history, Frisian craftspeople have been developing sustainable solutions in our water world. In 2011, the addition of Desah's innovative capabilities further strengthened our commitment to reliable quality.

As of 2024, we have begun a new chapter together. Noarding now combines the strength of three brands: Desah, Hubert, and Landustrie. This enables us to supply futureproof water technology solutions across the entire water cycle.



## Local wastewater treatment

We supply a modular approach to treat source separated wastewater locally. This source separated wastewater consists of two streams, a highly concentrated black water stream from vacuum toilets + kitchen waste, and a diluted grey water stream. From black water energy and fertilizer can be recovered. From grey water heat can be recovered and the treated water can be reused.

Our concept has several advantages compared to conventional, centralized wastewater and green waste treatment systems. Such as, lower water consumption due to water saving toilets/vacuum toilets (1-liter flush), lower energy consumption due to heat recovery from the wastewater treatment process, the possibility to recycle water on a neighborhood level, the recovery of valuable fertilizer, and an overall decrease in dependency of central power and water grids. This approach to wastewater treatment at the district level is also known as “New Sanitation”.



*black water reactor for government office building, The Hague, NL*



wastewater treatment plant for City of Helsingborg, RecoLab, Sweden, 2100 persons

## New sanitation

For the Desah new sanitation system, domestic/residential wastewater/sewage is separated at the source into grey and black domestic wastewater and rainwater streams.

Grey and black water remain separate throughout the process and are transported to a compact decentral treatment facility in the neighborhood.

After the treatment the water can be reused or released to surface water.

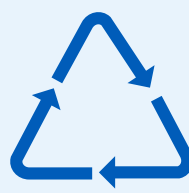


residential area Noorderhoek, 207 houses, Sneek, NL

## Advantages

Our Desah concept is suitable for new neighborhoods, high-rise buildings, hotels and remote settlements and has the following advantages:

- >90% flushing water saved by vacuum toilets
- extra potable water saved by non-potable water reuse
- non-potable water for irrigation; quality better than rain water
- recovered nutrients can be used as fertilizer
- effective removal of micropollutants: medicine, microplastics, heavy metals, PFOA, bacteria and viruses
- energy positive wastewater treatment process
- supplies 10-30% of energy needed for heating of residential buildings





# Desah

Decentralised Wastewater Solutions

## Desah is part of Noardling

PO Box 199, 8600 AD Sneek, The Netherlands

T. +31 (0)515 48 68 88

E. [info@noardling.com](mailto:info@noardling.com)

W. [www.noardling.com](http://www.noardling.com)

A. Pieter Zeemanstraat 6, Sneek

## Our Water Cycle

From water intake systems to water cooling, from water management to wastewater treatment, hydropower, pumping installations, and award-winning innovations in the field of decentralised wastewater treatment, discover the water cycle here by scanning the QR-code.



# Noardling

Futureproof Water Technology

The Noardling company is engaged in Futureproof Water Technology. With more than 250 years of experience in moving and treating of water.

## Noardling brands:



Desah

Decentralised Wastewater  
Solutions



Hubert

Water Screening  
Solutions



Landustrie

Water Treatment  
Solutions