# Sustainable Port Development

## A Contractor's perspective

Koen Hutsebaut / 4 August 2021

Jan De Nul GROUP

“We enhance the lives of people,  connect communities and improve  infrastructure worldwide, through  unique and innovative solutions.”

# Vision statement.

“We push the boundaries of marine and civil construction projects worldwide.

Working together with our customers, safely and responsibly, we bring experience, methods, motivated teams and in-house designed equipment to

IMAGINE what is possible
THINK through the solution
ACT to deliver”

# Mission statement.

# Jan De Nul Group’s Expertise.

## Marine Works.

Concept realisation, design, expansion and maintenance of ports, rivers and coastlines.

## Offshore Energy.

Full balance of plant, design, installation and cable connections of all aspects of offshore energy projects.

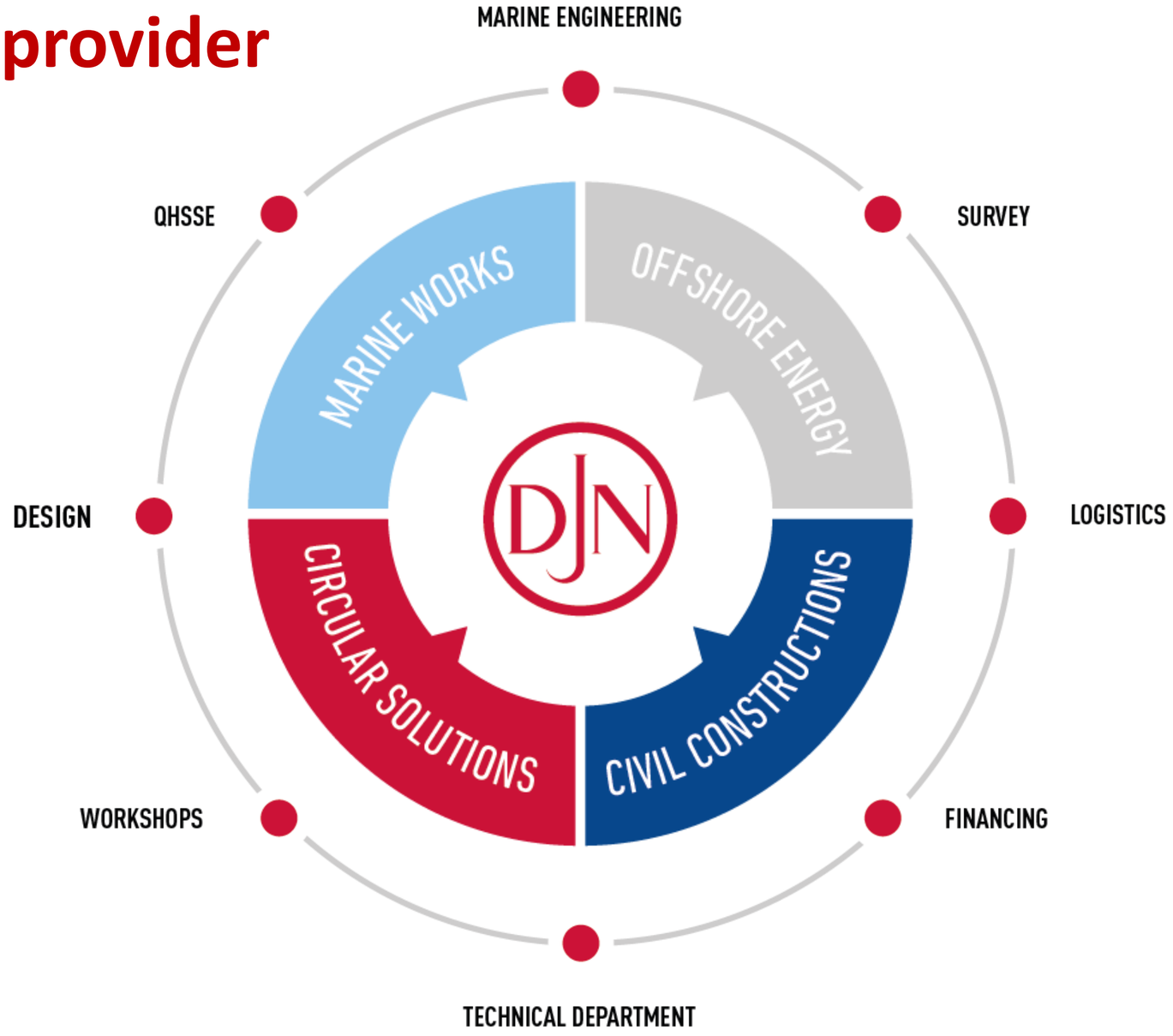
## Civil Constructions.

Design and construction of onshore infrastructure, buildings and  foundations.

## Environmental Solutions.

The answer to environmental issues. Reconversion of sites and maximal valorisation and re-use of sediments.

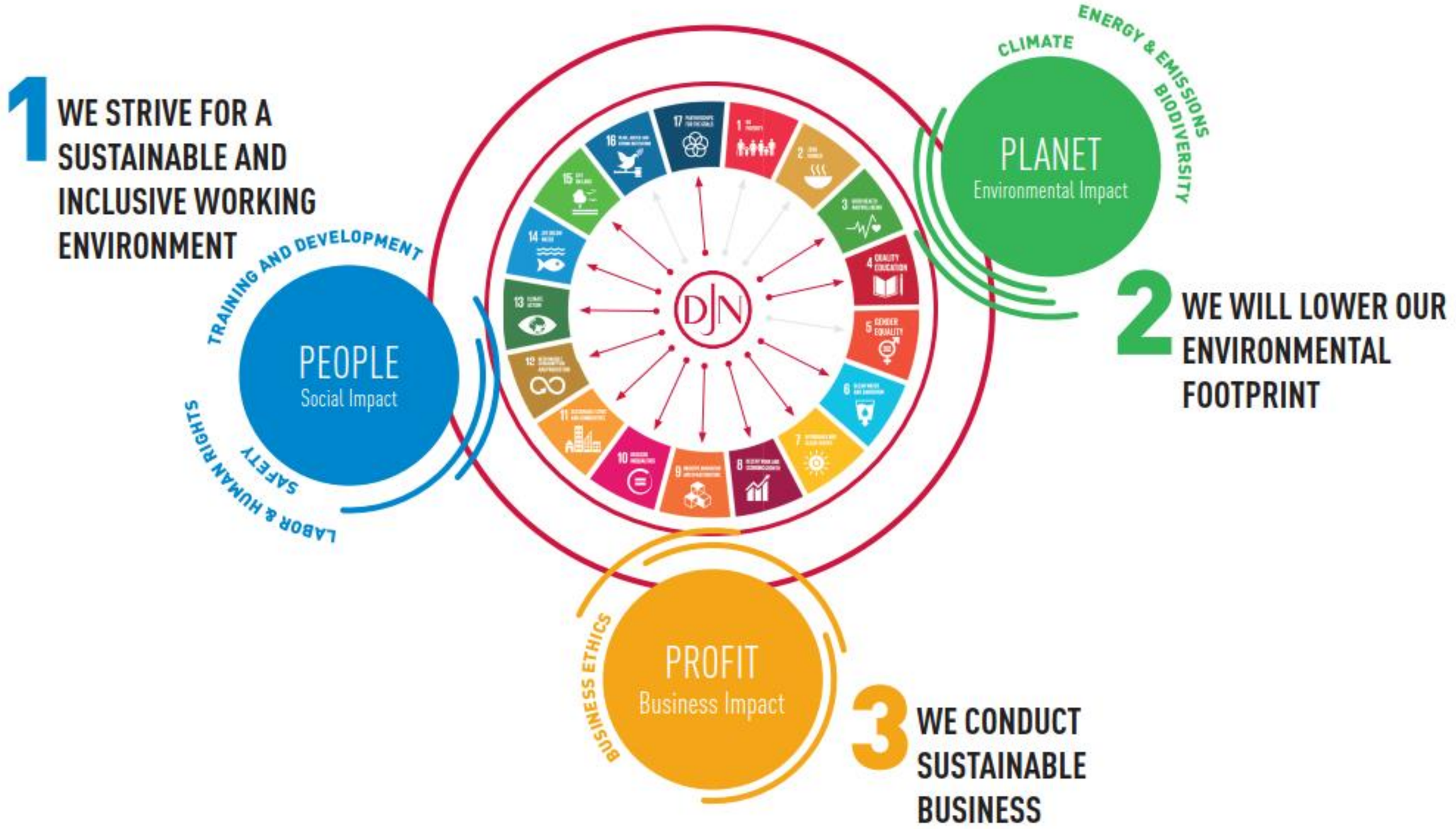
# Total solution provider



# Global experience and family owned.


SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

# Sustainability – an intrinsic part of Jan De Nul Group's DNA.



# Marine Works.

## Dredging

| | |
|---|---|
| **30** | Trailing Suction Hopper Dredgers |
| **13** | Cutter Suction Dredgers |
| **6** | Backhoe Dredgers |
| **17** | Split Hopper Barges |
| **3** | Water Injection Dredgers |

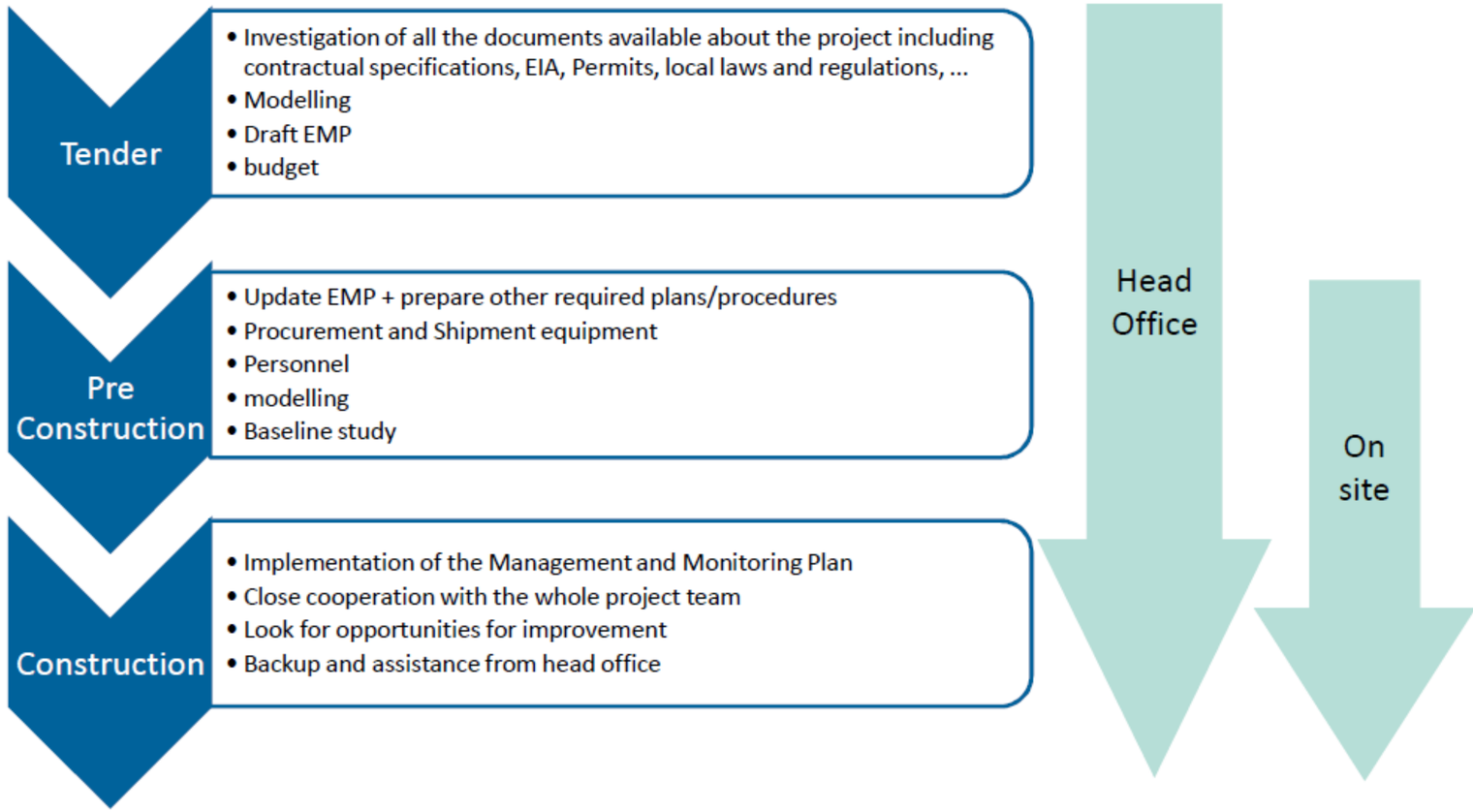
# Sustainability in Port Construction Southern & East Africa

# 1. Legal / Client / Project / Contract Requirements

**Marine Environmental Management**

- Protect habitats like sea grass, coral reefs, mangrove forests, marsh lands, ....
- Protect marine and terrestrial fauna
- Protect people living and working around a project and their revenues

**Project Specific Approach by Contractor**




***Every Project is different - Balance between Economy and Ecology***

# In-House Tools & Methods for Environmental Management

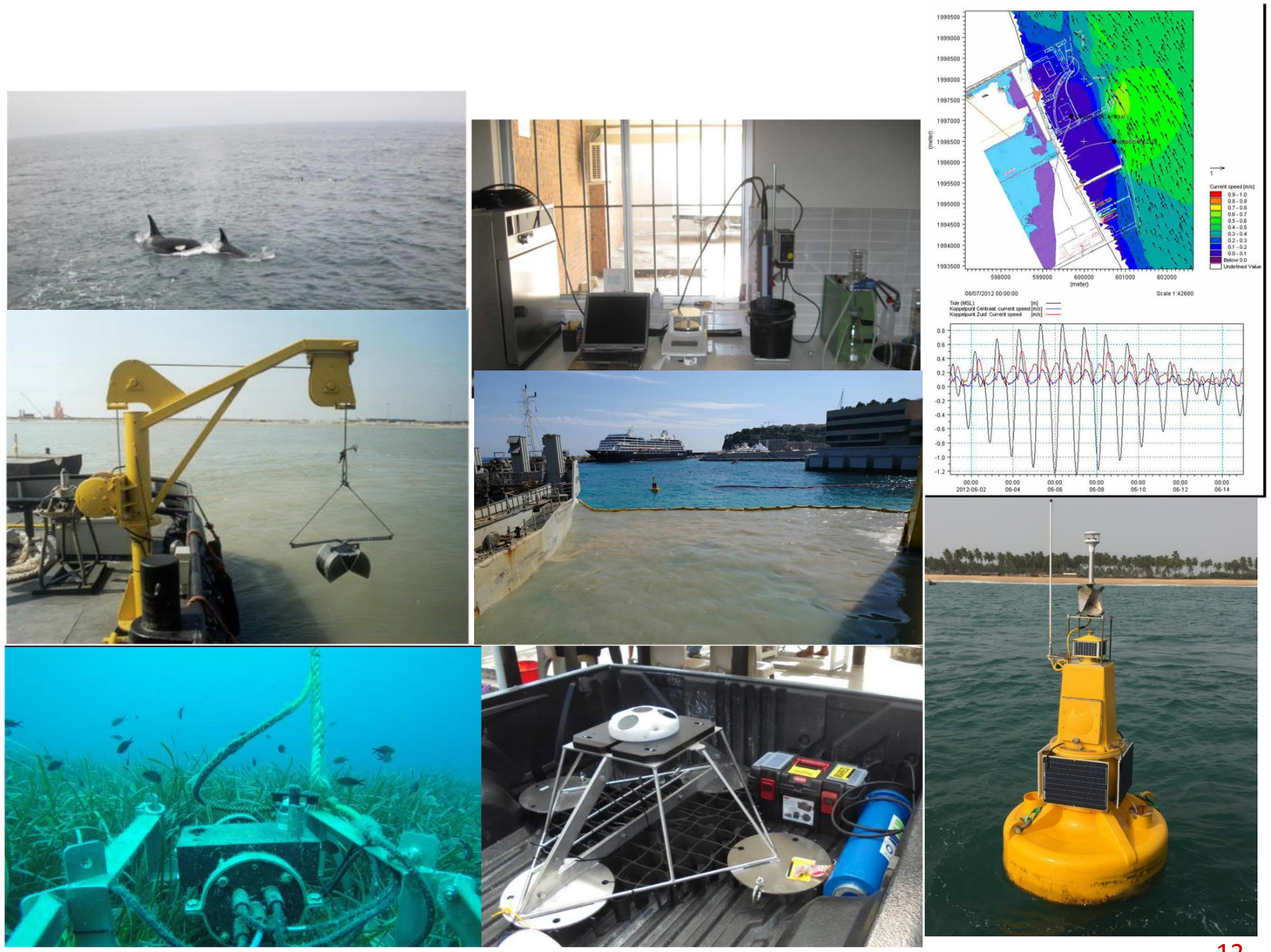
**Parameters:** Water Quality, Sedimentation (quality), Oceanographic, meteorologic

***In-House Marine Environmental Department***

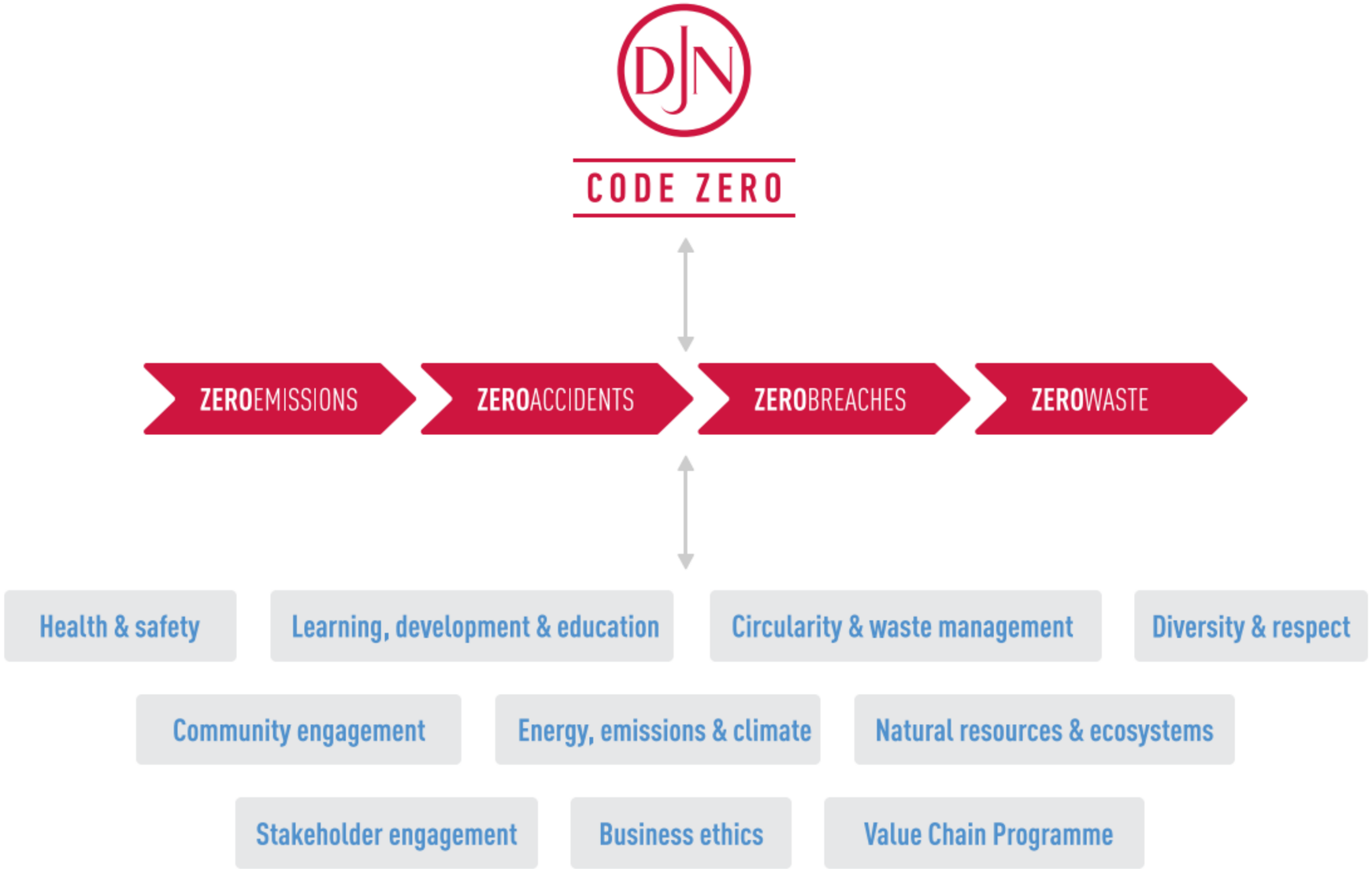
**Management Plans**
Environmental, Turbidity,
Method statements silt curtain

**Modelling (since 2006)**
hydrodynamic, turbidity Plume,
sand and mud transport, spectral wave

**Monitoring**
water quality (turbidity), hydrodynamic parameters, sediment quality, marine fauna observations



# 2. Contractor’s own sustainability drive



CODE ZERO

**Zero emissions**
We actively reduce our carbon footprint

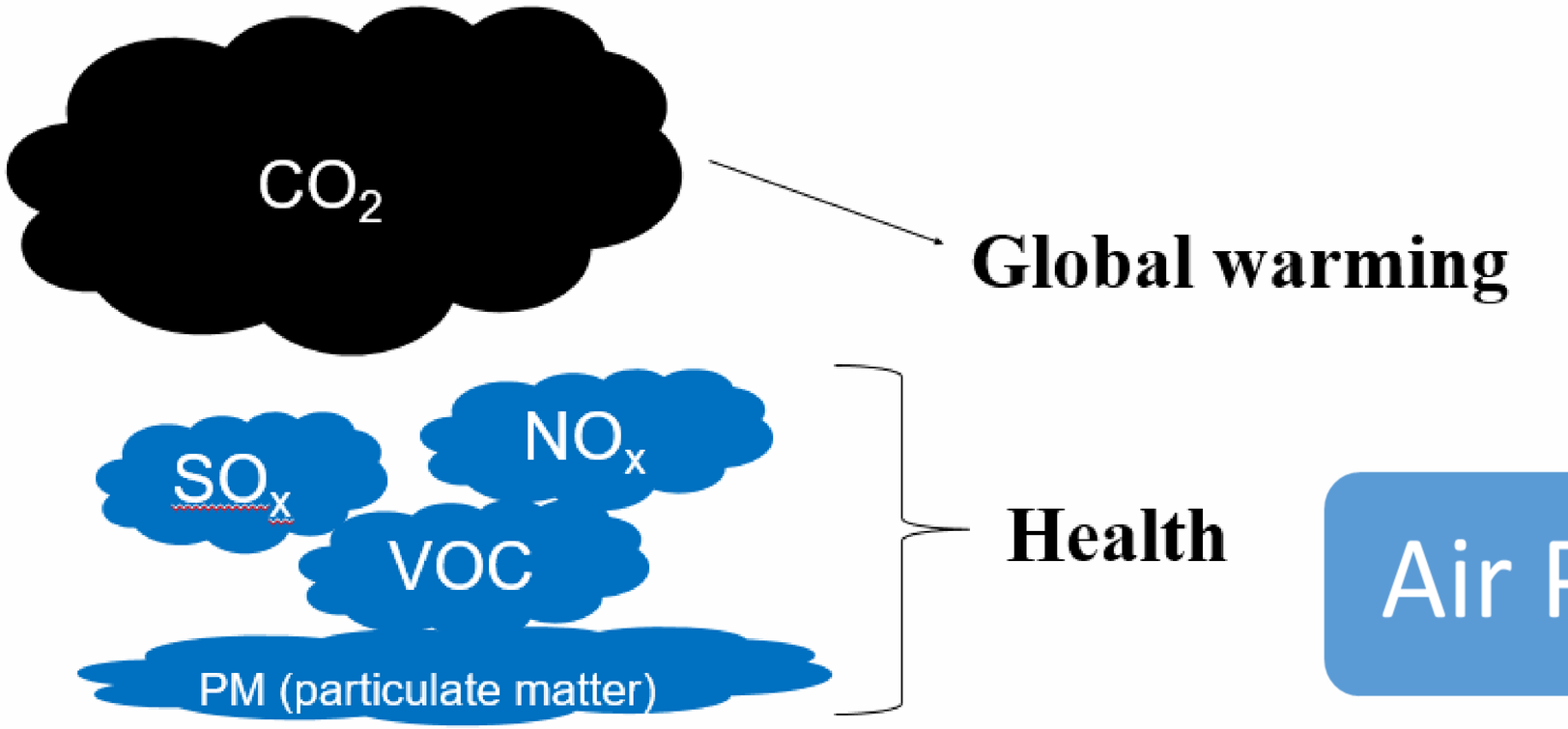
**Zero accidents**
We are constantly making the workplace safer

**Zero breaches**
We do not tolerate ethical and social violations

**Zero waste**
We look for circular solutions and less waste




# Zero Emissions



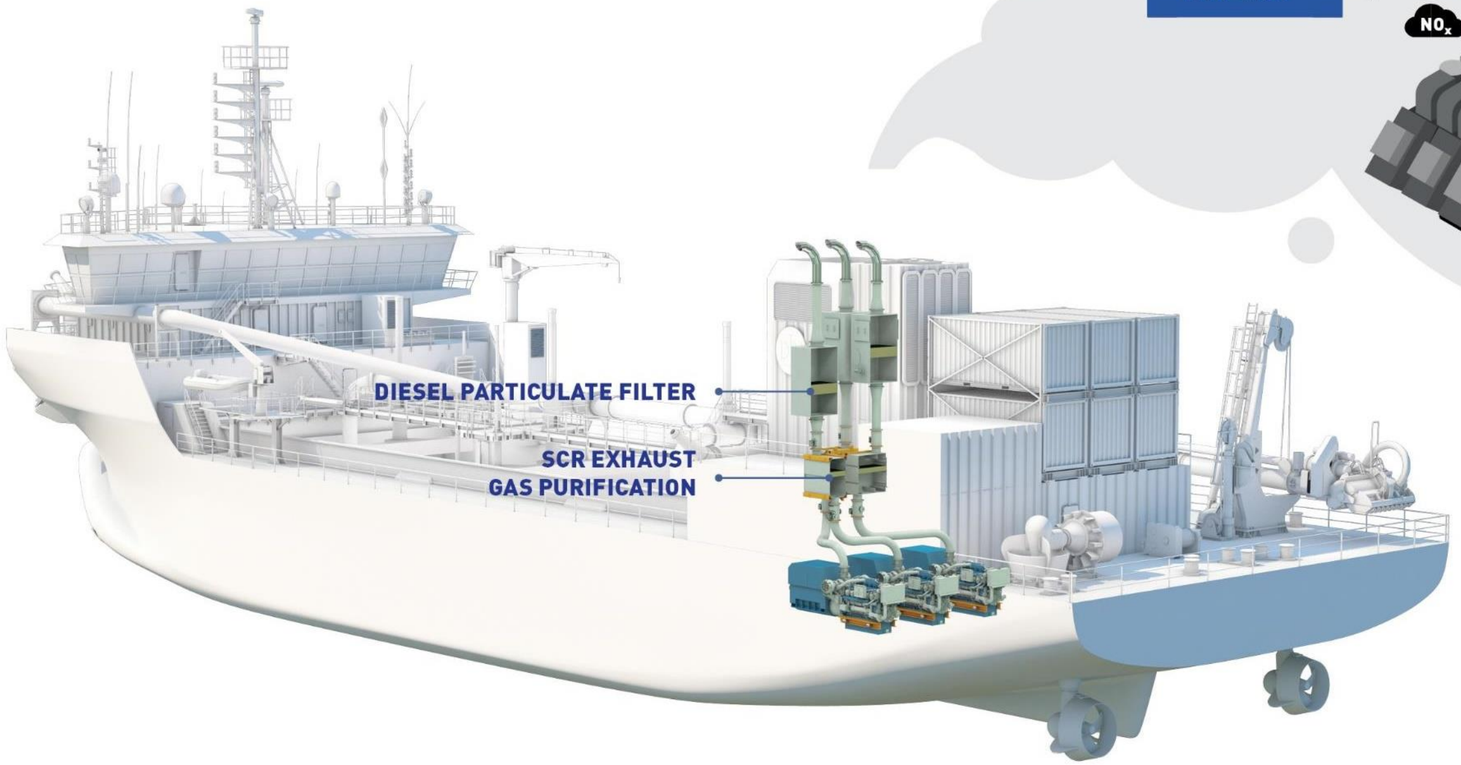

Climate Impact

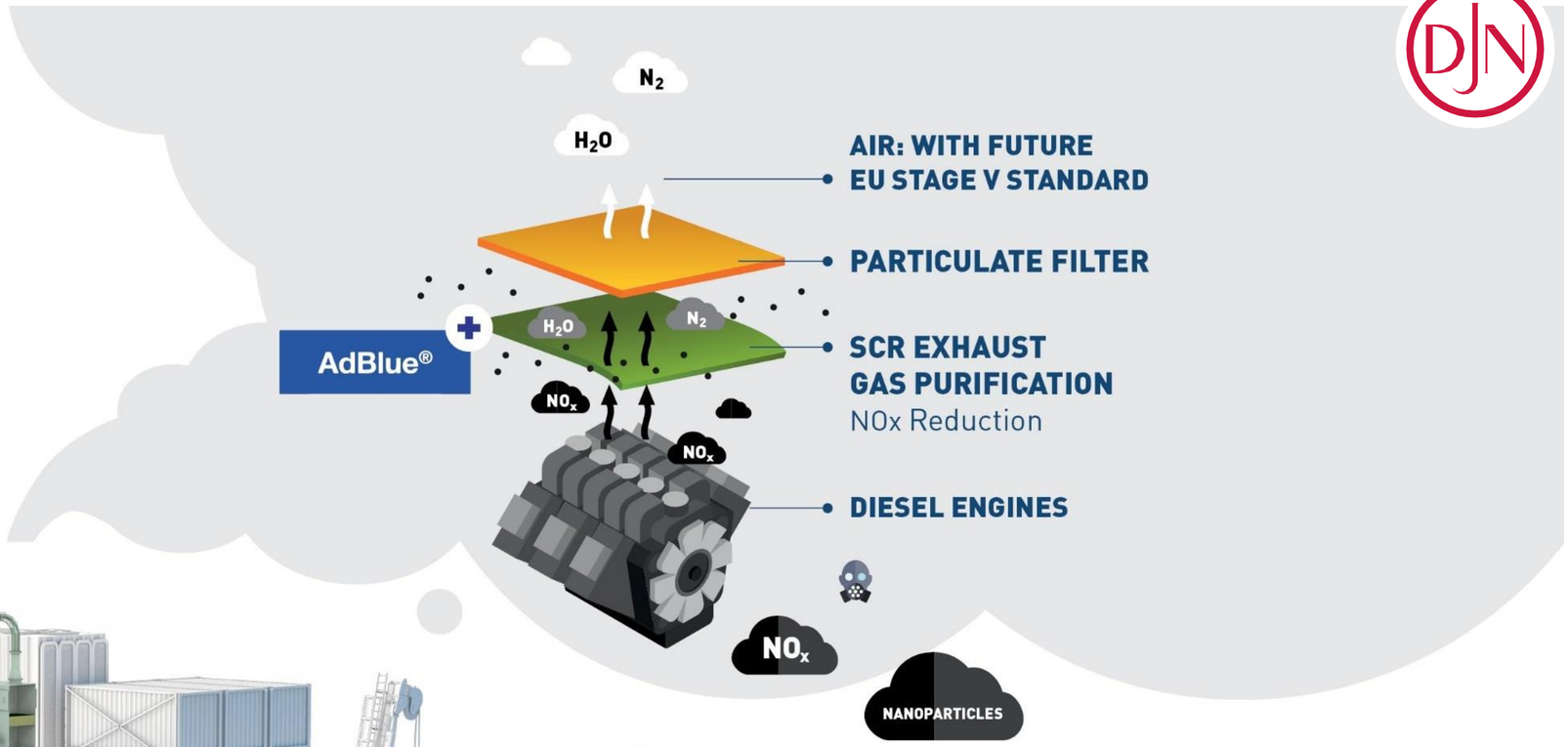
Air Pollution

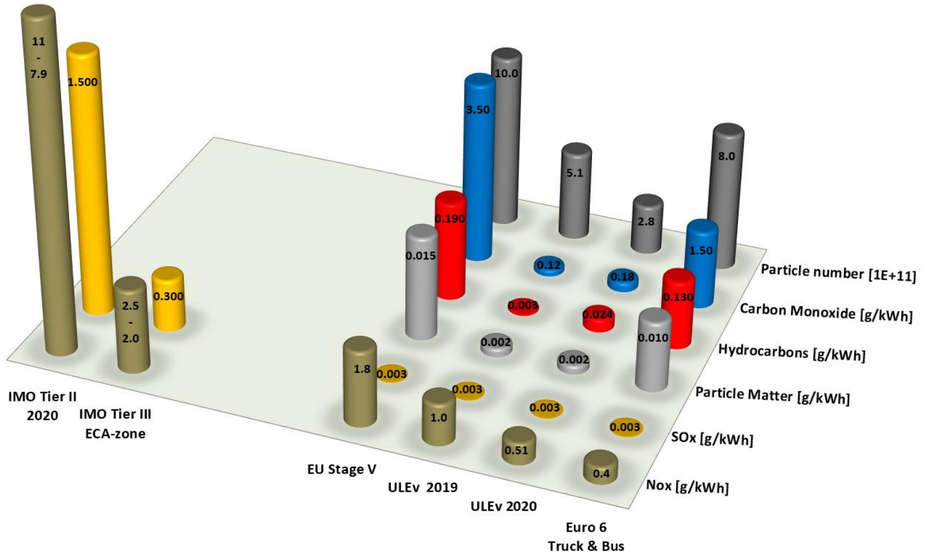

# New generation vessels.

Taking a greener approach with our new generation vessels. Fitted with a state-of-the-art filter that filters out 99% of nanoparticles, with Sox and NOx. No methane emissions.

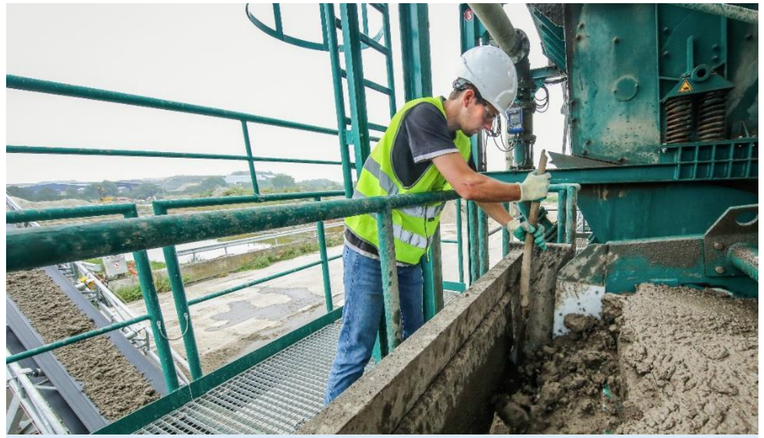
ULEv
ULTRA-LOW EMISSION



# 3. Incentives towards contractor’s sustainability



## Circular Solutions.

Aiming for maximum re-use of raw materials is the answer to environmental issues.

## Nature Based Solutions.

Building with materials nature provides us. Solutions where ecology meets engineering.

## Protecting biodiversity.

In-house Marine Environmental Department protecting biodiversity and ecosystems.

**Price not the only determinant**
**Include sustainability points during tender scoring system**

# Prince Hendrik sand dyke
# Texel – Dutch Wadden Islands

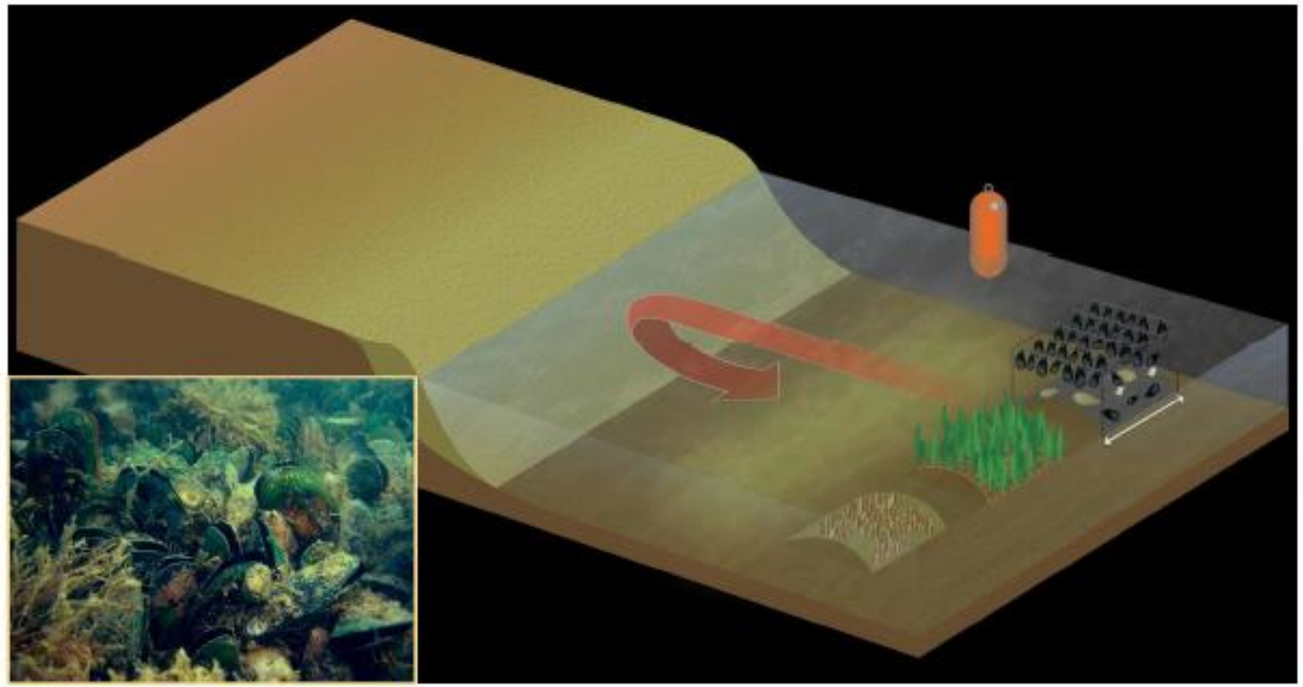
New dune landscape against old dyke + salt marsh landscape on seaward side

Transition between land and water more natural and sustainable

# Coastbusters

The use of nature based solution for coastal protection

- Marine Flora Reef (seaweed / seagrass)
- Lanice Reef (sand building tube worms)
- Bivalve Reef (oyster/mussel reefs) .



# Taking responsibility for generations to come.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