

thec offshore GmbH

## COMPANY SERVICES

Engineering solutions and technical services to the global offshore industry



## OFFSHORE INSTALLATION

### structural design

Verification of structural strength  
Design of seafastenings and installation equipment  
Hand calculations and code checks  
FEA simulations

- Linear
- Non-linear
- Buckling
- Fatigue

### marine operations

Heavy lifts  
Load / DAF calculation  
Float-over analyses  
Docking  
Mating  
(Wave) Load determination  
Clearances between moving objects  
Mooring analysis  
Structural integrity  
On-Bottom stability

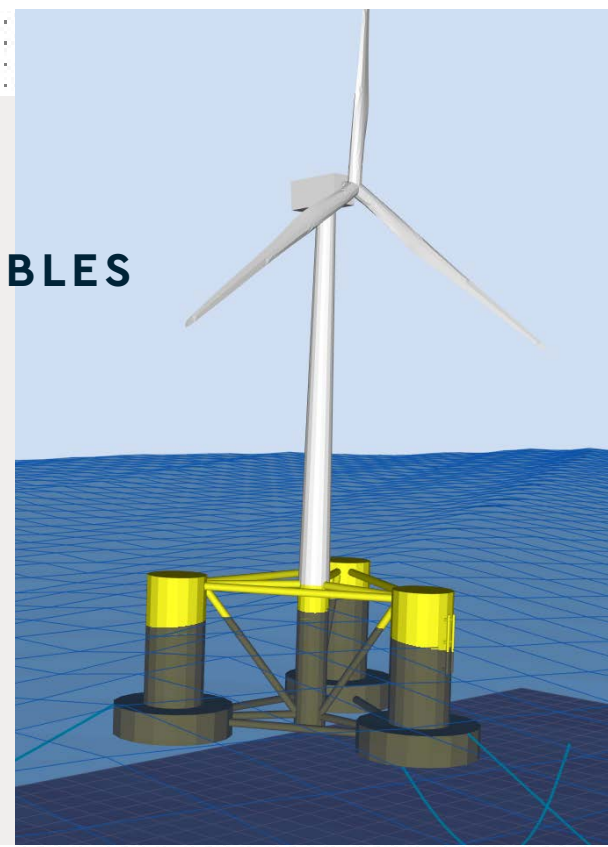
### floating wind turbines

Setup of coupled models  
Simulation of floating wind turbines  
Model calibration and validation  
Evaluation of the mooring system  
Power export cable assessment  
Motion characteristics  
Floating stability  
Controller optimization  
Evaluation of simulation models  
Evaluation of load assessments

## RENEWABLES

### wave energy

Hydrodynamic analysis  
Transport & installation analysis  
Motion response simulation  
Mooring analysis  
Energy yield simulation  
Parameter studies & optimization



## O&M CONCEPT OPTIMIZATION

### marine operations

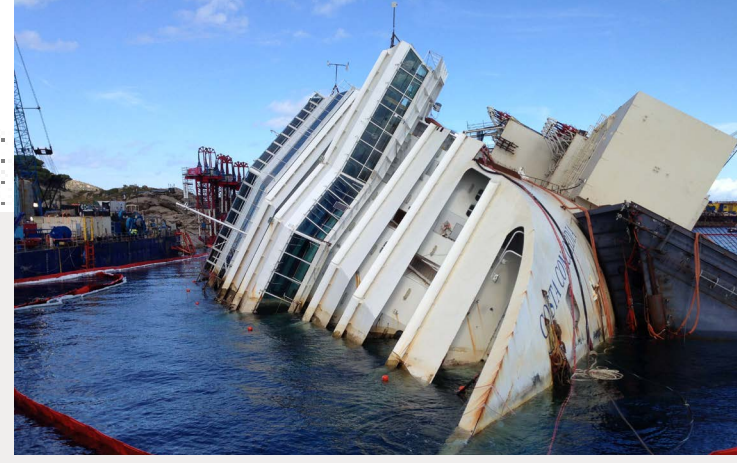
Assessing motion characteristics  
Optimize weather limits while maintaining high safety level  
Weather statistics  
Risk assessments  
For fixed and floating offshore wind farms

### metocean data processing

Time series analysis  
Weather downtime  
Statistics

## SALVAGE AND DECOMMISSIONING

Global concept engineering  
Load simulation  
Lifting  
Mooring  
Static installation process simulation  
Structural analysis  
On-site support



## NAVAL ARCHITECTURE

Vessel intact- and damage stability  
Longitudinal strength  
Stability booklet and vessel documentation  
Hull scantling  
Transport stability and motion assessment  
Draft surveys and inclination tests

about

## COMPANY TIMELINE

We provide engineering solutions and technical services to the global offshore industry. We are specialists in design and analysis of offshore operations with a focus on complex (multi-body) hydrodynamics and structural integrity.

# 2018

### joined forces

Simon Dillenburg joined thec for partnership. Development of service portfolio for offshore engineering.

# 2017

### company foundation

First project and engineering services delivered for local clients in the marine and wind industry.

# 2019

### thec offshore GmbH

Simon and Tim founded thec offshore GmbH providing services for the global offshore industry.

# 2020

### service portfolio

thec expands its service portfolio with online engineering and software solutions.

drop us a line

## CONTACT

If you have any inquiries, you are always welcome to contact us.

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