



DEME

Dredging, Environmental
& Marine Engineering

Pioneering offshore windfarm installation and investment worldwide

*2016 Taiwan Wind Power Investment International Conference
25 August 2016*

Contents

General
introduction of
the DEME Group

DEME
offshore wind
investments

Structuring
offshore wind
projects

Industry
trends

DEME
in Asia





**General introduction of the
DEME Group**



**Dredging,
Environmental
and Marine
Engineering**

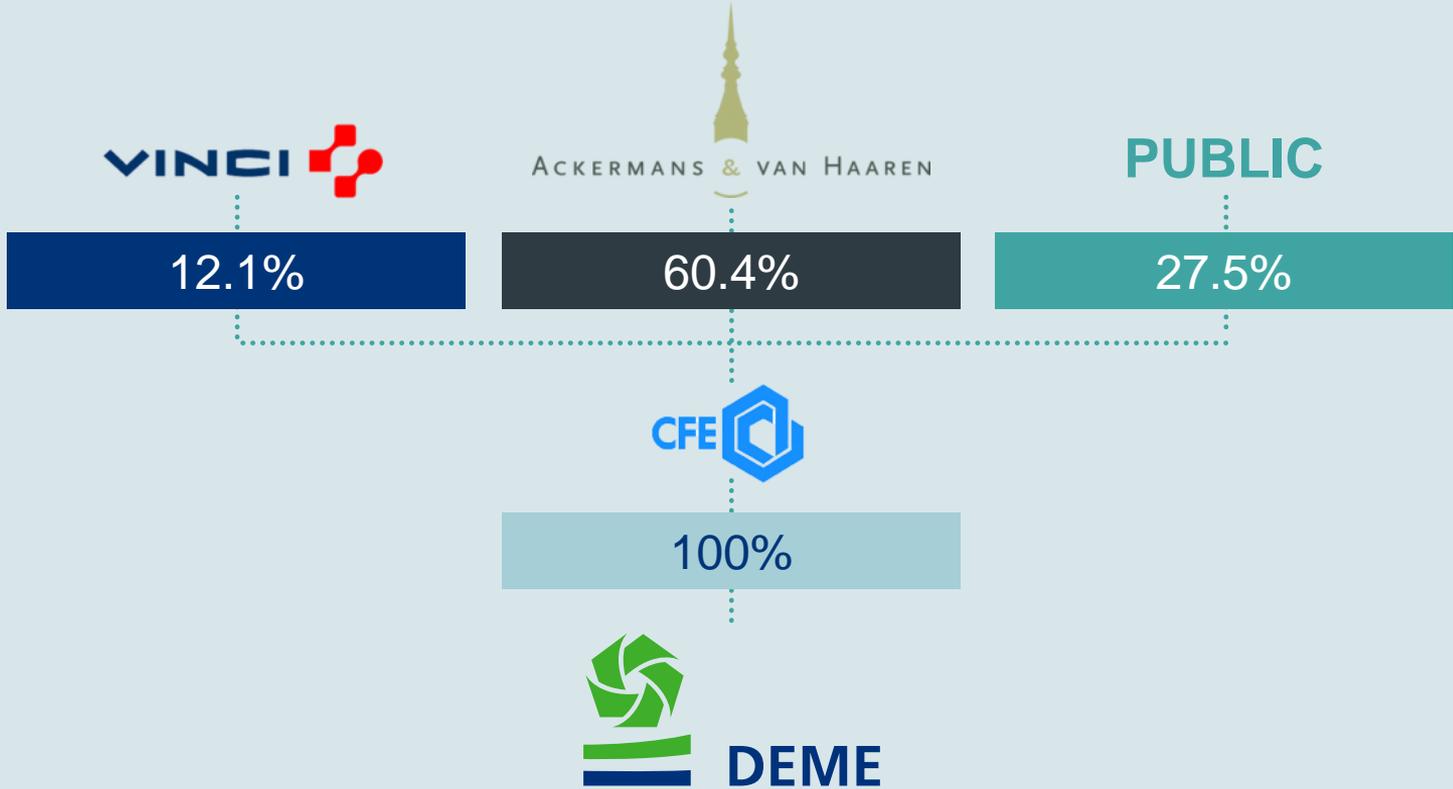
Holding merged
in 1991,
predecessors
active since
1852



More than **100
production
vessels to
provide total
solutions**

4100 staff
spread over
90 countries
where DEME is
active







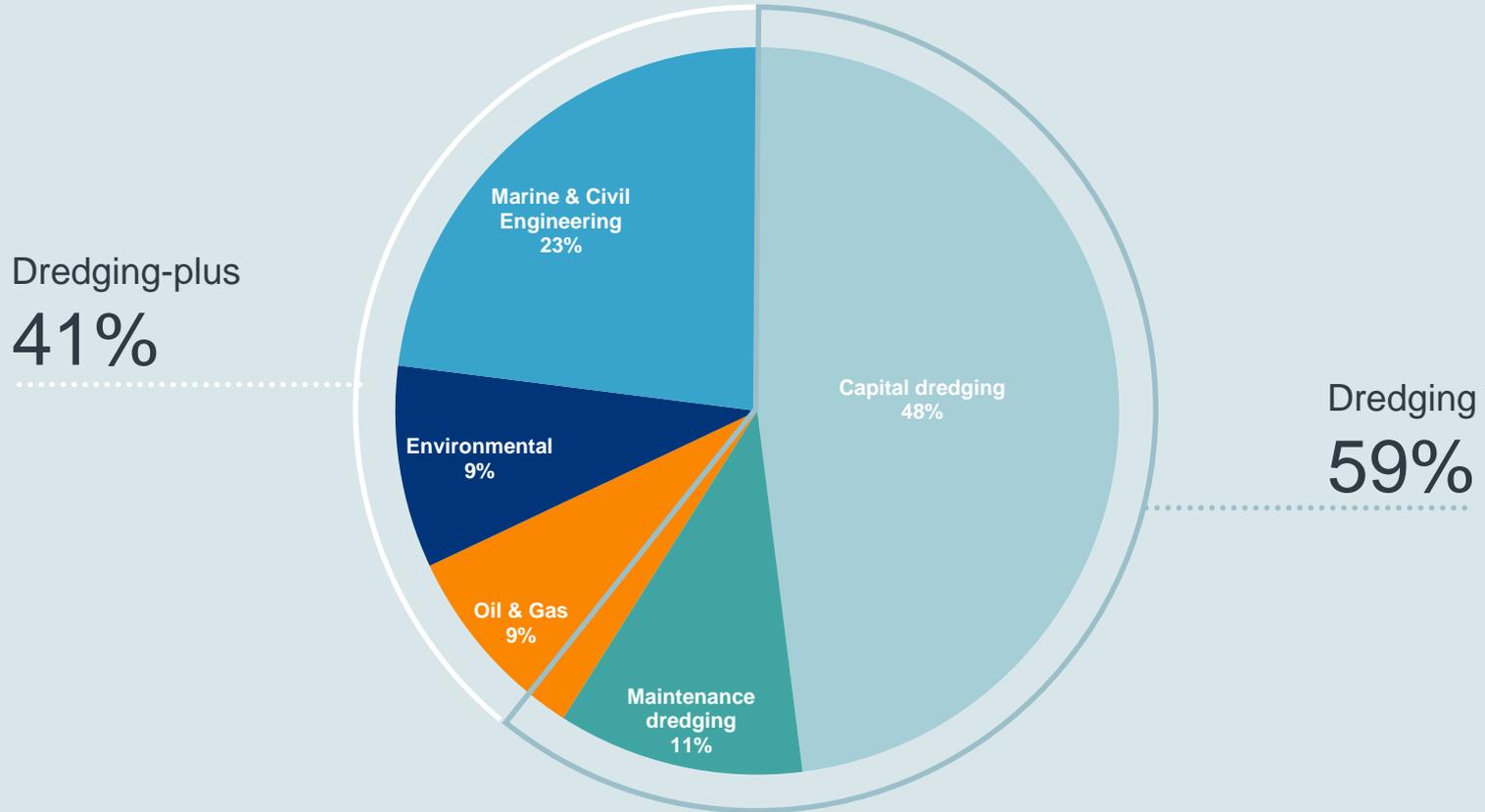
**Dredging
and land
reclamation**

**Marine
and offshore
solutions**

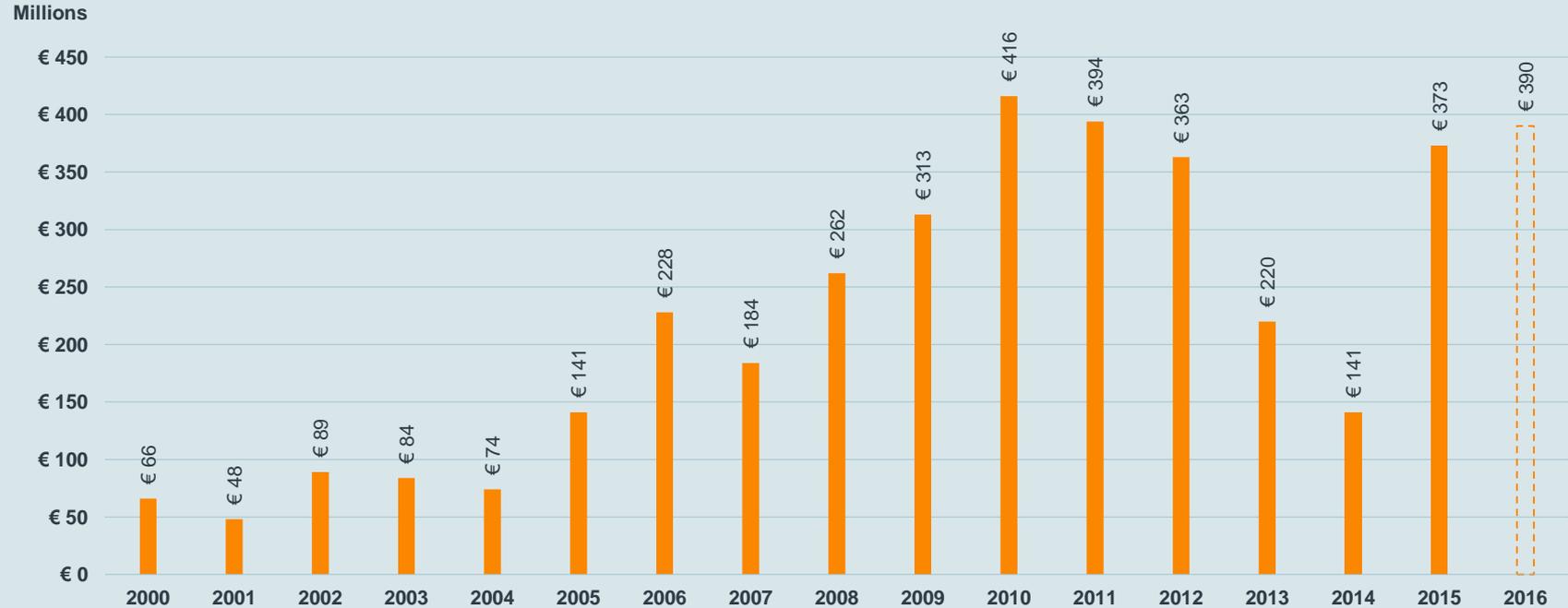
**Solutions
offered by
the DEME
Group in Asia**

**Concessions
and project
finance**



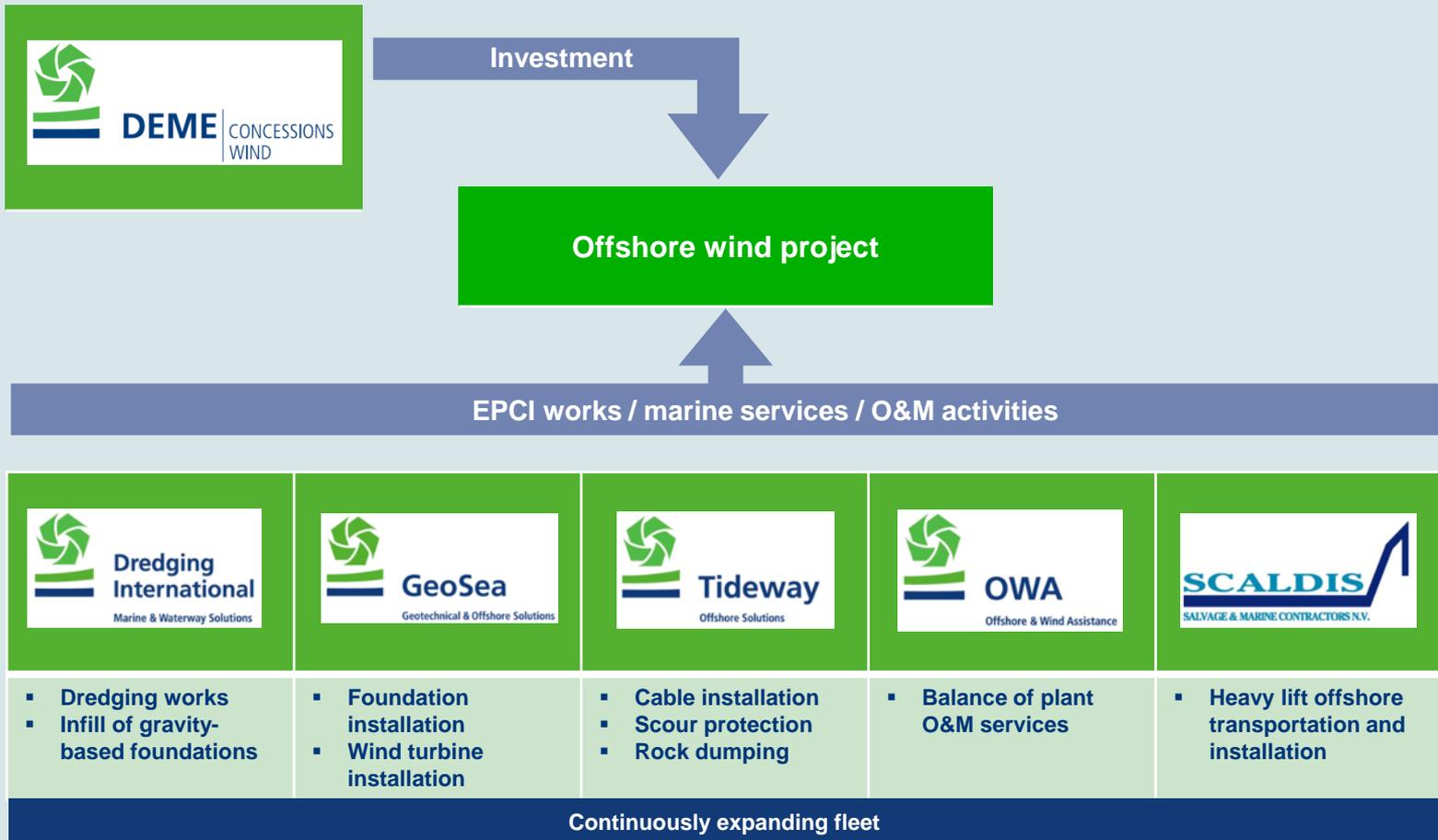








**DEME's
offshore wind
investments**





DEME | CONCESSIONS

Purpose

Investing in projects that generate work for the DEME group → Additionality

Investment size

Size of participation linked to scope of work for DEME group

Investment horizon

Investment horizon well beyond commissioning

Return expectations

Return expectations based on project due diligence & risks

Investment vehicle

Partnership philosophy

Advocates early involvement (pre-financial close) and a consistent partnership philosophy

Offshore Wind

Infrastructure

Wave & tidal

Marine resources



Operational phase projects	C-Power	Belgian operational offshore wind farm of 325 MW
Development phase projects	Merkur Offshore	German offshore wind project of 400MW under development: Financial Close
	Otary	Offshore wind developer with 3 offshore wind farm concessions in Belgium for a total capacity of ±800MW: Rentel, Seastar and Mermaid
	Power@Sea	Offshore wind developer with multiple projects, a.o. 2 offshore wind concessions in Poland
	Other	Projects in the pipeline in NW Europe





**Structuring
offshore wind
projects**

Public-private partnership

What

- **Long-term contract between private party and government entity**
 - Provides a public asset or service
 - Private party bears significant risk and management responsibility
 - Pay-back linked to performance of the asset or service
- » **pure infrastructure projects (motorways, etc)**

Why

- **Budgetary constraints** of governments
- Governments cannot have expertise in all fields
- Better operational efficiency:
 - » budget
 - » delivery times
- Knowledge-sharing between private and public sector

Types of PPP



Specific IPP model

Independent power producer

Not a public utility

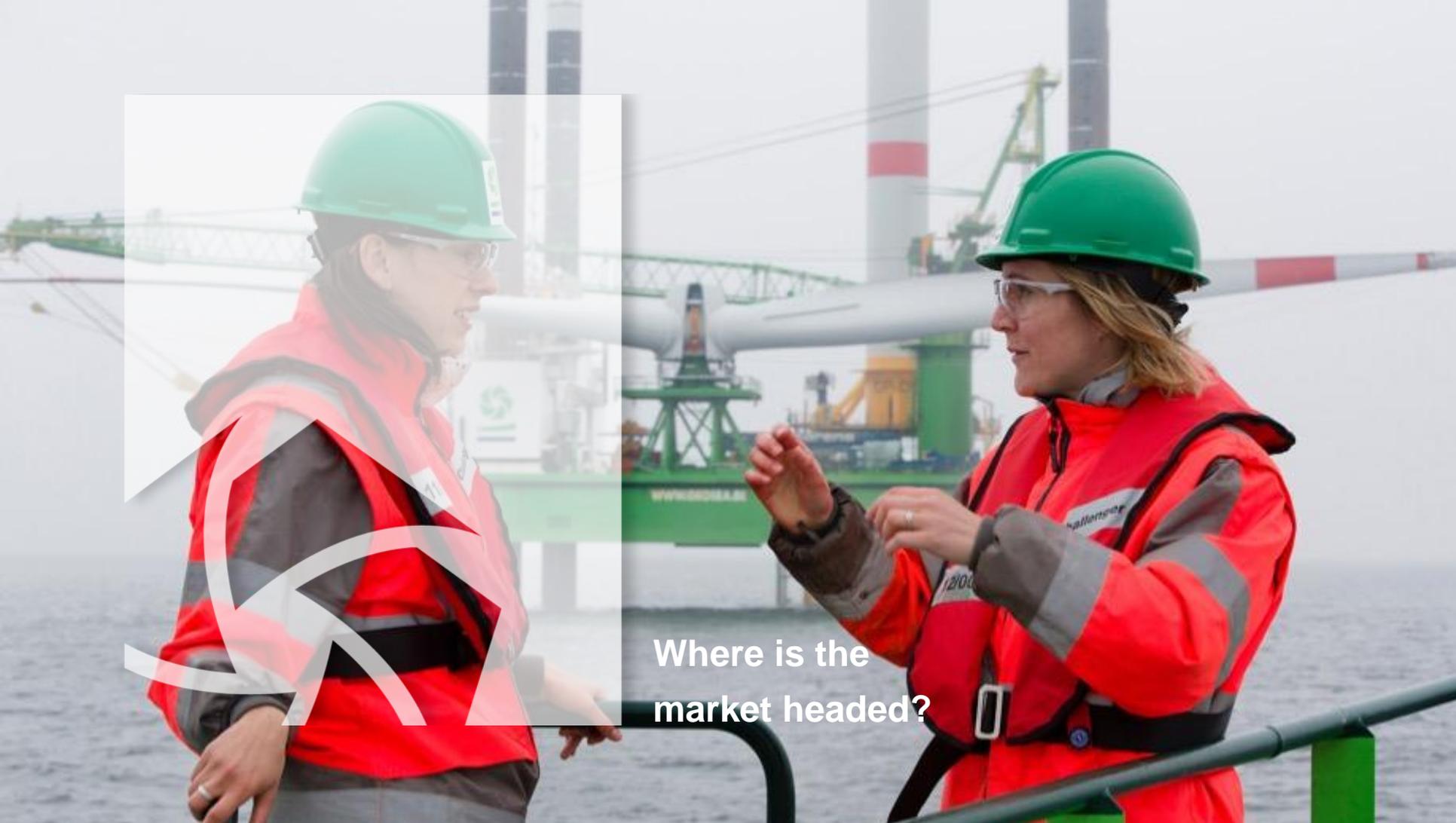
Owns facilities to generate electric power for sale to utilities

Specific construction risks and number of revenue risks lie with project vehicle

- Merchant risk (power price)
- Wind resource
- Availability / maintenance

↔ standard availability-based PPP





Where is the
market headed?

Where is the market headed?

Tendering procedures

Tendering on basis of support, with permits to come along
→ package deal

NL, DK, DE

- **Government heavily involved in preparatory works**
 - Site studies, grid connection, ...
 - **Closed, one-off bidding round**
 - Winner takes it all: support and permits
- **Financial close**

Unlike: UK, BE

- **Grant of concession / lease**
- **Securing permits**
 - Building, environment, grid connection
- **Support granted**
 - Fixed or tendering
- **Financial close**

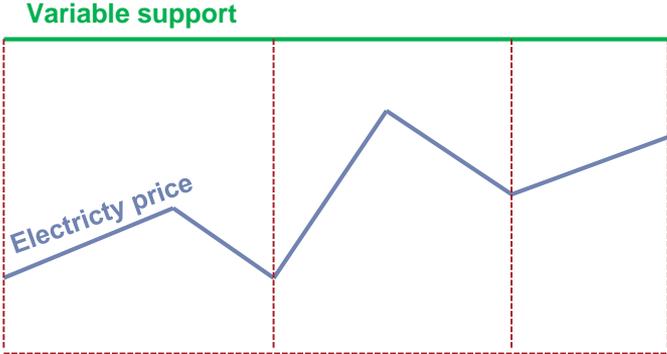
Support mechanism choices

Belgian example: multitude of possible schemes

Green certificates



LCOE



Choices in construction

EPC

- **Engineer, Procure, Construct, (Invest)**
- Contractor undertakes all aspects of the project and is single point of communication and responsibility
- **Less interfaces**
- **De-risking**
- **Invest angle**

Multi-contracting

- **Parcelling out of complex engineering projects in packages**
- Many interfaces
- Risk allocation can be tailored to package requirements: some contractors have higher liabilities than others
- Project owner must have very high **project management expertise**

Grey zone

- **Alliance frameworks** that emulate EPC processes during a project (contractors assuming multiple packages,...)
- Long-term supply agreements

Where is DEME headed?

European home market

- **Investment and Early Contractor Involvement**
- From Main Contractor to EPC Contractor, onwards to (part) project owner
- Principle: **recycling of capital** and **cooperation for development**

Offshore wind in Asia

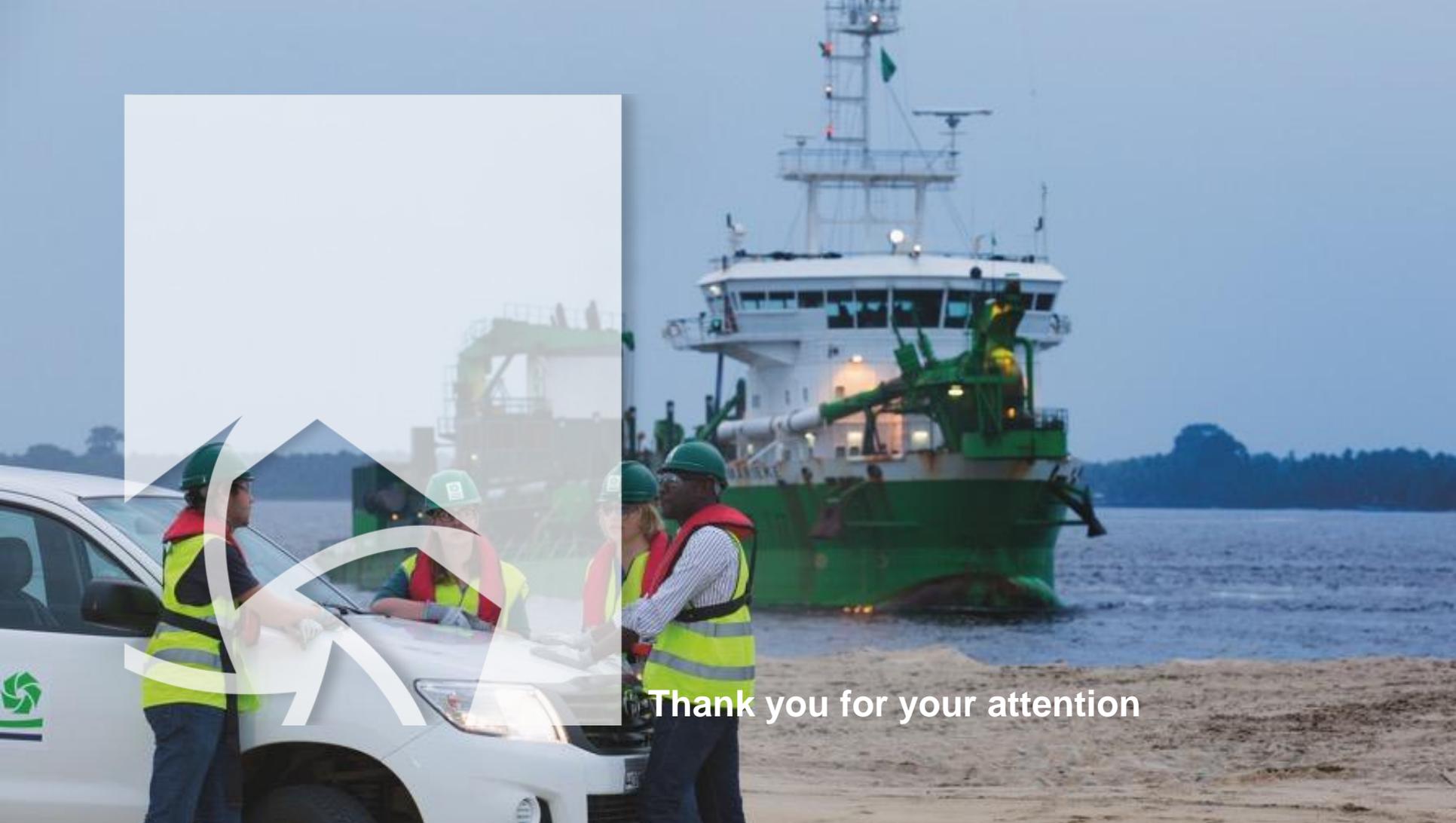
PR China

- **COSCOCS-DEME New Energy**
JV between COSCOCS and DEME
- Offering offshore wind installation and investment solutions on the PR China market
- Towards EPC solutions

Far East

- **Focus on dredging activities**
- **Secondary focus on partnering for offshore wind developments:** Taiwan, Korea
Assisting in (mini) EPC contracts





Thank you for your attention