

# World Petroleum Council Expert Workshops

**Oil & Gas Industry as Key Players in  
the Energy Transition. The North Sea Program  
4 webcasts in the week of May 26th**

➤ <https://to.kpmg.nl/2W4JzWr>





World Petroleum Council  
NL National Committee

*The WPC is dedicated to the promotion of sustainable management and use of the world's oil, gas and other energy resources for the benefit of all.*

- WPC Expert Workshops are designed to address key regional and global issues of interest to the petroleum industry
- The WPC Expert Workshop is a collaboration of KPMG, Shell, TNO and IRO – The Association of Dutch Suppliers in the Offshore Energy Industry.
- Their objective is to *bring together international experts* for a thorough review of the latest developments, challenges and new solutions related to the selected subjects, and create a report of the results and conclusions to be presented at the 2021 Congress in Houston.
- The team will then create a *Report of the Expert Workshop conclusions which will be presented at the 23rd World Petroleum Congress* in an hour long Expert Workshop Results session.

# Day 3

Oil and Gas key players in the Energy transition:

Critical success factors for corporate venture investing in transition technologies

# Program for week 26 May

---

26th May: Oil and Gas key players in the Energy transition: Old meets New

27th May: Strategies for Wind and Solar Power Hubs to Green Hydrogen

**28th May: Critical success factors for venture investing in transition technologies**

**29th May: “Blue Hydrogen” a Carbon Neutral Natural Gas**

---

# Objective of today's session

---

Ventures are required for innovation in the energy sector, specially given the large scope of development required to bring hydrogen to scale. However, the success of a venture will largely depend on its ability to control the key success factors

Till now we have explored the situation at hand in the O&G sector, with depleting reservoirs in the North Sea, and ambitions to reduce carbon emissions. We have also explored the concept of renewable energy in the North Sea, with emphasis on Hydrogen

Short presentation followed by,interactive discussion around the venture space

---

# With you today

## Speakers

**Geert van de Wouw**  
Managing Director Shell Ventures



Geert has been with the Shell group since 2003, where he presently leads the Shell ventures team (Shell's corporate venture capital arm). Geert has prior experience in the Corporate M&A, B2B business development space, contracting and procurement, corporate venturing space and has also spent ~15 years with FLUOR (American engineering and construction firm).

**Jerom van Roosmalen, Managing Director**  
Nordsol



Jerom has founded Osomo (later Nordsol) in 2010 and currently serves as the Managing Director at Nordsol. He is a dedicated professional in the BioLNG space bring in expertise and being an initiator behind the technology, having built prototypes single-handedly in his workshop

## Moderator

**Bud van der Schrier, Partner**  
KPMG

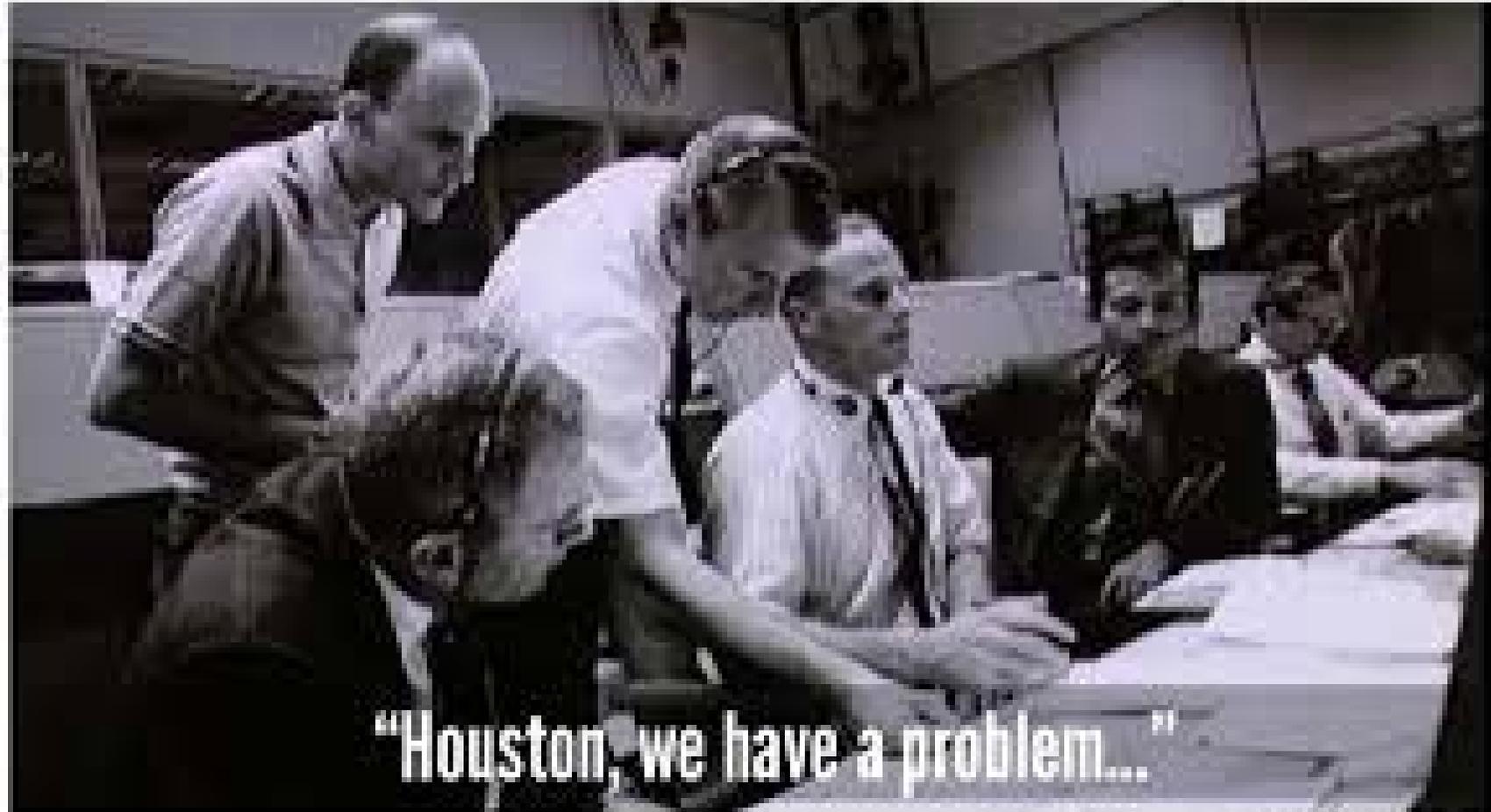


Bud has worked for KPMG's Global Strategy Group, since 2005 where he now heads the Dutch Deal & Growth Strategy team with a strong focus on deal and growth strategy engagements. Bud has over 15 years of strategy consulting experience with considerable experience of delivering projects in the energy space

# The Oil & Gas Industry

# The Oil & Gas industry facing an unprecedented crisis

---



"Houston, we have a problem..."

# Oil price

## WTI Price YTD



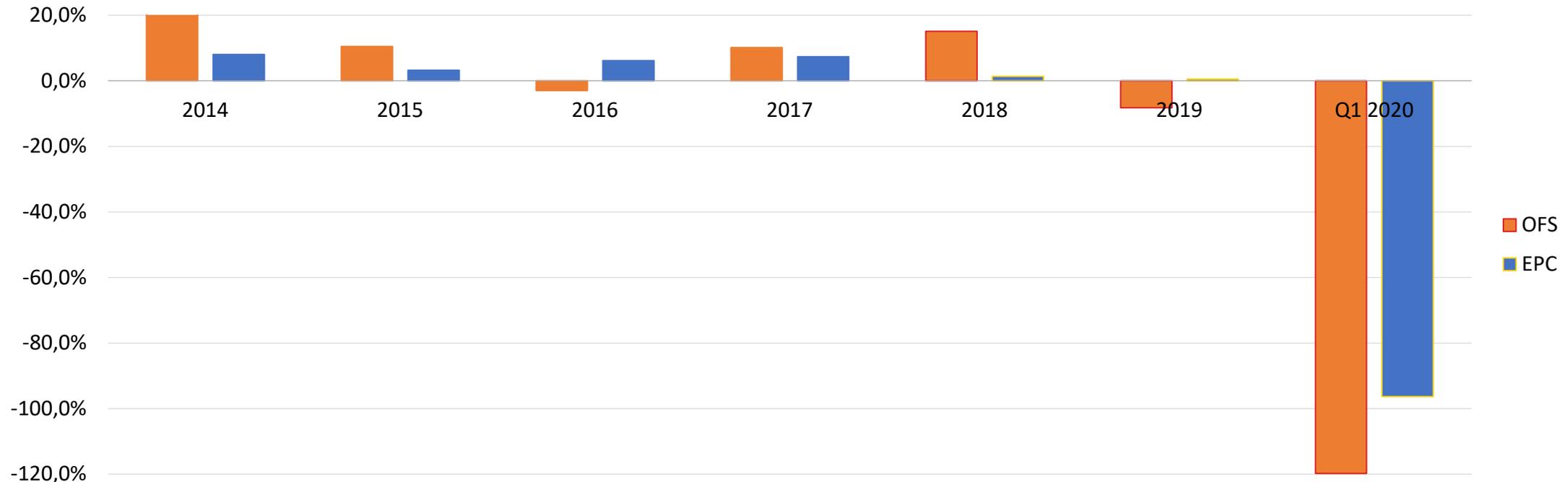
## Brent Price YTD



# Oil and Gas sector under pressure

Sustained cost pressure for OFS & EPC players resulted in meager business performance before C-19, but absolute collapse afterwards

EBITDA margin of leading Oil Field Services and EPC companies<sup>1</sup>, % EBITDA margin

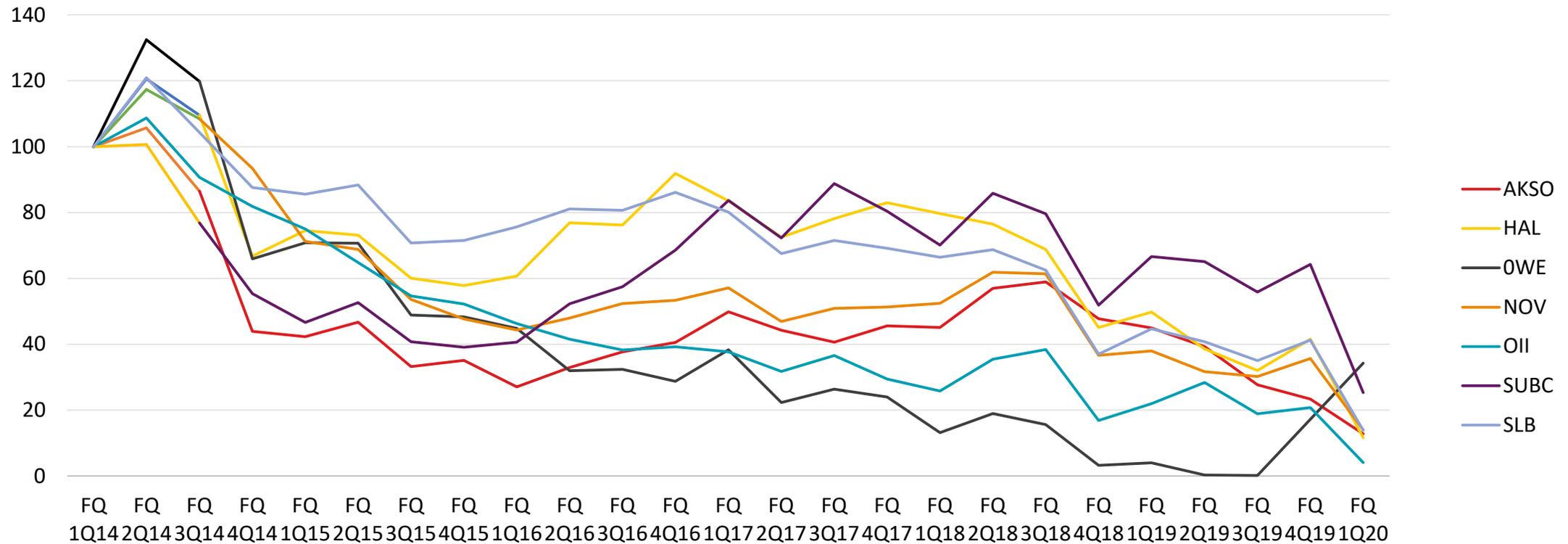


Note: 1. Pitchbook data for a sample of Oil Field Services companies (Schlumberger, Halliburton, Baker Hughes, Aker Solutions, Weatherford International, National Oilwell Varco, Oceaneering and Subsea) and EPC players (TechnipFMC, Worley Parsons, Petrofac, McDermott International and Wood Group)

# Which has been reflected in their share price: (1/2)

## Oil Field Services Co's:

Share prices of leading Oil Field Services companies<sup>1</sup>, (Q1 2014 = 100)

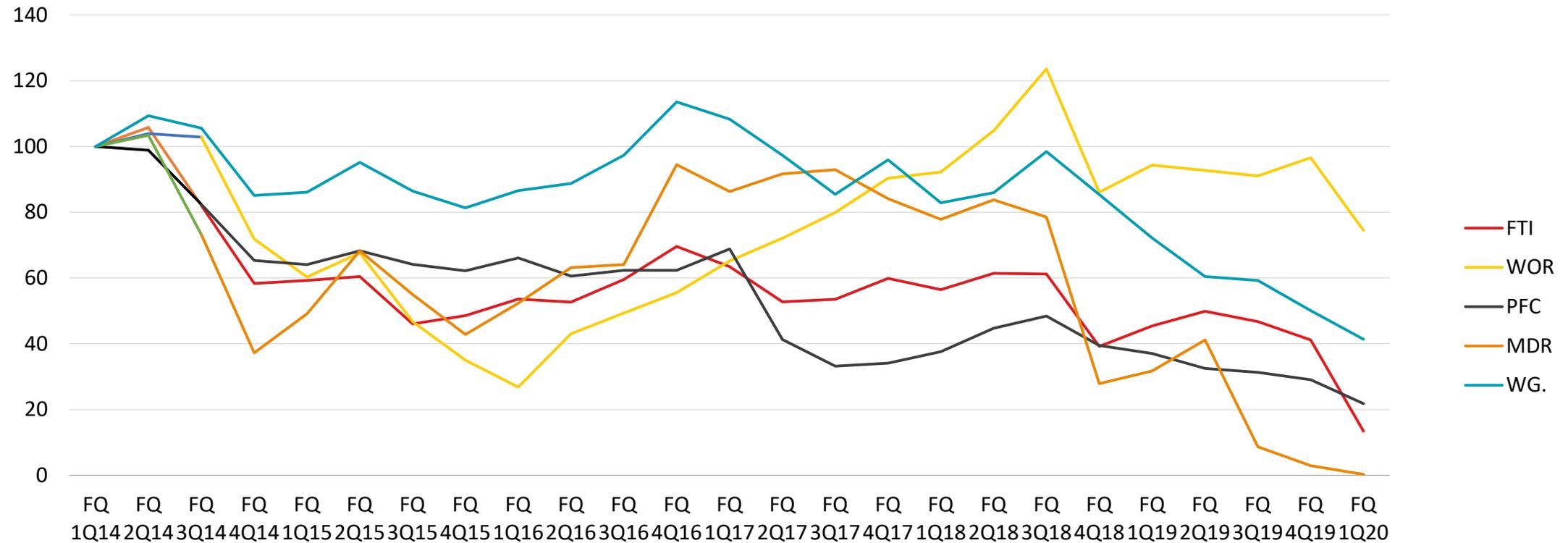


Note: 1. Pitchbook data for a sample of Oil Field Services companies (Schlumberger, Halliburton, Baker Hughes, Aker Solutions, Weatherford International, National Oilwell Varco, Oceaneering and Subsea)

# Which has been reflected in their share price: (2/2)

## EPC companies:

Share prices of leading EPC companies<sup>1</sup>, (Q1 2014 = 100)



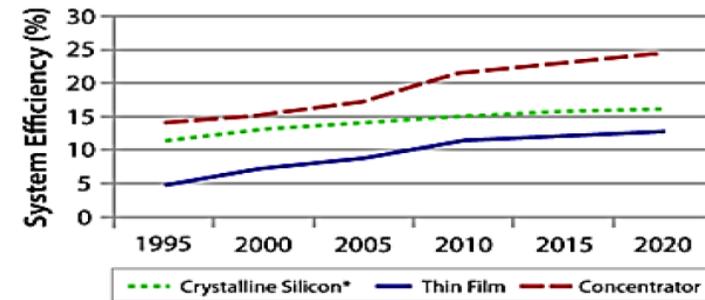
Note: 1. Pitchbook data for a sample of EPC players (TechnipFMC, Worley Parsons, Petrofac, McDermott International and Wood Group)



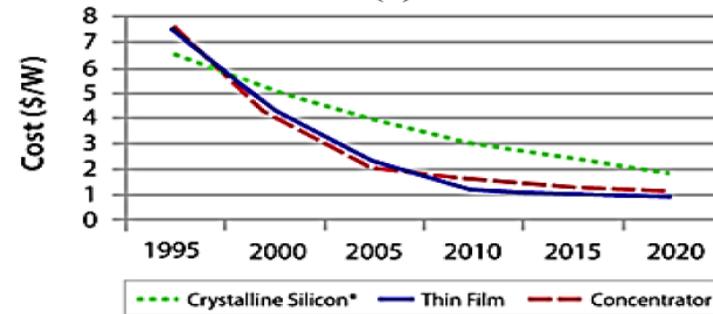
# Margins under pressure: (2/2)

... to compete with renewables

## Solar price developments



(a)

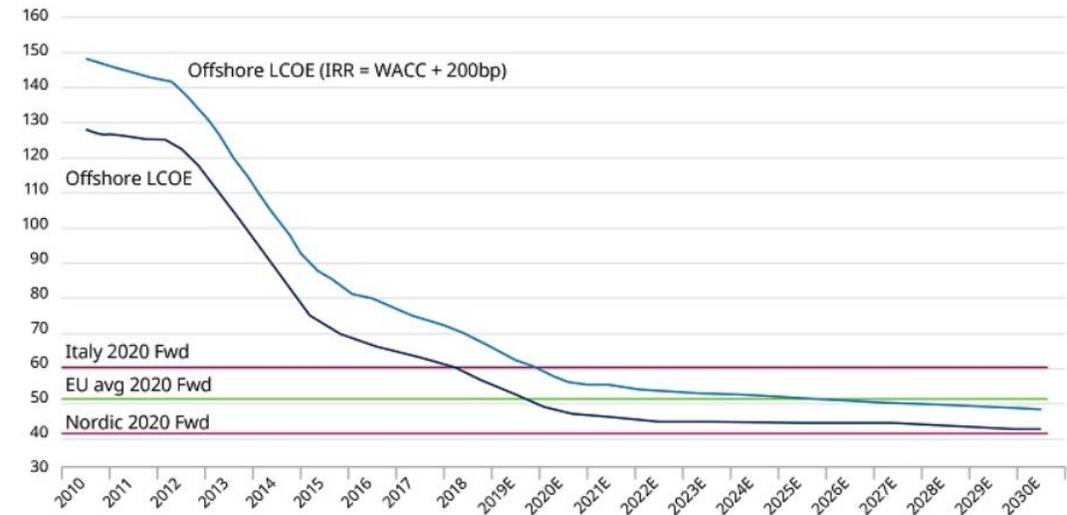


(b)

Fig. 5. (a) Efficiency of PV systems since 1995 (b) PV system capital cost [51]

## Wind price developments

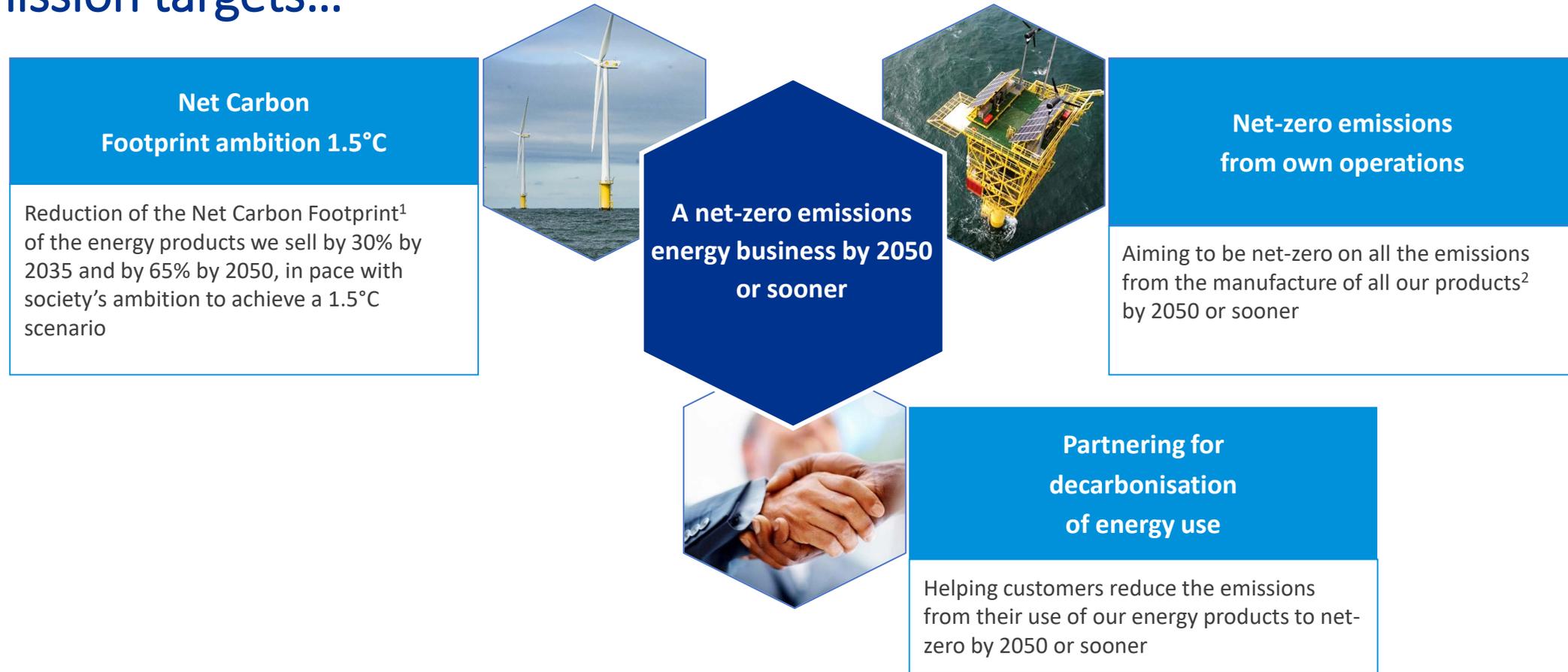
Offshore Wind Levelised Cost of Electricity (LCOE) evolution/projecton vs. Merchant Forward curves in Europe (€/MWh)



Source: Goldman Sachs Global Investment Research, Bloomberg. CS1814.

# Shell's climate ambition

Meanwhile Energy Companies have set new, ambitious net zero carbon emission targets...



# The Oil & Gas sector has a supply chain issue:

---

## Key Issues:

- Very sudden drop in demand across the full value chain, combined with crude over-supply has led to truly unprecedented margin compression and cash constraints.
- This will further impact innovation, just when the sector need it most to compete with renewables and meet its renewed NCF ambitions

Increasingly strong case to leverage external innovation through start-ups.

---

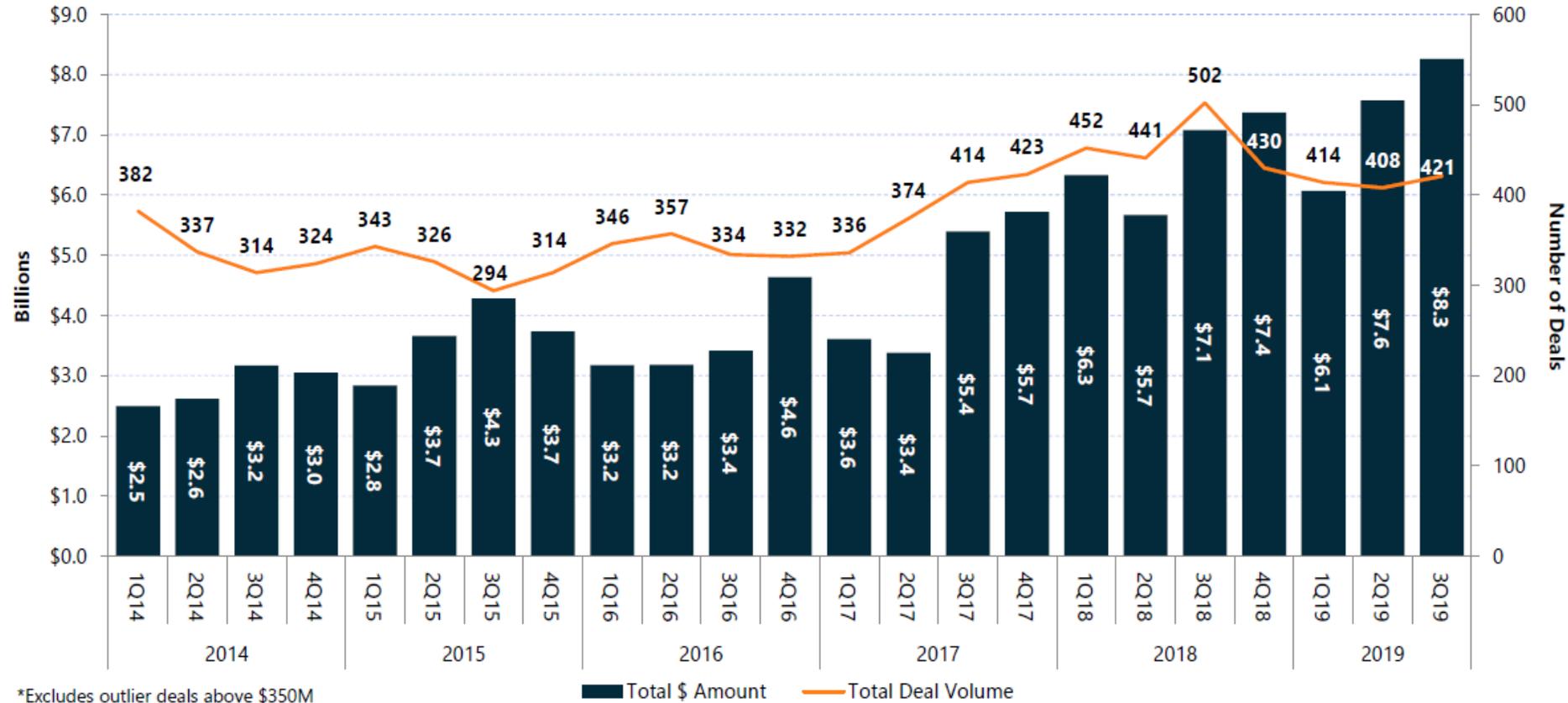
# The Venture Movement

- Start-up popularity
- Corporate Venturing
  - Shell Ventures

# Start-ups popularity: (1/2)

## Increasingly, exiting innovation in the energy sector comes from start-ups

Total Venture Capital investments in "Cleantech"

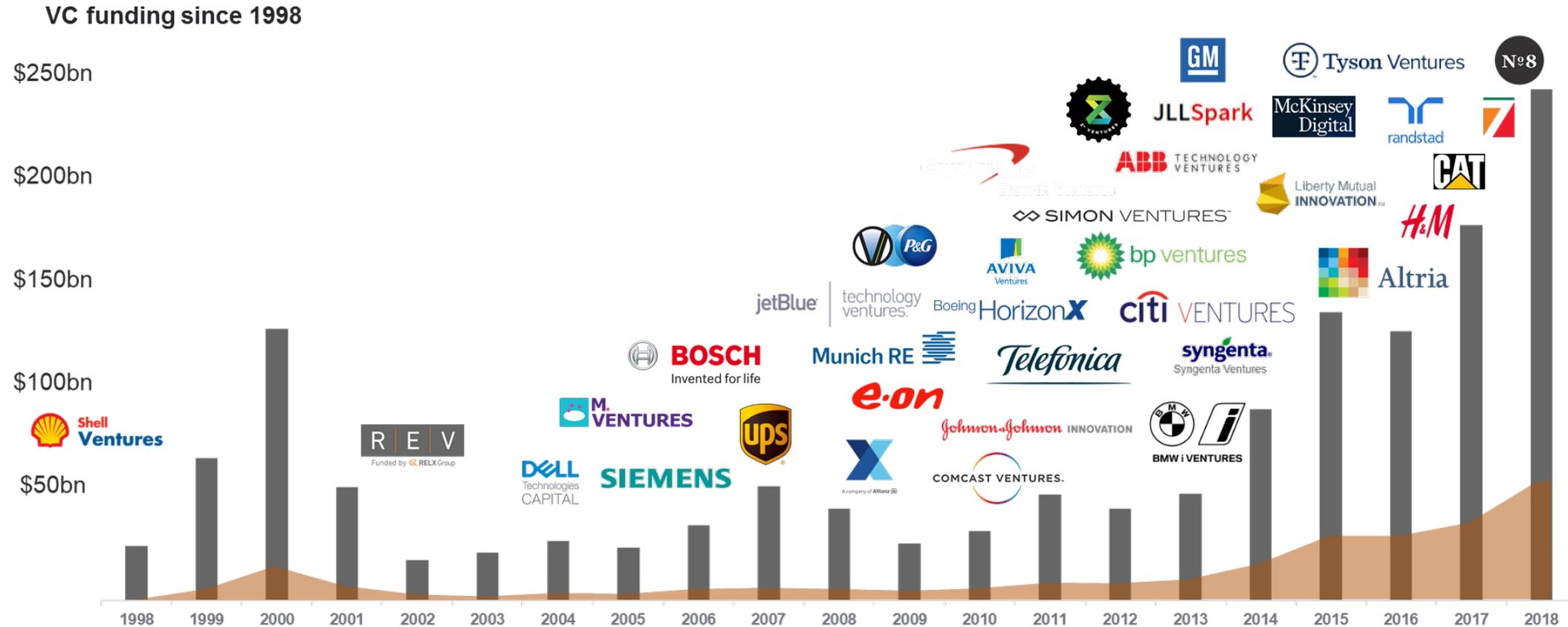


\*Excludes outlier deals above \$350M

\*\*Dollars (left) and volume (right) of global cleantech venture capital deal activity

# Start-ups popularity: (2/2)

... and corporates are getting involved



# Corporate Venturing

---

## Why Corporate Venturing ?

- 'Eyes and Ears'
- 'First row seat', creating an advantaged position for Shell
  - Deployment value
  - New Business Growth options
- Financial return & self-sustaining long-term
- Leveraging third-party funding

Provide Venture Capital capability for the broader Shell Group

---

# Introducing Shell Ventures

Capitalizing on disruptive technologies and business models developed outside of Shell

- 

7 hubs, 35 professionals  
The eyes and ears of Shell
- 

Deployment focus  
Across global value chain
- 

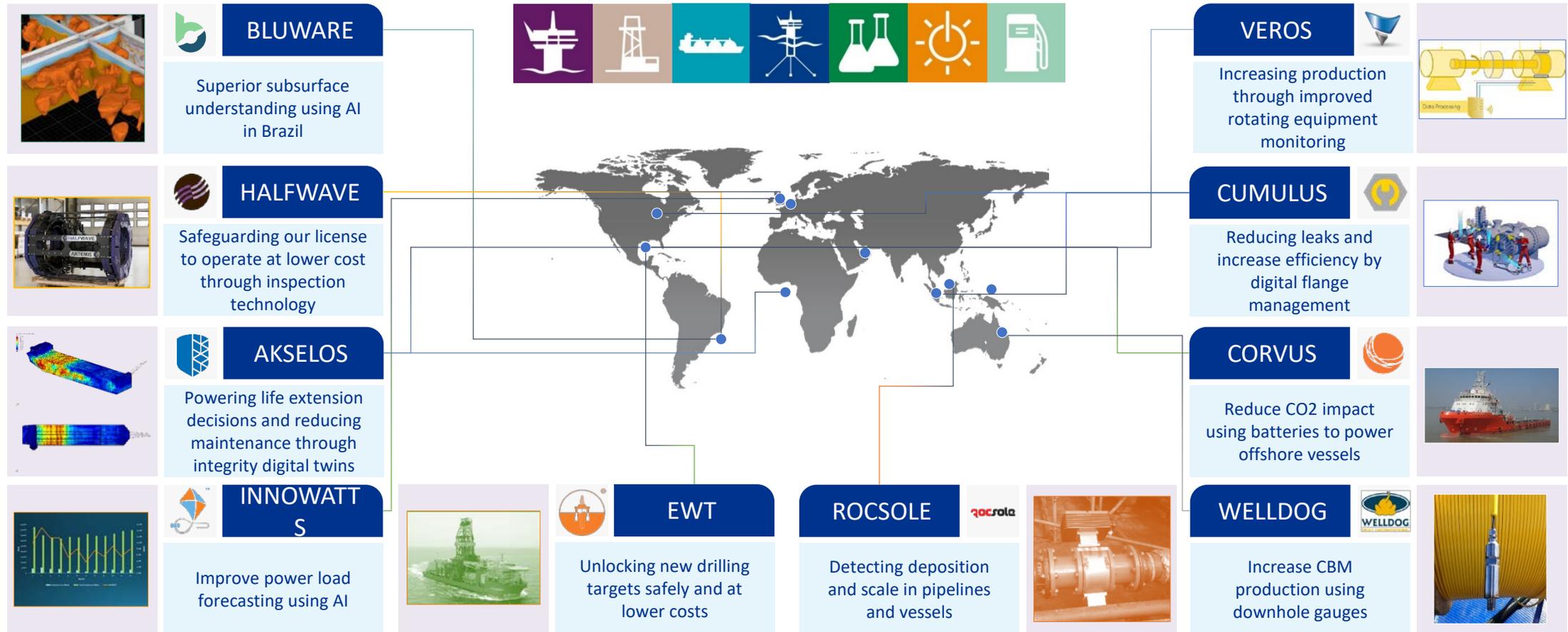
Lead and follow  
Active investor, form syndicates
- 

Balance  
Strategic fit with financial return
- 

Minority investments  
\$2 – 25 million over series



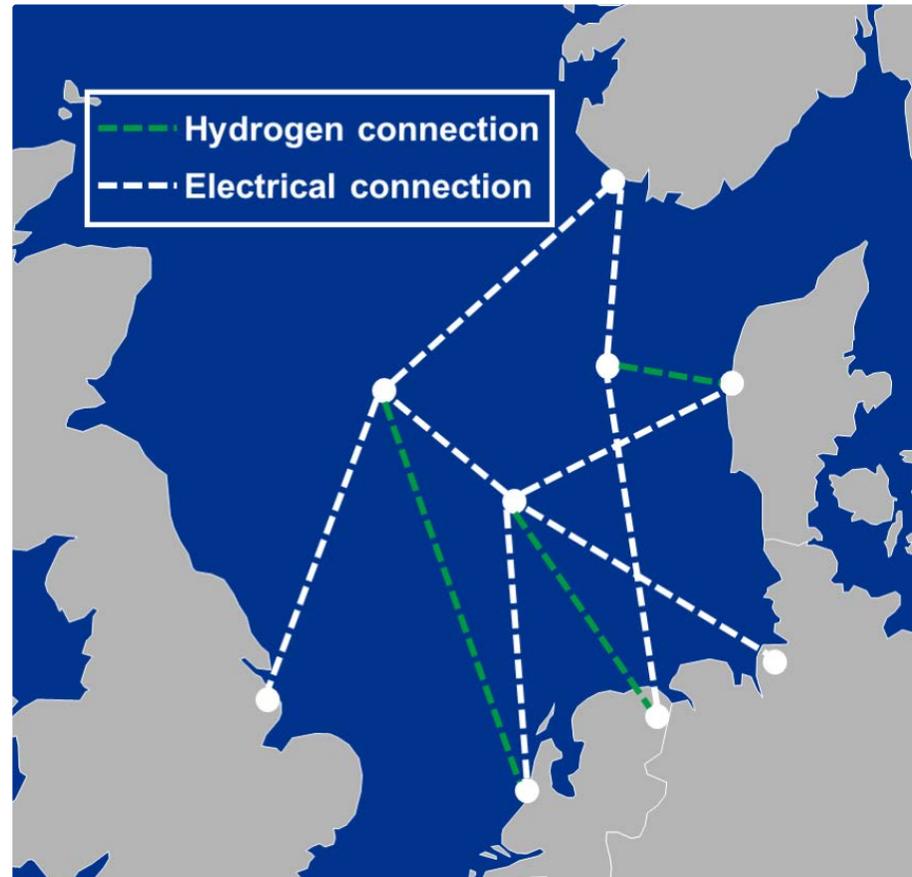
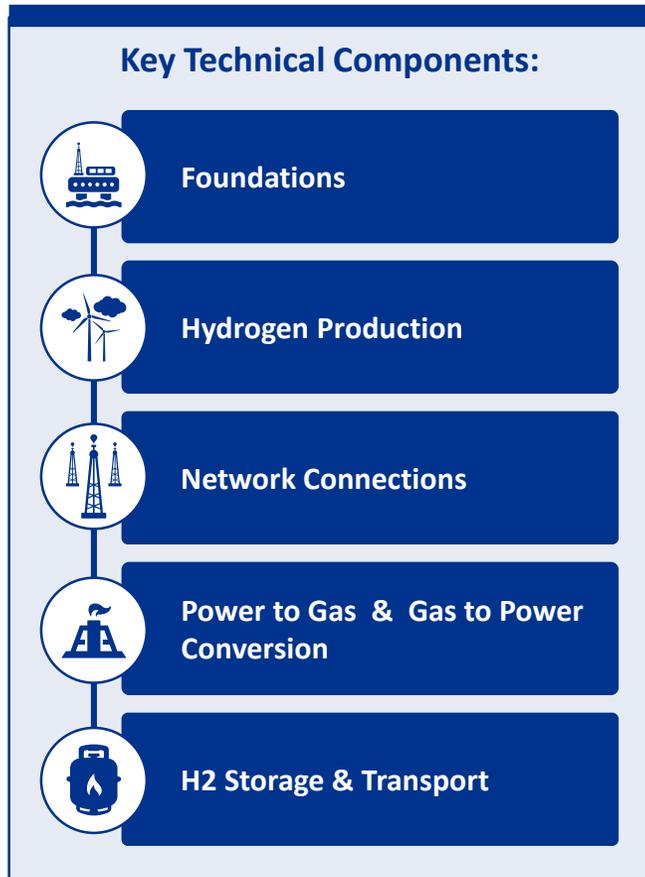
# Creating Deployment Value from start-ups



# Deployment : The North Sea Wind Power Hub

# North Sea Wind Power Hub: The Vision

North sea wind power hub presents a modular approach, with a feasible hub and spoke model it aims to deliver a sustainable energy solution in the north sea



# Motivating Transition : Energy Companies

# Operator investments in the transition

## Factors that affect the decision making, in transition to newer technologies



**Favorable**

- 

Longer asset life
- 

Sustainability targets pushing the transition
- 

Availability of small scale technology



**Barriers**

- 

High capital expenditure
- 

Challenging business cases
- 

Slower R&D processes for large operators
- 

Risk averse nature of corporates

### Energy company perspective on the North Sea system

Complex system, integrator capabilities are needed

Asset life extension

Sizeable applications available in the North Sea Region which are crucial

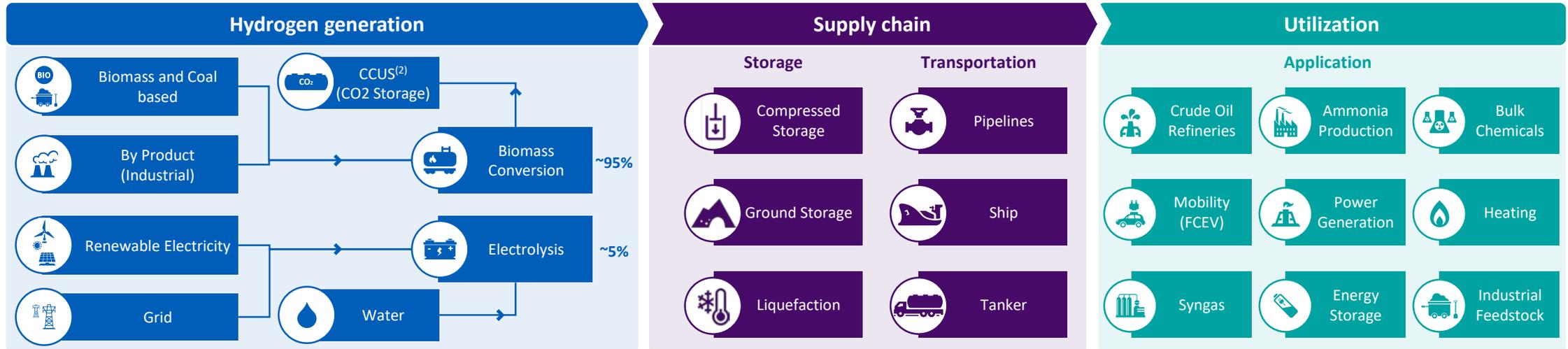
Timing of interplay between modules

# The Need for Ventures:

- Technology Innovation
- Ecosystem Support

# The need for ventures: Solving technical barriers

Technical innovation in the hydrogen space to enable scale deployment will be driven by new ventures across the value chain



Note: 1) The value chain is only indicative and can contain additional elements, 2) CCSU stands for Carbon capture, utilization and storage, 3) Based on the sample study done over a select list of companies, this list is not exhaustive and is only indicative of some of the main ventures that have come up in the hydrogen space over the given time period. The graph indicates presence (as number of companies) across the different areas of value chain of the selected ventures

# Conditions for success : Building the ecosystem

Realisation of the North Sea vision requires an interplay between government institutions and the private sector to enable development of the ecosystem – venture investors are dependent on the success of this interplay

 <p><b>Government Support</b></p>	<ul style="list-style-type: none"> <li> Integrated tendering approach</li> <li> EU Harmonization of energy policy</li> <li> Ensuring a stable regulatory and procedural framework – Aiding deployment</li> </ul>	<ul style="list-style-type: none"> <li> Tax Incentives – Financial motivation</li> <li> Safety standards</li> </ul>
--	---	---

 <p><b>Private Initiatives</b></p>	<ul style="list-style-type: none"> <li> Funding ventures – Promoting innovation</li> <li> Accepting Public-Private Partnerships – De-risking investments</li> </ul>	<ul style="list-style-type: none"> <li> Adapting upstream – e.g.: Converting gas grid infrastructure, ....</li> <li> Commercializing downstream – e.g.: FCEV, Building heating and power, ...</li> </ul>
--	---	---

# Successful Venturing

# Linking the elements

Ventures are playing a key role in realizing the hydrogen transition; several elements determine the results corporate venture investing

## Key success factors for the North Sea vision



## Major themes for ventures



# Discussion

---

**Please provide your questions in the Chat function  
of the online environment**

---

Thanks for joining this session

We hope to meet you tomorrow at our next session on:

**“Blue Hydrogen” a Carbon Neutral Natural Gas**



World Petroleum Council