

International Opportunities

Offshore Wind

Oil&Gas



Agenda

- Short about Norwegian Energy Partners and Norwegian export
- Opportunities in the Offshore Wind business
- Opportunities in the Oil and Gas business



Norwegian Energy Partners

is an independent non-profit foundation established to strengthen the long-term basis for value creation and employment in the Norwegian energy industry through facilitation of the industry's international business activities.

We have around 300 partners/company members from the Norwegian offshore, energy and maritime industries.

Founders

Organisations

- Energy Norway
- Federation of Norwegian Industries
- Norwegian Oil and Gas Association
- Norwegian Shipowners' Association
- The Norwegian Confederation of Trade Unions

Norwegian Government

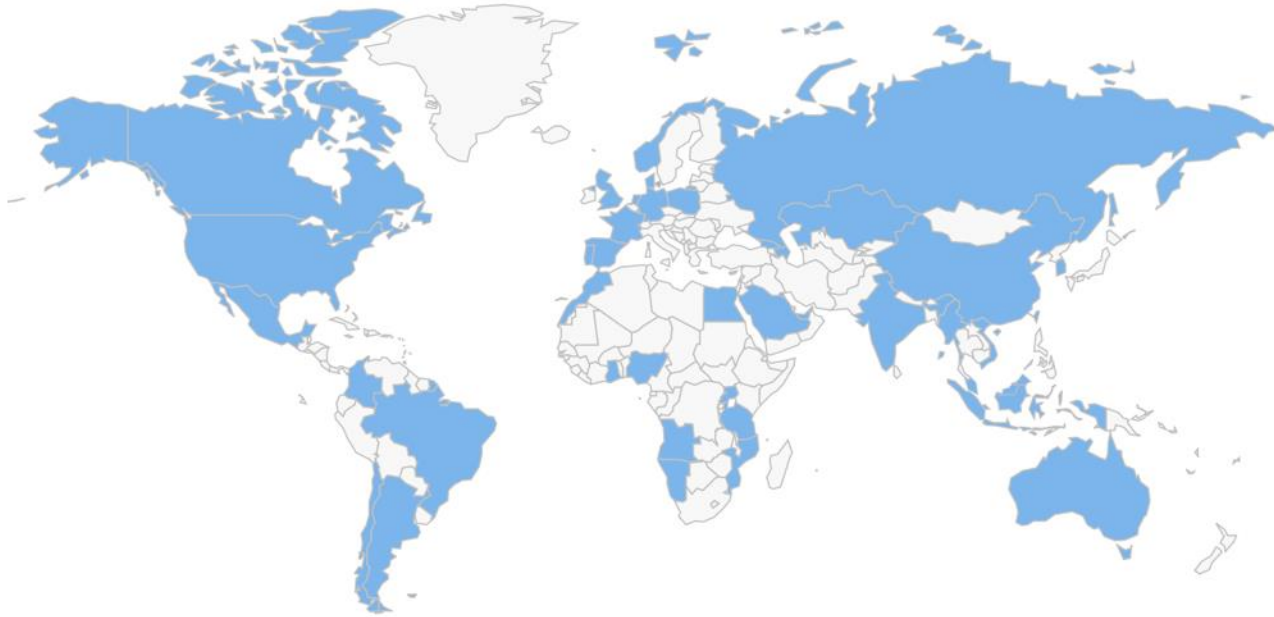
- Ministry of Petroleum and Energy
- Ministry of Trade and Industry
- Ministry of Foreign Affairs

Industry

- Equinor
- Statkraft



Global presence



Our markets

Angola	Arctic & Cold Climate
Argentina	Australia
Azerbaijan	Benin
Brazil	Brunei
Canada	Chile
China	Colombia
Denmark	Egypt
Engineering Hubs	France
Germany	Georgia
Guyana	Ghana
Kazakhstan	India
Kuwait	Indonesia
Mexico	Korea
Mozambique	Malaysia
Namibia	Morocco
Nigeria	Myanmar
Poland	Netherlands
Qatar	Norway
Saudi Arabia	Portugal
Spain	Russia
Tanzania	Singapore
USA	Taiwan
United Arab Emirates	Uganda
	Vietnam



Local Energy Advisors



Angola

Sergio Ferreira
[Contact](#)



**Australia
Indonesia**

Tore Moe
[Contact](#)



Azerbaijan

Nargiz Mehdiyeva
[Contact](#)



Brazil

Adhemar Freire
[Contact](#)



Canada

Dave Keating
[Contact](#)



China

Jian Guo
[Contact](#)



France
WIND

Charles Smadja
[Contact](#)



Germany
WIND

Lars Engelmann
[Contact](#)



India

Azam Ali Khan
[Contact](#)



Korea

Jae Keun Ha
[Contact](#)



**Malaysia
Myanmar,
Brunei**

Ewe Tuan Hai
[Contact](#)



Mexico

Sven Feldhaus
[Contact](#)



**Middle
East**

Nasrollah
Gharesifard
[Contact](#)



**Russia,
Kazakhstan**

Vladimir Ryashin
[Contact](#)



Singapore

Jeffrey Lai
[Contact](#)



UK

Roger Swaine
[Contact](#)



UK
WIND

Ronnie Quinn
[Contact](#)



Taiwan
WIND

Ivy Liu
[Contact](#)



**USA &
Guyana**

Jan Eckhoff
[Contact](#)



USA
WIND

Andy
Geissbuehler
[Contact](#)

**The
Netherlands**

Jos Leo
From March 1



**Poland/
Baltikum**
WIND

Ewa Kwast
[Contact](#)



**UK/
Scotland**

Tom Brighton
[Contact](#)

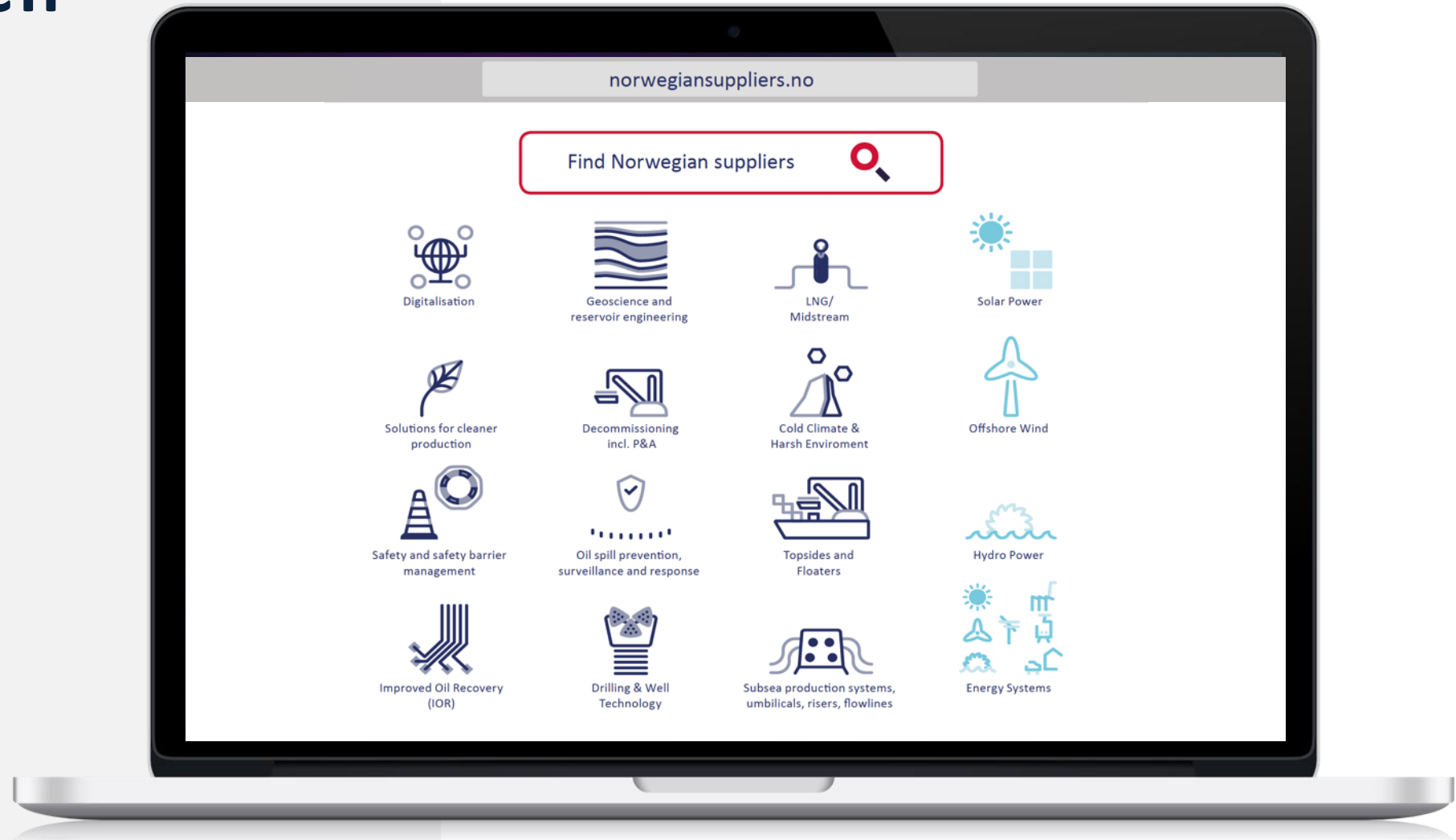


Brazil

Orlando Riberio
[Contact](#)



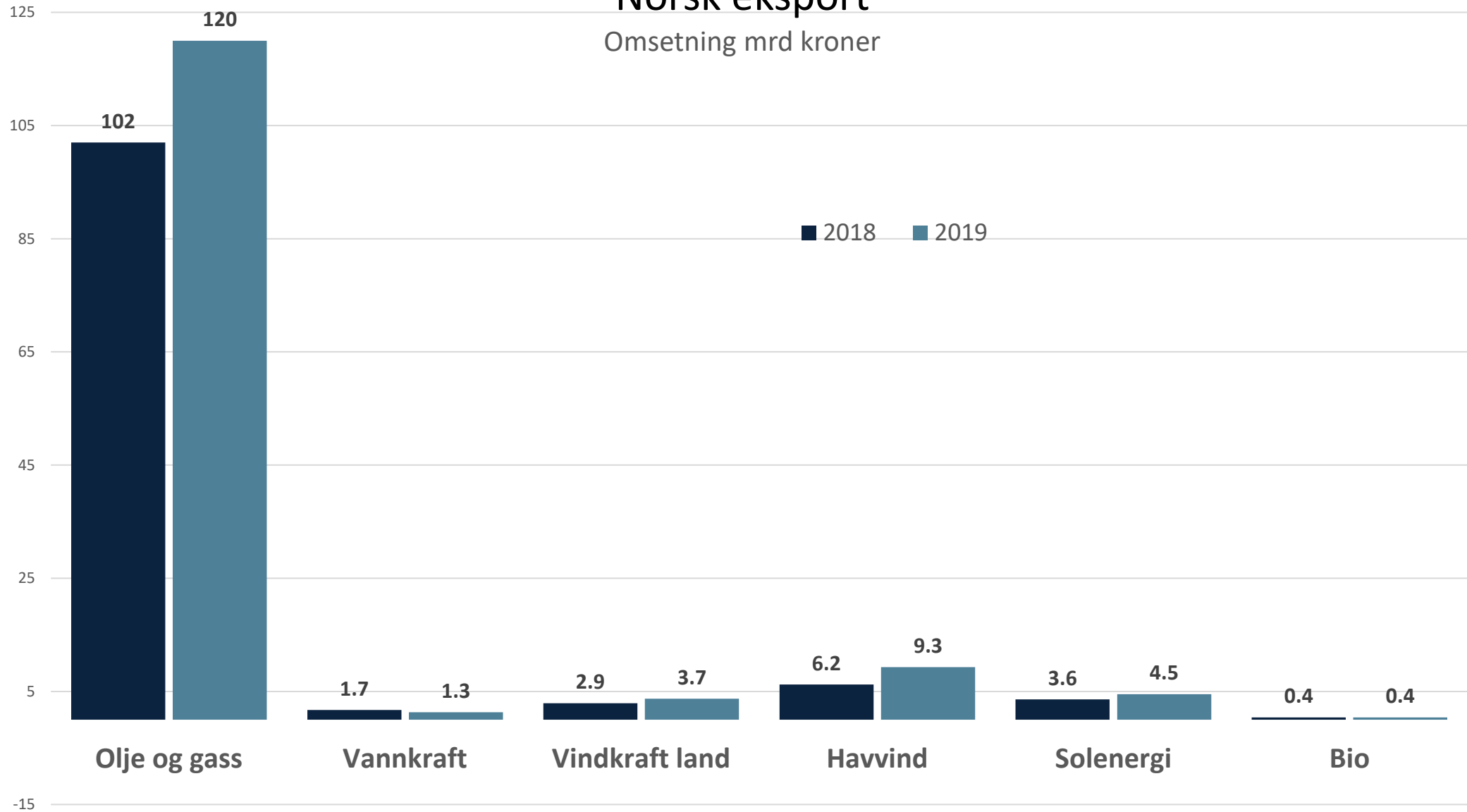
finding your perfect energy match





Norsk eksport

Omsetning mrd kroner



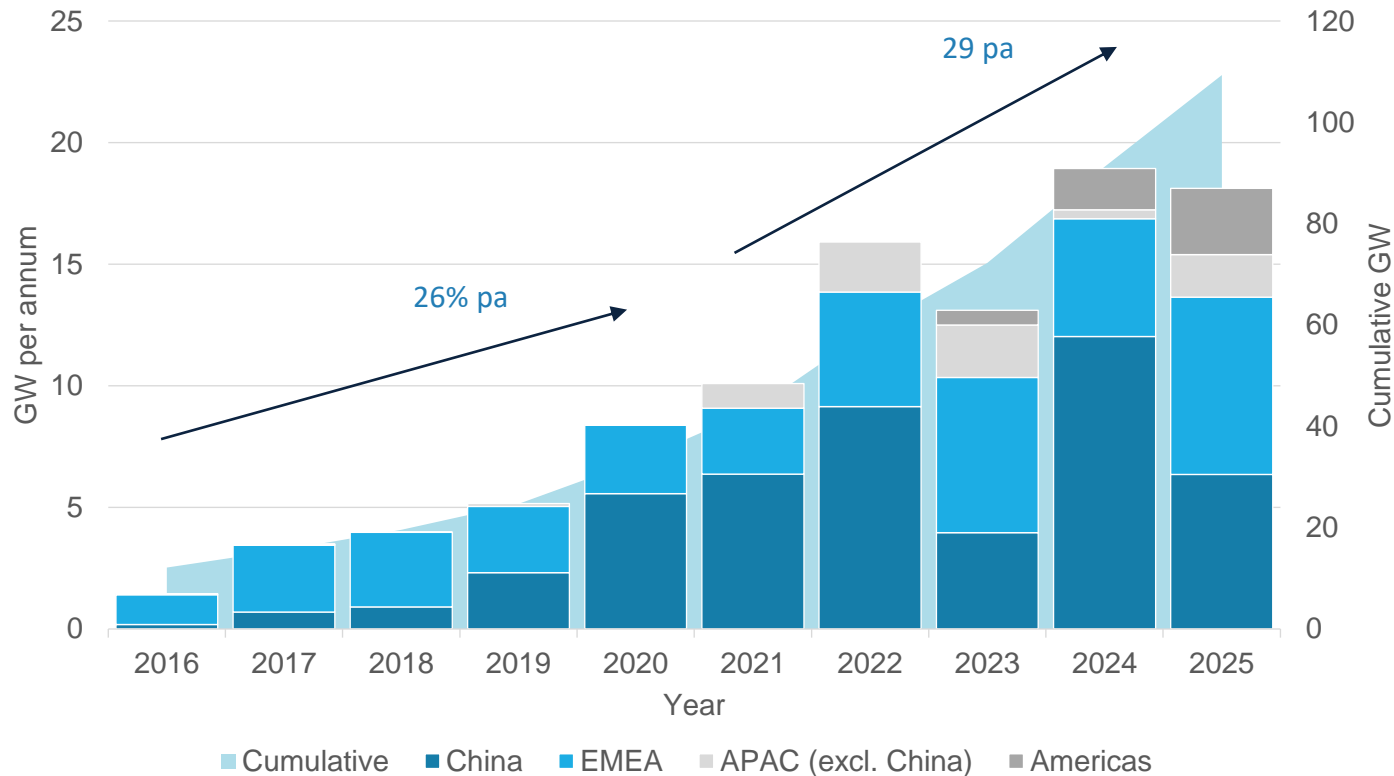


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- Opportunities in the Oil and Gas business



Installed capacity to 2025



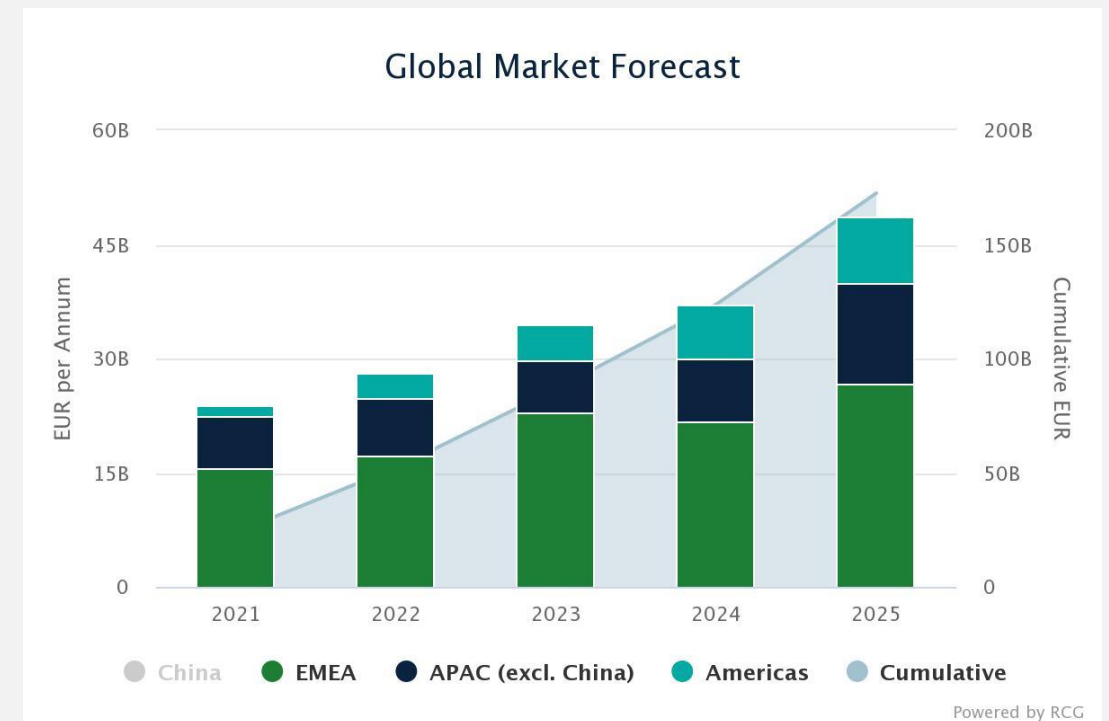
- **China** to lead installation through to 2025 as projects race to complete under current market conditions.
- **Europe (EMEA)** to be driven by projects receiving CfDs in the UK, FiT clarifications in France and Dutch projects entering construction.
- Lease auctions in the UK, Scotland and the Netherlands throughout 2020 to yield additional capacity.
- **APAC** ramps up from 2022 and **US** projects from 2024, as schemes with grid connection are expected to be installed.



A sizeable market also ex. China

Annual market
from €26 in 2021
to €45 billion in
2025

A total of €170
billion
expenditures over
the 5 year period

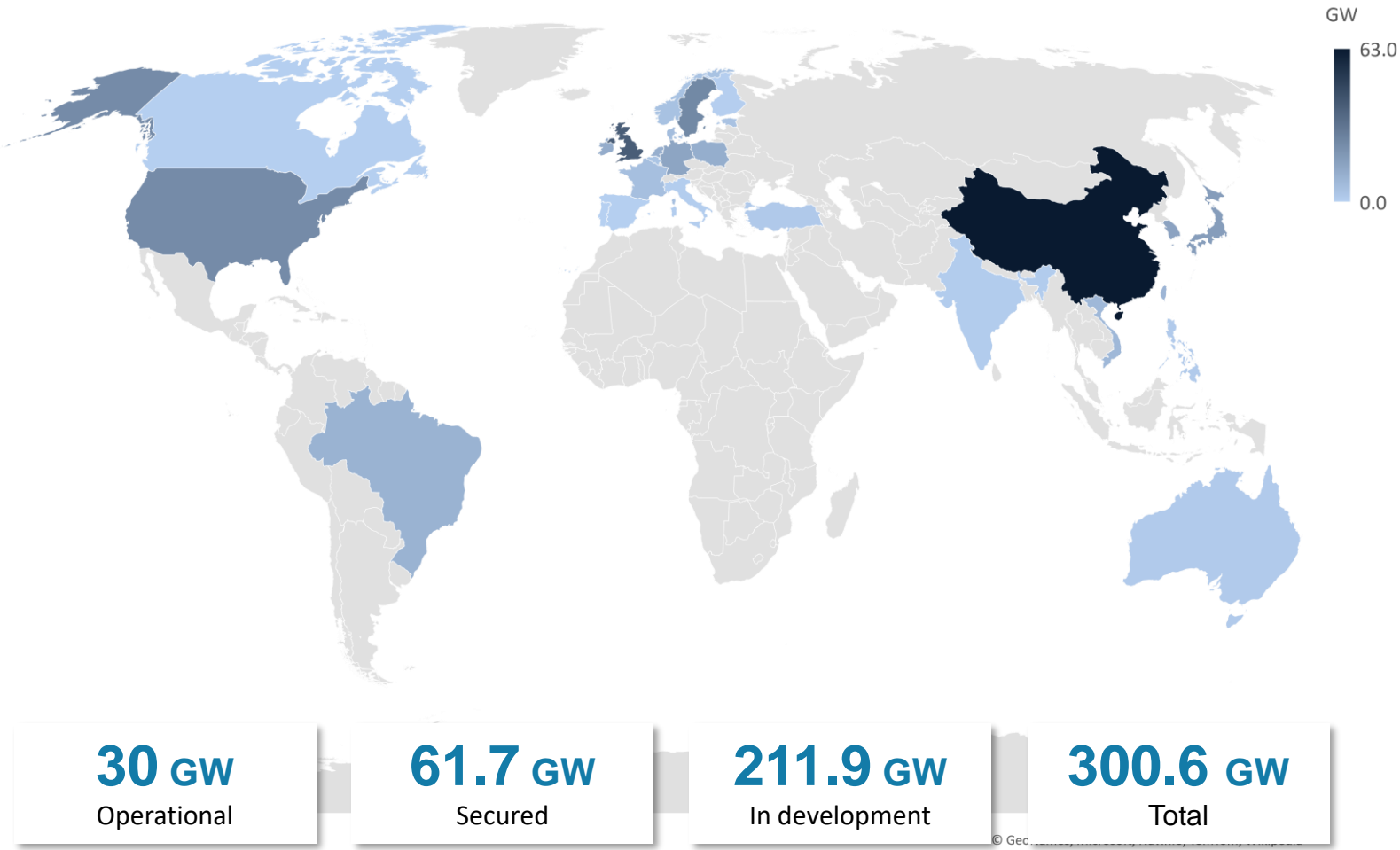


Global expenditure by year and region (ex. China)



NORWEP Offshore Wind Tool - portfolio

Top 15 (Q3 2020)	
1	China
2	United Kingdom
3	Sweden
4	USA
5	Japan
6	South Korea
7	Germany
8	Ireland
9	Poland
10	The Netherlands
11	Brazil
12	Taiwan
13	Vietnam
14	Denmark
15	France





Some European wind project

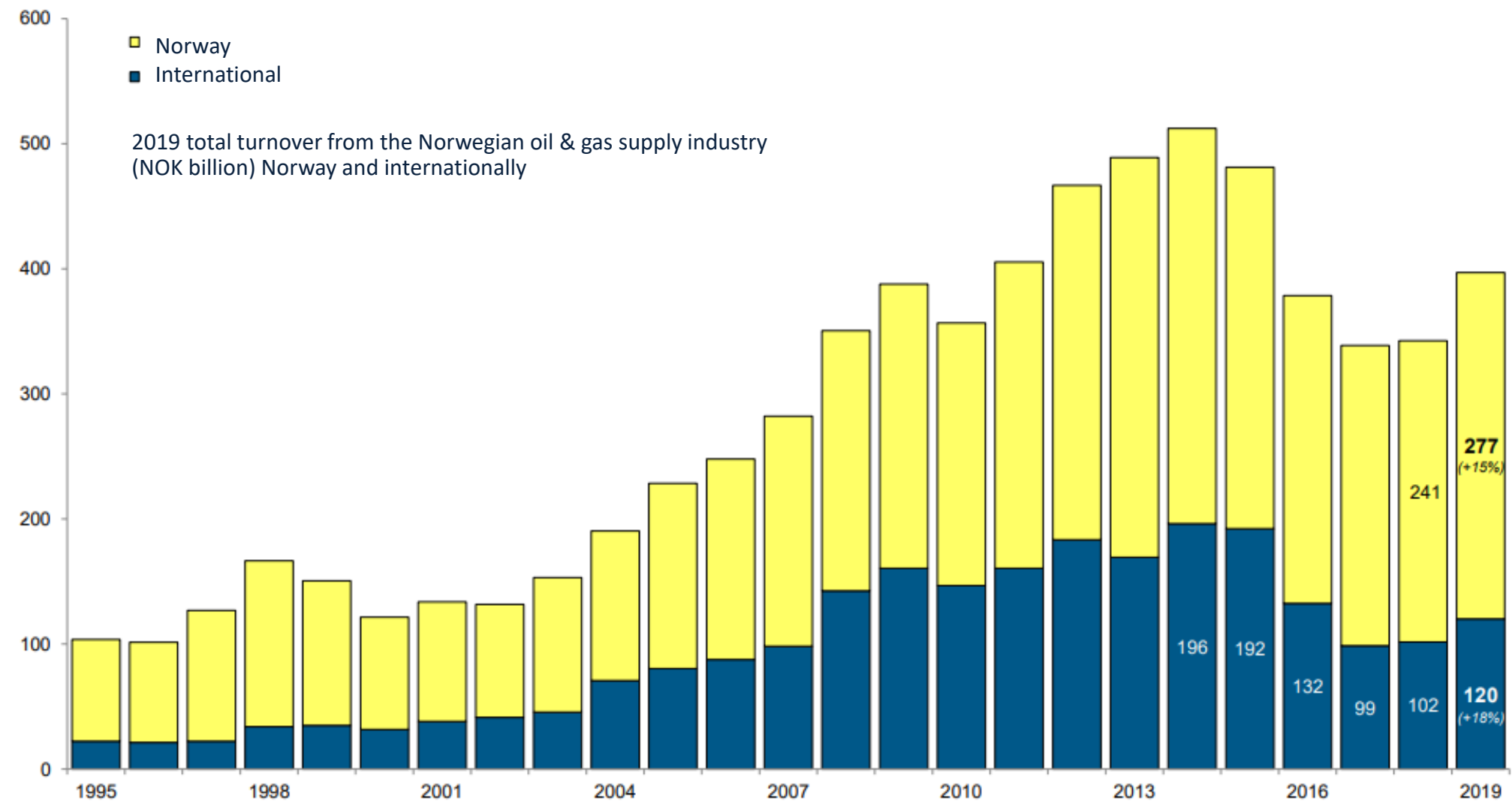
Project	Country	Operator	Status
Dogger Bank B	UK	Scottish & Southern Energy Plc	Pre-Construction
Dogger Bank C	UK	Scottish & Southern Energy Plc	Subsidy Awarded
East Anglia 3	UK	Scottish Power Renewables	Consented
Hollandse Kust (noord) 5&6	Netherlands	Shell	Pre-Construction



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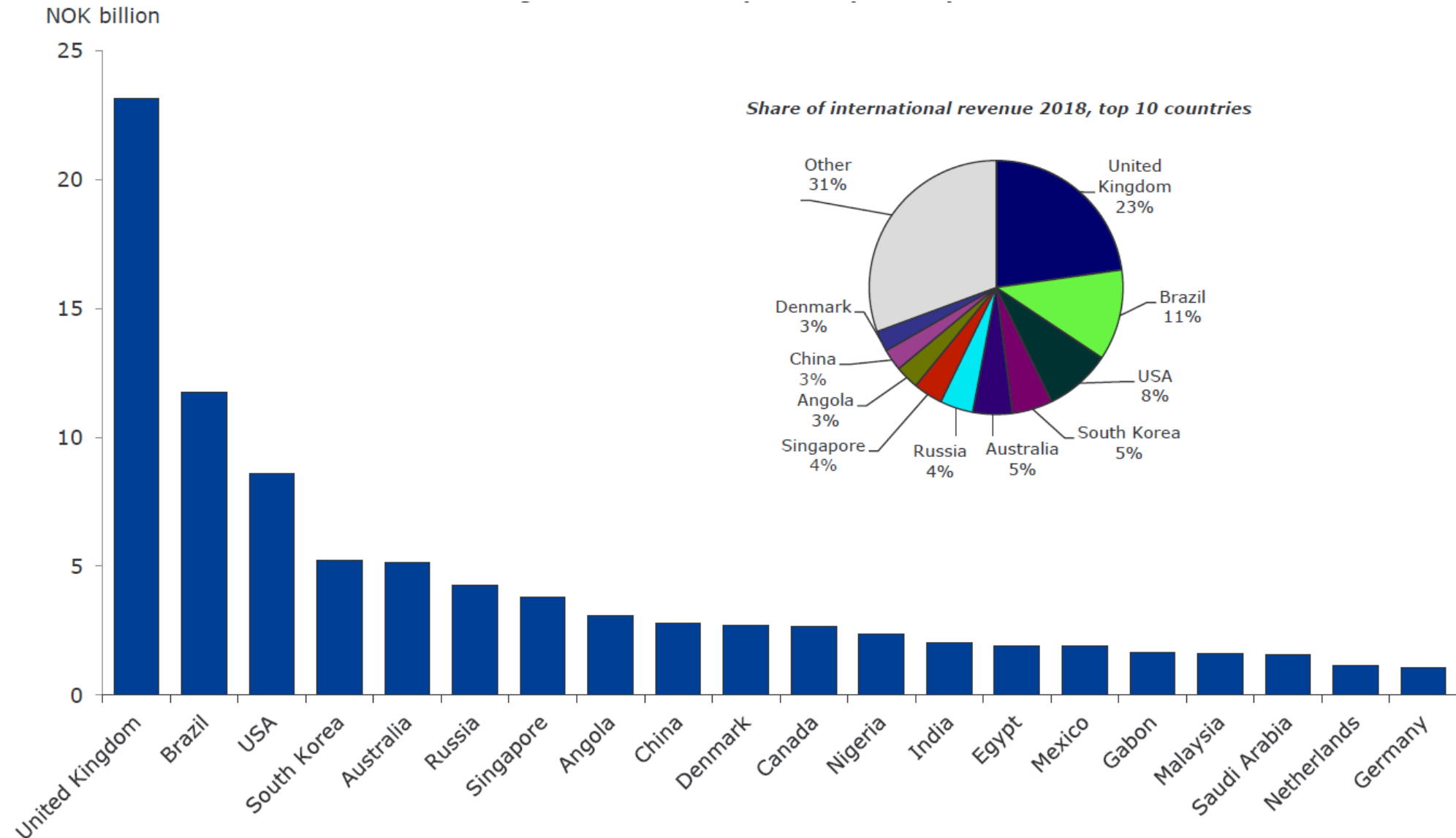
Successful international expansion O&G



Rystad Energy 2020 International omsetning fra norske oljeserviceselskaper



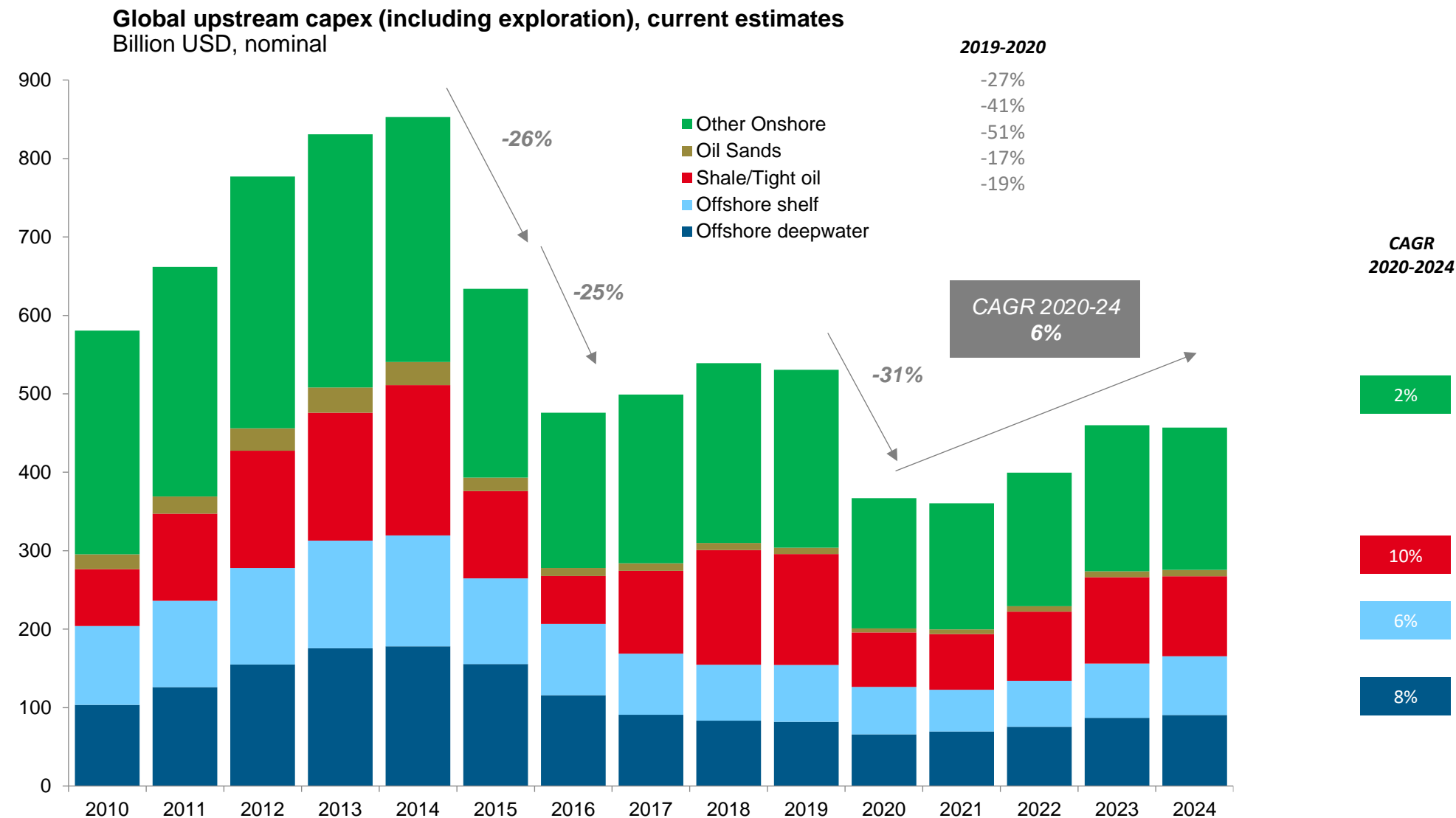
International oil and gas – 20 largest markets



Source: Rystad Energy 2019 "Internasjonal omsetning fra norske oljeserviceselskaper"

Offshore deepwater forecast to increase by 8% p.a. from 2020 to 2024

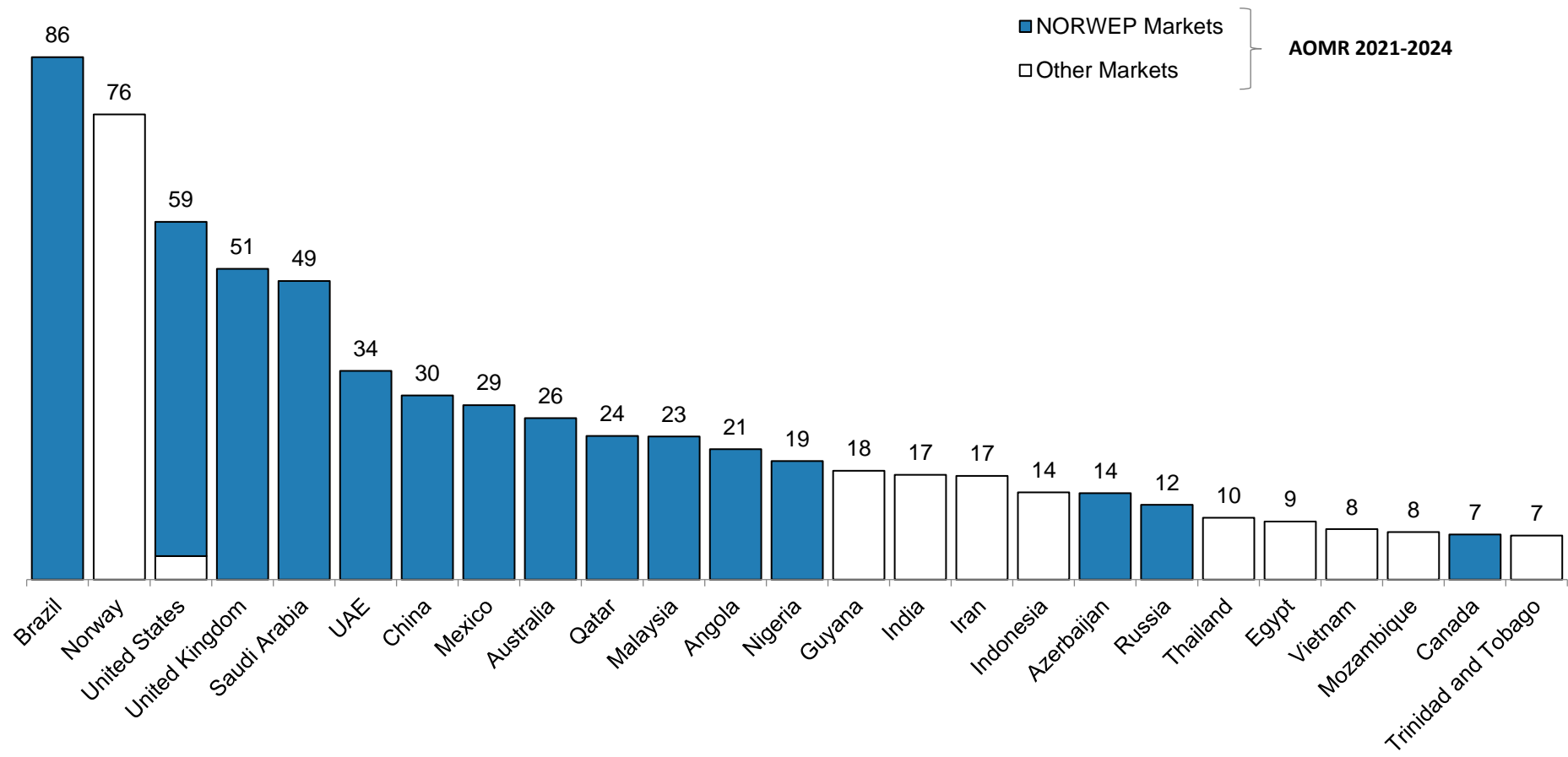
Offshore shelf at 6%



Source: Rystad Energy research and analysis; Rystad Energy DCube

Brazil, US GoM, UK and KSA account for ~30% of the global offshore market 2021-24

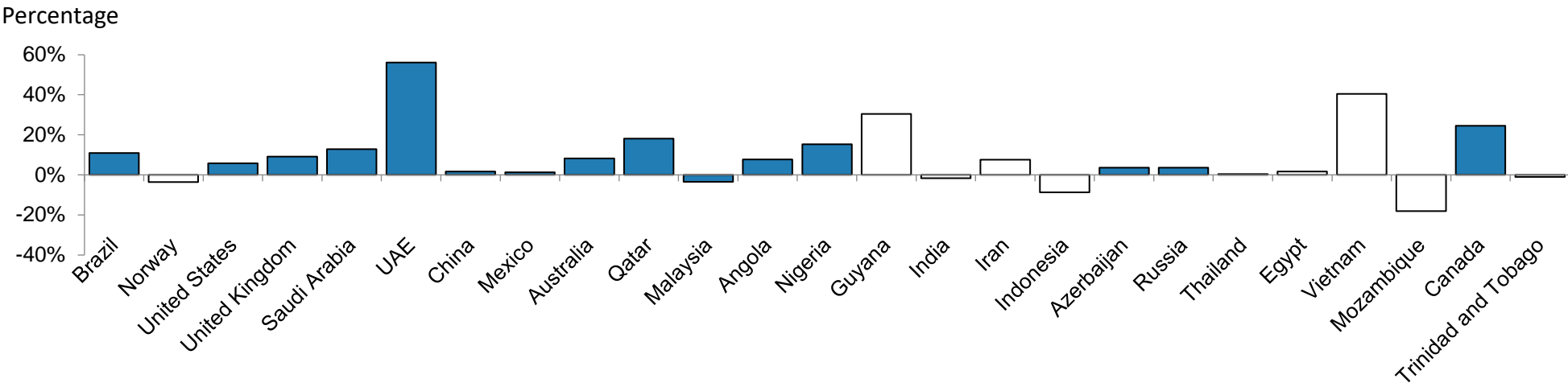
NORWEP Markets – Offshore upstream expenditure 2021-2024
USD billion



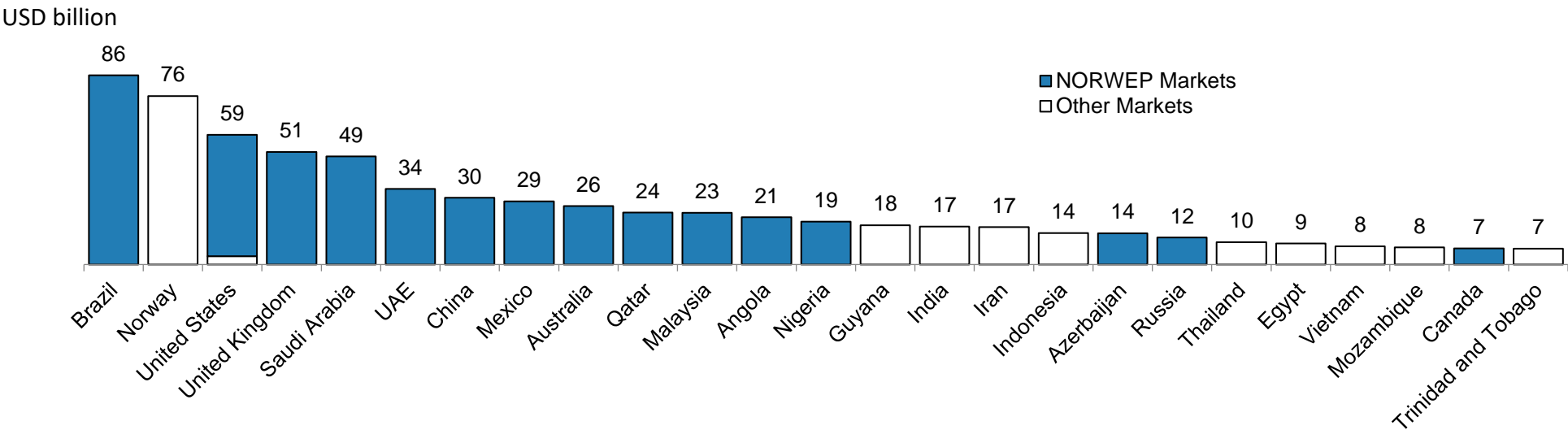
Source: Rystad Energy research and analysis; Rystad Energy DCube

Middle East with highest expected growth 2020-2024

NORWEP Markets – Offshore upstream expenditure, CAGR 2021-2024



NORWEP Markets – Offshore upstream expenditure 2021-2024



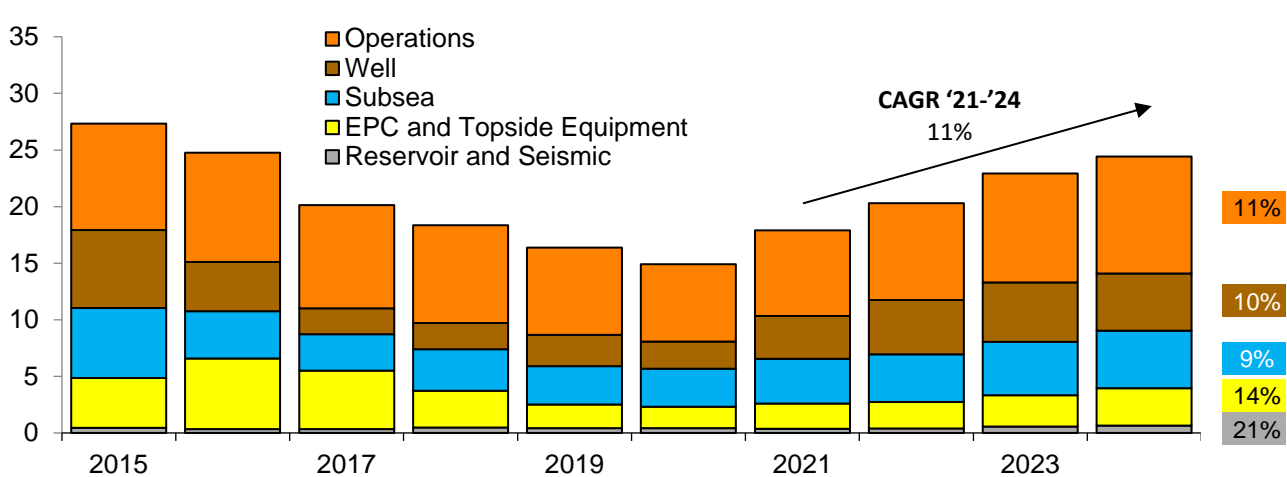
Source: Rystad Energy research and analysis; Rystad Energy DCube

Brazil: Largest offshore market move ahead

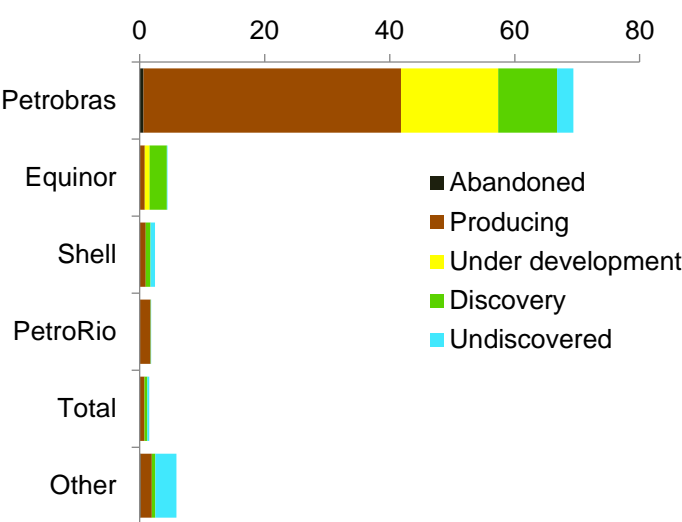
Project NORWEP follow with project updates

Project	Operator	Status
Atlanta	Enauta Energia	FEED
Carcará	Equinor	Conseptual
Itapu	Petrobras	FEED
Mero	Petrobras	Tender

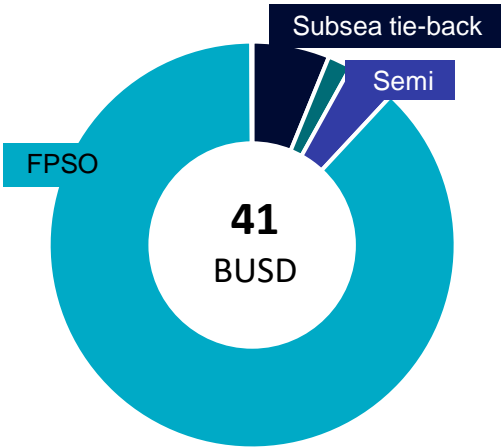
Offshore E&P expenditure 2015-2024 by segment
USD billion



Offshore E&P expenditure 2021-2024
USD billion



Offshore E&P investments, 2021-2024
Percentage



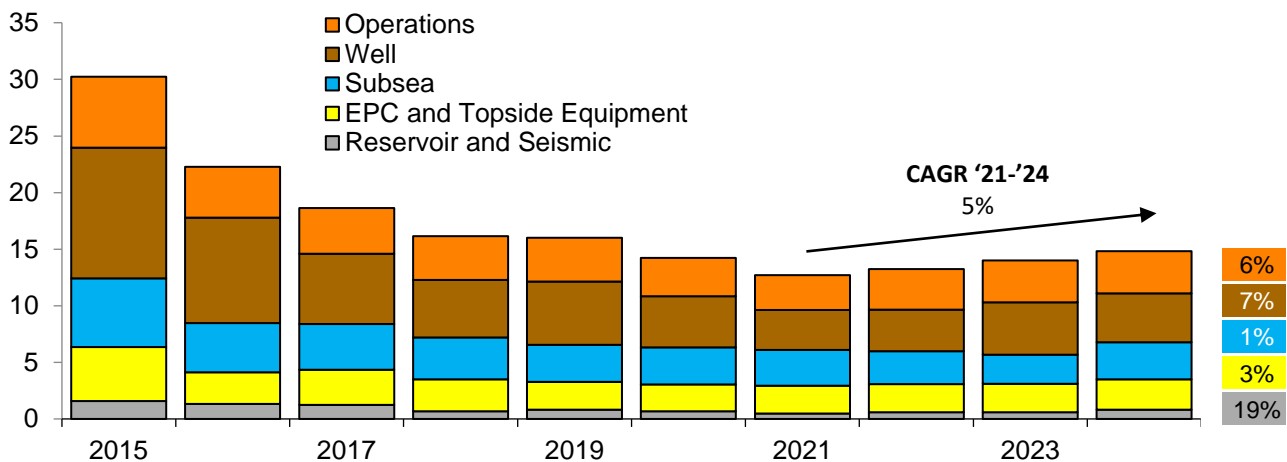
Source: Rystad Energy research and analysis; Rystad Energy NORWEP Cube

US GoM: New projects and more tiebacks

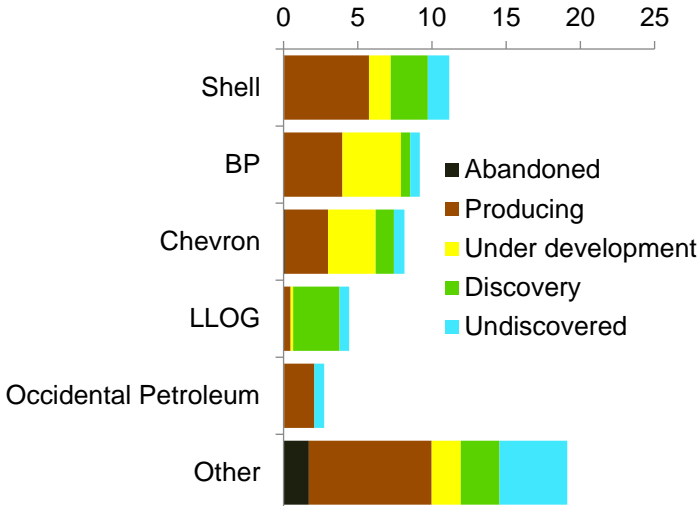
Project NORWEP follow with project updates

Project	Operator	Status
Anchor	Chevron	FEED
North Platte	Total	Conceptual
Whale	Shell	Conceptual

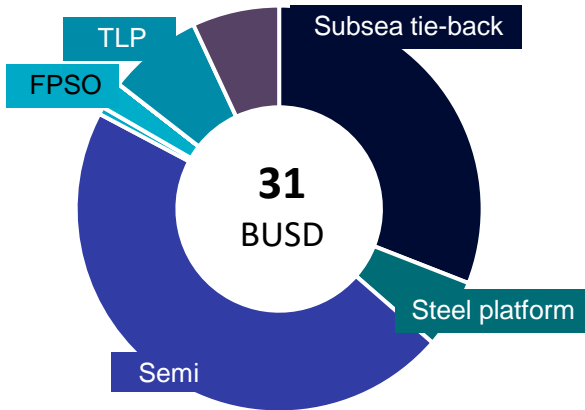
Offshore E&P expenditure 2015-2024 by segment
USD billion



Offshore E&P expenditure 2021-2024
USD billion



Offshore E&P investments, 2021-2024
Percentage

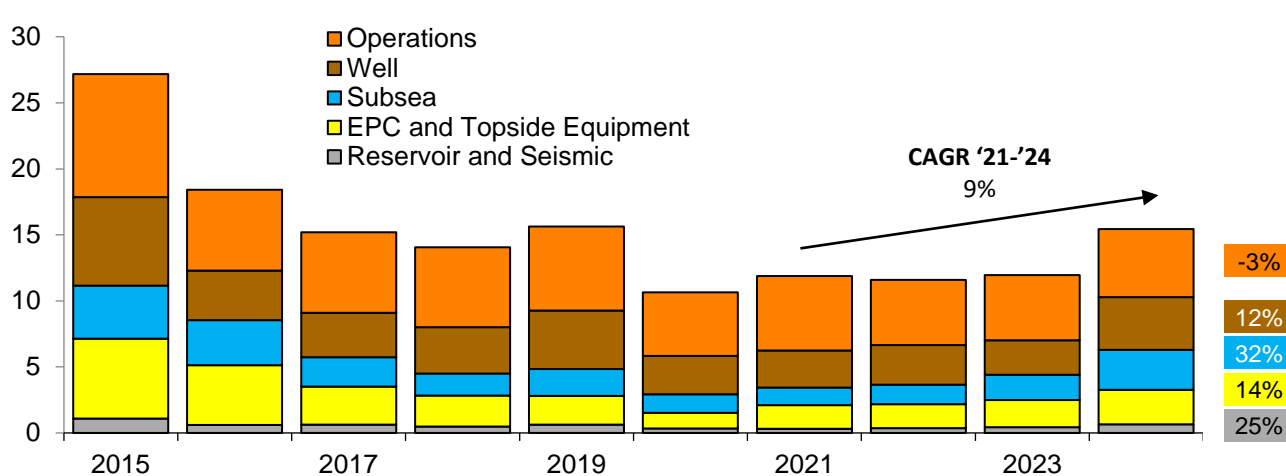


United Kingdom: Cost-focus has been key for the operators on the UKCS

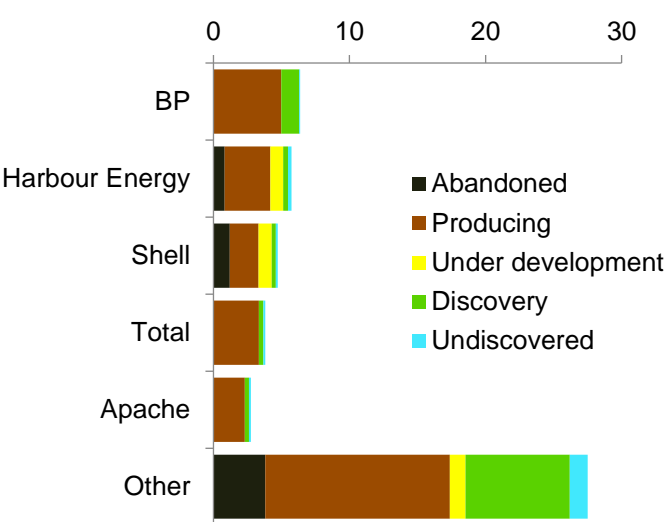
Project NORWEP follow with project updates

Project	Operator	Status
Bentley	Whalsay Energy	Concept
Cambo	Siccar Point	Concept
Clair South	BP	Concept
Jackdaw	Shell	Concept
Lancaster 2	Hurricane Energy	Concept
Rosebank	Equinor	Concept

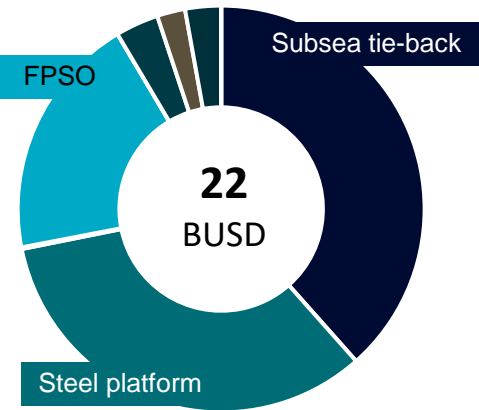
Offshore E&P expenditure 2015-2024 by segment
USD billion



Offshore E&P expenditure 2021-2024
USD billion



Offshore E&P investments, 2021-2024
Percentage



Source: Rystad Energy research and analysis; Rystad Energy NORWEP Cube

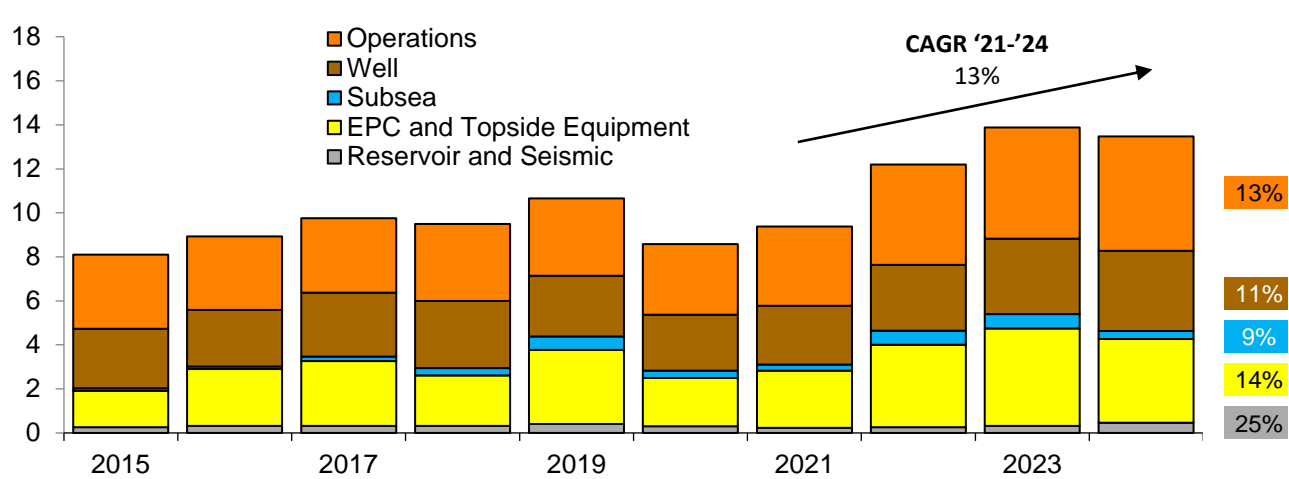
Saudi Arabia: Sanctioned brownfield expansions will drive spending in the coming years

Project NORWEP follow with project updates

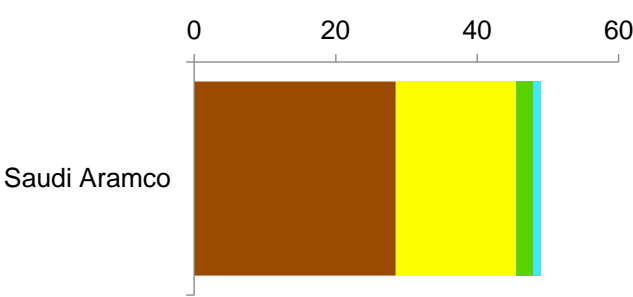
Project	Operator	Status
Berri	Saudi Aramco	Tender
Marjan	Saudi Aramco	Tender
Zulif	Saudi Aramco	Tender

All brownfields

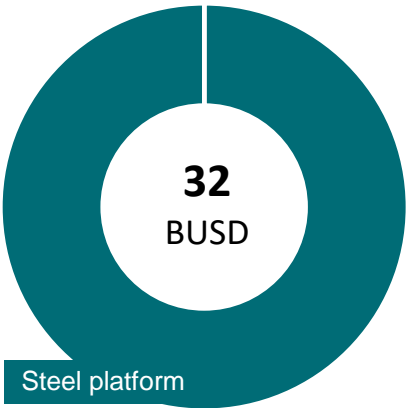
Offshore E&P expenditure 2015-2024 by segment
USD billion



Offshore E&P expenditure 2021-2024
USD billion



Offshore E&P investments, 2021-2024
Percentage



Source: Rystad Energy research and analysis; Rystad Energy NORWEP Cube

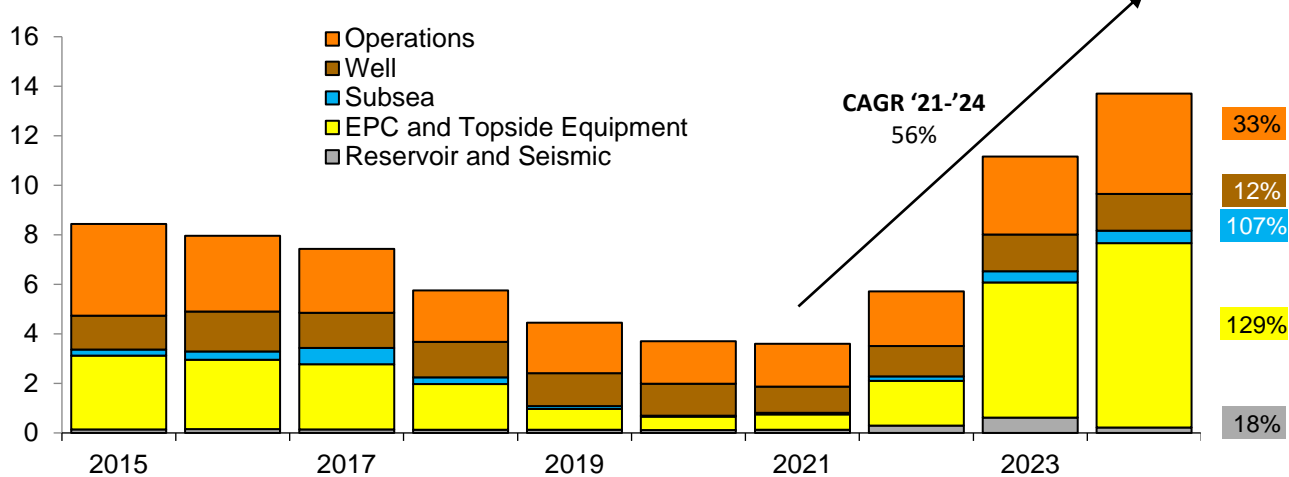
UAE: ADNOC has set ambitious gas production targets, which are driving investments

Project NORWEP follow with Project updates

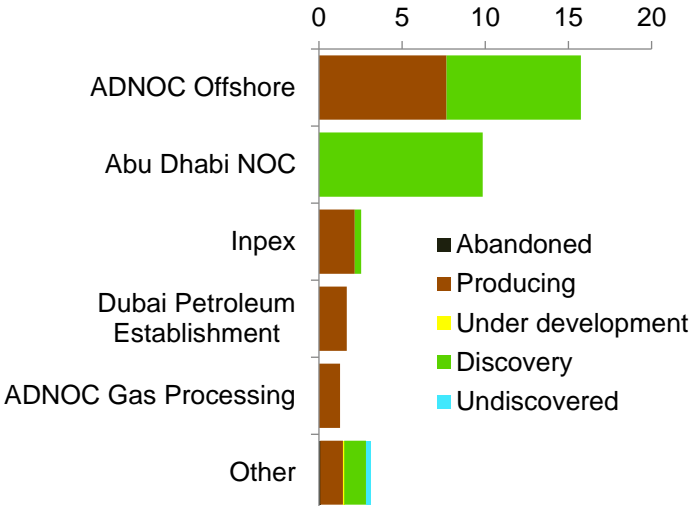
Project	Operator	Status
Dalma	ADNOC	Tender
Hail& Ghasha	ADNOC	Tender
Both Greenfield - Sour gas projects		

Lower Zakum	ADNOC	Concept
Umm Shaiff	ADNOC	FEED
Upper Zakum	ADNOC	Concept
All three brownfields		

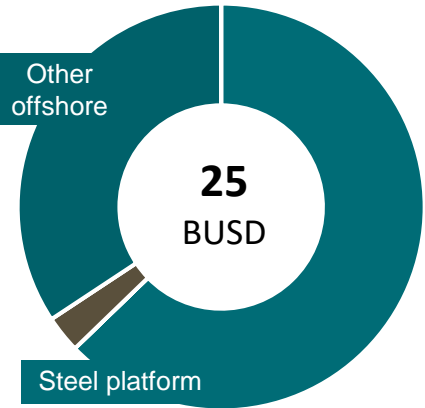
Offshore E&P expenditure 2015-2024 by segment
USD billion



Offshore E&P expenditure 2021-2024
USD billion



Offshore E&P investments, 2021-2024
Percentage





Some other selected projects

• Country	Project	Operator	Status
• Canada	Buy du Nord	Equinor	Conseptual
• Guyana	Greater Liza	ExxonMobil	5 phases
• Mexico	Trion	BHP	Difinition
• Australia	Scarborough	Woodside	FEED
• Russia	Ayashsky	Gazpromneft	Conseptual

NORWEP is following up 64 major projects with updates each month where you can find project details like engineering companies and yards ++



Supporting the Norwegian energy industries to reach their international goals

