



# The Maritime technology sector in Norway

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# Norway – a small nation with a strong industrial base

<1‰ of world population

■ ~1% of world trade

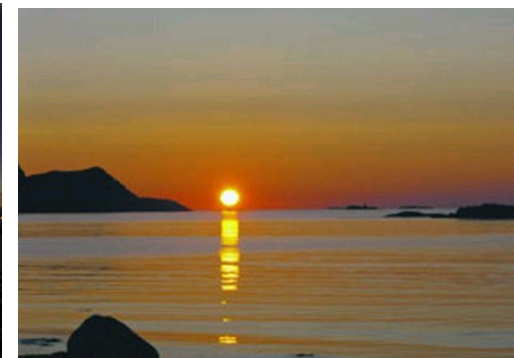
■ ~10% of world shipping

■ ~10% of world oil exports

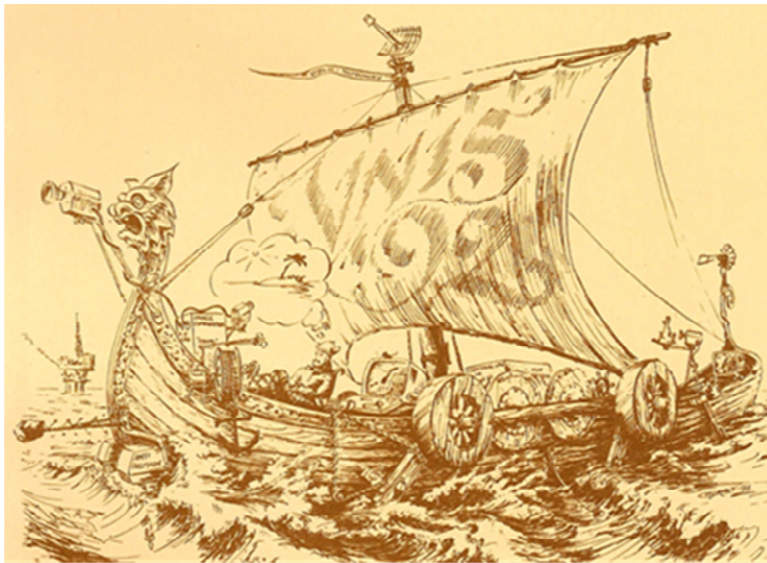
■ ~100% of world dried cod fish

# Norway-

- the land of fjords, the northern lights and the midnight sun...



- but also the land of maritime innovations:



# The role of innovation

- Innovation is the **replacer** of industries

e.g. electronic calculators

- Innovation is the **transformer** of industries

e.g. IKEA

- Innovation is the **renewer** of industries

e.g. subsea oil & gas production

- Innovation is the **combiner** of industries

e.g. digital television

- Innovation is the **creator** of industries

e.g. mobile telecommunications



# Three Norwegian maritime technology clusters

## ■ The Norwegian Maritime (Transport) Cluster

⇒ Global shipping (traditional)



## ■ The Norwegian Seafood Cluster

⇒ Fisheries & fishfarming/aquaculture



## ■ The Norwegian Maritime Energy Cluster

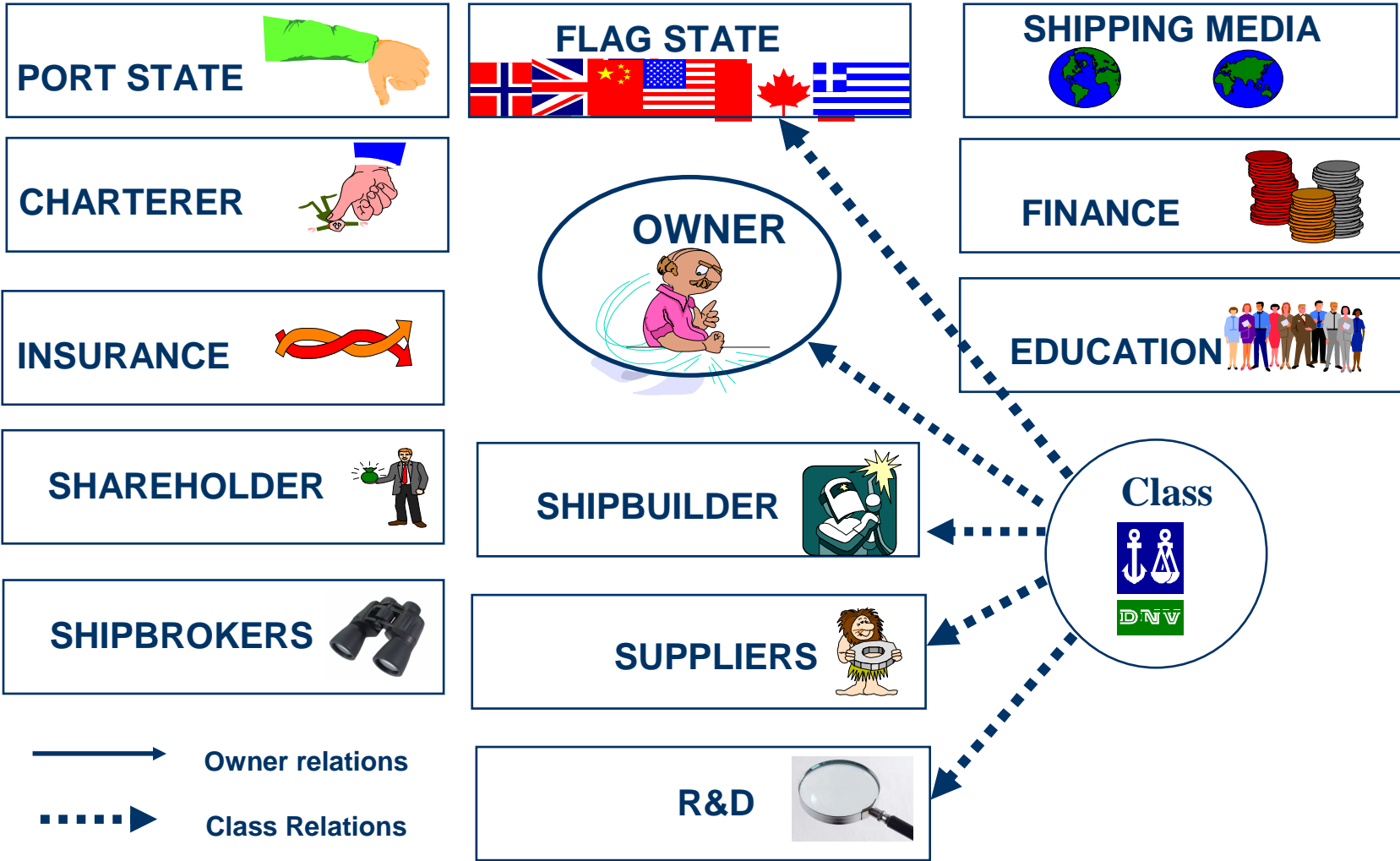
⇒ Offshore Oil & Gas (O&G)  
& Renewable Resources



# The Norwegian Maritime (Transport) Cluster



# The Maritime (Transport) Cluster Actors



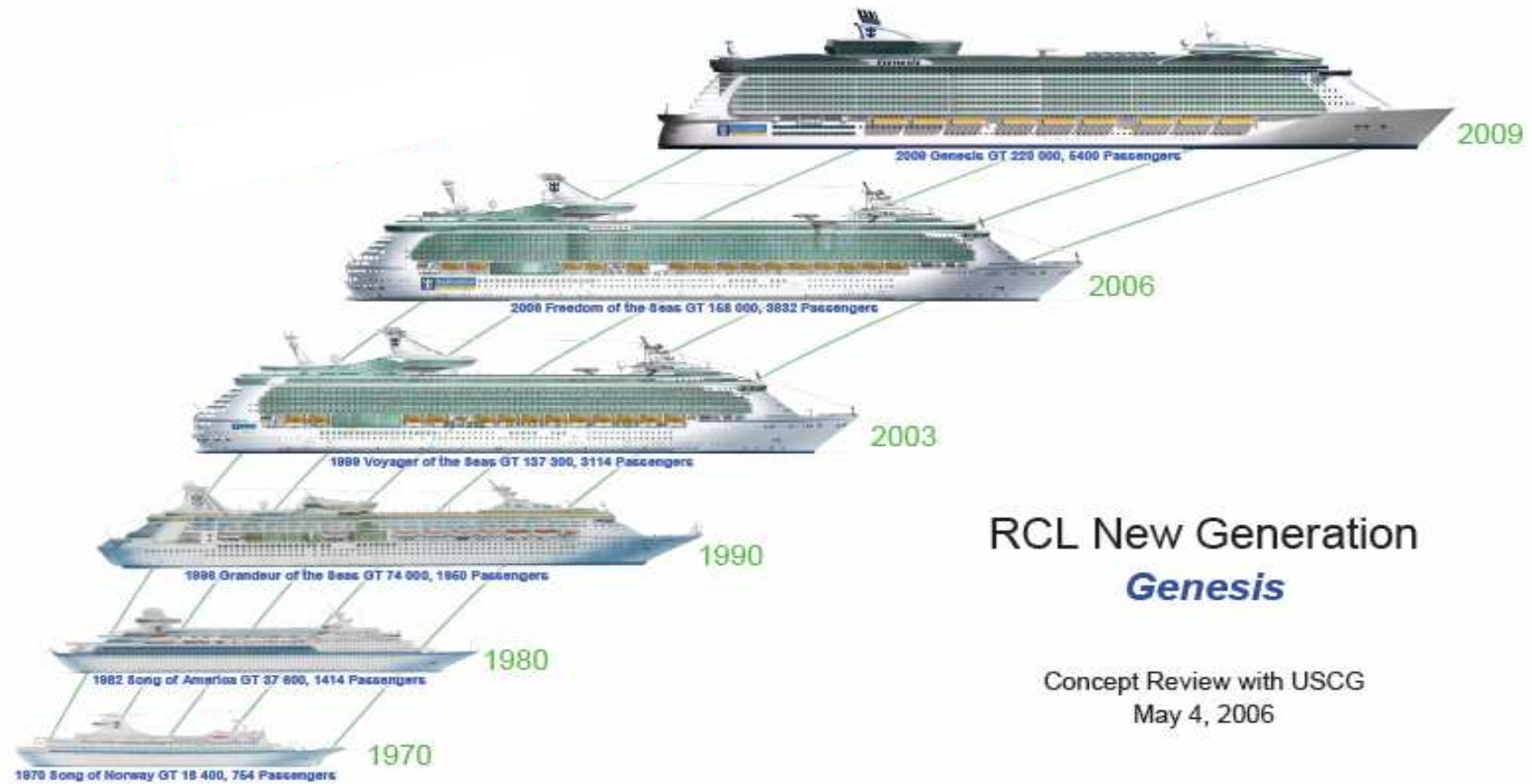
# Maritime (Transport)

- Norway is Europe's leading maritime nation with the **3<sup>rd</sup> largest** fleet in the world.
- With < 0.1% of the world's population and ~1% of world trade, Norway still controls ~**10%** of the world fleet.
- ~**100 000** people are employed in Norway's maritime industries (2008)
- Norway's maritime (shipbuilding, ship's equipment and shipping services) industry has an annual turnover of ~**400 billion NOK (~50 billion €)**. Value creation of ~**100 billion NOK (~13 billion €)**.
- Around **60%** of Norwegian maritime products and services are exported.
- Maritime businesses account for ~ **20%** of Norway's total exports.
- Norway controls ~ **15%** of the world's offshore-related supply sector.
- Norwegian ship's gear exports account for ~ **10%** of the global market.
- Annual export revenues for Norway's commercial shipping are ~**50 billion NOK (~6 billion €)**

# Norway's global shipping



# Norwegian cluster invented the cruise ship



## RCL New Generation *Genesis*

Concept Review with USCG  
May 4, 2006



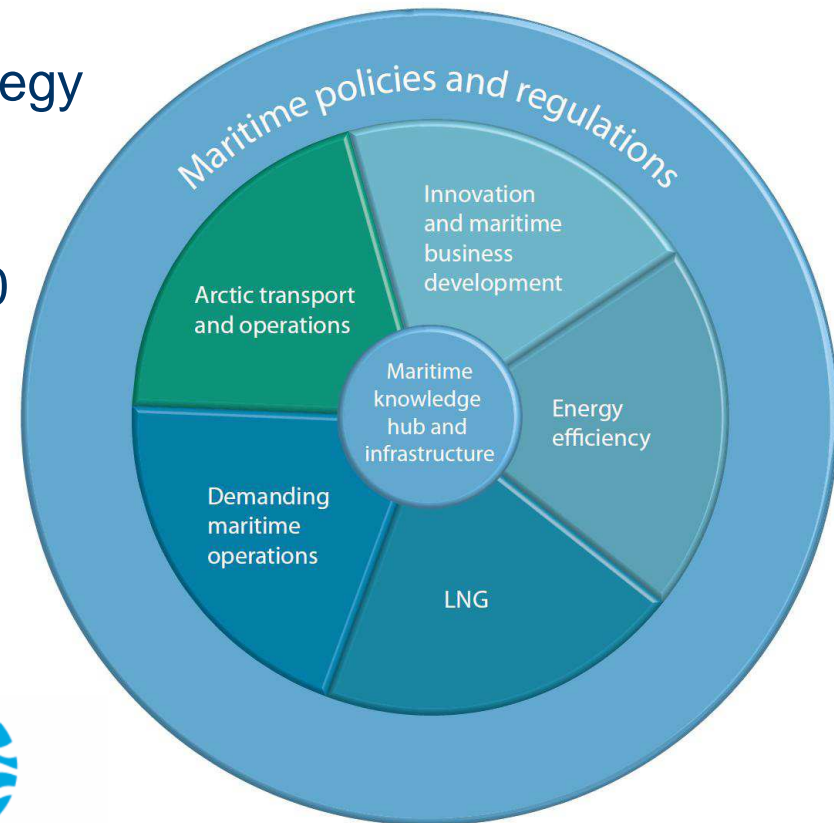


# MARITIM 21

A NORWEGIAN MARITIME RESEARCH AND INNOVATION STRATEGY  
FOR THE 21ST CENTURY

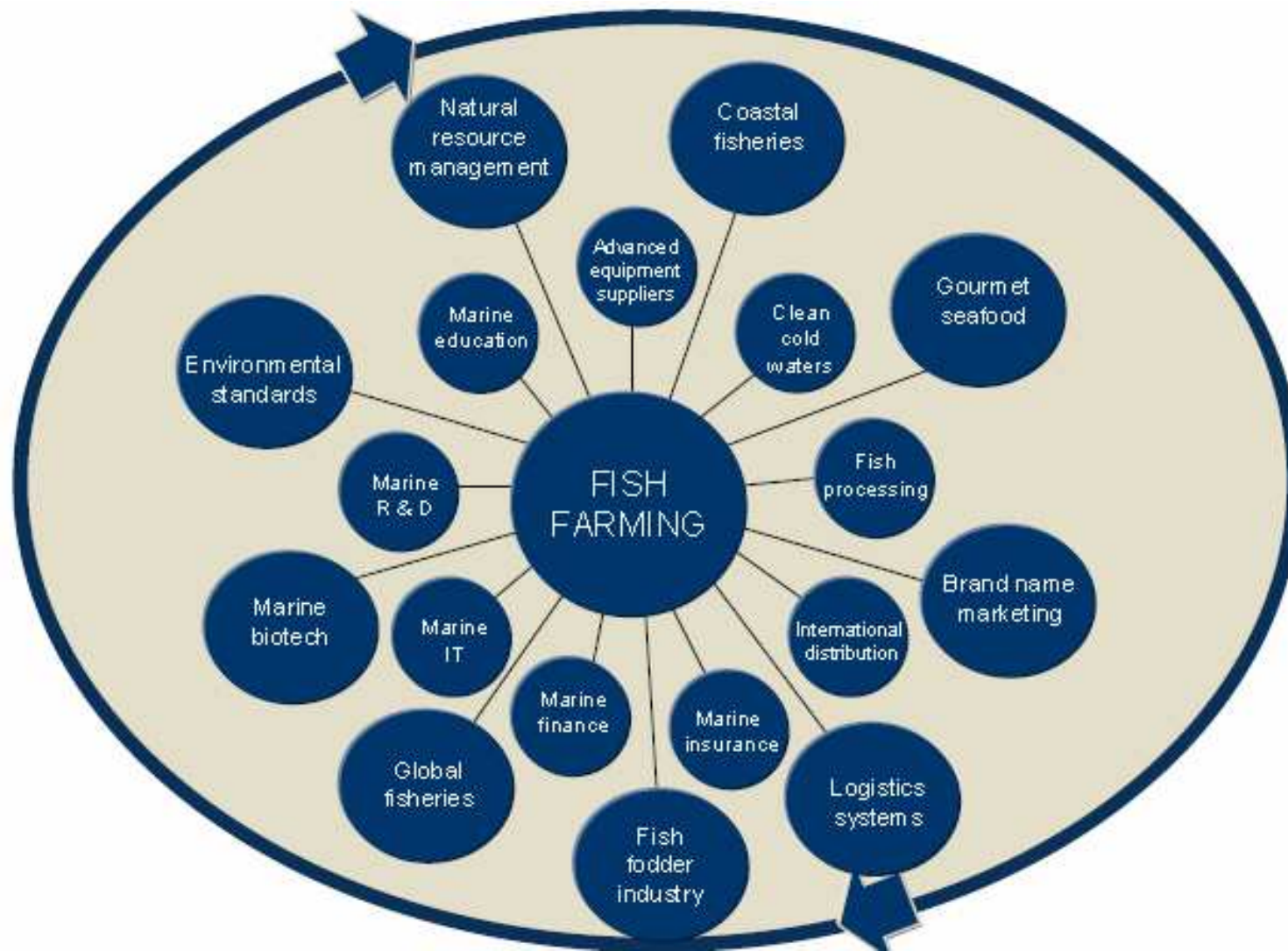


- A holistic research and innovation strategy for the maritime industry in Norway
- Initiated by the Ministry of trade and industry - based on input from over 400 maritime employees
- The ultimate goal is to create:  
**A shared strategy and knowledge platform for Norwegian maritime industry, research and politics**
- 7 strategic focus areas ⇨



MARITIM 21

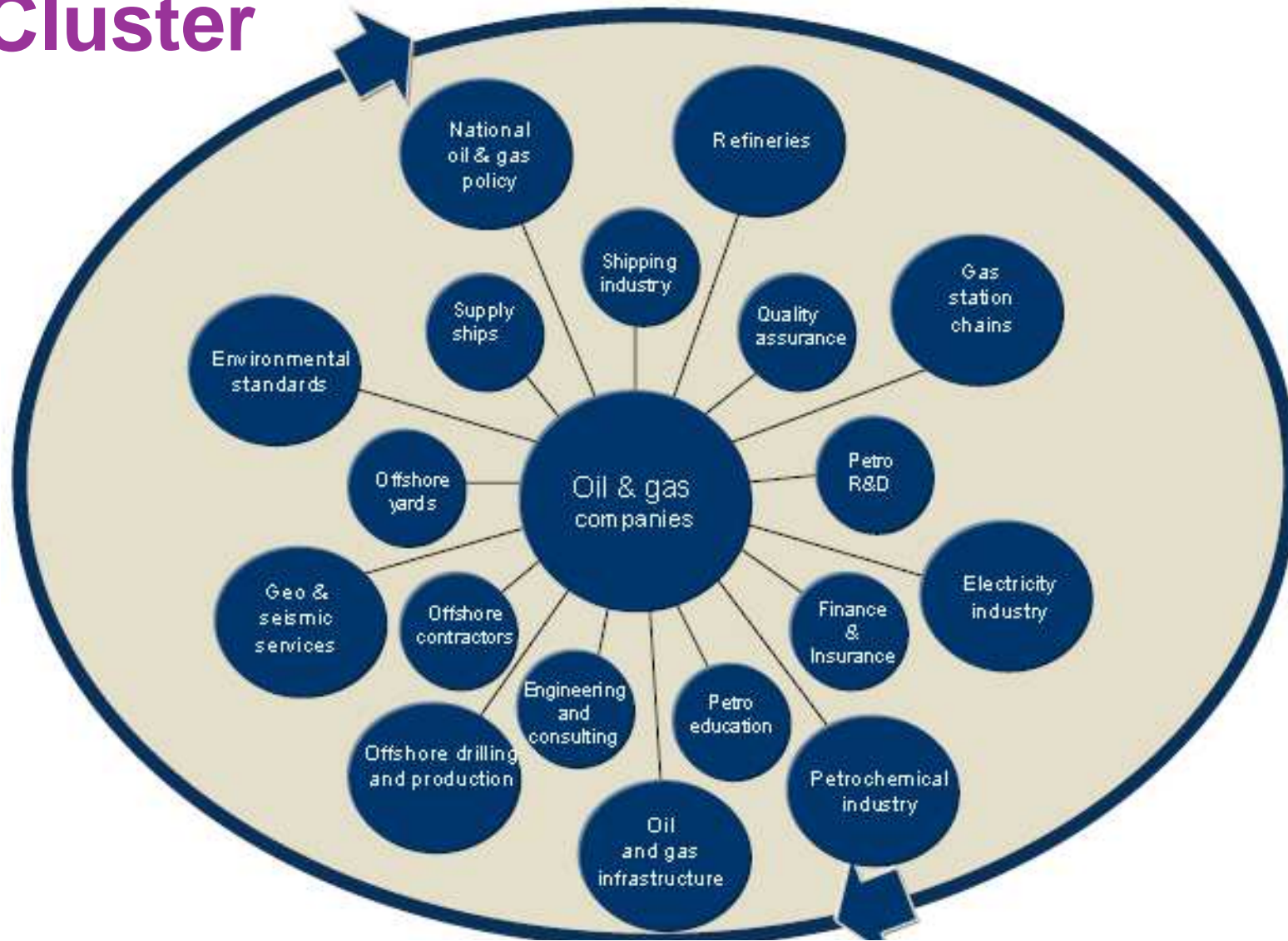
# The Norwegian Seafood Cluster



# Norwegian fisheries & aquaculture - a growth industry

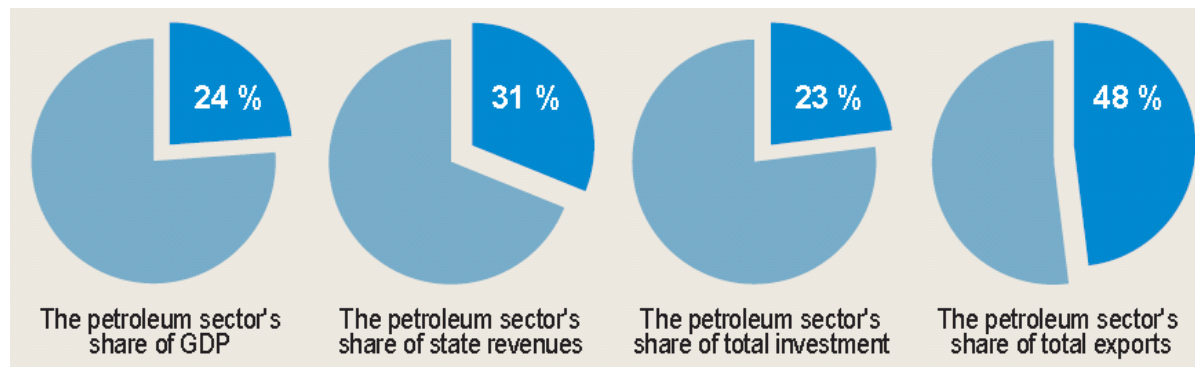
- Employs ~23 000 persons directly,  
plus an additional ~ 22 000 persons indirectly;  
~ **45 000**
- Annual value creation:  
~**100 billion NOK (~13 billion €)**
- The export value of seafood amounted in 2010 to:  
~ **54 billion NOK (~ 7 billion €)**,  
making Norway the **2<sup>nd</sup> largest** seafood exporter in  
the world (after China).

# The Norwegian Maritime Energy Cluster

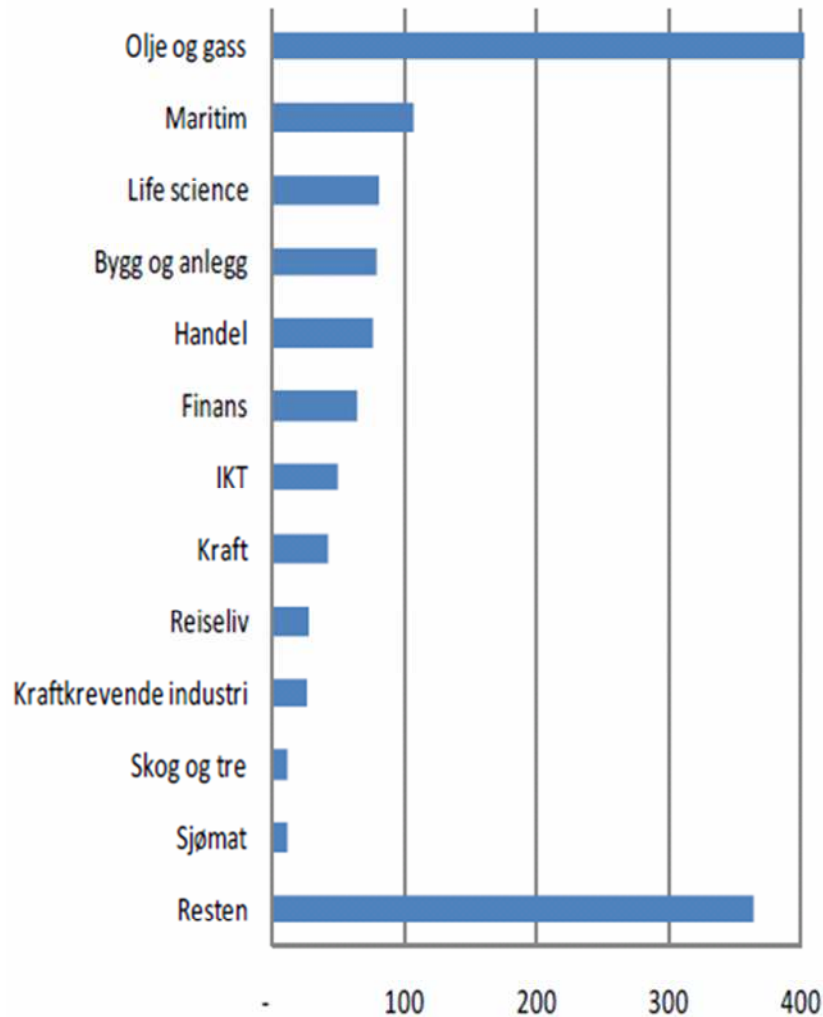


# Oil & Gas (O&G)

- In a few decades Norway has advanced to the forefront among the O&G producing countries in the world
- Norway's largest industry – **employing ~ 250.000 people** (directly and indirectly) in Norway
- Annual export revenues for Norway's O&G industries are **~ 500 billion NOK (~ 65 billion €)**
- A particular feature is the extensive number of companies having their markets in both Shipping and O&G (and Fisheries and also Onshore industries), using their cross-over experience in R&D to create new products and services.



# Norway's largest industries measured by value creation (2008)



Value creation	% of total
O&G	50 %
Maritime Transport	11 %
Seafood	4 %
<b>Total marine</b>	<b>65 % (~2/3)</b>
+ Spin-off	?? %

# Norwegian Maritime R&D institutions and Centres of Excellence

- [MARINTEK – Norwegian Marine Technology Research Institute](#)

# Thank you!



Questions?



Comments?



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