



The Ocean Economy in 2030

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Outline

- Global challenges and implications for the ocean economy
- The Ocean Economy today
- The Ocean Economy in 2030
- Some policy implications

The starting point

OECD's flagship report on *The Ocean Economy in 2030*

- provides an original forward-looking assessment of the ocean economy to 2030 and beyond.
- places particular emphasis on the development potential of established and emerging ocean-based industries,
- as well as on the implications for the ocean environment and ocean management.

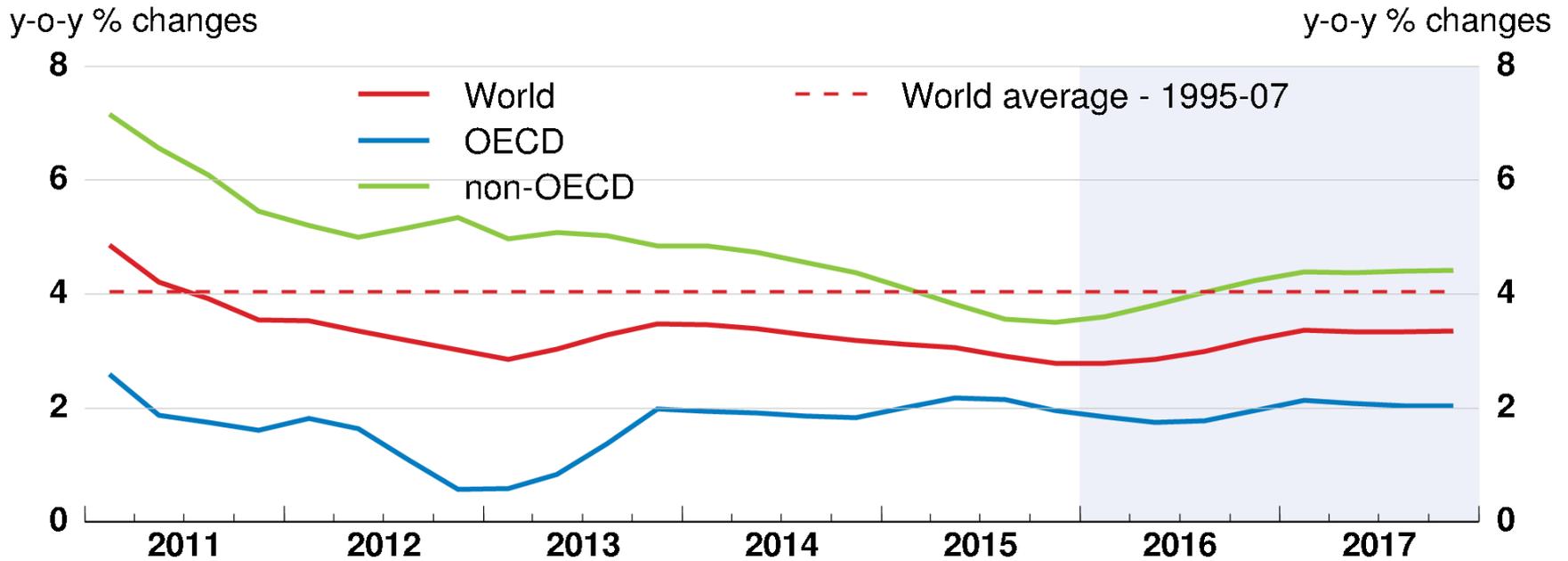




GLOBAL CHALLENGES AND IMPLICATIONS FOR THE OCEAN ECONOMY

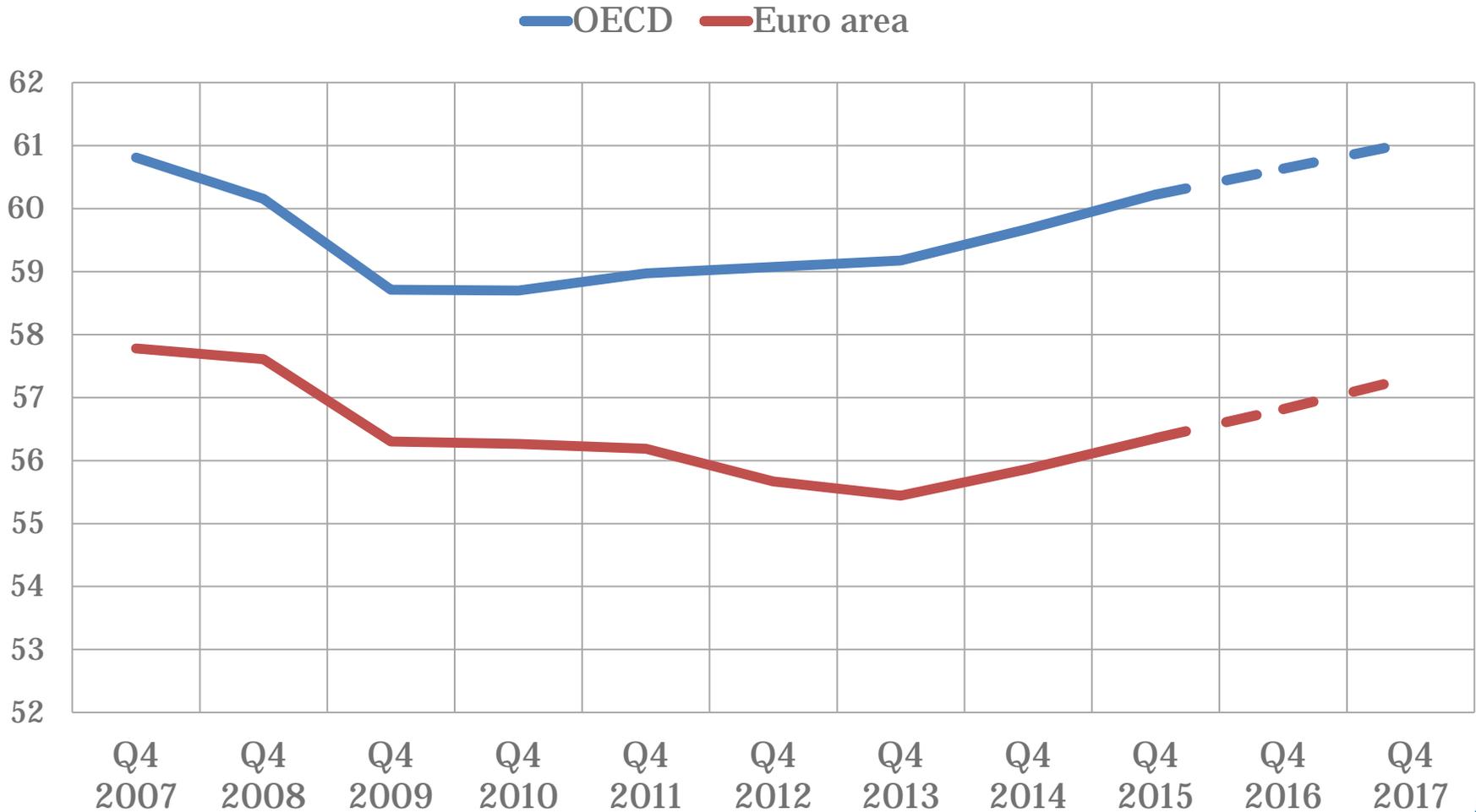


Global Economy is stuck in a “low growth” trap





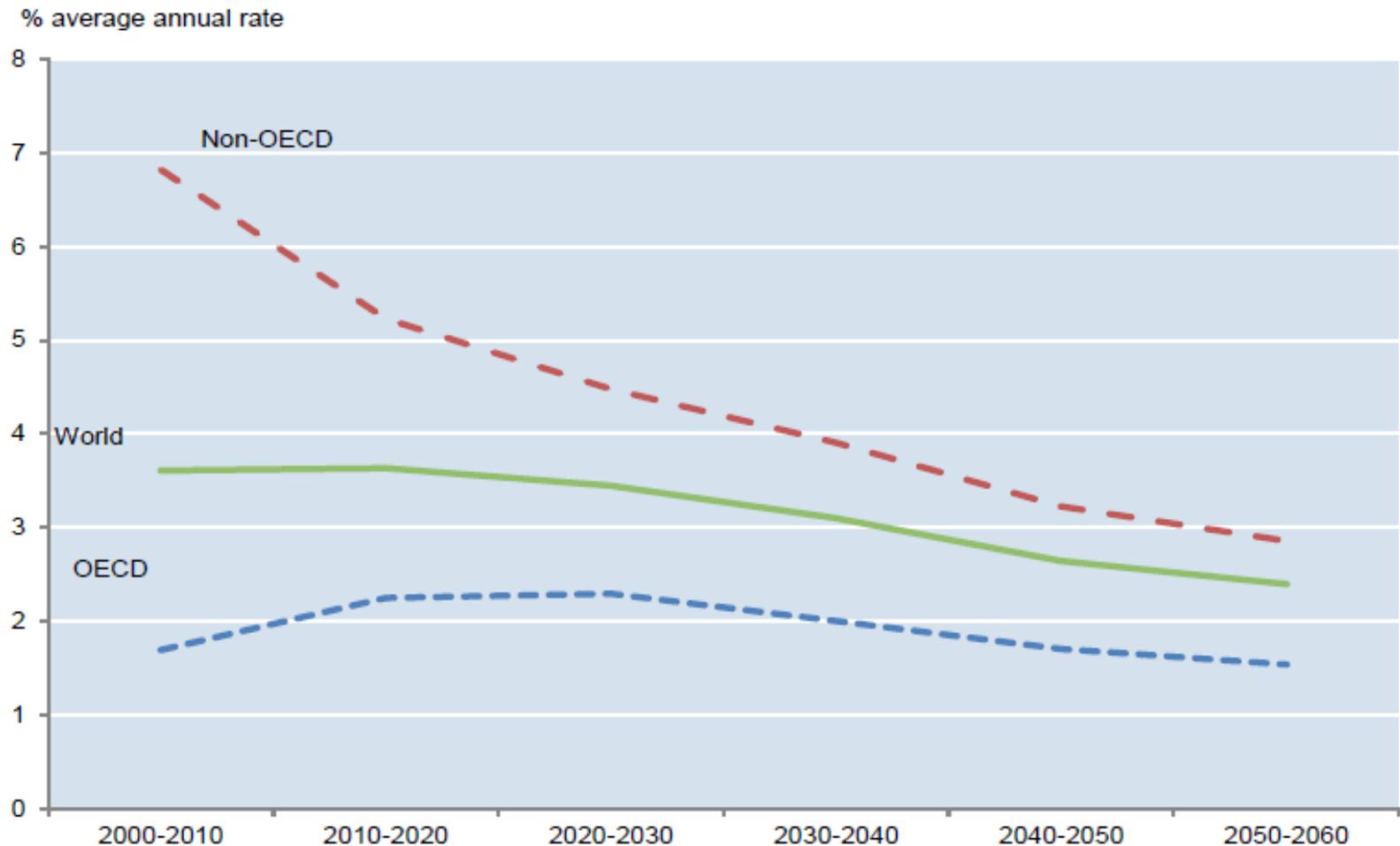
OECD Employment could return to pre-crisis only in 2017



Source: OECD Employment Outlook 2016.



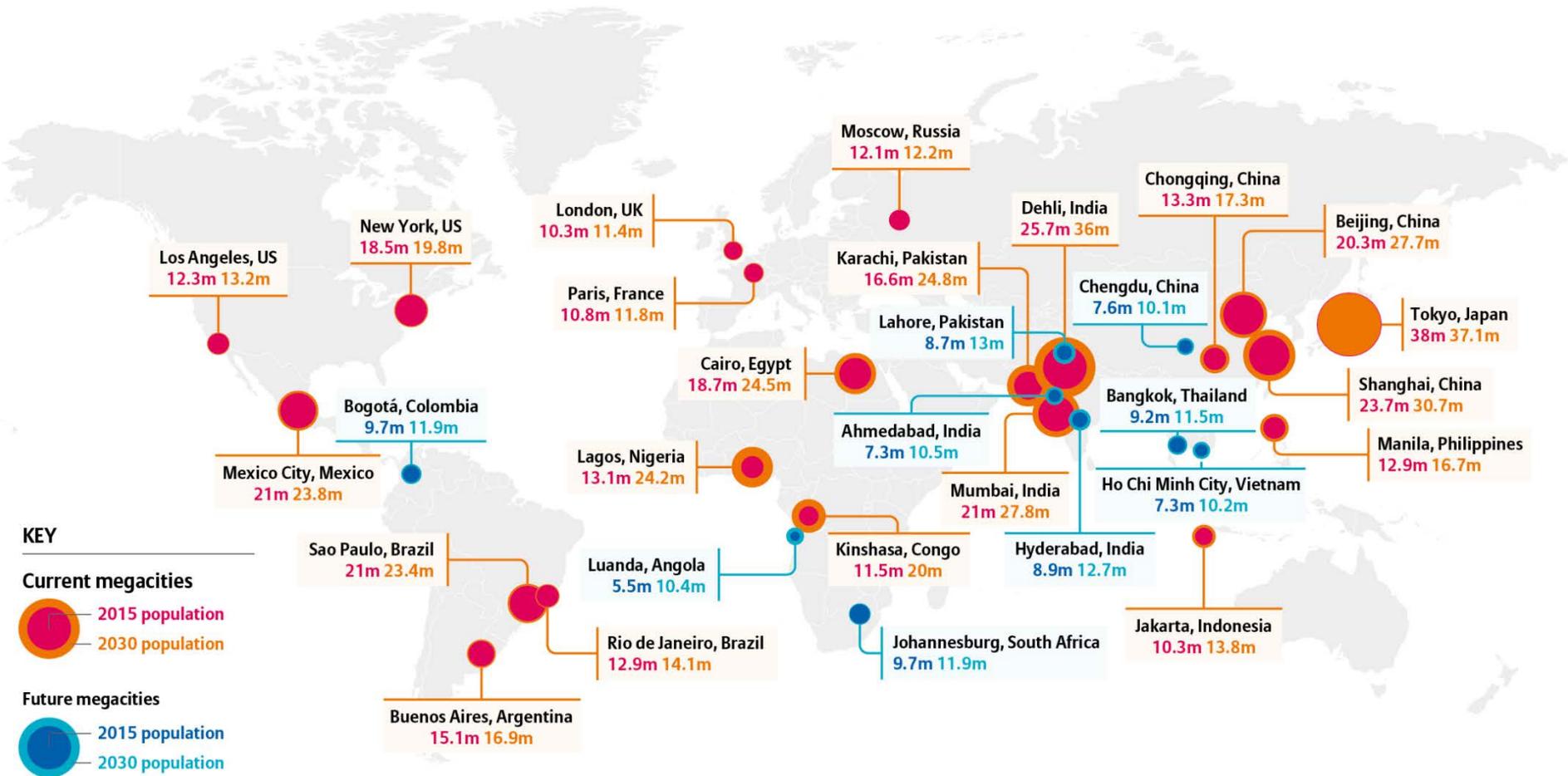
Slowing long-term economic growth



Source: OECD Long-Term Economic Outlook, 2014



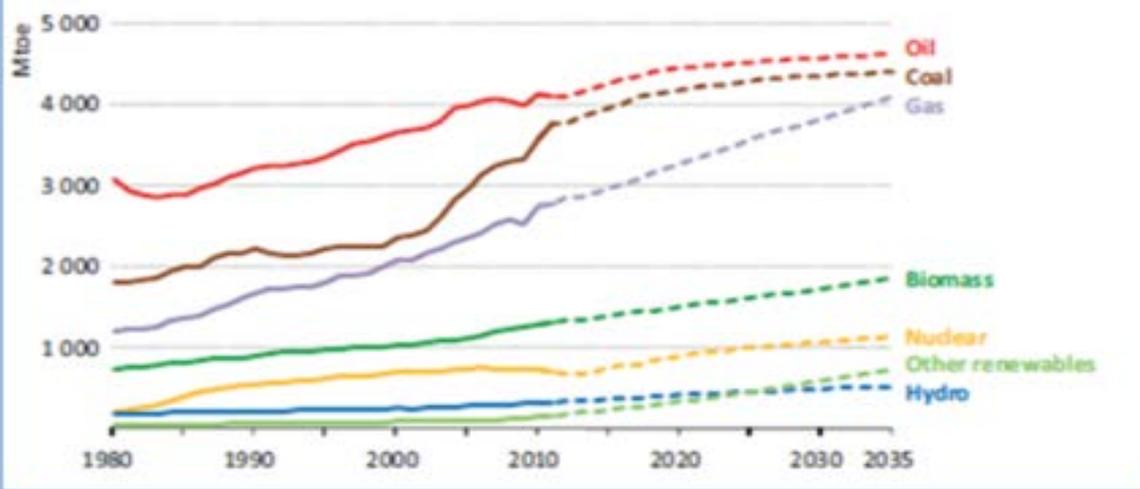
Growing population, urbanisation, megacities





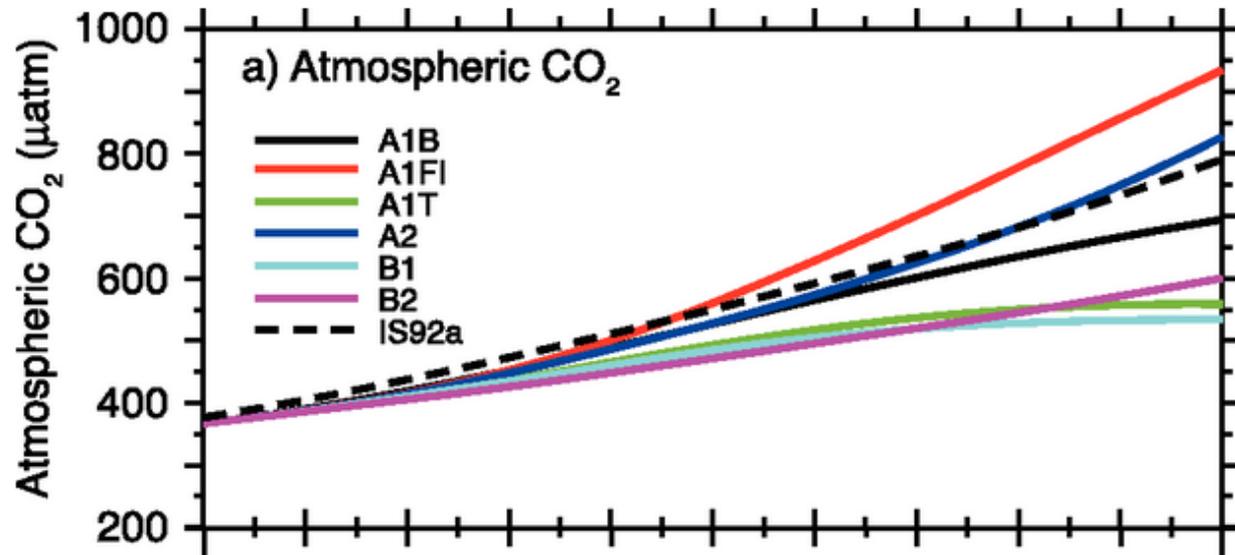
Environmental issues

Figure 2.5 World primary energy demand by fuel in the New Policies Scenario



Increasing primary energy demand...

... and accelerating climate change





Where do Oceans fit in ?

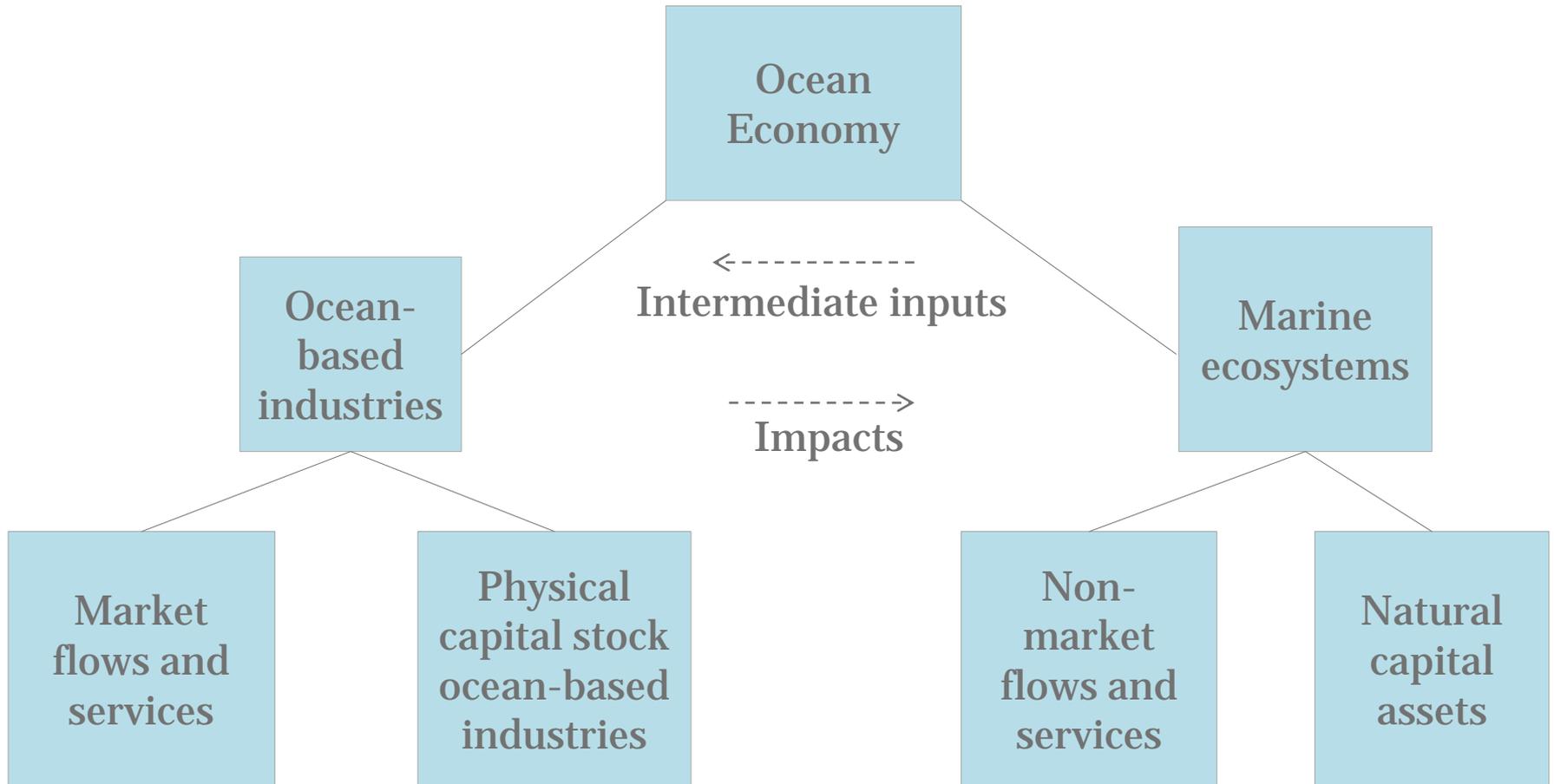
- Ocean based assets and economic activities could offer prospects for **new sources of growth, jobs, and innovation.**
- They also offer **solutions** to key environmental challenges
- While also being at **increased risk** from enhanced economic activity, demographic and environmental pressures



THE OCEAN ECONOMY TODAY



The concept of the ocean economy



Source: OECD (2016)



The ocean-based industries in the Ocean Economy

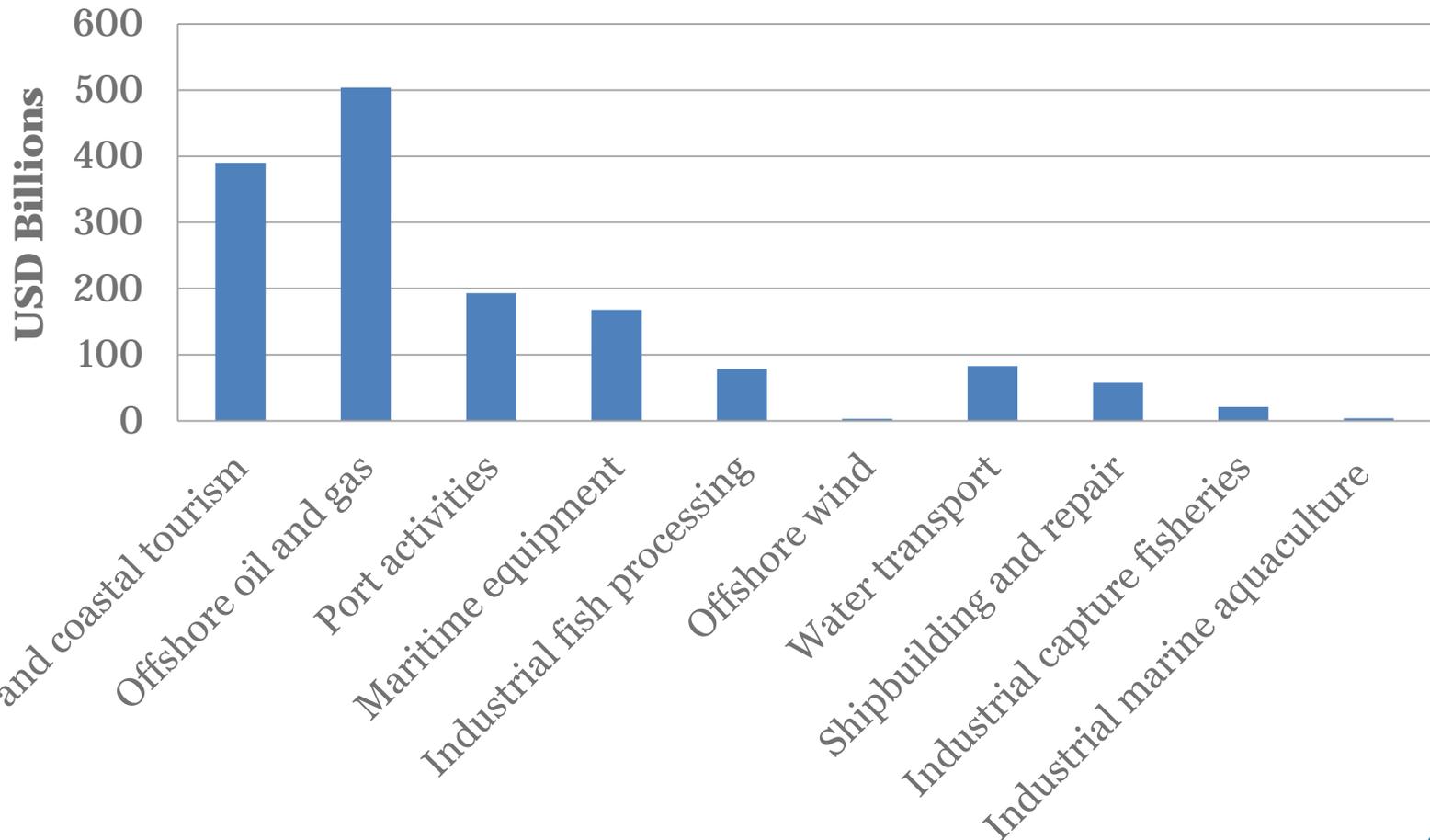
Established ocean-based industries	Emerging ocean-based industries
Industrial capture fisheries	Industrial marine aquaculture
Industrial seafood processing	Deep- and ultra-deep water oil and gas
Shipping	Offshore wind energy
Port activities	Ocean renewable energy
Shipbuilding	Marine and seabed mining
Offshore oil and gas (shallow water)	Maritime safety and surveillance
Marine manufacturing and construction	Marine biotechnology
Maritime and coastal tourism	High-tech marine products and services
Marine business services	Others
Marine R&D and education	
Dredging	

Source: OECD (2016)



Ocean-based industries generated more than USD 1.5 trillion in 2010

Value-added of ocean-based industries in 2010 by industry



Source: OECD (2016)



THE OCEAN ECONOMY IN 2030



Growth prospects for ocean industries

Prospects for modest growth

- Capture fisheries
- Offshore oil and gas extraction in deep water

Prospects for high long-term growth

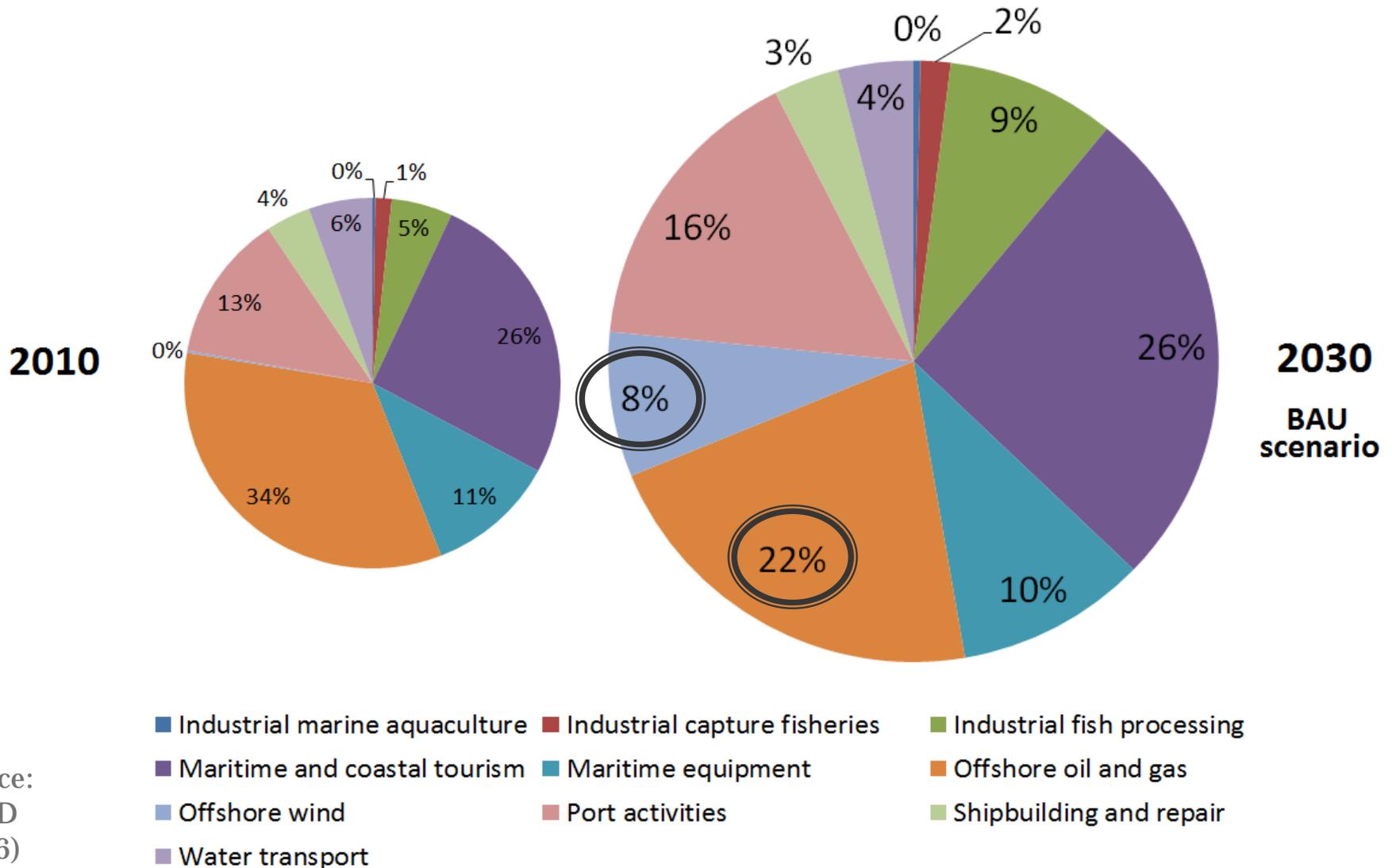
- Shipping
- Shipbuilding
- Offshore wind
- Marine aquaculture
- Tourism
- Surveillance and safety

Long-term potential but not yet at commercial scale

- Ocean renewable energy
- Marine biotechnology
- Deep-sea mining
- Carbon capture and storage



Ocean industry value-added to double (from 1.5 to 3 trillion USD) by 2030

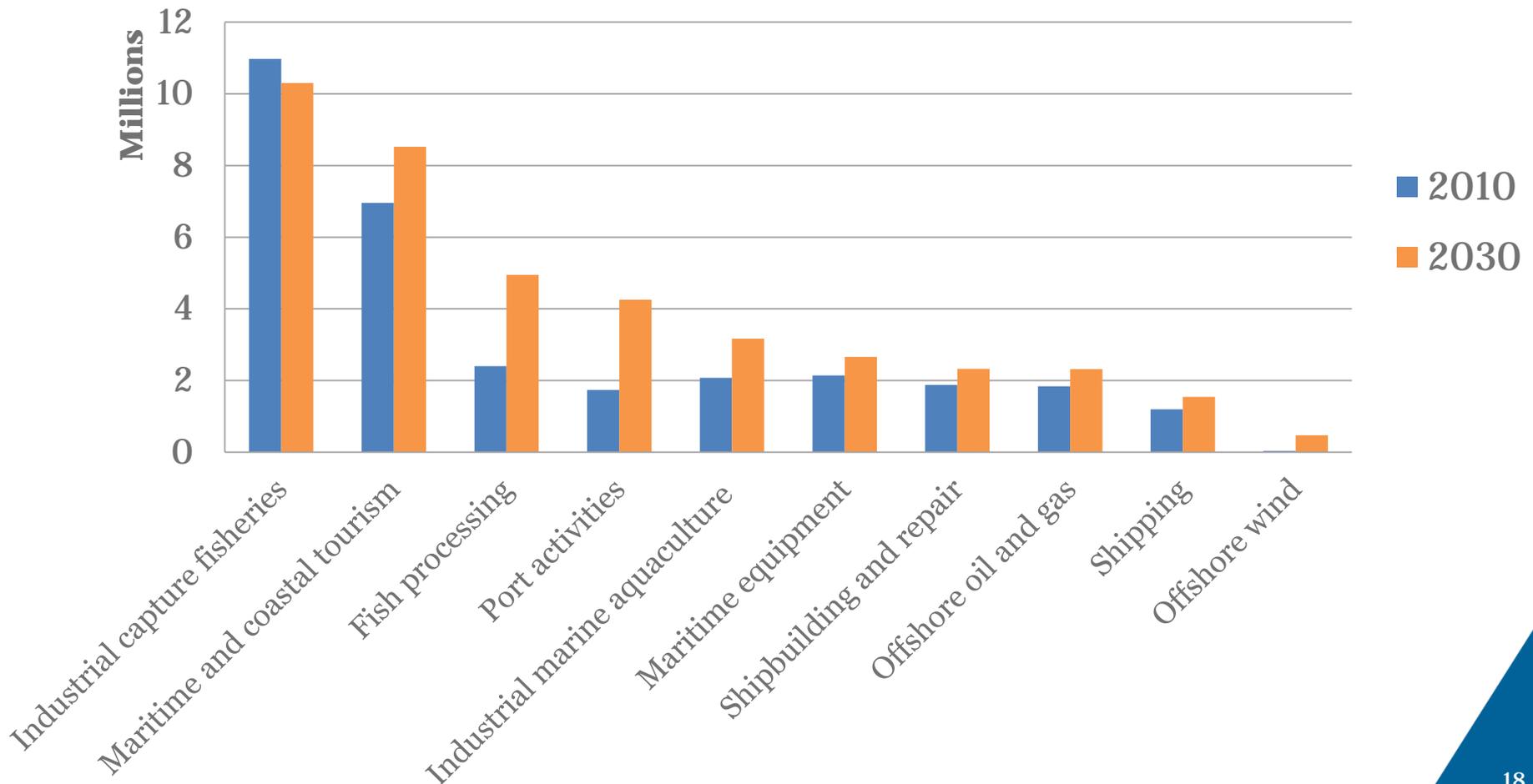


Source:
OECD
(2016)



In 2030, ocean industries likely to provide more than 40 million FTE jobs

Full-time equivalent employment in ocean-based industries in 2010 and 2030



Source: OECD (2016)



Conservative estimates!

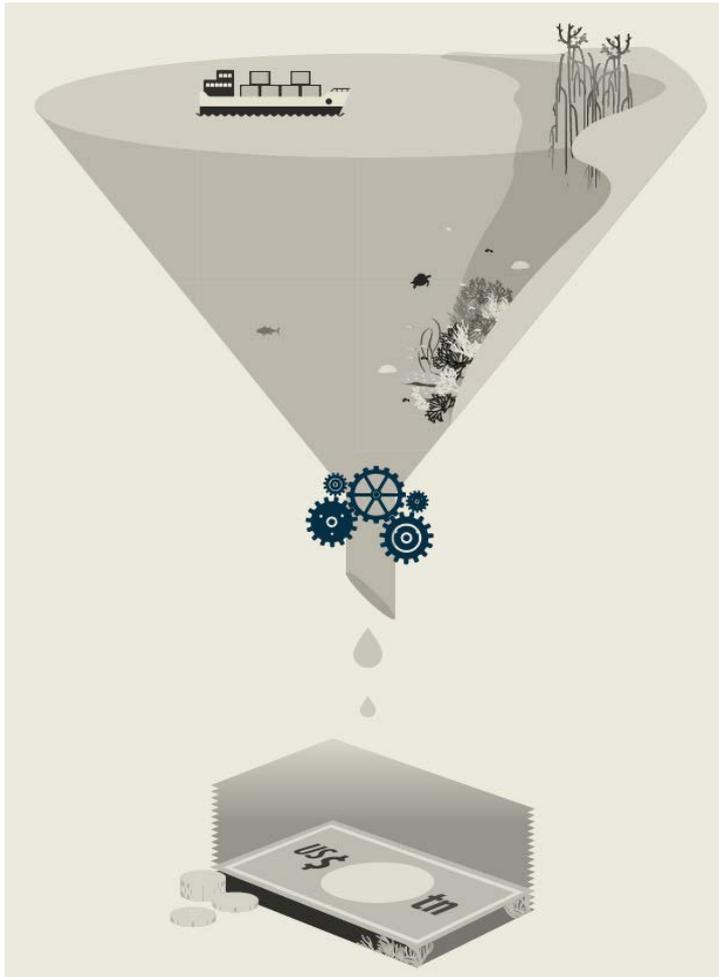
- Ongoing conversation concerning marine **ecosystem valuation**.
- Some important maritime sectors missing due to **data gaps** or early stage of development.
- Only measuring **direct economic contribution and direct FTE employment** (no spill over effects, etc.)
- Only **industrial-scale activity**, no artisanal sector.



SOME POLICY IMPLICATIONS



A growing ocean economy relies on a **healthy** marine ecosystem...



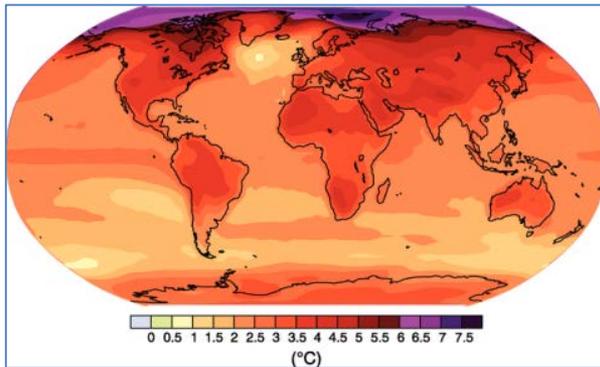
... which is already under pressure on various fronts

Source: WWF (2015)

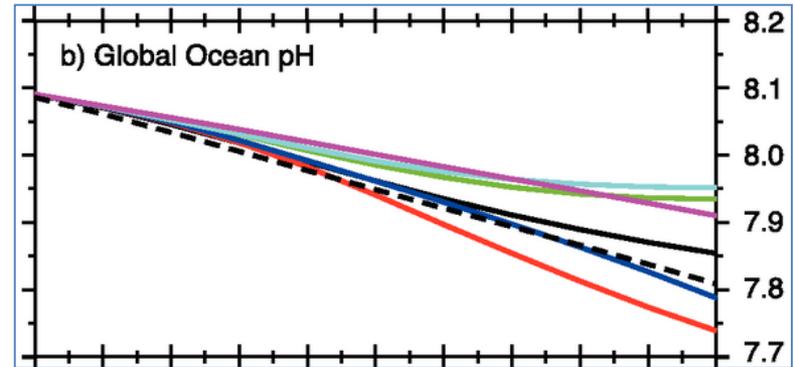


“Business-as-usual growth of economic activities in the ocean is not an option for the future”

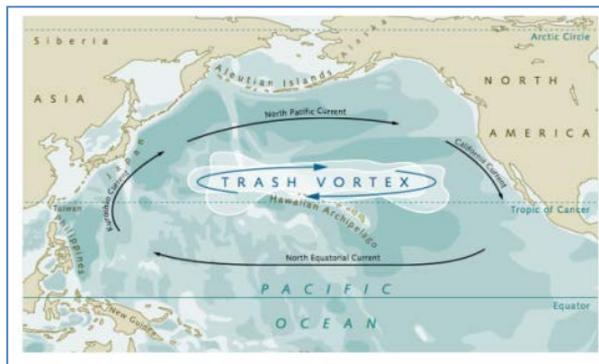
Global warming



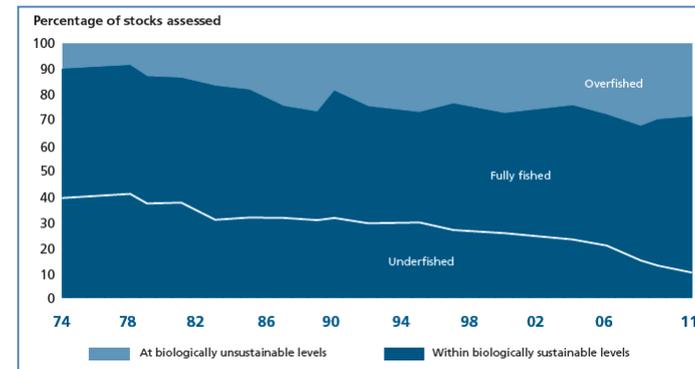
Acidification



Pollution



Overfishing



Source: IPCC, 2015; FAO, 2015, Maribus, 2010.



Need to improve integrated approach to ocean management...

... with significant progress needed to foster innovation and new thinking in many areas

- ***Better harness technology and innovation*** for the sustainable development of the ocean economy
- ***Strengthen information base***: data on marine resources very fragmented and hard to locate, limited information on interactive effects of different uses and users of the ocean
- ***Use of economic analysis and incentives*** : Better economic valuation of marine ecosystems and services, integrating such information in decision-making, greater use of economic instruments to internalise environmental externalities



OECD / STI programme of work in 2017-18: A focus on innovation

Four themes:

1. Explore the role of **scientific advances and enabling technologies** in driving innovation in the ocean economy
2. Investigate **emerging patterns and platforms of collaboration in innovation** among different marine and maritime actors in ocean R&D around the world
3. Extend the frontiers of the **use of economic valuation, analysis and tools** further into areas of ocean-related activities
4. Analyse the **role of the public sector and the impacts of policy mix** in boosting innovation in the ocean economy



In 2017, the first-ever Ocean Economy Week, in OECD, Paris

- ✓ 20 November – Expert Workshop on Green Ships (OECD Council Working Party on Shipbuilding)
- ✓ 21-22 November – OECD Large Conference: *Greening the Ocean Economy* (OECD Green Growth and Sustainable Development Forum)
- ✓ 22-23 November – **Expert Workshop on *New Approaches to Evaluating The Ocean Economy***
3rd International Symposium on the Oceans in National Income Accounts (OECD STI Ocean Economy Group)

<https://www.innovationpolicyplatform.org/ocean-economy-and-innovation>



Conclusion

- ✓ The Ocean Economy makes a very significant contribution to the economy and in meeting global concerns. By 2030, the Ocean Economy is likely to more than double.
- ✓ Increasing ocean-based activities add to already existing pressures on the health of the marine ecosystems.
- ✓ Innovation holds the key to the economic success of the Ocean Economy and can help in reducing ocean health issues.
- ✓ Governmental role in fostering innovation and strengthening integrated ocean management towards a more sustainable approach to managing the Ocean Economy is essential.