

Perspectives from a publicly-funded research infrastructure

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IMOS Integrated **Marine Observing** System



IMOS Integrated Marine Observing System

The importance of FOO to Australian marine science

- Australia's blue economy
- Australian marine science
- The role of FOO
- Perspectives from IMOS
 - A publicly funded research infrastructure



Australia's blue economy

Marine
sovereignty, safety
and security



Energy
security



Food
security



Biodiversity
conservation and
management



Coastal
populations



Societal Benefits

Australia's blue economy

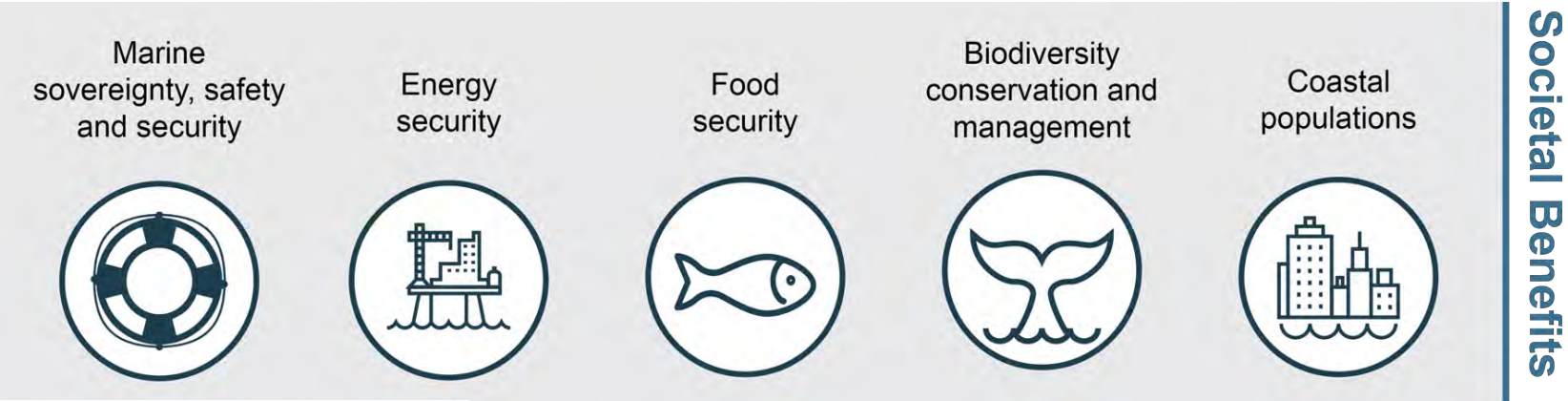
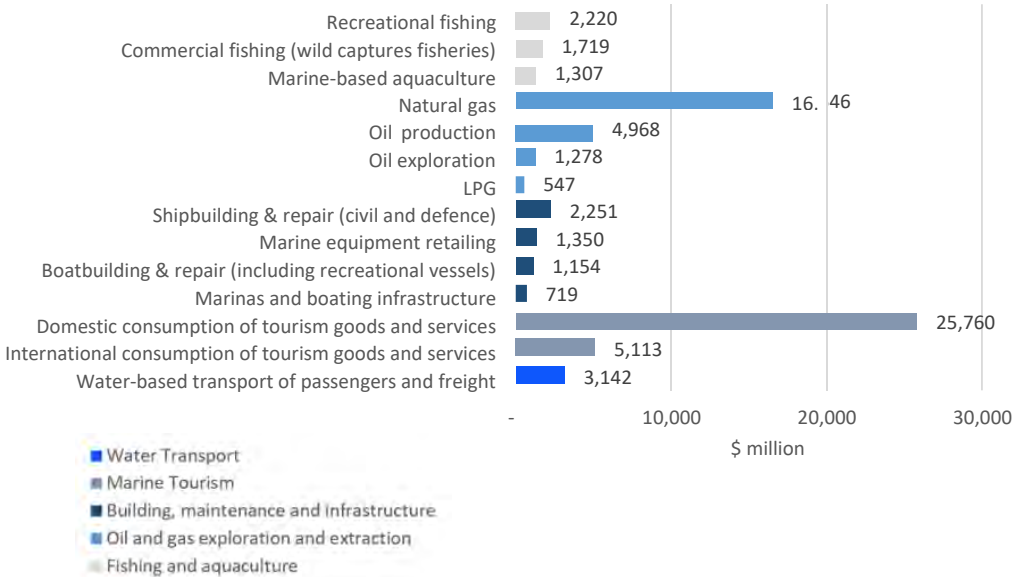
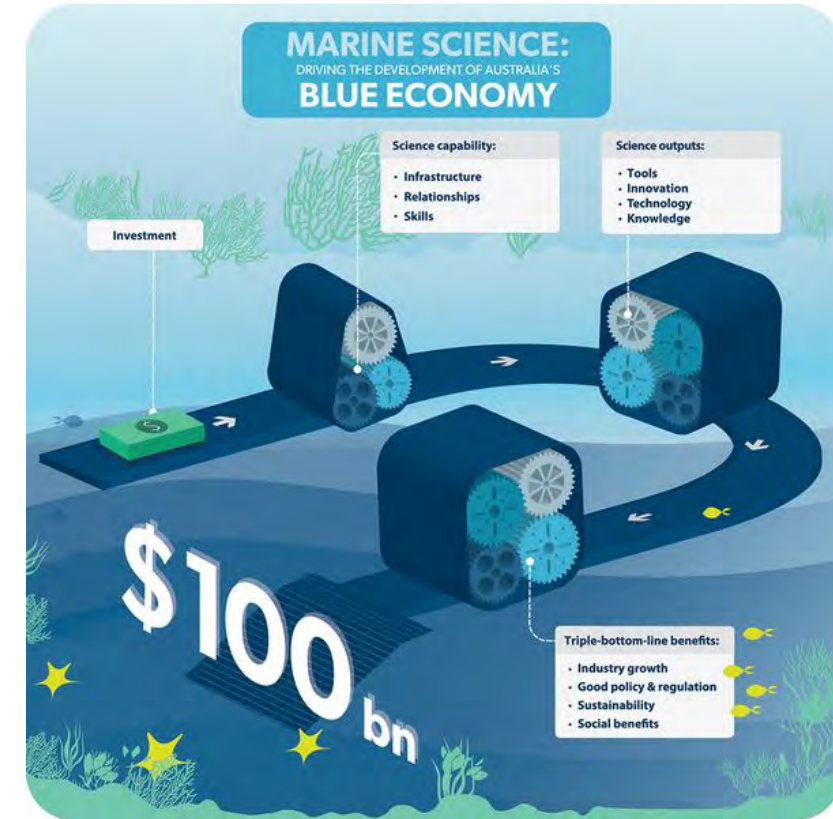
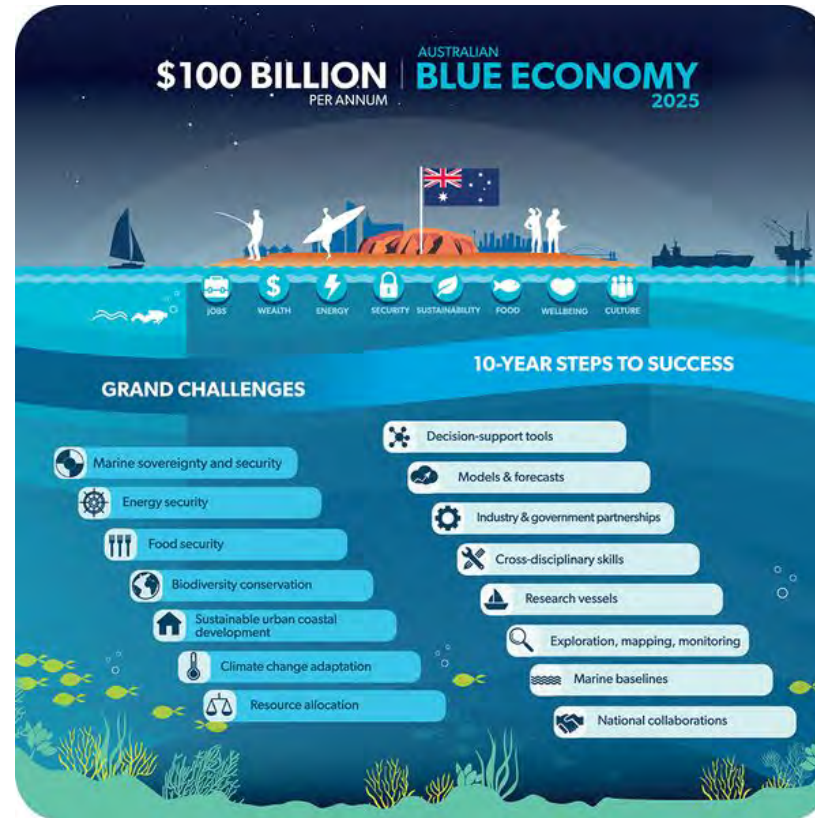
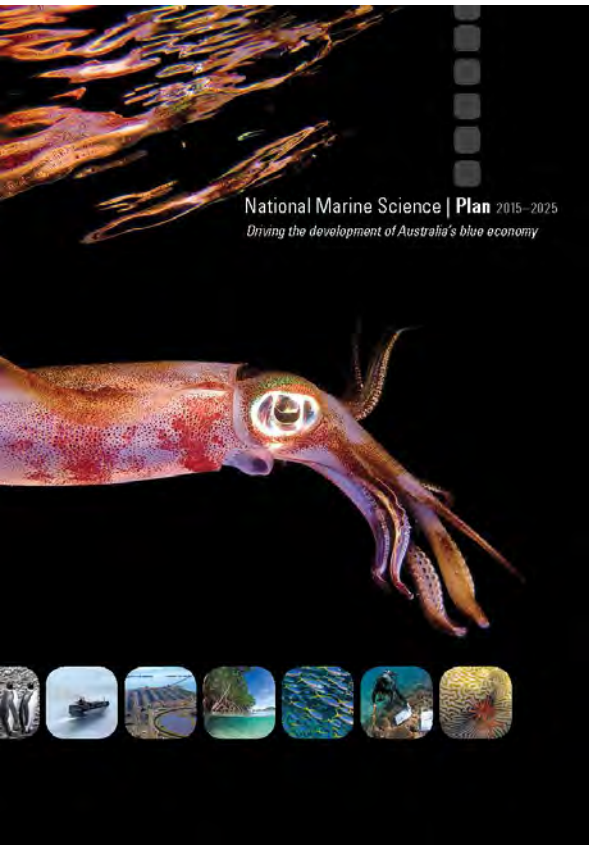


Chart 2.1: Total measurable output (income) from marine-related activities in 2015-16 (in 2015-16 \$ million)

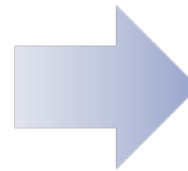


\$70bn pa
to GDP

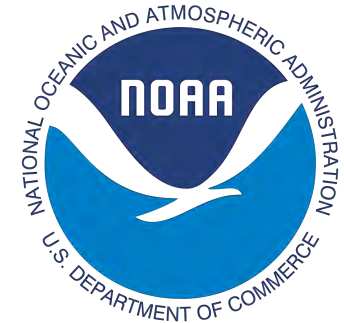
Australian marine science



Australian marine science

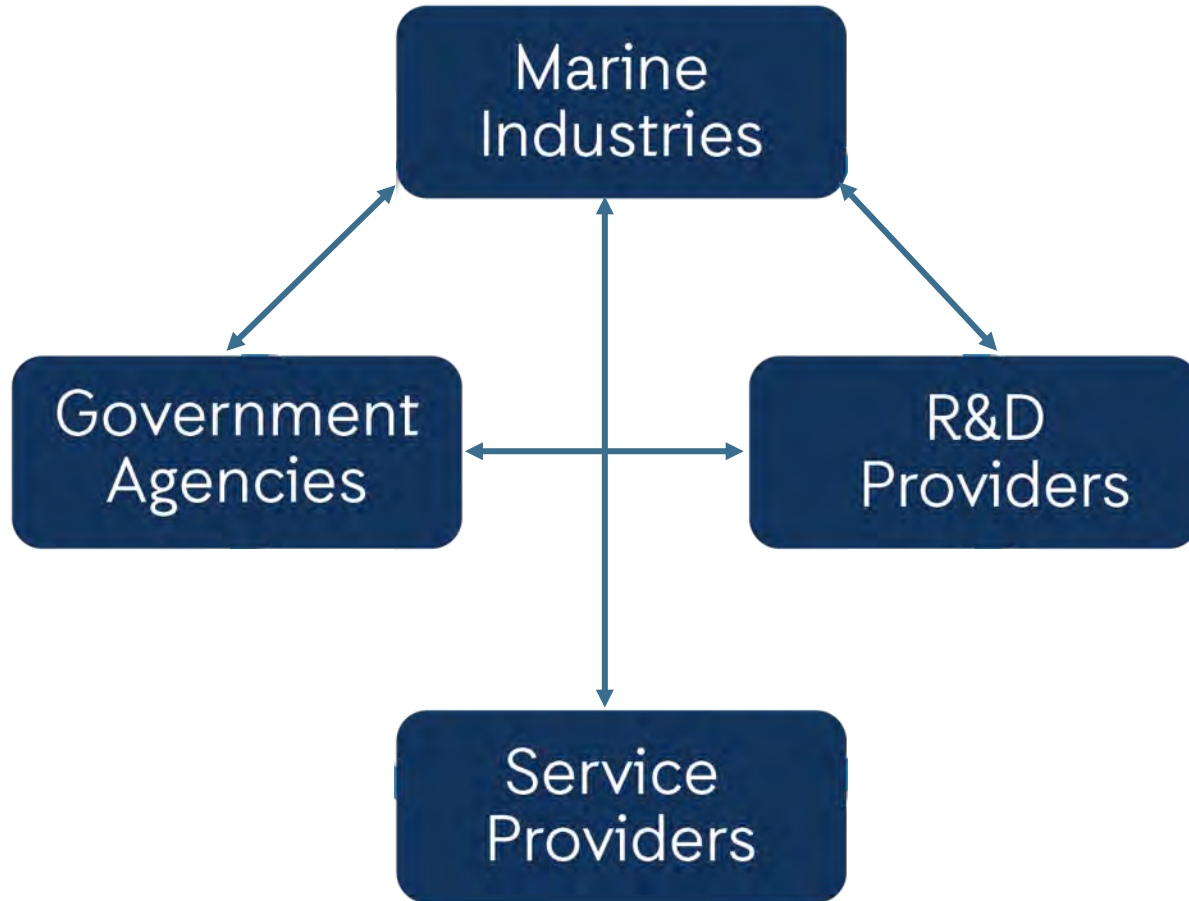


Processes for transition from research to operations not so clear in Australia, lack pre-operational steps existing elsewhere

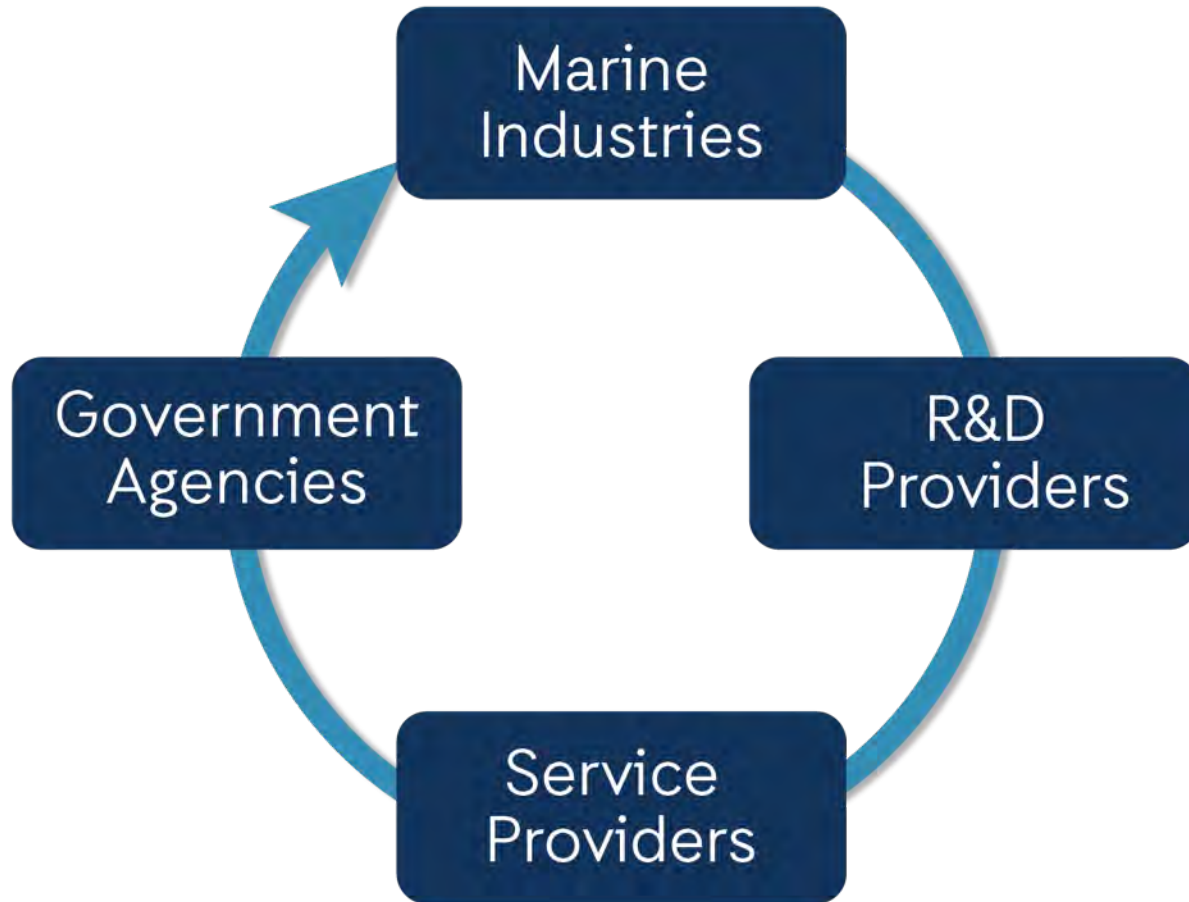


'lives and livelihoods'
Act of Parliament

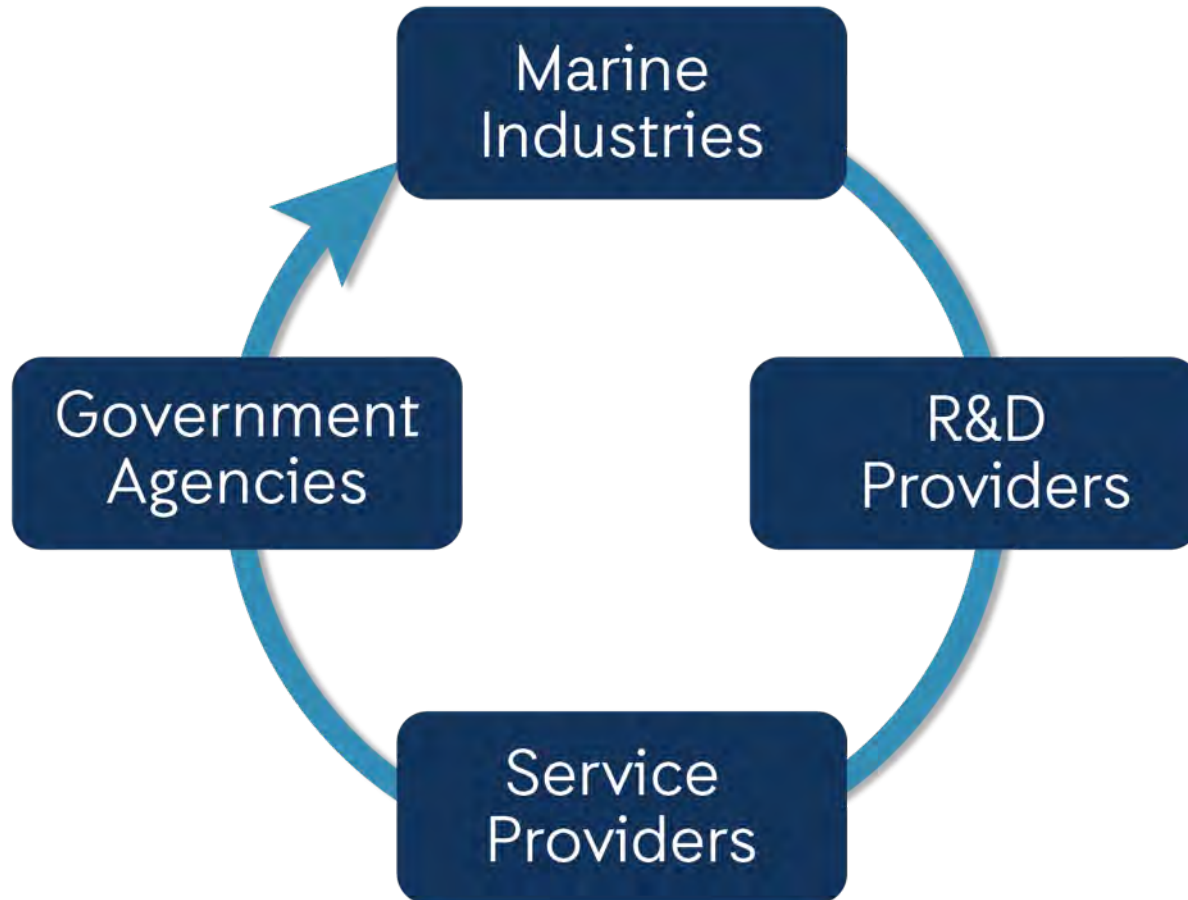
The role of FOO



The role of FOO



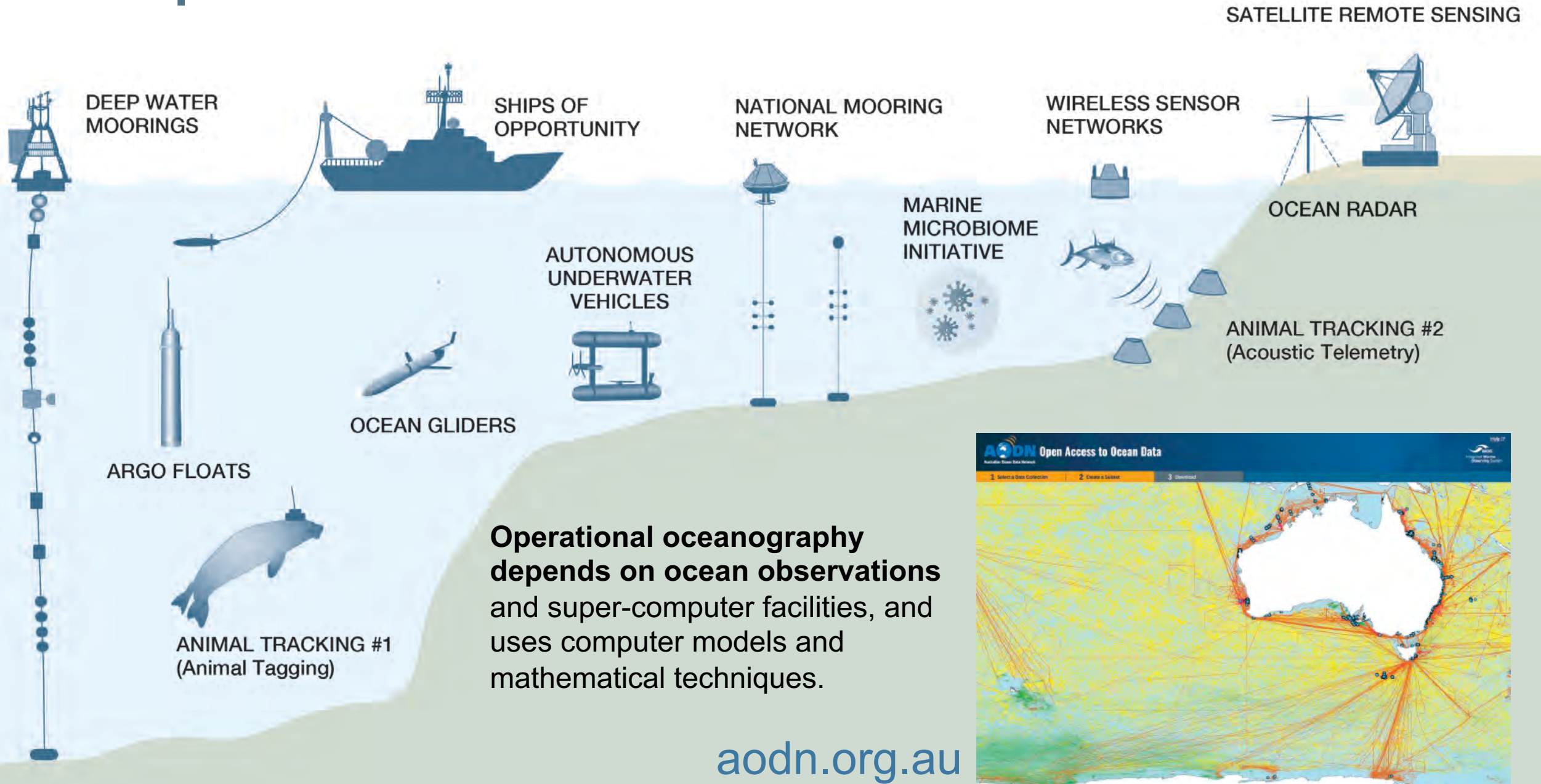
The role of FOO



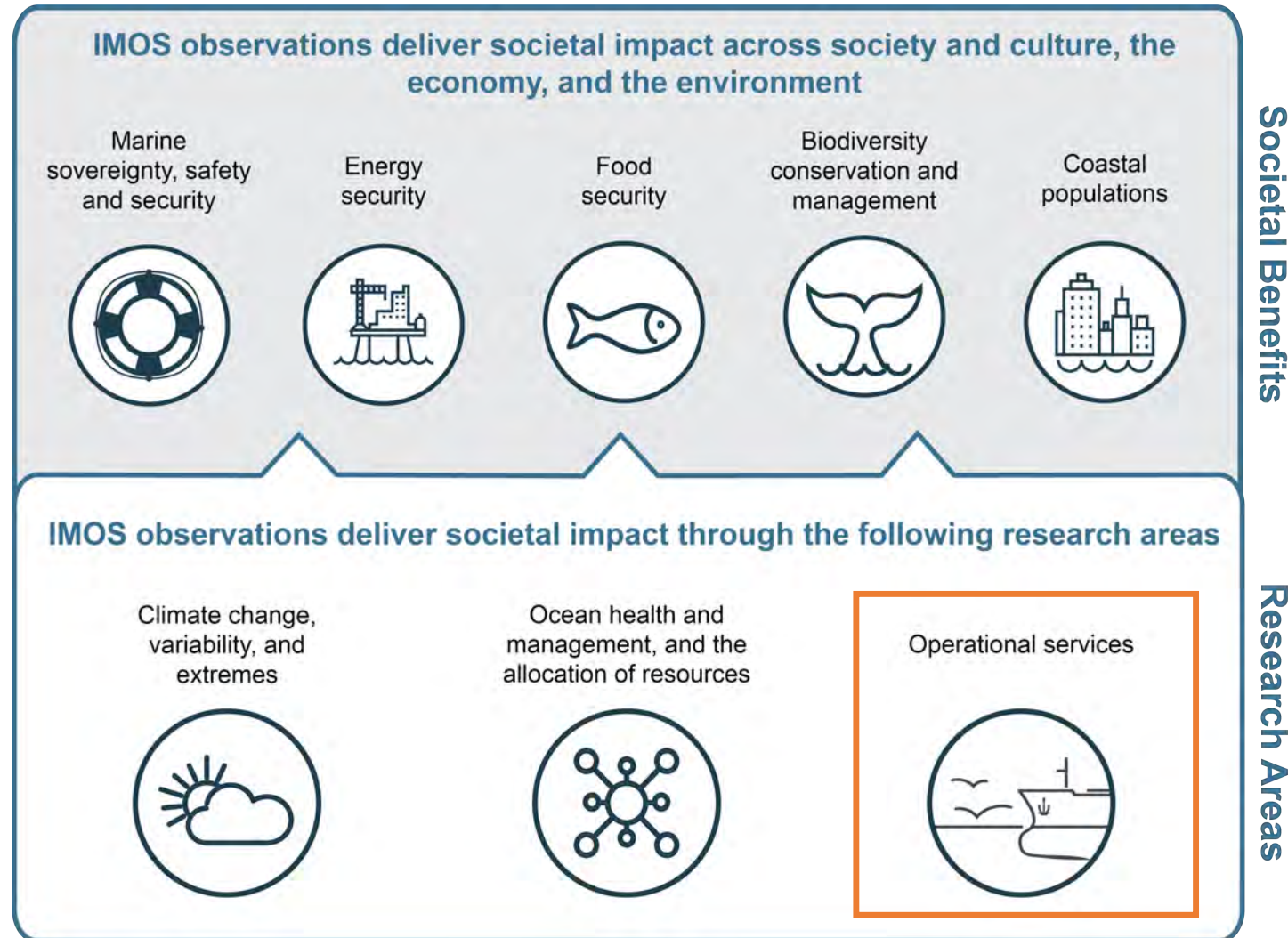
Operational oceanography depends on ocean observations and super-computer facilities, and uses computer models and mathematical techniques.

It is designed **to deliver stakeholder defined outputs and products** on a routine basis, using robust and fully supported production and dissemination techniques.

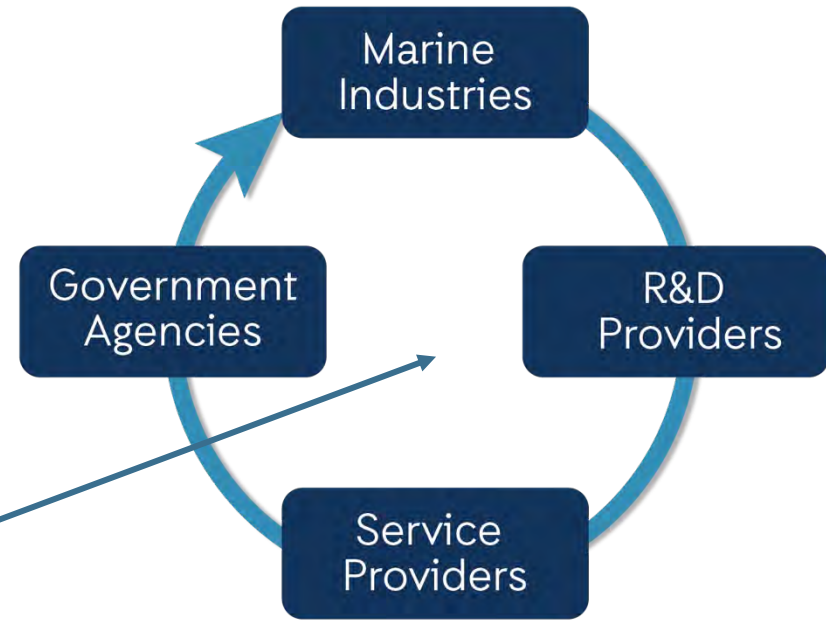
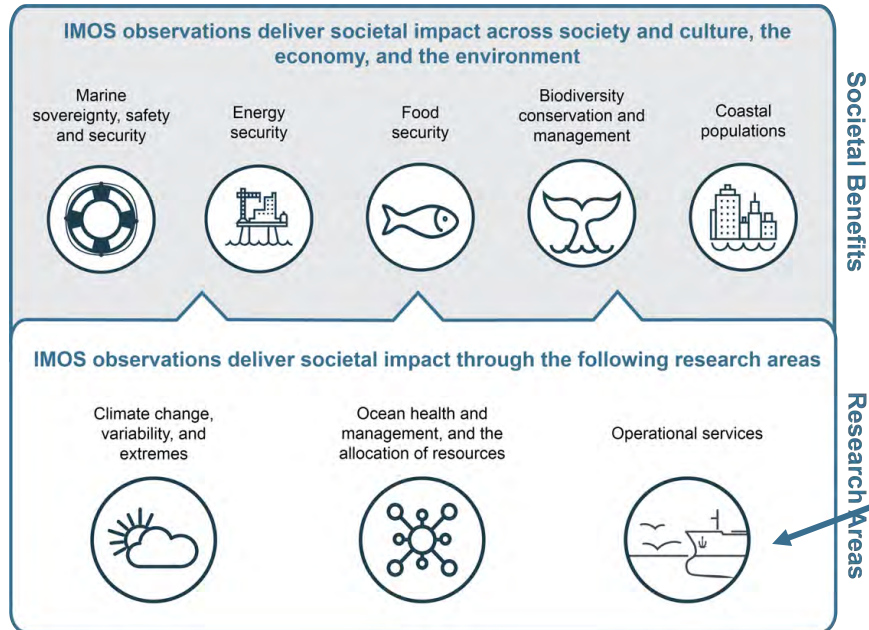
Perspectives from IMOS



Perspectives from IMOS



Perspectives from IMOS



- Surface Waves
- Surface Currents
- Data Sharing?

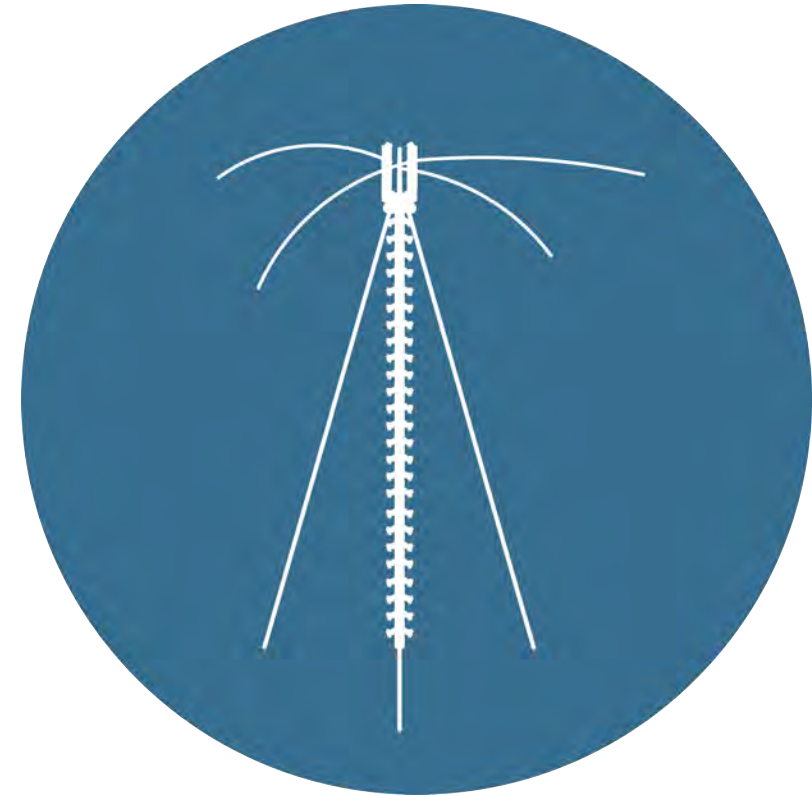
Perspectives from IMOS

- IMOS was doing nothing in Surface Waves at the time of FOO 2015
- Over time, with input from the FOO SWWG, IMOS has invested in
 - National Wave Data Archive
 - Satellite Wave products
 - Two new buoys to fill key gaps identified
 - New Technology Proving project on low-cost waves buoys
- Additional \$1M co-investment from Queensland Government for two new, deeper water wave buoys
- Collaboration with \$700K wave network funded by Victorian Government
- Collaboration with UWA Wave Energy Research Centre in Albany



Perspectives from IMOS

- IMOS Ocean Radar network, configured for Surface Currents
 - waves, winds
- Expansion supported by industry partners
- Woodside (and Quadrant and BHP) supporting a new installation covering the Ningaloo region
- Western Rock Lobster Industry/FRDC supporting extension at Dongara to underpin a strong current forecasting system (UWA)



In summary

- Australian Government, and State Governments, invest significantly in marine science
- There is an expectation that government investments in marine science will deliver social, economic and environmental impacts
- FOO has become an important part of how the Australian marine R&D sector engages with users and stakeholders in government agencies, service providers and marine industries
- Influence of FOO can be seen in IMOS investment decisions
- I think FOO can also assist us in improving the translation of high quality R&D into operational utility





IMOS is a national collaborative research infrastructure, supported by Australian Government. It is operated by a consortium of institutions as an unincorporated joint venture, with the University of Tasmania as Lead Agent. www.imos.org.au

PRINCIPAL PARTICIPANTS



SIMS is a partnership involving four universities.

ASSOCIATE PARTICIPANTS

