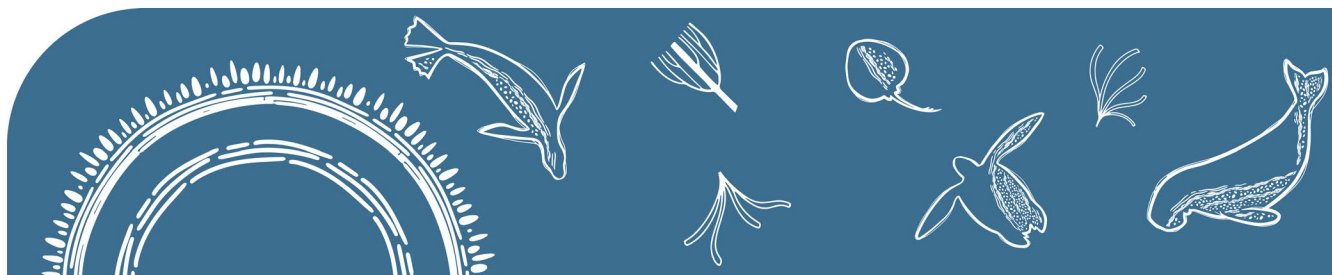
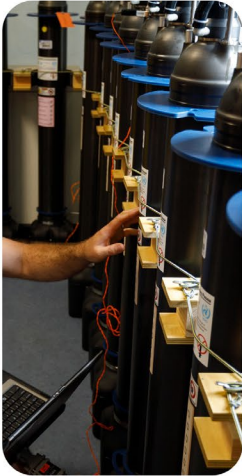
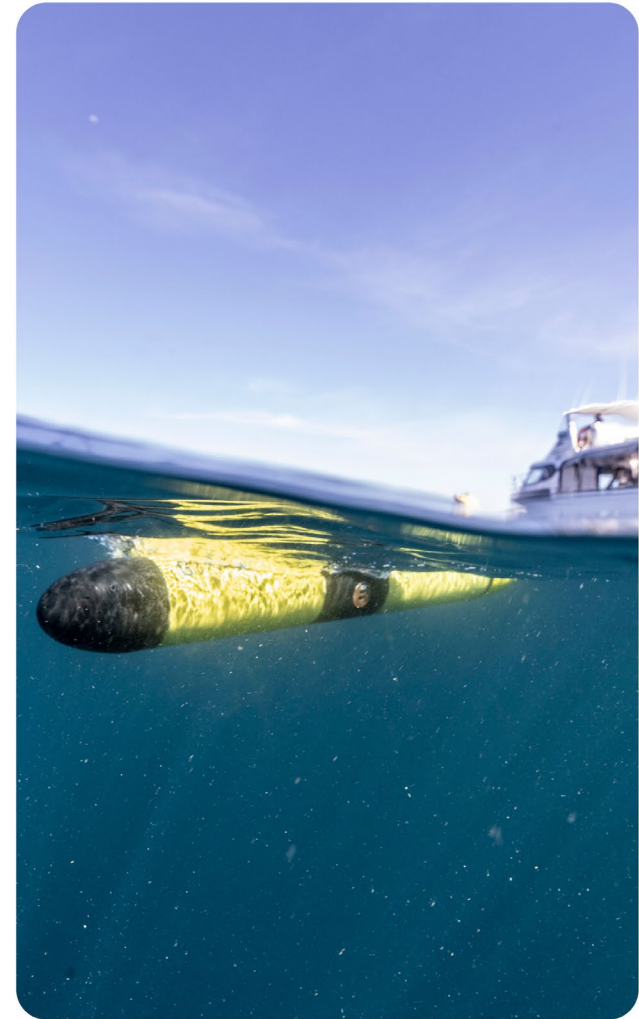
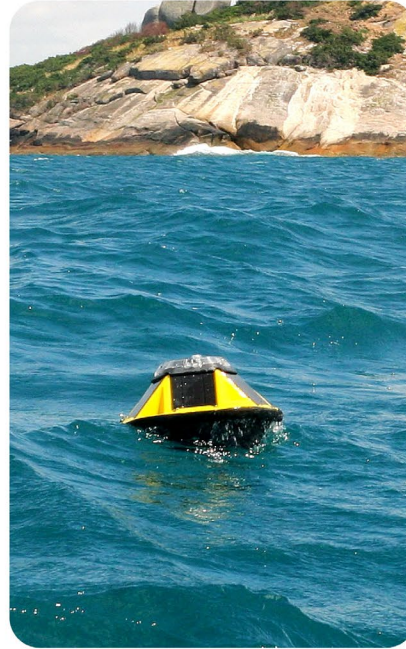


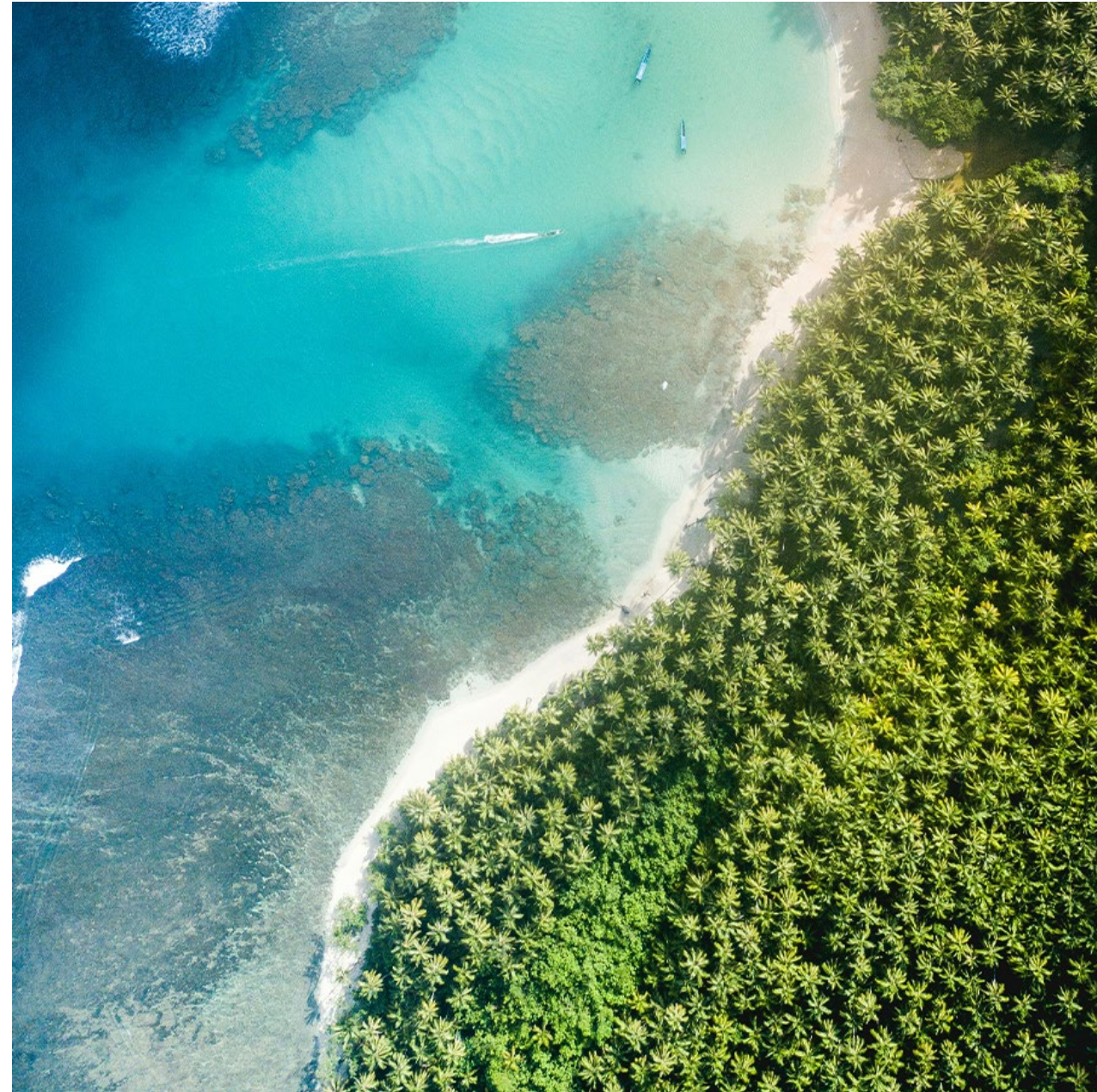
# 20 Years of IMOS



IMOS acknowledge the Traditional Custodians and Elders of the land and sea on which we work and observe as Australia's first marine scientists and carers of Sea Country. We pay our respects to Aboriginal and Torres Strait Islander peoples past and present.

# Why was IMOS established?

- Oceans matter to Australia as a 'blue economy'
  - national safety, sovereignty and security
  - energy security
  - food security
  - biodiversity conservation
  - coastal populations
  - climate change, variability, extremes
  - resource allocation
- Historically, Australia's marine observing was uncoordinated, had poor coverage, was fragmented, and not sustained
- *IMOS was established in 2006-7 to address these critical issues*



# The conditions in 2006

The earth moved, winds blew, fires burned and rains failed as climate change fears, worsening drought and raging bushfires scorched Australia during 2006.

It was also a year scarred with increasing conflict as more Australian defence forces were deployed to troubled regions across the world.

But there were great stories of courage and compassion as Australians rose to the call to help as natural disasters ravaged neighbouring countries.

<https://www.abc.net.au/news/2006-12-14/2006-year-in-review/2154066>

- Cyclones hit Qld, WA and NT
- Farmers battled the worst drought in 1,000 years
- Governments and communities in rural and urban areas agreed on steps to preserve water resources
- Bushfires in Vic and Tas

# The establishment of IMOS

## Principles

- **Service**—IMOS will provide a service that broadly supports researchers in the national marine community to maximise the contributions of R&D to economic development, national security, social wellbeing and environmental sustainability.
- **Data-streams**—Success will be measured in terms of the quality and quantity of data that IMOS delivers, the number of users and the quality research-results produced with IMOS data.
- **Integration**—IMOS will deploy a coordinated, multi-platform observing system to take advantage of the synergies between instruments, and to provide a comprehensive description of the ocean, as a contribution to national and international programs.
- **Sustainability**—The real value of IMOS will only emerge if systematic, repeated data collection continues for long enough time to see the range of climate variation and change. Sustained streams of data are integrally related to conservation and sustainable development of the marine environment.



II

## Vision

eMI

**A single distributed, federated network for Australian marine science data and information.**

To:

- Provide a key enabling technology for e-research.
- Promote the discovery, transfer and implementation of knowledge about marine environments by facilitating the management and exchange of, and ready access to, marine data and information.

# What have we achieved?

- Over 4,000 publications
- Almost 500 policy documents
- Almost 500 postgraduate projects
- Almost 13,000 data users in 100 countries
- Over 1 billion ocean measurements delivered
  
- *Historically, Australia's marine observing was uncoordinated, had poor coverage, was fragmented, and not sustained – not anymore!*

## Data Streams and Ocean Variables

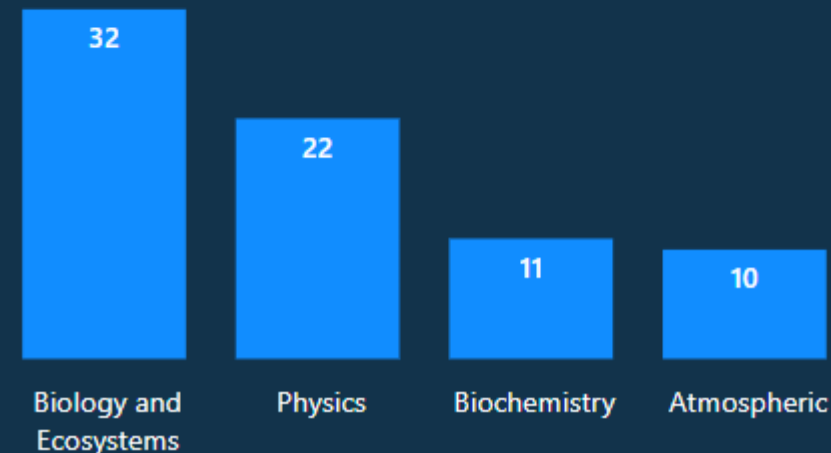
66

IMOS Data Streams Delivered

58

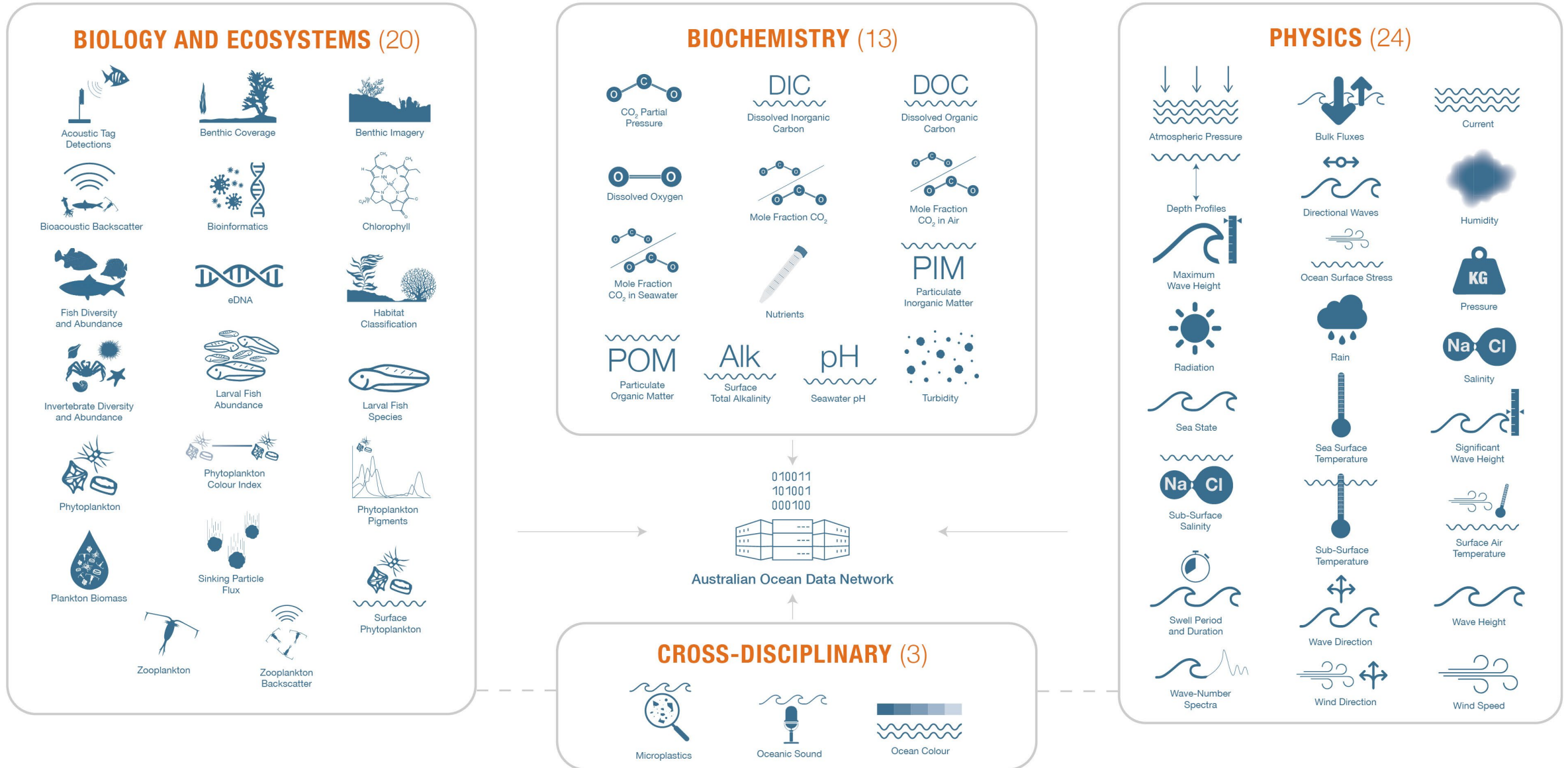
sub Facilities collecting and delivering data

Data Streams by Field

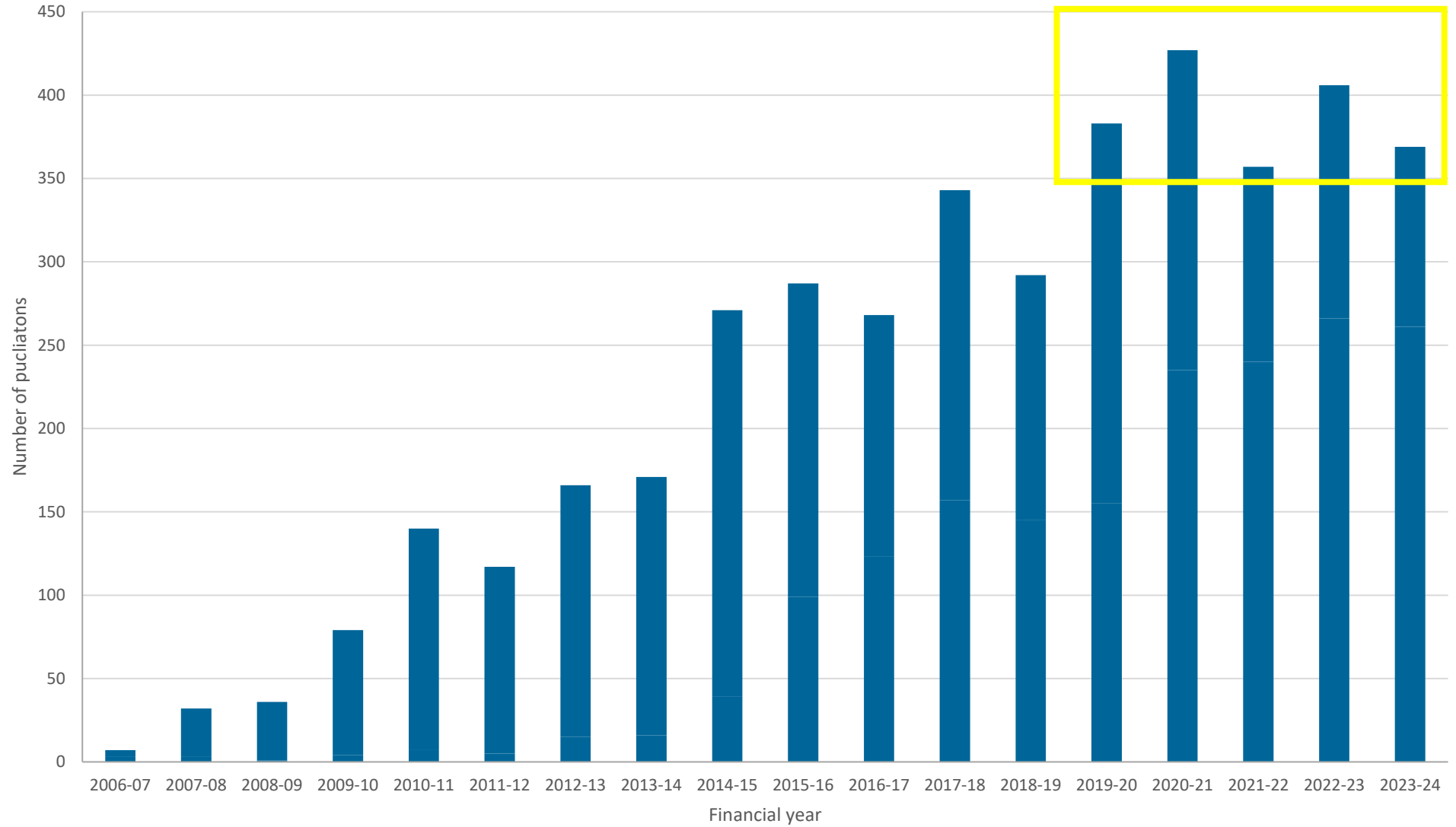


# The growth of our observing

IMOS delivers over 60 data streams contributing to 27 Essential Ocean Variables and 21 Essential Climate Variables



# The growth of our outputs

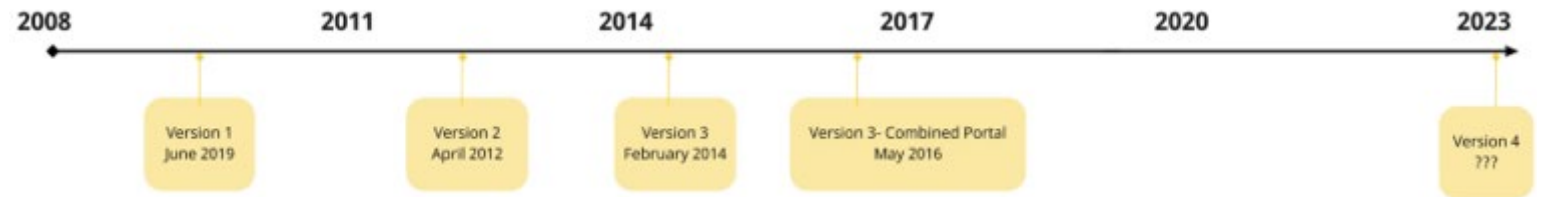


# AODN 20yrs

Changes in compute infrastructure – University Infrastructure -> Research Infrastructure -> Commercial Cloud (shows operational maturity)



Evolution in data delivery Portals – yes, we ran multiple production Portals between until 2016 (one IMOS/eMII specific, the other 'AODN')



AODN – some of the people, many new faces

2010



2016



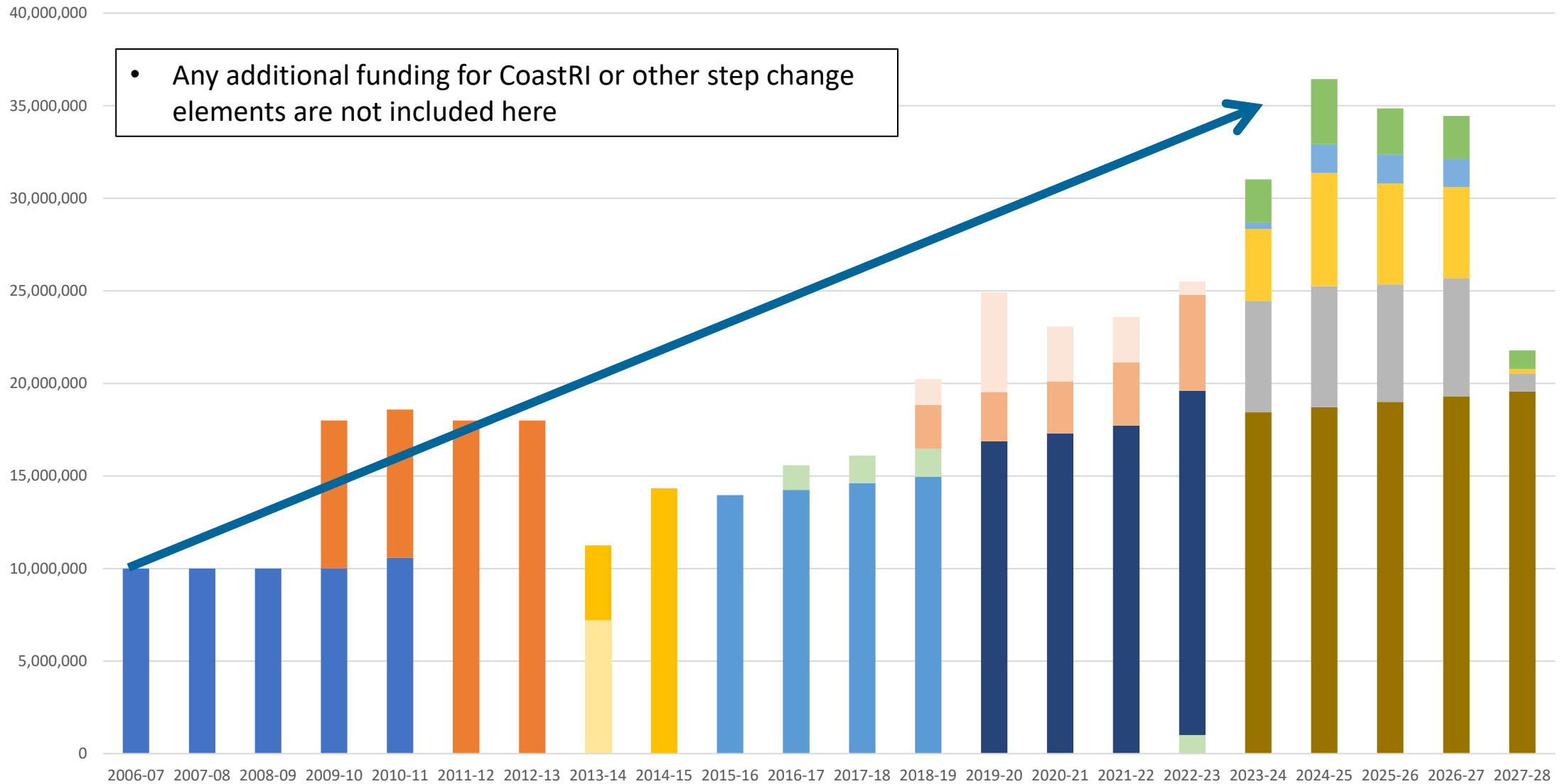
now





# The growth of IMOS funds

IMOS NCRIS (and related schemes) funding 2006-2028



# The growth of our community

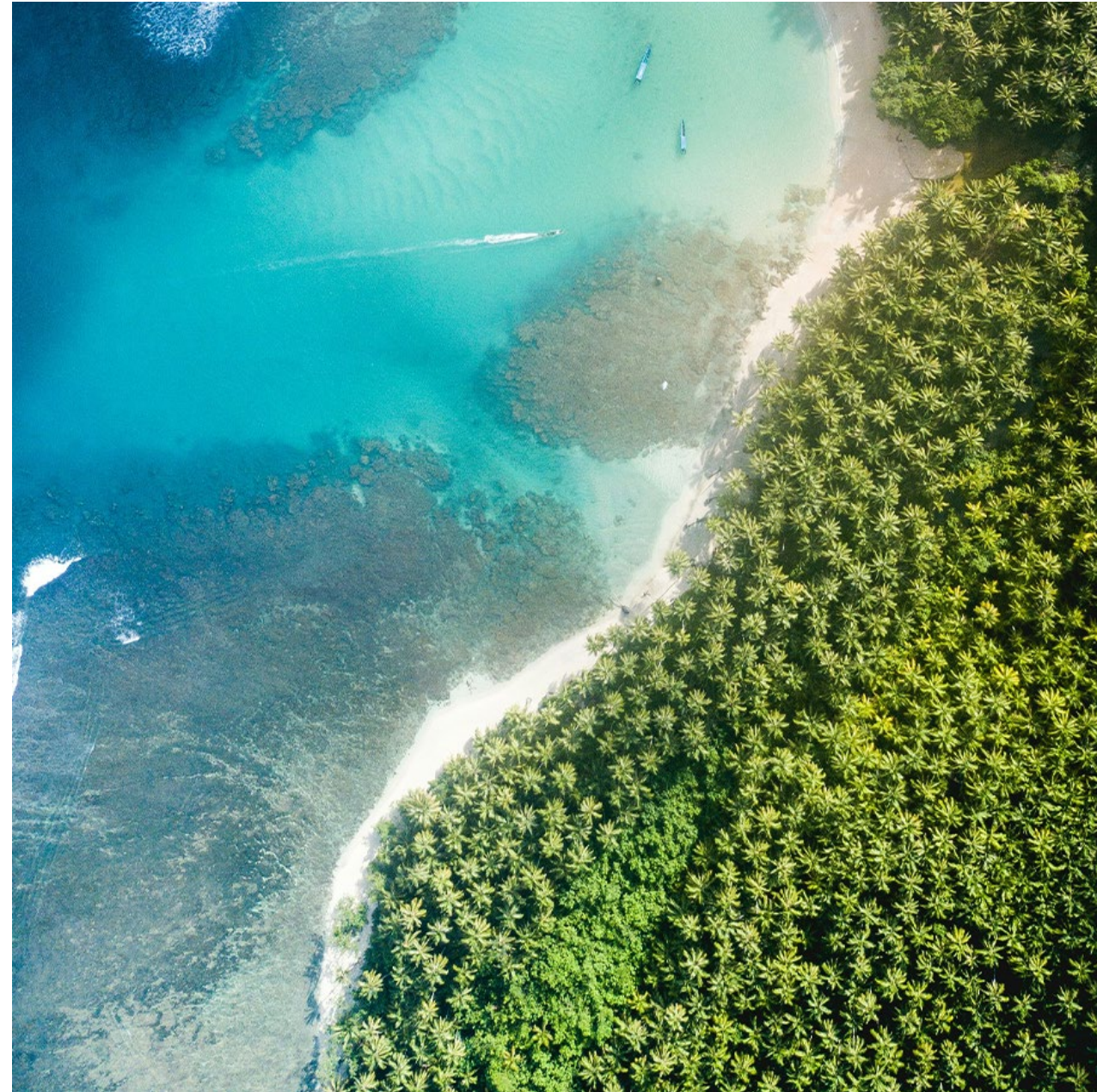


# The growth of our community



# Where will we take IMOS next?

- Oceans still matter to Australia's economy
- Climate change impacts are increasing
- Demand for “ocean information” is increasing
  
- As we look to the future we also want to take some time to reflect on and celebrate the success of IMOS – put your thinking caps on.





Australia's Integrated Marine Observing System is enabled by the National Collaborative Research Infrastructure Strategy (NCRIS). It is operated by a consortium of institutions as an unincorporated joint venture, with the University of Tasmania as Lead Agent.

**PRINCIPAL PARTICIPANTS**



SIMS is a partnership involving four universities

**ASSOCIATE PARTICIPANTS**



IMOS thanks the many other organisations who partner with IMOS, providing co-investment, funding and operational support, including investment from the Tasmanian and Western Australian Governments.

