





















## Housekeeping



#### Don't forget to:

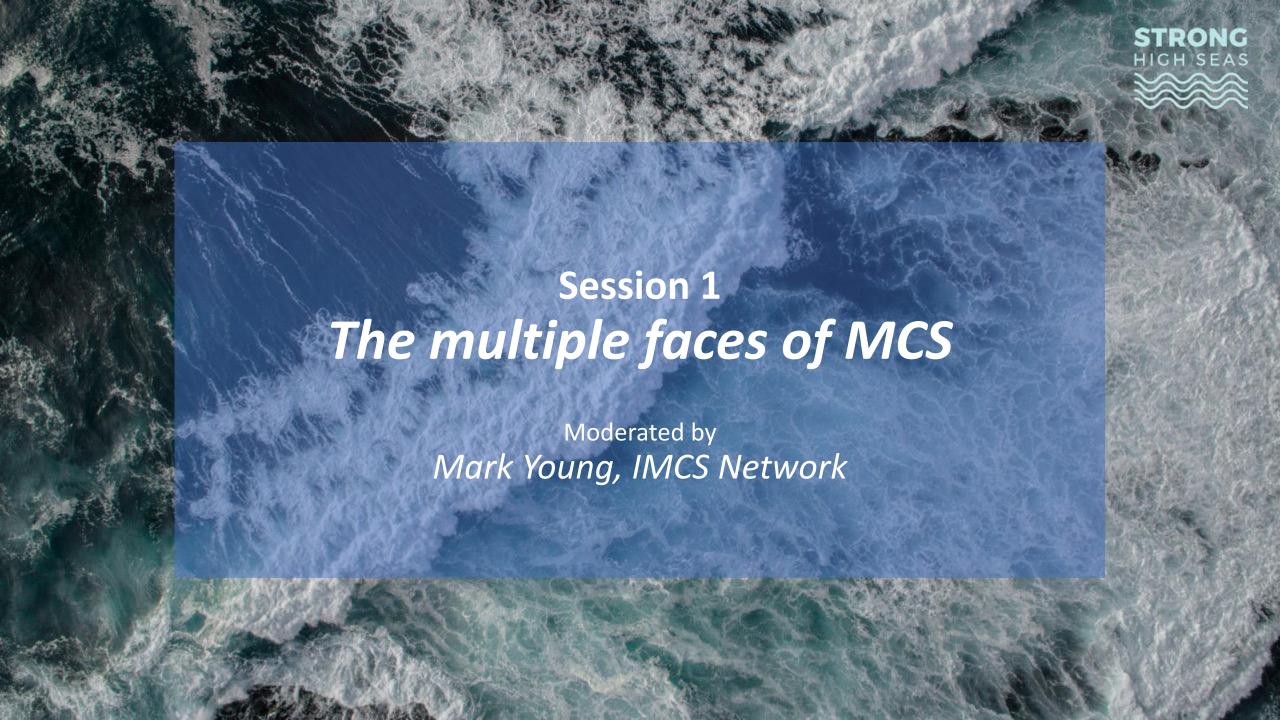
- Mute your microphone when not speaking
- Turn on your camera if possible
- Raise your hand before taking the floor
- Update your display name so we know who's who

#### **Chatham House rule:**

Participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed







## Session 1 – The Multiple Faces of MCS

#### High Seas MPAs

Important to ensure understanding of the likelihood that waters considered for high seas MPAs are likely to be covered by the management framework of an RFMO – as such, there are already a range of MCS tools established that cover the vessels and activities in those waters



Not starting from "square one"!

## Traditional MCS Tools

- Authorized Vessel List
- Vessel Monitoring System
- Observers
- Logbooks
- Electronic Monitoring and Reporting
- Catch Documentation Schemes
- Aerial and Surface Surveillance Patrols
- High Seas Boarding and Inspection Schemes
- Port State Measures



#### The Need for Robust MCS Solutions

As most high seas regions are remote and isolated from traditional forms of policing actions, any MCS structure should consider a range of low- and high-tech solutions – ones that are supported by a robust legal framework that leverages existing and emerging international enforcement regimes.

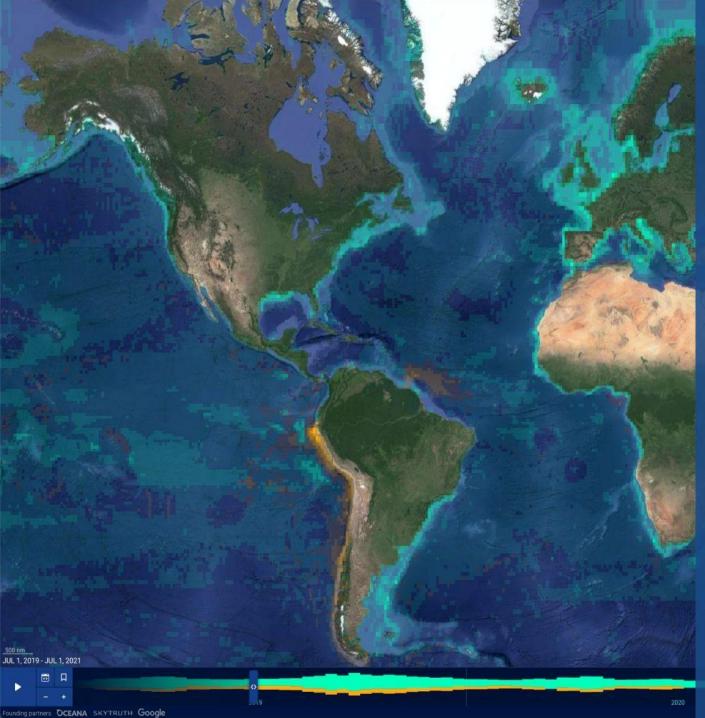
- Low tech solutions can include such simple tools as voluntary or mandatory vessel check-ins requirements and/or reporting
- Leverage opportunities for international cooperation a legal framework that facilitates the ability to establish bilateral and multilateral enforcement agreements and adjudication assistance

## Effective use of Technology and Information

There is no one tool that is a "silver bullet"

KEY – Employment of a range of tools and combination of datasets from multiple sources





## Remote Satellite Sensors

Traditional VMS

- \*\*Can be supplemented with AIS
- recognizing shortfalls if standalone
  - GFW
    - Skylight
    - Others

Synthetic Aperture Radar

VIIRS - Visible Infrared Imaging

Radiometer Suite

Radio Frequency Emissions

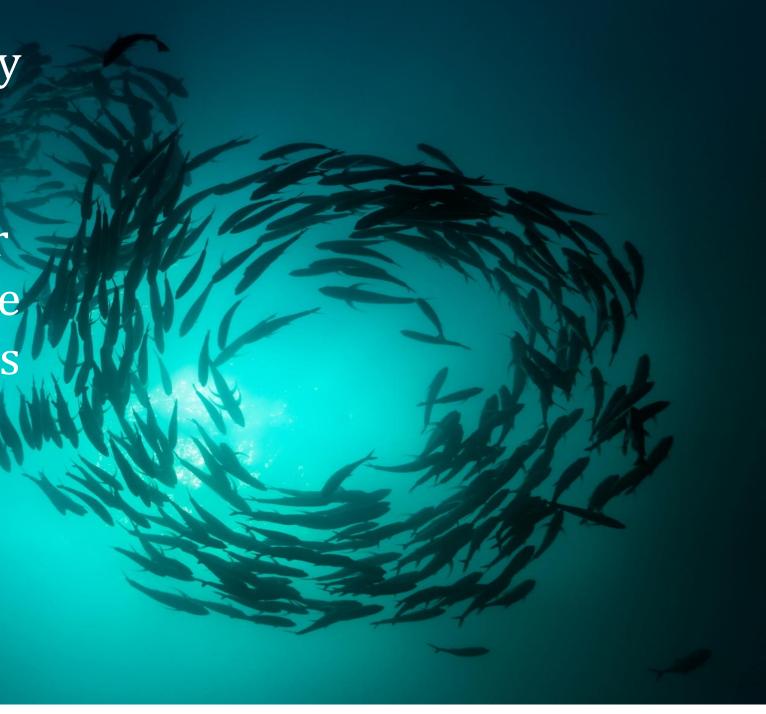
## Five Essential and Mutually Supportive Steps

- 1. Establishment of an entity with clear responsibility and leadership to manage the MPA
- 2. Adoption of a robust and supportive legal structure and framework future looking
- 3. Creation of detection capability through a robust suite of "tools"
- 4. Development of a response capacity through a variety of mechanisms
- 5. Establishment of effective adjudication procedures for cases of non-compliance



Detection capability requires response capacity - whether aircraft or vessel or via tools such as the Port State Measures Agreement

On to our guest speakers!.....







# Diversity of MCS tools. Traditional instruments to recent technologies. 15th February 2022



James Moir Clark; j.clark@mrag.co.uk







Images Credit- ESA/ EMSA



## MCS Tools and Management Measures

 Management measures for MPAs can be classified into Output and Input Controls.

#### Output controls

- Limit what can be removed (target species / bycatch / PET species)
- Can be nothing in the case of a no take MPA or a limit set b a quota or TAC
- Objectives of MCS therefore to monitor catches, landings and discards (logbooks, observers, REM, dockside monitoring, at sea inspections).

#### Input controls

- Limit level of effort permitted
- Include measures used to protect vulnerable measures of a stock (e.g. juvenile or undersized fish, spawning aggregations, essential habitats).



## **MCS Tools**

- Tools available to managers broadly categorised into 4 categories:
  - **Platform** patrol vessel, aircraft, drone.
  - **Personnel** fisheries inspectors, observers, customs.
  - Electronic tools radar, VMS, SAR, Remote electronic monitoring.
  - Administrative licensing, vessel lists, crew lists
- Important to assess what each of these tools can / cannot do:
  - Assessment of compliance with management measures Can it accurately determine the level of compliance of the vessels operating in an MPA with respect to the set of management measures in place?
  - **Provision of information –** Can it provide the information required to effectively manage the MPA and meet the management objectives?
  - **Detection of unlicensed vessels / fishers –** Can the enforcement tool detect any unlicensed vessels operating in the MPA and to what level?
  - Power of arrest / evidential value Does it in itself have power of arrest of vessels that contravene the management measures and what is the value of the evidence from this tool, i.e. can a conviction be made based solely on the evidence from this one tool?



### MCS Tools

- Traditional
  - Licence and vessel registration, legislation and sanctions, logbooks, patrol vessels, observers, aerial surveillance, vessel monitoring systems.
- Recent technologies.
  - Drones, remote sensing, remote electronic monitoring.
- The following table shows the applicability of these MCS tools against the management measures in place.
  - Applicable with direct power of arrest (patrol vessels and dockside inspections only)
  - Directly applicable (can it be used as a primary means of detecting an infraction)
  - Partially applicable (can detect and infraction but needs to be used with another tool)
  - Not applicable (cannot be used to detect that measure)



			Controls												
Adapted from COBECOS (2009)		Output			Input										
		Tar get sp eci es	By cat ch sp eci es	PE T sp eci es	Fle et Siz e	Eff ort da ys at se a	Eff ort	Clo se d se as on s	Clo se d Ar ea s	Ge ar Re stri cti on s	En gin e Siz e	M ov e on Rul es	Siz e Re stri cti on s	Dis car d Ba n	Sh ark fin nin g
M	Licensing and vessel registration														
CS	Legislation and sanctions														
То	Logbooks														
ol	Patrol vessels														
	On-board observers														
	Aerial Surveillance														
	Vessel Monitoring Systems														
	Remote Sensing														
	Dockside Monitoring (PSM)														
	Remote Electronic Monitoring														
	Transhipment Monitoring														
	Marketing and sales menitoring Key				Applicable, no powers of arrest				rs	Partially applicable			Not applicable		



## **BIOT MPA and RSRMPA**

	British Indian Ocean Territory MPA (BIOT MPA)	Ross Sea MPA (RSRMPA)
First created	2010	2017
Size	640,000 km2	1,606,529 km2
Туре	National MPA. No take zone	High seas MPA. Zoned use, some commercial fishing permitted
Management	BIOT Administration / IOTC	CCAMLR
Main threats	<ul> <li>Multi purpose vessels from Asia</li> <li>Tuna longline and purse seine</li> <li>Shore based operations (for sea cucumbers)</li> <li>Lost and abandoned fishing gear (FADs, nets)</li> <li>Pollution</li> </ul>	<ul> <li>Fishing in closed / restricted areas</li> <li>Quota overruns</li> <li>IUU fishing (limited due to remoteness and ice conditions</li> <li>Breaches of CCAMLR Conservation measures (e.g. limits on bycatch, dumping of offal/discards, mitigation measures to prevent seabird mortality)</li> </ul>
Nationalities fishing	N/A	Australia, Chile, Japan, Korea, New Zealand, Russia, Spain, Ukraine, UK and Uruguay.



## 74530E Anlsony Island Three Brothers Danger Island Diego Garcia Ziamene 72/25/E 721301 INDIAN OCEAN FOO 219 Edition 2 June 2013)

## BIOT MPA.



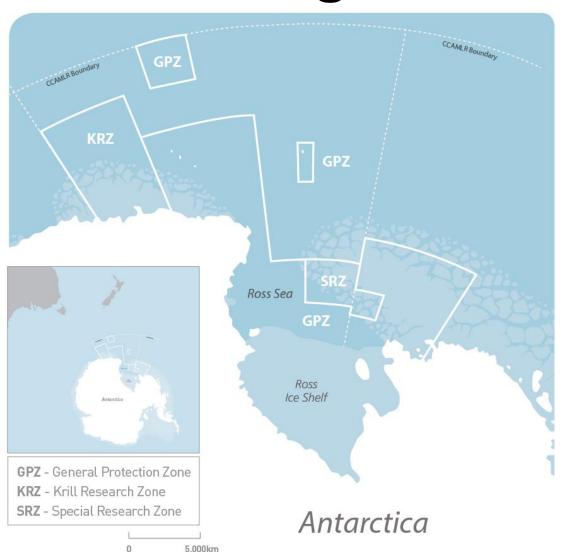








## Ross Sea region MPA (RSRMPA)



- General Protection Zone(s) –
   GPZ (72% of area).
  - No commercial fishing permitted.
- Special Research Zone -(SPZ).
  - Limited research fishing for krill and toothfish
- Krill Research Zone (KRZ).
  - Allows controlled research fishing for krill.

Taken from New Zealand Foreign Affairs and Trade site



	British Indian Ocean Territory MPA (BIOT MPA)	Ross Sea MPA (RSRMPA)
Licensing and vessel registration	NA. Vessels passing through are checked against IOTC Record of Authorised Vessels	Flag states submit list of vessels on annual basis and notifications to conduct exploratory fishing in MPA
Legislation and sanctions	<ul> <li>No MPA legislation, control of MPA remains in the Fisheries Ordinance, IUU vessels are fined for fishing without a licence or possession of illegal gear</li> <li>Tuna IUU vessels reported to IOTC Compliance Committee. Places increased pressure on Flag State to take action and control IUU – EU IUU red / cards</li> <li>Roadmap for action developed by Sri Lanka (amended legislation, better port State control, VMS, legal action against both owners and masters</li> </ul>	Covered under Conservation Measures. Vessels in apparent breach of CMs are reported to their flag state for further investigation
Logbooks	NA. Vessels passing through are checked for logbooks against IOTC requirements	CCAMLR have a standardised set of logbooks, fine scale data reported monthly, summary 5 day reports are also submitted



	British Indian Ocean Territory MPA (BIOT MPA)	Ross Sea MPA (RSRMPA)
Patrol Vessel	<ul> <li>BIOT Operates a dedicated patrol vessel managed by a Senior Fisheries Protection Officer (SFPO)</li> <li>Pre-COVID SFPO could board and detain vessels suspected of IUU. Island patrols also conducted as well as compliance with IOTC resolutions</li> </ul>	<ul> <li>No dedicated patrol vessel for RERMPA but the CCAMLR Scheme of Inspection allows one Member to inspect another Member's vessel</li> <li>No power of arrest</li> </ul>
Observers	NA	100% coverage, all vessels should have at least 2 observers on board
Aerial surveillance	<ul> <li>Project Egret (2016) was a 6 week trial (100 hours).</li> <li>Led to the detention of 5 IUU vessels through coordination with the BPV.</li> <li>Other suspected IUU vessels were detected but could be detained</li> </ul>	Undertaken in some areas of CCAMLR but not in RSRMPA
VMS	<ul> <li>NA, although VMS data is requested from vessel flag state when detained.</li> <li>IOTC are developing a centralised VMS system.</li> </ul>	Centralised VMS system requires vessels to report on hourly basis

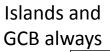


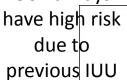
	British Indian Ocean Territory MPA (BIOT MPA)	Ross Sea MPA (RSRMPA)
Remote sensing	<ul> <li>Daily AIS reports received, has led to a number of successful detentions.</li> <li>AIS transponders associated with vessel's fishing gear as well as the vessels themselves.</li> <li>Other remote sensing information (SAR / optical) of limited value due to the size of vessels being detected (&lt;12m)</li> </ul>	Undertaken in some areas of CCAMLR but not in RSRMPA
Dockside monitoring	NA.	CCAMLR operate a catch document scheme, all fish landed must have an accompanying Catch Document. No designated ports.
Remote Electronic Monitoring	NA	Not currently required although being proposed to assist observers with their tasks.
Transhipment monitoring	NA	Vessels must notify CCAMLR 24 hours before they tranship, however this is not practiced by vessels fishing in the RSRMPA
Marketing	NA	Through the catch documentation scheme



	British Indian Ocean Territory MPA (BIOT MPA)	Ross Sea MPA (RSRMPA)				
Other innovative technology	<ul> <li>Drones have been trialled with limited success, work continues.</li> <li>Radar detecting equipment (PHBOS) trialled with limited success as target vessels rarely carry radar.</li> </ul>	Satellite imagery (SARS and optical) used in other areas of CCAMLR to detect illegal fishing in French national nature reserve in Crozet and Kerguelen Islands.				
	<ul> <li>Electronic Warfare (MEWS) equipment trial, to detect HF signals proved difficult to calibrate and use. Although some signals could be detected it requires an experienced operator.</li> <li>Hydrophones, strategically placed to pick up engine sounds.</li> <li>Unmanned surface vehicles, under development can have duel purpose of tracking cetaceans / tagged sharks</li> </ul>	Actornal Contractor				

Patrols based on risk assessment and intelligence received – example of a heatmap



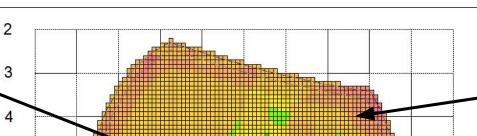


Latitude (°S)

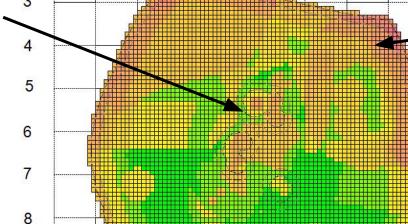
9

10

67

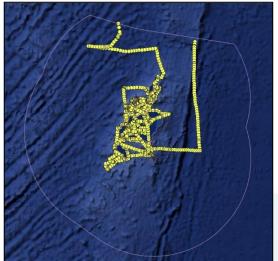


Longitude (°E)



Area to the NE corner of the MPA has high risk as IP corridor with Sri Lankan and Indian vessels entering here.





Area to the SSW border of the MPA has history of longline activity and

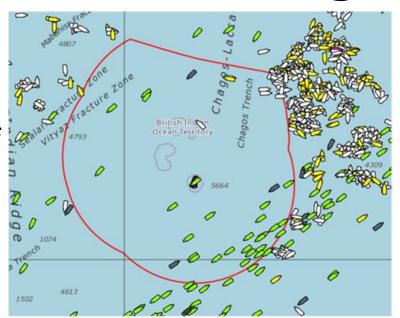
current activity on seamounts

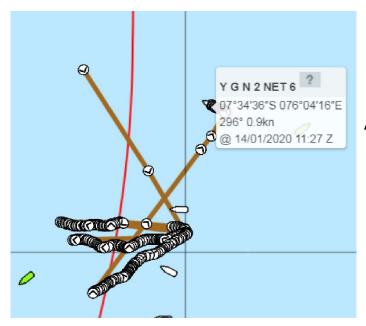
just outside **MPA** 

## Remote sensing



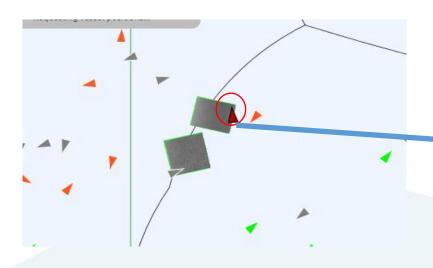
AIS overview of BIOT

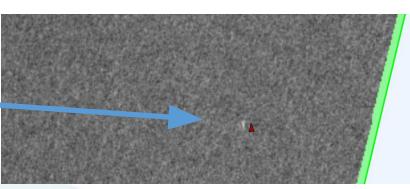


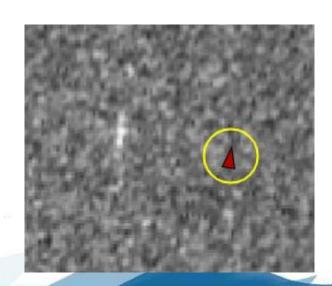


AIS - apparent incursion of gear

SAR imagery used with AIS data to identify vessel





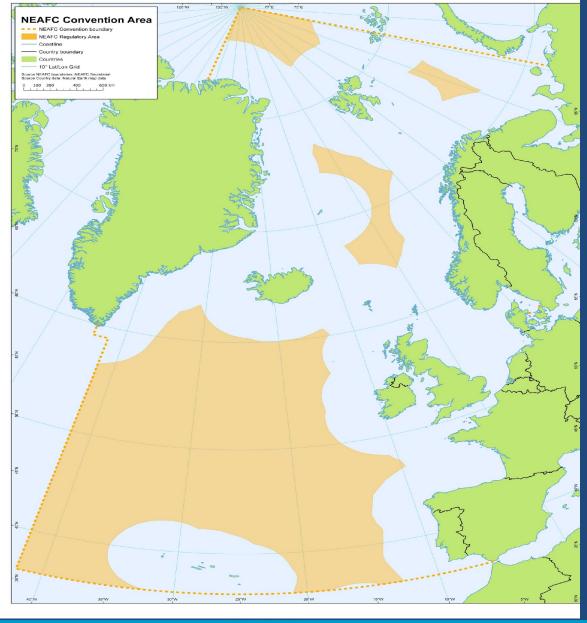




## **Summary and Conclusion**

- Compared two MPAs:
  - No-take, State managed.
  - Zoned, ABNJ, RFMO managed
- Different objectives and resources available which largely dictate the MCS tools that can be used
- Satellite based 'emerging' technologies have proved to be effective when used in conjunction with other MCS tools (patrol vessel).
- No single solution and most tools should be used in combination
- Funding...





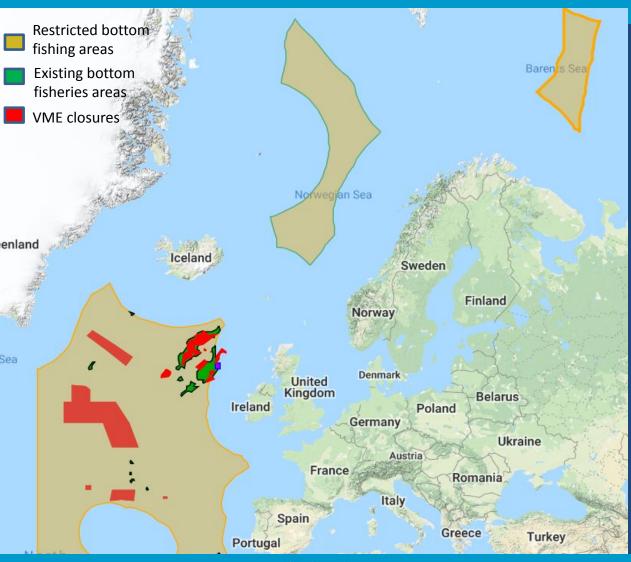
#### MCS in conservation enforcement

Dr. Darius Campbell Secretary of NEAFC

**NEAFC** 



#### A measure focused on conservation of living marine resources



- Continued fishing in (green) existing bottom-fisheries areas
- VME Bottom fishing closures (red)
- Restricted bottom fishing areas only to open after assessment (buff).



## Monitoring and Enforcing Bottom Fisheries Areas

Vessel Monitoring System

Port State Control

Control of non-Contracting Parties

Illegal Unreported and Unregulated fishing lists

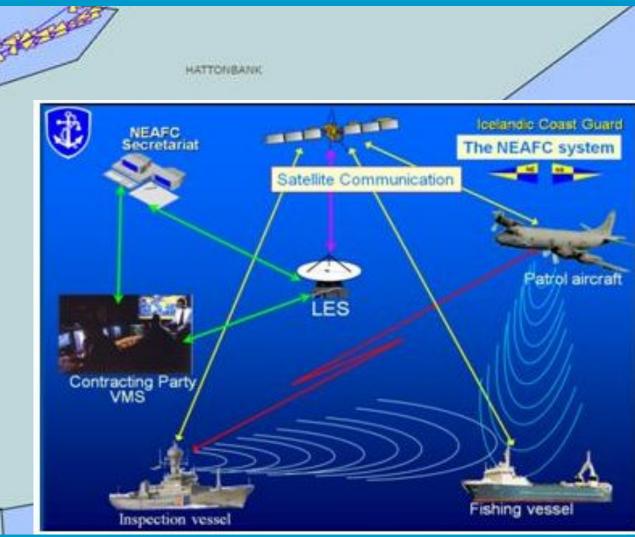
Electronic Reporting System

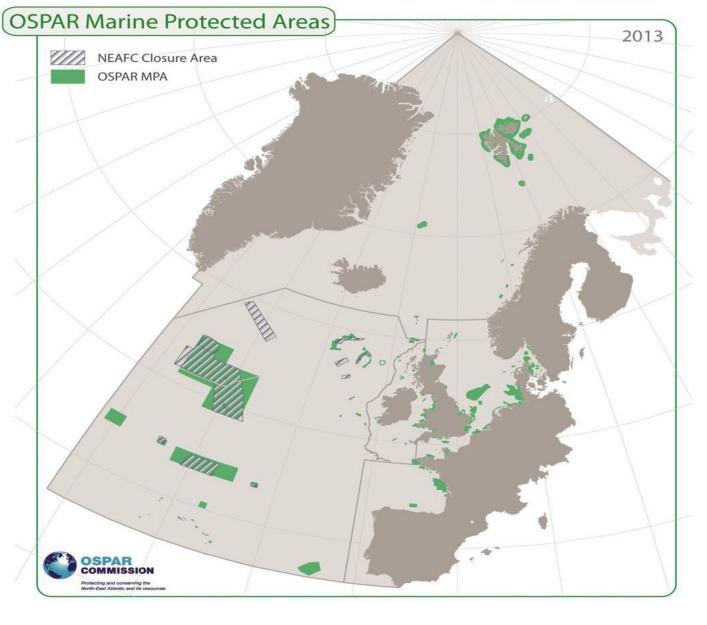
Automated catch and transhipment reporting

Joint surveillance

Inspection at Sea and Ports

Electronic Log books and reporting





**NEAFC and OSPAR:** 

Overlap of area based designations.

Key measure: bottom

fisheries



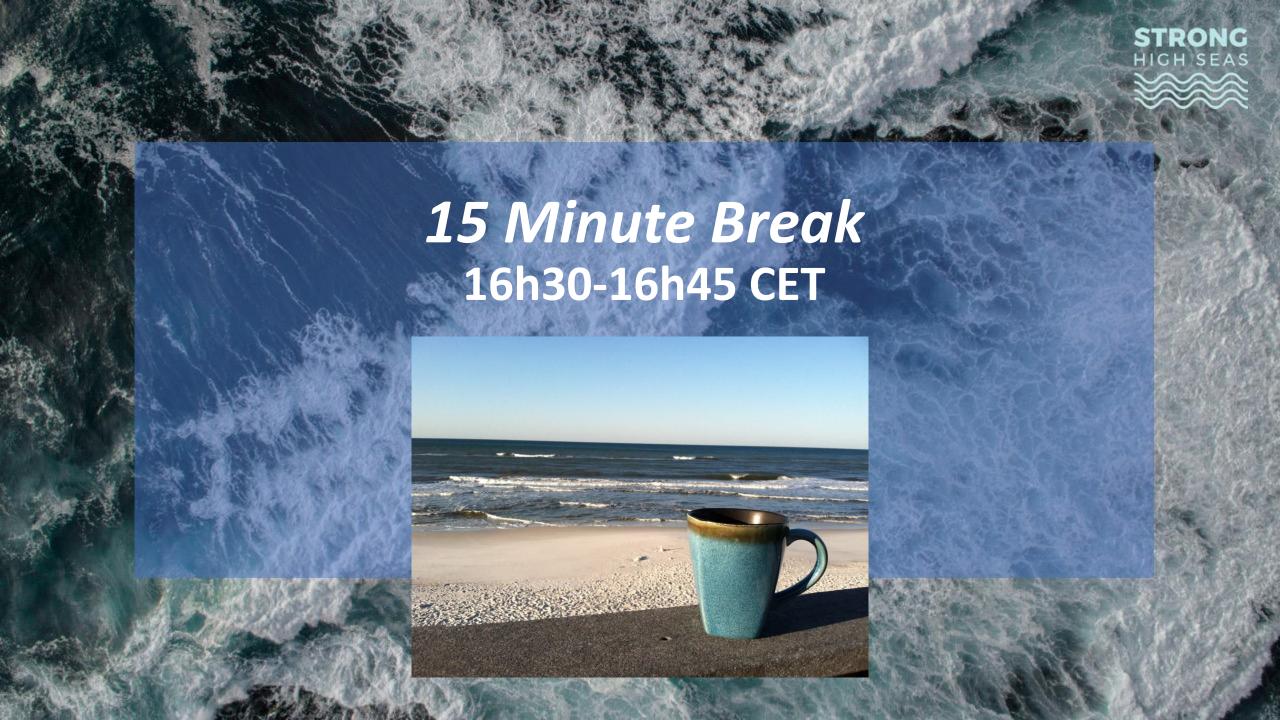


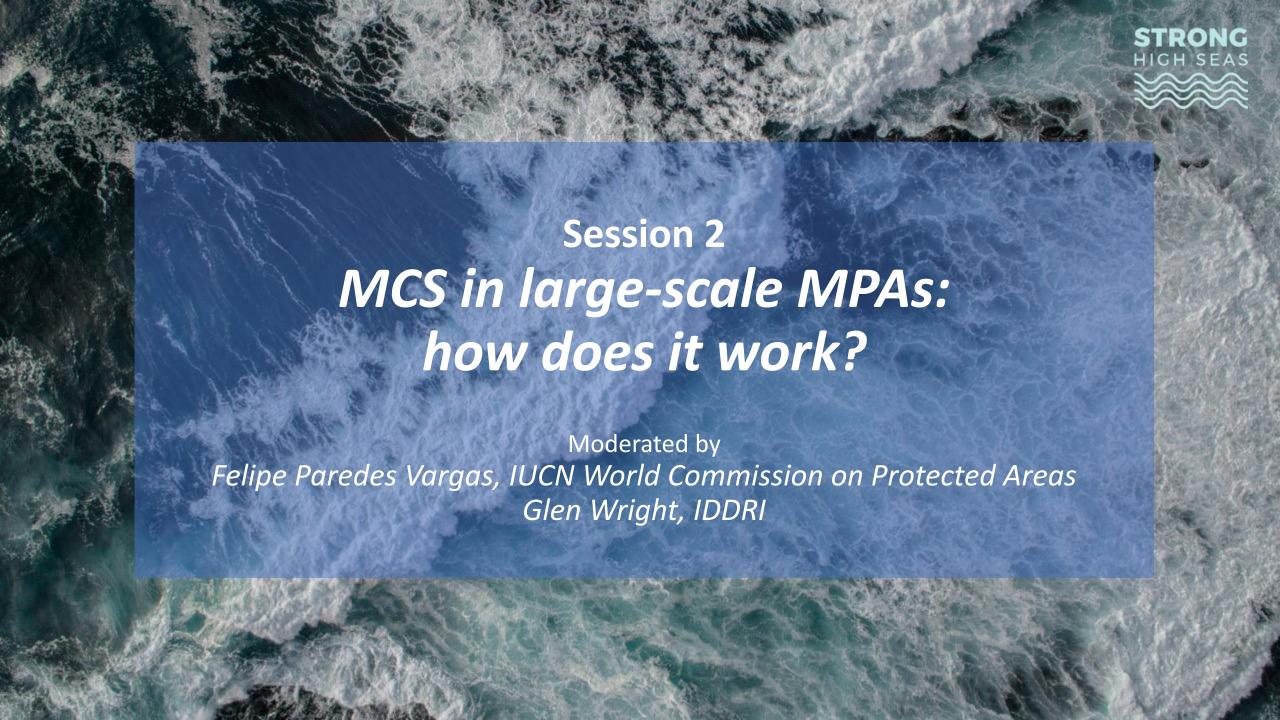
Thank You

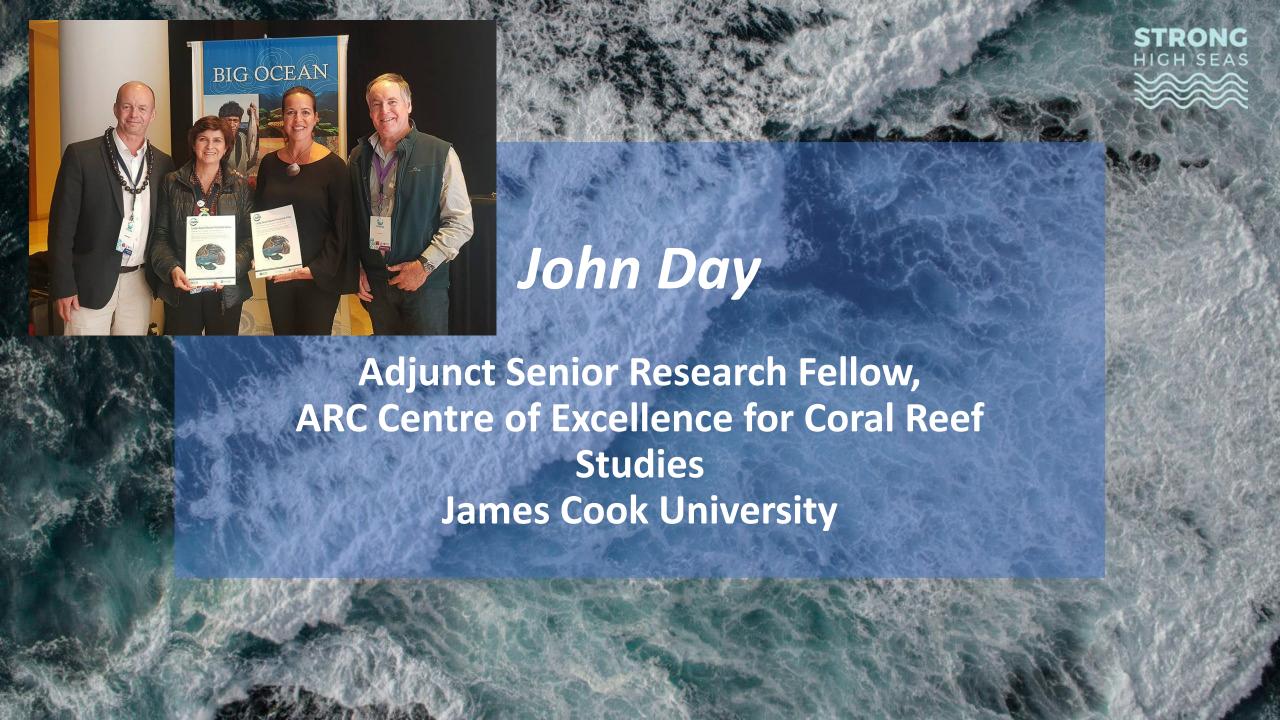
www.neafc.org

**NEAFC** 

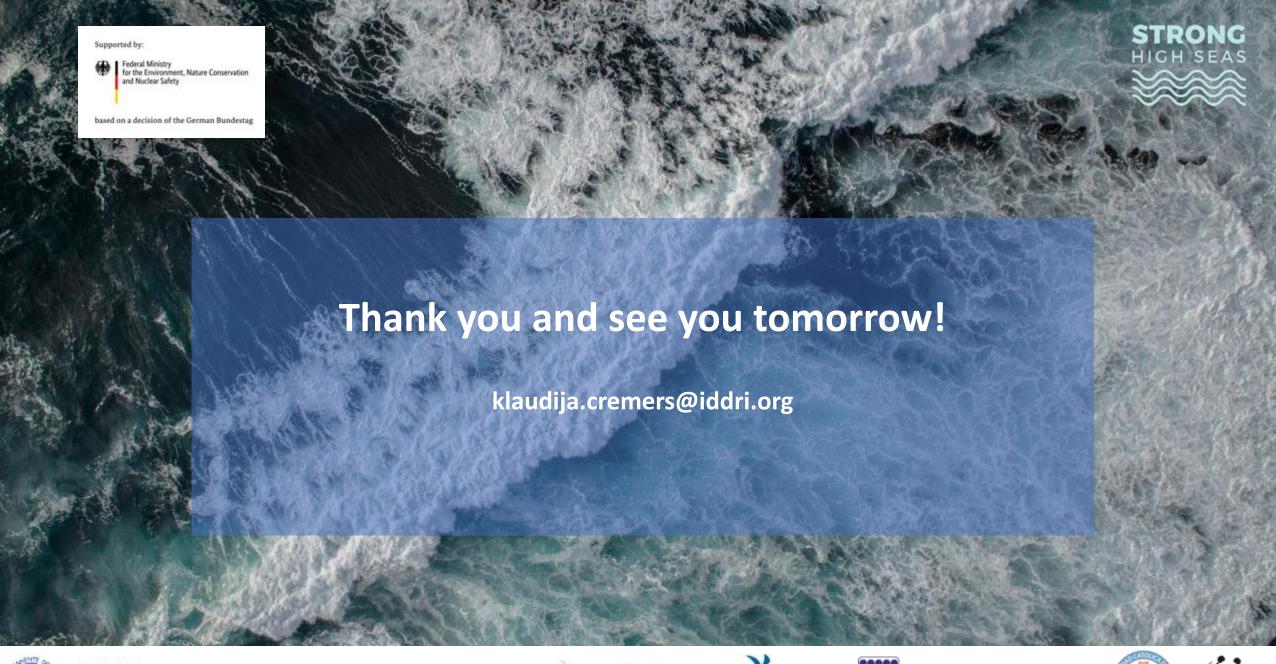


















































## Housekeeping

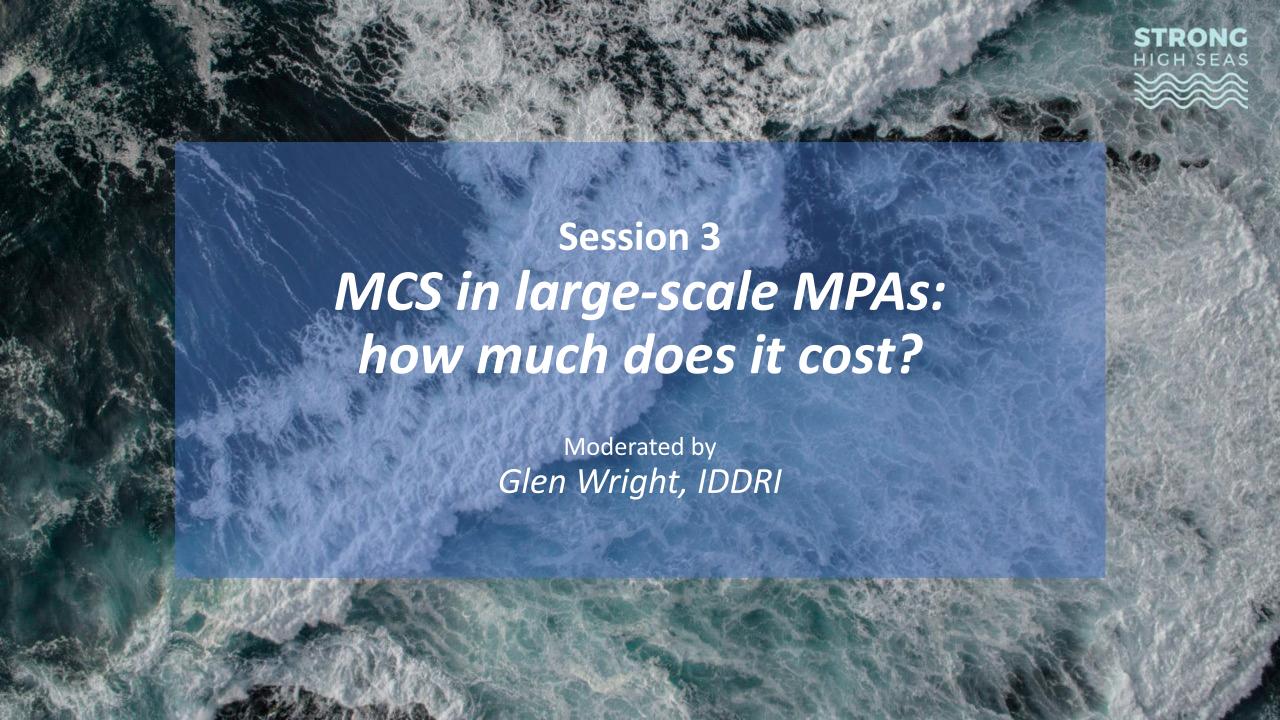


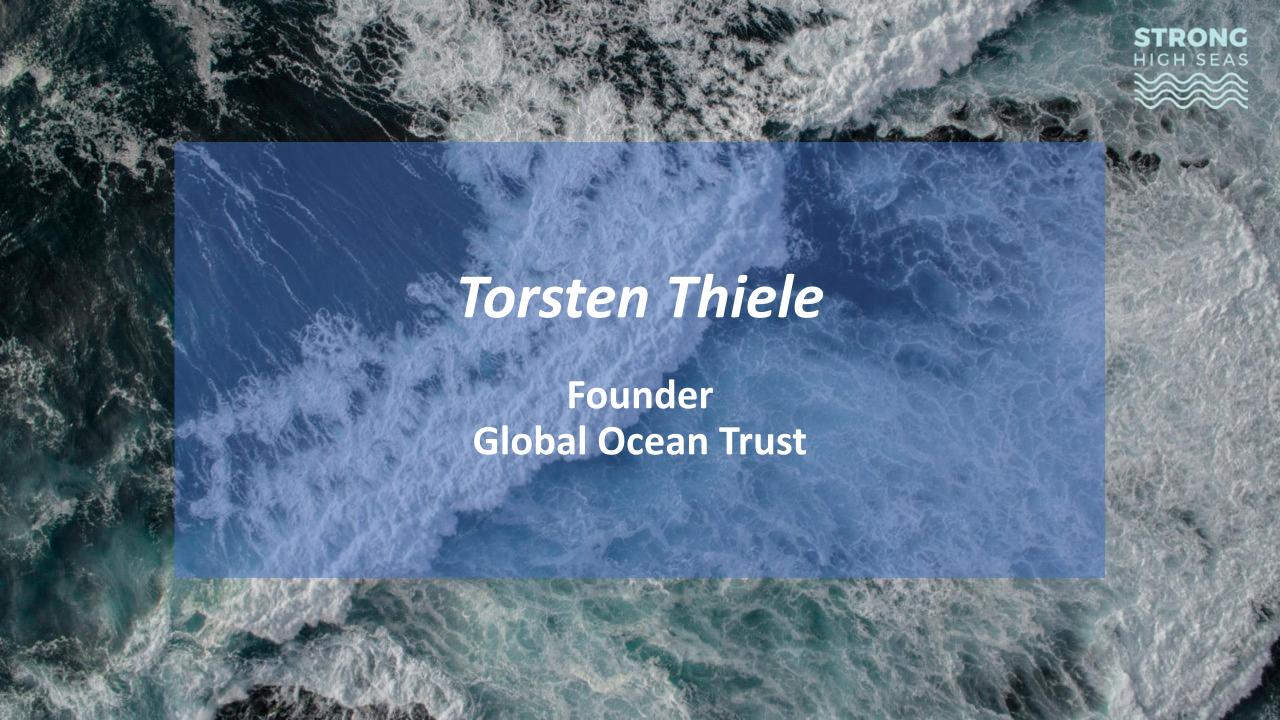
#### Don't forget to:

- Mute your microphone when not speaking
- Turn on your camera if possible
- Raise your hand before taking the floor
- Update your display name so we know who's who

#### **Chatham House rule:**

Participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed





# Financing Options for Marine Protected Areas in the High Seas

**Torsten Thiele** 

**Global Ocean Trust** 

HIGH SEAS MPA WORKSHOP, 16 February 2022



## **Setting the Scene**

- The Marine Biodiversity Finance Dilemma
- Entry points for adequate Funding:
  - Integrated data infrastructure
  - Capacity building needs
  - Ocean finance architecture
- Examples: UNFCCC and PPPs
- A cooperative approach
  - Needs assessment
  - Platform interoperability for multiple use
  - Blended finance



### Marine Biodiversity Finance Dilemma

- Marine biodiversity protection is critical to support nature, its ecosystems and humankind
- The Global Ocean Alliance champions an international commitment for a minimum 30% of the global ocean to be protected through Marine Protected Areas by 2030
- The benefits of protecting the planet's natural capital can be quantified and far exceed the cost (<a href="https://www.mckinsey.com/business-functions/sustainability/our-insights/valuing-nature-conservation">https://www.mckinsey.com/business-functions/sustainability/our-insights/valuing-nature-conservation</a>)
- There is significant global biodiversity funding (<a href="https://www.oecd.org/environment/resources/biodiversity/report-a-comprehensive-overview-of-global-biodiversity-finance.pdf">https://www.oecd.org/environment/resources/biodiversity/report-a-comprehensive-overview-of-global-biodiversity-finance.pdf</a>)
- But there remains a large biodiversity finance gap
   (<a href="https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE\_Full-Report\_Final-with-endorsements\_1014\_20.pdf">https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE\_Full-Report\_Final-with-endorsements\_1014\_20.pdf</a>)
- Yet the specific marine biodiversity finance needs to achieve the objectives of the BBNJ Agreement including MCS have not been specifically assessed and funding proposed seems insufficient to deliver adequate, effective and lasting protection and management

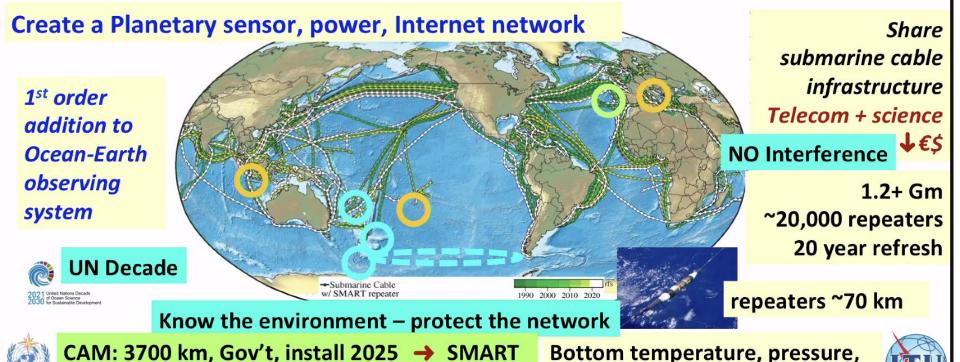




### **SMART Subsea Cables**



Global Array: Climate, Oceans, Sea Level, Earthquakes, Tsunamis



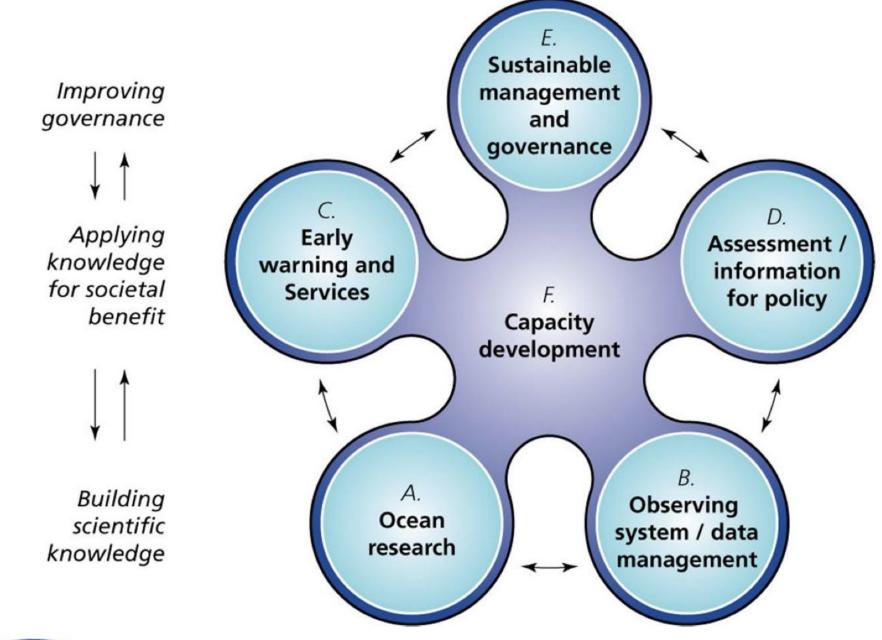


CAM: 3700 km, Gov't, install 2025 -> SMART Continent/Lisbon-Azores-Madeira ring

seismic acceleration



Howe BM, Angove M, Aucan J, Barnes CR, Barros JS, Bayliff N, Becker NC, Carrilho F, Fouch MJ, Fry B, Jamelot A, Janiszewski H, Kong LSL, Lentz S, Luther DS, Marinaro G, Matias LM, Rowe CA, Sakya AE, Salaree A, Thiele T, Tilmann FJ, von Hillebrandt-Andrade C, Wallace L, Weinstein S and Wilcock W (2022) SMART Subsea Cables for Observing the Earth and Ocean, Mitigating Environmental Hazards, and Supporting the Blue Economy. Front. Earth Sci. 9:775544. doi: 10.3389/feart.2021.775544 https://www.frontiersin.org/articles/10.3389/feart.2021.775544/full









# BBNJ Economics and Finance

#### Message 1:

#### Finance offers a way to reflect natural capital economics

The ocean is a complex environment that provides numerous ecosystem services. A holistic accounting system based on true cost and natural wealth can help to capture impacts on ecosystem resilience of human activities and identify potential economic benefits of protection measures. Its application shows that an upfront investment into marine conservation in the High Seas is not only urgently required but also cost-effective. The cost of inaction and of the resulting further degradation vastly exceed the cost of intervention, as biodiversity and abundance are critical to ecosystem services.

#### Message 2:

#### Finance is key to deliver the infrastructure required for robust BBNJ implementation

Targeted BBNJ finance is critical to help put in place the physical and institutional infrastructure that can help deliver the ambition required of the BBNJ treaty. By designing this infrastructure in a way to deliver comprehensive coverage of sea-basins, operational benefits for multiple users and solid opportunities for capacity building, a robust, forward-looking system can be put in place that engages a broad range of stakeholders. The resulting efficiencies in infrastructure design can not only defray costs but also lead to a range of potential future revenue streams, that can help raise additional funding and repay some of the infrastructure cost over time.

Global Ocean Trust Policy Brief: BBNJ Economics and Finance

1 3

#### Message 3: Generating benefits to all

The BBNJ regime should deliver on a mandate that generates benefits to all, with foresight and be responsive to the concerns and priorities of all stakeholders, including indigenous and civil society actors as well as future generations. A holistic approach to the finance challenge can help to support this ambition. The critical aspect of capacity building can thus be addressed for the benefit of an ambitious roll-out of the future treaty instrument. The technology transfer/knowledge sharing can be significantly facilitated as a result of this infrastructure.

#### Message 4:

A tailored BBNJ finance mechanism such as an Ocean Sustainability Bank should be considered

This policy brief argues that a financing approach can be designed to help efficiently deliver the required high seas ecosystembased marine protection measures. This can be achieved by proactively engaging a wide range of partners and stakeholders so as deliver a broad range of benefits and thus potential revenues. A new structure such as an Ocean Sustainability Bank could be an effective means to implementation.



### **Integrated Ocean Finance Architecture**

- The role of multilateral development banks
- Efforts on ocean risk and coastal resilience, including nature-based solutions
- Linking Ocean and Climate Finance
- Public-Private Partnership approaches
- High Seas Economics and Finance



## The UNFCCC Example

Limited Finance Mechanism via the **GEF** from the outset, followed much later by:

- A **Technology Transfer Mechanism** with two bodies: the Technology Executive Committee and the Climate Technology Centre and Network. \* (<a href="https://unfccc.int/ttclear/support/technology-mechanism.html">https://unfccc.int/ttclear/support/technology-mechanism.html</a>)
- The Financial Mechanism, with the Special Climate Change Fund and the Least Developed Countries Fund, the Green Climate Fund; and the Adaptation.
- The Standing Committee on Finance (SCF) as platform for stakeholders to promote linkages and coherence in the mobilization and delivery of climate finance.
- \* TEC Brief 6: Enhancing Access to Climate Technology Financing (<a href="https://unfccc.int/ttclear/misc\_/StaticFiles/gnwoerk\_static/TEC\_documents/204f400573e647299c1a7971feec7ace/ea65db0ca9264cdbaefeb272dd30b34c.pdf">https://unfccc.int/ttclear/misc\_/StaticFiles/gnwoerk\_static/TEC\_documents/204f400573e647299c1a7971feec7ace/ea65db0ca9264cdbaefeb272dd30b34c.pdf</a>)



## **Public-Private Partnership Examples**

- GAVI, The Vaccine Alliance: "Long-term commitments to Gavi in the form of direct contributions from donors and investors allow us to provide programme predictability to countries" (www.gavi.org)
- Healthy Brains Global Initiative:
- "HBGI views collaboration as a critical part of its mission to unify and mobilize resources" (www.hgbi.org)



### A cooperative approach to BBNJ Finance

- **♦** Deliver the ambition of the treaty
  - Prompt and comprehensive implementation
  - Capacity building to allow effective engagement by all signatories
  - Monitoring and enforcement mechanism in place
- ◆ Identify opportunities for new solutions
  - Developing public-private partnerships and investment cases
  - Working with sectoral and regional bodies and multilateral finance institutions
  - Using a science-based roadmap to sustainable development in ABNJ
- ◆ Provide needs-based support
  - Clear processes to identify requirements
  - Opportunity for public and private contributions
  - Broad participation and development of technology and finance



### **Points for Consideration**

- An effective BBNJ MCS regime requires adequate finance
- A cooperative approach can help to deliver broader capacity and linkage to other ocean financing efforts, including an OSB
- This could be anchored in the ILBI text through
  - A needs-based assessment for CB&TT as part of the clearing-house mechanism
  - A technology roadmap for MCS as part of ABMTs
  - A finance committee under the BBNJ COP, empowered to engage with third parties, both public and private

### References

Gjerde, KM et al (2016) **Protecting Earth's last conservation frontier: scientific, management and legal priorities for MPAs beyond national boundaries** AqC

Thiele, T & Gerber, LR (2017) Innovative financing for the High Seas. AqC

Laffoley, D, et al. (2019) **Eight urgent fundamental and simultaneous steps needed to restore ocean** health, and the consequences for humanity and the planet of inaction or delay. AqC

Claudet, J et al. (2019) A Roadmap for Using the UN Decade of Ocean Science for Sustainable Development in Support of Science, Policy, and Action. One Earth

Thiele, T et al. (2020) Towards sustainable blue infrastructure finance: Key messages. IUCN

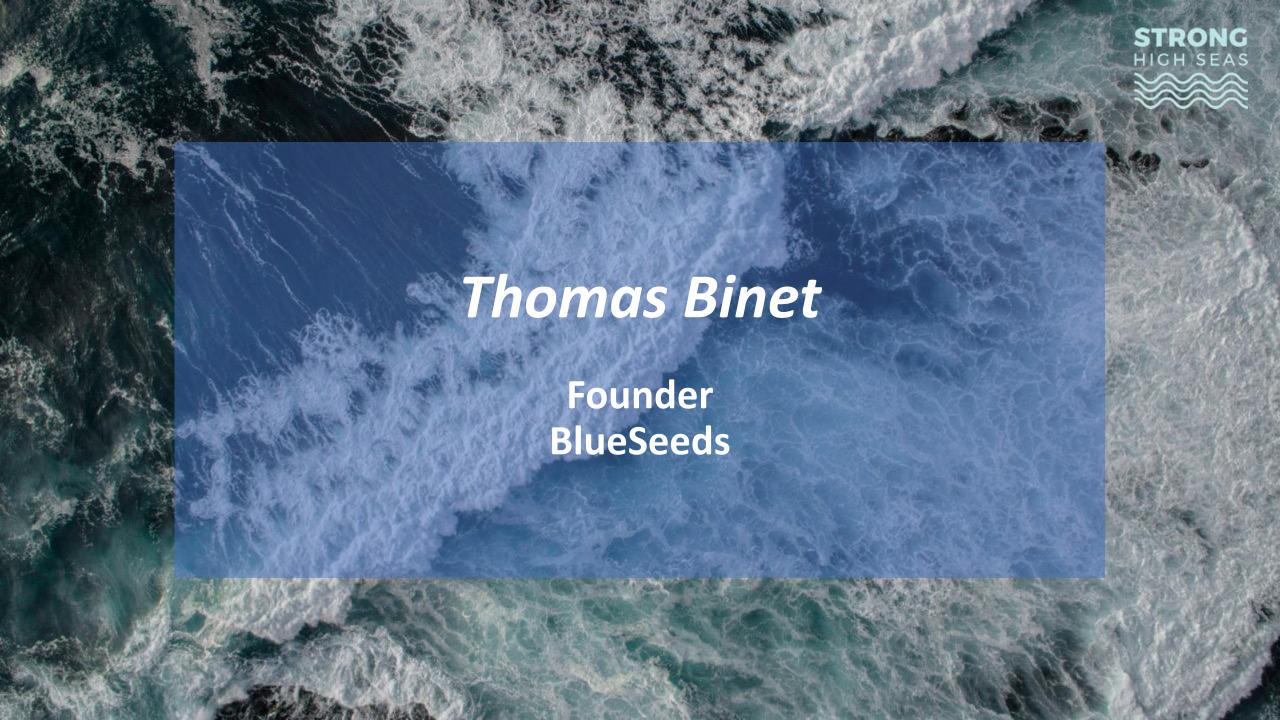
Sumaila, UR et al. (2021) Ocean Finance: Financing the Transition to a Sustainable Ocean Economy. WRI

Thiele, T (2022) **BBNJ Economics and Finance.** GOT Policy Brief.

@gOceanTrust



torsten@globaloceantrust.com





High Seas Marine Protected Areas: Vast, Remote and Costly?
Online informal workshop, 15 & 16 February 2022

Session 3: MCS in large-scale MPAs: how much does it cost?

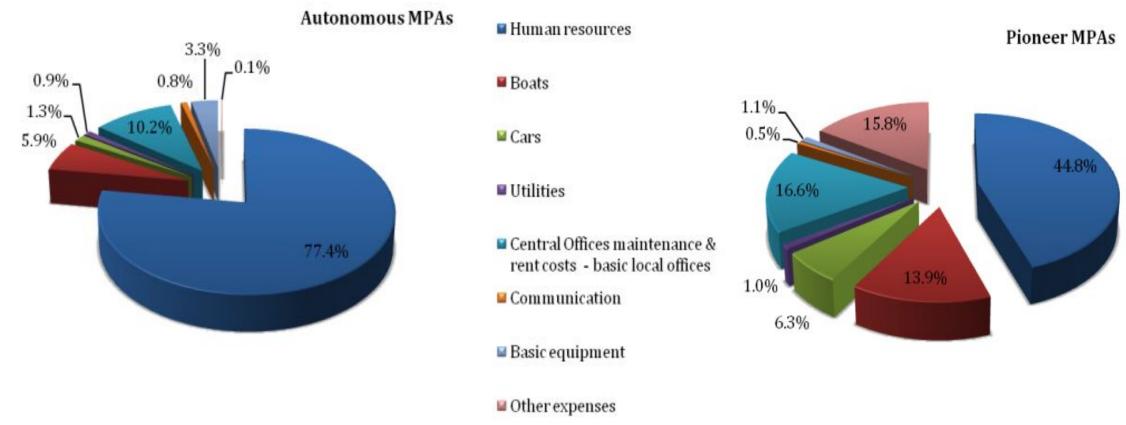
Thomas Binet, <a href="mailto:thomasbinet@blueseeds.org">thomas Binet</a>, <a href="mailto:tho



## **Breakdown of operating costs**

Distribution of staff and non-staff operating costs

Human resources are the main operating cost of MPAs.

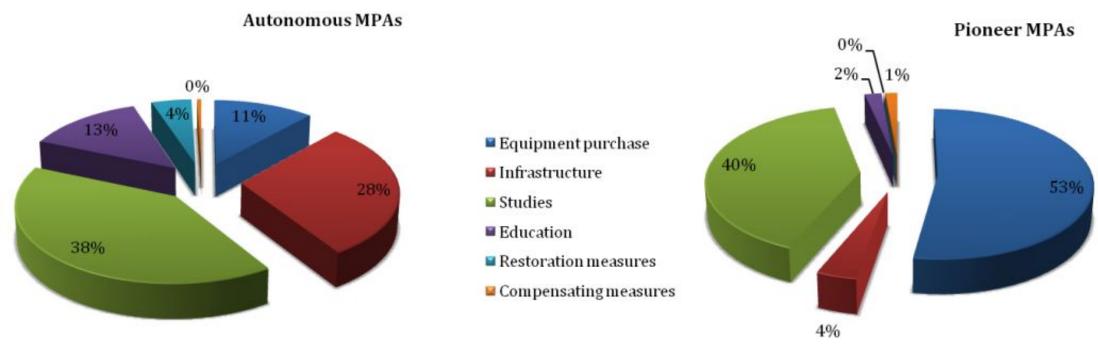


Binet, T., Diazabakana, A., Hernandez, S. 2015. Sustainable financing of Marine Protected Areas in the Mediterranean: a financial analysis. Vertigo Lab, MedPAN, RAC/SPA, WWF Mediterranean. P46-47

### **Investments**

Distribution of investments for MPAs

- Investments are mostly made for the development and updating of scientific studies, infrastructure outlays and equipment purchase
- Pioneer MPAs have **lower investments for infrastructure**, but **equipment** represents a larger investment



Binet, T., Diazabakana, A., Hernandez, S. 2015. Sustainable financing of Marine Protected Areas in the Mediterranean: a financial analysis. Vertigo Lab, MedPAN, RAC/SPA, WWF Mediterranean. P47-48



## **Breakdown of operating costs**

Surveillance costs

Distribution of the estimated annual cost of the french marine protected areas network

Surveillance (suivi et contrôle)

Études, expertise

37,6

Interventions

36,3

Sensibilisation

25,8

TOTAL

170

French Ministry of Ecological Transition. (2015). Stratégie nationale de création et de gestion des aires marines protégées. p17

Coût annuel

## MPA revenues: Med EU/non-EU example

- ☐ The main sources of funding for MPAs come from **government budgets** (50 to 90 %) and regional/local public contribution contribution decreasing when more mature
- ☐ International donors are 2<sup>nd</sup> source of revenues
- ☐ Self-generated revenues are the second largest source of funding for the autonomous MPAs (but represent only 10% of total funds).



Thank you! <u>www.bluseeds.org</u> <u>thomasbinet@blueseeds.org</u>

BlueSeeds empowers marine conservation



## Closing the financial gap

- Closing the financial gap: optimising the cost/revenue ratio by reducing costs, diversifying sources of revenues and implementing new financing mechanisms
- New financing mechanisms:
  - Visitor fees
  - Concessions fees
  - Mooring management
  - Pre –financing facility for small-scale fishers



## Financial gap

#### On a global scale:

- The gap between what is needed to sustainably manage biodiversity and maintain the integrity of Earth's ecosystems, compared with what is currently invested in conserving nature, is **between US\$ 598-824 billion per year**(1).
- More specifically, achieving **SDG 14 by 2030** (as defined by the **Aichi targets**) will require resources of US\$174.52 billion per year, while currently US\$25.5 billion is spent annually. This indicates a **funding gap of US\$149.02 billion** per year(2).

#### At Mediterranean level:

Estimates of the effective management needs for national MPA systems, aggregated for 14 countries in the region, show a **financing gap** (available funds minus financial needs) for **MPAs of €700M** per year to simply address effective management activities(3).

<sup>(1)</sup> Deutz A, Heal GM, Niu R, Swanson E, Townshend T, Zhu L, Delmar A, Meghji A, Sethi SA, Tobin de la Puente J (2020) Financing nature: closing the global biodiversity financing gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability. 256 pp

<sup>(2)</sup> Johansen DF, Vestvik RA (2020) The cost of saving our ocean – estimating the funding gap of sustainable development goal 14. Marine Policy, 112, 103783.

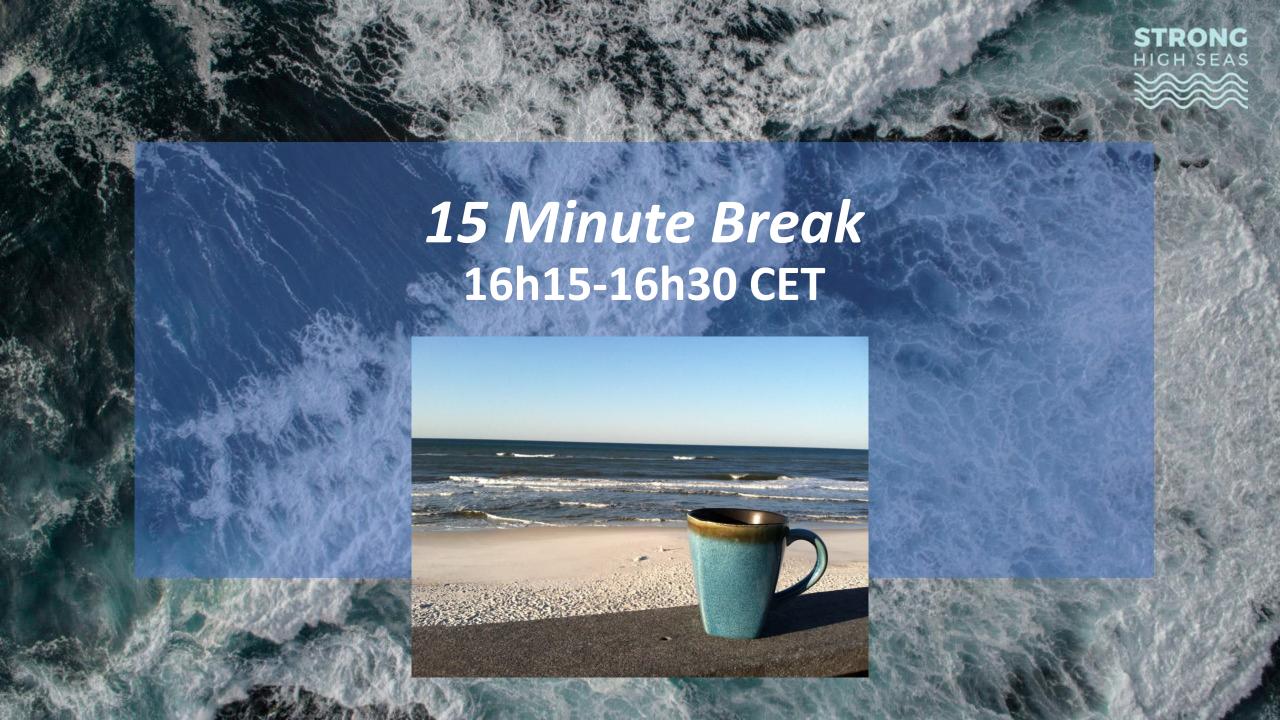
<sup>(3)</sup> Binet, T., Diazabakana, A., Hernandez, S. 2015. Sustainable financing of Marine Protected Areas in the Mediterranean: a financial analysis. Vertigo Lab, MedPAN, RAC/SPA, WWF Mediterranean. p13



## Calculating the financial gap

	2021	2022	Etc.
Reci	urrent costs		
Subtotal human resources			
Subtotal maintenance			
Subtotal local utilities			
Subtotal basic equipment			
Total recurrent costs	0	0	0
Inves	stment costs		-
Subtotal material ressources			
Subtotal studies			
Subtotal education	7		*
Subtotal remediation & compensation			
Total investment costs			
TOTAL FINANCING NEEDS			
R	levenues		
Subtotal Public and project funding			
Subtotal Funding from self-financing			
Subtotal Funding from private sector			
Subtotal Other sources of funding			
TOTAL SECURED REVENUES			
FINANCIAL GAP			

MedPLAN tool download link: http://medpan.org/marine-protected-areas/themes-2/sustainable-financing/





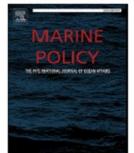




Contents lists available at ScienceDirect

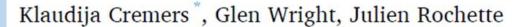
#### Marine Policy

journal homepage: http://www.elsevier.com/locate/marpol





Strengthening monitoring, control and surveillance of human activities in marine areas beyond national jurisdiction: Challenges and opportunities for an international legally binding instrument



Institute for Sustainable Development and International Relations (IDDRI), Sciences Po, Paris, France



Monitoring, control and surveillance (MCS) is critical for the success of marine conservation and management. This raises specific challenges in the deep and distant waters of marine areas beyond national jurisdiction (ABNJ), which is characterised by a fragmented governance framework and reliance on flag States to ensure control over vessels. States at the United Nations are currently negotiating an international legally binding instrument for the conservation and sustainable use of the biological diversity of marine areas beyond national jurisdiction and there is a growing interest in how MCS tools and policies can contribute to the management of this vast global commons. The paper provides some suggested pathways for strengthening MCS in ABNJ, as well as three concrete proposals for provisions that could be included in the future international instrument.







#### Three proposals to strengthen MCS through a new high seas biodiversity instrument:

- 1. Reinforcing MCS obligations and principles
- 2. Developing a strong MCS role for the clearing-house mechanism
- 3. Incorporating a MCS strategy into proposals for management measures



- 1. State of play of MCS in ABNJ
- 2. Challenges to effective MCS in ABNJ
- 3. Potential role of MCS in the BBNJ Treaty
- 4. Three proposals to strengthen MCS through the BBNJ Treaty





## 1. State of play of MCS in ABNJ



- MCS not limited to fishing activities, but can be used for a variety of contexts to promote compliance, increase transparency and contribute to the effective conservation and sustainable use of marine resources.
- Traditional approaches to MCS have been supplemented by a range of technological tools (e.g. vessel tracking systems, drones and machine learning).
- Provisions relevant to MCS in ABNJ to be found in UNCLOS, CBD, FAO Compliance Agreement, UNFSA, PSMA and IMO and ISA instruments.
- RFMOs, private sector, civil society, MCS platforms and networks all contribute to strengthening MCS in ABNJ.

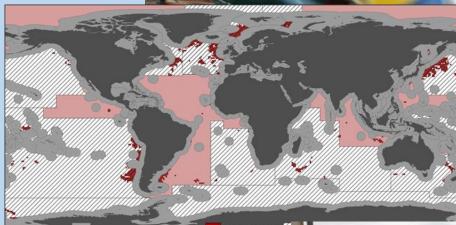
## 2. Challenges to effective MCS in ABNJ

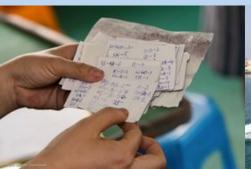


Reliance on flag State responsibility for compliance and enforcement

Limitations of the existing governance framework

**Capacity limitations** 











Gear being













### 3. Potential role of MCS in the High Seas Biodiversity Treaty



- General obligations and principles (cooperation and coordination, transparency and reporting)
- 2. Marine genetic resources
- 3. Area-based management tools
- 4. Environmental impact assessments
- 5. Capacity building and transfer of technology
- 6. Institutional arrangements and the clearing-house mechanism



→ Draft text does not: 1) explicitly and holistically address MCS, compliance and enforcement, 2) expand on the duties of flag States and 3) set out modalities for ensuring that MCS is a central part of proposals for management measures.

#### Three proposals to strengthen MCS through a new high seas biodiversity instrument:

- 1. Reinforcing MCS obligations and principles
- 2. Developing a strong MCS role for the clearing-house mechanism
- 3. Incorporating a MCS strategy into proposals for management measures

#### 1. Reinforcing MCS obligations and principles

**Why?** To Anchor MCS related-principles into the treaty.

#### How?

- Article 5 on general principles and approaches could include transparency.
- EU's proposal to include a provision on a "transparency system for benefit-sharing" in the context of MGRs (Article 13).
- Proposal of New Zealand, Australia, Canada, Norway and the PSIDS to add an article on transparency "in decision making processes and other activities carried out under this Agreement" (Article 50(bis)).
- New provision requiring States Parties to "ensure that activities under their jurisdiction or control are conducted consistently with this Agreement and measures established under relevant frameworks, instruments and bodies" (Article 53).
- New provision on compliance and enforcement requiring States to "ensure compliance with and more effective enforcement of the conservation and management measures adopted" and to "cooperate with sub-regional and regional organisations or arrangements when taking enforcement action" (Article 53).





#### 2. Developing a strong MCS role for the clearing-house mechanism

**Why?** To facilitate experience-sharing and capacity-building for MCS.

#### How?

Specifying that the clearing-house mechanism shall serve as a platform to enable States parties to have access to and disseminate information with respect to: "data on their monitoring, control and surveillance activities and best practises to match capacity-building needs" (Article 51(3)).



#### 3. Incorporating a MCS strategy into proposals for management measures

Why? To anticipate implementation issues and avoid paper parks.

#### How?

- The treaty could require States Parties to submit "a monitoring, control and surveillance strategy that specifies the technological tools and institutional frameworks available to ensure compliance with management measures" (Article 17(4)(j)).
- Requiring relevant bodies (e.g. the IMO and RFMOs) to provide information regarding their MCS activities and their possible role in enforcing ABMTs:
- Article 21(5): "The relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies **[shall] [may]** be invited to report to the Conference of the Parties on the implementation of measures that they have established **and their effectiveness**".

### Resources



- Briefing for negotiators
- Report: Strengthening MCS in ABNJ
- Webinar replay

- Regional reports:
  - Southeast Atlantic
  - Southeast Pacific

