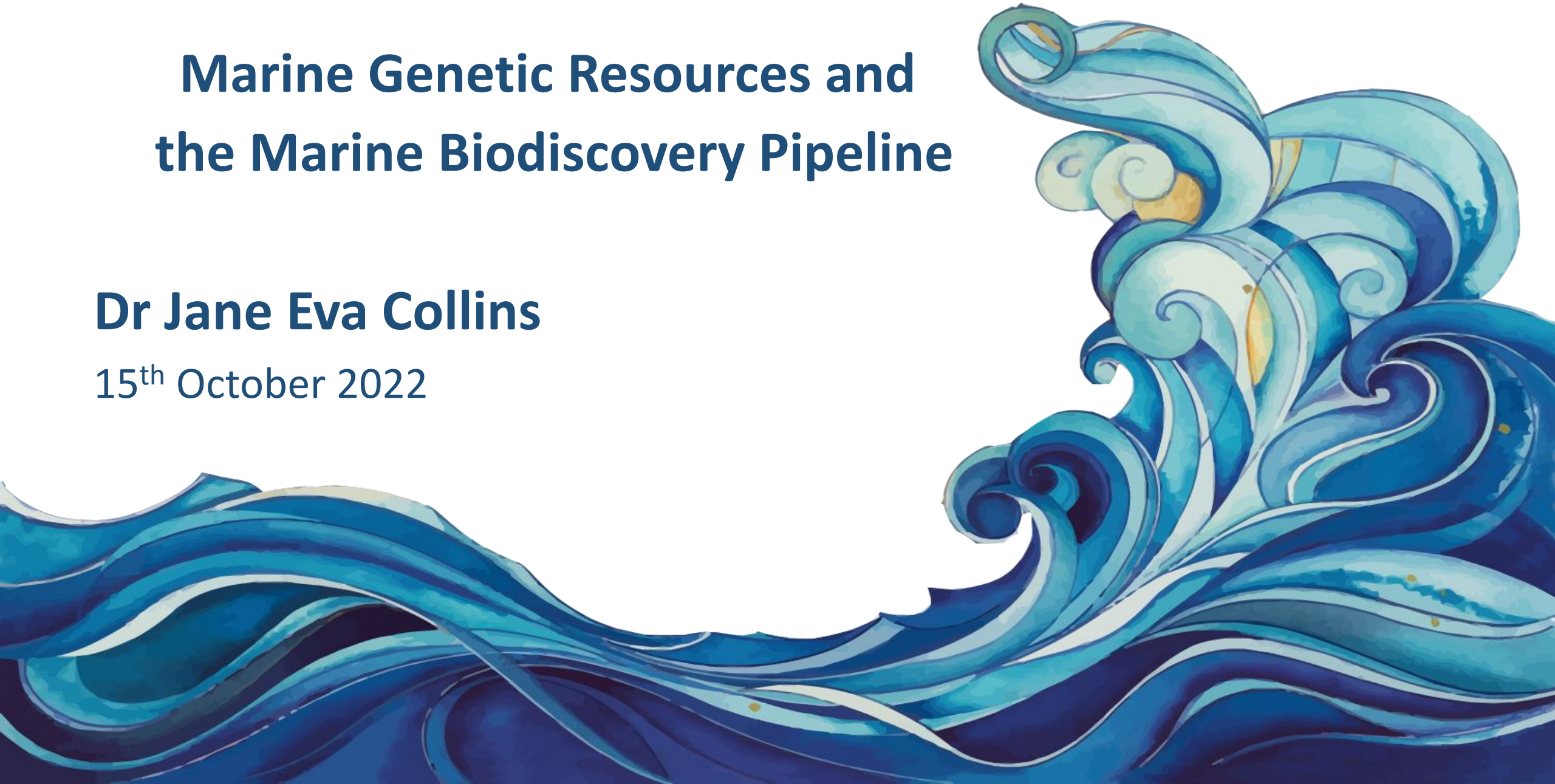


# Marine Genetic Resources and the Marine Biodiscovery Pipeline

**Dr Jane Eva Collins**

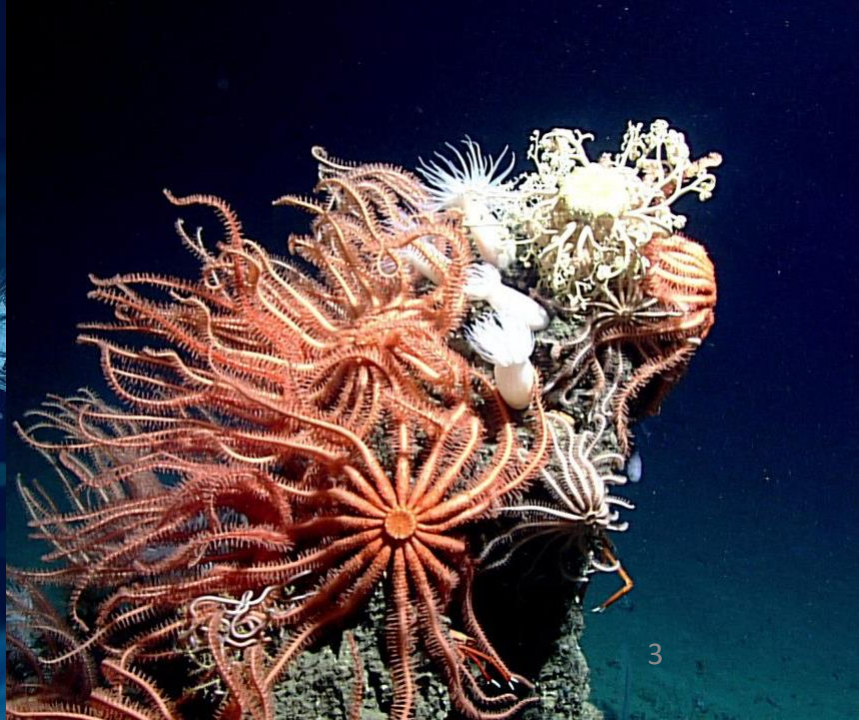
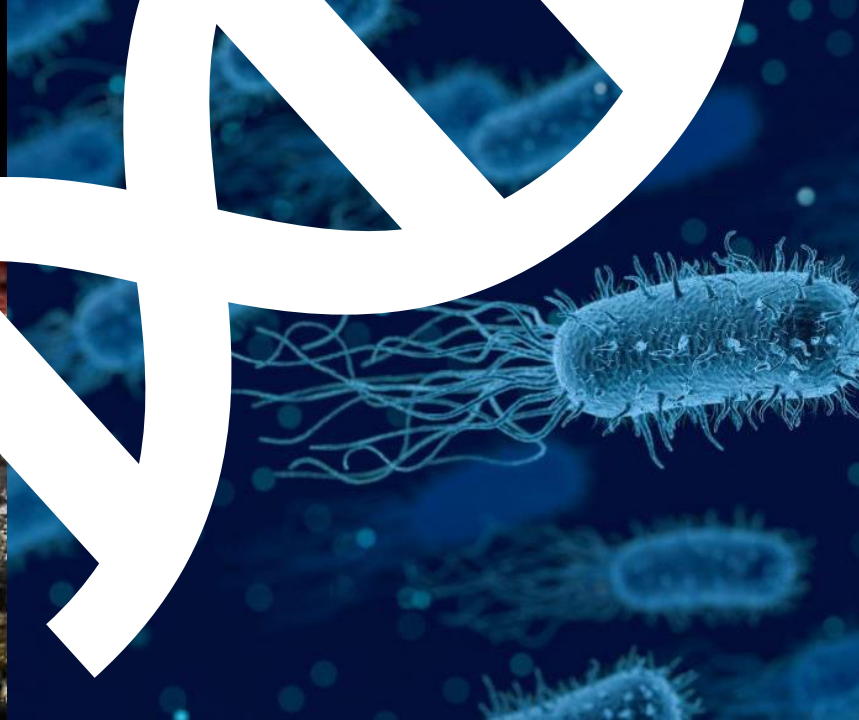
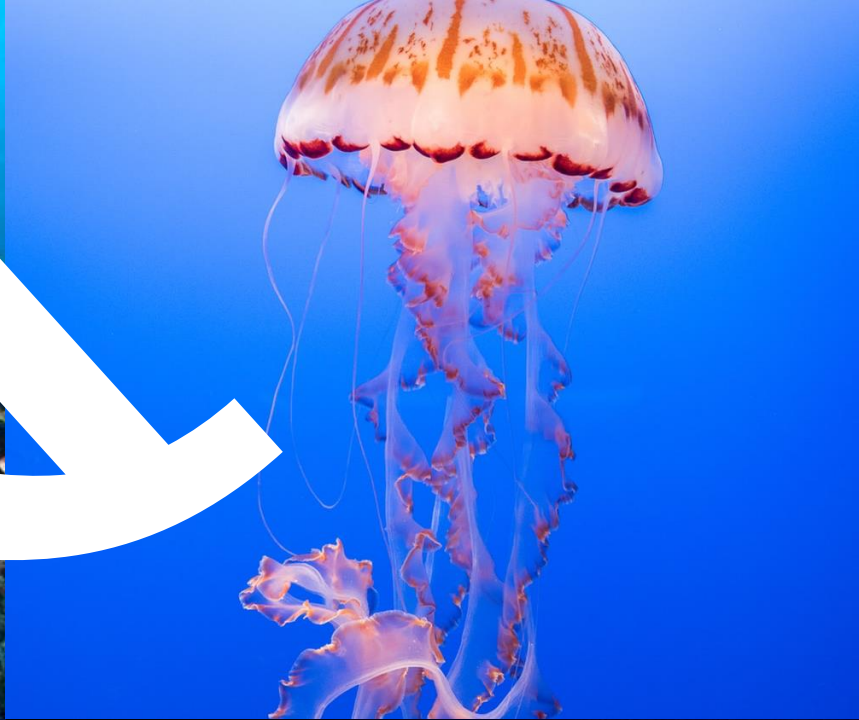
15<sup>th</sup> October 2022



# Contents

- Marine Genetic Resources (MGR)
  - Opportunities
  - Marine biodiscovery pipeline
  - Challenges
- UN Biodiversity Beyond National Jurisdiction (BBNJ) negotiations
  - Timeline
  - Elements
  - MGR part
- Resources
- Q&A



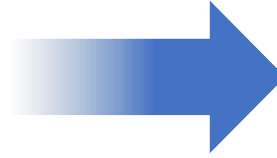




# Opportunity



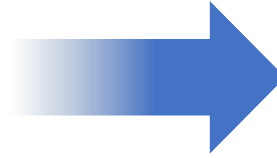
*Conus magus*/ cone snail



Prialt for chronic pain (analgesic)



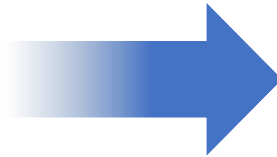
*Ecteinascidia turbidinata*/ sea squirt



Yondelis for soft tissue carcinoma

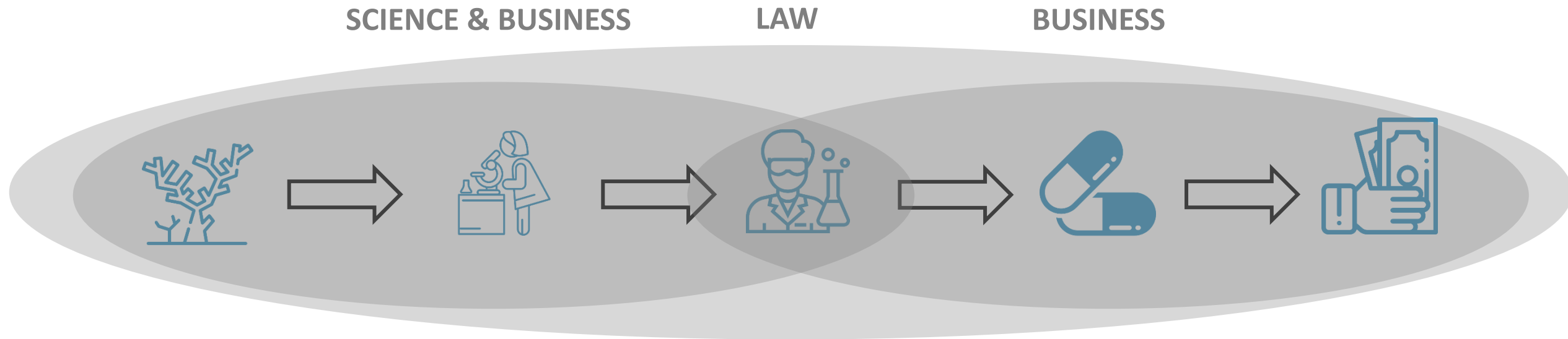


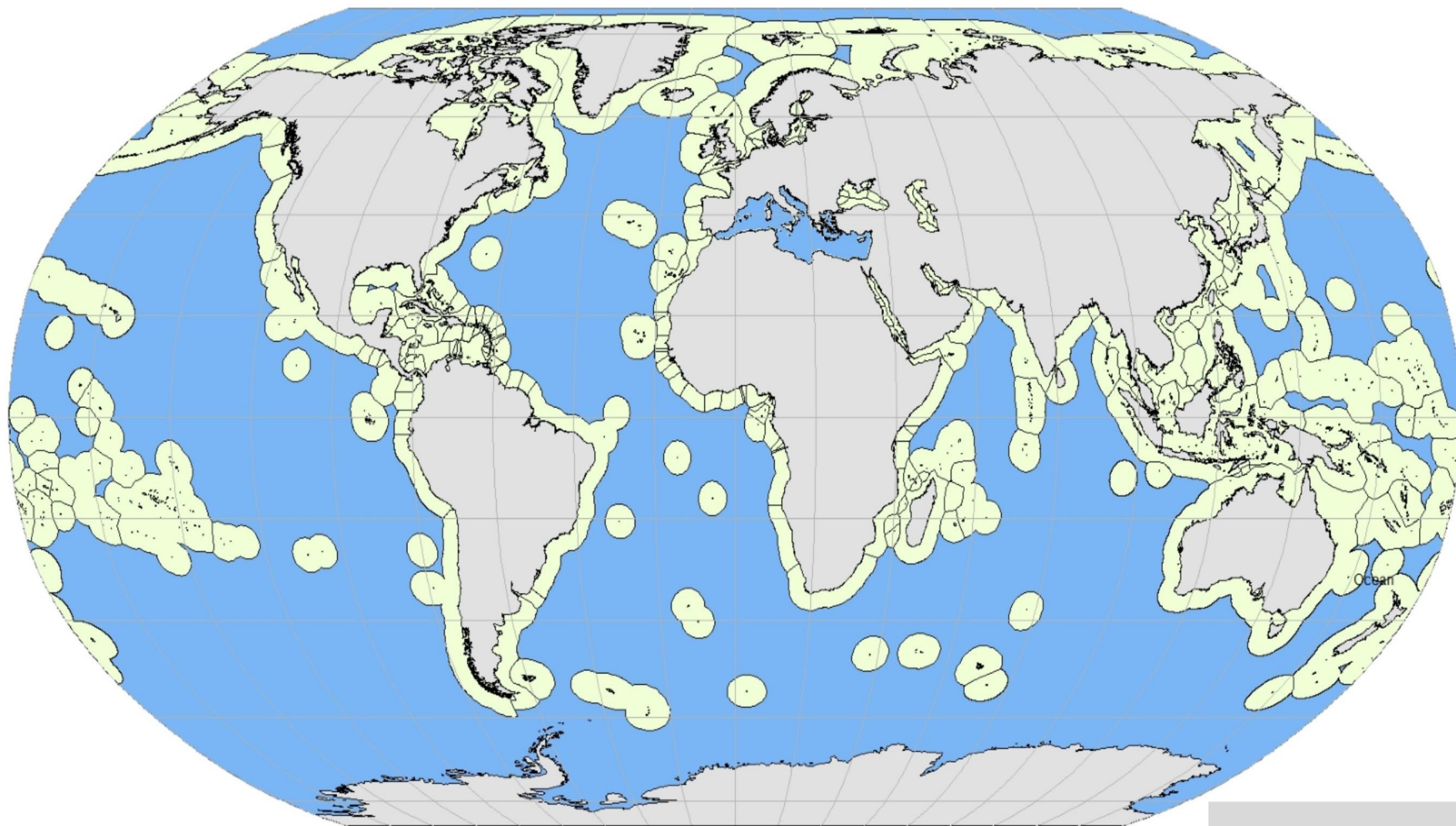
*Halichondria okadai*/ sponge




Halaven for breast cancer

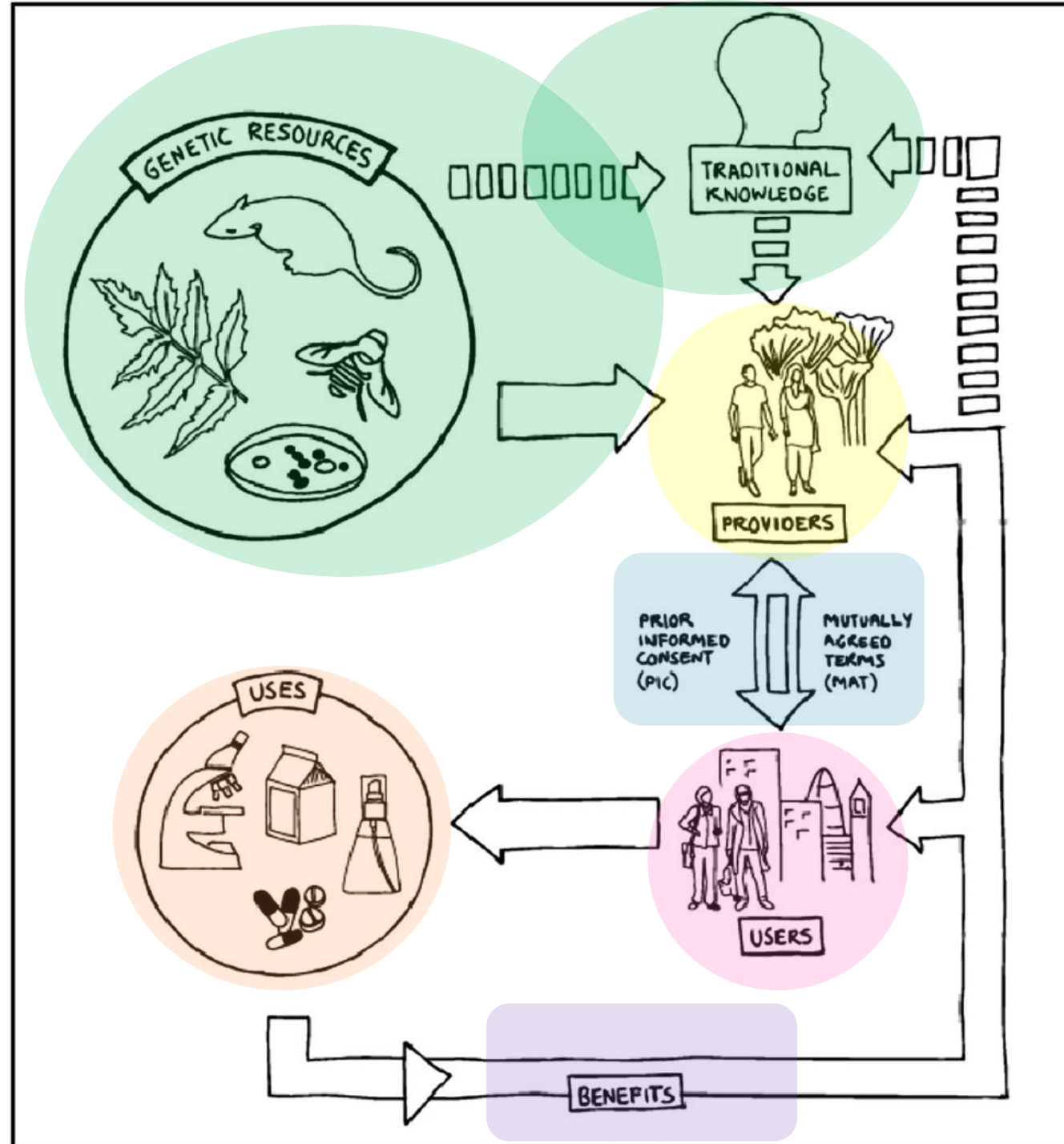
# The Marine Biodiscovery Pipeline





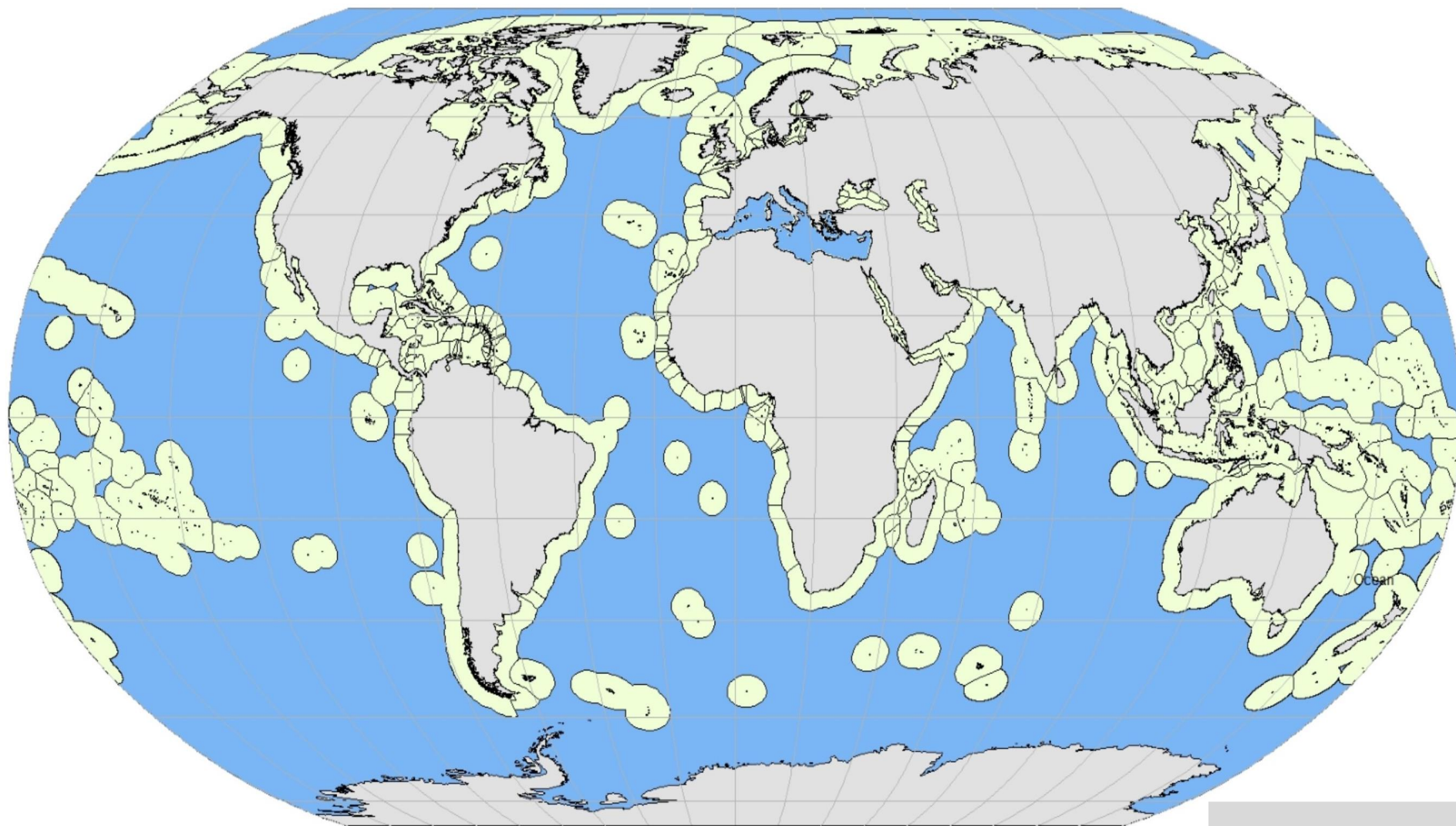
 **Areas Beyond National Jurisdiction (ABNJ)**

Access



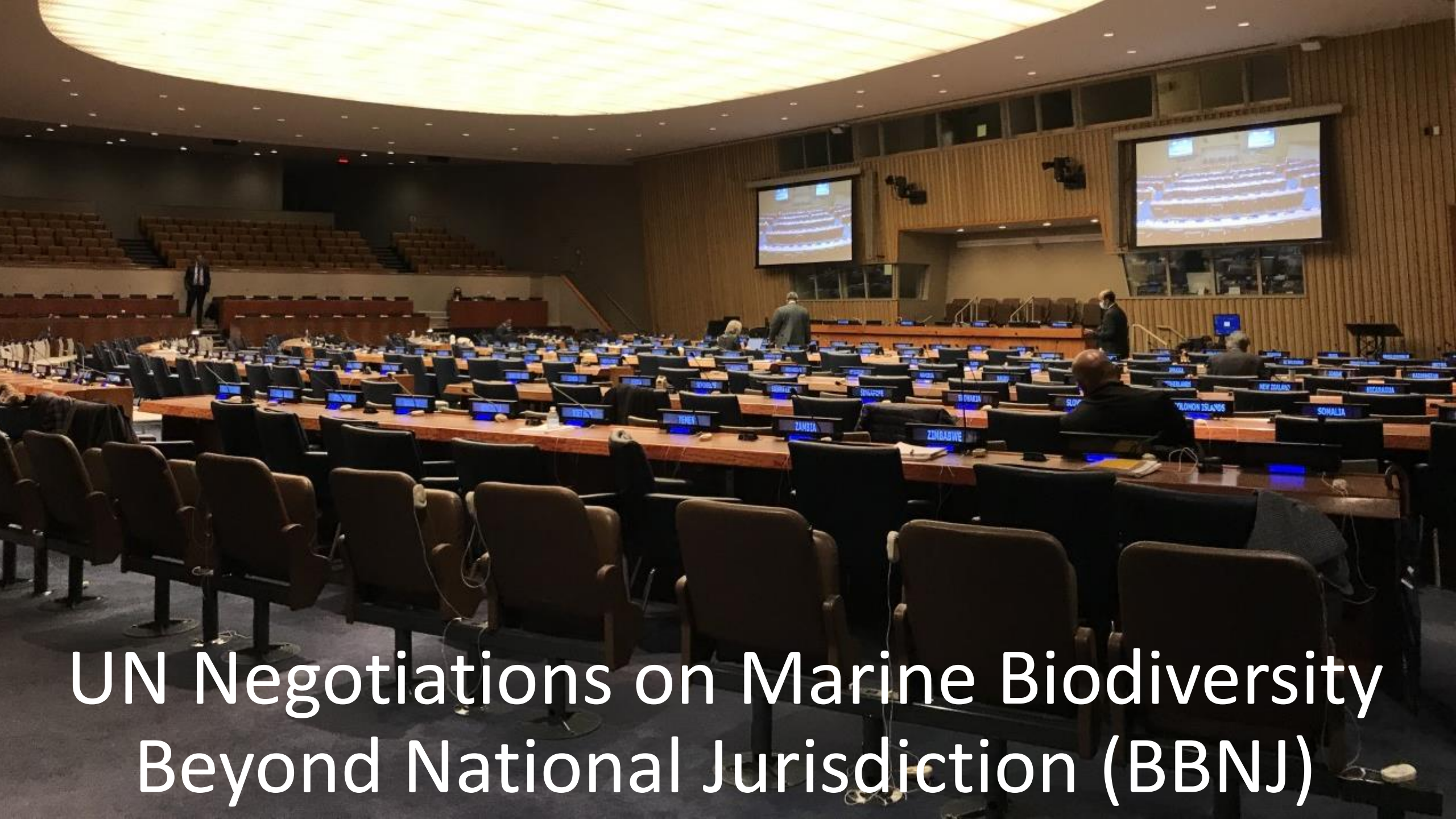
Benefit-Sharing





 **Areas Beyond National Jurisdiction (ABNJ)**





# UN Negotiations on Marine Biodiversity Beyond National Jurisdiction (BBNJ)

# UN BBNJ negotiations timeline

**1982** – Ratification of the UN Convention on the Law of the Sea (UNCLOS)

**2004** – Establishment of the Ad Hoc Open-ended Informal Working Group. Met 10 times between 2006 - 2015

**2015** – States adopted a resolution to develop an international legally binding instrument under UNCLOS on the conservation and sustainable use of BBNJ. A Preparatory Committee (PrepCom) was established. Met 4 times between 2016 - 2017

**2017** - the General Assembly convened an Intergovernmental Conference (IGC), under the auspices of the UN

**September 2018** – IGC 1

**March 2019** – IGC 2

**August 2019** – IGC 3

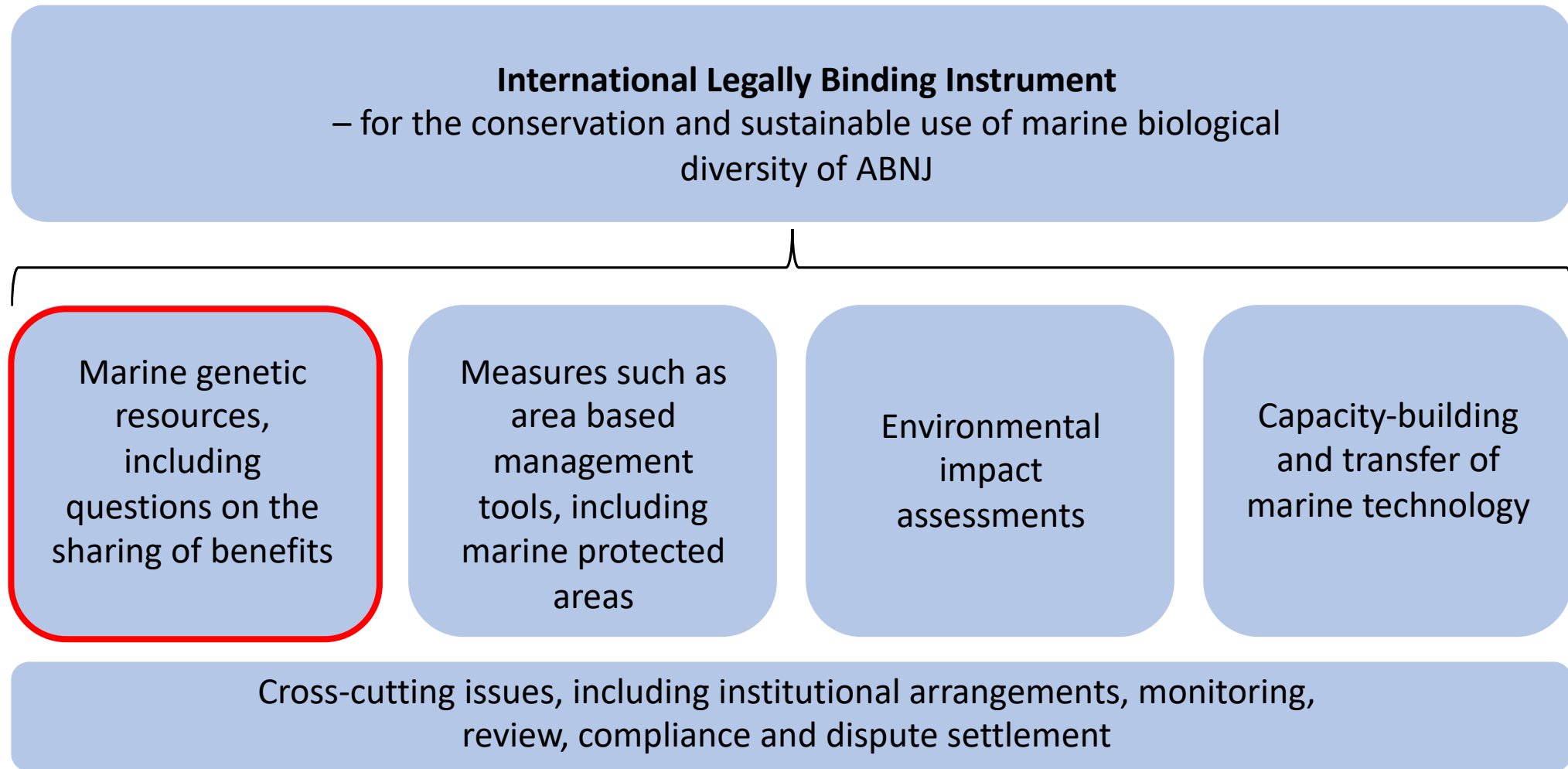
**March 2022** – IGC 4

**August 2022** – IGC 5





# Biodiversity Beyond National Jurisdiction (BBNJ) Negotiations



# Marine genetic resources, including questions on the sharing of benefits – key elements

- Definitions
- Objectives
- Scope of application
- Notification
- Fair and equitable sharing of benefits
- Traditional knowledge
- Intellectual property rights
- Monitoring and transparency





# Fifth session of the Intergovernmental Conference

15 to 26 August 2022

New York

NEW YORK

15 to 26 August 2022

INTERGOVERNMENTAL CONFERENCE







# Marine genetic resources, including questions on the sharing of benefits – elements requiring further discussion

- **Definitions**
- Objectives
- **Scope of application**
- Notification
- **Fair and equitable sharing of benefits**
- Traditional knowledge
- Intellectual property rights
- Monitoring and transparency

# Marine genetic resources, including questions on the sharing of benefits – elements requiring further discussion

- **Definitions**

- Collection
- Access *ex situ*
- Utilisation

- **Scope of application**

- Temporal scope
- Material scope

- **Fair and equitable sharing of benefits**

- Types of benefits to be shared
  - Non-monetary benefits
  - Monetary benefits



# UN BBNJ negotiations timeline

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**August 2022** – IGC 5

**?** – IGC 5bis

# Resources

## Publications

1. Collins, J.E., Rabone, M., Vanagt, T., Amon, D., Gobin, J. and Huys, I., 2021. Strengthening a Global Network of Marine Biological Collections: Recommendations for Biodiversity Beyond National Jurisdiction. *ICES Journal of Marine Science*
2. Collins, J.E., Sirakaya, A., Vanagt, T. and Huys, I., 2020. Developing a Methodology to Balance Benefit-Sharing: Application in the Context of Biodiversity Beyond National Jurisdiction. *Genetic Resources*
3. Collins, J.E., Vanagt, T. and Huys, I., 2020. Stakeholder Perspectives on Access and Benefit-Sharing for Areas Beyond National Jurisdiction. *Frontiers in Marine Science*, 7, p.265.
4. Collins, J.E., Vanagt, T., Huys, I. and Vieira, H., 2020. Marine Bioresource Development-Stakeholder's Challenges, Implementable Actions and Business Models. *Frontiers in Marine Science*, 7, p.62.
5. Collins, J.E., Harden-Davies, H., Jaspars, M., Thiele, T., Vanagt, T. and Huys, I., 2019. Inclusive innovation: Enhancing global participation in and benefit sharing linked to the utilization of marine genetic resources from areas beyond national jurisdiction. *Marine Policy*, 109, p.103696.
6. Rabone, M., Horton, T., Harden-Davies, H., Zajderman, S., Appeltans, W., Droege, G., Brandt, A., Pardo Lopez, L., Dahlgren, T.G., Glover, A. and Collins, J.E, 2019. Access to Marine Genetic Resources (MGR): raising awareness of best-practice through a new agreement for Biodiversity Beyond National Jurisdiction (BBNJ). *Frontiers in Marine Science*, 6, p.520.
7. Collins, J.E., Broggiato, A. and Vanagt, T., 2018. Blue Biotechnology. Building Industries at Sea: 'Blue Growth' and the New Maritime Economy. *River Publishers*

## Websites

1. <https://www.un.org/bbnj/>
2. <https://enb.iisd.org/marine-biodiversity-beyond-national-jurisdiction-bbnj-igc5>

Thank you for listening!

