



Accessing marine genetic resources in areas beyond national jurisdiction

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Talk Overview

- Why MGR?
- Critical aspects and current pipeline
- ABS within and beyond national jurisdiction
- Package deal at the UN Negotiation
- Actual legal regime
- Actual scientific practice
- Pragmatic approach - Building blocks
- Role of RIs

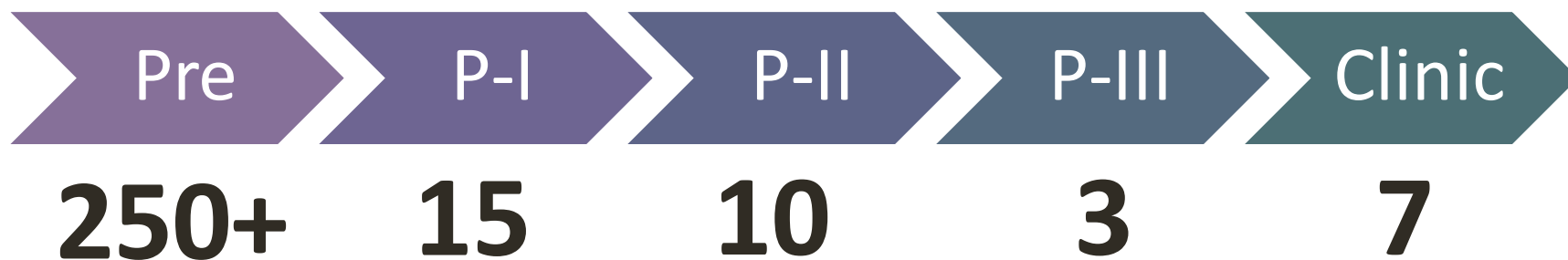
Marine Genetic Resources

- Offers advantage over comparable terrestrial resource:
Superior performance - Better economics
- Unprecedented activity in certain application
- Novel chemical structures & new mechanism of action – new properties

HOWEVER

- Little evidence of systematic commercial scale development of MGR from ABNJ to date.
- Number of patents based on organisms from ABNJ does not give certainty of the development of marketable products, but provides for commercial interest.
- Great potential but slow development so far.

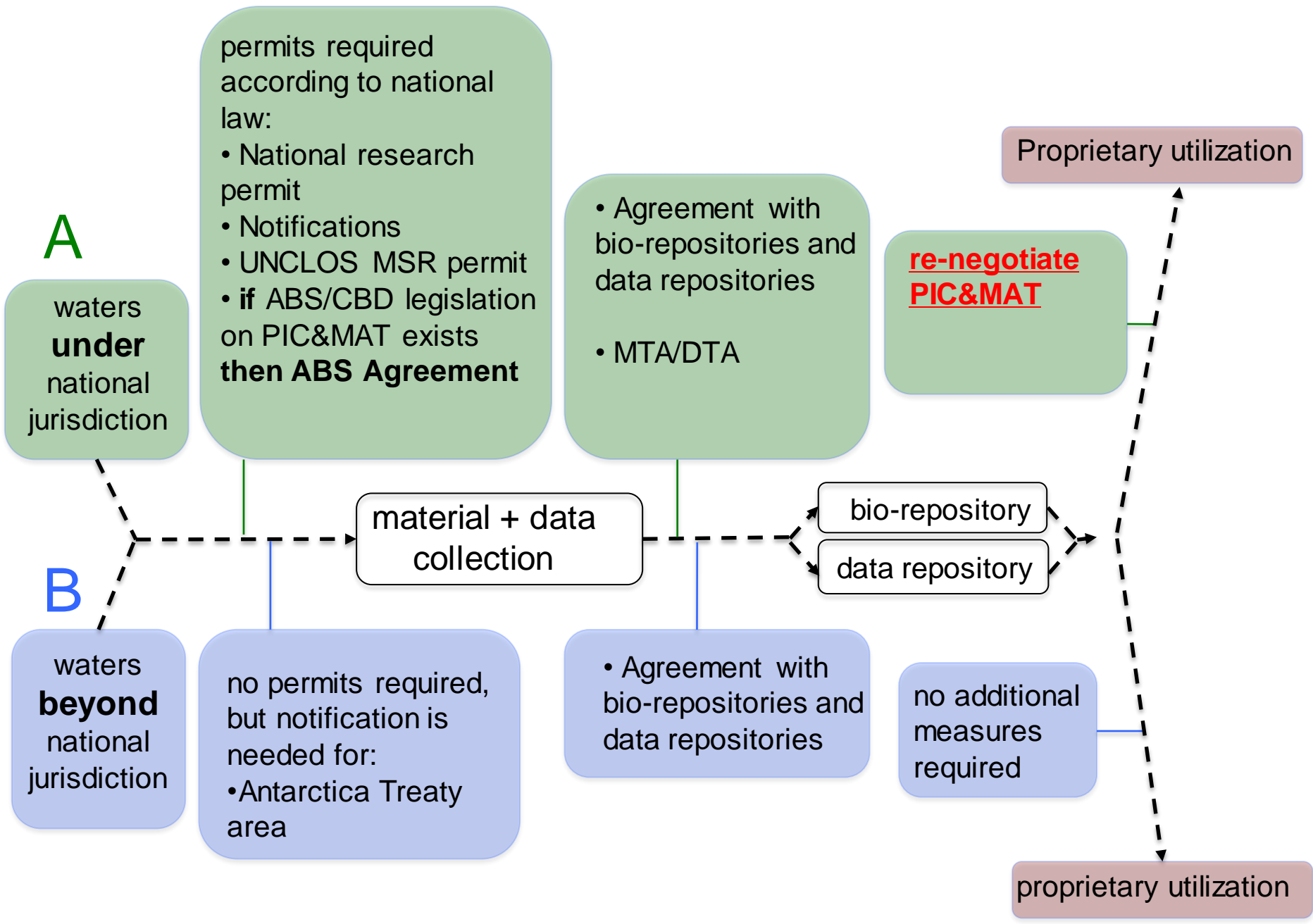
What does the current pipeline look like?



None from ABNJ – mainly reef derived

7 successful compounds came from 28,000 known marine compounds

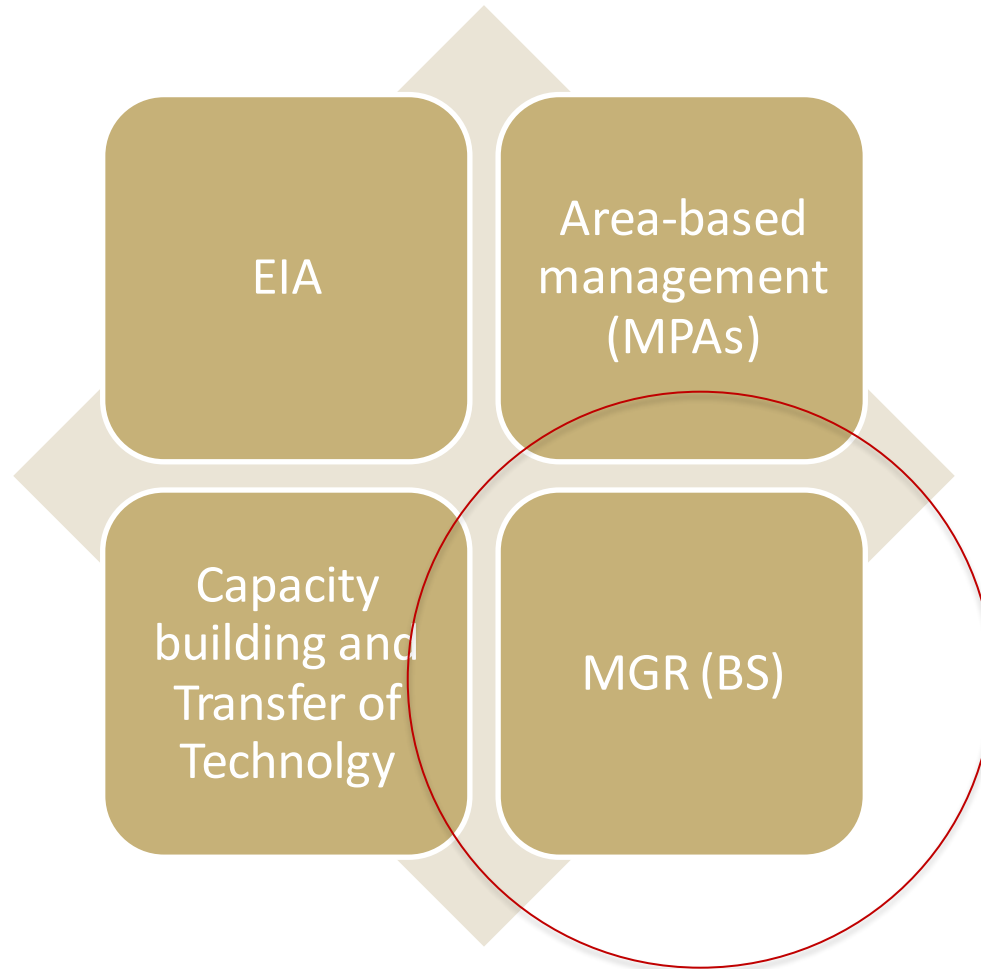
Mainly anti-cancer with a few analgesics and antivirals



Gaps between States

- Gaps between states:
 1. The cost of the marine technology (and its maintenance) to access international waters/deep-sea for sampling
 2. The scientific skills to undertake research on marine biodiversity
 3. The cost and scientific skills to undertake molecular screening and biodiversity assessment
 4. The scientific skills to analyse the data produced
- **Current uneven research capabilities of States play the biggest role in producing inequity amongst States (more than in accessing the resources)**

Package deal at the UN Negotiation of an Implementing Agreement to UNCLOS



What are the issues with MGR in ABNJ?

- Applying principle: CHM versus FHS
- Definitions: what *are* MGR?
- Geographical scope: Area, High Seas, OCS
- Material scope: *in situ*, *ex situ* and/or *in silico*
- Material scope: derivatives and data
- Benefit Sharing: non-monetary and monetary

ABS of MGR in ABNJ: starting points

- For scientist, it is about facilitated access
- For industry, it is about legal certainty, stability and predictability. Risk management is more important than *free* or *cheap*!
- For scientist in developing countries, it is about:
 - Decision making
 - Access to *ex situ* material
 - Access to *in silico* data
 - Capacity building and knowledge transfer

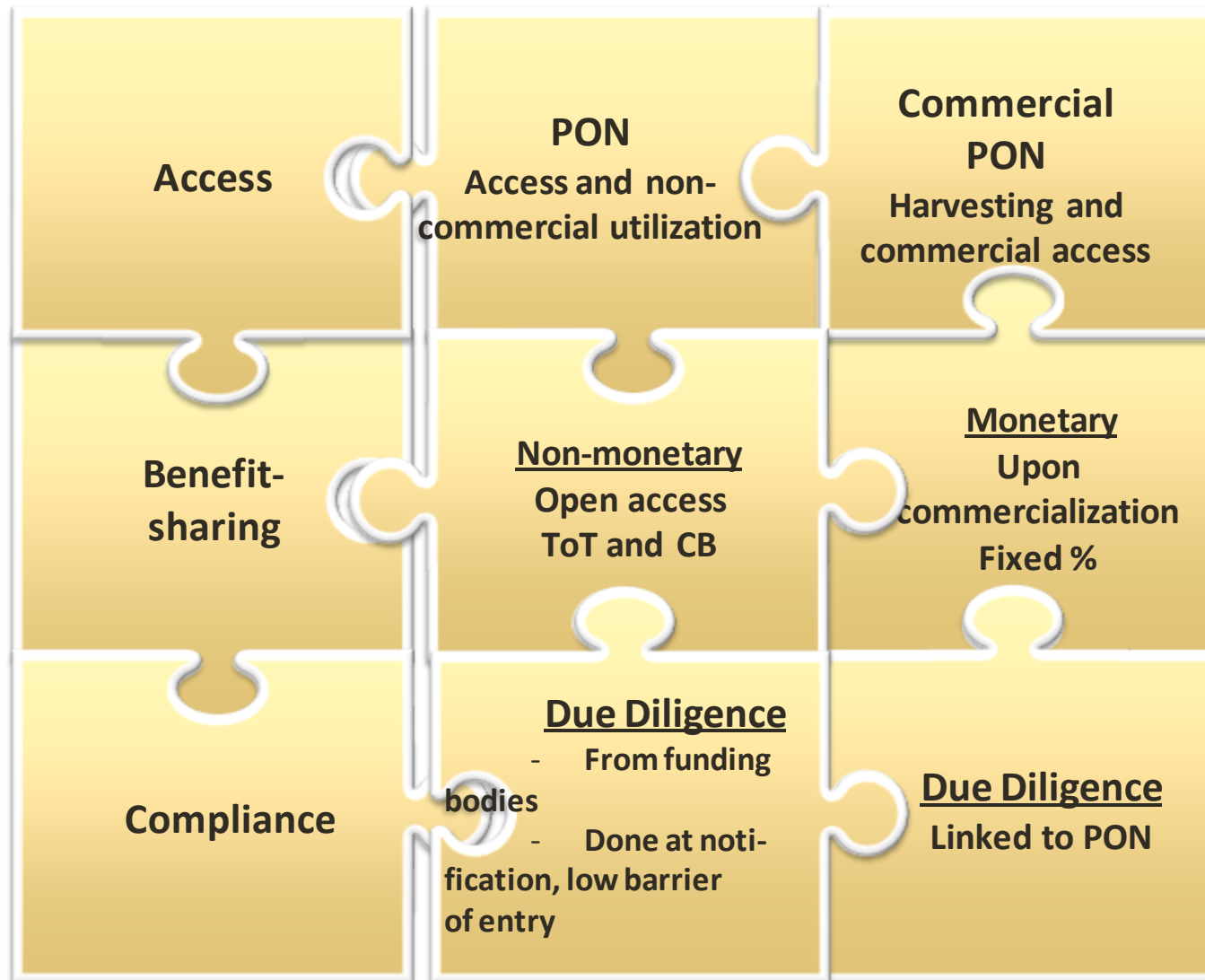
Actual legal regime in ABNJ - UNCLOS

- Freedom of the high sea – CHM for mineral resources of the Area
- Freedom of marine scientific research
- Non-monetary Benefit-sharing provisions (Part XI and XIII UNCLOS)
 - Promote international cooperation in MSR for peaceful purposes (Article 242.1 – article 143.3 UNCLOS)
 - Cooperate to create favourable conditions for the conduct of MSR (Article 243 – article 143.3 UNCLOS).
 - Make available by publication and dissemination through appropriate channels a) information on proposed major programs and their objectives, and b) knowledge resulting from MSR (Article 244.1 UNCLOS).
 - Actively promote the flow of scientific data and information and the transfer of knowledge resulting from MSR, especially to developing states, as well as the strengthening of the autonomous MSR capabilities of developing states through programs to provide adequate education and training of their technical and scientific personnel (Article 244.2 UNCLOS).

Actual scientific practice in ABNJ

- Indication of origin for scientific purposes: georeferencing of GSC / global unique identifier of the WFCC (tracking is already there)
- International collaboration through research projects and RIs (non-monetary BS)
- Scientific community's codes of conduct: InterRidge – OSPAR – CIESM (cooperation – information exchange and sharing of data/results)
- ABS compliance of main sampling campaign: OSD
- Sharing data (BS): this can overcome the main gaps between States – another way of facilitating access

Building blocks



Role of RIs?

- Raising awareness on ABS and on the benefits that are already shared by the scientific community
- Setting up ABS compliant standards and standards that guarantees tracking also for ABNJ
- Building up ABS best practices
- Adopting models/harmonizing MTA and ABS Agreements
- Non-monetary BS: cooperation and capacity building for developing countries

PHARMASEA



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