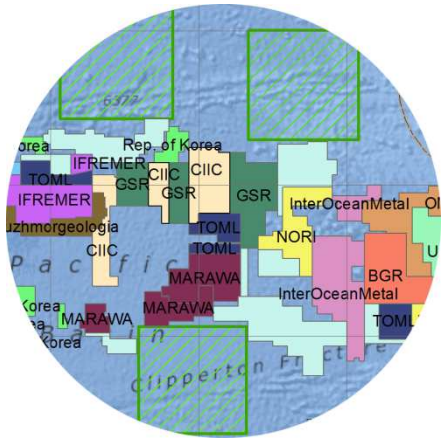
Overarching issues around regional governance of deep-sea mining



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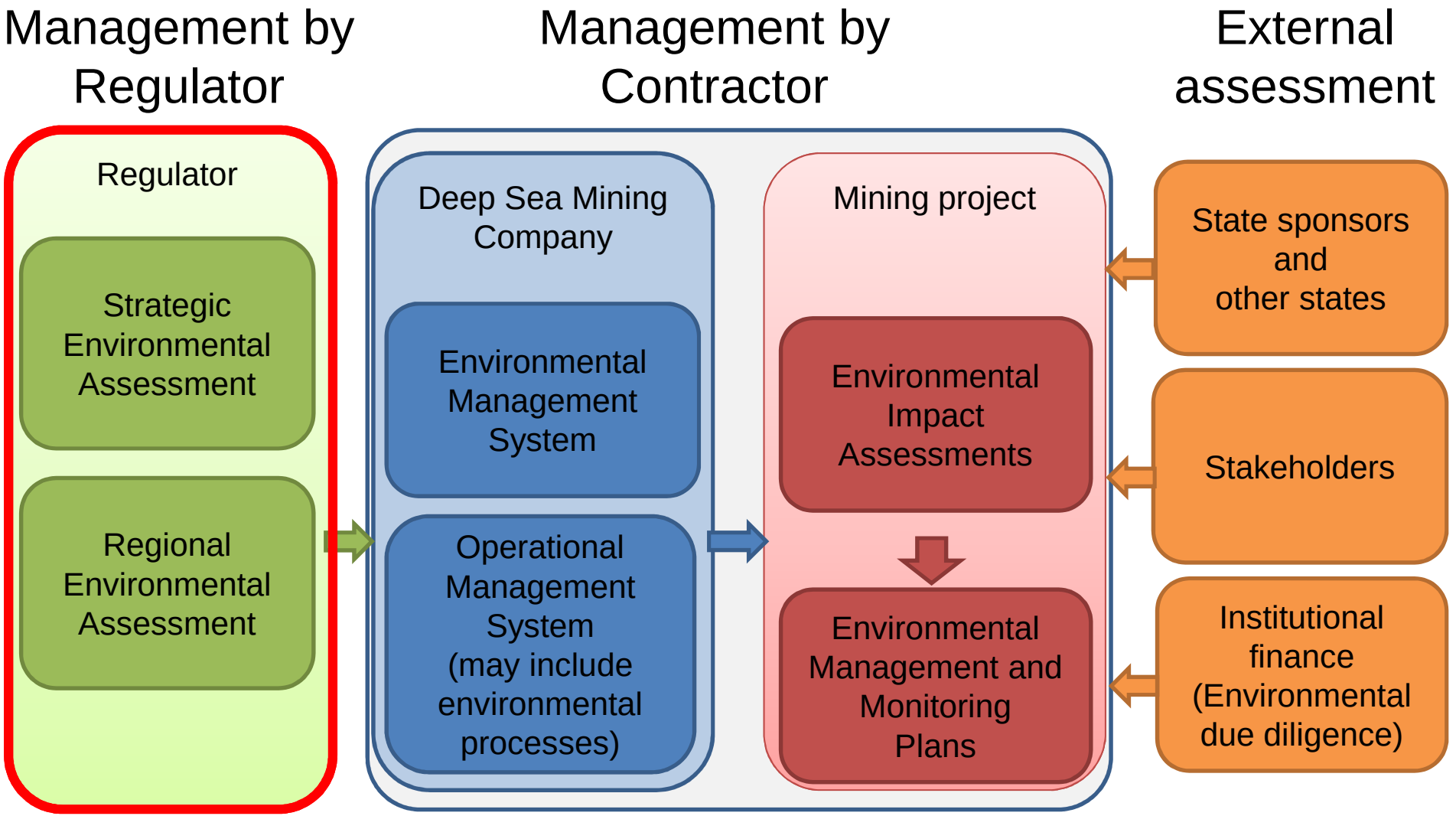
Tools for environmental management

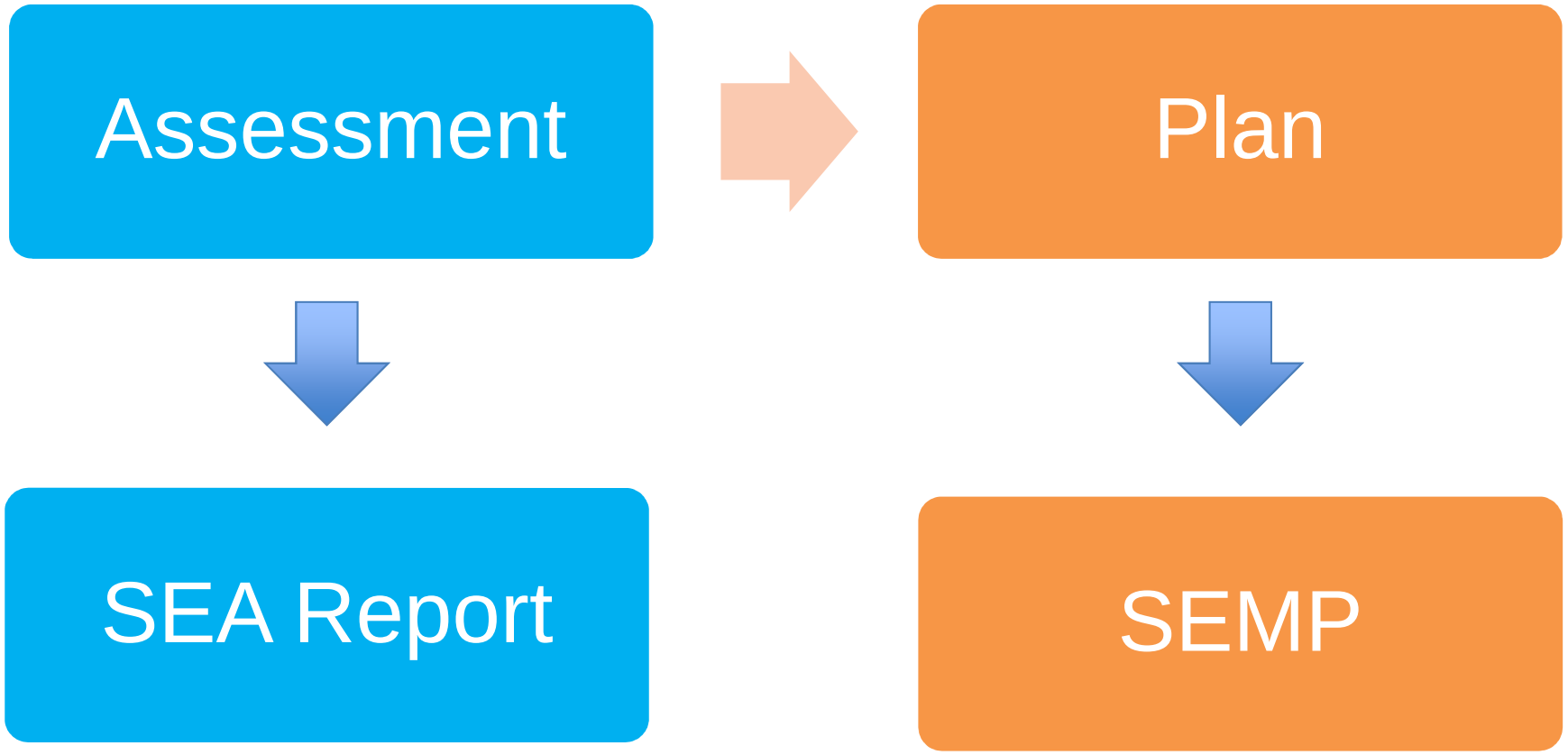


Strategic environmental assessment

SEA is a systematic decision support process, aiming to ensure that environmental aspects are considered effectively in policy, plan and programme making.

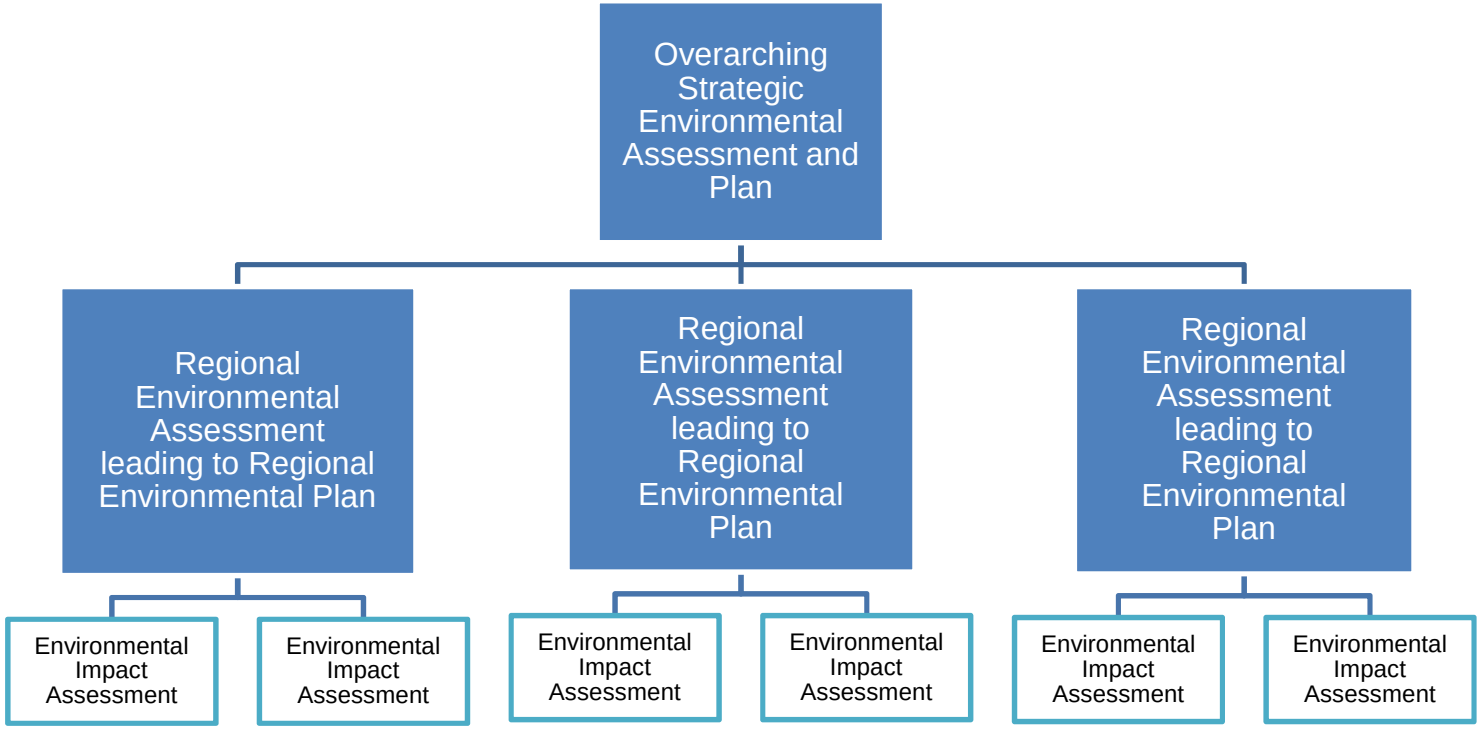
Strategic Assessment Benefits

Assist ISA in managing environment regionally	Improve strategic decision-making	Regional-scale understanding
Framework for periodic assessment	Anticipate and understand cumulative or combined impacts	Encourages regular stakeholder input
Improve data consistency + exchange	Provide context info for project scoping EIA, identifies areas to focus on	Provides other input throughout the EIA process



Documents Process
Collates Information

Output of process
Details Approach

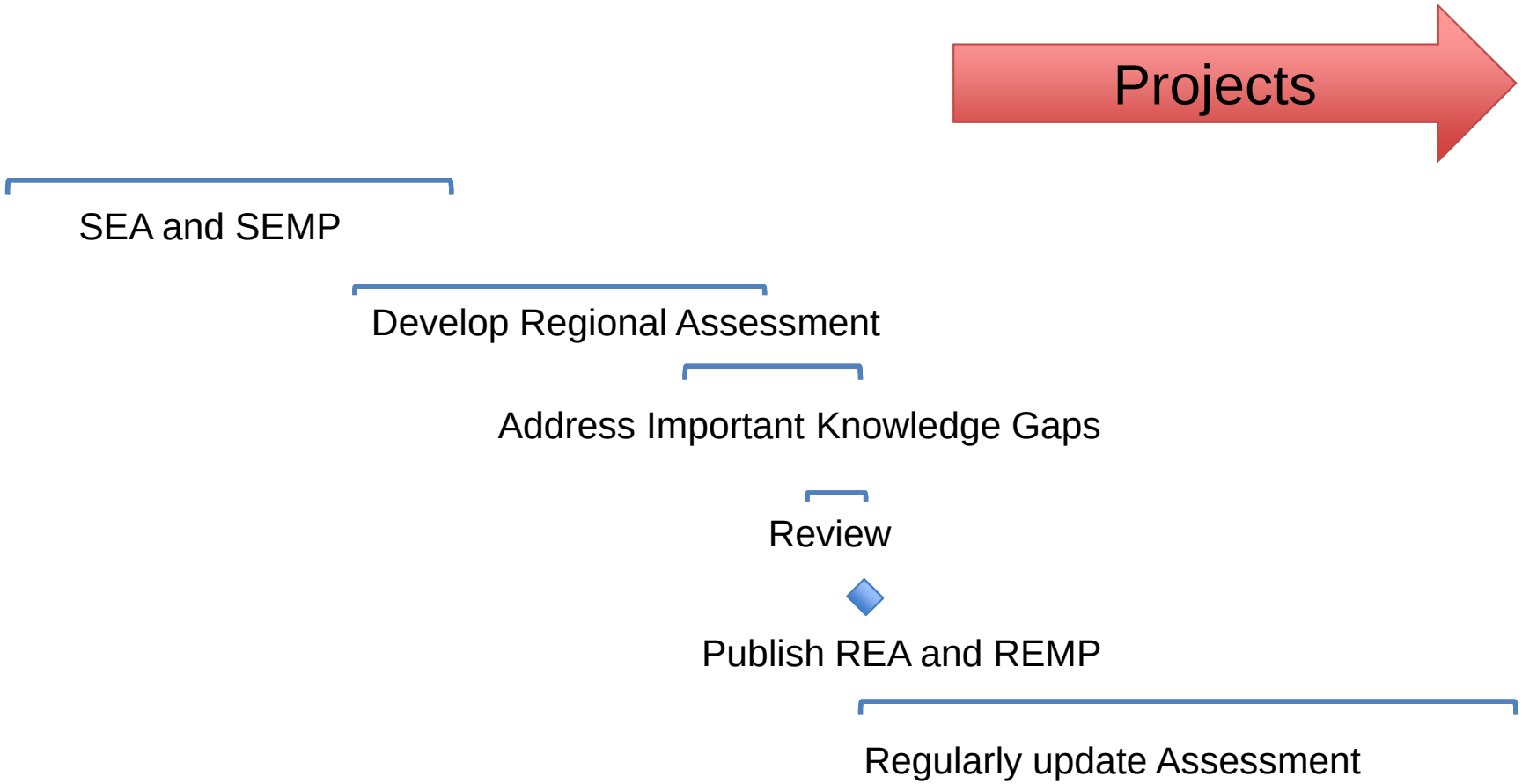


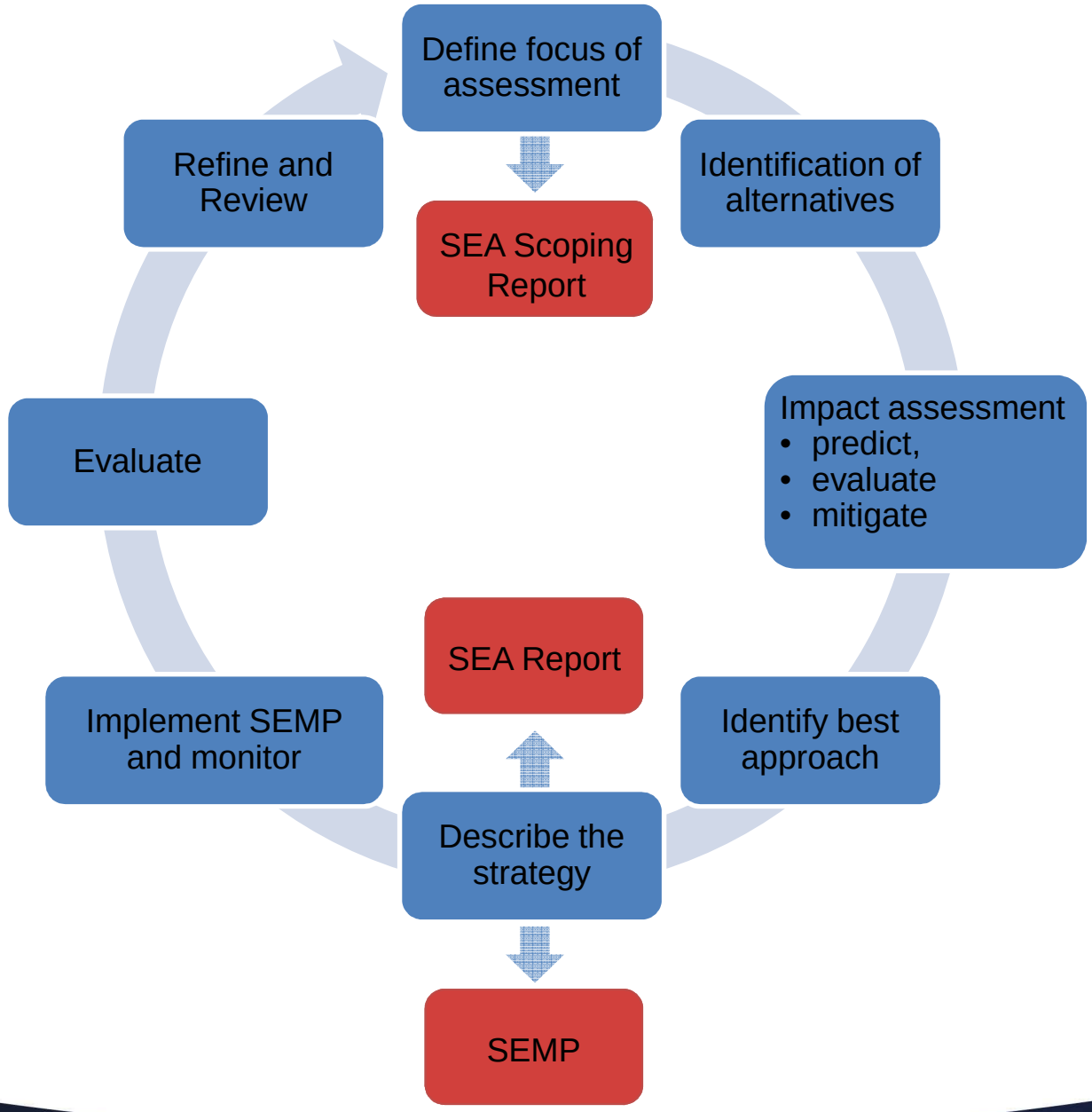
Sets the overall strategy requirements for stakeholders and mode of operation for the whole of the Area

Strategic assessment and plan developed for each region using overarching SEA template

Contractors develop EIAs in line with the regional plan for specific mining projects

SEA in Environmental Management Process




Define focus of assessment
SEA Scoping Report
Identification of alternatives
Impact assessment
• predict,
• evaluate
• mitigate
Identify best approach
Describe the strategy
SEMP
SEA Report
Implement SEMP and monitor
Evaluate
Refine and Review

Overarching SEA

- Develop an overarching strategic approach for environmental management of deep-sea mining
  - Develop overarching objectives e.g. conservation objectives
- Helps operationalise mining policy
  - Provide a approach for designating project-specific spatial management measures for any exploitation activity
  - Address any generic mitigation strategies
  - Address cumulative impacts
  - Identify relationships with other key stakeholders
  - Technological evaluation
- SEA can be usefully applied only for the activities within the remit of the ISA (in discussion with other stakeholders)

What is in a SEA vs SEMP

Assessment
Identify links to other plans / programmes (other authorities e.g. IMO)
Gather relevant baseline data
Identification of key issues
Develop objectives e.g. conservation objectives / management objectives
Assessment of alternatives (identification, prediction, mitigation)
Assessing cumulative impacts
Assessing uncertainty
Stakeholder engagement
Decision-making process
Decision on preferred alternatives

Plan
Description / Scope
Conservation objectives
Management objectives e.g. keep water particulate loads < X m-3 h-1
Environmental management roles and responsibilities
Reporting requirements
Outline of key environmental risks / vulnerabilities including cumulative impacts
Environmental Management Approach / Measures
Monitoring requirements (to fill gaps)
What should be done in lower tier assessments
Specific Commitments
Approach for audit

REMP
Regional baseline description
Spatial Management Plan and Maps

Why do assessment when we only need a plan?

- Documented process provides a clear justification for the plan
- Demonstrates transparency in decision making approach
- Documents uncertainty
- Documents the alternatives considered and basis for rejection
- Provides a foundation for improvement through periodic review
- Captures lessons from process
- Acts as a catalyst for periodic re-assessment of available data

Regional Environmental Assessment includes

Strategy

Strategic planning and management focused on region

Leads to development of Regional Environmental Management Plan

Information

Regional-scale environmental information, periodically updated

Regional knowledge base (e.g. mitigation strategies)

Assessment

Regional-scale risk/impact assessment

- Cumulative impacts of mining
- Other anthropogenic inputs (multi-sectoral)

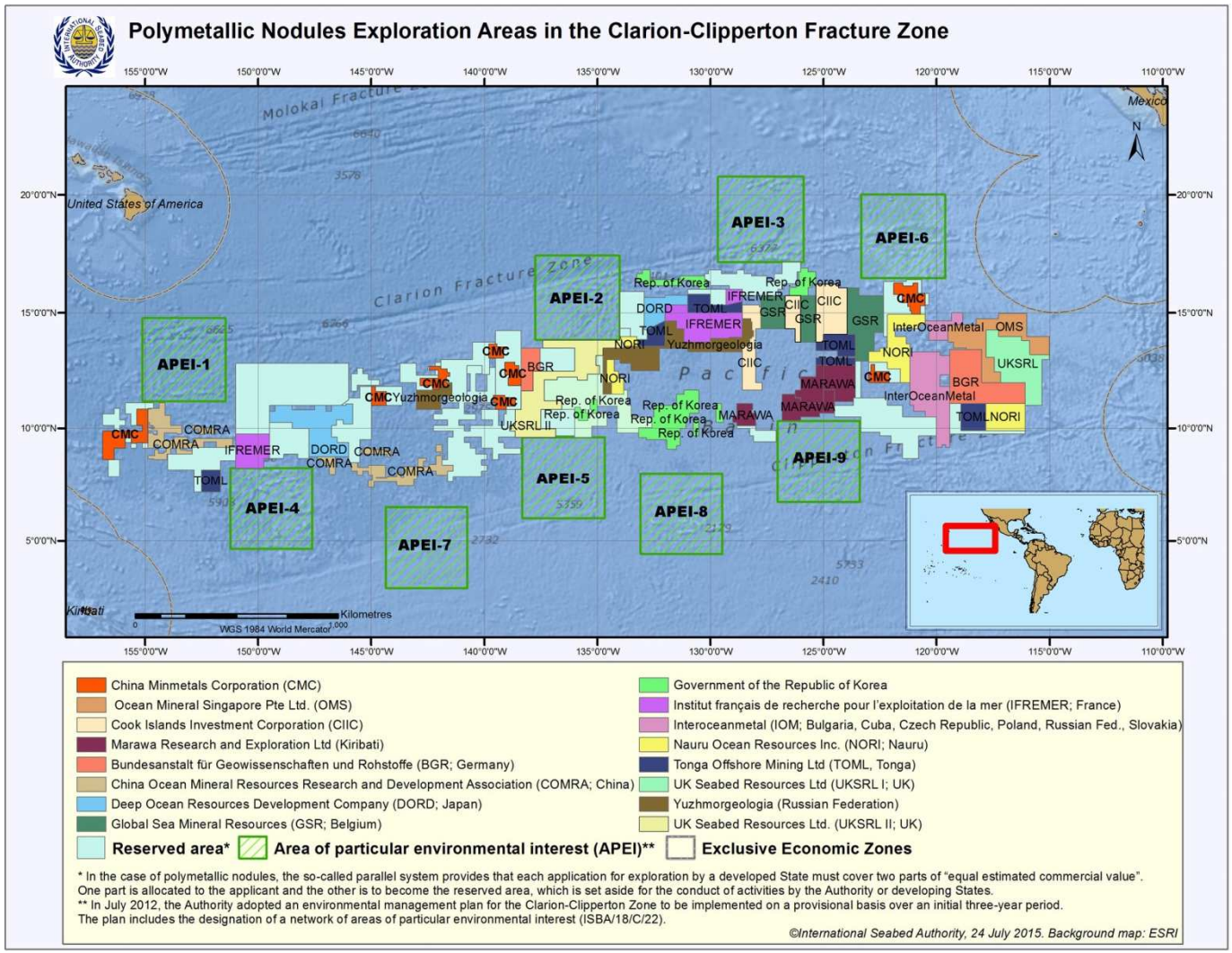
Information from

- Policy
- Contractors
- Independently collected data (possibly commissioned)
- Information from other stakeholders

EIA

Regional Env. Management Plan

- Still strategic plan – but regionally focussed
- Higher level than claim-scale environmental management plan
- Typically focusses on spatial management e.g. MPA networks
- Additionally
  - Identify regional priorities for environmental management
  - Identify performance standards or common mitigation approaches
  - Identify baseline / monitoring priorities for region
  - Detail approaches for managing cumulative impacts
  - Identify common vulnerabilities
  - Guide project-based EIA



Suggestions

Begin S/REA as soon as possible

Use a formalised (and documented) process for S/REA – not just going straight to SEMP/REMP

Stimulate scientific intercomparisons and regional assessments

Consider approaches for S/REA: legal, financial, technical

Encourage collaboration with other regional stakeholders

Issues

1. How can the SEA process be integrated into the practice and policy of the ISA?
2. What should be the timeframe for strategic initiatives (SEA and multiple REAs) to be developed?
3. How will the SEA process best link with EIA and claim scale activities?
4. How can the evidence base that underpins SEA be collected and openly shared?
5. What is the minimum amount of data required to perform an REA
6. Should the focus be solely on spatial environmental management approaches?
7. How can SEMP and REMP be made legally binding, particularly after contracts are issued?
8. Who will conduct SEA / REA and how will they interact with the ISA and other stakeholders?
9. How should the development of SEA / REAs be funded? Who should fund baseline data collection and who should fund monitoring?

10. What happens if SEA identifies management strategies that affect mining claims e.g. limits being put on the total amount of mining in a region?
11. Which are the priority areas for establishing REAs and what scale is most appropriate (e.g. do we need more than one for the CCZ)?
12. Should specifically tailored SEA / REA guidance protocols be developed for the ISA?
13. What mechanisms should be established for revision of REMPs and their relationship to adaptive management? What should be the frequency of SEA / REA review and how will the effectiveness of the SEA/REA measures be determined?
14. How can the effects of cumulative impact be taken into account?

Summary

- Process: SEA (of which REA is a part)
- Output: Strategic and Regional environmental management plans
- Tiered – SEA, REA, (EIA)
- Should be tied to claim-scale management
- Useful and widely adopted approach
- Considered best-practice
- Many issues for DSM