

Discussion Paper on CO₂ Storage Capacity Estimation (Phase 1)

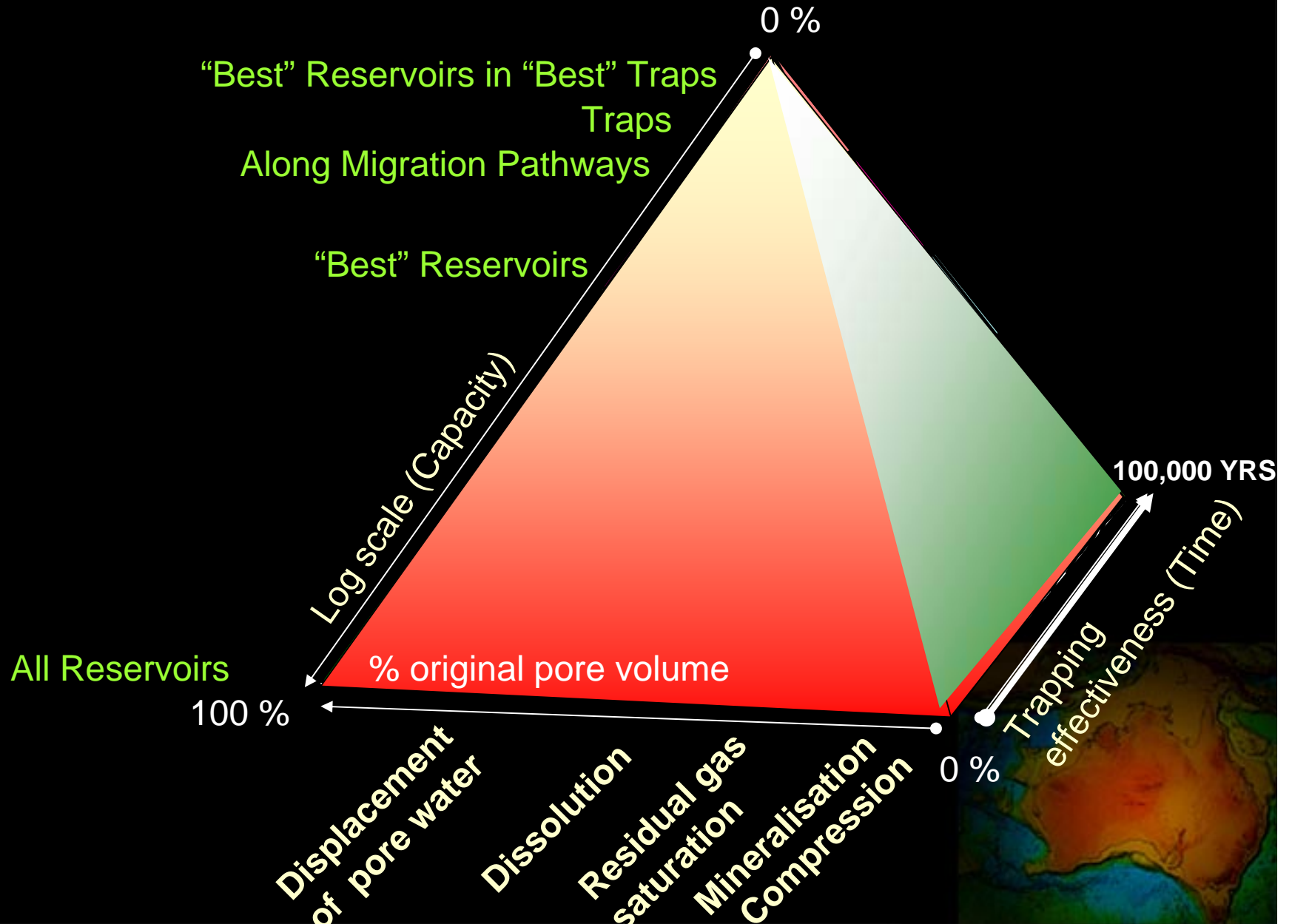
*“A taskforce for review and
development of standards with
regards to storage capacity
measurement”*

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Presented to the Technical Working Group Meeting of
the Carbon Sequestration Leadership Forum on 30th
April 2005, Oviedo, Spain.

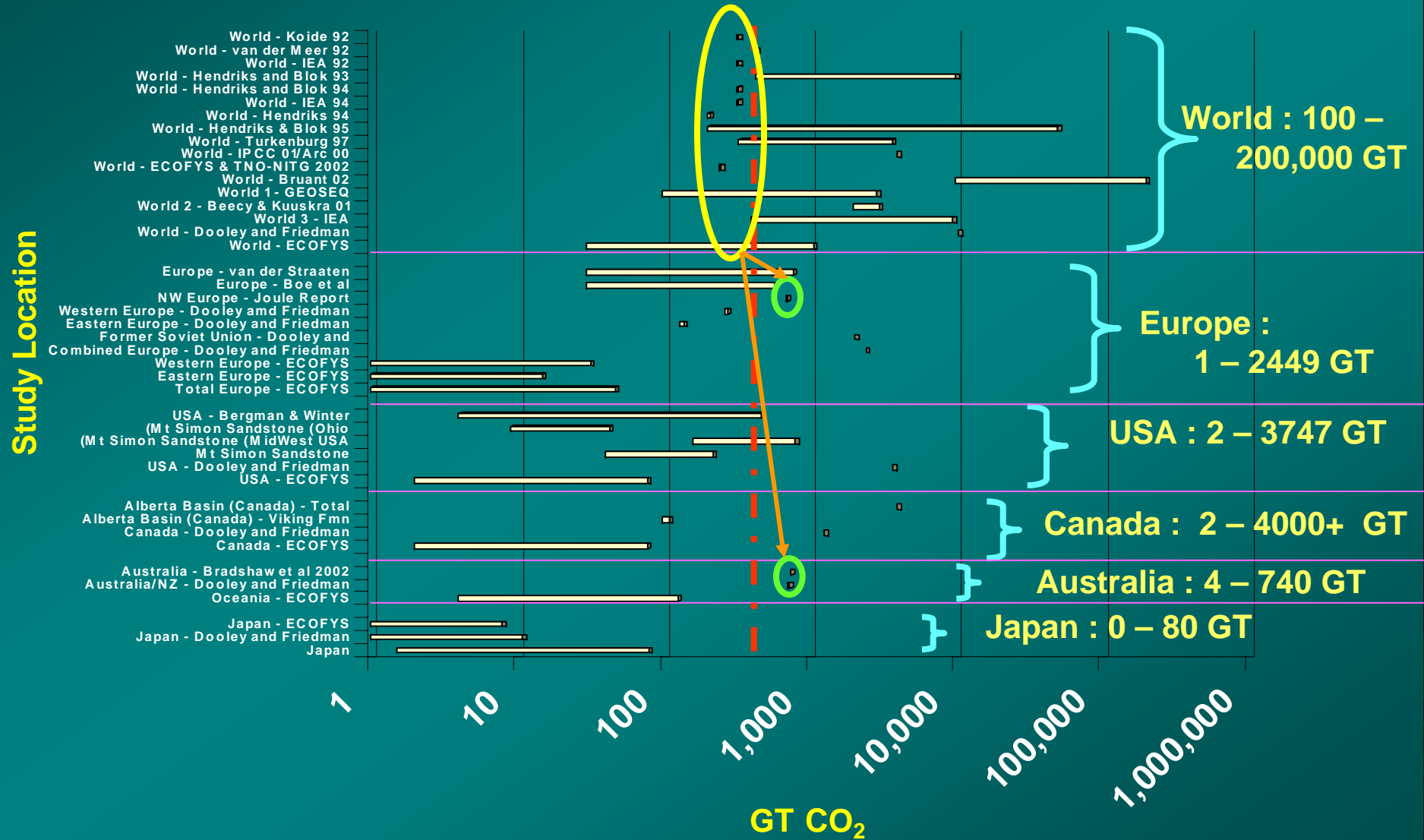


CO₂ Storage Potential Pyramid




World and Regional Storage Capacity Estimates

(almost all estimates based on using surface area calculation)

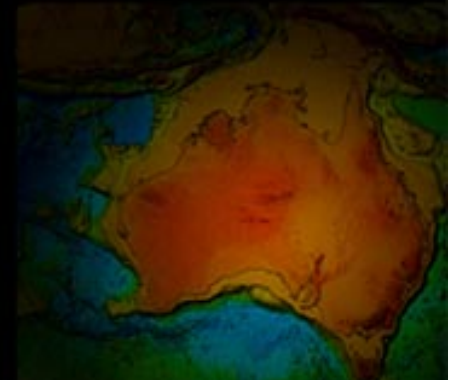


Taskforce Report

- Done over short time period
 - Some “unresolved” / (?unresolvable?) issues
 - That’s why the literature is a mess
 - May not be easy to fix or reach consensus
 - Face to Face dialogue required - yesterdays meeting excellent
 - In principle / general agreement
 - Interim Report only
 - Agreement on terminology not finalised
 - Data limitations & knowledge sometimes prohibit appropriate assessment methodology
 - Multi-disciplinary and multi-faceted assessments required
 - Geology, geophysics, reservoir engineering, economics, policy drivers, environmental & OH&S
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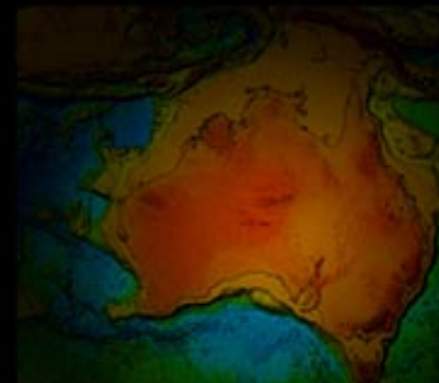
Issues (Methodologies)

- **World estimates of CO₂ Storage Capacity vary widely**
- **Many different methodologies used**
- **Some methodologies highly unreliable**
- **Assessments done at regional, basinal and local (prospect) level**
- **Can't collate country (regional) estimates as all use different (inconsistent) methods**



Issues (Trap Types & Storage Mechanism)

- **Variety of parameters impact on storage efficiency**
- **Some parameters act independently & others in opposite directions**
- **Widely different timing for trapping effectiveness – immediate to 10,000s to 100,000s years**
- **Single traps can involve multiple trapping mechanism**
- **Assessment thus multifaceted task**



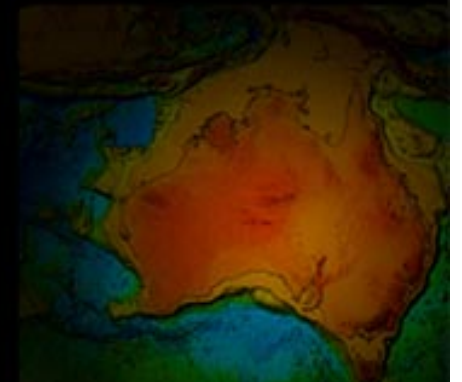
Issues (Policy)

- **Reliable storage capacity numbers required for planning & resource allocation**
- **Policy Group have to become “savvy” about how Storage Capacity numbers have been “generated”**
 - i.e. problem unlikely to go away quickly



Issues (Future Requirements)

- **Proper & agreed definitions**
- **Consistent, proper and accepted assessment methodologies**
- **Phase 1 Report – Preliminary only**
- **Phase 2 Report (if agreed) would attempt to address these requirements**



Proposal

- **To accept this Phase 1 report in its interim form**
- **Allow the Taskforce team to continue its work and “polish” the Phase 1 Report and present it in September (Berlin)**
- **Define Phase 2 report to naturally flow on from initial findings from Phase 1 and propose continuation in September**
- **? Suggestion to become a Recognised CSLF Project in its own right ?**
- **Hold another face-to face meeting in September**
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- **Not straightforward task, exceptional expertise at the table, will take time.**
- **Individual CSLF members will need to ensure they adequately resource their contributors – not happen overnight**

