



Why a Standard Methodology - - for CO₂ Storage Capacity Assessment ?

Why a Standard Methodology

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PURPOSE of Capacity Estimates

- **Planning** – National, Private, International
- **Operations** – National, Private
- **International negotiations** – Climate, Trade, Industry

USERS of Capacity Estimates

- **National authorities** - Planning
- **National authorities** – Regulators
- **Oil & Gas Companies** – Operators
- **Public** – Neighbours
- **International organisations** – UNEP, IEA, GCCSI.

The AKAI formula

- **CAP = Area * Thickness * Porosity * Density * Utilisation**

Where:

Area = Extension (m²)

Thickness = Effective thickness summarised (m)

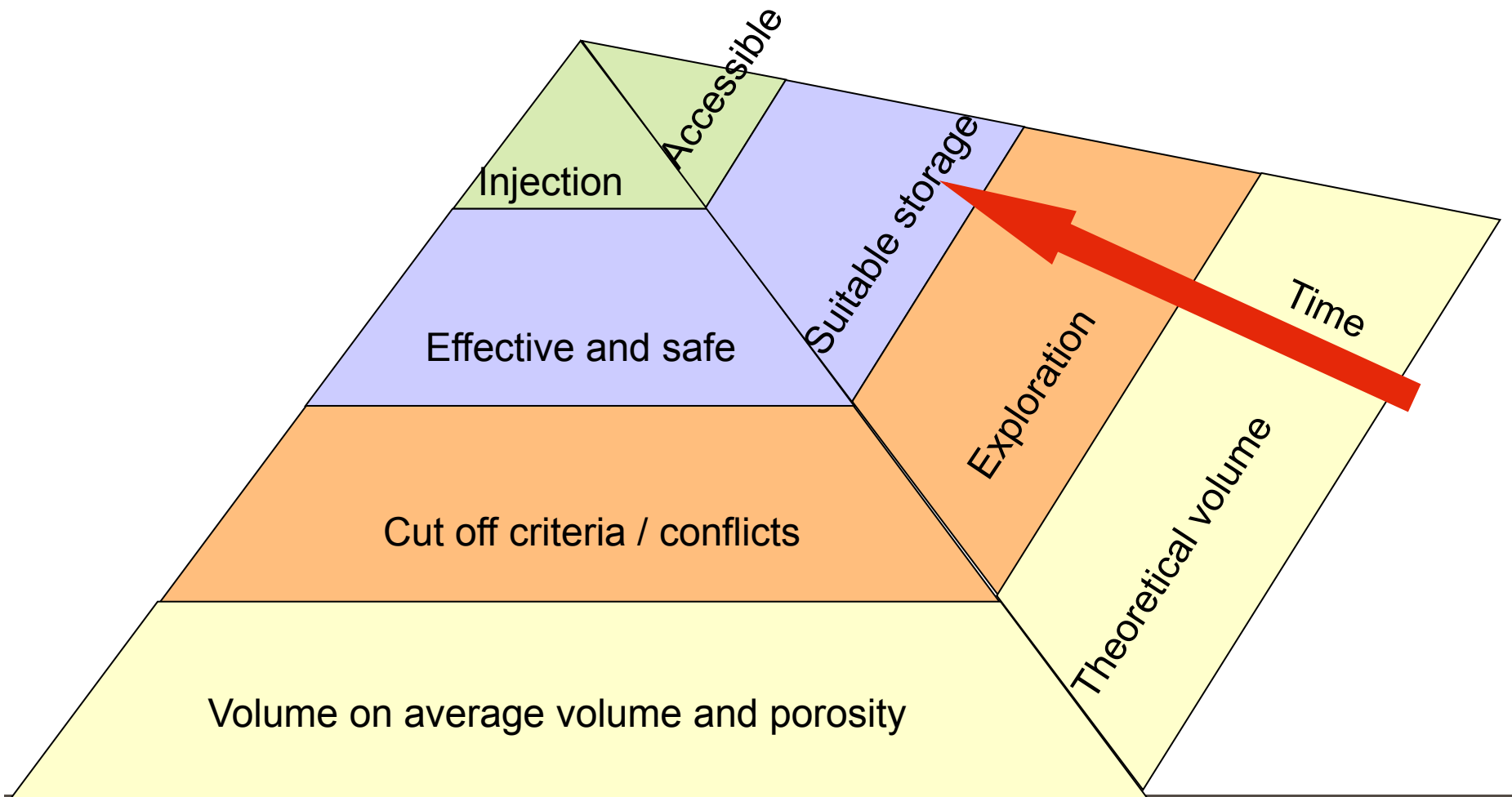
Porosity = Effective accessible porosity (m³/m³)

Density = CO₂ mass per volume, depending on pressure and temp.

Utilisation = **Correction factor** depending on well patterns etc.

Data availability is often limiting factor. CAP should be updated when new data.

The Bradshaw Pyramid



Storage ATLAS

- The **Norwegian Petroleum Directorate (NPD)** has completed the mapping of possible CO₂ stores on the Norwegian shelf, and has published atlases:
 - **North Sea** – Norwegian part
 - **Norwegian Sea** - Norwegian part
 - **Barents Sea** - southern part

covering all of Norwegian continental shelf near the coast
(excl. Northern Barents Sea)
- **US DoE / NETL** and partners has completed mapping of possible CO₂ stores in **USA and Canada** and published as an atlas (two editions).
- **Australian GeoSciences** has mapped parts of Australia mainland
www.ga.gov.au/ghg/projects/onshore-co2-storage.html