



CO₂ Geological Storage

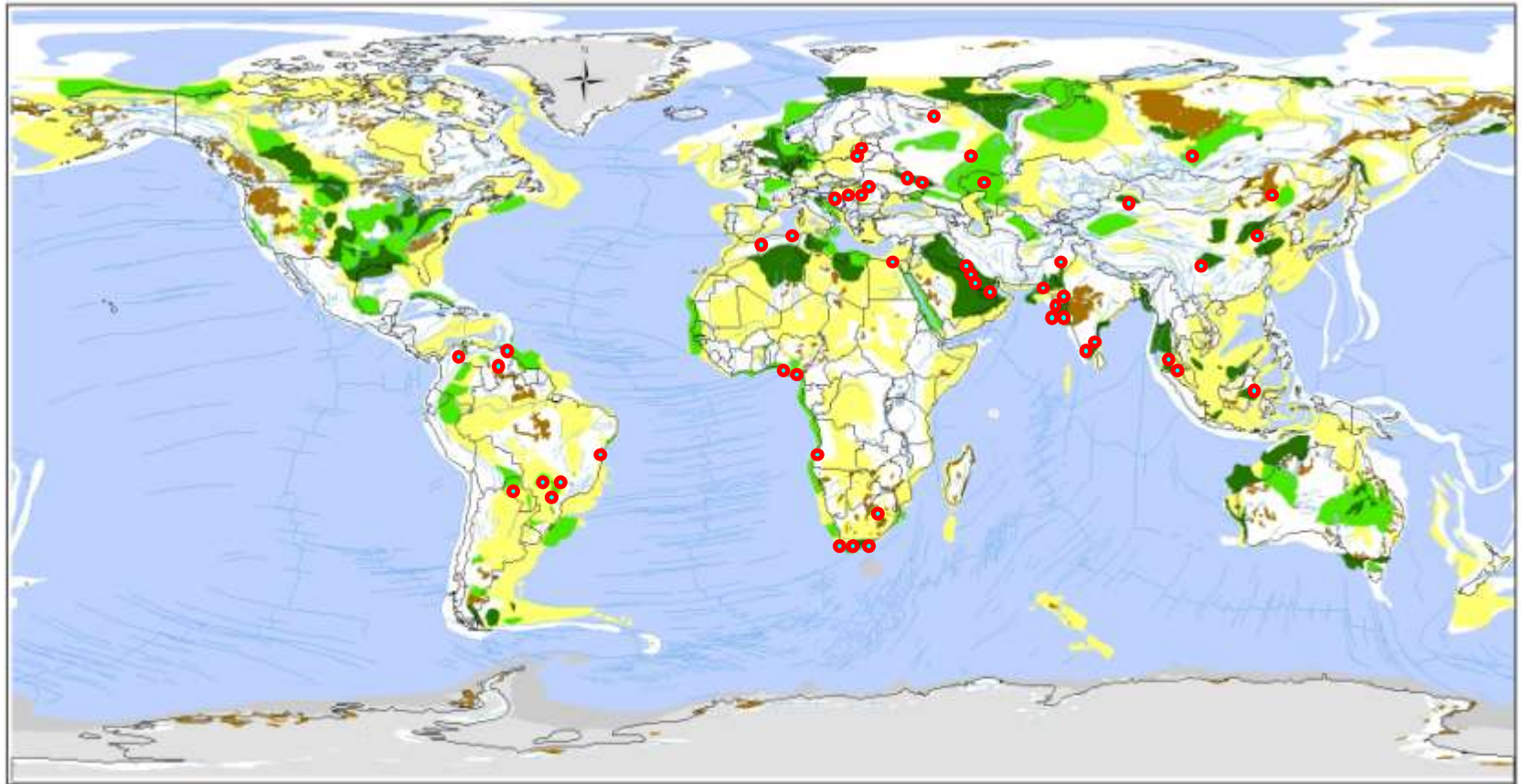
Key Drivers For Deployment

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UN-ESCWA-Masdar Institute
Expert Group Meeting on CCUS
November 2013



Storage capacity world wide



World Geological Storage Suitability

March 2011

Highly Suitable, Sedimentary Basins or Continental Margins
Suitable, Sedimentary Basins or Continental Margins

Possible, Sedimentary Basins or Continental Margins
Unproven, Extrusive volcanic rocks

Main Faults

Early Opportunity

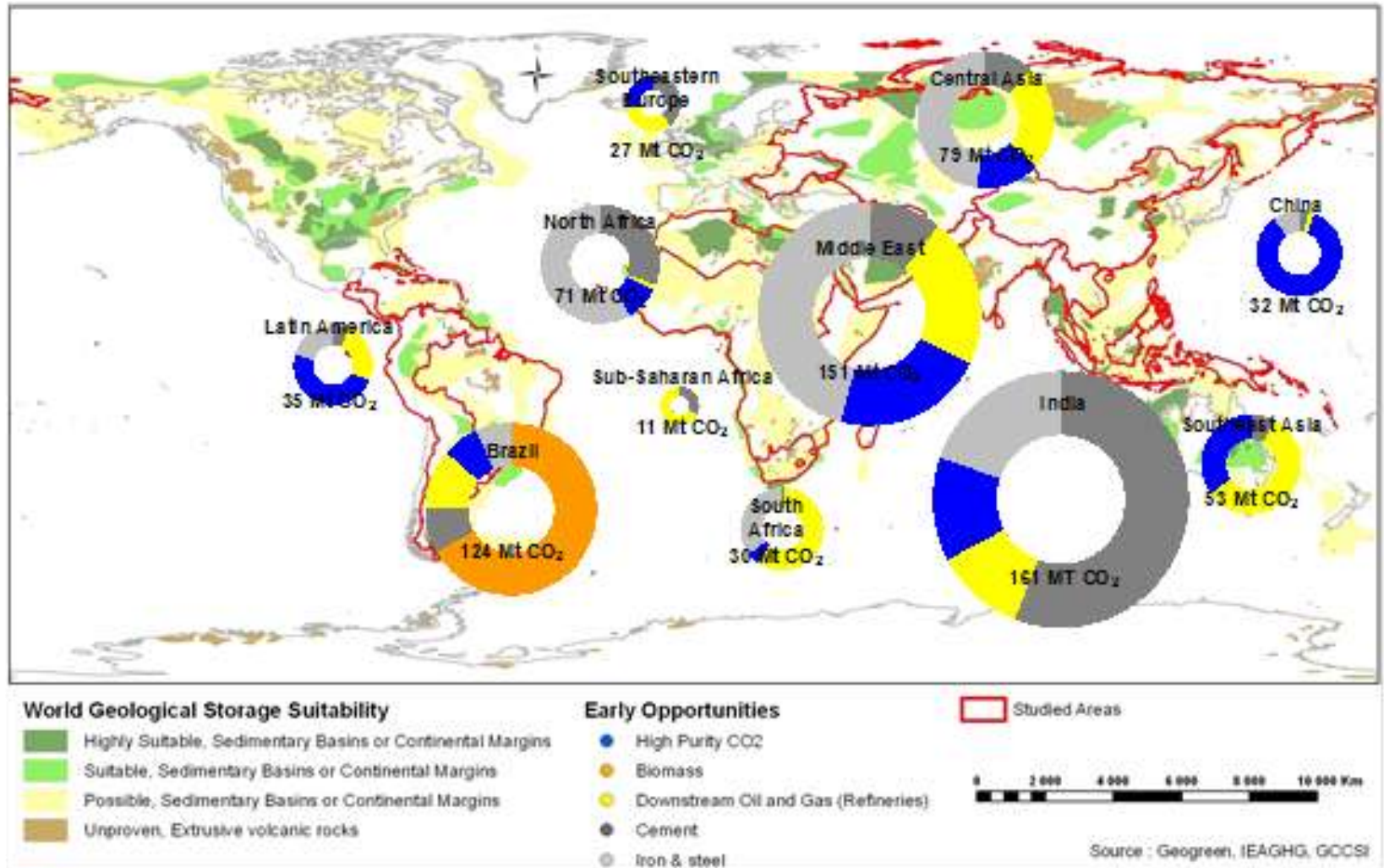
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Copyright : Geogreen, IEAGHG, GCCSI

IEAGHG-GCCSI, 2011



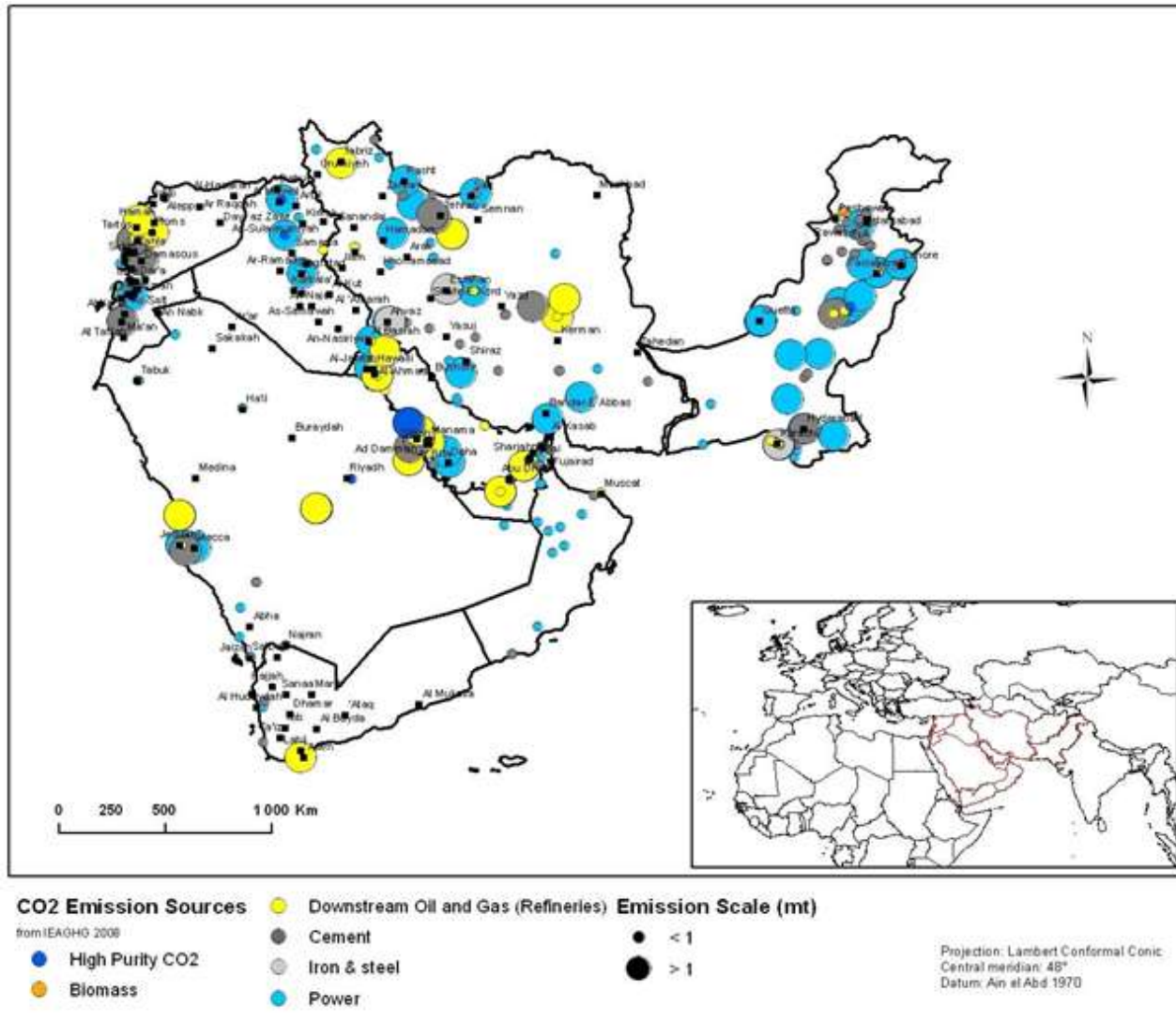
Estimated emissions from early CCS opportunities in 2050 for the industry sectors in the different regions of the study



UNIDO, 2011



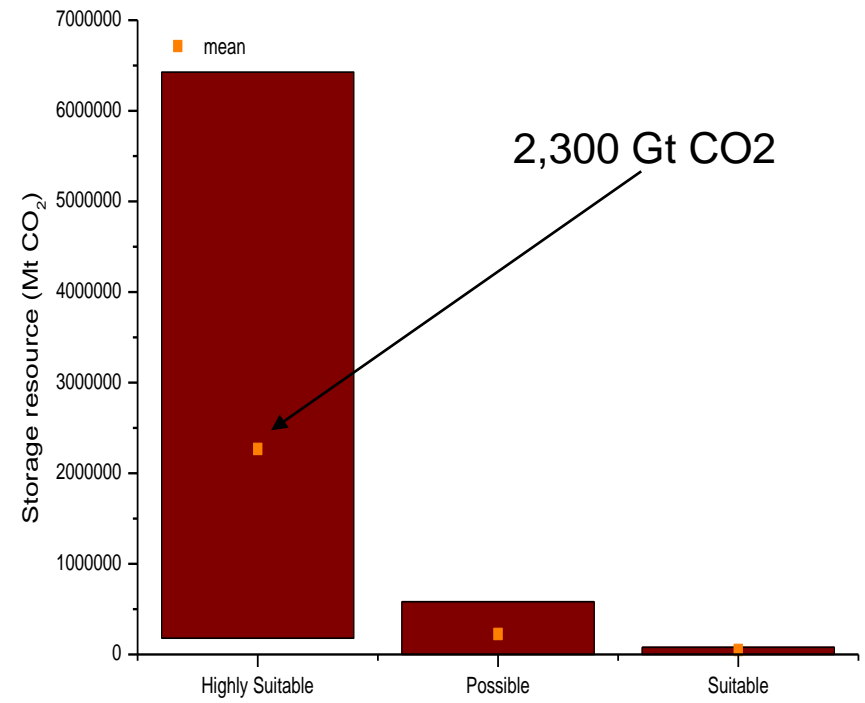
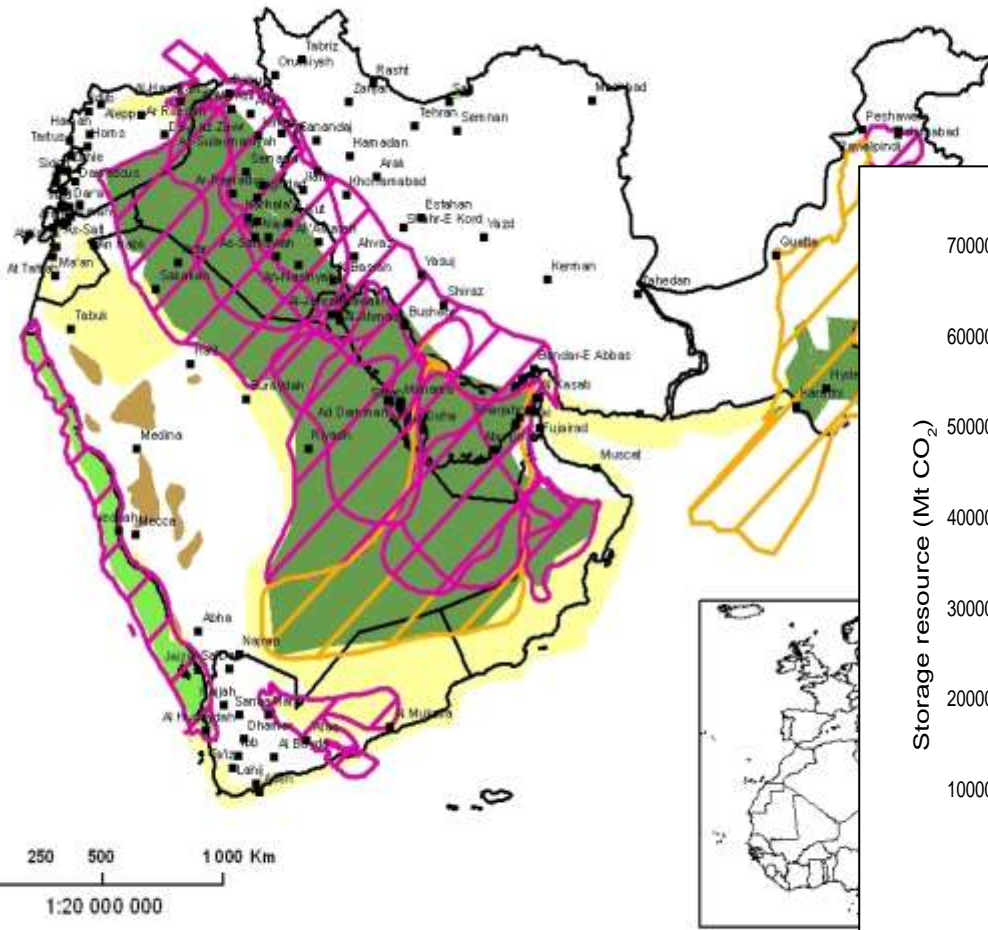
Annual CO₂ emissions in the Middle East



IEAGHG 2009



Aquifer storage potential in Middle East



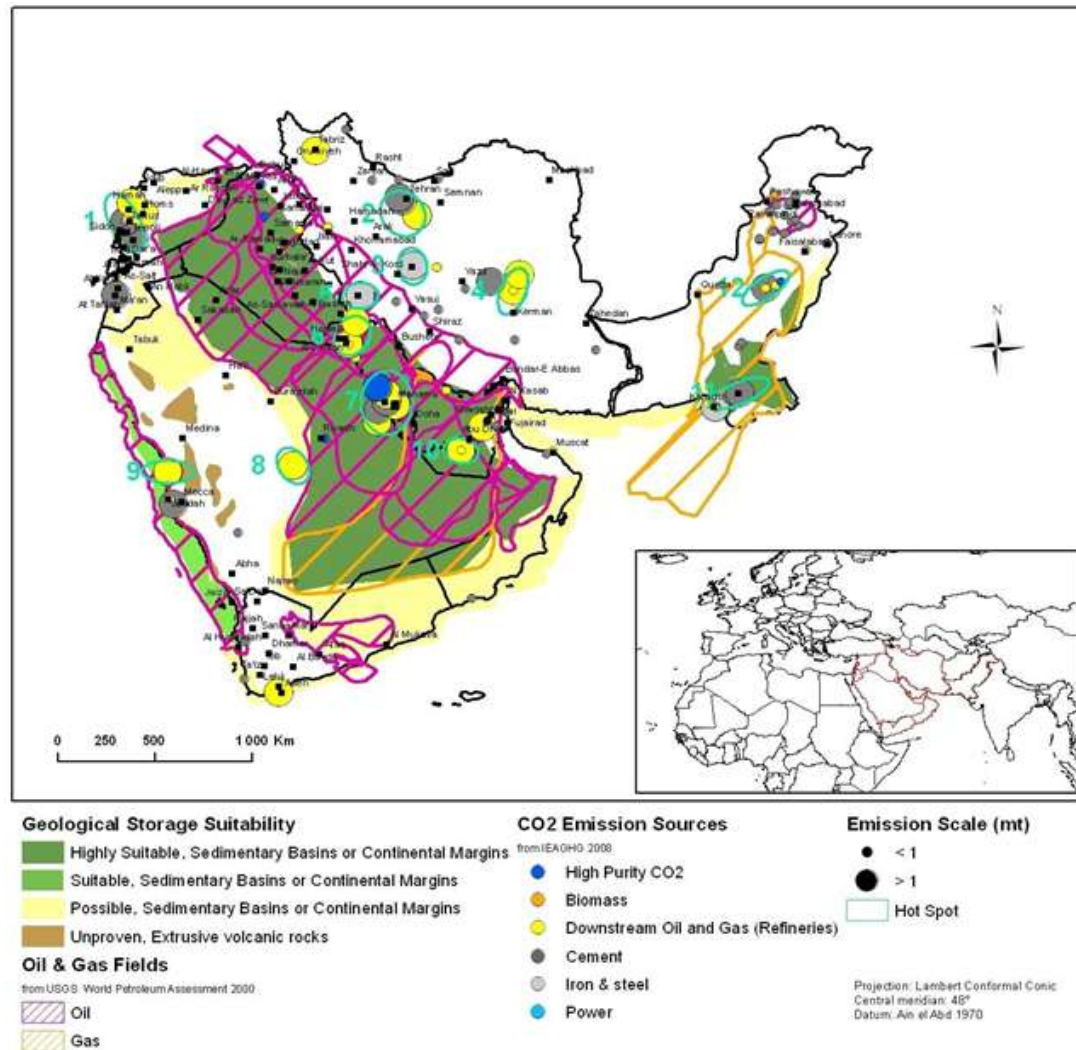
2,300 Gt CO₂

Deep saline suitability

Projection: Lambert Conformal Conic
Central meridian: 48°
Datum: Ain el Abd 1970



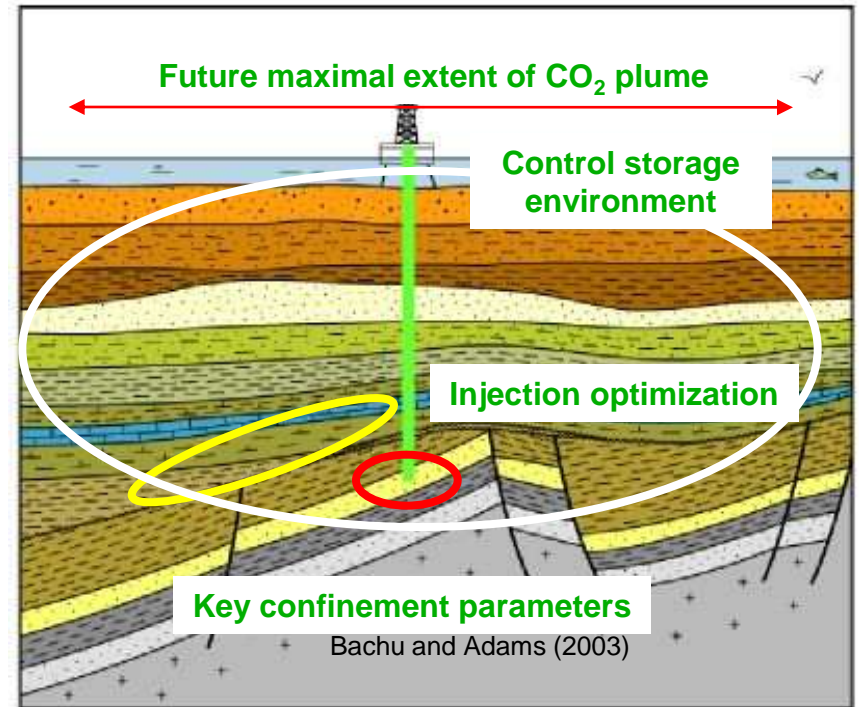
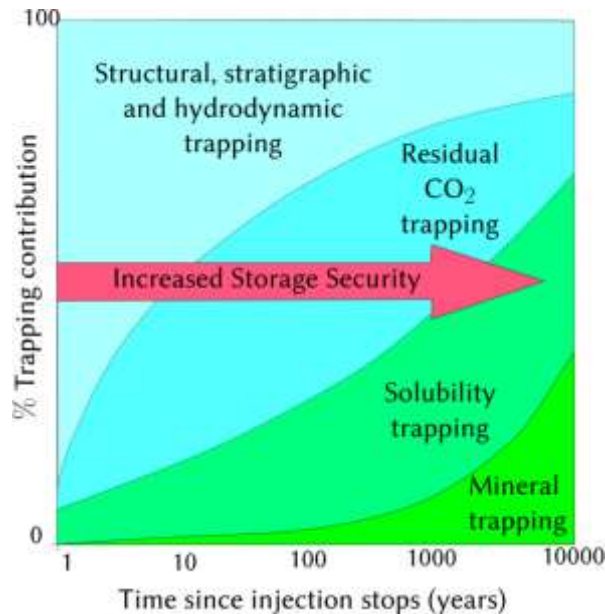
Source-Sink matching for industry « hotspots »



UNIDO report “Global Technology Roadmap for CCS in Industry - Sectorial assessment source and sink matching (2011)



Storage Complex And Storage Safety

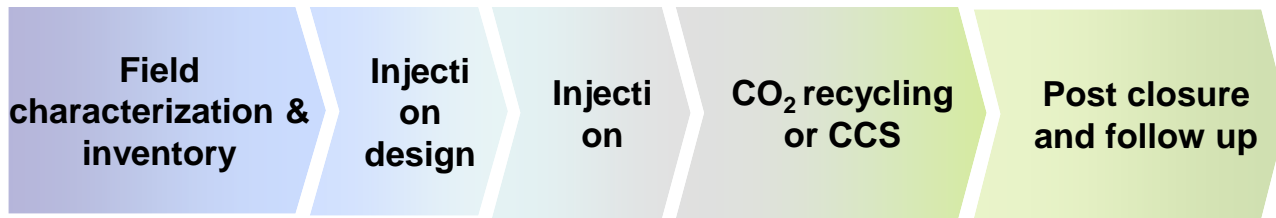
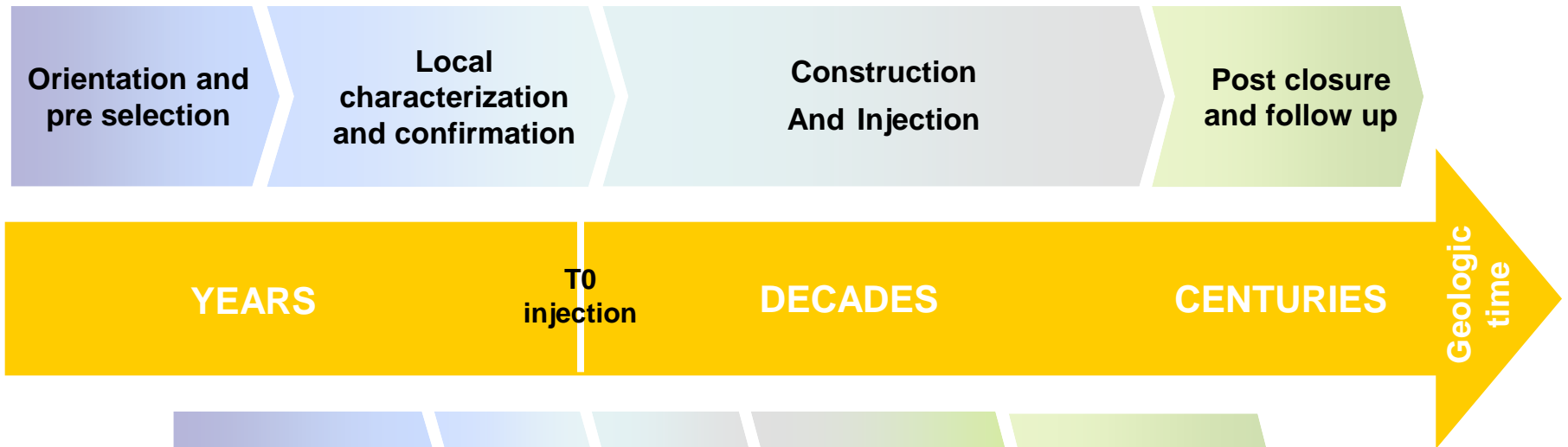


- storage safety increase with time
- Comprehensive characterization work to build an adequate monitoring and remediation plans



Typical storage project lifecycle

Deep saline formations

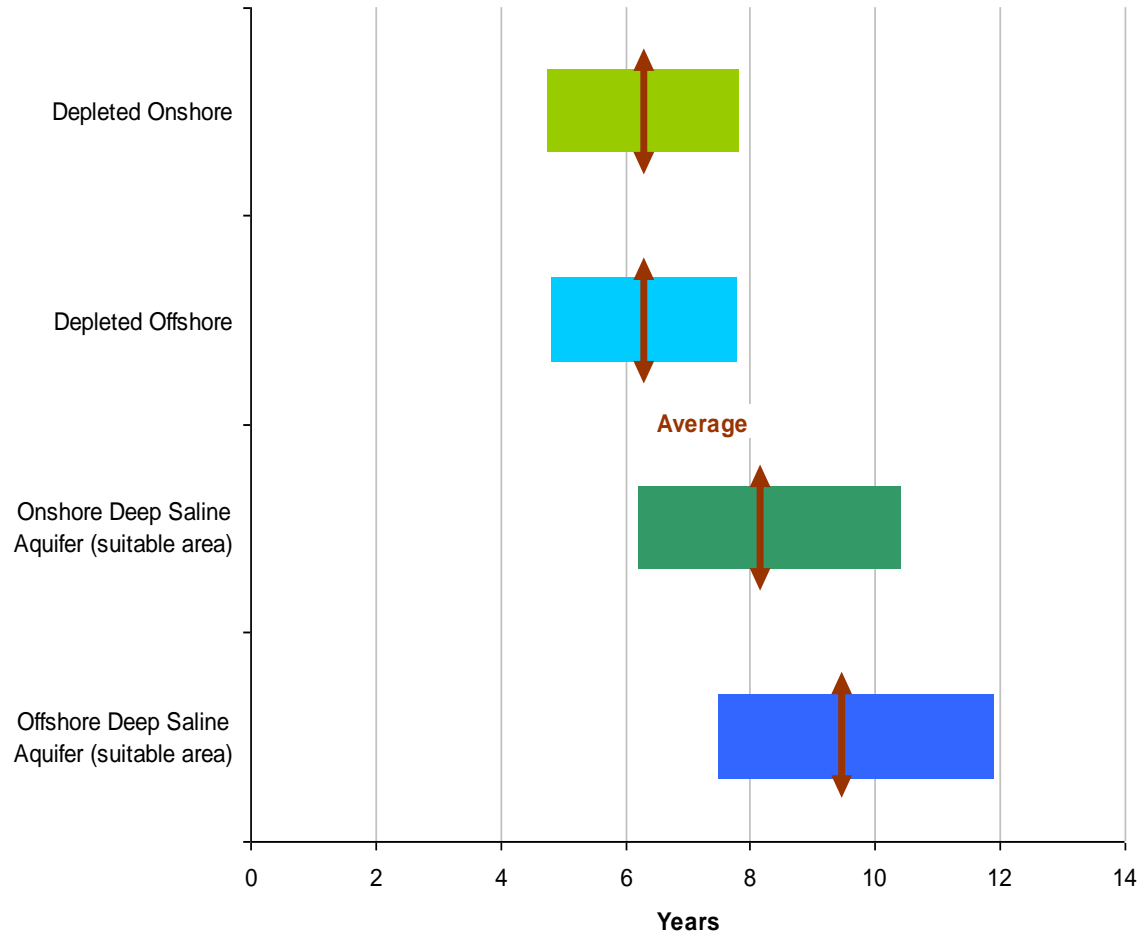


CO₂ EOR



Development times for storage projects

Development Time Frame Comparison From Phase 1 Up To Bankability

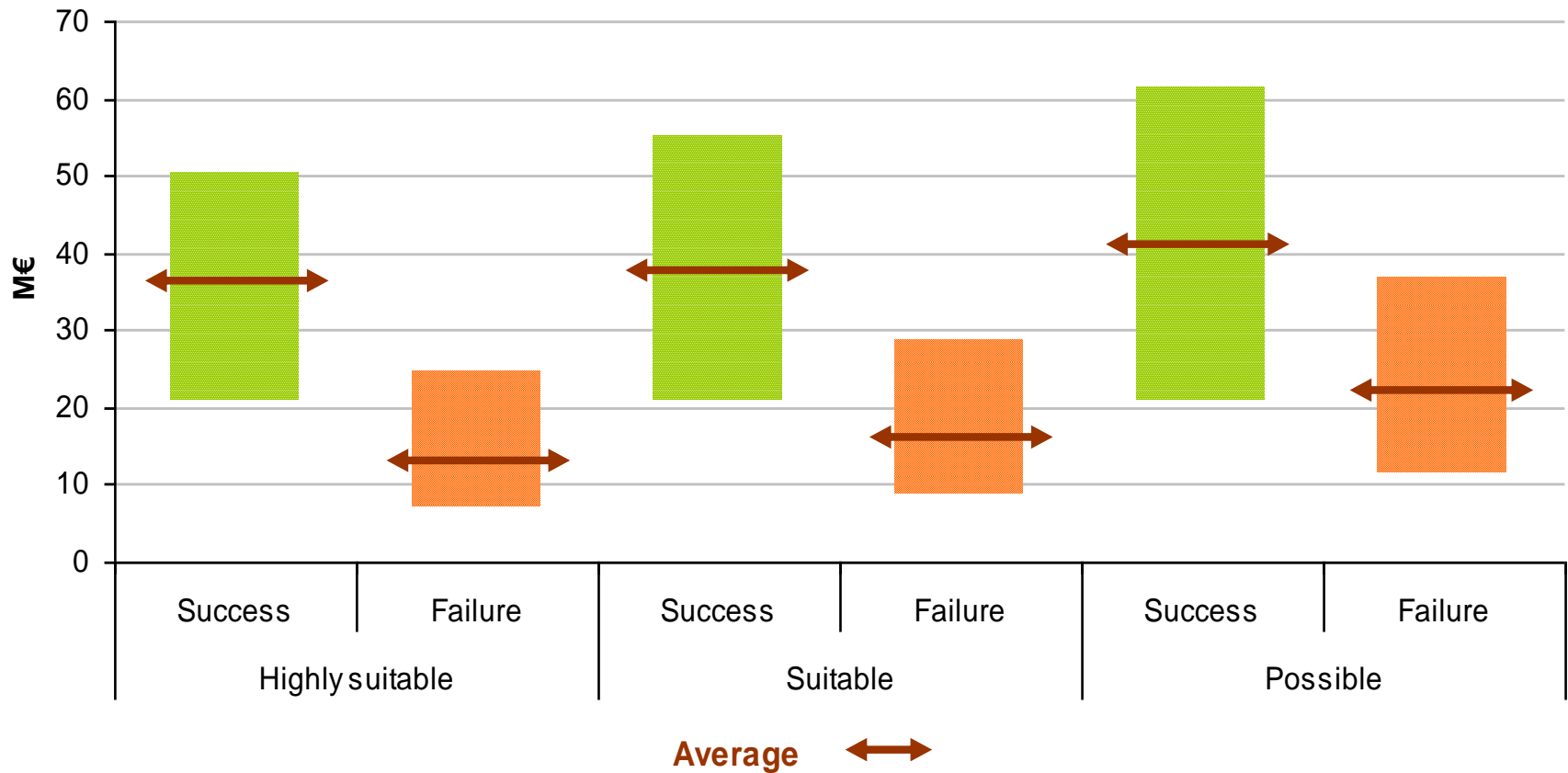


IEAGHG-GCCSI, 2011



Comparison of success and failure costs according to suitability - onshore deep saline formation project

Onshore Deep Saline Aquifer Bankability Success And Failure Costs From Phase 1 Up to Bankability



IEAGHG-GCCSI, 2011



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