

# World and Regional Storage Capacity Estimates

(almost all estimates based on using surface area calculation rather than geology)

- All estimates which use a sedimentary basins measured surface area to calculate regional storage capacity and don't refer to specific geology, are fundamentally flawed, and
- Will always give a wrong estimate
- Perhaps by many orders of magnitude
- Probably in both directions (+ & -)

Study Location

Approximately ordered by date within each region

GT CO<sub>2</sub>

1

10

100

1,000

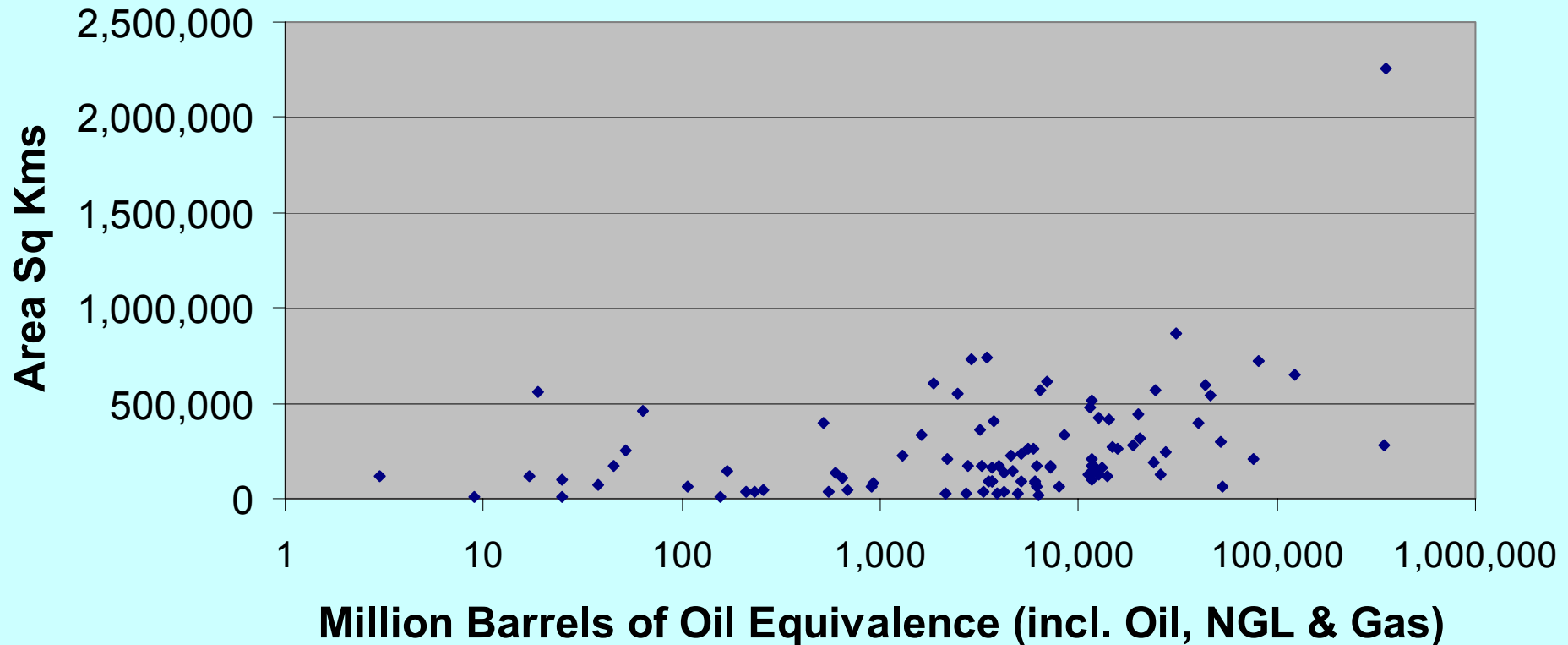
10,000

100,000

1,000,000

# Relationship between Surface Area of Basin and trapped reserves of hydrocarbons i.e. – there is none

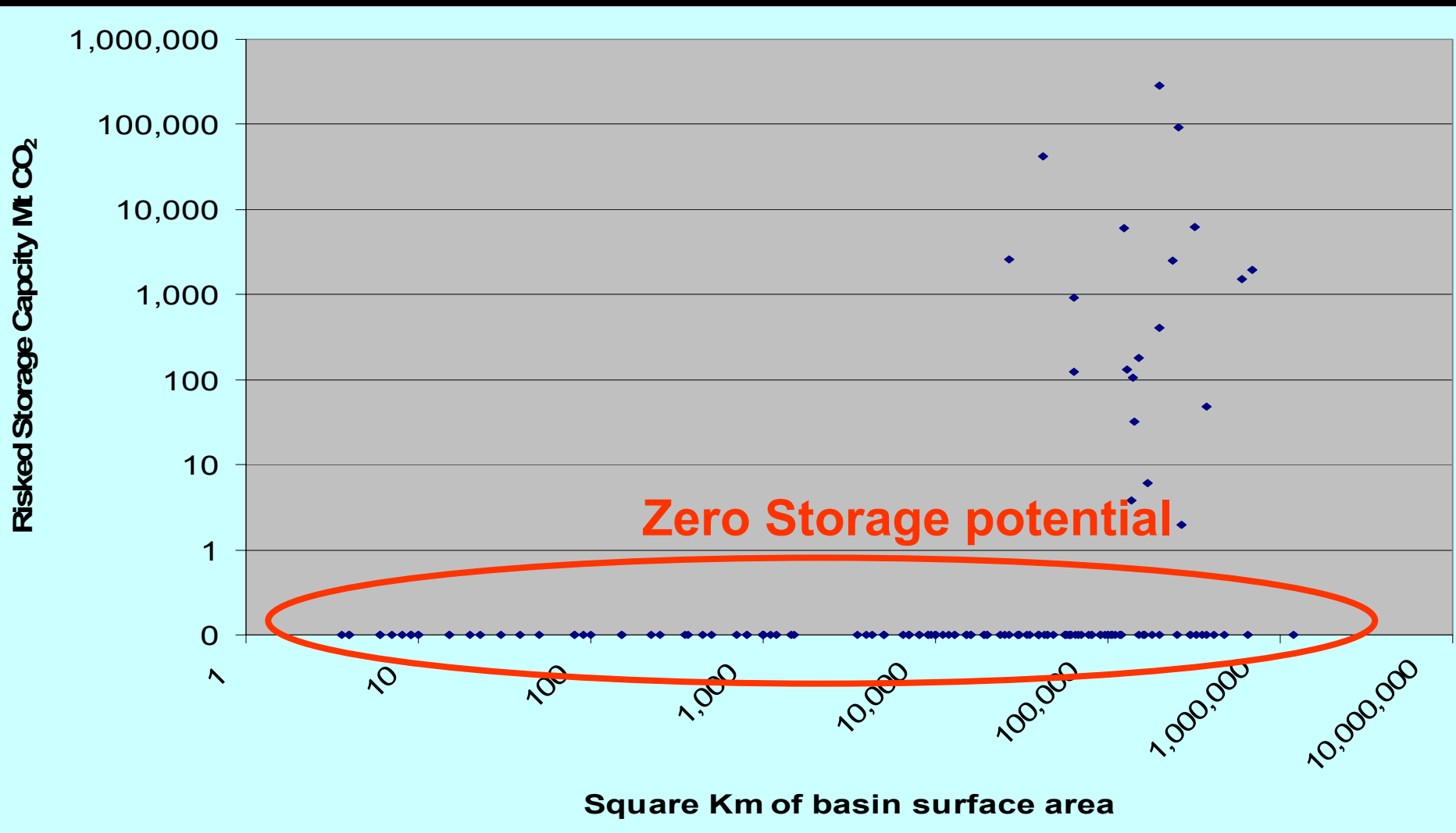
**World Class Petroleum Provinces (USGS)**  
(Area of Basin vs Known Produced and Proven Reserves)



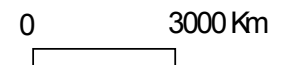
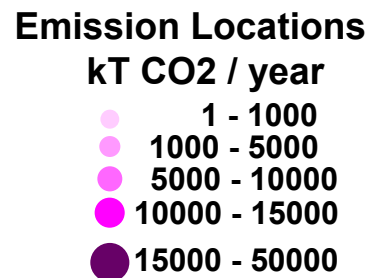
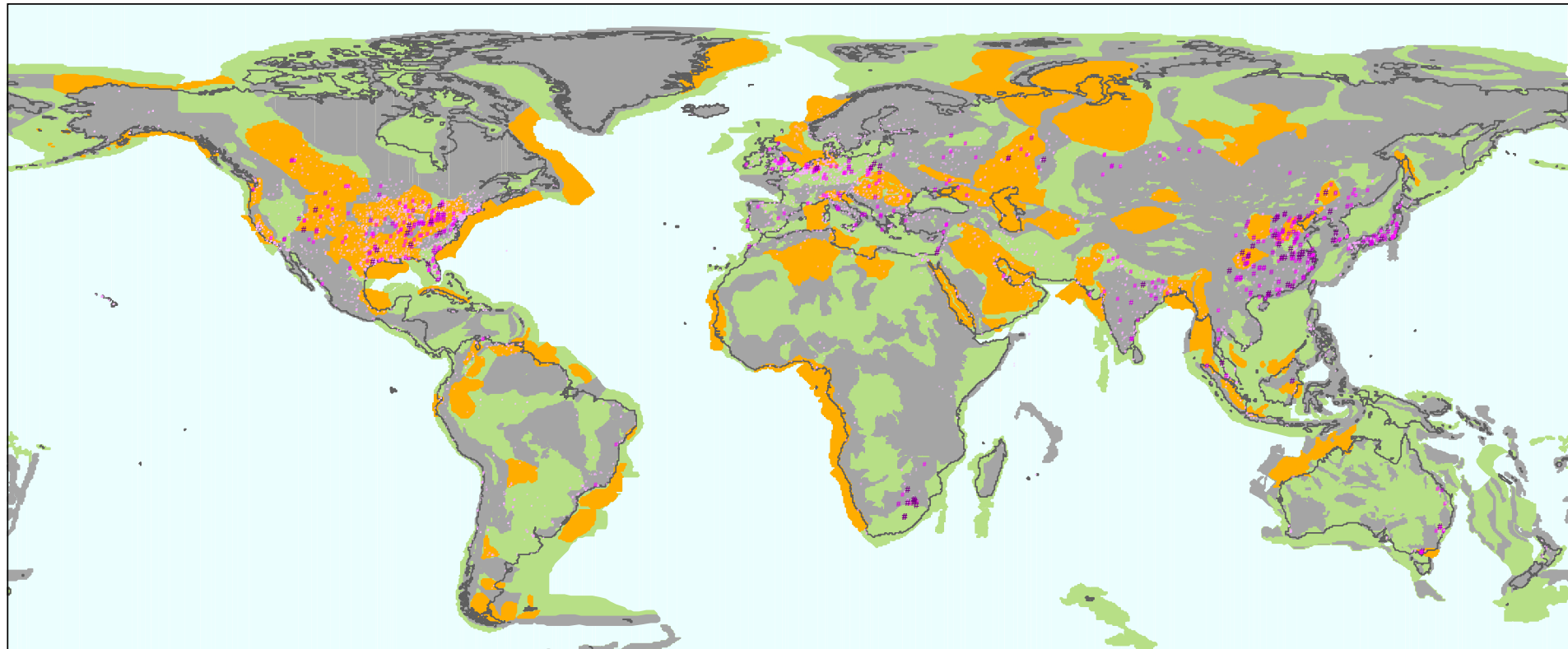
# Relationship between Surface Area of Basin and CO<sub>2</sub> storage potential for Australian basins (GEODISC)

(Note: log / log curve)

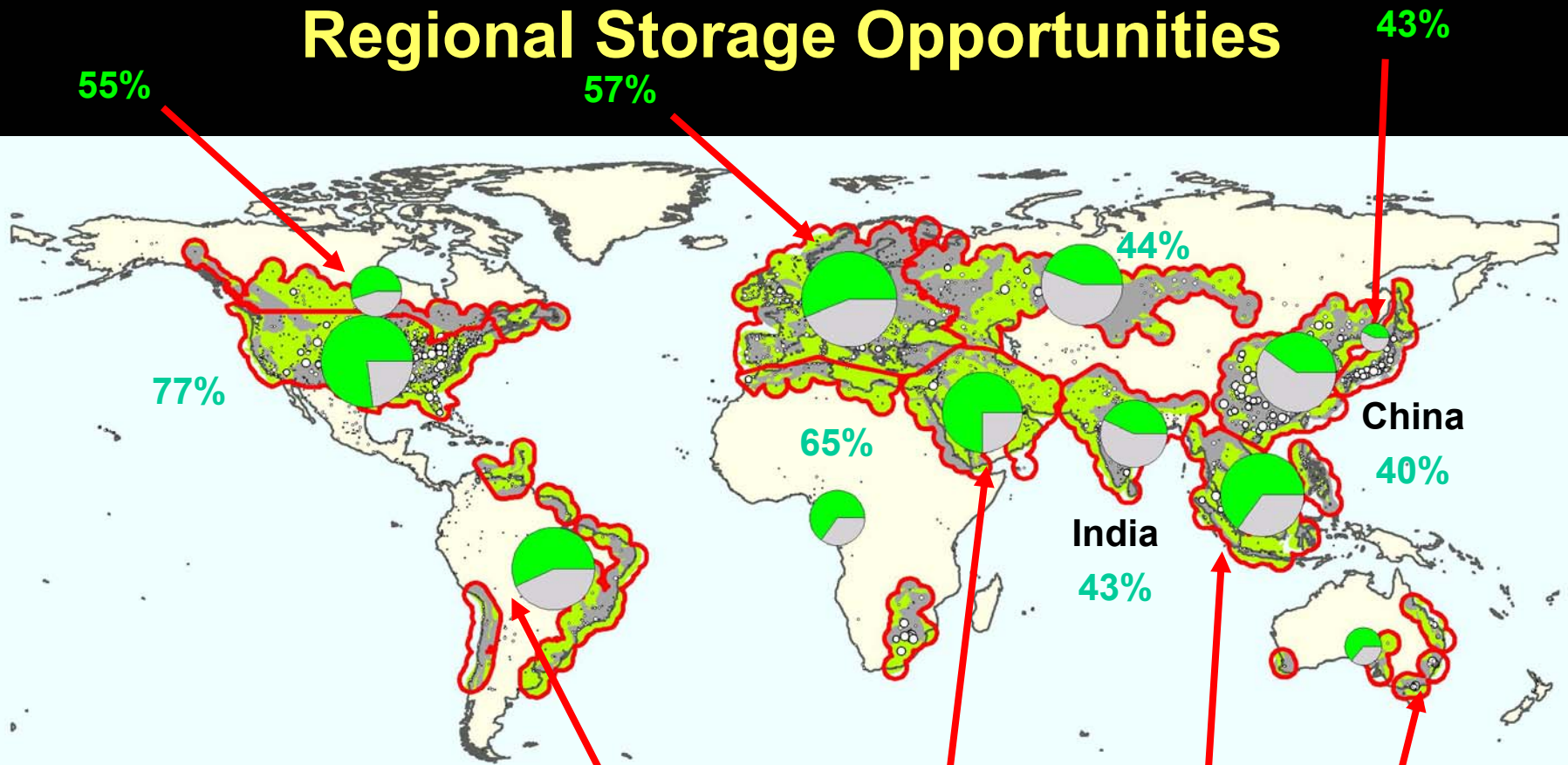
i.e. – again there is none



# Prospective Regions with Emissions Locations



# Regional Storage Opportunities



- Emission sources  
Emission **regions**

% Available Storage Opportunity

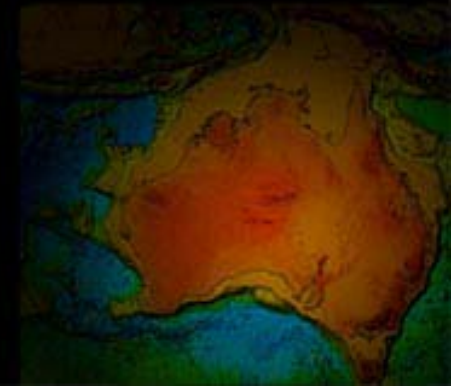
Available Storage Opportunities— **lime green**

Non-prospective areas- **GREY**

Size of pie proportional to total surface area

**But ..... remember !**

- **Says nothing about the geology of the sedimentary basins**
- **Or their suitability to store CO<sub>2</sub>**



# So how to make estimates?

- **Don't use MAPS + Planimeter + Calculator**
  - **Fundamentally wrong methodology**
- **Do use specific Geology and Reservoir characteristics**
- **Do prospect risk assessment on technical criteria**
- **Takes time and commitment**
- **Multiple Billions of \$'s are about to be invested - so it's time to start doing it properly with TECHNICAL CREDIBILITY**

