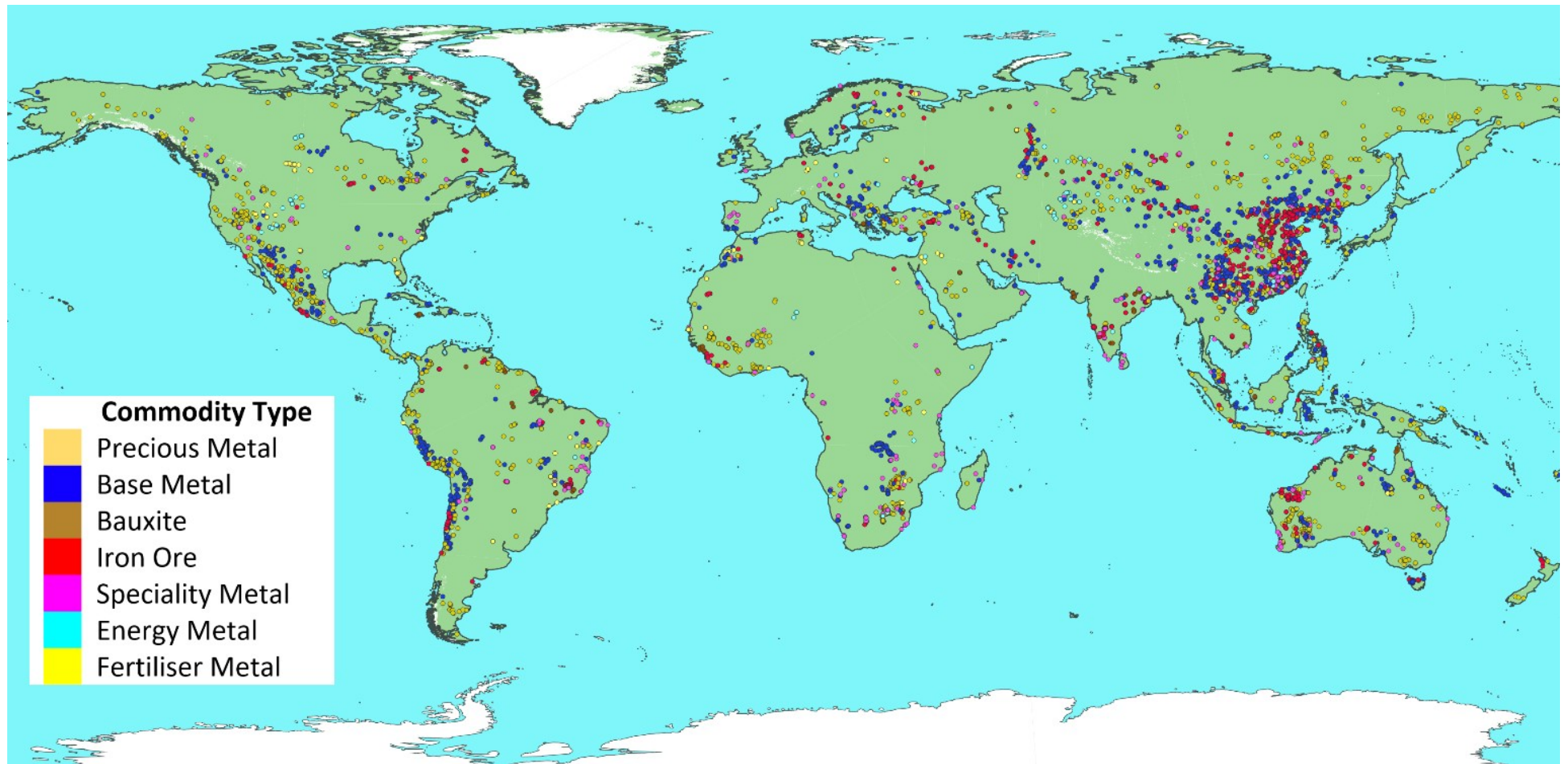


## 4. Where do we mine metals/minerals?

The fourth part of the presentation is about where we currently exploit (mine) metals and minerals.

- Using the example green technology used in part 2 (for example a solar panel or wind turbine) – plot on a map the main mining areas of each of the main metals/minerals.
- Play rare earth trump cards - Security of Supply of Mineral Resources (SoSMinErals) – an EU-funded research group – developed two sets of trump cards for rare earth minerals and for critical minerals (<https://geobus.st-andrews.ac.uk/resources/sos-minerals/>).
- Discuss why we find minerals in these specific locations.
  - o For example, what geological setting lead to the vast iron ore fields of the Pilbara (Western Australia) or the Witwatersrand gold fields of South Africa, porphyry copper belt in the Andes of South America or bauxite in tropical environments.
- What potential does the UK have to be self-sufficient in metals to fuel the manufacturing of green technology? Research what minerals we have extracted here historically, at present and the future potential.
  - o Historically – tin, copper, iron, lead, zinc, gold, silver, salt, potash
  - o Presently – potash (Boulby Mine in Yorkshire), Cononish gold mine had first gold pour in December 2020.
  - o Future – Cornwall has best chance of producing lithium, tin, tungsten, copper along with gold projects in Scotland, Wales and Northern Ireland.
  - o Very unlikely that we can be self-sufficient, unless we dramatically change our lifestyles and how we consume products.



# Major Active Metal Projects in the UK

