

Critical Mineral Narratives

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Common Narratives

more mining
recycling
secure supply chains
critical minerals

Let's Go Deeper

politics
market volatility
community conflict
definitions of criticality
infrastructure constraints
environmental tradeoffs
shifting technology
geopolitical interests
incentives
implementation constraints

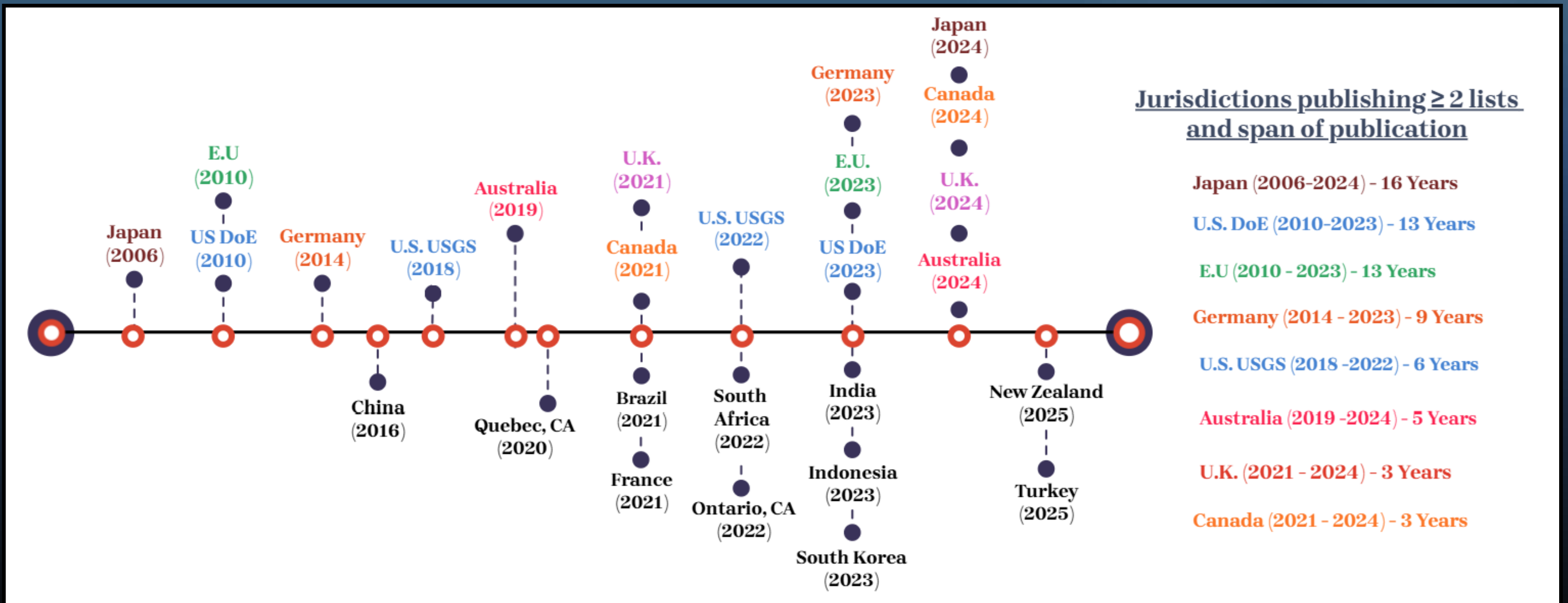
I. Critical to Whom?

Common Narrative:

A mineral is critical when it is important for future goals and technology.

Let's go Deeper:

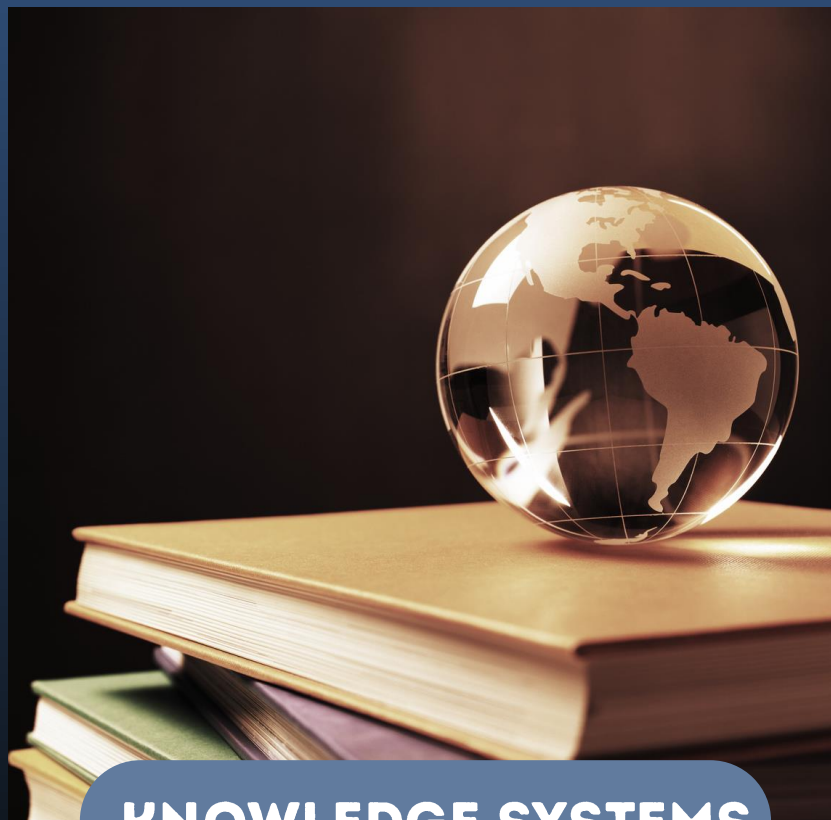
Criticality is based on political priorities, economic interests, supply risks, and strategic narratives by specific groups.



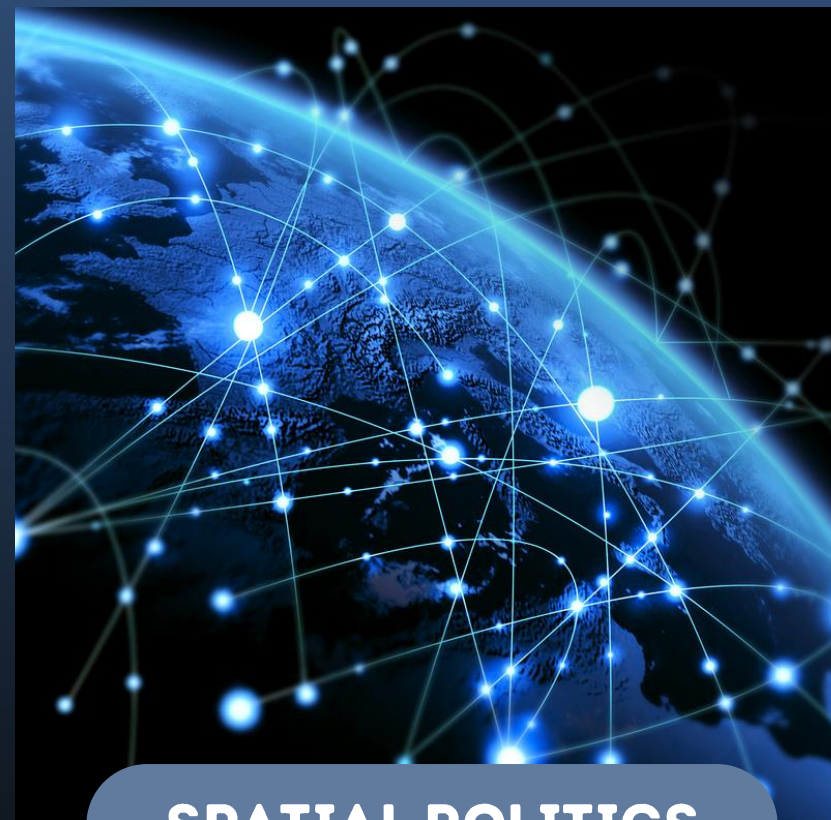
II. Rethinking Supply Chains

- **Common Narrative:** A supply chain is the network of people, companies, materials, transportation, and processes needed to make a product and move it from raw materials to the final customer.
- **Let's go Deeper:** Critical mineral supply chains are more than simply logistical movements of materials, rather they are political and social systems broader than supply, demand, and distribution dynamics. Viewing them in this way can help policymakers develop more durable solutions based on cooperation, shared responsibility, and better resource governance.

Three Ways to Reconceptualize Supply Chains



KNOWLEDGE SYSTEMS



SPATIAL POLITICS



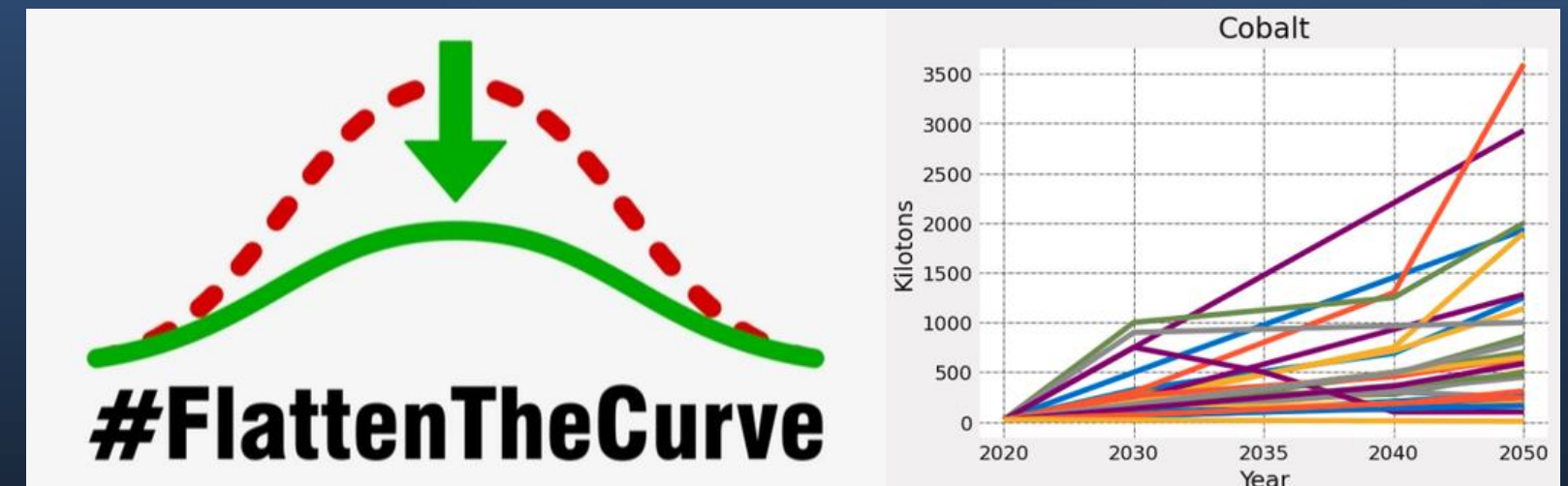
CHRONO-POLITICS

III. Beyond ‘More Mining’

Common Narrative: Critical Minerals are usually narrowly framed as a supply expansion problem

Let's Go Deeper: While expansion is necessary, demand reduction through energy efficiency, battery rightsizing, and mobility system redesign is a complementary, and sometimes more effective, approach

- **Why Demand Reduction?:**
 - Mining Capacity might not keep up with Demand for Energy Transition
 - Can mitigate environmental and social impacts of mining » Non linear relationship with demand
 - Could Reduce Reliance on mineral supply
- **Potential Strategies (The Case of Li-Ion Batteries):**
 - Battery Rightsizing and smaller Vehicles
 - EV efficiency
 - PHEVs?
 - Public Transit
- **Challenges:**
 - Implementation would likely require policy support
 - It may be hard to convince key demographics to participate in demand side measures



IV. The How and Where of Recycling

Common narrative: Recycling is a silver-bullet solution to the problem of critical mineral extraction.

Let's go deeper: While recycling so-called critical minerals could minimize the push for primary extractive projects, we need to be more attentive to **how** and **where** recycling takes place, including its social, political, and environmental implications.

- **The promise of recycling**
 - Sustainability arguments
 - Security arguments
- **The challenges of recycling**
 - Environmental and human health concerns
 - Supply chain concerns
- **Pathways forward**
 - Support policies and best practices that foreground the safety of workers, communities, and environments



V. Are new technologies and research enough?

Common Narrative: We know what to do to fix critical mineral issues, and we have a clear understanding of future requirements and possible solutions

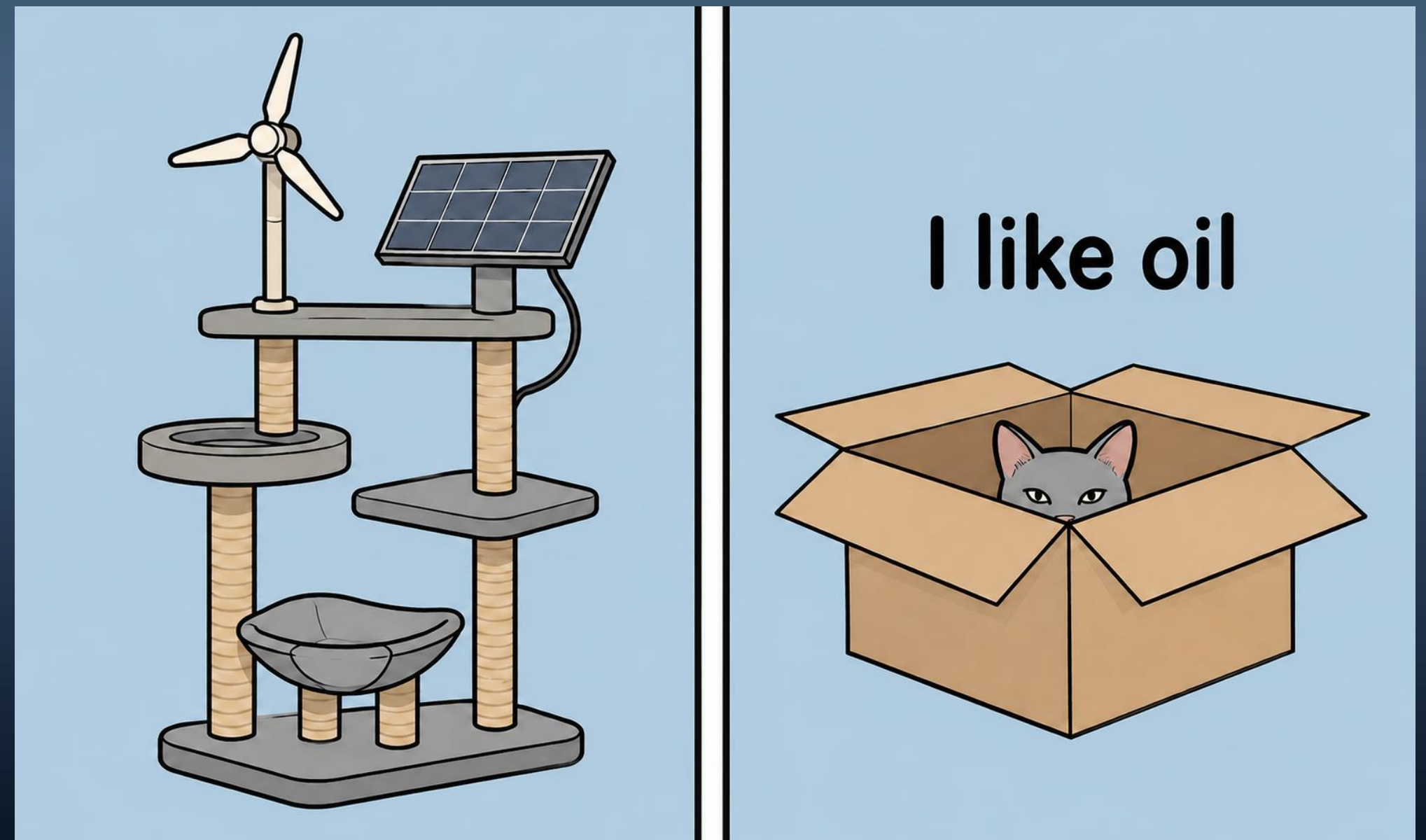
Let's go Deeper: Technically sound solutions can fail or stall because implementation depends on numerous factors

What Has Experience Shown Us?

- Commitments and Plans Change Even at the National Level
- Many ideas we have are conflicting and competing

What does that suggest?

- Good ideas still need actors with reasons to act
- Demand reduction and recycling aren't automatic





Conclusion

- Common critical mineral narratives hide complexities
- Narratives are a question of power, highlighting some interests at the expense of others
- Narratives have a wide range of implications that extend beyond language
- We don't all need the same narratives, but we should be aware of the implications of the narratives we use
- What critical minerals future do you want to see, and what narratives would support it?

