

Minerals Make Innovation

Minerals are integral components of the next-generation technologies that make American companies world leaders in innovation.

Minerals in Advanced Technology

- A single wind turbine can contain 335 tons of steel, 4.7 tons of copper, 3 tons of aluminum and 700-plus pounds of rare earth minerals, as well as zinc, molybdenum and concreteⁱ.
- Solar energy technology relies on a range of minerals including silver, copper, gallium, tellurium and rare earth minerals.
- CAT scans contain a variety of minerals, including tungsten, copper, lead, silver, chlorine, aluminum and gold.
- Platinum is used in advanced electronics, fuel cells and in pollution control devices for cars.

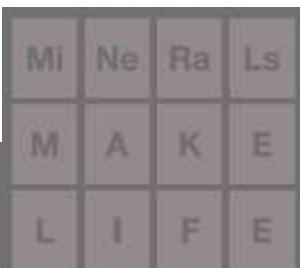


Growing Demand for Minerals

- As the world's population grows and developing countries embrace new technologies, products relying on greater combinations of minerals will come to market, further increasing demand for minerals.
- Global sales of hybrid cars are expected to increase from 2.2 percent of sales in 2010 to 7.3 percent in 2020ⁱⁱ, and auto executives estimate the demand for lithium—key to high-performance batteries—could outpace supply in as little as 10 yearsⁱⁱⁱ.
- Over the next five years, worldwide demand for copper will match global GDP growth at roughly 4 percent and demand for aluminum will grow twice as fast as the global GDP^{iv}.

Minerals for the Future

Policies that bolster domestic minerals mining can help establish a stable supply chain of the materials that are fundamental to American innovation.



Sources:

i Vestas Wind Systems

ii J.D. Power and Associates, "Drive Green 2020: More Hope than Reality"

iii *TIME*, "For Lithium Car Batteries, Bolivia Is in the Driver's Seat"

iv McKinsey & Company Basic Materials Institute, *Commodity Perspectives*