Minerals—Backbone of the economy

Major developments in global mining production based on World Mining Data 2023

- **World mining production**
  - 2021: 179 Billion metric tons
  - 2000: 113 Billion metric tons
  - 1985: 9.6 Billion metric tons

- **Non-Ferrous Metals**
  - Ratio of 4 base metals: Al, Cu, Zn, Pb to all other Non-Ferrous Metals
  - 99.1% to 0.9%

- **Total mining production 1984-2021**
  - 2021: 179 Billion metric tons
  - 2000: 113 Billion metric tons
  - 1985: 9.6 Billion metric tons

- **Largest 5 producer countries share 979% of Lithium production**

- **Strong increase in rare earth minerals production [REE-Content]**

- **Total production 2021 by continents**
  - Africa: 60.9%, Latin America: 10.3%, Europe: 8.6%, Oceania: 6.8%

- **Minerals production: Oceania surpassed**
  - Latin America in 2018 and Europe in 2005

- **China, USA, Russia and Australia are the 4 biggest mining nations**

- **Battery Materials: Mine production 2021 share by continents**

- **Change 2000/2021—declining production rates since 2000 only in Europe**
  - +17.9% to +113.9% in other continents

- **Iron and Ferro-Alloy Metals**
  - Ratio of all Iron to all other Ferro-Alloy Metals
  - 97.2% to 2.8%

- **Growth rate of Nickel production 2000/2021 (2017/2021): 169.9% (7.3%)**

- **Growth rate of Copper production 2000/2021 (2017/2021): 66.2% (6.6%)**

- **Big changes**
  - Lithium: 753.5% to 42.9%
  - Gallium: 734.6% to 40.0%
  - Tellurium: 278.4% to 19.7%
  - Antimony: -18.8% to -36.9%
  - Lignite: -20.4% to -16.3%
  - Diam. (Ind): -23.2% to -38.3%

- **Steady increase in natural gas production**

- **China is world’s largest producer of 29 different commodities:**
  - 4 iron & ferro-alloy metals, Mo, Ti, W, V
  - 15 Non-Ferrous Metals: Al, Si, As, B, Cd, Ca, Ge, In, Pb, Hg, REE, Sr, Se, Ta, Sn, Zn
  - 1 Precious Metal: Au
  - 7 Industrial Minerals: Fijnspar, Graphite, Gypsum, Magnesite, Phosphate Rock, Sulfur, Sulfur
  - 2 Mineral Fuels: Steam Coal, Coke/Coking Coal