# MUNI SCI

# Soutěž Bohatství Země 2021 Geologická část

Mgr. Vojtěch Wertich, Ph.D.

Mgr. Ľubomír Kyrc







# Ložisková geologie, nerostné zdroje, těžební průmysl

- smysl soutěže základní náhled do problematiky zdrojů nerostných surovin a těžebního průmyslu v globálním měřítku
- ložisková (ekonomická) geologie obor / průmysl zahrnující veškerou
  činnost spojenou s ložisky nerostných surovin (geologie, technologie
  těžby, ekonomika, sociální aspekty, životní prostředí a rekultivace)





Těžba hnědého uhlí – lom ČSA, tepelná elektrárna Ledvice a pohled na postupně rekultivovanou krajinu severních Čech



### Letošní téma měď a stříbro

- Aktuálnost enormní nárust zájmu o klima elektromobilita, elektronika
- Podpora EÚ pro zelené producenty kovů, těžených ekologicky a moderními technologiemi
- "Kupferschiefer" jedna z nejvýznamnějších Cu mineralizací v Evropě

#### Polish copper giant KGHM shares best financial result in a decade

fb/ajk () 17.08.2021, 21:30



Poland's KGHM copper and silver mining corporation recorded its best financial results in a decade in H1 2021 despite the on-going COVID-19 pandemic, according to a Meanwhile, solvent extraction-electrowinning fell by 1.5%. company report.

#### Global Copper Output On The Rise As Prices Soar

By Ag Metal Miner - Sep 21, 2021, 12:30 PM CDT



Global copper mine production picked up by 4.9% during the first half of the year, the International Copper Study Group said this week.

#### Copper production gains

Broken down further, concentrate production rose by 6.4% during the six-month period.

Chile, the world's top copper producer, saw its copper production fall 1.2% during the first half

Meanwhile, Peru, the second-biggest copper producer, saw its output bounce back by 14% year over year. However, its half-year output remained down 9% from H1 2019 levels.

As a result of rising output at the Grasberg mine, Indonesia's output rose by 69% year over year



Európsky Inštitút



The energy transition has been placed at the top of the European political agenda, with the digital transition closely following suit. But to successfully implement these two priorities, the EU needs to examine and adjust its supply and use of metals. A renewable energy supply requires far more metals

The digital transition also relies on a wide array of metals. Much of Europe's metals come from outside its space, at the cost of environmental dumping and human rights violations. In many cases, women are the

Should we press mining companies to clean up their act and negotiate a fair trade in metals, or is time to nearshore the extraction of metal ores? Is it even possible for Europe or the UK to become self-sufficient in metals, by reviving metal mining within their borders and/or by drastically improving recycling from the

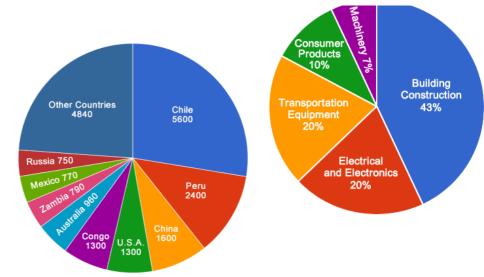
One thing is clear; the dilemmas around metals make it all the more urgent to rethink our consumption patterns, from mobility to data use. This event explores these issues of pollution through mining and dumping, the human rights aspect of mining and other urgent issues faced by the EU today.

Soutěž Bohatství Země / Geologická čás

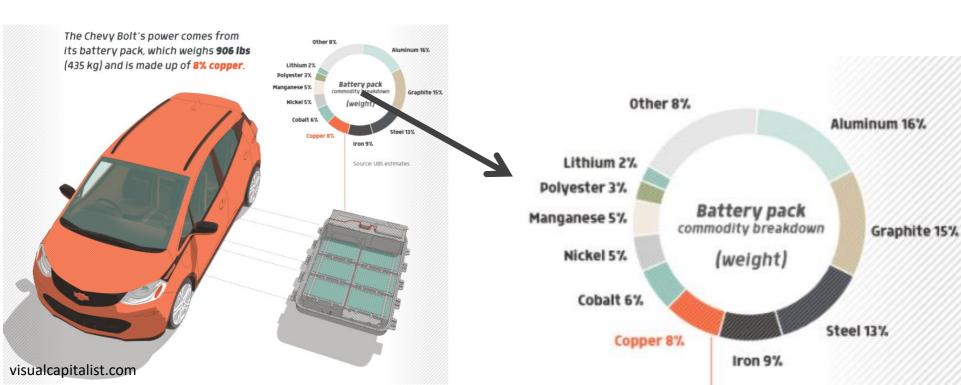
#### Využití mědi v US za rok 2019 (USGS 2021)

# Využití mědi

- Vodivá (teplo, el. proud), kujná
- Elektronika kabely, obvody
- Stavby (trubky, kabely), klimatizace
- Elektromobilita



Těžba mědi za rok 2019 v tisíc ton (USGS 2021)

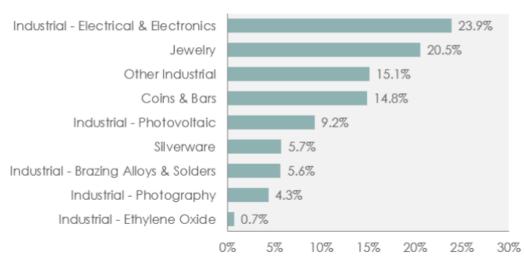


## Využití stříbra

- Vodivost, kujnost, je antibakteriální
- Elektronika, šperky,
  medicína, zrcadla, filmy...

#### 2017 GLOBAL SILVER DEMAND BY CATEGORY

Source: Silver Institute, 2018



#### **Top 20 Producing Countries**

Million ounces	2019	2020	Y/Y
Mexico	187.8	178.1	-5%
Peru	135.7	109.7	-19%
China	110.7	108.6	-2%
Chile	38.2	47.4	24%
Australia	42.6	43.8	3%
Russia	44.7	42.5	-5%
Poland	40.4	39.4	-2%
United States	31.4	31.7	1%
Bolivia	37.1	29.9	-19%
Argentina	32.9	22.9	-30%
India	20.4	21.6	6%
Kazakhstan	17.1	17.3	2%
Sweden	14.4	13.4	-7%
Canada	13.5	9.3	-31%
Morocco	8.1	8.4	4%
Indonesia	7.2	8.3	14%
Uzbekistan	6.1	6.3	2%
Papua New Guine	ea 4.7	4.2	-10%
Dominican Repub	olic 4.5	3.8	-15%
Turkey	3.2	3.6	11%
Others	32.5	34.2	5%
Total	833.2	784.4	-6%
Source: Metals Fo	ocus		

#### **Top 20 Producing Companies**

Million ounces	2019	2020	Y/Y
Fresnillo <sup>1</sup>	51.8	50.3	-3%
KGHM Polska Miedz²	45.6	43.5	-5%





YT: KGHM



## Děkujeme Vám za pozornost



Důl SW-1 – exkurze v rámci SGA Baltic Chapter 2019



Cca 10 cm tlustá poloha Kupferschiefer, důl SW-1, Polkowice, Polsko



Vytěžené prostory, důl SW-1, Polkowice, Polsko

