

ZSEBÜNK BEN A JÖVŐNK

a mobiltelefon újrahasznosítás műhelytitkai



© Wilfried Pohnke auf Pixabay

Passzold vissza Tesó! - KÖVET webinar 2022. március 17.

Hova kerülnek a begyűjtött mobiltelefonok?



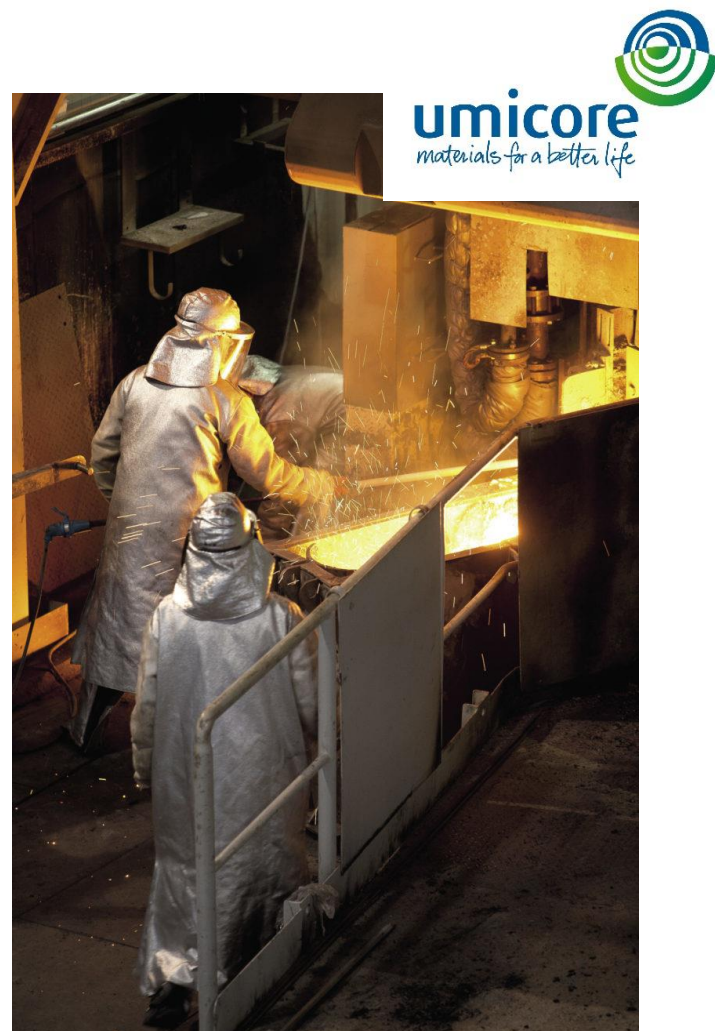
2021-ben

3.000 tonna e-hulladék,
5 tonna mobiltelefon,
2 tonna Passzold vissza...

A large pile of discarded mobile phones and components. Visible items include a yellow phone, a blue phone, a silver phone, and various internal parts like batteries and SIM cards. The phones are of different models and colors, mostly black, silver, and yellow. Some phones have their screens cracked or missing. The components are scattered around the phones, showing the internal structure of the devices.



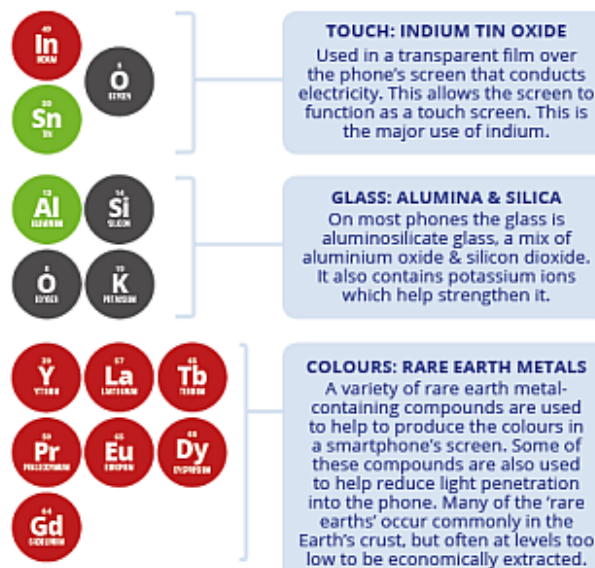
Hozzájuthat-e valaki a leadott mobiltelefonon tárolt adataimhoz?



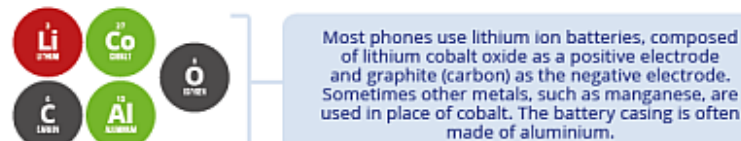
Milyen fémek nyerhetők ki a mobiltelefonokból?

COLOUR KEY: ● < 1% RECYCLE RATE ● 1–10% RECYCLE RATE ● 10–25% RECYCLE RATE ● 25–50% RECYCLE RATE ● > 50% RECYCLE RATE ● NON-METAL (OR RECYCLE RATE UNKNOWN)

SCREEN ○



BATTERY ○



○ ELECTRONICS

WIRING & MICROELECTRONICS
Copper is used for wiring, and for micro-electrical components along with gold and silver. Tantalum is the major component in micro-capacitors.

MICROPHONES & VIBRATIONS
Nickel is used in the microphone and for electrical connections. Rare earth element alloys are used in magnets in the speaker and microphone, and the vibration unit.

THE SILICON CHIP
Pure silicon is used to manufacture the chip, which is then oxidised to produce non-conducting regions. Other elements are added to allow the chip to conduct electricity.

CONNECTING ELECTRONICS
Tin & lead were used in older solders; newer, lead-free solders use a mix of tin, copper & silver.



○ CASING

Magnesium alloy is used to make some phone cases, whilst many others are made of plastics, which are carbon-based. Plastics will also include flame retardant compounds, some of which contain bromine, whilst nickel can be included to reduce electromagnetic interference.

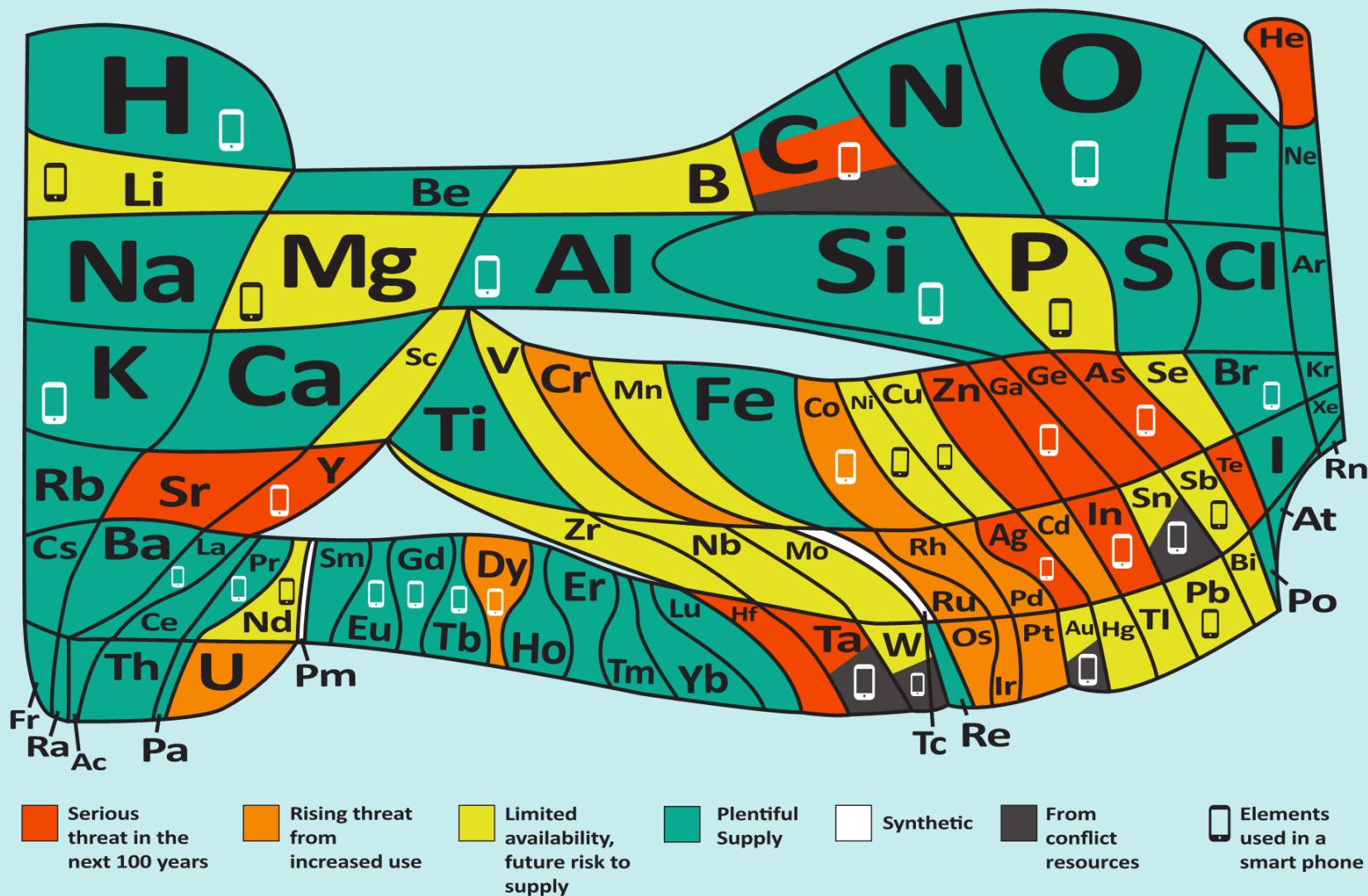


Milyen fémeket nyernek ki az akkumulátorokból?



The 90 natural elements that make up everything

How much is there? Is that enough? Is it sustainable?



Társadalmi és erkölcsi megfontolások az újrahasznosítás mellett

3TG metals

Tantalum - tantál

Tin - ón

Tungsten - wolfram

Gold - arany

Conflict minerals

ANATOMY OF A SMART PHONE

50
Sn
Tin

Tin aka stannum (Latin)
Silvery, malleable metal that does not easily oxidize in air
Source: Cassiterite

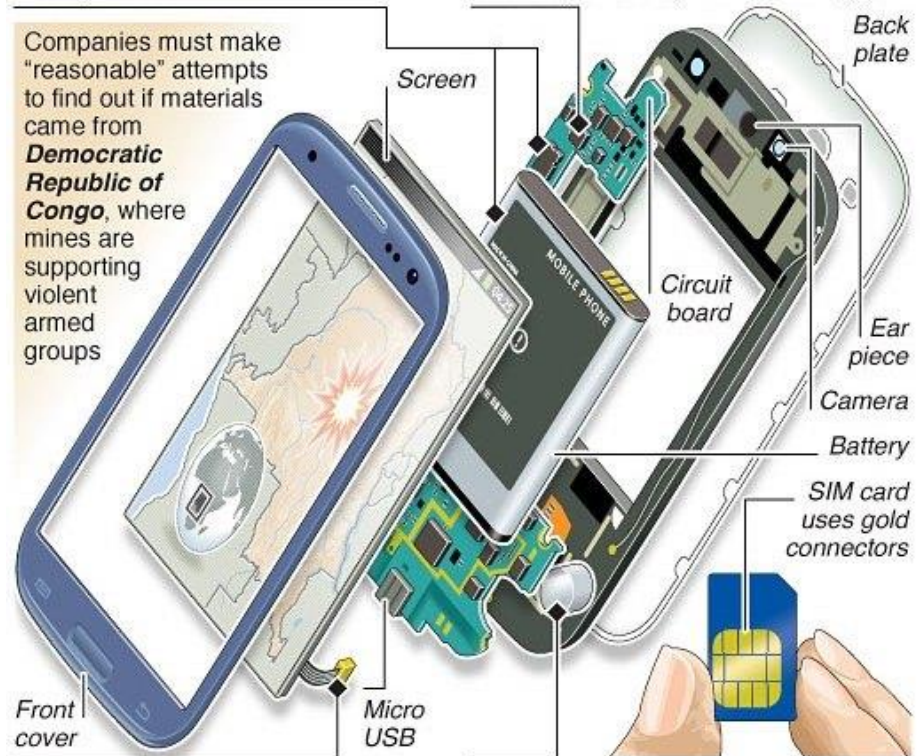
Use: Circuit board **solder** and battery **anodes**

73
Ta
Tantalum

Tantalum from Tantalus (Greek mythological figure)
Rare, hard, lustrous metal. Highly corrosion resistant

Source: Columbite-tantalite (Coltan)
Use: **Capacitors** (electrical storage)

Companies must make "reasonable" attempts to find out if materials came from **Democratic Republic of Congo**, where mines are supporting violent armed groups



79
Au
Gold

Gold aka aurum (Latin)
Dense, soft, malleable metal
Source: Nuggets or grains in rock and alluvial deposits

Use: **Connectors** – does not corrode in air like silver and copper

Source: Wire agencies

74
W
Tungsten

Tungsten from tung sten (Swedish) meaning "heavy stone"; aka wolfram (German). Hard, rare metal

Source: Wolframite
Use: **Vibration motor**

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A műanyagalkatrészeket tudják hasznosítani?



Mekkora értékkel támogatom a JGI kampányát egy mobiltelefon leadásával?



Palladium

Rotate to view full screen

Buy



24h

3d

30d

60d

6m

1y

5y

10y



Gold

Rotate to view full screen

24h

3d

30d

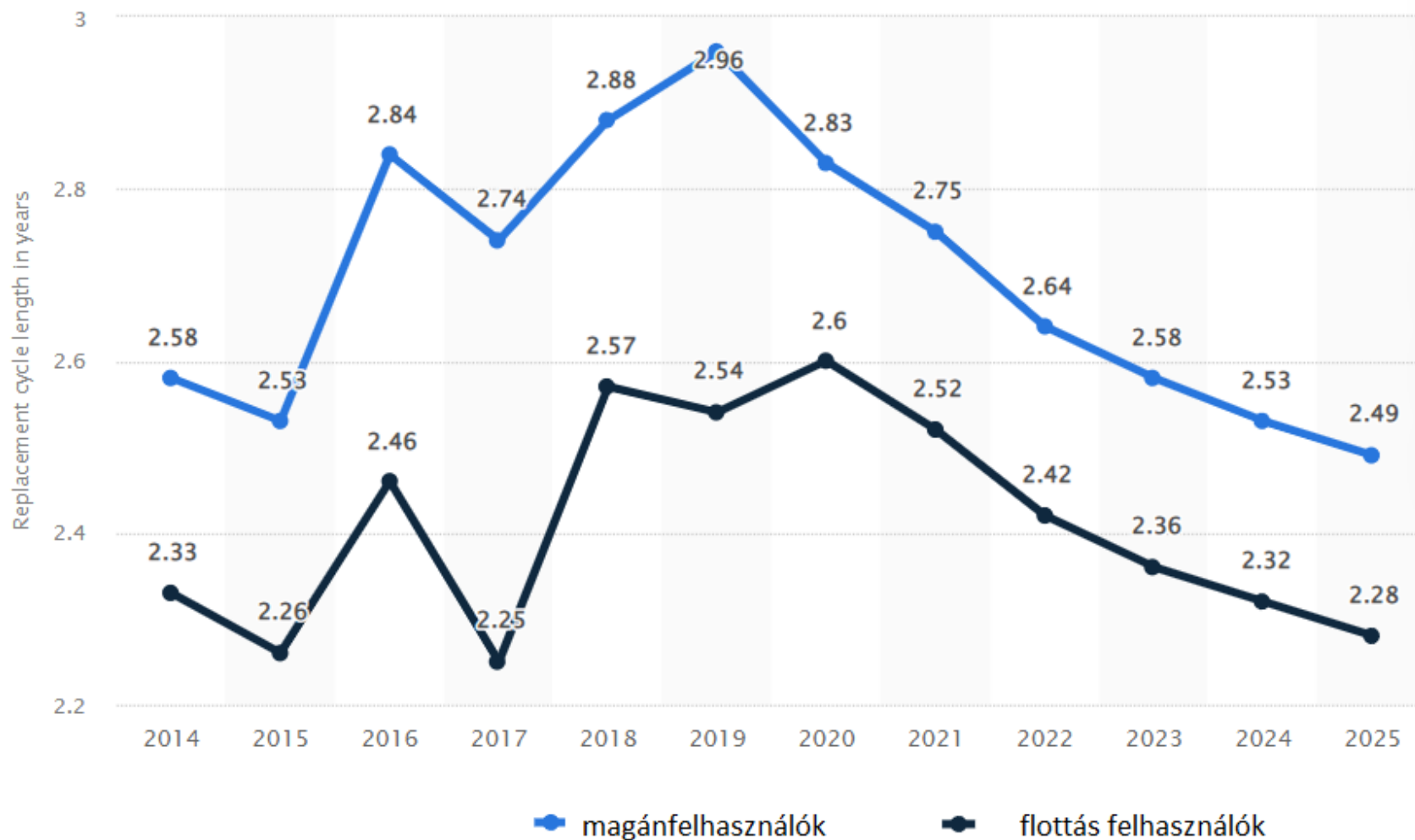
60d

6m

1y



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INTER METAL RECYCLING



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www.intermetal.hu
tihanyi.ervin@intermetal.hu