

Addressing...

BENEFITS OF COBALT

THE ENABLING METAL

- CRITICAL
- STRATEGIC
- ESSENTIAL

Cobalt is a naturally occurring element in the earth's crust. It is the 32nd most abundant element. It is also widely regarded as a **critical raw material** fundamental to industry, essential for enabling **technological development** and **key for low carbon future** due to its unique properties

BIOESSENTIALITY



Cobalt is essential for bacteria and plants, as well as for animals and humans in the form of **vitamin B12** only present in animal derived food

HEALTHCARE



Cobalt's high level of bio-compatibility, strength and wear resistance, among other properties makes it a suitable material for use in the **replacement** of human joints such as hips

INNOVATION & TECHNOLOGY



Critical Raw Material



Rechargeable Batteries



Magnets & Alloys



Digital Processing



Cobalt is a critical metal which has transformed the world by enabling **technological progress**: it is a key element in **rechargeable batteries** and integrated circuits used in **portable devices** and **electric vehicles**



Cobalt is an essential component in the **strong permanent magnets** used in **wind turbines** and the superalloys utilised in **aerospace** applications, **land-based power plants** and the **hard metal** industry

SUSTAINABLE DEVELOPMENT

REDUCING GREENHOUSE GASES

Cobalt in rechargeable batteries, catalysts and wind turbines plays a crucial role in reducing the levels of **greenhouse gases** whilst contributing to the manufacturing of more **eco-friendly products**

ELECTRIC VEHICLES

~50% of current Cobalt production is intended for rechargeable batteries that have made it possible for industry to develop electric transport systems which contribute substantially to tackle emissions, climate change and global warming

COBALT

Providing a long life in service to products is a major contribution to a **sustainable development**. Cobalt's oxidation resistant properties, hardness and wear resistance prolong the useful life of many applications

STORAGE OF RENEWABLE ENERGY

Cobalt is an essential metal in stationary rechargeable batteries used for storing wind and solar energy

BIOGAS AND SUSTAINABLE AGRICULTURE

Cobalt is a bioessential element enabling the development of **renewable biogas technology**: a small amount of cobalt improves the production of biogas and the residue from biogas, **digestate**, is used in **sustainable agriculture methods**

Would you want to know more about Cobalt?

CONTACT US:



Promoting the sustainable and responsible use of cobalt in all its forms

18 Jeffries Passage
GU14AP
UK
CI@cobaltinstitute.org
www.cobaltinstitute.org

DISCLAIMER: This summary is intended to provide general information about the topic under consideration. It does not constitute a complete or comprehensive analysis, and reflects the state of knowledge and information at the time of its preparation. No action should be taken without seeking independent professional advice. The Cobalt Institute will not be responsible for any loss or damage caused by relying on the content contained in this summary.