Training - Geopolitics of Metals and Rare Earths

GTR-EN-P

Face-to-face only

2 days

In the context of climate change policies, metals and rare earths are playing an increasing key role in the global energy mix. The exploding demand, driven by the expansion of low carbon technologies and the rise of digital economy, pushes both public and private stakeholders to reflect on the availability of the resources, to secure their future needs and to secure supplies

Level

Knowledge

Public

The training is dedicated to engineers, financial managers, senior executives and senior officials from the public administration

Objectives

Attendees will be able to implement the following skills:

- Understand the increasing role of metals and rare earths within the energy transition
- Comprehend the value chain, from production towards final consumption
- Analyze power relations between private and public stakeholders
- Decrypt the different strategies of the players to secure their supplies
- Estimate the criticality level of each material
- Anticipate the upcoming shifts and transformations

Pedagogical & technical resources

- Quiz
- Sub-groups activities

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsable

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

METALS & RARE EARTHS WITHIN THE ENERGY TRANSITION — 0.5 day

Climate change: state of play, regulatory framework, impact on companies.
Towards a low-carbon energy mix: constraints, carbon neutrality, CO_2 taxation.
Definition: from geology to geostrategy.
Investments evolution and targeting.
Applications of metals and rare earths: renewables, industry, defense, digital.

TECHNICAL & ECONOMIC ASPECTS — 0.5 day

Metals & rare earth: definitions, order of magnitude.
Analysis of the production chain: extraction, separation, transformation.
Pyro & hydrometallurgy.
Supply and demand balance: production, consumption, reserves, perspectives.

CRITICALITY LEVEL ANALYSIS — 0.5 day

Geological and geostrategic risks for copper, cobalt, nickel, lithium and aluminum.
Environmental risks and issues.
Water: a limiting factor for metals and rare earths industry.
Case study: comparison copper and cobalt/lithium.

STAKEHOLDERS STRATEGIES — 0.5 day

Public policies: regulatory framework, recycling, mobility policies, sobriety.
China: leadership and monopoly all along the value chain.
United States: stimulating investments and supplies securing.
European Union: an alliance to tackle dependency.
Japan: looking for unconventional resources.
Greenland: the high stakes
Technology and intellectual property.

Sessions

Rueil-Malmaison - From 12/15/2026 to 12/16/2026 — **2560 €/HT**

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com