

What is UNFC?

6th Event on the United Nations Framework
Classification for Resources and the United Nations
Resource Management System:

*“UNFC to support harmonizing European raw
materials information for resilient supply chains”*

Co-organized by
UNECE, DG GROW, EuroGeoSurveys, HE projects
“Geological Service for Europe” and “FutuRaM”

Karen Hanghøj

Chair, UNECE Expert Group on Resource Management
Hotel Plaza, Brussels - 16 November 2023



Raw Materials Week
13-17 November 2023

The Challenge of Classification

How to Classify?

How to
Classify?

By genre

By artist

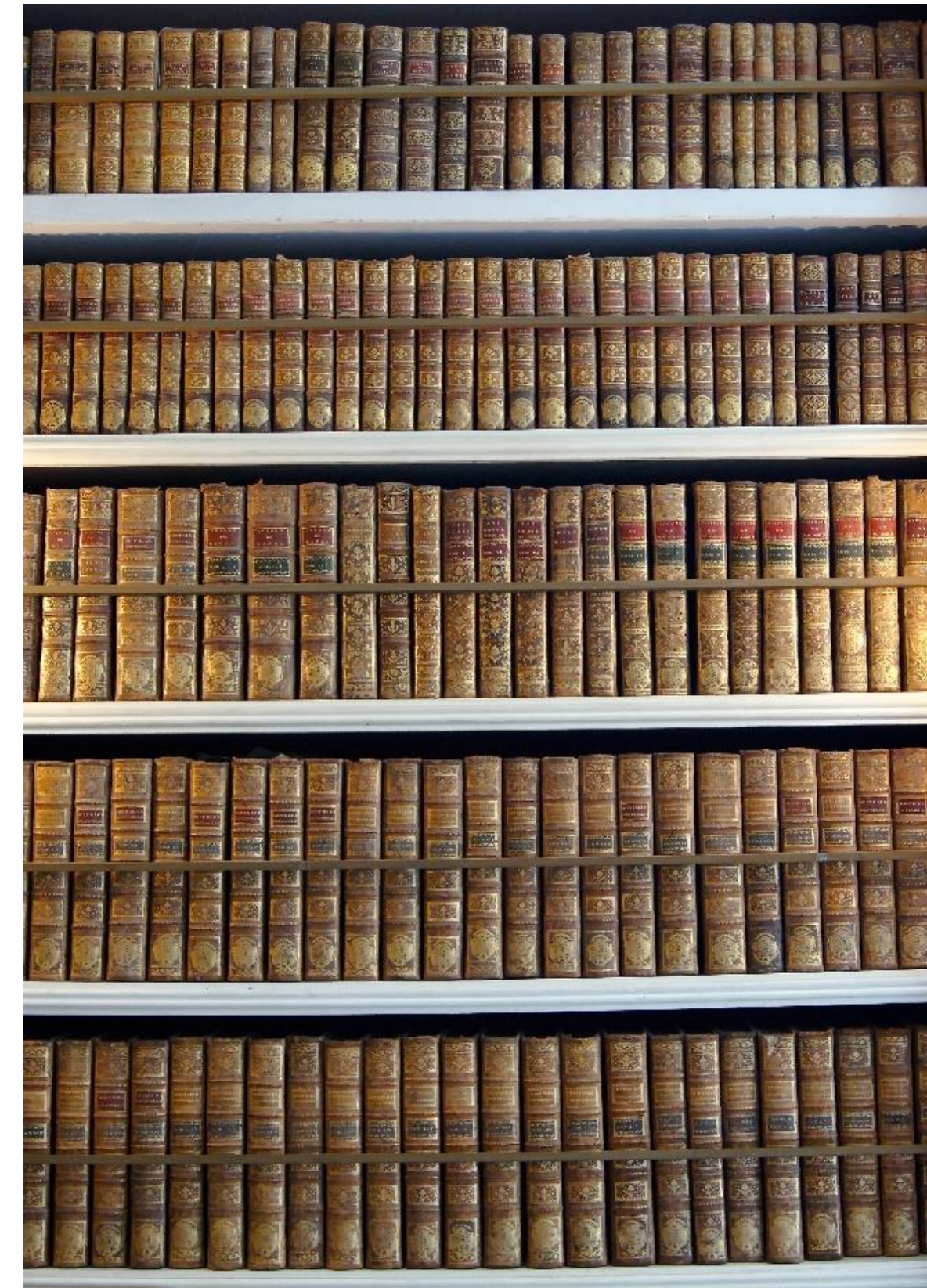
By composer

By instruments

By tempo

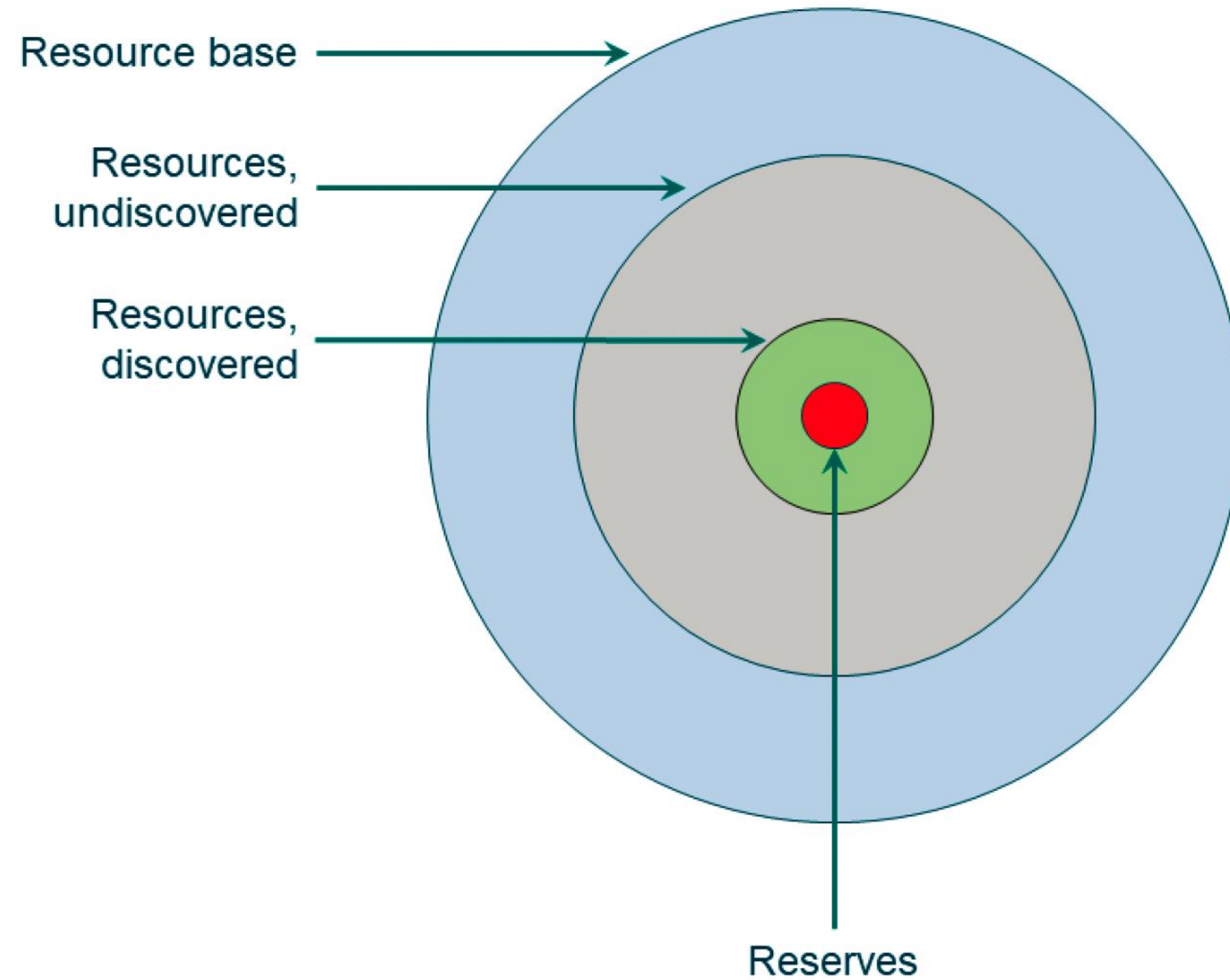
By date recorded

By date purchased



The Challenge of Classification

How to Classify?

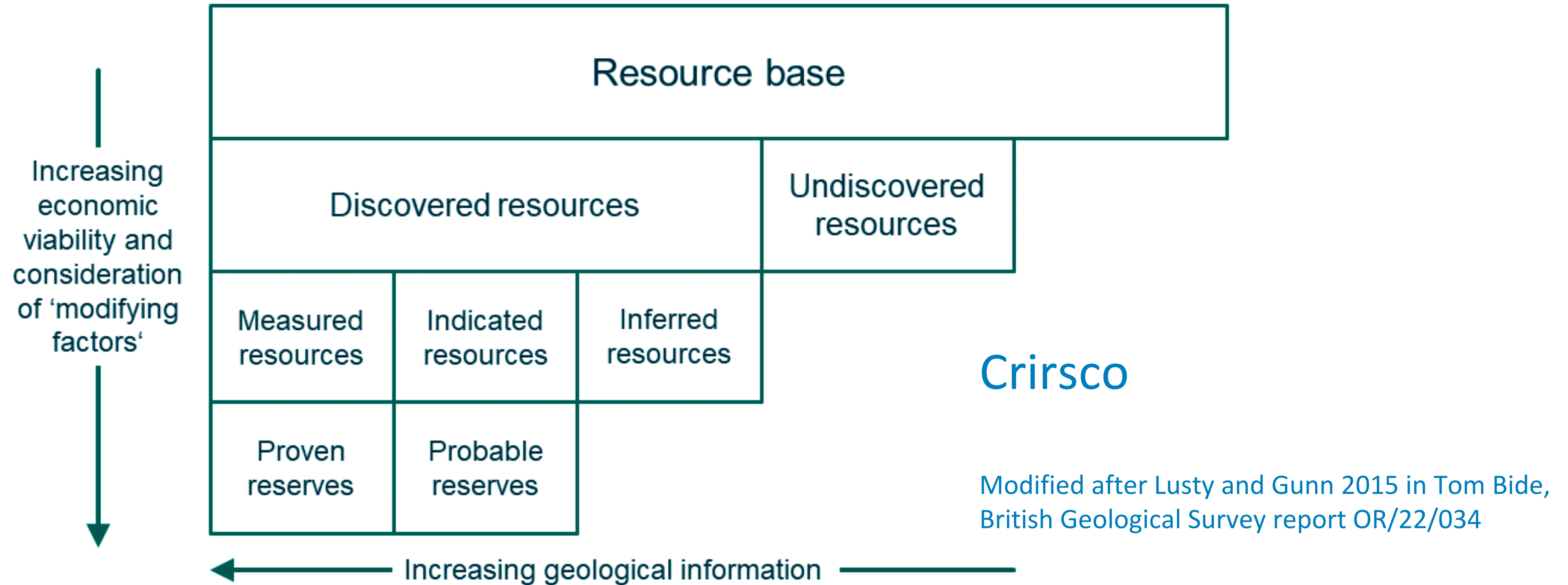


Modified after T Graedel et al. 2014 in Tom Bide, British Geological Survey report OR/22/034



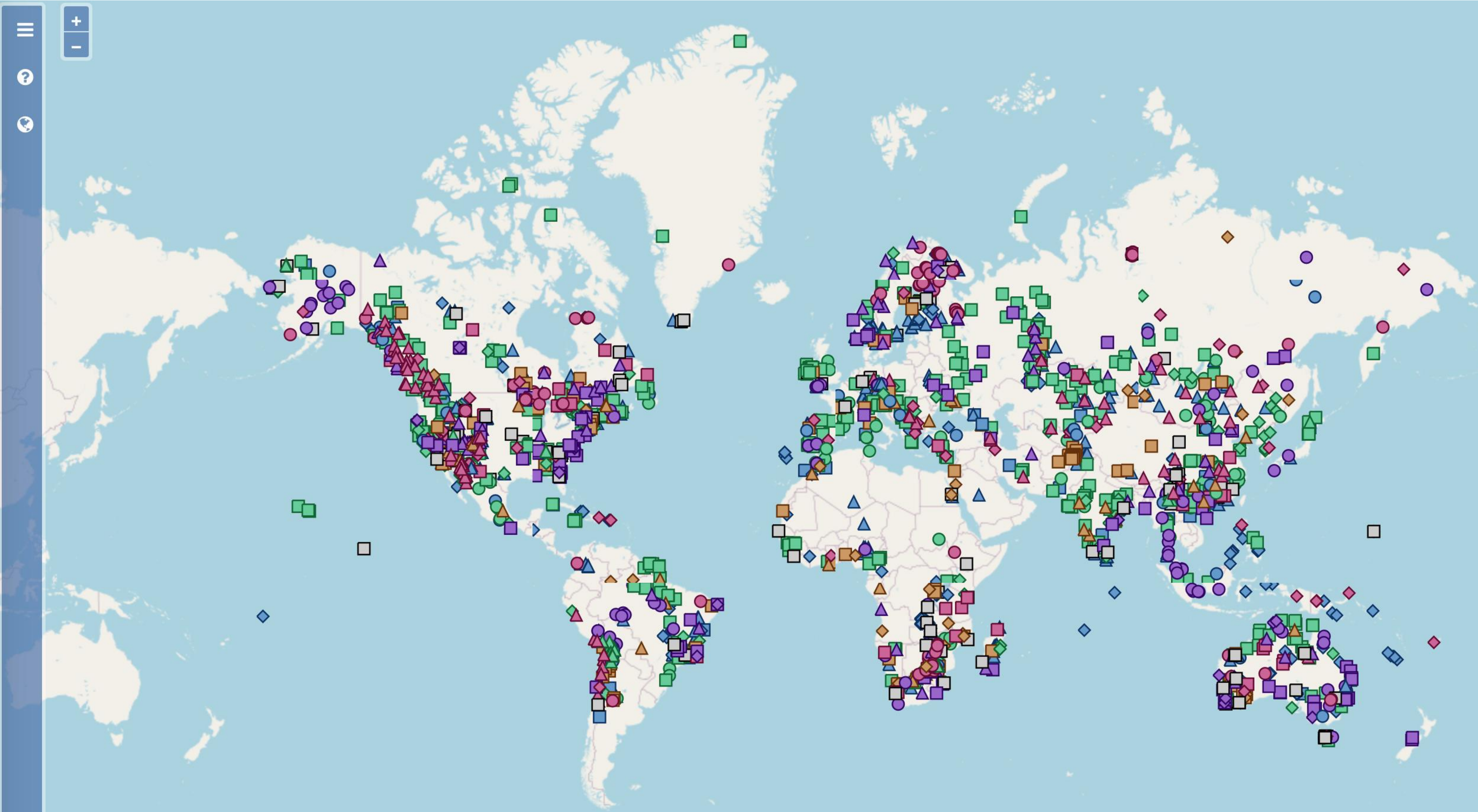
The Challenge of Classification

How to Classify?



Global Critical Mineral Deposits

- Antimony
- Barite
- ▲ Beryllium
- ◆ Cobalt
- Fluorite
- Gallium
- ▲ Germanium
- ◆ Graphite
- Indium
- Lithium
- ▲ Manganese
- ◆ Niobium and Tantalum
- Platinum-Group Elements
- Rare-Earth Elements
- ▲ Rhenium
- ◆ Tellurium
- Tin
- Titanium
- ▲ Vanadium
- ◆ Zirconium and Hafnium
- Multiple critical minerals



Source: USGS, October 2023

Resource Classification Stakeholders



UNFC and UNRMS

Consistent classification and management of all resources



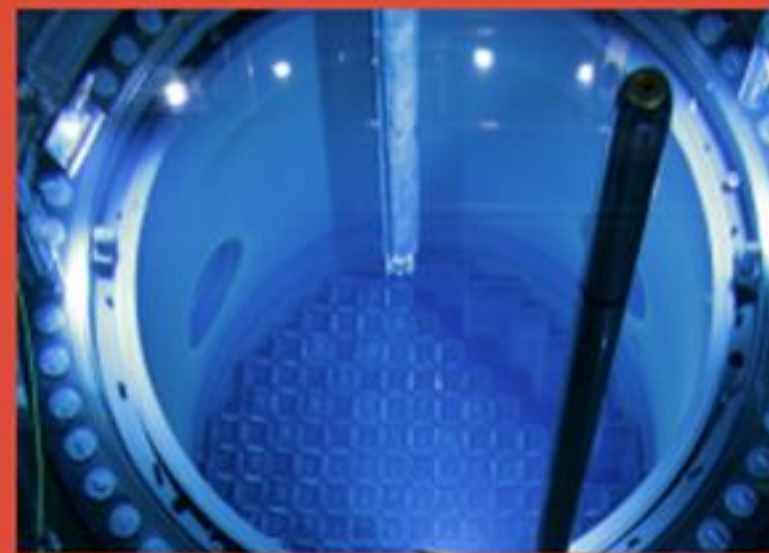
Minerals



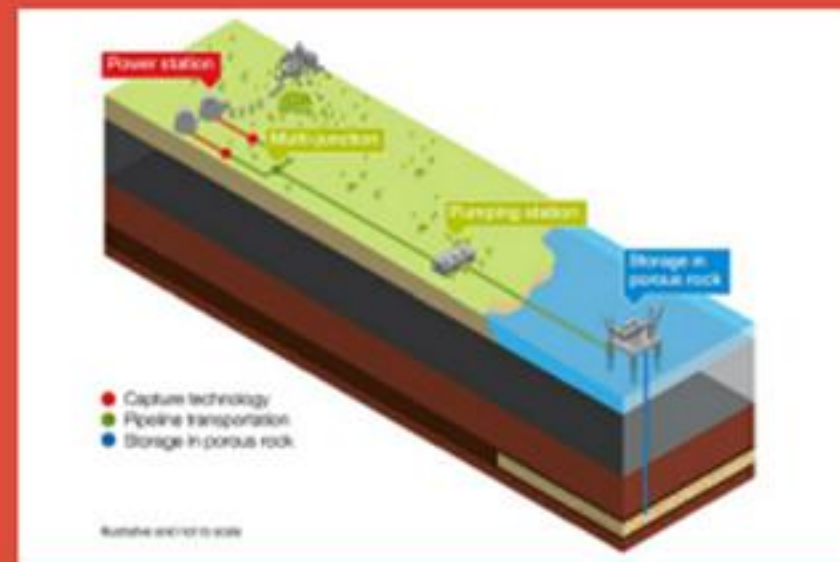
Petroleum



Renewables



Uranium

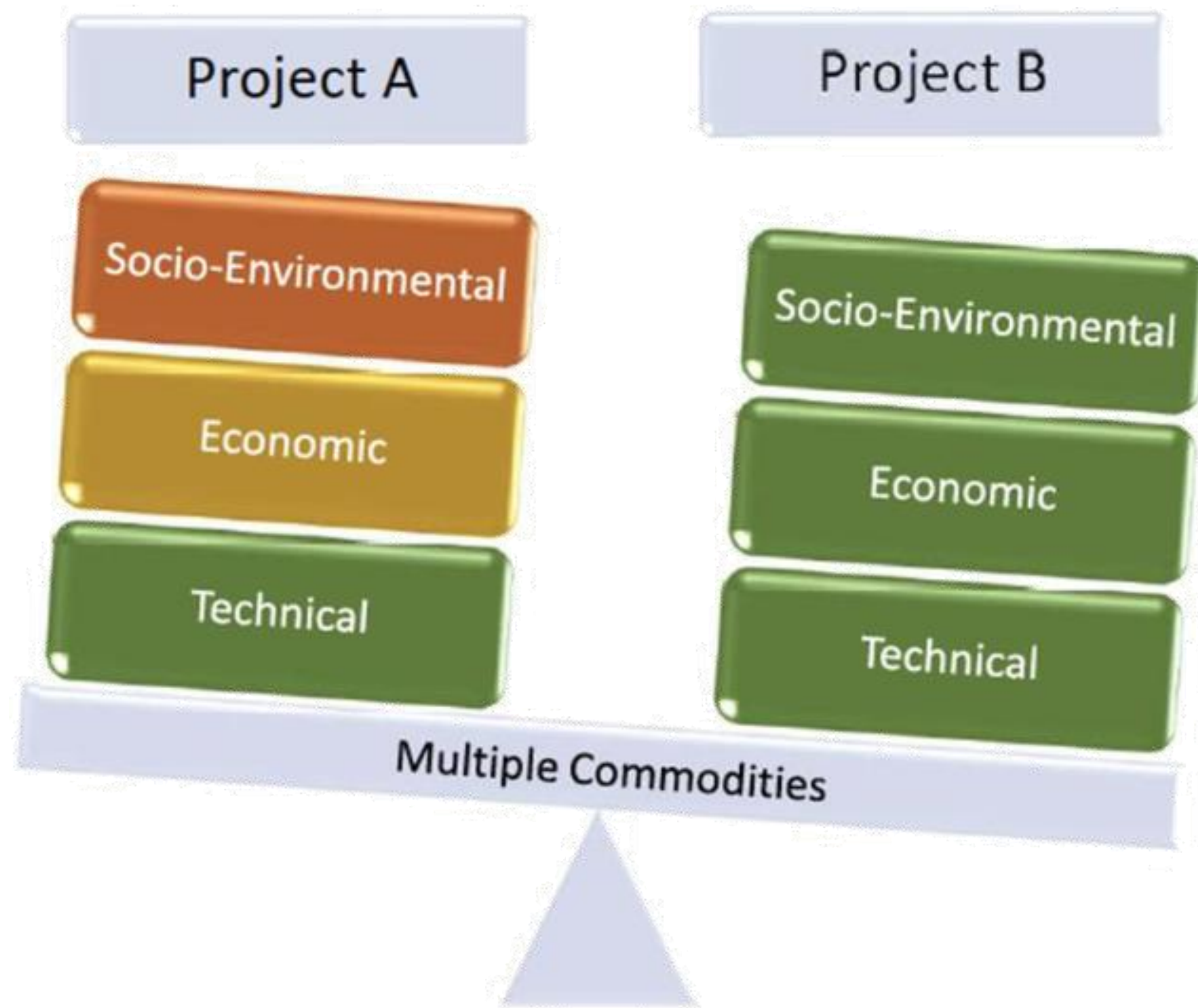


Injection



Anthropogenic





Principles-based, generic systems applicable for multiple commodities

Meet the needs of various stakeholders (government management, business development, financial investing, commodity planning)

Allow consistent comparison within and across multiple commodities

Endorsed by the UN ECOSOC for global application



- **UNFC** improves financial resilience through business process innovation
- **UNFC** derives necessary social, environmental, and economic outcomes
- **UNFC** speeds up decision-making, rendering it more rational, efficient, predictable, and safe. It makes information processing simpler as it integrates a resource management approach



Simple to use

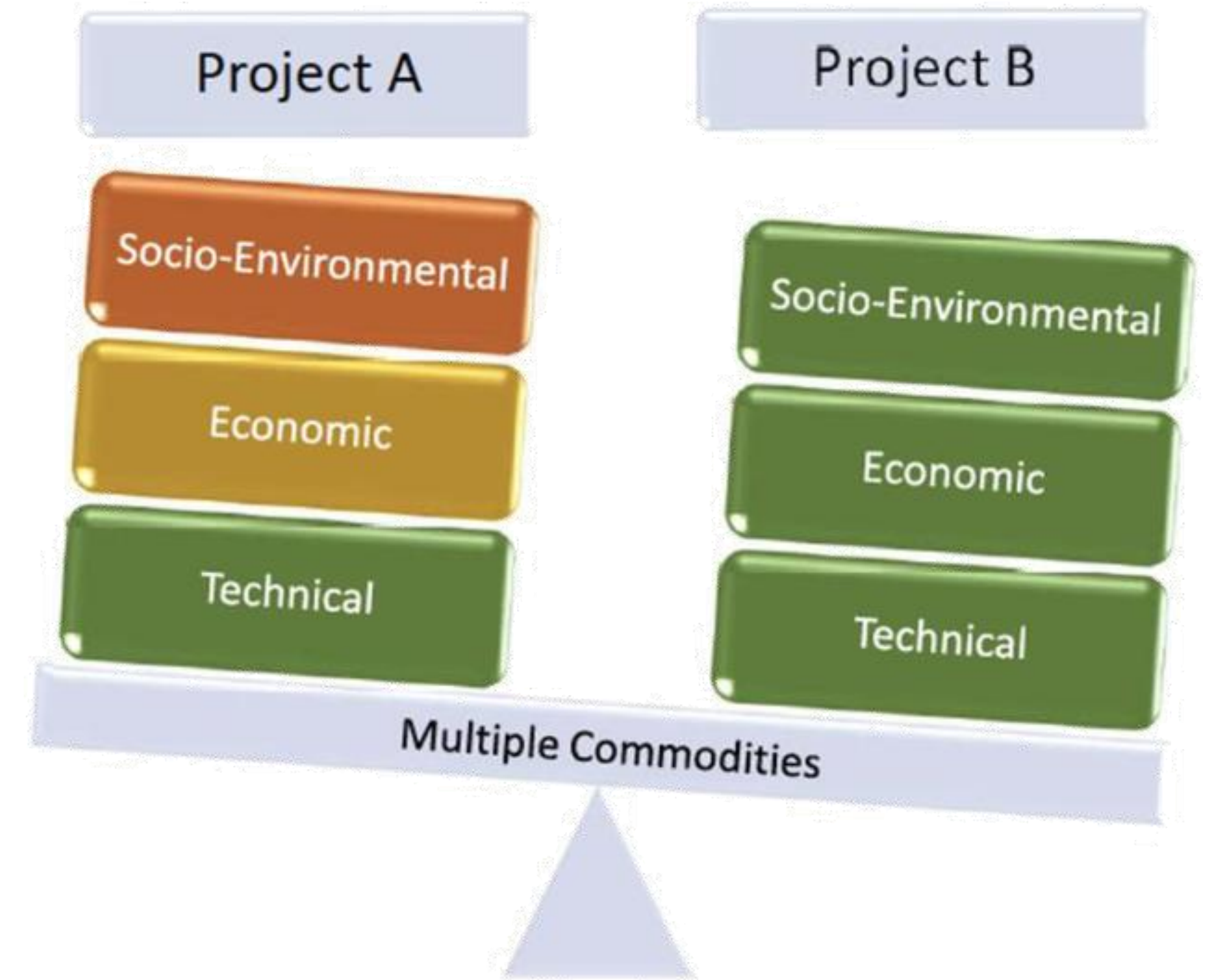
3 categories (E, F, G) lead to 3 basic classes (viable, potentially viable, non-viable).



Combines all resources such as **energy, minerals and ground water** into one global classification system



Informs on **environmental, social and governmental issues** at **local, regional, and national level**



United Nations Framework Classification



- Relevant ESG metrics, i.e. environmental and reporting
- Social licence to operate

Exploration



- Mineral location
- Mineral composition/grade
- Mineral quantity

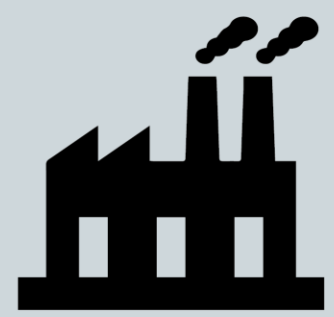
Extraction/Mining



- Production volumes
- Energy requirements

UNFC and UNRMS

Processing



- Processing technology
- Environmental reporting and relevant ESG metrics
- International/domestic trade, processing volumes
- Chemical compositions of processed commodities
- Different sources of materials
- Energy requirements

Manufacturing



- Manufacturing techniques
- Relevant ESG metrics
- International/domestic trade
- Manufacturing volumes
- Chemical compositions of products
- Different product categories
- Different sources of materials
- Energy requirements

In-Use



International trade stocks in use

Recycle/Reuse



- Recycling process, relevant ESG metrics
- Energy requirements

Extractive waste

Processing waste

Scrap material

Municipal/Industrial waste

Anthropogenic resources



- Waste composition
- Waste location
- Waste quantity

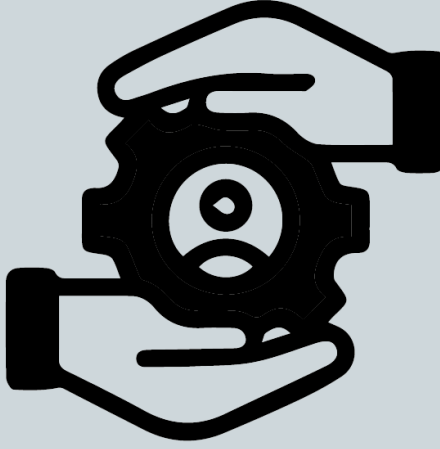
UNRMS Principles



State rights and responsibility in the management of resources



Responsibility to the Planet



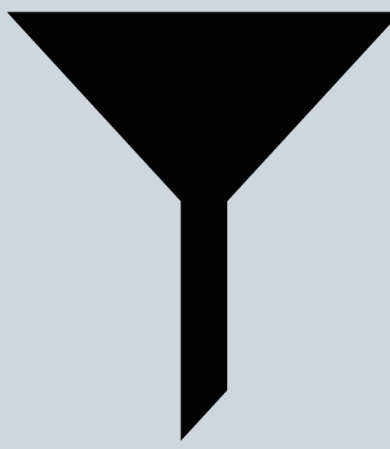
Integrated and indivisible management of resources



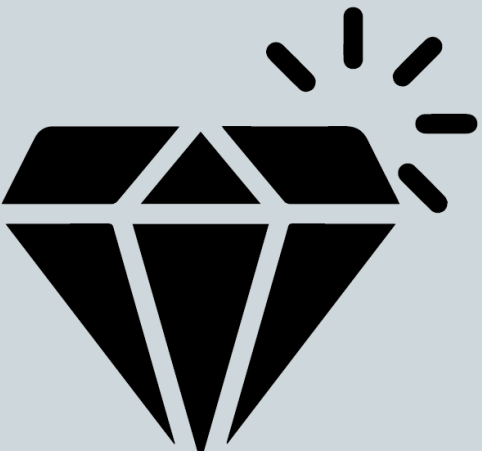
Social contract on natural resources



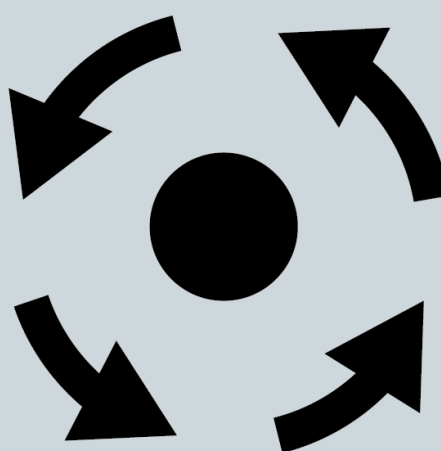
Service orientation



Comprehensive resource recovery



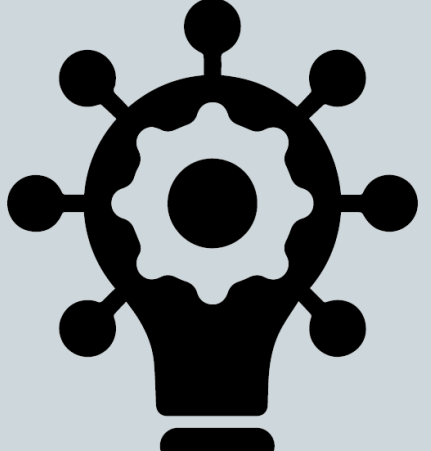
Value addition



Circularity



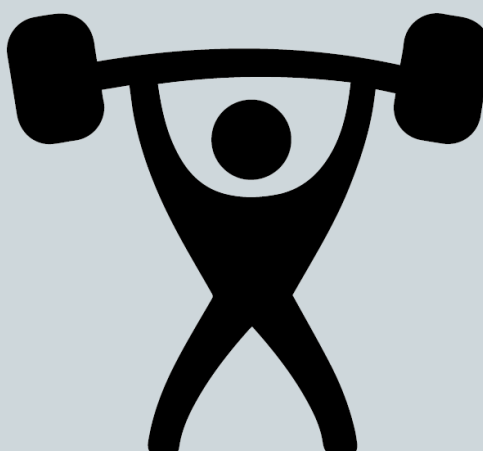
Transparency



Innovation



Health and Safety



Continuous strengthening of core competencies and capabilities

Thank you!

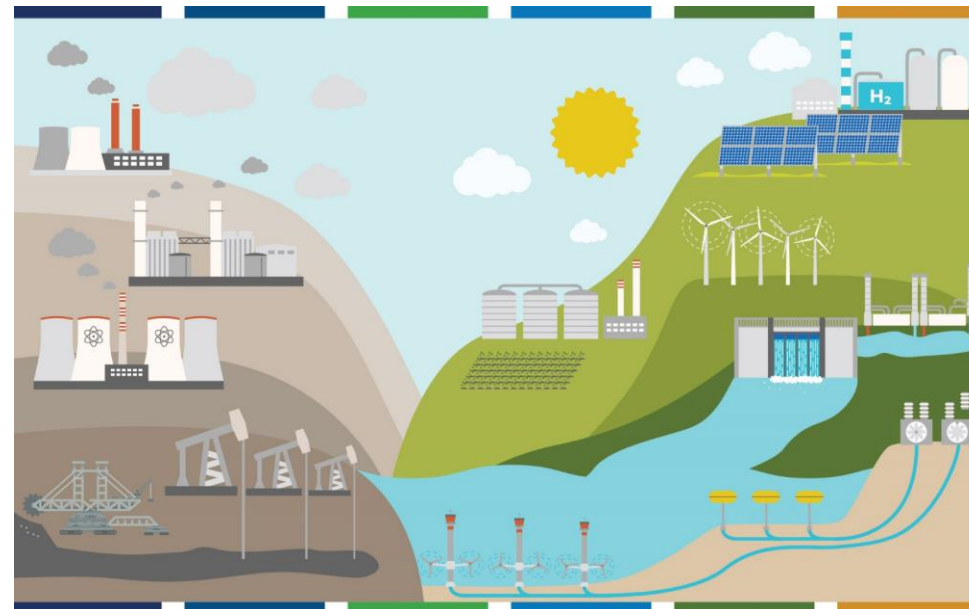
Karen Hanghøj

Chair

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<https://unece.org/sustainable-energy/sustainable-resource-management>



UNECE RESOURCE MANAGEMENT WEEK 2024

ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT

22 - 26 APRIL 2024 | PALAIS DES NATIONS | GENEVA

<https://unece.org/info/Sustainable-Energy/events/384762>



Raw Materials Week
13-17 November 2023

Date 16 | 11 | 2023 Brussels

