UNECE

UN FRAMEWORK CLASSIFICATION FOR RESOURCES (UNFC) & CRITICAL RAW MATERIALS

30th MARCH 2023

LJUBLJANA

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SUSTAINABLE DEVELOPMENT GOALS

SCRREEN SYMPOSIUM

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (UNECE)

UNECE is one of the **5 Regional Commissions** of the United Nations, **UNECE** was set up in 1947 by **ECOSOC**

AIM: To Promote Pan-European Economic Integration

56 member States in Europe, North America and Asia

More than **70** International professional organizations and Non-governmental organizations

AREAS OF EXPERTISE:

- Economic cooperation and integration
- **Energy** (inc. **Sustainable Resource Management**)
- Housing and Land Management
- Statistics
- Trade and Transport
- Timber
- Environment
- Gender and population

EXPERT GROUP ON RESOURCE MANAGEMENT(EGRM)

- **SUSTAINABLE RESOURCE MANAGEMENT**

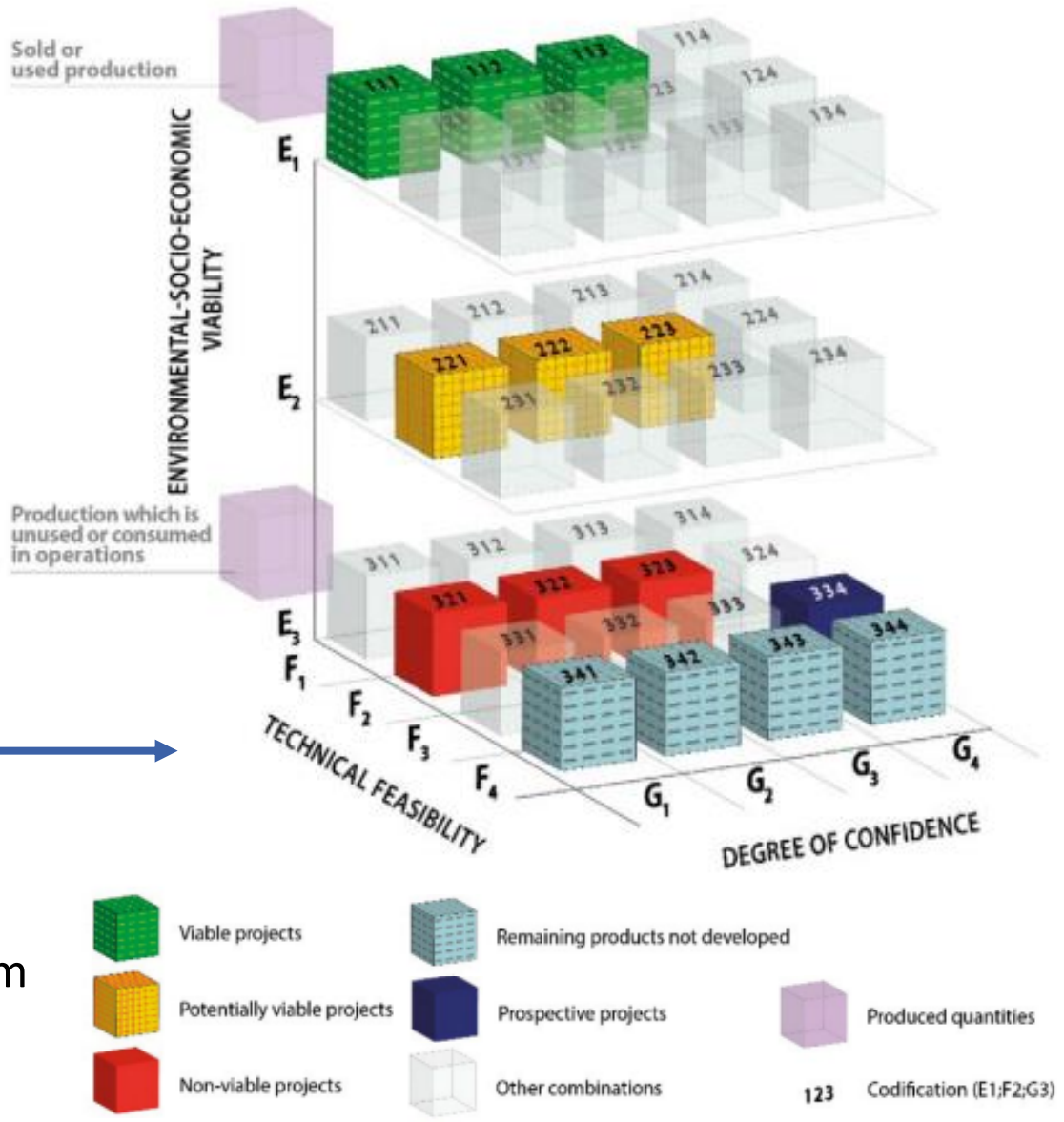
  EGRM is an open forum for the Promotion and Development of:

- **United Nations Framework Classification of Resources (UNFC)**
- **United Nations Resource Management System (UNRMS)**

- Membership in EGRM is open to anyone interested in the sustainable management of resources.

UN FRAMEWORK CLASSIFICATION FOR RESOURCES (UNFC)

- **UNFC** is an international tool for the classification, management and reporting of energy and raw material resources
- **UNFC** is based on 3 fundamental criteria
  - E axis: Environmental-socio-economic viability
  - F axis: Technical Feasibility
  - G axis: Degree of Confidence



- **UNFC** benefits are:

- Simple to use
- Combines all resources into one global classification system
- Informs on environmental, social and governmental issues at local, regional, and national level

UNFC FOR MINERALS AND ANTHROPOGENIC RESOURCES

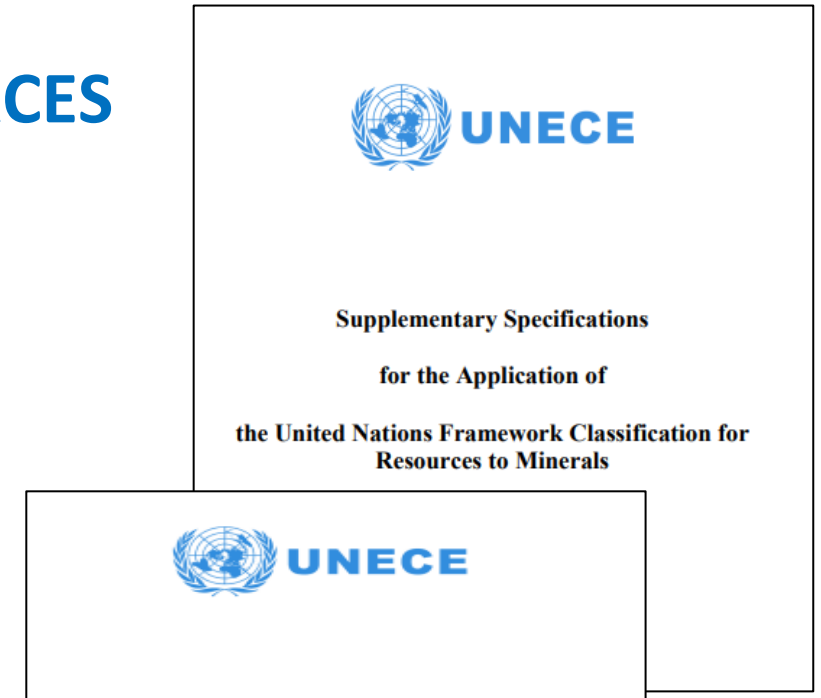
- **UNFC** is applied to all energy and resources projects
- **Specifications** provide additional details as to how a resource classification system is to be applied, supplementing the framework definitions of that system

Minerals Specifications

Used to clarify for the correct application of UNFC and justification of the UNFC Category and/or Subcategory for a mineral project

Anthropogenic Resources Specifications

Used for the correct application of UNFC in the context of the anthropogenic resource, material, project, process, and anthropogenic material system.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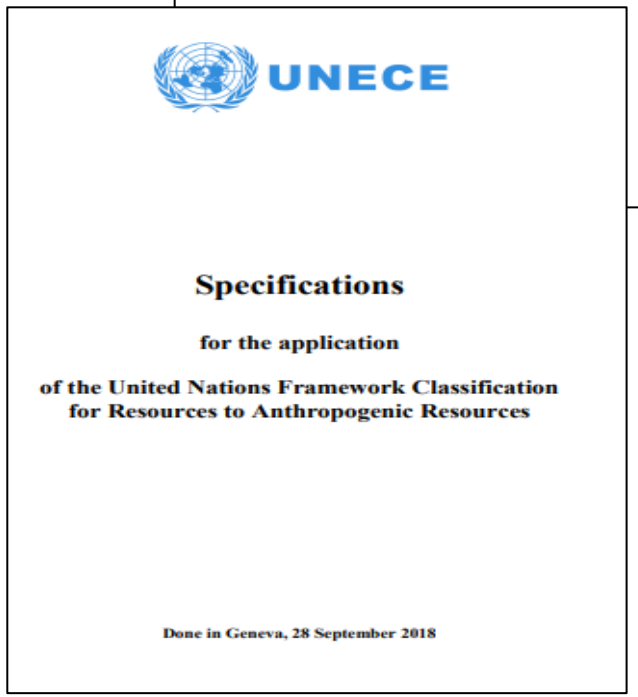
Supplementary Specifications

for the Application of

the United Nations Framework Classification for Resources to Minerals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Specifications

for the application

of the United Nations Framework Classification for Resources to Anthropogenic Resources

Done in Geneva, 28 September 2018

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UNFC GUIDANCE EUROPE IS ONE OF THE FIRST STEPS ON THE PATH TO FULL IMPLEMENTATION OF UNFC IN EUROPE

UNFC GUIDANCE EUROPE

What is **UNFC Guidance Europe** ?

Document for regional and national authorities to establish and maintain a project-based inventory of primary and secondary raw material projects (minerals and anthropogenic resources) in Europe using UNFC.

Whom is the **UNFC Guidance Europe** for?

Users include national governments, regional authorities, geological surveys, corporations and academics who are needing to make resource management decisions including ensuring that the best information is available for making those decisions

Qualified experts and resource estimate preparers in Europe to classify primary and secondary raw material projects

UNFC-BASED RAW MATERIALS INVENTORY

Why UNFC for the Raw Material Inventory ?

UNFC is **the tool to provide stakeholders** with **widespread information** on **technical feasibility, socio-environmental concerns, and the commercial potential** of **raw material projects**.

UNFC is applicable to all raw material projects, meaning that the inventory will cover projects that recover mineral raw materials from geological occurrences and from anthropogenic resources such as tailings, stockpiles, and waste rocks.

Why is a UNFC RM Inventory important?

- Public-sector decision-making ranging from onsite, municipality, regional, country, European and the UN level on aspects of the resource life cycle
- Finance investment decision making considering economic, environmental, and social aspects of raw material projects
- Economic management for planning, organization, and leading activities of management at all corporate levels
- In expertise, knowledge, and education

ONGOING UNFC DEVELOPMENTS IN EUROPE

GEOLOGICAL SERVICE FOR EUROPE

EU International Center of Excellence on **Sustainable Resource Management**, promoting the deployment of the **UNFC** and **UNRMS** that will be embedded within the GSEU:

- Sourcing of **CRMs** from primary and secondary sources in EU using **UNFC/UNRMS**
- Building a strong EU-level expertise on **CRM** intelligence
- Complete and up-to-date information in **UNFC**

Way forward in GSEU Project

Geological Service for European Union / International Centre of Excellence on Sustainable Resource Management

FutuRaM

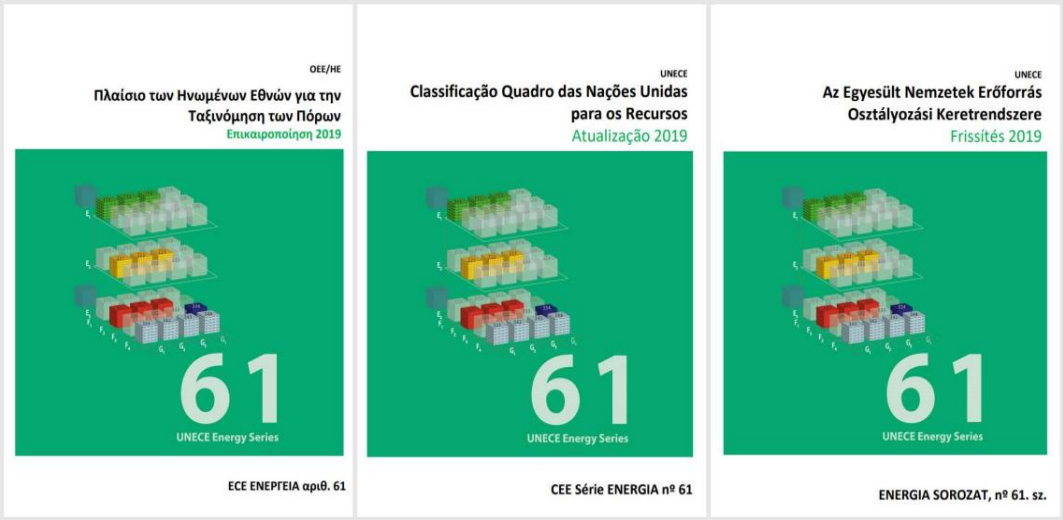
- Knowledge on the availability and recoverability of **secondary raw materials** in EU with a focus on **CRMs**
- Consistent terminology, methodology, reporting structure, and guidance
- Application of the **UNFC** for **fact-based decisions on SRM recovery projects**

IMPLEMENTATION OF UNFC IN EUROPE IS MADE POSSIBLE THANKS TO FUNDING FROM THE EUROPEAN UNION

ONGOING UNFC DEVELOPMENTS IN EUROPE

NETWORK OF PRACTITIONERS (NoPE)

- Co-Chaired between **UNECE & GSEU**
- Established to facilitate appropriate application of **UNFC to primary and secondary raw materials projects**
- NoPE is a source for UNFC users with members as contact points for stakeholders seeking assistance



Focus Areas

- Translation of UNFC into EU languages
- UNFC training – exchange of practice
- UNFC Guidance for Europe

Membership Network

- National Contact Points

EU CRITICAL RAW MATERIALS – ACT

- The European Commission proposed the EU Critical Raw Materials Act on **16 March 2023**
- The CRM-Act aims to ensure a **secure and sustainable supply of CRMs:**

Benchmarks - By 2030: →

10% of EU's annual consumption for extraction
40% of EU's annual consumption for processing
15% of EU's annual consumption for recycling

- The European Commission has also published a list of **Strategic Raw Materials** and a new **Critical Raw Materials List**

Strategic Raw Materials List, 2023	Critical Raw Materials List, 2023
Bismuth, Boron - metallurgy grade, Cobalt, Copper Gallium, Germanium, Magnesium metal, Platinum Group Metals Silicon metal, Titanium metal, Tungsten, Lithium - battery grade, Manganese - battery grade, Natural Graphite - battery grade Nickel - battery grade, Rare Earth Elements for magnets (Nd, Pr, Tb, Dy, Gd, Sm, and Ce)	Antimony, Arsenic, Bauxite, Baryte, Beryllium, Bismuth, Boron Cobalt, Coking Coal, Copper, Feldspar, Fluorspar, Gallium Germanium, Hafnium, Helium, HREE, LREE, Lithium, Magnesium Manganese, Natural Graphite, Nickel – battery grade, Niobium Phosphate rock, Phosphorus, Scandium, Platinum Group Metals Silicon metal, Strontium, Tantalum, Titanium metal, Tungsten, Vanadium

UNFC IN EU CRM – ACT

UNFC was mentioned **4 times** in the CRM-Act proposal:

1- STRATEGIC PROJECTS
2- EXPLORATION
3- MONITORING
4- EXTRACTIVE WASTE

"Any promoter of **strategic raw materials project** should apply for the recognition of their project as a **Strategic Project**. To better assess the **social, environmental, and economic viability,** the **feasibility of the project** as well as the **level of confidence in the estimates**, the project promoter should also provide a classification of the project according to the **United Nations Framework Classification for Resources**, and to allow for objective validation, they should support this classification with relevant evidence."

UNFC IN EU CRM – ACT

STRATEGIC PROJECTS:

Chapter 3: Strengthening the Union raw materials value chain

SECTION 1: STRATEGIC PROJECTS

Article 5: Criteria for recognition of Strategic Projects

"Applications for recognition of a raw material project as a **Strategic Project** shall be submitted by the project promoter to the Commission. The application shall include: a classification of the project according to the **United Nations Framework Classification for Resources**, supported by appropriate evidence"

UNFC IN EU CRM – ACT

EXPLORATION:

Chapter 3: Strengthening the Union raw materials value chain

SECTION 4: EXPLORATION

Article 18: National exploration programmes

"**Member States** shall make the information on their **mineral occurrences** containing **critical raw materials** gathered through the measures set out in the national programmes referred to in paragraph 1 publicly available on a free access website. This information shall, where applicable, include the classification of the identified occurrences using the **United Nations Framework Classification for Resources**"

UNFC IN EU CRM – ACT

MONITORING:

Chapter 4: Risk monitoring and mitigation

Article 20: Information obligations for monitoring

"**Member States** shall, as part of the report referred to in Article 43, provide information to the Commission on any new or existing **raw material project** on their territory that is relevant regarding to Article 19(1), point (d), including **a classification of new projects** according to the **United Nations Framework Classification of Resources**"

UNFC IN EU CRM – ACT

EXTRACTIVE WASTE:

Chapter 5 Sustainability

SECTION 1: CIRCULARITY

Article 26: Recovery of critical raw materials from extractive waste

"The activities described in paragraph 64 shall be carried out within the limits of national legal systems pertaining to property rights, ownership of land, mineral resources and waste, and any other relevant provisions. Where such factors inhibit the activities, the Member State authorities shall seek the cooperation of the operator or owner of the **waste facility**. The results of the activities described under paragraph 6 shall be made accessible as part of the database. Where possible, the **Member States** shall include in the database a classification of the closed **extractive waste facilities** according to the **United Nations Framework Classification for Resources**."

UNFC in EU CRM – Act / Implementation

- Building on the experience
  - EU CRM database
  - ERMA
- Promotion and capacity building
- UNFC Guidance on national level
- Bridging documents, templates
- Coordination: DG GROW, UNECE, GSEU and Futuram

CONCLUSIONS

- UNFC provides reliable and transparent information on sustainability factors, geologic knowledge, and technical maturity. Bridging documents allow UNFC to be compared with other classification schemes.

- The case studies (incl. from GeoERA) project demonstrated that it is possible and meaningful for UNFC to be implemented across EU. Certain challenges were identified that can render the UNFC operational in the EU.

- UNFC-based EU CRM raw materials inventory provides harmonized project information for policy-making and resource practices on the EU level.

- With the recently proposed EU CRM-Act, UNFC will become a tool helping governments and European Commission towards raw materials security, better practices and decisions for raw materials use and management, more sustainable policymaking, and investments.

ANNOUNCEMENT

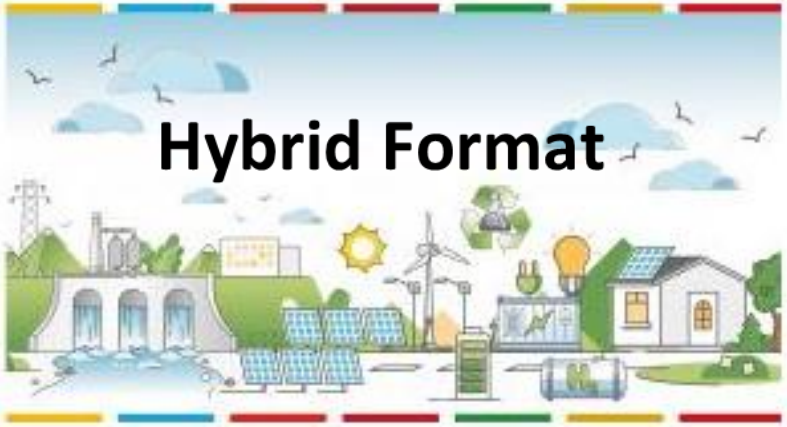
The UNECE Resource Management Week 2023 will focus on a range of topics, including:

- Seminar: **Deploying the United Nations Framework Classification for Resources in Europe and beyond to assure information for sustainable resource management**
- Towards a new model for global collaboration on critical raw materials
- United Nations Resource Management System: Sustainable Resource Management Transformation Pathway to 2030
- United Nations Framework Classification for Resources Development and Implementation Roadmap: The next five years
- International Centres of Excellence on Sustainable Resource Management

UNECE RESOURCE MANAGEMENT WEEK 2023

ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT

25 - 28 APRIL 2023 | PALAIS DES NATIONS | GENEVA



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THANK YOU FOR YOUR ATTENTION!

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