Overview of UNRMS
The importance of sustainability
The 2030 Agenda calls for:

- Integrated sustainable development
- Long term approach
- To the benefit of the present and future generations

1. **Renewable Energy Infrastructure**: wind turbines, solar panels, or hydroelectric dams represent decarbonization efforts by transitioning from fossil fuels to renewable energy sources. Energy electric, thermal and gas backbone. These structures demonstrate the shift towards cleaner energy production methods, reducing carbon emissions and mitigating climate change.

2. **Urban Green Spaces**: Pictures of parks, gardens, or urban forests showcase efforts to enhance biodiversity within urban environments. These green spaces provide habitats for various plant and animal species, promote ecological diversity, and contribute to ecosystem resilience in cities.

3. **Reforestation and Afforestation**: Images of tree planting initiatives, forest restoration projects, or newly established forests illustrate efforts to combat deforestation and restore natural habitats. These activities contribute to biodiversity conservation by creating habitats for wildlife, enhancing ecosystem services, and sequestering carbon dioxide from the atmosphere.
4. **Protected Areas and Nature Reserves**: national parks, wildlife sanctuaries, or marine protected areas highlight conservation efforts aimed at preserving biodiversity and safeguarding natural ecosystems. These protected areas serve as refuges for threatened species, promote biodiversity conservation, and support ecosystem functions and services.

5. **Agroecological Farming Practices**: organic farms, agroforestry systems, or diversified cropping systems demonstrate sustainable agriculture practices that promote biodiversity conservation while reducing carbon emissions. These farming methods prioritize ecological diversity, soil health, and natural resource conservation, contributing to both decarbonization and biodiversity conservation goals.

6. **Coastal Ecosystems**: mangrove forests, coral reefs, or estuarine habitats depict coastal ecosystems that support high levels of biodiversity while also providing valuable ecosystem services such as coastal protection, nutrient cycling, and carbon sequestration. Conservation and restoration efforts in these ecosystems contribute to both decarbonization and biodiversity conservation objectives.
What is UNRMS to the 2030 Agenda?

- UNRMS is a **framework** to assure that resources are produced and utilized in a sustainable manner.
- Comprehensive, sustainable RMS that supports and enables the implementation
- Meets specific governmental requirements for supporting and mediating the supply, the use and the value-chain of natural resources
- Voluntary global standard for integrated and sustainable development of resources.
- Principles-based, so could serve different needs of stakeholders.
UNRMS builds on the strengths of UNFC

UNRMS
System for the integrated and sustainable management of resources

UNFC
Resource accounting based on maturity of projects
The appreciative inquiry (AI) involves concentrating on the strengths, positive attributes and potential of a project rather than weaknesses.

AI focuses on the whole organization on identifying its greatest assets, capacities, capabilities, resources, and strengths – to create new possibilities for change, action, and innovation.

A natural resource project does not exist in isolation rather within a network of people.

People, service and experience – A new pathway for resources.
Following the request of the Committee on Sustainable Energy, the Expert Group requested the UNRMS Subgroup to:

- accelerate the development of UNRMS as a framework in line with the proposals outlined in the document "Draft UNRMS: Provisional structure and guidelines" (ECE/ENERGY/GE.3/2021/10).
15. Implement a shared principles-based, integrated, sustainable resource management framework using tools such as the existing United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) under development.

Need for speed

16. Create or improve regional frameworks aligning extractive industries with the Sustainable Development Goals, the Universal Declaration of Human Rights, the Convention on Biological Diversity, the Minamata Convention and the Paris Agreement. Adhere to and support the implementation of existing frameworks, such as the African Mining Vision (AMV) and the Escazú Agreement.

17. Capitalize on United Nations Regional Economic Commissions to bolster regional coordination and policy dialogue on extractive activities. Issues to be addressed include harmonizing the implementation of carbon pricing and border adjustments, developing a comprehensive framework for traceability and transparency in global value chains, illicit activities, cross-border conflicts and disputes, transparency on trade and financial flows, and strengthening extractive sector fiscal frameworks to encourage value addition and economic diversification.
It is expected that UNRMS will be widely used by resource management stakeholders across all sectors and jurisdictions.

The primary stakeholders are:

- Governments/Regional bodies
- Industry
- Investors and financial regulators
- Academia, Non-profits, Indigenous Communities and the Public.
Fundamental principles of sustainable resource management

A provisional view

UNRMS Fundamental Principles

- State rights and responsibilities 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

- Health and safety
- Innovation
- Transparency
- Continuous strengthening of core competencies and capabilities.
UNRMS Requirements

- Requirements are based on the fundamental principles
- Requirements should help with assuring that activities confirm to 2030 Agenda
  1. Normative references
  2. Terms and definitions
  3. Integration with all UNRMS principles
  4. Scope and context
  5. Sustainable Development Goals alignment
  6. Planning
  7. Support
  8. Operation
  9. Improvement

We need volunteers to develop the individual requirements
Resources as a Service (as an example)

Leap frogging

Products → Commodity → Service

- Branding, cost differentiation etc.
- degradation
- growth
Product-focus to Outcome focus
The circularity
Product-focus to Outcome focus

The circularity

3rd Raw Materials Scoreboard (2021)
Case studies

- UK - case study with a specific focus on "Resources as a Service"
- USA – Green Steel Project
- Mexico – Mineral projects
- Russian Federation through the new ICE-SRM Moscow
- China
- African Union - Namibia and Uganda
- EU - Finland, Portugal etc.
- Ukraine
- Tajikistan
- Focus on Critical Raw Materials
- Focus on Block Chain.
The Role of Science
...and the classification of projects

- Survey data (geophysics, remote sensed data, natural resources data)
- Knowing and understanding the natural resources environment
  MAPS
- Understanding the processes that give rise to resource potentials
  MODELS
- Inventorying the surface and subsurface for (CRM & SRM, geothermal...)
  INVENTORY
- Turning individual small data packages into large data packages
  DATA HOMOGENISATION

- UNFC classification
“Raw materials are becoming increasingly important for the competitiveness of Europe’s industry, for innovation and for the transition to a low-carbon, more circular economy. Many new enabling technologies rely on materials that are predominantly produced outside of the European Union, such as cobalt for Lithium-Ion batteries powering low-emission mobility or rare-earth elements for energy-saving electronics. International competition for such raw materials is becoming more intense.”

Vladimír Šucha and Lowri Evans, Raw Materials Scoreboard 2018
The Role of Science
...and the classification of projects
The Role of Science

...and the classification of projects, the H2 from production to storage
### Material passport for a Circular Economy in buildings

#### General information

<table>
<thead>
<tr>
<th>Passport reference</th>
<th>CHF-CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building user</td>
<td>Apartment building Green</td>
</tr>
<tr>
<td>Building type</td>
<td>Private</td>
</tr>
<tr>
<td>Usage</td>
<td>Meeting building - multi-family</td>
</tr>
<tr>
<td>Year of construction</td>
<td>2020</td>
</tr>
<tr>
<td>Year of renovation</td>
<td></td>
</tr>
<tr>
<td>Description of renovation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
<th>New Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area</td>
<td>548 m²</td>
</tr>
<tr>
<td>Sustainability certifications</td>
<td></td>
</tr>
<tr>
<td>Energy label</td>
<td>A</td>
</tr>
<tr>
<td>Address</td>
<td>Amerville Street 6, Green, Tsimi County, Romania</td>
</tr>
<tr>
<td>Remarks</td>
<td>building for one</td>
</tr>
<tr>
<td>Authorized responsible for the data</td>
<td>Ali Salaqui</td>
</tr>
</tbody>
</table>

### The Role of Science

1. The digital passport for materials
The Role of Science

...and the classification, the certification of sustainability

Biofuels

Feedstock sourcing

- Agricultural and forest biomass and residues
- Waste, residues, renewable non-bio feedstocks

Processing and distribution

- Farm/Plantation
- First Gathering Point
- Processing Unit
- Trader/Storage
- Market

Sustainability requirements

Traceability, Chain of Custody, GHG emissions
The Role of Science
...and the classification, the EU Taxonomy

- Climate change mitigation
- Climate change adaptation
- Sustainable and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems
"Lightning Advance strategy"

- Development of UNRMS with grass-root engagement
- Several workshops involving EGRM all workgroups to expand the 54 requirements included in UNRMS
- With input and cooperation from all WG Chairs.
- UNRMS Session to showcase case studies – (EGRM-13 and 14)
- UNRMS at EGRM 15, 2024
Timelines

- 2018 – Idea germinated with the concept note "Transforming our world's natural resources: A step change for UNFC?"
- 2019 - A concept note on the design of UNRMS
- 2020 - UNRMS concept note: Objectives, requirements, outline and way forward
- 2021 - UNRMS survey was open from 7 May to 10 June
- 2021 – UNRMS principles and requirements approved by EGRM-12, December. 11 Principles and 54 requirements
- 2021 – Recommended for global adoption by the UN Secretary-General’s Policy Brief on Transforming the Extractive Industries
- 2022 – Publication of UNRMS ECE Energy Series 74 Series
- 2023 - Approval by ECOSOC
- UNRMS Tool development by small teams
- Case Studies  Ongoing
- Workshops planned – EGRM15 (example)
Short-termism is the greatest threat faced by humanity.

It is the present bias that favours short-term payoffs over long-term rewards.

Integrated management of the natural resource nexus of food, energy and water is critical to meeting universal needs.

These resources must be managed as a public good to achieve key SDGs.

United Nations Resource Management System (UNRMS) provides the right tools to move from a commodity business to a food-water-energy service industry.
Thank you!

Teresa Ponce de Leão
Vice-president EGRM / Chair sub-group UNRMS

UNECE
Date 23 I 04 I 2024, Geneva