

# Why Investment is needed NOW on both “ends” of the Critical Raw Materials circularity ring

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## And how UNRMS can help



Christophe XERRI  
The Sailing Brain Consulting



UNECE / EGRM Week



We all know this: more electricity needed !  
And let's have it no / low carbon

Even with  
more sobriety

Green Renewable Energies



Red Critical Raw Material

We should all know this: More minerals needed !



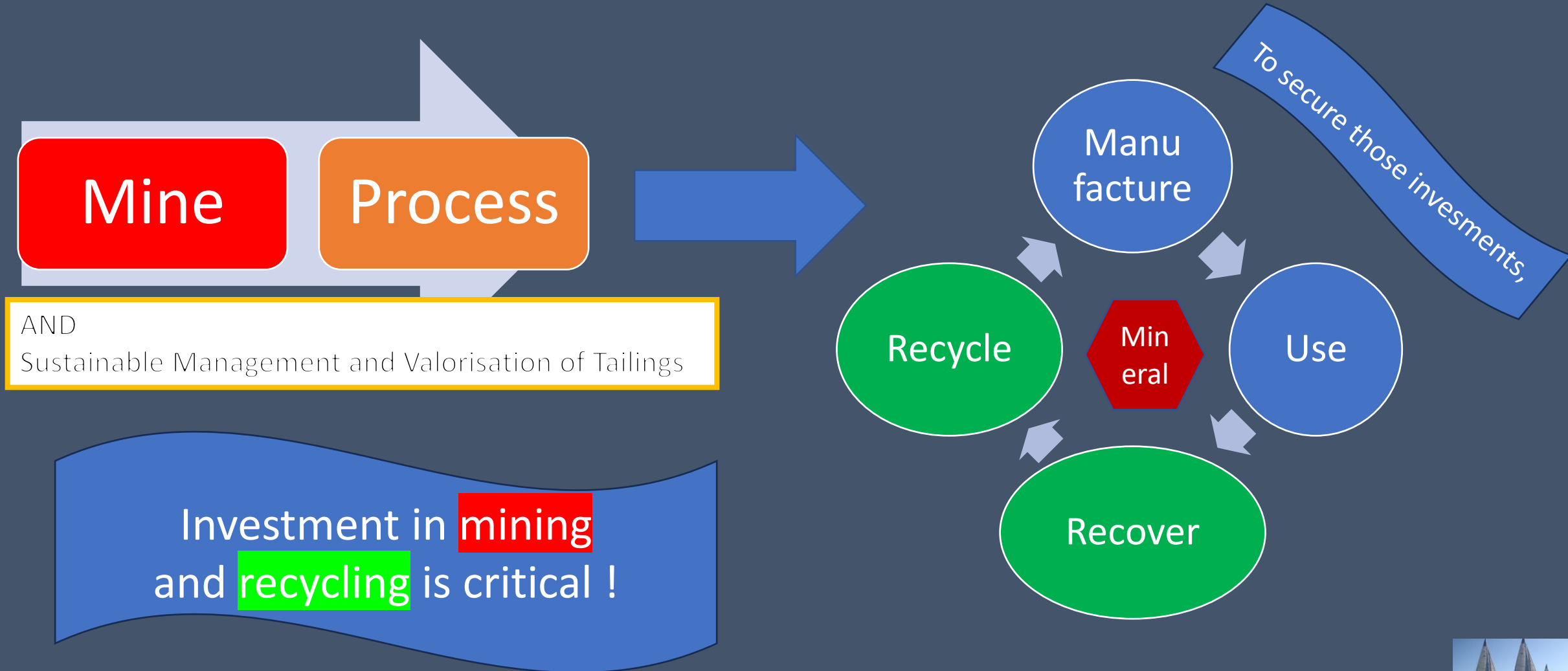
# Where are investments going ?

- Clean Tech
  - A lot of money from Venture Capital, subsidies, etc ...
- Solar and wind electricity generation
  - Strong trend event if permitting is slowing down projects' schedules, and costs are rising
- Batteries GigaFactory and R/D
  - Trend: geographical diversification / on-shoring

Is that enough to reach the target ?  
No minerals, no solution !



# Typical Circular “Supply Ring” Model

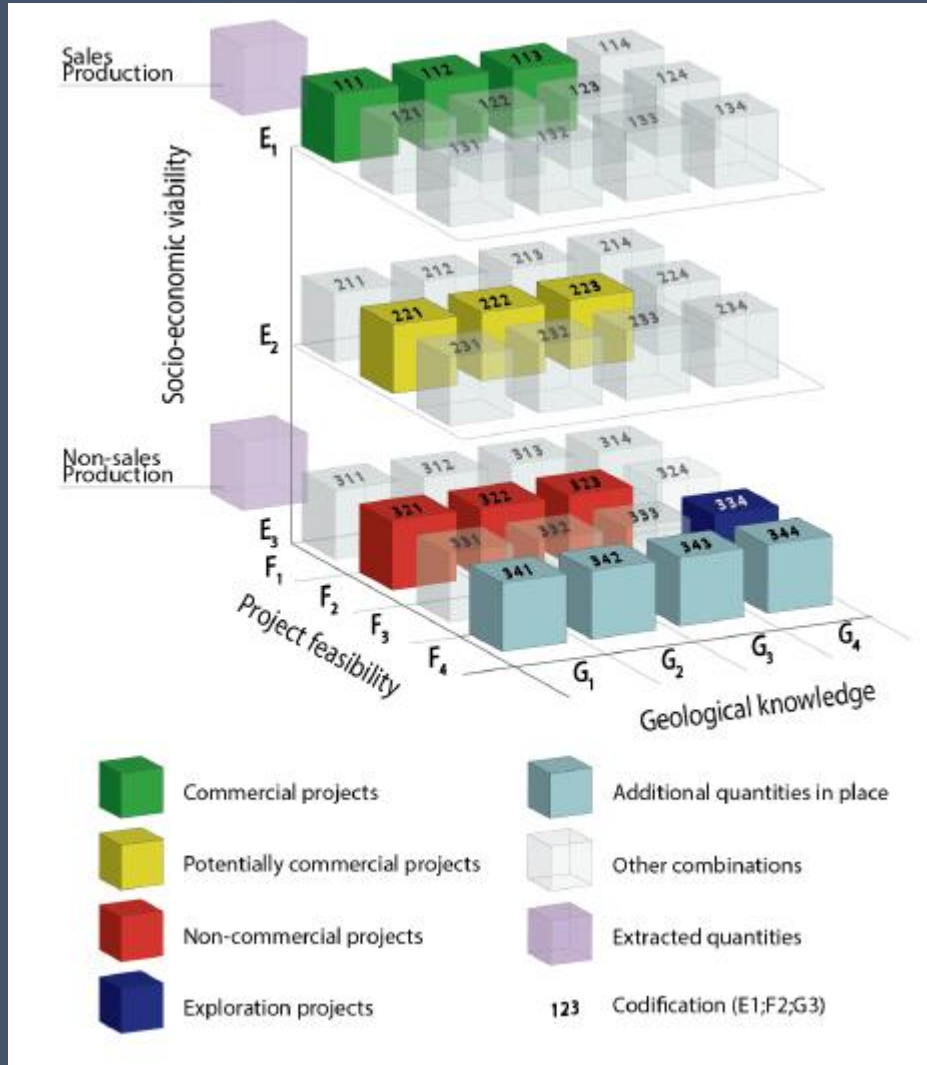


# Some factors delaying mining investment

- Duration between geology discovery and mining
  - Including duration and uncertainties of permitting process
- Sustainable mining is perceived as an oxymore
  - Strengthened ESG expectations vs commodity pricing
- End-use technology may change faster than a mining life
  - Eg: evolution of batteries technologies



# What UNFC brings: a comprehensive and multi-dimensional assessment



## Benefits of using UNFC

- Structured framework of principles, rules and guidelines
- Aligned to major international and national classification systems
- Provides simplicity without sacrificing completeness or flexibility
- Leverages global communications



# What UNMRS brings: more information, more trust

- An approach to discuss sustainability such as environmental and social issues

→ it shall bring traceability and confidence on ESG claims

A UNRMS based assessment should help VCs and Financing Institutions to invest in mining in line with their ESG and financial criteria

- A way to address all dimensions of resources: exploration, mining, and circularity



First step: mining – resources in the ground and in tailings

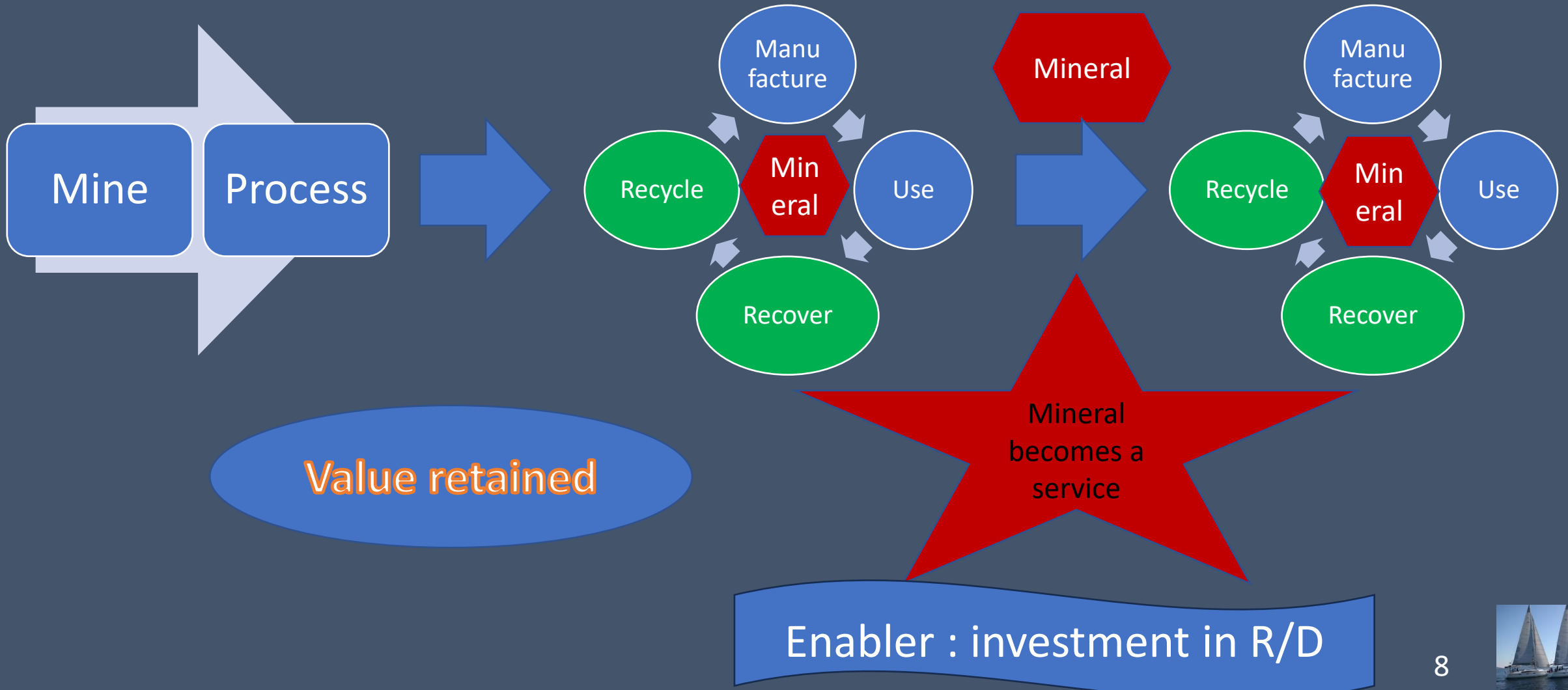
Second step: circular - resources in recycling

Third step: in-service - resources in products



# Circular Model - Servitization

Re-use of mineral = Mineral as a Service





# Servitization as a driving force – consistent with donught economy

- Work on DESIGN
  - Optimize material and energy requirement
  - Facilitate recovery of critical raw materials
- Develop recovering and next use technologies
  - Be ready to recover when « in use » resources will become available in large quantities : end of life of the first use
  - Investigate the new services and use a given material can offer
    - Whether recovered from the ground or above the ground

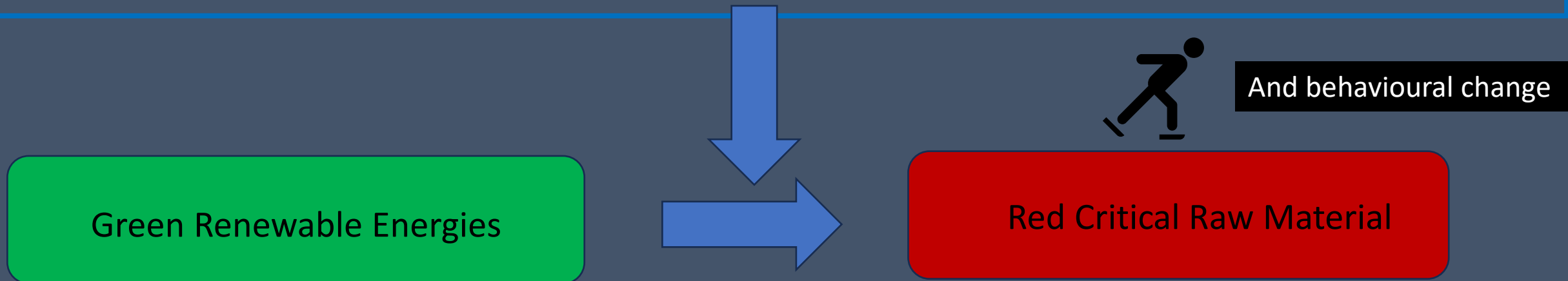
Invest now to be on time for the next cycle,  
give visibility for mining companies too, and increase sustainability !



# The Only Way Forward : Investments needed on both sides

UNRMS based assessment to facilitate VCs and IDBs financing of CRM projects

Circular economy to be developed now, to provide additional CRM resources tomorrow as demand will increase



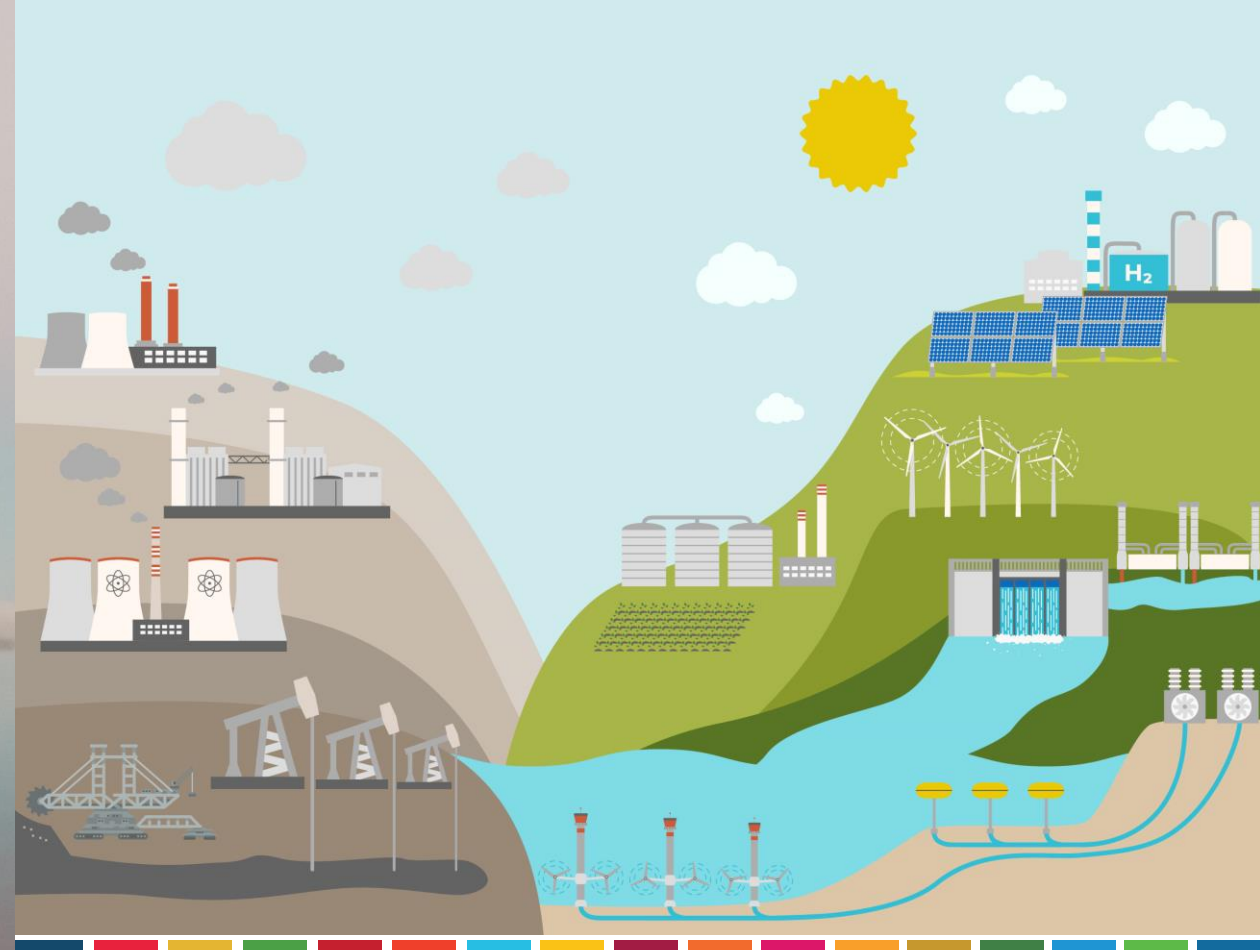
**Thank you!**

**THE VIEWS EXPRESSED ARE THOSE OF  
Christophe XERRI AND DO NOT NECESSARILY  
REFLECT THE VIEWS OF THE UNITED NATIONS.**

Christophe XERRI  
President, the Sailing Brain Consulting

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