ASSESSING THE PRACTICALITY OF UNFC REPORTING THROUGH THE INTEGRATION OF SOCIAL SCIENCE AND GEOSCIENCE

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Application of UNFC within Europe using freely available data

Critical raw materials act

OVERVIEW
The EU's ambition to become a climate-neutral economy by 2050, and its ability to sustain the green and digital transition and achieve strategic autonomy, all rely heavily on reliable, secure and resilient access to critical raw materials (CRMs).

On 16 March 2023, the Commission put forward a proposal for a regulation on CRMs. It introduces the concept of strategic raw materials (SRMs), which are key for some strategic technologies and vulnerable to shortages. The general objective of the proposed regulation is to improve the functioning of the single market by establishing a framework to ensure the EU’s access to a secure and sustainable supply of CRMs. To achieve this, the regulation would pursue four specific objectives: strengthening the whole SRM value chain; diversifying the EU’s imports of SRMs (so that by 2030, no third country would provide more than 55% of the EU’s annual consumption of each SRM); improving the EU’s ability to monitor and mitigate the CRM supply risk; ensuring the free movement of CRMs and products containing CRMs placed on the EU market; and ensuring a high level of environmental protection, by improving their circularity and sustainability.
Datasets include (non-exhaustive list):

- Critical mineral occurrences
- Lithological data
- Drift
- Hydrogeology
- Dyke locations
- Soil inventories
- Borehole locations
Sustainability Data (E axis)

Datasets include (non-exhaustive list):

- Corine land cover
- Conservation areas
- Species presence maps
- Infrastructure maps e.g. powerlines, roads, railways
- Settlements
- Listed buildings
We need more data
VECTOR – Geoscience
Passive Seismic Imaging

- Mn ore body detected
- Base of cover accurately determined
- Core logs
VECTOR – Geoscience
Rapid Hyperspectral Analysis
A synergy between company’s and society to create positive value for all stakeholders.

This generates both business and social benefit.
# Vector – Social Science

## Social Simulator

Your task: Reduce the points to zero to ensure the EU is on its way to meet the 2030 Green Deal targets without unnecessary extra costs.

### EU Policy Interventions on Energy Supply, Private Transport & Heating

<table>
<thead>
<tr>
<th>Points Spent</th>
<th>Points Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>90</td>
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</table>

<table>
<thead>
<tr>
<th>Policy Focus</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore wind energy</td>
<td>3 times more copper and 2 times more rare earth elements will be needed to build additional offshore wind turbines, compared to fossil fuel-powered plants. <a href="#">More</a></td>
</tr>
<tr>
<td>Onshore wind energy</td>
<td>4 times more copper and 3 times more rare earth elements will be needed to build additional onshore wind turbines, compared to fossil fuel-powered plants. <a href="#">More</a></td>
</tr>
<tr>
<td>Solar Energy</td>
<td>Slightly less copper and 3 times less gallium and indium will be needed to build fewer solar PV power plants, compared to fossil fuel-powered plants. <a href="#">More</a></td>
</tr>
<tr>
<td>Electric Vehicles</td>
<td>2 times more copper and 4 times more lithium will be needed to produce additional electric vehicles, compared to conventional cars with internal combustion engines. <a href="#">More</a></td>
</tr>
<tr>
<td>Heat pumps for residential buildings</td>
<td>8 times more copper will be needed to produce additional heat pumps, compared to fossil fuel boilers. <a href="#">More</a></td>
</tr>
</tbody>
</table>

*Your comments on EU Policy interventions on Energy Supply, Private Transport & Heating (Optional)*

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[@VECTORProjectEU](#)
What we are not doing

Artificial Intelligence

Directly influencing

Engaging with children
What we are not doing
The VECTOR Portal – Access our data

THE VECTOR GIS
Access and interrogate open-source geospatial data to understand critical minerals and context across Europe.

To access the VECTOR GIS email contact@vectorproject.eu

COMING SOON: GEOFROPSPECTIVITY TOOLKIT ON GITHUB

COMING SOON: 3D GEOLOGICAL MODELS AND INTERACTIVE VISUALISATION THROUGH LIQUID EARTH
The views expressed are those of the authors and do not necessarily reflect the views of the United Nations.