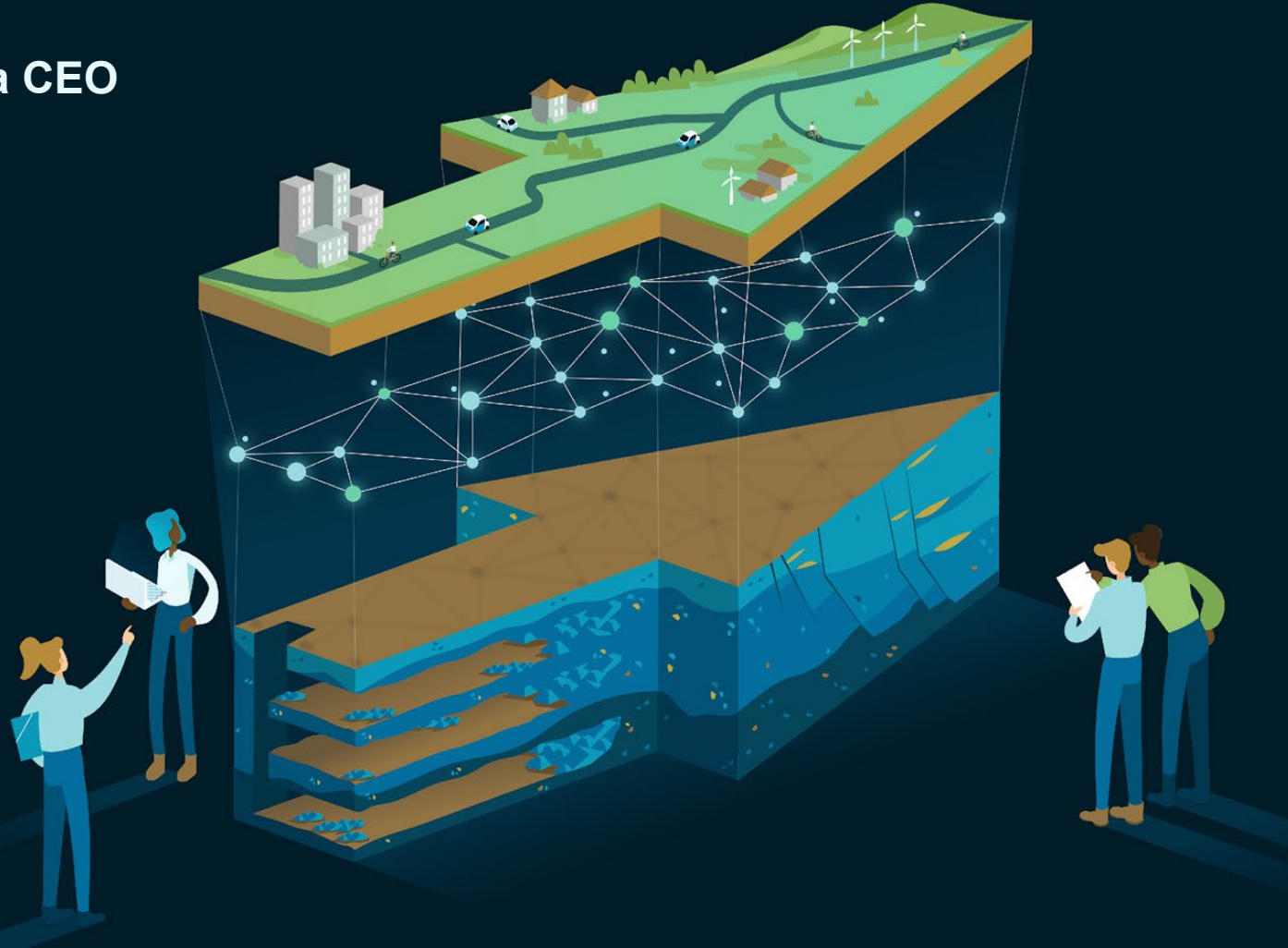


# VECTOR -

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



Sarah Gordon, Satarla CEO



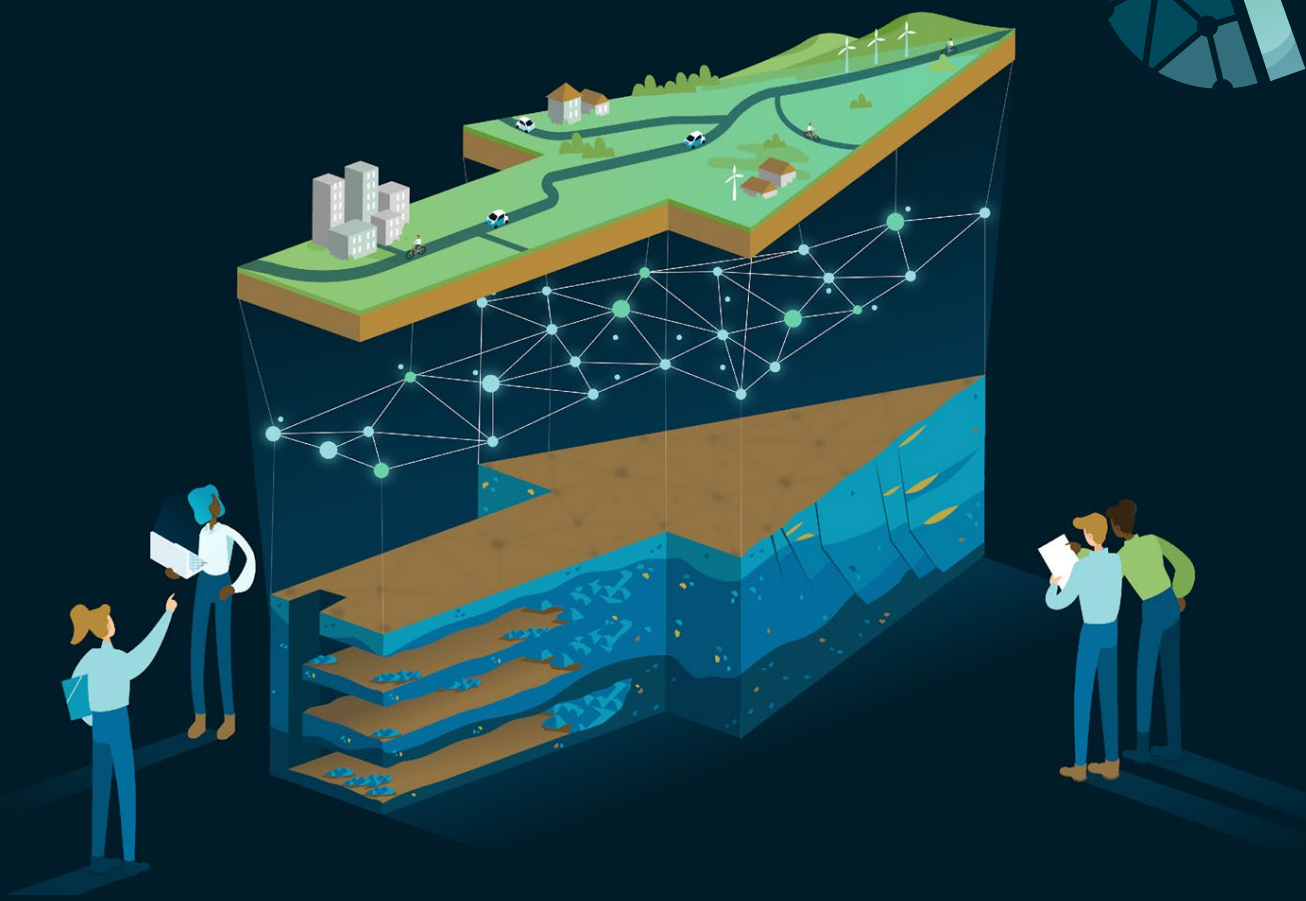
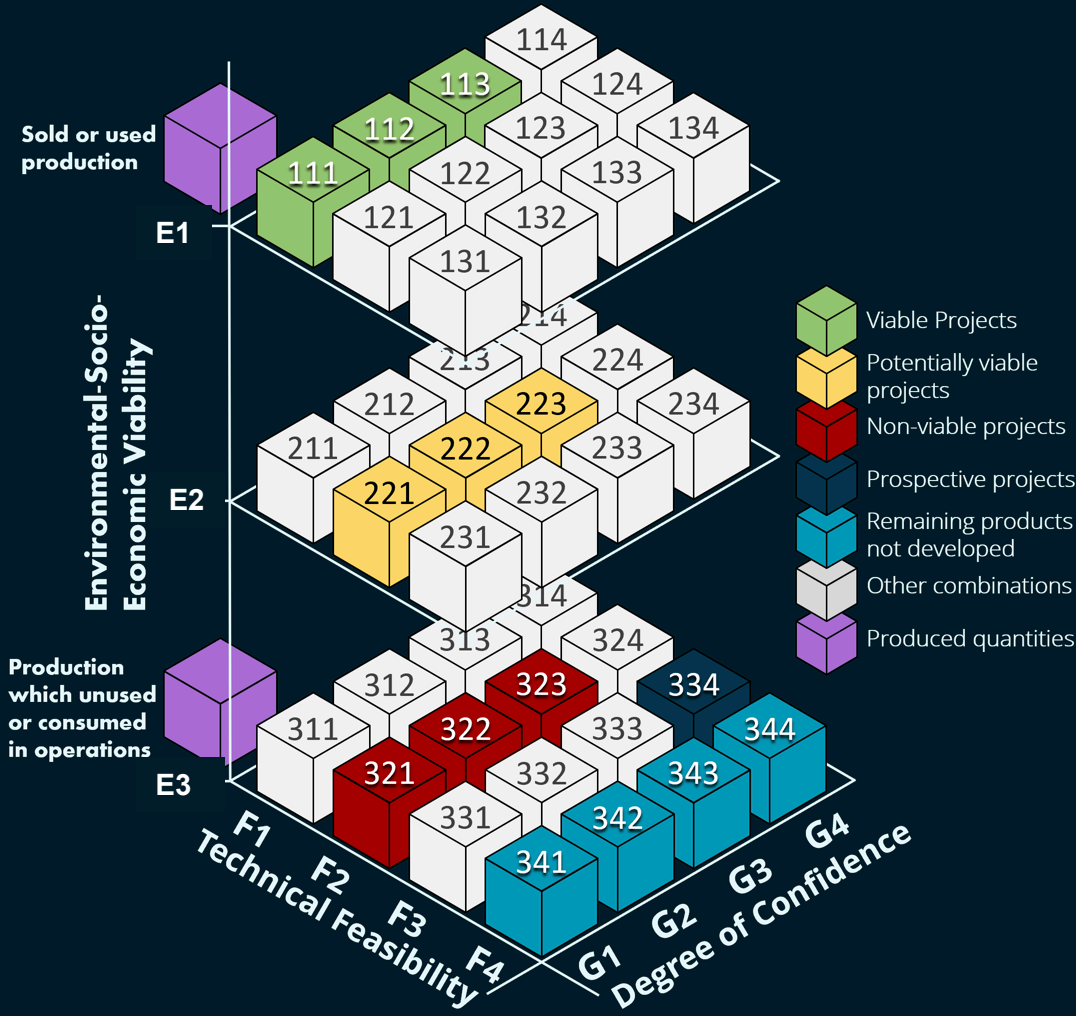
t: @VECTORProjectEU  
e: contact@vectorproject.eu



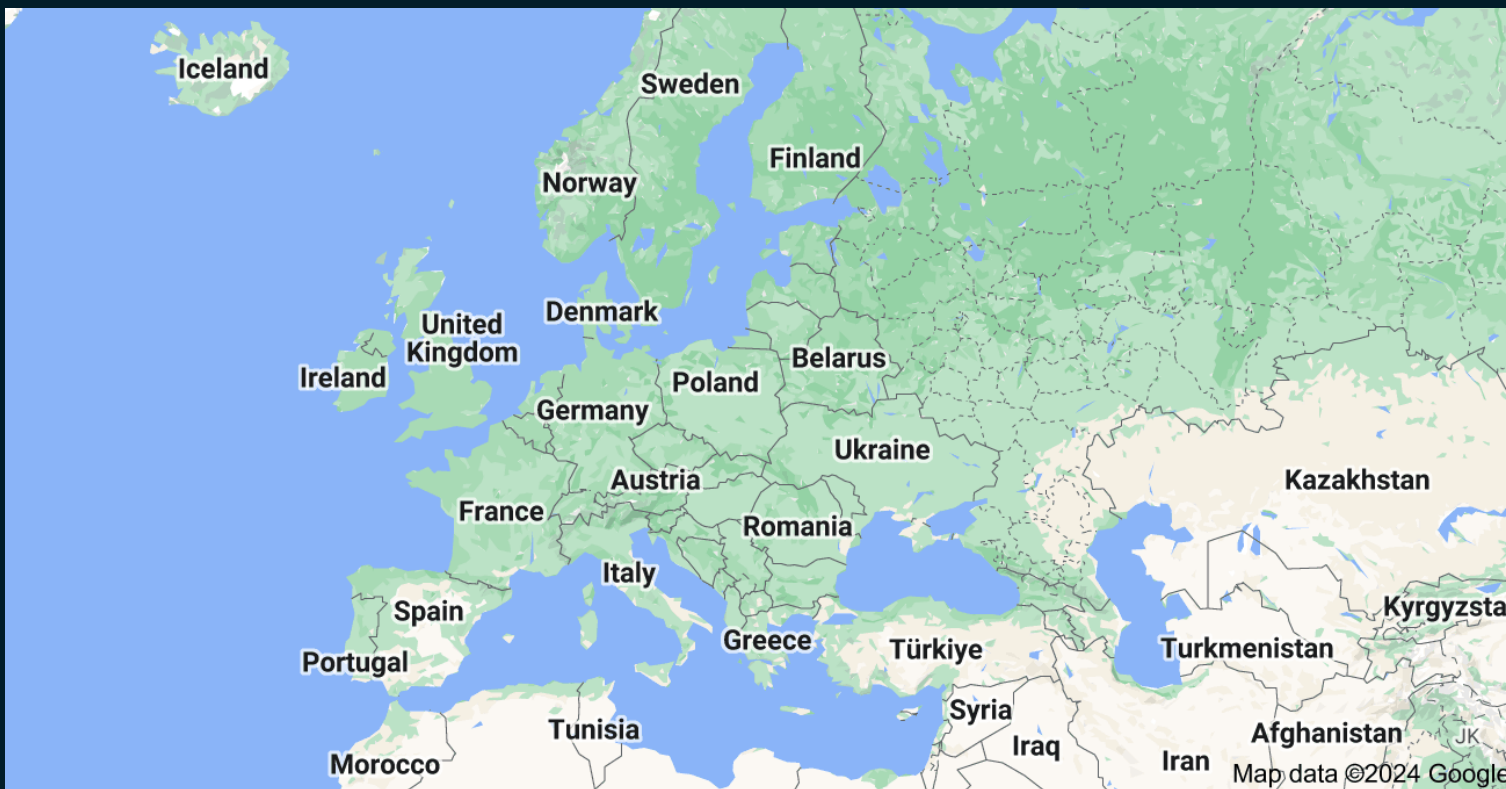
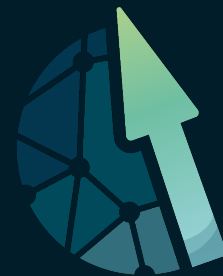
Co-funded by  
the European Union



UK Research  
and Innovation



# Application of UNFC within Europe using freely available data



BRIEFING  
EU Legislation in Progress



## Critical raw materials act

### OVERVIEW

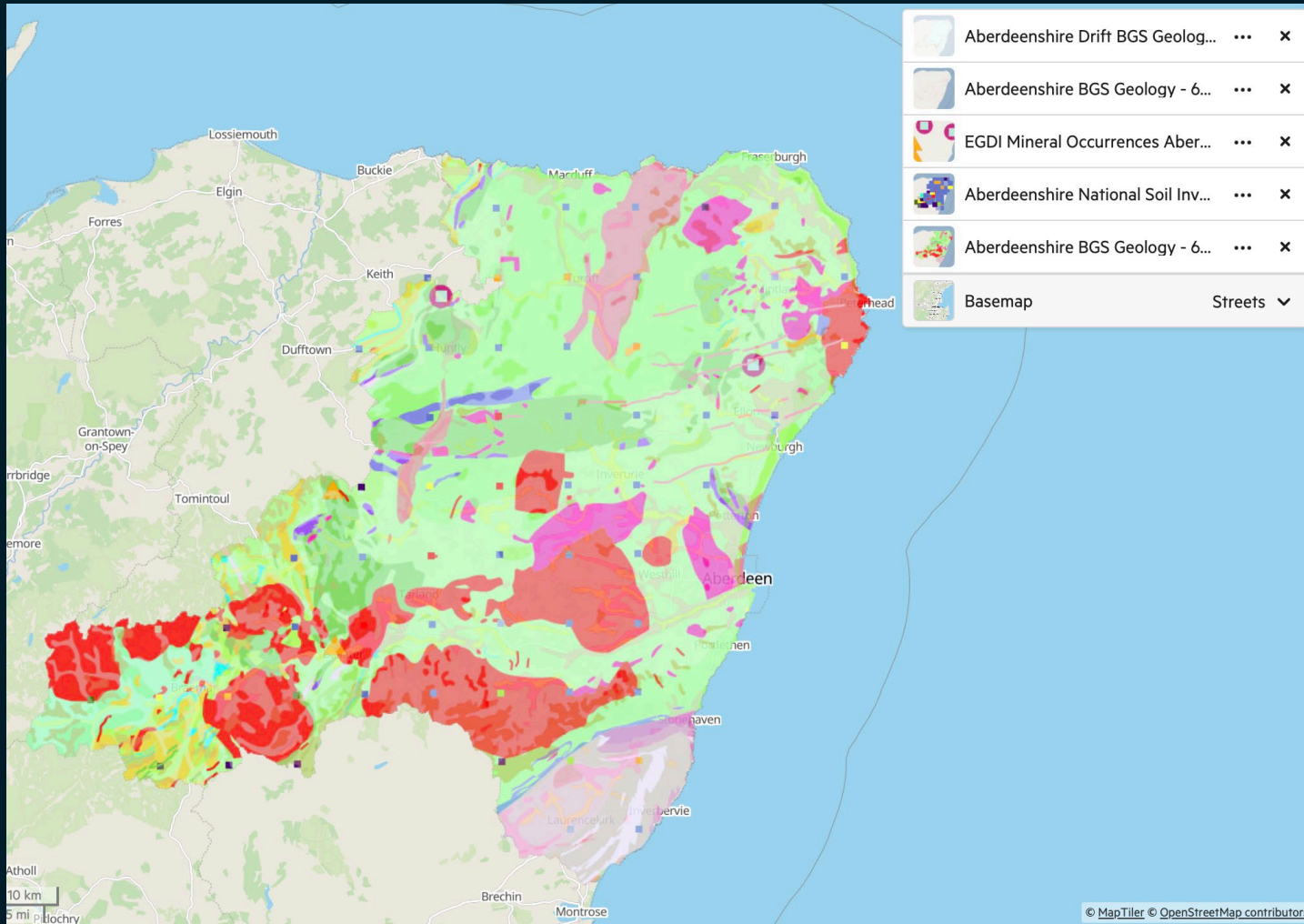
The EU's ambition to become a climate-neutral economy by 2050, and its ability to sustain the green and digital transition and achieve strategic autonomy, all rely heavily on reliable, secure and resilient access to critical raw materials (CRMs).

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 65 % 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.

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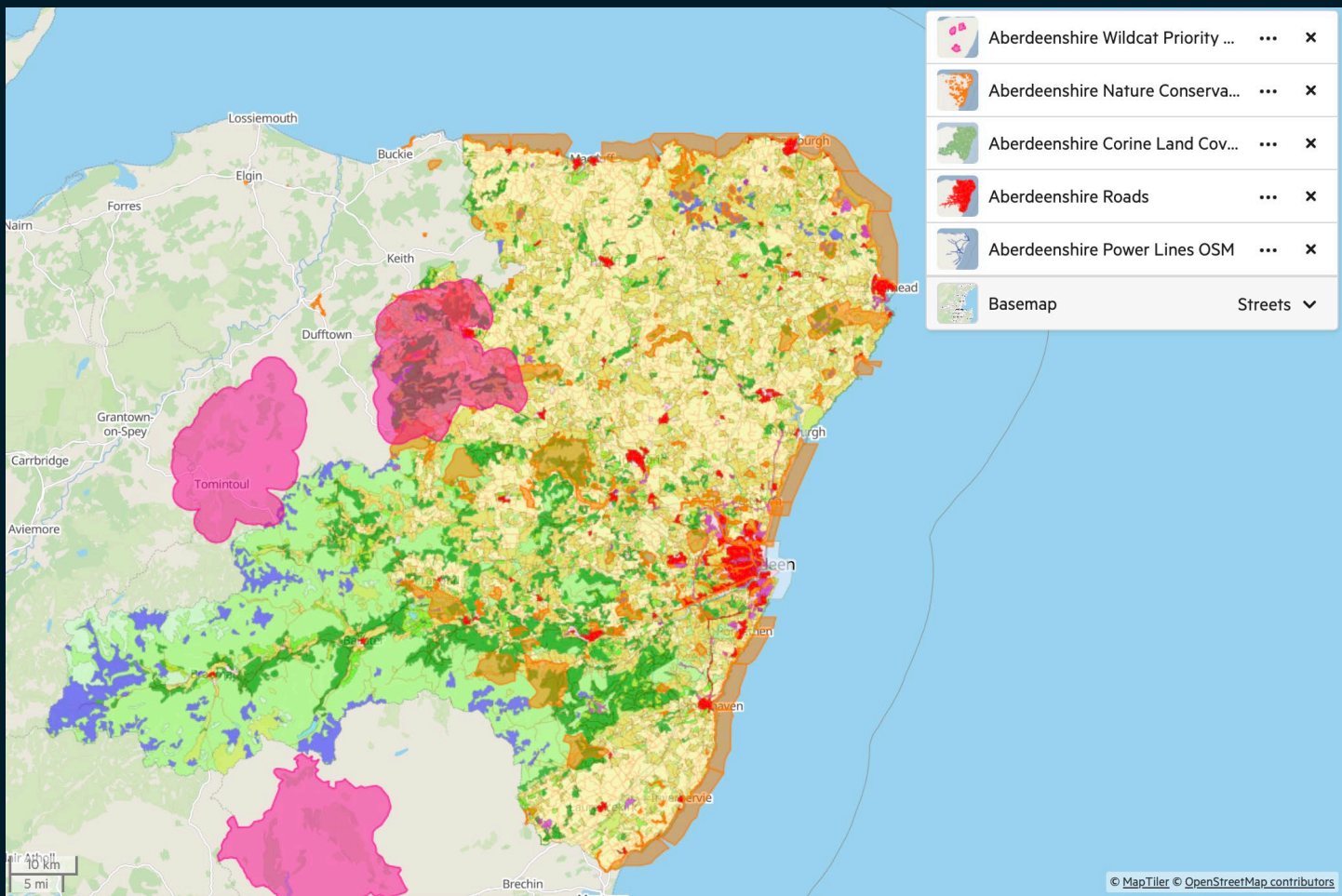
# Geoscience Data (F & Gaxes)



Datasets include (non-exhaustive list):

- Critical mineral occurrences
- Lithological data
- Drift
- Hydrogeology
- Dyke locations
- Soil inventories
- Borehole locations

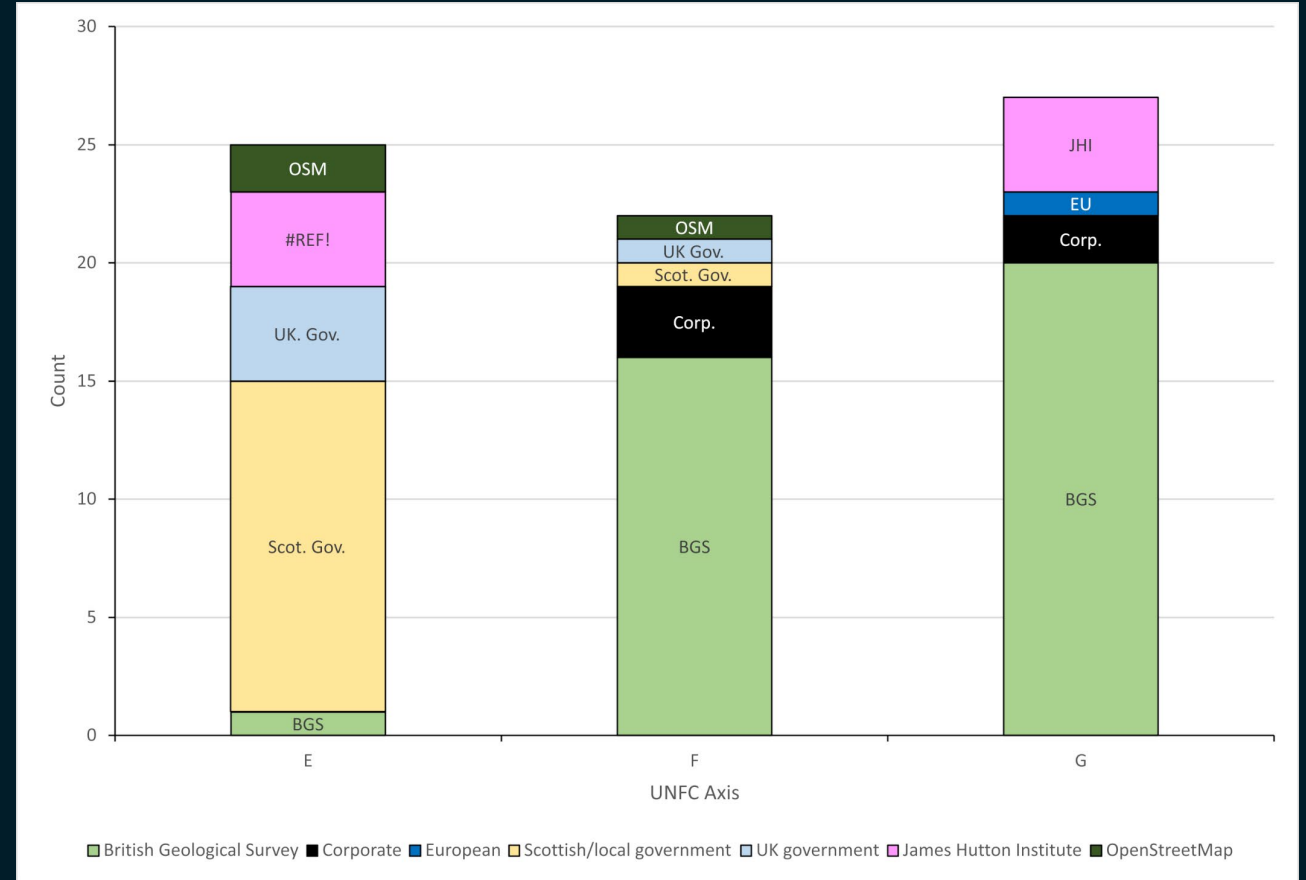
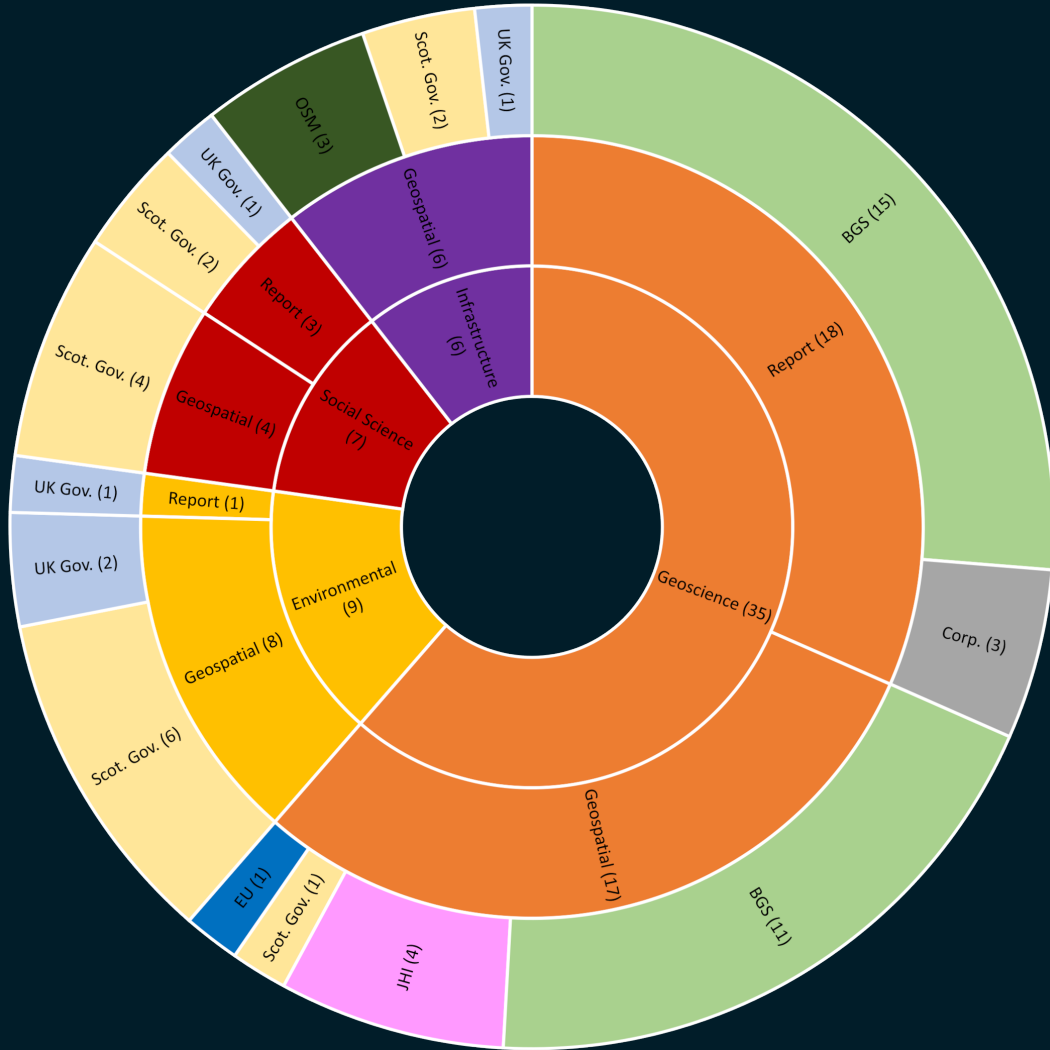
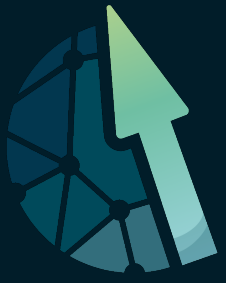
# Sustainability Data (E axis)



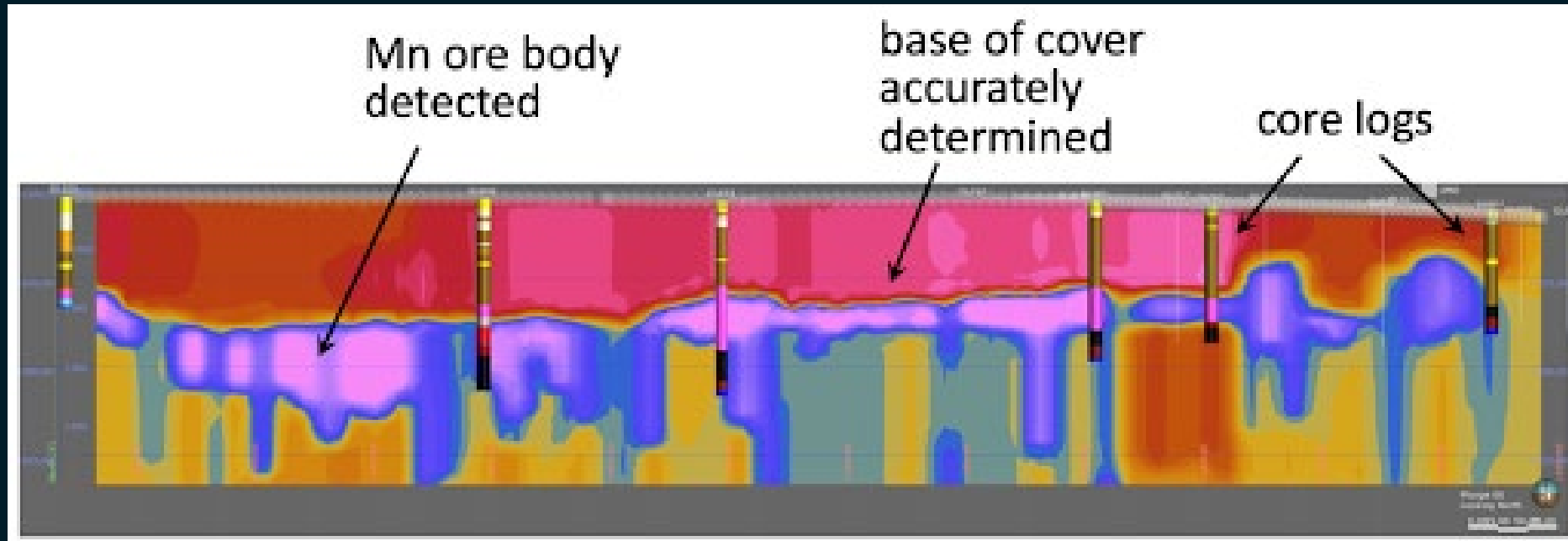
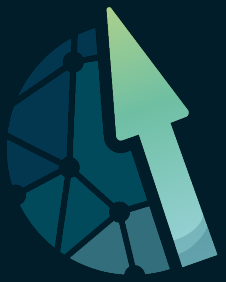
Datasets include (non-exhaustive list):

- Corine land cover
- Conservation areas
- Species presence maps
- Infrastructure maps e.g. powerlines, roads, railways
- Settlements
- Listed buildings

# We need more data

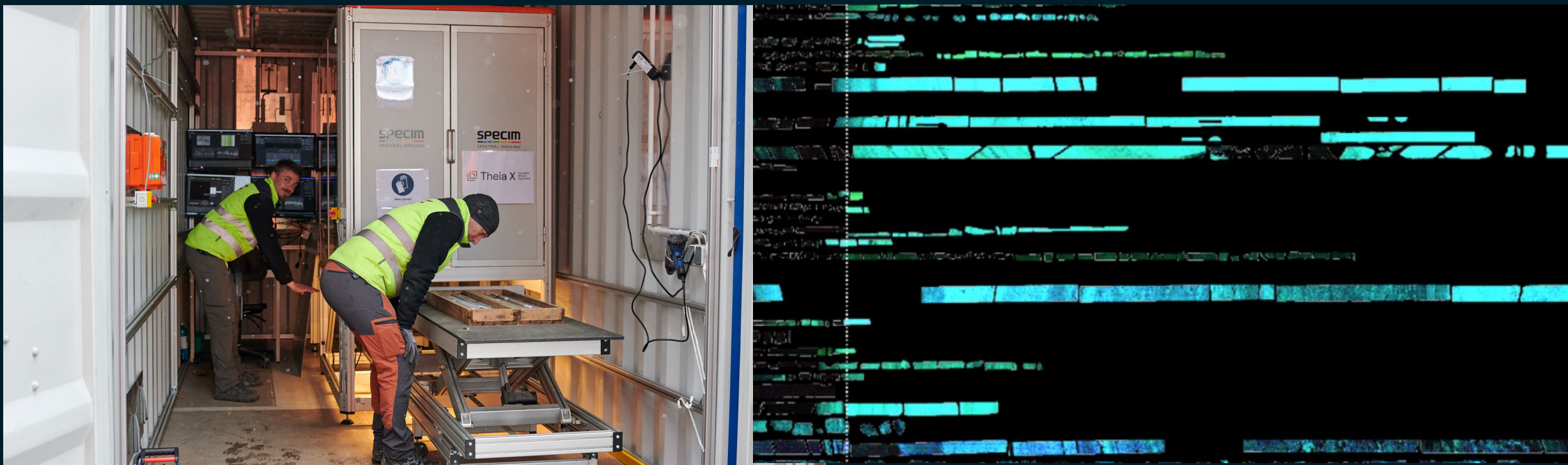


# VECTOR – Geoscience Passive Seismic Imaging





# VECTOR – Geoscience Rapid Hyperspectral Analysis



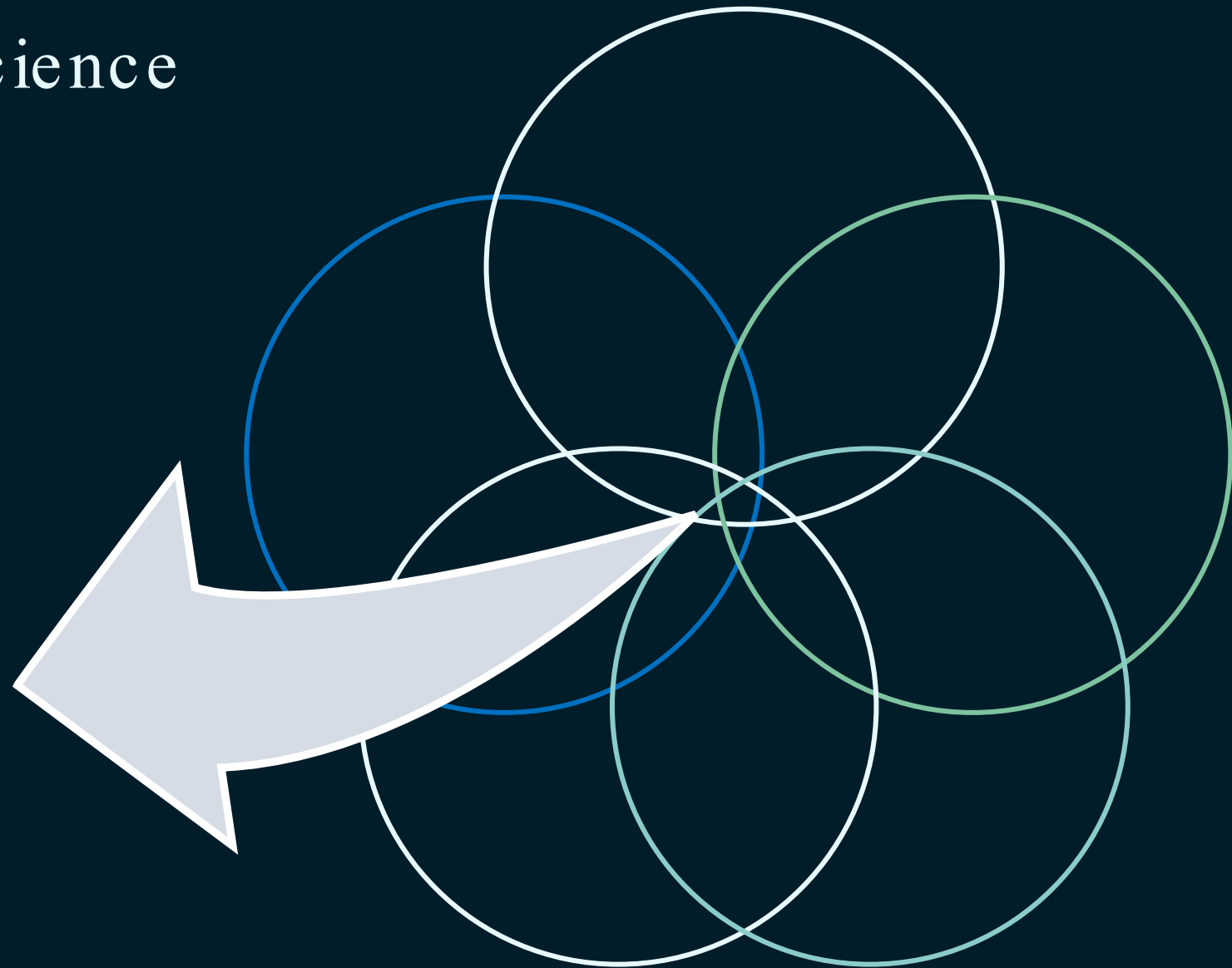


# VECTOR – Geoscience Shared Value

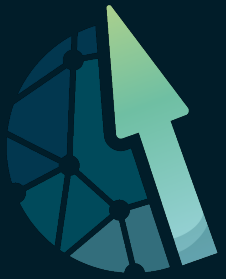


**A synergy between  
company's and  
society to create  
positive value for  
all stakeholders.**

**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.

Points Spent **110** Points Remaining **90**

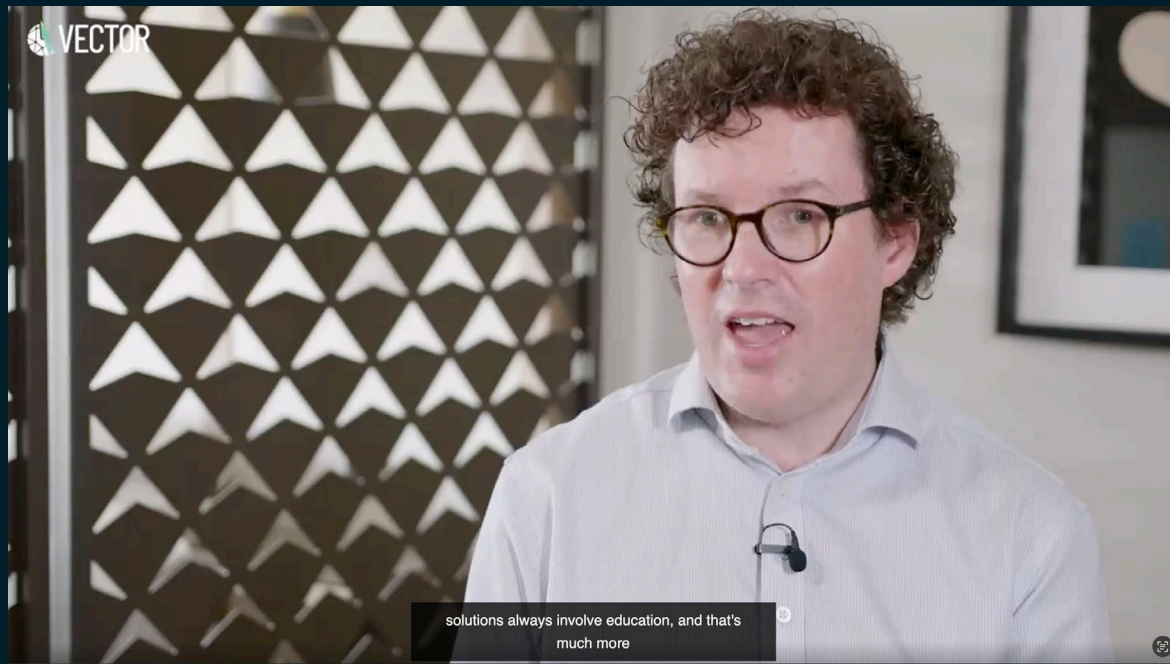
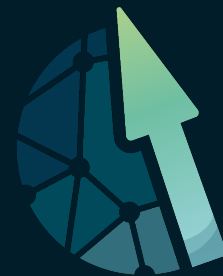
-10 0 10 20 30 40 50 60 70 Consequences

EU Policy interventions on Energy Supply, Private Transport & Heating >

- i** Policy focus on Offshore wind energy  
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. [More](#)
- i** Policy Focus on Onshore wind energy  
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. [More](#)
- i** Policy Focus on Solar Energy  
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. [More](#)
- i** Policy focus on Electric Vehicles  
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. [More](#)
- i** Policy Focus on Heat pumps for residential buildings  
8 times more copper will be needed to produce additional heat pumps, compared to fossil fuel boilers. [More](#)

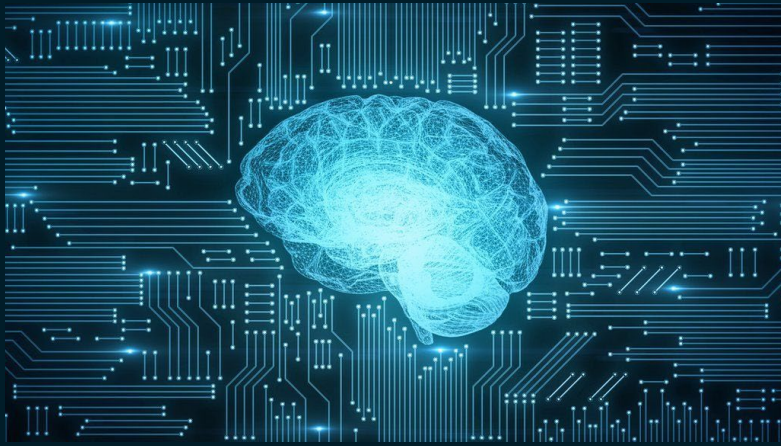
Your comments on EU Policy interventions on Energy Supply, Private Transport & Heating (Optional)

# VECTOR – Social science Educator engagement





# What we are not doing



**Artificial  
Intelligence**

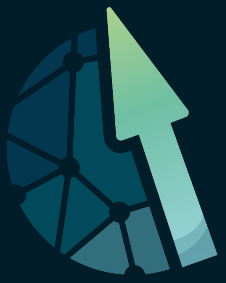


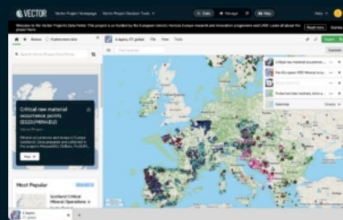
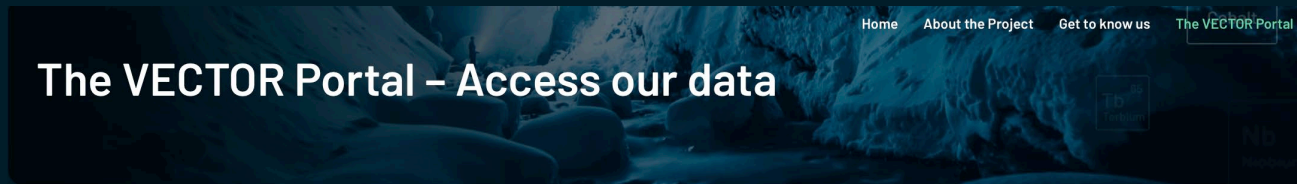
**Directly  
influencing**



**Engaging with  
children**

# What we are not doing





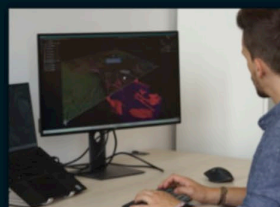
## THE VECTOR GIS

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

To access the VECTOR GIS email [contact@vectorproject.eu](mailto:contact@vectorproject.eu)



## COMING SOON: GEOPROSPECTIVITY TOOLKIT ON GITHUB



## COMING SOON: 3D GEOLOGICAL MODELS AND INTERACTIVE VISUALISATION THROUGH LIQUID EARTH



# VECTOR



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*The views expressed are those of the authors  
and do not necessarily reflect the views of the  
United Nations.*