SUMET
Urban sustainability responsibilities in the mobility electrification-energy transition mineral demand nexus

UNIVERSITY OF EASTERN FINLAND

UNECE

Webinar

Energy Transition Minerals and E-Mobility

Reducing virgin material demand with less private car reliance, smaller battery sizes, and more circularity

20th August 2025 | 15:30-17:00 CEST | Zoom (registration required)

14:30-16:00 London, 15:30-17:00 Geneva, 16:30-18:00 Helsinki, 6:30-8:00 San Francisco

Background

Electric mobility is essential to reducing transport emissions and improving urban environments. Cities that invest in electric transport lower greenhouse gas emissions, reduce air and noise pollution, and create healthier public spaces. However, this transition also increases demand for energy transition minerals that have become central to geopolitical contentions. While cities benefit directly from cleaner mobility, the environmental and social costs of mining often fall on communities far from urban centres. Moreover, the current patterns of resource use are unsustainable, with resource extraction, production, and consumption depleting natural reserves, disrupting ecosystems, and creating long-term risks for both the environment and society. Efforts to minimise virgin material demand, such as recycling and circular solutions do not operate at scale yet. Sustainable and responsible e-mobility requires cities to electrify mobility while reducing material intensity, closing resource loops, and taking responsibility for the impacts in upstream value chains. These requirements give cities an opportunity to play active roles in addressing the triple planetary crisis, including not only climate change, but pollution and biodiversity loss within and beyond cities.

Purpose

This webinar shares new research on how cities can electrify mobility while using fewer resources and supporting circular economy principles. It highlights strategies that can reduce car dependency, reduce battery size, and advance battery material recovery and reuse.

YUFE4Postdocs

Co-funded by the European Union

The session invites policymakers, urban planners, researchers, and raw materials experts to explore practical solutions that align climate action with resource efficiency, social equity, and global responsibility. The webinar will address ways to build cleaner, fairer, and more resilient mobility systems—without compromising on the urgency of decarbonisation.

Organisers and Speakers

The University of Eastern Finland, via the SUMMET project, explores urban sustainability responsibilities in the mobility electrification-energy transition minerals nexus and facilitates exchanges between professionals shaping the future of urban mobility electrification and energy transition mineral experts. SUMET is a project of the University of Eastern Finland's RESOURCE strategic research network. RESOURCE focuses on sustainability transitions in energy, minerals, and circular economy.

United Nations Economic Commission for Europe (UNECE) serves as a platform for regional cooperation and integration in Europe, North America, and Central Asia. UNECE's Joint Task Force on E-Mobility operates under a systems-based, cross-sectoral approach, recognizing that the transition to cleaner and more efficient e-mobility must be supported by clean, reliable, and efficiently managed energy. UNECE also engages in the sustainable management of resources through the promotion of classifications and standards of the United Nations Framework Classification on Resources (UNFC), and the United Nations Resource Management System (UNRMS).

The Climate and Community Institute (CCI) is a progressive climate and economy think tank working with movements and policy makers. CCI will share research on how the US can achieve zero emissions transportation while limiting the amount of lithium mining necessary through less car dependence, smaller electric vehicle batteries, and maximum lithium recycling.

Brunel Centre for Advanced Solidification Technology (BCAST) at Brunel University of London is pursuing full metal circulation (FMC, using secondary metals only) through narrowing the loop (use less), slowing down the loop (use longer) and closing the loop (use again). FMC provides an ultimate solution to decarbonising the metals industry, which underpins the sustainability of the entire manufacturing industry for electric vehicles.

SUMET
Urban sustainability responsibilities in the mobility electrification-energy transition mineral demand nexus

UNIVERSITY OF EASTERN FINLAND

UNECE

WHEN

Date: Wednesday 20th August 2025.

Time: 14:30-16:00 London, 15:30-17:00 Geneva, 16:30-18:00 Helsinki, 6:30-8:00 San Francisco.

Online: Registration is required to receive the Zoom link.

To register: https://link.webropol.com/ep/sumetwebinar1

AGENDA

Welcome and opening remarks

- Dr. Diana Arbeláez Ruiz, The University of Eastern Finland
- Ms. Nadejda Khamrakulova, UNECE

Achieving Zero Emissions with More Mobility and Less Mining

- Mr. Emmett Hopkins, Climate and Community Institute

Full Metal Circulation to Underpin a Sustainable Future

- Prof. Zhongyun Fan, BCAST, Brunel University of London

Open discussion

- Comments and questions from the audience moderated by Prof. Rauno Sairinen, University of Eastern Finland.

Closing

- Ms. Nadejda Khamrakulova, UNECE
- Dr. Diana Arbeláez Ruiz, The University of Eastern Finland

YUFE4Postdocs

Co-funded by the European Union