Malmö Sustainable Battery Value Chain Project

Roadmap

Executive Summary

February 2022

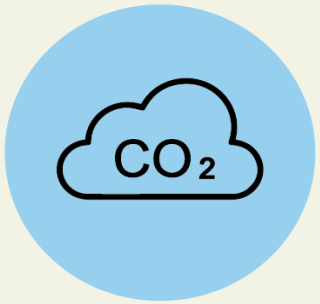
Malmö stad

EU CITIES FOR FAIR AND ETHICAL TRADE AWARD

International Trade Centre

Funded by the European Union

KEY RISKS



The mining and refining of battery materials, and the manufacturing of battery cells, are responsible for high levels of carbon emissions.

The mining and processing of raw materials used in common battery types is associated with several ESG issues, including child labour in cobalt mining.

Transparency in battery value chains is generally limited, meaning it is difficult for downstream users to ensure batteries and their raw material inputs are produced in accordance with international best practice.

Some of the current recycling methods, such as hydrometallurgical and pyrometallurgical processes, are associated with environmental and social impacts.

STRATEGIC FOCUS AREA

INCORPORATE ESG CONSIDERATIONS INTO PROCUREMENT CRITERIA FOR EVs AND EBs

RISK MANAGEMENT MEASURE

RMM1:

Establish procurement criteria to favour suppliers of EVs and EBs that minimise emissions in the battery manufacturing process.

RMM2:

Require suppliers of EVs and EBs to disclose information on their raw material supply chains.

RMM3:

Establish procurement criteria that favour suppliers sourcing battery raw materials from sub-suppliers certified as compliant with international best practice.

PRIORITISATION TIMELINE

RMM1:

- ST Seek a declaration of the EV battery's carbon footprint from suppliers, or review information made public by the EV manufacturer.
- MT In preparation for the EU's proposed battery regulation, seek to develop a system for ranking the carbon footprint of EVs.
- LT Source only from suppliers that comply with eventual maximum lifecycle carbon footprint thresholds.

RMM2:

- ST Monitor the legislative progress of the EU battery regulation and prepare criteria that could be applied once it takes effect.
- MT Develop criteria for comparing the supply chain disclosure of suppliers for the minerals covered under the draft EU regulation.
- MT Exclude from consideration suppliers that do not meet the minimum legal requirements in the regulation, if and when it comes into effect.

RMM3:

- MT Require suppliers to confirm their battery cell manufacturers source cobalt from smelters and refiners that have been audited by an independent third-party.
- MT LT Require suppliers to confirm if raw materials used in their vehicle batteries have been procured from mine sites certified as complying with specific standards.
- MT LT Monitor the success of the Battery Passport scheme.
- LT Battery Passport becomes widely adopted, compare suppliers of EVs on how effectively they manage ESG risks.

ST SHORT TERM MT MEDIUM TERM LT LONG TERM

STRATEGIC FOCUS AREA

REDUCE UNNECESSARY PROCUREMENT

RISK MANAGEMENT MEASURE

RMM4:

Establish mechanisms for departments within Malmö Municipality to share EVs and EBs – thereby reducing the total number of vehicles needed.

PRIORITISATION TIMELINE

- ST Create an inventory of which municipal EVs and EBs can be shared between departments.
- ST Utilise a simple vehicle booking system, in which users could reserve a vehicle that is shared between departments or held in a central pool.
- MT Invest in a more advanced booking system that allows for users to access vehicles based on 'real-time' availability data.
- MT Consider participating in commercial vehicle-sharing services, in which Malmö Municipality employees hire vehicles on a 'by the minute' as required.

ST SHORT TERM MT MEDIUM TERM LT LONG TERM

STRATEGIC FOCUS AREA

ADDRESS THE ROOT CAUSES OF ESG ISSUES IN BATTERY SUPPLY CHAINS

RISK MANAGEMENT MEASURE

RMM5:

Support initiatives that aim to address the causes of environmental and social problems in battery supply chains.

PRIORITISATION TIMELINE

- ST Take a public advocacy position and help to raise awareness through municipal communication channels.
- ST Work jointly with other actors to incentivise change in supply chains through multi-stakeholder initiatives.
- ST Due to prevalence of risks associated with cobalt, focus on initiatives in the cobalt supply chain.

ST SHORT TERM MT MEDIUM TERM LT LONG TERM

STRATEGIC FOCUS AREA	RISK MANAGEMENT MEASURE	PRIORITISATION TIMELINE
 **FOCUS ON RECYCLING AND REUSE**	**RMM6:** Lease or purchase vehicles from EV and EB manufacturers that already have recycling schemes in place and develop a framework to ensure those recycling schemes respect environmental and social best practice.	MT Include the presence of recycling scheme as one of the criteria for the procuring body to select suppliers. MT Develop a framework to determine the likelihood of environmental and social best practice being respected in those countries where manufacturers carry out their recycling. LT Consider purchasing cars directly and having recycling schemes as a condition of the purchase. LT Favour manufacturers that have recycling schemes that have a higher rate of recovered materials. LT Select manufacturers that actively contribute towards the achievement of the objectives set out by the proposed EU Regulation, if and when it comes into effect.
	RMM7: Investigate second-life options to prolong EV battery life.	MT Monitor the development of second-life projects in the local area. LT Consider including the presence of second-life projects as one of the criteria used in its procurement process. LT Investigate local initiatives for second-life. If leasing, become a facilitator. If purchasing, kick-start local project.
	RMM8: Consider leasing batteries, separate from the vehicles.	LT Consider leasing batteries, separately from the vehicles.

ST SHORT TERM MT MEDIUM TERM LT LONG TERM