

**EUROPEAN COMMISSION**

HORIZON 2020 PROGRAMME - TOPIC H2020-LC-BAT-2020  
Sodium-Ion and sodium Metal BAtteries for efficient and sustainable  
next-generation energy storage

GRANT AGREEMENT No. 963542



SIMBA – Deliverable Report

<< D1.3 – Supply chain analysis & materials sourcing for  
manufacturing >>

Deliverable No.	SIMBA D1.3	
Related WP	WP1	
Deliverable Title	Supply chain analysis & materials sourcing for manufacturing	
Deliverable Date	2022-12-18	
Deliverable Type	REPORT	
Dissemination level	Confidential – member only (CO)	
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Status	Final Draft	2022-12-23



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 963542.

## Publishable summary

The main goal of the SIMBA project is the development of high-performance, cost-effective, safe, and sustainable sodium-ion batteries (SIBs) and sodium solid-state batteries (Na-SSBs) for stationary energy storage applications. Many of the critical materials employed in lithium-ion batteries (LIBs) can be replaced in sodium-ion batteries (SIBs) with more sustainable materials that are less expensive and more abundant. First, the SIMBA project focuses on the development of low-cost and high energy electrode materials: Prussian White (PW) and P2/O3 layered oxides as cathodes on the one hand, and highly porous ceramics and Hard Carbon (HC) as anodes on the other hand. Furthermore, Na-SSBs will be enabled using safe single-ion conducting polymer electrolytes (SIPes).

Task T1.3 seeks to investigate and analyse the specifics of the manufacturing processes and materials supply chain for the SIMBA project. The present deliverable D1.3 titled “Supply chain analysis and materials sourcing for manufacturing” focuses on analysing the origin and criticality of the materials used in the SIMBA project, and on providing an overview of the materials supply chain based on data provided by the partners in the project. The supply chain data was provided by partners both via Excel spreadsheets and through the LEAFS platform, and then collated and analysed by UBham.

The origin of the raw materials used to produce the anode, cathode, and membrane electrolyte materials manufactured in SIMBA were identified and transportation flows were mapped out.

The criticality and strategic importance of the materials were highlighted, and potential supply risks were identified.