How environmentally friendly are batteries with no rare or critical materials?

Sanna Wickerts*[1], Rickard Arvidsson[1], Anders Nordelöf[1], Patrik Johansson[2] and Magdalena Svanström[1]

[1]Environmental Systems Analysis, Chalmers University of Technology, 41296 Gothenburg, Sweden

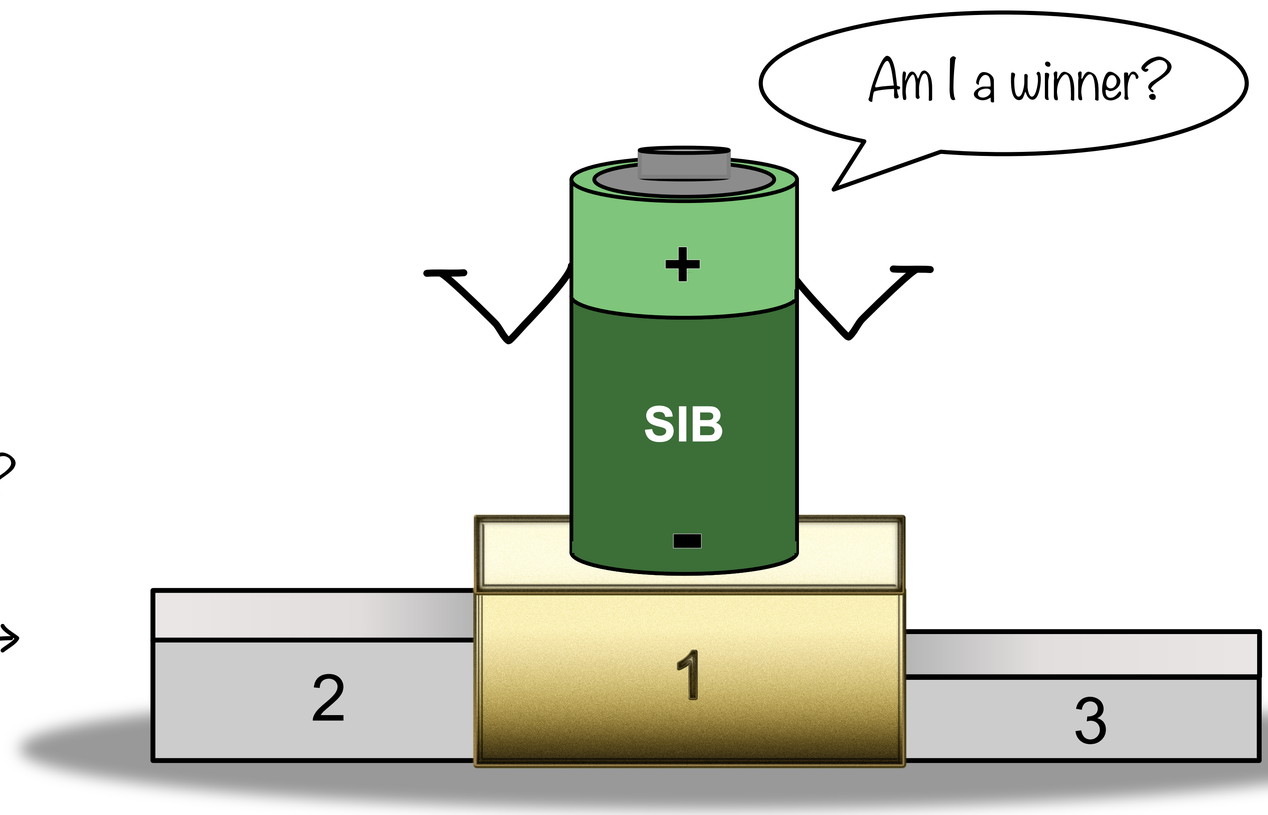
[2] Department of Physics, Chalmers University of Technology, 41296 Gothenburg, Sweden

Lithium-ion batteries (LIBs) are today's dominant rechargeable battery technology.

LIBs are superior regarding technical performance, but many lithium-ion technologies contain rare and critical materials, such as lithium, cobalt and graphite.

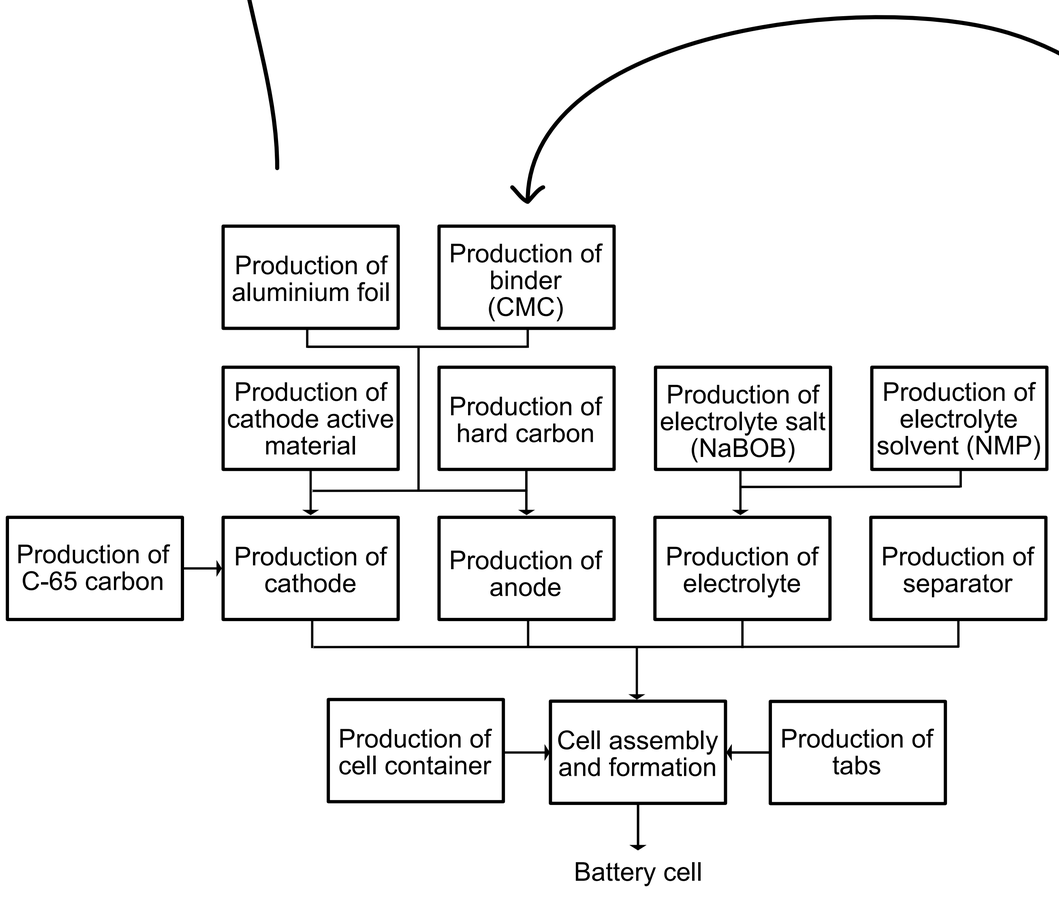
Consequently, battery technologies with less rare and critical materials have a clear role in the future.

The sodium-ion battery (SIB), a next generation battery, can be made to contain only abundant and readily available materials.



But what about the impact results? Well, stay tuned!

We assess the environmental and resource impacts of a SIB with abundant materials only, produced at large scale.



A prospective LCA has been initiated, where we combine data from several sources, including a SIB cathode producer (see the initial cradle-to-gate flowchart to the left). Climate change impacts as well as mineral resource use will be in focus.

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*sanna.wickerts@chalmers.se

CHALMERS UNIVERSITY OF TECHNOLOGY