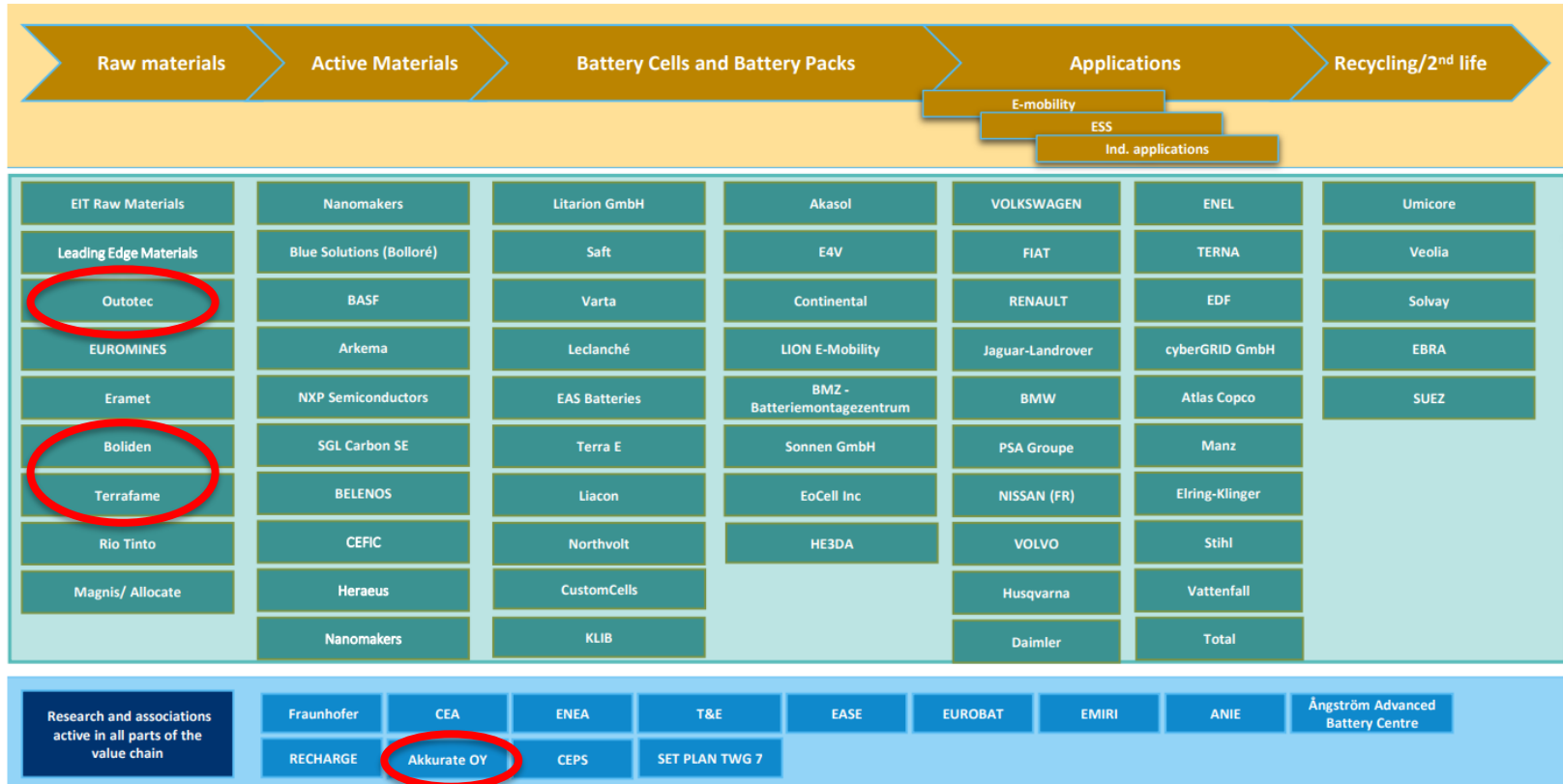




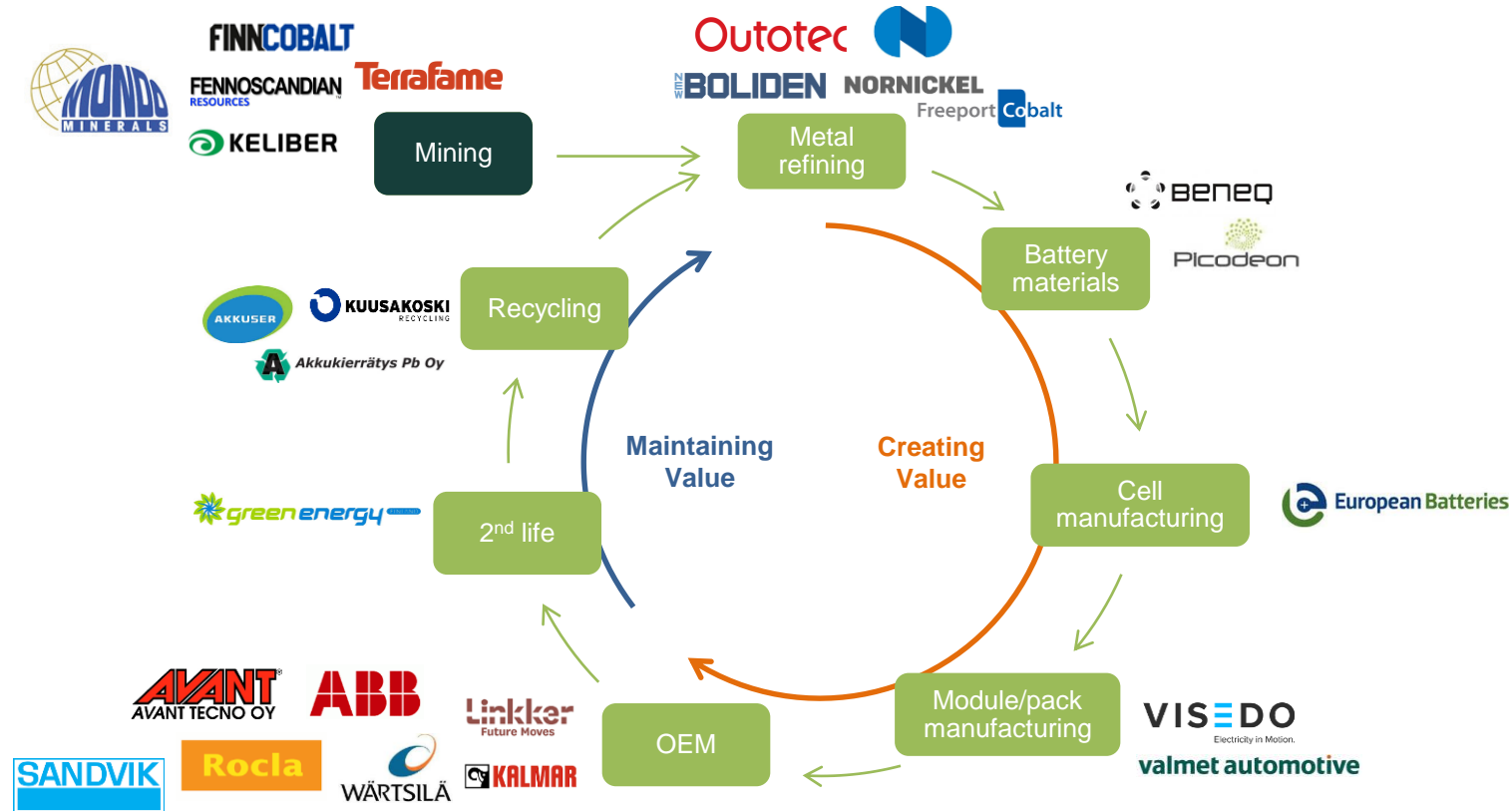
Finnish Battery Ecosystem - Hype or Reality?

Dr. Pertti Kauranen

The European Commission wants a European Ecosystem: The Battery Alliance



Finland: Can value be added to our mineral resources?



Where to get the investments ?

Gigafactory projects in the European Union (as of 20 February 2018)

NORTHVOLT

- Announced in spring 2017, construction to start in S2 2018
- Demo line ready mid-2019 with 8GWh/yr capacity
- 32GWh/yr production target for 2023/2024
- Investors: InnoEnergy, Stena, Vattenfall, Vinnova
- Grant from the Swedish Energy Agency: €15 million
- EIB loan: €52.2 million

TERRA-E

- Announced in spring 2017
- Start of operation in Q4 2019 with 6-8GWh/yr capacity
- 34GWh/yr production target by 2028
- Consortium of 17 industrial stakeholders and research institutes, with BMZ as the main shareholder
- Benefiting from a €5.2 million grant from the German Ministry of Education

LG Chem Wrocław factory

- Announced in 2016
- Start of operation in Q4 2018
- 100,000 EV batteries (4GWh/yr) production target
- €310 million to be invested up to 2020

Samsung SDI Göd factory

- Announced in 2016
- Start of operation in Q2 2018
- 50,000 EV batteries (2GWh/yr) production target
- €300 million investment

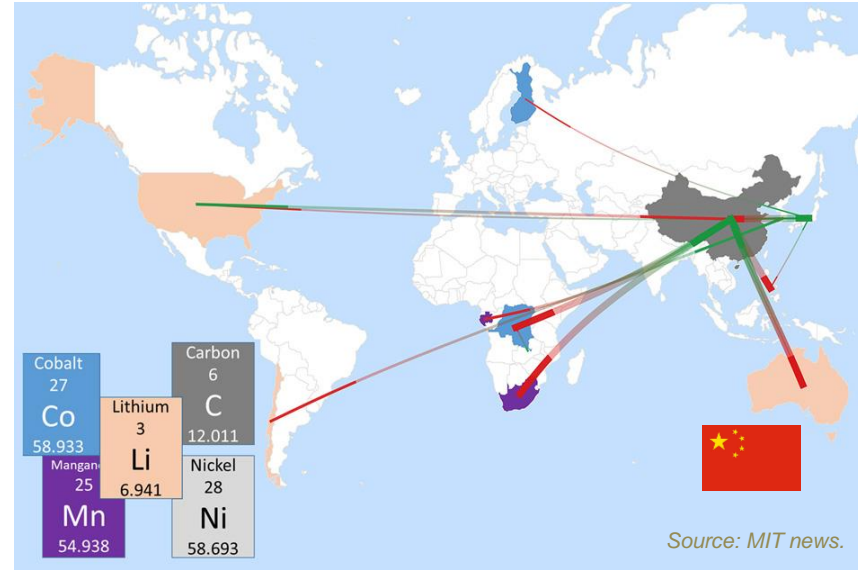
SK Innovation Komárom factory

- Plans to break ground in February 2018
- Start of production in early 2020
- 7.5 GWh/yr production target
- €620 million to be invested



Source : Carole Mathieu, "The EU Battery Alliance: Can Europe Avoid Technological Dependence?", Édito Énergie, Ifri, February 2018.

ifri institut français des relations internationales





Joint Workshop:

Circular Economy of EV Batteries

Innopoli 1, Tekniikantie 12, 02150 Espoo

24-25 May 2018

closeloop.fi/workshop



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