



Japan – EU Battery Industry

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EU Policies to Support the Battery Industry in the EU

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European Commission

Overall Policy Objectives

- To achieve, at least, 55% greenhouse gas reduction target by 2030
- Climate neutrality by 2050
- Transport has a crucial role to play - responsible for nearly 30% of the EU's total CO2 emissions (72% comes from road transport alone).
- EU committed to a 90% reduction in the transport sector's emissions by 2050

EU Policy

&

Industry Strategies

- **Green Deal** (December 2019) – Climate Neutrality by 2050
 - **Industrial Policy** (March 2020 & May 2021) – Resilience & Industrial Alliances policies
 - **Sustainable & Smart Mobility Strategy** (December 2020)
 - **Fit for 55** – tighter CO₂ emission standards & Alternative Fuels Infrastructure Regulation
- **Major shift to electric vehicles:**
 - **VW** – build 6 giga-factories - €10 billion investment in 40 GWh plant in Sagunt
 - **Volvo** – 50% of HDVs to be electric by 2030
 - **Renault** – €26 billion electrification investment 35 new EV models, 220 GWh capacity by 2030
 - **Audi** – ending ICE production in Europe in 2025
 - **2021** – 37% of car sales in 2021 in EU were hybrid & EVs

Strategic Importance of Batteries

Batteries are the key enabling technology for e-mobility and energy storage

→ a strategic sector for the EU economy

European Commission Policy:

- Retain EU as global centre for automotive innovation and competitiveness
- Support creation & retention of skilled jobs in EU
- Resilience of a strategic ecosystem

European Battery Alliance

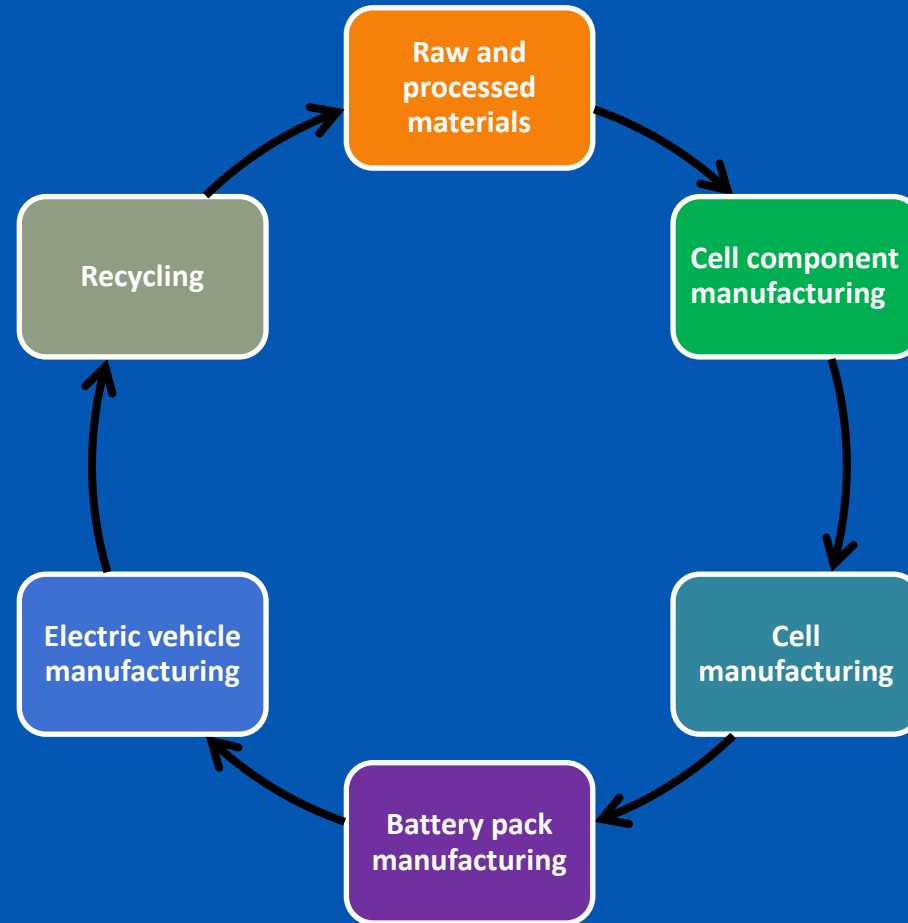
Who is involved?

Battery Action Plan – May 2018

To establish a **complete, competitive and sustainable battery value chain in the EU** with spillover effects over upstream and downstream industries

- Member States
- InnoEnergy
 - Industry
- Commission services
- European Investment Bank
- EBRD

EBA: Covers all segments of the value chain



Important Projects of Common European Interest - IPCEI

Commission approves €2.9 billion support by twelve Member States for second important European project for **battery value chain**



Competition

Raw materials

- EU Action Plan on critical raw materials:
 - develop resilient EU value chains,
 - encourage circularity,
 - sustainable sourcing and processing in the EU, and
 - to diversify supply with sustainable and responsible sourcing from third countries.
- On 6 September 2021 the Commission published the “EU principles for sustainable raw materials – voluntary code
- Critical Raw Materials List adopted:
 - Includes: cobalt, lithium & natural graphite
- European Raw Materials Alliance launched:
 - https://ec.europa.eu/growth/industry/policy/european-raw-materials-alliance_en

Skills & EU Initiatives

- Major growth in EU battery eco-system
- **3-4 m** jobs (direct & indirect) expected to be created by 2025 – **800.000** will need to be reskilled by 2025
- Shortage of battery-specific skills (e.g. chemistry engineers) & industrialisation/mass production
- Anecdotal evidence that skill shortage already a significant problem



Batteries Sector
Ongoing (2019-2023)

- Bring together key stakeholders – 20 partners (industry, education providers & regions) from 10 countries
- Identify skill needs
- Identify mutually recognised; job roles, skills & competencies
- Develop: common learning modules & training courses



EBA Battery Academy



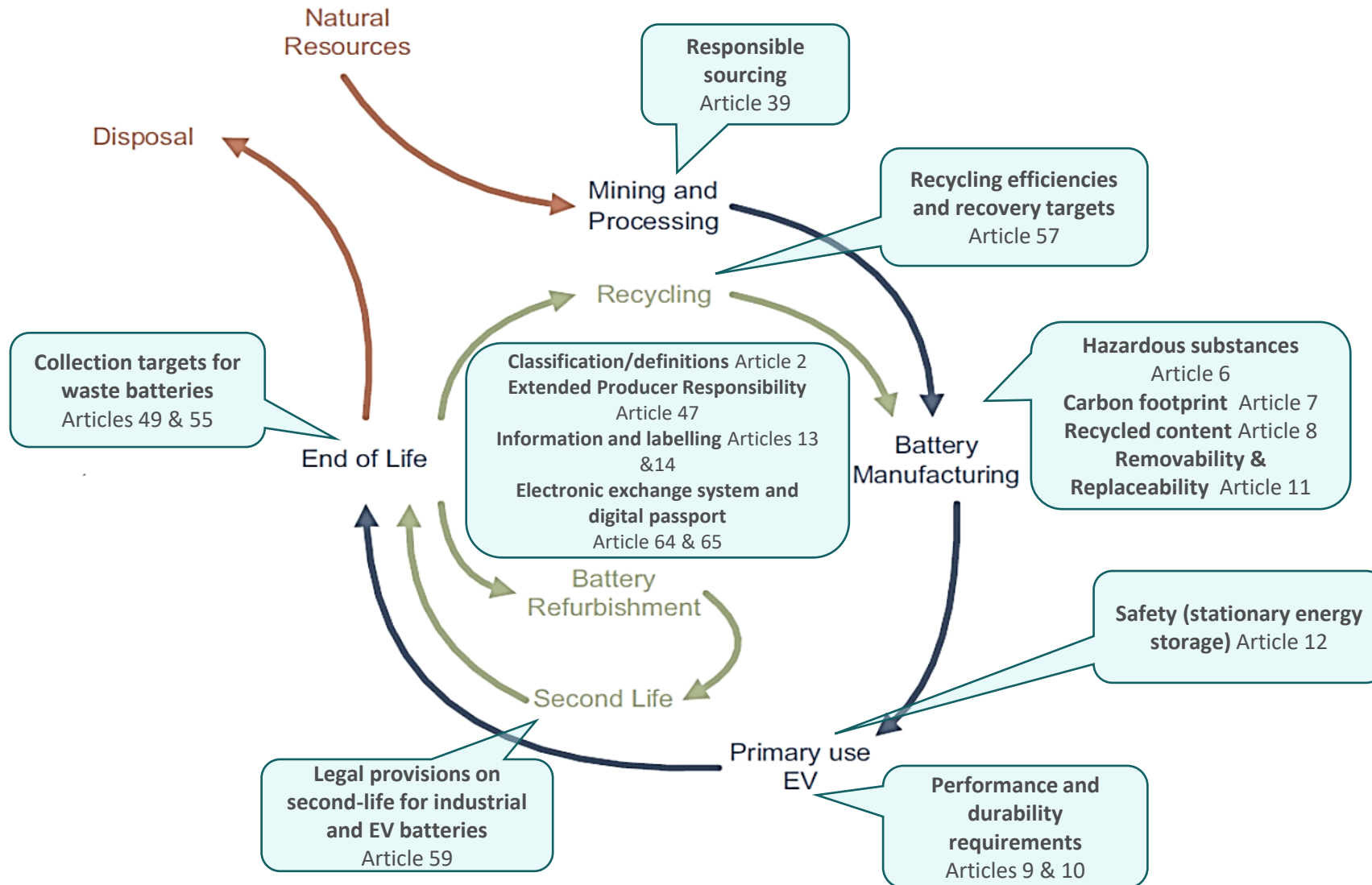
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Sustainability: Battery Regulation proposal - December 2020

- To ensure that only high-quality batteries are placed on the EU market and that those batteries are produced with low environmental impact, using materials that have been obtained in full respect of social and ecological standards. Batteries should also be long lasting and safe.
- After being used, batteries should be collected and recycled at the end of their life.
- The Battery Regulation covers the entire life cycle of batteries and ensures that sustainability is present in all parts of the battery value chain

.. covering the entire life cycle



Innovative

Requirements for batteries:

- Design: restriction of hazardous substances, performance & durability, safety
- Production: carbon footprint, recycled content
- Providing information: labelling, electronic exchange system, battery passport, state of health
- On economic operators: due diligence

Certain requirements apply only to specific categories and/or sizes of batteries, e.g. for reasons of proportionality, or if already addressed by other legislation (safety)

Battery passport

mobilising the potential of digitalisation of product information

ensuring interoperability of initiatives and access for operators with a legitimate interest

unique for each, large, individual battery; unique identifier on the battery

applies once battery is placed on EU market

accessible online:

- linked to electronic exchange system (containing 'static' information)

- (restricted) access to dynamic info on performance and durability ('digital twin' of each battery)

rules for transfer in case of repurposing etc.

technicalities through 'implementing legislation'

Timeline and next steps

Batteries proposal under discussion by Council and European Parliament:

Both concluded their position in March 2022; negotiations concluding in 2022 (?)

Application starting from 2023?

Battery passport from 2026/7? IT set-up to start much earlier

Development of digital product passport in the areas of batteries and electronics together with at least two other product categories will be supported by the Digital Europe Programme in 2021 [€ 3M].

Results

- 111 major battery-related projects
- Over 20 gigafactories planned or under construction
- 127 billion invested into the EU battery ecosystem
- EU on track to be nearly self-sufficient (89%) in battery production by 2030

Thank you!

European Battery Alliance website:

[European Battery Alliance | Internal Market, Industry, Entrepreneurship and SMEs \(europa.eu\)](#)