



17<sup>th</sup> – 18<sup>th</sup> May 2022



Valencia (Spain)

# Electromobility Technology Workshop:

## Driving a Greener Value Chain

by



i-HeCoBatt

*Developing the EU Battery Value Chain*



**Policy Officer**  
**James Copping**



## 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

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## EU Policy

**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 CO<sub>2</sub> emission standards & Alternative Fuels Infrastructure Regulation

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## Industry Strategies

**Major shift to electric vehicles:**

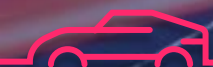
**VW** – build 6 giga-factories - €10 billion investment in 40 GWh plant in Sagunt

**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



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## 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

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## Industrial Alliances

- A **useful policy tool** in **strategic areas** where such alliances are identified as the best tool to accelerate activities that would not develop otherwise;
- 4 governing principles of alliances:
  - **inclusiveness, transparency, openness and diversity.**

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## European Battery Alliance

### 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

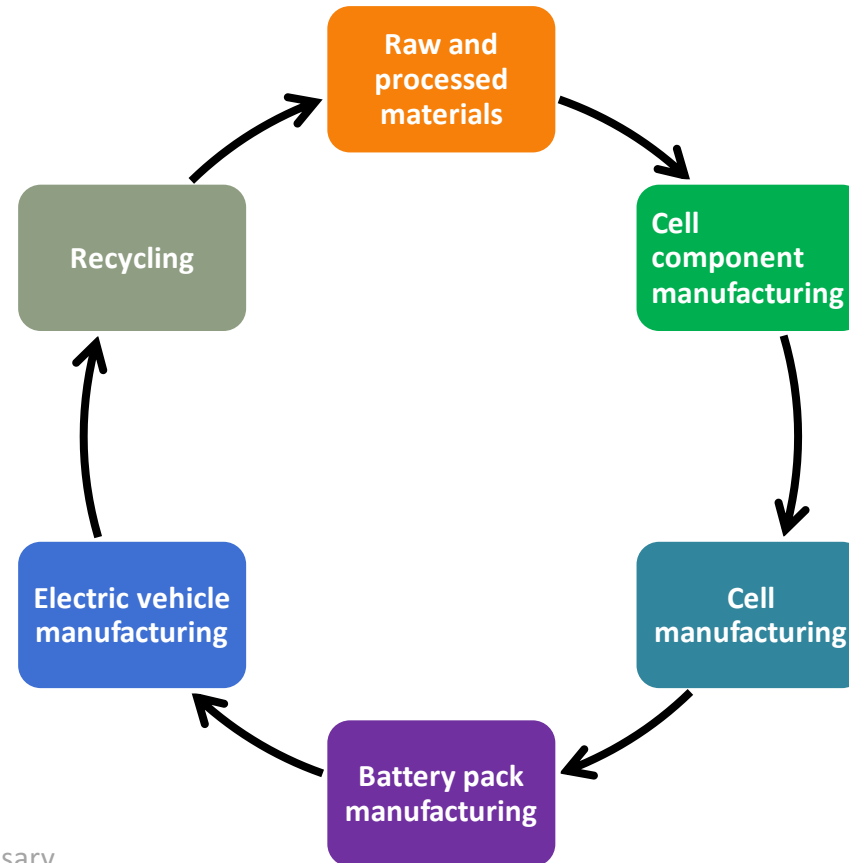
### Who is involved?

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

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# EBA: Covers all segments of the value chain



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### Important Projects of Common European Interest





## 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](https://ec.europa.eu/growth/industry/policy/european-raw-materials-alliance_en)

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## Skills

- 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

## EU Initiatives



**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



Training and courses



## Sustainability: Battery Regulation proposal Dec 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

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## Results

- 111 major battery-related projects
- Over 20 gigafactories planned or under construction
- 127 billion invested into the EU battery ecosystem
- EU due to become the second largest producer of batteries, after China, by 2024
- EU on track to be nearly self-sufficient (89%) in battery production by 2030

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## Industrial Alliances - overview

Name	Status
European Battery Alliance (EBA)	Launched in 2017
Circular Plastics Alliance (CPA)	Launched in 2018
European Raw Materials Alliance (ERMA)	Launched in 2020
European Clean Hydrogen Alliance (ECH2A)	Launched in 2020
Alliance on Processors and Semiconductor Technologies	Launched in July 2021
Alliance for Industrial Data, Edge and Cloud	Launched in July 2021
Renewable and Low Carbon Fuels Value Chain Alliance	Launched April 2022
Alliance on Zero Emission Aviation	Preparation under consideration
Alliance on Space Launchers	Preparation under consideration

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# Thank You

European Battery Alliance website:

[European Battery Alliance | Internal Market, Industry, Entrepreneurship and SMEs \(europa.eu\)](https://europeanbatteryalliance.eu/)

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