

MANAGEMENT SUMMARY

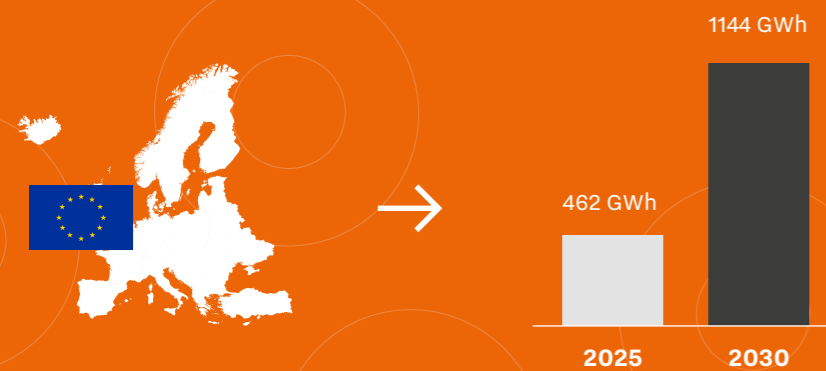
ACTION PROGRAMME BATTERY SYSTEMS

EXPERT GROUP ON BATTERIES, SEPTEMBER 2022



Batteries are an **indispensable key enabling technology** in the **energy transition**. They are a key tool in making the mobility sector more sustainable and support **stabilization of the energy grid** with more sustainable but less adjustable energy sources.

Europe and the local industries are investing significantly in developing an independent and sustainable European battery value chain. The expected yearly production of battery cells in Europe is **462 GWh annually in 2025**.



This provides great opportunities for the Dutch high-tech industry, and the mobility and energy sector



MOONSHOTS

- Materials and cell design → **TOP 5** The Netherlands is amongst the **5 leading countries in developing safe and sustainable new battery materials and cells in 2025**.
- Equipment for cells, modules and packs → Building on a strong heritage in developing complex (thin-film) production equipment, the Dutch high-tech industry will supply production equipment to **European gigafactories**



Battery systems for mobility



In **2030** the Dutch industry is recognized for its focus on battery technology for the heavy-duty mobility sector and will design, develop, produce and test **internationally renowned battery systems for heavy duty mobility**

Battery systems for grid support



In **2030** batteries with **130 hours** storage capacity will provide sufficient grid capacity and adjustable **power**

Data, safety and testing



In **2030** the Netherlands is **leading** in testing of **heavy duty batteries and battery systems for grid support**

Refurbishment, repurposing and recycling



In **2030**, an **independent Dutch infrastructure** with access to **recycled resources** is established

COLLABORATIVE ACTIONS

1



Establishing the necessary R&D- and test-facilities for developing and scaling new concepts for battery cells and packs

2



Bilateral cooperation, in Europe with a **focus on Germany**

3



At the end of 2022 a **national battery competence cluster called BCC-NL** will have been established

4



Establishment of a **joint human capital agenda and action plan**



Holland High Tech
Global Challenges, Smart Solutions