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### **About:**

- •GIGAGREEN proposes a structured research plan to develop and scale up novel electrode and cell component manufacturing processes that follow a Design to Manufacture approach in line with Europe's strategic goal of becoming a global leader in the Li-ion battery value.
- •This means that **GIGAGREEN** seeks for the minimum environmental impact and energy consumption, cell designs which facilitate the re-use and disassembly, increasement of the cost-efficiency and safety of processes and products, and high-throughput technologies able to be easily scaled up and automated in the context of industry 4.0/5.0 giga-factories.



### **Design to Manufacture Gigafactory concept**

#### **SAFER**

- Elimination of organic solvents



#### **GREENER**

- Reduced energy and material consumption
- Energy consumption of cell manufacturing reduced by 25%



#### **BETTER**

- High performance cells in terms of voltage, capacity, life cycle
  - Data-driven process and product quality control





#### **CHEAPER**

- Reduced energy and material consumption, economy of scale
- Cell manufacturing cost reduced by 20%



#### **FLEXIBLE**

- Digitalization processes allowing to quicker specification change
- Affordable scalable process

# **IMPACTS**

10% Increase Productivity

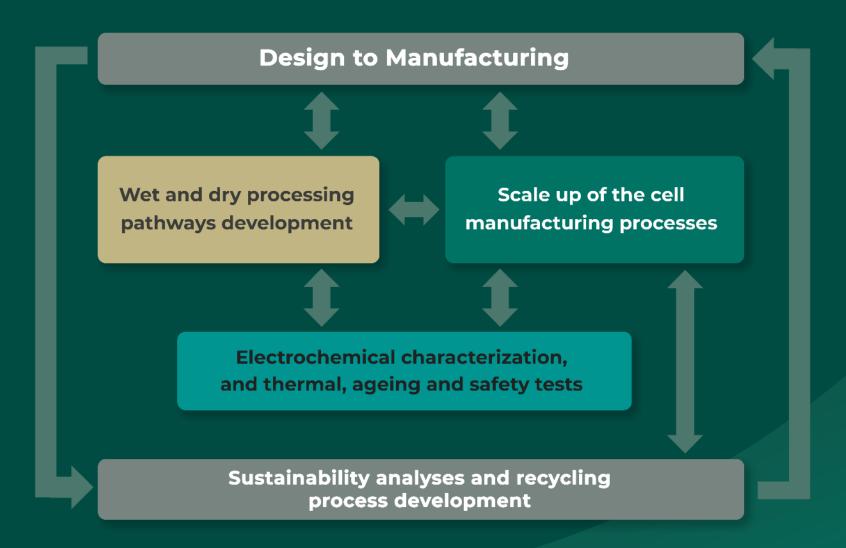
25% Reduction of Energy Consumption & Carbon Footprint

20% Reduction of Costs

O% Volatile Organic
Compounds Generated



## **IMPLEMENTATION**



### CIC energi **GUNE**

BASQUE RESEARCH

& TECHNOLOGY ALLIANCE

































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