

Financing the development of a sustainable EV and battery ecosystem in Europe

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EIB Group financing in 2019



€ 63.3 billion



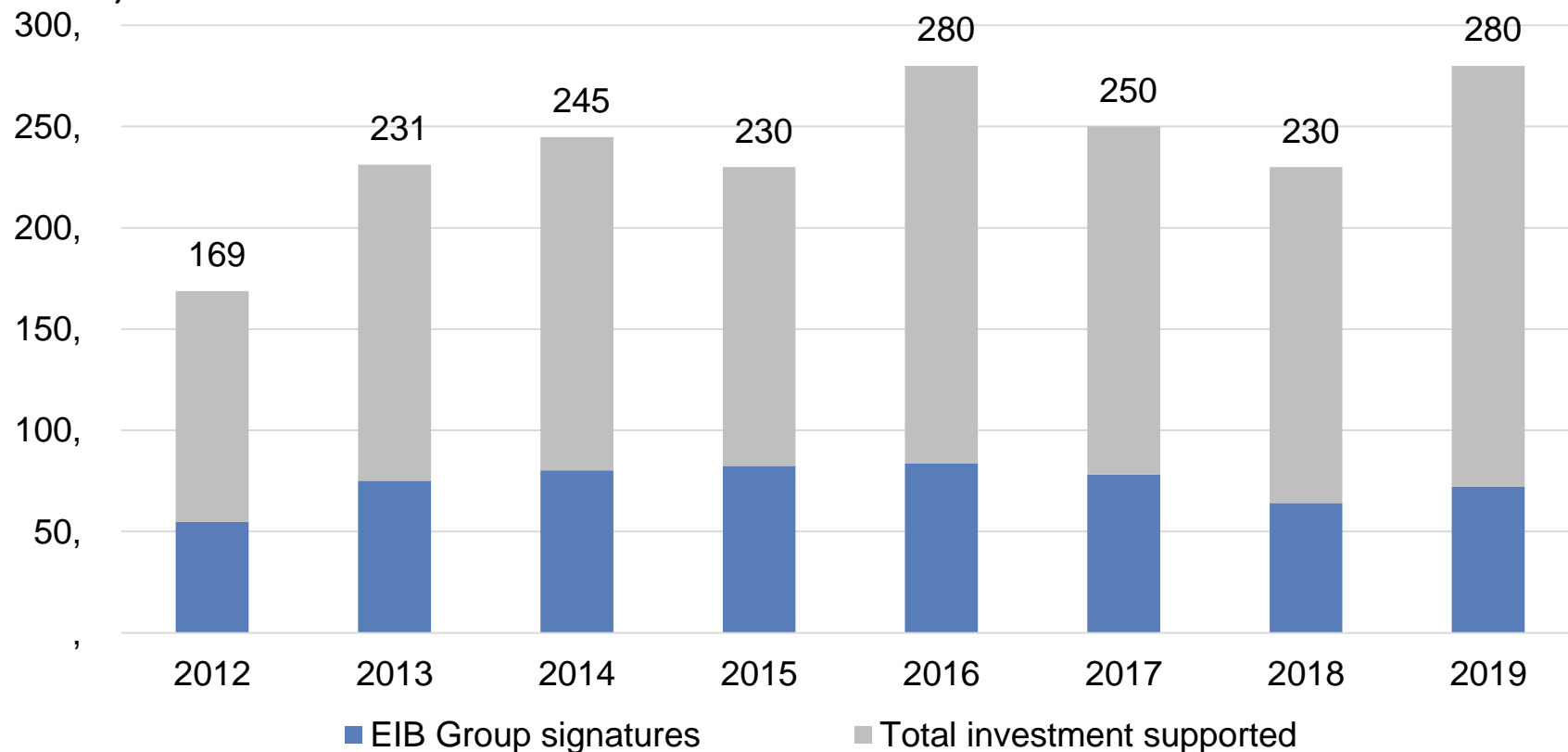
€ 10.2 billion

* Provisional and subject to audit



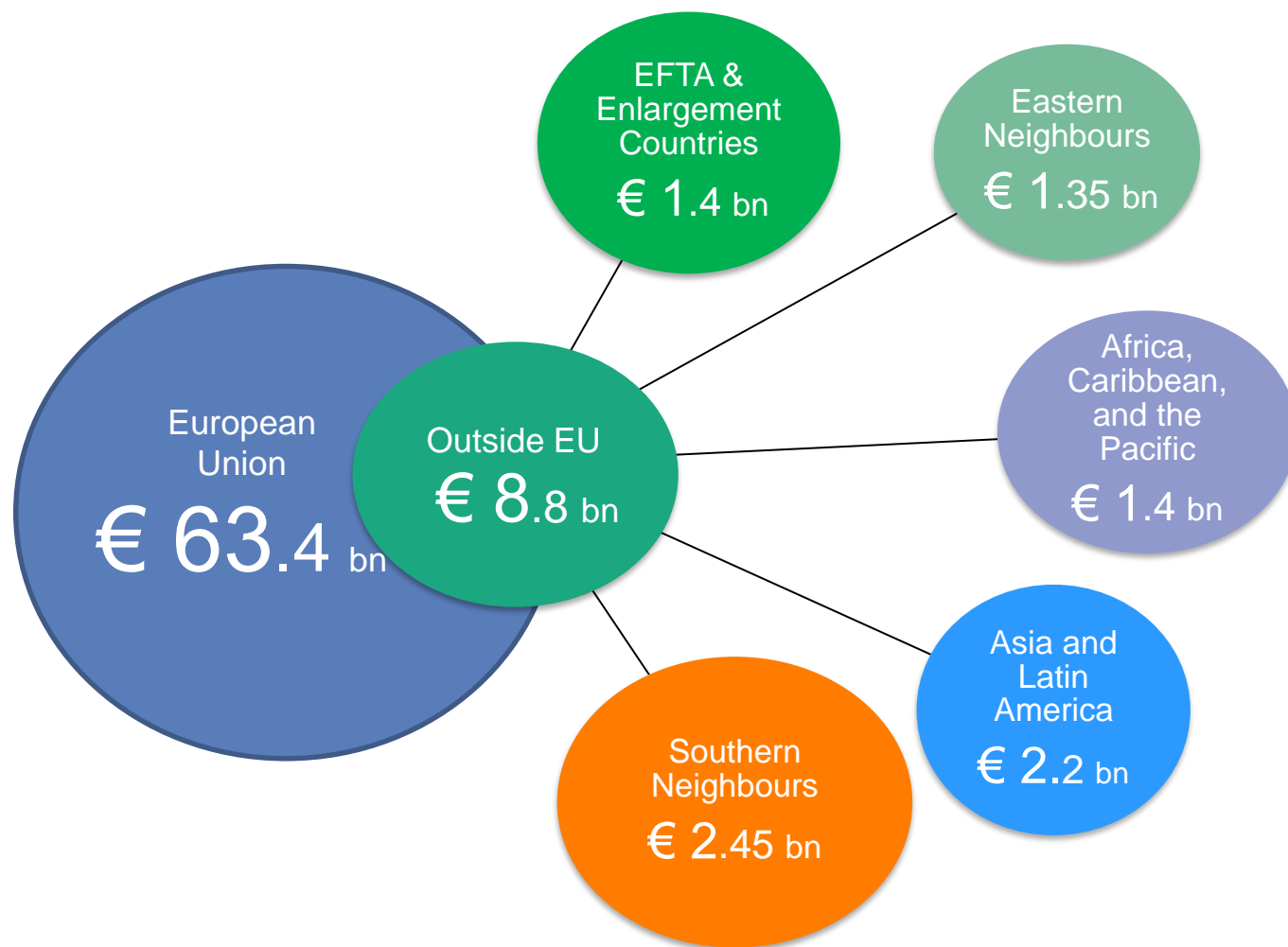
Investment supported

(€ billion)



* Change of methodology after 2014

EIB Group financing in 2019 by region



EIB Climate Action investments (2019): €19.3bn



Research,
development
and
innovation

Energy
efficiency

Other
climate
change
mitigation

€ 1.0 bn

€ 4.6 bn

€ 1.4 bn

Lower carbon
transport

€ 7.6 bn

Climate
change
adaptation

€ 0.8 bn

Renewable
energy

€ 3.9 bn



EIB aims to support sustainable investment across entire battery ecosystem value chain

- *Research, Development and Innovation programmes, including pre-market deployment and pilot production lines;*
- *Full commercial scale plants aimed at improved performance and sustainability of battery cells and battery packs and increased manufacturing efficiencies;*
- *Investments of innovative SMEs and Midcaps involved in technology development and in battery management systems;*
- *Projects aiming at developing and securing supply of critical raw materials;*
- *Projects aiming at reuse/recycling of batteries.*

Blending with EU instruments

Instruments	What can be supported?
Innovfin, EFSI, InvestEU	R&D of private and public entities
EFPI, Invest EU	Innovative SMEs and Midcaps Innovative facilities at commercial scale (first applications)
Innovfin - EDP	Demonstration projects
CEF - Future Mobility Facility	Deployment of charging infrastructures (and vehicles)
External Lending Mandates	Raw materials
Advisory Hub / Innovfin Advisory	Advisory activities

Selected EIB projects related to batteries / EVs

Northvolt demo plant (Sweden)

Capacity: 0.26 GWh per year

Project costs: EUR 105m / loan (InnovFin EDP): 52.5m

EIB Board approved 2018

Northvolt: Large scale battery plant (Sweden)

In principle board approval 2019

Capacity: 16 GWh per year

Loan type: project finance

Project costs: +/- EUR 2 bn ; EIB loan (EFSI): EUR 350m

northvolt®



Selected EIB projects related to batteries / EVs

Fiat-Chrysler R&D (Italy):

Research, development and innovation 2018-2020 related to electrification technology solutions for hybrid and battery electric vehicles and the development of autonomous driving, and digitalization in manufacturing.

Project costs: EUR 859m

EIB loan: EUR 420m (InnovFin - Emerging Innovators)

Approved by EIB Board 2018



Selected EIB projects related to batteries / EVs

Forsee power: Smart battery systems (2017)

Forsee Power is a French innovative early-stage company, specialized in smart battery systems for urban mobility, including buses. The EIB project will enable Forsee Power to increase its production capacity and launch the series production of smart battery systems in Europe and China, particularly for the transport markets (bus, railway, truck, boat, scooter).

Project cost: EUR 49.30 m

Loan size: EUR 20 m

Financing type: Quasi equity under EFSI



Battery cell manufacturing investments are ramping up in Europe



Blackstone Resources



Volkswagen

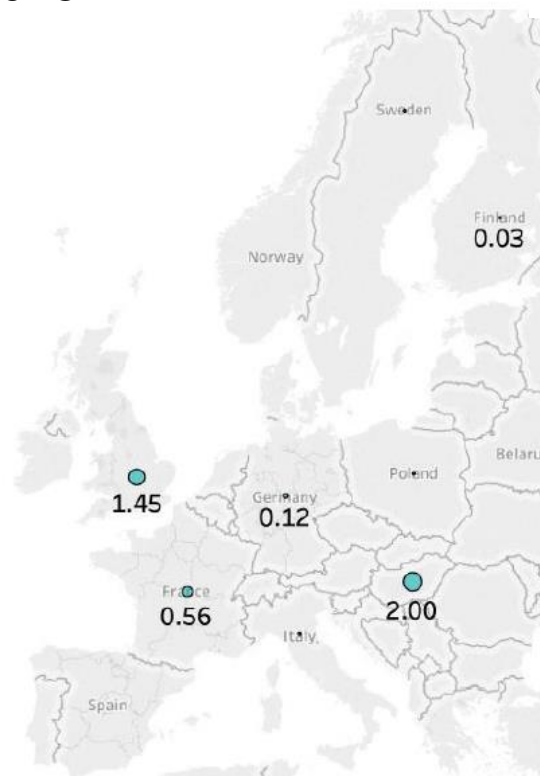


northvolt

Battery cell manufacturing investments are ramping up in Europe

Expected evolution of Li-ion cell manufacturing capacity for mobility and stationary storage applications in the EU (incl. the UK), in GWh

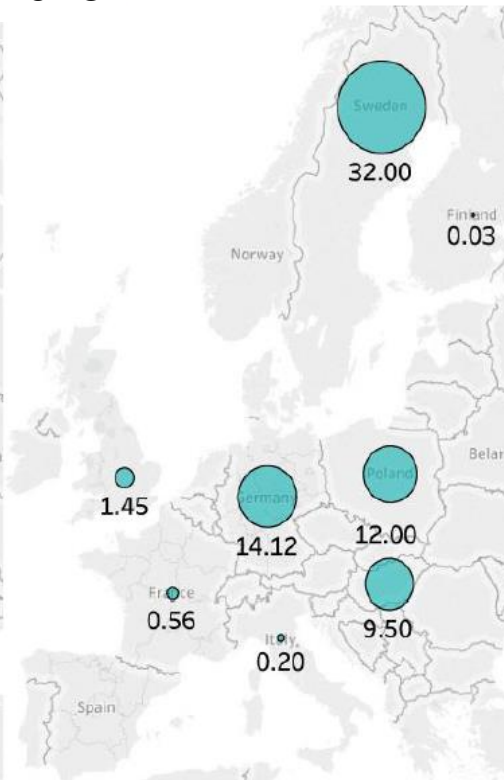
2018



2021



2023



Source: JRC based on various sources [36,94–98]. Note: Excluding the announcement made by TESLA as the location was not disclosed.

EIB support for raw materials supply chain

ERAMET R&D AND DIGITALISATION INVESTMENTS; EFSI (France)

Project size: EUR 277m

Loan size: EUR 120m

Approved by the EIB Board in 2018

The project supports Eramet's investments in research, development and digitalization across its different business areas. A portion of the project aims at broadening the product portfolio with metals that are crucial for the energy transition, in particular the development of deposits and metallurgical processes for Lithium and Nickel. The project also aims at the development of new products in the fields of superalloys, high-performance steels, aluminium alloys and titanium alloys, as well as powder metallurgy.



EIB support for raw materials supply chain

BOLIDEN ELECTRONIC SCRAP RECYCLING; RSFF (Sweden)

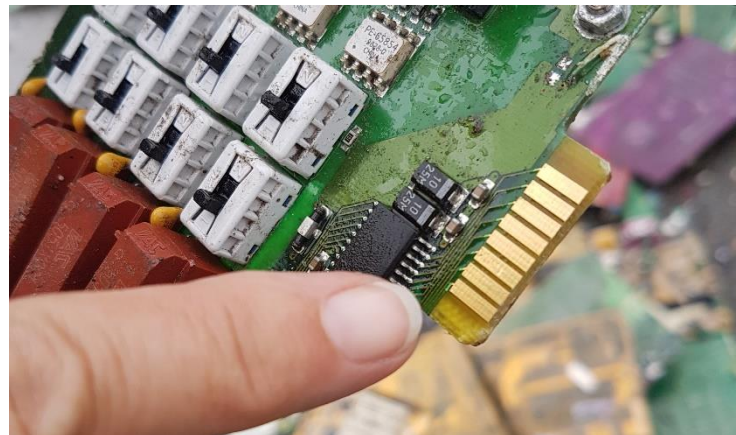
Project cost: EUR 178m

Loan size: EUR 85m

Approved by the EIB Board in 2011

The project concerns the construction of a new electronic scrap processing plant, which will increase the supply of recovered metals to the existing non-ferrous metals smelter. The furnace will have the capacity to treat some additional 75 000 t of e-scrap. The innovation lies not in the process itself but in its application in the treatment of e-scrap. The project will permit the production of some additional 2 t of gold, 30 t of silver and 15 000 t of copper. Other by-product metals will also be recovered, such as platinum, palladium, nickel, selenium and cobalt.

NEW BOLIDEN



Battery, EV and renewable energy raw materials



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