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“Unprecedented levels of investment confirms that automotive manufacturers see the future as being electric”

£232bn in EV investment announced

A study published by Reuters on 10 January has revealed that \$300bn (£232bn) of global investment is planned for EVs (electric vehicles) over the next 10 years. This represents the publicly announced procurement and investment budgets of automotive Original Equipment Manufacturers (OEMs) (car manufacturers). Actual spending on research and development, engineering, and the outlay from technology companies, could exceed this sum.

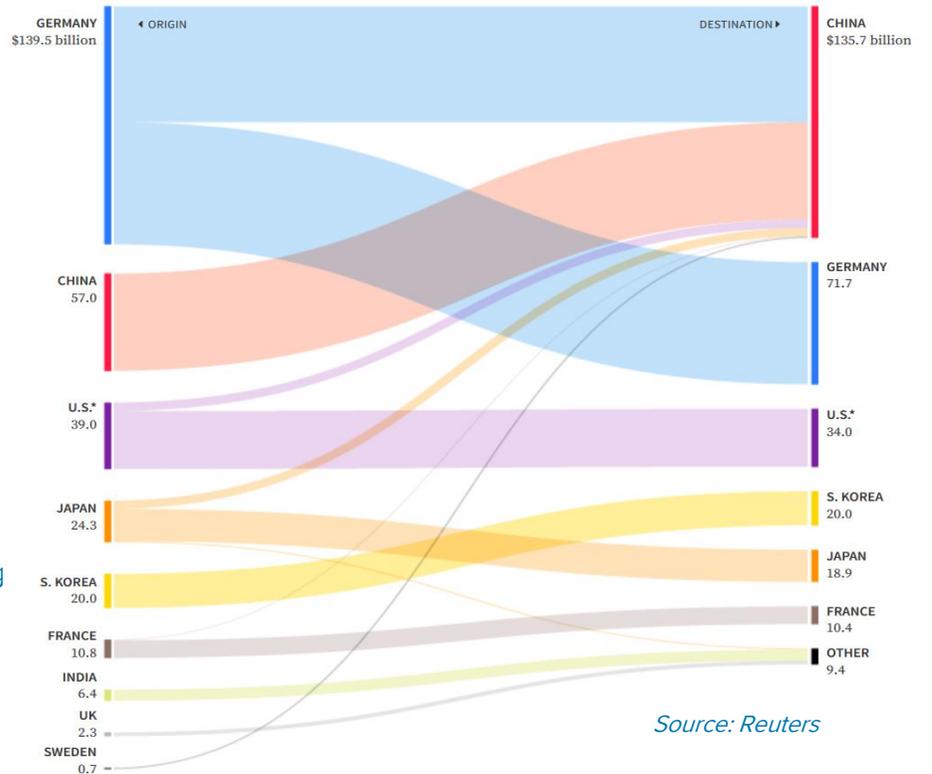
Figure 1 summarises the investment flows from automotive OEM countries of origin to destination country. The majority of investment originates from Germany (\$139.5bn/ £107.8bn). Specifically, members of the Volkswagen Group (Volkswagen, Audi and Porsche) lead the way globally with \$91bn (£70.3bn), followed by Daimler (Mercedes and Smart) with \$42bn (£32.5bn).

China is set to receive the largest share of investment (45.3%) of any destination country, with six nations providing a combined \$135.7bn (£104.9bn). Reasons for this include a range of government policies encouraging the uptake and manufacture of EVs, including the “cap and trade” scheme which mandates that at least 10% of the output of OEMs which produce more than 30,000 vehicles must be EVs.

Just over a third of the investment will be directed at battery production (\$113.8bn/ £88bn). This is a logical step as the cost of an EV is largely dictated by the battery unit price, and up-scaling production is a key factor in reducing the price of batteries.

According to Bloomberg NEF, global prices of Lithium-ion batteries, the dominant battery technology in EVs, has fallen from \$1,000/kWh (£773/kWh), to around \$200/kWh (£155/kWh) in 2018. This is a significant step towards achieving cost-parity with conventional vehicles (\$150/kWh/ £116/kWh) and research indicates that this may be achieved as soon as the mid-2020s.

Figure 1: Investment flows from automotive OEM country of origin (US\$)



Source: Reuters

For the UK, Tata (India) are investing \$0.9bn (£0.7bn) in Jaguar Land Rover (JLR). There will also be smaller sums from Chery (China) into JLR and Geely (China) into Lotus.

Ultimately, the unprecedented level of investment signals a global drive towards the electrification of road transport and confirms that most automotive manufacturers see the future of the car industry as being electric.

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