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Mobility Minds Blog

By PwC Deutschland | 30 June 2026

The Goldmine in the Garage

Why the next billion-euro business in the automotive industry lies not in driving, but in parking.

https://blogs.pwc.de/en/mobility-minds/article/255459/

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From Standstill to Cashflow

An electric vehicle stands still 23 hours a day on average. Until now, that was lost time: an asset tying up capital without generating return. From 2026 onwards, the logic flips. Bidirectional charging (BiDi) turns Europe's passenger car fleet into a distributed energy storage of more than 5 terawatt hours, and into a market that will save 7.7 billion euros in annual energy system costs by 2035. A recent **Strategy& and Fraunhofer ISI analysis** quantifies the opportunity for the first time with confidence: the car becomes a cashflow asset, the home garage a power plant in miniature.

The strategic point is not the technology itself. It is the question of who orchestrates the emerging revenue stream: OEMs, utilities, grid operators, or a new aggregator archetype.

From Demonstrator to Default

Bidirectional charging has moved beyond pilot status and into commercial offerings. Three developments mark the turning point. In Germany, regulatory hurdles such as the double network charges on fed-in electricity are falling. ISO 15118 is establishing itself as the interoperable standard between vehicle and wallbox. And the hardware economics have tipped: the BiDi premium per wallbox is around 100 euros, marginal compared to the revenue potential.

First consortia of OEMs and utilities already offer 600 to 700 euros per vehicle and year for providing battery capacity. Anyone still talking about pilot projects in 2026 has missed the market entry. The question is no longer whether BiDi scales, but who closes the value chain first.

Eight Percent, 82 Million, Five Terawatt Hours

Three numbers reshape the investment logic across energy and mobility.

At system level, a fully activated BiDi fleet reduces European energy system costs by more than 8 percent. That equals 7.7 billion euros per year from 2035 onwards, money that today flows into backup generation, grid expansion, and peak load management. BiDi becomes a serious "non-wire alternative" for grid operators, who will need to recalibrate their CAPEX trajectories.

At fleet level, the study projects 82 million BiDi-capable assets in Europe by 2035: 80 million passenger cars and 2 million trucks. By then, 85 percent of all new vehicle sales will support bidirectional charging. The wallbox base grows in parallel to 56 million units. This is not a niche. It is the new default of charging.

At user level, a passenger car generates around 440 euros per year, a truck roughly 1,000 euros, purely through price-responsive charging and feed-in to grid or building. The investment in BiDi-capable infrastructure pays back within the first year of operation. BiDi is therefore one of the few mobility topics

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where system, industry, and end customer share aligned incentives.

No One Lifts the Goldmine Alone

The strategic consequence is uncomfortable. No single actor controls more than two of the five decisive control points: battery, wallbox, data, market access, and grid connection. Cooperation is therefore not an add-on. It is the business model. Five archetypes, five strategic moves:

OEMs must bundle vehicle, battery, and energy contract into a recurring revenue model. Otherwise the customer interface migrates to the utility, and with it the high-margin lifetime relationship. Hesitation here reduces the OEM to a hardware supplier.

Utilities and aggregators have a short window to enter the mobility market through fleet contracts, before OEMs occupy the end-customer offering. Their strength lies in access to spot markets, balancing groups, and ancillary services, capabilities no automotive manufacturer can build internally.

Grid operators should evaluate BiDi as an investment alternative to classic grid expansion. Every avoided transformer and every deferred line investment counts twice in a regulated environment: through avoided CAPEX and through more stable grid quality.

Charging hardware providers must ship interoperable equipment to ISO 15118 as standard, not as a premium option. Proprietary island solutions will strand by 2028, because OEMs and utilities will not finance a fragmented hardware market.

The public sector carries the task of removing remaining regulatory friction: metering law, tax treatment of fed-in electricity, and approval procedures for wallbox installations. Every month of delay costs market share to China and the United States.

What CXOs Must Decide Now

Three decisions fall within the next twelve months. They determine whether a company orchestrates the revenue stream or merely observes it.

First, **partnership over in-house build**. Joint ventures between OEMs and utilities are the defining mandate of 2026, not the next R&D roadmap. Anyone trying to map the full chain internally loses time and fails on missing market access. The first consortia are already in place, and the window for follow-on alliances is closing faster than the study suggested.

Second, **set the data architecture now**. Whoever orchestrates charging, consumption, and battery state data monetises the fleet twice: through energy trading and through the customer relationship. The technical architecture must be defined today, not once millions of vehicles are in the field. Data sovereignty is the control point that decides long-term value distribution.

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Third, **enforce standardisation**. ISO 15118 is mandatory, not optional. Manufacturers positioning proprietary protocols as differentiation will be disciplined by the market. The strategic choice is not between standard and premium. It is between standard and irrelevance.

The Open Door

The goldmine does not lie behind a door that still needs to be opened. It stands open, and the excavators of the first consortia are already moving in. For the second tier, the choice is to join or to watch as 7.7 billion euros per year are distributed elsewhere. In the history of the energy transition, a value proposition has rarely been this concrete and this near-term.

Whoever forms the right alliance in 2026 builds a revenue stream that carries every vehicle for fifteen years. Whoever waits will finance it through higher network charges instead.

Download the study here: **https://www.strategyand.pwc.com/n1/en/garage-goldmine.html**

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