



Beyond the BEV Monoculture: Why Europe's Auto Industry Is Rediscovering Hybrids

Posted on 18.Nov 2025

picture: Pixabay

Europe's carmakers and policymakers are quietly — but decisively — shifting from a “pure EV or bust” mindset to a multi-powertrain path that includes hybrids. Slower-than-expected BEV uptake, capacity and cost pressures, regulatory uncertainty, and a growing focus on industrial competitiveness are all pushing the sector toward balanced electrification. Real-world evidence suggests hybrids deliver large, near-term CO₂ cuts while using scarce battery capacity far more efficiently than BEVs.

The reality check: EV momentum has cooled

Across Europe, EV momentum is no longer matching the most optimistic forecasts. Multiple manufacturers have delayed all-electric launches, extended the life of ICE and hybrid lines, and reworked model plans. Several well-publicized “all-EV by 2030/2035” declarations have been revised or softened as companies confront

under-utilised plants, slower demand growth, and a tougher macro environment.

Notably:

- **OEMs recalibrate:** Stellantis, Ford, Porsche, Bentley, and Volvo have all tempered full-EV timelines. Ford is developing a **multi-energy platform in Spain by 2027** to support **ICE, hybrid, and BEV** variants for global markets. At the premium end, Porsche plans **ICE and hybrid options** on top models and a **hybrid Macan** alongside its electric sibling.
- **Program extensions & delays:** Nissan and JLR are extending current ICE/hybrid lifecycles (e.g., Juke, Range Rover Evoque PHEV) by **12-24 months**, while some new BEVs face **6-18-month** delays.
- **China hedges, too:** Even aggressively EV-oriented players are cautious in Europe. **BYD** plans **hybrids** in its new Hungary and Turkey plants; **Chery** is starting with **ICE/hybrid** in Spain rather than full BEV.
- **Cost of course-corrections:** Strategic pivots aren't free. At one major group, changes in product plans and timings are set to hit earnings by **billions of euros** this year, underscoring the financial weight of re-sequencing the EV transition.

This operational picture is mirrored in the policy arena. Registration data show BEV market share **slippage** in the EU, triggering concern about 2025 CO₂ step-ups. Europe's automakers (ACEA) have urged **accelerated regulatory reviews** and **short-term relief** to avoid fines that would otherwise fund the transition. Suppliers (CLEPA) likewise call for a **pragmatic reset** that protects Europe's industrial base.

Competitiveness matters — and so does consumer reality

Europe's challenge is not intent but execution at scale. Charging build-out remains uneven; electricity prices and production costs are high; supply chains for batteries and critical materials are tight; and policy shifts (like sudden subsidy changes) have rattled demand. Meanwhile, U.S. tariffs, Chinese competition, and structural overcapacity in parts of Europe complicate investment math.

Within this context, a **single-technology mandate** risks misallocating capital and eroding competitiveness. A **portfolio strategy** — prioritising the right technology for the right use case and time horizon—keeps Europe in the game while emissions keep falling.

The battery is the bottleneck: use it where it cuts the most CO₂ now

One crucial—and often overlooked — constraint is **battery production capacity**. When batteries are scarce and expensive, deploying them where they **cut the most CO₂ per kWh of battery** becomes the logical, climate-first move.

That is where **hybrids shine**:

- **Real-world hybrid gains**: Across nearly 100 non-plug-in hybrids tested on-road, **tailpipe CO₂ fell ~30% on average** versus equivalent ICE models — already covering **>75%** of the EU's post-2021 2030 target (-37.5%) with technology on sale today. With new hybrid generations, this margin improves further.
- **Battery efficiency of CO₂ reduction**: When CO₂ reduction is normalized by **battery size**, **mild and full hybrids** deliver the **highest CO₂ cut per unit of battery**. Plug-in hybrids can perform well **if driven predominantly on electricity**, but that's variable in practice. **BEVs**, while zero-tailpipe, are the **least efficient users of scarce batteries** today because they require large packs sized for rare long-range use cases.

Put simply: if the goal is **maximising CO₂ reduction this decade**, spreading limited battery capacity across **millions of hybrids** beats concentrating it in **fewer BEVs**. This strategy also works with the slow turnover of Europe's fleet (average vehicle age **>12 years**) by upgrading more vehicles sooner.

A practical transition ladder — starting now

A workable pathway emerges from the data:

1. **Short-term**: Move from gasoline ICE to **mild hybrid** (\approx -11% CO₂), or diesel to **diesel mild hybrid** where appropriate (further \approx -6%).
2. **Medium-term**: Step into **full hybrids** for another \approx -16-23% reduction, reaching \approx -**30-34%** versus baseline with widely deployable tech.
3. **Targeted PHEVs**: Use plug-ins where duty cycles enable high electric utilisation (company fleets with charging policies, urban delivery, etc.).
4. **Scale BEVs where conditions fit**: As grids decarbonise, charging densifies, and battery supply expands, **BEVs scale** in segments and regions where the **total system** supports them.

This ladder cuts real-world CO₂ **now**, protects industrial capacity, and **keeps options open** for later-decade technologies (next-gen batteries, e-fuels in niches, or hydrogen where it makes sense). It also reduces the risk of stranded assets and abrupt policy reversals.

Policy implications: technology openness with hard climate outcomes

Europe can still hit its climate goals—**and** defend its industrial base—by shifting from **technology mandates** to **outcome-based rules** that reward verified, real-world CO₂ cuts. That means:

- **Keep the 2050 destination, diversify the 2030s route.** Set tough, technology-neutral performance standards; let OEMs choose the least-cost carbon path.
- **Align incentives with battery efficiency.** Prioritise vehicles that deliver the **largest CO₂ drop per kWh of battery** until supply constraints ease.
- **Stabilise demand conditions.** Provide predictable, multi-year frameworks for incentives, TCO parity, and charging build-out—avoiding on-off subsidy shocks.
- **Back European content and capability.** Encourage local value chains (cells, cathodes, power electronics) without locking policy to one drivetrain.
- **Measure what matters.** Use **on-road** metrics and **lifecycle** transparency to capture true climate performance and keep consumer trust.

What this means for the Hybrid Alliance

The evidence is converging: **hybrids are no longer a detour; they are the fast lane to meaningful CO₂ cuts** during a decade defined by constraints. Carmakers are already acting—re-sequencing product plans, launching **multi-energy platforms**, and anchoring European plants with **hybrid capacity**. Policymakers are revisiting timelines and toolkits. Suppliers are urging pragmatic revisions to keep Europe competitive.

The Hybrid Alliance should champion a **balanced electrification narrative**:

- Hybrids **accelerate** near-term decarbonisation and **amplify** the impact of scarce batteries.
- They **buy time** for grids, infrastructure, and supply chains to scale sustainably.
- They **preserve industrial strength** by leveraging Europe's engineering

depth across multiple powertrains.

- They keep consumers **onboard** with attainable prices and familiar use patterns — critical for mass adoption.

Bottom line: A resilient, climate-credible transition will be **multi-technology**. Europe should embrace hybrids as a central pillar — not a compromise — on the road to zero. If we optimise for **CO₂ per battery kWh** today, we can cut more emissions, faster, while preparing the ground for tomorrow's all-electric future.

Read more: [English News](#), [ACEA](#), [Automotive Manufacturing](#), [Emission Analytics](#)