

## Capability Before Certainty: The Workforce Problem Inside a Multi-Track Transition

The EV transition is not stopping; it is becoming **harder to plan around**. The clean story of “combustion out, electric in” is being replaced by a more awkward industrial reality: factories, suppliers and engineering teams must prepare for **ICE, hybrid, plug-in hybrid and BEV production to coexist for longer than expected**, while software-defined vehicle development continues to accelerate.

The immediate problem is product allocation. When EV forecasts are revised down, suppliers see fewer orders for high-voltage components, battery packs and power electronics. Equipment purchased for EV-specific components risks sitting below capacity, while conventional vehicles and spare parts still need support. **This makes mixed-powertrain platforms attractive** not because companies lack ambition, but because pure-EV business models remain exposed to unstable incentives, high prices, electricity costs, charging anxiety and uncertain customer payback.

The **deeper issue is value-chain control**. Battery cost, raw materials, software architecture and production scale now shape competitiveness. **Vertically integrated players that control batteries before cars have a different cost structure from European firms** built around horizontal supplier networks and combustion-era platforms. A manufacturer adapting a diesel-based platform into an EV is not facing the same problem as a competitor designing an electric platform from scratch. The EV may have fewer mechanical parts, but the electrical architecture, software, safety logic and charging interface are more complex.

This is why **talent becomes a competitiveness issue, not an HR theme**. The future workforce is not defined only by scarce experts in AI, batteries or cybersecurity. **The real need is for connective profiles:** people who can link high-voltage safety to production routines, cybersecurity to connected IoT components, battery management to thermal and energy systems, digital twins to operator training, and AI tools to testing, maintenance and process redesign. Even factory work changes: less brute physical effort, more tablets, live data, team coordination and judgement when standard procedures fail.

The strongest preparation strategies are therefore embedded in work itself: **small expert teams, internal academies, mentoring, job rotation, modular learning, university partnerships, use of AI**, and digital twins for products or processes that do not yet physically exist. The risk is waiting for market certainty. By the time EV demand looks predictable, the missing capabilities may already be the bottleneck.

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This brief draws on the TRIREME report [Skills for the Mobility Transition: An Industry Perspective](#), based on structured interviews with 60 industry stakeholders across the automotive and mobility value chain in 2025.



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