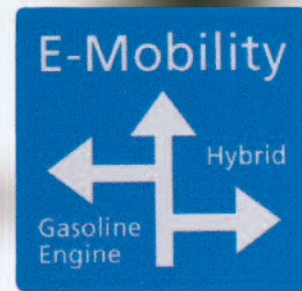


From technology to the customer



Electric mobility: Power play to reach profit zones and establish long-term access to customers

As the discussion about the technical issues related to electric mobility continues, the question about marketing the new drive system is moving to the forefront. One point is already crystal clear: Technology alone will not be the only factor determining the fate of electric vehicles in the marketplace. A new understanding of future customer priorities as well as the related product and, above all, service ranges will play a major role, too. Technological advances achieved in high-voltage batteries, power electronics and e-equipment as well as their system integration are indeed important issues. On their own, though, these advances will not be enough to achieve successful market penetration.

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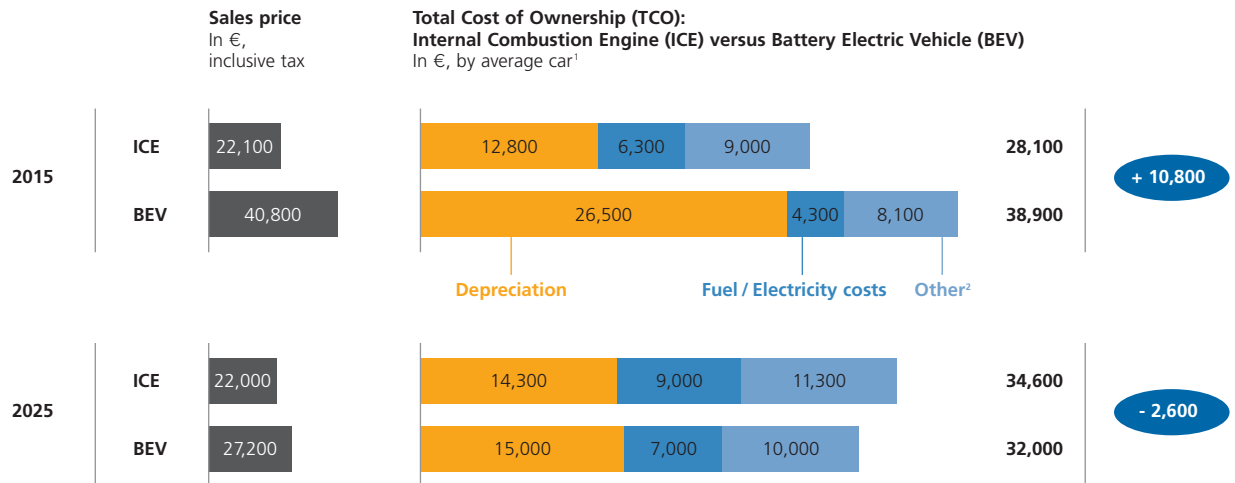
New business designs among carmakers, automotive suppliers as well as established and new service providers, including energy companies, will compete against one another for future profit zones and long-term customer relationships. The Oliver Wyman study »Electric Mobility 2025« shows the value shifts which will occur along the entire value chain. This research provides decision-makers with the thought-provoking ideas they need to turn today's largely technology-centric electric perspective into a comprehensive new understanding of mobility. As a result, the customer, with his or her own individual

mobility needs, mobility budget and purchasing willingness, will become the focal point of strategic considerations.

Winning the game »downstream«

Two-thirds of the approximately €9 billion in profits (2025) to be generated by electric mobility will be produced »downstream,« that is, by the sales and, in particular, vehicle operation. Automakers will be forced to tap these profit zones if they want to efficiently offer electric cars in the years ahead. This includes both leasing and financing programs as well as services tailored to individual customer

The TCO perspective does not offer a cost advantage for Battery Electric Vehicles in 2015, but declining depreciation changes the case for 2025



¹ Usage: Four years, 15,000km driving distance per year

² Fix costs (inclusive tax / insurance), service and repair, car care

Source: Oliver Wyman »TCO model«

needs. A key profit driver will be the operation of electric vehicles – also arising from new business designs covering all facets of customers' mobility needs, including leasing concepts and car sharing.

Profitable mobility offerings, tailor-made

The high additional costs generated initially by electric vehicles can be offset by the customer only within the context of the vehicles' entire service life and operational performance. A sustainable TCO benefit (TCO: total cost of ownership) for the electric vehicle can only be achieved over the long term. Depending on the sales market and mobility needs, the TCO will be higher or lower than vehicles with traditional drive systems in the years ahead. Accordingly, successful market-introduction strategies will concentrate on differentiated market and customer segmentation. The initial focus should, in particular, be placed on private fleets (including delivery companies, tradeworkers and auto-rental companies) and public-sector fleets (including municipal operations). In this manner, the market introduction can be accelerated, profitable customer segments created and broad experience gained. In this new environment, residual-value management and remarketing – particularly for the key component of high-voltage batteries – will play a critical role for profitable leasing and mobility offers.

Securing long-term access to customers

In addition to the central challenge of designing a profitable business, ensuring access to customers will prove to be a key consideration. Electric mobility will allow established and new players such as auto rental companies and energy providers to compete for customers as mobility providers – it's a whole new

ballgame! Full-service offerings can be adapted in a more individual manner to meet specific mobility needs and customer priorities. The vehicle itself and the purchase of it will increasingly be given a lower priority. If automakers do not establish a long-term access to customers, they will face increasing pressure from consumers when regional and national mobility providers take control of vehicle and mobility operations in the future.

Living with more »mobility« and less »electric«

Electric mobility provides both individual automotive brands and companies as well as established and emerging car nations with an excellent opportunity to play a major role in the global power play and to use the technological momentum as a driving force for the sustainable expansion of their own competitive position. But new business designs and marketing concepts are needed, and these concepts should be fueled less by technology and more by mobility. Packages combining service and mobility components will become a top priority: ranging from high-voltage batteries, allotments of electricity, smart recharging boxes, private recharging infrastructure (including installation), maintenance and repairs to such value-added services as user-friendly total packages offered at monthly service or mobility flat rates.

Creating individualized mobility services

Diverse mobility needs and those that change over time can be addressed. Scalable battery concepts extending all the way to upgrades make various vehicle ranges possible. For instance, differentiated electricity offerings will be designed to address individual vehicle ranges and recharging times. For this purpose,

energy providers are already offering »smart meters« that ensure individual price and load management.

Stepping on the gas in marketing and sales

For automakers, the time has come to set the direction of marketing and sales in terms of their brand and market presence in the electric age. Rising fuel prices, limited mobility budgets, and altered customer priorities will heighten the awareness of automotive end customers about driven miles or miles-related

producers are taking shape today. From the manufacturers' point of view, the diverse business designs are to be designed as alternative scenarios in order to take a market-specific approach that responds to local needs. Prices, service range, sales channels and partners as well as brand and market communication form the load-bearing pillars of the electric mobility strategy of each individual automaker. These pillars will be used to create a sustainably profitable range of solutions for electric mobility.

»Innovative technology is the basis – but the better business design will be the critical factor of success.«

costs. Obvious changes in product design, new vehicle features and innovative services covering all aspects of vehicle use will make it possible to create competitive advantages. Marketing and sales will be called on to play a much more active role in the design of corresponding products and services. This will require a much broader and more complex range of products and services. It will also require a deeper understanding of the customer in terms of mobility needs and budgets than before.

Actively employing new business designs

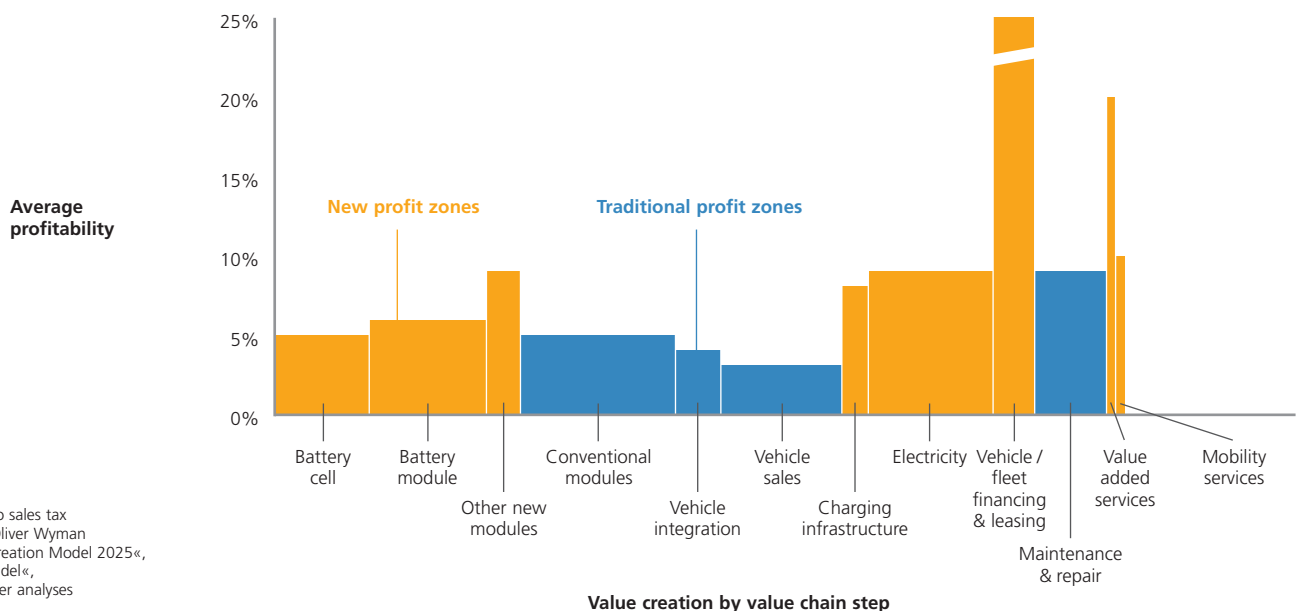
The offering of mobility packages will require a significantly broader spectrum of expertise and services in marketing and sales. For this reason, both exclusive and cooperative business designs that bring together such groups as automakers, mobility providers and energy

Successfully moving electric mobility forward

Marketing, technology, sales, and communications of electric mobility: New complex tasks and interrelationships that extend across companies must be addressed. In the future, cooperative alliances and partnerships in the downstream area will also be essential to secure profitability and access to customers. More intense coordination by all players and new organizational approaches will be required to master the increasing complexity and to secure integrative solutions. This will be the only way to rally all forces in order to successfully take off in the electric age.

The E-Mobility profit zones: Where to make money with the Battery Electric Vehicle?

BEV profit along the E-Mobility value chain: Σ €9 billion (2025)
Global, light vehicles, only Battery Electric Vehicles



Note: w/o sales tax
Source: Oliver Wyman
»Value Creation Model 2025«,
»TCO model«,
and further analyses