

# Radical Resign of Products and Processes for Sustainability

Workshop on Policy Design for a  
Climate-Friendly Materials Sector

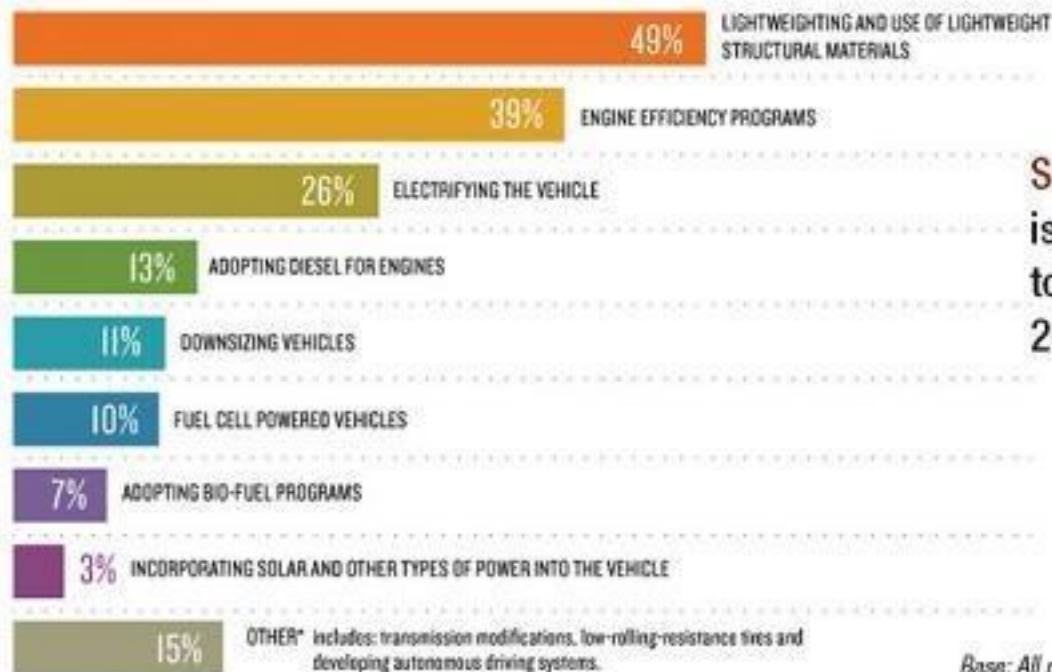
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# Lightweighting



# Lightweighting

## LIGHTWEIGHTING LEADS FUEL EFFICIENCY TECHNOLOGIES

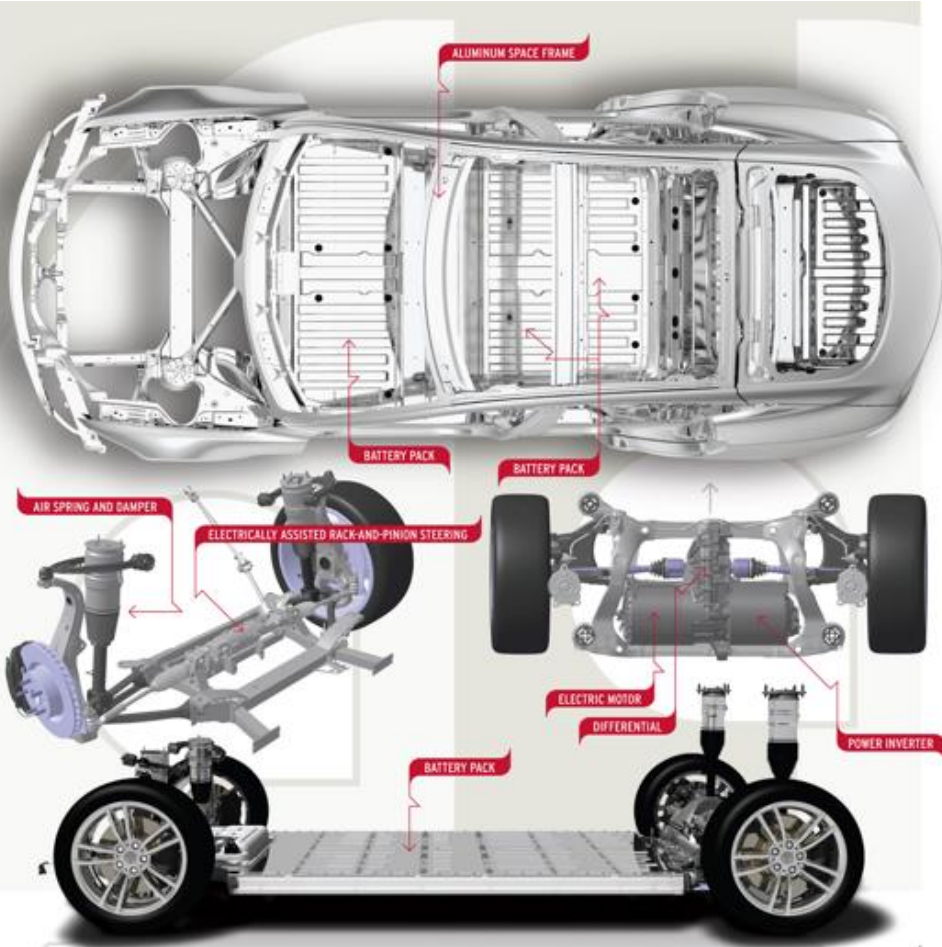


**SURVEY:** What technology is your company focused on to help the industry meet 2025 standards?

Base: All respondents; multiple answers permitted (n=880)

Source: 2014 WardsAuto, DuPont Automotive Trends Benchmark Study, conducted by Penton Research

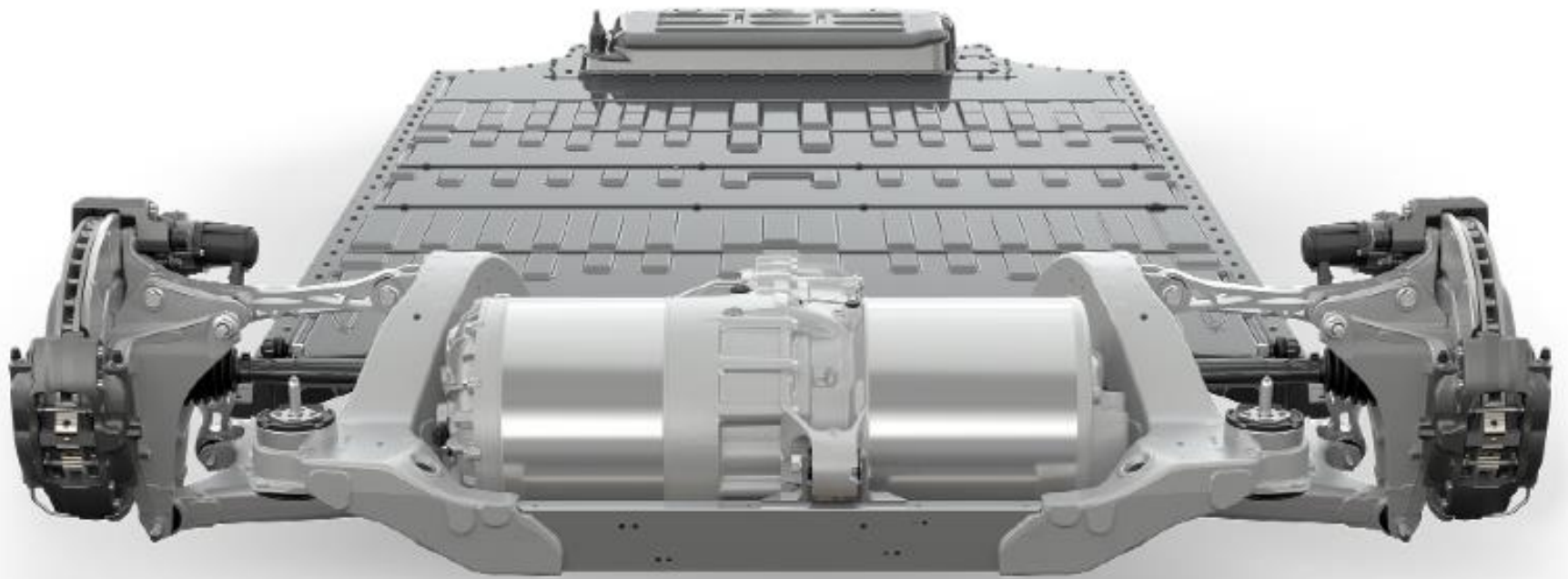
# Tesla



## UNDER THE TESLA'S SKIN

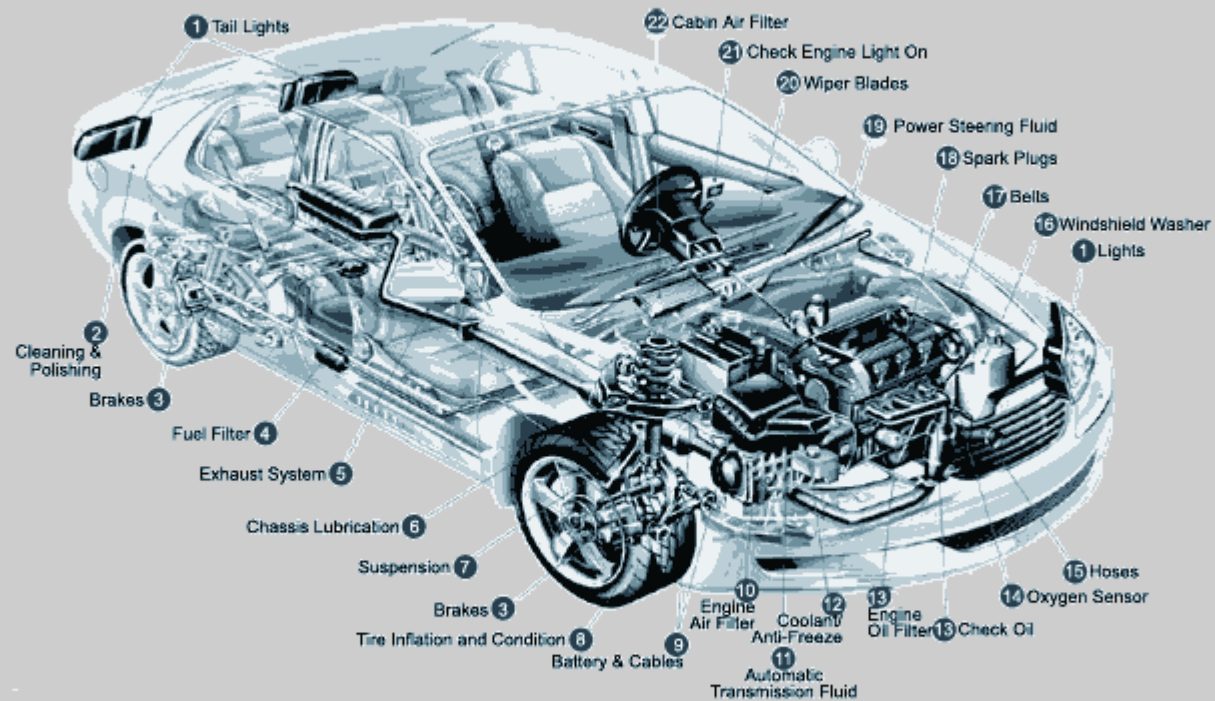
The Model S's spacious five-plus-two-passenger cabin is enabled by its compact propulsion system and clever component layout. The AC drive motor, power-inverter circuits, and final-drive differential are contained within compact housings supported by a rubber-isolated rear subframe. More than 7000 cylindrical battery cells are vertically oriented inside a large aluminum box that also serves as the body structure's floor. Liquid cooling circuits keep the driveline and battery pack within desired temperature limits during strenuous driving. A rigidly attached front crossmember supports the suspension system's lower control arms and the power rack-and-pinion steering gear. An aluminum space frame—augmented by high-strength steel B-pillars and bumper beams—supports the above components as well as the formed-aluminum body panels.





LA MOTORS MODEL S | PERFORMANCE

# Conventional Automobile



# Interface

