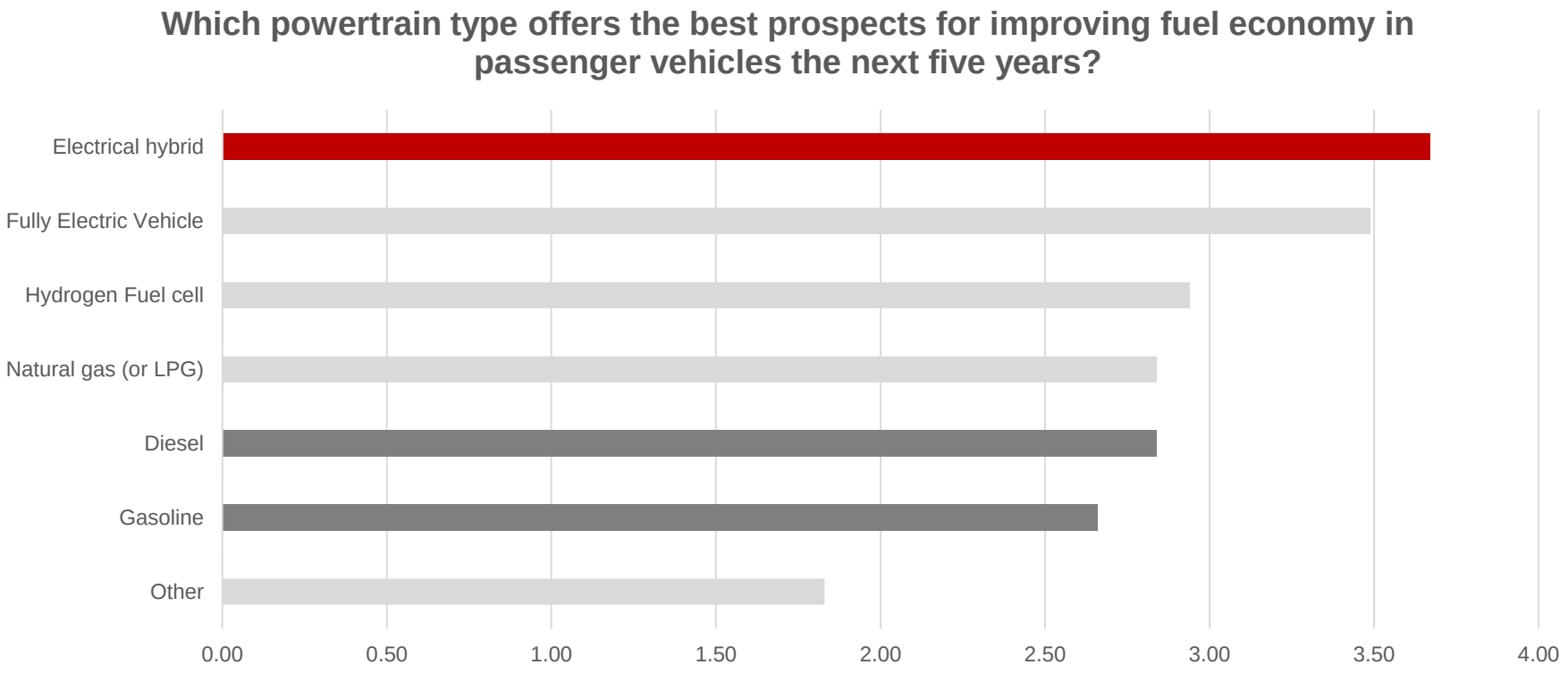
Autelligence Automotive Powertrain Future survey

Autelligence surveyed 53 powertrain executives in the second week of January 2016. Most respondents were based in North America and Europe.

Powertrain type fuel economy prospects

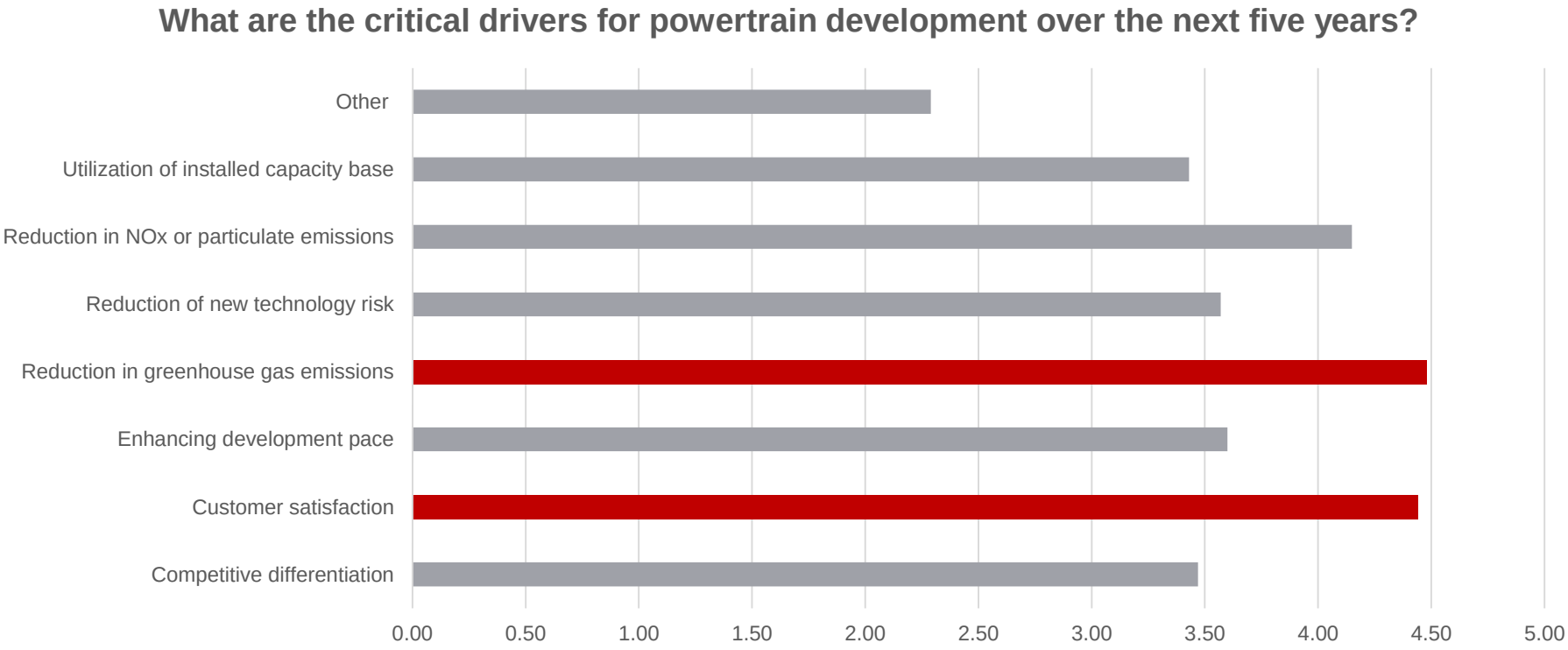
Industry insiders expect the biggest fuel economy gains in the next five years to be seen in electric hybrids fully electric vehicles



Weighted average of responses, where 1 equals “Very small economy benefits” and 5 equals “Very large economy benefits”

Development drivers

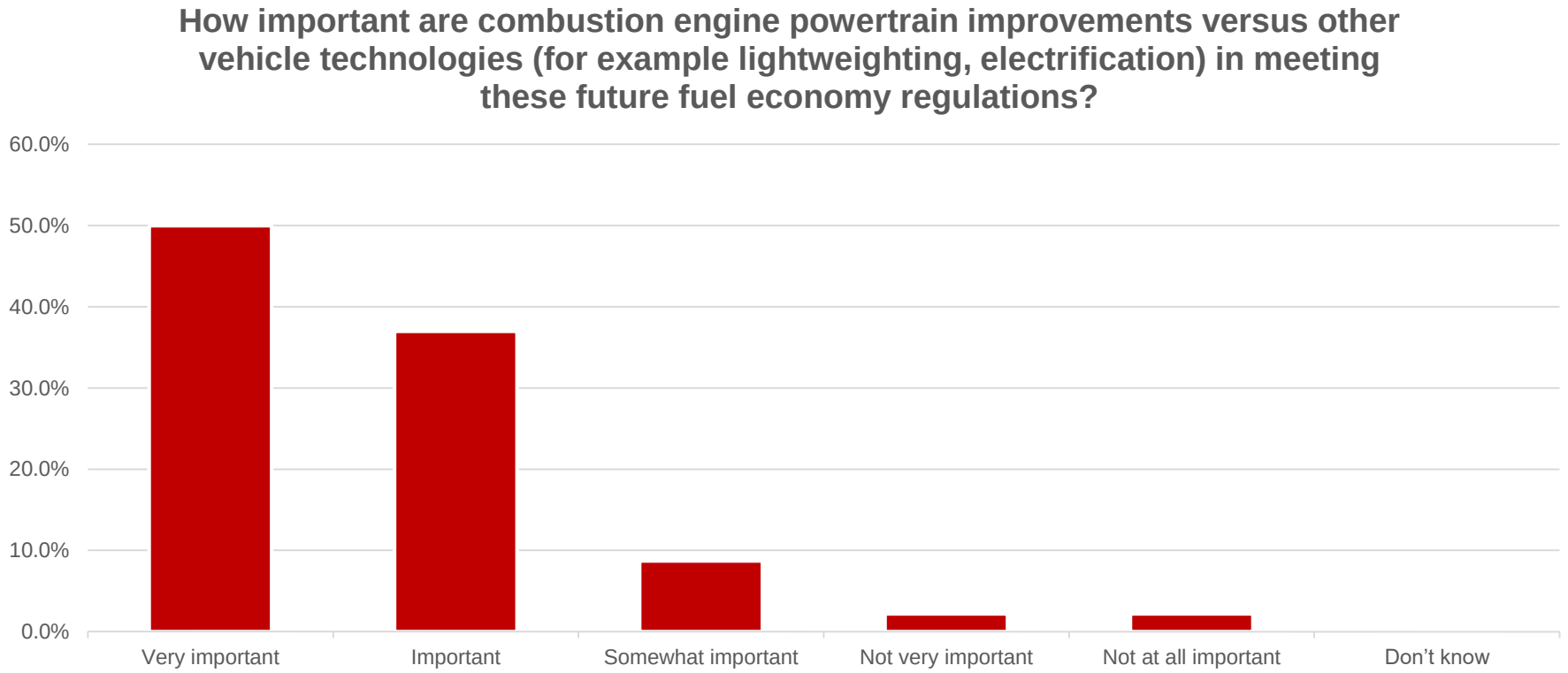
Fuel economy will matter – the reduction in greenhouse gas emissions will be the most important factor driving powertrain development in the next ten years, with 85% of respondents saying it is “critical” or “very critical” or “indispensable”



Weighted average of responses, where 1 equals “Not relevant” and 6 equals “Indispensable”

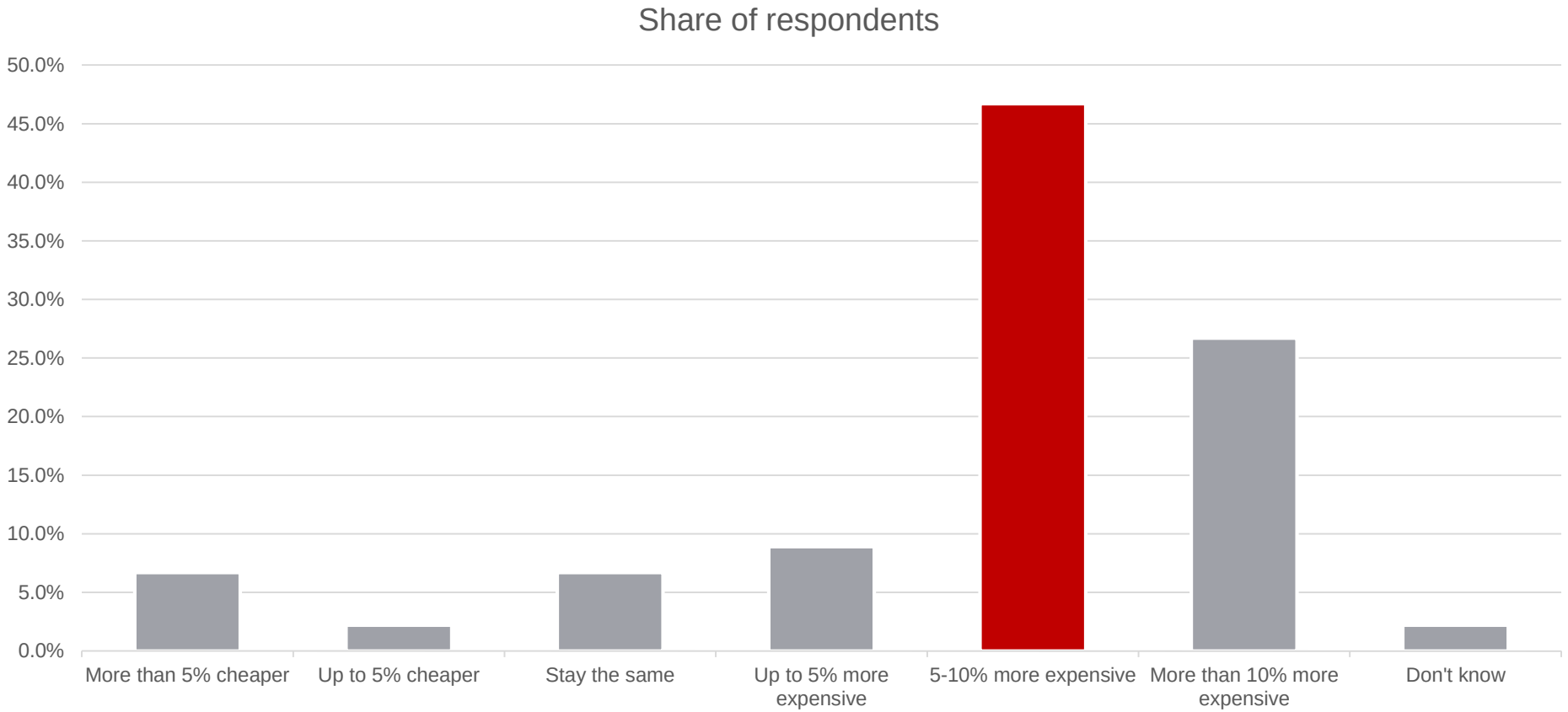
Combustion engine improvements

85% of respondents said that combustion engine powertrain improvements were “important” or “very important”, compared with other vehicle technologies (for example lightweighting or electrification) in meeting future fuel economy regulations.



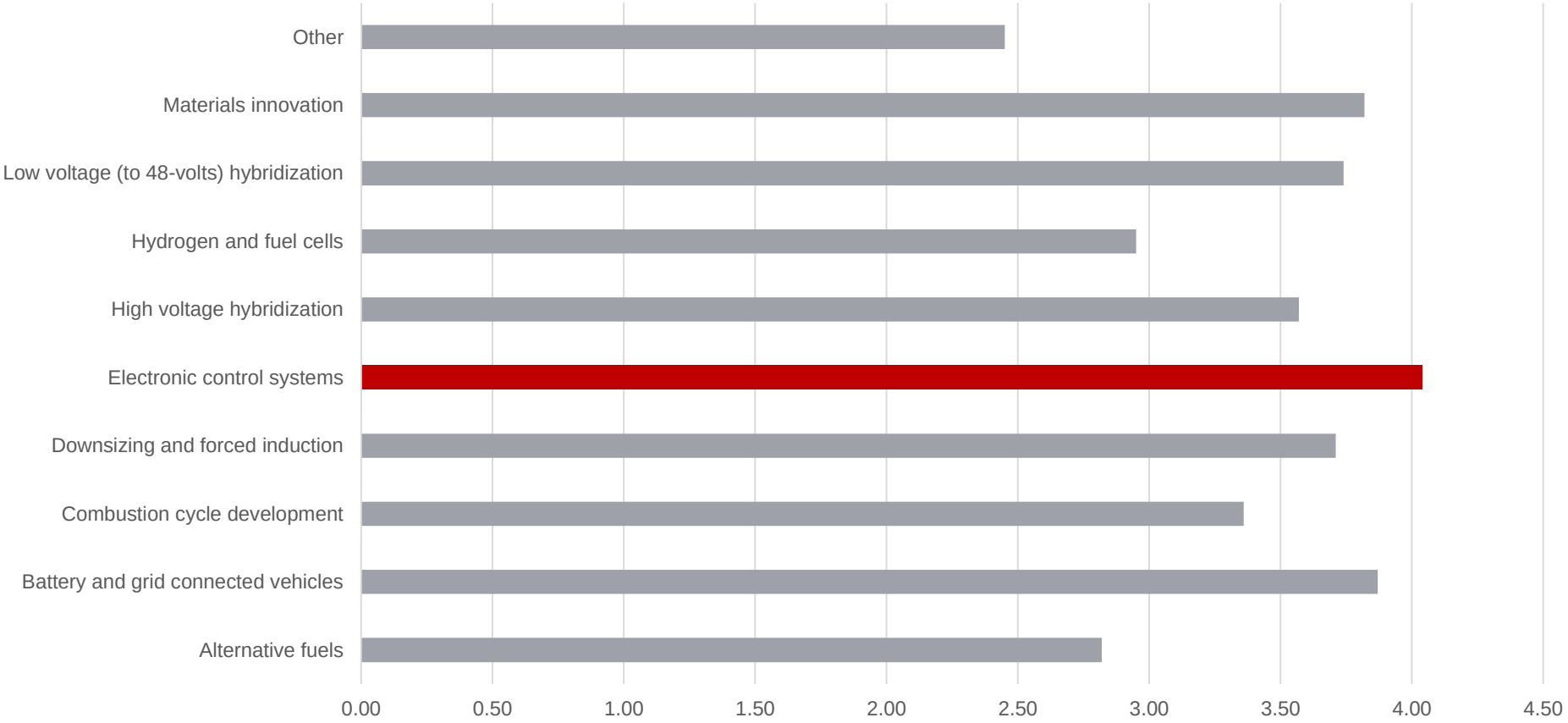
How will the cost of powertrains increase?

Fuel economy gains will cost money – 5-10 percent more expensive powertrains, say 47 percent of respondents – or more, say another 25 percent.



Which are the most important technologies for achieving powertrain objectives in the next 10 years?

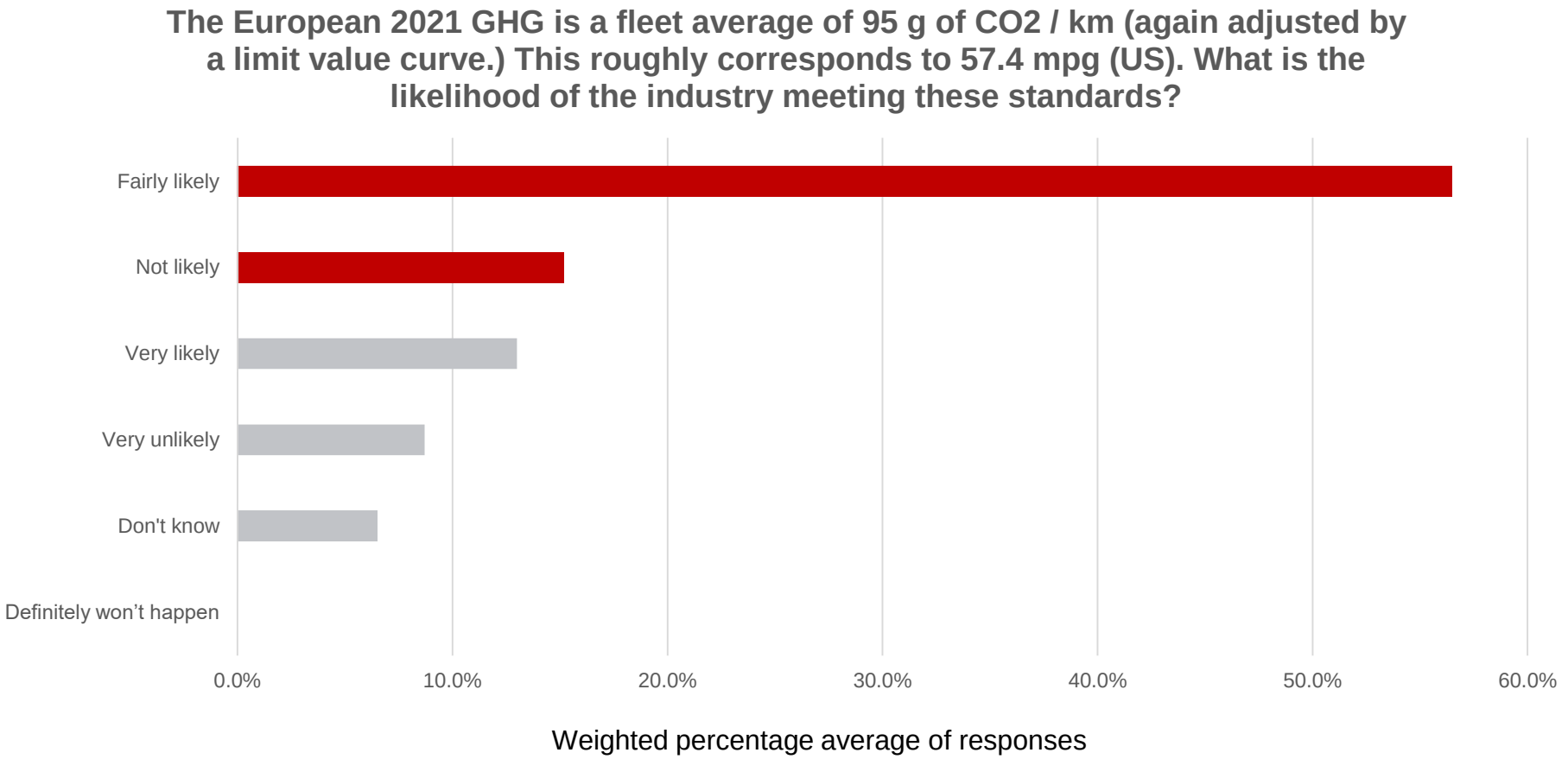
Electronic control systems are seen as the most important powertrain technology in the next 10 years, closely followed by materials innovation and battery/grid connected vehicles



Weighted average of responses, where 1 equals “Of little importance” and 5 equals “Critically important”

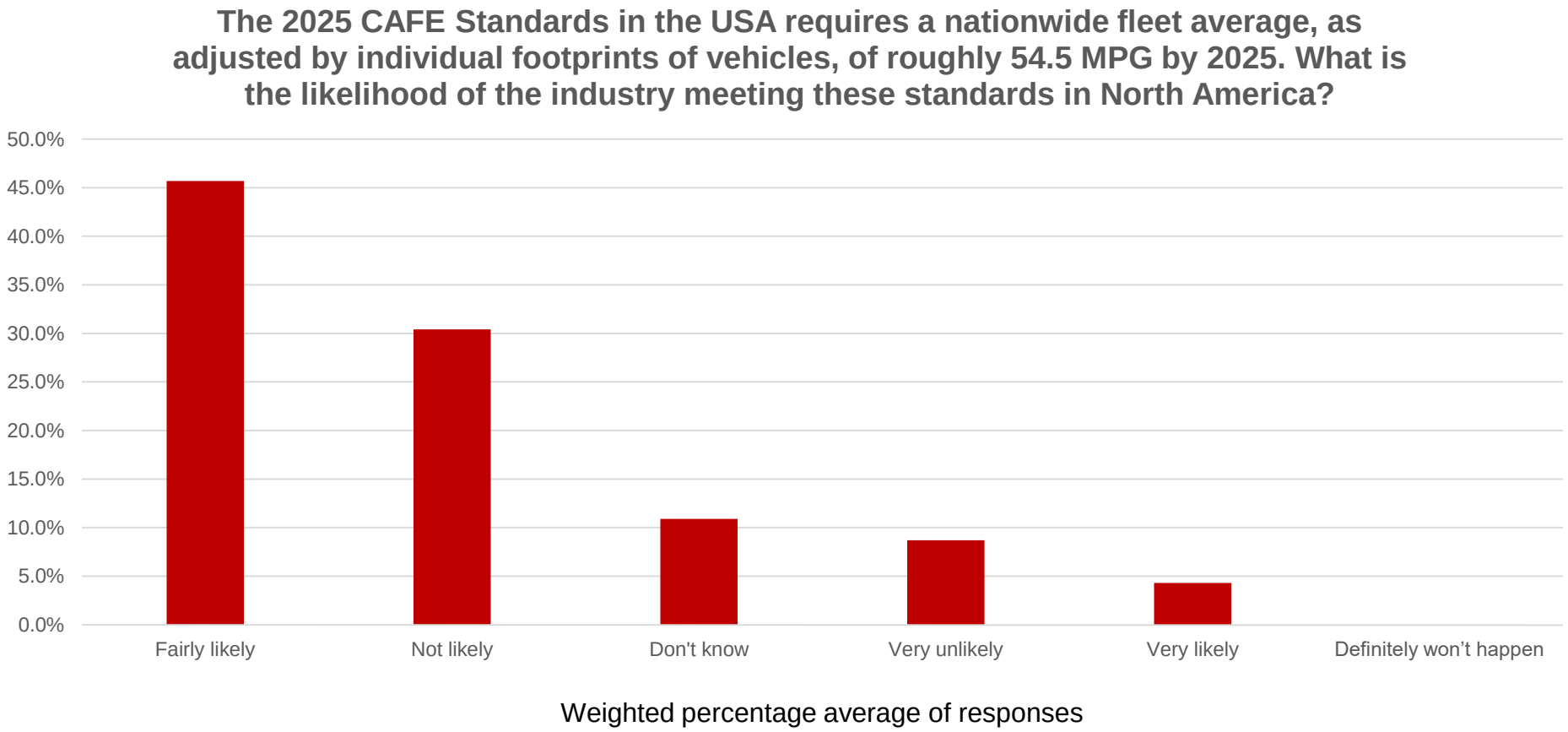
European 2021 greenhouse gas (GHG) standards

Sixty-nine percent of respondents think that the industry is likely or very likely to meet these the European 2021 GHG standards, which target a fleet average of 95 g of CO2 / km, or 57.4 mpg (US).



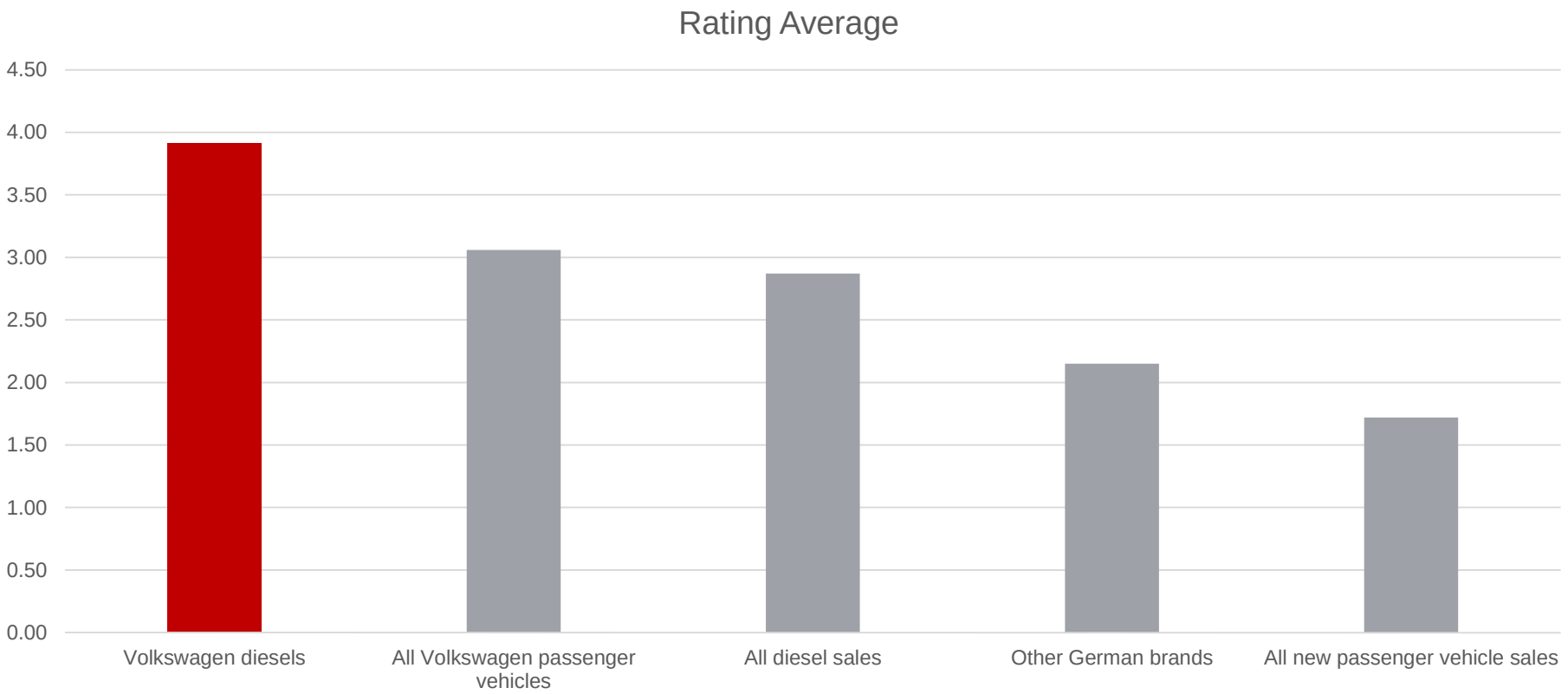
2025 Corporate Average Fleeet Economy (CAFE) standards

50% of respondents believe that the industry is “very likely” or “fairly likely” to meet the 2025 US CAFE Standards. Almost nine percent of respondents said it was “very unlikely”.



Effect of VW emissions scandal

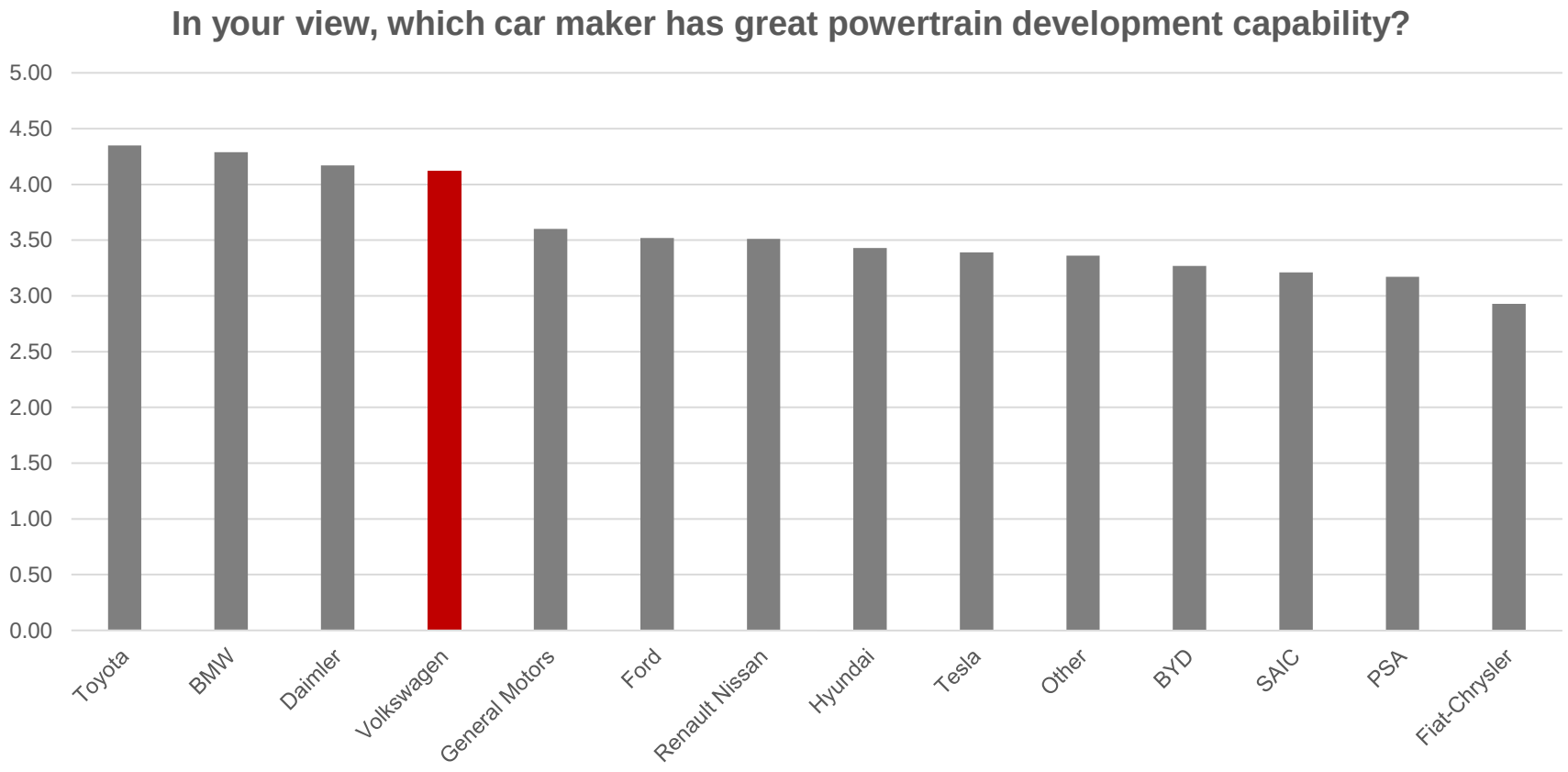
74 percent of industry executives surveyed expect the VW scandal to have only a small or very small effect on Volkswagen sales, and almost no-one expects the scandal to have a large effect on other German brands.



Weighted average of responses, where 1 equals “No effect” and 5 equals “Very large effect”

Powertrain development capability

Despite recent events, VW is the fourth most respected OEM in the industry in terms of its powertrain development capability



Weighted average of responses, where 1 equals “Limited Capability” and 5 equals “Very High Capability”