

# Designing cost effective sustainable products with special emphasis on e-vehicles

## Global Summit, 10<sup>th</sup> Jan'20

### A. Introduction

- Business entities need to accelerate the processes of sustainable profitable growth to achieve the mission of \$5 trillion economy.
- With technological disruptions everywhere, needless to say that automotive industry is the most impacted one.
- Auto industry is one of the key contributors towards GDP.

### B. Key challenges in auto sector

- Sustainability in Indian auto industry faces a volatile & complex business environment.
- OEMs are compelled to make frequent product interventions leading to significant increase in feature & technology content across all products, however, have limited ability to pass these costs on to customers
- Cost is the only factor within the OEMs internal control to retain margins. Therefore, they need to rely on strong cost management strategy.

### C. Achieving sustainability through cost management techniques

Cost management technique will support cost efficient product design and help in gaining sustainable competitive power. Various cost management techniques available are:

- Target Costing
- Functional cost analysis
- Design for cost & Design to cost
- Design to manufacture
- Design for reliability
- Inter-organizational cost management (IOCM)

### D. Designing cost effective sustainable products – E-vehicles (case study)

Globally, climate change effects & pollution are pushing automotive industry to significantly reduce tail pipe emission. 2W & 4W combined contribute to ~ 80% of the urban transport pollution. Govt. of India is driving e-Mobility as it addresses multiple national issues.

EV product landscape is slowly building up in the country. Government of India has initiated several actions to address the sustainability imperative

Penetration will rise with reducing technology cost, government incentives, increasing cost of ICE and more EV product offerings. Higher cost outgo is one of the key barriers to overcome the drive towards electrification.

Cost equilibrium with ICE would be possible through strategic de-contenting, cost management techniques & reduction in battery pack cost can make EV sustainable and bring cost at par with ICE vehicle

### E. Way forward

The role of CMAs would be pivotal in achieving the aforesaid mission as they act as a source of cryogenic energy. With global agencies like CEBR acknowledging India's stride and potential, it is now upon us to accelerate the pace of the journey and make it happen and management accountants are competent to play the key role