

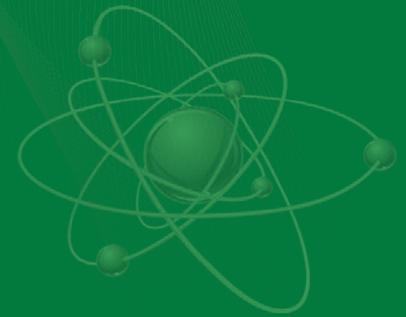
Feedback from October 2015 Industry Engagement Meeting

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- 2/3 of the (non-National Lab) attendees were suppliers and 1/3 OEMs
- Primary areas of work
 - 1/3 propulsion power electronics
 - 1/5 electric motors
 - Accessory power electronics, charging power electronics, switches & diodes, passive components, packaging, others...
- Priority in design: Cost and performance with the highest priority

- 2/3 interested in short-term staff exchanges
- What would help you most?
 - “Unbiased comparative evaluation”
 - “Reliability testing”
 - “Understanding power and thermal needs”
 - “Better understanding of total system design” “what role do my parts play”
 - “Material limitation”
 - “High temperature die attach material”
 - “Heat and vibration effects on device life”

- HEVs and EVs are equally important. PHEVs third in importance.
- Time horizon for R&D, advanced development, and product development
 - 2/3 24 Months
 - 1/5 36 Months
- The production volume needed to make a part cost effective
 - 1/3 10,000/year
 - 1/3 <50,000/year

- The propulsion power level of interest: 3/4 80kW - 100kW
- Most critical in research
 - 2/3 Defining and understanding design trade-offs
 - 1/3 Basic fundamental understanding

Overall

- Suppliers want to know:
 - What's next?
 - More detailed system info. System requirements.
 - R&D focus areas.
- Trade studies.
- Better communication between the lower level suppliers and OEMs.