Automotive Product Portfolios in the Age of CAFE

“Focus on the Future”
UM Automotive Research Conferences

WELCOME!

Presentations available at: www.umtri.umich.edu/aad

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Affiliate Program
- Supporting Members
- Research Partners

Research
- Globalization
- Powertrains
- IT

Funding

Conferences
- 5 Annual Conferences
### Affiliates Members and Research Partners

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Affiliates Members and Research Partners

**Suppliers**
Chevron
Visteon
Denso
Dana
Delphi
Peterson Spring
Continental
TRW
Valeo

**Suppliers**
Michelin
Continental
JCI
BorgWarner
Yazaki
Eaton
BASF
Dow
Bosch
Upcoming UMTRI-AA Conferences


- July 24, 2012 (Wednesday): *Powertrain Strategies for the 21st Century*. Our 5th annual conference that provides insight into how manufacturers and suppliers are managing their resources to meet the needs of consumer needs and government requirements.
The Powertrain Strategies for the 21st Century survey focuses on what the powertrain landscape will look like in 2016 and 2025, based on the opinions of automotive manufacturers and suppliers, government officials, academics, NGOs, and consultants.

Strategic Planning Factors such as:
- Fuel prices
- Ways of improving fuel economy
- The limits of weight reduction
- Governmental responses to oil dependence
- Trends in emissions standards
Powertrain Strategies for the 21st Century

- Strategies and Technologies such as:
  - Percentage use of different fuels and powerplants in 2016 and 2025 for passenger cars and light trucks
  - Consumer willingness to pay for new powertrain technologies
  - Improvements to spark-ignited and diesel engines
  - CNG challenges
  - Penetration of specific types of batteries for 2016 and 2025
  - Electric vehicle challenges
  - Transmission and drivetrain mix for 2016 and 2025
  - The value of vehicle electronics in 2016 and 2025
Powertrain Strategies for the 21st Century

• Powertrain Engineering Integration and Human Resource issues such as:
  – Current and 2025 needs for different types of engineers
  – Company integration of vehicle architecture, materials, and manufacturing strategies
  – Company level barriers to introduction of new powertrain technologies for 2025
  – Company level management of the shift to more electrical components currently and in 2025
  – Company level management of global powertrain development currently and in 2025
Panelists (AM Session)

- Todd Lassa, Executive Editor, Automobile Magazine
- Brandon Shoettle, Project Manager, UMTRI
- Jeff Alson, Senior Engineer, Environmental Protection Agency (EPA)
- Alexander Freitag, Director of Diesel Systems Engineering, Bosch Corporation
Panelists (PM Session)


- **John German**, Senior Fellow, International Council for Clean Transportation

- **Kevin Green**, Manager, CAFE Program Office at DOT’s Volpe National Transportation Systems Center
Morning Schedule

• 9am
  – Bruce Belzowski
  – Todd Lassa
  – Brandon Shoettle

• 10:10am-10:25am  Break

• 10:25am
  – Jeff Alson
  – Alexander Freitag

• 11:20am  Q&A

• Noon-1:30pm  Lunch
Afternoon Schedule

- 1:30pm
  - Nancy Homeister
  - John German

- 2:35pm-2:45pm Break

- 2:45pm
  - Kevin Green

- 3:15pm Q&A

- 4:00pm Adjourn
Conference Questions

• In what ways are product portfolios changing in advance of increased CAFE regulations?
• What new technologies are supporting the change?
• How have actual fleet fuel economy averages changed since 2007?
• How have vehicles changed during this time?
Conference Questions

• What would vehicles look like today, if manufacturers did not make the changes they are making?

• What kind of technology evolution was the EPA considering when it was developing its CAFE goals for 2025?

• How are engine component suppliers changing their product portfolios to meet their customers’ needs?
Conference Questions

• What technologies are diesel manufacturers and suppliers developing to increase the fuel economy of diesel engines?

• What key technologies are the manufacturers using to meet short term CAFE regulations?

• How have manufacturer product portfolios changed in the last few years in relation to fuel economy standards?
Conference Questions

• How do the foreign manufacturers view the increased fuel economy standards?

• What was the background information and criteria that the government used to model future CAFE goals?

• How does an attribute-based system affect manufacturers differently?
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