Maritz Research
Key Findings
Dealer and Consumer Survey

Automotive News Europe
New Power Train Technologies Conference
28 March, 2007
RAI Convention Centre
Amsterdam
Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level.

UN Intergovernmental Panel on Climate Change (IPCC) Report
APT have yet to cross over to the mainstream

- A significant reduction in fuel consumption can be made with available and emerging technologies.

- The auto industry has developed impressive technology over the past two decades to make engines and power trains more efficient and to trim weight from components.
“People act as though the hybrid could solve all of our problems - which is certainly not the case. And you must not forget that we are a business enterprise.”

Martin Winterkorn
CEO Volkswagen Group
Key action driver

- Regulation (European Cafe)
- Market Needs (Customer wants & needs, Fuel Costs)
Are consumers ready for the party?

- Surveys conducted amongst new car buyers and car dealerships to identify and assess:
  - Consumer habits
  - Awareness of APT
  - Relevance of APT
  - Consideration of APT
  - Current and future expectations

- Sample sizes:
  - 1,240 new car buyers
  - 1,250 car dealerships
Changes in Driving Habits

“To save fuel, I’m making sure my vehicle is in the best working order”

“I drive more conservatively, so I don’t waste fuel”

“I have reduced the amount of non-essential driving that I do”

“The rise in fuel prices has not affected the way that I drive”

“I have started to share rides/participate in a car pool due to higher fuel prices”

“I have either moved or changed jobs to be closer to work”

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240)
Changes in Purchase Consideration

“"I think about buying, or have bought, a vehicle with a more economical engine”

“"I think about buying, or have bought, a smaller vehicle”

“Rising fuel prices have no affect on the size of vehicle I may buy in the future”

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240)
Awareness
Awareness of APT’s

Top-2-Box: Very/somewhat familiar

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240)
Awareness (r)evolution of hybrid technology

... but detailed knowledge is still very low (video)

Top-2-Box: Very/somewhat familiar with hybrid engines

Sources:

2007 Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240)

2003 Maritz Research New Car Buyer Survey in Germany, UK, France, Italy, Spain (n= 1,306)
Consideration
Strongest consideration of Hybrid and Bio Diesel

Consideration for next vehicle purchase

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Top-2-Box: Strongly consider / consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrol/Electric Hybrid</td>
<td>37</td>
</tr>
<tr>
<td>Bio Diesel</td>
<td>37</td>
</tr>
<tr>
<td>Dual/Flexible Fuel</td>
<td>34</td>
</tr>
<tr>
<td>Fuel Cell/Hydrogen</td>
<td>30</td>
</tr>
<tr>
<td>LPG</td>
<td>32</td>
</tr>
<tr>
<td>Electric only</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240)
Top reasons for consideration of APT’s

Reasons for buying vehicles with new power train/alternative fuel technologies

- Reduced fuel costs
- Less pollution/more environmentally friendly
- Tax credits/a grant
- Ability to go more miles between fill-ups
- Image of an environmentally responsible person
- Better engine performance
- Having the newest technology

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240) and Car Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
Key barriers

Reasons for not buying vehicles with new power train/alternative fuel technologies

- Lack of knowledge about new technologies
- Less engine performance/acceleration
- Not worth the extra costs
- Still unproven technologies
- Not reliable and/or durable
- Still present environmental problems
- Feel not comfortable with a non-traditional engine
- Waiting for the next generation
- See not the advantages of new technologies

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240) and Car Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
### Opinions about Hybrid Technology - Pre- and Post Driving

**Maritz Research Survey for Toyota – published 2006**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Total before test drive (n=313)</th>
<th>Total after test drive (n=308)</th>
</tr>
</thead>
<tbody>
<tr>
<td>...is more environmental friendly than the conventional engines</td>
<td>86%</td>
<td>93%</td>
</tr>
<tr>
<td>...offers intelligent performance combining low fuel consumption with good acceleration</td>
<td>53%</td>
<td>81%</td>
</tr>
<tr>
<td>...is a real breakthrough innovation</td>
<td>48%</td>
<td>72%</td>
</tr>
<tr>
<td>...offers high level of driving pleasure</td>
<td>16%</td>
<td>57%</td>
</tr>
<tr>
<td>...offers high performance</td>
<td>13%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Top-2-Boxes, 7-point scale

Experience is the driver of interest
Customers are willing to pay a premium – and dealers agree they can sell it for more

Willingness to pay more for new engine/fuel technologies

Dealers estimated that consumers are willing to pay 1,377 € on average more for alternative power trains.

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240) and Car Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
So are consumers ready?

- Awareness, but limited knowledge
- Increasing consideration, but continuing uncertainties
  - Lack of detailed product information
  - Cost of purchase and cost of ownership
  - Engine Performance/Driving Pleasure doubts
Communication Needs

- Communication to customers
- Communication to dealers
Marketing

• From a product focused “environmental friendly” positioning to a more mature, customer focused positioning

• From a “green car” to a “great car”

• Performance emphasis on increase of dynamic low torque vs. high power (“Fun-to-Drive”)

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Channel Communication & Education

- More information needed
  - Sales Training
  - Information about costs (incl. benefits and possible penalties)
  - Information about existing technologies
  - Information about products in the brand portfolio
  - Information about future plans
Increasing relevance in the sales process

During the last 12 months, on average 13.7% of customers of car dealerships actively asked for information about alternative power trains during a sales conversation.

Source: Maritz Research New Car Buyer Survey in Germany, UK, France (n=1,240) and Car Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
Back to our questions!

What’s in there for me?
Are “hybrids” the future?

The right questions?
What’s the right question?

- Some might still question if APT (hybrids and beyond) is a winning theme...

- ... but it can well be a losing game if you don’t play it!
The driving force behind APT developments

Source: Maritz Research Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
Contribution to Brand Equity & Choice

- Brand worth, in € terms, relative to each competitor
- Contributions of image attributes to brand equity
  - How much € does “is a leader in environmental engine technologies” contribute?
In the next 3 years, consumers will ask for alternative power trains much more often.

If I compare today with the time 2 years ago, customers are already asking for alternative power trains much more often.

I will loose customers if my brand will not be offering a variety of models with alternative power trains in the next 3 years.

Dealers see APT as essential for their future health.

Source: Maritz Research Dealer Survey in Germany, UK, France, Italy, Spain (n=1,250)
Don’t stand still
Thank you for listening!