Making “Design-Right-First-Time”
Possible and Practical

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LMS International
Reducing time to market
Shortening development time
Slashing overall development costs
Yet, improving performance
Improving quality
Where is the real bottleneck in the digital development process?
The Bottleneck...

A beautiful design...
The Bottleneck...

A beautiful design...

How will it handle?
Will it sound right?
How long will it last?
Will it deliver the passion?

...The pressure is on engineering functional performance
Traditional MCAE is not the answer

- It takes too much time
- It has too many limitations for complex assemblies
- It is used after the facts

...It is not about more number crunching
What are some of the Critical Issues or Opportunities?

- Predicting the full system performance
- Engineering for subjective attributes
- Managing the conflicts between attributes
- Leveraging more information from existing designs
- Re-use of components

A radical change is not just desirable. It is essential.
Enabling a “Process-Centric” Approach...

Supporting engineering decisions for critical design attributes throughout the entire process
Combining Key Engineering Disciplines into an Application-Centric Solution

Durability Engineering

Mechanical Simulation

Road Noise

Vehicle Ride Comfort

Engine Rumble
Empowering Engineering Refinement
Based on Test & Simulation

Best of both worlds: loads, models, methodologies
We envision an engineering process where critical product qualities are “refined” from concept to product, to achieve “Design-Right-First-Time”

Solving the paradox: Time to Market versus Product Performance and Quality
LMS International
... Leading by Innovation

The fastest growing provider of engineering solutions

Market leader in Physical Test

Technology leader in multi-disciplinary Virtual Prototyping
A Track Record of Growth, Profitability, and Business Transformation

- 500 people in 15 offices worldwide
- $100m revenues
- expanding by organic growth and acquisitions
- partnering with the best in the industry
**Preferred Partner For**

**Leading Manufacturers Worldwide**

| Audi | Volkswagen | Goodyear | Dasa |
| BMW | Volvo | Harrison | Dlr |
| DaimlerChrysler | Allied Signal | Lear Seating | Dornier |
| Fiat | Allisond Transmission | Lucas | Embraer |
| Ford | Remington | Magneti Marelli | Esa-estec |
| General Motors | Allison Transmission | Michelin | Estec |
| Harley Davidson | American Axle | Monroe | Ford Aerospace |
| Honda | Arvin Cheswick | Navistar | Harris Corporation |
| Hyundai | Bendix | Pirelli | Hughes Aircraft |
| Isuzu | Borg Warner | Rieter | Iabg |
| Jaguar | Bosch | Valeo | Lockheed Martin |
| Lotus | Bridgestone | Walker | Loral |
| MitsuBishi | Calsonic | Zf | Nasa |
| Nissan | Collins & Akman | Northrop | Nasda |
| Porsche | Continental | Aerodyne | Orbital Sciences Corp. |
| PSA | Dayco | Aerospatiale | Pratt & Whitney |
| Renault | Delphi | Agusta | Rockwell Rocketdyne |
| Rover | Donaldson | Alenia | Sikorsky |
| Samsung Motor | Dunlop | Bmw Rolls Royce | Trw |
| Skoda | Eaton | Boeing | Westland Helicopter |
| Subaru | Firestone | British Aerospace | Sncema |
| Suzuki | Gillet | Casa | Trw |
| Toyota | Gkn | Cessna | Westland Helicopter |
“The question today is not whether you can re-engineer your processes. The question is whether you can re-invent the entire industry model”

Dr. Gary Hamel
Co-author “Competing for the Future”