Leveraging NVIDIA And 3DEXPERIENCE Platform To Accelerate Transportation Innovation

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Automotive Industry Recovery/Opportunities Break Records…

Auto industry's 2012 sales best since 2007: Chrysler up 10% in December; GM, 4.9%; Ford, 1.9%

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Recovery hits red-hot Stage 2

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Browning said the company has increased its industrywide outlook to

13 million (a year) at best, so the industry needs those ‘wont’ buyers.”

Toprank is among those who have revised 23.2 sales forecasts upward this year, in his case to 14.6 million from 13.8 million. He’s considering

Ford may post record Q3 profit on ‘virtuous circle’

Strong March sales show surge has gone beyond ‘need to replace’ crowd

 Suppliers race to fill orders

Don Walker, CEO of Magna International Inc., says his company is getting bigger orders from Chrysler Group, Ford Motor Co. and General Motors.

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“We are flat-out at our plants in North America on some products,” Walker told reporters last week at the

Geneva auto show.

Bmw, Volkswagen and Mercedes-Benz also are boosting orders, he said. “The export demand for those brands is much higher than planned, and we are trying to meet demand.”

According to a January survey of 109 suppliers by the Original Equipment Suppliers Association, 84 percent of respondents said they were optimistic about their outlook for the next 12 months, up from only 27 percent in a November survey.

For GKN PLC of the United Kingdom, the tipping point came in December, when U.S. sales were much stronger than expected.

GKN’s factory in Celaya, Mexico,
But are you ready to capture your share of the opportunities?....

AUTOSAR
AUTomotive Open System ARchitecture

ISO 26262

USA
CAFE
STANDARDS
Transportation Industry – Trends Over Next 15 Years….

Environmental Requirements
• Fuel efficiency and environmental friendliness considered as most important product issues

Environmental issues
Geopolitical change
Economic instability
Demographic change
High Tech Internet
Safety

Urbanization
• Congestion and limited parking space are expected to be major concerns in megacities

ICE DOWNSIZING
ELECTROMOBILITY
LIGHTWEIGHT MATERIAL
INNOVATIVE URBAN CAR DESIGN CONCEPTS
OEM CAPTIVE FINANCING AND LEASING
MOBILITY SERVICES
CONNECTED CAR CONCEPTS

Changing customer behaviors
• The world is moving from ownership to car usership
• Customers expect the same services when in the car as they receive at home, at work or on their Smartphone

Source: KPMG’s Global Automotive Executive Survey 2012
Global Transportation Industry Trends

- **Demographics**: Population growth and location affects the growth of vehicle volumes, mix and content

- **Globalization**: Competitive gap is reduced between countries, effecting market opportunity and competitive pressure

- **Energy and Material Markets**: Increased consumption raises costs and availability issues, driving increased cost volatility and manufacturing complexity

- **Social and Environmental Sustainability**: Converging government policies lead to common global markets

- **Technology**: Connectivity allows globalization and forces change in business models, products and processes
### Transportation Solution Experiences Support Industry Priorities

#### Environmental Issues
- Fuel efficiency and environmental friendliness considered as most important product issues

#### Urbanization
- Congestion and limited parking space are expected to be major concerns in megacities

#### Changing customer behaviors
- The world is moving from ownership to car usership
- Customers expect the same services when in the car as they receive at home, at work or on their Smartphone

### Sources
- KPMG’s Global Automotive Executive Survey 2012

### Key Priorities
- Target Zero Defect
- Lean, Green & Compliant
- Modular, Glocal & Secure
- My Car Experience
- Smart, Safe & Connected

**Source:** KPMG’s Global Automotive Executive Survey 2012
Dassault Systèmes 3DEXPERIENCE Platform

Social Innovation Platform
Related brands: ENOVIA, 3DSWYM

Search Platform (SBA)
Related brands: EXALEAD, NETVIBES

Content and Simulation Platform
Related brands: 3DVIA, DELMIA, SIMULIA

3D Modeling Platform
Related brands: CATIA, SOLIDWORKS, GEOVIA

Real-Time 3DEXPERIENCE Platform
Transportation & Mobility Solution Experiences

- Modular, Glocal & Secure
- Smart, Safe & Connected
- Lean, Green & Compliant
- Target Zero Defect
- My Car Experience
Smart, Safe & Connected

Electronics Engineering

Active and Passive Safety Optimization

Integration, Test and Validation

Functional Safety Delivery

Electrical Engineering

Embedded Software Development

Early Validation and Simulation

Embedded Systems Architecture Definition
Automotive Development Cycle – Progressive GPU Leverage

Test it for Safety

Manage it for Seamless Global Collaboration

Dream it for Consumers

Design it for Zero Defect

Manufacture it On Time

Sell it with Virtual
Leveraging NVIDIA and DS 3DEXPERIENCE Accelerates Innovation…

Design Engineers

Simulation & Analysis

Styling & Marketing

And here is Dre Clemons to show our solutions in action…
Dassault Systèmes – 3DEXPERIENCE Collaboration

a Scientific company
Serving Science, Technology and Art for a sustainable society

11,000 passionate people
• 106 nationalities
• One global R&D/34labs
• A unique software platform

170,000 enterprise customers
• 12 industries in 140 countries
• >10 million on premise users
• >100 million online users

3,500 partners
• Research & Education
• Software & Technology
• Sales & Services

Long-term driven
• Majority shareholder control
• Revenue: $ 2.6 Bn*
• Operating margin: 31.6%*

* Non-IFRS
Our Legacy: from 3D-Design to 3DEXPERIENCE
DS Industry Leadership - Customer Successes on 3DS.com

Every leading automotive OEM utilizes one of the premier DS brands.

CATIA is used by 15 of the 17 top automotive OEMs.

Every leading automotive OEM utilizes SIMULIA for engineering simulation.

Over 10 leading automotive OEM’s utilize ENOVIA as their collaboration platform.

For comprehensive list of customer references by industry go to: www.3ds.com/customer-stories
TESLA Motors - Accelerating Sustainable Innovation

- **Who:** TESLA Motors
  - Palo Alto, CA USA / Supporting 37 Countries / 3,000+ employees
  - EV OEM leader ‘accelerating the world’s transition to electric mobility’

- **What:** Sparking the evolution from ‘petro’ to electric vehicles
  - Develop the fastest, most attractive electric vehicles on the road.
  - Partner with Toyota, Mercedes-Benz to extend EV powertrain platform

- **How:** Pursue ‘Target Zero Defect’ solution experiences
  - Integrate all on 3DEXPERIENCE platform, from concept to production

- **Why:** Optimize collaboration, minimize wasted time & effort
  - Integrated development eliminates translation between processes
  - Collaborative platform facilitates partner/customer input & sharing
Visteon - Driving Breakthrough Innovation with ‘e-Bee’

- **Who**: Visteon Corporation
  - Van Buren Township, MI USA / 22,000 employees / $7.53 B revenue 2011
  - Tier 1 automotive technology provider

- **What**: Provide customer value by starting development from the End User Experience
  - Build a convincing, business-generating real-life demonstrator for 2020 mobility solutions
  - Showcase Visteon’s ability to develop and integrate new calibre mobility experiences

- **How**: Implement ‘My Car Experience’ solution experience
  - 3DSwYm-enabled platform for ideation and cross-discipline collaboration
  - CATIA- and SIMULIA-enabled platform for design, engineering and virtual analysis

- **Why**: Open, real-time and social platforms trigger breakthrough innovation
  - Eliminate the boundaries between upstream innovation and conceptual design
  - Cloud-based collaboration enables 20-25% efficiency gains in resolving issues
  - Savings of 20% on prototyping costs
JLR - Implementing a Global Strategy for Growth

**Who:** Jaguar Land Rover
- Coventry, UK / 15.7 B€ in 2012 / 25,000 employees
- OEM who wants to become experience leader in its segments

**What:** Set the stage for future growth
- Deliver vehicles that provide superior driving experiences
- Fully exploit the business potential from its two iconic brands

**How:** Implementing ‘Target Zero Defect’ solution experience
- End-to-end business platform, from ideation to product retirement

**Why:** Higher productivity and customer intimacy
- Engineering efficiency can grow by 40%
- Connect the entire enterprise, including marketing and management
Thank you very much for your time & attention...

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