WORKSHOP C

SESSION TWO

Presentation 3

Holistic approach to vehicle test station

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Holistic approach to vehicle test station

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Agenda:

→ Facts and Figures
→ “NEW” Automotive Service Solution
→ Focus on PTI-Business
→ Beissbarth ICperform
→ Summary
Robert Bosch GmbH – Facts and Figures

- Founded in 1886 by Robert Bosch
- Owned by the Robert Bosch Foundation
- One of the world's largest innovative technology based companies
- Represented in more than 150 countries
- Sales 2012: 52.5 bn. EUR - (outside Germany: 77 %)
- Investment in R&D: 9 % of sales
- Employees: > 306,000
“NEW” Bosch Automotive Service Solution (AA-AS)

➔ Acquisition of **SPX Service Solutions** in Dec. 2012

- Sales Turnover in 2011: 920 Mio. $
- Approx. 2,700 Employees
- Additional Brands in the product portfolio
Focus on PTI-Business

- NEW Department established at Beissbarth GmbH located in Munich
- World wide responsibility in the Bosch Group for
  - Business Development with Test Organisations
  - Project and Tender Business
- Representing the Bosch Group in Associations for Vehicle Testing
  - Germany: ASA / Europe: EGEA / World Wide: CITA
- Brands: Bosch, Beissbarth and OTC
- Cooperation with Capatest (Spain)
ICperform – Software for Inspection Center

- Controlling the Brake Tester / Test Lanes for
  - 2-Wheeler
  - 3-Wheeler
  - Passenger Cars
  - Trucks / Buses

Sold: > 40,000
ICperform – Software for Inspection Center

- Headlight Tester (Automatic and manual)
- Bosch BEA Emission Tester
- ASM (Acceleration Simulation Mode) for Emission Test under load

Sold: > 100,000
ICperform – Software for Inspection Center

- Sound Level Meter
- Speedometer Tester
- Template for easy input at Visual Inspection
- Handheld Devices (f. e. Bosch DCU 130)
ICperform – Touchless

- Connection to **Touchless** Wheel Alignment
  - Measurement in less than 10 seconds by measuring all 4 wheels live and simultaneously.
ICperform – Crash Data Retrieval (CDR)

- Used to retrieve crash data from vehicle ECUs
- Usage:
  - Reconstruction of vehicle accidents
  - Insurance claims settlement cases and vehicle safety research
  - OEM’s use it to get ‘real-world’ data from crashes to improve safety and performance-related functions
- Pre-Crash data
  - Vehicle Speed / Engine Throttle
  - Accelerator Pedal / Brake Switch
- Crash data
  - Airbag configuration / Trouble codes at impact
  - Status safety Belts / Tire Pressure
- Post-Crash data
  - Delta-V Longitudinal and Lateral
  - Vehicle Speed / Engine RPM
ICperform – Tire Pressure Monitoring System

- **All new models** of passenger cars in the **European Union** must be equipped with a **TPMS** (Tire Pressure Monitoring System) starting from **November 2012**.

- **From November 2014** all **new cars** in the **EU** must be equipped with a **TPMS**.

- For tire changes and vehicle checks **specific tools will be needed**

- **Until 2016 > 16,8 Mio vehicles** with **TPMS** will be expected
ICperform – Additional Equipment

- Bosch ECU Diagnostics
- GPS Taxameter
- Vehicle Lifts (2-Post / 4-Post / Scissors)
- Pit Jacks
- Paint Thickness Device
CITA Conference 2013 in Sevilla

ICperform – Optional Software Features

- Online-Booking via Internet
- Connection to Financial Software Modules
- Administration Modules
  - Inspectors
  - Defaults
  - Statistics
- Custom-made Print-out
- Custom-made Solution
ICperform – Controlling System

- Online monitoring of ALL test lanes from the Headquarter
- Access to lane operating system
- **Bidirectional** Data-Exchange
- Control of test procedure
- Storage of test lane log
- Access to test results
ICperform – Server System

3rd Party Server (f. e. Government)

Test station Server

- Operation control
- External equipment
- Testlane operation control
- Administration
- Online statistic
- Video control

(f. e. Government)
ICperform – Camera Technology by Bosch

- Automatic Plate recognition
- Vehicle image for evidence
- Test Lane Monitoring
- Triggering the next device (f. e. Headlight Tester)
ICperform – Camera Technology (Possibilities)

- Substitution of mirrors / additional employees (f. e. Light Test)
- Positioning of Vehicles for correct testing (f. e. Suspension Test)
- Monitoring of the outdoor activities (f. e. calculation of waiting time)
- Surveillance of the facilities (outside the opening time)
ICperform – Camera Technology (Security)

- Automatic recognition of persons / bodies in the working area
  - Control of Pit while Brake Testing
  - Control of Vehicle Lift area
  - Automatic STOP of Headlight Tester
ICperform – Optional Safety Features

- Fingerprint or RFID
  - Access control
  - Inspector verification
  - Working time tracking
ICperform – Benefits for Inspection Center

- HIGH Manipulation Protection thru different login levels and camera surveillance
- Modular Solution → individual configuration for each customer
- Fully Automatic Tests and easy handling of Test equipment (Autom. Start and Stop of the equipment, autom. Data Transfer)
- Time optimized test procedure → high throughput!
- Easy Data entry at visual Inspection
- Easy Maintenance / Controlling → Software for Remote-Mode
- Easy Modifications (Additional Equipment / New Test Procedure)
- Connection of different kinds of equipment → All from one hand!!
Why Bosch??

- **Future and Result Focus** – our innovations bring changes in markets and technology solutions for our customers
- **Responsibility** – We place our products and services in the interests of safety, economic use of resources and environmental sustainability
- **Initiative and Determination** – our corporate constitution ensures our entrepreneurial independence
- **Openness and Trust** – we inform our associates, business partners and investors in a timely and open fashion of important developments
- **Fairness** – we view mutual fairness as condition of corporate success when dealing with each other and our business partners
Why Bosch??

- **Reliability, Credibility and Legality** – We promise only what we can deliver, accept agreements as binding and respect and observe the law in all our business transactions

- **Cultural Diversity** – We are aware of our company’s regional and cultural origins and regard diversity as an asset and a precondition of our global success

- **Competence** – Bosch – globally known technical innovative company and Beissbarth – specialist in test equipment for vehicle inspection combine to bring their expertise to provide Test Organisations with a customised solution
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