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**"Always Connected Car
Changes Life on Board"**

Geneva, 5-7 March 2008



- o We live in a mobile communication society
- o Ubiquitous and affordable communication solutions are society requirements
- o Drivers expect full connectivity in the vehicle
- o There is a clear trend toward increased in-vehicle use of personal media and communications devices

- Multiple communication options available and evolving
- Bluetooth and other short range connectivity solutions are available in the car
- A vehicle will be in use through several generations of technologies
- The combination of mobile and IP-based technologies raises a host of possibilities for innovative applications and new modes of interaction

PND vs GPS Phones trend

PRESS RELEASE

MINNEAPOLIS, Jan 03, 2008 (BUSINESS WIRE)

Navigation Device Sales Estimates: 2007 vs. 2015

Company 2007	Estimated Sales	Company 2015	Potential Sales
TomTom	9M+	Nokia	180M+
Garmin	8M+	Samsung	70M+
Mitac	7M+	Motorola	70M+
Nokia	5M+	LG	60M+
Mio/Navman	4M+	TomTom	25M+
Others	17M+	Garmin	25M+
Total 2007	50M+	Total 2015	500M+

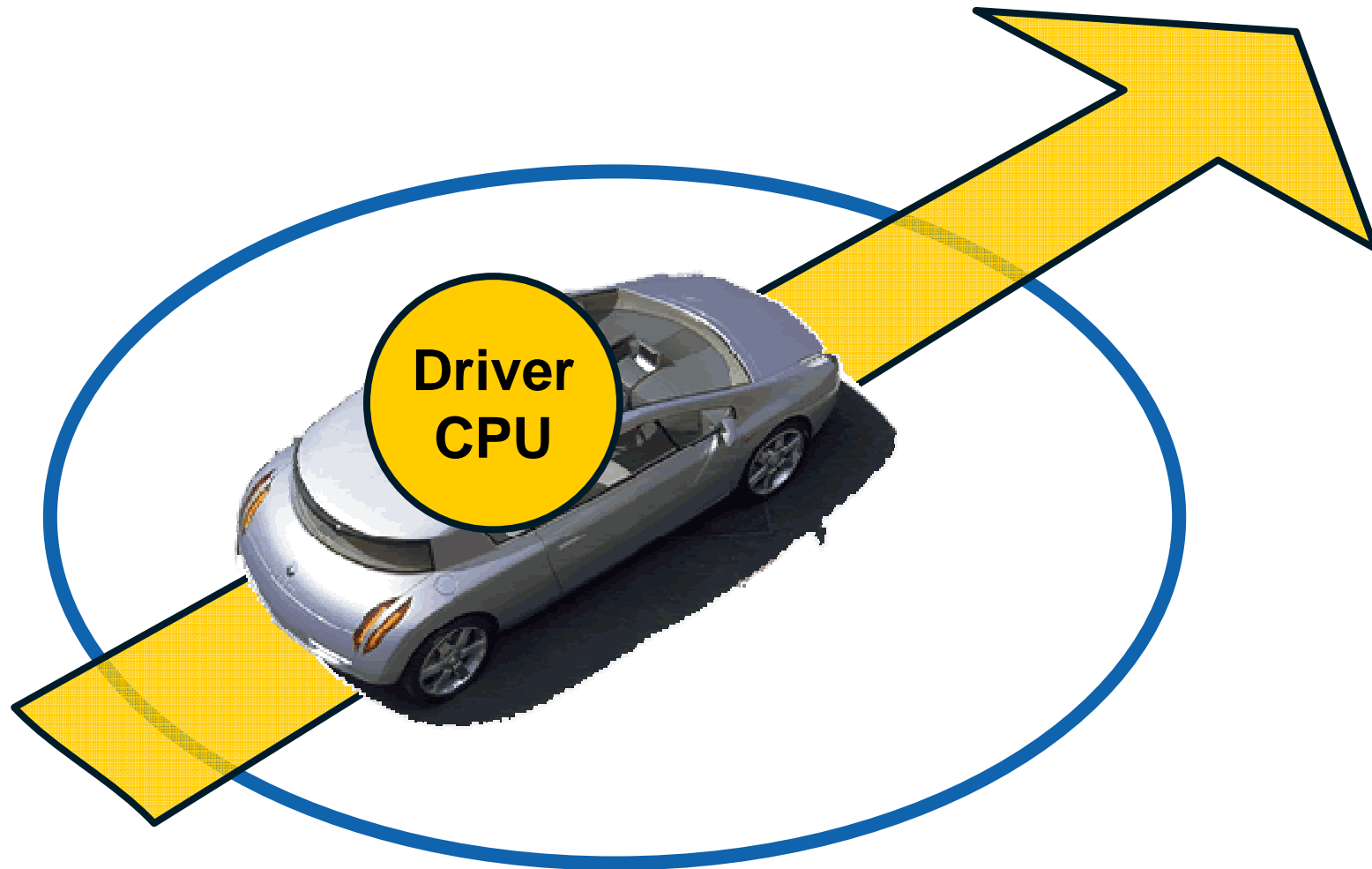
Source: Telematics Research Group, Inc. (TRG)

- Protect their sales of navigation devices
 - Add new functions/services to their devices
- Make benefit of navigation system more familiar and popular to drivers
 - make navigation system almost standard
- PND integration in the car is becoming one selling point against competitors
 - give their cars better connectivity to PND

All strategies need more attractive functions and services to differentiate their cars

Driver's Requirements

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Driver's main task is driving

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Driver's Requirements cont'd

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- o Driver has many constraints while driving
- o Car system operation should not distract the driver
- o Simple man-machine interface and hands-free features are key for safe and friendly user's experience

Today's Telematics Applications

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- User-oriented services
 - Information
 - Entertainment
 - Concierge services
 - Emergency calls
- Vehicle-oriented services
 - Remote door lock/unlock
 - Remote light/horn activation
 - Stolen vehicle tracking
- Vehicle manufacturer services
 - Telediagnosics

- Probe car (floating car) data will enable many new applications
 - Better traffic and road condition information
 - Hazard warnings
- Cooperative vehicle-vehicle and vehicle-infrastructure applications

User-oriented and vehicle-oriented services are diverging

User-oriented World

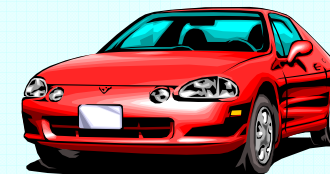
Access everywhere to:

- ✓ News
- ✓ Weather
- ✓ Sports Results
- ✓ Traffic
- ✓ Messaging
- ✓ Email
- ✓ Music
- ✓ Video clips
- ✓ ...other content & information



Vehicle-oriented World

- ✓ Automatic Crash Notification
- ✓ Remote Diagnostics
- ✓ Vehicle Information Collection
- ✓ Door unlock/lights flash etc.
- ✓ CRM
- ✓ Software configuration management & updating
- ✓ ...



- Use of the vehicle as a “peripheral” is of growing interest to consumers, moving multimedia hardware out of the vehicle

Challenges for the Telematics Industry

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- How to cope with rapid technology evolution?
- “Anytime, Anywhere but Not at Any Cost” communications
- What is premium compared to current (free) offering?
- Liability
 - What if something goes wrong?
 - How can responsibility be shared?
- Security
 - Complex technologies
 - Sharing of sensitive data
- How to provide to the customers the feeling of freedom they experience with their portable devices?
- How to ensure independence from suppliers?
- What will customers consider good value?

Next Generation Telematics

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- Many car makers are now moving to the next generation telematics services supported by better connectivity and more flexible market approach
- Connexis developed the concept of LSP, Land Side Platform, many years ago:
 - Connects vehicle manufacturers with their telematics equipped vehicles
 - Provides lifetime connectivity to and from the vehicle
 - Connects drivers of telematics equipped vehicles with the information and services of their choice through an open interface to providers
- NGTP was launched early 2008 under the leadership of BMW with Connexis participation
- NGTP is based on open interfaces and offers vehicle manufacturers flexibility and ease in future supplier compatibility

Key principles:

- Safety applications (eCall) should be part of the price of the car. No additional or only minimum fee to the user
- Infotainment and mobility services:
 - Providers must be flexible in their pricing:
 - Fixed price per subscriber
 - Base fee plus price per call
 - Base fee plus price per minute
 - And any other schema that an OEM would require
 - Transparent billing, one invoice for all

- Fully connected car will become a reality
- Connectivity at the higher OSI layer becomes more important
- Navigation systems will be opened to outside information sources and become information platforms in the car
- Car manufacturers are moving to next generation of telematics applications and are competing against each other
- The solutions will be open to more content and application providers making the value offering to the customer more attractive
- Connexis supports next generation services

Who is Connexis?

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- Connexis is an end-to-end Telematics Service Provider (TSP) for vehicle manufacturers
- Over 300 staff in Europe
- Connexis has invested \$25M in creating technology and infrastructure solutions
- Connexis is protocol agnostic, and advocates open architecture
- Connexis is member of the Ygomi group of companies:
 - 1,600 staff worldwide
 - Key references include Microsoft, BMW, MacDonald, Ingersoll-Rand

Thank you

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