



eHorizon

Products in the market and future

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Presentation Content

1. eHorizon @ Continental: First in the Market

2. Continental eHorizon Solutions: for the future



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eHorizon @ Continental: History

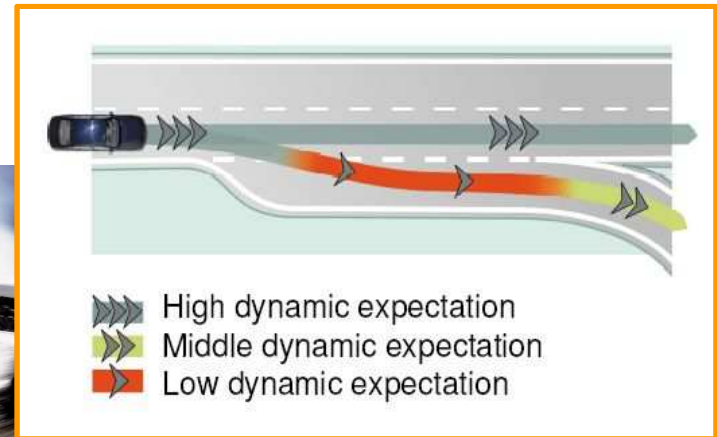
- ▶ Shipping in-vehicle navigation systems for nearly 20 years
 - ▶ High maturity in navigation SW capability
 - ▶ Deep experience with map suppliers and map compilation.

- ▶ ADAS / eHorizon
 - ▶ Continental is a driving Force in the ADASIS Forum
 - ▶ Most mature eHorizon product in the market – in series production since 2006

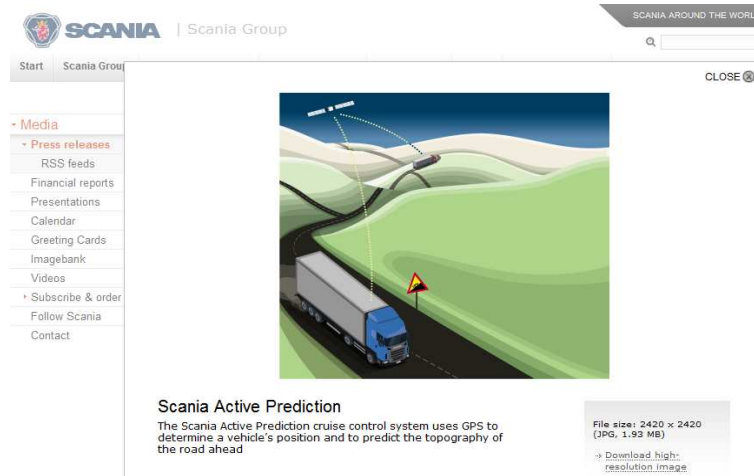


eHorizon @ Continental: First in the Market

▶ 2006: First in the Market: eHorizon Solution for BMW



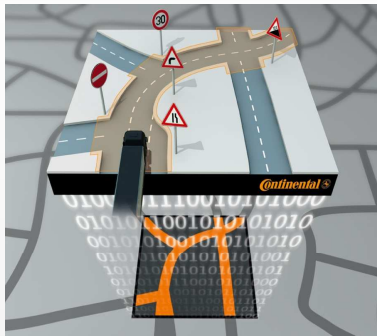
▶ 2012: First in the European Market: eHorizon Solution for Fuel Saving for Commercial Vehicles
Fuel Savings up to 4%!



eHorizon @ Continental: Solutions

▶ Continental Solutions

eHorizon SW solution (in production)



- ▶ eHorizon Provider SW: mature, series production status
- ▶ eHorizon Provider and Reconstructor fully ADASIS V2 compliant
- ▶ Operating System: WinCE, Linux, VxWorks, ...
- ▶ Positioning
 - ▶ GPS only: external GPS receiver
 - ▶ Dead reckoning: speed and yaw-rate via CAN (optional)
- ▶ Interfaces can be adapted customer specific
- ▶ **Availability: immediately**

eHorizon Box



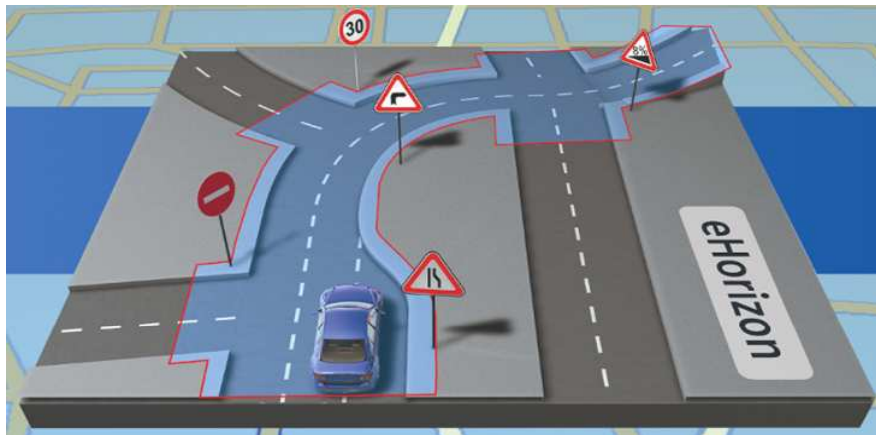
- ▶ Hardware: Main CPU (eH provider) + VuC (CAN)
- ▶ Housing (250 x 150 x 60 mm (tbd))
- ▶ Power Supply: 12V and 24V
- ▶ Application Software: mature, series production status
- ▶ 4 GByte internal Flash (access via USB)
- ▶ **Samples can be provided immediately**



eHorizon @ Continental: at a Glance

▶ eHorizon: Content

▶ Content of the eHorizon: Much data and many attributes can be offered



eHorizon provides data around the car position to other devices:

- ▶ Position
- ▶ Speed
- ▶ Heading
- ▶ Road type
- ▶ Curvature
- ▶ Intersections
- ▶ Lanes
- ▶ Slopes
- ▶ Speed limits
- ▶ Urban / Rural
- ▶ On-Road / Off-Road / Off-Map
- ▶ Quality Indicator
- ▶ Potential Stop Points
- ▶

Presentation Content

1. eHorizon @ Continental: First in the Market

2. Continental eHorizon Solutions: for the future



eHorizon @ Continental: What are the Market Drivers in the Future?

Environment



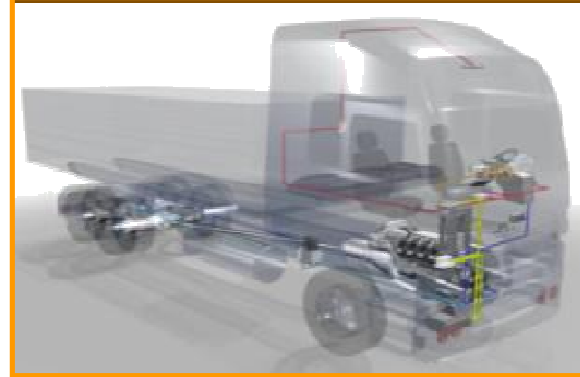
Safety



Information



Cost-Efficient



eHorizon @ Continental: Application

Examples:

- ▶ AFFF
 - Optimized guided driving via haptic feedback
 - Fuel and CO₂ Reduction
 - Test Truck available

- ▶ ADAS
 - Support of different camera and radar systems (e.g. traffic sign recognition, emergency braking, etc ...)

- ▶ Power train
 - Optimize Fuel and CO₂ Reduction

- ▶ Hybrid Vehicles
 - Optimize engine deployment

- ▶ Electrical Vehicles
 - Optimize battery lifetime

- ▶ Transmission
 - Increase sailing
 - Fuel and CO₂ Reduction
 - Reduce gear switching

- ▶ Exhaust After Treatment



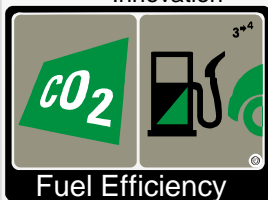
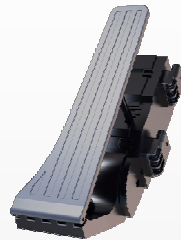
eHorizon @ Continental: Winner EcoGlobe 2011

eHorizon / AFFP

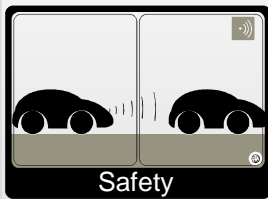
Eco Award
2011



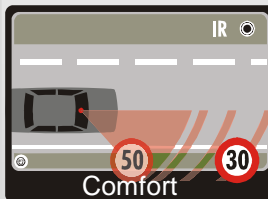
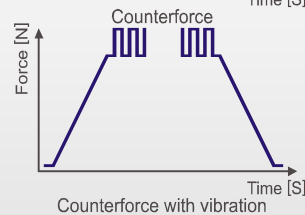
Best Supplier
Innovation



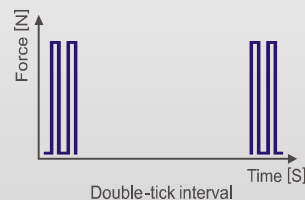
Guidance



Warning



Indication



Functionality / System Description

- ▶ A sophisticated haptic feedback system can guide to drive more efficiently (Guided Accel / Decel)
- ▶ Counterforce override possible at all times (Failsafe)

Working Principle

- Pedal consists out of two independent components
 - ▶ Passive part: works like any other pedal
 - ▶ Active part: consisting of ECU, actuator and software

Main Advantages

- ▶ Reduction of CO² & fuel consumption up to (4)%
- ▶ No driver distraction, due to intuitive haptic feedback
- ▶ 10x faster reaction time compared to visual indication
- ▶ Safety (Warning/Indication) & Comfort (Foot Rest)
 - ▶ Passenger vehicle AFFP (SOP 2014)
 - ▶ Samples available for internal testing



Thank You very much for Your Attention

