



# **Advanced Safety Systems in Automotive**

**Automotive Summit 2013**

**Bangkok, June 21<sup>st</sup> , 2013**

# Agenda

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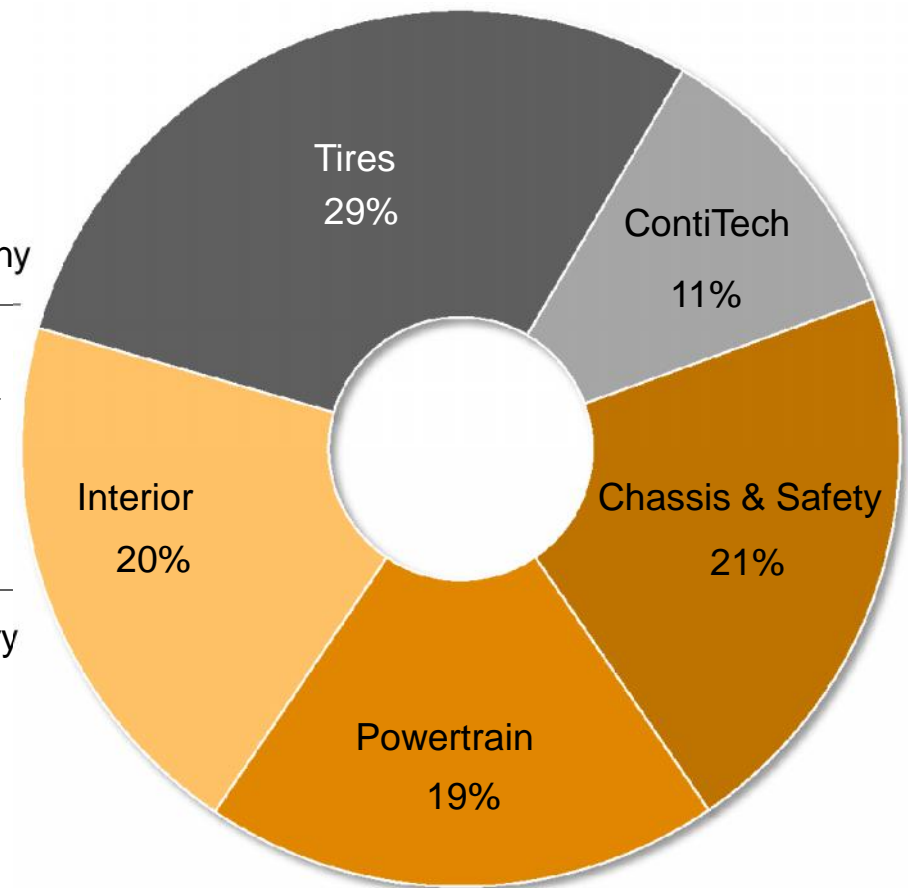
1. **Continental Automotive AG**
2. Road Traffic Safety Epidemic
3. Trends of Automotive Legislation for Road Safety
4. Active and Passive Safety Evolution

# Continental Corporation

## Overview 2012

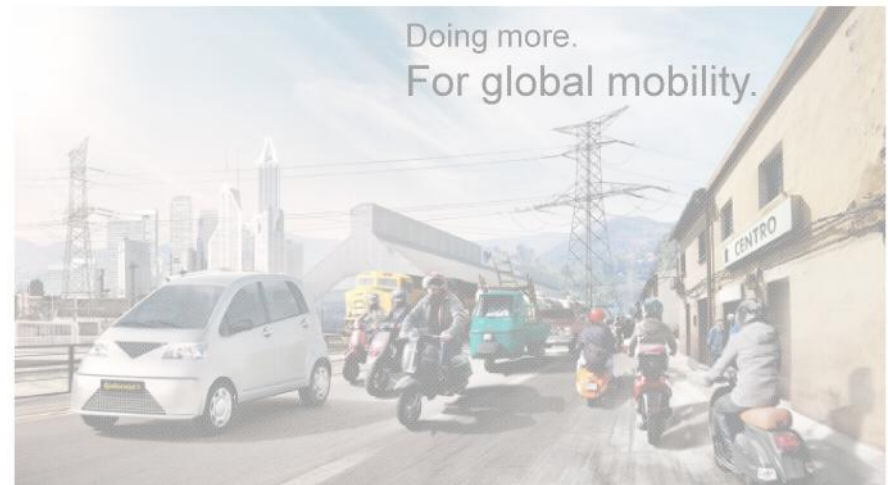
- ▶ Since 1871 with headquarters in Hanover, Germany
- ▶ Sales of €32.7 billion
- ▶ 169,639 employees worldwide
- ▶ 291 locations in 46 countries
- ▶ One of the top 5 in the automotive supplier industry

Sales by division in %



Status: December 31, 2012

# We Shape the Megatrends in the Automotive Industry: Safety, Environment, Information, Affordable Cars



Thomas Chambers © Continental AG

June 21<sup>st</sup>, 2013



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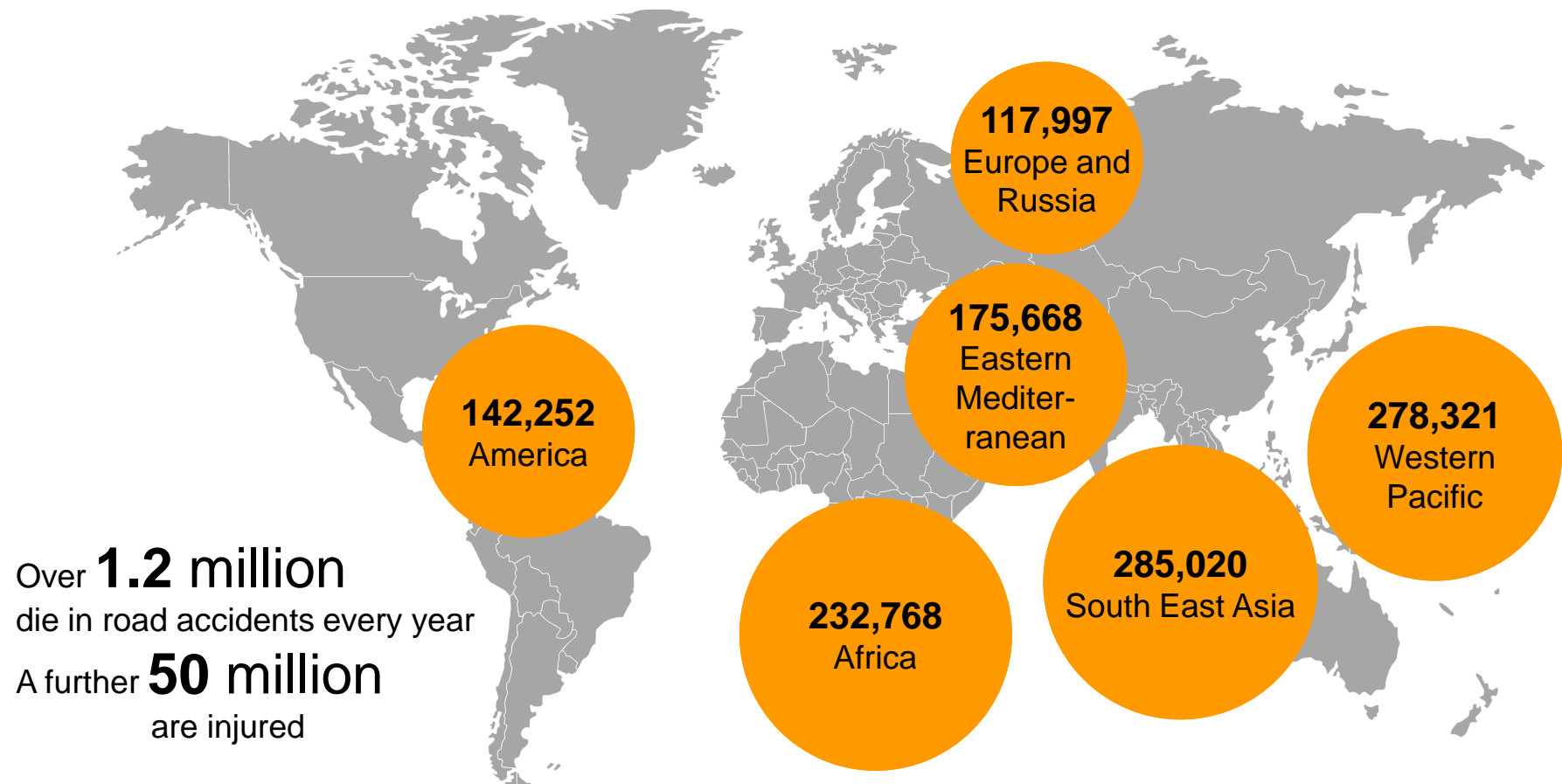
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# World Health Organization

## “The Hidden Global Epidemic”

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Source: Dräger Review 101, The Magazine for Safety Technology November 2010, Road Traffic Deaths by WHO Region

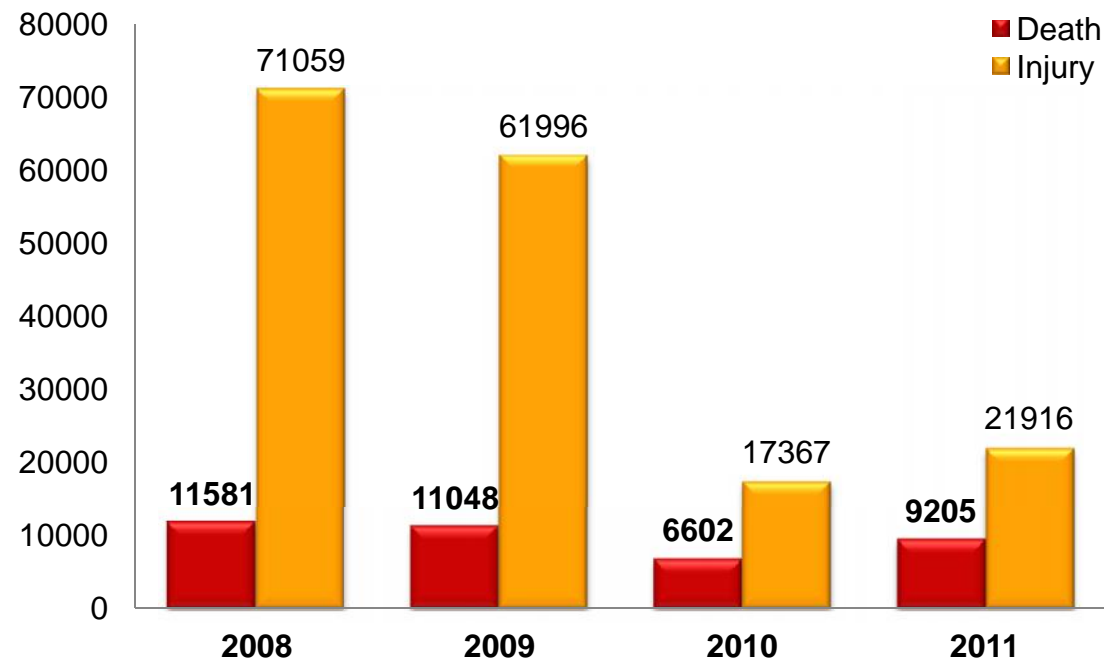
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Thomas Chambers © Continental AG

June 21<sup>st</sup>, 2013

# Traffic accident statistics

## Thailand



### Cost of Road Accident\*

- ▶ Permanently impaired: 775,445 baht
- ▶ Deceased: 937,626 baht

Source: Annual Report 2011. Bureau of Highway Safety, Department of Highways, Ministry of Transport, Thailand.

\* Cost per person per year

# Crash Causation

**95% of all road accidents involve some human error,  
in 76% of the cases the human is solely to blame**

Misjudging, driving dynamics, weather: **50%**

Distraction: **38%**



**39% of passenger vehicles and 26% of trucks do not activate brakes before a collision,  
some 40% more do not brake effectively**

**Underlying causes:** alcohol, inexperience and tiredness

Source: European Commission, Directorate General Information Society and Media, Informal document No.: ITS-13-07 (13th session of ITS, 23 June 2006, agenda item 3.)



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# Trends of Automotive Legislation for Road Safety

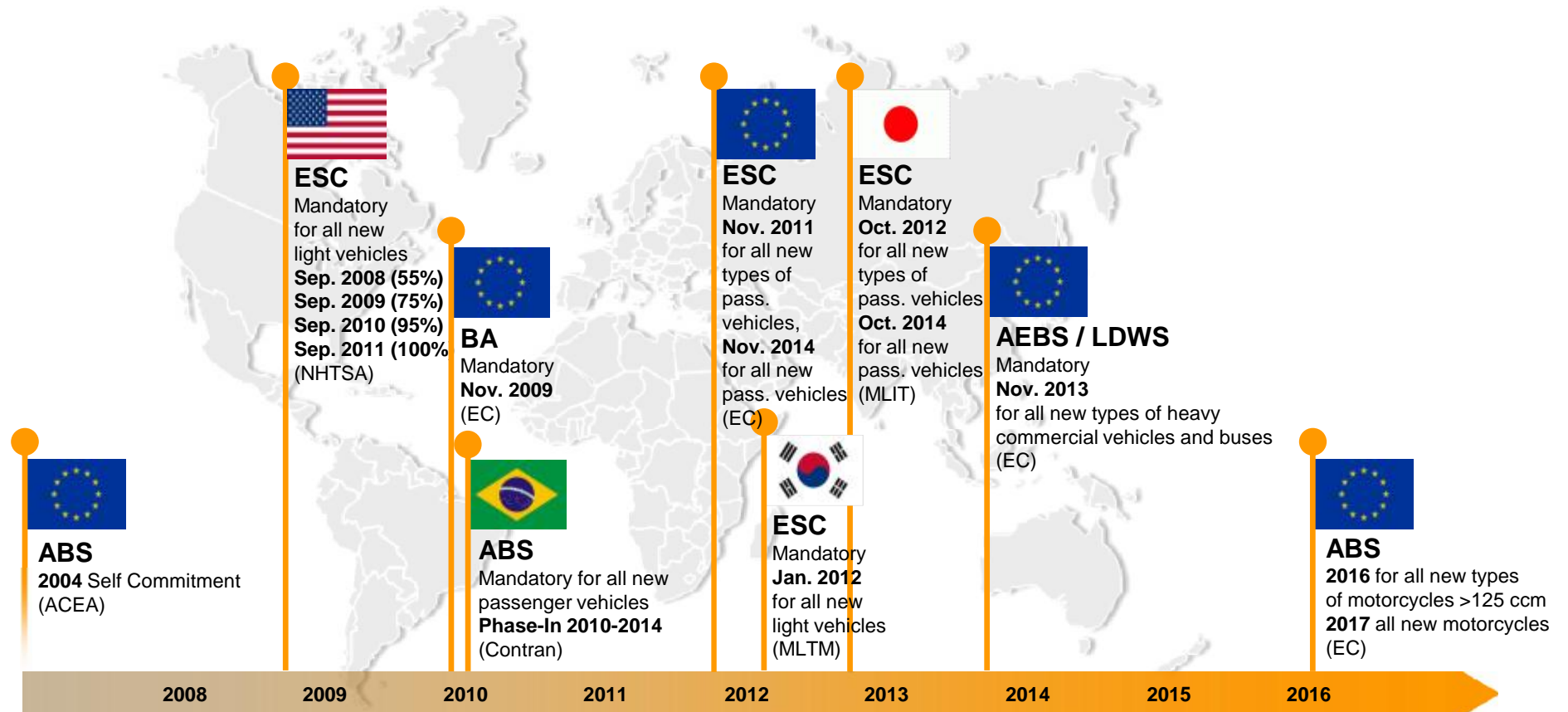
## Active Safety Technologies

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▶ ABS and ESC Animation

# Legal Demand





## Mandated Active Safety Technologies



ABS = Anti-lock Brake System; BA = Brake Assist; ESC = Electronic Stability Control; AEBS / LDWS = Advanced Emergency Braking System / Lane Departure Warning System; ACEA = Association des Constructeurs Européens d'Automobiles (EU); EC = European Commission; NHTSA = National Highway Traffic Safety Administration (USA); Contran = National Council of Transport (Brasil); MLIT = Ministry of Land, Infrastructure, Transport and Tourism (Japan); MLTM = Ministry of Land, Transport and Marine Affairs (South Korea)

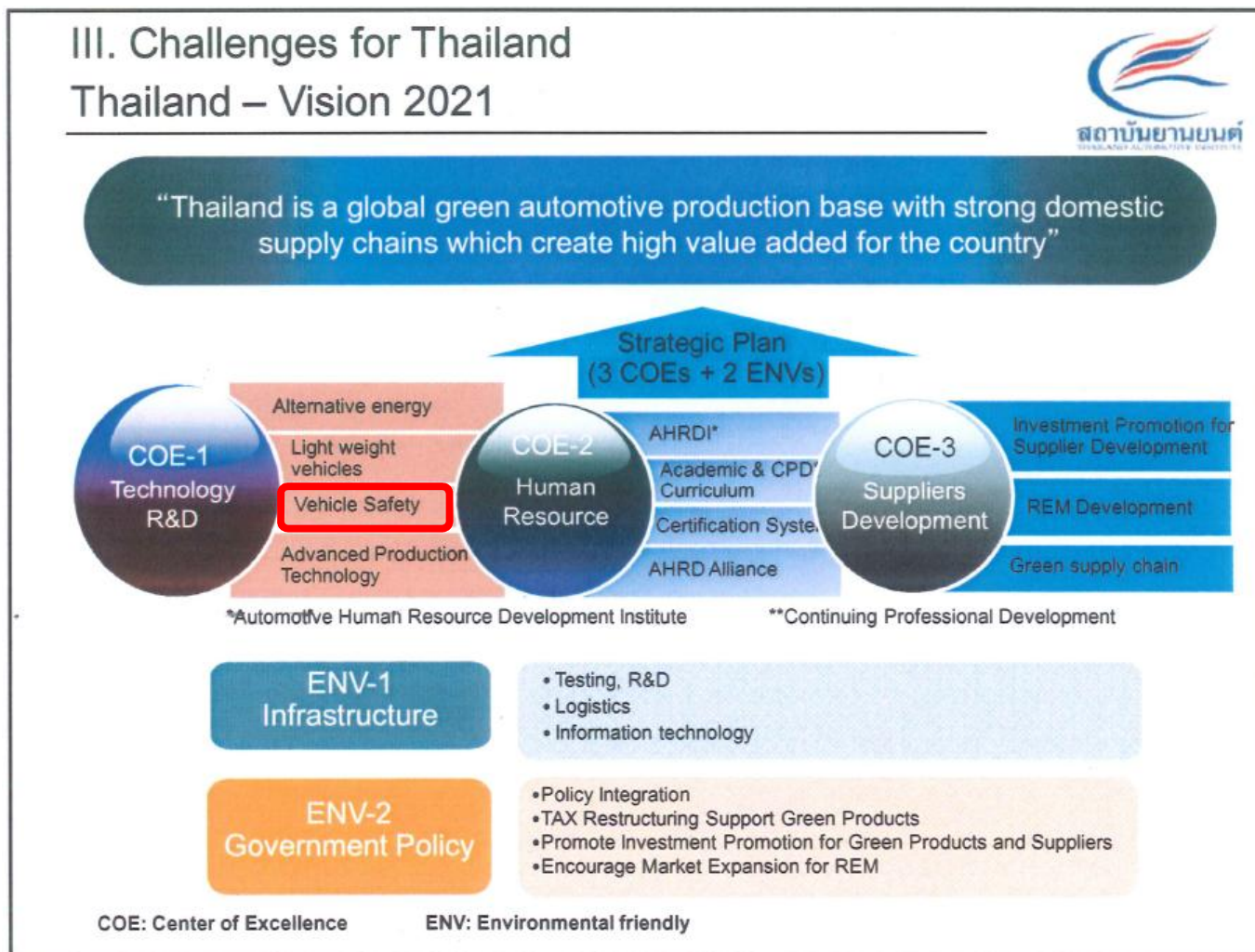
# Consumer Demand

## NCAP Worldwide (New Car Assessment Programme)

	Overall score rating	Active Safety Functions		
		ESC	AEB	LDW
	★★★★★	★	★ 2014	★ 2014
	★★★★★	★	●	●
	★★★★★	●	●	●
	★★★★★	●	● FCW	●
	★★★★★	★	●	●

- ★ System is relevant for star rating
- Not relevant for star rating, but indicated as : available / not available – standard / optional
- System is under consideration for introduction into star rating
- No indication for introduction of the system into star rating

# Thai Automotive Industry Master Plan 2012-2016



# Agenda

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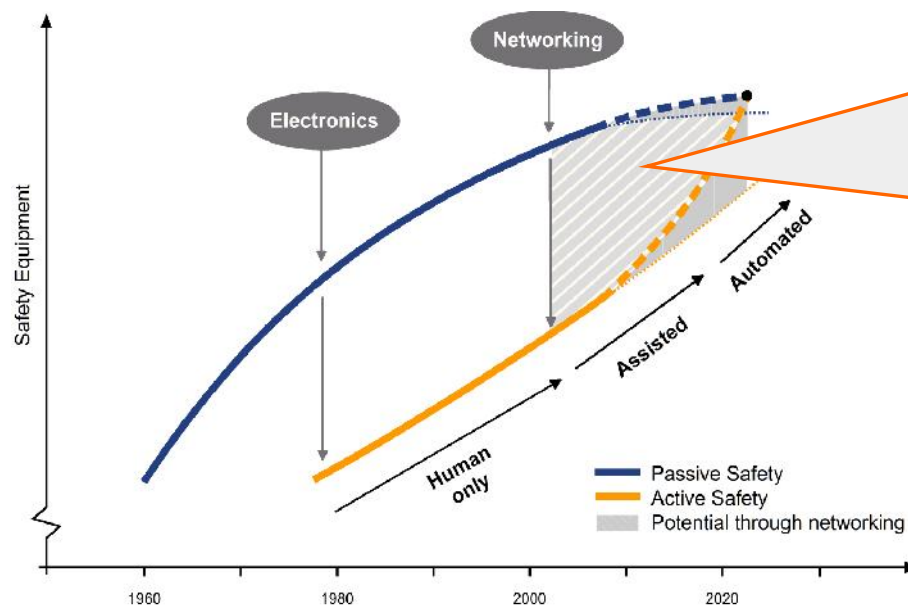
# Active and Passive Safety Evolution

## ContiGuard®

**Integrated Safety = Active Safety integrated with Passive Safety**

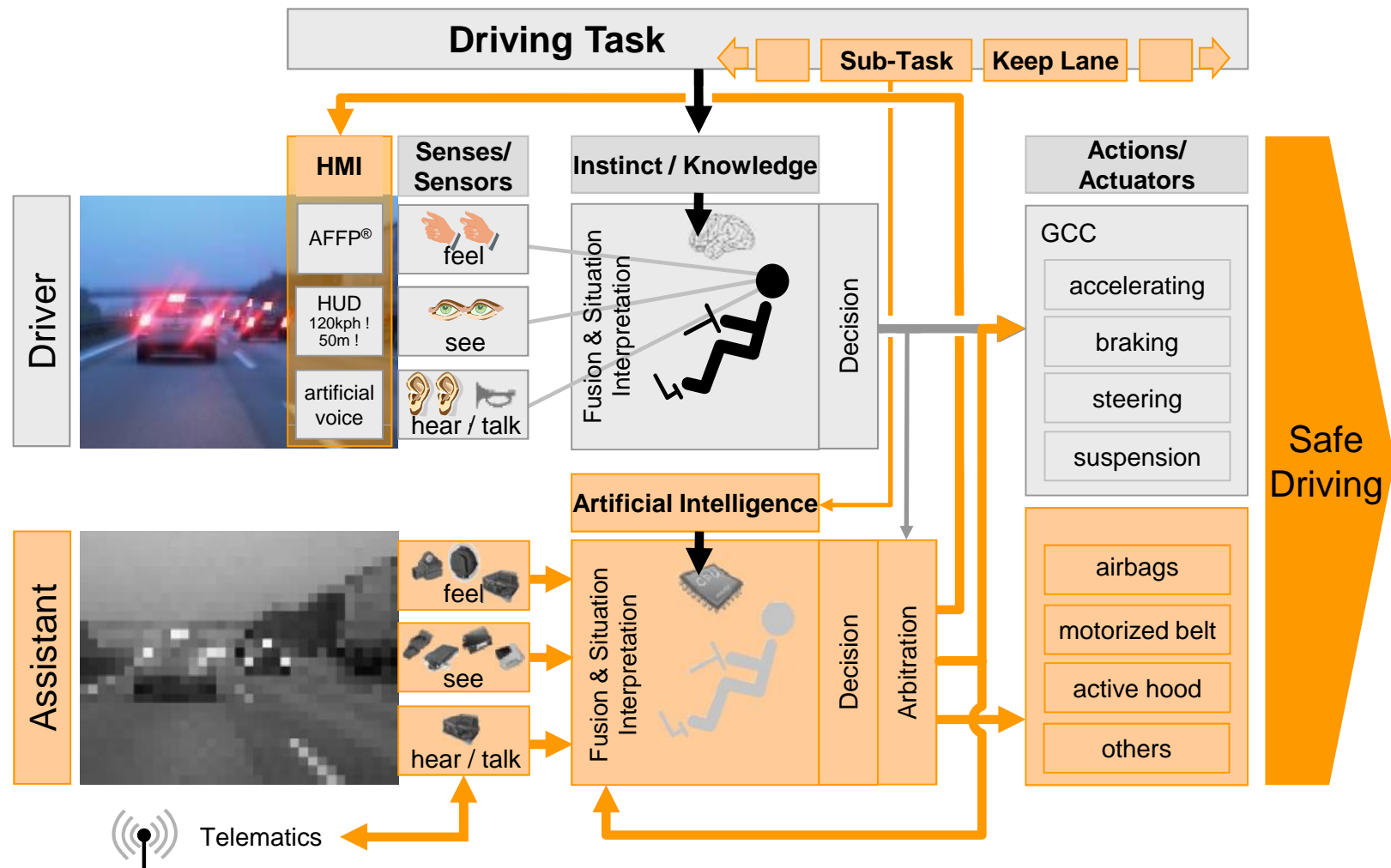
All measures to prevent an accident or to minimize the effects of an accident

All measures to protect the occupants and vulnerable traffic participants against injuries caused by an accident



- ▶ ContiGuard® is Continental's contribution to a traffic without fatalities & serious injuries (Vision Zero)
- ▶ ContiGuard® represents Continental's Integrated Safety System
- ▶ The technology basis is scalable, value for money & cost attractive throughout all functional levels. ContiGuard® strives to provide "Safety for Everyone"

# ContiGuard® – Function Logics



# Active Safety System

## EBA (Emergency Brake Assist)

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VDO of EBA



**Thank you for your attention!**