



ITU, ICT and Road Safety

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Purpose of talk

- ITU and Road Safety?
- What are the areas of interest?
- What is ITU doing?



ITU Council 2010

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23 April 2010
Original: English

RESOLUTION 1318

(adopted at the ninth Plenary Meeting)

ITU's role in ICTs and improving Road Safety

The Council,

considering

- a) that the United Nations (UN) General Assembly adopted a Resolution (A/RES/64/255) on improving global road safety which proclaims the period 2011-2020 as the "Decade of Action for Road Safety;"
- b) that the UN, in collaboration with the World Health Organization (WHO), has previously established the "United Nations Road Safety Collaboration" (UNRSC) to address the increasing trend of road traffic deaths and injuries around the world;
- c) that the UN Secretary-General issued a UNRSC report on "*Improving global road safety*" (A/64/266), which identified nearly 1.3 million road traffic deaths and 20 – 50 million injuries per year, and an estimated \$518 billion in global economic loss from those injuries to Governments and individuals;
- d) that the UNRSC is currently developing a draft action plan for the decade which addresses among its topics road safety management, road-user behavior, and road-safety education;
- e) that driver distraction and road-user behavior, which includes among many examples "texting", "text messaging", interfacing with in-vehicle navigation or communication systems, are among the leading contributors to road traffic fatalities and injuries;
- f) that the successful implementation of this task, including the development of an in-vehicle architecture and Vehicle Gateway Platform (VGP), requires cross-sectoral collaboration within the ITU and among the World Standards Cooperation (WSC) partners;

noting

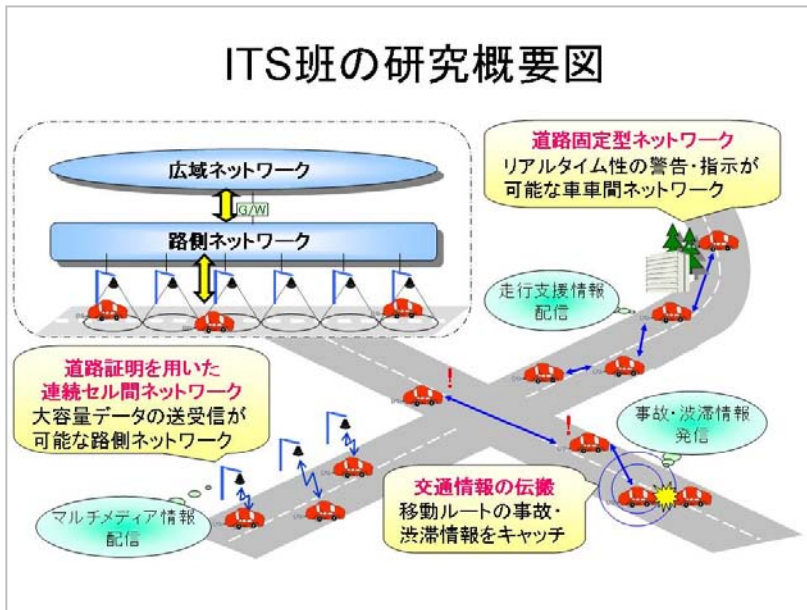
- a) that ICTs, including intelligent transport systems (ITS), provide mechanisms for vehicular and passenger safety;
- b) that the proliferation of integrated in-vehicle ICTs and nomadic devices, including navigational information and electronic data communications devices, may contribute to driver distraction;

• <http://www.itu.int/council> •

- Decade of Action for Road Safety
- Increasing trend of road traffic deaths and injuries, worldwide
- Changing role of ICT in the road traffic environment

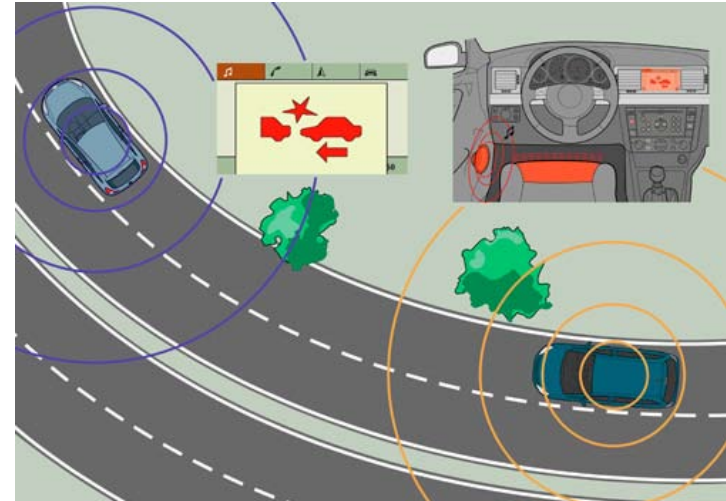
Main Areas of Interest

- Intelligent Transportation Systems (ITS)
- Technology-caused Driver Distraction



Intelligent Transportation Systems

- Making vehicles and infrastructure smarter to
 - Reduce congestion
 - Reduce pollution and fuel consumption
 - ...
 - Increase road safety
- Accident prevention
 - Ad-hoc safety communications
 - Vehicle-to-Vehicle (V2V)
 - Vehicle-to-Infrastructure (V2I)
 - V2X
 - Variable speed limits
 - Traffic enforcement



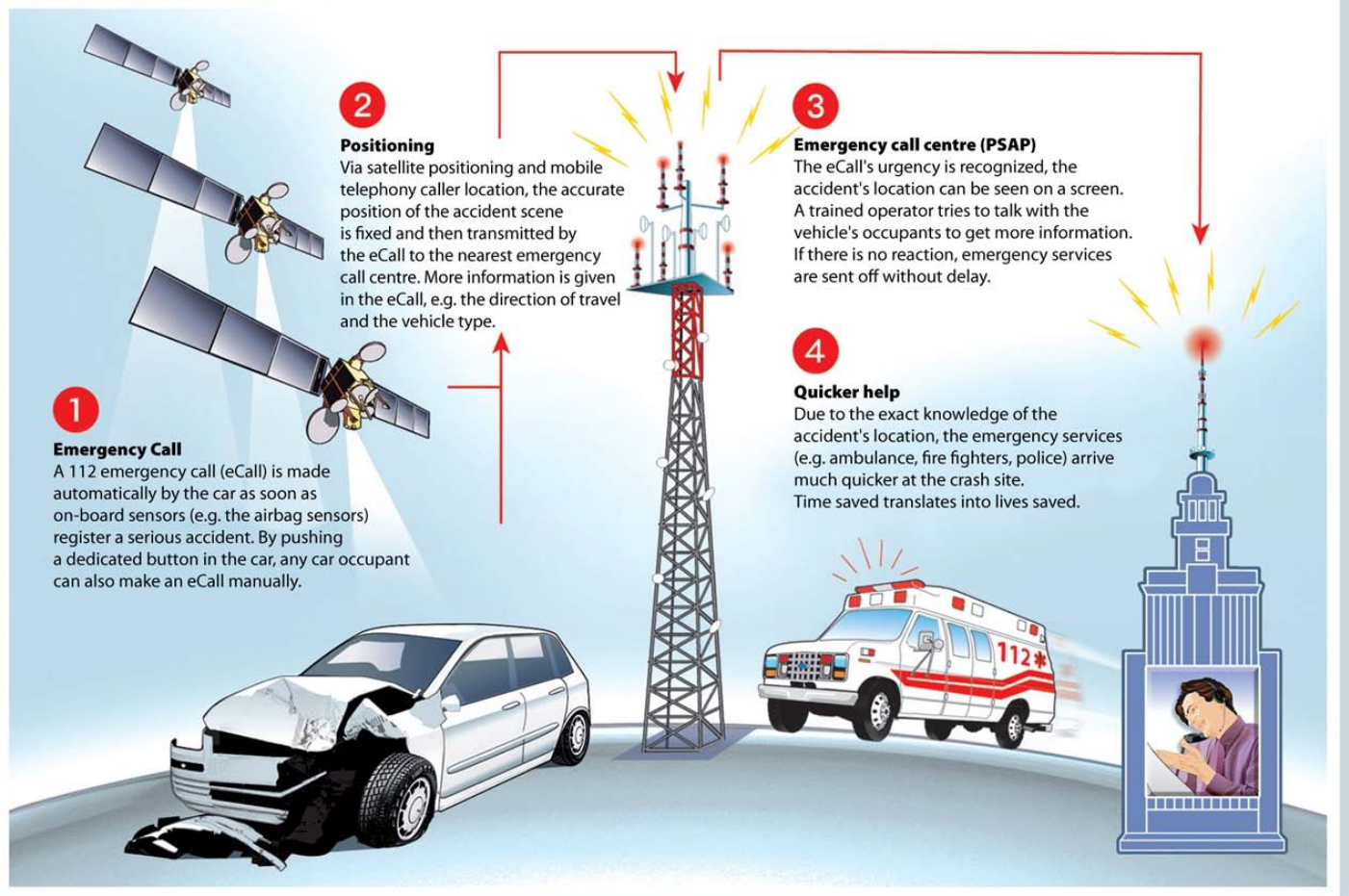
V2V application: Forward Collision Warning (GM)



V2I application: Increasing safety at intersections (Ford)

ITS for Emergency Notification

eCall: The crashed car calls 112!



Source: **ADAC** Infogramm

ITS in ITU

- Radiocommunication Sector (ITU-R):
 - Basis for the functioning of any wireless communication in ITS
 - Enables applications based on services such as the global positioning system (GPS)
 - *Handbook on Land Mobile and ITS*
www.itu.int/pub/R-HDB-49-2006
- Standardization Sector (ITU-T)
 - Standards for vehicle gateway platform for ITS services and applications
 - *ISO / ITU Joint Task Force for ITS Communications*
 - *Related Technology Watch reports*
<http://itu.int/techwatch>

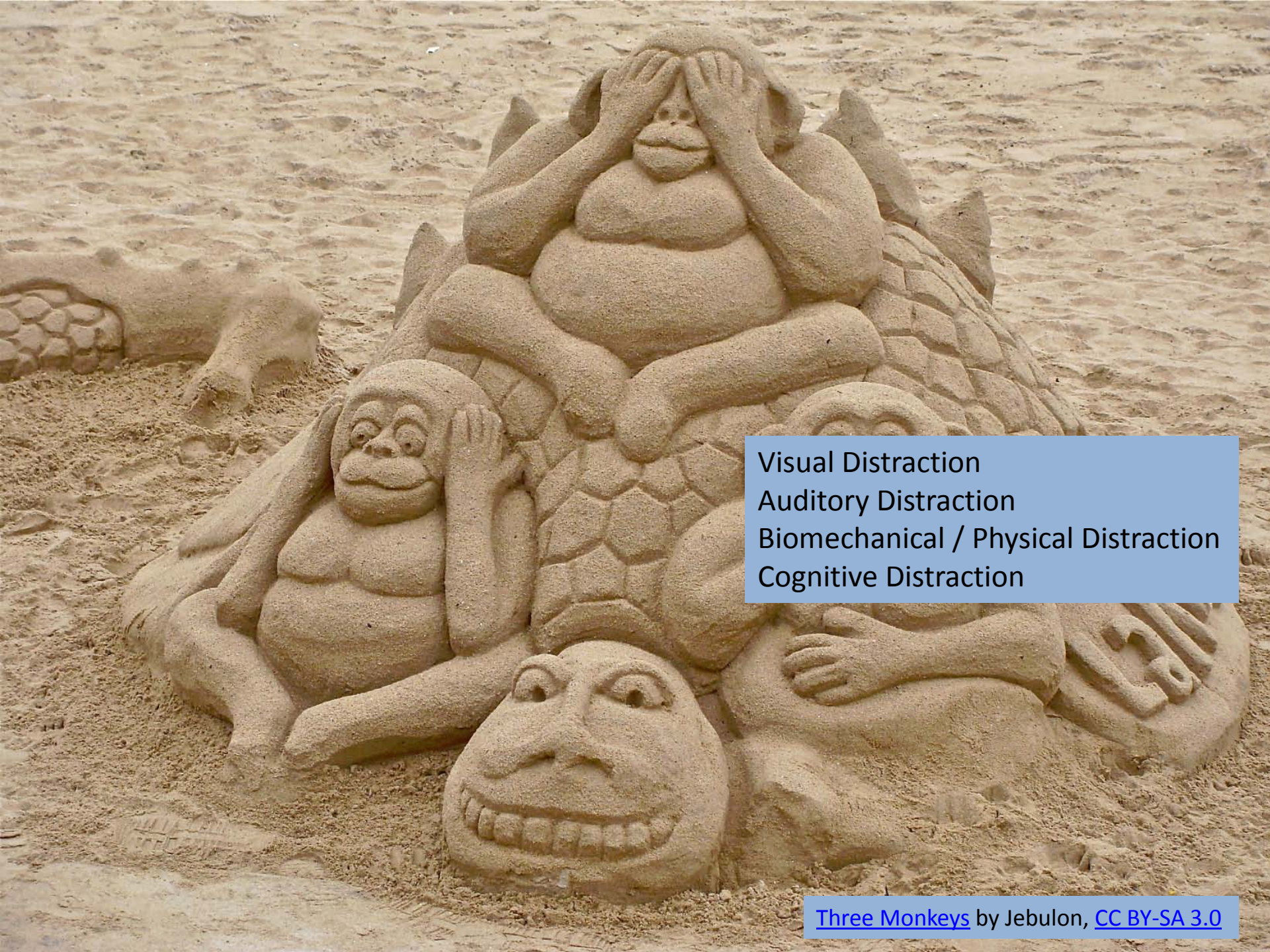


Autonomous Vehicles?



Technology-caused Driver Distraction

- Using a mobile phone while driving increases chances of being involved in a crash by factor of 4
- Similar risk for both, hand-held and hands-free phones
- Other sources of driver distraction
 - Reaching for a moving object while driving increases the risk of a crash or near-crash by 9 times,
 - Looking at an external object while driving by 3.7 times,
 - Reading while driving by 3 times, and
 - Applying makeup while driving by 3 times.



Visual Distraction
Auditory Distraction
Biomechanical / Physical Distraction
Cognitive Distraction

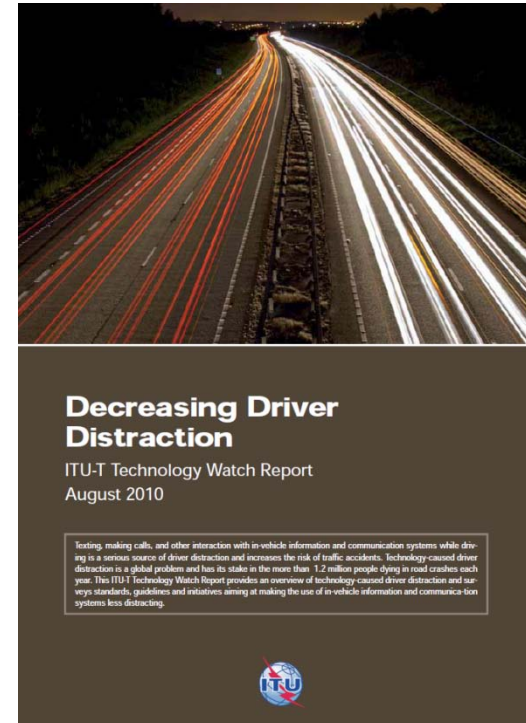
What can be done?

- Distraction-free design of services and devices
- Improved management and seamless integration of nomadic devices in the automotive cockpit
- Technologies to enforce mobile phone use policies
- e.g., MobileSafer
 - Software “App” for mobile phone that eliminates the temptation to text while driving and keeps driver connected via hands-free services
 - <http://zoomsafer.com/products/mobilesafer/>



Focus on Driver Distraction

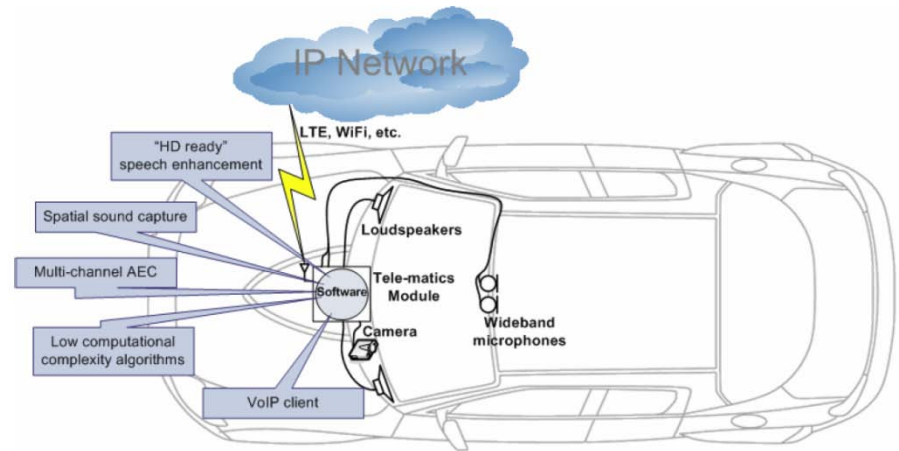
- 1st Meeting: 17-18 May, Ann Arbor, Michigan
- Open to ITU members and non-members
- Expected participation: ICT and automotive industry, governments, R&D
- *For more information, see www.itu.int/en/ITU-T/focusgroups/distraction/*



*ITU-T Technology Watch Report
“Decreasing Driver Distraction”,
www.itu.int/ITU-T/go/ddd*

Focus on Car Communication

- Established in November 2009
- Participation from ICT and automotive industries, R&D (ITU members and non-members)



Scott Pennock (QNX Software Systems): "Using Telepresence to Enhance the Driving Experience" (Presentation at FNC 2011)

- Website:
www.itu.int/en/ITU-T/focusgroups/carcom/

ICT and road safety – work items

- Assess the (positive/negative) impacts of the use of ICT products and services while driving a vehicle
- Develop guidelines and standards for ICT products and services to keep ICT-related driver inattention to a minimum
- Study and ensure the safe interplay of ITS applications and services, personal nomadic devices and innovative driver assistance systems
- Assess and harmonize existing emergency notification solutions



Thank you!

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