

United Nations Partnership Meeting for Road Safety

29 October 2019, 9:30-12:30, Room S-4, Palais des Nations, Geneva



Stefano Polidori

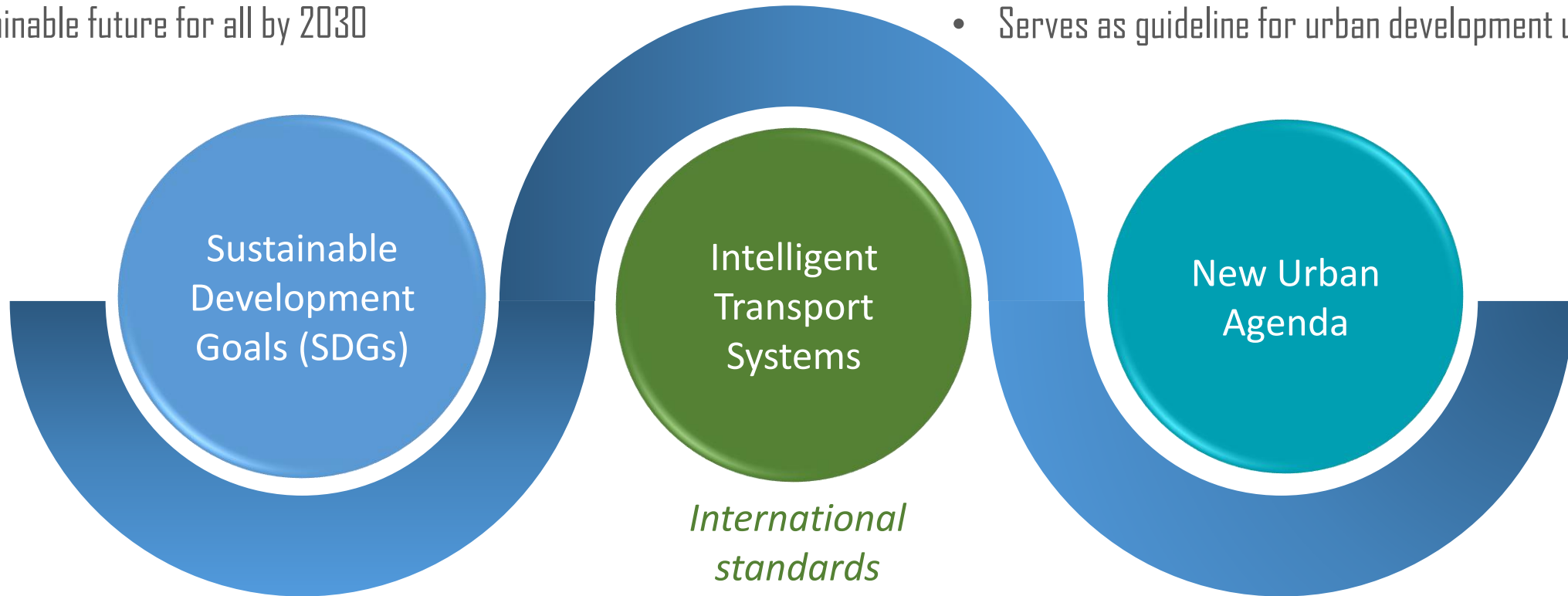
ITU/TSB

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Intelligent Transport Systems (ITS) in the context of United Nations

- 17 goals set by United Nations (2015)
- Serves as “blueprint” and underlying framework for a sustainable future for all by 2030
- Outcome of the bi-decennial United Nations Conference (2016) on Housing and Sustainable Urban Development
- Serves as guideline for urban development until 2036





Role of ITS standards in achieving the SDGs



11 SUSTAINABLE CITIES AND COMMUNITIES

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems and improve road safety by expanding public transport

3 GOOD HEALTH AND WELL-BEING

3.6 By 2020, halve the number of global deaths and injuries caused from road traffic accidents

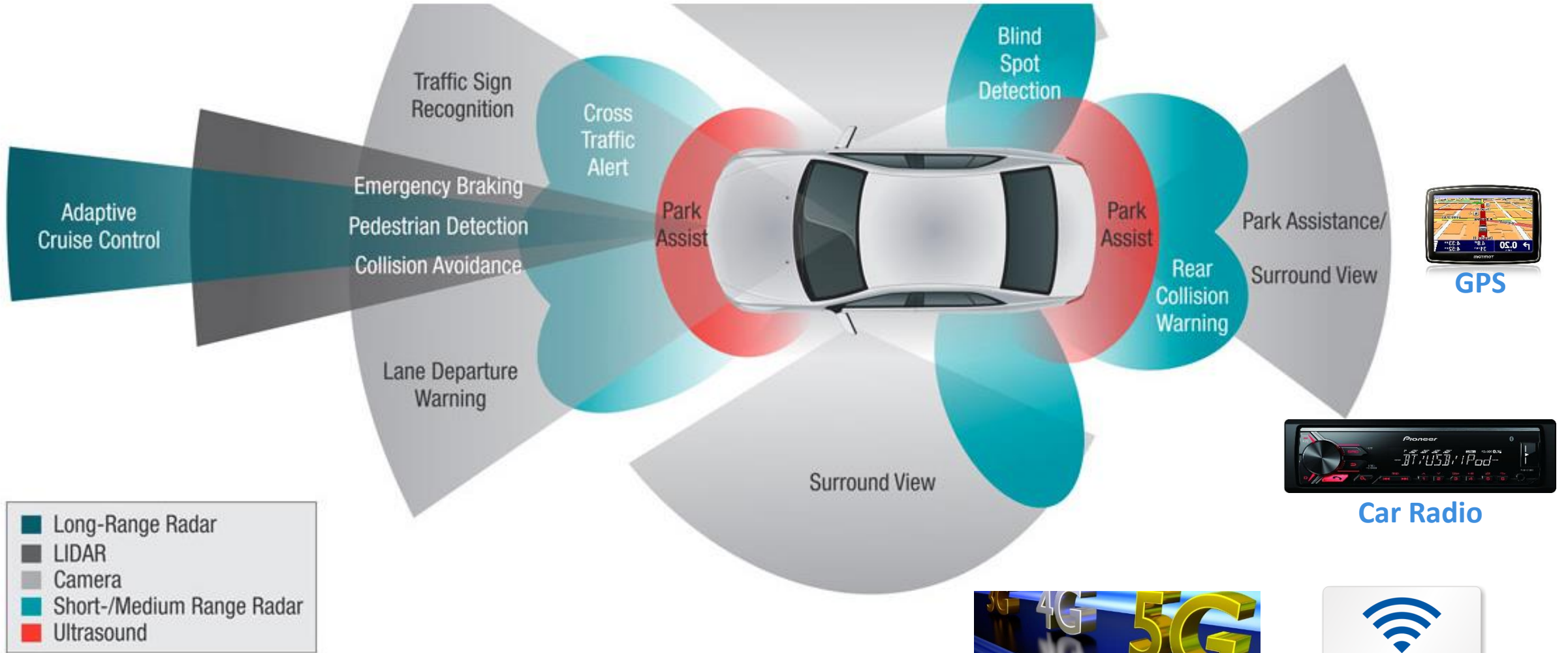
7 AFFORDABLE AND CLEAN ENERGY

7.3 By 2030, double the global rate of improvement in energy efficiency



Setting the standard

ITU allocates spectrum for vehicles (WRC-19)



- Long-Range Radar
- LIDAR
- Camera
- Short-/Medium Range Radar
- Ultrasound

WRC-19 (Sharm el-Sheikh, Egypt, 28/10 – 22/11 2019
AI 1.12 (5.9 GHz for Intelligent Transport Systems))



Mobile communication and Internet access





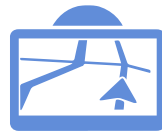
Setting the standard

SG17: ITS security standards including standards to secure over-the-air software updates for vehicles



ITU-T X.1373 (2017-03)

A successful future automated driving car must ensure security and safety through cybersecurity mechanisms and secure over-the-air software updates





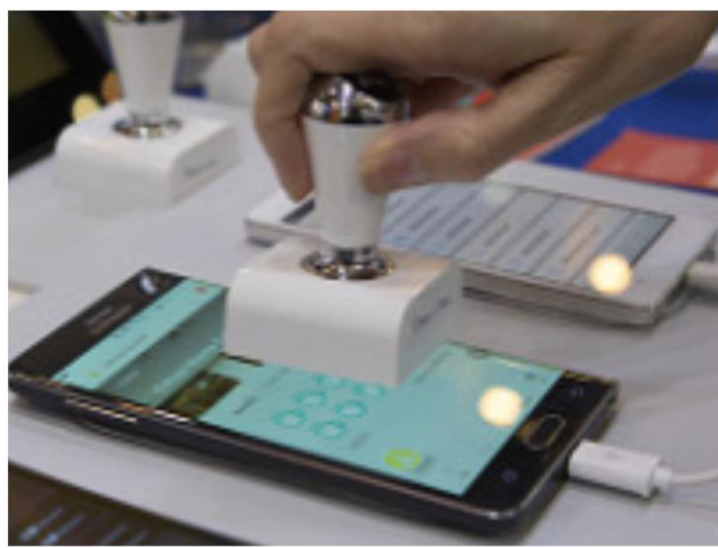
Setting the standard

SG12: ITU standards improve quality of hands-free communication in vehicles

ITU-T P.1100, P.1110, P.1120, P.1130

ITU Telecom World 2017 Busan

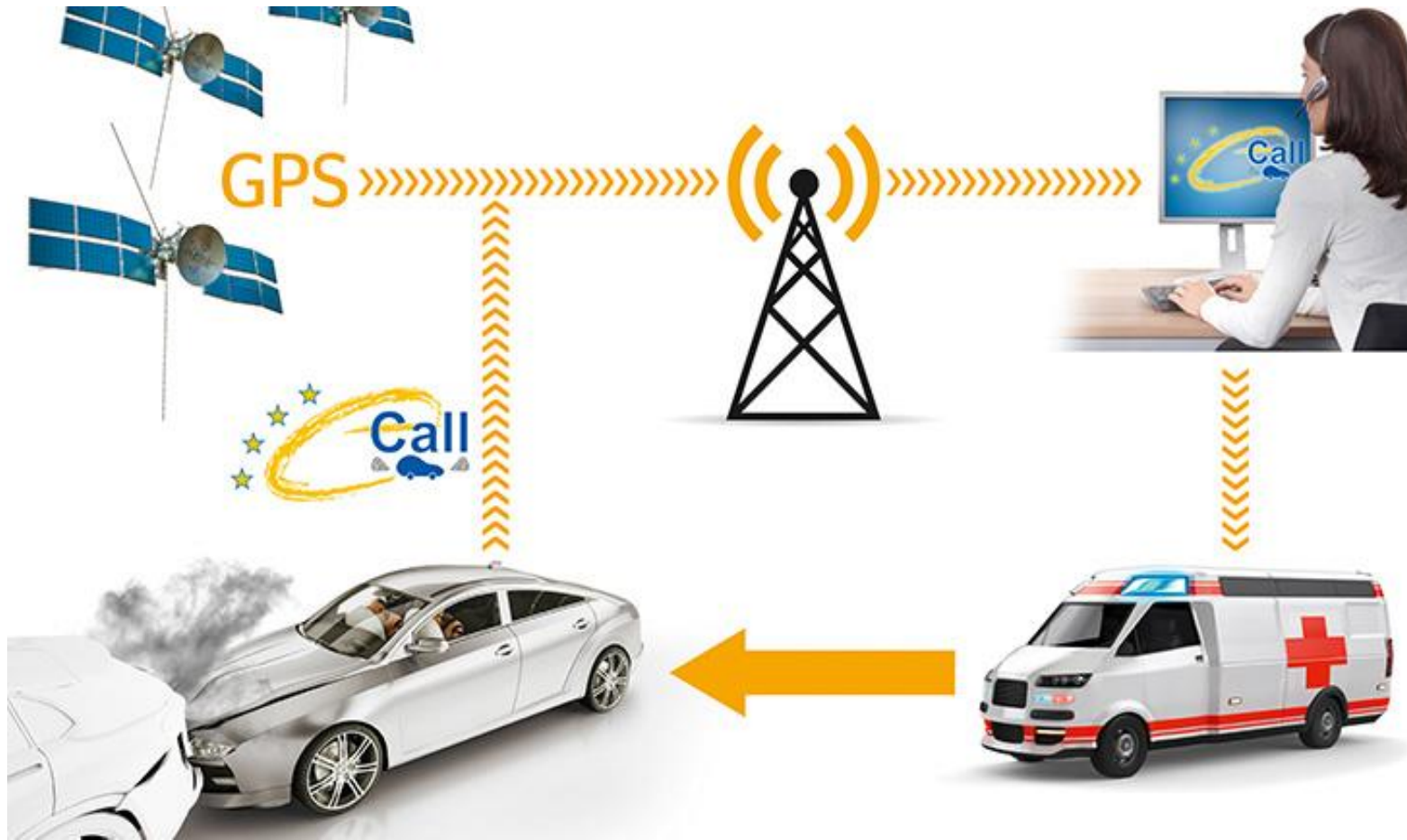
ITU Telecom World 2016 Bangkok



 ITU conducts test events of mobile phones and vehicle hands-free systems



SG12: ITU standards make e-calls intelligible



Source: [Continental](#) - Automatic Emergency Call

ITU-T P.1140: Speech communication requirements for emergency calls originating from vehicles
Referenced in new UN regulation on automatic emergency call system for road traffic accidents (UNECE WP.29)



SG20: Standards for IoT and Smart Cities

Managing data in the connected car

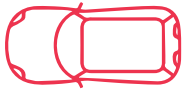
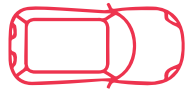
- Today's cars are already connected and smart
- Built-in cameras, radars and lidars can be used for real-time analysis of the vehicle's environment (lots of data)
- Need solutions to processing the data efficiently
- Data transmitted from the infrastructures or from vehicle to vehicle enables both the vehicles and remote systems to manage potential dangers and issue warnings
 - Thanks to these warnings (road accidents, weather changes, faults in the road or blockages) the vehicles will be able to reduce their speed prior to reaching them, **which will increase safety and improve traffic flow**





ITU-T Focus Group on “Vehicular Multimedia” (FG-VM)

- 4th screen after *TV, PC & Mobile Phone*
- 3rd infotainment space after *home, office*
- → *vehicle infotainment standards*





ITU-T Focus Group on “AI for autonomous and assisted driving” (FG-AI4AD)

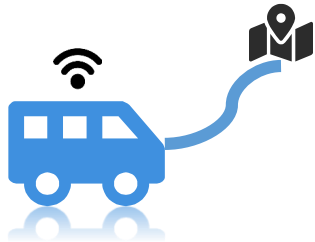
To build public trust on autonomous vehicles it is fundamental that:

- *AI never engages in careless, dangerous or reckless driving behaviour*
- *AI remains aware, willing and able to avoid collisions at all times*
- *AI meets, or exceeds, the performance of a competent and careful human driver*

Aim of FG-AI4AD:

- Identify minimal universally accepted expectations for driver behaviour
 - *Define a minimal performance threshold for the AI*
 - *Assess the behavioral evaluation of the AI*
 - *Support a continuous monitoring of the behavior of the AI*

<https://itu.int/go/fgai4ad>





Setting the standard

Opportunities for Collaboration

Collaboration on ITS Communication Standards (CITS)

- SDOs platform to share information on ITS standards
- **Global online free ITS communication Standards DB** ^{new}
- <http://itu.int/go/ITScomms> (join our mailing list!)



for more info contact Stefano POLIDORI at: tsbcits@itu.int

Future Networked Car Symposium

7 March 2019

Geneva, Switzerland

Geneva International
Motor Show

Next planned on
5 March 2020 !

<https://www.itu.int/en/fnc/2019>
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