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TEORESI GROUP

WORKSHOP ON TYPE-APPROVAL REQUIREMENTS FOR MOTOR VEHICLE

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IS IT STILL POSSIBLE TO THINK OF SEPARATE TRANSPORT SYSTEMS?

INDEPENDENT

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News > World > Europe

Italy train crash: At least two dead after train hits lorry and derails near Turin

Rail officials say lorry smashed through barriers at level crossing, causing three train carriages to derail

Independent Staff , Agencies | Thursday 24 May 2018 06:03 |
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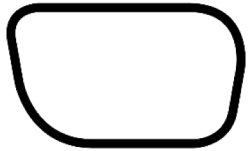
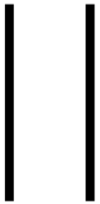
VEHICLE MARKETS

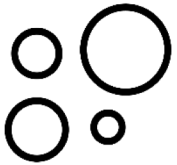


Automotive

Tractors



Railway



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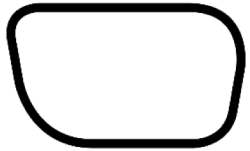
WHICH ARE THE MAIN SAFETY STANDARDS IN TRANSPORT SYSTEMS?

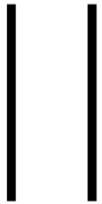


Automotive

ISO 26262

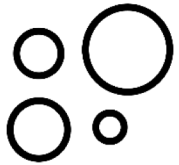
Tractors

ISO 25119



Railway

EN 50128



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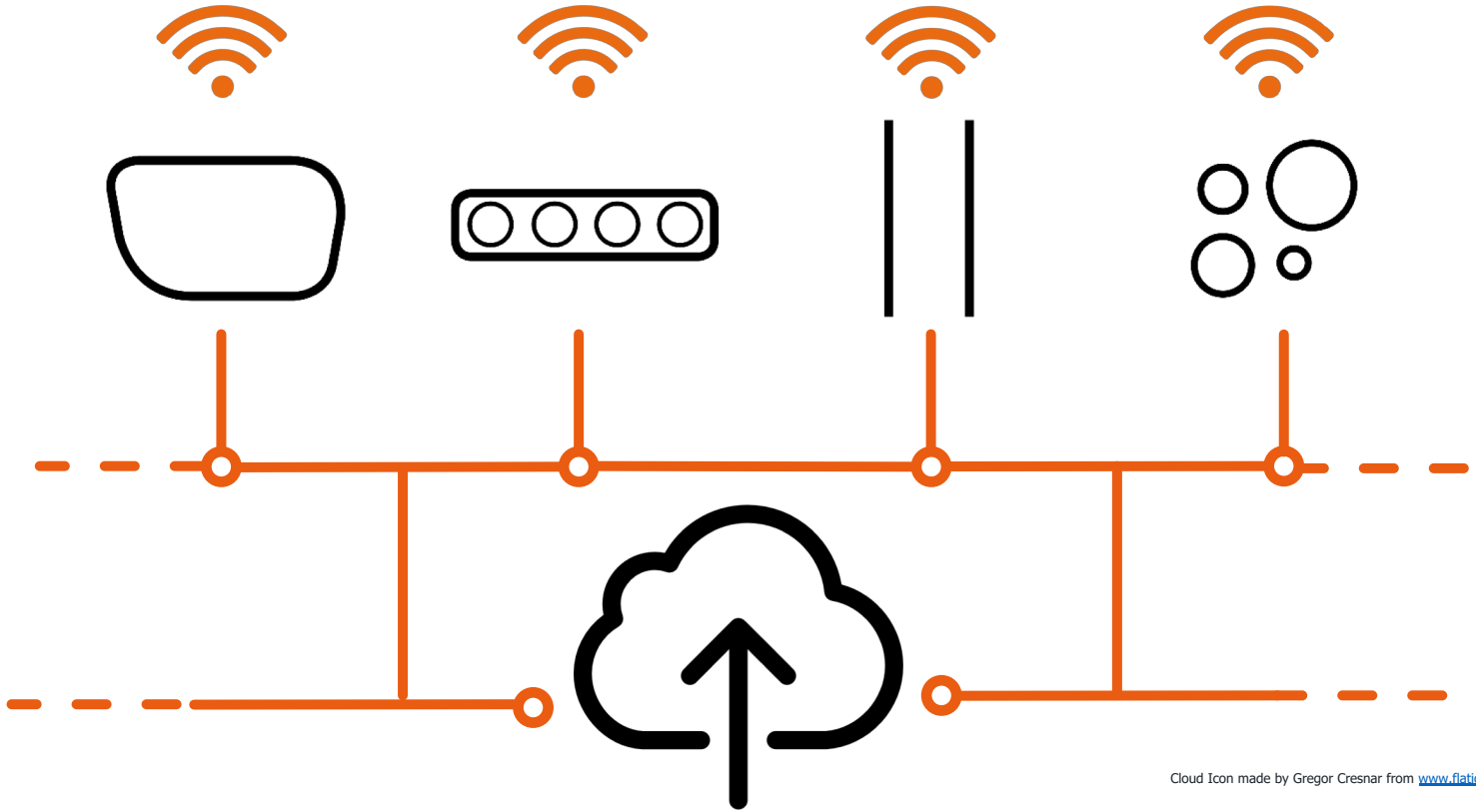
DO 178

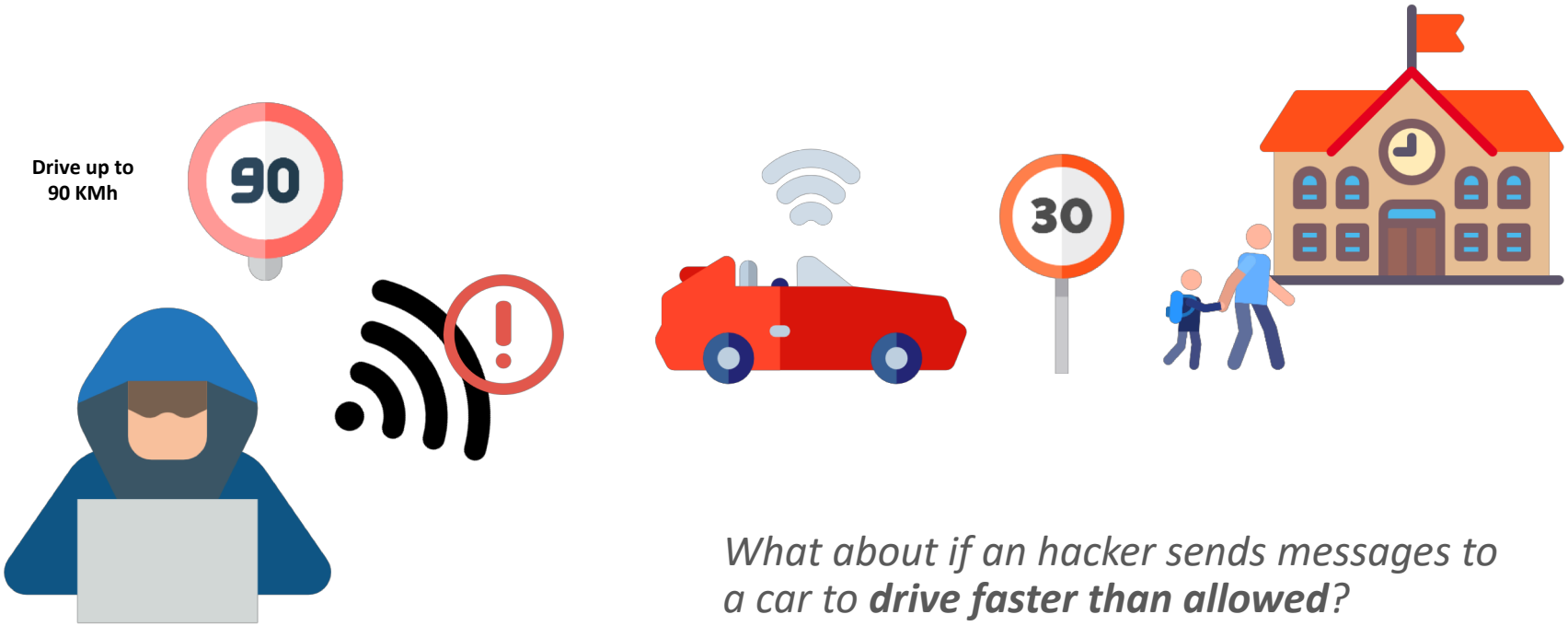
WHAT HAPPENS WHEN TRANSPORT SYSTEMS BECOME CONNECTED AND SMART?



Cloud Icon made by Gregor Cresnar from www.flaticon.com

*What implications do **connected vehicles** and **assisted driving systems** have for **safety**?*

DYNAMIC ISA (INTELLIGENT SPEED ASSISTANCE) SYSTEM



*What about if an hacker sends messages to a car to **drive faster than allowed**?*

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AUTONOMOUS ENERGY BREAKING SYSTEM

Activate Randomly the AEM

*What about if an hacker sends a car attack to **activate the AEB**, or upgrades OTA system to activate randomly the AEM?*

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AVOIDING SECURITY PROBLEM?

Not possible!

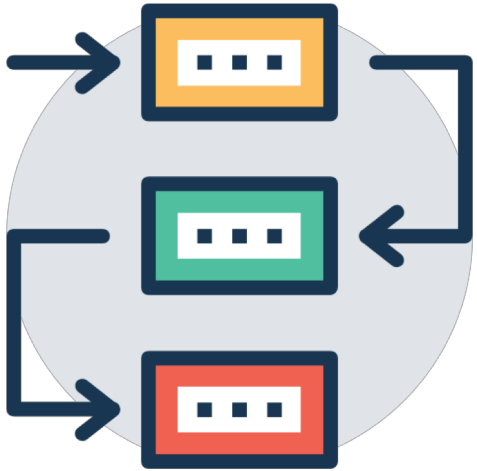
Mitigating the issue → **Countermeasure**

SAFE BY DESIGN

Best Practices are not enough

Time to Market and **Cost reduction** may reduce attention to safety requirements

Approving regulations for devices and systems for the provision of services that meet the minimum security requirements implemented through different technologies at different levels.



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BEST PRACTICE VS TYPE-APPROVAL

What are the type-approval for:

- On Board Unit & Telematic Box
- Cloud Service
- Transmission Data
- OTA firmware upgrade

Technologies and methodologies:

CYBER SECURITY

Crossmarket **critical issue**

All vehicles markets are potentially threatened by **cyber attacks**

Going to a **common strategy**:

- Directive on security of network and information system
- https://ec.europa.eu/digital-single-market/en/network-and-information-security-nis-directive

ABOUT TEORESI

TEORESI, founded in Turin in 1987, is nowadays an international Group, with offices in Europe and United States, who acts as a qualified partner to foster customers' product and process development. Backed up by a global expertise in engineering, Teoresi supports its customers by providing design, development and technology consulting services, with particular attention to innovation in every project challenge. Teoresi offering covers different industries such as: Aerospace and Defense, Automotive, Industrial, Railway, TLC & Media, Energy, Bioengineering, Financial Services, Public sector and University, HW & SW services, Home Appliances.

As regards smart mobility topic, these are some of R&D projects developed by Teoresi:

ADAS light Wheelchair

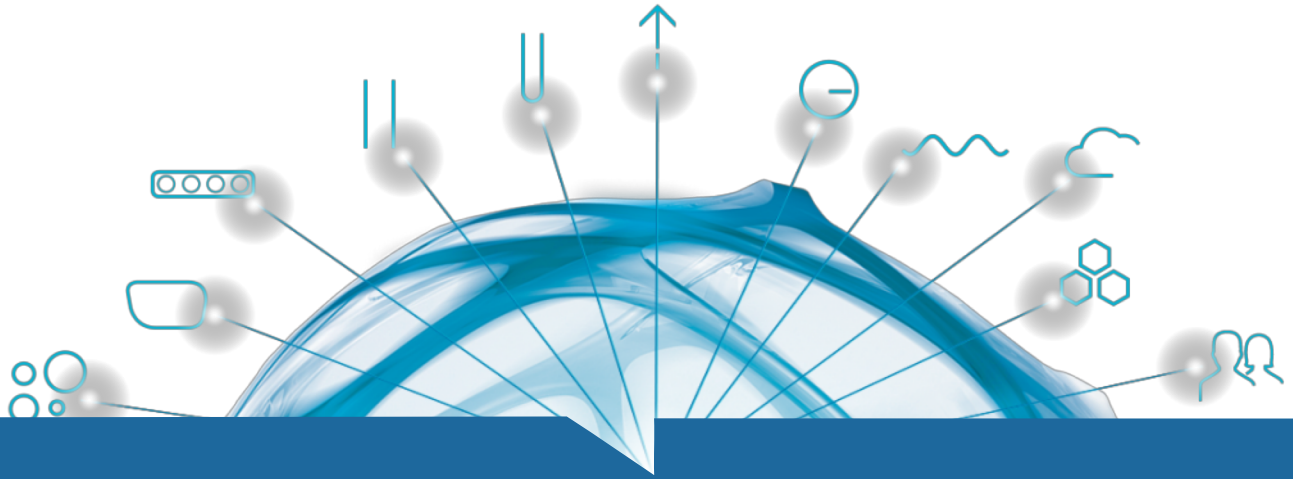
Railway signalling over traditional GSM network

Automotive Security Operation Center

Drone traffic control

5G and V2X use cases for smart mobility. Teoresi is open to make available results and knowledge about projects ongoing with Turin local government to test and validate technologies and best practices.

www.teoresigroup.com



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