



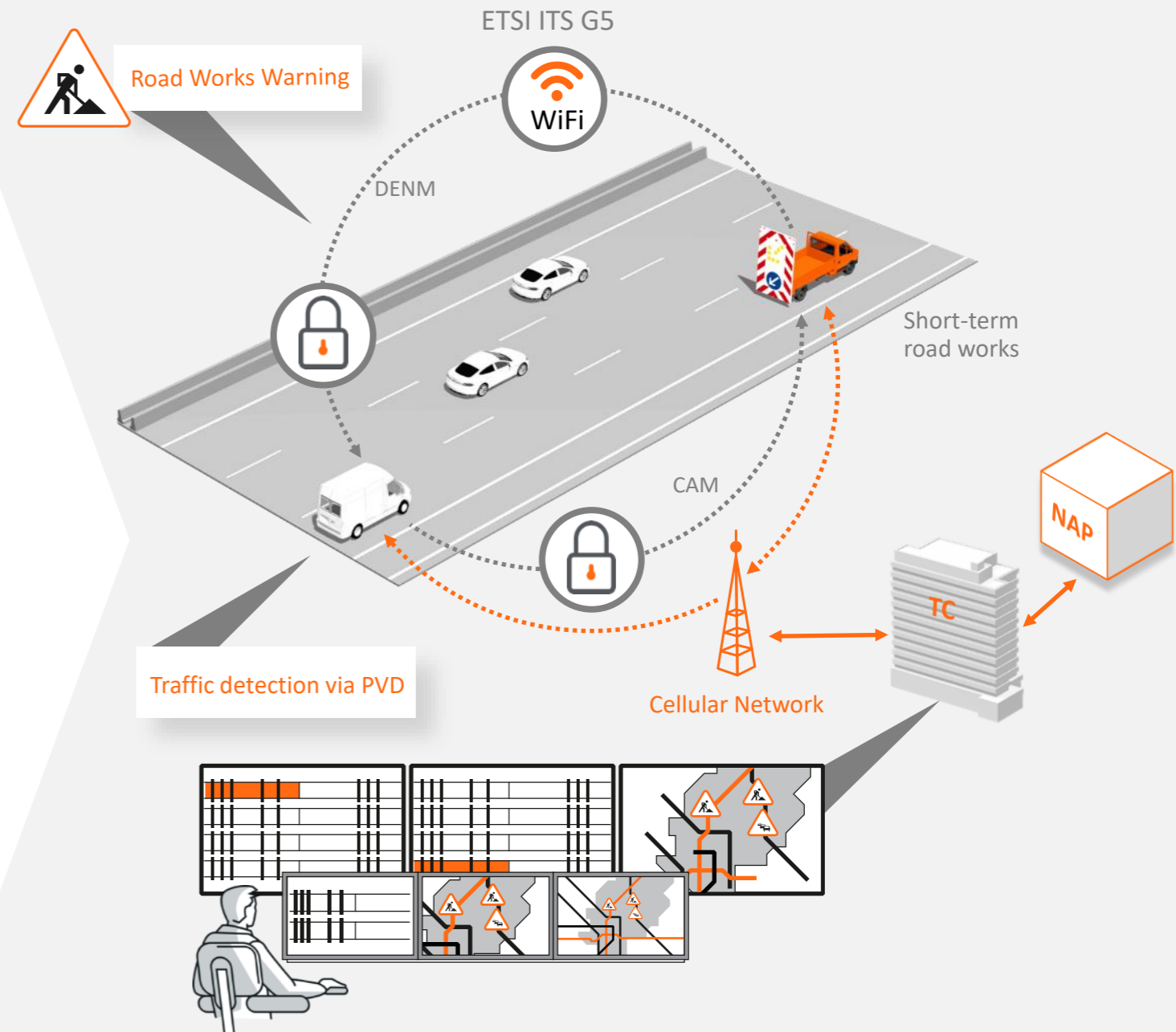
# C2I Communication

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Connectivity for the car of the future symposium  
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## First step towards connectivity between infrastructure and cars

- Mobile safety trailers at short-term roadworks are equipped with a combined application and communication unit for vehicle-infrastructure communication, so called ITS Roadside units, via ETSI ITS G5.
- Vehicles approaching short-term roadworks are warned or informed directly by information via in-vehicle display systems.
- The exact position of the safety trailer is also transmitted to the traffic centre (TC) via an integrated GPS unit, in order to be able to react more quickly in the event of traffic jams, for example.
- Hybrid communication approach: Information is also made available to third parties/other service providers via Cellular Communication and the national access point (NAP).
- Vehicles send their status to our IRS for better possibilities in traffic management.



Let's use today's technologies to build the connectivity of the future!

Virtualisation of roadside infrastructure



Bring dynamic data from the road directly into cars



**Today:**  
via ETSI ITS G5 (short range)  
and cellular (long range)  
communication

We need to think about...

New **stakeholders**

Interoperability

IT Security

Adaption of **operational** as well as  
**standardisation and harmonisation**  
processes and data.

Data privacy

Legal basis

New services require new approaches!

What is still to come?



New message types



Functional safety



HD Maps



Car as a sensor



NTN

For exchanging highly dynamic  
information between  
infrastructure and vehicles



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