



European
Commission

Tachograph Forum

Meeting 28 November 2016

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Agenda (main points)

- **Smart tachograph (EC)**
 - Smart tachograph and Galileo network
 - Security
 - Implementation milestones
- **Enforcement (ECR, CORTE)**

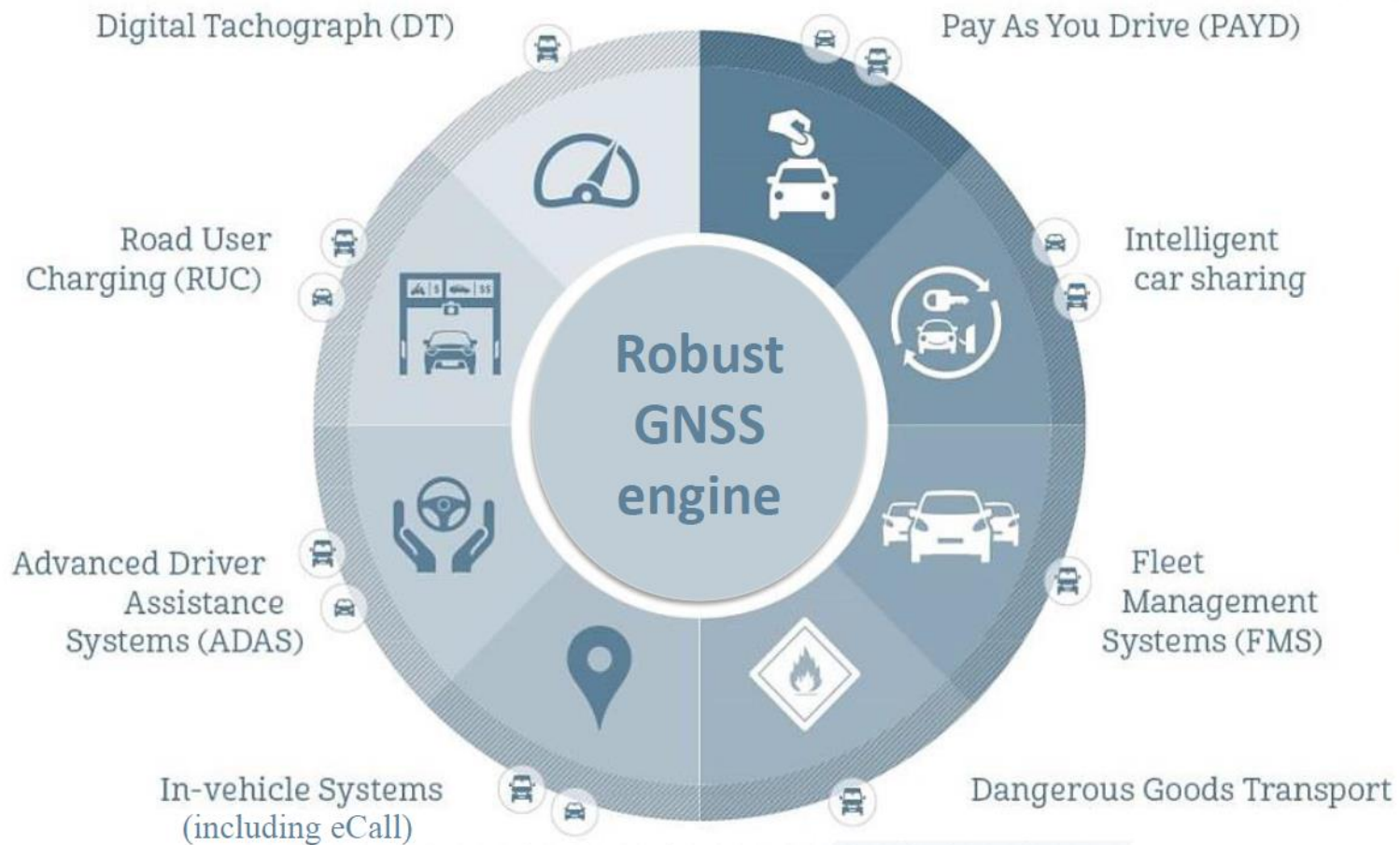


Smart tachograph

- **Adopted by Regulation 165/2014**
- **In all new vehicles registered as from 15 June 2019**
- **GNSS module**
 - ✚ Automatic recording of the location of the vehicle (cabotage)
 - ✚ Second motion sensor
- **DSRC module for communication tachograph - control officers**
- **New cryptography**
- **Enhanced seal**

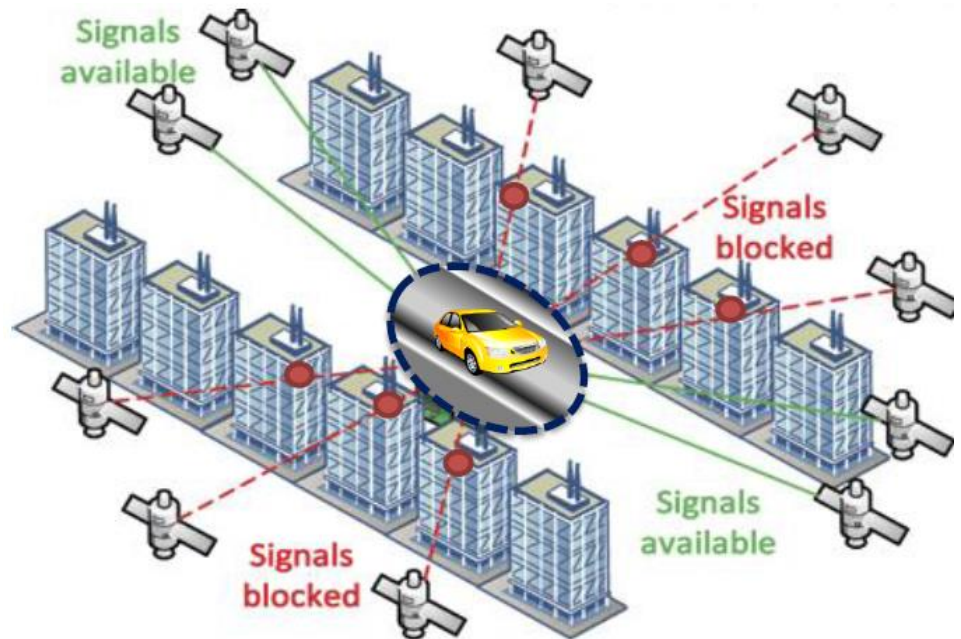


OUR VISION: A ROBUST GNSS CAN ACT AS A SINGLE LOCATION “ENGINE” FOR MULTIPLE ROAD APPLICATIONS





✓ Multi-constellation:
When buildings block the signal and reduce the number of visible satellites, the availability of more constellations ensures a **much more accurate final position**



Automotive chipset suppliers leaders support Galileo





GALILEO UNIQUE DIFFERENTIATOR: SIGNAL AUTHENTICATION

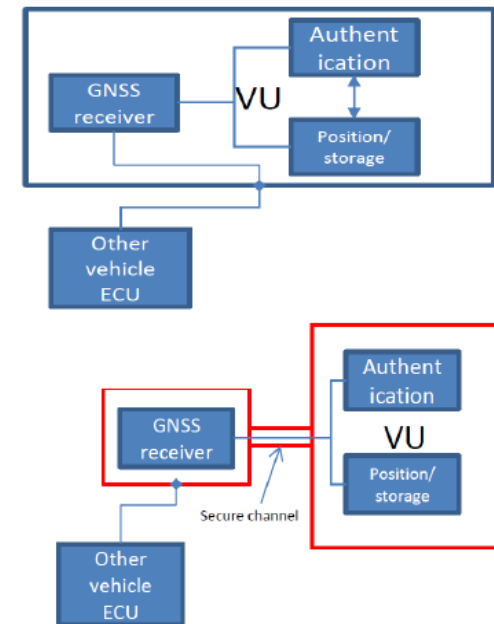


- **Security** is a **major concern** in the Smart Tachograph
- Galileo provides an **efficient, resilient** and **low-cost solution** against jamming or spoofing attacks

Authentication

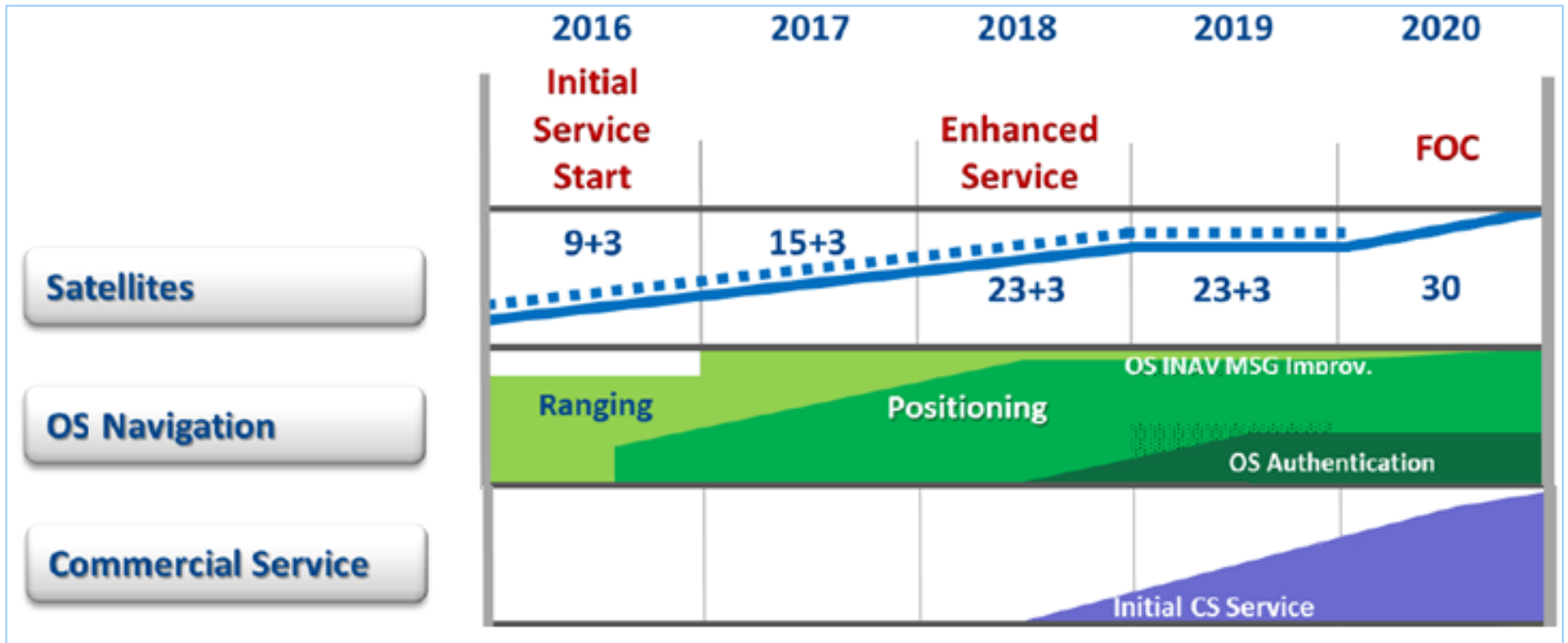
- Ability of the system to guarantee to the users that they are utilizing signals from the Galileo satellites and not from any other source

vs.



Authentication of Galileo signals in the Open Service looks **more convenient for the industry** than the signal encryption between GNSS receiver and VU

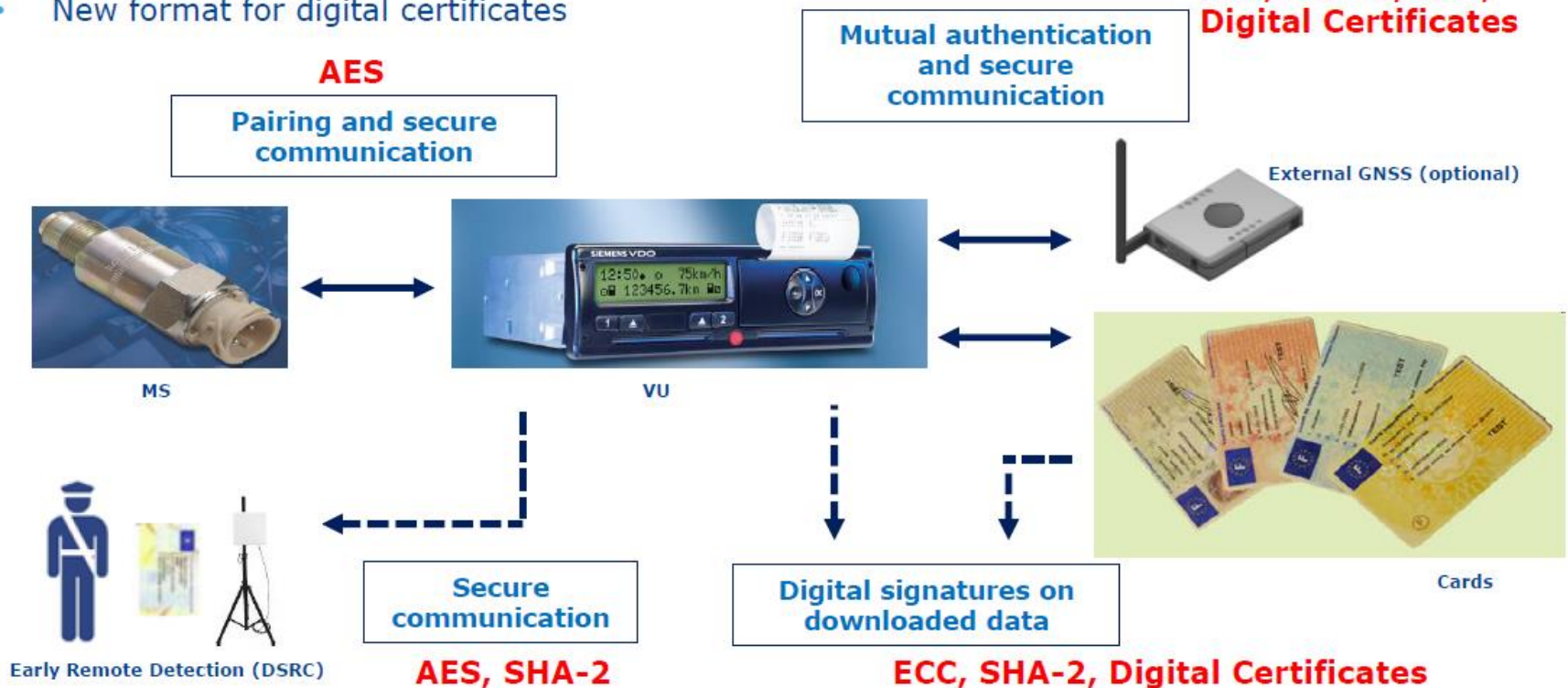
GNSS



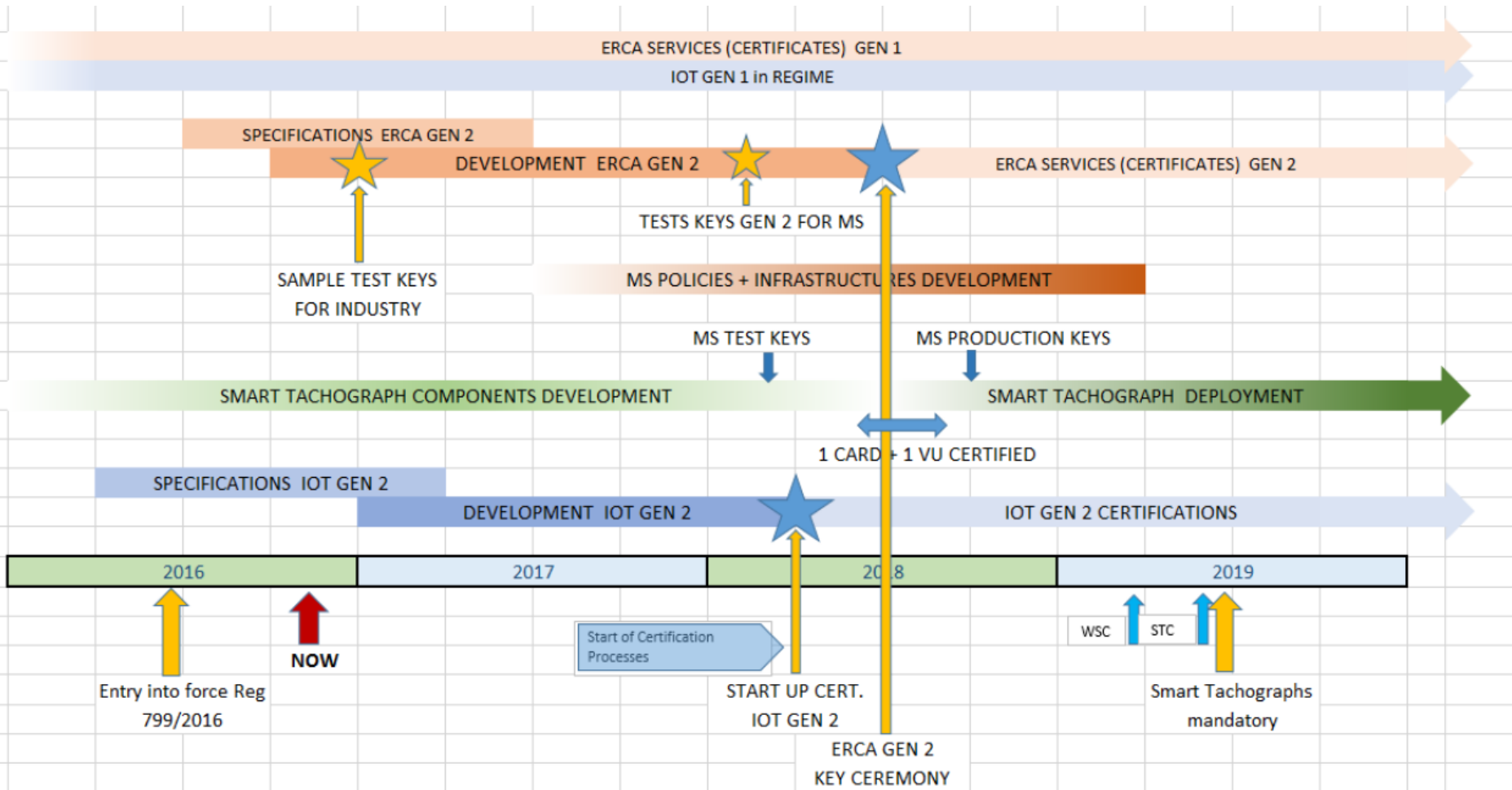
New Cryptographic Algorithms **NEW**

- Cryptographic algorithms to secure the communication links completely renewed
- Public key cryptography → Elliptic Curve Cryptography (ECC), Symmetric-key cryptography → AES, Hash → SHA-2
- New format for digital certificates

**ECC, SHA-2, AES,
Digital Certificates**



Timeline



Enforcement

- **Detection of tachograph manipulation has risen from 5 to 10% of the total of breaches to Reg 561/2006**
- **More and more sophisticated**
- **Tachograph tampering is beneficial**
- **Request for software type-approval**
- **Tachograph should remain an enforcement tool**

More info



<http://ec.europa.eu/transparency/regexpert/index.cfm>

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This Register was set up by the Commission to ensure transparency on expert groups assisting the Commission in relation to:

- the preparation of legislative proposals and policy initiatives;
- the implementation of EU legislation, programmes and policies, including coordination and cooperation with EU Member States and stakeholders in that regard;
- where necessary, the early preparation of implementing acts, before submission to the committee in accordance with Regulation (EU) N°182/2011.

The Register lists both Commission expert groups and other similar entities, i.e. consultative entities set up by the Union legislator and not by the Commission, which have a similar or identical role to that of Commission expert groups and are administered and financially managed by the Commission.

For each expert group, the Register provides valuable information including on the Commission department which is running the group, as well as on its members, its mission and tasks. The Register also includes relevant documents which are produced and discussed by the groups.

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Expert groups explained

Code	Name
E03379	Tachograph Forum

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Group Details

Name: tachograph forum

Additional Information

Activity Report:

Document: 20161117_Smooth_implementation_of_the_SMART-TACHOGRAPHS_TACHO_FORUM(1).pdf

Activity Report:

Document: DGMOVE-Presentation tachograph forum 28 November.pdf

Activity Report:

Agenda and presentation documents concerning technical aspects of the tachograph forum meeting - 28...

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Details Additional Information Subgroups Statistics Members

Name: Tachograph Forum (E03379) Active

Policy Area: Transport

Lead DG: MOVE - DG Mobility and Transport

Associated DG: EMPL - DG Employment, Social Affairs and Inclusion
GROW - DG Internal Market, Industry, Entrepreneurship and SMEs
CNECT - DG Communications Networks, Content and Technology
JRC - Joint Research Centre

Type: Informal, Permanent

Scope: Limited

Mission: Support of dialogue on technical matters concerning the tachograph as defined in Regulation (EU) No 165/2014 on tachographs in road transport

Task: Assist the Commission in relation to the implementation of existing Union legislation, programmes and policies
Coordinate with Member States, exchange of views

Contact: MOVE-TACHOGRAPH-FORUM@ec.europa.eu

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Thank you