25TH ITS WORLD CONGRESS
COPENHAGEN
17 – 21 SEPTEMBER 2018
Quality of life

ENSEMBLE

Cooperative Connected and Automated Mobility

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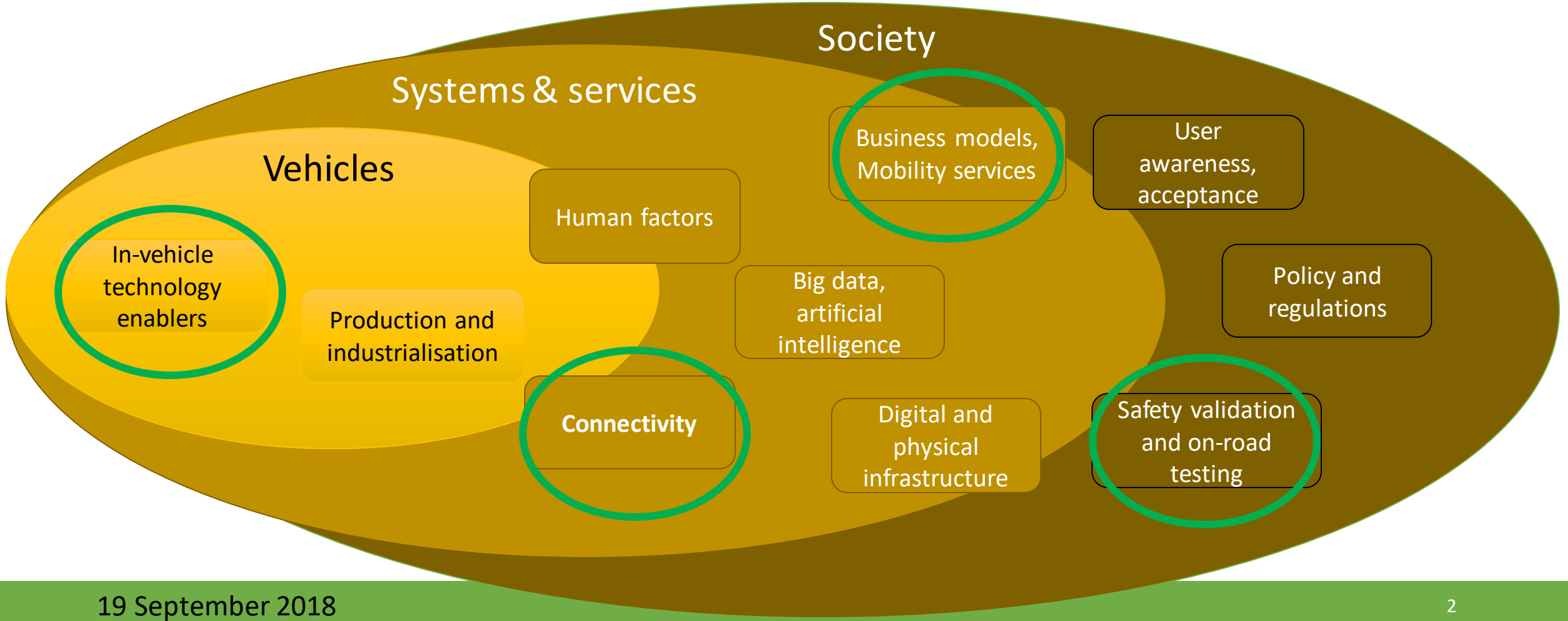
KEY CHALLENGES TOWARDS DEPLOYMENT



TRENDS AND DEVELOPMENTS AD

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Passenger Car Automation – high volumes

- Strong focus on Single Vehicle Automation (SAE level 4)
- Business case based on comfort and safety

Commercial Vehicle Automation – low volumes

- Focus on both Single and Multi Vehicle Automation
- Business case based on cost-efficiency, comfort and safety

OBJECTIVES OF ENSEMBLE

- Jointly agreed specifications of the multi brand truck platooning concept,
- To align and work on standardization
- To demonstrate 7 differently branded trucks in one platoon
- Under real world traffic conditions and across national borders.
- To assess impacts on traffic safety, throughput and fuel economy.

In this way we:
contribute to the **acceptance** and **deployment**
of multi-brand truck platooning in Europe

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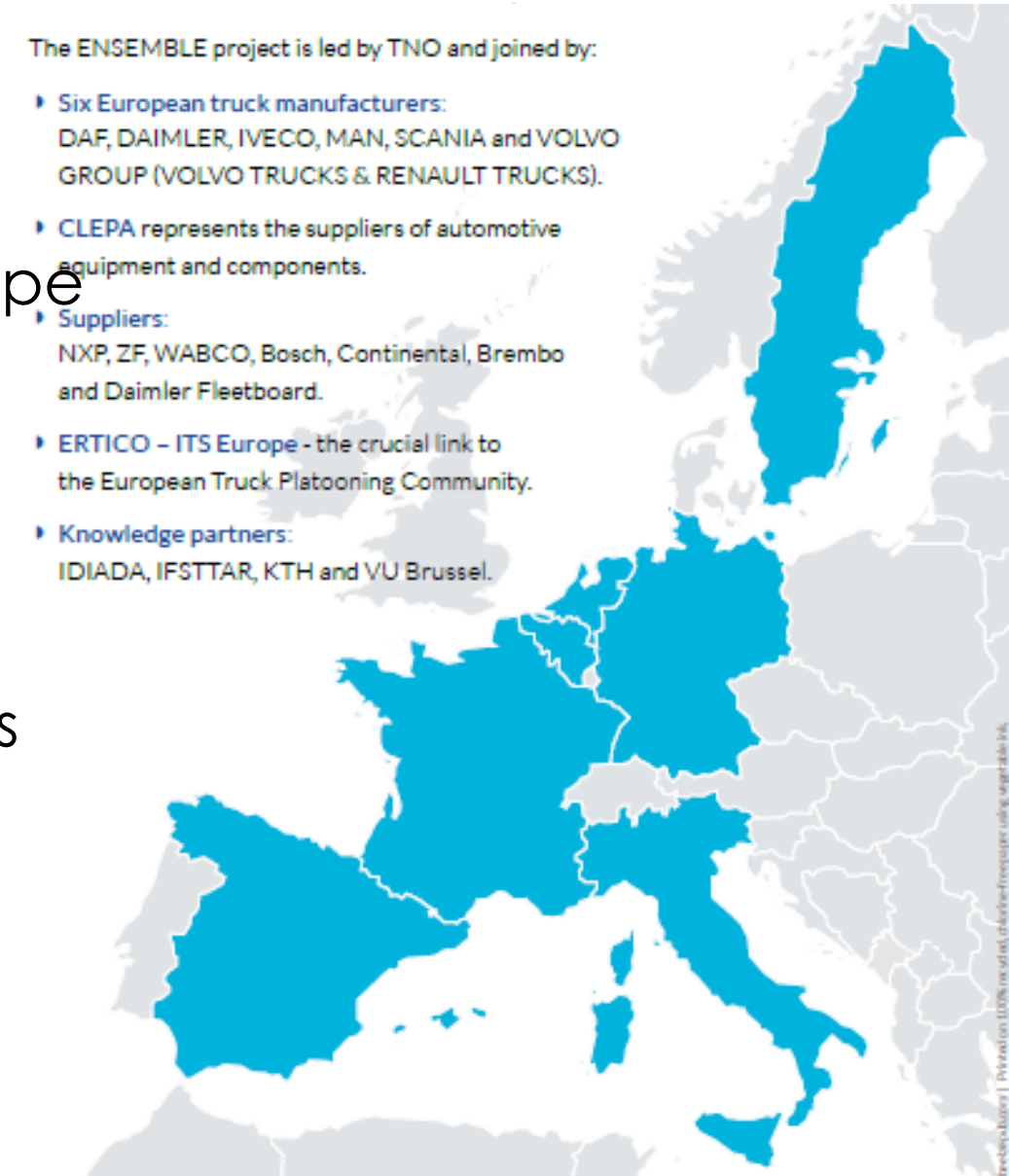
THE FACTS

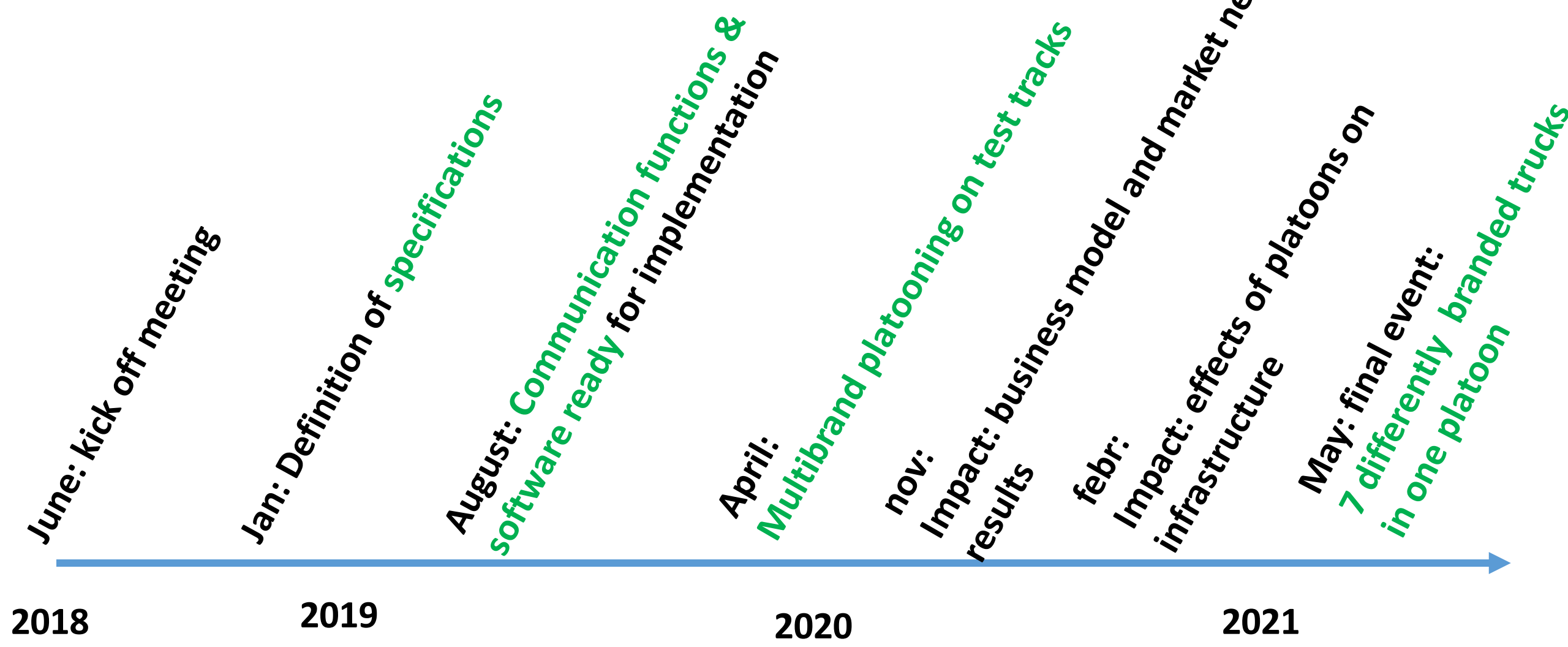
- ENabling SafE Multi-Brand Platooning for Europe
- Innovation Action number 769115
- 3 year EU project, started June 1st 2018
- 20 million euro funding EC
- 20 partners, including 6 truck manufacturers and CLEPA representing automotive suppliers

The ENSEMBLE project is led by TNO and joined by:

- Six European truck manufacturers:
  DAF, DAIMLER, IVECO, MAN, SCANIA and VOLVO GROUP (VOLVO TRUCKS & RENAULT TRUCKS).
- CLEPA represents the suppliers of automotive equipment and components.
- Suppliers:
  NXP, ZF, WABCO, Bosch, Continental, Brembo and Daimler Fleetboard.
- ERTICO – ITS Europe - the crucial link to the European Truck Platooning Community.
- Knowledge partners:
  IDIADA, IFSTTAR, KTH and VU Brussel.



MAIN DATES ENSEMBLE



WHERE ARE WE NOW?

- State of the art finished by end of September
- Cooperate to come to jointly agreed specifications (end of 2018)

- Related to the platooning levels A, B, C
- A = minimum requirements

  E.g. no lateral control, following distance minimum of 0,8 s, disengage platoon or not with with intruder
- Level B and C will be jointly agreed on, but not demonstrated in the final demo.

- Results will be in public deliverables since we aim for standardization and broad implementation

WHAT WILL BE THE FOCUS NEXT YEAR?

- Design and implementation of a platooning system according to the specifications of WP2
- Develop the common functionality that is required for multi-brand platooning:
  platoon coordinator functionality
- V2X communication aspects
- Set up of test plan
- Licence exemptions
- Market analysis and business models

- Arrange for official cooperation/twinning with US

THE NEAR AND THE FULL POTENTIAL

Action → reaction

V2x enabled

vs. **Intention → *coordinated***

- **Autonomous** vehicles focus on own (sensor) information to take action
- The **full potential of automated driving** can only be achieved using: ***connected* automated technology**

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Thank you for your attention

www.platooningensemble.eu

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