ITS Standards: Key enabling technologies A webinar/series about C-ITS

Introductions – Standards for C-ITS in general

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Smarter, safer and sustainable transport









Clusters and standards (1)

SAMS Norway and ITS Norway are setting up a series of technical webinars about the coming C-ITS technologies and standards.

In general:

- Industrialization requires open markets
- Open markets requires standardized products and services
- Standardized products and services requires formal standardization processes
- Formal processes requires rules, volunteers, cooperation between all actors and trades.
- There is a need for strategists, experts, funders and sometimes regulators



Clusters and standards (2)

C-ITS (Cooperative Intelligent Transport Systems) has it all:

- Extreme complexity
- Actors from all walks of the industry
- Understanding of the bleeding edge technologies
- Standardization bodies
- Vast market opportunities revenue opportunities

C-ITS is here to save lives, enhance comfort and efficiencies, and to reduce emissions!

That's why we need to understand it fully! That's why we have these seminars!



Today ...

- An overview over technology and standards
- C-ITS services
- Access technologies like the 5.9GHz
- Security cybersecurity
- Data Management
- ITS Stations



Three layers of digital infrastructure

Mobility	Public transport, mobility operations, and fleet operations	Fleet Management
	Public Transport Agencies and on-demand transport (taxi, bikes,)	Payment, ticketing

Traffic Management Centres	Dynamic traffic information, C-ITS and conventional ITS	Datex II, TPEG, TN-ITS, CCAM
	Traffic Surveillance and management, C-ITS and conventional ITS	V2X, sensors, communication

Road and Mapping Authority	Digital driving instructions digital user-manual, routing/navigation	Traffic rules and regulation
	Digital description of the physical infrastructure – Navigable network	Maps, topology and geometry

Physical Road infrastructure



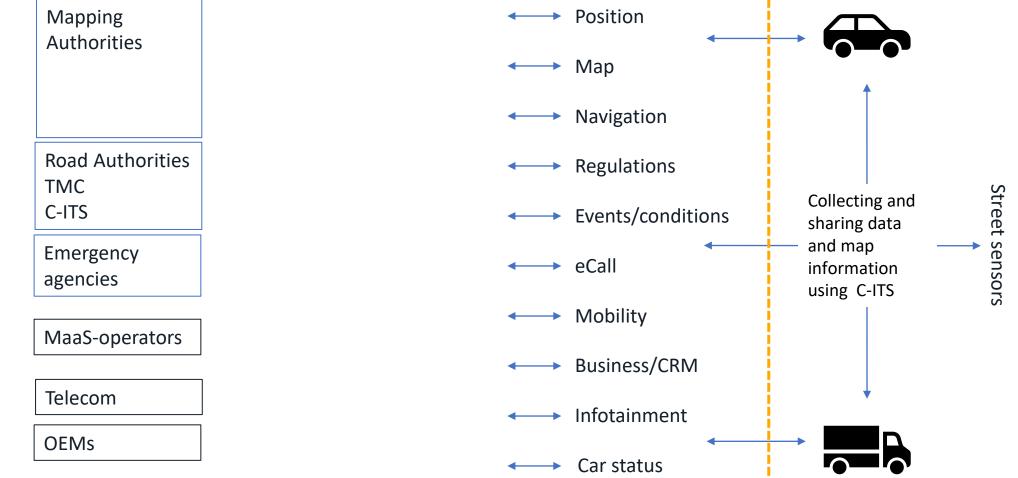
Three layers of digital infrastructure - CCAM

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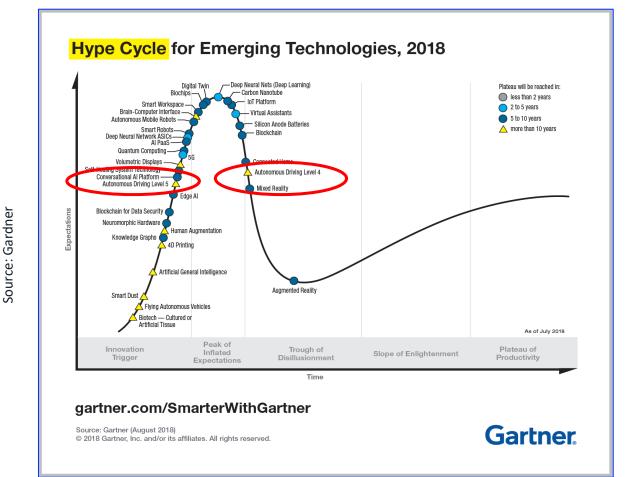
Actors, domains, content and communication – families of standards



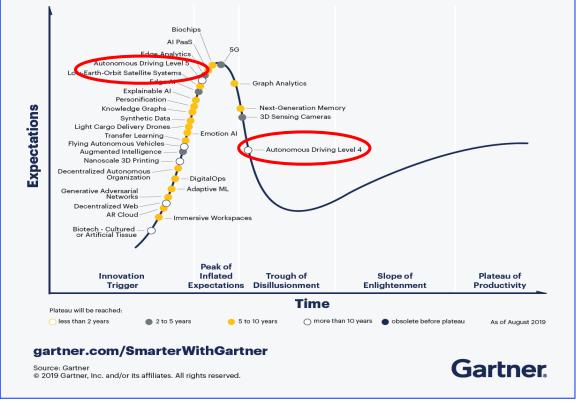


Intelligent Transport Systems

Hype-curve: Smarter with Gartner (1)

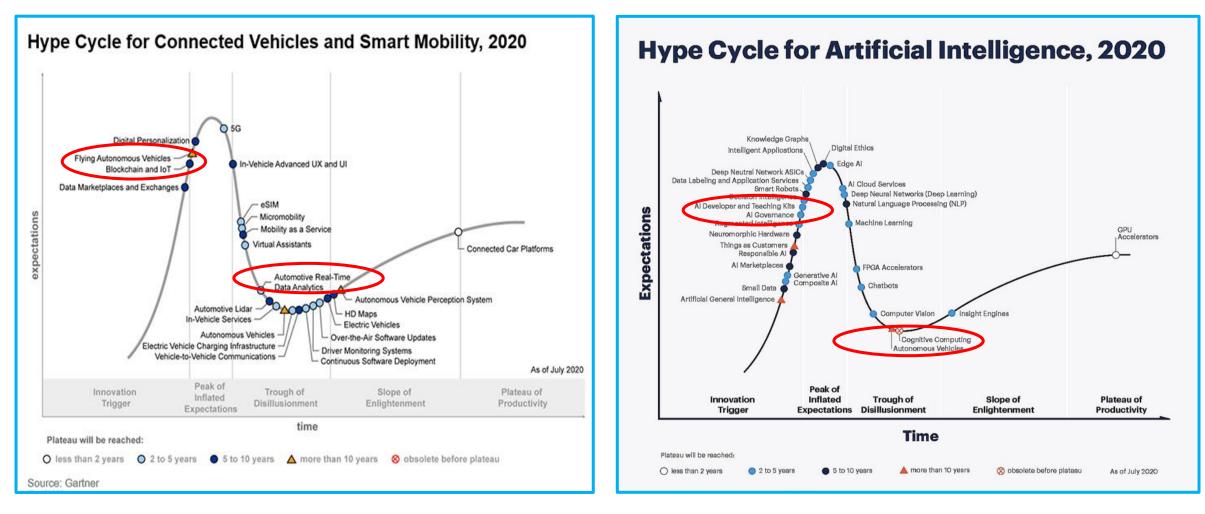


Gartner Hype Cycle for Emerging Technologies, 2019





Hype-curve: Smarter with Gartner (2)



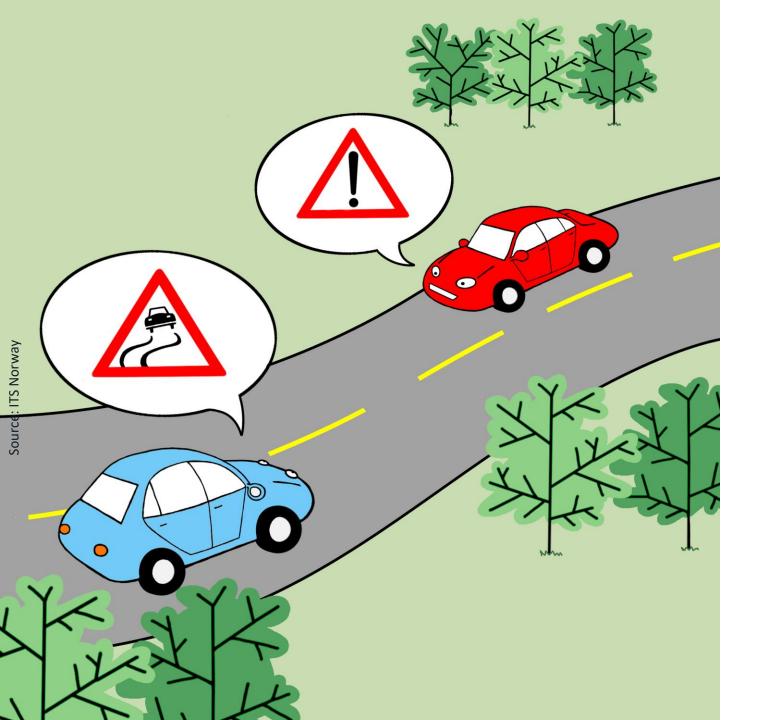
ITS Norway

All webinars

Sessions/Webinars:

- No 1 of 4, 12. January: Theme: Key enabling technologies for C-ITS
- No.2 of 4, 17. February: Theme: Executive summary on the C-ITS issues
- No.3 of 4, 17. March: Theme: C-ITS's place in CCAM
- No.4 of 4, 14. April: Theme: Business models for C-ITS



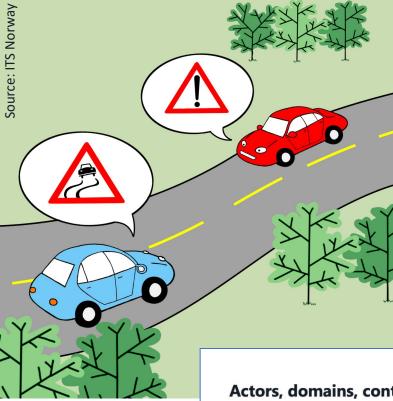


Let's talk!

Enjoy the webinar!

Engage and learn from the best!

Jenny!



Complexity is inherent - but no matter how complex – there are solutions/standards for it!

- **C-ITS** services
- Access technologies
- Security cybersecurity
- Data Management
- **ITS Stations**

Excellent explanations!

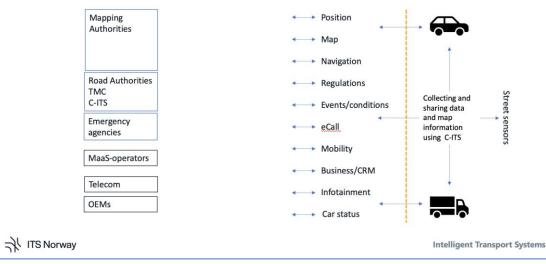
Like:

- Gangolf's slide 5
- Ola Martin's –slide 7

Reassures us that we will prevail!

We're looking forward to the next seminars and invite you all to participate!

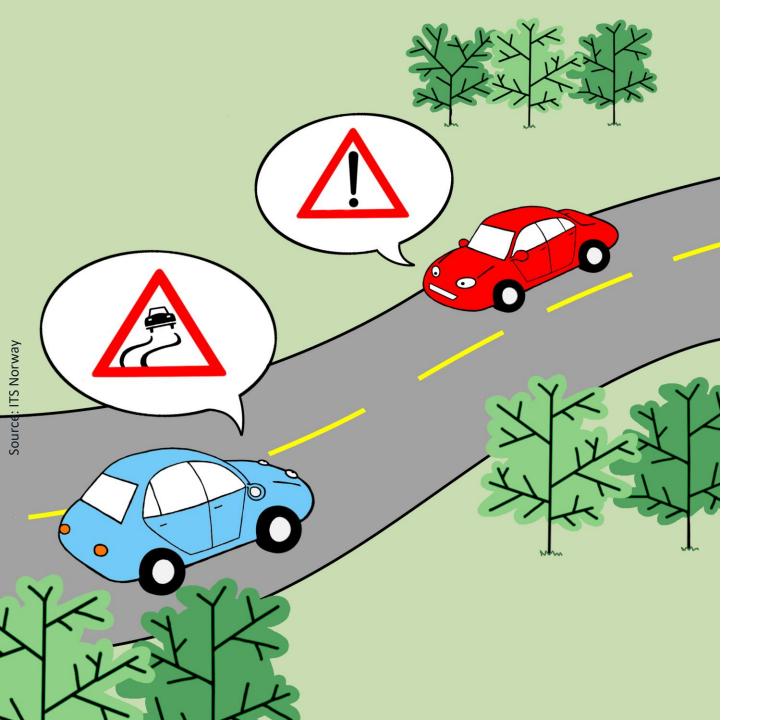




Next webinars

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The end – thanks!

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