



It Is Going To Be Cloudy Out There!

Risto Kulmala

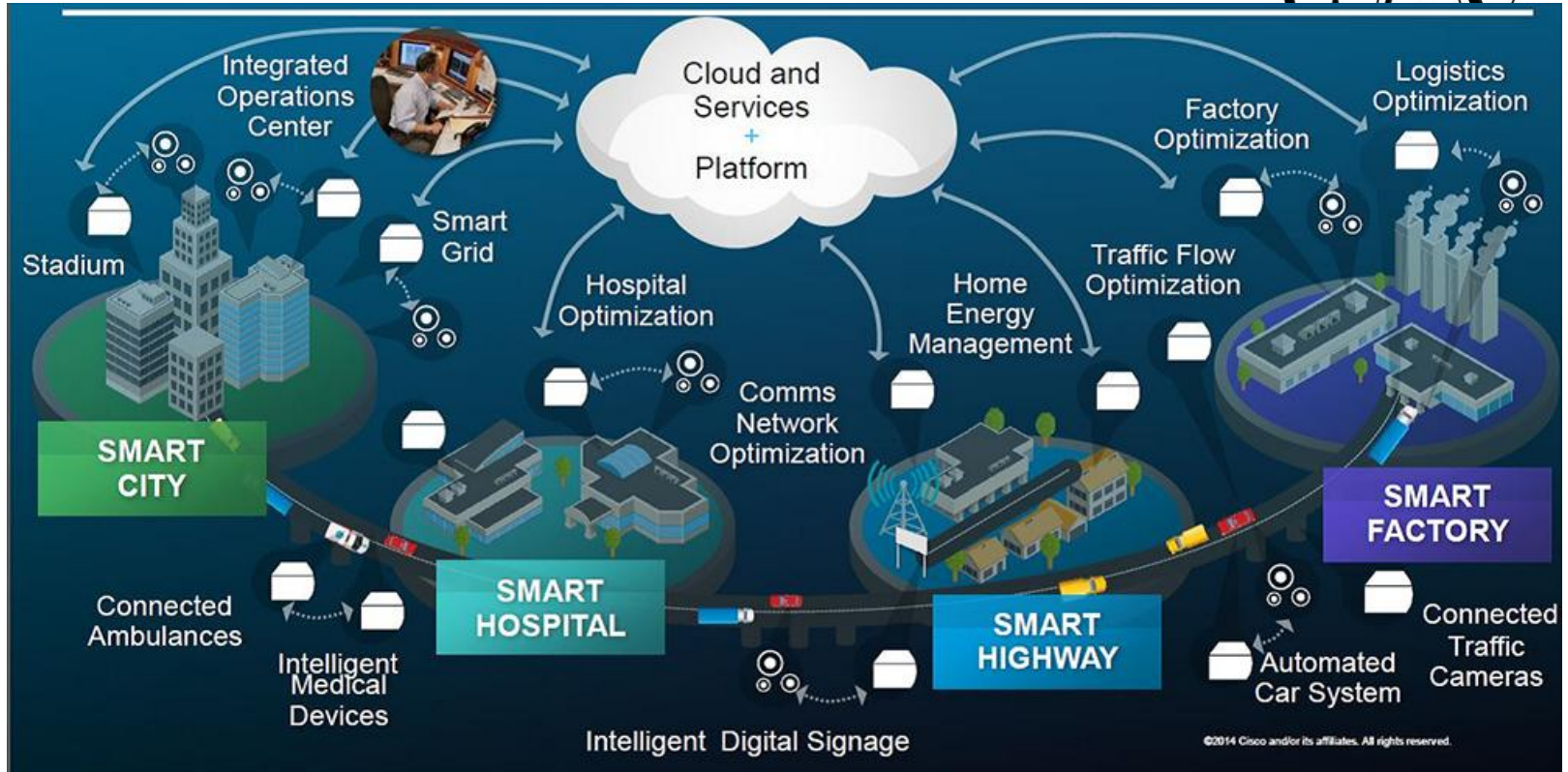


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Connecting Europe Facility



Picture: Wikimedia Common, S. Solberg J.

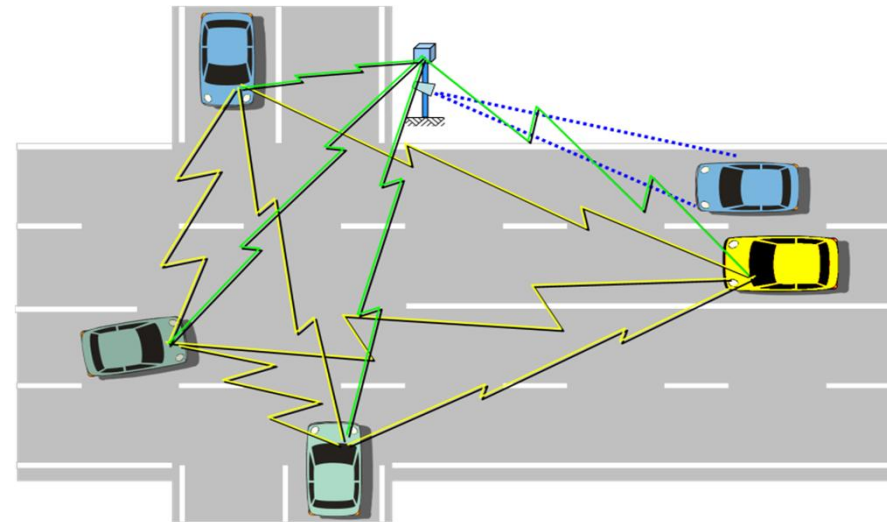
Internet of Things - IoT



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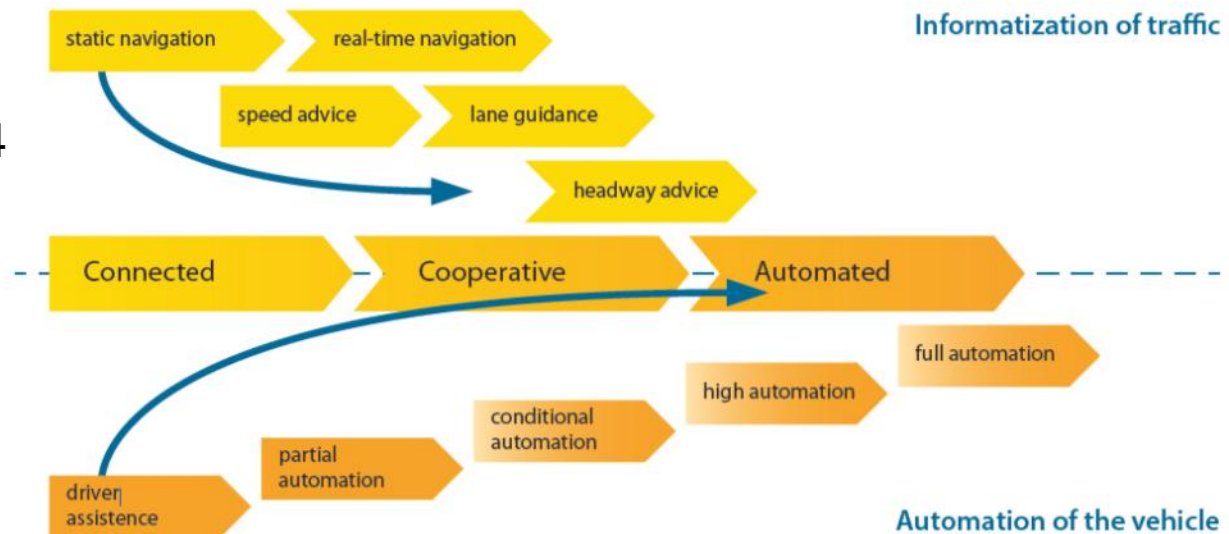
Why are we interested?

- Integration of transport system
- New ways of network operation
- Good impacts on
 - road safety
 - flow & congestion
 - energy & environment
- Important channel for safety related information
- Benefits >> costs



Automated driving is coming

- Connected, cooperative and automated
- Highly automated L4
 - Google 2020, Ford 2021...
 - Pilots e.g. Volvo 2017
 - City buses



Frans op de Beek 2016



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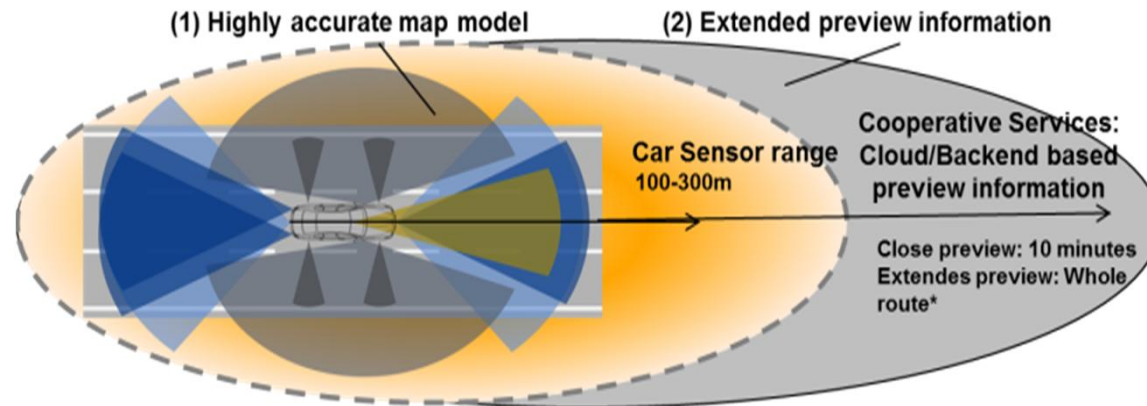
Risto Kulmala 2016



Source: Continental

Preview via connectivity

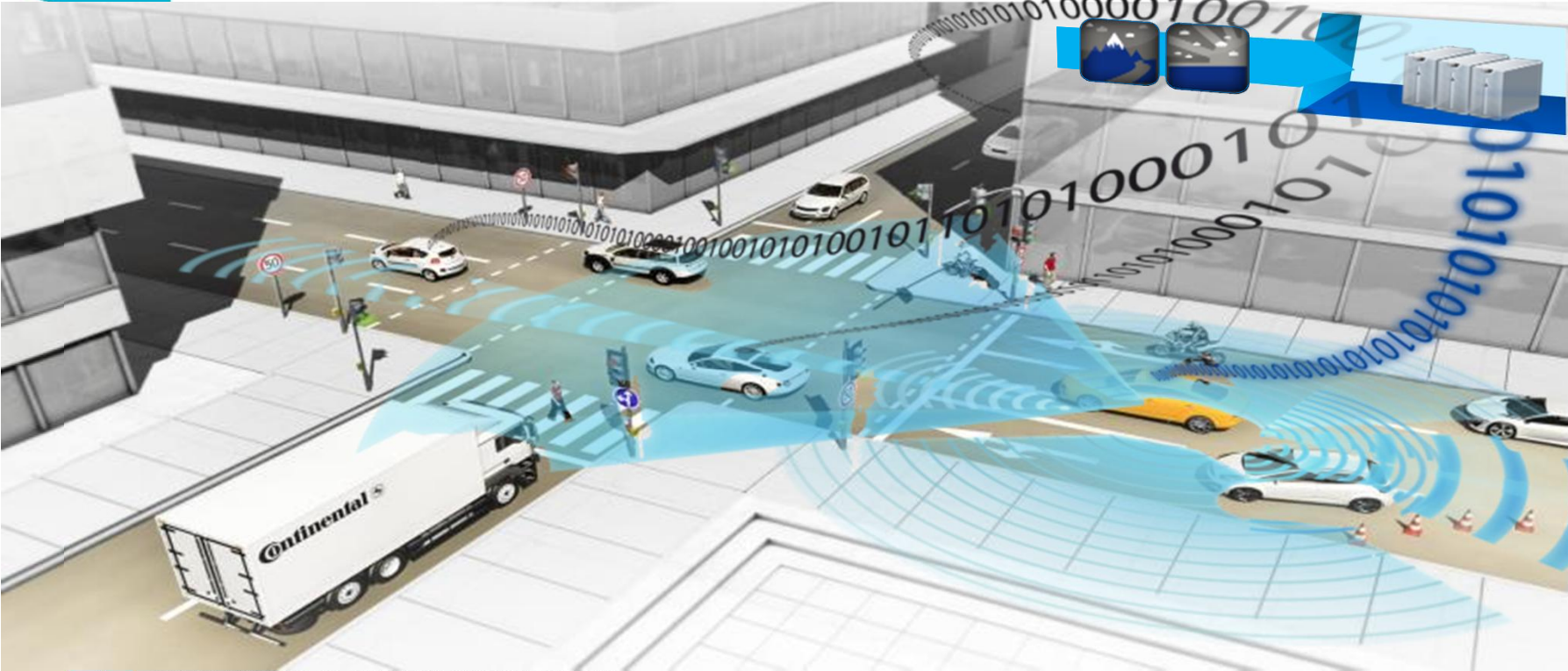
- Different industrial stakeholders have different approaches
- Automated vehicles benefit very much from preview information beyond their sensors – connectivity provides this!



Source: F. Försterling, Continental 2014



Back-end information



NordicWay – Cellular C-ITS corridor



NordicWay includes

1

C-ITS corridor

4

countries:
Denmark, Finland,
Norway and
Sweden

2,000
users on Nordic
roads

NordicWay pilots

3

core Safety Related
Traffic Information
(SRTI) services:

1. cooperative hazardous location warning
 2. cooperative weather and slippery road warning
 3. probe data services
- + additional national services

NordicWay demonstrates the concept of

Cellular C-ITS

service utilising

3G and 4G/LTE

communication

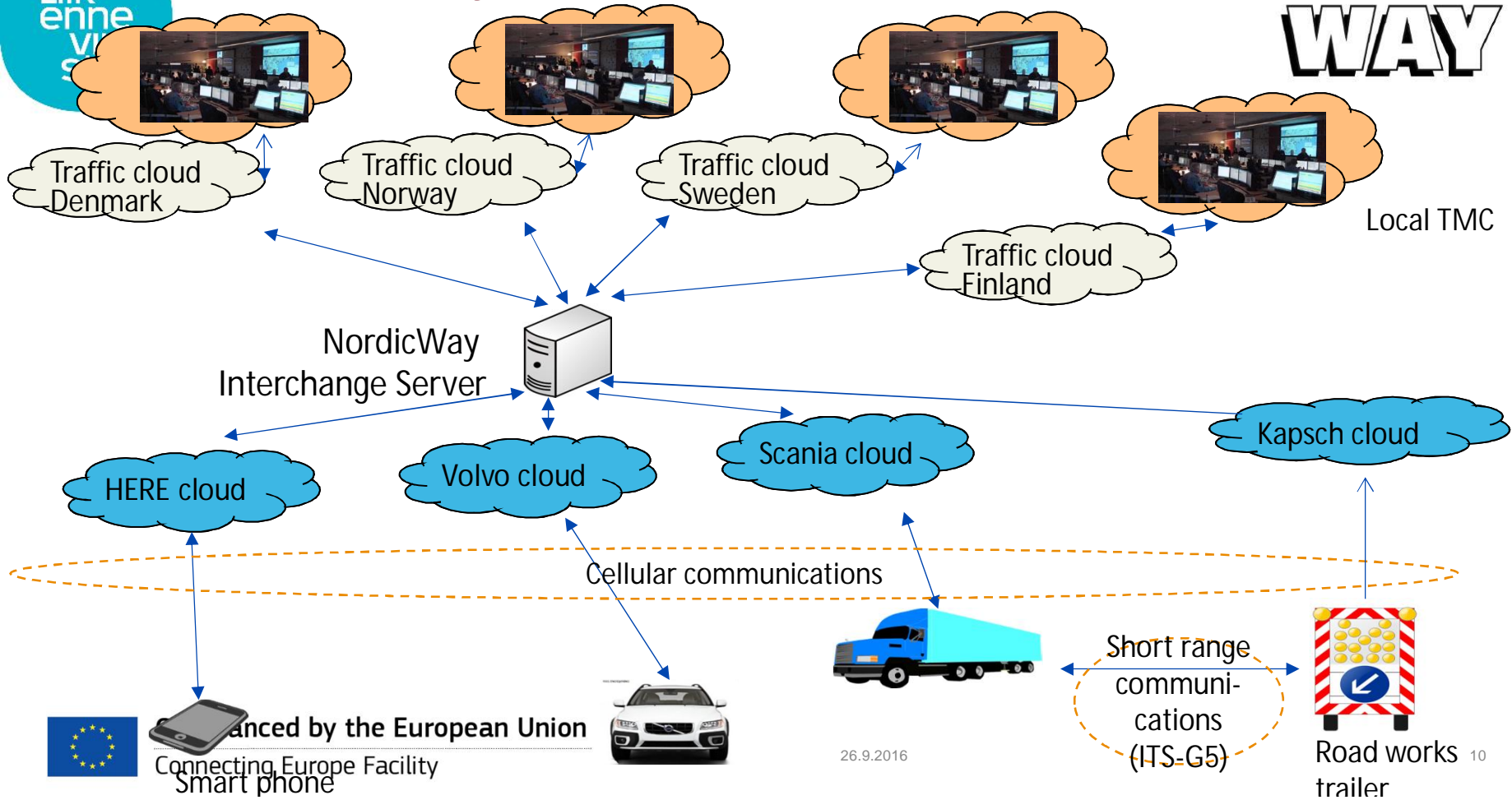
NordicWay offers road users
safety and interoperable
services and builds a business model and an
ecosystem

for the data value chain and stakeholders



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NordicWay architecture – all about clouds





Contact



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