

# Use Cases

Expertsessie Ronde Tafels

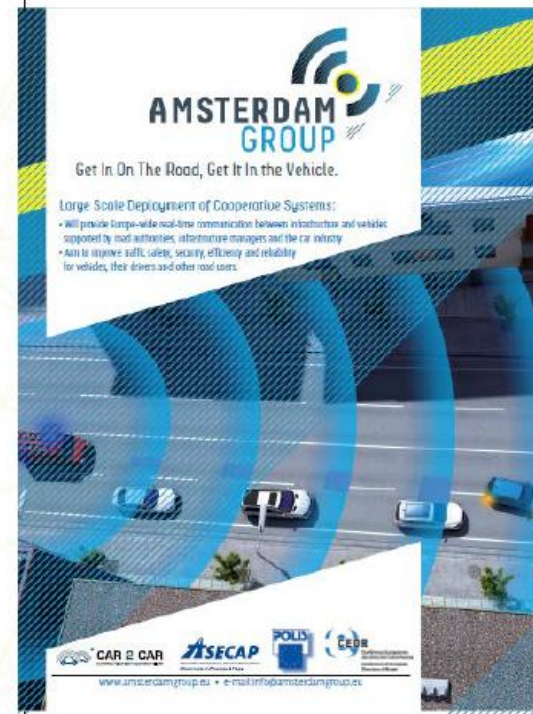
15-9-2016 Onno Tool

- Amsterdam Group
- C-ITS Platform EC
- CODECS
- Uitdagingen

# Amsterdam Group



- Deployment of C-ITS
- ...as a cooperation platform of core C-ITS deployment committed stakeholders
- CEDR, ASECAP, POLIS, C2C-CC
- formed in 2011...
- ...with the goal to overcome mutual dependency...
- ...to achieve and manage synchronised action in C-ITS.



- **A Roadmap for the introduction of C-ITS**
  - agreed between automotive industry and infrastructure organisations
  - on initial deployment of Cooperative ITS (C-ITS) in Europe from 2015 onwards
  - that aims at practical recommendations for AG members
  - on AG level as a guiding star for C-ITS deployment of members in corridors



# Open issues – Working Groups

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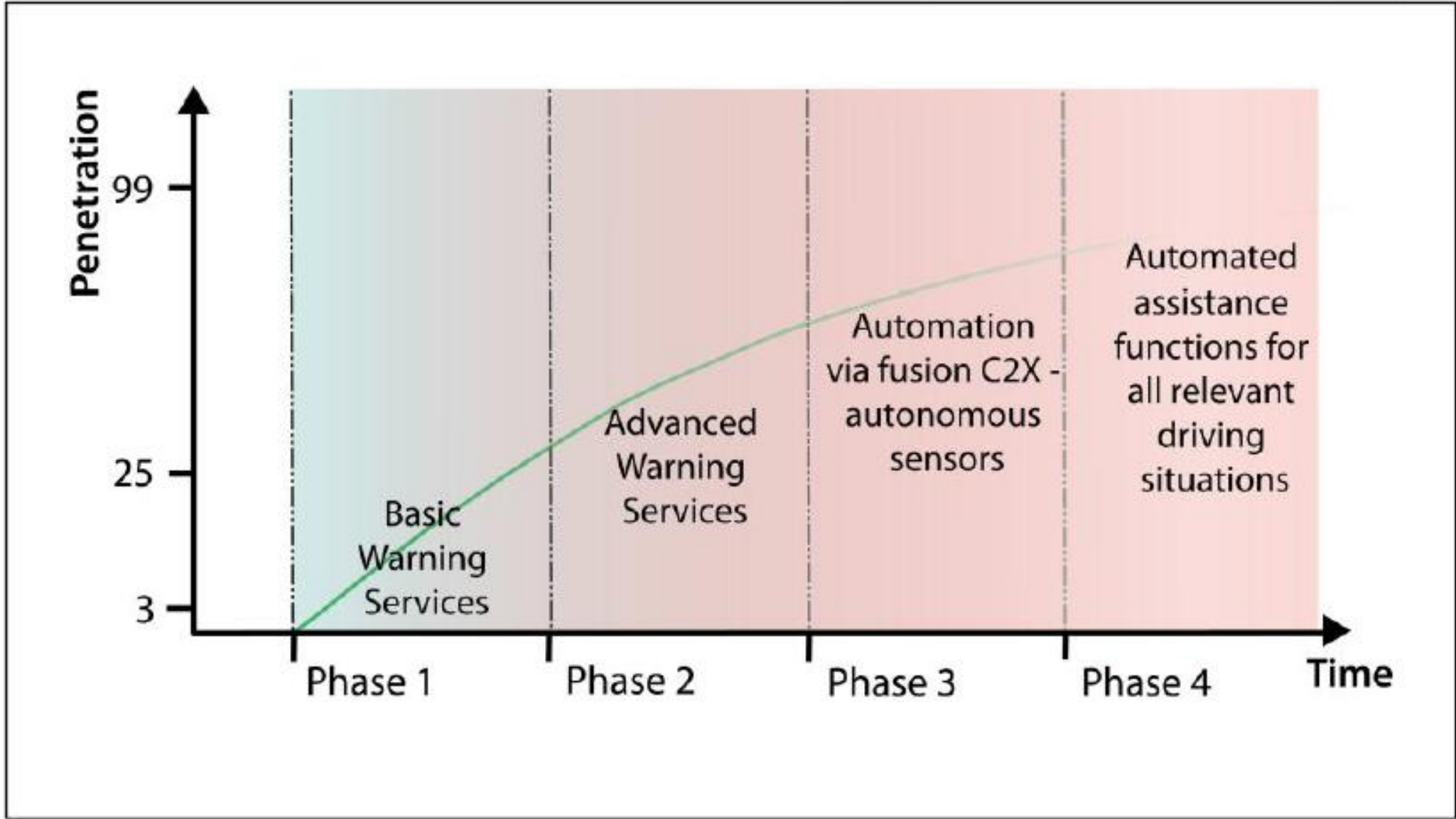
1. Security
2. System Specification Profiling
3. Consistency of Legal Framework
4. Radio Spectrum & Frequencies
5. Deployment / roll-out, day-one
6. Roadmap Beyond Day 1
7. Conformance Assessment
8. Hybrid Communication Concept
9. Backend Services
10. Use-Cases, Applications

Typical V2V in this respect are

1. Hazardous location warning
2. Slow vehicle warning
3. Traffic Jam ahead warning
4. Stationary vehicle warning
5. Emergency Brake light
6. Emergency vehicle warning
7. Motorcycle approaching indication

I2V day one use cases in this respect are

1. Road works warning
2. In-vehicle signage
3. Signal phase and time
4. Probe Vehicle Data



# C-ITS Platform EC, Applications



*Uit Eindrapport C-ITS Platform, januari 2016*

To ensure interoperability and maximise benefits, it is essential to **base this deployment throughout the EU on the list of Day 1 applications and on common standards**. In parallel, as the investments will not be dependent from the number of services, it is necessary to deploy a maximum of services as quickly as possible in order to ensure the quickest possible positive return on investment. The need to have low entry barriers in terms of access to data - and more specifically to in-vehicle data - in order to allow for the deployment of new C-ITS enabled services and applications was also highlighted.

An agreed list of Day 1 (and Day 1.5) applications for Europe, to be deployed in the short-term, was supported by all WG1 members and was endorsed by the wider C-ITS community during the C-ITS Platform plenary meetings. Such a list is essential for building agreement on which services to deploy first, aligning funding and investment priorities and (where applicable) innovation activities.

These services were chosen on their importance from policy perspectives or potential to answer major societal needs, such as increasing road safety. A further split was introduced based on technical readiness in the short-term (Day 1 vs Day 1.5). To avoid ambiguity each service was accompanied by a clear definition.

Table 5: List of Day 1 Bundles

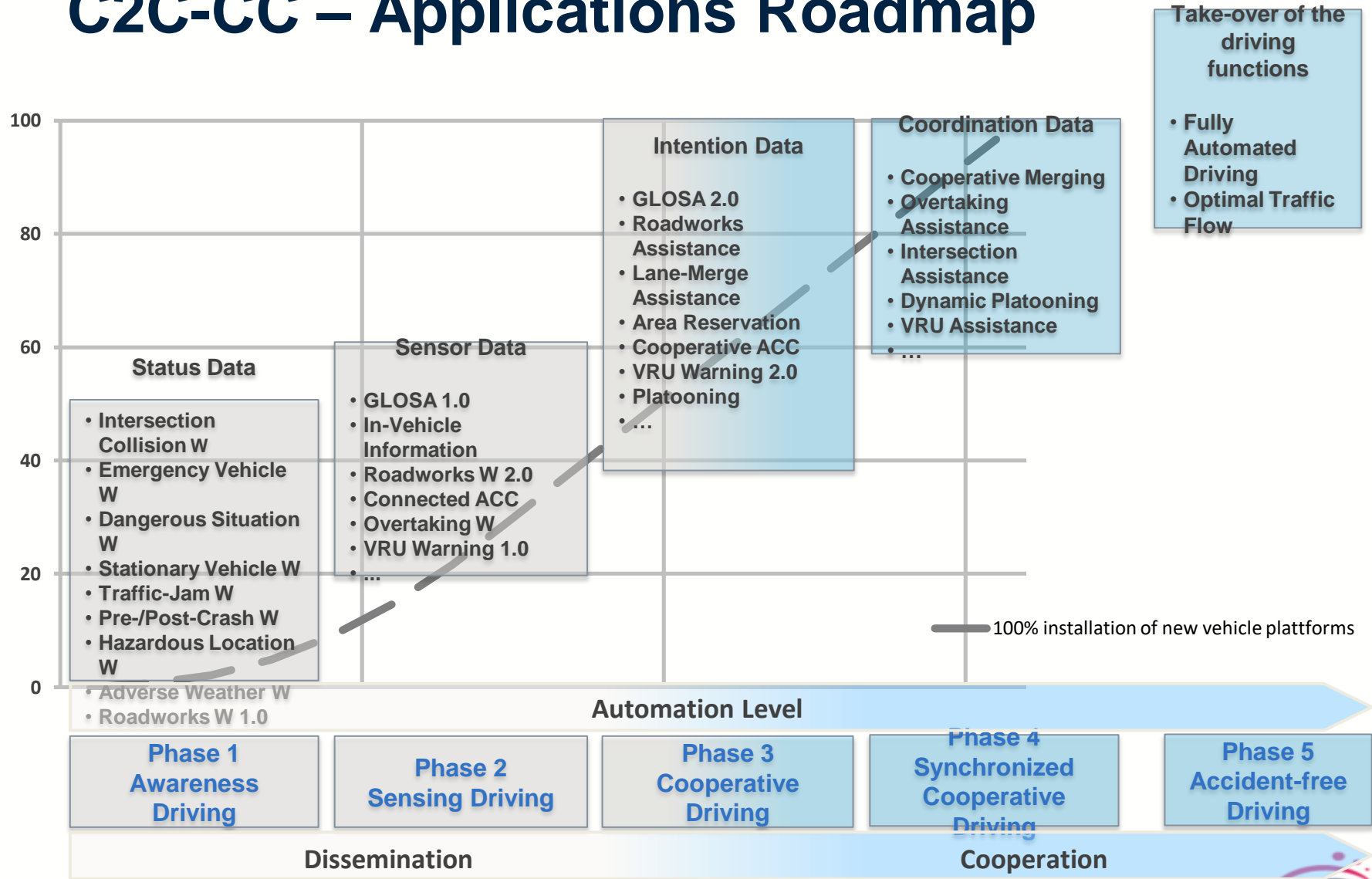
#	Day 1 Services			Bundle
1	Emergency electronic brake light	V2V	Safety	1
2	Emergency vehicle approaching	V2V	Safety	1
3	Slow or stationary vehicle(s)	V2V	Safety	1
4	Traffic jam ahead warning	V2V	Safety	1
5	Hazardous location notification	V2I	Motorway	2
6	Road works warning	V2I	Motorway	2
7	Weather conditions	V2I	Motorway	2
8	In-vehicle signage	V2I	Motorway	2
9	In-vehicle speed limits	V2I	Motorway	2
10	Probe vehicle data	V2I	Motorway	2
11	Shockwave damping	V2I	Motorway	2
12	GLOSA / Time To Green (TTG)	V2I	Urban	3
13	Signal violation/Intersection safety	V2I	Urban	3
14	Traffic signal priority request by designated vehicles	V2I	Urban	3

Table 6: List of Day 1.5 Bundles

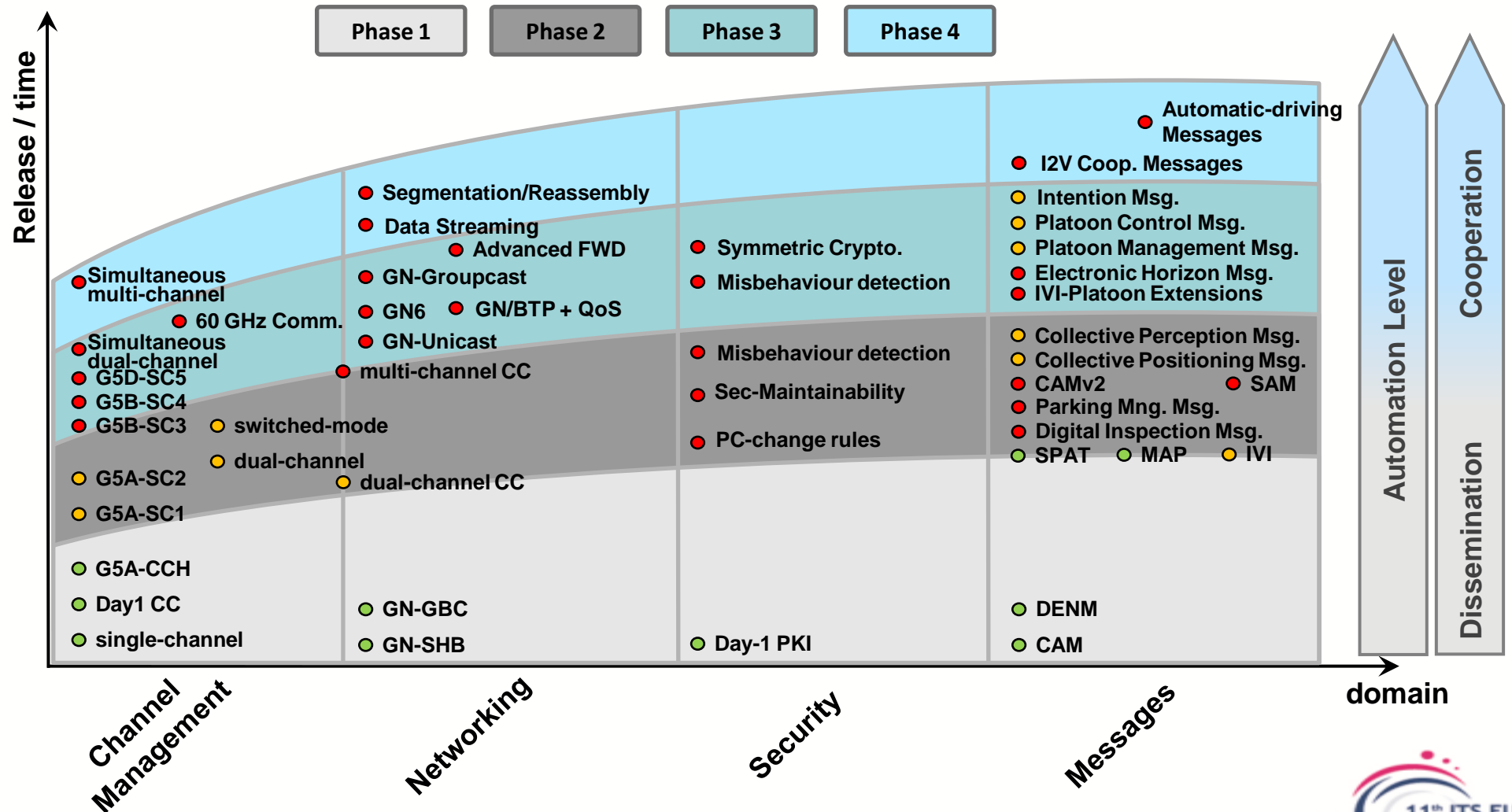
#	Day 1.5 Services			Bundle
1	Off street parking information	V2I	Parking	4
2	On street parking information and management	V2I	Parking	4
3	Park & Ride information	V2I	Parking	4
4	Information on AFV fuelling & charging stations	V2I	Smart Routing	5
5	Traffic information and smart routing	V2I	Smart Routing	5
6	Zone access control for urban areas	V2I	Smart Routing	5
7	Loading zone management	V2I	Freight	6
8	Vulnerable road user protection (pedestrians and cyclists)	V2X	VRU	7
9	Cooperative collision risk warning	V2V	Collision	8
10	Motorcycle approaching indication	V2V	Collision	8
11	Wrong way driving	V2I	Wrong Way	9

# C2C Communication Consortium

# C2C-CC – Applications Roadmap



# C2C-CC – Technology Roadmap





CODECS

# CODECS at a glance



- **Title:** COoperative ITS DEployment COordination Support
- **Acronym:** CODECS
- **Number:** 653339
- **Call:** H2020-MG-2014\_SingleStageB
- **Topic:** MG-7.2b-2014  
Towards seamless mobility addressing fragmentation in ITS deployment in Europe
- **Type:** Coordination & Support Action
- **Duration:** 1 May 2015 – 30 April 2018 (36 month)

# Partners



# Objectives



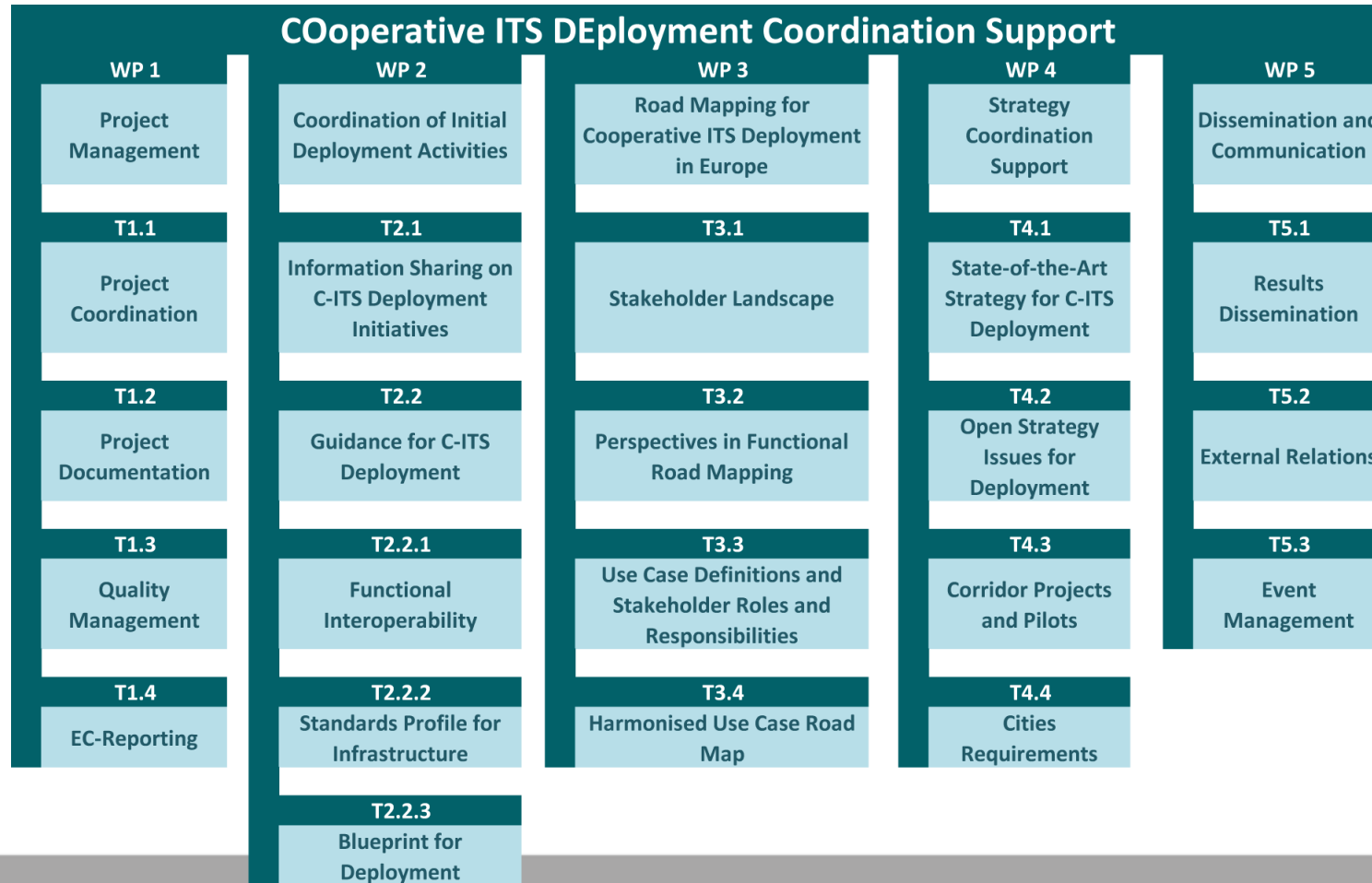
- **Sustaining C-ITS deployment in Europe by**
  - Coordinating initial deployment activities
  - Aligning deployment road maps
  - Giving strategy coordination support
  - Raising awareness for the idea of cooperative road traffic
- **Building up and maintaining stakeholder network**
  - For information sharing, knowledge transfer, exchange of experiences
  - For consolidating implementation approaches, functional preferences and strategy requirements
  - By organising workshops, webinars, stakeholder meetings, conferences, personnel consultation

# Objectives



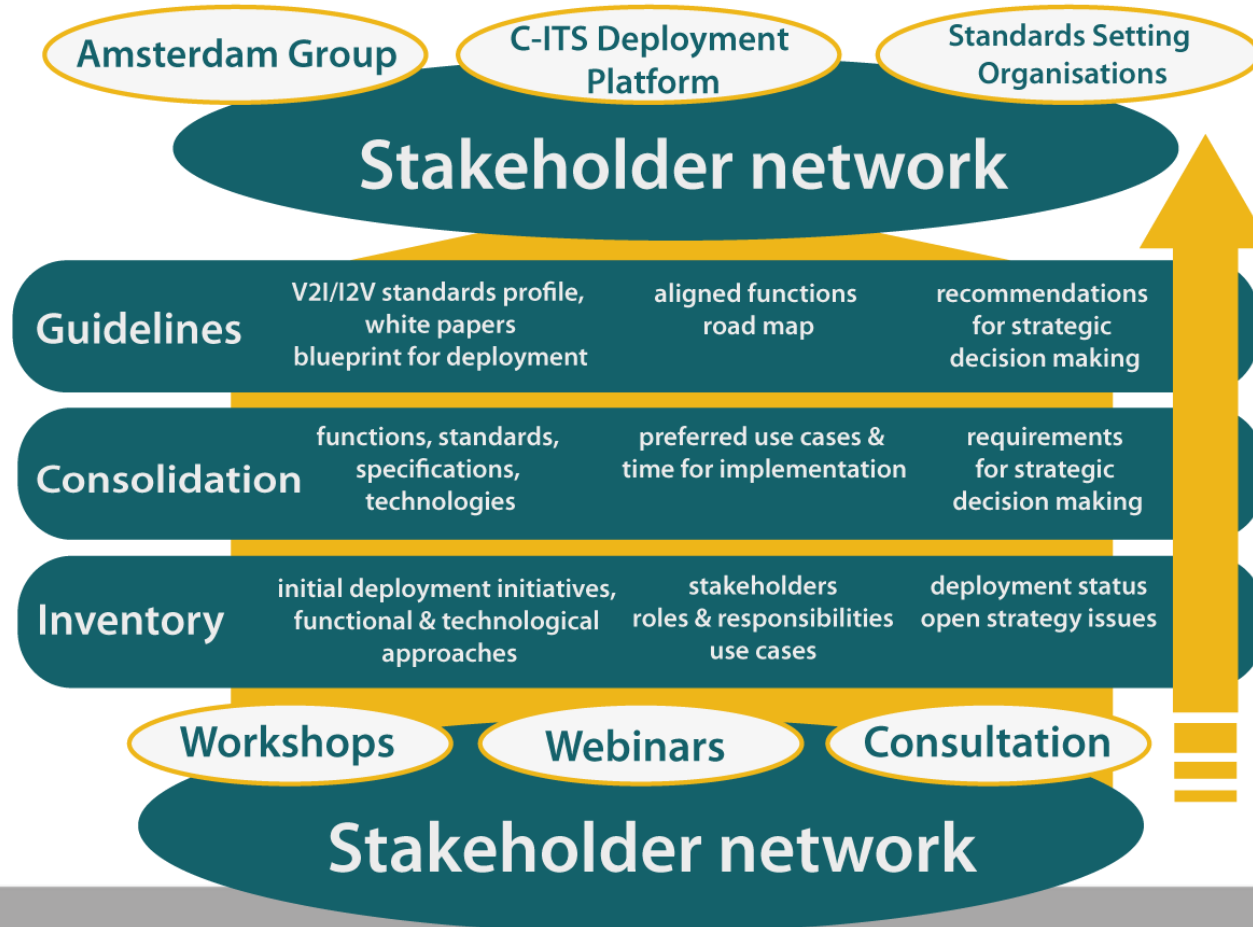
- **Serving as nodal point for consolidating stakeholder requirements**
    - Vertical level: aligning functional approaches and open strategy issues between initial deployment initiatives and stakeholders
    - Horizontal level: calling attention to consolidated stakeholder views and preferences in discussion of high-level decision makers
  - **Supporting**
    - The Amsterdam Group
    - The C-ITS Deployment Platform of the European Commission
    - Standards Setting Organisations
    - Other key deployment players
- in coming to a concerted C-ITS deployment approach.**

# Measures & practices





# Measures & practices



# Beschikbare Use Case beschrijvingen

- Amsterdam Group White Papers (April 2016)
  - Road Works Warning (RWW)
  - In Vehicle Information
  - Signal Phase and Time (SPaT) and Map Data (MAP)
- Dutch Profiles
  - Annex A: Use Case Green Light Optimal Speed Advisory
  - Annex B: Use Case Priority Request Introduction Use-Case
  - Annex C: Use Case Road Works Warning
  - Annex D: Use Case Probe Vehicle Data

# EU Initiatieven C-ITS

- Werkgroepen Amsterdam Groep
  - C-ITS EU Platform en werkgroepen
  - CODECS
  - C-Roads (start dit najaar)
  - EU EIP 4.4 C-ITS (EU-EIP is opvolging EasyWay)
  - Nieuwe Architecture Call
- 
- Nu: o.a. door ontwikkeling van Use Cases door uitwerkingen nationale en internationale deployment corridors

# Uitdagingen

- Gedeelde begripsvorming over Use Cases
- Ontwikkeling #Use Cases (zie o.a. bijlage bij deze meeting)
- Prioritering Use Cases voor uitwerkingen
- Nationale uitlijning
- Internationale uitlijning, wie doet wat en waar?
- Verbinding Nationaal  $\leftrightarrow$  Internationaal

# CODECS Use Case Workshop 26-9-2016

**10:00 Enabling a common understanding of use cases  
- a strategic issue in C-ITS deployment**

*Onno Tool, Rijkswaterstaat*

**10:15 Definition of terms "Use case", "Scenario",  
"Use Case Description"**

*Paul Spaanderman, PaulsConsultancy BV*

**10:45 Use cases known from deployment initiatives  
& projects**

*Niels Peter Skov Andersen, Anemone Technology*

- [www.codecs-project.eu](http://www.codecs-project.eu)

## WORKING GROUPS

**11:30 Working Groups Part I**

**12:30 Lunch break**

**13:30 Working Groups Part II**

**14:30 Working Groups reporting back**

## DISCUSSION

**15:00 Open discussion**

- Use Case priorities
- Actors responsible for use case descriptions

**16:15 Summary & Conclusions**