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CAR 2 CAR
COMMUNICATION CONSORTIUM

Making best use of first practical experiences from initial deployment preparation

by Sonja Eickmann, CAR 2 CAR Communication Consortium

First initial C-ITS deployment activities are starting to prepare V2X information and warning services in various European countries and trans-border corridors. For the C2C-CC, this is a stage where its efforts in paving the way for V2X applications on European roads become even more tangible. All stakeholders are requested to make best use of the experiences from initial deployment activities – to ensure cross-border interoperability and to realise an aligned deployment in vehicle and road infrastructure.

With the present newsletter, we invite you to familiarise yourself with the current activities of the C2C-CC in this context. First and foremost, the Consortium is proud that with Yamaha and Jaguar Land Rover, the number of partners has grown up to 15. The Working Groups differentiate further to tread all relevant deployment aspects with adequate attention. Under the roof of the WG Application, the Sub Working Group Powered Two Wheelers has been established and focuses on applications improving the safety of Powered Two Wheeler drivers through C-ITS (see page 3). The interim results of the C2C-CC's high engagement in the international discussion on Spectrum Sharing and Co-existence of ITS G5 with other technologies are summarised on page 4.

We additionally invite you to reflect the public workshop which the Amsterdam Group has organised together with the CODECS project. They jointly gave initial deployment activities a platform to present their current status, and to discuss open deployment issues (see page 5-6). CODECS is a H2020 Coordination & Support Action, dedicated to support a concerted roll-out of C-ITS applications across Europe. It introduces itself on page 8.

In the project landscape, the CONVERGE research initiative plays a central role as it develops an open V2X architecture, flexible to integrate different ITS technologies and service providers. CONVERGE has reached its final stage and its achievements are presented on page 7.

With this extracts, the C2C-CC gives a foretaste to the more detailed discussion of the current status in C-ITS deployment preparation at the CAR 2 CAR Forum 2015, taking place on 3 and 4 November 2015 in Mainz, Germany (page 2). All active and basic members are invited to secure their participation in the conference.

In the 15th Issue

New CAR 2 CAR Members

by Sonja Eickmann, CAR 2 CAR Communication Consortium

Jaguar Land Rover Ltd.

Type of Member: *Partner of the C2C-CC*
Type of Business: *Jaguar Land Rover Ltd is the largest automotive manufacturing business in the United Kingdom. It is built around the brands Land Rover and Jaguar and herewith represents the world's leading manufacturer of premium all-terrain vehicles as well as one of the leading luxury sports car marques.*

Yamaha Motor Deutschland GmbH

Type of Member: *Partner of the C2C-CC*
Type of Business: *As subsidiary of Yamaha Motor Co.Ltd., Yamaha Motor Deutschland GmbH represents the Japanese manufacturer in the C2C-CC. It is placed under the roof of YAMAHA Motor Europe N.V. which co-ordinates the development marketing and sales activities of Yamaha Motor products in the European market, mainly: motorcycles, scooters, marine outboard engines, inflatable boats, water vehicles, 4-wheel all-terrain vehicles (ATV's), golf cars, generators, snowmobiles and electro-hybrid bicycle systems.*

CAR 2 CAR Forum 2015 in Mainz, Germany

*by Sonja Eickmann, CAR 2 CAR Communication Consortium*

The CAR 2 CAR Forum, the annual conference of the CAR 2 CAR Communication Consortium, this year takes place in Mainz, Germany. On 3rd and 4th November 2015, all active and basic consortium members will meet at the Kurfürstliches Schloss to jointly take stock on the achievements of the CAR 2 CAR working groups and the latest development in the ITS sector, related projects and organisations. The event is this year hosted by Hyundai.

The registration for the CAR 2 CAR Forum is proceeding well so that similar to the last years, around 200 attendees are expected to come to Mainz. Again, the exhibition by CAR 2 CAR member companies and institutions is fully booked, so that 17 exhibitors will present their concepts, products and projects in the field of V2X communication to the expert audiance.

The conference programme is meanwhile further elaborated and starts on 3rd November as is usual with a consideration of the political and strategic C-ITS framework. The second plenary session will then focus on the progress towards initial C-ITS deployment, jointly arranged by CAR 2 CAR members and guest speakers from initial deployment activites. The third plenary session afterwards prospects to the future of C-ITS innovation and the preparation of deployment beyond Day One. The final plenary session goes even one step further with declaring how C-ITS in a long term vision faciliate automated driving functions.

According to the tradition for the first Forum day, the active CAR 2 CAR members will hold their General Assembly in the afternoon, while the

9th
CAR 2 CAR Forum

3 and 4 November 2015
Kurfürstliches Schloss, Mainz
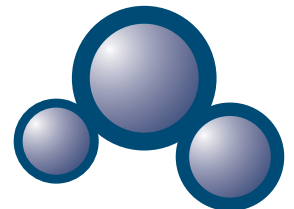
Basic Members and invited guests have the chance to visit the Gutenberg Museum in Mainz. For the evening reception, all Forum participants will again come together in the Kurfürstliches Schloss to enjoy networking in the ancient scenery of this electoral palace.

The second conference day is as usual shaped by the CAR 2 CAR Working Groups. The four workshops will reflect the most important activities and work items processed since the last CAR 2 CAR Forum. The first workshop is set aside for deployment aspects, the second one will be organsied by the working group security. In the afternoon, the workshops on compliance assessment as well as futur prospect and road-mapping will follow.

Registration for the CAR 2 CAR Forum is mandatory. The online registration form can be found together with the draft agenda, hotel and travel recommendations on the **CAR 2 CAR Forum Website** (visible after log-in).

## Introduction of Sub-Working Group Powered Two Wheeler
by Hennes Fischer, Yamaha Motor Europe N.V.

The Sub WG Powered Two Wheeler was initiated by the three motorcycle manufacturers BMW, Honda and Yamaha to address the specific issues related to motorcycles. The Steering Committee approved the PTW sub WG under WG Application in its meeting in May.

The group will start working from September 2015 onwards.

Powered Two Wheelers are an integral part of motorised traffic and ITS will have significant safety benefits for PTW riders. Motorcycles are often not seen by other vehicle drivers. The MAIDS accident statistics shows that the main contributing factor of 51% are other vehicle drivers. In 72% of all these accidents caused by other vehicle driver, perception failure is the problem. In other words: "Sorry, I did not see you!" The motorcycle makers believe that cooperative systems which would indicate a powered two wheeler to other vehicle drivers, would have a huge safety benefit.
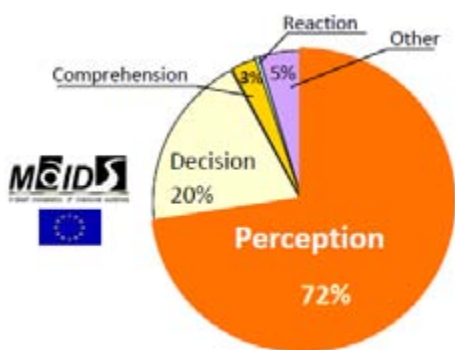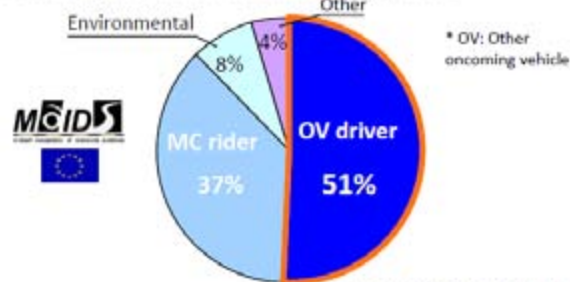
This is one of the major reasons why ACEM, the European motorcycle manufacturers association has released a MoU, expressing the willingness of its powered two wheeler members to provide "at least one of their models available for sale with a cooperative ITS, either as standard equipment or as optional equipment, by 2020."

VRU status for PTW
Regarded as Vulnerable Road Users (VRU) by European regulations, however Powered Two Wheelers do have a special role. As motorized vehicles, they share the same road, speed, and traffic conditions with cars. With permanent electric power on board, they are suited for ITS applications just like cars.

In this sense, powered two wheelers are logically speaking the first candidate towards protection of Vulnerable Road Users.

MAI will improve safety
While most of Day One applications will be quite similar both for cars and motorcycles, the 'big stone to move' is MAI (Motorcycle Approach Indication). The WG will, together with the other Car OEMs and the suppliers, need to define scenarios, conditions and borderlines for such an application. Since the application itself as well as an HMI indication has to run both in cars and on Powered Two Wheelers, a close cooperation in defining such application is of crucial importance to both the two-wheeler and the four-wheeler industry.

Motorcycles need to be part of the roadmap
The WG PTW will liaise with WG RD to implement MAI in the schedule, as well as the other applications which might have either same timing or different timing for cars and motorcycles.

Different vehicle dynamics are a challenge
Due to different vehicle dynamics, Powered Two Wheelers are somewhat of a challenge for certain ITS applications. Leaning in curves and different trajectories compared to cars may result in different setting of applications. The group will pinpoint these differences and indicate if consequences are seen for car applications.

GPS Positioning needs to be more accurate for PTW
Due to the smaller size and different trajectory while riding a Powered Two Wheeler, a more accurate positioning is crucial to make particular safety application work properly. The group will support developments for more accurate positioning and input the relevant requirements for Powered Two Wheelers.

The PTW Sub WG will consolidate their activities within this year and will set their priorities for 2016, where certainly the MAI application will be high on the agenda.

ITS Spectrum status 09/2015

Key challenges

► *Securing ITS spectrum allocation*
► *Safeguarding interference free spectrum sharing with WLAN formulated in 5 GHz Mandate (RSCOM13-32rev3) in EU and in the US.*
► *Relaxing ITS spectrum mask for easy initial deployment*
► *Agreeing on ITS co-existence with tolling CEN DSRC*
► *Achieving global harmonisation in 5 GHz for ITS applications*

Key achievements

ITS spectrum allocation as explained in Figure 2 is covered by an ECC DEC (08)01 and ECC REC (08)01, which were both updated on 3 July 2015.
The ECC DEC (08)01 widens now the scope from road safety towards "traffic safety applications", confirming the initial 30 MHz allocation(ITS-G5A) for ITS and the upper 20 MHz (ITS-G5D) reservation (= future ITS extension band for safety).

Figure 1: ITS spectrum overview

Additionally, the update of ECC REC (09)01 for reserving the 63-64 GHz for ITS (see Figure 1) is on its way (for line of sight Vehicle 2 Vehicle communication) and the 76-77 GHz band for vehicle radar systems.

*Based on the required 5 GHz Mandate (RSCOM13-32rev3) investigation on **spectrum sharing between ITS-G5 and WLAN** (normal IEEE 802.11a/g), the operation of initial studies showed that this is not possible without some detect and avoid method. European frequency regulation (CEPT) decided that further investigations are needed. A technical CEPT report (done by the subgroup SE24) is expected not earlier than mid 2016 under the condition that ITS services are prime users of this spectrum. The CEPT report 57 "Report A from CEPT to the European Commission in response to the Mandate" describes the ITS requirements for coexistence with WLAN. So far no studies were proposed from the WLAN industry. In addition to WLAN the ECC opened the 5 GHz mandate for studies for possible sharing with LTE-U, LTE-LAA. Although the LTE-U community says this is similar to WLAN (which it is not) these separate studies will show so.*
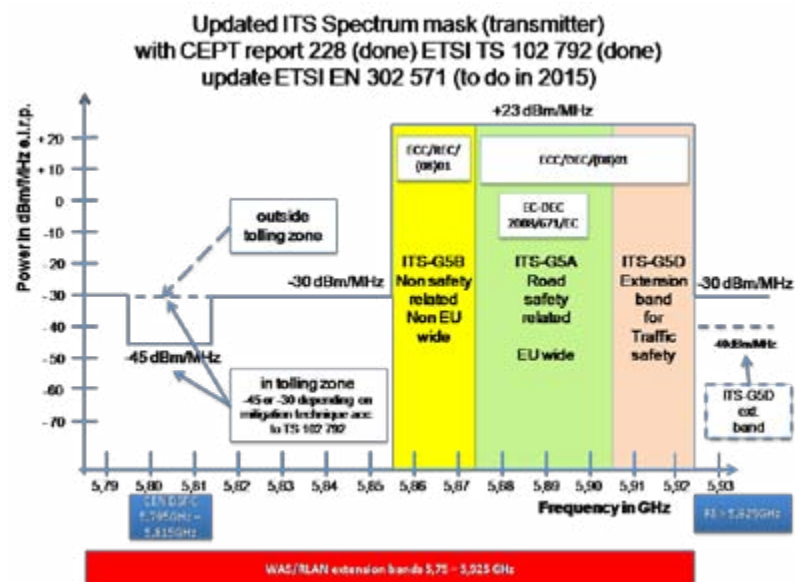

Figure 2: ITS spectrum allocation and ITS spectrum mask relaxation

*A **relaxation of the Spectrum Mask** has been achieved (see Figure 2) based on the agreements in the CEPT report 228. This was very much related to an agreement with tolling community to realise co-existence between CEN DSRC and ITS-G5. Therefore mitigation techniques have been agreed in ETSI TS 102 792 which will be implemented with an additional update of harmonised standard ETSI EN 302 571 (on the way to be published). Alternative frequency mitigation methods are supported.*

Global harmonisation in 5 GHz for ITS applications

In the US the same 5 GHz spectrum sharing discussion takes place at IEEE, USDOT and FCC. IEEE 802.11 installed the "TigerTeam" task force consisting mostly of WLAN and ITS US stakeholders and included some European ITS stakeholders. The TigerTeam has provided its final report to the IEEE related comity. It evaluated the ITS / WLAN sharing possibilities and held a voting (a straw poll with more than 120 participants) resulting in a positive outcome for ITS.

At the standard IEEE meeting in Berlin however, due to large number of WLAN representatives and only one ITS stakeholder, the straw poll outcome was blocked and the results were not forwarded officially to the FCC. The US OEM alliance however provided the results to the FCC themselves. Currently the USDOT released a DSRC Spectrum Sharing test plan with positive possibilities for ITS. Alignment between EU and US ITS OEM and related representative is being continued. ► ***next page***

Conclusions and next steps

There are now no spectrum obstacles to deploy Day 1 use cases. However, continued effort is needed towards the prolongation of the allocated ITS spectrum in the 5.9 GHz. In addition, the reserved upper 20MHz band in 5,9 GHz and 63 GHz must be allocated.

Also, international effort is needed in contributing to the WLAN coexistence discussions at FCC, IEEE and ITU. Pressure of WiFi and LTE-U will increase and therefore will require intensifying our efforts in the EU and CEPT organizations. OEM´s and suppliers active contribution to ETSI TC ITS, ETSI ERM, ETSI BRAN and multiple CEPT/ECC working groups (above all SE24) and ITU as well as becoming voting member at IEEE 802.11.

Achieving above-mentioned goals requires active support of the newly formed C2C-CC WG COM Sub Working Group Coexistence & Spectrum (Sub-WG COSP) chaired by Bettina Erdem, and WG ARCH Sub Working Group Multichannel (Sub-WG MCO) chaired by Paul Spaanderman. Alignment with US OEM and DOT stakeholders is important to commonly address especially IEEE 802.11, IEEE 1609, SAE, ISO (CEN) and ETSI standardisation. For this Paul Spaanderman (PaulsConsultancy BV) will continue the alignment with US stakeholders.

A more detailed report is available from the CODECS project on the C2C-CC portal in October 2015.

Many thanks to the main actors to defend the spectrum in the last year, which were building the task force: Continental, FB Consultancy, NXP, Opel, PaulsConsultancy BV, Volvo and VW.

Public Workshop "C-ITS Deployment is underway!": Presentation of corridors, open issue and strategy

by Maarten Amelink, Amsterdam Group

For the second time, the Amsterdam Group has invited all interested stakeholders to a public workshop to discuss its activities on harmonising initial C-ITS deployment in Europe. The workshop was jointly organised with the Coordination and Support Action CODECS, also aiming for concerted area-covering roll-out of C-ITS applications (see article on page 8 in this newsletter). 40 attendees from 12 different European countries attended the workshop which took place on 15 September 2015 in Roskilde, Denmark. It encouraged corridor projects, pilots and C-ITS deployment related initiatives to present their current status, to declare first practical experiences and to address open issues for an aligned C-ITS implementation on vehicle and infrastructure side.

The workshop was opened by Frans op de Beek, Chairman of the Amsterdam Group (AG) – the strategic alliance of CEDR, ASECAP, POLIS and the C2C-CC with the objective to facilitate joint deployment of cooperative ITS in Europe, and Sonja Eickmann as Coordinator of the CODECS project. They both outlined the importance of an interactive discussion among the stakeholders involved in initial C-ITS deployment to determine their requirements for a concerted roll-out of systems and services across the different hot spots.

Afterwards, Marko Jandrisits, Amsterdam Group Co-Chair on behalf of ASECAP, introduced open issues for deployment identified and processed in the AG working groups. As prominent example, Teodor Buburuzan from Volkswagen outlined a Roadmap beyond Day One with the task to ensure that the communication between vehicles and road side ITS stations continues to support the C-ITS applications in the consecutive deployment phases.

Subsequently, Torsten Geißler, Amsterdam Group Co-Chair on behalf of CEDR, opened the floor for the corridor projects and pilots to present their current status, the applications provided in the particular hot spot as well as the underlying technologies, standards and specifications. As introduction, he outlined the achievement of the Amsterdam Group in developing a joint road map for deployment of the automotive industry and infrastructure organisations. It gives guidance for deployment in corridors and pilots by its members, and the Amsterdam Group and CODECS will bring experts from these activities together to exchange information and to mitigate potential diverging approaches.

Torsten Geißler, Bundesanstalt für Straßenwesen (BASt), broke the first ground with presenting the status of the Cooperative ITS Corridor from Rotterdam via Frankfurt/Main to Vienna. Applications implemented in this corridor are road works warning and improved traffic management by cooperative vehicle data. They are facilitated by hybrid communication, making use of ITS G5 wireless communication and cellular communication. He illustrated the project organisation in the Netherlands, Germany and Austria and reported the progress in the national project groups on e.g. system architecture, ITS central station, ITS road side station. He outlined the provisional lessons-learned, mainly that standards profiling is an essential step to come forward with interoperable systems providing the services in a coherent manner.

Secondly, Guy Frémont from SANEF presented the status of SCOOP@F. The project carries out deployment in five pilot sites in France and is currently in the phase of preparing the applications road works warning, probe vehicle data and hazardous location notification, facilitated by

► *next page*

ITS G5 communication. The specifications are almost in place and will be made publicly available in the web by the end of 2015. The second stage of SCOOP@F, selected for a grant from the European Commission, will last from 2016 to 2018 and will be used for providing additional services in a hybrid communication architecture. In this second phase, cross-testing in Portuguese, Spanish and Austrian pilot sides is envisaged.

Martin Volný afterwards introduced the activities on C-ITS deployment in the Czech Republic on behalf of the Czech Ministry of Transport, which is investing in C-ITS implementation for increased safety and enhanced travel time reliability on the relevant road network. Various national projects and pilots like e.g. BaSIC and the motorway D5 pilot site are set aside to proof the potential of C-ITS in different urban, interurban traffic scenarios as well as in cities and to test Day One applications of V2V and V2I/I2V communication. This operational experience leads the Czech Republic to further intensify pilot testing, to prepare an ITS corridor, large scale projects and cooperation for cross-border testing e.g. by linking the motorway D5 Prague – Pilsen to the German part of the C-ITS corridor.

With NordicWay, Illka Kotilainen from the Finish Transport Agency enlightened the engagement in C-ITS deployment in the northern European Countries. Finland, Sweden, Norway and Denmark herein cooperate for establishing a C-ITS corridor where three core services shall be provided: hazardous location warning, weather and slippery road warning as well as probe data services. Unlike the corridors presented previously, NordicWay builds up its applications on cellular C-ITS using 3G and 4G/LTE communication. NordicWay is supported by the European Commission under the framework of the Connecting Europe Facility (CEF) and has started its operation in May 2015.

In a comparable manner, the presentation of the Connected Vehicle Corridor in the United Kingdom given by Graham Hanson from the UK Department of Transportation outlined a strong commitment to C-ITS and a road investment strategy clearly scheduling V2V and V2I/I2V communication technologies. To maintain the UK's position as leading centre for developing and testing connected and autonomous vehicles, the idea of a connected corridor from London to Dover was started. The preference is clearly not only on optimising road transport, but on linking the road users also to rail and sea and optimising the freight management operations at this strategically important junction.

To complete the view on C-ITS deployment and the requirements for a successful roll-out formulated by different stakeholders, the session was followed by a presentation of the city perspective given by Pablo Isusi on behalf of the City of Bilbao, Spain. He addressed the challenges cities are facing in serving the mobility needs of all different traffic participants, being motorised or non-motorised, including individual travel, public transport and logistics. Bilbao has already started investing in IT development and set up intelligent transport services like parking metres, red light detectors and waiting time information signals for busses. Conscious that cooperative applications and interoperability between the solutions found by individual cities need to be next steps, Bilbao is involved in projects like Co-Cities concentrating on a standardised interface for a mobile journey planner.

As deployment related initiative, Knut Evensen from Q-Free gave an overview on the current work of the EU-US harmonisation task force and their working groups. Security and standards compliance is very important but we should focus on achieving experience on our primary target: C-ITS services. We should avoid a lock-in to premature standards: upgradeability must be part of the technology requirements.

And we should be prepared to update specs over time and to migrate to new versions with parallel operation.

The perspectives on the adequate framework for successful C-ITS deployment was complemented by Maria Alfayate from the Directorate General MOVE who outlined how the European Commission sustains C-ITS deployment in the phase where the implementation at least of Day One services starts. The EC has set up the C-ITS Deployment platform to look closely at the initial deployment scenarios and find ways to overcome identified hurdles for a concerted roll-out. With the H2020 research and innovation framework as well as the Connecting Europe Facility, the Commission financially supports innovation and coordination activities. She highlighted the next CEF call encouraging member states to apply for funding of C-ITS deployment activities which ideally demonstrate the interoperability of systems and services and create a link to existing projects, corridors and pilots in terms of cross-site testing.

As final C-ITS deployment related initiative, Frans op de Beek on behalf of the Dutch Road Authority displayed the concept developed by the Netherlands for the EU-Presidency in 2016. The goal is to clearly motivate European Cooperation (including both governments and industry) in the field of automated and connected driving.

All presentations held at the workshop are available at the website of the CODECS project in the category **"Library"**.

The workshop ended with a small ceremony where Frans op de Beek handed over the Chairmanship of the Amsterdam Group to Torsten Geißler. Symbolically, he presented the seasonable equipment as new leader of the umbrella organisation. Torsten Geißler on his turn thanked Frans for his commitment to the Amsterdam Group by giving him a nice book with a written message from Amsterdam Group members.

Frans op de Beek handed over the chairmanship of the "umbrella organisation" to Torsten Geißler.

CONVERGE develops open V2X-architecture
by the project partners of CONVERGE

The CONVERGE consortium has been researching the technical and operational framework for an openV2X architecture for three years.
*The acronym stands for **Co**mmunication **N**etwork **Ve**hicle **R**oad **G**lobal **E**xtension.*

The CONVERGE research initiative, funded by the German Federal Government, presented the results of its three-year project/work to the public in June. CONVERGE has taken a big step in defining the technical and operational conditions for an open V2X-architecture.

At the presentation of results, project coordinator Horst Wieker said that the aim is to integrate various communication systems such as ETSI ITS G5, mobile and broadcasting for V2X applications. He is head of the research group Transport Telematics at the University of Applied Sciences of the Saarland.

In a television interview, Wieker emphasised that the CONVERGE research results are freely accessible and can therefore be used by other project groups in the V2X communication field: "We are going to disclose all of our documents by the end of October so that they can be copied by anyone." This refers to an architecture that allows any number of, and possibly changing, content and service providers to securely interact and deliver services. The CONVERGE technology concept is supported by the following principles:

- easy integration of traffic control centres and other ITS service providers
- operator independence
- flexible addition and removal of services on the basis of an "open" interface definition
- controlled quality of information
- transparent use of complementary wireless technologies
- data exchange via extensible and decentralised V2X integrated systems

Service diversity following the example of the Internet

The envisaged system creates the technical conditions that will allow content and service providers to offer their services on the decentralised V2X architecture with minimal technical input. Like on the Internet the service provider selects those composite offers, which are relevant to him or his customers. For this purpose CONVERGE will define methods for an automated event management and a directory service based on the "Yellow Pages" for institutional and transnational V2X applications.
Two examples of application scenarios were the focus of the project presentation in June: a wrong-way driver notification as well as various logistical applications.

CONVERGE has developed an integrated IT security concept, which can ensure the protection of user data (e.g. movement data) as well as offer high quality internal and external services. Information can only be exchanged on the V2X Architecture by authorised service providers. The system filters the messages to such an extent that only information provided by trusted parties are processed further. The presentation of the scientific project results will take place on 13 October 2015 at the Federal Ministry of Economics in Berlin.

The following partners are involved in the CONVERGE research project:

Automobile Manufacturers: Adam Opel AG, BMW Group, Volkswagen AG;
Suppliers: PTV Group, Robert Bosch GmbH;
Mobile Solutions: Ericsson GmbH, Vodafone GmbH;
Public Sector: Hessen Mobil Road and Traffic Management;
Research: Federal Highway Research Institute (BASt), Fraunhofer Institute AISEC, Fraunhofer Institute FOKUS, htw saar University of Applied Sciences of the Saarland (HTW);
Associated Partners: Federal Network Agency and the Road administration of the city of Frankfurt/Main.

For more information visit: **www.converge-online.de**
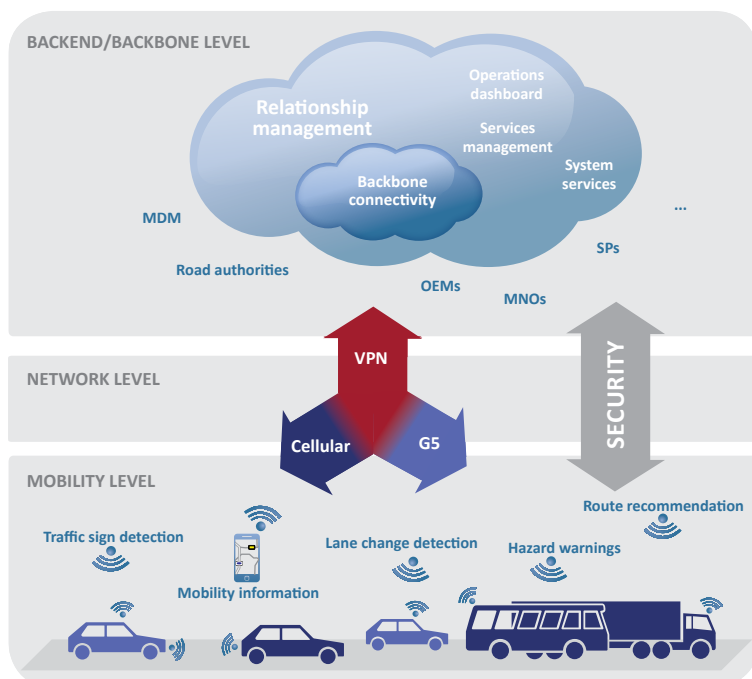
Schematic representation of interactions within the hybrid communication architecture.

CODECS: For a concerted roll-out of C-ITS applications across Europe

by Sonja Eickmann, ITS Niedersachsen GmbH, Coordinator of CODECS

*Under the acronym CODECS, a new Coordination and Support Action co-funded by the European Commission in the Horizon 2020 research and innovation framework has started its operation in May 2015. CODECS stands for **CO**operative ITS **DE**ployment **C**oordination **S**upport and aims at assisting key decision makers in C-ITS deployment to come to a concerted roll-out of V2X applications across Europe in the consecutive innovation phases.*

The project consortium consists of 10 partners from six different countries, representing main stakeholder groups in C-ITS deployment and herewith seasoned to give deployment coordination support in line with the requirements of all interest groups.

With the main objectives of ensuring the interoperability of systems and services to let end-users experience the benefits of C-ITS seamlessly, CODECS especially supports the work of the Amsterdam Group, the C-ITS Deployment Platform of the European Commission, the Standards Setting Organisations and other key deployment players.

CODECS takes up its operation at a point in time where corridor projects and pilots arise all over Europe, representing the first examples of real C-ITS deployment. The project partners will build-up a network to foster a transparent information exchange between stakeholders involved in these different deployment hot spots as well as those treading into the implementation process in a later phase.

Through workshops, webinars and personal consultation, CODECS steps into interactive discussion with these stakeholders to take an inventory on

- *the deployment status and applied implementation approaches with respect to use cases, functions, services, technologies, specifications, standards, profiles, protocols, message sets…*
- *experiences in initial C-ITS deployment, success stories and lessons-learned*
- *roles & responsibilities of different stakeholders*

- *perceived challenges in C-ITS deployment*
- *preferred use cases as well as the point in time for their implementation*
- *requirements for strategic decision making on regional, national and international level, with a special focus on the requirements formulated by cities engaging in C-ITS deployment.*

Acting as a nodal point, CODECS will consolidate the findings from the inventory. It will cluster and document deployment challenges identified by stakeholders and open strategy issues, use cases, applications and specifications, preferred use case, the technical specifications they require and their timely position in the phased deployment.

With the goal of ensuring that end-users experience applied services in a coherent quality and manner when travelling between different deployment hot spots, CODECS partners support standardisation for V2I/I2V services: They close gaps in specification by drafting white papers, and develop the minimum set of standards for services basing on the wireless communication between vehicles and traffic infrastructure (and vice versa). With a special focus on the requirements formulated by urban transport authorities active in C-ITS implementation, a feasibility study for defining common interface specification will be done. To support a concerted roll-out of C-ITS applications and to give guidance to later innovation phases with the corresponding research, testing and standardisation, CODECS develops guidelines: a standards profile for V2I and I2V services, complementing the work of the CAR 2 CAR Communication Consortium on basic system profile for V2V applications, a blueprint for deployment, recommendation for strategic decision making, and an aligned use case road map, harmonising especially services facilitated by C-ITS implementation into vehicles and traffic infrastructure.

In this way, the study logic of CODECS follows a bottom-up approach with figuring out the needs and priorities of the stakeholders active in C-ITS deployment, consolidating them in guidelines and taking them up for discussion in the high-level decision making councils.

The CODECS team invites interested stakeholders to join its network to actively shape the future of C-ITS implementation and bring their perspectives and priorities up for discussion.

*Further information about the project and contact persons can be found on **www.codecs-project.eu** and via info@codecs-project.eu.*
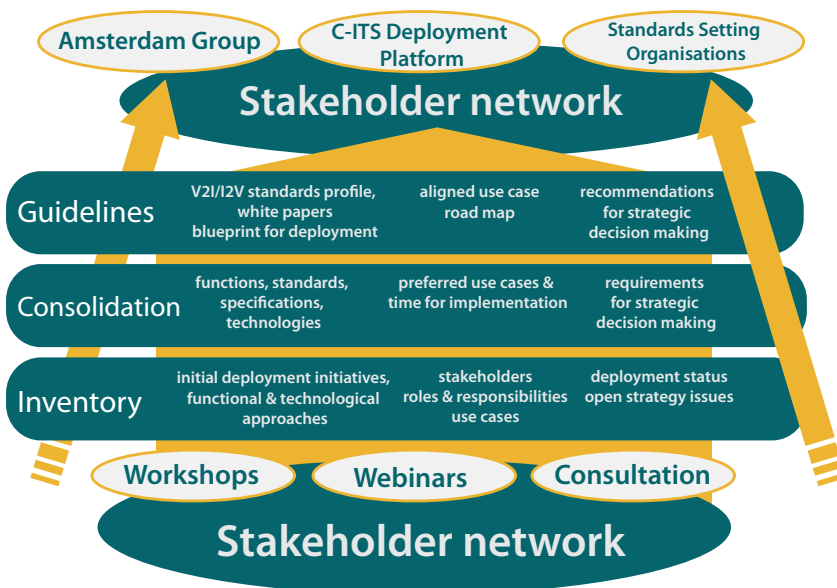
The CODECS bottom-up study logic.

Annoucements
by Sonja Eickmann, CAR 2 CAR Communication Consortium

Final Preparations for ITS World Congress Bordeaux

Stakeholders from the ITS Sector take up the final preparations for joining the ITS World Congress, taking place from 5 to 9 October 2015 in Bordeaux, France. Under the slogan "Towards Intelligent Mobility – Better use of space", the 22nd edition of the largest international conference on intelligent transport systems will focus on opportunities to use existing road infrastructure more efficiently, and potentials for strengthening ITS services in fusion with space technologies. Further main congress topics treated in different session and workshop types as well as the demonstrations and the exhibition are Cooperative ITS deployment challenges, multimodal transport for people and goods, urban trends driving ITS changes, solutions for sustainable mobility, automated roads, automated management, automated driving and the question if Big Data and Open Data are the key to coincidently satisfy end user's and transport manager's needs. Registered delegates can already secure their participation in the demonstration via the online registration. The organisers from ERTICO ITS Europe expect again 10.000 visitors to come to the ITS World Congress.

"Innovative technologies for high-speed roads" seminar in Moscow

The European Union Road Federation (ERF) follows-up on the successful cooperation with the State Company Russian Highways (AVTODOR) in fostering a dialogue between European and Russian experts on good practices to improve road infrastructure. For the second time, they invite to a joint seminar which will take place on 13 October 2015 in Moscow, Russia, in the framework of the DOROGA International Exhibition Forum. The title of the second seminar edition is "Innovative technologies for high-speed roads". It gives the participants the opportunity to receive a general overview on ways for improving road infrastructure through innovation, and declares how new technologies can increase the road elements' performance. DOROGA, as main event of the road sector in Russia, welcomes company representatives interested in latest products and technologies, market trends and business partnerships. More information about the DOROGA exhibition, the seminar and the registration can be found on the **ERF website**.

Workshop "Standards as ultimate enablers for ITS Deployment"

The iMobility Forum organises a two-day workshop on standardisation and certification aspects of connected mobility. The workshop takes place on 22 and 23 October 2015 in Brussels. Under the title "Standards as ultimate enablers for ITS deployment", the workshop aims at providing a clear view on the different ITS technologies and related standards, as well as certification and compliance assessment initiatives for ITS. The sessions are thematically clustered into communication technologies, GNSS based localisation services, automated vehicles, electro-mobility, ITS for transport and logistics as well as certification and compliance assessment. The presentations will not only give insight into the deployment status of the technologies, but also on roadmapping, standards and recommendations for future standardisation. Further information and the registration can be found on the **iMobility support webpage**.

FIA Policy Conference in Brussels

On 20 October 2015, the International Automobile Federation FIA will hold its policy conference in the Bibliothèque Solvay in the Parc Leopold, Brussels. The scope of the conference is "Driving Change, connecting mobility". Policymakers and stakeholders will meet here to discuss new trends in mobility and their impact on areas like data protection and liability. Speakers from the European parliament and national ministries, the automotive industry, public transport operators, research and associations will enlighten the vision of smart and sustainable urban mobility as well as new paradigms related to big data management, data privacy and liability. Further information can be found on the **website of FIA Region**.

4th eCall TESTFEST from 9 to 13 November 2015

For the fourth time, ERTICO and ETSI invite vendors of in-vehicle systems as well as PSAP devices to the eCall TESTFEST, this year taking place from 9 to 13 November 2015 in Ostrava, Czech Republic. The eCall TESTFEST provides suppliers with the opportunity to proof the interoperability of their systems in several test sessions. The event is hosted by the Ministry of Transport, the Ministry of Interior and Fire Rescue Service of the Czech Republic. Compared to the previous years, the fourth TESTFEST offers to carry out interoperability tests under more realistic conditions using the eCall flag over the local mobile network operators. During one day, calling the local fire brigade PSAP over the 112 will also be allowed. Many test solution vendors will provide test beds to complete interoperability test with conformance tests. Registration is possible on the **ETSI Website**.