

5G-CARMEN and Greta – touching the next frontier in entirely new societal benefits

Walter Aigner, Managing director, HiTec, Vienna, Austria
EuCNC 2019 - Workshop “5G in the Era of Connected Cars”

HiTec, Vienna, Austria

Walter Aigner, Managing director

- ✓ Coordinator of the Austrian cooperative connected Platooning Flagship Connecting Austria 2018 - 2020
- ✓ Project support to ASFINAG in C-ITS Corridor Rotterdam-Vienna
- ✓ MANTRA (CEDR CAD call; 2018 – 2020) Making full use of Automation for National Transport and Road Authorities
- ✓ 5G-CARMEN consortium partner leveraging for European value-added
- ✓ 5G Strategic Deployment Agenda for Connected Automated Mobility

We evaluated a large scale (MEuro 500 national funding scheme in eMobility + did a meta study on ITS evaluation practices

Our focus is on systemic evaluation in mobility and prerequisites for valid data

Contact us Walter Aigner wa@HiTec.at +4369912446379

Disclaimer

I share observations (on reactions from high-level panellists) at:

- ICT2019, Vienna workshop (reactions from high-level panellists)
 - 5G workshops in Brussels (February and May)
 - EUCAD2019 Brussels
 - ITSEurope2019
 - 5G cross-border projects workshop at ITSEurope2019 in Eindhoven
 - 5G cross-border projects kick-off Brussels Nov 16, 2018
 - Reflective remarks from my handing in related papers at ITF2019, TRA2020, ...
- sharing observations is not commitment to technical demonstration

HiTec in 5G-CARMEN

- WP2 T2.2 in use case definition (as a liaison to WP6.2, WP6.3 and WP6.4).
- **HiTec is task leader in T6.3** (Exploitation and commercialization)
- T6.2 to value-added services business models from 5G connected automobility and contribute to the market analysis and user involvement tasks.
- HiTec is supporting deployment strategy development and assess economic impacts from 5G-Carmen and assess sustainability impacts.
- T6.4 to KPI assessment (WP6 KPI Assessment and techno-economic analysis)
- project dissemination activities (T7.1).

5G-CARMEN: Connected and Automated Road Mobility in the European Union

Francesco Profumo

President, Fondazione Bruno Kessler,

On the 5G road to Smart Mobility

Mi., Dez. 5, 16:30 - 18:00

Ort: Hall A, Level 2

Referent: [Michał Boni](#), [Cecilia Bonefeld-Dahl](#), [Willem Jonker](#), [Steve Phillips](#), [Despina Spanou](#), [Francesco Profumo](#), [Jacob Bangsgaard](#), [Miguel Angel Lagunas](#), [Bernd Datler](#)

ICT VIENNA
4-6 DECEMBER
2018

IMAGINE DIGITAL
CONNECT EUROPE

 5G CARMEN

This project has received funding from the European Union's Horizon 2020 research and

#2 Pollution control in sensitive areas

Reward green driving styles



Connectivity

It is an essential matter to **reduce fuel consumption** and **pollutant emissions**, by controlling car and trucks behaviour. Scania reports 170.000 of sold connected vehicles until now (Scania, 2017).



Platooning as a good practice

An example of good practice is **platooning** has the potential to decrease fuel consumption by up to 12% (World Economic Forum, 2016) or even 20% (Chu, 2016) thanks to reduced aerodynamic drag.



Rewards

5G-Carmen system will allow to **provide rewards** to green driving styles, to decrease pollution created by bad habits.

Steve Phillips • 1.

Secretary-General at Conference...

#ICT2018. 5G-Carmen project aims for reducing pollution on important cross-border connection.



Taking-up on CEDR Secretary General's ...

I share observations (on reactions from high-level panellists) at:

- ICT2019, Vienna workshop (reactions from high-level panellists)
- 5G workshops in Brussels (February and May)
- EUCAD2019 Brussels
- ITSEurope2019 (my Special Interest Session June 4th 13-14)
- 5G cross-border projects workshop at ITSEurope2019 in Eindhoven
- 5G cross-border projects kick-off Brussels Nov 16, 2018
- Reflective remarks from my handing in related papers at ITF2019, TRA2020, ...

sharing observations is not commitment to technical demonstration

5G Strategic Deployment Agenda for Connected Automated Mobility

13th ITS Europe Congress,
Eindhoven, the Netherlands,
5 June 2019

European Commission

GSMA

5GAA

5G PPP

Mikael Fallgren, Chairman of the 5G Automotive WG

SIS13 - Touching the real infrastructure and embracing the unknown

Panellists:

Steve Phillips, Secretary General, CEDR [European Road Directors' platform]

Sandra Ulrich, Head of unit, ARNDT IDC GmbH & Co. KG, Hamburg

Manfred Harrer, Head of unit, ASFINAG [Maut Services GmbH], co-chair CAD WG, ERTRAC

Laura Cocone, Head of Innovation, SWARCO Mizar

Michael Rosenmayr, Member of City parliament Linz, Austria

Walter Aigner, Managing Director, HiTec, Vienna



Track 3. Connected, cooperative and automated mobility e. The changing role of infrastructure

#2 Pollution control in sensitive areas

Reward green driving styles



Connectivity

It is an essential matter to **reduce fuel consumption** and **pollutant emissions**, by controlling car and trucks behaviour. Scania reports 170.000 of sold connected vehicles until now (Scania, 2017).



Platooning as a good practice

An example of good practice is **platooning** has the potential to decrease fuel consumption by up to 12% (World Economic Forum, 2016) or even 20% (Chu, 2016) thanks to reduced aerodynamic drag.



Rewards

5G-Carmen system will allow to **provide rewards** to green driving styles, to decrease pollution created by bad habits.

EuCNC 2019 - “5G in the Era of Connected Cars”

Linking some threads in the context of societal benefits

- **5G-CARMEN and Greta – touching the next frontier in entirely new societal benefits**
- Telcos have been maintaining, new stakeholders will (have to) come in and invest for entirely new value-added services
- Automotive OEMs have suggested low(er) hanging fruits
- **Pollution-related activities is not within the legal frame of EC**
- **Pollution-related activities are touching a sweet spot and undiscussables with polarized (German) ministries / stakeholders**
- **Why would you need 5G for pollution-related activities?**
- **Where would be an appropriate space within 5G Strategic Deployment Agenda for Connected Automated Mobility and cross-project cooperation?**

Some validity check on my observations

 Researchers Test...
 
 <https://www.robotic...>

Cambridge in the U.K., meanwhile, took another approach – [robotization and automation to optimize traffic flows](#). In an experiment with autonomous vehicles that not only could communicate with each other, but also work together to prevent and resolve congestion, they discovered that traffic efficiency increased by 35%, resulting in less congestion.

Cooperative or ego-centric driving

Cooperative driving and rational solution-seeking is key to improve efficiency, something not all human drivers excel at. The

  Smart Cities & Urba...


Excited to confirm the addition of EMISSIONS & AIR QUALITY Smart Class 2H 2019 to this year's Smart Classes schedule! This event will be hosted on Thursday November 14th at The Bond in Birmingham and follows on from the edition we hosted in London back in April. If you've missed any of the "Retrospectives" we've released from that edition over the last 2 months, here's another chance to gain valuable insights from [#TheClimateRealityProject](#) [#VortexIoT](#) [#Imperial](#) [#Videalert](#) [#Airlabs](#) [#AirProfiling](#), [#FTA](#) and [#CityWestminster](#): Click on the presentation title of your choice to access the associated slides.

[Übersetzung anzeigen](#)



Steve Phillips hat das kommentiert 

 **Håkan Johansson** • 2.
Coordinator climate mitigation...
1 Woche • Bearbeitet

Today I presented our requirements and bonus models to reduce carbon emissions from infrastructure building and maintenance at the EAPA symposium "The future of asphalt industry" in Paris. In the panel discussion before my presentation [Steve Phillips](#) from CEDR complained that the road administrations do not set procurement rules to reduce carbon. "They do not dare." Well Steve we dare as you could see. See a presentation when I speak about our requirements. Hope it can inspire other road and rail administrations to dare.

[#EAPASymposium2019](#)

| Discussion – questions - comments

Urban Strategy powered by PTV Visum was also used in a project financed by the **Volkswagen Group** to model immissions (concentrations) in four German cities and to assess measures for clean air policies.



John G Smith • Follower
Editorial Director - Trucking and...
1 Monat



Ontario continues with plans to rework **#emissions** tests for **#trucks**, following the cancellation of the **#DriveClean** program for light-duty vehicles. Ontario Environment Minister Rod Phillips shared an update during a tour of DynaCERT in Toronto.

[Übersetzung anzeigen](#)



Douglas Bodden • 2.
IoT Architect at UgMO Technologies
18 Std.

Q: How did God create the world in 7 days?

A: He didn't have an installed base.

Greta Thunberg | Special Address, Annual Meeting ...:

[Übersetzung anzeigen](#)



Greta Thunberg | Special Address, Annual Meeting of the World Economic Forum 2...

So geht wirksamer Klimaschutz nicht

EIN KOMMENTAR VON NIKLAS ZÁBOJI
VERÖFFENTLICHT AM 15.06.2019 - 08:26



Weil die Regierung im Klimaschutz schnell handeln will, scheint eine nationale CO2-Steuer nah. Doch vor Aktionismus sei gewarnt.