



PRESS RELEASE

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New Ricardo report supports vehicle to infrastructure connectivity deployment

Report helps improve understanding of the costs, challenges and opportunities of different communication technology approaches to Vehicle to Infrastructure (V2I) use cases

Momentum is growing for wider scale deployment of V2I communication technologies in both vehicles and road infrastructure. However, to date deployment activities have been fragmented and relatively slow, due to continued emphasis on research, no common vision of communication technologies and market uncertainty, making it challenging for most stakeholders to develop suitable business cases.

To help support a greater understanding of financial viability of the communication approaches implemented in the EU and US V2I market, Ricardo transport and mobility experts, supported by technical experts from Roke Manor Research, analysed a range of V2I options which include the use of a pure cellular network system and using a combination of the cellular network with direct communication interfaces via the radio spectrum. The report was commissioned by 5GAA, a global cross-industry consortium working to develop end-to-end solutions for future mobility and transportation services.

Using outputs from extensive research and engagement with key ecosystem players, the Ricardo study weighs up strengths, weaknesses and

complementarity of the different communications technologies in terms of their technical performance and costs under a range of use cases. For example, the cost analysis highlights that a pure cellular deployment approach in Europe and the US is 40-45 percent lower cost when compared with deployments that include direct communication roadside units.



In recognizing the opportunities and benefits identified, the report makes a number of recommendations that include increased cooperation and communication of technology strategy between vehicle manufacturers, central government, road operators and cellular technology providers. This is in particular with the consideration of interoperability of technology solutions. Central government is also identified as playing a key role through effective implementation of financial instruments to leverage private sector investment and support wider deployment.

Denis Naberezhnykh, Ricardo's transport technical director commented:

“Increased communication and connectivity between vehicle and infrastructure has the potential to create significant benefit, not only to vehicle users, but also through wide-ranging societal benefits that will positively impact the economy, community mobility and the environment. However, the current fragmentation of technical approaches and stakeholders has the potential to significantly slow V2I market adoption. Ricardo is therefore proud to have developed this report on behalf of 5GAA, to encourage greater understanding of the financial viability of V2I and how this aligns with technology choices, as well as helping to identify where increased collaboration is needed.”

*A full copy of the Ricardo report '**Cost analysis of V2I deployment**' is available for download from the 5GAA web site: <https://5gaa.org/news/cost-analysis-of-v2i-deployment/>*

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NOTES TO EDITORS:



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