

Delivering improved interoperability of urban ITS

The 3 years of discussion and knowledge sharing about Open Specifications and Standards (OSS) for urban ITS have been very beneficial to all partners of the POSSE project, even to the two partners with extensive experience of working with OSS (OCA in the German-speaking countries and UTMC in the UK). The main findings and recommendations from this INTERREG IVC co-funded project are encapsulated in several reports, notably, the POSSE Good Practice Guide to developing and implementing OSS and the POSSE Exploitation Plan, both of which were published towards the end of 2014.

Benefits of Open Specifications and Standards:

Improved integration of ITS which enables more efficient traffic operations

Cost reductions, particularly for traffic controllers

Better innovation in product terms and in the emergence of new sectors

Simplification of tendering procedures, due to the impartial technical specifications and transferability of tendering documents

'One size does not fit all'

A key finding of the project is that the diversity of Europe, notably its institutional and market culture, makes it extremely challenging to have a single approach or framework for achieving interoperability of urban ITS. The original intention of the POSSE project was to deliver a combined approach to OSS, building on the Germanic and UK approaches; however, this has proved unattainable. Furthermore, while the approach of UTMC and OCA in generating and disseminating standards was found to be very valuable, it was not appropriate to simply adopt their specific technical frameworks in other countries. However, the overall principles are transferable and these have been brought together in the POSSE Good Practice Guide.

The Good Practice Guide identifies what needs to be considered in developing an OSS framework at each stage and provides an overview of how UTMC was developed in the UK and how OCIT/OTS has been developed in Germany. UTMC demonstrates a government-initiated approach whilst OCIT/OTS represents a city group/supplier-led approach.

A key conclusion of the project is that a national/regional approach to developing an OSS framework is most likely to succeed, as opposed to a single European model. The POSSE Good Practice Guide can offer useful guidance in this respect, in particular through the phased approach it sets out.



A phased approach to developing an open specifications and standards framework for urban ITS

The Guide also gives an insight to the approaches identified by the Transfer Sites to develop OSS. For example, CDV identified that a mix of UTMIC and OCA approaches would be the most suitable for the Czech Republic which is developing specifications for on-street parking monitors based on DATEX II. In Burgos and La Spezia, the OSS approach is being applied to open data. Pisa is looking more closely at the UTMIC specifications framework for a wide range of ITS technologies. Norway already had its own OSS programme and used POSSE as a sounding board for developing its own systems. A first procurement using its ARKTRANS framework has shown a 50% cost saving. Klaipeda has made significant advancement in terms of ITS deployment plans and has used POSSE involvement to help develop its ITS strategies.

What next?

If a national/regional approach to OSS development and implementation is the most realistic scenario, the key question is what can be done to make this happen? It requires effort at regional or national level, whether driven by national governments or through city groups/networks. In some countries (notably, Germany, Austria, Switzerland, United Kingdom and more recently in the Nordic countries), this is already underway. In most of the other European countries, the starting point is probably lower. Yet, vendor lock-in is widespread in most of Europe. Many city and regional authorities are dependent on the products on offer and have a reluctance (for cost and risk reasons) to stray far from an established local supplier base.

In order to overcome the vendor lock-in that exists in some countries and to maximise the effectiveness of the market, there is scope for a long-term European action to encourage the development of national/regional frameworks where they do not currently exist and to facilitate knowledge exchange among the existing national/regional fora.

A similar activity has been underway in Europe for some time in the context of the Trans European Road Network (TERN), in the support (through a series of R&D projects) of the DATEX II programme. The city ITS context is more complex and the conclusion of POSSE partners is that the EC's mechanism for supporting DATEX cannot be extended in a way which is relevant to OSS for cities.

The scope of European action therefore needs careful structuring. It should certainly include the opportunity for local networks to access and review each other's specifications. It could include links with CEN or other standards bodies, where a general acceptance of particular architectures or protocols is achieved. It should probably include a way of engaging with the supply industry, particularly with those large companies that operate widely across Europe, though this would need to be strictly controlled to avoid disadvantage to smaller and more local suppliers.

Based on the POSSE experience, the POSSE partners encourage the European Commission to consider how it could use the tools at its disposal to support an action of this kind. It will be a long term process but the POSSE project has created some useful pointers as to its value.

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