ITS innovation will benefit transport in the Middle East

*Zeina Nazer, secretary general of ITS-Arab, introduces the rapid evolution of Intelligent Transport Systems in the Middle East and North Africa and talks about the special challenges and opportunities this represents, both for the industry and her organisation

Over the past six years, **ITS Arab** has focused on promoting Intelligent Transport Systems (ITS) at the policy and decision making echelons, while developing ITS specifications at a project design level throughout the Middle East and North Africa (MENA) region.

Zeina Nazer is secretary general of ITS-Arab and also managing director of Innova Consulting

The initial expectation was that the process for promoting ITS deployments would follow the usual international trend and begin with the presentation of ITS business cases, including cost benefit analysis, designed to win over the relevant policy and decision makers.

It soon became apparent, however, that most policy and decision makers across the Arab world needed little convincing. They were immediately persuaded regarding the benefits of ITS so it was never necessary to go through the time and formality of generating detailed ITS business cases.

In the same vein, ITS-Arab noted that most decision makers issued guidelines for consultants calling on them to keep their master plans clear and concise, with the focus on quality rather than quantity of pages.

With most of the key players already demonstrating clear leadership and commitment towards ITS solutions for tackling both traffic congestion and safety issues, it was rapidly evident that the Arab world was well-placed to fast track deployment.

The situation was less rosy, however, with respect to the development of ITS specifications. So, whilst on the surface it could be argued that the situation was consistent with prevailing international trends, the reality was that there tended to be delays across the board when it came to the development of ITS specifications. These applied to both approved projects and the agreed deliverables of ITS-Arab working groups.

The most common denominator explaining the delays was that the various parties concerned seemed to somewhat underestimate the task, and consequently failed to allocate adequate resources and coordination.

ITS-Arab has since attained sufficient maturity as an organisation to learn from these initial experiences and fine-tune its future strategies accordingly.

Current changes within ITS-Arab include the updating of internal and external systems, and the recruitment of additional staff. This ongoing evolution is aimed at refining future plans and ensuring that the organisation has optimal capacity to address future challenges in the service of its members.

Zeina Nazer (left) participated in a panel discussion on the Future of Road Networks during the IRF Regional Conference: North Africa & Mediterranean

The prevailing transport infrastructure situation within the Arab region is that public transport networks are still largely the object of study, design or early deployment. It follows that private vehicles remain the dominant mode of transport; and that road infrastructure deployment is currently failing to keep pace with traffic growth.

To address this situation proactively, ITS solutions are becoming part of the mainstream infrastructure development agenda, and the pipeline of opportunities in this field is forecast to grow by more than 200% in 2013.

The growth is anticipated both from projects aimed at upgrading existing infrastructure and from new infrastructure initiatives. Most ITS initiatives planned for 2013 are focusing on tackling traffic safety and congestion issues. They fall into four main categories. Firstly, there are safety related projects, which cover a wide range of technologies, including traffic enforcement measures and systems aimed at enhancing safety at school crossings, uncontrolled junctions and such like. Secondly, there are traffic control system projects designed to get to grips with congestion. These are likely to focus initially on the deployment of adaptive traffic control systems, as international experience has compellingly demonstrated that such fully adaptive systems can alone provide an average 20% improvement in traffic congestion – a fact largely acknowledged by key decision makers.

A third category of projects revolves around Variable Message Signs (VMS) or, as they are sometimes referred to, Dynamic Message Signs (DMS). These systems are increasing in popularity and it is widely recognised that they offer 'quick win' solutions for managing congestion and improving safety. Finally, traffic-monitoring and information systems are also gaining in popularity, given growing

acceptance of the need to monitor and manage operations dynamically. In the past, such systems were sometimes viewed as superfluous, but there is now general agreement regarding their value and potential in terms of enabling the relevant stakeholders to coordinate and efficiently manage their responsibilities, as well as their communications with other competent authorities and the public at large.

Clearly this is not an exhaustive list of initiatives. It is, however, indicative of the current direction for growth in ITS deployment; a path that runs parallel to and complements continued road and public transport infrastructure development and deployment.

Looking into the future, the leading public authorities are actively beginning to address the lessons learnt from earlier approaches to specification development and deployment. Already, the

A specialist workshop session on the status of ITS deployment in the MENA region, co-hosted with ITS-Arab and led by the author during the IRF Regional Conference in Marrakech

benefit of this past experience has highlighted a need to balance the confidentiality aspects of projects with the obvious desirability of establishing enhanced coordination between the relevant authorities and organisations; with a view to addressing the traffic safety and congestion management challenges that lie ahead with maximum efficiency.

Similarly, there is a growing desire to make the output from selected studies publicly available, so as to avoid wasting resources on 'reinventing the wheel' while, at the same time, encouraging wider participation from academics and the private sector.

Over the next few years, the MENA countries are clearly destined to lead the way with respect to ITS deployment in the wider region. The process is notably being driven by government policies directed towards improving safety, tackling congestion and enabling e-government services.

Whilst technically there is an undoubted desire to address interoperability issues as early as possible, on a practical level the planned approach has been to procure ITS solutions that have already been proven, and which comply with the latest international standards – the object being to accelerate deployments within an open architecture framework that will facilitate the integration and interoperability of future systems. Although at an operational level there is a growing recognition that this approach will prove far more challenging than the underlying technical issues, it is likely to provide an excellent opportunity for the policy and decision makers to leap-frog into fully integrated ITS deployments that are aligned with other operational and e-government systems.

The emergency services, especially the traffic police, have a clear advantage in terms of tackling ITS operational issues due to their existing experience. Other

Discussing a point with Josef Czako, Chair of the IRF Policy Committee on ITS

ITS stakeholders, however - especially the traditional road infrastructure owners and providers – will doubtless be confronted with bigger challenges. This is because most of them will need to re-engineer their current operational processes so as to effectively become road infrastructure operators as opposed to merely providers and maintainers.

In conclusion, ITS deployments are now accepted as essential components of the kind of transport infrastructure projects in which the MENA region is currently investing heavily. This evolution is destined to reshape the MENA market with further opportunities for new ITS business models.

The consequent challenges facing ITS-Arab are expected to multiply very rapidly over the next few years. In the past, ITS-Arab has successfully provided wide ranging support to its core members, which covered virtually the full spectrum of activities from ITS policy development to detailed design review. Moving into the future, the organisation will need to rise to the delicate task of balancing the demands of its rapidly growing membership between promoting networking opportunities and developing long overdue ITS guidelines and specifications.

Zeina Nazer is also managing director of Innova Consulting. She recently co-chaired a dedicated workshop session on ITS deployment, and participated in a special panel discussion on the future of road networks, during the IRF Regional Conference: North Africa & Mediterranean, held in Marrakech on 19-20 March, 2013. The full proceedings of this event may be accessed via the IRF Geneva website (www.irfnet.ch). Zeina Nazer may be contacted via Zeina@innovaconsulting.co.uk or zeina.nazer@itsarab.org

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