CoMET and Nova Websites Very Popular with Members

The new CoMET and Nova websites have been live since September 2006 but it is difficult for everyone involved in the groups to imagine what life was like before their introduction. The websites now boast over 311 users spread amongst the 26 member metros.

In the secure area of the site over one thousand documents are available for download, providing a database of thirteen years of metro benchmarking experience. Users have so far made around 6500 unique downloads of some 1059 different files.

As well as providing a secure database facility, the website also serves as the public face of the CoMET and Nova groups - giving visitors the chance to find out about metro benchmarking. However, all members agree that the Forum is the most advanced feature of the new sites; its benefits are discussed on page 2.

Nova Welcomes New European Members

Nova is fortunate to welcome two new European members in 2006/7: Azienda Transporti Milanesi (ATM) and Transport Metroplitans de Barcelona (TMB) further diversify the group’s membership while enhancing Nova’s ability to generate valuable benchmarking comparisons.

Milan is Italy’s second largest city, capital of the country’s north with a population of 1.5 million inhabitants. ATM was founded as a company in 1931 and the first metro line opened in 1964. The metro network is now 73.8 km long with 3 lines and 84 stations; in 2006 ATM carried 318 million passengers. Extensions to all three lines are due to be completed this year.

Barcelona is the capital city of Catalonia, with 1.6 million inhabitants. TMB operates the city’s six metro lines with a network of 100 stations along 85.9 km of routes. In 2006 Barcelona Metro carried 353 million passengers. The original line was opened in 1924 and now forms part of the modern Line 3. However, the metro continues to expand: Currently Lines 9 and 10 are being constructed; when completed, Line 9 will be the longest fully underground metro line in Europe with 46 stations over 42.6 km.

Milan ATM and Barcelona TMB are both joining Nova at an exciting time in their development. The information and experiences they will share with Nova are sure to prove invaluable to all members.
Benefits of The CoMET and Nova Websites Forum

Since the CoMET and Nova Website Forum went live at the end of August 2006, 107 questions have been posted receiving over 990 responses.

The Forum allows more employees within CoMET and Nova organisations to rapidly access the knowledge and experience of their colleagues around the world.

Members have benefited from the Forum by posting questions to establish how other metros deal with current problems or cope with the introduction of new technology. Questions can cover areas as broad as train capacity and scheduling (Metro de Sao Paulo) or as detailed as the level of the audible alert issued by new smart card readers (Metro Rio). Another post has asked for the rules and procedures for allowing bicycles into the network.

"The Forum allows us to share in topics and concepts that would be disproportionately resource demanding to research on our own."
Jim Douglas, SPT Glasgow

The Forum has been particularly beneficial for smaller systems. Glasgow SPT has only posted one question on the Forum, but it has also used the information collected on questions such as Wi-Fi in tunnels, smartcard experience, use of wheel lathes and tunnel cleaning.

Singapore SMRT used the Forum while researching the possibilities of the latest intelligent CCTV; this enabled them to contact experts in London and New York and learn from their experiences of trialling the technology.

However the Forum is used, it is clear that its ability to reach a network of experts from around the world has transformed the CoMET and Nova experience for members.

Pilot CoMET Exchange Program

In October 2007, a pilot exchange programme will take place between London Underground (LUL) and Hong Kong MTR; where two engineering staff from these metros will swap jobs for six to nine months. Two operations staff will do the same.

This exchange program provides a practical opportunity for group members to benefit from sharing best practices with one another, while providing a means to develop their talents through exposure to a different culture and new practices. Benefits will not be restricted to those immediately involved and will extend to all staff participating in the preparation of this program. Jenny Simnett, Senior Business partner with LUL, has led the project in collaboration with Hong Kong MTR. She said "It has been a rewarding experience working remotely with colleagues in MTR and understanding more about Hong Kong Chinese culture."

Separately, Eunice Tang, an engineering staff member from Hong Kong MTR, is on secondment to the RTSC at Imperial College London for four months. Her main focus will be the CoMET 2007 Rolling Stock Reliability of New and Ageing Fleets Case Study, although she will also gain valuable insights into the CoMET and Nova benchmarking process.

Nova Welcomes Delhi Metro, its first Indian Member

The Nova Benchmarking group and the RTSC at Imperial College London are pleased to welcome the first Indian member of the Nova group: Delhi Metro Rail Corporation. Delhi Metro opened its first line in December 2002, becoming only the second metro railway in India.

Since 2002 Delhi Metro has opened a further 2 lines serving a total 49 stations along 56km of lines. Phase 2 of the construction, scheduled to be completed in 2010, includes 84 km of extensions to the existing lines. Phases 3 and 4 are planned for completion in 2015 and 2021 respectively and will add an additional 189 km to the network. It is certainly an exciting time for Delhi Metro as these plans for expansion are realised.

In March 2007 senior associates from the RTSC visited Delhi to help the metro prepare for Nova membership. The RTSC were very impressed by the modern, efficient metro service and by the Delhi Metro management team. The Nova group is sure to benefit a great deal from Delhi Metro’s participation.
CoMET 2006 Case Study Reports now Available to Members

The two main CoMET 2006 Case Study Reports: Disseminating Passenger Information and Rolling Stock Reliability, were published in March 2007. The Disseminating Passenger Information report considered the role of new technologies in the communication of relevant information to customers. The study considered the available technology currently used and with the potential to be used in metros. The report recommends that metros ensure that they address the basic information needs of passengers. New technologies can be employed in line with passenger expectations, particularly for the dissemination of real time service information.

However, technology alone cannot be relied upon; London and Hong Kong also cite the importance of well trained staff when fulfilling passengers information needs. The Rolling Stock Reliability Case Study identified the key factors affecting rolling stock reliability in order to reduce the negative impacts of rolling stock failures upon train service.

The Rolling Stock Reliability Case Study reports identified the key factors affecting rolling stock reliability in order to reduce the negative impacts of rolling stock failures upon train service.

The study has identified processes and practices which improve service quality delivered to passengers through a reduction in delays attributed to rolling stock failures. Furthermore, optimising the relationship between the rolling stock and operations departments to improve reliability was one topic discussed at the Rolling Stock Reliability Workshop in Madrid.

At the CoMET 2007 Management Meeting, metros agreed to undertake further work on rolling stock reliability, with a second Case Study specifically focusing on two areas: the reliability of new and ageing fleets and the reliability of rolling stock sub-components. This new study will include a continuation of the analysis of metros’ rolling stock reliability data, allowing members to further benefit.

Toronto Meeting Marks Nova Phase IX Success

Nova Phase IX began in October 2006 with the Management Meeting in Singapore; the meeting was very well attended by members of the group. Barcelona was welcomed to its first meeting as a Nova member.

In Singapore the group agreed upon important changes to the Key Performance Indicator (KPI) system and also chose Case Study topics for Phase IX. These studies cover Regulatory Regimes, Wireless Data Transmission, Passenger Counting and Customer Satisfaction and Service Quality.

Following research and analysis by the RTSC the case study results were presented at the Annual Meeting in Toronto. The Regulatory Regimes Study concluded that with increasing private sector involvement in metro operations, management must work with government to ensure that regimes have clear objectives and allow metro management the autonomy to meet them.

The Wireless Data Transmission study found that these technologies are not yet well used by metros. However, there is a clear trend for increasing use of wireless transmission particularly to allow real time display of train CCTV images in control centres.

A key finding from the Customer Satisfaction and Service Quality study was that many metros are undertaking some form of customer satisfaction surveys, but few apply a systematic methodology for using results to make investment and business decisions. The real value of service quality measurement is to focus investment and management attention on areas where the greatest benefits can be achieved. As such, metros need to understand their customers’ views and the level of service quality they are providing.

Metro News: Taipei TRTC Installs Platform Safety

In an effort to further improve their already exemplary safety record, Nova member Taipei Rapid Transit Corporation (TRTC) has installed ‘half-height’ Platform Screen Doors (PSD’s) on platforms of the two main interchange stations.

The construction of new metros with PSD’s has been a trend around the world. However, TRTC faced a formidable challenge to modify operational stations. This retrofitting also required modification of signalling and train operating design standards. In stations without platform gates TRTC developed the worlds first ‘platform area & rail track intrusion detection & warning system’. The system uses radars to detect passengers very close to the edge of the platforms or falling onto the track and warns drivers and station staff accordingly.

The Nova and CoMET groups will be very interested to learn of the success of these new measures.
Co-ordination of the benchmarking groups is undertaken by the Railway and Transport Strategy Centre (RTSC) at Imperial College London. Imperial is currently ranked in the top ten universities in the World (THES 2006 World University ranking)

Since CoMET was formed 13 years ago, the international benchmarking groups have grown continuously. In CoMET and Nova there are now 26 systems across the world taking part. Activities follow an annual cycle based around a system of common Key Performance Indicators (KPIs).

The objectives of CoMET and Nova are:

1. To build measures to establish metro best practice
2. To provide comparative information both for the metro board and the government
3. To introduce a system of measures for management
4. To prioritise areas for improvement.

Metro focus: Shanghai SMOC

Shanghai SMOC (Shanghai Metro Operating Company) joined the CoMET group in 2006 and is the first and only group member in mainland China.

Shanghai’s first metro line did not open until April 1995. Since the opening of the first 16.1 km-long Line 1, only twelve years ago, Shanghai Metro has already expanded its size to a network of 125 km, with 5 lines in operation, and daily passenger journeys numbering over 1.7 million.

However, this initial phase of construction is only the beginning: Shanghai’s economy has grown at a phenomenal rate, creating jobs, attracting migrants from the countryside and hence driving demand for urban transportation.

Shanghai Metro is now undergoing the second phase of its ambitious construction timetable. Over the next 3 years, in time for the city to host Expo 2010, another 300km of metro and light rail lines will become operational. Once completed the Shanghai metro will be one of the world’s largest metros.

Cooperation with CoMET members will be invaluable for Shanghai as it manages the rapid transition from operating five lines to being one of the busiest metro and light rail networks in the world. Correspondingly the challenges Shanghai overcomes during its rapid expansion will, no doubt, be of great interest to other CoMET and Nova systems requiring expansion to meet increasing passenger demand.