Welcome to the first edition of the CoMET and Nova Newsletter

Welcome to the first edition of the CoMET and Nova Newsletter. There will be 2 editions of the newsletter each year, providing information about the recent activities of the two benchmarking groups as well as background information on the groups and their members. We also plan to have a feature article on one of the member metros in each edition, starting in this issue with Taipei TRTC.

The newsletter has been developed to provide information to a broader audience on the CoMET and Nova international metro benchmarking groups. Without the restrictions on circulation which are imposed on other reports resulting from the (necessarily) strict confidentiality agreement between members, the newsletter has been designed for free circulation within the member metros and externally.

The close relationship between the two groups makes it beneficial to have a joint newsletter covering CoMET and Nova.

CoMET was formed 12 years ago and now comprises 12 of the world’s largest metro systems (Berlin BVG, Hong Kong MTR, London Underground, Metro de Madrid, Mexico City STC, Moscow MoM, Paris Metro, Paris RER, New York City Transit, Shanghai SMC, Sa Paolo MSP and Tokyo Metro). The current criteria for CoMET membership is an annual passenger demand of over 500 million journeys.

Nova was originally established following requests from metros too small for CoMET. It now comprises 13 small to medium sized systems (Buenos Aires, Dublin, Glasgow, Hong Kong (KCRC), Lisbon, Montréal, Naples, Newcastle, Rio de Janeiro, Santiago de Chile, Singapore, Taipei and Toronto).

If you would like to find out more about CoMET and Nova, contact details are provided at the end of the newsletter.

New CoMET and Nova members in South America and China

The growth of Shanghai Metro Operation Company (SMOC), which joined CoMET in 2005, reflects the increasing economic importance of China. Although the first line only opened in 1993 there are already 125km of metro lines in Shanghai, with 510km due to be operational by 2010. SMOC currently operates 4 of the lines (75km).

Nova also gained two new members in 2005, with both Metro Rio and Metro de Santiago joining the group. Metro Rio operate two lines in Rio de Janeiro and have achieved impressive improvements since taking over in 1998, while Metro de Santiago provides the Chilean capital with very high quality metro.

The participation of these metro brings the total number of systems in CoMET and Nova to twenty-five.
Latest Meetings—Sao Paulo and Buenos Aires

Each Annual Phase of CoMET and Nova starts with a Management Meeting, where the work programme for the coming year is agreed. The phase then ends with an Annual Meeting, where key results from the year are presented.

For CoMET, Management Meetings are usually held in February, with the Annual Meeting taking place in October/November. In the case of Nova, these meetings are held in October/November and April/May respectively.

Each of the meetings is hosted by one of the member metros, who also arrange technical visits to their metro for the meeting participants.

Following on from CoMET 2005 Annual Meeting, which was held in Moscow, Metro Sao Paulo were this year’s host of the CoMET Management Meeting, on 22nd-24th February 2006.

One of the most impressive features of the Metro Sao Paulo is their ability to handle the very high passenger density. Participants were able to view this performance at first hand during a visit to a key interchange station.

The Nova group also visited South America this year, to attend the Nova Phase VIII Annual Meeting which was hosted by Metrovias in Buenos Aires.

The next meeting will be the Nova Phase IX Management Meeting in Singapore on 19th-20th October 2006. This will be followed shortly by the 2006 CoMET Annual Meeting which will be held in Paris, on 7th-10th November 2006, hosted by RATP.

Keeping the Key Performance Indicator System Up-to-Date

One of the major tasks currently being undertaken by CoMET and Nova is a complete review of the Key Performance Indicator (KPI) system. There are approximately 35 indicators calculated annually, based on data collected by the participant metros and covering service quality and safety as well as operational and financial performance.

The KPIs are used to compare the performance between systems and to identify emerging trends within individual metros. Areas of interest are then investigated though more detailed studies.

Reviews of the KPI system are carried out every few years to ensure that the indicators continue to meet the needs of the group while reflecting changes within the organisations themselves.

One example is the increase in the number of activities which many metros outsource to other organisations (e.g., maintenance and cleaning). The KPI system needs to reflect this accurately. Definitions are also being reviewed to improve clarity.

Proposed changes to the KPI system will be adopted from 2006 onwards, following agreement with all members.

Over 50 Case Studies and 90 Clearinghouse Studies Completed

Over 140 subjects have now been studied by the groups using the Case Study and Clearinghouse Study Processes. Topics range from fares, funding & financing and ticketing to managing energy consumption and monitoring asset conditions.

The key objective the studies is to collect metros’ knowledge and experiences of specific subjects, and to identify ‘Best Practices’ which could be adopted by others.

Around 3 Case Studies per group are undertaken each year. Members propose subjects, which are selected by a vote at the Management Meetings. Information is collected by detailed questionnaires. Interviews, analysis and report production is done by RTSC at Imperial College London.

Clearinghouse Studies are shorter studies, initiated by a member metro at any time on a topic of their interest. Members develop a short questionnaire, which is circulated throughout the two groups. Simple analysis is undertaken by the metro proposing the study and reports are circulated to all members by RTSC.
Latest Case Study Results Now Available to Members

The latest Nova Case Studies have recently been completed, with key results being presented at the Nova Annual Meeting in Buenos Aires.

A study on The Safe Movement of Passengers within Stations covered design and management measures to reduce the incidence of passenger accidents in stations, including falls in escalators and stairs.

Several best practices in security were identified during the Security in Metro Stations and Trains Case Study: including:

- “intelligence based” security planning to allocate staff effectively.
- Improved methods for passengers to report crimes.

The third study, on Rolling Stock Procurement provides members with an overview of the specifications of recent train orders. The information helped one metro to completely re-think its train design concept for its fleet replacement programme.

The CoMET group has recently commenced work on a major case study of rolling stock reliability. The aim is to understand the statistics and measurement methods which metro use to monitor the performance of their trains, and to identify best practices which can lead to a reduction in service disruptions caused by rolling stock failures.

All members of CoMET and Nova have access to the reports of both groups’ studies. Executives summaries are available in the local languages of the metros as well as in English.

The Benefits of CoMET and Nova membership

A small group size, which enables close relationships between members, has provided a number of significant benefits to members.

Hong Kong MTR who have been a member of CoMET since the outset, is arguably a metro which has gained most from the group. Phil Gaffney, a past Managing Director of the MTR, has highlighted that “CoMET is an integral part of MTR’s culture of continuous improvement”. The MTR identified a number of key reasons why the metro has been able to gain so much from CoMET:

- CoMET is used throughout the organisation, in all line departments.
- KPIs built into performance requirements for each business unit.
- Regular communication of results internally, including to Board.

-Supports proactive stakeholder management.

-External dissemination to government on fares and funding issues with support from RTSC.

The MTR’s experience is reflected across CoMET and Nova, with those most involved achieving the greatest gains.

Keeping CoMET and Nova On-line

Two new websites have been created for the CoMET and Nova groups to provide additional functionality for members.

The websites provide members with direct access to all data and reports produced since the projects’ inception, as well as more general background information. The websites include a “Forum” (or chat-room) where functional managers can ask other metros short questions or discuss detailed management and operational issues.

A key focus of the website development has been security. As well as one top-level password, each member will be able to provide lower-level passwords to selected staff within their organisation, giving them access to specific areas or documents.

In the future there will also be a fully functional graph generation facility, enabling metros to compare their performance against other group members using over 70 data items collected annually as part of the group’s Key Performance Indicator (KPI) system.

“We try to be best and very often are, but CoMET is very beneficial to us as it opens our eyes to things we might not have seen before.” - Andrew McCusker, Operations Director Hong Kong MTR
Since CoMET was formed 12 years ago, the international benchmarking groups have grown. In CoMET and Nova there are now 25 systems across the world taking part. Since this time membership has continued to grow, with activities following 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.

Co-ordination of the benchmarking groups is undertaken by the Railway Technology Strategy Centre (RTSC) at Imperial College London; one of the leading scientific universities in Europe.

Metro focus: Taipei TRTC

As might be expected from one of the world’s most dynamic cities, TRTC is growing rapidly with more than 1 million passengers per day now travelling on the system which only opened in the 1990’s.

TRTC’s system comprises two different technologies; while most of the system uses conventional metro technology, they also operate one automated medium capacity system which runs on rubber tyres.

TRTC joined Nova in 2003 and has become one of the most active members of the group.

Nova members had the opportunity to visit Taipei in April 2005 when TRTC hosted the Nova Annual Meeting. Mr. Huan-Kuang Chang, Vice-President of TRTC, currently holds the Chairmanship of the group.

One of the most impressive features of the TRTC system is the achievement of very high levels of reliability, which has been highlighted though their membership of Nova. According to the latest figures, TRTC are now the most reliable metro in the benchmarking groups, and their upward progress in reducing delay-causing incidents has been remarkable.

A smartcard ticketing system, known as Easycard, is in operation across the entire TRTC network, and can also be used on bus services within the city.

The TRTC network is also in the process of expansion, with a number of new lines and extensions being developed and planned (see http://english.trtc.com.tw/).

Taipei TRTC operates through the densely populated urban area.