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DEVELOPMENT OF A EUROPEAN TRANSPORT DATABASE SYSTEM

**TRANS-EUROPEAN NORTH-SOUTH MOTORWAY (TEM) AND
TRANS-EUROPEAN RAILWAY (TER) DATABASES**

Note by the secretariat

Background

At its fourteenth session, the Working Party agreed to consider this item in 2003. This note provides an update about the progress made in the development of the TEM and TER databases, and of other activities undertaken by the UNECE on the design and implementation of a European Transport Database System (TDS).

TEM DATABASE

In the framework of the TEM Project in which 13 Central and Eastern European countries participate, two databases (TEMSTAT 1 and TEMSTAT 2) have been established. TEMSTAT 1 reflects the status of the existing and future TEM motorway network, while TEMSTAT 2 presents the status of the national road system. The following data have been stored in these databases at the TEM Project Central Office (PCO) in Warsaw:

- motorway/road number (international/national)
- lengths of sections (in operation, under construction, planned)
- number of carriageways/lanes
- lane and shoulder widths
- maximum longitudinal gradient
- lengths within built-up areas
- lengths of road having design speed less than 60 km/h
- lengths of missing climbing lanes
- lengths of bridges with bearing capacity less than 60 T
- number of at-level railway crossings
- number of underpasses with clearance less than 4.5 m
- estimated travel times (cars, trucks)
- traffic volumes (AADT) according to the last census.

The data collection and processing is based on the uniform reference system, consisting of sections, subsections and portions of subsections.

TER DATABASE

The TER Database covers 16 member countries, as well as several observer countries in TER. The aim of this database is to provide the necessary data for the preparation of pre-feasibility studies, assessment of investments, facilitation of railway border crossings, etc., for upgrading and modernization of the TER lines in the member countries.

At present the TER Database is built for Access Database. The structure of the database was obtained from the Conceptual Data Model created using the tool Sybase Power Designer 8. The database has data for 12 countries. Until now data was updated for 9 countries. The reference year for operational data is 2001.

The new structure of the TER Database contains four main groups of data:

- Data for basic railway indicators and social information.
- Data for infrastructure: line sections, bridges, tunnels, overpasses, and level crossings.
- Operational data.
- Data regarding transport equipment (cars, wagons, locomotives and railcars).

For the GIS Mapping System, the TER-PCO uses MapInfo Professional version 6. The maps offer the possibilities to view, analyse and print images and views for TER Border Crossing Stations, the TER / AGC / AGTC lines and line sections. All these maps cover the whole TER region, separate member countries, selected areas, Pan-European corridors, etc.

The present GIS collection provides maps carried out in different analytical views that can be used for further data analysis. The TER GIS maps are two dimensional, and can be grouped at present into the following:

- TER member countries
- AGC, AGTC, TER lines
- TER network
- TER sections on the TER network
- TER border stations
- Projects for rehabilitation of the railway lines identified per corridors
- Pan-European corridors overlapping TER network.

AGR DATABASE

The Working Party on Transport Statistics (WP.6) published the Census of Motor Traffic on Main International Traffic Arteries for the year 2000 on a CD ROM in June 2003. For the first database includes not only data on the E-Roads, but also on the supplementary roads in the TEN-T and TINA networks. Preparations are under way for the Ad hoc meeting on the Road Traffic Census 2005, which will take place on 29 and 30 September 2003 in Geneva.

The Intersecretariat Working Group (IWG : UNECE, CEMT and Eurostat) is involved in the continuous development of a Web-based Common Questionnaire that will enhance the efficiency of the transport data collection. The new questionnaire, based on web dynamic technology, will allow data providers to insert their data directly into the database. This is expected to be operational before the end of 2003.

AGC DATABASE

Due to the accumulated experience in the UNECE, the Working Party on Transport Statistics (WP.6) is preparing an Ad hoc meeting on E-Rail Census 2005. This type of census will take place for the first time. A preparatory meeting on methodology will take place on 2 and 3 October 2003 in Geneva. WP.6 welcomed the offer by Eurostat to be involved in the E-Rail Census 2005. Therefore, in order to benefit from the UNECE experience, to avoid duplication of work, and because of the legal obligations of the EU member countries, work on the E-Road Census 2005 will be done jointly by the UNECE and Eurostat.

CONCLUSIONS AND FOLLOW-UP

The identification of data needs and their collection is in evolution. Future data needs and their collection will be discussed during the two Ad hoc meetings mentioned in sections 5 and 6, respectively, above. This will contribute to the development of an efficient and coherent European Transport System in the future.
