



The UNECE approach to the identification of bottlenecks



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Presentation by the secretariat
Transport Division, UNECE

The context

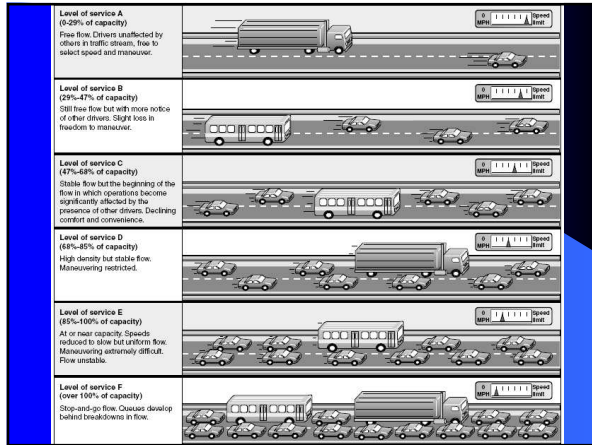
- Inland Transport Committee decided to update its analysis of bottlenecks
- The 2009 UNECE report incorporates
 - a rigorous analytical approach
 - an assessment of recent studies
- Aims at developing a broad methodology
 - coordinated network development
 - devolved identification of bottlenecks
 - common assumptions at national level

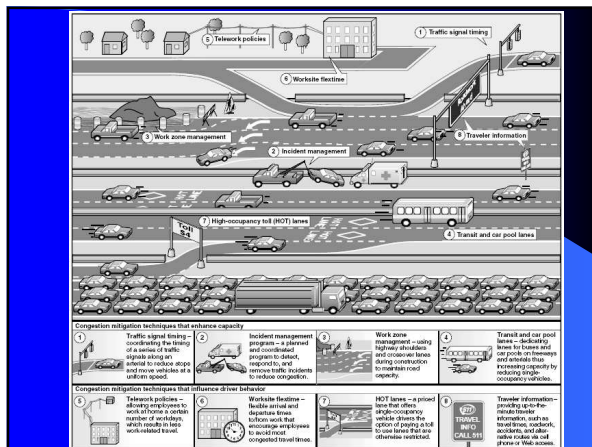
Main additions

- Theoretical assessment of bottlenecks
- Incorporation of material from
 - the UIC 2007 *ERIM* report
 - the *Northern Transport Axis* study
 - the IBRD/World Bank study of *Best Practices in Corridor Management*

Key conclusions

- Bottlenecks and missing links continue to be relevant concepts
- Analysis continues to be conducted primarily in terms of individual modes
- There is no theoretical principle to identify unambiguously bottlenecks or missing links
- In practice, bottlenecks identified through:
 - Assessment against design standards
 - Capacity analysis, comparing traffic volume with capacity
 - Outcome-based analysis against policy-based expected performance indicators





Key conclusions

- Identification of bottlenecks related to expectations of quality of service
- It reflects a particular social and political context in terms of planning systems, data availability, funding, etc.
- Consistent and shared methodology desirable to help provide 'rational' guidance
- Identification of bottlenecks and missing links not a substitute for rigorous planning but a helpful component of overall analysis

Recommendations

- UNECE and others should continue to use a devolved approach to identification
- Adopt shared assumptions for traffic forecasting
- Identification should be based on shared and technically explicit guidelines as to what constitutes a bottleneck or how a missing link might be identified
- Inability to conform precisely with the guidelines is less of a concern than failure to return data

Recommendations

- The focus should be on bottleneck identification
 - methodology for recognising missing links less developed
 - few links totally missing in the more developed parts of the networks
 - missing link identification better from an overall network perspective, rather than link-by-link or country-by-country
- The general approach should be based on capacity analysis or outcome-based analysis (if performance indicators agreed)

Recommendations

- Separate approaches needed for individual modes: road, rail and inland waterway
- Modal interchanges should be considered as the equivalent to links in networks and identified as bottlenecks or missing as appropriate
- Guidelines should encourage a moderately 'inclusive' approach to identification; better to identify too many than too few

Recommendations

- Guidelines must not be over-engineered relative to forecasting capacity or data availability
- Data demands must be realistic for less well established transport administrations
- Objective should be to construct a 'long list' of candidate investments and/or administrative actions

Thank you

