



Transport Modelling

Towards Operational Standards in Europe

***Handbook of Transport Modelling in  
Europe:  
learning from best practice***

Budapest May 24th

Wim Korver



# Content

- Background MOTOS
- Objective
- Process
- User needs
- The handbook
- This conference
- Practicalities (TRANSMAN)



# Background MOTOS

- Integration of Transport Policies among old and new member states
- Prerequisite: Integration of transport policy tools:
  - with European transport models
  - with other policy tools
  - (minimum) standards for transport models
- How to prevent re-inventing the wheel?
- Transfer of best practice and state of the art knowledge from old to new member states
- Linking with new developments (e.g. GPS, FCD)



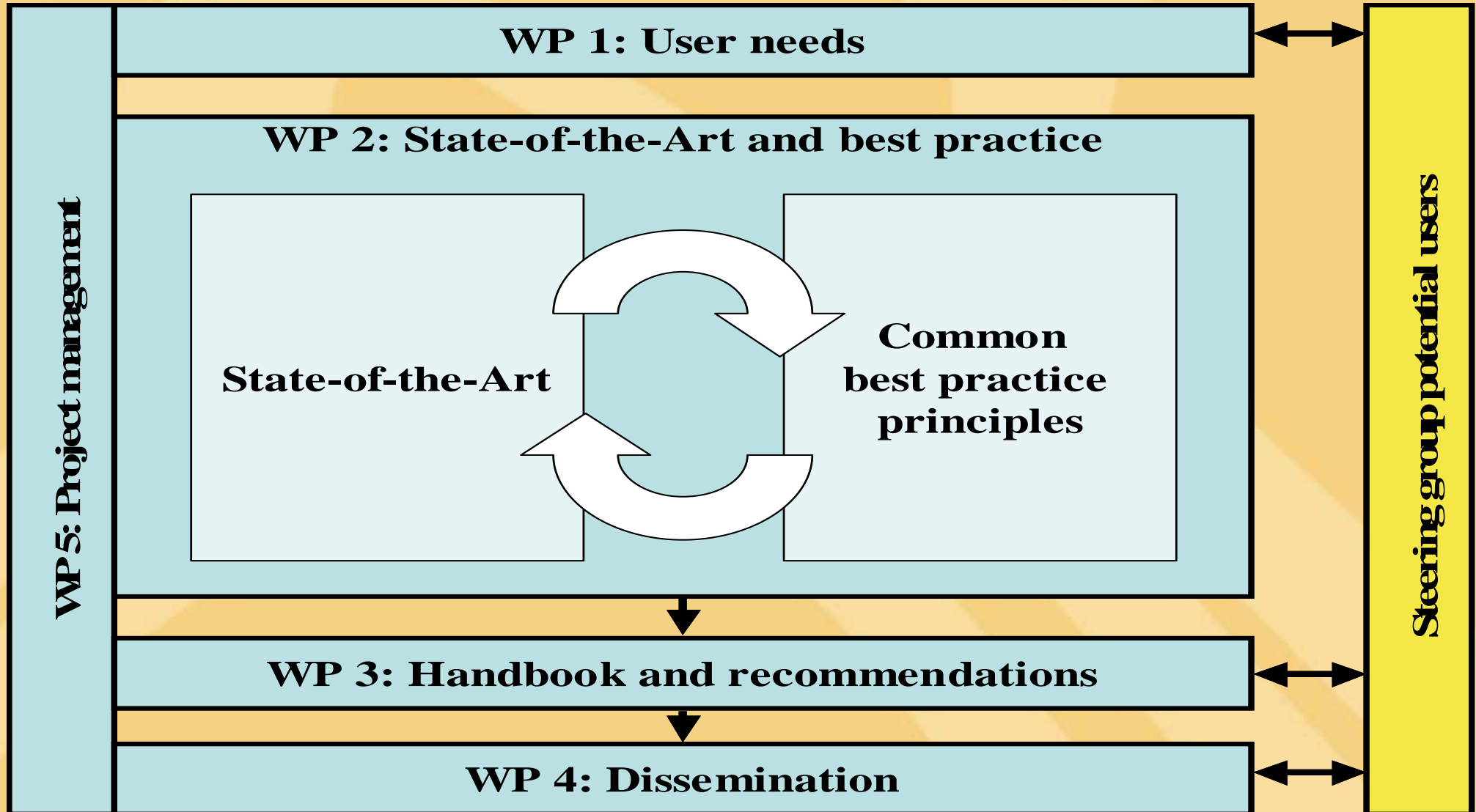
# Objective

to **support** transport policy in Europe  
by defining **common good practice  
principles** for national and regional  
**transport modelling**

that satisfy immediate needs of model developers in the  
New Member States

and contribute to the establishment of a standardized  
approach for transport modelling in the European  
Union

# WP Structure





# Partners: Old & New Member States



# User needs

- Aiming mainly at the regional level
- Not technical (no scientific papers),
  - to fill the gap between users of the transport model results and the transport modelling world
- Policy driven and not modelling driven
- European Dimension (cross border transport, in land waterways, PT)
- Strong Focus on Best practice
- Also operational aspects (e.g. IPR)



# Transport modelling needs –1

- Four workshops (Hungary, Baltic States, Poland, Czech republic/Slovak republic) + survey Malta/Cyprus
- State of the art of transport modelling
  - Focus mainly on regional transport modelling (and not national modelling!)
  - Wide diversity in models used/known
  - Economic aspects are mentioned in every country
  - Not mentioned: traffic safety & environmental aspects



# Transport modelling needs –2

User need	Czech Republic	Hungary	Poland	Baltic States	Malta & Cyprus
Availability of high-quality data	--	--	--	--	--
Availability of qualified personnel	--	--	--	--	--
Availability of future socio-economic data	n/a*	n/a	--	n/a	0
Freight transport modelling	++	0	0	+	0
Passenger transport modelling (both public and private)	++	++	++	++	++
Need for PT forecasting	++	+	+	++	++
Optimisation of PT	n/a	++	n/a	n/a	0
Economic impacts	++	++	++	++	0
GIS systems	++	+	n/a	n/a	0
Charging and tolling	++	++	n/a	n/a	n/a
Transport congestion	++	++	n/a	n/a	n/a

++ strong interest    0 neutral issue    - slight problem  
 + slight interest    -- large problem



# The Handbook

- ***Handbook of Transport Modelling in Europe, learning from best practice***
- **Containing:**
  - General description: How to build and operate a transport model
  - Relevant Policy Issues and how to incorporate these in transport models. These are linked to:
    - Modelling Directory(Mdir)
    - State of the art of transport modelling (300 pages)
    - Best practices (21 examples all over Europe)



# General description how to build and operate a transport model

- Introduction to the process of modelling
- Methodological overview
- Data collection, Data requirements and Scenario's
- Estimation, Calibration and Validation
- Uncertainties in models
- Linkage to other models
- Stakeholders and Institutional Environment
- Intellectual Property Rights
- Software



# Relevant Policy Issues

- Strategic mobility
- Demand Analysis
- Land-use planning
- Industrial Location Decisions
- Ex-ante policy Analysis
- Investment Analysis
- Modal shift
- Infrastructure planning
- Pricing
- Road Traffic Management
- Urban Public Transport planning
- Rail transport planning
- Intermodal solutions
- Project Impact Assessment
- Environment and safety
- Capacity utilisation

## **Per Item:**

*Policy needs*

*Organisation:*

Budget, planning, ambitions

Project organisation

Scope and type of model

Choice of software/GIS

Establish maintenance procedure

Tendering

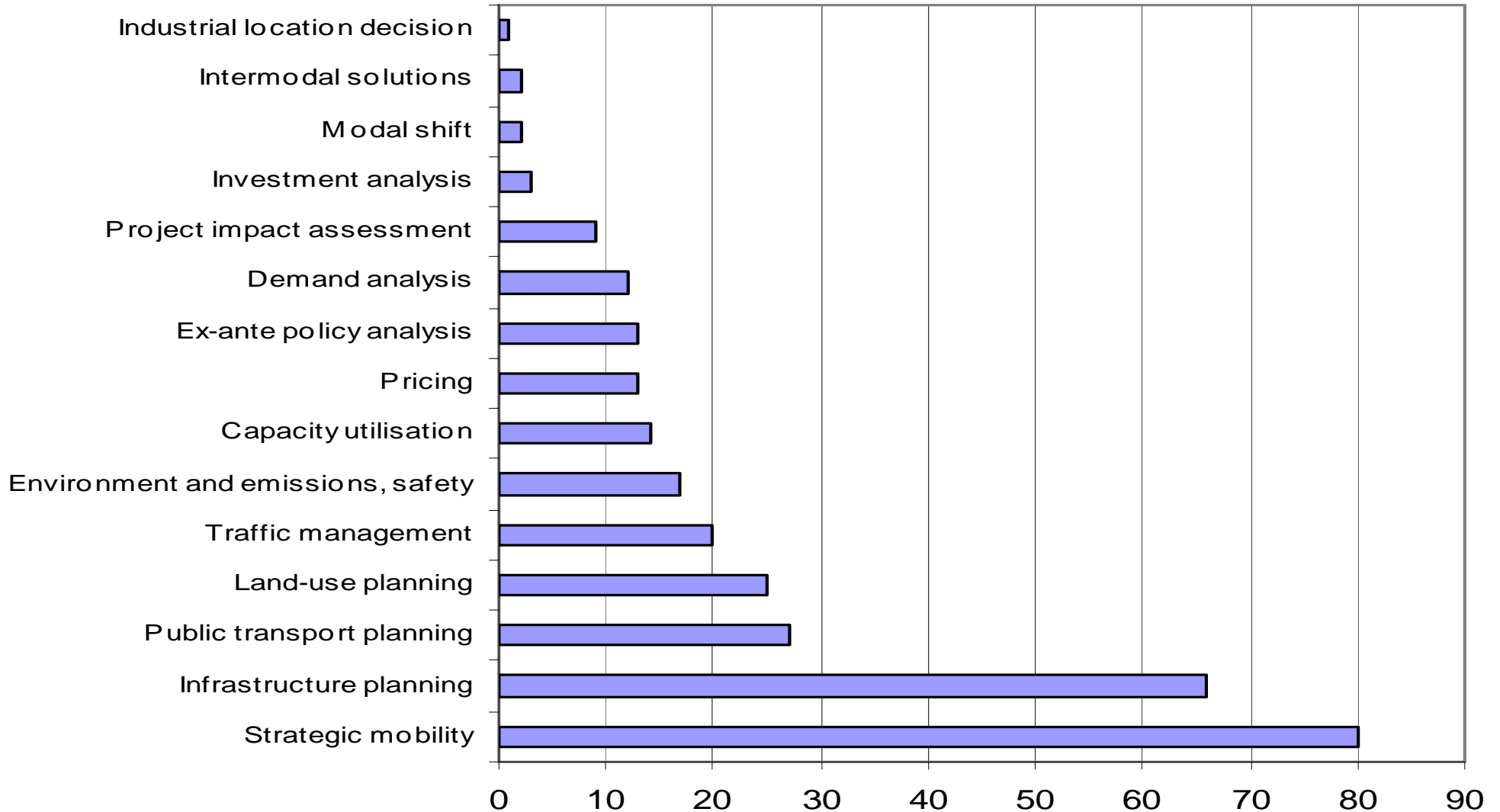
*Model Development*

Including list of relevant models

based on MDir

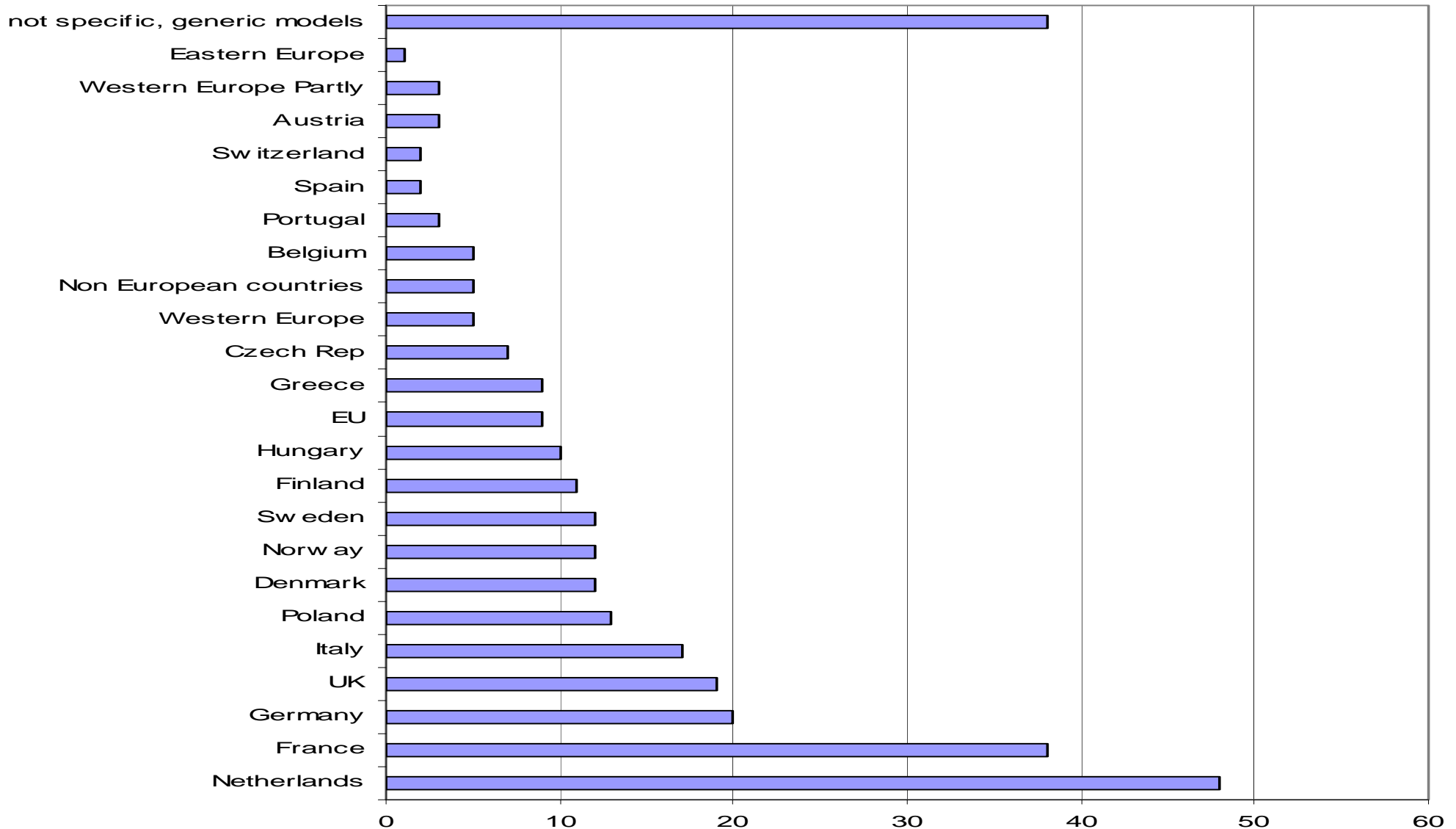


# Mdir: References to 304 Models





# Mdir:transport models per country





# This Conference

- Presentation of the handbook
- Comments/views from some “outsiders”
- Interaction: two workshops
  - Challenges for transport modelling in New Member States
  - Practical options for the EU
- Feedback on draft version of the handbook
- Recommendations for further dissemination



# Agenda

	Start time	End time	Subject	Speaker	Institute
<b>Thursday</b>	10.00	10.30	Registration		
<b>May 24</b>	10.30	10.40	Welcome	Drs. Wim Korver	Goudappel Coffeng
	10.40	11.00	Challenges for Transport Policy in and for the New Member States	Mr. Istvan Ritz	EU Official
	11.00	11.30	View of the European Investment Bank on Transport modelling	Dr. Claus Eberhard	EIB: Rail & Road Division
	11.30	11.45	Questions		
	11.45	12.15	MOTOS: overview of the project	Drs. Wim Korver	Goudappel Coffeng
	12.15	12.35	Transport modeling: an overview	Prof. Dr. Otto Nielsen	Danish Technical University
	12.35	14.00	Lunch		
	14.00	14.20	Economic Modelling	Dr. Ole Kveiborg	Danish Transport Research Institute
	14.20	14.40	Passenger Demand Modelling	Prof. Dr. Lars Lundqvist	Kungliga Tekniska Högskolan (KTH)
	14.40	15.00	Freight Modelling	Arnaud Burgess	TNO Mobility & Logistics
	15.00	15.30	Example of application in NMS (policy side)	Mrs. Miglena. Botousharova	Bulgarian Ministry of Transport
	15.30	15.45	Coffee break		
	15.45	16.45	Challenges for transport modelling in New Member States	-	
	16.45	17.15	Reporting of sub groups	-	
	17.15	19.30	Break		
	19.30	22.00	Dinner		
<b>Friday</b>	9.30	9.50	Assignment Modelling	Prof. Dr. Otto Nielsen	Danish Technical University
<b>May 25</b>	9.50	10.10	Evaluation Methods and assessment	Dr. Ole Kveiborg	Danish Transport Research Institute
	10.10	10.30	Impact Models and decision support	Mr. Michael Bruhn Barfod	Danish Technical University
	10.30	10.50	Coffee break		
	10.50	11.10	Example of application in NMS (modelling side)	Dr. Janos Monigl	Transman
	11.10	12.10	Practical options for the EU	-	
	12.10	13.30	Lunch		
	13.30	14.00	Reporting of sub groups	-	
	14.00	14.30	The value added of using transport models in the transport policy process	Prof. Marc Gaudry	Inrets/Université de Montréal
	14.30	14.45	Conclusions	drs. Wim Korver	Goudappel Coffeng
	14.45	14.55	Concluding words	Mr. Istvan Ritz	EU Official
	14.55	15.00	Goodbye		

# Practicalities

## ■ Dinner



**19:30, Sas Center Étterem/Restaurant**  
Sas utca/street 10-12.  
1051 Budapest

Tel/Fax: 00-36/1-2693248

E-mail: [sascenteretterem@gmail.com](mailto:sascenteretterem@gmail.com)

### By public transport:

Get on: Dózsa György út

**M3** metro 3 Stops

Get off: Arany János utca



# More information:



Transport Modelling  
Towards Operational Standards in Europe  
[www.motosproject.eu](http://www.motosproject.eu)