

Conference of European Directors of Roads



European Commission





WRAP UP REPORT - Ljubljana, 12-09-2008



Report Submitted by:

Vili Žavrlan, Aleš Žnidarič, Matija Vilhar and Michel Egger Management Committee TRA 2008

1. Introduction

In preparation of TRA 2010, and as with TRA 2006, the MC again agreed that a report on the main issues and decisions taken to accomplish TRA 2008 should be written:

- i) As a legacy from the Management Committee of TRA 2008 for future reference;
- ii) As a document with which to compare the actual outcome of TRA 2008 with the previously expressed expectations;
- iii) As a base and guideline from which to work for TRA 2010.

The draft report has been circulated to all the members of the Management Committee; their comments and amendments have been integrated into this final report.

2. Management Committee

Mr. Vili Žavrlan, Chairman of the Management Committee with Mr. Bojan Leben, Deputy Chairman of the Organising Committee



The members were:

Mr. Vili Žavrlan Chairman	Director Constal Directorate of Reads of Republic of Slovenia
	Director General, Directorate of Roads of Republic of Slovenia
Dr. Andraž Legat	Deputy Chairman, Director, Slovenian National Building and Civil Engineering Institute
Mr. Michel Egger	Secretary General of CEDR
Mr. <i>Fred Barry</i>	Chairman of CEDR (2007)
Mr. Metod DiBatista	Director, DDC
Mr. Rudolf Kunze	Chairman of ERTRAC
Mr. Jean-Luc Maté	Vice-Chairman of ERTRAC
Mr. Arnoldas Milukas	European Commission (DG RTD)
Mr. <i>Dimitrios Nikolaou</i>	Chairman of CEDR (2008)
Mr. Peter Pengal	CEDR Executive board member (Slovenia)
Mr. <i>Ingemar Skogö</i>	Member of CEDR, MC Chairman of TRA 2006
Mr. Miloš Šturm	Slovenian Member of ERTRAC
Dr. Govert Sweere	Chairman of FEHRL Executive Committee
Dr. Peter Verlič	State Secretary, Ministry of Transport of Republic of Slovenia
Mr. André Vits	European Commission (DG INFSO)
Mrs. Anna Livieratou	European Commission (DG TREN)
Mr. <i>Matija Vilhar</i>	Chairman of the TRA 2008 Organising Committee
Mr. Aleš Žnidarič	Chairman of the TRA 2008 Program Committee

3. Background

Before TRA 2006 was held, Slovenia had already volunteered to hold TRA 2008 in Ljubljana during Slovenia's Presidency of the EU, whether TRA 2006 was a success or not. Although TRA 2006 was not a financial success, this first event did enable the event "TRA" to be known in Europe and the three stakeholders of TRA 2006, CEDR, EC and ERTRAC, agreed to the idea of rotating future TRAs to various European countries and confirmed their willingness to hold the next TRA in Slovenia in 2008. The MC agreed to maintain the same Terms of Reference and, wherever possible, to learn from the lessons of TRA 2006.

4. Management Committee Activities

<u>1st MC Meeting, Ljubljana – 27.09.2006: TRA –19 months</u>

The main lessons learned from TRA 2006 that influenced the direction and success of 2008 were:

- There must be considerably fewer exempt participants and an attractive balance found for paying participants;
- It is important to put emphasis on the quality of the conference, presentations and exhibition for TRA 2008 and for future TRAs in order to attract registrations. The content of the program must be of interest to professionals, academics and the new MS;
- Communication and information are of utmost importance and the CTF must be set up as soon as possible;
- CEDR, ERTRAC and the industry must be involved more to make the exhibition more successful commercially.
- <u>The Terms of Reference (ToR) for TRA 2008</u> remained the same as those for TRA 2006:
- It was decided that the same slogan "greener, safer and smarter road transport for Europe" will be used for all publicity and announcements (brochures and flyers) and also for continuity.
- <u>The Program Committee (PC)</u> is responsible for the program and the number of pillars chosen. The committee must complete the entire process of asking for abstracts, filtering them and then asking for full papers. The program must have 3 types of sessions: Plenary, strategic and parallel thematic sessions. Ideally, there should be 6 members from CEDR, the EC and ERTRAC.
- <u>The web site address</u> is "traconference.com" and will provide updated information on TRA 2008 and be used for all registrations and hotel/exhibition reservations. This web site was set up at a very early stage.

2nd MC Meeting, Ljubljana – 17.01.2007: TRA –15 months

- <u>PC</u>: A draft program was presented by the PC, the 6 pillars were decided upon and the organisation of the Strategic sessions by CEDR, the EC and ERTRAC was determined.
- It was decided to have a 'conclusions' meeting at the end of TRA 2008.
- The Call for Papers had been announced just before the meeting and the deadline fixed for 30 April 2007. The idea proposed by the PC of having Poster Sessions was accepted by the MC.
- The PC was asked to establish a set of objective criteria to gauge the quality of abstracts and their relevance to the program in order to then ask for the full papers. The MC agreed that all the papers/abstracts would be published in a TRA 2008 'book' and put onto a CD Rom.
- <u>OC</u>: 4,400 emails were sent to potential participants in EU member states, 2,000 emails to the rest of Europe and 1,890 to the rest of the world. Over 9,000 emails were sent for the 1st announcement and 100 registrations had already been made on the website.
- A draft budget was presented by Mr Vilhar with a break even point at 500 paying participants topped by an income of 210K€ from sponsors and 65k€ from exhibitors. Since 50% of the income

was anticipated from sponsors and exhibitors, it was decided that the industrial sectors must be better targeted. One page of the 2nd announcement was set aside for publicity on this.

- <u>CTF</u>: It was decided that CEDR and ERTRAC would provide a suitable representative.

<u> 3rd MC Meeting, Portorož – 06.06.2007: TRA – 10 months</u>

- <u>Status reports from the organisers</u>: CEDR committed itself to ask for more abstracts and extend submission to the end of June; to allocate people to the strategic session, to have a stand at TRA 2008 and welcomed the proposal from Belgium to host TRA 2010. The EC and ERTRAC confirmed their intention to have a stand at TRA 2008 and to find speakers for the Strategic Sessions allocated to them.
- 231 abstracts had been received and 300 to 350 were expected by the deadline of June 30th. The PC anticipated to present 120 papers and to accept up to 50 abstracts for the posters sessions.
- It was decided that the titles of the three plenary sessions would be on climate change, road safety and smarter transport and that they will be based on the three TRA topics: greener, safer and smarter.
- Speakers for the plenary sessions: who should speak and in what order was discussed and the MC members were invited to put forward names.
- OC: A final proposal for the conference fees was put forward by the OC and accepted by the MC.
- Minutes of meetings, action plans, etc. were added to the web site on an ongoing basis and will form part of a data base for the organisers of the next TRA. The web site was upgraded to become an integrated site providing all the forms to be used, managing papers, information, payments, etc.
- The <u>CTF</u> obtained funds from DG RTD to run a student competition on transport research, to be organised by the University of Dublin.

<u>4th MC Meeting, Ljubljana – 24.01.2008: TRA – 3 months</u>

<u>Status reports from the organisers</u>: CEDR will organise its GB meeting during TRA 2008 to enable the Directors of Roads to attend the arena. ERTRAC's new vision will extend across all modes of transport and include urban mobility and public transport. Their opinion is that, in the future, TRAs should include all surface transport. DG INFSO is very much committed to TRA 2008 and consider the main objective of the arena to be to initiate the production of high quality papers in research and to create a platform for young research students to compete and bring forward high quality papers.

- <u>MC</u>: A procedure on organising the opening, plenary and closing sessions and on inviting the speakers was decided upon by the MC. A chart with the names of the potential (and where already confirmed, the final) speakers and the status of their invitations/acceptance was drawn up.
- A volunteer to lead each of the three plenary sessions came forward.
- <u>PC</u>: 434 abstracts had been received, 19 had been rejected, and 313 full papers had been received.
- The reviews will be completed by the end of the month and each pillar leader will come up with the best papers for each session. It was agreed that all the papers are to be corrected before they are published and put on the CD Rom.
- The PC announced that 46 slots had been organised to present 120 oral presentations and that 50 posters would be displayed during the congress.
- A Specific Support Action from the 7th Framework Programme had been prepared and approved by the EC to invite 100 participants from the NMS, CC, WBC and ENP countries to attend TRA.
- The Young European Area of Research (YEAR) competition for students and young researchers decided to choose and sponsor 50 winners to TRA 2008 in Ljubljana. The TRA 2008 website will provide a showcase for their abstracts. The PC will determine the criteria to choose the best papers.
- <u>OC</u>: 300 registrations (of which 250 early bird registrations) had been made from 35 countries. 20 exhibition reservations had been made and negotiations with 4 sponsors were in process.
- The 3rd and 4th announcements had been sent with information on registration, technical tours, etc., promotional materials had been distributed at events in Europe and the USA and 2 electronic news letters had been distributed and notifications made to the print media by the EC.

5th MC Meeting, Ljubljana – 23.04.2008, "The TRA 2010 Taking Over Meeting"

Mr Loyaerts distributed an invitation leaflet for TRA 2010 from 7th to 10th June 2010.

- It was decided that each committee chair will write its own wrap up report on TRA 2008 with conclusions and recommendations for future TRAs.
- The TRA logo and ToR, the founding statement, were "handed over" to provide for continuity. The wrap up reports will evaluate whether the concept for TRAs should remain the same or change.
- All software and data concerning TRA 2006 and TRA 2008 will be transferred to the new organisers right after the closure of TRA 2008.
- The TRA Conference in Brussels will concentrate on roads but will be open to other modes of transport, in particular those used in urban areas.

It was agreed that TRA 2010 will maintain the same structure comprising a Management Committee (MC) with over-all responsibility, a Program Committee (PC) with a chair at the MC and an Organization Committee (OC), also with a chair at the MC.

CEDR will have 4 representatives on the MC, ERTRAC 2, FEHRL 1 and the EC will ensure a representation from DG TREN, DG RTD and DG INFSO.

TRA 2010 will maintain the CTF within the OC.

TRA 2010's first meeting took place on 16 April 2008.

5. TRA 2008 attendance

1181 participants from 48 different countries were registered at the TRA conference. There were 1156 participants from European countries, of which 401 from New Member States and another 25 participants from the rest of the world.

There were 207 active participants at the conference, i.e. chairmen and/or speakers.



Entrance to TRA 2008 in Ljubljana

The numbers and types of participation were as follows:

323	participants,
107	one day participants
225	first or corresponding authors
39	MC, PC, OC members
29	students
48	Year 2008 Competition participants
71	CSA project participants
19	project meetings participants
19	project meetings participants
34	accompanying persons

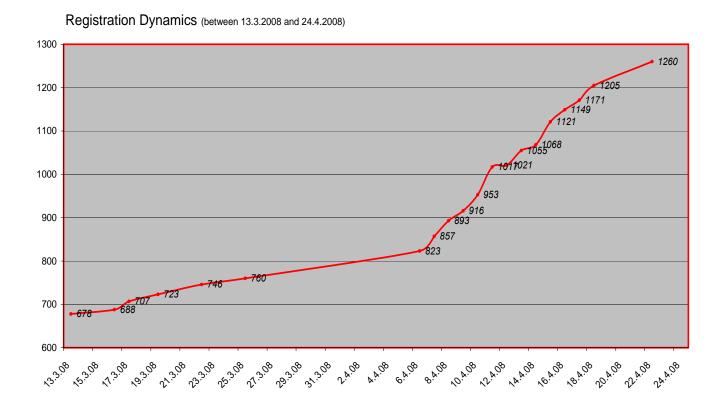
Total number of fees paid 895.

No charge fees:	83	exhibitors
-	89	journalists

ers

83 guests

Total number of participants exempt from paying a fee **286**.



6. **Program Architecture**

6.1 Architecture

The TRA program has been addressing the key questions about transport, namely:

"How do we maintain the freedom and prosperity that transport gives us today, without increasing pollution, congestion, deaths, and greenhouse gases? How do we break the link?"

Building sustainable road transport needs a systemic approach that links vehicles, infrastructure and users, and that links users with other users. This means:

- maximising capacity of road transport infrastructure,
- optimising traffic flows,
- integrating safety solutions,
- new intelligent mobility systems for urban environments,
- improving links between different transport modes."

TRA 2008 has reported outcomes and activities which relate to research across the arena of road transport. Some research was fundamental and basic; some was related to technical developments, some to the findings of trials and demonstrations and some to the development of future visions. In particular, the student competition demonstrated for the first time the quality of research the next generations of European researchers are producing.

Generally, since the last TRA in Gothenburg, substantial progress has been presented in all the areas of the technologies, systems and behavioural understandings. Most particularly the global warming has become an all encompassing issue. This, together with the issues of safer, less congested and thus greener, safer and smarter road transport, was addressed during the well visited plenary sessions.

6.2 YEAR – Young European Arena of Research

One of the main successes of TRA 2008, that did raise the scientific quality of the event, was the organisation of the YEAR competition, which was financed by the EC's 7th Framework Programme. Contributions from 294 PhD students and other early-stage researchers from most European countries were received. The best 50 researchers were selected by a jury of eminent experts in their fields and were invited to prepare posters to be presented at TRA 2008. 47 of them came to Ljubljana. The three winners in each of the 6 pillars/topics received medals and presents. Preparations for YEAR 2010 started immediately after TRA 2008 was over.

6.3 New Member States issues

One of the main drawbacks of the Gothenburg conference was the extremely low number of participants from the New Member States (NMS) and non-EU European countries. To correct this, a project under the 7th Framework Programme was prepared that provided financial support to invite 72 participants from these countries to Ljubljana. In addition, TRA 2008 was heavily advertised in these countries, among others with a special brochure dedicated to these participants. As a result, 413 participants from Slovenia and other NMS and non-EC European countries registered for TRA 2008; around 20 times more than those that went to Gothenburg. Furthermore, a special strategic session on NMS issues was organised.

6.4 On the move to TRA initiative

TRA is not just another conference, but an arena that should bring together all stakeholders in the area of road transport. Therefore a slogan: *"On the move to TRA"* was initiated to be used at every event (conference, seminar, workshop...) between the two Transport Research Arenas, in order to remind participants that the next TRA is approaching.

6.5 Other activities

TRA has really made a major step towards a European arena in the area of road transport. Apart from the regular programme it welcomed 17 committees and project consortia who had organised events during, before and after the conference. These include IRF (International Road Federation), OECD (Organisation for Economic Co-operation and Development), ITF (International Transport Forum), CEDR, FEHRL, eSafety and SHRP (US Strategic Highway Research Program).

6.6 Scientific conclusions

The following summary is based on inputs from most of the sessions' chairmen. It does not give a blow by blow account of each session, but it is trying to draw together some concluding comments under the following topics:

Environment

• Global warming is the most important issue facing society and transport has a crucial role to play in meeting the aggressive targets for CO2 reduction. How we will do this still largely remains to be addressed, but some research indications and suggestions have been presented.

- Much evidence was presented of the likely evolution of fuel use from current petrol/diesel model to electric/hydrogen based fuels. This is driven by the availability/price of oil as well as carbon reduction.
- Many papers reported on non CO2 emissions, their reduction and trade offs between NOx, CO, particulates, CO2 etc. Noise reduction was also a significant focus of research activity.

Safety

- There are large variations in accident levels across Europe which could and should be addressed by conventional approaches. Infrastructure, training and enforcement measure are crucial to delivering safety and best practice is known and presented.
- We should focus on serious injury accidents as well as fatalities as this will increase statistical evidence and perhaps lead to innovative solutions.
- The involvement of different disciplines is crucial to the understanding of accident causation and remedial actions, and there were several examples of how these could be brought together in projects.
- Human factors research is delivering new understandings of driver behaviour and the safety implications will become increasingly important with changes in driver functions, and population characteristics.
- Vehicle manufacturers will continue to deliver increasing levels of safety but a more integrated stakeholder approach is necessary to generate market penetration and the integrated systems of the future.

Vehicles

- Research has shown the potential benefits of cooperative driving systems to improve safety and reduce environmental impact.
- More research is needed to further develop technologies and to construct viable business models for all stakeholder groups and roll-out strategies for safe and sustainable vehicles.
- Considerable recent and ongoing research into powertrains, and dealing with energy loss as general, is providing substantial incremental benefits in terms of efficiency and the environment.

Mobility

- Innovative vehicle types and technologies being researched will contribute a rich mix of opportunities for mobility systems and services for both people and goods.
- Demonstration programmes such as CIVITAS already show benefits to a wide range of stakeholders. Larger scale projects would show impacts more effectively and could demonstrate and encourage the step changes in mobility systems and services, which may be necessary for the future. Show cases are important.
- New approaches backed by hardware and software are offering opportunities for more efficient, safe and sustainable goods movement.
- The effects of a wide range of ways of improving public transport services are increasingly available to inform better policy decisions.
- The systems and services are not yet in place to provide ubiquitous information to travellers and shippers.

Roads

• Much more innovation is needed in highway engineering to improve safety, reduce pollution and congestion, better cater for truck movements and deal with the problems of aging infrastructure.

- This includes maintenance and renewal techniques to minimize disruption and the effect of climate change.
- There are substantial opportunities for collaboration with the US on highway design and maintenance (This is one of several areas of potential TRA/TRB linkage).
- New approaches to managing and prioritising road space are needed.
- Innovative approaches are needed to generate the resources to improve infrastructure. Risks and their management need to be better understood.

Network management

- Access management by charging is technically sound and proven approach. Evidence shows that once introduced it is accepted by the public. Taxation remains an issue to serve political support.
- New hardware, software systems and services are needed to deliver network state estimation.
- Integrated system management approaches are needed.

Design and production

- New concepts and approaches to design and production are being developed, which will contribute to international competitiveness.
- New organisational structures are being developed
- Detailed design and production techniques have been shown for powertrains and new materials for vehicles.
- Pavement material research is delivering more durable and cost effective design opportunities.

Future

- A comprehensive and long term strategic vision should be developed.
- Research is needed for policy development and implementation, including the roles of all stakeholder groups.
- Understanding attitudes and behavioural change are crucial for the implementation of technology strategy. Changing mobility levels (for access) will have social and other impacts which need to be better understood and managed.

General conclusions

- EC funding is important and essential for innovative, large scale and cross section activities.
- A multi-stakeholder, multi disciplinary approach is increasingly accepted by all actors. This is fundamental to ERTRAC approach.
- More third country participation is needed.
- Radical and innovative approaches are required if we are to make the step changes essential for the delivery of sustainable future. We must provide sustainable and acceptable choices for all transport users. A system approach is needed to bring together the systems, services and users.
- We as community are still growing up for climate change related research and we can expect major developments being presented at the next TRA in Brussels. As a result of the research presented here transport is already moving toward a smoother, safer, smarter future!

7. Lessons learned by the Program Committee (PC)

The major differences between TRA 2008 in Ljubljana and TRA 2006 in Gothenburg were:

- a) The number of parallel sessions was reduced.
- b) The authors of all relevant and good quality abstracts were invited to submit full papers in Ljubljana. In Gothenburg, only the authors of abstracts who were selected for oral presentations were invited to submit full papers.

This resulted in a considerably increased amount of paper revision and editing work for the Program Committee and especially for the pillar leaders. At the same time, some organisers, particularly the EC, were overloaded with preparing numerous strategic and thematic sessions. To cope with 425 abstracts and later 323 papers, a comprehensive web-based abstract/paper revision system was developed.

It is suggested that for TRA 2010 this work load is shared in a more efficient way. Instead of giving the TRA 2010 PC the full responsibility to organise the programme and ensure its quality through the revision process, different international committees, associations and project consortia could be appointed to be in charge of a considerable part of this work. They could not only propose detailed list of topics from their field, but also select the appropriate papers for publishing and for oral and interactive presentations, not only in strategic, but also in thematic sessions. This would enable the size of the PC to be considerably reduced. For TRA 2008, the PC consisted of 44 members, of whom about 25 were very active and regularly attended PC meetings, while the others only volunteered to review the papers.

Unlike in Gothenburg, authors of papers that had not qualified for oral presentations in the sessions were invited to prepare posters. Response was surprisingly high (over 110 posters received) and the poster sessions were very well attended. It is proposed that this activity continues during the TRA 2010.

8. Sponsors and Exhibitors

The organisers are grateful to all sponsors and exhibitors who contributed to a large extent to the success of TRA 2008.

The Platinum sponsors of the conference were Renault and Volkswagen, the golden sponsors were AVL and Hidria; the silver sponsors were ÖMV, DARS, DDC, ZAG and Cimos and the bronze sponsor was Michelin.

In addition, a great number of companies and associations took part in the Exhibition together with the European Commission. There were 33 exhibitors as follows:

- 1. ACstyria Autocluster
- 2. Asfinag Autobahnen und Schnellstrassen-Finanzierungs -AG
- 3. AustriaTech Gesellschaft des Bundes für technologiepolitische Maßnahmen GmbH
- 4. CEDR
- 5. CESTEL
- 6. The Cooper Group
- 7. Direction Générale Des Routes
- 8. Slovenian Roads Agency
- 9. EARPA

- 10. ERTRAC
- 11. European Commission
- 12. FEHRL
- 13. International Road Federation
- 14. Kapsch TrafficCom AG
- 15. Logina
- 16. Norwegian Public Roads Administration
- 17. Omega Consult
- 18. Rijkswaterstaat, Centre for Transport and Navigation
- 19. Roadscanners Oy
- 20. Swedish Road Administration
- 21. Taylor & Francis Group
- 22. Telargo
- 23. TSS Transport Simulation
- 24. World Road Association German
- 25. GIZ ACS, Automotive Cluster of Slovenia
- 26. Iskra ISD
- 27. Iskra Avtoelektrika
- 28. CIMOS
- 29. EMO Orodjarna
- 30. Kolektor LIV
- 31. TPV
- 32. HIDRIA AET33
- 33. Iskra Mehanizmi



European Commissioner for Science & Research, Dr Janez Potočnik, in discussion with Michel Egger, Secretary of the Management Committee at CEDR's stand

9. Budget & Expenses

The income side of the budget received contributions from sponsors, exhibitors, projects ERTRAC II, YEAR and TRA2008 CSA, as well as from 895 paying participants' fees of different levels (described in chapter 5). Registration fees ranged from 200 € for early bird students up to 840 € for the on-site regular participant's fee.

сс	Budget	TRA 2008
Participation Fees	330.000,00 EUR	415.422,73 EUR
Contribution from ERTRAC II	80.000,00 EUR	79.984,26 EUR
Contribution from YEAR		46.358,59 EUR
Contribution from TRA 2008 CSA		34.950,00 EUR
Sponsor Contributions	218.000,00 EUR	212.840,00 EUR
Exhibitors	232.500,00 EUR	208.570,00 EUR
Miscellaneous (additional meetings etc.)	13.000,00 EUR	20.496,77 EUR
Total Income	873.500,00 EUR	1.018.622,35 EUR
EXPENSES		
Congress material	71.000,00 EUR	76.366,66 EUR
Gala dinner, reception	85.000,00 EUR	82.256,16 EUR
Congress centre	295.000,00 EUR	213.541,11 EUR
Fixed, related to YEAR & TRA2008 CSA		81.308,59 EUR
Other fixed costs	102.500,00 EUR	130.547,98 EUR
Movable	320.000,00 EUR	410.249,85 EUR
Total expenses	873.500,00 EUR	994.270,35 EUR

Profit / Loss

24.352,00 EUR

10. Lessons learned by the Organising Committee (OC)

The Organising Committee directed the organisation of the conference under the patronage of three local companies, The Slovenian National Building and Civil Engineering Institute - ZAG, the DDC Consulting & Engineering Company, and the Road and Transportation Research Association of Slovenia - DRC, which also took on the risks of organisational and financial difficulties. Honorary patronage was given by the Ministry of Transport of the Republic of Slovenia.

The OC carried out the organisation of the conference in cooperation with the "Cankarjev Dom Congress Centre" in Ljubljana and with several other outside performers.

The OC consisted of 14 regular members, 6 CTF members and more than 10 other co-workers. This team, together with the contracted professional partners, prepared and finalised the conference within a period of 24 months.

The OC's most significant findings/lessons learned/observations during the organisation of TRA 2008 were:

- The organisation of the conference, as far as its content and technical parts are concerned, received numerous praises, in particular also from the main organisers EC, CEDR and ERTRAC.
- The registered number of 1181 participants ranks TRA among large European conferences. The possibility to further increase the number of authors, participants and significant guests of the conference remains intact.
- The organisation of such an expansive conference will, in future, only be possible through adjoining professionals of large congress centres.
- The OC assesses that the selection of a country and a location for the conference also contributes to its success. For many participants Slovenia and Ljubljana meant a new experience and the discovery of something unknown. This fact dictates to reflect on continuing organising conferences in various different countries in the future.
- The promotion of TRA 2008 was very significant both through internet as well as through printed material (15 prints and handouts)
- The OC is convinced that for the success of future conferences it will be necessary to continue to organise several other activities such as technical excursions, receptions for participants, shared or open dinners, cultural events, etc..
- An answer to the question on how to come close to the volume as well as the significance of the TRB conference in the USA, may perhaps be the integration of the TRA with other congresses, symposia or similar events organized in Europe.



Exhibition of prints and handouts for TRA 2008

11. Conclusions

TRA 2006 in Gothenburg was the first event of its kind organised in Europe. Slovenia volunteered to organise the second conference in 2008, thus ensuring the continuation of this event at a key period during Slovenia's presidency of the European Union.

The TRA 2008 conference in Ljubljana addressed the key questions on transport in Europe in the 21st century. Building sustainable road transport needs a systemic approach that links vehicles, infrastructure and users, and that links users with other users as well.

This means:

- maximising capacity of road transport infrastructure,
- optimising traffic flows,
- integrating safety solutions,
- introducing new intelligent mobility systems for urban environments,
- improving links between different transport modes.

All these issues were addressed in the TRA 2008 programme through the six pillars that were a continuation of the structure from TRA 2006. TRA 2008 has reported outcomes and activities which relate to research across the arena of road transport. Some research was fundamental and basic; some was related to technical developments, some to the findings of trials and demonstrations and some to the development of future visions. The findings of road transport research have been reported in the various presentational sessions, at the exhibition stands and through some excellent poster sessions. The student competition demonstrated for the first time the quality of research the next generations of European researchers are producing. Substantial progress has been made in all the areas of the technologies, systems and behavioural understandings. Most particularly global warming has become an all encompassing issue. Many research studies initially focused on areas such as safety or congestion, but have now included global warming impacts in their work. If we can successfully address the challenge of global warming, many of the other issues of congestion and safety will also be met.

The TRA 2008 Conference in Ljubljana was, in the opinion of many respected participants, very well organized and prepared and it proved to be an excellent foundation for the future TRA conferences.

As chairmen of the Management, Programme and Organizing Committee, we express our gratitude to the members of these committees and all those whose efforts and commitment to the TRA 2008 made it such a success.

Aleš Žnidarič Program Committee Chairman Vili Žavrlan Management Committee Chairman

Matija Vilhar Organising Committee Chairman Michel Egger TRA 2008 Secretary General

List of Abbreviations

CEDR	Conference of European Directors of Roads /
	Conférence Européenne des Directeurs des Routes
CC	Central European Countries
	(BG, CY, CZ, EE, HU, LV, LT, MT, PL, RO, SI, SK, TR)
CSA	Coordination and Support Action
CTF	Communication Task Force
DDC	DDC Consulting and Engineering Ltd
DRC	Road and Transport Research Association of Slovenia
DRSC	Directorate of the Republic of Slovenia for Roads
EC	European Commission
ENP	European Neighbourhood Policy (countries of ENP: Algeria, Armenia,
	Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova,
	Morocco, Palestinian Authority, Russia, Syria, Tunisia, Ukraine)
ERA	European Research Area
ERTRAC	European Road Transport Research Advisory Council
EU	European Union
FEHRL	Forum of European National Highway Research Laboratories
MC	Management Committee
NMS	New Member States
NRA	National Road Authorities (or Administration)
OC	Organising Committee
PC	Program Committee
TERN	Trans European Road Network
TRA	Transport Research Arena
ToR	Terms of Reference
WBC	Western Balkan Countries: Albania, Bosnia-Herzegovina, Croatia, Former
	Yugoslav Republic of Macedonia, Montenegro and Serbia
ZAG	Slovenian National Building and Civil Engineering Institute