Establishment of Road Transport Research Needs in Hungary

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Introduction

• Road transport research in Hungary was sporadic as occasional resources were used for individual tasks generated by researchers.
• There was a need for a structural establishment of research needs for the road sector
• The road research program worked out for 2007-2008 ensures more effective use of constrained resources.
Central road research budget in recent years in Hungary
Establishment of road research needs in 2006

• In 2006 the Road Management and Co-ordination Directorate and the Hungarian Roads Management Company implemented a new system for establishing road research needs by feasibility studies in topic groups.

• A special tendering procedure has been applied for working out feasibility studies giving rather strict requirements.
Aim of the feasibility studies

• to establish and determine road research tasks for 2007-2008,
• to ensure actuality of recommended research tasks,
• connection to main national and EU goals,
• possibility for practical utilization.
Main topic groups

• asset management of roads and bridges,
• bridge condition survey and cost analysis, bridge construction technologies,
• road pavement design methods, road pavement construction technologies,
• safer roads by speed management, by design and construction and by traffic engineering,
• environmental tasks of road management.
Flow chart of road research topics

Co-ordination Centre

Main topic groups definition

Contract for organisation

Approval of feasibility studies

Feasibility study contracts

Independent assessment

Rods Mgmt. Co.

Tender for feasibility studies

Evaluation of bids

Working out feasibility studies

Symposium on research topics, Publication of study results

Research task proposals

Approval

Related elements

Tendering, contracting

Workout

Dissemination, utilisation
Independent assessment of feasibility studies

• The maximum number of offers for a certain topic group was 3.
• Evaluation is a critical issue for all types of research programmes and projects.
• An independent expert working for a US University but familiar with Hungarian research was invited to assess feasibility studies.
• Expectations have been met by getting studies of high standard. The assessment provided a good help in prioritising recommendations.
Original aspects of evaluation

• International state-of-the art (completeness)
• Domestic state-of-the art
• Recommended actual research tasks (scientific content)
• Potential additional resources
Additional aspects of evaluation

• Fulfilment of formal requirements (size, structure, logic, distinctness)
• Professional details of recommendations (soundness, originality, importance)
• Expected effects of recommendations
• Reality of the proposed budget and workout time
• Estimation of expected results
## Distribution of studies and contracts by topic groups

<table>
<thead>
<tr>
<th>Main topic group</th>
<th>Feasibility studies 2006</th>
<th>Research contracts 2007-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset management of roads and bridges</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Bridge condition survey and cost analysis, bridge construction technologies</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Road pavement design methods, road pavement construction technologies</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Safer roads by speed management, by design and construction, by traffic engineering</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Environmental tasks of road management</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
Road research contracts for 2007-2008

• In 2007 the Co-ordination Centre for Transport Development made a contract with the Hungarian Roads Management Company for the implementation of the road research program in 2007-2008.

• The research contracts have been signed mainly for 2 years, finishing in 2008 in order to provide proper time for the research process.
Flow chart of road research program

Co-ordination Centre

1. Research budget
2. Contract for program organisation
3. Approval of research task list
4. Contracting of research program
5. Budget watch

Rods Mgmt. Co.

1. Preparation of research program
2. Putting together research task list
3. Tender for research tasks
4. Evaluation of bids, program proposal
5. Research work, milestones
6. Assessment of results, utilisation

Approval
Related elements
Tendering, contracting
Workout
Dissemination, utilisation
### Distribution of studies and contracts by providers

<table>
<thead>
<tr>
<th>Providers of work</th>
<th>Feasibility studies 2006</th>
<th>Research contracts 2007-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical universities</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>National transport research laboratory</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Small enterprise (consultant)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total (certain tasks have been worked out by consortia)</strong></td>
<td><strong>10</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>
Dissemination of results

• Dissemination of results is very important.
• In 2007 a scientific symposium involving almost 100 participants has been organised.
• The results have been published in the Hungarian monthly Revue of Roads and Civil Engineering.
• A similar scientific symposium is planned at the end of 2008 to present and disseminate the results of the ongoing research contracts.
Conclusions

• In 2006 Hungary has implemented a new system for establishing road research needs by feasibility studies in topic groups.
• Independent assessment provided a good help in prioritising recommendations.
• The road research program for 2007-2008 has been based on a thorough preparation and ensures more effective use of constrained resources.