TRANSNEW Report Summary

Project ID: 234330
Funded under: FP7-TRANSPORT
Country: United Kingdom

Final Report Summary - TRANSNEW (Support for realising new Member and Associate States’ potentials in transport research)

Executive Summary: The main objectives of the TransNEW project were to research the current state-of-the-art of transport research provision in each of the New Member States (NMS) and Associated States. This included the four transport modes of road, rail, waterborne and aeronautics and included both the public and private sectors. After successfully researching and gathering this information it was collated together and developed into the TransNEW database of transport researchers across the regions and modes. The database is housed on the TransNEW website at www.transnew.eu/database. The database currently has over 2,000 entries and has been used extensively for potential partner searches during the EC Calls for Proposals in July 2011. It became apparent during the TransNEW research that transport research was an area that often does not have dedicated policy attached to it but rather sits within general transport or transport policy. Also, many of the TransNEW countries sometime refer to their policy documents as strategy documents. As a result of the research, it was identified that there was no dedicated document about transport research policy? in any of the TransNEW countries and it was one of the first goals of the project to identify what transport research was and where it could be found in each country?s national transport level. Research has shown that all transport research on national levels in the TransNEW countries are as a rule not coordinated by a Ministry of Transport but is usually conducted through various Ministries such as environment, economic affairs or R&D. At the time when TransNEW started there was no overview of transport research results or priorities on national levels. It became apparent that national/regional research aims can be identified only by means of priorities pointed out in national/regional transport policy documents. It was found that it would be difficult to achieve any strategic development aims without supporting any results from transport research activities. It has been found that there is a difference between transport policy (research) in the ?old? and the ?new? member states. It would appear that the ?old? member states are more focused on ?soft topics? such as planning, optimisation, support, regulation), whilst the ?new? member states and candidate countries are giving more priority to infrastructure provision. Due to the research and workshops in the TransNEW project, this disparity in the isolation and funding of transport research has been highlighted and various Ministries are now aware of the requirement to devote sufficient research funds for their country/region for specific transport research topics. Also, there is a need to create a competitive environment for transport research in general and for their experts to raise the level and quality of research activities in particular. To facilitate this, the TransNEW project had a highly targeted dissemination strategy that began with promoting the aims and objectives of the project to attract researchers to highlight their research in transport research. Later in the project, this evolved into actively promoting the interactive regional workshops programme and encouraging transport researchers to network with other researchers in the brokerage events at the workshops and register on the TransNEW database. This proactive research produced a wealth of outcomes and these are detailed in the feedback from the dissemination activities. The TransNEW database has a particular advantage over other transport research databases, in that it allows individuals and organizations to build a profile of their research interests and research capabilities, allowing them to promote their skills, with an aim to future cooperation. In this sense, the TransNEW database is more than a library of transport research projects, but a dynamic web portal for exchanging information about research capabilities. The database will continue to be expanded and maintained until 2014 and in the meantime it will be integrated with a transport research database portal being developed the HERMES project (www.hermes-portal.net). Project Context and Objectives: The TransNEW project was a Framework 7, EC project, which aimed at contributing to the
Any collaboration between the public and private sectors was of particular interest. The aim was to identify gaps in the areas where there were potential issues such as language, interpretation of the meaning of questions and cultural differences. The questionnaire was part of the methodology developed by TransNEW for collecting the required information concerning the current situation with regard to transport research in the public and private sectors. The questionnaire had the objectives of establishing the contact details for researchers and organisations and assessing the level of local, regional and European involvement the respondents had and are currently having in transport research. It was of particular interest if the respondents had previous experience of European involvement in projects and the willingness for these organisations to participate in future research projects and the type of projects they may be interested in, especially the involvement of SMEs. Any collaboration between the public and private sectors was of particular interest. The aim was to identify gaps in the areas...
of transport research modes and strengths and weaknesses in transport research. The quantitative questionnaire method of data collection was appropriate in this project because the questionnaire format is familiar to respondents and was a cost effective method of collecting large amounts of data. After successfully researching and gathering this information it was collated together and formed part of the reports on transport research in each of the TransNEW countries and was added into the TransNEW Database of transport researchers. The aim of the data collection was to synthesise the results of the active research together with the use of existing available databases such as Transport Research Knowledge Centre (TRKC) in evaluating the transport research capability in the NMS and building up a comprehensive picture of country and region-wide activity and gaps in research. Reports? National; Regional and Mode Specific After the comprehensive data collection, a series of reports were prepared using the data to qualify and quantify the current-state-of-the-art in transport research initially on a national level. Each of the partners produced a report on the countries in their region. These reports made conclusions concerning areas of strength and areas where improvement could be made using a SWOT analysis. All the national reports were then compared and contrasted in a series of regional reports to highlight any strengths and weaknesses at a regional level and opportunities for improvement and cross-border collaboration. Further mode specific reports were produced in the four TransNEW modes of rail; road; waterborne and aeronautics that focused on assessing the research actors who can make an active contribution to the common transport research objectives identified in the national and regional reports of advancing competitiveness, anticipating and responding to the socio-economic and environmental challenges of the transport system. To assist with the format and content of the reports and deliverables a Steering Committee was formed with all the Work Package Leaders. The Coordinator of TransNEW was nominated as the Chair of the Steering Group meetings and prepared the agenda and minutes. The project fulfilled the aim of having 2 Steering Group meetings per year. These meetings were usually held in conjunction with project meetings as Work Package Leaders would be present for both meetings. To help keep down the cost to the project for numerous meetings there were also video conference meetings via the internet, hosted from the Coordinators offices in the UK. In the early meetings, members of the Steering Group always made vociferous contributions, moving the country, mode evaluation and regional reports forward. The 2 meetings held during the workshop programme in September/October 2011, assisted greatly in contributing to the success of the regional Opportunities brokerage workshops. The objective of the TransNEW Advisory Board was to determine the quality requirements of the TransNEW outputs including the questionnaire sent to transport researchers concerning their current situation with regard to transport research; the quality of deliverables and dissemination of the TransNEW results. Members of the Advisory Board were specially selected for each of the phases of the project. The Chairman of the Advisory Board contacted potential Advisory Council members; prepared a presentation on the tasks and functioning of the Advisory Board and created a Memorandum Of Understanding (MOU) with the Advisory Board members. The members were taken from across a broad spectrum of mode platforms and transport organisations and have assisted particularly with input into the country, regional and mode reports and also the regional workshops. The TransNEW consortium was also keen to collaborate with other projects where a mutual benefit could be gained. TransNEW aimed to develop a cooperation agreement with the ETNA project, which is an EC project building up a comprehensive database of National Contact Points (NCP) including the New Member States. These NCPs are a good resource for transport researchers to use as a reference resource and also raise the profile of their organisations through the NCPs knowledge of their work. The ETNA project is also highly visible in assisting in the promotion of access to EC funds through the Framework programmes and this synergy was seen as a way to share the researchers from the TransNEW research and to make them aware of what was available and how best to make themselves attractive to potential consortiums. Contact was made with the Editor of the ETNA newsletter and an agreement made to provide articles concerning developments in the TransNEW project progress. To increase the number of researchers and organisations, TransNEW proposed a comprehensive dissemination strategy to promote and increase awareness of the research being carried out in TransNEW so that any interested researchers could participate and register on the TransNEW database and be kept informed of on-going progress. The aim of the regional workshop programme was to promote the aims and objectives of TransNEW and attract transport researchers to register on the TransNEW database. The Regional Capabilities and Capacities workshops aimed to disseminate the research from the countries in the region and feed this back to the audience so that they could gain a comprehensive overview of transport research in their country and how this fitted into their region in terms of areas such as cross-border research. The Regional Opportunities workshops held in the second year of TransNEW (2011), focussed on the Calls for proposals from the European Commission under the 7th Framework Programme as this was an ideal opportunity to put
together four regional workshops that would disseminate this information in a semi-informal manner and allow researchers to ask any questions they may have in a secure environment. To optimise these workshops, TransNEW were going to collaborate with the ETNA ? NCP project to provide a brokerage event as part of the regional workshop based on the format they have tried and tested at the European Commission events in Brussels. Researchers and SMEs were collated via the country research and the regional workshop programme. These were added to the dedicated database of transport researchers from the NMS and the aim was to make this publicly accessible for other researchers and organisations searchable by organisation; researcher; mode and country. Design and development of the TransNEW database was decided in consultation with the TransNEW partners as this ensured that the final database was achievable and could be maintained in terms of the size of the database and also the capacity of the TransNEW partners to collect the data input. Enlargement of the database also included the mode platforms and a dedicated area for SMEs. The database can cross-reference fields to assist in any search for transport research expertise in the chosen area. The database is divided into the following fields and: ? University/Industry ? Researcher ? Organisation ? Project/Best Practice ? Local/Regional/European ? Mode of transport research expertise ? SME The database is further broken down into areas of the following topics/activities: ? Greening ? environmental impacts of transport and climate change ? Enhanced integration of transport modes ? Safety and Security ? Transport system efficiency and Mobility ? Competitiveness This database has been disseminated to the Mode Platforms in order to raise the profile of transport research and transport research organisations in the New Member States. The Mode Platforms can use the database to determine research capacities and capabilities and they will extend, enlarge and enrich the database with their own inputs from other countries. The Mode Platforms will be encouraged to maintain their mode specific parts of the database at the end of the project. Project Results: The TransNEW project was a two-year project that began on the 01 January 2010 and had 16 partners from across the New Member States (NMS) of Europe. The European Commission were responsible for making the Call for Proposals that included the approval of the proposal that became the TransNEW project. TransNEW benefits the European Commission by raising awareness and improving the opportunities for the NMS to participate more fully in European funded projects and foster cross-border integration. The TransNEW project had very clear objectives concerning advancing the level of transport research capacity and capability in the NMS. The countries in TransNEW are developing at a different rate and whilst some have a fairly good idea of who is doing what in transport research others are still in the very early stages of untangling past decades of old styles of managing transport systems and the associated research. TransNEW has assessed the research actors who can make an active contribution to the common transport research objectives of advancing competitiveness, anticipating and responding to the socio-economic and environmental challenges of the transport system in each of the TransNEW countries. The information collected during the research on the TransNEW countries were put into a dedicated TransNEW database and further disseminated through a dissemination strategy. As a Support action these dissemination actions were important and the dissemination objectives of this strategy were two-fold: - data gathering and data sharing. The data gathering was carried out by using the TransNEW methodology agreed by consensus with the TransNEW partners, to assess the current state-of-the-art in transport research in the new Member (and Associated) States. To further facilitate this data gathering there was a series of interactive regional workshops, which successfully brought together transport related experts who were interested in participating in future transport projects, especially cross-European. The starting point for the research was to gather information and data about the TransNEW countries that could be further compared and contrasted in both regional and mode evaluation reports. Country reports The countries in TransNEW were targeted as they constituted the ?New Member States?, many of whom have a political and socio-economic background that meant that the investment in transport infrastructure and especially research were limited or non-existent. An objective of TransNEW was to determine their capacity and capability and then facilitate the expansion of their knowledge of the current-state-of-the-art in transport. Using this base the next step was to produce recommendations that would advance the thinking on transport research and foster cross-border collaboration. Research was carried out on each of the individual countries above and the results were highlighted in transport research capabilities and capacities reports. As will be illustrated, the level of specialisation differs from country to country based on their institutional structures. It was observed that the commonality in the research capabilities increase when the geographical proximity is higher between the countries. The chapters in the country reports were consistent throughout all the reports and followed the same structure so that it would be easier to compare and contrast them in the regional reports. The chapters of the reports had the following chapter structure: 1 Introduction 2 Transport research policies and initiatives - Overview of the national transport policy of the country - Current
state-of-the-art in transport research - National research institutional structure. 3 Criteria for tenders for research projects - Quality criteria for institutions and researchers - Cost criteria for institutions and researchers 4 National transport research projects database - Projects funded by transport research policy makers - Projects funded by private organisations 5 National transport researchers - National research links - International research links 6 National transport research centres 7 Involvement of the countries in European projects - General overview of participation in EU projects (FP6 and 7) - Examples of relevant EU projects - Synthesis of results - General analysis of the countries transport research data - National transport and transport research highlights: - Road - Rail - Aeronautics - Waterborne 8 SWOT analysis 9 Recommendations The final outcome of the analysis of the country research was the synthesis of all the results of research that highlights the strengths and weaknesses in transport research in the country. Further research was carried out on the national research highlights that included specific aspects of each transport mode and associated research area. Integration in the European transport system (and related research) is considered as well. A SWOT analysis on national transport and/or national transport research was carried out (this was decided on whether both analyses were relevant or just the analysis on the transport research).

Conclusions of the research are based on a SWOT analysis of transport research in the country and the general outcomes of the project itself. The following SWOT analyses are condensed and the full versions are available in the country reports on the TransNEW website www.transnew.eu. The SWOT Analysis for the Baltic Countries identified the following transport research capabilities and capacities: ESTONIA Strengths Weakness ? Two strong research centres in Marine research sector ? Experience in participation in international collaborations and projects ? Well-developed research funding system ? Transport research is not included in priority research topics ? There is no unified transport research programme or strategy ? Aeronautics research is not active and there are no railway transport research units Opportunities Threats ? Estonia being a member of EU, Estonian researchers have a good opportunity to participate in international research programmes. ? Estonia has good opportunity to joint ERA-NET for transport especially in those sectors, where internal resources (both financial and human) are missing. ? There are gaps in transport research that could be filled by incoming or new researchers or organizations (railway transport, aeronautics). ? Funding transport research are not priority research topics and research projects may not be funded in the funding programmes. ? Lack of research on aeronautics and railway transport may result in wrong planning decisions. ? Due to the lack of funding, skilled and perspective transport researchers may migrate to other states. Conclusion for transport research policy: The development of general transport research policy should be considered, that would cover all modes of transport eliminating current gaps in research areas (aeronautics and railway). Also the policy should include not only current problems, but also implementation of innovative technologies and trends in transport currently discussed and relevant in the EU (e.g. integrated transport, sustainability). The research plan should be developed involving both transport policy makers and research institutions, to ensure better collaboration. A funding scheme for the created transport research policy should be also developed. It could be funded in similar ways as the previously funded more specific transport research programmes. This would help to develop currently weak research areas. EU funds could be used, promoting funding frameworks and collaboration possibilities to the researchers, increasing their international potential. LATVIA Strengths Weakness ? Currently Latvia attracts EU Structural funds both for transport infrastructure and for research. ? Handfuls of scientific institutions and private organisations have shown the scientific excellence within the EC Framework Programme Transport research priority. ? Some of the research infrastructure applicable in transport research are state of art and obtained recently ? Lack of political will and industry lobby towards transport research. Ministry of education and science do not recognise Transport as research priority. ? Rare good cooperation practice with other EU transport research partners. Insufficient scientific staff exchange and abroad training in transport sector. ? Limited access to the research infrastructure for researchers within the country. Opportunities Threats ? Active transport research institutions are continuing R&D cooperation within EC Framework Programme, Interreg III, Marco Polo and others. ? Latvia researchers are welcomed for the research and training fellowships within the EU. ? Available structural funds for 2013 may extend the pallet of state of art transport research equipment. ? Without political will nor structural funds no national funding will be allocated for the transport research in unforeseen future. ? Due to current global financial crisis transport research experts may migrate to other EU states. ? Without proper funding for higher education, a generation gap may develop once again. Conclusion for transport research policy: Transport specific research programmes should be launched in Latvia in order to supplement research excellence accumulated within the country. The general research programmes can still continue in parallel to some small-medium scale selective research programmes. National associations should take more roles in disseminating the information regarding the
research programmes, developing research policies, clustering activities and deployment of the new technologies in the industry. In addition, both Ministries and Associations should play a major role in promoting the participation in the transport technology platforms at European levels like WATERBORNE, ERRAC, ERTRAC, SESAR. National and local authorities should develop their own development road-maps and enhance cooperation with the private sector and research organisations, additionally more focus should be placed on cooperation activities like EU INERREG or Marco Polo programmes. The transport research realised within the Framework Programme or Competitiveness and Innovation Programme should be promoted more nationally and recognised as European level excellence. LITHUANIA Strengths Weakness? Lithuanian transport researchers already collaborate with Western European leading universities and research institutions. ? Lithuanian transport researchers are working for transport authorities and industry on basis of service contracts or consultancy service. Quality increases due high competition there. ? Transport research is prioritised neither in transport strategy, nor in research strategy. ? There is no transport research agenda in Lithuania. ? There is neither general transport research programme nor funding. ? Research as tool is not prioritised within strategic plan documents of transport (or at all). Opportunities Threats? Lithuanian researchers have a good opportunity to participate in international research programmes. ? Lithuania has a good opportunity to create an institutional framework for transport research funding. ? Lithuanian has a good opportunity to joint ERA-NET for transport especially in those sectors, where internal resources (both financial and human) are missing. ? Leading researchers may emigrate to work for institutions outside the country. ? The budget for a National transport research program may not be a priority for Governments. Conclusion for transport research policy: These policy recommendations are prepared in sequence, where the next one may only be implemented after the previous one. Transport research policy institution - The Ministry of Transport and Communication, The Ministry of Science and Education and The Research Council should collaborate with each other and decide what institution is responsible and/or cross-responsible for transport research. Transport research agenda - The transport research policy makers (after appointment) should launch a call and allocate a budget for the preparation of a high quality transport research agenda (long term). The agenda should be approved by formal legal act by the responsible institution. Transport research funding - The Research Council operates two main definitions in approved documents however no place is allocated for specific interdisciplinary applied science such as transport. The Research Council should allocate a budget for transport research in specific items selected in the Transport Research Agenda. Proposals evaluation - The outcomes of projects should be clearly focused on the needs of transport research stakeholders. The SWOT Analysis for Central Europe identified the following transport research capabilities and capacities: POLAND Strengths Weakness? Large number of students of transport related faculties and relatively young human resources employed in transport R&D institutes/centres; ? Very well educated transport related scientists; ? Increased number of transport enterprises which conducting own R&D activities operating within different transport modes; ? Inefficient organisation of systems of practices and professions related training in transport; ? Low salaries of transport scientific and R&D human resources (including transport high-tech HR); ? Unsatisfactory distribution of databases regarding Polish R&D potential in transport; Opportunities Threats? Development of Polish transport technology platforms and clusters; ? Regional Innovation Strategies? execution (on the basis of regional and local competences within transport, e.g. North of Poland focused on waterborne transport, however the South of Poland focused in rail and road transport); ? Low interest among young people in transport oriented technical higher education; ? Low effectiveness of public funds for transport R&D in the meaning of lack of strategic, transport modes oriented R&D programmes, e.g. separate programmes for particular transport modes. Conclusion for transport research policy: Improvement of the strategy for the implementation of the national transport research policy by the following proposed actions: ? Mapping of the key competences vs. key transport industry sectors in particular regions in order to provide the efficient allocation of financial resources for transport applied research ? Introduction of so-called New Public Management within transport strategic sectors oriented R&D programmes including transport industry representatives, i.e. end users.; ? Distribution of the responsibility for funding transport research between regional certified agencies (particularly transport problems recognised in the regions) according to elaborated transport strategic sector programmes. ? Increased focus on transport collaborative research in particular indicated problems; ? Enhancement of meaning of national transport technology platforms and European ones; ? Creation and maintenance of a database covering transport competence R&D areas (R&D actors and stakeholders) at national and European levels in respect of strengthening of transport based R&D cooperation; HUNGARY Strengths Weakness? Increasing highly educated employees? in the automotive industry ? Involvement and support in research activities of two major economic ministries (Ministry of National Development and Ministry of National Economy) ?
Strong research capabilities in road transport ? Low interest and capabilities in rail research compared to road transport and low budget for dedicated research programmes in specific fields in transport ? Lack of effective technology transfer system in the transport research area ? Unsatisfactory and undistributed database Opportunities Threats ? Development of Hungarian transport technology platforms and clusters ? The national rail system has to be modernised and it gives new transport research opportunities ? Low R&D expenditure ? Deepening of technological gap in transport ? Decreasing interest from European partners due to the neighbour competitors ? The transportation sector investments and specially the R&D investment may decline in the current financial crisis Conclusion for transport research policy: The general research strategy will encourage the increasing of competitiveness of the Hungarian economy, and through this ? in harmony with economic policy goals ? the improvement in quality of life of Hungarian society through: ? Changes in policy funding, tender submission, criteria for funding ? Changes in institutional structure, to improve the application of research results ? Improvement/ changing/ maintaining the strategy for the implementation of the national and European research policies ? Improvement in collaboration mode at national, regional and European level ? Development of research networks and/or platforms in transport research ? Improvement of communication in the transport research area by the implementation of modern technologies and methods ? A respected, knowledge-based, creative and innovative workforce suited to the demands of society and the economy ? Improvement of international collaboration mainly in areas where national research is either strong or weak CZECH REPUBLIC Strengths Weakness ? Developed R&D public funding ? R&D reform leading to higher efficiency ? Czech transport R&D recognised by foreign partners ? Low interest of researchers in EU R&D (also due to language barriers) ? R&D is not fully recognised as a partner, particularly by local politicians Opportunities Threats ? R&D budget not affected by budgetary cuts ? Need for R&D on cheaper infrastructure solutions ? Rail R&D ? public demand for service improvement ? Public transport improvement ? R&D reform ? loss of link between transport policy and research ? Reduction of R&D activities for public sector leading to focus on other types of activities Conclusion for transport research policy: On the basis of this SWOT and synthesis of results, the following conclusions can be made on future strategies for transport research: ? Changes in policy funding, tender submission, criteria for funding ? Improvement in the transport research area including communication by implementation of modern technologies ? Improvement of international collaboration SLOVAKIA Strengths Weakness ? Quality research background ? highly qualified labour ? High rate of involvement in international projects and experiences gained ? Low interest of young labour in research and low wages of researchers ? Low level of implementation of research results in practice ? Insufficient state support for research ? Obsolete technical equipment of research facilities Opportunities Threats ? Good qualification structure ? Stabilisation of R&D organisations in Slovakia ? Need for research in area of maintenance and repairs of transport infrastructure ? Deployment of intelligent transportation systems ? Lack of funding for transport research ? Reduced interest of public sector in research results ? Offer of research jobs with much higher wages in other sectors of Slovak economy Conclusion for transport research policy: ? Society and responsible institutions must set priorities of transport research considering all parties concerned, to correspond with the current transport policy issues and determine the direction of transport research. ? The provision of higher degrees of integration of scientific and research capacities of the private and public sector in research activities, whether by purpose grant schemes, participation of staff from both sectors on joint scientific research activities, the creation of joint facilities and the transfer of experiences will ensure the effective transfer of scientific knowledge into real outcomes of the economy. ? Research activities and the potential in the field of transport exist in both the public and private sector, in practically all transport sectors, namely - rail, road, water and air, at the gradual engagement in space research (preferably the public sector). Despite the growing trend of interconnection of facilities, it is necessary to carry on supporting this trend, whether by financial schemes or by legislative determination of the status of such research centres and facilities in the transport research. In the West Balkan countries there are several good national transport research projects and the SWOT analysis on their research illustrated the following: BOSNIA Strengths Weakness ? Existing scientific and research institutes; ? Established National Contact Point (NCP); ? Absence of transport research strategy and the list of research priorities; ? Weak regional and international cooperation and researcher links and Insufficient level of research project leadership and management; ? Modest applicability of research results in practice; Opportunities Threats ? Use of EU funds to improve the research sector (IPA, etc.); ? Increased involvement in EU research programmes; ? Greater impact on the economy of scientific research; ? Potential young scientific and research personnel. ? the lack of understanding the importance of research for country development by the policy makers; ? continued marginalization of research importance at any relevant level; ? "Brain-drain". Conclusion for transport research policy: The future development of transport research
depends on sufficient large numbers of qualified researchers and research projects. BiH needs continuously to increase investments in research infrastructure and research activities to achieve that. Transport research and researchers and scientists in general should take an active role in the transport system development and in the development of the whole society. For the most efficient use of available resources, policymakers should support the establishment of a scientific-technological database providing indicators such as human resources in science and technology, transport research, research institutions, existing capital research equipment, data on finished and on-going research projects. CROATIA Strengths Weakness ? Rapid involvement of Croatian research sector into the different instruments of EU financing. ? Development of new scientific instruments aimed at commercialisation of research (role of MSES). ? Expertise in area of inland waterway transport ? Strong automotive cluster due to accumulated knowledge. ? Lack of available R&D financial resources. ? Low level of innovativeness, low productivity of Croatian research community. ? Lack of projects? management skills. ? Language barriers (many senior researchers are not fluent in English). Opportunities Threats ? Research on the subject of higher impact of sustainable transport development ? Increasing awareness across public and private sector for development and operations founded on research results. ? Further strengthening of participation in EU projects. ? Poor and inefficient reconstruction and reorganisation process of transport sector. ? Additional decrease of state funding of transport research. ? Lack of quality projects in transport sector. ? Better possibilities for research in western countries. Conclusion for transport research policy: ? Sustainable development of transport infrastructure. ? Better implementation of policy strategic documents. ? Stimulating transport activities to increase overall economic activities. ? Increasing the pool of researchers especially in field of transport research: o Funding schemes for encouraging young researchers and PhD studies. o Shorten the period between contract announcements and actual employment of researches. o Increase salaries in research activities to comparable level with private sector. KOSOVO Strengths Weakness ? Eligibility for participation in EU research activities and programmes. ? Participation in scientific conferences on level of SEE and EU countries. ? Participation of research in international research bulletin. ? Inadequate allocation of budget for R&D. ? Transport research is not listed as a priority in National Research programme. ? Lack of skills in developing project proposals to be funded by EU and lack of project management skills. Opportunities Threats ? Transport sector is seen as national priority by institutions. ? On-going development of the National Research Program 2010-2015. ? Increased mobility of research staff. ? Insufficient direct communication between research and industrial sector. ? Low level of research culture. Conclusion for transport research policy: Information gathered on Kosovo transport and transport research has shown that Kosovo’s struggle for independence has had a negative impact on research in Kosovo in general. For Kosovo to face the huge challenges of the years to come, research and innovation policies support is of vital importance. In accordance with SWOT analysis, some conclusions on research policy were made: ? Adoption of a National Transport Policy and Plan as well as a National Transport Agenda. ? Adequate treatment of transport research in the National research programme. ? Development and improvement of the Kosovo transport infrastructure is an opportunity for national researchers and experts to increase their active involvement. ? Support for application and participation in EU research. ? Strengthen participation of national experts in transport research. FYR MACEDONIA Strengths Weakness ? Active participation in regional transport activities. ? Active participation in the EU research actions COST and in framework programme FP7. ? Republic of Macedonia has EU accession candidate country status. ? Insufficient national funds for research activities. Insufficiently implemented measures toward integration into the European Research Area. ? No government transport research strategy. ? Insufficient implementation of capacity of research. Opportunities Threats ? Increased participation in the EU research programmes. ? Increased country regional collaboration in the research. ? Integration of the public and private sector in the research. ? Inadequate investments in research. ? Low number of researchers and research institutions. ? EU and regional research priorities and interests are not aligned with the country’s priorities. Conclusion for transport research policy: ? The amount of funding for research should be increased at all levels. ? The evaluation process of research activities still to be further developed and improved. ? Research policy must focus on enhancing scientific and research work and on keeping highly educated personnel to stay in the country. ? Transport research policy ought to be better defined in the main strategic transport documents. ? Encourage the involvement of Macedonian transport researchers in the EU research networks. MONTENEGRO Strengths Weakness ? Existence of Transport development strategy. ? Lack of experienced and market-oriented trained, highly-skilled staff. ? Lack of investments in research and development activities. Opportunities Threats ? The integration of the country into the regional and European transport network. ? Support of development of multimodal transport systems. ? Need for inclusion of Highway Bar-Boljare and Adriatic-Ionian highway into general regional transport network;
Conclusion for transport research policy: ? Taking into account the size of Montenegro and number of researchers who are actively involved in transport research, Montenegro should continue initiated activities in the area of adaptation of legislation and the introduction of quality systems in all transport modes. ? For increasing of the intensity and volume of research sufficiently large number of researchers are needed, so Government need to make plan of research staff development and research in the areas in which there are an insufficient number of researchers; ? Montenegro has National E-CRIS (Current Research Information System) system which includes database of research organisations, researchers and research projects. For making analyses and drawing conclusions, system need to be regularly updated and researchers and organisations should provide as possible accurate data; SERBIA Strengths Weakness ? Institutional support, first of all by the Ministry of Science and Technological Development to develop transport research; ? Presence in EU research programmes. ? Lack of specific predefined transport research themes ? no clear transport research strategy; ? Untimely communication on transport R&D funding opportunities; ? Insufficient support (incentives) for young researchers; ? Lack of project management skills (preparation of proposals for EU programmes). Opportunities Threats ? Presence in EU research programmes. Access to EU research funds; ? EU accession process ? alignment of transport research policies with the EU?s, expected to provide more funding opportunities; ? Expected liberalisation of transport market. Stakeholders will be incentivized to improve their performance and to become more competitive and to increase spending on R&D; ? Brain drain. Loss of transport research staff to both commercial sector in Serbia and to foreign commercial enterprises and research institutions. ? Relatively unstable national currency ? endangered RTD funding. Conclusion for transport research policy: ? Conclusions derived from the SWOT can provide answers important for the future development of Transport research in Serbia. ? Legal obstacles are increasingly being removed with EU integration processes it is becoming more obvious that a transport system in Serbia might pose a bottleneck which could slow down economic development and integration process. ? Along with development and with an increased number of projects, problems might occur regarding the shortage of qualified human resources in all research areas. ? The Serbian Government through the Ministry of Science and Technological Development supported by EU Programmes and available financial assistance should give stronger support to researchers and research institutions (including SMEs) in the field of transport research. SLOVENIA Strengths Weakness ? More than 400 researchers involved in transport; ? Research active in a number areas and projects; ? Involvement in trans-national research cooperation; ? Stimulating participation of Small and Medium Size Enterprises in the field of transport research. ? Transport research funded by the government is negligible; ? Research funding support system for SME?s; ? Link between the Slovene National Transport Plan and the transport research is not clear; Opportunities Threats ? Establish link between transport and research policy; ? Encourage R&D projects in the transport sector; ? To expand participation in European projects; ? Strengthening the cooperation between transport researchers and economy sphere. ? Financial crisis threat against new investments and funding for research and development. Conclusion for transport research policy: ? Slovenia should promote research and development in the transport sector ? both in business and in education, this will enhance the scope and power of the transport sector, in this way is possible to increase employment. ? Slovenia should stimulate participation of SMEs in transport research, and stimulate International Cooperation. This is further validated in the objectives of the TransNEW project and gives a good foundation for the development of a National Transport Agenda. ? For Slovenia it is particularly important to address all transport modes in transport research. ? Slovenia should strengthen the research community, policy makers and transport industry at the local, national and even European level. ? A key recommendation for transport research in Slovenia is promoting the involvement of Slovenia in European research as well as stimulating International Cooperation. This can be done by using the European Framework Programme particularly focused on Transport within DG Research and this can be used to research the priorities above and to train new transport researchers. The capabilities and capacities SWOT for the South Balkan and Mediterranean countries resulted in the following findings through a SWOT analysis: ALBANIA Strengths Weaknesses ? Demand for studies in road, air and sea transport ? Economic and institutional reforms in the transport sector ? Extensive involvement of the Universities in the Scientific Researches and Development Network. ? The small number of research centres and researchers ? Lack of a Transport related National R&D Programme ? Brain drain of skilled labour and researchers ? Exclusion of transport in the national scientific research priorities Opportunities Threats ? Great need for R&D in the transport sector ? Commitment to increase research funds ? Efforts of Private Initiative?s involvement in R&D ? Requirements for study and research in many transportation issues ? The general lack of interest in R&D ? Main focus of activities in Transport being on infrastructure development and maintenance ? Difficulty to include Albanian transport subjects in the international R&D programs Conclusion
for transport research policy: The analysis shows that the national innovation system in Albania has been evolved in recent years. The mechanisms to support research activities should be disseminated on a national scale to increase the awareness of the researchers and attract them to apply for these programs. This may include organising info-days and workshops in various cities in Albania, use of the electronic news delivery systems or other promotion campaigns. In Albania, R&D and innovation statistics are not collected. Therefore, a set of performance measurement indicators for R&D need to be defined. Significant efforts should be made in the form of R&D project support for the basic research activities performed in research institutes and universities. Access to international sources of knowledge is required to enable researchers to increase their knowledge base. The national researcher links are also very important to connect the researchers and industry to each other and allow them to perform collaborative activities. In this regard, a national network of researchers could be created or the already established TransNEW database could be used as an alternative. One of the most creative ways to increase the number of researchers registered in this kind of database is to make the registration to the database compulsory for application to a national Funding program. BULGARIA Strengths Weaknesses? Bulgaria is an EU member and takes part in the European Economy Area? Existence of highly trained research potential and; Established system for training and professional qualification R&D personnel? Low level of participation in the EU Framework Programme and European initiatives; Low interest to R&D activities in Maritime and Aeronautic research; Language barrier. Opportunities Threats? The National Strategy of Scientific Research? The creation of Regional Railway Transport Research and Training Centre Foundation (RRTC)? The prognoses for increasing international trade to enhance the logistic sector and the corresponding research activities? The whole investment in transportation and in R&D sector has declined after 2008-2010. The chronic lack of R&D funding will lead to a future fragmenting and decrease of human resources and the gap will keep it away from the European fundamental research projects. Conclusion for transport research policy: Promote new mechanisms to support universities, research institutes and laboratories with co-funding from industry and public sector; National basic research programmes should be promoted more in the maritime research groups. National and local authorities have to develop their own research roadmaps and enhance cooperation with the private sector and research organisations; The transport industry should invest in future technologies to help the applied research and innovation which should be implemented quickly; There is a need for special activities to enable the industry and the research establishments to increase their participation in FP7. National organisations have to increase the coordination of their efforts in disseminating the information regarding transport research programmes and in determining research policies. CYPRUS Strengths Weaknesses? Increasing role of universities and research organisations in transport research? Operation of the Technical University (TEPAK)? Large proportion of population are university graduates? Limited national research carried out in modes other than road? Limited number of SMEs involved in transport research? Lack of national transport research database? Limited number of research centres and experienced transport research professionals/experts Opportunities Threats? Reorganisation of the RPF and stronger emphasis on research and technology priorities-opportunity for more effective policies in the future? Increase budget for improving the capacity of the national R&D system? Establishing a national transport research centre? Local SMEs could benefit from joint research ventures with world-class research organisations? The size of Cyprus and the size of its economy (the GDP) may be a deterrent in developing transport research? Foreign examples/research may fail to work when applied to local conditions? Cyprus may fail to adapt, connect and compete with other countries without sufficient research in transport sectors Conclusion for transport research policy: Transport research in Cyprus is still in an embryonic state when compared to many other European Member States. Transport research is mainly promoted through the annual financing programmes announced by the RPF. In recent years, the main public and private universities have launched a small number of transport research projects both through the RPF and through other EU programmes. However, the levels of research carried out by the private sector (SMEs) remain extremely limited. The following policy related recommendations could possibly improve research capability/capacity in Cyprus: The Government must adopt an integrated, long-term strategy for transport research and innovation. It could establish a network of interdisciplinary scientists, policymakers and practitioners concerned with addressing various factors in transport. There is no national funding framework specifically targeting transport research in Cyprus. Consequently, transport related activities are funded through the national Research and Development agenda. The Cypriot Government must establish a specific national framework for funding transport research and establish a Public Body which will promote transport research, encourage innovation and support the enhancement of skills both in the public and private sector (SMEs). The Government should draw top researchers to the country and then make it attractive for them to
stay and pursue their careers long-term in Cyprus. Efforts should be made to open up more programmes by the RPF to the industry. Funding for R&T activities should be increased to levels that will continue to provide high returns on research investment. EU funding could be used as a long term investment instrument towards mobilisation of resources for research and a future reorganisation of the RPF and stronger emphasis on research and technology priorities constitutes an opportunity for more effective policies. MALTA Strengths Weaknesses? Increasing budget for the government R&D support? Very high number of English speaking population? Very active researchers who have developed extensive collaboration and networks? Good communication of research programmes? Having no research centres in transport fields? Low number of researchers performing R&D in Transport fields? Lack of a Transport related National R&D Programme, or transport related priorities in the National R&D programmes. Opportunities Threats? Policies, strategies and commitment to increase R&D? Increasing transport infrastructure investments? Support mechanisms of Enterprise Malta to involve private sector to the R&D activities? Low level of R&D intensity? High share of public research activities in transport fields, which creates a risk of under-exploitation of the research results.? The limited capacity of the island-country is likely to cause brain drain of skilled labour and researchers?

Conclusion for transport research policy: A more strategically focused approach is needed for achieving good progress in transport research. The current R&D and Innovation support mechanisms do not exclude transport from being funded, however the number of projects and the budget allocated for these projects can be increased with this kind of orientation.? Exploitation of research results is very important to initiate new R&D and innovation activities across the country. This process usually requires joint efforts and public-private partnership models. The problem of increasing car ownership is not yet solved and the indicators show that there are no improvements in the situation, a large scale public transport programme, should be introduced. This programme should include not only R&D and demonstration actions but also feasibility, foresight, benchmarking studies.

MOLDOVA Strengths Weaknesses? High demand for studies and analyses related to development projects? Existing regulatory framework and funding bodies for research funding? The poor funding level of the overall research system;? The lack of a dedicated funding share available for the field of transport;? Very poor involvement of the private sector (including SMEs) in transport research;? Language barriers - English language has been neglected;? Lack of interest of researchers in some areas (e.g. rail and waterborne transport, greening, safety, etc.); Opportunities Threats? Increasing potential of transport research? Availability and accessibility of the universities and scientific institutes for research activities involving both national and international partners? Loss of researchers because of age or poor interest due to financial reasons;? Brain drain of skilled professionals and researchers (especially from the new generation);? Difficulties for young researchers in achieving expertise in the absence of important national and European projects.

Conclusion for transport research policy: Based on the synthesis and analysis of the data, some recommendations could be made on the future initiatives and strategies in transport research. These recommendations are addressed both to the Moldovan policy makers and to active transport researchers and organisations. The recommendations are aimed to be useful both for the transport researchers from Moldova and other European countries. In order to improve the national policy on transport research, considering the limited funding, it is recommended to create a Scientific Advisory Council at the Ministry of Transport and Roads. The council should include prominent researchers and experts in their fields. It should be organised and work on commissions having expertise in different areas. Although the Moldovan economy is still far from efficient and there are many priorities and urgent need, one of the most important recommendations addressed to policy makers is to sustain and intensify the resources committed for R&D to reach the policy objectives. Sustainable investment is also needed in the educational system related to transport. Although there are areas fully covered by high quality colleges and universities, there are still gaps in some fields of transport research. ROMANIA Strengths Weaknesses? The existence of a clear R&D strategy? Low cost of highly trained workforce? Specialised R&D centres covering all transport modes? Participation in all EU research platforms? There are relatively many SMEs participating and co-funding transport RDI projects. A weak correlation between Research-Development-Innovation policy and the policy in industry transport. No specific mechanisms designed to encourage and support participation in EU programs. Lack of initiative of the Romanian researchers in approaching European projects in a capacity of leaders, limiting themselves to participate as partners. Opportunities Threats? Opportunity of the business milieu development as a result of building scientific industrial parks and business incubators? Increase of SME sector dynamics? Lack of co-ordination among the various sector policies with implications in the R&D-Innovation sector development? The chronic lack of funding of the R&D-Innovation system will lead to a continuous fragmenting and decrease of human resources, while maintaining the gap keeping it apart from the European research. Conclusion for transport research...
policy: Steps required to be taken in order to improve transport research in Romania. One of them is a single open market for the researchers: ? Actual application of the Researcher?s European Chart and of the Code of Conduct for researchers? recruitment. ? Guarantee of an open and transparent researchers? recruitment based on competition by granting institutions total freedom as to recruitment and by adopting the best practices in order to acknowledge the diplomas from other countries. Ensuring total transparency as to the researcher selection and promotion procedures, ? Development of the European dimension of research careers. ? Attracting young talent by ensuring real equal opportunities concurrently with capitalising on the expertise and the know-how of the researchers at the end of their career to consultancy and training. ? Enhanced researchers? geographical mobility both within EU (jointly setting up international scholarships) and beyond EU (developing mutual research networks). ? Prevention of the highly trained researchers from leaving the less developed countries in point of R&D for the more advanced ones by guaranteeing large prospects as to their careers and by providing attractive work conditions. TURKEY Strengths Weaknesses ? Science and Technology is one of the top priorities of the Government ? The increasing number of researchers ? Increase in the research activities undertaken by the logistics sector. ? Increasing R&D intensity rail transport. ? Experienced maritime R&D infrastructure ? The existence of umbrella organisations in logistics, maritime and automotive sectors. ? Lack of national public and private research institutes specialised in railway research and low level of basic and applied research ? The lack of researchers studying air transport (including aeronautics) ? Lack of dedicated research programmes on specific fields in transport. ? Lack of national research programmes which enable cooperation between academia-industry-public sectors. Opportunities Threats ? Geostrategic importance: Turkey is a hub between Europe and Middle East and Asia. ? Know-how in automotive industry. ? Expertise in aeronautics ? Experienced maritime R&D infrastructure ? The lack of transport policies to re-balance the transport

Related information

| Result In Brief | Transport research gathers steam |

Reported by

UNIVERSITY OF NEWCASTLE UPON TYNE
Research Beehive, 2nd Floor Old Library Building
NE1 7RU NEWCASTLE UPON TYNE
United Kingdom
See on map

Subjects

Transport

Last updated on 2013-01-18
Retrieved on 2019-07-27

© European Union, 2019