Assessment and rehabilitation of Central European highway structures

From 2006-09-01 to 2009-08-31 | ARCHES Website

Objective

The increasing volume of European transport urgently requires an effective road and rail system in Central and Eastern countries. To bring this transport infrastructure up to modern European standards will require an immense investment - estimated by the European Commission to be about 100 billion euros, and a long term vision. New motorways will be required with many new bridges. Numerous existing bridges will need to be assessed, and a large portion of them improved or replaced. The overall goal of the proposed project is to develop ways to raise the standard of the highway structures of NMS and CEEC to the level necessary for their full economic integration into the EU and for the future development of the Union. The works will focus on the development of technologies and procedures for optimised servation of highway structures, taking into account issues particular to the NMS. This will be achieved by a global conceptual approach which can be summarised as Avoid, Prevent and Harden. Rehabilitation and replacement will be as far as possible avoided by developing better safety assessment methods. Corrosion of reinforcement in concrete structures will be prevented with new concepts of localised cathodic protection, and the application of new, cheaper, low alloy steel reinforcement. Advanced materials with very low permeability and high ductility will be used to replace deteriorated concrete and waterproofing membranes, harden structures in critical zones and provide long-term durability. A strong emphasis will be put on pilot applications to demonstrate on real structures, in several countries of the consortium, the applicability of the concepts and techniques set forth. The ARCHES project is part of a cluster of three complementary STREPs which will be coordinated by the CERTAIN coordination action. The purpose of this is to guarantee that Engineers in the field will be informed, trained and will implement the results immediately on completion of the research.

Related information

| Result In Brief | Efficient repair of road infrastructure |
| Report Summaries | Final Report Summary - ARCHES (Assessment and rehabilitation of Central European highway structures) |
Coordinator

INSTYTUT BADAWCZY DRÓG I MOSTÓW, ROAD AND BRIDGE RESEARCH INSTITUTE
Jagiellonska 80
WARSAW
Poland
See on map

Administrative contact: Tomasz WIERZBICKI
Tel.: +48-22-675-4983
Fax: +48-22-811-3097
E-mail

Participants

ZAVOD ZA GRADBENISTVO SLOVENIJE
Dimiceva 12
LJUBLJANA
Slovenia
See on map

Administrative contact: Ales ZNIDARIC, (Head of Section)
Tel.: +386-12804207
E-mail

UNIVERSITAT POLITECNICA DE CATALUNYA
Jordi Girona 31
BARCELONA
Spain
See on map

Administrative contact: Joan Ramon CASAS
Tel.: +34-934016513
Fax: +34-934054135
E-mail

ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE
LAUSANNE
Switzerland
See on map

Administrative contact: Emmanuel DENARIÉ
Tel.: +41-216932893
Fax: +41-216935885
E-mail
Administrative contact: Arturo GONZALEZ
Tel.: +353-17165512
Fax: +353-17167399
E-mail

FORUM OF EUROPEAN NATIONAL HIGHWAY RESEARCH LABORATORIES
Boulevard de la Woluwe 42
BRUSSELS
Belgium

Administrative contact: Carolyn HOEY
Tel.: +32-27758248
Fax: +32-27758254
E-mail

LBV UITVOERING B.V.
Tuinstraat 58
GASSELTERNIJVEEN
Netherlands

Administrative contact: JanLEGGEDOOR
Tel.: +31-599513131
Fax: +31-599512804
E-mail

AUTOSTRADE PER I'ITALIA S.P.A.
via Alberto Bergamini 50
ROME
Italy

Administrative contact: Livia PARDI
Tel.: +39-0643632558
Fax: +39-0643632559
E-mail
FACULTY OF CIVIL ENGINEERING, UNIVERSITY ZAGREB
Kaciceva 26
ZAGREB
Croatia
See on map

Administrative contact: Irina STIPANOVIC
Tel.: +385-14639118
Fax: +385-14639206
E-mail

SALONIT ANHOVO, BUILDING MATERIALS, JOINT STOCK CO.
Vojkova 1
DESKLE
Slovenia

Administrative contact: Lojka RESCIC
Tel.: +386-53921525
Fax: +386-53921655
E-mail

CENTRUM DOPRAVNIHO VÝZKUMU
Lisenska 33a
BRNO
Czechia
See on map

Administrative contact: Karel POSPISIL, (Head of Infrastructure Department)
Tel.: +420-549429342
Fax: +420-549429343
E-mail

NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO
Schoemakerstraat 97
6060 DELFT
Netherlands
See on map

Administrative contact: Rob POLDER
Tel.: +31-152763222
Fax: +31-152763018
E-mail

Subjects
Scientific Research - Transport

Last updated on 2013-03-26
Retrieved on 2019-07-03