SAMARIS
Sustainable and Advanced Materials for Road Infrastructure

**Funding:** European (5th RTD Framework Programme)
**Duration:** Jan 2003 - May 2006
**Status:** Complete with results

**Background & policy context:**
The SAMARIS project is the merger of the two originally distinct projects MAP and STRIM. The goal is to deliver results that translate into more value for the money, reduced maintenance, more durable repairs, better protection of the environment and safer roads.

**Objectives:**
The primary means by which the project will contribute are by encouraging a greater use of recycled components in pavement materials and by the explicit consideration of environmental performance in the design. The second key objective is to prepare for the harmonisation of European approaches of material specification within the next generation of CEN standards. Additionally, the structures part of the project is specifically targeted to support the EU policy to improve the highway structure maintenance with respect to greater efficiency and durability of the applied procedures, resulting in reduced number of necessary road closures. This will lead to considerable reduction of associated costs and increase users' safety.

**Methodology:**
SAMARIS is organized as two streams of research work packages on the pavement and structures issues, respectively, sandwiched between management activities and dissemination and exploration activities. A reference group of end users has been formed as a dialogue partner for the project to provide advice on setting of priorities, choice of alternative project themes and dissemination of results.

**Parent Programmes:**
[FP5-GROWTH KA2 - Sustainable Mobility and Intermodality](#)

**Institute type:** Public institution

**Institute name:** European Commission, Directorate-General for Energy and Transport (DG TREN)

**Funding type:** Public (EU)

**Partners:**

**Austria:**
Technical University Vienna

**Belgium:**
European Commission - DG TREN E3 Road Safety and Technology Unit

**Czech Republic:**
Brno University of Technology

**Denmark:**
Danish Road Institute; DHI Water and Environment

**France:**
Laboratoire Central des Ponts et Chaussées; Shell Global Solutions; Eurovia Management; Ecole
Key Results:

The main findings of project SAMARIS, as documented in 15 main reports in the following areas:

THE PAVEMENT STREAM OF RESEARCH:

- Methodology for assessing alternative materials for road construction
- Report on test procedure for reaction to fire of pavement materials
- Environmental annexes to road product standards
- Procedures for identifying hazardous components in materials for asphalt
- Development and validation of a method of prediction of structural rutting on unbound pavement layers
- Permanent deformation of bituminous bound materials in flexible pavements - evaluation of test methods and prediction models
- Review of the road and other industry by-product use in road construction and rehabilitation in the Central and East European countries
- Technical guide for recycling techniques in road construction
THE STRUCTURES STREAM OF RESEARCH:

- State-of-the-art report on assessment of structures in selected EEA and CE countries
- Guidance on optimized assessment of highway structures
- Report on test of effectiveness of corrosion inhibitors in field trials
- Full scale application of Ultra High Performance Fibre Reinforced Concrete for the rehabilitation of bridges - from the lab to the field
- Specifications for the use of corrosion inhibitors for the rehabilitation of concrete highway structures
- Guidelines for the use of UHPFRC for the rehabilitation of concrete highway structures
- Guidance to selection of innovative techniques for the rehabilitation of concrete highway structures

Documents:

Samaris_Final_Summary_Report.pdf (Final report)

STRIA Roadmaps: Infrastructure
Transport mode: Road transport
Transport sectors: Passenger transport, Freight transport
Transport policies: Environmental/Emissions aspects
Geo-spatial type: Infrastructure Node