PROJECT

BRIDGE SMS

Intelligent Bridge Assessment Maintenance and Management System

Funding: European (7th RTD Framework Programme)
Duration: Jan 2015 - Dec 2018
Status: Complete
Total project cost: €1,418,822
EU contribution: €1,418,822

Call for proposal: FP7-PEOPLE-2013-IAPP
CORDIS RCN: 192577

Background & policy context:

Government agencies, the public and private sectors and professional engineering sectors across Europe need to come together and proactively meet the challenge of creating a climate resilient infrastructure system. Managing National Infrastructure requires collaboration, planning and sharing of information between multiple sectors. This will reduce the risk of economic disruption to Europe and enable opportunities from well-managed infrastructure to be maximised. Adapting to climate change is not all about managing risks, it is about taking the opportunities it presents to develop innovative systems and services which are robust, efficient and valuable. The continual inspection, assessment and maintenance of bridges requires a multidisciplinary approach. Bridge inspection systems must have a knowledge and appreciation of structural engineering, geotechnics, hydraulics, hydrology, materials and transport management.

Objectives:

BRIDGE-SMS will couple state-of-the art scientific knowledge in hydrology and river engineering with industrial knowledge in infrastructure management and web-based bridge management systems to develop an open source cloud based intelligent decision support system for the assessment and management of the hydraulic vulnerability of bridges over water. This will be achieved through the secondment of staff and transfer of knowledge and skills between experts from UCC and UNIZAG (internationally renowned experts in the areas of hydrology and river engineering), NIVAS (experts in IT Systems Integration).

Investing in engineering efforts to develop a system like BRIDGE-SMS to protect infrastructure is essential both to minimise risks to valuable assets, the public and the economy and to maximise opportunities to develop cost-effective and marketable solutions which can be applied to multiple sectors.

Parent Programmes:

FP7-PEOPLE - FP7-PEOPLE - Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities

Institute type: Public institution
Funding type: Public (EU)
Other programmes: FP7-PEOPLE-2013-IAPP Marie Curie Action: "Industry-Academia Partnerships and Pathways"

Lead Organisation:

University College Cork - National University Of Ireland, Cork
Partner Organisations:

Iarnrod Eireann

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EU Contribution: €0

Nivas, Doo Za Proizvodnju, trgovinu, Ugostiteljstvo i Usluge

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EU Contribution: €5,499

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EU Contribution: €0

Cork City Council

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Organisation Website:
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EU Contribution: €406,495

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**Organisation Website:**
http://www.grad.hr

**EU Contribution:** €223,653

**Technologies:**
- Infrastructure management
- Open-source cloud-based intelligent decision support system for assessing the hydraulic vulnerability of bridges

**Development phase:** Research/Invention

**STRIA Roadmaps:** Infrastructure

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Safety/Security

**Geo-spatial type:** Infrastructure Node