

## WATCH

Water management for road authorities in the face of Climate Change

Research project funded under the CEDR Transnational Road Research Programme

### **CEDR Call 2015: Climate Change from Desk to Road**

CEDR Call 2015: Climate Change from Desk to Road is a Transnational Research Programme organised by CEDR. The funding partners for this programme are Germany, Ireland, Netherlands, Norway, Sweden and Austria.

#### **Details**

Acronym: WATCH  
Start: October 2016  
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Co-ordinator: Thomas Bles, Deltares, Netherlands  
Contact: thomas.bles@deltares.nl  
Partners: ROD-IS, Ireland  
EGIS, France  
DRD, Denmark,  
KNMI, Netherlands  
  
PEB Project Manager: Billy O'Keefe, TII, Ireland, billy.okeefe@tii.ie  
Website: N/A



#### **Project Summary:**

European National Road Authorities (NRAs) have long recognised that Climate Change will have a significant effect on their assets and operations. In this programme, the challenges specifically related to water management are addressed. This is logical since the damage caused by floods and rain to infrastructure assets amounts to €600 million annually, making it by far the dominant weather impact.

Many challenges exist in addressing intense rainfall events in proper design and maintenance of water management systems. These challenges exist both in the field of climate science itself as well as in the translation of climate predictions into proper design and maintenance of water management systems. For this reason different competences and backgrounds are necessary in order to answer the challenges faced by NRAs.

The WATCH project addresses the requirement for a transnational approach to water management in the face of Climate Change. In addition, the project aims to provide guidance on how to carry out a Cost Benefit Analysis (CBA) as a prerequisite for implementation of the results. WATCH will liaise with the ongoing DeTECToR project to ensure that the CBA guidelines specifically aiming at water management are compatible with the DeTECToR framework.

The WATCH project will produce a number of results of immediate benefit to NRAs:

- A comprehensive manual on how to determine the resilience of drainage systems and the consequences for inspection and maintenance as well as for the design and assessment of alternatives.
- Comparison of the state of practice of existing water management and drainage approaches in different NRAs.
- Guidelines to correctly interpret and apply relevant information extracted from climate projections and scenarios to be used in road drainage and maintenance design.
- A simple tool that shows climate analogues for rainfall extremes in Europe.
- A protocol for adapting SUDS systems for Climate Change, with applications for roads across Europe.
- Guidelines for a CBA of adaptation and maintenance approaches for water management.

WATCH will ensure that the research results will be useful and ready for implementation in NRAs' standards and procurement practices by paying particular attention to user requirements and integration of the results of the CEDR report on Climate Change adaptation. WATCH will cooperate with the DeTECToR project to achieve synergy with their approach to embedding Climate Change into practice and procurement.

Case Studies will be developed to demonstrate how the results of WATCH can be used in practice. Through these full-scale