



The output of RAIN will aid decision making in the long term, securing new robust infrastructure development and protection of existing infrastructure against changing climates and increasingly more unpredictable weather patterns.

Prof Alan O'Connor, from Trinity College Dublin, said "Technical and Logistic solutions will be developed to minimise the impact of these extreme events, which will include **novel early warning systems, decision support tools and engineering solutions to ensure rapid reinstatement** of the infrastructure network."

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# RISK ANALYSIS OF INFRASTRUCTURE NETWORKS IN RESPONSE TO EXTREME WEATHER

## RAIN quantifies the complex interactions between weather events and land based infrastructure systems.

In recent years, a variety of extreme weather events, including droughts, rain induced landslides, river floods, winter storms, wildfire, and hurricanes, have threatened and damaged many different regions across Europe and worldwide. These events can have a devastating impact on critical infrastructure systems.

The RAIN operational analysis framework considers the impact of individual hazards on specific

infrastructure systems and the coupled interdependencies of critical infrastructure through robust risk and uncertainty modelling.

Its output will aid decision making in the long term, securing more robust infrastructure development and protection of existing infrastructure against climate change and increasingly more unpredictable weather patterns.

SYSTEM  
VULNERABILITY  
& HAZARD  
IDENTIFICATION

LAND  
& TRANSPORT  
VULNERABILITY

ENERGY  
& TELECOM

## THE CONSORTIUM

The ability of RAIN's response plan to transcend borders is guaranteed by the multi-disciplinary consortium.



The project grouping has expertise in climatology, operational analysis, transportation economics, risk analysis and mitigation, emergency planning, transportation engineering as well as engineering design and assessment. Trinity College Dublin is coordinating the project.

The Faculty of Special Engineering of the University of Žilina - [www.uniza.sk](http://www.uniza.sk)

The European Severe Storms Laboratory - [www.essl.org](http://www.essl.org)

The Freie Universität Berlin - [www.geo.fu-berlin.de/met](http://www.geo.fu-berlin.de/met)

TU Delft - [www.tudelft.nl/en](http://www.tudelft.nl/en)

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The Finnish Meteorological Institute - [en.ilmatieteenlaitos.fi](http://en.ilmatieteenlaitos.fi)

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