The EWENT project addresses the European Union (EU) policies and strategies related to climate change, with a particular focus on extreme weather impacts on the EU transportation system. The goal of EWENT is to estimate and quantify in monetary terms the disruptive effect of extreme weather events.

The EWENT project supports ways to mitigate the effects of harmful weather events on the transportation of people and goods. The study will focus on the safety and reliability of air, ground and water transport. The project will identify dangerous and destructive weather events and estimate their probability and effects. It will also estimate the economic effects of traffic disruptions, such as costs associated with human casualties, material damages and interrupted supply chains.

The main purpose of the project is to support adaptation to climate change. In addition to governmental authorities, the project results may be useful to businesses, project financing entities and insurers. The results can be leveraged in various ways, such as the creation of sizing criteria for infrastructures, identification of needs for enhanced maintenance capabilities, development of cooperation among authorities and preparedness for exceptional conditions. The pre-engineering of co-European and national risk management methods and processes is one of the project’s key tasks.

The project will be carried out between 2010 and 2012. The participants in the EWENT project, which is being coordinated by VTT Technical Research Centre of Finland are: the German Aerospace Center (Germany), the Institute of Transport Economics (Norway), Foreca Consulting Ltd (Finland), the Finnish Meteorological Institute (Finland), the Meteorological Service of Cyprus (Cyprus), Österreichische Wasserstrassen GmbH (Austria), the European Severe Storms Laboratory (Germany) and the World Meteorological Organization (UN).

The first report on the results is the WP 1 report, which will be finalized in the early autumn 2010. The impacts of harmful weather and their consequences in terms of the transport system vary across Europe. Consequences depend, for example, on the frequency of severe weather events, local topography, geographical location and the vulnerability of society. The second report (WP 2) discusses the probabilities of extreme weather events in the present climate, as well as changes in probabilities, which will be estimated on the basis of climate model simulations. Subsequent work packages deal with actual consequences of extreme weather in the projected climate scenarios, the costs associated with them and the policy and strategy options to reduce the weather impacts and increase the resilience of the European transportation system.

For more info please access the EWENT official web site: http://ewent.vtt.fi. Contacts: Mr. Pekka Leviäkangas, VTT - Transport & Logistics Systems, Finland, pekka.leviakangas@vtt.fi; Mr. Dimitar Ivanov, WMO, divanov@wmo.int
OBJECTIVE: Risk management strategy for the EU transport system to prepare for and mitigate the impacts and costs of extreme weather phenomena.

WP1: Extreme weather phenomena that have potential internal and external cost impacts on EU transport system, the threshold criteria for weather parameters.

WP2: The probability of extreme weather and scenarios for increased probabilities and intensity.

WP3: Impact mechanisms for system failures or disturbances (mobility meltdown, reduced safety and security) and operational failures (predictable mobility of passengers and goods); impacts on selected transport system performance indicators.

WP4: Estimation of expected costs of extreme weather on time axis, based on identified impacts and scenarios: infrastructure (material damages), operations and traffic (accidents, time delays).

WP5: Evaluation of likely scenarios and most relevant costs, listing of prospective mitigation and adaptive strategies; risk panorama for EU transportation system.

WP6: Assessing the effectiveness and preliminary investments required by different mitigation strategies on time axis, e.g. new weather information services, new institutional co-operative models (especially between authority functions and across national boundaries), development needs of standards and engineering guidelines for transportation infrastructures.