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The EUNADICS AV portal: demonstrating dissemination of pan-European forecast, observation and alert products for environmental hazards

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EUNADICS-AV is a European project where several European organizations work together in a consortium to achieve their mutual goals. The abbreviation EUNADICS-AV stands for European Natural Airborne Disaster Information and Coordination System for Aviation. The main objective of this European project is closing the significant gap in European-wide data and information availability during airborne hazards.

Aviation is one of the most critical ways of transport in this century. Even short interruptions in flight schedules can do major economic damages. The focus of this project is on environmental emergency scenarios (airborne hazards). These are considered rare, but with an extremely high impact such as volcano eruptions, nuclear accidents and emergencies and other scenarios where aerosols and certain trace gases are injected into the atmosphere.
The project EUNADICS-AV undertakes to develop and test a unique system to provide consistent and coherent information to aviation authorities, airlines, pilots and the general public in the event of a natural disaster affecting the airspace, which, if successful, would greatly enhance the resilience of one of the most critical infrastructures of the 21st century.
The project will develop the demonstration EUNADICS-AV Portal. This portal enables the dissemination and exploitation of the EUNADICS-AV project result and will showcase the data products. The EUNADICS-AV Portal will function as a demonstration platform. Three product delivery chains are prototyped and demonstrated:
1) the dissemination of Air space specific model output prototype products
2) the dissemination of near-real-time pilot products
3) the dissemination of near-real-time alerts based on (tailored) observation products
Data product delivery to NMSs, VAACs, the relevant SESAR/SWIM portals, and to the wider public are prototyped and demonstrated through the EUNADICS-AV Portal. Demonstration of the of the products to the wider public encourages and enables the development of new (commercial) added value services by other parties.
The products will be provided through stakeholder specific interfaces (VAAC, NMSs, 4DWxCube) and as INSPIRE compliant web services. Providing the data as INSPIRE compliant services enables the EUNADICS-AV Portal to connect to the INSPIRE framework, interoperability with GEOSS and coherency with the Copernicus Atmosphere Service (CAMS). Products delivered will be in compliance with the Copernicus data policy and GEO data sharing principles: data will be freely and openly available. The services will be hosted by the KNMI data centre facilities (KDC, data.knmi.nl). Reuse of existing portal software will enable rapid deployment of the EUNADICS-AV portal.
In this presentation we will show the progress made and lessons learned regarding the implementation of the data and information distribution platform