

Commissioned by: **Autobahn- und Schnellstraßen Finanzierungs-Aktiengesellschaft (ASFINAG)**

## Set-up of a Road Weather and Information System (SWIS)

### Set-up of a Road Weather and Information System (SWIS) for ASFINAG

In their area of responsibility the ASFINAG is currently planning the set-up of an integrated road weather and information system (SWIS). Its objective is to record centrally relevant weather data of different types and sources, to interpret them meaningfully and to disseminate them further for transport telematics (traffic information) and winter maintenance purposes (snow clearing and gridding).

Commissioned by: Autobahn- und Schnellstraßen Finanzierungs-Aktiengesellschaft (ASFINAG)

Project: Consulting Service and Support for the Set-up of a Road Weather and Information System (SWIS)

Project duration: 10 months

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In order to be able to process the weather information according to the customers' needs (e.g. drivers, highway surveillance centres) the automatically acquired weather data have to be interpreted by a meteorologist. Furthermore, a weather forecast is required. It is intended to assign these tasks to a weather data service provider.

#### Problem definition

PTV AG has been commissioned to assist ASFINAG in conceiving the system and compiling the tendering documents. In particular the following tasks are included:

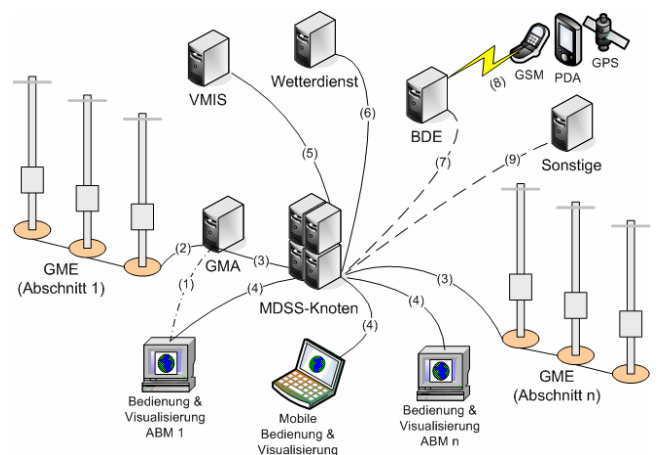
- ▷ Analysis of the existing institutions which acquire and process weather data in the area of responsibility of the ASFINAG
- ▷ Analysis of the existing infrastructure for the transmission of the acquired and pre-processed weather data
- ▷ Consulting service and support of ASFINAG when conceiving a SWIS taking into account the activities of the project „Verkehrsmanagement- und Informationssystem“ (VMIS), i.e. presentation and assessment of possibilities of the technical integration of SWIS functions (with regard to hardware and software) into the system technology of the above project
- ▷ Consulting service and support of ASFINAG when planning and tendering the technical infrastructure (GMA outside facilities, SWIS local control centres, SWIS control centre), the interfaces to existing facilities acquiring and pre-processing weather data; the interfaces to the Austrian meteorological

service and other external institutions as well as the required data transmission facilities

- ▷ Planning and support of ASFINAG when specifying the SWIS functions (required upgrading of the VMIS project for the integration of SWIS functions, possibly formulation of a quote request addressing the manufacturers' of the technology used in the control centre of the VMIS projects)
- ▷ Support of ASFINAG when conceiving organisational and operational boundary conditions for SWIS and its integration into the VMIS project.

#### Proceeding and results

The set-up of the ASFINAG road weather and information system (SWIS) is effected in several steps. First of all the requirements to be met by the meteorological service when analysing, assessing and interpreting weather raw data before generating weather information have to be defined.



For the winter maintenance service a maintenance decision support system (MDSS) is to be developed which supports highway surveillance staff in taking the decision and optimising the requirements for snow clearing and gridding. Hereby, the weather data will also be used for resources planning and deployment, too.