Lufft

an OTT HydroMet brand

RELIABLE DATA. CONFIDENT DECISIONS. SAFE ROADS.

CASE STUDIES & RESOURCES COMPILATION

OTT HydroMet

Bosnia and Herzegovina

Securing roads in the Balkans' hilly west

Challenge

Cold winter waves from the north bring snow and frost in most of Bosnia and Herzegovina. Precipitation is also abundant in this hilly and mountainous area. The scope and the topological realities made this a large and technically demanding project.

Solution

Together with ALEM Sistem we erected 13 new road weather stations. Each includes a range of Lufft sensors: WS200, WS301, WS100, VS2K, SHM31, and IRS31Pro. The data is collected via an OTT netDL1000 data logger, that enables integration of IP cameras at every station.

Benefits

The synced setup of well-integrated sensors is a powerful tool to support the country's road professionals in their decision making. Now, they gather reliable data for all relevant parameters like wind, visibility, road conditions, ambient weather, and snow height.

Italy
Slippery distributor roads in the Venetian hinterland

Challenge
The Raccordo Marco Polo (A57) is an important distributor road for commuters and travelers on the way to and from Venice airport. High volume of traffic appears even very early in the morning. Local road maintenance has to identify critical places quickly.

Solution
From November on, winter maintenance drivers do inspection runs along the roads in early morning hours (from 4 AM to 8 AM). A mobile road sensor Lufft MARWIS gathers data while driving and in real time.

Benefits
Thanks to its easy integration and open protocols, the local road maintenance team can process the MARWIS data easily and feed a self-programmed algorithm, that helps them to prioritize clearing and salting operations.

Michigan
Active warning systems detect icy conditions

Challenge
Weather-dependent signs, with messages like 'slippery road' or 'bridge ices before road', tend to go unnoticed, since they aren't always applicable. Despite having warning signs in place, the Michigan DOT reported concentration of crashes at three places.

Solution
A tailored system of bridge deck and curve warning signs not only advises drivers of conditions ahead, but also lets them know when they should pay extra attention. It includes Lufft NIRS and a set of Lufft WS weather sensors feeding a specially created algorithm that MDOT specified.

Benefits
Active warning systems alert drivers about specific road conditions, prompting them to reduce speed and use extra caution. Systems on roads and bridges are activated when conditions are or may become slippery and call extra attention to warning signs.

Bavaria

Setting up 37 new RWIS stations against all odds

Challenge
The Bavarian Federal Directorate of Construction and Transportation planned to extend its RWIS network. A tight time schedule and adverse weather posed challenges to the contractor.

Solution
The scope covered various Lufft instruments like invasive sensors weather sensors WS600, tilt over masts, control cabinets, cameras, and modules for communication via 4G mobile routers and Wi-Fi.

Benefits
Thanks to a synced product portfolio and a closely collaborative team, the 33 ordered stations were erected in a short period of time and the project managers ordered four additional stations.

Maryland DOT

Mobile sensing supports efficient winter maintenance operation

Challenge
Road weather networks typically include only stationary stations, that report the road conditions from the place of installation – but the major unknown is the situation between one and the other station.

Solution
OTT HydroMet provided the Maryland Department of Transportation with mobile road sensors to equip their control vehicles to fill the data gaps and support decision making in winter maintenance.

Benefits
Better basis of data to make smarter decisions, that improved safety on Maryland roads and optimized operational efficiency of winter maintenance.

Download Maryland DOT Case Study to learn more

California DOT

Retrofitting Caltrans' road weather stations using existing infrastructure

Challenge
Caltrans, the state's Department of Transportation, retrofitted several road weather stations after some years in operation. To act cost-efficiently, Caltrans wanted to install new equipment while keeping the existing infrastructure.

Solution
OTT HydroMet provided a flexible system that both fully met the project requirements and fitted the existing infrastructure. The solution combined Lufft Communicator modules, Lufft weather sensors, and state-of-the-art precipitation measurement through OTT Parsivel^2.

Benefits
Caltrans received a concerted system of high-quality sensors and communication modules while keeping its infrastructure. Thanks to OTT HydroMet's flexible range of products and support, Caltrans saved time and costs.

Read the whole story on our Blog

Technical Services Offenburg

Bus with mobile sensor strengthens database

Challenge
The Technical Services in the municipality of Offenburg (TBO), Southwest Germany, supervise a diverse area with steep hills and foggy valleys. To ensure safe traffic everywhere, solid knowledge on road conditions is key.

Solution
Equipped with mobile road sensors Lufft MARWIS, vehicles monitor the situation in real-time while driving. In addition to their own motor pool, the TBO installed a MARWIS on a public bus.

Benefits
More data helps to make confident decisions even in critical situations. Public busses gather it without extra effort. Sharing data with neighboring communities opens opportunities for synergies and safer roads, especially in areas between communities.

Read the whole story on our Blog

Reliable Data.
Confident Decisions.
Safe Roads.

Lufft is a well-established and proven OTT HydroMet product brand for meteorological monitoring solutions. Both road maintenance professionals and weather services around the world rely on Lufft sensors and solutions.

OTT HydroMet delivers superior customer outcomes by providing decision-makers with vital insights they trust. Our exceptional technical expertise and solutions seamlessly integrate hardware, software, and services across an unmatched range of environmental monitoring applications.

The Whole World of Road Weather Monitoring

Monitoring road weather conditions is vital to saving lives and supporting winter road maintenance. OTT HydroMet's newest Road Weather Selection Guide explains how Lufft solutions, proven and trusted around the world, can help you stay prepared during winter weather events.

Road Weather Microlibrary

Considering the interests and needs of road weather professionals, OTT HydroMet compiled a platform with well-grounded insights, relevant articles, and RWIS experts talk. Whether you are new to the industry or an experienced road weather specialist – this Road Weather Microlibrary surely holds valuable content for you.

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