

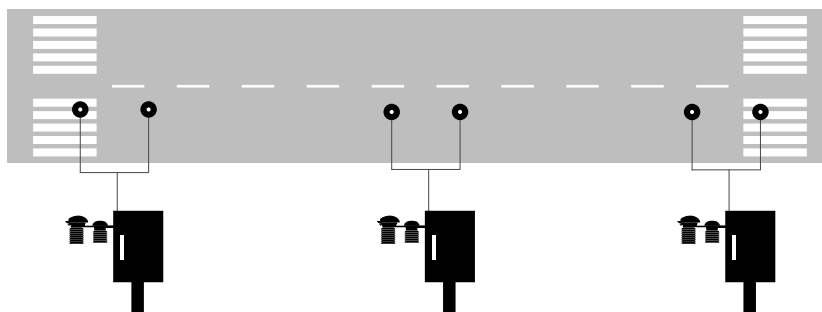
Ice Early Warning System



**Efficient surface condition
management on runways**



Ice Early Warning System offered by Boschung allow winter maintenance operators to prevent from ice danger on runways and taxiways – by means of the unique way to precisely measure freezing point temperature, the active pavement sensor technology.

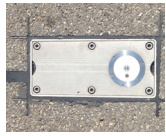


The systems support in the way to optimize the resources available at the airport: maintenance employees, vehicles, as well as the possibility to adjust the de-icing agent quantity.

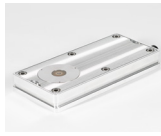
Using the right amount of de-icers at the right time thanks to the exact determination of the freezing point is not only economic and environmentally friendly but also offers the highest level of safety!

Precise detection of surface conditions

Ice Early Warning System from Boschung is composed of several elements:



Pavement sensors



Atmospheric sensors

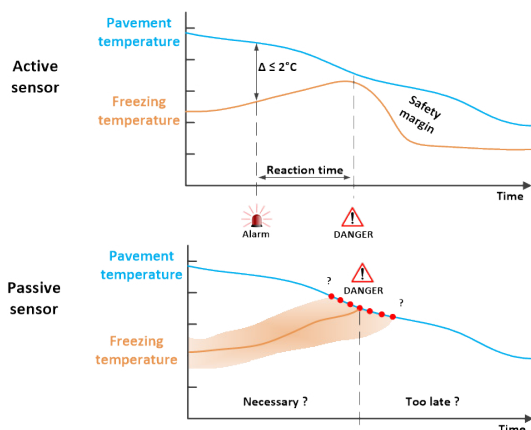


Station on ICAO-certified mast

Early detection thanks to active sensors

The active technology automatically cools the surface of the sensor down to the freezing point, which is measured directly and without modification.

This precision is elementary for assessing the expected risk of ice. Only a comparison between the freezing point and the evolution over time of the effective pavement temperature allows early detection, which gives the winter service time to make decisions and take preventive measures.

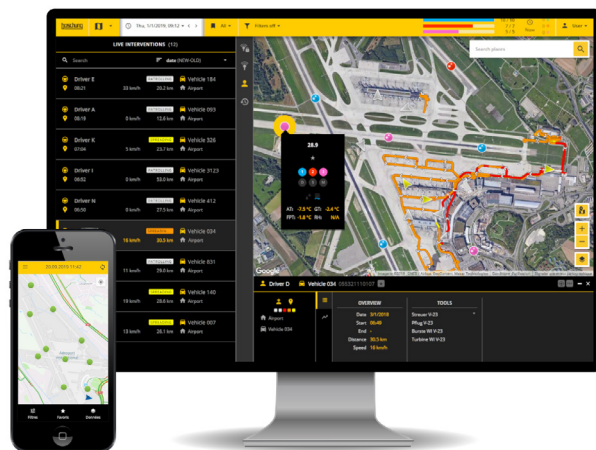


- **Measurement of freezing point temperature with 0.5°C accuracy**
- **Active sensors measurements independent of the de-icing agent**
- **Active-passive and active-active combination – accurate information to decision makers**
- **Time and location specific risk assessment thanks to active technology enables involved resources to be focused on critical areas.**

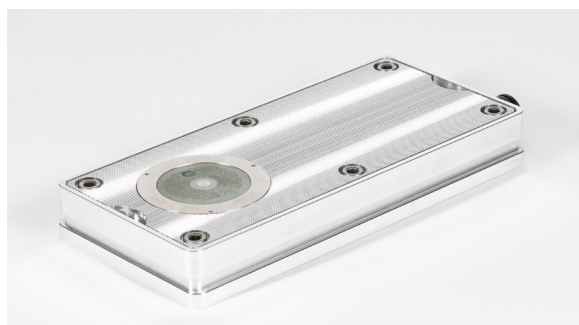
Efficient airport operations with bVision

Data of Ice Early Warning System are acquired by the bVision management platform.

The bVision is a web-based platform, which contains several tools and software for the analysis, decision-making support and reports for road and runway operations in winter and summer. It gathers live and historical information of Boschung's Ice Early Warning System and vehicle intervention data.



Enhancement with ATLAS



By taking advantage of the same infrastructure (stations and atmospheric sensors) and management software, you can strengthen the safety on the airport with the ATLAS (Automated Take-off and Landing Assessment System).

ATLAS accurately provides the required information from the Global Reporting Format with the runway condition code, contaminant type, depth and coverage

Airport-proven technologies

The technologies developed by Boschung for the past **30 years in the field** of Ice Early Warning Systems have been adopted by **many airports all over the world**.

- **Long distance** from measuring station to sensors possible.
- Sensor with **monolithic construction, highest waterproof** and **high electrical protection**.
- **No calibration** and **limited maintenance** required on-site.
- Long distance from station to sensors possible, with **monolithic construction, highest waterproof** and **electrical protection** for the sensor.
- **Active sensors** tested by independent laboratories, with accuracy reached for any kind of deicers.



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