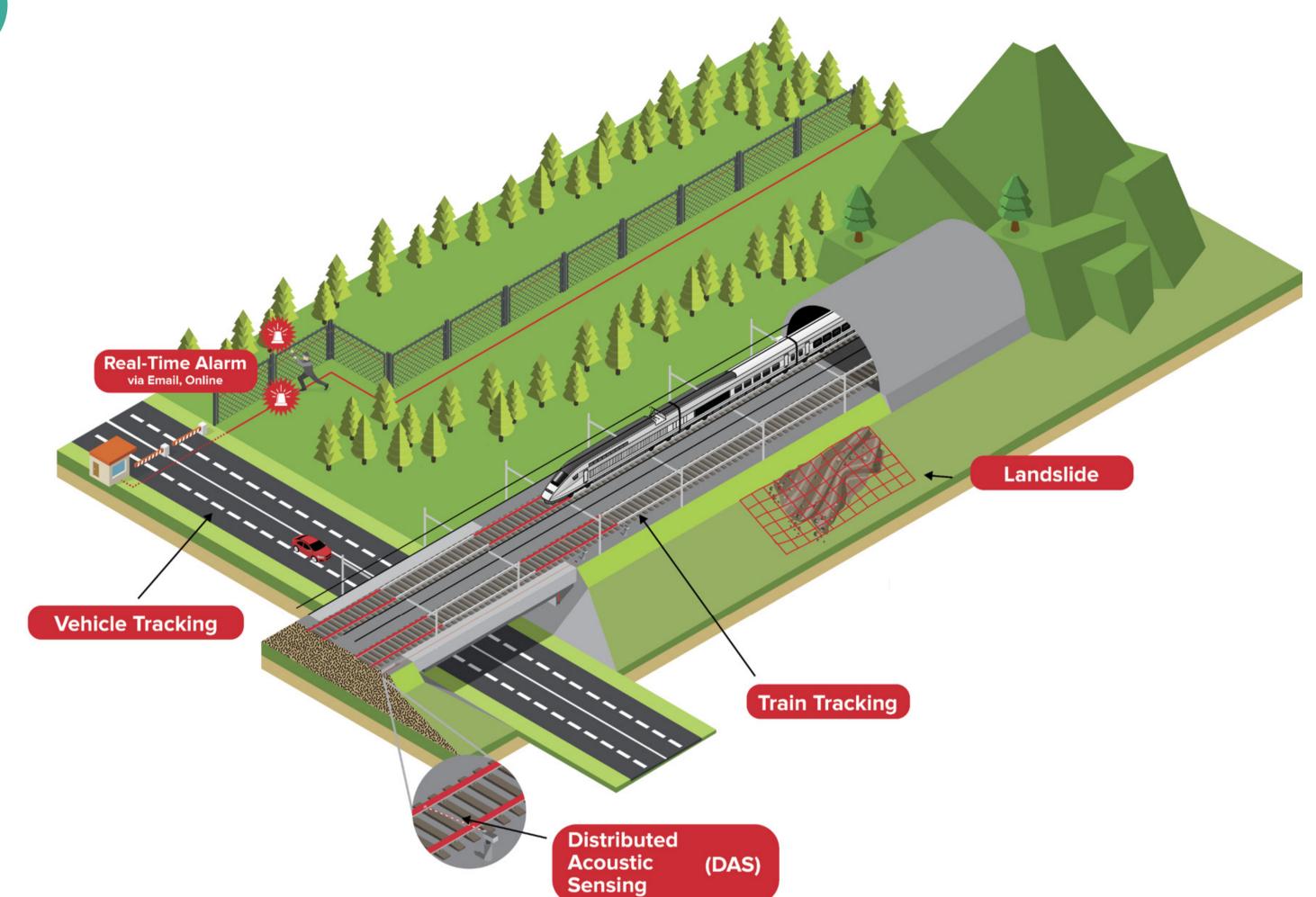
Christoph Wiesmeyr, AIT Austrian Institute of Technology GmbH, Austria Günther Neunteufel, NBG Fosa GmbH, Austria

# A UNIFIED FRAMEWORK FOR **DISTRIBUTED ACOUSTIC SENSING**



#### **DISTRIBUTED ACOUSTIC SENSING (DAS)**

DAS allows to detect vibrations in an optical fiber over cable lengths of up to 40km with a temporal resolution of up to several kilohertz using a DAS interrogator, i.e. a sensitive optical transceiver instrument. It allows for seamless monitoring of extended infrastructures with a spatial resolution of around one meter.

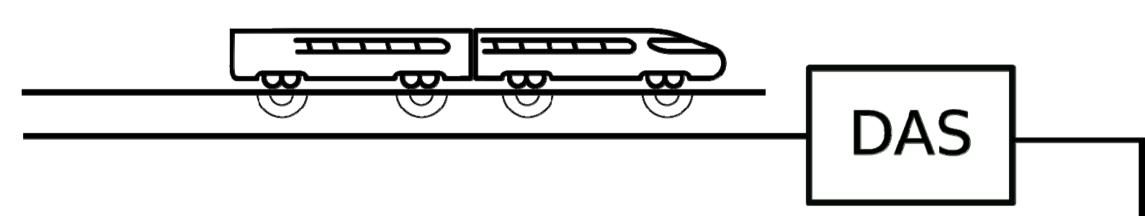


## **INFRASTRUCTURE MONITORING**

DAS can be used to monitor several different types of infrastructure: Railways, roads, waterways, etc. Vehicles moving along this infrastructure can be tracked and the condition of the infrastructure and these vehicles can be assessed in real-time.

### **UNIFIED FRAMEWORK**

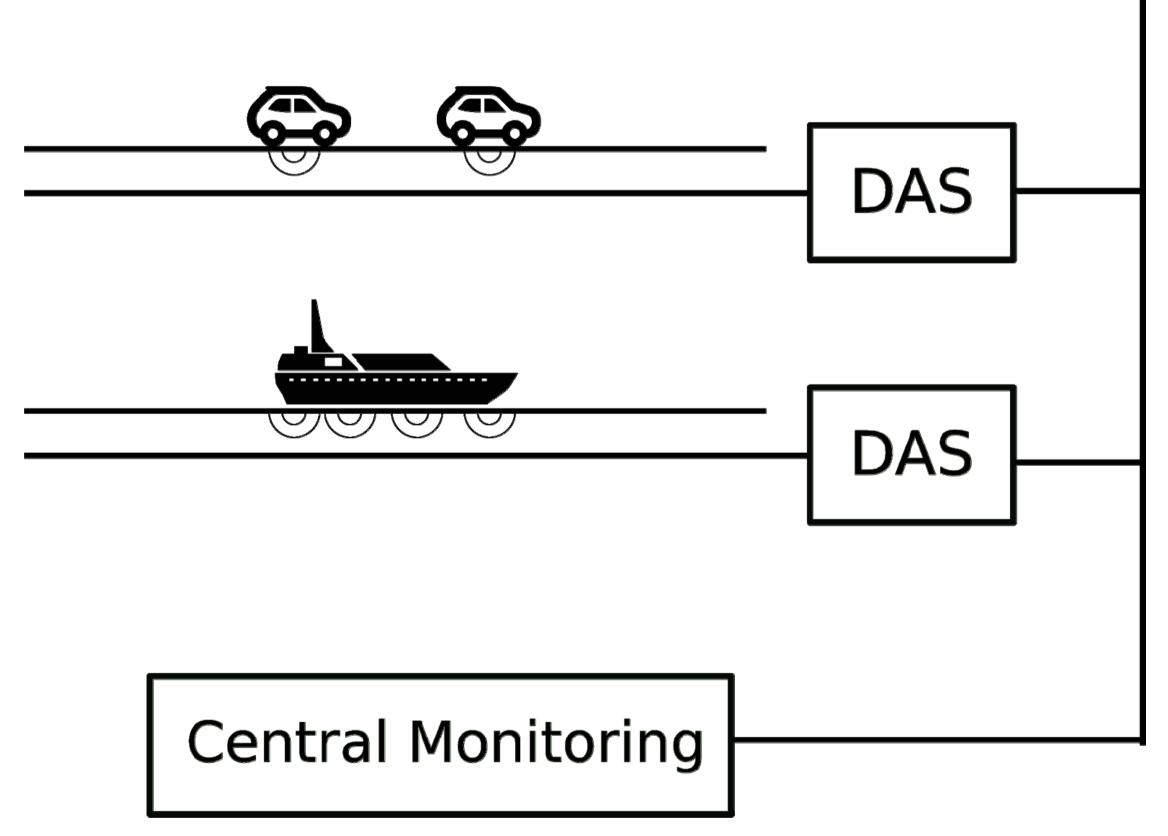
AIT and NBG Fosa GmbH are developing a unified



framework that allows to incorporate a number of different DAS units for monitoring of different types of infrastructure. The results of these DAS units are then sent to a central database where they are at all times available to the infrastructure management.

## **ADDED VALUE**

- Seamless monitoring of the infrastructure
- Different types of DAS units can be used
- Monitoring results centrally available





#### AIT exhibits at TRA 2018 – visit us at our booth and meet our experts!