# Data for Asphalt

"Sensors enable the transition to a more data driven asset management"

Short description
➢ **Tweaking** and **redesigning** sensors
➢ **Controlled simulation** of real field
➢ **Extracting** smart data from big data
➢ **Collaboration** with BASt and Autobahn

Features
➢ **Sensor signal transmission** using electromagnetic radiation
➢ **Application** of **RFID** (radio frequency identification)
➢ **Identification** of **asphalt slabs** with **RFID-tags** for **high quality recycling**
➢ **Sensors** are **added to tags** for **parameters** (e.g. temperature and stress)
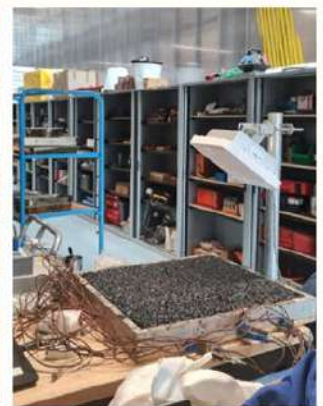
Benefits
➢ A better **understanding** of all asphalt **processes**
➢ More **efficient asphalt asset management**
➢ **Cost** reduction
➢ Improved **safety**
➢ **Lower impact** on the environment

Limitations
➢ **Size** may not **interfere** with the asphalt's properties
➢ **Transmission range** varies between 50cm - 5m
➢ **Dynamic** parameters require a yet-to-be-determined approach
➢ **Cost of data storage**

Examples of different types of sensors

Applicability
Sensor data extends asset lifetime

Transnational and cross domain potential
Large potential for use in asphalt and cement concrete structures

Position on the data enrichment cycle
Data capturing

The sensors are used as a method for the measurement of current performance