**Project consortium SmartAQnet – Aerosol Akademie**

# Newsletter SmartAQnet

**June 2018**

# Newsletter June 18
# Smart Air Quality Network

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## Aerosol Akademie

WP 5: Data oriented dissemination and application

- AA managed to gain a Film-Team (funding agency: BMVI) to take care of a short video presenting SmartAQnet project. According to some phone calls, the shooting will take place during the IOM (September/October).
- The SmartAQnet-Homepages are constantly being improved and updated.

## GRIMM

## Helmholtz – CMA and EPI

## KIT/IMK-IFU

WP 1: Data mining / Campaigns

The second ceilometer CL31, which will be installed finally at the LÜB station Bourgesplatz, was operated in comparison with the first ceilometer CL31 in the aerosol station at Hochschule Augsburg from 09 March until 15 May 2018 and will be compared with the CL51 of IGUA soon.

WP 3: Data aggregation and analyses

Ulrich Uhrner from Technische Universität Graz is working in the project work on the basis of a sub-contract with KIT/IMK-IFU to develop an emission inventory for numerical simulations of air pollution: discussion of necessary basic data (geo data, traffic data and household heating data).

## KIT-TECO

WP 2: Data collection / Devices

- TECO develops a port for the SDS011 sensors with the bicycle bags developed by the University of Augsburg in order to allow mobile comparative measurements with the SDS011.
- In addition, prototypes for integration into backpacks are being developed.
- Furthermore, a new version of the sensor, the SDS021, is being tested.
- The deployment of LoRa gateways is in an early planning phase

WP 3: Data aggregation and analyses

At TECO, a map visualization of sensor data from the Kappa architecture (FROST + Kafka) is being developed as part of a student programming internship. The aim is creating the most expandable structures for data export / import and analysis.

## Uni Augsburg

WP 1: Data mining/Campaigns

*External*

- The X6 is ready for the first test flight. The Alphasense OPC will be installed after a successful test.
- The new sensorbox for the copter was tested during a flightday. The ventilation of the temperature and humidity sensors by one propeller works well. A connection of the SHT75 to the Raspberry Pi of the Alphasense OPC is planned. The advantage would be to have one file with all relevant data.
- During the flightday the different temperature and humidity sensors in the meteoboxes were compared. At the same time, up to three UAVs were flown simultaneously at the Luisenruh.
- The operational measurement flights at the university site are now carried out in agreement with the German Air Traffic Control in Munich up to a height of 500m. For this, the flight plan has been adjusted.
- Participation and organization of the workshop task force network planning on 05/24/2018 in Augsburg.

WP 5: Data oriented dissemination and application

Presentation of our working group and the SmartAQnet project at the Clean Air Tech Day on 05/06/2018 in the Technologiezentrum Augsburg. Here, various particulate matter sensors, various UAV models, and the associated software were demonstrated. A photo and video presentation and two posters have been presented.

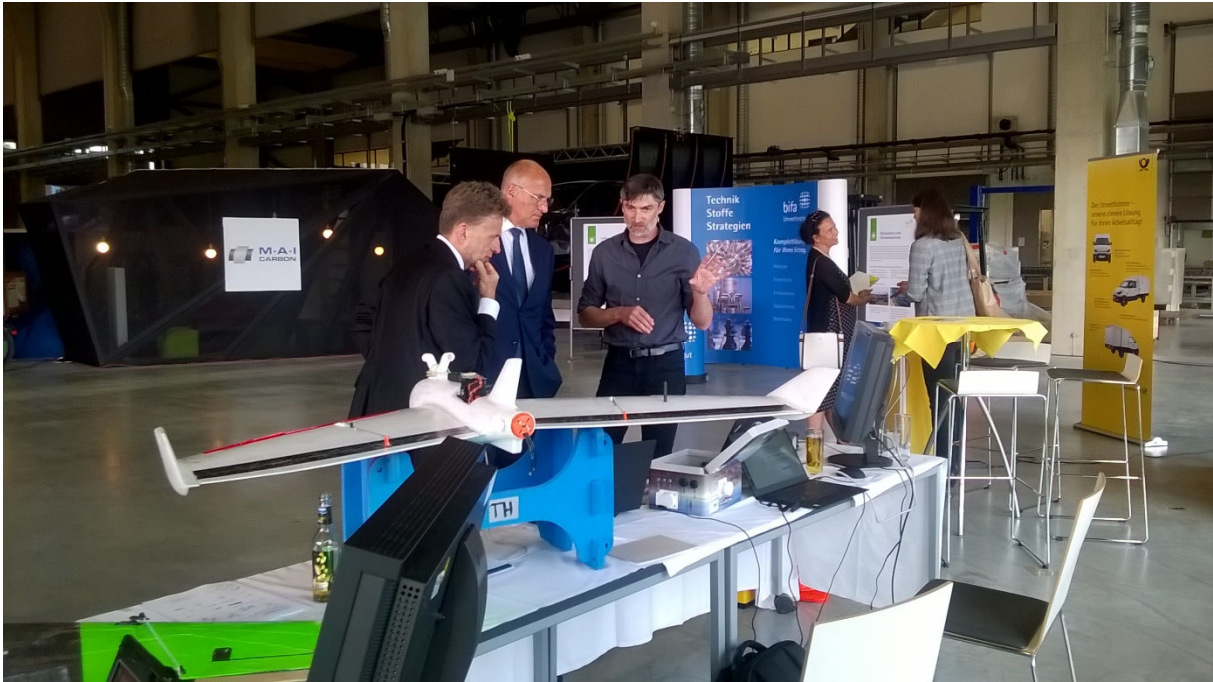*Figure 1: The exhibition stand of the University of Augsburg at the Clean Air Tech Day*



*Figure 2: Augsburg's major Griebl (middle) at the stand of the University of Augsburg*