

MindSphere Open Space Challenge

Case Specification

Company

Festo AG & Co. KG

Company Details

Industry	Festo is a global player and an independent family enterprise based in Esslingen am Neckar. We supply pneumatic and electric automation technology for 300,000 customers in 35 industry sectors.
Size (empl. / turnover)	18,800 (2016), € 2.74 bn (2016)

Case Title

Performance under Pressure: Data Collection for Compressed Air

User Story

As an operator of an industrial plant with pneumatic components we seek a cost-effective, quick and flexible solution for the collection and evaluation of compressed air parameters at hoses.

Until now, the common instrumentation with industrial fieldbus technologies is too expensive, therefore we are searching for cheaper alternatives.

Note: The aim of the challenge is not the procurement of these instruments, but a community & cloud approach. For the challenge Festo provides a low-cost IoT sensor (pressure, € 50,-) or a manometer (€ 5,-), readable by optical coding (and smartphone).

As an operator of an industrial plant with pneumatic components we look for a solution, which

- can be used universally at all plants and components,
- enables real-time data evaluation,
- includes a mobile data display on my smartphone,
- has cloud-based data storage,
- provides the opportunity to access historical data,
- enables the analysis of these historic data.

Problem Description

What are the problems you need to address?

For our customers we want to design low-cost solutions for the collection and analysis of pneumatical system status data, for example, of a compressed air hose.

Status quo

So far these data are not collected by default, or only with much time and effort.

Target group

All industrial customers which use pneumatic components (broad customer structure across all industries).

Aim

Providing a maximum of sensor data (values, sampling rate) from airflows. Setup costs should be € 100,- max.

Technical Provision

Type of data?

Pressure, humidity, flow, particle load, oscillation, air composition (NO_x, O₂, CO₂), additional sensor values—the more, the better (more than two). The higher the sampling rate, the better (smaller than 1 Hz).

Type of machinery / plants?

Festo air hose (optional: own plastic hose, Festo air hose can be provided, if necessary).

Digitization / automatization degree?

Festo air hose is not digitized.



Questions?

MindSphere Forum

<https://www.mindsphere.io/community/>