

**3S GmbH**

# **Sensor Systems for Odor Testing of Recyclates**

Meet our digital test persons!



# In-Process Odor Emission Monitoring

Continuous process monitoring with ECO series sensor systems



# Monitoring of Manufacturing and De-odorization Processes

- Use cases (among others):
  - Monitoring and anomaly/novelty detection of recyclates manufacturing processes
  - Monitoring of de-odorization or re-freshing processes
- Advantages:
  - Ensuring process quality
  - Increasing energy efficiency
  - Deep process insights for product optimization

# Sensor Systems ECO Pro and ECO DAS

Configurable ECO series systems for continuous monitoring



- Active sampling of head space or outlet air
- Easy interface to production equipment or (exhaust) air ducts
- Individual sensor configuration and system factory calibration
- Output of raw and result data
- Interfacing of an external sampling unit
- Also available as a portable or stand-alone device (solar/battery powered, LTE etc.)
- Data visualization via dashboard and/or API access

# Technical Odor Assessment of Recyclates and Recycled Products

At-Line odor testing with OdorCheckerSpot (OCS) system



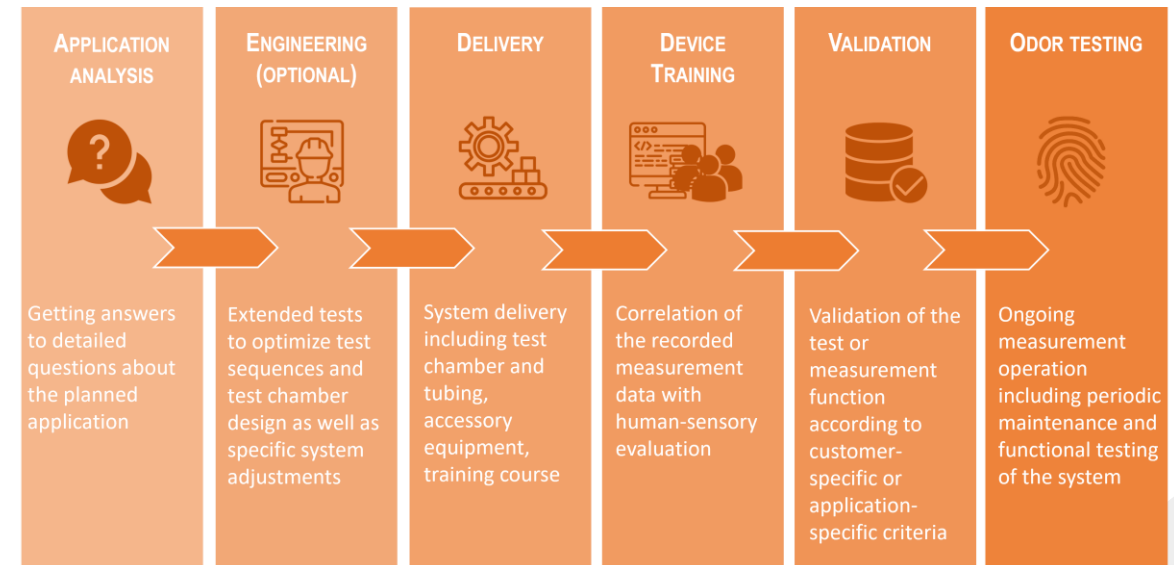
# End-of-Line Control of Granulates and Components

- Use cases (among others)
  - Odor testing (at-line und in the lab) of granulates und components (incoming and end-of-line tests)
  - In accordance with VDA 270 in the automotive industry (verified with German premium OEM)
- Advantages
  - Objective and reproducible odor measurement based on a technical solution
  - Fast odor testing allows for early and thus efficient production process adjustment
  - Proof of product quality with respect to liability reasons

# Sensor System OCS

Configurable overall system for spot measurements

- Specific sensor operating mode allows for highly sensitive odor detection
- Active test chamber sampling
- Automatically scheduled multi-phase testing process (configurable)
- Relies on initial training based on human reference
- Objective and reproducible odor measurement
- Odor intensity output



# Thanks for your attention

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