



PRESENTER:  
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# Simulated Rooms – a Mobile, Ventilable and Climate Controlled System for Odor Evaluation .

## BACKGROUND

Researchers measuring odors continue to face the same problem: how to capture a specific scent, its development over time until it dissipates in such a way that consumers can evaluate, and a descriptive panel can characterize?

The use of hotel rooms, existing offices or unused rooms of a flat for such research are at best trade-offs, however there are disadvantages such as being very expensive, not providing the required standardization or lacking controls.

## METHODS

1. Central Location Test (CLT) and Quantitative Descriptive Analysis (QDA)
2. Scent Dynamics
3. Assessment of isolated odor in all aspects (liking, characterization, lingering nature)
4. Mobile installation on demand

## RESULTS

- Simulated Rooms are easily assembled and disassembled.
- They are fully washable and residual odors are completely expelled during breaks between sessions.
- Simulated mobile rooms are used for evaluation, characterization and claim substantiation of products and applications which cannot be tested by consumers in buildings as cleaning/disinfecting after evaluation is easily completed.
- Enabling complete range of odor measurement, e.g. fragrances, air-fresheners, undesired odors, tobacco-products, insecticides, aerosols and their residuals of any nature, incense-sticks, home-care products, etc..



Installation in the patio of SAM, Oct. 2018

A newly developed method completely solving this complex issue is the simulated room approach, generating a closed, fully controlled and standardized environment in which all aspects of odor can be reliably assessed.



Ventilation-System above the rooms

## Mobile

The simulated rooms can be built-up on external free space (e.g. a patio) or integrated into an existing room or hall. Should the simulated rooms be set-up outside they are protected with an external covering in the form of a tent.

A **Key-Feature** is the professional ventilation-system:

- Smooth air flow of 1.2 air change per hour (ACH) during application and measurement.
- Expel the scent-loaded air between measurements with 10 ACH.



Gangway inside the installation



View into a simulated room

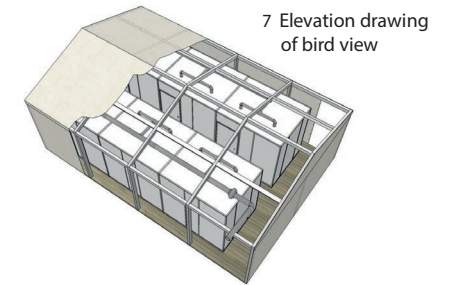
**Clean,  
Professional,  
Adaptable!**

Simulated Rooms are equipped with standard furnishings representing the environment/context to be tested.

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Capture Lingering Scents  
A new method to measure odors over time using simulated rooms

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7 Elevation drawing of bird view

The execution of the simulated-room concept is very flexible, up to 6 individual rooms are set-up and grouped together based on requested test-design.

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3 Measures:  
5 m<sup>2</sup> / 12,5 m<sup>3</sup>

The simulated room has a surface-area of 5 square-meters and a height of 2.5 meters resulting in 12.5 cubic meters of volume in each of the simulated rooms.