German Environment Agency

Umwelt Bundesamt

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A Citizen Science Approach for Indoor Air Quality

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Section II 1.3: Indoor Hygiene, health-related Environmental Impacts

Indoor Air

People spend ca. 90 % of their time indoors

Indoor air quality ≠ Outdoor air quality

Indoor spaces are mostly private → No legislation

→ Very little data

Citizens report many problems:

- Health, odours, chemical vapours, particles, dust, mould
- Bad air quality ~ pollution sources / life-style / building
- **Is the air "safe" in my dwelling / apartment / school ?**
- Which building products / consumer products to use ?
- How to ventilate, etc.?

Instrumental approach:
defined quality of the measurements

In-house development

Cost/unit ~ 2.000 €

Alphasense: NO, NO_2, O_3, SO_2, CO, VOC, $PM_{2.5}$

Citizen lab planned on premises of UBA

UFOPLAN / FKZ 3717622050 „Mobile sensing systems for indoor air applications“

Cost/unit ~ 20.000 €

Alphasense: NO, NO_2, O_3, CO_2, CO, VOC, $PM_{2.5}$
DiscMini: N_{part}, LDSA
Aethalom.: Black Carbon
Radon, Noise, Shock