A-A (1 : 25)

7 metres

16 metres

B-B (1 : 25)

SRUC

Mobile Sensory (Product Quality) Laboratory

CIEL
Centre for Innovation Excellence in Livestock

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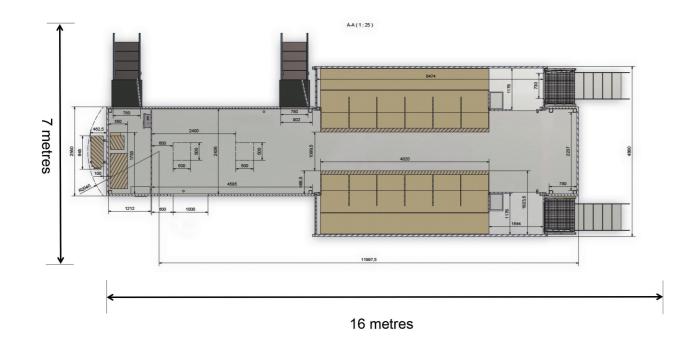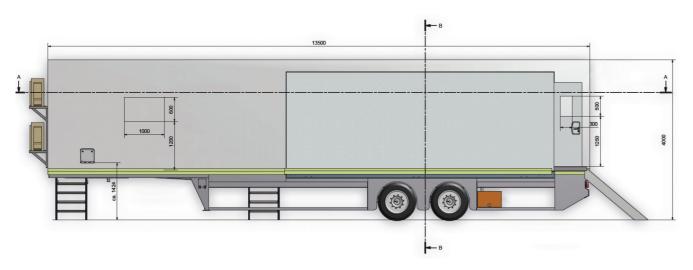Innovate UK

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Enabling large volume product quality assessments, wherever needed

Thought to be the first mobile unit of its kind, this portable facility brings the latest imaging and meat quality testing technologies direct to where it's needed, supporting research, animal breeding programmes and ensuring consumer preferences are at the heart of the innovation process.

The definition and understanding of product quality is complex and considers many factors, both intrinsic, such as appearance, colour, flavour and juiciness, and extrinsic e.g. price, brand, quality assurance, country of origin.

'Quality' also means different things to different people involved in the production cycle, from producer, processor or retailer, to consumer and also within different market groups.

To develop more consistent product quality, products require non-invasive measures of quality that can be taken at line speed or in the processing plant, and management protocols that maximise product quality. This is where the SRUC mobile sensory laboratory comes into its own.

Contact

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Capability

The sensory lab, equipped with state-of-the-art imaging and product quality technologies uniquely housed within an articulated lorry, can travel around the UK. It enables companies to capture very large amounts of consumer data concerned with sensory aspects (organoleptic traits) related to product quality. The mobile lab is versatile in its applications, able to deliver trained/semi-trained or consumer sensory data collection. Standardising the testing platform in a mobile facility enables geographical and demographical studies with consumers to be easily applied.

Throughput of the mobile lab is dependent upon the questionnaires presented to participants and the nature of the product being tested (e.g. cooked/uncooked). Capacity of more than 500 participants per day (6 hours) can be realised.

Key Features

✔ **Sample preparation kitchen**

✔ **12 Sensory booths** equipped with tablets, atmosphere and lighting control

✔ **First stage meat quality analysis**
- pH
- Mechanical Tenderness (RSSF, Warner Bratzler, MIRINZ)
- Objective Colour
- Near Infrared (NIR) Fat/Protein/Moisture analysis

✔ **Advanced Imaging**
- Near Infrared reflectance spectroscopy (NIR)
- Hyperspectral Imaging