

## Identification of knowledge gaps for future testing in Jack Rabbit III: a European perspective

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This presentation at the GMU conference summarises the findings of a survey of knowledge gaps and research priorities in atmospheric dispersion of acute toxic hazards. The survey was conducted in Summer 2020 to support the Jack Rabbit III (JRIII) project and was coordinated by HSE and DSTL in the UK. Responses were gathered from 27 organisations from across Europe, including government agencies, large industrial chemical and energy companies, consultants and academics working in the fields of atmospheric dispersion and major hazards risk assessment.

As part of the expert elicitation exercise, the participating organisations were first asked to identify knowledge gaps that could be investigated in JRIII. Their responses were grouped together into common topics and the organisations were then asked to prioritise the topics. Once the responses were collated, the top five topics were (ranked in order from highest to lowest priority): two-phase flashing jets, dispersion around obstacles (buildings, equipment, vegetation etc.), transition from dense-gas to passive dispersion, terrain effects and low wind-speed dispersion.

This presentation at the GMU conference presents the findings of the knowledge gaps elicitation exercise and provides further details of the specific research questions that need to be addressed within these five highest-priority topic areas. Previous experimental work that has been undertaken in these areas is also briefly reviewed.

The participants in this European expert elicitation exercise have expressed a keen interest in supporting the future JRIII experiments and continuing the successful international collaboration from the previous Jack Rabbit II trials.

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