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# Further development of the SAUNA-FIELD system for rapid deployment and improved operation.

The measurement of xenon was successfully incorporated in an on site inspection (OSI) exercise for the first time during the integrated field exercise in Jordan 2014 (IFE14). One of the systems used was the SAUNA-FIELD, designed to process and analyse radioactive xenon from sub-soil samples with the purpose of detecting nuclear explosions. During the last years FOI has, built on experience, lessons learnt from exercises and outputs from workshops, re-designed the system to improve the functionality during an OSI. The aim has been to simplify the deployment of the system and to further improve the automation of the process when handling sub-soil samples to reduce the amount of manual labour needed. A new design, enabling the system to be installed in a container suitable for air transport, has been made which drastically simplifies the deployment of the system. The system software and gas handling capacity has also been improved to facilitate for the operator.

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