

Title: IFREACT, Next generation respiratory protection

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Abstract:

IFREACT, or Improved First Responder Ensembles Against CBRN Terrorism, is a European Commission FP7-funded consortium of CBRN manufacturers, subject-matter experts and end-users tasked with providing the next generation of protective clothing and respirator for first responders. Bringing together leading protective technology and blending it with some of the latest software, it will enhance the chemical, biological and radiological protection of European first responders.

Mock scenario simulations were conducted in two field exercises pinpointing the main shortfalls in existing training and operational PPE and the specific needs of civilian responders compared to military users. Lab tests highlighted a pumping effect due to the leaks in interfaces with gloves and boots and the possible lack of protection derived from these weak parts of the ensemble.

The respirator being developed will cause less physiological burden and less induced psychological stress and distraction, and enable rapid donning and easy FR identification, compatible with FR civilian missions and shifts in the warm zone. Special attention is being paid to the interfaces to maintain full effectiveness of the protection factor during operations.

The presentation will focus on the requirements of first responders, the faults with current PPE and development the new suit. A prototype will also be available for demonstration purposes.

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