

Three early-stage fire detection technologies selected for containership evaluations



Technologies developed for forest fire detection will be evaluated for use in container ships after selection by Lloyd's Register's SafetyTech Accelerator.

Gary Howard | Jul 15, 2024

The Cargo Fire & Loss Innovation Initiative (CFLII), led by SafetyTech Accelerator, will evaluate the use of early-stage fire detection technologies Forest Guard, SenseNet, and Mobotix on container ship decks. The successful candidates were chosen after initial evaluations of over 200 technologies.

The three solutions will undergo structured feasibility studies, vessel assessments, and surveys, which will lead to deployment planning, costing, and

performance predictions. Any successful evaluations will lead to trials on one or more of the Anchor Partner's cargo ships.

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ForestGuard and SenseNet use multi-gas sensors to detect toxic, flammable and explosive gases that may indicate fire. SenseNet integrates AI, sensors, cameras and satellite data to notify ship operators and crew members of fire.

ForestGuard uses an integrated mesh network and satellite connectivity to relay information from low-power solar-powered devices.

Motobix uses robust infrared cameras and thermal imaging technology which have been proven in extreme conditions.

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"The Cargo Fire & Loss Innovation Initiative (CFLII) is now drawing on the rapid innovation delivered in response to wildfires; with cheap and robust multi sensor boxes a really interesting proposition in maritime. This also gives us the opportunity to evaluate a more traditional gas sensing approach with our cutting-edge e-nose sensor programme within CFLII.

"Thermal imaging is recognised as a leading technology in the space of fire detection, so it's important we understand whether this is a viable solution for our Anchor partners quickly, conceding that this could vary between new build/retrofit and class type," said Seb Corby, CFLII Programme Director

Dr. Ornek, ForestGuard Co-Founder, said: "As ForestGuard, we are thrilled to have the opportunity to implement our early open-air fire detection system to cargo ships and loss prevention implementations. This brings new challenges to our existing system such as harsh weather conditions, seawater, and connectivity issues and this kind of challenges excites our team to innovate and make a difference. With the thoroughly thought CFLII program, we are confident that we

can find better ways to prevent and mitigate fire damage in the shipping industry”.

CFLII was formed in 2023 with anchor partners Lloyd’s Register, Evergreen, Ocean Network Express (ONE), Seaspans Corporation, Offen Group, UK P&I and TT Club in order to advance technologies that prevent and mitigate large-scale cargo fire, loss, and damage at sea.

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