

## Taking revolutionary new tracking technology to market

***Container ships are the life blood of global trade, transporting raw materials and manufactured goods across the globe. With fewer than 2% of containers x-rayed or physically checked at customs, however, they also present a security risk. Thanks to an EU-funded project, cutting-edge tracking technology designed to make cargo shipping significantly safer and more efficient could soon be commercially available.***

The original ISOTRACK project, which was completed towards the end of 2011, successfully developed a new system of monitoring and tracking containers throughout the supply chain. Major innovations include the development of a composite container door that is transparent to radiofrequency, embedded electronic systems to monitor the internal condition of the container and the wireless transmission of information from inside the container without the need for an external antenna.

There are already a number of different tracking devices currently on the market that enable businesses and authorities to determine, say, the location or status of a particular container. What makes ISOTRACK technology so innovative is that it is capable of getting a radio frequency (RF) signal out of a steel container. "This device is also the only one that we know of that is integral to the container; there are no external bits that can be knocked off or tampered with, unlike a lot of existing systems," says project coordinator Dougie Bryce of TTS Shipping.

The main objective of the ISOTRACK II project, which began in January this year and is due to end in December 2014, is to demonstrate, through field tests, how the new tracking technology works in practice and to underline to business and authorities the potential benefits. The project is a good example of EU funding bridging the gap between product development and the realisation of a successful commercial outcome, something that is not always straightforward for many SMEs.

### **Tightening supply chain security**

The project pays special attention to supply chain security. When equipped with ISOTRACK technology, dangerous substances and human trafficking can be swiftly detected, and this knowledge then processed and transmitted immediately to security services.

"The moment something is put in the container it is tracked and reported, from anywhere that has GPS coverage," says Mr Bryce. "The device is fitted with low-level radiation detection as standard, in addition to heat, CO2 sensing, etc. If every container was kitted out with this technology, this would constitute a huge step forward in countering terrorism as well."

ISOTRACK also provides clear benefits to business, by offering detailed tracking and ensuring that every product is accounted for. “If you put 500 TVs in a container, you’ll know if you still have 500 when you unload,” says Mr Bryce. “You’ll also have instant stock control and inventory available – e-docs can be sent to port authorities and customs as soon as the container is loaded.”

Of course, many an innovative idea – particularly from the SME sector – has failed to see the light of day because of high R&D costs, low industry profile and lack of support. The purpose of ISOTRACK II is to give the consortium a helping hand in moving from the product development stage to market.

“We are big fans of EU funding initiatives,” reveals Mr Bryce. “Without it, we simply could not have got started. It would have been impossible to have developed a prototype, and no way of taking this prototype to market. Without this current project, our innovation could have withered on the vine.”

Sea trials are scheduled for early next year. It is envisaged that some 500 containers will be used in the demonstrations, on ships ploughing regular freight lines. “This all costs money of course,” says the project coordinator. “And again, without the EU this would have been impossible. We’ll also be continually developing and testing the software, and expect to have a product ready for market by the end of 2014.”

**Project full name:** ISO shipping container tracking and monitoring system demonstration project

**Project acronym:** ISOTRACK II

**Project website:** <http://www.stellarview.com/global-tracking/>

**Project reference number:** 106486

**Name/country of project coordinator:** TTS Shipping, UK

**Total project cost:** € 1 253 050

**EC contribution:** € 733 000

**Project start/end:** January 2013 – December 2014

**Partners from other countries:** FR, SI, FI