

*"Even during times of crisis, ports will always need our high performance solutions to help fight the illegal movement of goods and threats"*

### Exclusive Q&A

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**smiths detection**

bringing technology to life



#### What are your key products – are you launching anything new?

We offer a complete range of cargo inspection systems for varying customer requirements. We help in the prevention of the transportation of explosives, arms and other threats, as well as alleviate bottlenecks at checkpoints and deter tax evasion activities.

On October 1, 2014, we launched the IONSCAN 600; a cost-effective, portable desktop trace explosives detector, weighing just 10.4kg. The IONSCAN utilises non-radioactive technology, resulting in no special licensing or handling requirements.

Other innovations include our suite of iCmore software enhancements for the automatic or assisted recognition of targets or threats. iCmore supports effective cargo analysis across the Smiths Detection HCV cargo inspection product range, with current available options including cigarette detection and

radioactivity detection.

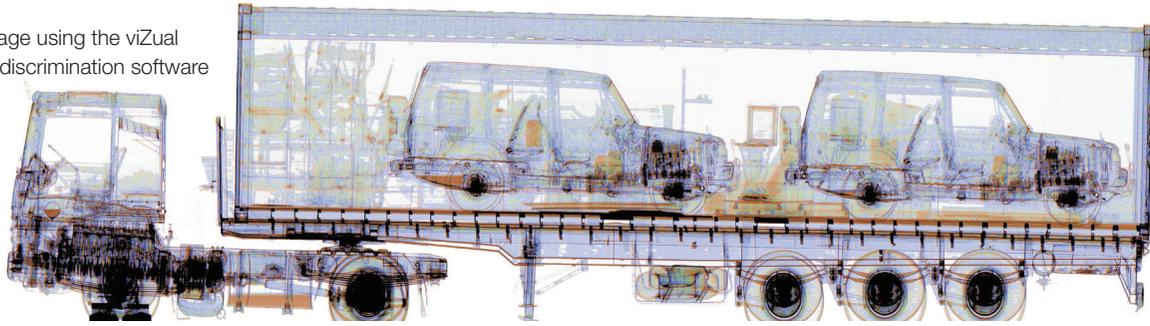
Today the operator is provided with general X-ray images, which he must match with the original manifest report, relying solely on his own initiative and training to look for potential threats and

targets. In the future, the iCmore suite will assist operators by automatically focussing and highlighting a range of defined threats and/or abnormalities within the load. This lessens guess work and speeds up the overall analysis process.



HCVS Stationary Inspection System

X-ray image using the viZual material discrimination software



**How are your products applied in port applications and what sort of lifespan do they have? How much operator training is required and how many operatives are needed for each unit?**

The lifespan of our systems depends on the type of system – mobile, stationary, etcetera – and the amount of usage. Our reliable systems can be easily upgraded to allow port operators to conform and adapt to industry and regulation changes. For example, our HCVS stationary systems can be easily upgraded with advanced software and hardware options, increasing the system lifespan for up to 20 years. These upgrades can include options such as the Dataset Management System (DMS), which offers remote image analysis of cargo and storage of all associated data; creating a centralised operator analysis pool and reducing the strain on on-site operators.

Detailed and in-depth image analysis training is provided to system and image evaluation operators as well as operational training for system operators at the time of installation.

The number of operators required for our scanning solutions depends on the level of throughput; the average operator can evaluate 20-30 images per hour. At peak times, additional operators would be required or centrally evaluated using our DMS remote analysis.

Operator effectiveness can also be increased with our innovative iCmore software enhancements, which provide automatic or assisted recognition alerts for threats and targets, such as cigarettes and gamma and/or neutron radioactive materials. This removes guess work and speeds-up overall analysis time.

**What type of X-rays are used and can these detect powdered narcotics?**

Our full range of accelerator based X-ray solutions can detect discrepancies in the cargo, and powerful 'viZual' software adds coloured material discrimination. This helps to draw the operator's attention to suspect areas. Plus iCmore target/threat recognition software can automatically detect, alert and highlight

specific targets, such as narcotics, within the vehicle contents.

**In a container stacked with many different boxes, how can you be certain what is in the box that is right in the centre?**

In many cases, cargo contents are known in advance, or standard black and white X-ray images are used to "guess" the contents and match to the manifest paperwork.

The transmission X-ray technology passes through the vehicle (similar to a medical X-ray) and as different materials absorb X-rays at different levels, skilled operators can view everything in the container or vehicle, relative to its density. Our advanced viZual imaging software helps to distinguish loads by adding organic/inorganic colourisation which is linked to an atomic number, this helps in highlighting differing materials and hidden cargo, resulting in rapid and reliable results in a single scan.

**The industry globally is now emerging from the downturn which began in 2008.**

**What lessons have you learnt from this period and how will it benefit you?**

Even during times of crisis, ports will always need our high performance solutions to help fight the illegal movement of goods and threats, as well as to deter tax avoidance schemes.

Customs authorities and homeland security organisations are now concerned about potential security threats on incoming shipments as much as contraband. Our response has been to develop systems and software that allow these illegal and threatening shipments to be identified rapidly. Over the years Smiths Detection has developed a range of solutions to accommodate every budget and scanning requirement.

**If you could, what one thing would you change, nationally or globally, that you feel would be of benefit to either your company or the port industry generally?**

Better co-ordination between port authorities, customs and equipment manufacturers would result in the



best solutions available through the sharing of best practices and data. This co-ordination would help to effectively support the control of exports, imports and transit of goods globally at all border crossings and entry points.

**How have environmental regulations impacted your business?**

Smiths Detection was the first company to develop a mobile solution which is powered only by electricity and not vehicle engine power. It was designed to have the least environmental impact, resulting in less noise and no gas pollution.

We have also developed our own accelerators, which provide a lower radiation dose and reduced electricity consumption. These changes are as a result of Smiths Detection initiatives, rather than pressure from port and customs authorities.

**How are you being affected by cheap, Chinese-manufactured equipment/products?**

Smiths Detection has always faced strong competition from around the world and it drives us to offer continuous improvements in our products and better solutions.

Our customers come to us for our reliable build quality and superior and trusted X-ray image quality. Furthermore, we have a wealth of in-house knowledge and expertise. The superior quality of our systems also ensures an extended product lifespan. We provide the option to upgrade and adapt to future requirements and regulation changes as they emerge.