



## Stephen Phipson

Group Managing Director,  
Smiths Detection

**smiths detection**  
bringing technology to life

**Investor Day: Bringing technology to life**, London, Thursday, 3 May 2007

# Agenda



**Smiths Detection – a strong business in a growing market**



**Business fundamentals**



**Our key sectors**

- Ports & Borders
- Critical Infrastructure
- Military
- Emergency responders
- Transportation



**A new business - Smiths GE Detection - The benefits**



**Summary**

# Smiths Detection - How we do what we do

**The Smiths Detection vision:** To make the world a safer place by ensuring that those charged with our protection are provided with the most advanced detection technology available

**In achieving our goals we reflect the six fundamental strengths of Smiths**

Operating in sectors  
of high growth

Double digit growth rates

Reaching deep  
into global markets

A truly global footprint

Developing  
technology to help  
customers succeed

Technology is central to all we do, putting  
laboratory science in the hands of security specialists

Delivering constant  
improvement

A culture of delivery and execution

Improving  
the business mix

New technologies, new products, new markets

Doing business  
the right way

Meeting the requirements of national governments

# Smiths Detection offering widest range of detection technologies

Transportation

Military

Emergency  
Responders

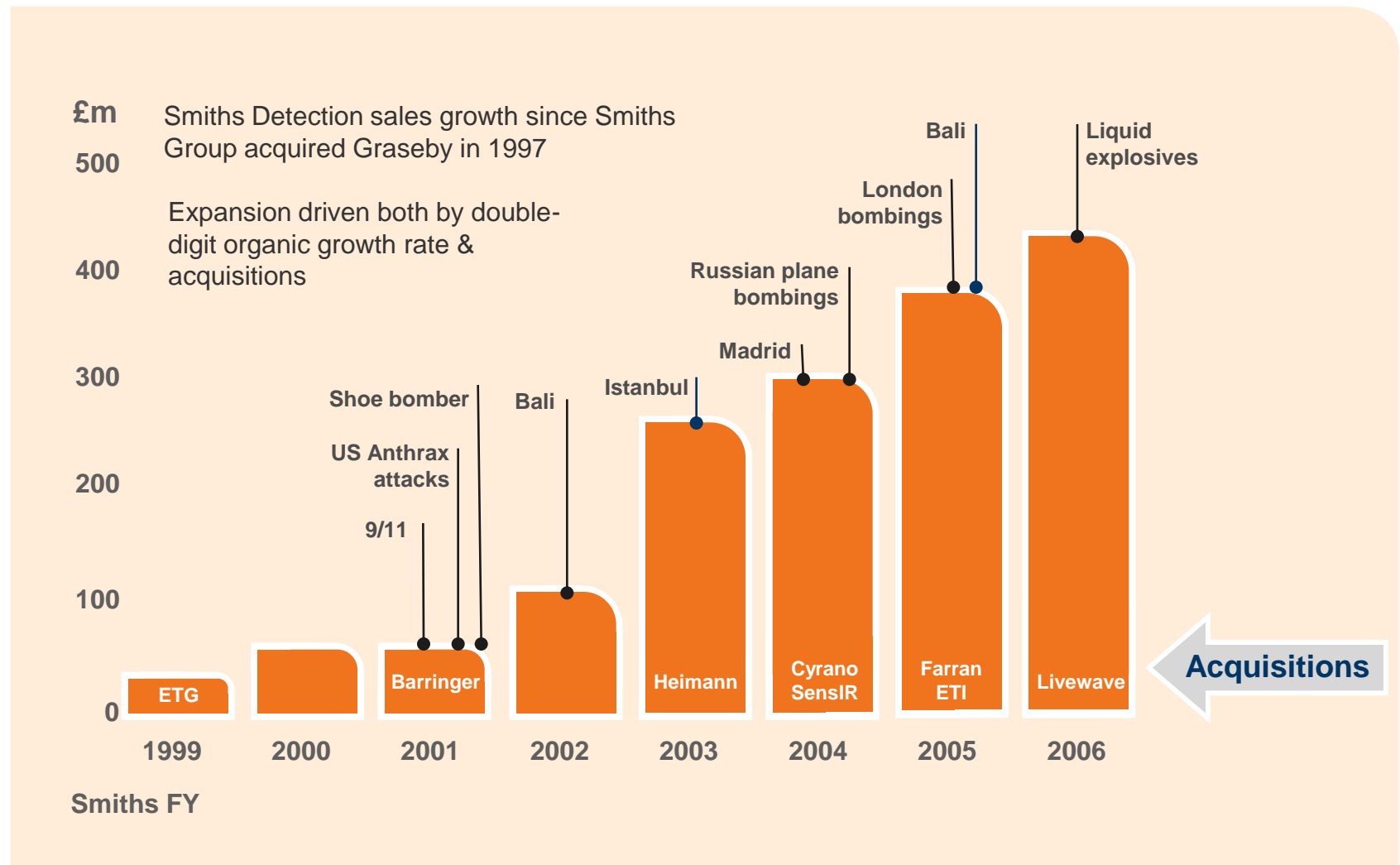
Critical  
infrastructure

Ports  
& Borders

Chemical agent detection, explosives detection, bio agent detection,  
X-ray security screening, infra-red chemical analysis, millimetre-wave,  
sensor management systems



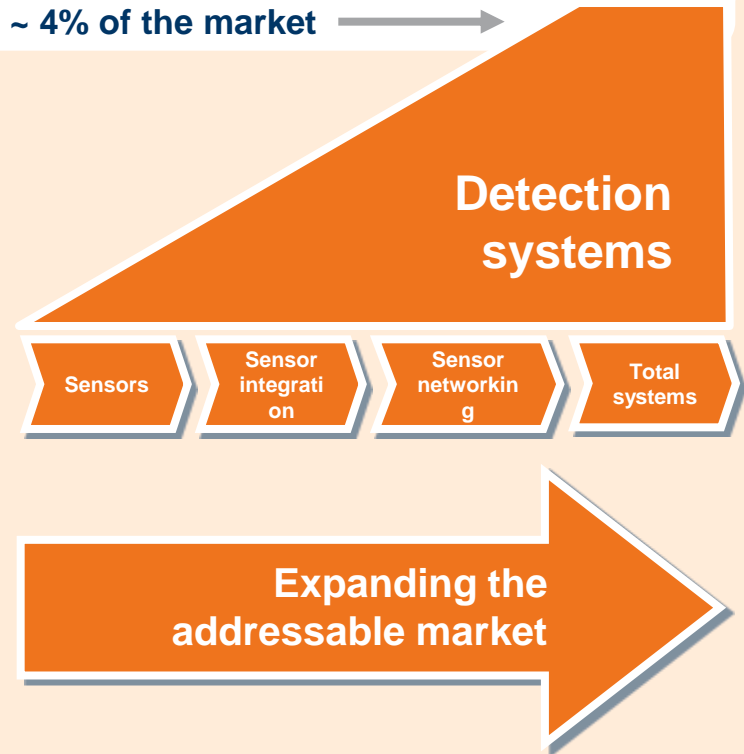
## The story so far - Growth driven by acquisitions and the perception of the threat



# Where Smiths Detection sits in the security sector



- Growth ~10%
- Strategy: Master the sensor technology level
- Develop more complex multi-technology sensors and networks
- Extend support and services
- Military is different - driven by longer military spending cycles



# Increased customer spending creates new opportunities

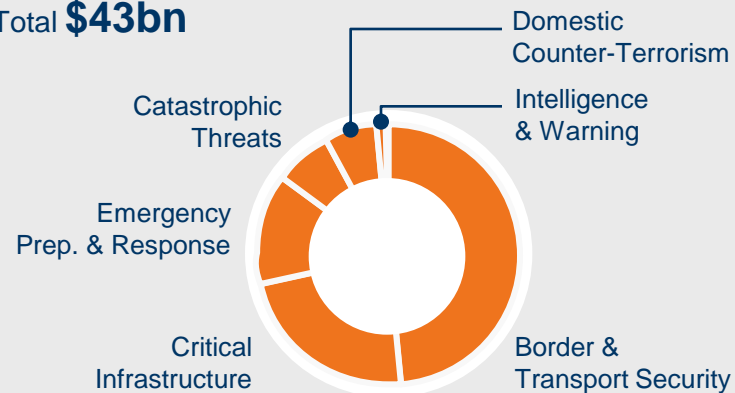
## The US DHS plan is focussed in areas where Smiths Detection is strong

### DHS 07 budget priorities

- Strengthening border security and interior enforcement
- Improving maritime security
- New strategies for aviation security
- Increase emergency preparedness and response

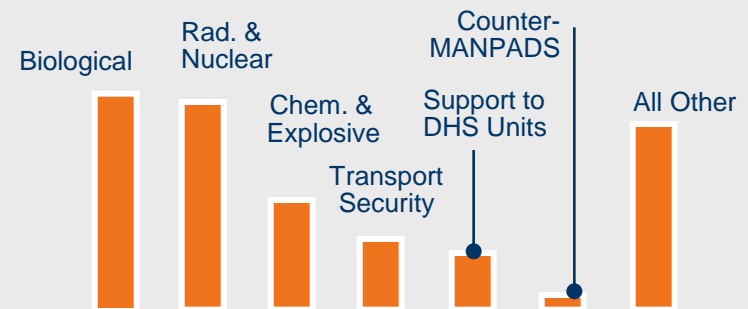
### DHS 07 operational budget

Total **\$43bn**



### DHS 07 R&D budget funding

Total **\$3.3bn**



# Continued profitable growth - Investment in R & D for strong new product programme

## Improvised explosive devices



aTiX: explosives detection X-ray for hand baggage

## Bio Terrorism



Bio-Seeq: laboratory standard identification

## Radiation



Mobile cargo scanner radiation detection



RespondIR verifies the identity of an unknown solid or liquid



EPBD -24/7 environment monitoring



Proposed man portable detection system (HPRDS)



Rugged explosives detector for the military



Smart Bio Sensor – Bio alert system



Hand held device for US DHS



# Smiths Detection - strong positions in key sectors

Ports & Borders



Critical infrastructure



Military



Emergency responders



Transportation

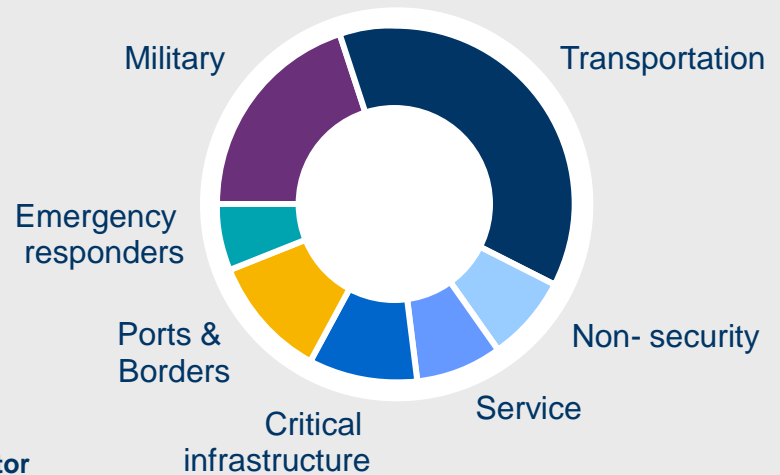


2006 sales:  
**£412m**

By geography



By sector



### Security Detection

- Detection of Special Nuclear Materials
- Automated explosives detection
- Weapons detection

### Contraband & Narcotics Detection

- Contraband detection, including:
  - Narcotics - Cash
- Systems need to be sophisticated & mobile

### Competitors:

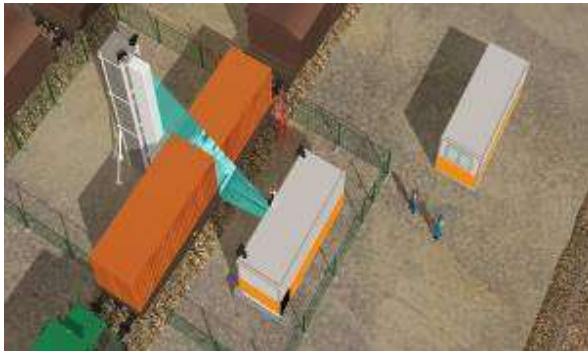
- NucTech
- L-3
- OSI
- AS&E
- SAIC



## Strategy 1: More flexible product range

- Modular system with multiple configurations
- Radiation detection option
- Increased connectivity
- Standard components to facilitate transfer of manufacture
- Reduced manufacturing cost

Train scanner



Gantry system



Portal system



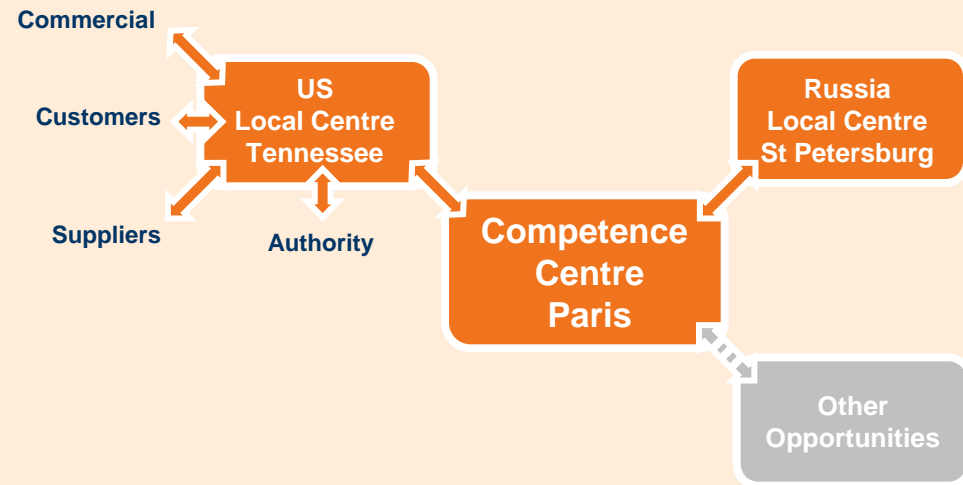
# Growing the Ports & Borders business

Ports  
& Borders

## Strategy 2:

International manufacturing

- Local manufacturing in US & Russia
- Establish local supply base



US HCV Mobile



Standard HCV Mobile



Russian HCV Mobile



# Major opportunity in Russia

## Ports & Borders

### STATUS REPORT

- Installation of 1 fixed system for RF Customs at Russian-Ukrainian border Nov 2005
- St Petersburg factory opened June 2006.
- Installed 4 fixed and 2 mobile systems in late 2006/early 2007
- Currently tendering for multiple additional fixed and mobile systems
- St Petersburg factory also manufacturing conventional X-ray systems for Russian customers



St Petersburg factory



Mobile systems



Model of proposed border crossing installation

A good opportunity for which a strong presence in Russia is essential





Diversified sector - many segments, with varying growth rates

# The strategy will focus on three key areas

**Critical  
Infrastructure**

## Mass Transit

### Opportunities

Over 2300 major subway stations worldwide with multiple entrances. Potential for integrated chemical detection and video systems



## Sports & Events

### Opportunities

Numerous high profile events. Potential rental opportunity. High visibility business



## Facilities

### Opportunities

Government buildings. Military base protection. Many target groups. Highly fragmented market



### Applicable technologies

- Internet Video
- Sensor integration
- X-ray
- Explosives detection
- Mail screening
- HVAC chemical detection
- Emergency response equipment

## Providing CBRNE capability

- Strong track record of supplying chemical & biological warfare detection capability
- More than 125,000 chemical agent detectors supplied globally
- Market size: c£500m pa
- Market growth: c10%
- Increased emphasis on:
  - Systems integration
  - Bio detection
- Key competitors include:
  - General Dynamics (US),
  - Bruker (Ger.), Environics (Fin.)

**CBRNE:**

Chemical, biological, radiological, nuclear, explosives





# Building capability - developing new business

## Military

**Maintain current position  
in chemical & biological  
protection**



Winning DoD contracts, ACADA, ICAM. Major opportunity – JCAD  
(Damian Tracey)

**Expand systems  
integration activity**



Japanese bio-system

**Collective protection**



Chem/bio protective shelter -  
prime contractor, \$333m  
contract ceiling

**Introduce new technologies**



- Creating opportunities for government funded contracts
- Forming partnerships (eg Telops)



US sales are more than 50% of global addressable demand

In US, funding is “top-down.” DHS grants provide £1.8bn to support emergency responders

## Strategy based on a strong product pipeline

Emergency  
Responders

Expand product range



New portable bio  
agent detector  
(launch 2007)



Radiation detector  
(launch 2007)

Multi-sensor  
chemical detector  
(launch 2007)



(Bill Mawer)



Grow non-US sales

**Our focus:** Screening systems to prevent explosives/weapons being taken onto aeroplanes

**Primary Areas:** Checkpoint, hold baggage, air cargo





**Airport security demand will grow at around 10%p.a**

### **Sources of growth:**

Traffic growth

New threats

Move from lobby inspection to “in-line”

New EU standards

Replacement of systems procured immediately after 9/11

### **Global installed base of screening systems:**

- 10,800 checkpoint X-ray machines
- 9,000 Trace machines
- 3,400 Hold baggage explosives inspection systems



There will be further growth in both ‘new build’ and replacement systems at checkpoints and in hold baggage screening

# Airport Checkpoints - Major drivers in technology development

## Transportation

### Laptops

#### aTiX

Automated Explosives  
Detection

**Status:** in customer trials



### Coats

#### Trace/MMW

**Trace:** Sentinel deployed

**MMW people screening:**

- Tadar launched
- 'Walk-through' in development



### Shoes

#### Shoe scanner

NQR explosives detection.

Status:

- In airport trials with VIP



A strong range of technologies for future checkpoints

# Checkpoint screening systems – The main players in airport checkpoints

## Transportation

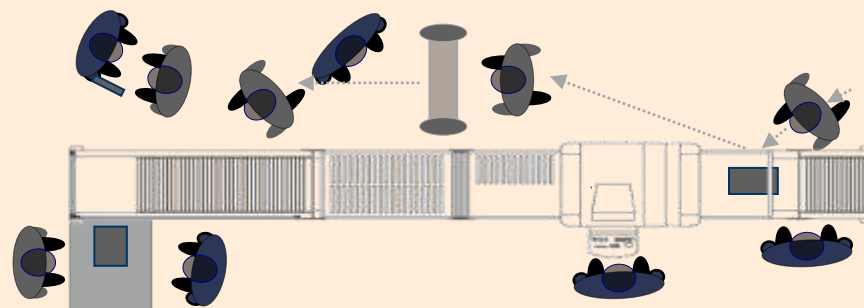
Capability	Smiths	GE	L3	OSI	Thermo
X-ray	✓		✓	✓	
Trace	✓	✓			✓
Metal detector	✓*			✓	
MMW/Backscatter People screening	✓		✓	✓	
Shoe Scanner		✓			

\* Marketing partnership with CEIA



### Key drivers:

- Higher security
- Higher throughput
- Integration
- Reduced manpower



# The Future Checkpoint - Automation to reduce manpower & increase throughput

Transportation

## The future checkpoint will:

- be passenger friendly, increasing throughput
- provide complete screening, inc. explosives in bags
- offer full integration to increase: screening information, passenger information, biometric ID confirmation

## Trials already underway

- US Registered Traveler program
- UK trial of Smiths Detection system

Example of automation:  
Glasgow Airport

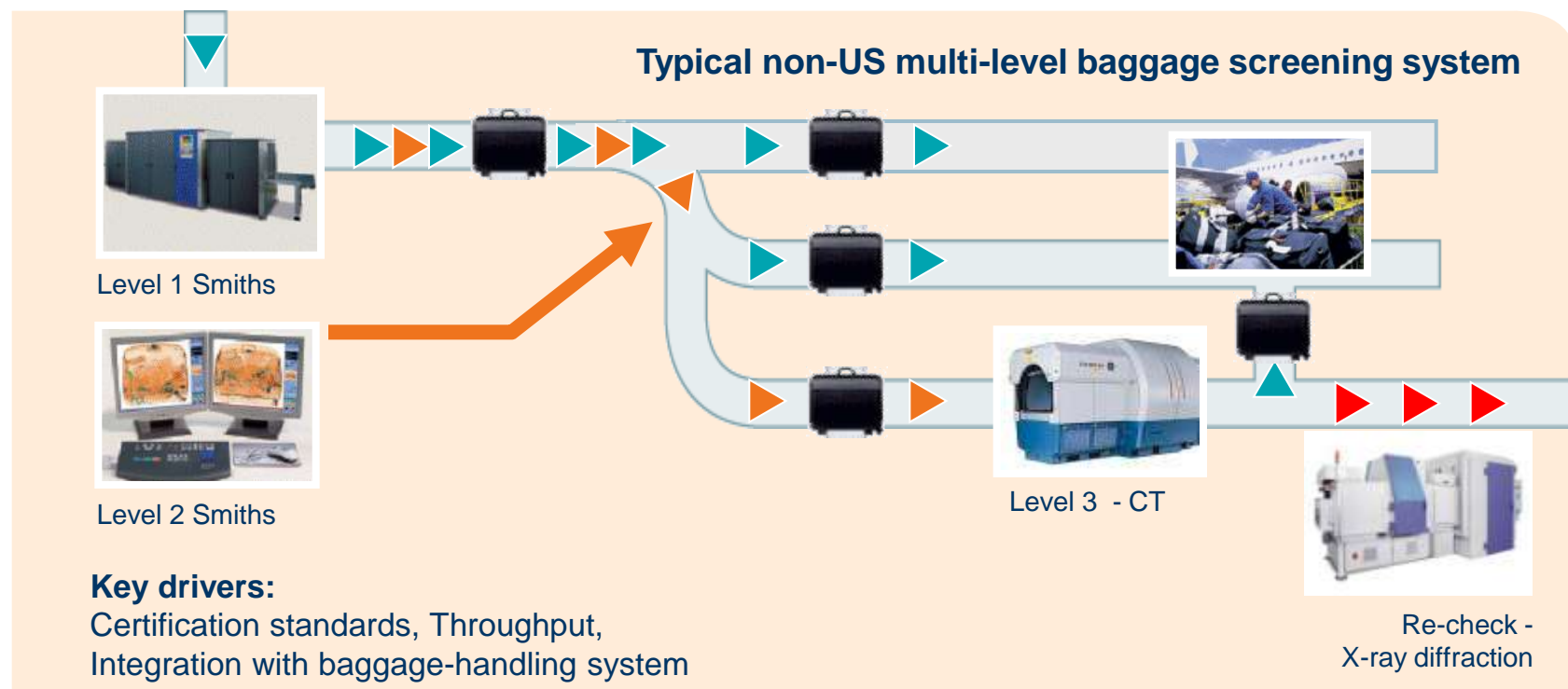


Reduced checkpoint staffing requirements will release funds  
for new generations of screening equipment



# Hold baggage screening systems

Transportation



## Key players in hold baggage screening

	L3	GE	Smiths	OSI
High Throughput	X		X	X
US certified CT	X	X		
Recheck - XRD		X		

# Hold baggage screening systems - Moving Smiths Detection towards complete systems provider

Transportation

- The one gap in our airport security product range – CT technology
- We aim to offer a total solution for airport hold baggage screening
- Preferred solution – a partnership between GE Homeland Protection and Smiths Detection

	L3	GE	Smiths	OSI
High Throughput	X		X	X
US certified CT	X	X		
Recheck - XRD		X		

**smiths**  
bringing technology to life

Smiths  
Detection

**64%**



imagination at work

GE Security  
Homeland  
Protection

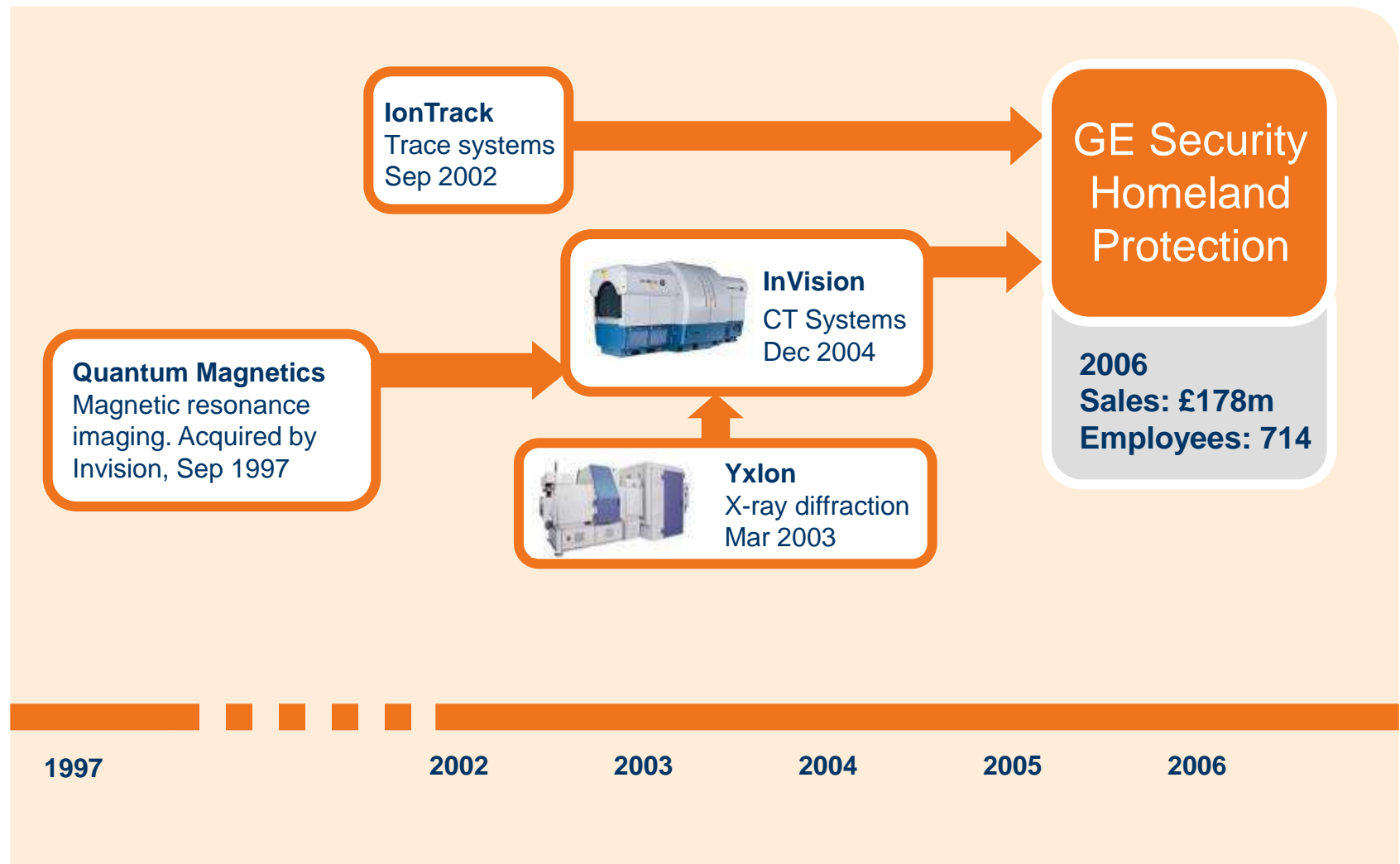
**36%**

**Smiths GE  
Detection**

Leading global  
detection business  
Turnover £590\*m

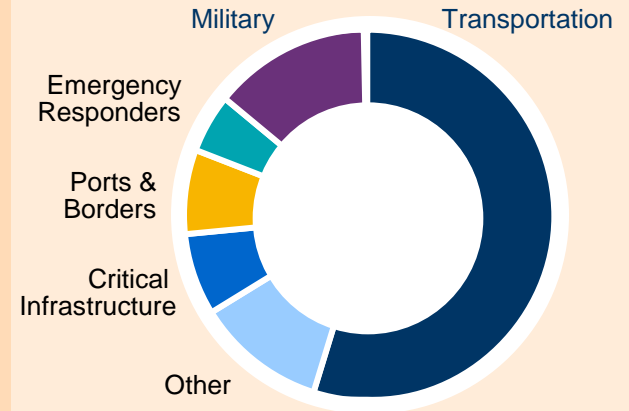
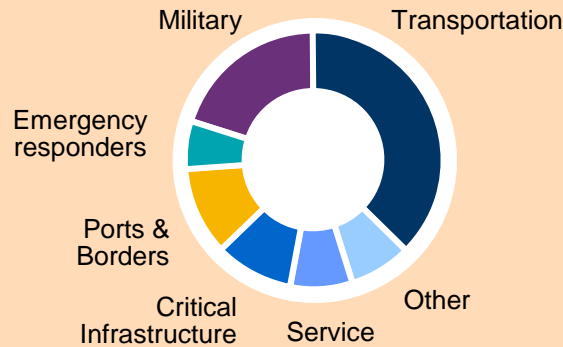
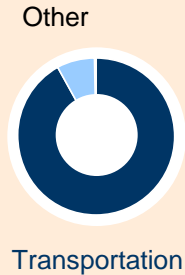
\* pro forma 12 months to July 2006

# GE Security Homeland Protection - History



# The shape of Smiths GE Detection - Over 50% of revenue will be from airport security

## Sales by sector



GE HLP (£178m)

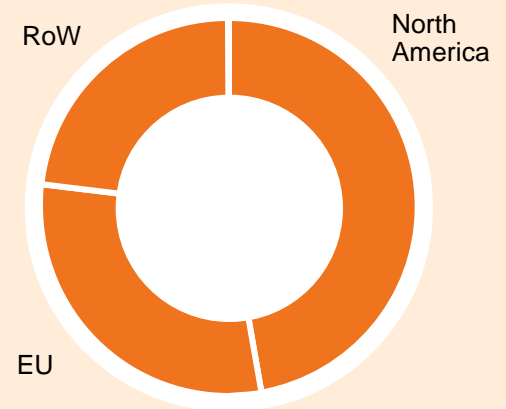
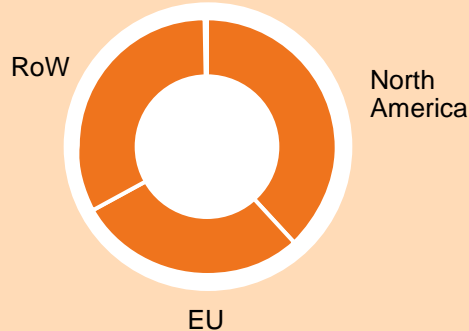
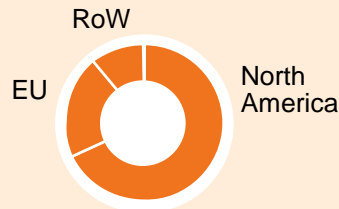


Smiths Detection (£412M)



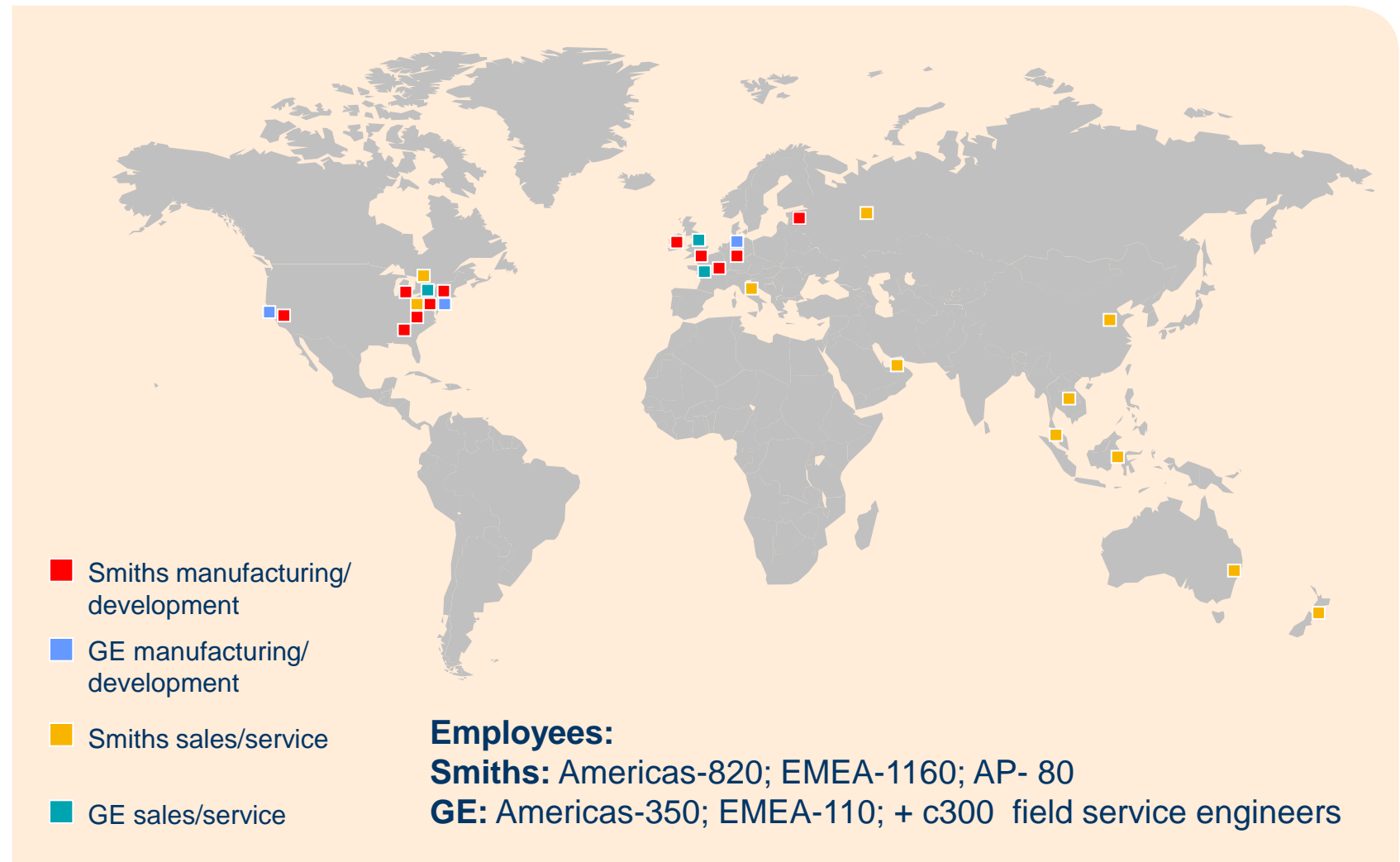
Smiths GE Detection (£590m)

## Sales by region



Sales are pro forma 12 months to July 2006

## The shape of Smiths GE Detection - true global presence, GE HLP adds strong US engineering base + global service organisation



# Smiths GE Detection - Linking to GE Research Centres

- Access to GRC research programmes
- Opportunities to bring in other technologies

## GRC

- 2600 researchers
- 5 research centres world wide
- \$500m annual research spend



# Establishing Smiths GE Detection

## Process

- Regulatory review process underway in US, EU and other jurisdictions
- EGM target: Q3 calendar year
- Completion target: H2 calendar year

## Management and Governance

### Smiths Detection



**64%**

### GE Security: Homeland Protection



imagination at work

**36%**

### Smiths GE Detection Board Chairman:

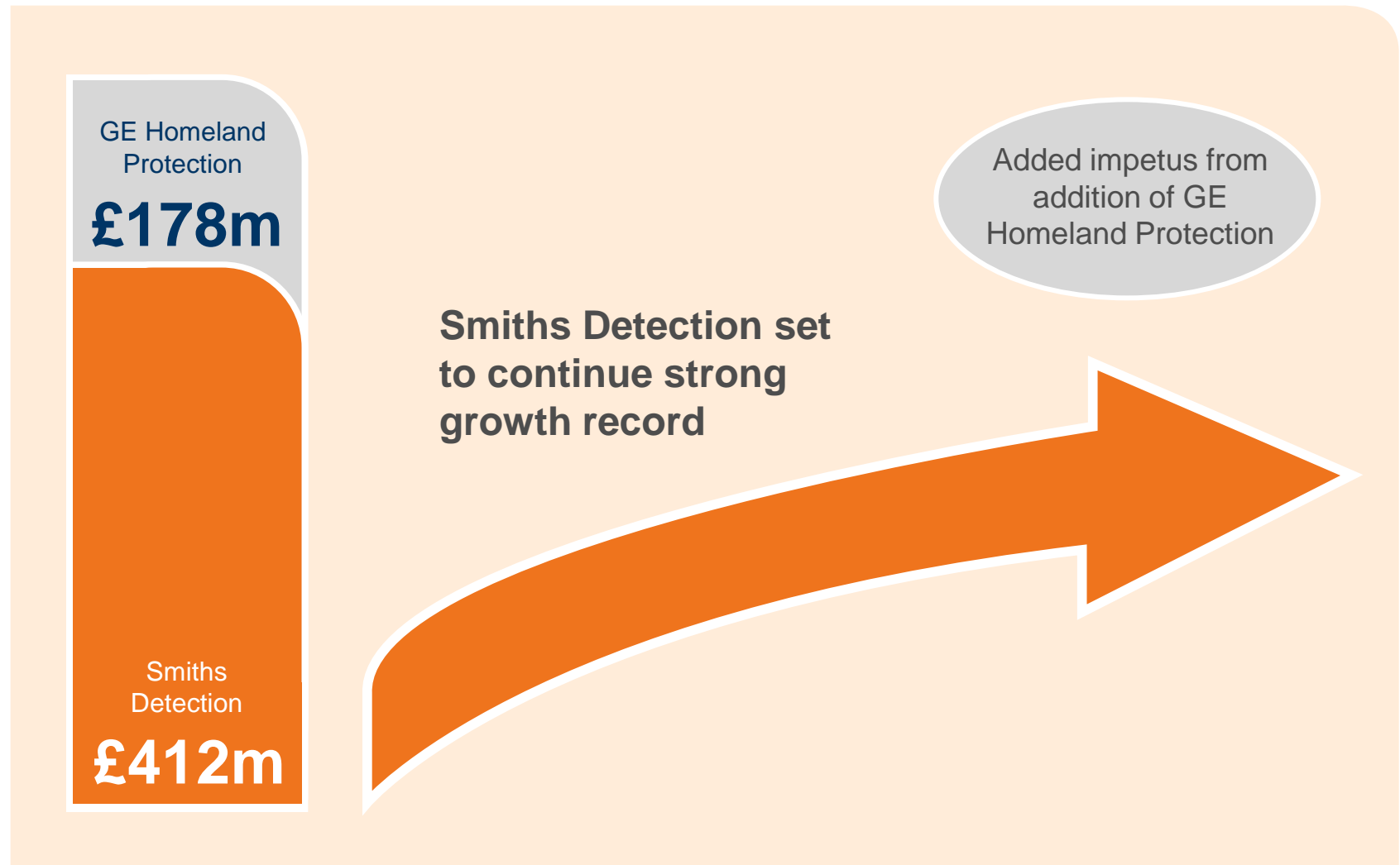
Keith Butler-Wheelhouse

**President:** Stephen Phipson  
Plus 2x Smiths

Group Board nominees  
2x GE Inc. Board nominees

**Operational  
Management  
team**

## The creation of Smiths GE Detection will strengthen the Smiths growth story





# Summary



**Smiths Detection - Advanced technologies in rugged systems supplied to military and civil markets**



**A business with a broad market spread and global reach actively involved in government security initiatives**



**Continuous growth through R&D investment, innovation and increasing systems integration role**



**Opportunity to add GE HLP business - offers total solution for hold baggage screening**