

12 November 2014

Stratech Systems Ltd

Re-rating catalyst: Global acceptance for iFerret at a tipping point

SINGAPORE | TECHNOLOGY | NON-RATED NOTE

Rating: **Non-rated**

- Stratech returned to net profit in the last FY due to three contract wins for iFerret Foreign Object Debris (FOD) detection system.
- iFerret FOD detection system rides on the trend of aviation safety coming under greater scrutiny.
- iFerret is approved by the Federal Aviation Administration (FAA) and its technological superiority could make it the global de facto standard.

What is the news?

The iFerret is Stratech's Airfield Surveillance and FOD Detection System. After three consecutive years of net loss (FY2011 to FY2013), **Stratech turned around to profitability in FY2014 (FYE Mar)**. Stratech had **three significant contract wins for the iFerret**, with about S\$6.4 million in revenue yet to be recognised, by our estimates. The remaining revenue should be recognised in FY2015. Key summary of the three contract-wins are:

1. Deployment in one airbase of one of the world's leading Air Force.
2. Clinched a tender to be deployed at Dubai International Airport (UAE), ousting the incumbent system and beating another competitor.
3. Upgrading of the iFerret system at Changi International Airport for Airfield Surveillance, augmenting the existing FOD detection capability.

Stratech has also recently made an announcement (16 October 2014) to restructure the Company. The Company will become a subsidiary of "The Stratech Group Limited", and existing shareholders of the Company will become shareholders of the New Company.

Investment Merits

- iFerret competes in an oligopolistic market of four FOD detection systems, all of which have been evaluated and approved by the FAA.
- iFerret displacing the incumbent system at Dubai International Airport is testament its superiority and gaining recognition as the preferred system.
- Deployment of iFerret in a military airbase opens up a previously untapped market.
- Global acceptance for iFerret is at a tipping point, and it could become the de facto standard globally at both civil airports and military airbases.

Investment Risk Factors

Regulatory risks

- Stratech has been on the Singapore Exchange watch-list since 5 June 2013, after recording 3 consecutive years of net losses.
- Chequered history of corporate governance lapses.

Business risks

- High customer concentration and failure to secure new contracts.
- Competitors investing heavily in product research, and developing superior technology, resulting in iFerret's product obsolescence.

Financial risks

- Weak balance sheet with poor liquidation value and Net tangible assets: (1) Accumulated Losses equal to 95% of Share Capital and (2) Intangibles make up 22% of Total Assets.
- Repeated Rights Offers (FY05, FY08, FY09 & FY13), diluting shareholders' equity.

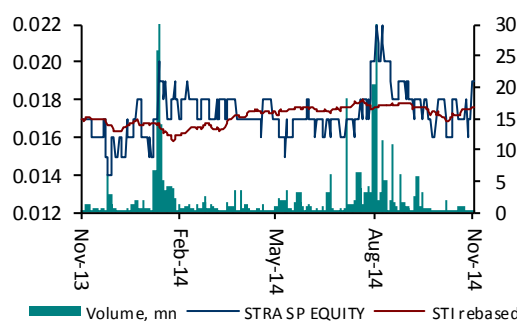
Target Price (SGD)	N.A.
Forecast Dividend (SGD)	N.A.
Closing Price (SGD)	0.019
Potential Upside	N.A.

Company Description

Stratech Systems Ltd (Stratech) has two business divisions: Technology-intensive IT and e-Systems projects and services. The Technology-intensive division provides services in computer vision systems and intelligent transport systems. The e-Systems project and services division business division develops, hosts, and operates IT e-business projects; and develops and provides e-business applications, services, and infrastructure.

Company Data

Market Cap. (USD mn / SGD mn)	23 / 29.8
3M Average Daily T/O (mn)	2.32
Closing Px in 52 wk range	0.014 - 0.023



Major Shareholders	(%)
1. Khien Meow CHEW	28.2
2. Sook Ching LEONG	5.8
3. Soon Hock LIM	1.9

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Company Overview

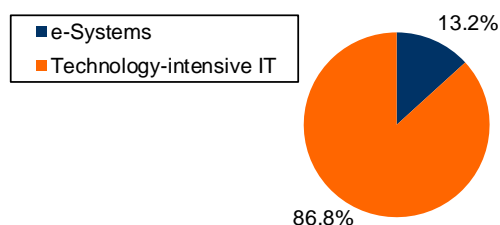
Stratech Systems Ltd (Stratech) was founded in 1989 and is headquartered in Singapore. Stratech was listed on the Singapore Exchange in August 2000 and has a market capitalisation of about S\$30 million.

Stratech designs, develops, implements and patents advanced systems. Stratech has **two business divisions** of **e-Systems** and **Technology-intensive IT**. Stratech's beginnings was in e-Systems, developing systems for the Government of Singapore. Its solutions in e-Systems are presently used by various private corporations and Government agencies in Singapore.

Stratech then made a strategic shift, evolving away from providing customised solutions (e-Systems) to focus on building proprietary patented products that are suitable for many customers (Technology-intensive IT). For the Technology-intensive IT division, Stratech is a global leader in *intelligent* Vision (iVision), and this iVision capability is the backbone of Stratech's solutions which have found applications globally in industries such as homeland security, aerospace, defence, maritime, surveillance and transportation. The Technology-intensive IT solutions are applied in tasks such as FOD detection, Weapons Scoring, Vehicle Access Control and Toll Collection.

The revenue mix for FY2014 (FYE Mar) was 13.2% from e-Systems and 86.8% from Technology-intensive IT.

Fig 1. Revenue segmentation for FY2014



Source: Company, PSR

Key Financial Summary

FYE Mar	FY11	FY12	FY13	FY14
Revenue (SGD mn)	15.1	5.8	2.5	11.1
NPAT, adj. (SGD mn)	(3.6)	(12.1)	(9.4)	1.5
EPS, adj. (Cents)	(0.41)	(1.37)	(0.77)	0.09
P/E (X),adj.	N.M.	N.M.	N.M.	19.1
BVPS (Cents)	1.36	0.09	0.08	0.38
P/B (X)	2.3	25.4	28.9	4.5
DPS (Cents)	-	-	-	-
Div. Yield (%)	0.0%	0.0%	0.0%	0.0%

Source: Bloomberg, PSR est.

*Forward multiples & yields based on current market price;
historical multiples & yields based on historical market price.

Outline of Stratech's solutions

e-Systems

Stratech's solutions in e-Systems are used by various private corporations and Government agencies in Singapore. Examples of Stratech's e-Systems solutions are:

- Dynamic Pricing & Secure Payment System, which powers the Land Transport Authority of Singapore's Online Certificate of Entitlement (OCOE) Open Bidding System.
- SmartCare, which powers the Prime Minister's Office of Singapore's Medical Claims Proration System (MCPS).
- SmartReports, which powers the Singapore Parliamentary Reporting System.
- Integrated web services for the Media Development Authority of Singapore.

intelligent Vision (iVision)

iFerret – FOD Detection & Airfield Surveillance System

- One of four FOD detection systems approved by the FAA.
- Advanced vision-based detection, which automatically detects, locates, classifies and records FOD in the airport/airbase environment.
- Only system with HD & colour panoramic view of the entire runway.

RADAS – Rapid Airfield Damage Assessment System

- Fusion between the iFerret & Super BullsEye systems.
- Real-time weapons impact detection and damage assessment.

Super BullsEye II – Advanced Weapon Scoring System

- Weapons scoring system for weapons training and defence exercises.
- Capable of accurately scoring most known ammunition and weapons impact day and night for air, sea and land forces as well as weapons development agencies.

VIPS – Vessel Identification & Positioning System

- Maritime surveillance systems that automatically detects, tracks, identifies, locates and even predicts movements of vessels.
- Provides operator information on the vessels.

VHSS – Vessel Height Surveillance System

- Continuous measurement and automatic computation of vessel height entering area of interest.
- Alert will be raised if measured height exceeds the safety threshold.
- System is deployed by Civil Aviation Authority of Singapore, as take-off and landing flight paths at Changi Airport are over the sea.

iVACS – intelligent Vehicle Access Control System

- Security system providing security and law enforcement agencies with a vehicle/personnel surveillance and access clearance control system.
- Screens under carriages for security threats (explosives).

intelligent Transport Systems

iBCS – intelligent Border Crossing Systems

- Passenger clearance through biometrics utilising finger scanner.
- Vehicle recognition system.

VEPS – Vehicle Entry Permit (Toll) System

- System for distance-based tolling.
- Mechanism for gantry-less, distance-based electronic road pricing.

Recent iFerret Contract Win Announcements

- **3 February 2014.** Contract from the Government of Singapore to upgrade the iFerret Infrastructure at Changi International Airport for Airfield Surveillance.
- **22 January 2014.** Won a tender for installation of iFerret at Dubai International Airport in the United Arab Emirates (UAE).
- **30 September 2013.** iFerret selected for deployment by one of the world's top Air Forces.

Investment Thesis hinges on iFerret becoming the de facto standard in FOD detection

What is FOD and why is it a concern?

Foreign Object Debris (FOD) is defined by the Federal Aviation Administration as "Any object, live or not, located in an inappropriate location in the airport environment that has the capacity to injure airport or air carrier personnel and damage aircraft."; while **FOD Damage** is defined as "Any damage attributed to a foreign object that can be expressed in physical or economic terms which may or may not downgrade the product's safety or performance characteristics." (Reference: FAA Advisory Circular 150/5210-24)

FOD and FOD damage is a concern because it has the potential to "severely injure airport or air carrier personnel or damage equipment. Types of potential damage include: cutting aircraft tires; being ingested into engines; or becoming lodged in mechanisms affecting flight operations. Personnel injuries or even death can occur when jet blast propels FOD through the airport environment at high velocities." (Reference: FAA Advisory Circular 150/5210-24)

FOD Damage is estimated to cost **US\$4 billion annually** from aircraft repairs & maintenance, and up to **US\$13 billion annually** from: flight delays & cancellations, lost productivity/revenue, potential liabilities due to accidents, and damaged reputation.

Concorde Crash, 25 July 2000. A frequently quoted example of the extent of damage that FOD can cause is the Air France Flight 4590 that was departing Paris to New York, which resulted in 113 fatalities. The cause of the accident was attributed to a titanium strip which was left behind on the runway from a previous departing flight and was not removed.

Fig 2. Concorde accident caused by FOD

Why the Fuss?



8" titanium strip

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Air France Flt 4590 (CDG-JFK) 25 July 2000, 113 fatalities

Advantages of using FOD detection system over human effort

- Continuous round-the-clock operations.
- Not affected by distractions, boredom and fatigue.
- Objective, consistent and repeatable results.

Market players for FOD detection system

There are currently **four** FOD detection systems in the market. The following table lists the four systems, and where they are currently deployed. (Refer to the **APPENDIX** on Page 16 for further details on the four systems.)

Table 1. Airports where the systems are deployed

System	Country of origin	Airports being used at
QinetiQ Tarsier	UK	London Heathrow International (LHR) & MOD Boscombe Down Vancouver International (YVR) Doha Hamad International (DOH)
X-Sight FODetect	Israel	Boston Logan International (BOS) Tel-Aviv Ben-Gurion International (TLV) Bangkok Suvarnabhumi International (BKK)
Trex Enterprises FOD Finder	US	Marine Corps Air Station, Yuma, Arizona
Stratech iFerret	Singapore	Dubai International (DXB) Singapore Changi International (SIN) Chicago O'Hare International (ORD) Düsseldorf International (DUS)

Source: Various

Stratech's iFerret System

The iFerret is the world's first *intelligent* vision-based system. It is capable of real-time automatic detection of FOD, identification of FOD location, sending alert to user and recording & post-event analysis. Five to eight sensors are required per runway. The iFerret is the only system with HD & colour panoramic view of the entire runway. It delivers HD resolution colour images with enables night visibility & superior visual clarity for FOD identification. Post incident analysis is made possible with its video recording capability.

Fig 3. iFerret sensor deployed at Changi Airport



Source: Company, CAAS

Each runway requires five to eight sensors, which are installed about 150 metres from the runway centreline.

The workflow consists of six steps:

1. Dedicated inspection.
2. FOD detected.
3. Real-time Alert.
4. Visual Verification.
5. Remote Alert.
6. Runway Recovery Team Dispatched.

Fig 4. System overview and operational workflow

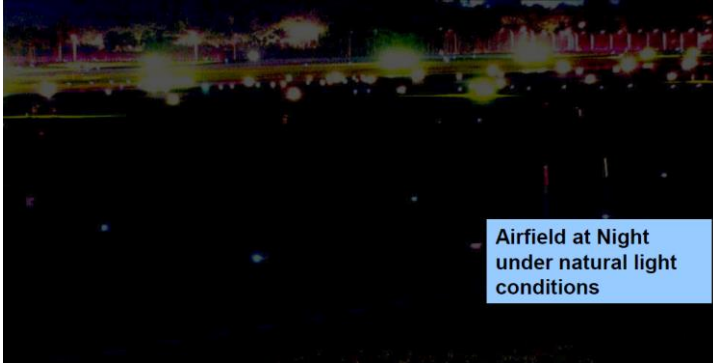


Source: Company

iFerret has superior night vision capabilities

The iFerret is able to capture HD colour night-vision images. The iFerret is superior to the other systems in this aspect.

Fig 5. iFerret's colour night-vision capability



Source: Company

FAA evaluation

The FAA initiated an evaluation of the four systems in June 2007. Each of the four systems were tested by the FAA at separate airports in the USA for a period of 12 months. The 12 months period was to allow for sufficient inclement weather to thoroughly test the systems. The following table outlines the technology of each of the system and the airport in which they were tested. Following the testing and evaluation of the four systems, the FAA released two **Advisory Circulars (AC)** pertaining to FOD detection at airports.

Table 2. Comparison of technology and evaluation locations

System	Country of origin	Technology	Test location
QinetiQ Tarsier	UK	millimetre wave radar	T F Green, Warwick, Rhode Island (PVD)
X-Sight FODetect	Israel	combination radar and high resolution camera	Boston-Logan International (BOS)
Trex Enterprises FOD Finder	US	mobile millimetre wave radar	Chicago Midway International (MDW)
Stratech iFerret	Singapore	high resolution intelligent vision	Chicago O'Hare International (ORD)

Source: Various, FAA

FAA Advisory Circular 150/5220-24, dated 30 Sept 2009

Airport Foreign Object Debris (FOD) Detection Equipment

The AC provides information that airports can use to procure FOD detection equipment. The scope of the AC stipulates minimum performance specifications for FOD detection systems, and discusses the four systems available. Compliance with the recommendations and specifications in the AC are not mandatory. However, all FOD detection equipment must comply with the minimum standards if they are acquired under the Airport Improvement Program (AIP) or Passenger Facility Charge (PFC) Program.

Grants program & iFerret approval. The four systems tested were granted approval by FAA. Airports can only acquire approved systems in order to receive the grants under the Airport Improvement Program (AIP) or Passenger Facility Charge (PFC) Program. **iFerret was approved by the FAA under the grants program in March 2012.**

FAA Advisory Circular 150/5210-24, dated 30 Sept 2010

Airport Foreign Object Debris (FOD) Management

The AC describes the scope for FOD management at airports in the USA, which include prevention, detection, removal and evaluation. The AC contains strategies and practices to reduce FOD at airports. The guidelines are not mandatory for compliance by airport operators, but serve as a guidance framework.

Proposed Company Restructuring Announcement

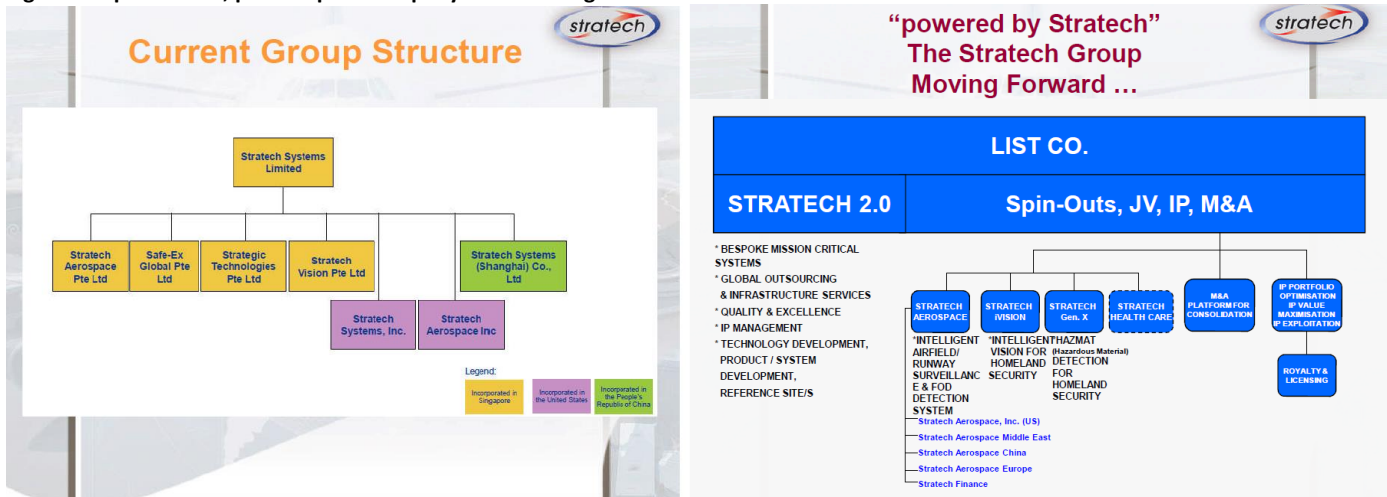
Stratech recently made an Announcement (16 October 2014) to restructure the Company. The Company will become a subsidiary of "The Stratech Group Limited", and existing shareholders of the Company will become shareholders of the New Company.

Upon completion of the restructuring, the existing Company will cease its function as the listed vehicle, but continues as the operational company carrying out its existing businesses.

According to the Announcement, Stratech is of the view that the Proposed Restructuring will have the following effects:

- Existing group structure and operations to be streamlined, enabling the Group to expand its business globally.
- New Group structure facilitates acquisition of new businesses, and expansion and/or divestment of existing business segments.
- Ring-fence operating entities and operating risks within the New Company.

Fig 6. Group structure, pre and post Company restructuring



Source: Company

Investment Merits

Oligopolistic market. iFerret competes in an oligopolistic market of four FOD detection systems. Competition with a few players will inevitably be less intense than in a highly fragmented market.

The current four systems have been evaluated and approved by the FAA. This raises the barrier to entry for other systems, as airports are eligible for grants only if approved systems are acquired.

Gaining recognition as the preferred system. For the recent contract-win for the Dubai International Airport, the iFerret had displaced the incumbent QinetiQ Tarsier, and had beaten the Xsight FODetect in the tender process. Stratech's iFerret is clearly gaining recognition as the preferred system.

When we met up with Stratech Management, Management elaborated that while the upfront cost for the iFerret is higher than competitors, but its life-cycle cost is lower. This is because the iFerret requires less maintenance due to its reliability.

Opening of a previously untapped market. The deployment of the iFerret in one airbase by one of the world's top Air Force represents a breakthrough for Stratech. In addition to the civil airports, has effectively expanded the available market size.

Global acceptance for iFerret is at a tipping point. While deployment of FOD detection systems at civil airports are not mandatory now, we believe that it is only a matter of time that it will become mandatory. Inevitably, some aviation Authorities will implement such regulations sooner than others. With its superior technology, the iFerret could become the de facto standard globally at both civil airports and military airbases.

Investment Risk Factors

Regulatory risks

Singapore Exchange watch-list. Stratech has been on the Singapore Exchange watch-list since 5 June 2013, after recording 3 consecutive years of net losses. Stratech has 24 months to report a pre-tax profit and maintain market capitalisation in excess of S\$40 million. Failing which, Stratech could be delisted. Stratech has posted a pre-tax profit in FY2014, but its market capitalisation is now currently about S\$30 million. Thus falling short of the S\$40 million required.

Past corporate governance lapses. Following some anonymous allegations of financial imprudence and operational impropriety, Stratech had engaged Ernst & Young Advisory Pte Ltd on 1 September 2010 to review the Company. While the final Report (9 March 2012) by EY Advisory does not amount to an internal audit, EY Advisory had in summary uncovered weakness in document control and corporate governance lapses. Stratech has subsequently taken measures to take remedial actions.

Business risks

High customer concentration and failure to secure new contracts. The nature of Stratech's business is to sell technological solutions to customers. Stratech's iFerret is not a mass-market product for retail users, but a highly sophisticated niche product. As such, Stratech faces high customer concentration risk.

The Investment Thesis for Stratech hinges on the iFerret becoming *the* FOD system of choice among civil airports and military airbases globally; and Stratech winning contracts to install the iFerret system. Stratech has about S\$6.4 million of revenue yet to be recognised, by our estimates. Consequently, Stratech should report a net profit again in the next reporting period of FY2015F. However,

subsequent revenue and net income would likely decline unless Stratech wins new contracts. Stratech would consequently report a net loss again in FY2016F if it does not make any new contract wins.

Product obsolescence. This is one of the business risk factors faced by Stratech because it competes in the Information Technology sector. Competitors will inevitably endeavour to improve on their products and this may result in iFerret's obsolescence if Stratech does not keep up with technological advances.

Financial risks

Weak balance sheet with poor liquidation value and Net tangible assets. As of the last reported balance sheet at end of FY2014, Accumulated Losses (S\$107.5 million) equal to 95% of Share Capital (S\$112.7 million), and Intangibles (S\$4.2 million) make up 22% of Total Assets (S\$19.2 million). The Net asset value of Stratech is 0.38 Cents per share. If Stratech fails to monetise its Intellectual Property (IP) through sales of its products, the Net *tangible* asset value (assuming Intangibles are impaired to zero) would be 0.11 Cents per share, and liquidation value per share would arguably be even lower.

Rights Offers. Stratech had Repeated Rights Offers in FY05, FY08, FY09 & FY13, diluting shareholders' equity. Rights Offers were predominantly to strengthen the balance sheet after repeated years of net loss. Rights Offers would likely be a thing of the past for Stratech if it is able to continue winning contracts and remain profitable.

INDUSTRY & COMPANY ANALYSIS

Market structure and industry analysis

Sector classification – Stratech belongs to the *Information Technology* sector under the MSCI GICS classification. Stratech is in the business of developing e-Systems and Technology-intensive IT.

Market structure and concentration – The market for FOD detection systems is an **oligopoly between four firms**. Following a technical evaluation, the four systems have been approved by the FAA. **Customer concentration is currently high**, as there are only a few airports that have deployed FOD detection systems; but as the systems gain wider acceptance, customer concentration could be lowered as more airports deploy the systems.

Industry life cycle – The industry is at a **growth stage**. A Large amount of investment has already been spent (during the start-up stage) on developing the product, and the product is now a proven solution. FOD detection systems are not widely installed at airports, and airports are beginning to discover the product with adoption still at the early stage. Once airports start to adopt the product, there will be rapid growth in demand for FOD detection systems such as the iFerret. These factors are characteristic of the growth stage of an industry life cycle.

Regulator influence – **Strongly influenced by aviation Regulators** such as the Federal Aviation Administration (FAA), Civil Aviation Authority of Singapore (CAAS), International Civil Aviation Organisation (ICAO), European Organization for Civil Aviation Equipment (EUROCAE). The FAA had conducted a technical evaluation of the four FOD detection equipment and granted approval to all of them. Similarly, the iFerret was developed by Stratech with the collaboration of Changi Airport Group and Civil Aviation Authority of Singapore (CAAS).

Learning curve – There is a learning curve involved in bringing the product to market. A significant amount of research & development goes into the product, resulting in lot of proprietary knowledge associated with it. This raises the barrier to entry to the market.

Porter's Five Forces Analysis for FOD detection systems

Threat of new entrants – low

- **Access to inputs.** Access to airport runway for development, qualification and acceptance-testing creates a high barrier to entry into the industry.
- **Regulatory bodies.** FOD detection market is tightly regulated, with the FAA leading the way in defining minimum performance standards, as well as evaluating the various FOD detection systems on the market.
- **Learning curve.** Due to the level of sophistication of the technology involved, the learning curve arising from the development of FOD detection system is a barrier to entry.
- **Intellectual property.** Patented technology and proprietary knowledge restrict entry into the industry.
- **Economies of Scale.** After the product development phase, firms can derive economies of scale by selling more of the product, without much increase to fixed costs. Thus economies of scale can be derived by incumbents, putting new entrants at a disadvantage.
- **Asset specificity.** Generic assets of computers and cameras lower the barriers to entry for new entrants to the industry.

Threat of substitutes – low

- **Substitute products.** Substitute for FOD detection systems is the legacy system – human power. However, there are strong arguments to replace the traditional "FOD-walk" with technology.

Intensity of rivalry – low

- **Oligopolistic competition.** There are four firms in the market, all of which have been approved by the FAA. With only a few firms in the industry, the competitive landscape is less intense compared to a fragmented market with many competitors.
- **Low barriers to exit.** Development tools used in the FOD detection industry are not specialised and the technology can be adapted for other uses. This lowers the cost of abandoning the industry.
- **High degree of product differentiation.** There are four FOD detection systems on the market, with different technical specifications. There is a clear product differentiation, thus lowering intensity of rivalry.

Bargaining Power of suppliers – low

- **Threat of downward integration.** Bargaining power of suppliers increase when there is a credible threat of downward integration by the supplier. The critical supplier for Stratech is the human capital working on the technology. However the Intellectual Property (IP) of the Company is protected through patents which are assigned to the Company.

Bargaining Power of customers – moderate

- **Low threat of upward integration.** Bargaining power of buyers increase when there is a credible threat of upward integration by the buyer. In the case of airports, it is unlikely for airports to directly develop their own systems.
- **High buyer concentration.** There is high buyer concentration for FOD detection systems, as it is not a mass-market retail product. This raises the bargaining power of customers.
- **Customer stickiness.** There are high switching costs associated with the installation of the necessary hardware at the airport, thus lowering customer propensity to switch to competitors' product. This lowers the bargaining power of customers.

SWOT Analysis for Stratech

Strengths

- Approved by the FAA, thus facilitating its sales to American airports.
- Competitive edge with iFerret's superior technology compared to competitors. Proven by having dislodged the incumbent from Dubai International Airport and beating another competitor in the tender.

Weaknesses

- Technology needs to be constantly upgraded, or risk obsolescence.
- High customer concentration, with each customer contributing a significant proportion to Stratech's market share.
- History of corporate governance lapses.

Opportunities

- With aviation safety coming under the spotlight, aviation Regulators may make automatic FOD detection equipment mandatory at airports.
- Adoption of iFerret system in one airbase of a major Air Force, paves the way for further adoption across the Force's military airbases.

Threats

- Improved technology by competitors leading to product obsolescence of the iFerret system.
- Unable to renew existing contracts or secure new contracts.
- FOD detection systems are high Capital Expenses, and civil airports typically require financial support from the local Government to fund the deployment of the equipment.

Full Year Revenue and Profitability data

Fig 7. Revenue (\$\$ mn)

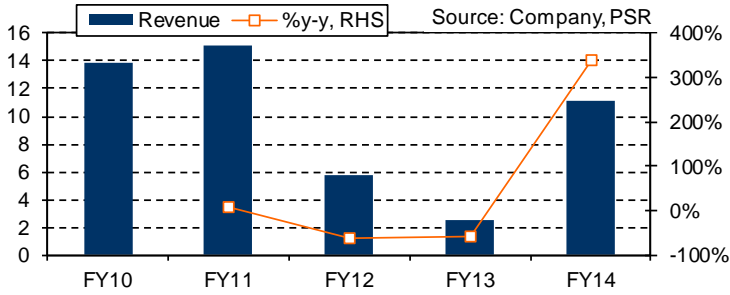


Fig 8. Revenue by business (\$\$ mn)

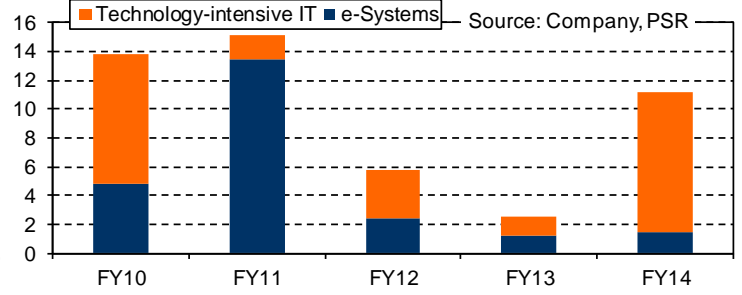


Fig 9. Operating profit/(loss) (\$\$ mn)

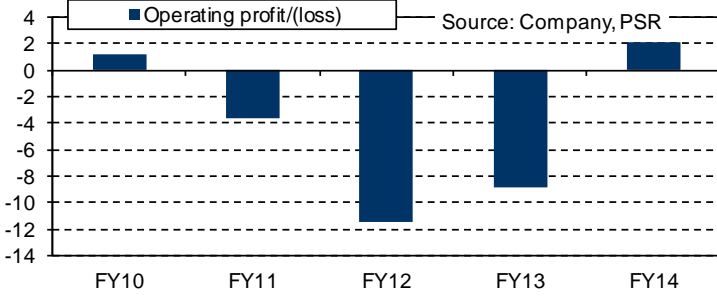


Fig 10. Net profit/(loss), adj. (\$\$ mn)

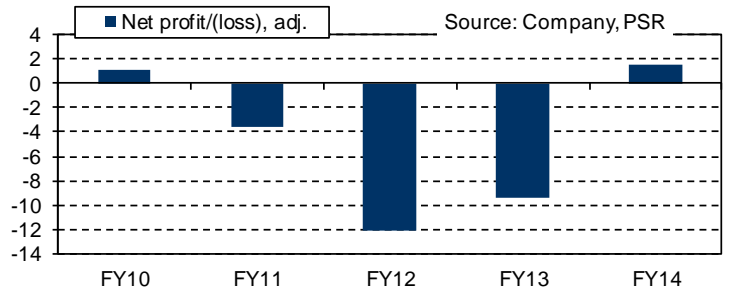
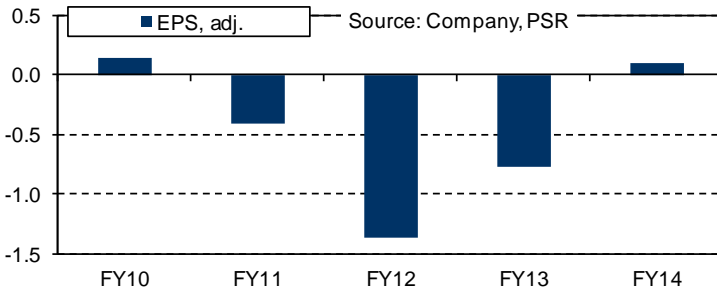


Fig 11. Earnings per share, adj. (Cents)



Full Year Financial Indicators with Historical performance

Fig 12. EBITDA, EBIT & Net margins

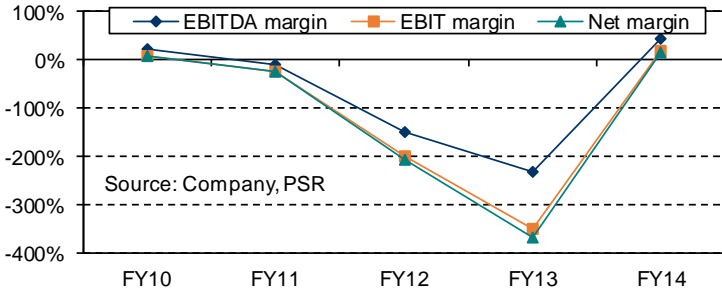
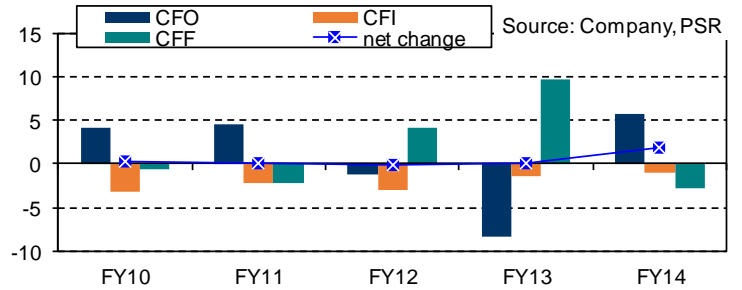


Fig 13. Cash Flows (\$\$ mn)



Remarks: Margins turn positive in FY14.

FYE Mar	FY11	FY12	FY13	FY14
Income Statement (SGD mn)				
Revenue	15.08	5.79	2.54	11.13
Other income	0.73	0.41	1.13	1.22
EBITDA	(1.38)	(8.73)	(5.88)	4.92
Depreciation & Amortisation	2.22	2.79	3.04	2.87
EBIT	(3.60)	(11.51)	(8.91)	2.05
Net Finance (Expense)/Inc	-	(0.56)	(0.44)	(0.59)
Other items	-	-	-	-
Exceptional items	-	-	-	-
Profit Before Tax	(3.60)	(12.07)	(9.36)	1.46
Taxation	-	-	-	-
Profit After Tax	(3.60)	(12.07)	(9.36)	1.46
- Non-controlling interest	-	-	-	-
Net Income, reported	(3.60)	(12.07)	(9.36)	1.46
Net Income, adj.	(3.60)	(12.07)	(9.36)	1.46

FYE Mar	FY11	FY12	FY13	FY14
Per share data (Cents)				
EPS, reported	(0.41)	(1.37)	(0.77)	0.09
EPS, adj.	(0.41)	(1.37)	(0.77)	0.09
DPS	-	-	-	-
BVPS	1.36	0.09	0.08	0.38

FYE Mar	FY11	FY12	FY13	FY14
Cashflow Statements (SGD mn)				
CFO				
PBT	(3.71)	(12.18)	(9.41)	1.46
Adjustments	7.23	6.72	5.33	2.75
WC changes	1.48	4.69	(3.78)	2.14
Cash generated from ops	5.11	(0.66)	(7.82)	6.35
Others	(0.53)	(0.46)	(0.46)	(0.59)
Cashflow from ops	4.58	(1.11)	(8.28)	5.76
CFI				
CAPEX, net	0.38	(0.51)	(0.00)	(0.00)
Additions to intangibles	(2.59)	(2.52)	(1.48)	(0.97)
Others	-	-	-	-
Cashflow from investments	(2.21)	(3.03)	(1.49)	(0.98)
CFF				
Share issuance, net	-	-	5.28	0.96
Loans, net of repayments	(2.28)	4.08	0.88	(3.04)
Dividends	-	-	-	-
Others	-	-	3.59	(0.76)
Cashflow from financing	(2.28)	4.08	9.76	(2.84)
Net change in cash	0.09	(0.05)	(0.01)	1.95
Effects of exchange rates	-	-	-	-
CCE, end	0.10	0.04	0.04	1.98

Source: Company Data, PSR est.

*Forward multiples & yields based on current market price; historical multiples & yields based on historical market price.

FYE Mar	FY11	FY12	FY13	FY14
Balance Sheet (SGD mn)				
PPE	0.46	0.77	0.62	0.47
Intangibles	7.70	7.39	5.99	4.24
Investments	-	-	-	-
Others	-	-	-	-
Total non-current assets	8.16	8.16	6.61	4.71
Inventories	0.17	0.14	0.09	1.22
Trade receivables	10.07	6.14	5.90	7.21
Cash	0.10	0.04	0.04	1.99
Others	9.39	11.10	11.73	4.09
Total current assets	19.72	17.43	17.76	14.50
Total Assets	27.89	25.59	24.37	19.21
Trade payables	4.38	11.07	8.00	10.03
Short term loans	7.81	9.32	11.36	0.03
Others	3.50	4.22	3.75	3.09
Total current liabilities	15.68	24.60	23.11	13.15
Long term loans	0.21	0.18	0.15	0.11
Others	0.06	-	-	-
Total non-current liabilities	0.26	0.18	0.15	0.11
Total Liabilities	15.94	24.78	23.25	13.26
Non-controlling interests	-	-	-	-
Shareholder Equity	11.94	0.81	1.12	5.95

FYE Mar	FY11	FY12	FY13	FY14
Valuation Ratios				
P/E (X), adj.	N.M.	N.M.	N.M.	19.1
P/B (X)	2.3	25.4	28.9	4.5
EV/EBITDA (X), adj.	N.M.	N.M.	N.M.	7.1
Dividend Yield (%)	0.0%	0.0%	0.0%	0.0%
Growth & Margins (%)				
Growth				
Revenue	8.8%	-61.6%	-56.1%	337.7%
EBITDA	N.M.	N.M.	N.M.	N.M.
EBIT	N.M.	N.M.	N.M.	N.M.
Net Income, adj.	N.M.	N.M.	N.M.	N.M.
Margins				
EBITDA margin	N.M.	N.M.	N.M.	44.2%
EBIT margin	N.M.	N.M.	N.M.	18.4%
Net Profit Margin	N.M.	N.M.	N.M.	13.1%
Key Ratios				
ROE (%)	N.M.	N.M.	N.M.	41.3%
ROA (%)	N.M.	N.M.	N.M.	6.7%
Net Debt/(Cash)	7.92	9.45	11.47	(1.84)
Net Gearing (X)	66.3%	1171.3%	1028.7%	Net Cash

APPENDIX – Overview of FOD detection equipment and equipment overview
Source: FAA Advisory Circulars and Benefits to Industry, dated 17 August 2010

**FAA AC 5220-24:
Airport FOD Detection Equipment**

System	Detection Principles	Capability
Human /Visual	Fundamental baseline for the performance of FOD detection systems. Human observation provides detection and human judgment provides the hazard assessment capability to assure safety.	Supports regularly scheduled, periodic condition, and special inspections.
Radar	Uses radio transmission data as the primary means to detect FOD on runways and AOA surfaces.	Fixed systems support continuous surveillance. Mobile systems supplement human/visual inspections.
Electro - Optical	Uses video technology and image processing data as the primary means to detect FOD on runways and AOA surfaces.	Supports continuous surveillance.
Hybrid	Uses a combination of radar and electro-optical data as the primary means to detect FOD on runways and AOA surfaces.	Supports continuous surveillance.



**FAA AC 5220-24:
Airport FOD Detection Equipment**

- **System Selection**
 - Airport operational / environmental considerations
- **Performance Specifications**
 - Basic functions
 - Object detection
 - Location accuracy
 - Inspection frequency
 - Detection response time
 - Surveillance area
 - Performance in weather
- **System Output**
 - Data output, presentation, and management

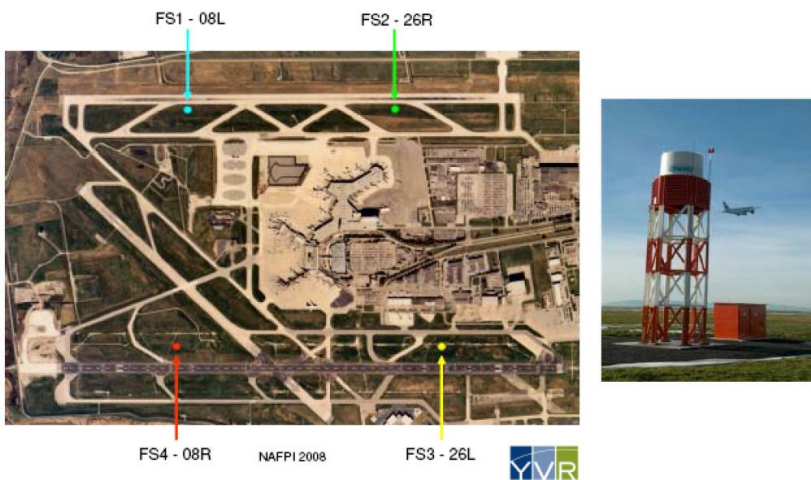


Equipment Overview

QinetiQ – Tarsier @ PVD

- Stationary Radar:
 - Object Size: metallic cylindrical target 1.2 in. (3.0 cm) high and 1.5 in. (3.8 cm) in diameter
 - Object Range: up to 0.6 mile (1 km)
 - Sensor Location: 165 ft (50.0 m) or more from the runway center line.
 - Sensor Number: ~ 2 or 3 per runway

Equipment Overview



Equipment Overview

Xsight – FODetect @ BOS

- Stationary Hybrid Radar and Electro-Optical:
 - Object Size: 0.80 in. (2.0 cm) object
 - Object Range: up to 985 ft (300. m) using only ambient lighting.
 - Sensor Location: unit collocated with the runway edge lights.
 - Sensor Number: ~ every/every other edge light

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Equipment Overview



FOD DATA	
SDU Name	Fodetect10
SDU Location	Taxiway
Priority	unknown
Certainty	unknown
Severity	unknown
Time	25/09/2008 16:19:33
Dimension	65 x 33
Status	Pending

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Equipment Overview

Stratech – iFerret @ SIN

- Stationary Electro-Optical:
 - Object Size: 0.80 in. (2.0 cm) object
 - Object Range: up to 985 ft (300. m) using only ambient lighting.
 - Sensor Location: 490 ft (150 m) or more from the runway center line.
 - Sensor Number: ~ 5 to 8 per runway

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Equipment Overview



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Equipment Overview

Trex Enterprises – FOD Finder @ MDW

- Mobile Radar
 - Object Size: metallic cylindrical target 1.2 in. (3.0 cm) high and 1.5 in. (3.8 cm) in diameter
 - Object Range: Scans area 600. ft by 600. ft (183 m by 183 m) in front of vehicle
 - Sensor Location: mobile
 - Sensor Number: 1
 - The system can operate at speeds of up to 30 mph (50 km/h), supplementing human/visual inspections.

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Equipment Overview



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