



**Transformative acquisition creates global fiber optic leader
and distributed fiber sensing powerhouse**

December 3, 2020

Safe Harbor

Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995

This presentation includes information that constitutes “forward-looking statements” made pursuant to the safe harbor provision of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. These statements include the company's expectations regarding its projected 2020 financial results and outlook, OptaSense's expected revenue for FYE 2021, the integration of OptaSense's employees, intellectual property and offerings, and the expected benefits of the acquisition, including the acquisition being accretive in 2021 and increasingly accretive thereafter, the ability to expand offerings to Luna's and OptaSense's customer groups, the ability to establish a strong international presence, and the ability to expand into additional high-growth markets. Management cautions the reader that these forward-looking statements are only predictions and are subject to a number of both known and unknown risks and uncertainties, and actual results, performance, and/or achievements of the company may differ materially from the future results, performance, and/or achievements expressed or implied by these forward-looking statements as a result of a number of factors. These factors include, without limitation, uncertainties regarding integration of the companies' respective employee bases, offerings and business operations, potential adverse reactions or uncertainties regarding the acquisition among the companies' customers, potential unknown liabilities and unforeseen expenses associated with the acquisition, potential performance shortfalls as a result of the diversion of management's attention caused by completing the acquisition and integrating the companies' operations, uncertainties related to the ultimate impact of the COVID-19 pandemic and those risks and uncertainties set forth in the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 and other filings with the Securities and Exchange Commission (“SEC”). Such filings are available on the SEC's website at www.sec.gov and on the company's website at www.lunainc.com. The statements made in this presentation are based on information available to Luna as of the date of this presentation, December 3, 2020, and Luna undertakes no obligation to update any of the forward-looking statements after the date of this presentation, except as required by law.

Adjusted Financial Measures

In addition to U.S. GAAP financial information, this presentation includes Adjusted EBITDA, a non-GAAP financial measure. This non-GAAP financial measure is in addition to, and not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP.

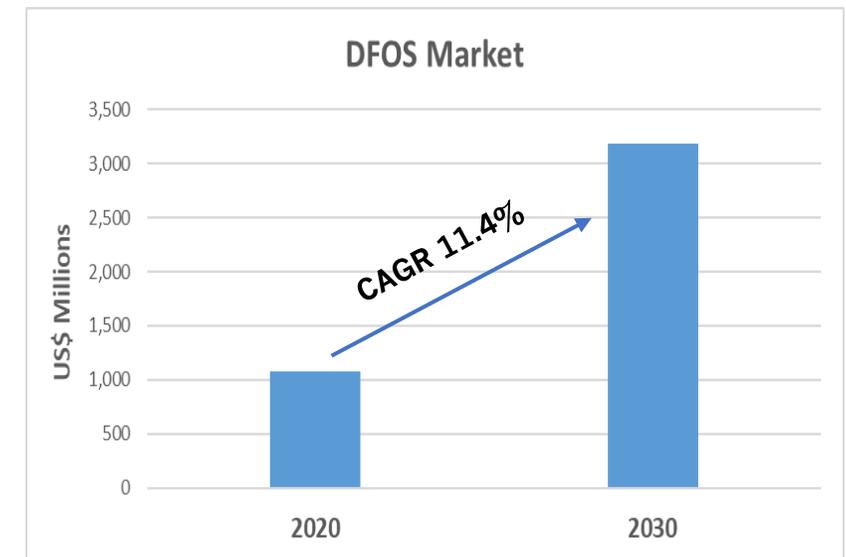
Strong Strategic Fit: Transaction Highlights

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The combination of Luna and OptaSense creates a global market leader in distributed fiber sensing (DFOS) technology

- Luna is already a global leader in fiber sensing with market leading products
 - ODiSI – short range, high resolution (fully distributed)
 - Hyperion – Long range, high speed (discrete, not distributed)
- OptaSense creates reach into broader distributed fiber sensing market DFOS market by providing fully distributed measurement capabilities over long-range applications
 - Acquisition adds significantly to Luna’s ability to penetrate and grow key target markets such as infrastructure, transportation and perimeter security
 - Adds oil and gas and pipeline monitoring markets, including the world’s largest fiber sensing-based monitoring projects
- OptaSense is the market leader in distributed acoustic sensing (DAS)
- Together, Luna & OptaSense create a new, global market leader in fiber optic sensing with diversified geographies and applications

Long range, distributed capability adds significantly to Luna’s addressable market



Visiongain, February 2020

Summary Transaction Highlights

- Transformative, strategic acquisition allows Luna to enhance product / solution portfolio, adding access to larger, high-growth markets
 - Adds to existing U.S. leadership position; cost-effectively establishes strong operational presence in EU & Middle East
 - OptaSense's diverse, blue-chip customer base aligns well with Luna's
 - Allows for expansion into high-growth markets such as security and perimeter detection, smart infrastructure monitoring and oil and gas; will accelerate Luna's data services and IOT strategy
 - Extensive R&D expertise and patent portfolio (over 150 patents granted or pending)
- Sign and close simultaneous; Luna Board of Director approval; no regulatory approvals required
- Acquisition expected to be accretive in 2021
- Realize efficiencies, and leverage the combination of OptaSense and Lightwave to grow rapidly our operations, customer base, offerings, and financial profile

About OptaSense and Market Opportunity

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Introduction to OptaSense

OptaSense Ltd. manufactures, installs, maintains, and operates distributed acoustic sensing systems worldwide. Its advanced solutions enable data collection and management to deliver security, tracking, protection and other applications. The Company serves the oil and gas, security, transport and border sectors in the United Kingdom and internationally.



1) Inclusive of current patents held and pending patents filed.

2) Management projections. OptaSense's fiscal year end is March 31.

About OptaSense

- OptaSense is a global technology leader in distributed fiber optic sensing solutions
 - Founded in 2007 as R&D group within QinetiQ, OptaSense has transformed into a vertically integrated provider of fiber optic systems
 - In 2014, QinetiQ acquired RIO, a market leading laser technology company to support and vertically integrate its manufacturing operations
 - Detects, processes, locates and identifies unique acoustic signals in real time for the monitoring and protection of critical high-value assets
- Solutions optimize customer operations by detecting, locating and classifying threats -- such as intrusions, leaks and breaches -- present in the field
- Management estimates market share within global DAS systems market to be >25%; market leadership
- Works with some of the largest names in the sectors in which it operates
- Customer concentration is relatively low with top customer = 8% / top 10 = 48% of FY20 revenue
- Diverse base of customers across broad geographies; very high customer retention rate
- Limited cross-over with Luna's existing customer base, will generate cross selling synergies

OptaSense is organized in three business units, all of which have strong synergy with Luna's Lightwave Division

Infrastructure and Security Monitoring (ISM) and Transport

Oilfield Services (OFS)

RIO (Lasers)

End Markets

Pipeline Monitoring

Perimeter Protection

Border Security

Road Traffic Monitoring

Rail Track and Train Monitoring

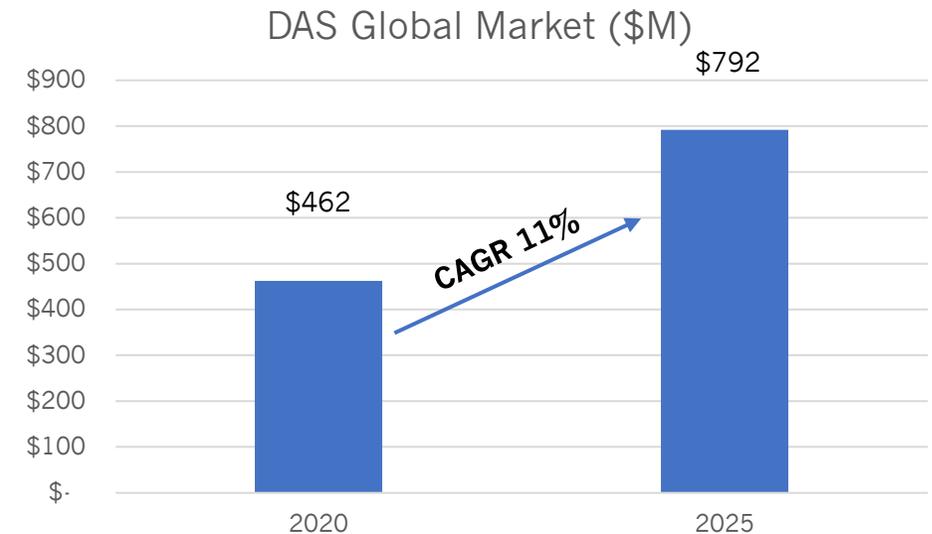
Production Monitoring

Reservoir Monitoring

Other Markets (automotive, utilities, space)

DAS is significant portion of total market for distributed fiber optic sensing; significantly expands Luna's addressable market

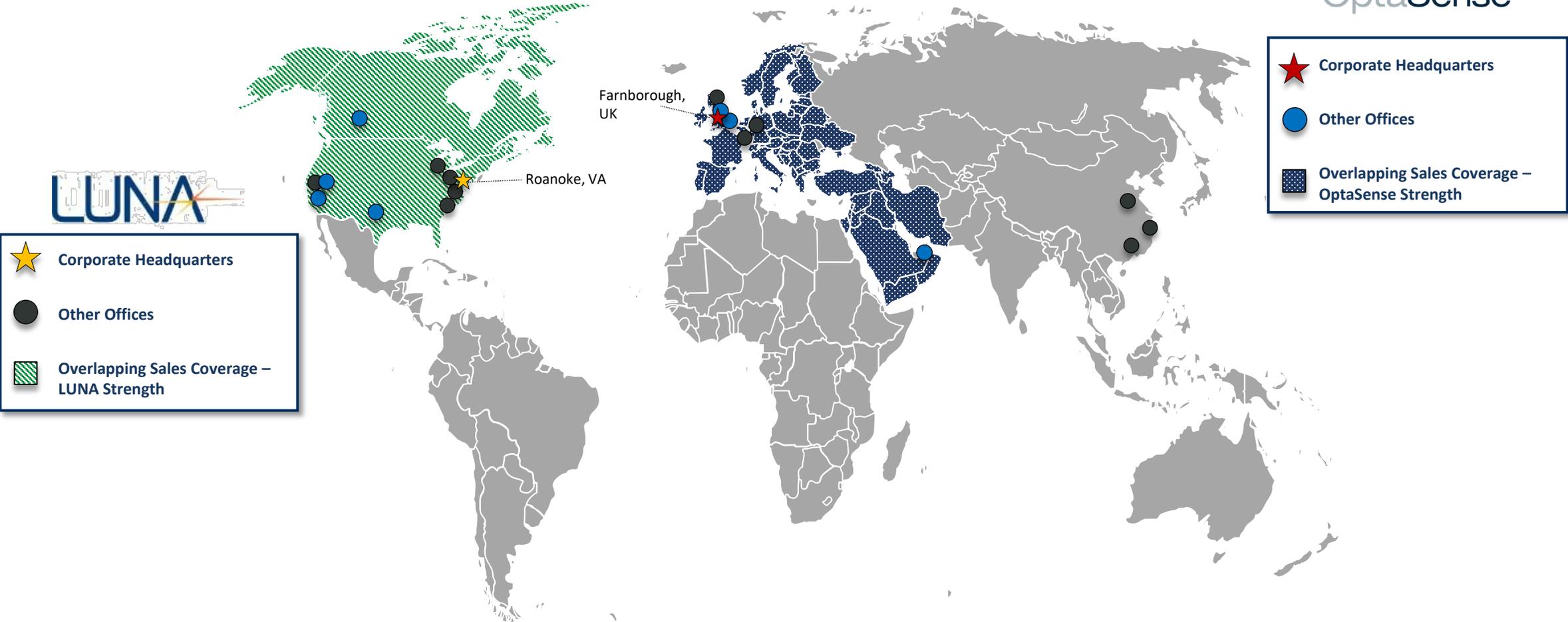
- Global DAS market expected to experience double-digit growth from 2020 to 2025¹
- Oil & gas industry is the largest market for DAS systems
 - 2020 capital investments have been reduced due to effects of COVID-19 pandemic
 - DAS deployments similarly expected to be put on hold
 - Growth expected to resume in 2021
- Growth opportunities include perimeter intrusion detection, border security, power plant and airport security, highways and traffic flow monitoring, rail security, earthquake detection, structural health monitoring, etc.



¹ "Distributed Acoustic Sensing Market...Global Forecast to 2025", Markets and Markets, June 2020

Geographic Reach

OptaSense®



- ★ Corporate Headquarters
- Other Offices
- Overlapping Sales Coverage – LUNA Strength

- ★ Corporate Headquarters
- Other Offices
- Overlapping Sales Coverage – OptaSense Strength

Farnborough, UK

Roanoke, VA

Strong Cultural Fit with Luna's Values

- ❖ **Ownership** – Dedicated to every customer's success through *personal accountability* to meet business goals, improve systems and ultimately solve problems.
- ❖ **Integrity** – Do the right thing by stressing *honesty, openness, ethics and fairness* as our reputation is everything.
- ❖ **Creativity** – Constantly striving to redefine the standard of excellence in everything we do by *challenging conventional views* to drive change.
- ❖ **Enthusiasm** – Passionately *applying energy and intellect* to help us surpass our previous achievements.
- ❖ **Results-oriented** – Determined to *be the best* at doing *what matters the most*.

Transaction Highlights and Financials

Financial Highlights and Financing Details

Financial Highlights

- Sign and close simultaneous; Luna Board of Director approval; no regulatory approvals required
- Acquisition expected to be accretive in 2021
- Revenue synergies included; no expense synergies assumed in acquisition model, presenting upside potential

Financing Details

- Two separate financing vehicles; a term facility and a revolver facility:
- The term facility:
 - \$12.5 M, 3-year term loan, LIBOR plus 1.75-2.25% based on Net Leverage Ratio
- The revolver:
 - \$15 M, 3-year, LIBOR plus 1.75-2.25% based on Net Leverage Ratio

Reaffirming 2020 Financial Outlook

- Maintaining FY2020 outlook:
 - Total revenues of \$81M to \$83M
 - Adjusted EBITDA¹ of \$10M to \$12M
- Luna expects to provide further guidance as well as additional qualitative detail on its fourth quarter and year-end 2020 earnings call, the date for which will be announced early next year.

¹ Adj EBITDA is a non-GAAP measure. Luna is not providing an outlook for net income, which is the most directly comparable GAAP measure to Adjusted EBITDA, because changes in the items that Luna excludes from net income to calculate Adjusted EBITDA, such as share-based compensation, tax expense, and significant non-recurring charges, among other things, can be dependent on future events that are less capable of being controlled or reliably predicted by management and are not part of Luna's routine operating activities.

Conclusion: Acquisition of OptaSense is highly attractive and transformative for Luna Innovations

Compelling Strategic Opportunity

- Highly complementary businesses; creates global fiber optic sensing leader with broad offerings for short- and long-range
- Establishes strong presence in EU / Middle East

Large Market Opportunity

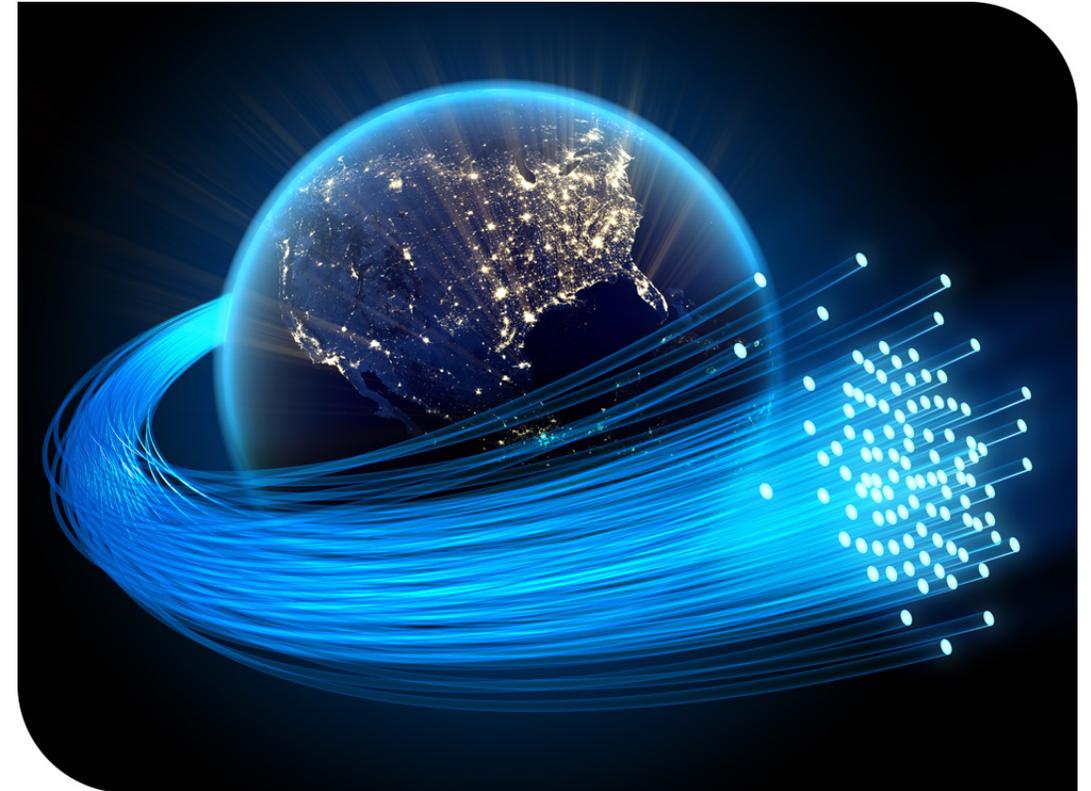
- Limited cross-over presents a significant opportunity for expansion of offerings into both customer groups
- Immediate expansion for Luna into high-growth markets
- R&D expertise and highly skilled salesforce strongly enhances Luna's existing talented, seasoned sales team and broad intellectual property portfolio

Financially Attractive

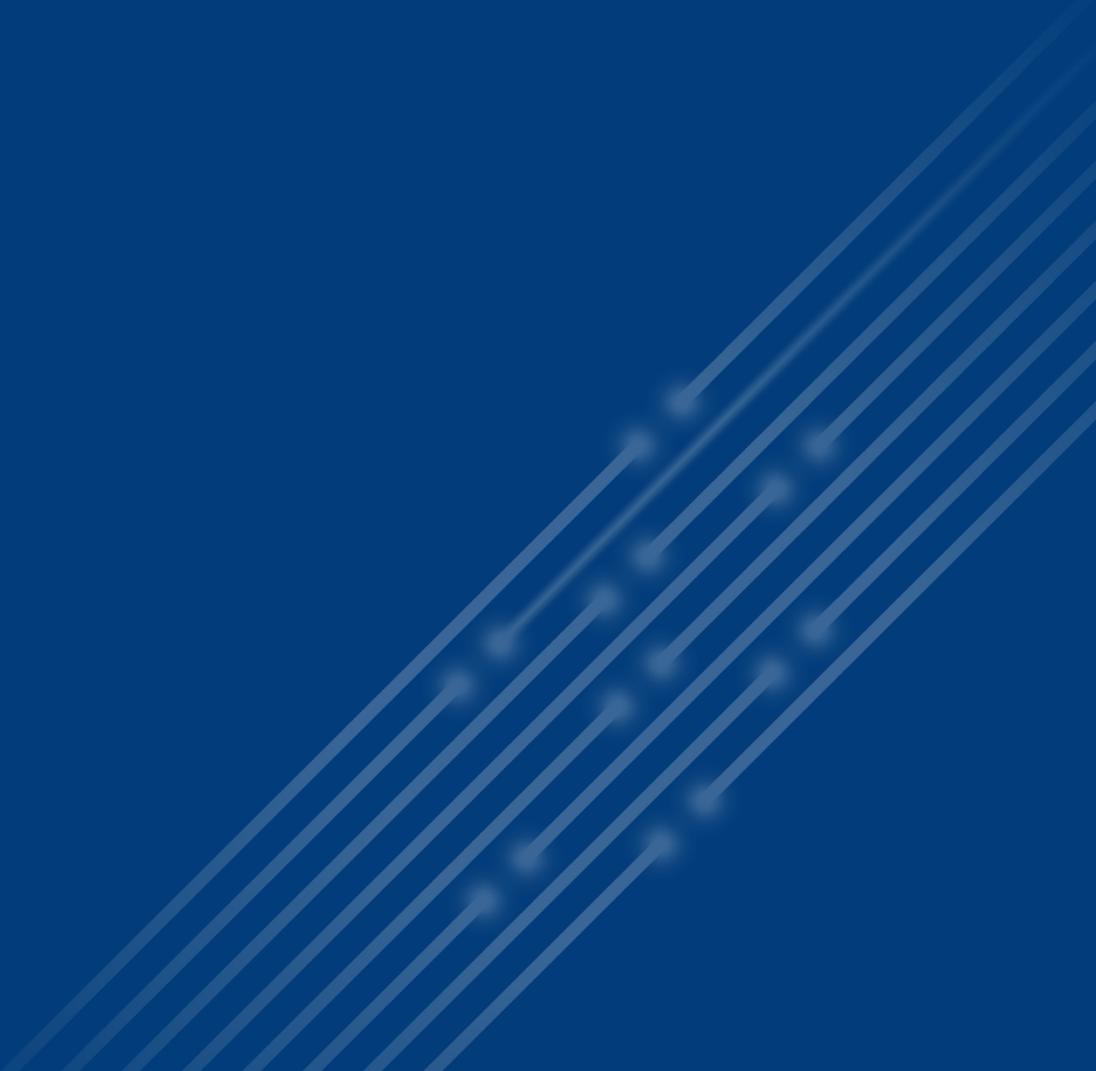
- Quickly accretive
- No expense synergies built into acquisition model; opportunity for upside to model
- Revenue synergies anticipated to begin in 2021; minimal initially then increasing thereafter

Luna – Enabling the Future with Fiber

- **Proprietary**, measurement technology, offering **unprecedented** combination of resolution, accuracy and speed
- Customers in **attractive markets**: Military and Defense, Communications, Infrastructure, Energy and Automotive
- Positioned to **take advantage of trends** such as vehicle light-weighting and increasing demands on data centers and broadband capacity
- **Adequately capitalized** to fund growth
- Long-tenured, **experienced** executive team / board
- Corporate culture of **innovation and integrity**



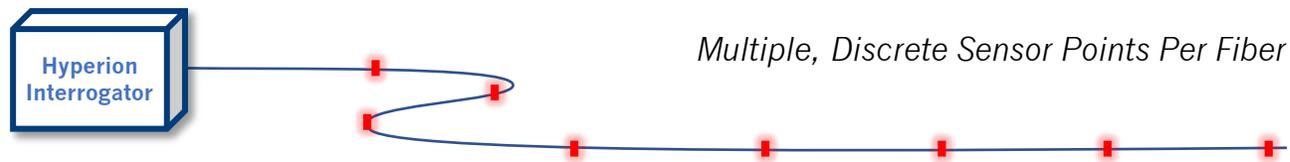
Appendix: More about OptaSense

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Filling the strategic product/technology gap

- Luna is strong in two areas: Long range, discrete sensing (Hyperion); and short range, fully distributed (ODiSI)
- Luna is gapped in long range, fully distributed measurements and OptaSense fills this gap

Hyperion: Luna's Long Range, High-Speed Distributed Sensing Solution



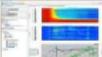
- Best when specific, known locations need to be monitored

Long Range, Fully Distributed Sensing Solution

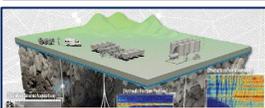


- Best for applications where signals can occur anywhere along the length of the sensor

Products/Technology

	Product	Description	Select End Markets					
			Pipeline	Oilfield	Transport	Perimeter	Borders	Power & Utility
Hardware	 OLA Interrogator Unit	<ul style="list-style-type: none"> Real-time data classification and management Long Range Resolution Third Party Interfacing 	✓		✓	✓	✓	
	 ODH4+ High Performance DAS Interrogator	<ul style="list-style-type: none"> Ideal solution for applications requiring high fidelity DAS measurement performance 		✓				
	 Plexus Interrogator Unit	<ul style="list-style-type: none"> Delivers long-range quantitative data performance with high-fidelity and sensitivity 	✓	✓	✓	✓	✓	✓
Software	 DXS Browser Visualization Software	<ul style="list-style-type: none"> Allows users to easily integrate large distributed data sets into workflows, including 3D depth, time and measurement data 	✓	✓	✓	✓	✓	✓
	 OSS Visualization Software	<ul style="list-style-type: none"> Fifth iteration of the visualization platform is a major step forward in usability, interaction, and reliability 	✓		✓	✓	✓	✓
Lasers	 Single frequency lasers	<ul style="list-style-type: none"> High performance narrow linewidth single frequency laser capable for OEM applications suitable for volume production 	✓	✓	✓			✓
	 Benchtop laser source	<ul style="list-style-type: none"> Compact and turn-key benchtop laser source based on the industry-proven laser module and External Cavity Lasers 	✓	✓	✓			✓
	 Narrow linewidth lasers	<ul style="list-style-type: none"> High output power, low phase noise, narrow linewidth laser module 	✓	✓	✓			✓

Markets and Applications

End Market	Applications	Select Customers
 <p>Pipelines</p>	<ul style="list-style-type: none"> Real-time pipeline monitoring preventing disruption of flow <ul style="list-style-type: none"> Pipeline leakage Theft Accidental damage 	
 <p>Oil & Gas</p>	<ul style="list-style-type: none"> Advanced monitoring and evaluating of reservoir and wellbore to reduce risk and optimize recovery <ul style="list-style-type: none"> Optimizing flow diversion Identifying well integrity issues Monitoring production and reservoir performance 	
 <p>Transportation</p>	<ul style="list-style-type: none"> Road: real time information on current traffic conditions delivering informed traffic management decisions such as efficient route coverage Rail: Ensuring safety through detecting track anomalies, trespassing, vandalism, theft, etc. 	
 <p>Borders</p>	<ul style="list-style-type: none"> Ensuring borders and national assets are protected with a cost-effective surveillance system through delivery of real-time, actionable intelligence 	
 <p>Perimeters</p>	<ul style="list-style-type: none"> Real-time actionable data around critical assets to detect potential threats <ul style="list-style-type: none"> Third party intrusion Identifies vehicles, personnel, digging, and attempts to climb or breach fencing 	
 <p>Power & Utility</p>	<ul style="list-style-type: none"> Preventing third party cable damage, immediately detecting and precisely location power cable faults, and ensuring asset intactness during seismic events and allowing immediate damage control 	