Investor Presentation – NASDAQ: LUNA

December, 2016

Safe Harbor

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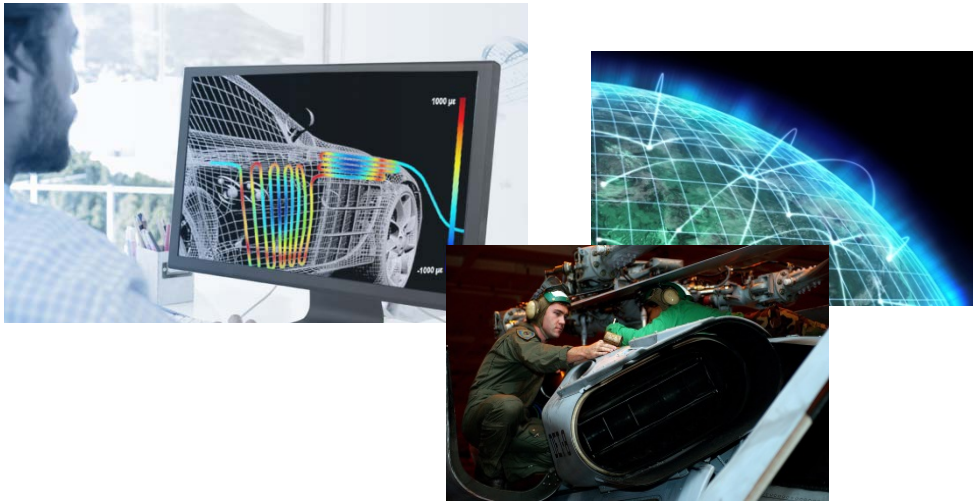
Strategic Growth through Merger & Divestment

LUNA, a public company, merged with API in May 2015, creating a $50 million company with greater capability across a broadened market base, a reduced overhead structure, and a clear path towards profitability.

History of Successful restructuring

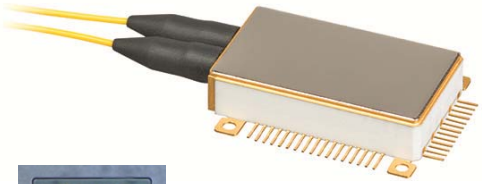
- Divestment of Secure Computing
  - Sold to MacAuley-Brown for $6.1M in March 2013
- Divestment of Medical Shape Sensing
  - Sold to Intuitive Surgical for $21M in January 2014



Growth Focused on Two Key Strategic Platforms

High Speed Optical Receivers

High performance 100G optical receivers for the long-haul and metro network expansions and 2.5G and 10G avalanche photodiodes for the fiber to the home market



High Definition, Distributed Strain & Temperature Measurement

Ability to test fatigue of composite materials/structures faster, cheaper and with higher resolution than conventional strain gage systems

HSOR - High Growth Market

- **Industry growth driven by global bandwidth demand**
  - HD video, streaming services, mobile data consumption (movement to 5G)
  - Fiber-to-the-Home/Premise market
- **Demand for speed in connectivity**
  - Faster speeds for the consumer and commercial markets
  - Driving the need for 100G coherent receivers
  - Datacenter market is upgrading from 10G/40G to 25G/100G

China “Optical Super Cycle”

Needham

July 2016 Report

- **Optical sector is in an unprecedented “Super Cycle”***
  - **Strong growth in demand of optical components from China**
    - New orders to increase 50% or more QoQ and should last well into 2017
    - Cycle should be 2-3x larger than and longer than any previous growth cycle
  - **Upgrading of the Metro Core market**
    - Has begun and should ramp sharply in a multi-year buildout
  - **Upgrading of optical transceivers in Data Comm**
    - Transition from 10G/40G to 25G/100G
  - **Building transport capacity for upcoming 5G wireless networks**

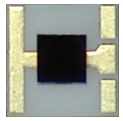
* “*Optical Super Cycle? We Think So*,”. Needham & Co. July, 2016. Alex Henderson

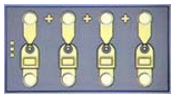
HSOR - Growth Drivers

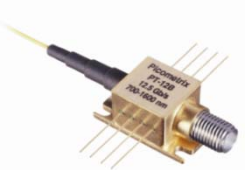
- **Where we fit in the market**
  - Transmission
    - Metro Core (100G+ coherent receivers)
    - Data Comm (100G+ 4x25G PIN arrays)
    - Fiber-to-the-Home/Premise (2.5G APD, 10G APD)
  - Test & Measurement
    - 10G and 100G manufacturing test

100G+ Coherent Receiver

2.5G APD


10G APD


100G PIN Array


10G-100G PIN + Amplifier

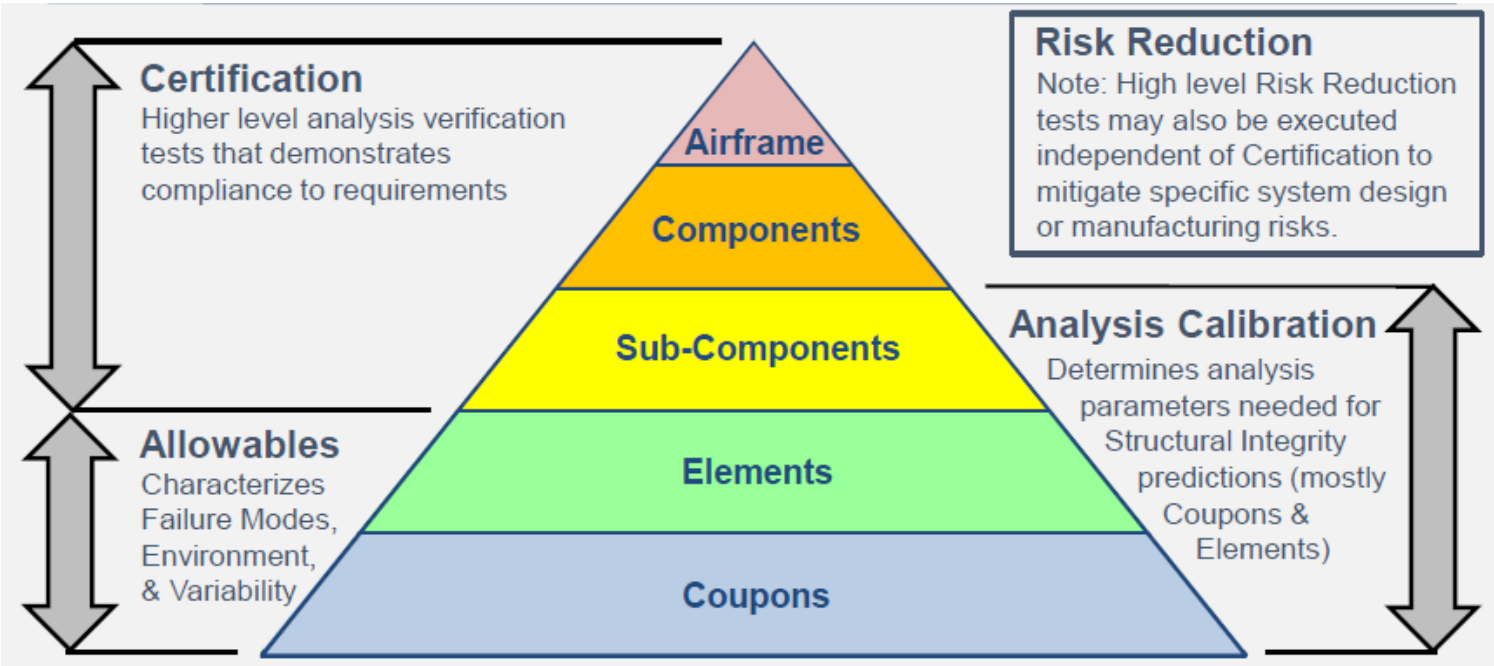
- **Why we'll succeed**
  - We've developed the next generation 100G coherent receivers
    - Initially targeting the rapidly expanding Chinese market
  - High volume FTTx market is moving from 2.5G to 10G APDs
    - Our APDs provide higher bandwidth and better sensitivity across temperature
  - We're the major supplier of devices that are better than the devices under test
    - Strong market share position

Fiber Optic Sensing - Testing Composites

- **Why Fiber Optic Sensing is a high growth opportunity**
  - Use of composite materials is growing (because they're lighter and stronger)
    - Aerospace demand expected to double, or even triple, over the next decade
  - Composite materials, unlike metals, are non-uniform
    - Creating a need for new testing technology
    - Require better, more cost-effective testing techniques than conventional strain gages
- **Size of the Sensing market**
  - Total stress/strain market including electrical : $4.5B
  - Luna addressable market: $350M
    - Automotive: $110M
    - Aerospace: $90M
    - Academic, Energy, Civil, Other: $150M

Aerospace: Building Block Standard of Test

- Adoption cycle for ODiSI platform started in the “Risk Reduction” category
- Sales strategy and product roadmap addresses gaps to cover all of the building block tests to accelerate adoption and get on the path to a *pervasive standard of test*



Building Block Test (BBT) method used in aerospace

Structural Composites in Automotive Design

- The need for lighter weight, more cost-effective fleets are driving the automotive OEMs to introduce composites and other lightweight materials at an accelerated rate
- ODiSI addresses test challenges associated with the introduction of new materials by helping engineers understand performance and mitigate flaws

Competitive Advantages of Fiber Optic Sensing

- **Unique benefits of our fiber optic sensing technology**
  - Distributed sensing vs. single point sensing
  - Ultra high-definition measurements
  - Drastically reduced cost of sensor installation compared to strain gages
  - Sensors are “embeddable” in composites
  - Fiber optic sensing is far easier to use

Traditional Strain Gage

- One sensing point per channel
- Limited sensing points
- Labor-intensive installation
- Static sensing points

VS.

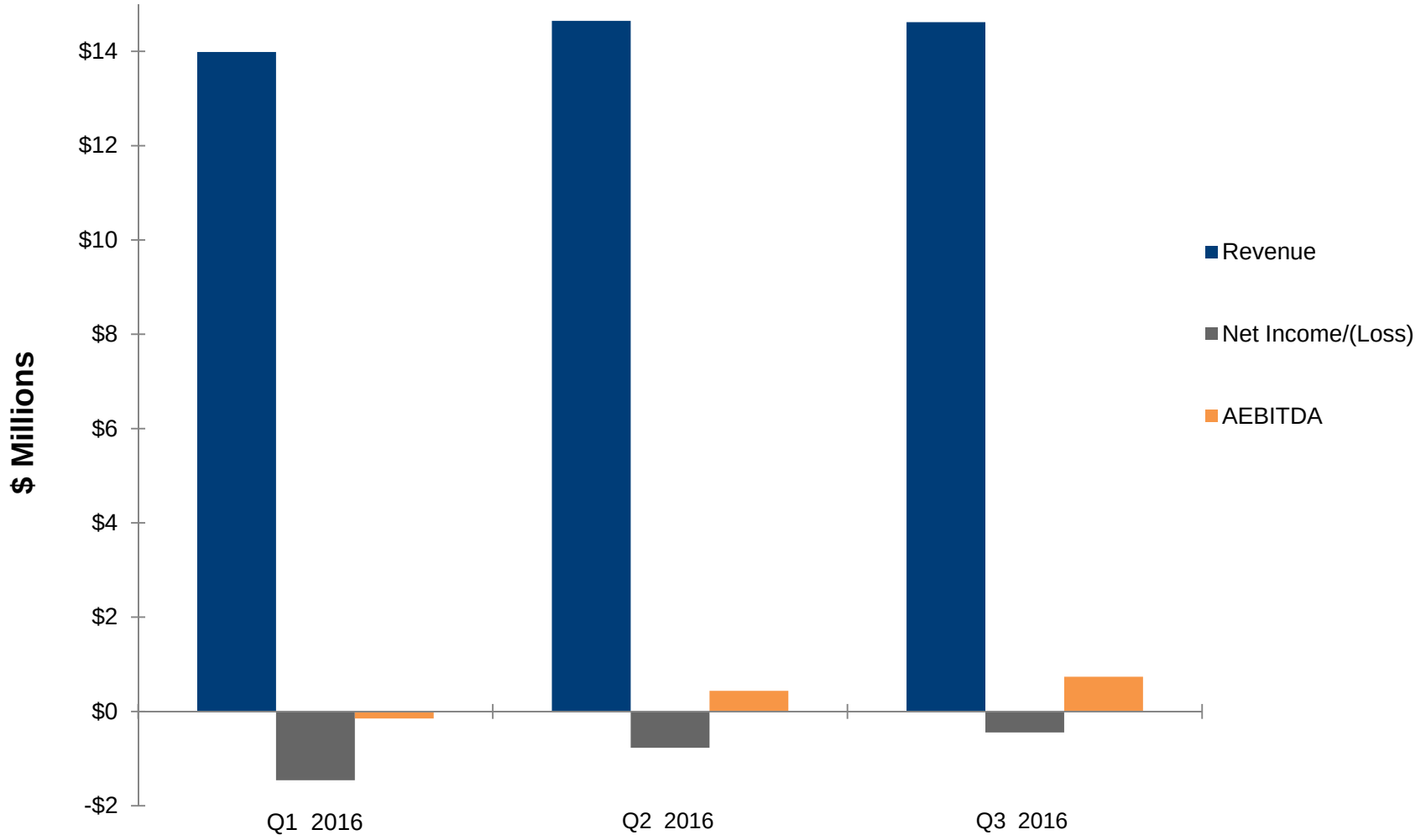
Luna’s ODiSI B

- 1000’s of sensing points per fiber
- Fully distributed sensing
- Fast and efficient installation
- Sensing points are flexible

- **Cost comparison relative to strain gage technology**
  - Our system is 10 times faster to install, and is 10 times more cost-effective

Operating Results

2016 Operating Results



Key Financial Metrics

- Share Price as of Dec. 2, 2016 $1.39
- Shares Outstanding 27.5 M
- Market Cap $38.3 M
- TTM Revenue as of Sept. 30, 2016 $58.7 M
- TTM Adjusted EBITDA as of Sept. 30, 2016 $1.4 M

NASDAQ: LUNA

Executive Team

My Chung, President and Chief Executive Officer

- Former Senior Vice President of Sunrise Telecom
- Former President and CEO of Circadiant Systems, Inc.
- Former President of Spirent Communications and Group Executive of Spirent PLC
- Bachelor's degree in Electrical Engineering, from the New Jersey Institute of Technology

James Garrett, Ph.D., VP of Technology Development

- Joined Luna in 2005, and was promoted to VP in July 2012
- Prior to joining Luna, worked for Bayer Material Science and conducted research at the Naval Research Laboratory
- Bachelor's degree in Chemistry from the College of William and Mary, and a doctoral degree in Material Science and Engineering from Penn State University

Scott Graeff, Chief Strategy Officer and Treasurer

- Has held titles including COO, EVP, Corporate Development, Chief Commercialization Officer and member of the Board of Directors at Luna
- Previous roles in venture capital and investment banking
- Bachelor's degree in Commerce from University of Virginia

Jean-Pierre Maufras, GM, Luna Optoelectronics

- Joined Advanced Photonix in January 2010, which subsequently merged with Luna Innovations in 2015
- Previously held General Management positions with ATK and Rexnord / PSI Bearing
- Spent 7 years with Danaher / Aerospace Group in increasing roles in Operations, last being VP Operations for Aerospace Group
- Spent 13 years with Zodiac Aerospace in various roles in Quality and Operations
- BS in Manufacturing Engineering from Pons University (France) 1984; Berkeley Advanced Management Program Certificate in 2001

Geoff McCarty, VP of Marketing

- Joined Luna in 2012
- Has led marketing and advertising at Advance Auto Parts, a Fortune 500 company, Hechinger, Home Quarters, and Pep Boys
- Bachelor's degree in Fine Arts, and has spent more than 25 years in marketing, business development, brand transformation, and market positioning

Dale Messick, Chief Financial Officer

- Joined Luna in 2006
- Has more than 20 years of experience in accounting and financial reporting, pre-initial public offering and IPO activities, and management
- Bachelor's degree in Business Administration from the College of William and Mary and is a certified public accountant

Rob Risser, VP, COO, Picometrix Division

- Has served as an executive in both private and public companies in the communications and industrial markets
- Served as chief operating officer, secretary and a member of the Board of Directors of Advanced Photonix Inc. and general manager of Picometrix LLC (an API subsidiary)
- Prior to joining API, he served as chief executive officer and member of the Board of Directors of Picometrix, which he co-founded in 1992
- MBA from the University of Michigan in 1978; passed the CPA

Brian Soller, Ph.D., VP & GM, Lightwave Division

- Former VP of Marketing for Micron Optics & VP of global sales and business development for Lightpath Technologies
- Originally spent ten years in fiber optics with Luna as a Scientist ultimately as General Manager of the Products Division
- Co-developed instrumentation for fiber optic devices
- Bachelor's and master's degree in mathematics and physics from University of Wisconsin - La Crosse, and a doctoral degree from the Institute of Optics, University of Rochester

Contact

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