LightPath® Technologies

A Global Leader in Next-Generation Optics & Imaging Solutions

NASDAQ: LPTH | Investor Presentation | January 2025

Safe Harbor Statement

This presentation contains “forward-looking” statements that are based on our beliefs and assumptions and on information currently available to us. Forward-looking statements include information concerning our possible or assumed future results of operations, business strategies, product development plans, competitive position, potential growth opportunities, the effects of competition and the expected effects on the Company’s business from the COVID-19 pandemic. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as “anticipate,” “believe,” “could,” “seek,” “estimate,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or similar expressions and the negatives of those terms.

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This presentation includes certain non-GAAP financial measures as defined by the SEC rules. We believe these non-GAAP financial measures are appropriate indicators to assist in the evaluation of our operating performance on a period-to-period basis. We have provided a reconciliation of those measures to the most directly comparable GAAP measures, which is available in this presentation.

About LightPath

LightPath is a leading provider of next-generation optics & imaging systems for defense and commercial applications.

- **Multi-billion-dollar market in defense and commercial applications** for infrared imaging systems
- Provider of high value optical solutions & imaging systems
- **Key technology** - Proprietary Chalcogenide Glass Solution is the ONLY GLASS that enables use of multi-spectral cameras reducing the size, weight & cost of systems without using Germanium
- **Defense Contract Tailwinds:** Accelerating pipeline of meaningful government and military projects with key defense customers
- **New commercial applications:** Boiler & furnace, optical gas imaging (OGI) and automotive sectors
- **Market size and production** capabilities to drive revenue in excess of $300 million in 5 years

NASDAQ: LPTH

Share Price[1]	$3.10
Market Cap[1]	$117.8M
TTM Revenue[2]	$32.1M
TTM Gross Margin[2]	23.1%
Shares Outstanding	39.6M
Float	30.2M
Insider Holdings	2.9%
Employees	~350
Headquarters	Orlando, FL

1) As of January 14, 2025
2) At Sep 30, 2024

Our Customers

Engineering a New LightPath

LightPath is transitioning to a solutions-oriented approach for high value customers geared towards driving higher revenue & gross margins

Legacy LightPath
Components Supplier

LightPath 2.0
Solutions Provider

LightPath 3.0
Imaging Systems Creator

Management Team

Sam Rubin
President & Chief Executive Officer

25 Years in Optics
Owner / Exec / Sales / R&D / M&A

Joined Company in 2020

Revenue Growth of Prior Firm
$30M to $500M

THORLABS

Albert Miranda
Chief Financial Officer

22 Years in Optics
Finance / GM / Exec / M&A

Joined Company in 2021

Revenue Growth of Prior Firm
$30M to $220M

JENOPTIK MORE LIGHT

ZEISS Seeing beyond

Jason Messerschmidt
VP, Sales

13 Years in Infrared Imaging
Int'l Sales / Team Leader

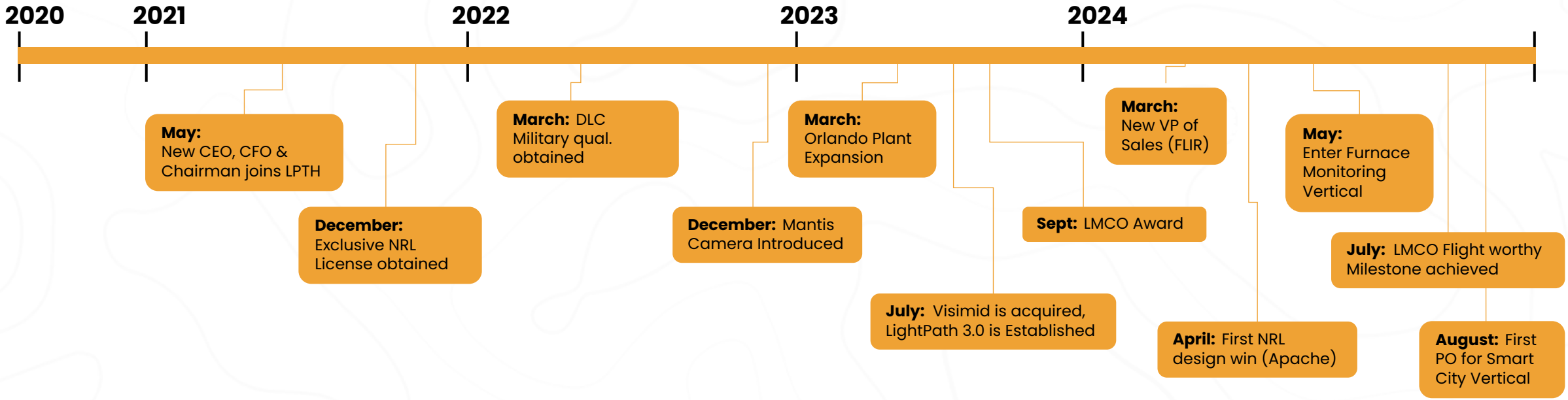
Joined Company in 2024

Managed >$200m Sales
at FLIR

TELEDYNE FLIR

LightPath Transformation - Completed

- New strategy
- Rightsizing the company, global footprint, Board of Directors
- Sunsetting unrelated products
- Eliminated multi-year fraud in China
- Insourced services
- Acquisition and integration
- Manufacturing back in the US
- Exclusive technology licenses
- EU defense manufacturing license



Infrared Imaging Market Opportunity

Multispectral cameras will be able to replace multiple camera modules in each application

Market data on thermal cameras estimates a

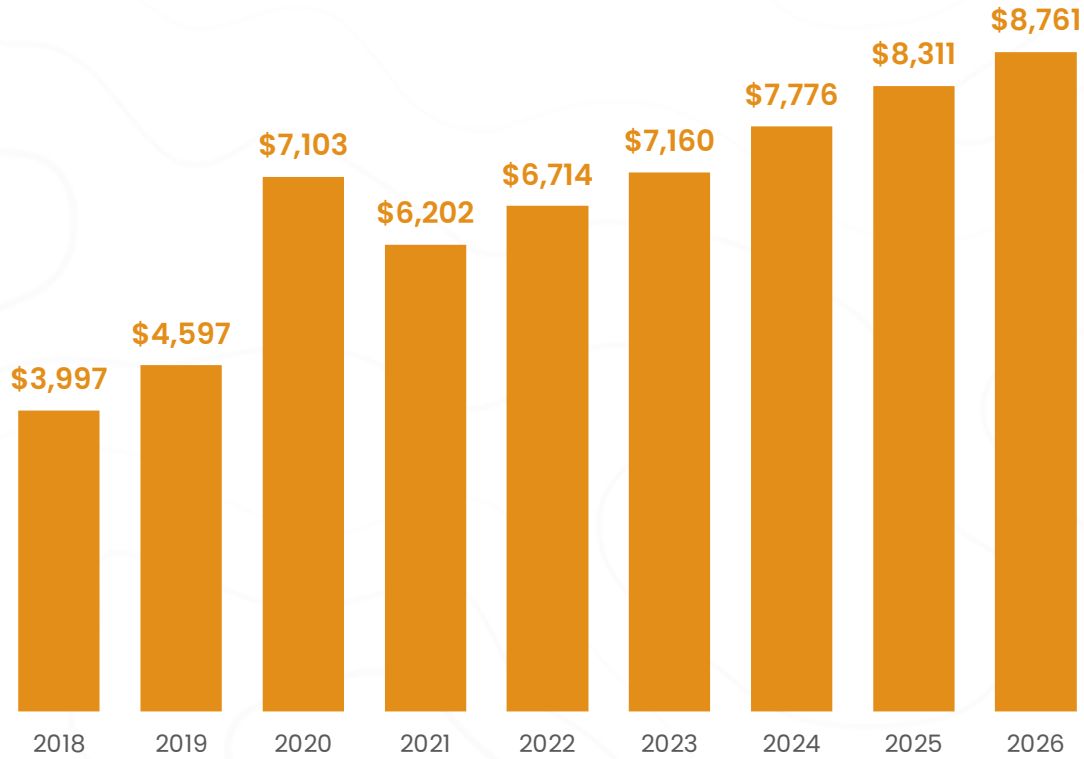
7% CAGR to ~$9 billion

market by 2026.

Increasing adoption in:

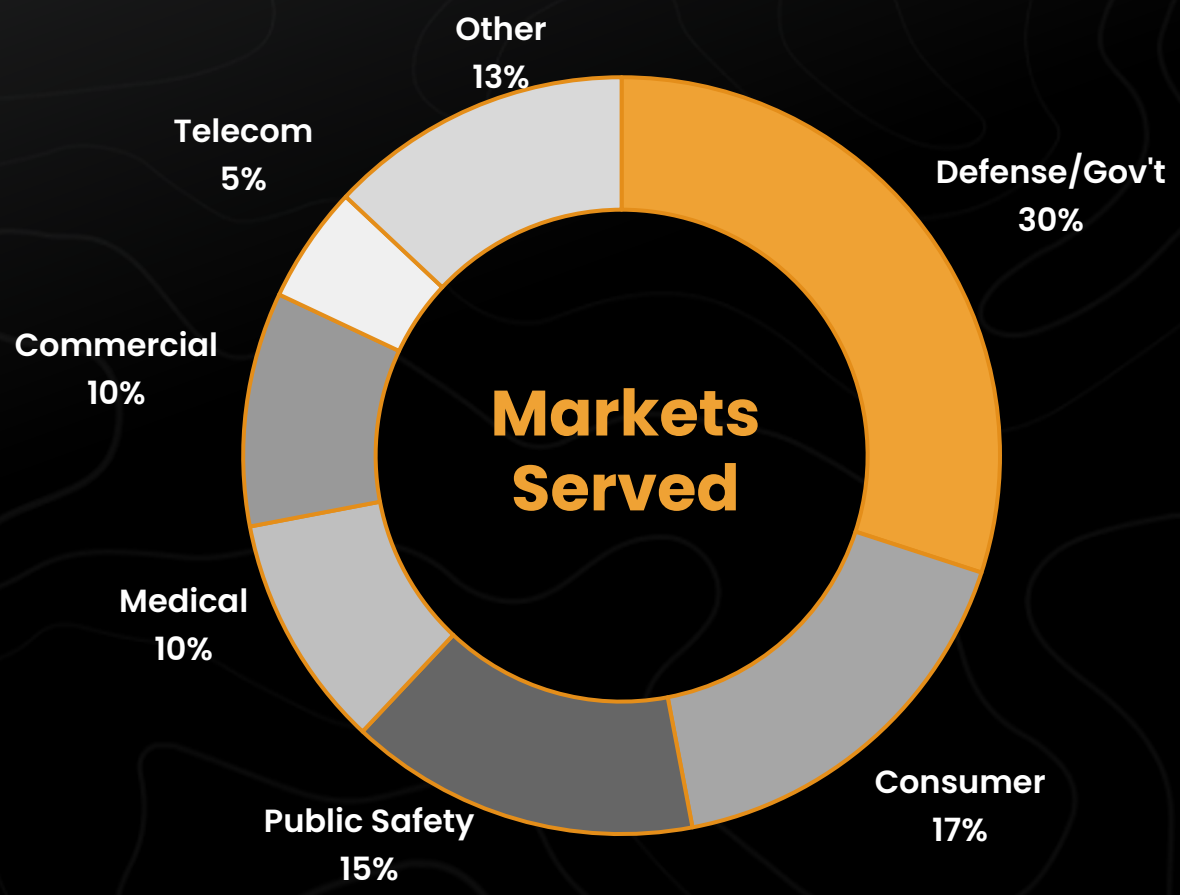
- **LIDAR TECHNOLOGY** to benefit public safety
- **THERMAL WEAPON** sights
- **GOVERNMENT/DEFENSE** applications
- **COMMERCIAL** sporting optics

Global Thermal Camera Market (in $ millions)



Markets Served Overview

Cameras and optics can be modified for different applications allowing LightPath to deliver solutions to a diverse market of verticals and **a growing defense and government segment**



> **The beauty of Photonics is,** that as an enabling technology that is embedded in products across many industries, it provides us with a built-in diversification across our customer base.
>
> Sam Rubin, CEO

Key Product
Chalcogenide Glass

LightPath Black Diamond – Proprietary Chalcogenide Glass Solution

A made-in-the-USA cost effective alternative to Germanium

The ONLY GLASS that enables use of multi-spectral cameras reducing the size, weight and cost of visual systems.

Annual capacity of 10 Metric tons in Orlando facility

Germanium exports from China are restricted - White House identified Germanium as a key strategic mineral with a potential supply chain liability

U.S. imports approximately $675m of Germanium for use in Optics, primarily from Russia and China

11 Alternative Minerals
2 are fully qualified and fielded in DoD systems (BD6 and BD2)

Key Product

Multi-Spectral Imaging Solutions

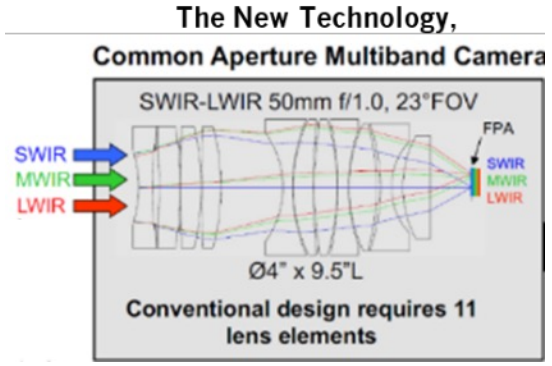
Innovative Technology in next generation multispectral imaging systems

- **Common Aperture multiband** camera reduces weight, size and cost
- **Key enabling** technology behind MANTIS
- **Allows customers to use less devices in the field**, without sacrificing functionality
- **Unique Material** exclusively licensed from the US Navy
- Technological capability to produce application specific imaging solutions

Short Wave Infrared Camera (SWIR)

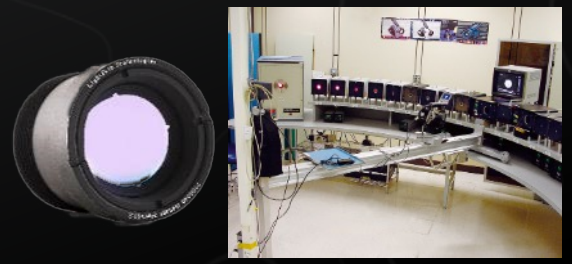
Mid Wave Infrared Camera (MWIR)

Long Wave Infrared Camera (LWIR)



Next Level Customization

Capability to build custom sensor and software systems for cameras unlocks the production of highly customized variations on MANTIS for application specific use.



Custom lens assemblies using proprietary materials and expert optical calibration

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Custom sensors, electronics, and software

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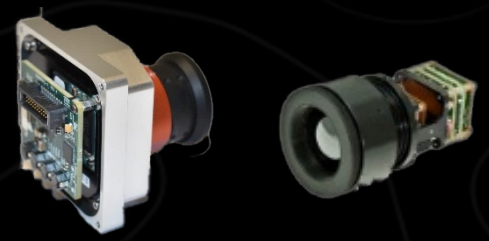
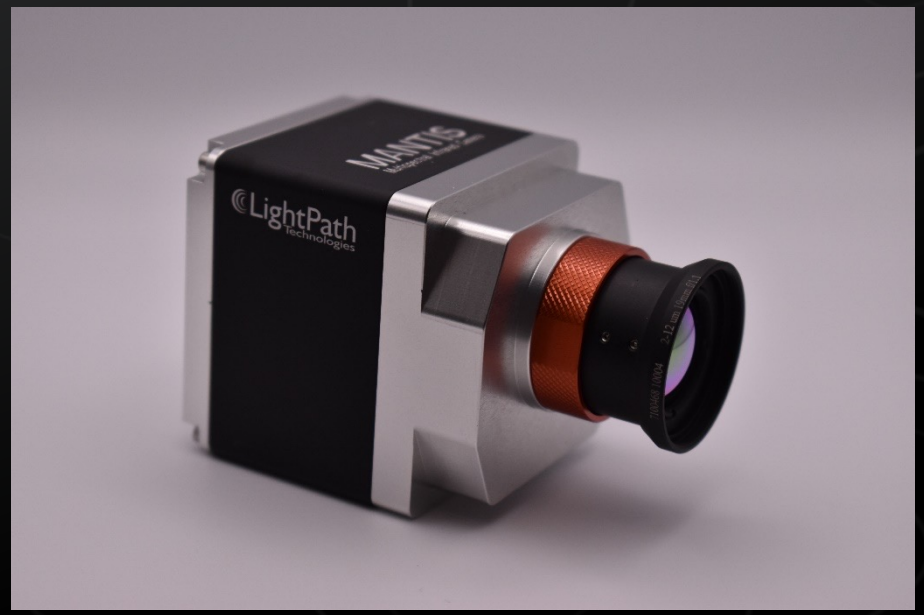
Application Specific Imaging System



Complete thermal camera specifically attuned to an OEM's intended use

MANTIS™ Camera Solutions



Uncooled, Multispectral Infrared Camera

MANTIS Highlights:

- **First of its kind** – The only solution of its kind that combines the functionality of a Mid Wavelength Infrared (**MWIR**) and Long Wavelength Infrared (**LWIR**) camera in one housing
- **No Germanium Used** - White House identified Germanium as a key strategic mineral with a potential supply chain liability (China is the leading producer)
- **Produced Outside of China** - A key benefit for securing supply chains China restricting Germanium exports
- **Uncooled** - Able to image MWIR wavelengths without an expensive cryogenic cooling mechanism.
- **Inexpensive** - Camera costs $10-15k combining the functionality of a $100k MWIR and $3k LWIR camera.
- **Applications** – Fire and Flame detection, industrial high temperature monitoring systems, handheld Mid Wave imaging for defense
- **Leverages proprietary Black Diamond™** glass that enables the camera's high level of performance.

LightPath Camera Solutions

LightPath 3.0 Product Lineup

LightPath's current camera solutions are based on UNCOOLED cameras, addressing more affordable price point solutions ($1K - $30K), and mostly operating in the Long Wave Infrared (LWIR) region of the spectrum

MANTIS

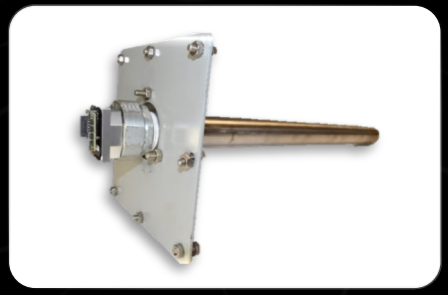
Dual Band Infrared Camera

High Sensitivity (HS)

Short range drone detection, Gas detection

Furnace Cameras

Inspection inside furnaces



EdgeIR

AI-Ready infrared Cameras

Mini

Compact, low weight, shutterless

EdgeIR
AI Ready Infrared Cameras

Acquisition of Visimid added the capability to build custom sensor and software systems for LightPath Cameras. This new capability unlocks the production of highly customized variations on MANTIS for application specific uses.

LightPath's IR Line of Cameras

LighPath Mantis Camera with custom Lens assemblies utilizing proprietary materials and expert optical calibration

+

Hailo's, 26 TOPS AI Accelerator

Custom Sensors, electronics, and software

=

Application Specific Imaging System

Complete infrared camera specifically attuned to an OEM's intended use

3 Pillars of Growth

Products and solutions applicable to growing and diverse applications

Camera Solutions

- Multispectral imaging systems
- Greater versatility, less parts
- Total Customization

Government/ Defense

- Unique materials provide an alternative to germanium
- Exclusive technology enables multispectral imaging. Cutting edge capabilities

Commercial Applications

- New version of the Mantis camera specifically designed for monitoring high-temperature processes inside boilers and furnaces in power plants
- Thermal imaging is being added to existing automotive pedestrian detection systems

Government & Defense

Government & Defense

As global threat levels rise, LightPath solutions provide defense customers with solutions to meet the accelerating need for new advanced technologies.

Qualified optics supplier
Fastest growing market from 7.3% in FY20 to 16.7% in 2Q FY24

Exclusive license from DoD
for materials that are key to replacing germanium and next-gen performance of systems

Direct funding
from multiple government agencies to accelerate and support the commercialization of the new materials

Designed into a variety of new combat systems, including
military vehicles, aircraft, drones and missile systems

Defense Examples & Pipeline

Design In	Qualification	Development & Initial Prototypes	Live Unit Tests	Initial Production	Recurring Production
Prime: Lockheed Martin - New missile system, LPTH camera system					
				2026+ 10,000 systems	ASPs $5,000-$10,000 per system
Prime: Multiple – Combat Aircraft Infrared Optics, mostly LPTH materials					
Prime: New Bridge Partners – Combat Helicopter Infrared Optics, LPTH assemblies					

Short Range Air Defense System

Customer Name	**Lockheed Martin Co.**
Target Application	U.S. Army Stinger Missile
Lightpath product	I.R. Imager
RFQ/RFP timeline	RFP: March '23 RFQ: August '23
Start of Production (SOP)	Expected: LRIP: '27 SOP: '27
Project Lifespan	10-year program
Project Milestone(s)	Flight Test Review: **Complete/Passed** Initial Flight Test: Sept./Oct. 2024
Volume / Revenue (Yr./Life)	Production rate: 10k units/yr. $50-$100m/year during production
Product requirements	In process
Target Price	$5-10k/unit
Win Probability	50%/Sole Sourced to LMCO
Program of Record	Yes. (PE 0604117A)

Program of Record –
PE 0604117A/
Maneuver – Short Range Air Defense
(M-SHORAD)

PROGRAM OF RECORD

General Program Timeline:

Design Phase	**FY 2024**
Initial Flight Test	**FY 2025**
Initial Customer Tests	**Sept. '25**
Low-Rate Production (LRIP: 200+/- units)	**FY 2027**
Start of Production (SOP)	**FY 2027**

Note: Program is currently on Schedule

Commercial Applications

Industrial Applications

Mantis cameras are used to monitor high-temperature processes inside boilers and furnaces in power plants, while OGI cameras are used to detect gas links in energy production

Environmental regulations in the US and Europe are dramatically increasing in scope and complexity, requiring increasingly precise solutions for compliance and monitoring of the roughly 60% of generated power that comes from fossil fuels.

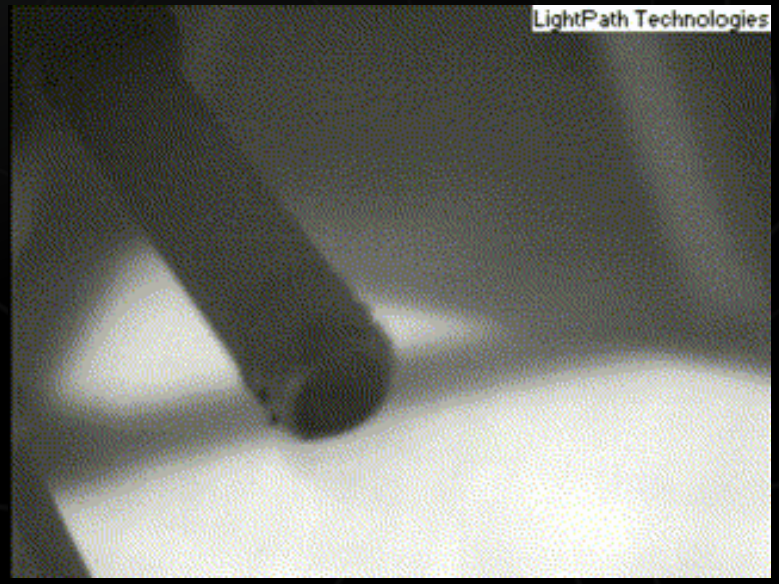
Solution can be tailored to monitor processes and allow precise environmental compliance controls and emissions tracking.

Allows **advanced monitoring and optimization of burn processes or gas emissions.**

Provides more **accurate and reliable monitoring of extreme-temperature processes** across a much larger range of temperatures than current technology, enhancing process safety and efficiency for customers.

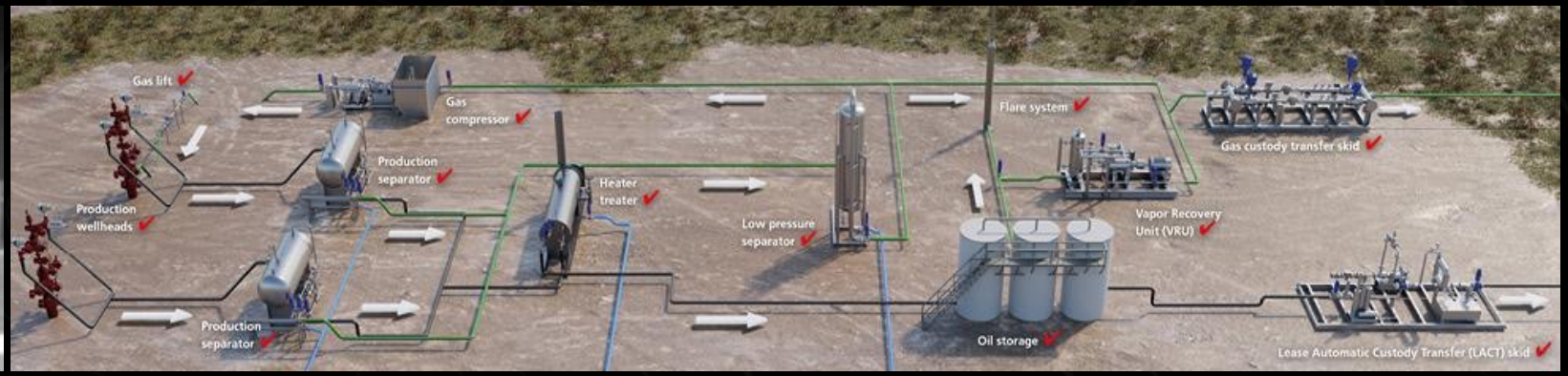
Oil & Gas

Fugitive Emission Monitoring



Uncooled OGI Cameras

Strategically placed around a well pad or Central Delivery Point continuously monitors methane emissions 24/7 tracking potential fugitive emissions.



Automotive Applications

Government proposal would require automatic emergency braking (AEB) in all cars and light trucks

Recent National Highway Traffic Safety Administration proposed rule would go into effect in ~2026

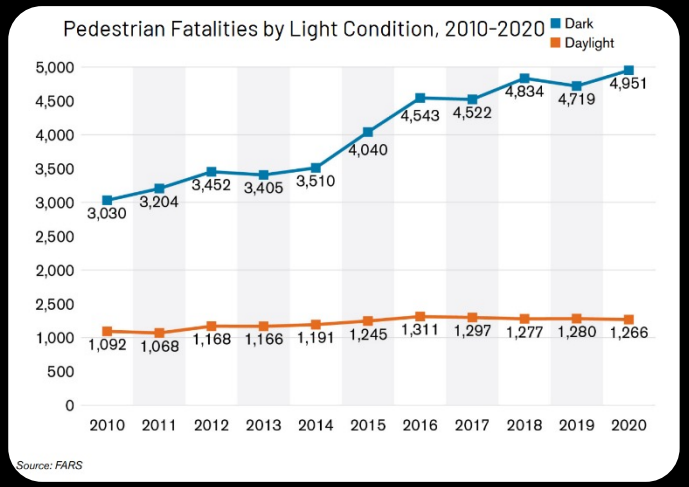
LightPath thermal imaging assembly has been qualified into one of the largest car manufacturers

Using thermal imaging to classify objects in the field of view is easier and lower risk

LPTH ASP $20-50 per vehicle

"Night Vision"

in existing Cadillac CT6



Significant Manufacturing Capacity

Orlando, Florida
Principal Production Facility

- 2023 facility expansion to 55,000 sq. ft. and 11,700 sq. ft clean room space
- Additional room to expand glass manufacturing, coating and assembly
- Principal production facility

Plano, Texas
Prototyping & R&D Hub

- Prototyping
- R&D
- Molded Lens Manufacturing
- Chalcogenide Production
- Diamond Turned Manufacturing
- Coating

Riga, Latvia
E.U. Contract Production Hub

- Vertically integrated, able to produce complete components without depending on other LightPath facilities
- Principal facility supporting European defense contracts

Zhenjiang, China
Legacy Facility

- Shifting commercial volume manufacturing to other facilities, chiefly Orlando

3-5 Year Growth Framework

Substantially scaling revenue, EBITDA and profitability

- Engineered solutions growth rate of **40 – 60%**
- Components business growth rate of **10%**
- Defense sales achieve **$100 million**
- Automotive customers in production and shipping **>100,000 units**
- Successfully integrated **acquired technologies**
- EBITDA margins **exceeding 15%**

Investment Highlights

Industry Opportunity

- **Multi-billion-dollar market in defense and commercial applications** for infrared imaging systems and technology including the MANTIS camera
- **Diversified core markets are** experiencing solid secular growth
- Black Diamond Glass is a US-produced alternative to Germanium

Strategic Direction

- An optical systems and solutions provider for high value customers
- **Accelerating pipeline** of government and military projects with key defense customers
- **New commercial applications** in the boiler & furnace, automotive sectors and optical gas imaging (OGI) sectors
- Drive greater efficiency with our deep design and manufacturing expertise and vertically integrated global manufacturing base
- **Market size and production** capabilities to drive revenue in excess of $300 million in 5 years

"**This strategy is based on our strengths and our core capabilities to address the largest and fastest growing trends in our industry for visible and infrared optical solutions.**"

Sam Rubin, CEO

Contact Us

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True Flame Detection

Each pair of images – Left side, camera with 4.3µm filter "flame detection mode" – right image with LWIR filter

Pot on a Lit Gas Stove

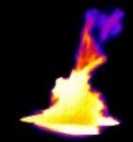
Image from Our Flame Detection Camera

Image from a Standard LWIR Camera

Gas Firepit

Image from Our Flame Detection Camera

Image from a Standard LWIR Camera



Lit Candle in a Glass Jar

Image from Our Flame Detection Camera

Image from a Standard LWIR Camera

A Candle at 190' Distance

Image from Our Flame Detection Camera

Flame detected

Image from a Standard LWIR Camera