



# LightPath Technologies



**A Global Leader in Optics  
& Infrared Solutions**

# 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.

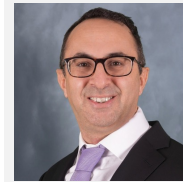
Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements represent our beliefs and assumptions only as of the date of this presentation. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

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.

# Today's Agenda

- **11:00am – Orlando Facility Tour**
- **12:00pm – Lunch with Management**
- **12:30pm – Webcasted Presentation**
- **2:15pm – Shuttle Returns to Hotel**
- **6:15pm – Shuttle Departs to Dinner**

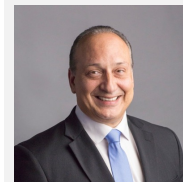
## Speaker List



**Sam Rubin**  
President &  
Chief Executive Officer



**Jason Libert**  
General Manager,  
Visimid



**Albert Miranda**  
Chief Financial Officer



**Todd Croteau**  
Sr. Director,  
Business  
Development



**Jason  
Messerschmidt**  
Vice President, Sales



**Michael Amorelli**  
GM Camera Div. G5



**Natalie King**  
Vice President of  
Finance

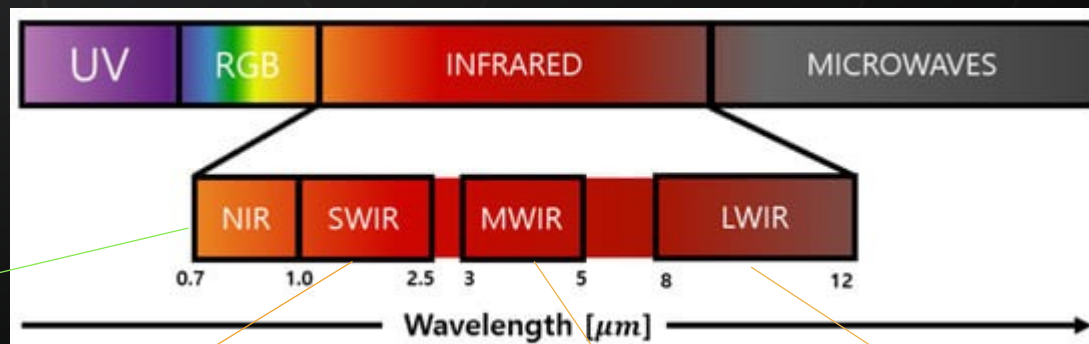


# **The Global IR Imaging Market Landscape:**

## **A Path to Ubiquity**



# Infrared (Thermal) Imaging Explained



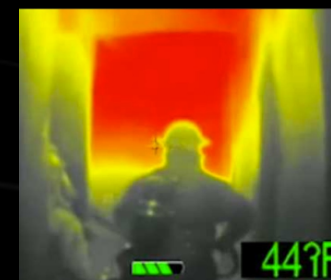
*Near Infrared -  
Nigh Vision*



*Short Wave – Adverse  
conditions. Fog, clouds*



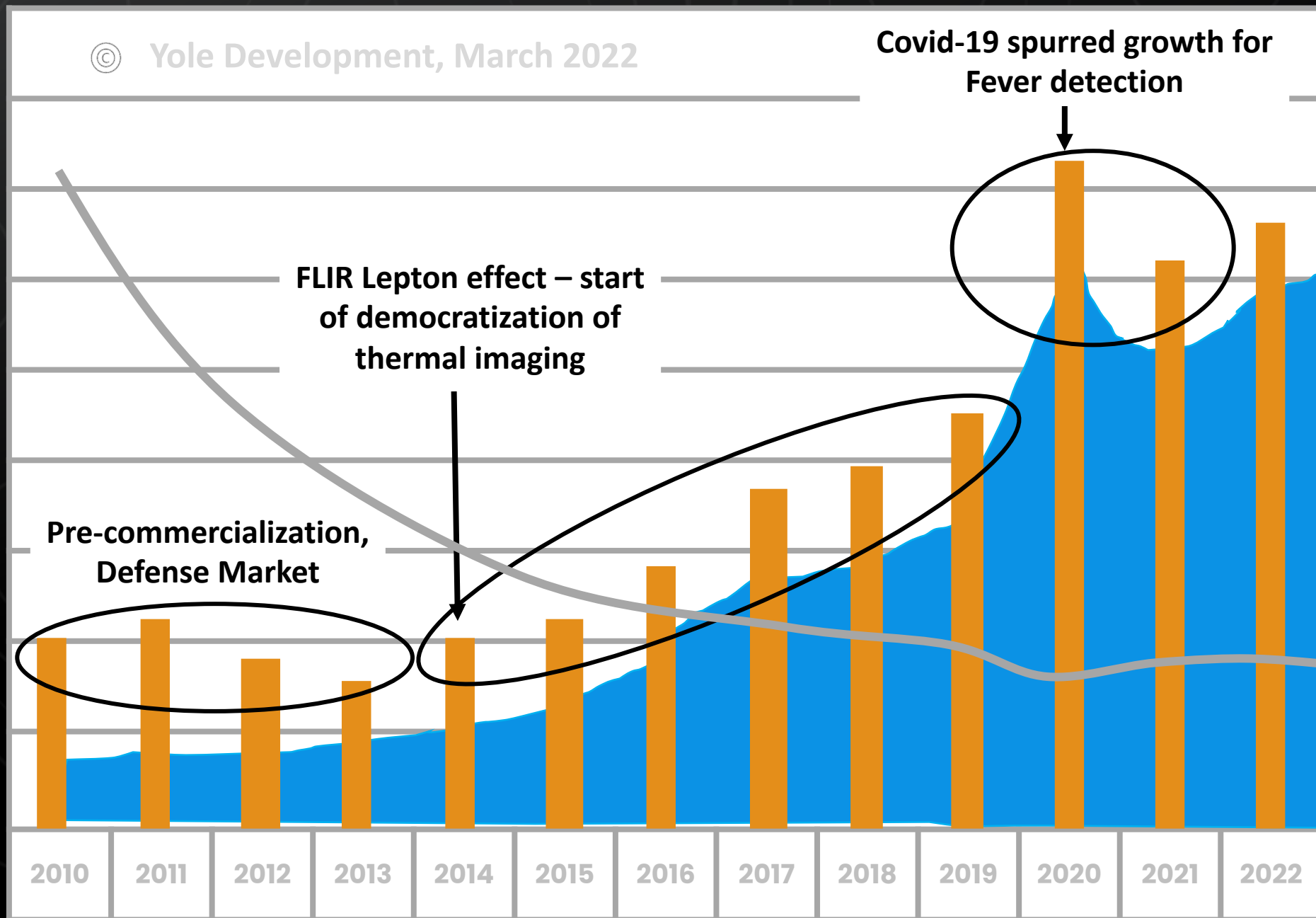
*Mid Wave – Long Range,  
or High Temperatures. Traditionally  
Defense*



*Long Wave  
Nearby, see  
through  
Smoke, etc.*

# Uncooled Revolution and Evolution

Covid-19 drove drastic cost reductions, creating new growth by making technology accessible to more applications



# The Infrared Market is Changing

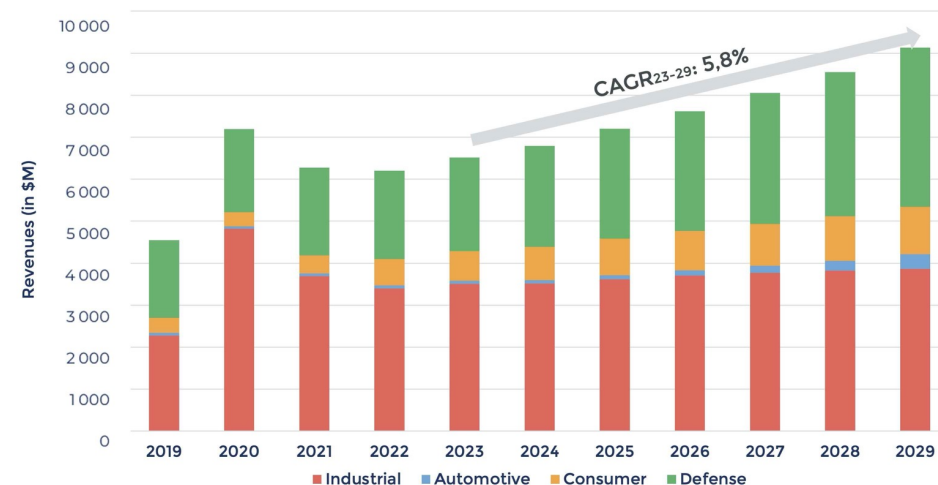
IR cameras growing in ubiquity in a fragmented market driven by ongoing geopolitical change



## Global Thermal Camera Market (in \$ millions)

### 2019-2029 THERMAL CAMERAS MARKET VALUE FORECAST

Source: Thermal Imaging and Sensing 2024 report, Yole Intelligence



www.yolegroup.com | ©Yole Intelligence 2024

Increasing adoption in:



**AUTOMOTIVE LIDAR** to benefit public safety



**SMART CITIES** and infrastructure uses



**GOVERNMENT/DEFENSE** applications



**COMMERCIAL** uses from sports to drones

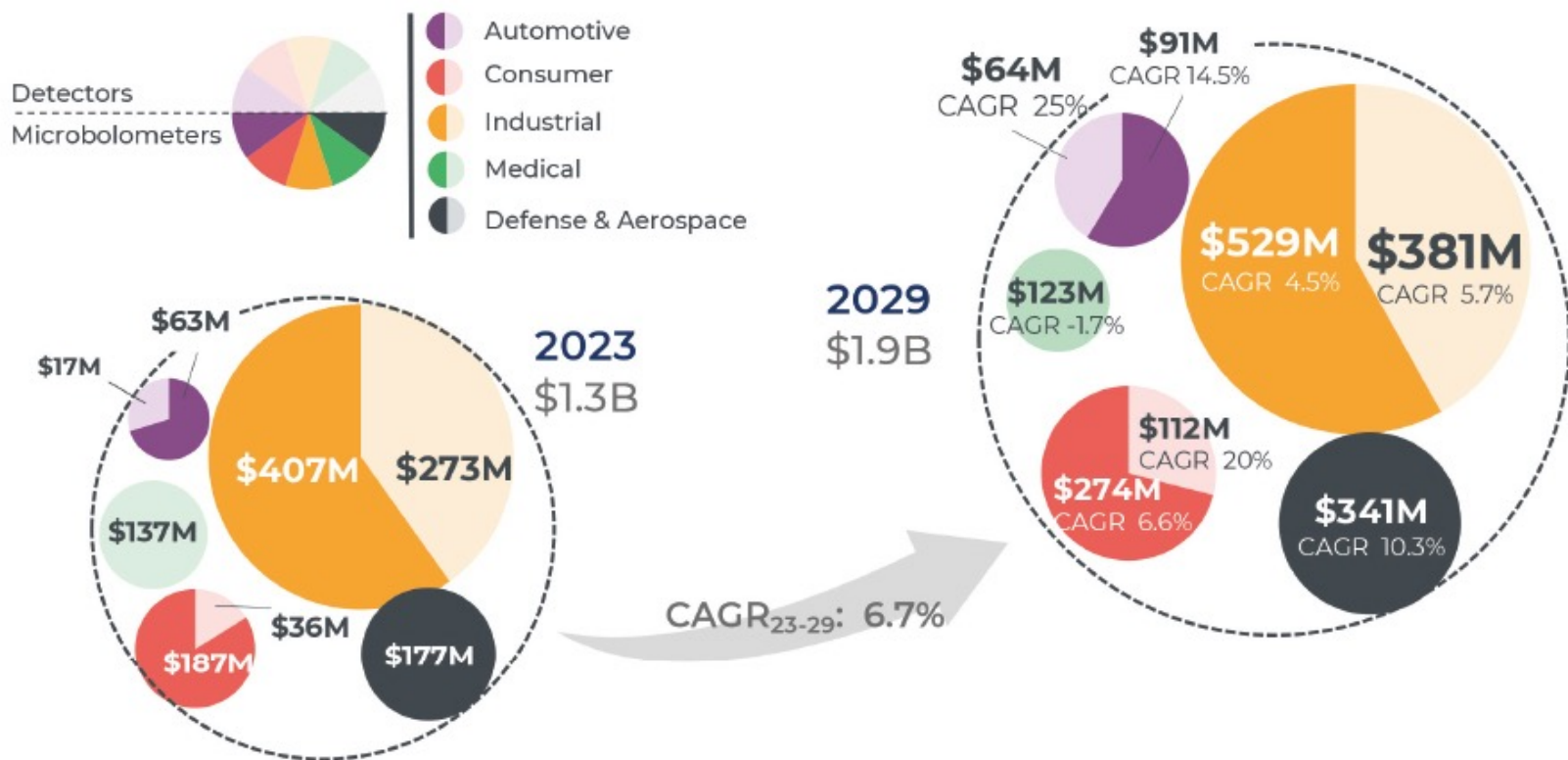




# Uncooled Imaging (Microbolometers)

## 2023-2029 thermal detectors and microbolometer devices market value by end-market

(Source: Thermal Imaging and Sensing 2024, Yole Intelligence, April 2024)



© Yole Intelligence 2024

## Microbolometers

Segment	2023	2029	CAGR
Industrial	\$407	\$529	4.5%
Defense	\$177	\$341	11.5%
Consumer	\$187	\$274	6.6%
Auto	\$63	\$91	6.3%
Total	\$834	\$1,235	6.8%

*\*Does not include Cooled Infrared Imaging*

Defense growth, in addition to spending, is partially due to transition from expensive mid-wave to long-wave in some applications, as well as deployment in more use cases (example: Use of thermal optics at the individual soldier level)



# Building the Next Global Leader in IR Imaging

Building the foundation to own key technologies, becoming a vertically integrated solutions provider and the #1 player in sophisticated cameras

## The Opportunity

- Photonics continues to be adopted for new applications and industries
- Infrared imaging market expected to be ~\$9 billion by 2026
- Multidisciplinary capabilities required to design systems
- Companies do not want to bring this complex tech in-house
- Opportunity for a Germanium replacement in select areas to reduce supply chain risk

## The Solution

- Building a leading partner for companies who want to integrate photonics into products
- Bring domain expertise and knowledge to customers to provide a complete solution
- Proprietary BlackDiamond™ glass de-risks supply chain with domestic Germanium substitute
- Examples:
  - Excelitas: Photonics for Life Sciences
  - Jenoptik: Photonics for Semi Vertical

## The LPTH Strategy

- Build a vertically integrated, global solutions provider for IR imaging
- Own the value chain for multi-spectral imaging leveraging BlackDiamond™ materials
- Become a leading provider of infrared solutions for Defense and Commercial applications
- Capture market share in growing \$9 billion infrared imaging market

# Changes in the Infrared Imaging World

New applications, driven by lower cost and new use cases, such as:

- Fugitive gas imaging
- Smart City Applications (Mid & Long wave technology)
- Automotive

Changes in supply chain:

- Germanium
- Supply from China (detectors, assemblies, optics)

Advancements in technology:

- Edge processing: Embedded software functionality (G5's ATCOM), AI at the edge
- Multispectral imaging



# Differentiators are Key for a New Entrant

Example of some differentiators (ever evolving list)

## Materials

- Lighter, smaller systems
- Multispectral functionality

## Imaging technologies

- Shutterless
- Multi sensor video engines
- Integration of AI hardware at the edge

## Agility to Address New Opportunities

- Fast moving to customer needs
- Ability to customize products to meet customer requirements
- End-to-end customization: Software, video processing, imaging, optics





# Germanium Supply Chain Risk

Industry dependence on Germanium represents a clear “Achilles Heel” to the U.S. defense industry



Newsweek

## NATO's Defense Vulnerable to China's Control Over Seven Materials

Beijing has already hit the U.S. with export controls on several of these strategic materials.

1 month ago



MIT Technology Review

## China banned exports of a few rare minerals to the US. Things could get messier.

China banned the export of gallium, germanium, antimony, and superhard materials used in manufacturing, and said it may further restrict graphite sales.

1 month ago



The Diplomat – Asia-Pacific Current Affairs Magazine

## China's Mineral Export Ban Strikes at the US Defense Industrial Base

China's new export ban on antimony, gallium, and germanium could severely disrupt supply chains for the US defense industrial base.

1 month ago



USA Today

## Why China's ban on exports of gallium, germanium and more could cost US billions

Why China's ban on exports of gallium, germanium and more could cost US billions ...  
China banned exports of critical minerals gallium, germanium...

1 month ago





# Proprietary BlackDiamond™ Glass: A Significant Competitive Advantage

Domestic Germanium Alternative, Exclusively  
Licensed from the U.S. Naval Research Laboratory



**A made-in-America 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 banned –**  
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)

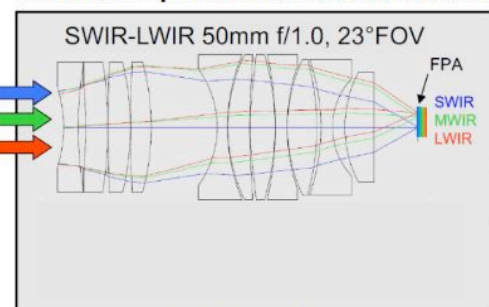


# Advantages of New Materials

Multi-aperture sensor payload

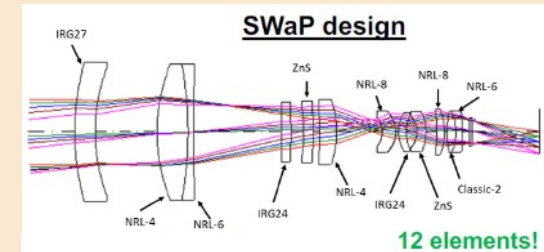
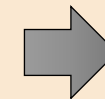
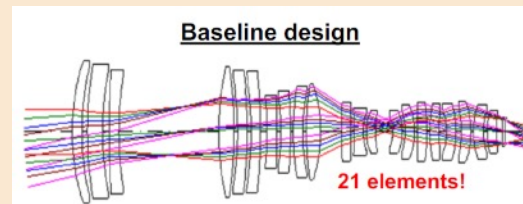


Common Aperture Multiband Camera



**Multispectral** material  
Enable reduction in number of cameras

## 3X Infrared Zoom Lens, redesigned with the New Materials

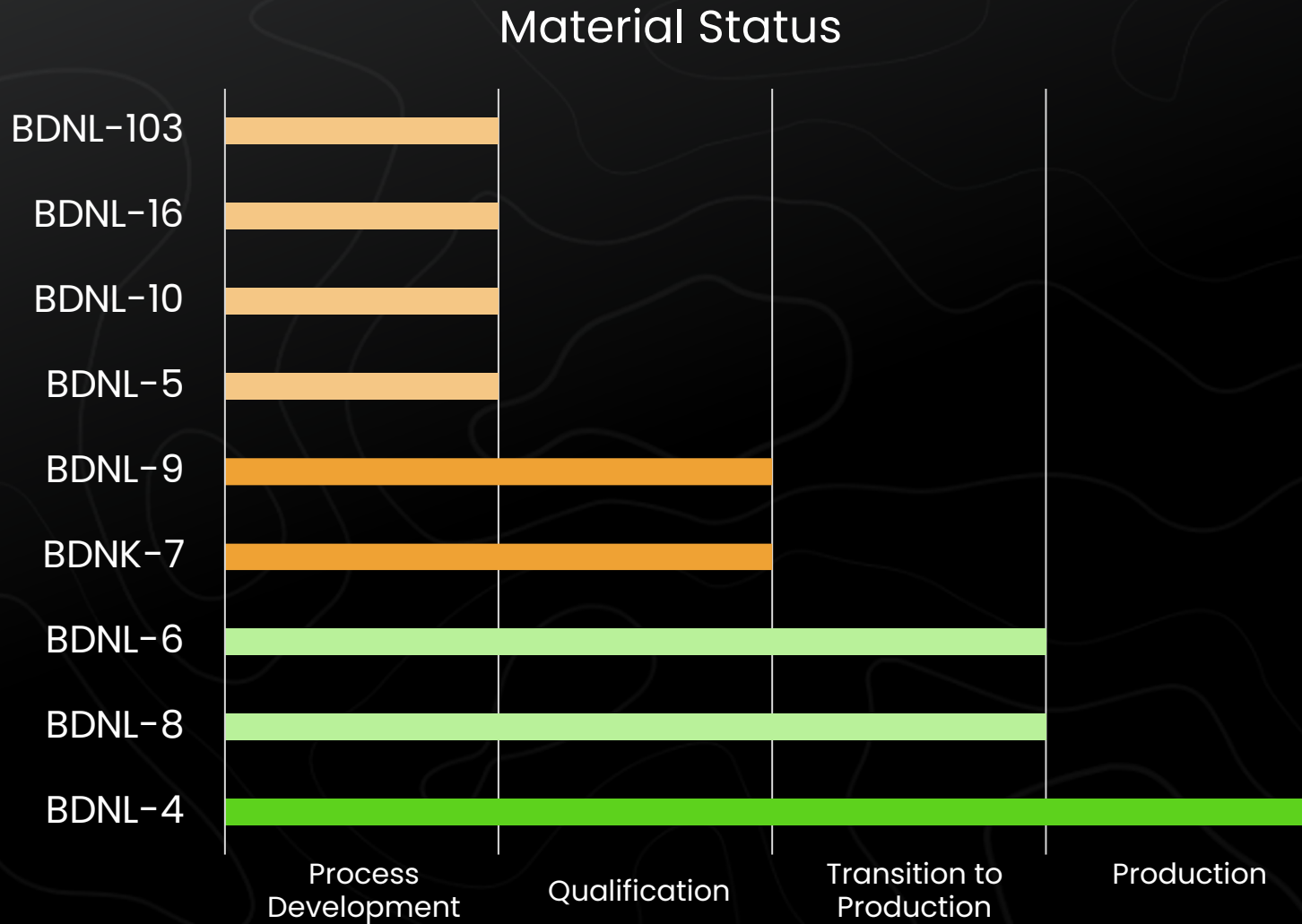


The new materials offer unique properties. Significant reduction in number of lenses needed, weight, size and cost.

Glass Code	NRL Glass Code	Wavelength range* (μm)	SWIR (1-3μm)			MWIR (3-5μm)			LWIR (8-12μm)			Density (g/cm <sup>3</sup> )	T <sub>g</sub> (°C)	CTE (ppm/°C)
			Index	dn/dT (ppm/°C)	V(1-3)	Index	dn/dT (ppm/°C)	V(3-5)	Index	dn/dT (ppm/°C)	V(8-12)			
BDNL4	NRL-4	0.78 – 17.5	2.66815	-17.3	17	2.64837	-18.6	186	2.63709	-18.3	233	4.479	201	30.2
BDNL5	NRL-5	0.74 – 17.2	2.49378	9.61	19	2.47761	7.62	184	2.46289	6.33	126	4.421	192	26
BDNL6	NRL-6	1.43 – 18.2	3.22366	202	NA	3.17169	169	107	3.15227	160	257	5.234	191	18.3
BDNL7	NRL-7	0.57 – 12.7	2.40106	-4.38	24	2.38657	-7.34	159	2.35760	-8.11	47	3.177	201	25.3
BDNL8	NRL-8	0.79 – 18.9	2.68413	2.97	16	2.66324	1.2	184	2.64996	-0.4	186	4.516	193	25.7
BDNL9	NRL-9	0.61 – 12.8	2.43256	-3.64	23	2.41739	-3.83	160	2.38929	-5.94	51	3.281	197	25.1
BDNL10	NRL-10	0.74 – 17.5	2.54364	27.2	18	2.52625	22.6	191	2.51154	21	135	4.446	191	27
BDNL16	NRL-16	0.74 – 13.0	2.59823	21	18	2.57946	14	157	2.55692	12	78	3.897	182	24
BDNL103	NRL-103	NA	2.73697	65	16	2.71527	61	170	2.70057	58	167	4.54	314	14

\* Wavelength range is defined as the range where transmission through a 2mm thick window is greater than 50% of the maximum.

# NRL Licensed Materials

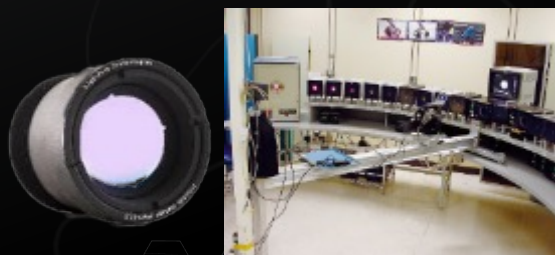




# Visimid Acquisition: Taking Customization to the Next Level

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

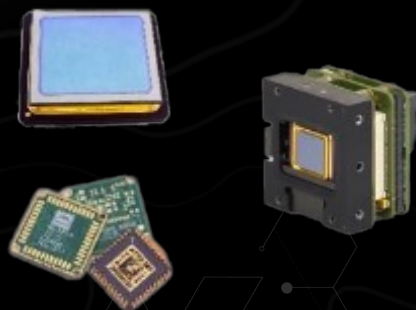
## LightPath Technologies



Custom Lens Assemblies  
using proprietary materials  
and expert optical calibration

+

## Visimid



Custom Sensors,  
electronics, and software

=

## Application Specific Imaging System



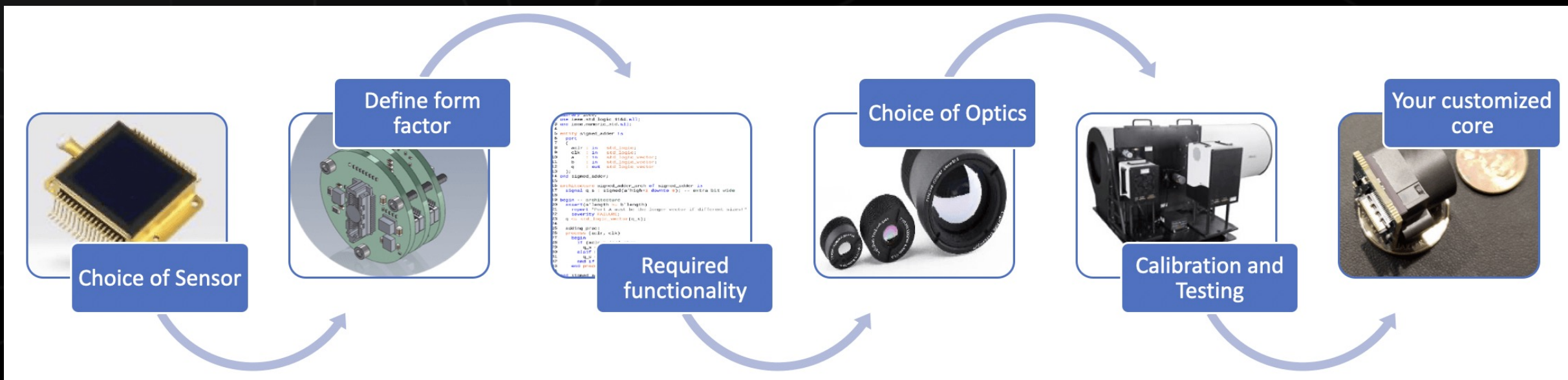
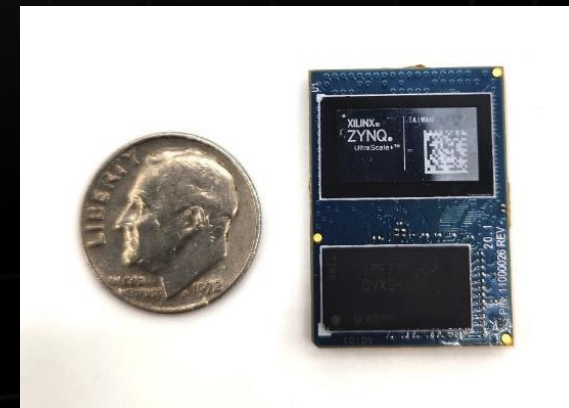
Complete thermal camera  
specifically attuned to an OEM's  
intended use



# Customized uncooled imaging modules

## Proprietary Video Engine

The heart of our customized imaging core is our Phoenix video engine. Based on Xilinx FPGAs, the video engine includes all non-uniformity correction functions, Automatic Gain Control (AGC), data formatting and more. The built-in on-board Correction (NUC) allows saving multiple calibration tables, designed to work with different optics and filters. In addition to the standard video engine in our Phoenix core, a library of additional functionalities and processing features are available to integrate into the core. Additionally, our team can integrate customer designed functionality into our on-board FPGA, providing customer specific functionalities.





## **LightPath Before G5:**

**A Successful Multi-Year  
Transformation into an IR  
Imaging Platform  
Company**

# 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



**ASP:**  
**\$5-\$50**

**LightPath 2.0**  
Solutions Provider



**ASP:**  
**\$50-\$500**

**LightPath 3.0**  
Imaging Systems Creator



**ASP:**  
**\$1K-\$30K**



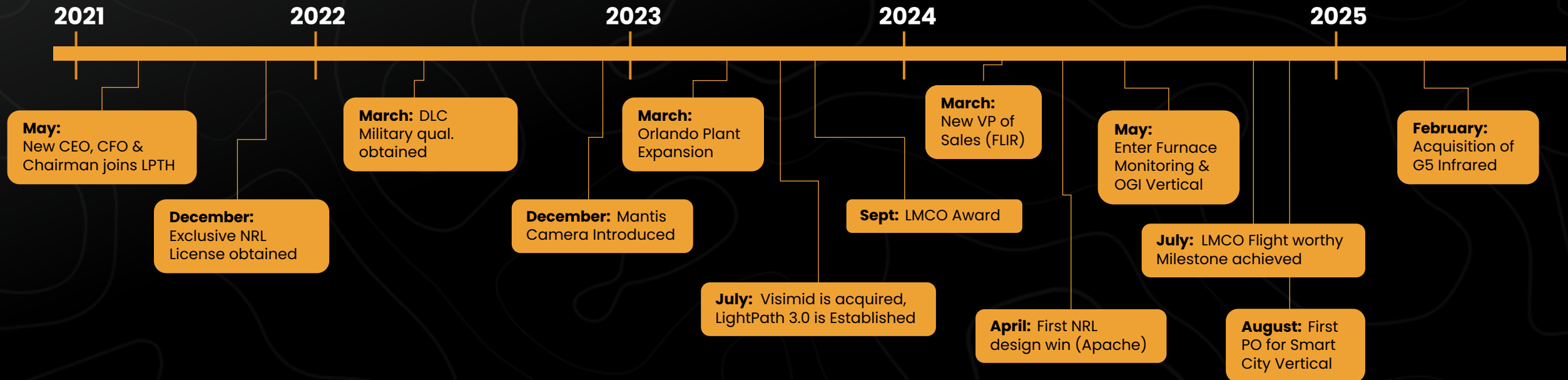
**ASP:**  
**\$50K - \$500K**



# Lightpath's Evolving Transformation

- 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



# Significant Manufacturing Capacity

## Orlando, Florida

### *Principal Production Facility*

- 2023 facility expansion to 55,000 sq. ft. and 11,700 sq. ft clean room space
- BlackDiamond Glass Manufacturing
- New Camera production lines
- Vertically integrated

## Plano, Texas

### *Prototyping & R&D Hub*

- Design center for all uncooled camera technologies
- Center point for Lockheed Martin NGSRI project
- Multidisciplinary team, Electronics, mechanics, software

## Riga, Latvia

### *E.U. Contract Production Hub*

- Vertically integrated, able to produce complete components without depending on other LightPath facilities
- Expanded in 2022 to include optical coating
- Adding assembly capabilities in 2025

## Zhenjiang, China

### *Legacy Facility*

- Commercial volume manufacturing of molded lenses
- Manufacturing in China, for China
- Operates as a standalone business



# 3 Pillars of Growth

Products and solutions applicable to growing and diverse applications

## Optical & Camera Assemblies



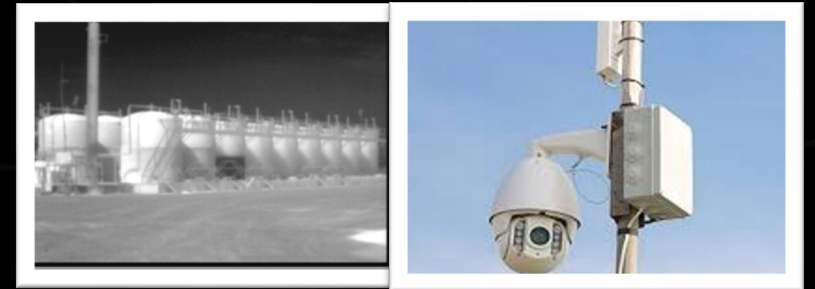
- Multispectral imaging and optical systems
- Greater versatility, less parts at an attractive price (ASP ~\$1-30K)
- Total Customization

## Government: Defense & Aerospace



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

## New Commercial Applications



- Oil and Gas plant emissions monitoring
- Gas producing plants provide a unique environment for LightPath's cooled camera technology
- Smart City Technology utilizes multiple sensors and cameras to capture targeted activity



# LightPath Uncooled 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



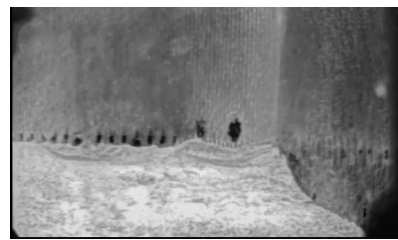
## High Sensitivity (HS)

Short range drone detection,  
Gas detection



## Furnace Cameras

Inspection inside  
furnaces



## EdgeIR

AI-Ready infrared  
Cameras



## CST-Solo

Compact, low weight,  
shutterless





# **LightPath Key Programs**

# Short Range Air Defense System

<b>Customer Name</b>	Lockheed Martin Missiles and Fire Control
<b>Target Application</b>	U.S. Army Stinger Missile
<b>Lightpath product</b>	I.R. Imager
<b>RFQ/RFP timeline</b>	RFP: March '23 RFQ: August '23
<b>Start of Production (SOP)</b>	Expected: LRIP: '27 SOP: '29
<b>Anticipated Project Lifespan</b>	10-year production program
<b>Project Milestone(s)</b>	Flight Test Review: <b>Complete/Passed</b> Initial Flight Test: March/May – '25
<b>Expected Volume</b>	Production rate: Up to 10K/year
<b>Product requirements</b>	In process
<b>Target Price</b>	\$5-10K/unit
<b>Estimated Win Probability</b>	50%/Sole Sourced to Lockheed Martin
<b>Program of Record</b>	Yes. (PE 0604117A)



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

**General Program Timeline (DoD FY):**

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

Note: Program is currently on Schedule



# Other Existing Programs



US Army Rotary  
Programs



Fixed Wing  
EOTS



NGLS  
NGHTS Program



In Space  
Communication



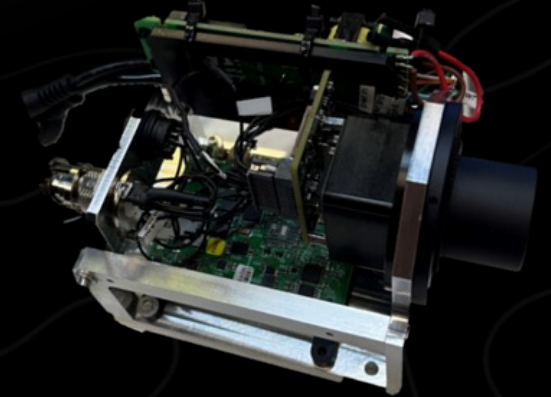
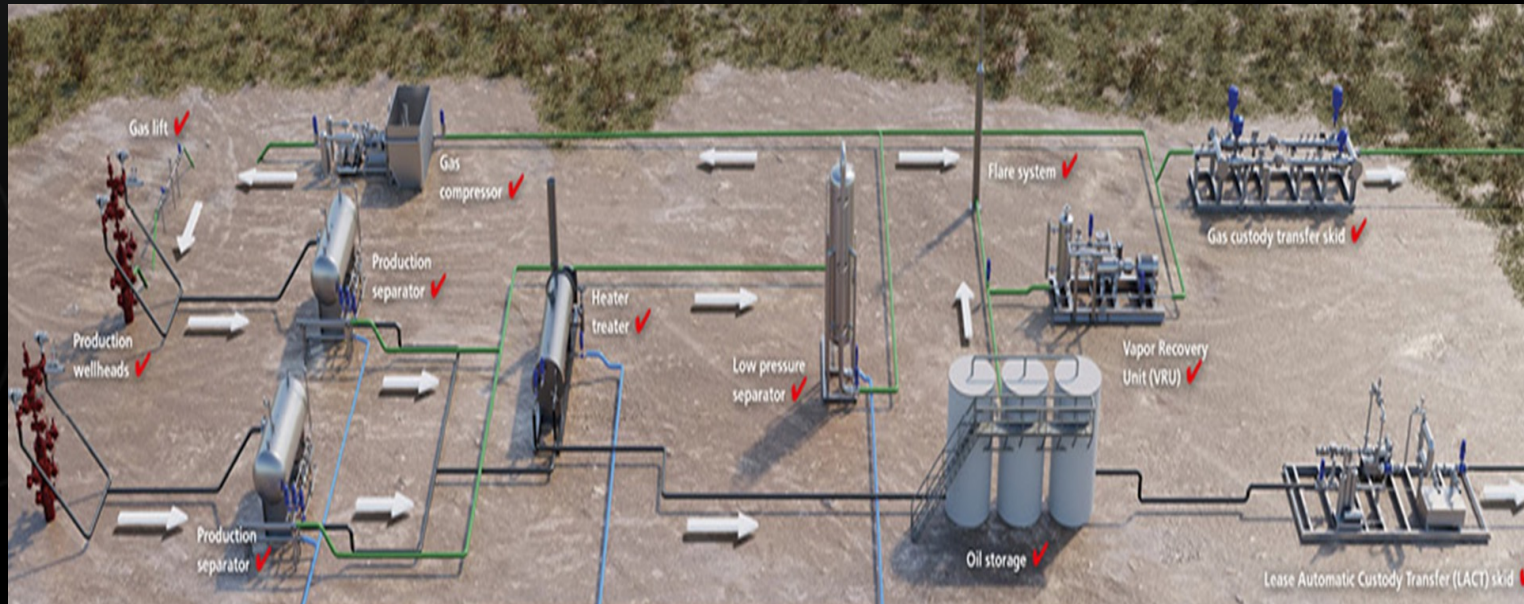
# **Key Applications and Industries**



# Optical Gas Imaging – Oil & Gas

## Key Takeaway:

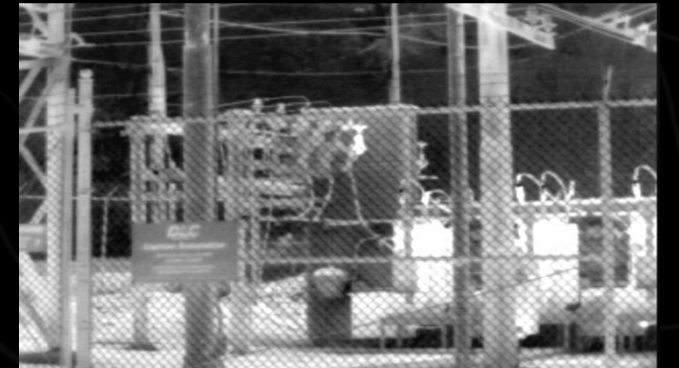
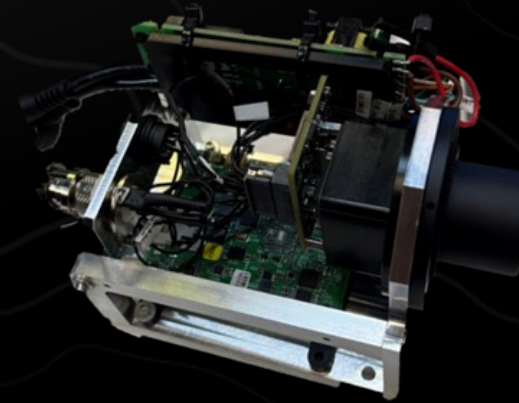
OGI has become an essential tool in industries where managing gas emissions is critical for both regulatory and operational reasons





# Optical Gas Imaging – Utility

- Monitoring **sulfur hexafluoride (SF6)** is crucial for several reasons, particularly due to its environmental and operational impacts.
- LightPath Gas Scan is filtered to visualize SF6
- **Preventing Gas Loss:** Since SF6 is expensive, monitoring leaks can help companies reduce gas losses and lower operational costs
- **Prolonged Equipment Life:** Effective SF6 monitoring also extends the life of high-voltage equipment by ensuring its proper operation and reducing the need for costly repairs or replacements.
- **Strong Greenhouse Gas:** SF6 is a potent greenhouse gas, with a global warming potential (GWP) approximately 23,500 times greater than CO2 over a 100-year period.

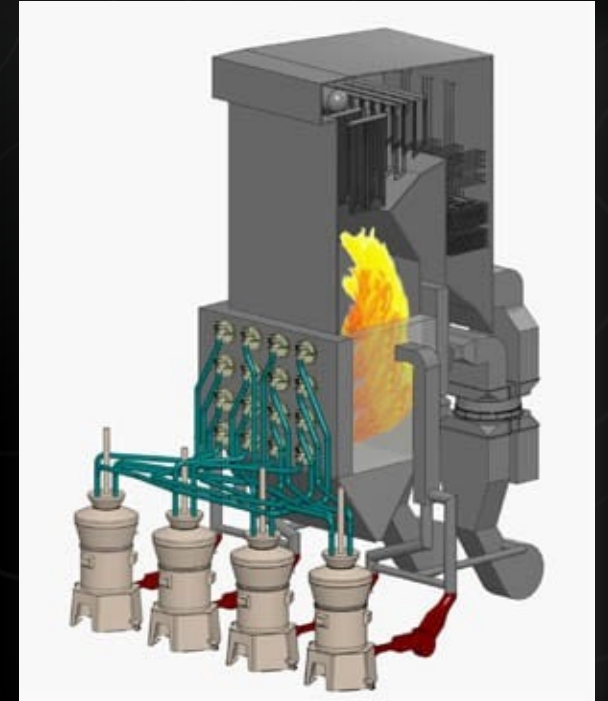
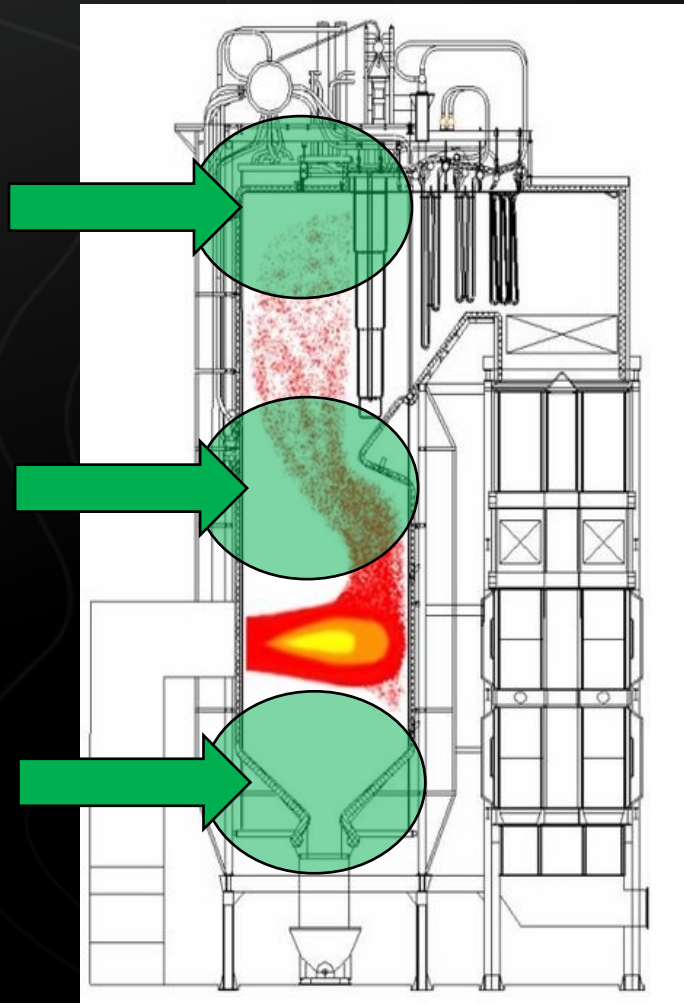


# Furnace Inspection Coal Fired Boiler

**Upper Furnace**  
(approx. 1300° C avg)

**Super Heat Entrance**  
(approx. 1500° C)

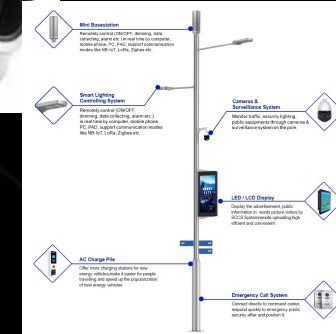
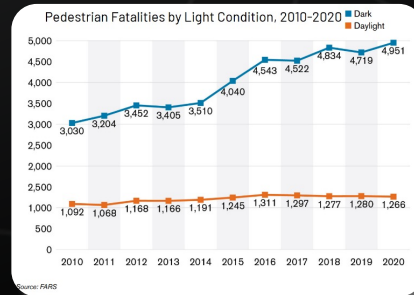
**Bottom Ash Pit**  
(100–500° C)



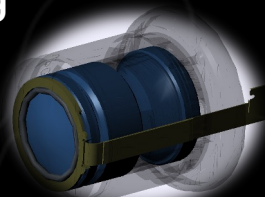
# Automotive & Smart Cities

## "Night Vision"

in existing Cadillac CT6



- LightPath addressing recent NHTSA directive (FMVSS #127): Automatic Emergency Braking
- Compliance is required by Sept. '29
- Currently under petition for reconsideration
- Why is LightPath considering this opportunity?



- What does 'Smart City' mean?
- Types of Monitoring
- Traffic Applications
- Monitoring by Cities, Towns or Municipalities



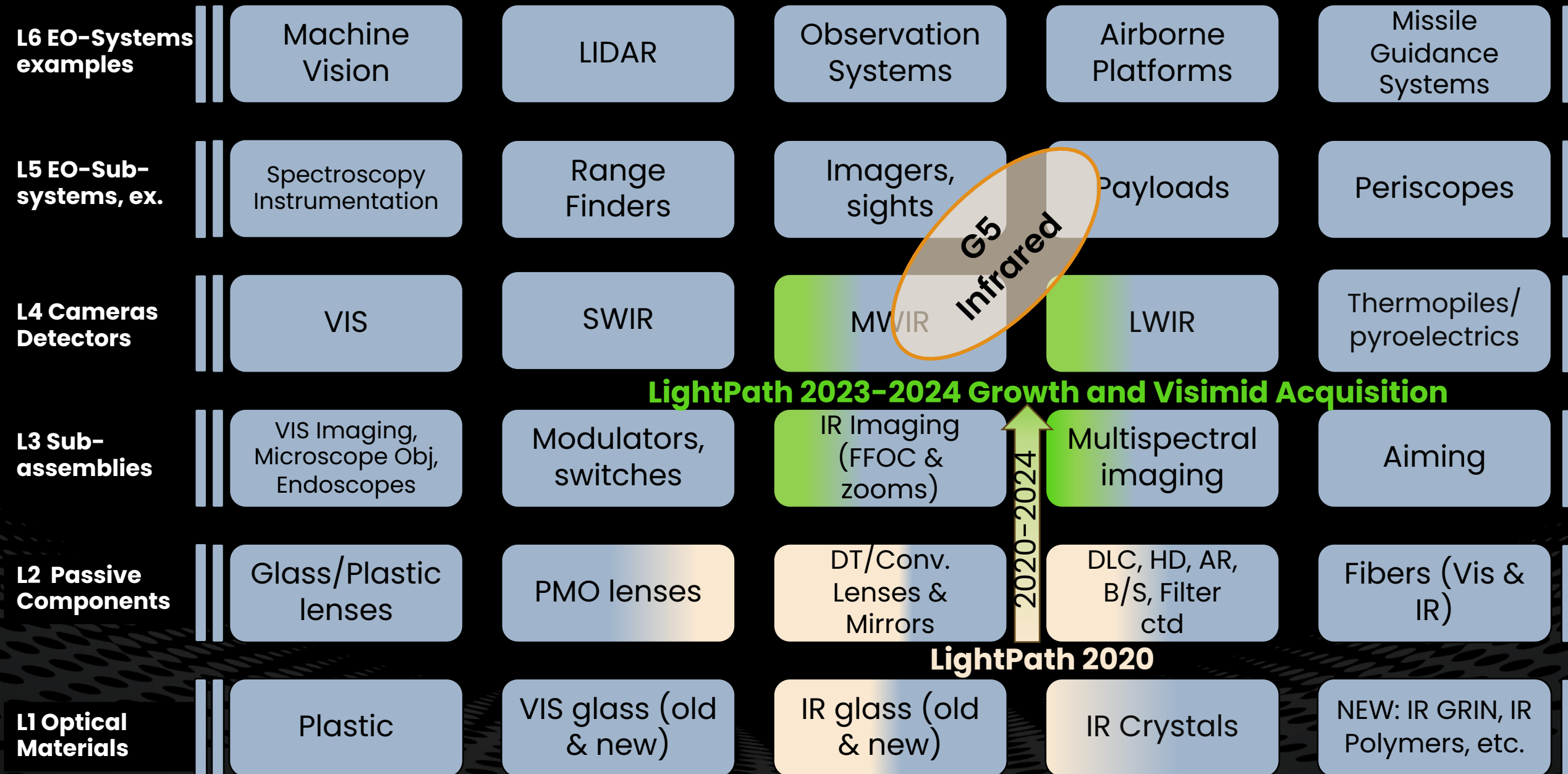


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Technologies



**Acquisition of G5:**  
**Incremental Technology,  
Products & Markets with  
Meaningful Synergies**

# Continued Growth in Levels of Vertical Integration.



# Investment Highlights



- Turn-around is complete
    - \$1m in annualized savings
  - Poised for growth
    - \$16m of capex deployed
  - Complete reposition of the business
- 
- Leading high-end infrared camera systems manufacturer
  - Robust financial profile with 20% EBITDA margins
  - Significant pipeline of new business opportunity



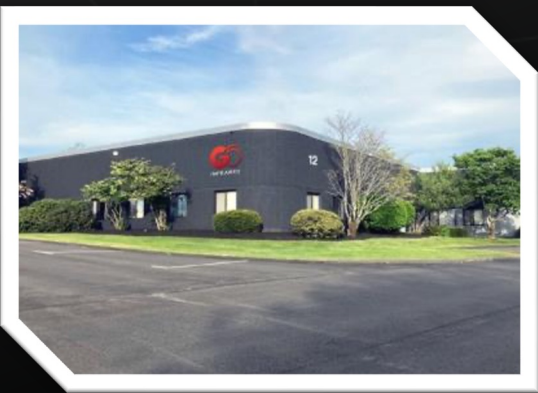
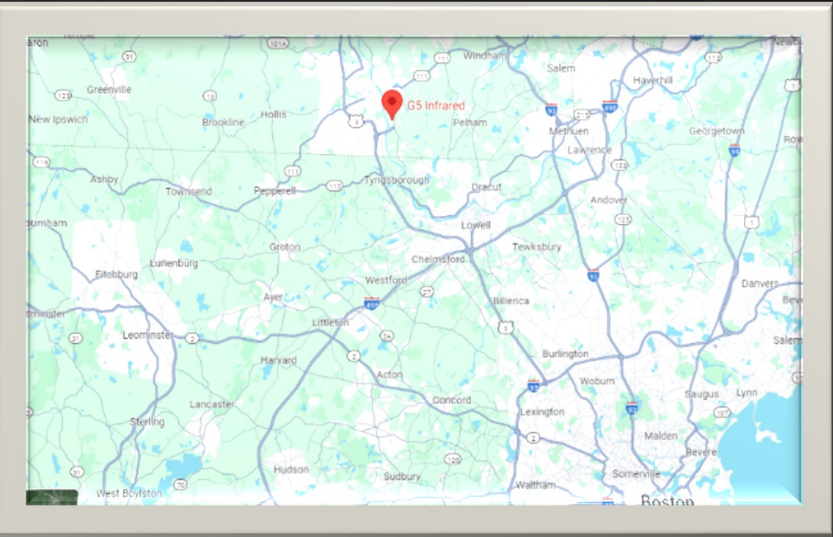
## LightPath 3.0

- Building a global leader in optics
- Vertically integrated systems manufacturer and assembly
- Expanded market opportunities
- \$55m+ revenue and targeting >20% growth



# G5 Quick Facts

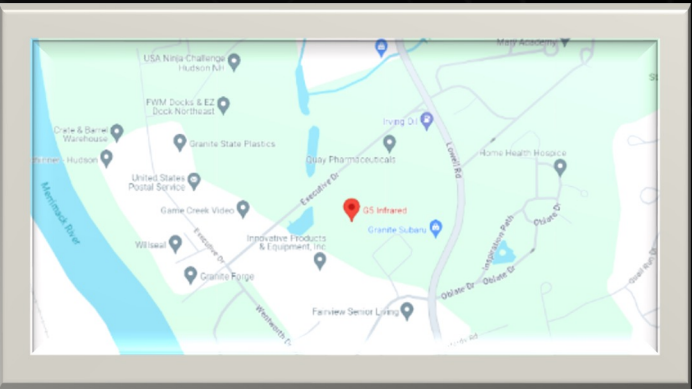
## Where are we Located?



12 Executive Dr.  
Hudson, N.H.



G5 Website



12 Executive Dr.  
Hudson, N.H.

**Established:**  
2011

**Employees:**  
40-50

**Location:**  
Boston: 42 mi  
Manchester: 26 mi

## G5 Quick Facts:

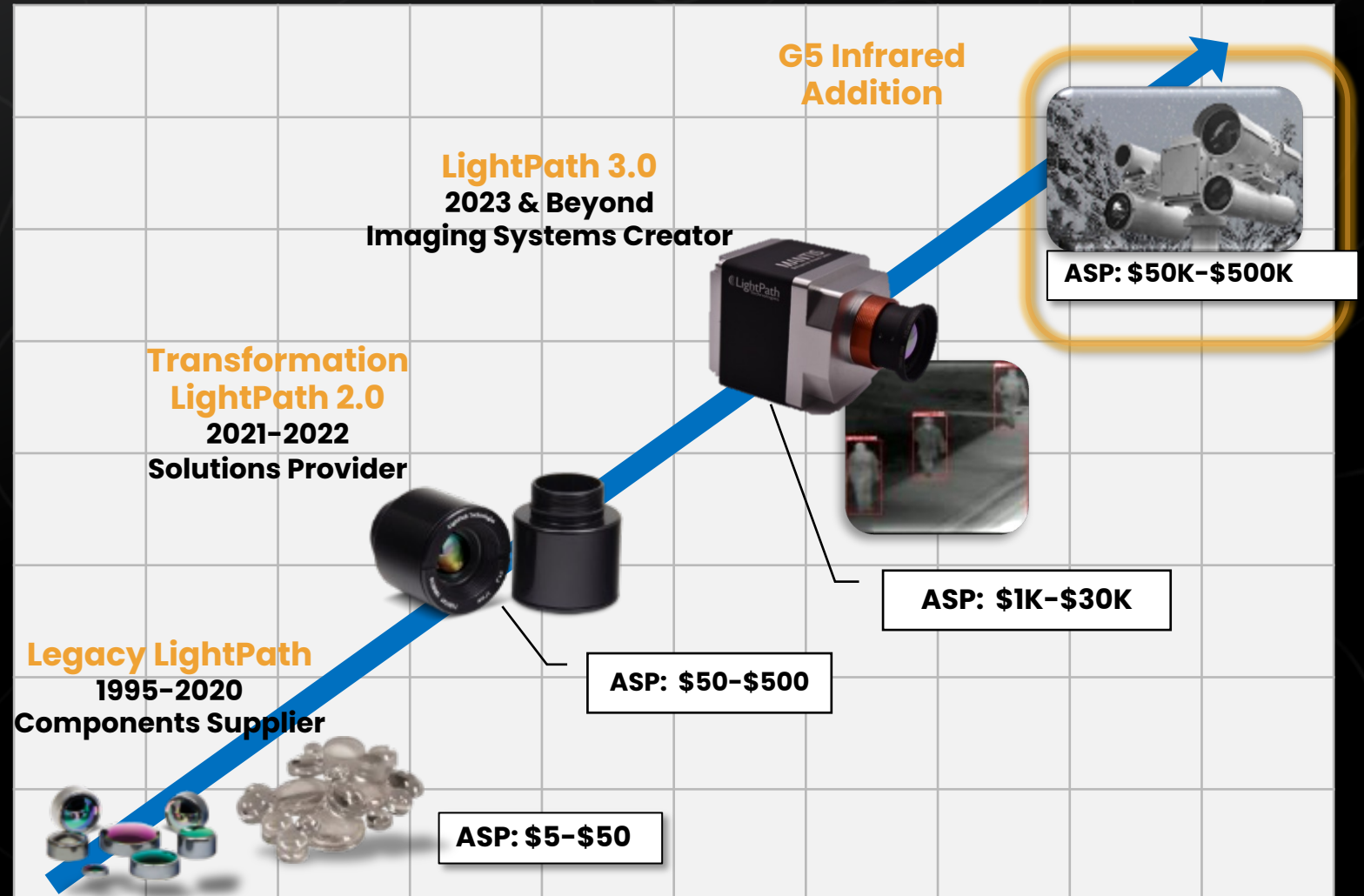
**Business Verticals:**  
1. Defense  
2. Commercial

**Products:**  
Infrared cameras  
Sensor suites  
Mirrors  
Windows & filters  
Mirrors

**Services:**  
Metrology  
Thin film coatings  
Optical Design  
Systems Engineer  
Lens Elements

# Strategic Fit

The Next Step  
for the  
New  
LightPath



# Transaction Summary

<b>Structure</b>	Equity transaction with 24 month earn-out
<b>Consideration</b>	\$6.75M in LPTH Shares, \$20.25M Cash
<b>Earn-Out</b>	12 Months & 24 Months after close, gated by EBITDA threshold. 12 Mos.: Up to \$14M if hit \$27M sales; 24 Mos.: Up to \$9M if hit \$33M sales
<b>Team</b>	Senior management to retire after 12 months, remainder of team remains and is excited
<b>Synergies</b>	Technology, Sales, R&D, Vertical Integration
<b>Timeline</b>	Closed February 18
<b>Financing</b>	Funded through fixed convertible preferred equity, secured loan, and equity provided by new and existing investors



# Strategic Fit

**Accretive**

60% increase in topline, profitable, fast growing.

**Technology**

Cooled infrared camera technology compliments LightPath's uncooled camera technology.

**Product**

Long range detection cameras. Fast growing market segment addressing security and C-UAS needs.

**Culture**

Strong Culture fit between the teams. Social bonds among leadership, collaboration with ISP all the way back to the 80s.

**Growth**

At an inflection point. Multiple program awards that are expected to begin production in the next two years.

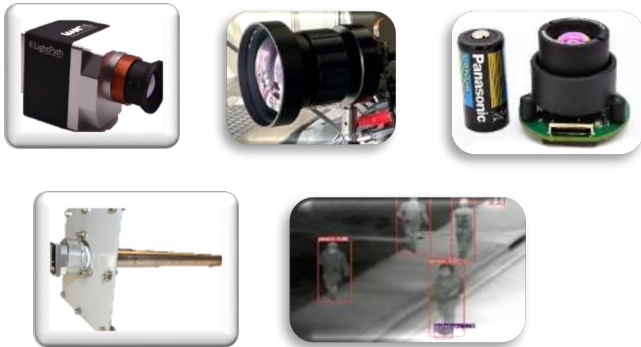
**Vertical  
Integration**

All Optics to be produced internally at LightPath, leverage BlackDiamond glass advantages.

# Building an Industry Leader



## Uncooled IR Camera Solutions



## Programs of Record



## Cooled IR Camera Solutions



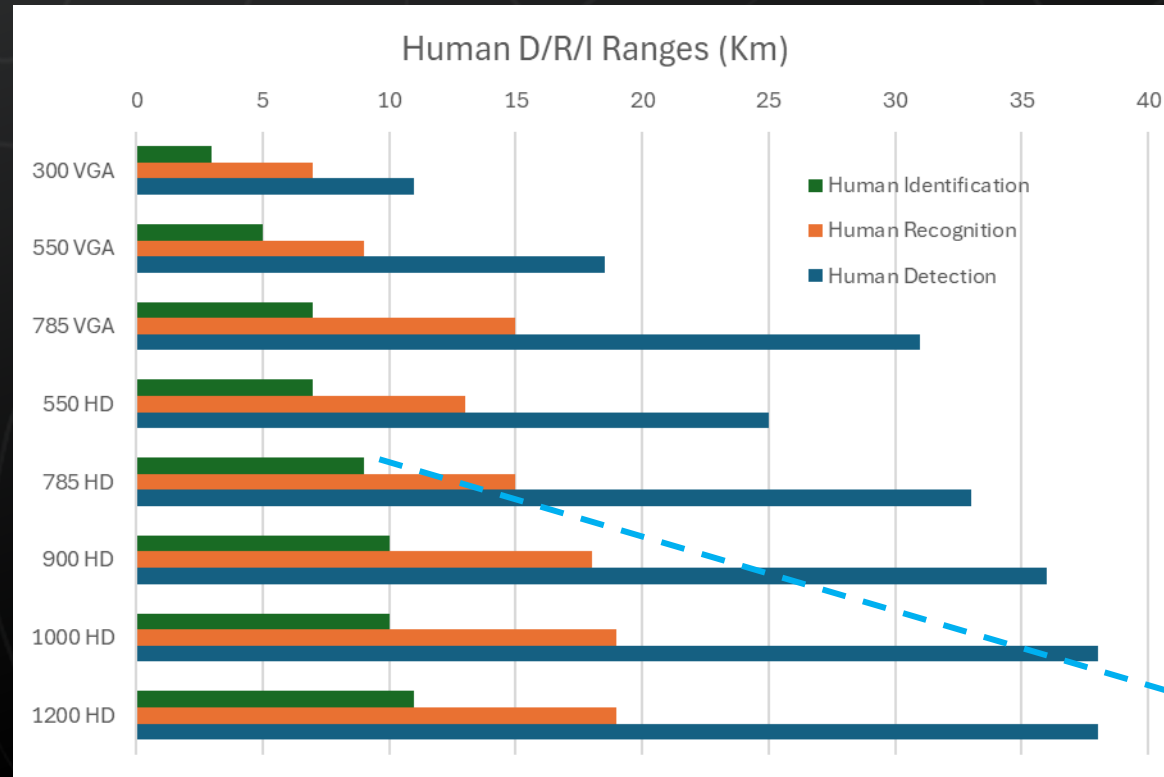
## Programs of Record



## LightPath 3.0

- Building a global leader in optics
- Vertically integrated systems manufacturer and assembly
- Expanded market opportunities
- \$55M+ revenue and targeting >20% growth

# Long Range Imaging Systems Portfolio



[Video on Youtube](#)



**Human**  
(1.8m x 0.5m)

**Detection**



**3.5x1 pixels / 2.1 ppm**  
(Something is there)

**Recognition**



**11x3 pixels / 6.3 ppm**  
(A person is there)

**Identification**



**23x6 pixels / 12.6 ppm**  
(The person looks like a civilian)



# ATCOM Image Stabilization Technology



[Video on Youtube](#)

# G5's Business Today

G5 currently focuses on providing cameras exclusively to support the following applications:

## Long Range Detection of Person & Vehicles



### Border Protection

## Naval



### Ship Protection, Long Range Detection

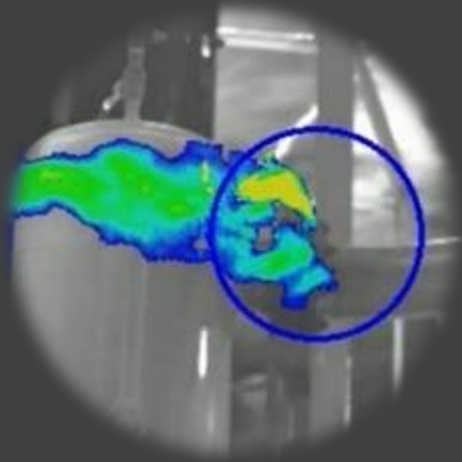
## Surveillance



### Long Range Surveillance



# Driving Growth



**Gas Sensing (Methane)**  
TAM >\$1B (2024)



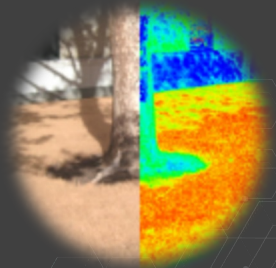
**Critical Infrastructure Security**  
TAM >\$1B (2022)



**Data Center Security**  
TAM >\$0.5B (2022)



**C-UAS**  
TAM >\$1B (2022)



**Multispectral Imaging**



**Repair Services**



**Assembly Services**



**Product Synergies**



**EdgeIR AI Hardware**

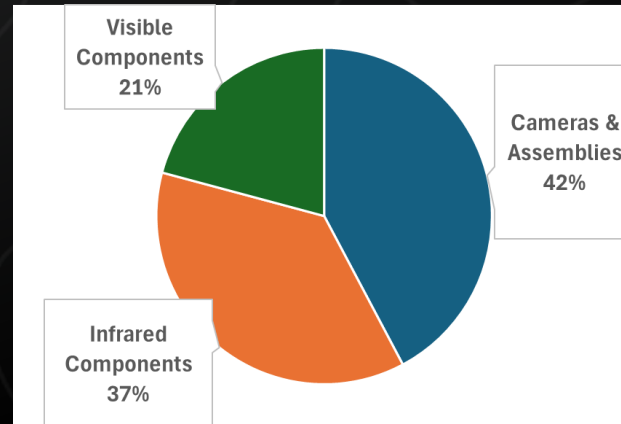


# Enhanced Financial Profile

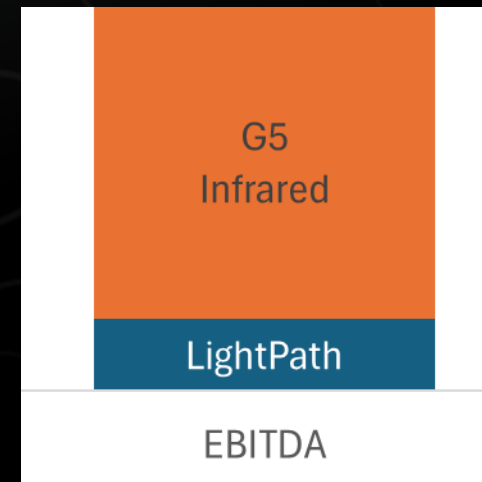
## Revenue Growth\*



## LightPath 3.0 Largest Product Group



## \$4M Incremental EBITDA\*



## 20% Combined YoY Growth Potential



Growth

\* Expected in 12 months following closing

# Identified Synergy Opportunities

## Sales and Marketing Synergies

- Cross selling
- Unified Software Platform
- Portfolio effect
- Multiple program awards among both companies

## Operational and R&D Synergies

- In-sourcing of optical components
- Leverage LPTH production facilities
- Alternatives to use of Germanium via BlackDiamond™
- Removing redundant operational support

## Technology Synergies

- G5's ATCOM
- LightPath's AI
- Multispectral Imaging
- Complimentary cooled technology to LPTH existing uncooled technology

# Optical Synergies



Multiple Element Optical  
Train  
Available for "Insourcing"

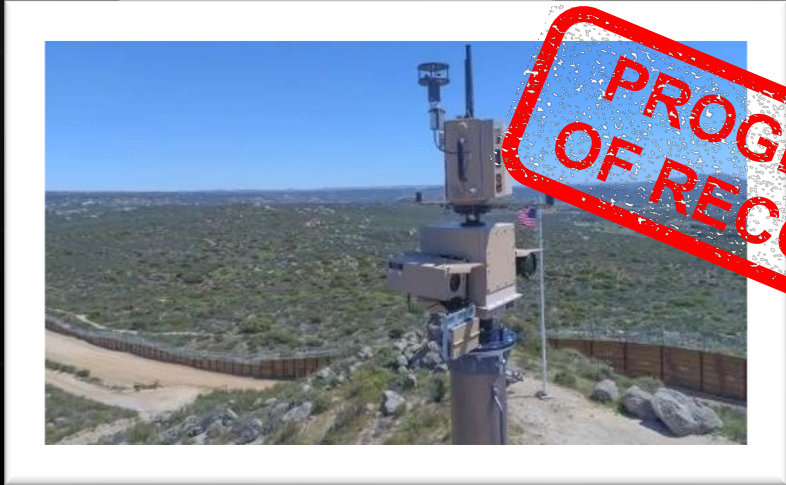


# Key Customers



# Consolidated Tower & Surveillance Equipment (CTSE)

Customer Name	Elbit of N. America
Target Application	Consolidated Tower & Surveillance Equipment (CTSE)
Lightpath/G5 product	Cooled Camera System
Start of Production (SOP)	Expected: LRIP: '25/'26 (current) SOP: '26/'27
Anticipated Project Lifespan	14-year program
Potential Revenue	\$5 - \$10m annually
Product requirements	Complete/In-house
Win Probability	85-90% (IDIQ between 3 primes)
Program of Record	Yes.



Program of Record – 024\_000005289  
Integrated Surveillance Towers

### General Program Timeline

Design Phase	FY 22-23	LRIP	FY 25
Field Tests	FY 23	S.O.P.	FY 26
Program award	Jan. '23		

Note: Program currently on Schedule

# Shipboard Panoramic Electro-Optic Infrared (SPEIR)

<b>Customer Name</b>	L3 Harris
<b>Target Application</b>	Shipboard Panoramic Electro-Optic/Infrared (SPEIR)
<b>Lightpath/G5 product</b>	Cooled Camera System
<b>RFQ/RFP timeline</b>	Won
<b>Start of Production (SOP)</b>	Expected: LRIP: '25/'26 (current) SOP: '26/'27
<b>Anticipated Project Lifespan</b>	10-year program
<b>Potential Revenue</b>	\$10 - \$20m annually
<b>Product requirements</b>	<b>Complete/In-house</b>
<b>Target Price</b>	\$250-500K per ship
<b>Win Probability</b>	<b>Won. Sole Sourced</b>
<b>Program of Record</b>	Yes. (PE 0604501N)



Program of Record – PE 0604501N /  
Advanced Above Water Sensors

## General Program Timeline

<b>Design Phase</b>	<b>FY 23- 24</b>	<b>LRIP</b>	<b>FY 25 / '26</b>
<b>Prototypes</b>	<b>FY 24-25</b>	<b>S.O.P.</b>	<b>FY 27</b>
<b>Program award</b>	<b>Jan. '23</b>		

**Note:** Program currently on Schedule



# Other Existing Programs



MOUT Training  
Centers



i-Stalker, Aircraft  
Carrier Protection



Prison Security  
Systems



FAA RVSS  
Towers



## **Financial Overview:**

**Accretive M&A Paired with  
Strong Near-Term  
Catalysts Expected to Drive  
Notable Growth**

# G5 Financing Overview & Comparison

- In completing the acquisition, LPTH brought in a new investment partner to finance the deal
- The lead investor, North Run, is a fundamental investor who focuses on long term investments in small-cap stocks
  - We view North Run as a partner as we execute on our growth strategy, who will have a board seat for at least 5 years
- The primary component of the financing was preferred stock – heavily negotiated to be as clean as possible (not toxic) & provide a way for LPTH to exit the preferred in 3–5 years, at LPTH’s discretion

Features	LPTH Preferred	Toxic Preferred/Converts
Conversion Price	✓ Fixed	✗ Floating/Variable
Amortizing Features	✓ None	✗ Self-Amortizing
Price Ratchets	✓ None	✗ Conversion Price Resets
Black Scholes Warrant	✓ None	✗ Yes
Investor Type	✓ Fundamental Investor	✗ Arbitrage Fund
No Short Provision	✓ Yes	✗ None
Consent Rights	✓ None	✗ Debt, Equity, M&A consents



# Deal Structure

## Summary

### “Old School” Convertible Preferred Stock

- \$25.5 million
  - \$24.5 million new money, \$1.0 million rolled from existing note
- \$2.20 unit conversion price
  - \$2.15 per share + \$0.05 per warrant
- 37.5% warrant coverage, struck at \$2.58
- 6.5% Interest, with PIK option
- Mandatory conversion provision after 3 years
- Redemption provision after 5 years

### Promissory Note

- \$5.3 million
  - \$4.0 million new money, \$1.3 million rolled from existing note
- 10%-12% interest
- 2-year term

### Equity

- \$1.5 million
  - \$0.5 million new money at \$2.15 per share (no warrants)
  - \$1.0 million rolled from existing note at \$2.15 per share with 37.5% warrant coverage

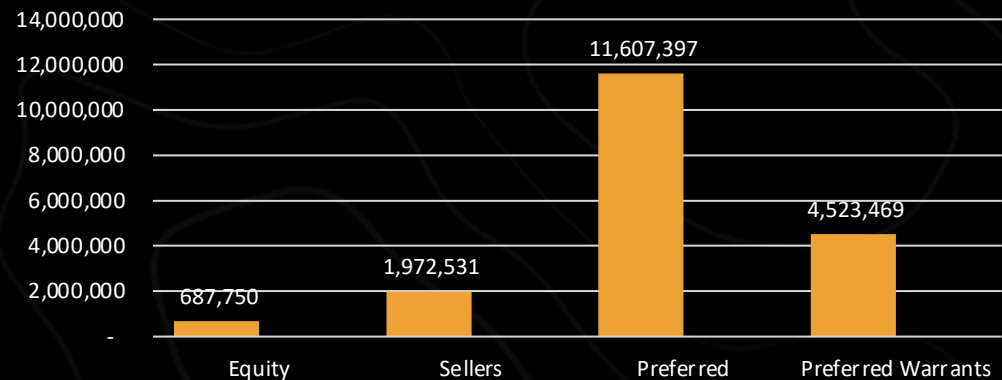
### North Run capital + two existing investors

*LPTH's existing \$3.0 million promissory note is fully converted*

## Items of Note

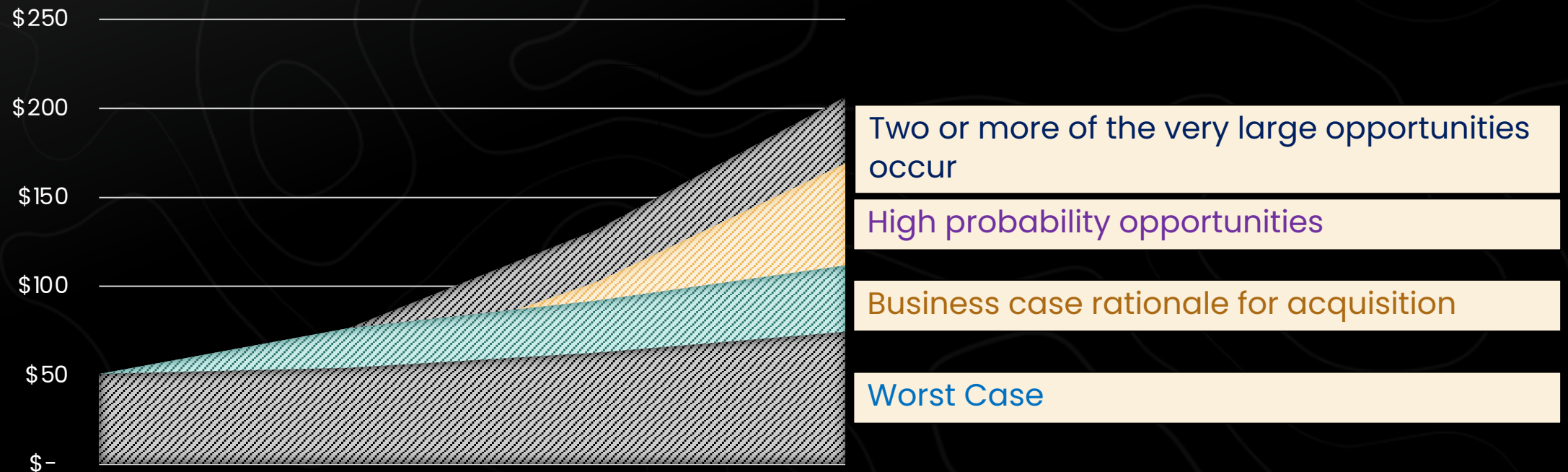
- \$29M Net “Cash In” after Promissory Note conversion
- \$6.7M Cash “walk away” after Seller & Expenses are paid
- Mandatory conversion provision after 3 years
- Optional redemption period from LPTH or North Run after 5 years
- North Run on board of Directors for at least 5 years
- No short provision from North Run

Shares by Transaction Type



# Consolidated 5 Year Revenue Opportunity Analysis

- Base Business Case was built ground up from known customers and known high probability opportunities
- The Worst-case scenario assumes growth similar to the market
- The High Probability case is the Base case plus the Apache program
- The “Upside” scenarios were built on the three scenarios above plus one or more large program wins



# G5 Consolidated Financial Statements

## G5 CY 2024 Unaudited

Sales	\$15.1 M
Total COGS	\$9.4 M
Gross Profit (Loss)	\$5.7 M
Gross Margin	37.8%
G&A Expenses	\$5.6 M
Net Profit (Loss)	\$0.1 M
Net Margin	0.7%
Adjusted EBITDA	\$1.2 M
	7.9%



## Strategic Targets

- **Revenue Growth**
  - Target > 20%
  - Earn Out First Step Goal is \$21M
- **COGS**
  - No synergies in the assumptions
  - We do have plans for raw material and lens cost reductions
- **Gross Margins Target**
  - 35% - 45%
- **G&A Expenses**
  - No synergies in the assumptions
  - We do have plans for reductions
- **EBITDA Target**
  - 17%-22%
  - Earn Out Threshold is 20%



# How to Measure Success in 2025

- Accelerating revenue growth with cross-selling of G5 products
- Higher ASPs as we transition to a solutions company
- Measurable progress with Lockheed Martin program
- Additional defense contract wins
- Adj. EBITDA positive, 10%+ of revenues
- More BlackDiamond™ materials released into the market
- BlackDiamond™ design wins
- New Camera products, uncooled and cooled



# Question & Answer Session

## Investor Relations

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949-259-4987

## Engage with us

Twitter

@lighpathtech

LinkedIn

lightpath-technologies

Web

[www.lightpath.com](http://www.lightpath.com)

Global Leader in Optical & Infrared Solutions

