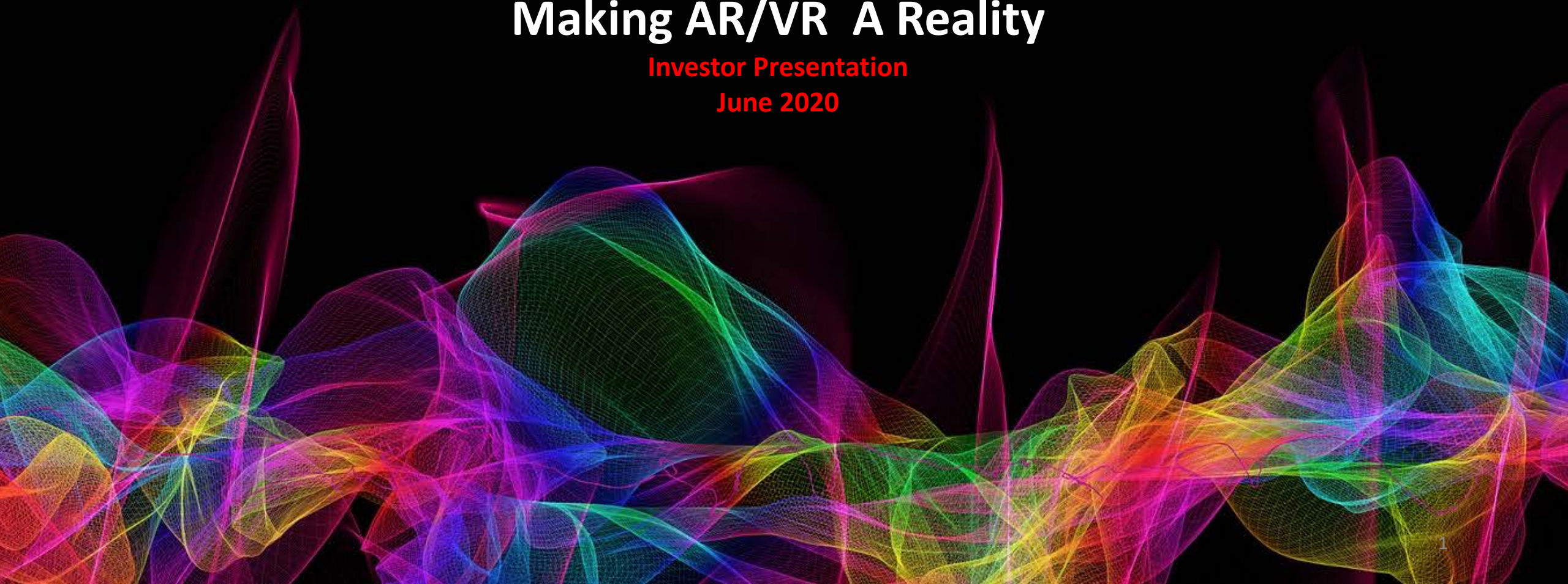
eMagin

Making AR/VR A Reality

Investor Presentation

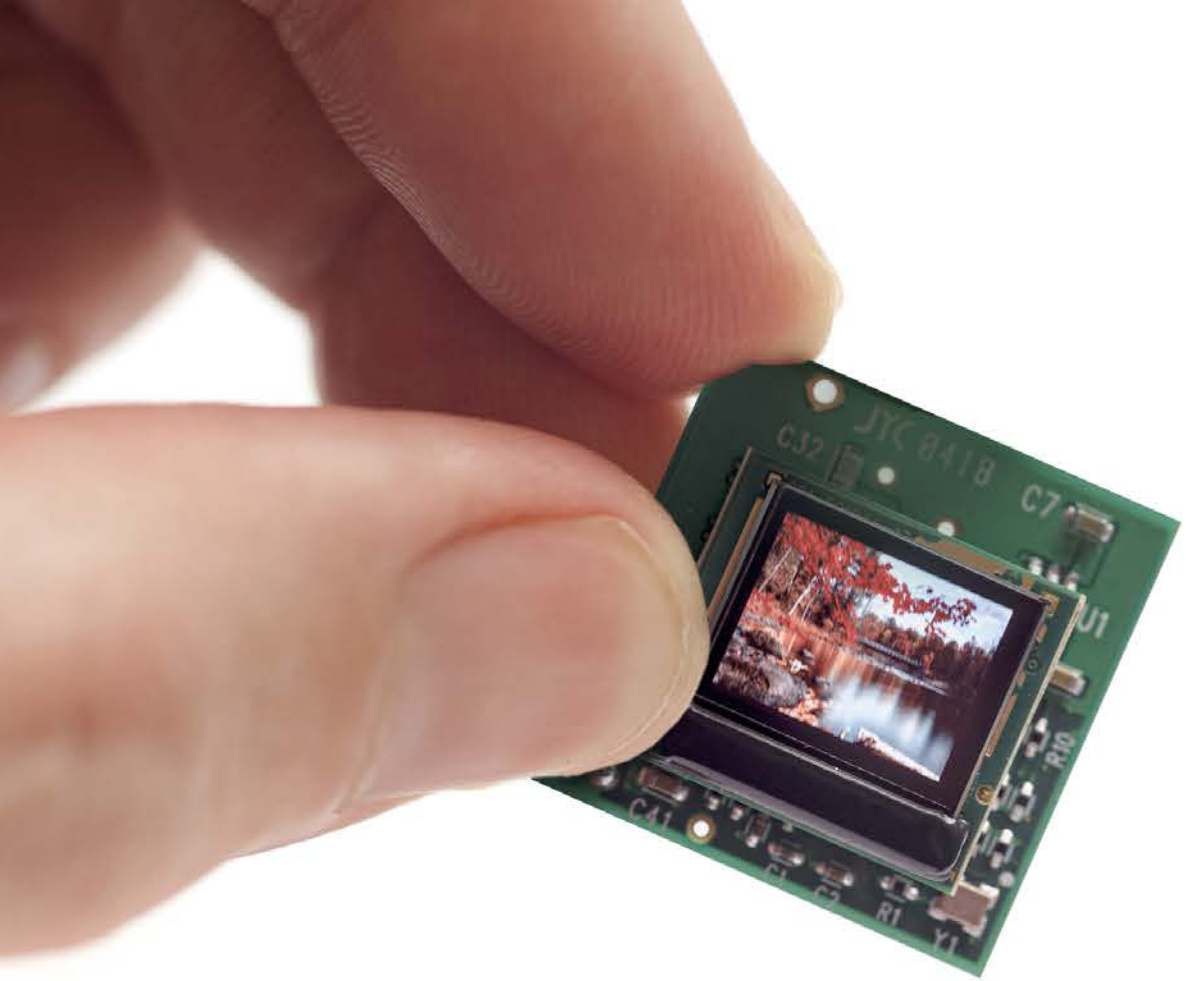
June 2020



Disclaimer

Certain statements made by us in this presentation that are not historical facts or that relate to future plans, events or performances are forward-looking statements within the meaning of the federal securities laws. Our actual results may differ materially from those expressed in any forward-looking statement made by us. Forward-looking statements involve a number of risks or uncertainties including, but not limited to, the risks described under the heading "Risk Factors" in the Company's filings with the Securities and Exchange Commission, including, but not limited to, the Company's Reports on Form 10-K for the year ended December 31, 2019. All forward-looking statements are qualified by those Risk Factors as well as the Company's "Statement of Forward-Looking Information" in such filings. All statements made by us in this presentation are further qualified in all respects by the information disclosed in the Company's filings with the Securities and Exchange Commission. These statements are only predictions. We are under no duty to update or revise any forward-looking statements to conform such statements to actual results or events, and do not intend to do so.

This presentation is the property of, and contains the proprietary and confidential information of the Company and is being provided solely for informational purposes. The projections, estimates and forecasts contained herein have been prepared by the Company in good faith based on assumptions believed by the Company to be reasonable at the time of preparation thereof. Forecasts and estimates regarding the Company's industry and end markets are based on third party sources the Company believes to be reliable. There can be no assurance however that any particular projection, estimate, forecast or other forward-looking information will prove to be accurate in whole or in part or that any of the information contained herein is reflective of future performance to any degree. No representation or warranty is made with respect to the information included herein.



Vision:

Enable the future of computing & imaging with OLED technology

Key Messages

1. The only US manufacturer of OLED microdisplays; a technology leader with proprietary and patented direct patterning technology (dPd™) for ultrahigh brightness in color
2. Uniquely positioned to capitalize on growing addressable markets in military, industrial and consumer for high brightness AR/VR solutions
3. Recent US government funding for manufacturing to support improvement in growth, innovation and productivity
4. Deep applications expertise and broad IP portfolio; aligned with blue-chip customer base and long-term industry trends
5. Well-established military and aviation market presence benefitting from secular and cyclical tailwinds; leverageable platform for high growth opportunities in consumer and commercial end markets
6. Highly experienced management team with industry leading technical expertise enabling a substantial runway for value creation

eMagin at a Glance

Headquarters:	Hopewell Junction, **NY**
Manufacturing:	**U.S. Domiciled**
Employees:	**100+**
Revenue:	**$26.7M in 2019**
	• 92% from Product Sales, 8% Contracts
	• 53% U.S., 47% International
	• 27 countries served
Market Cap:	**$29.1M***
Exchange:	**EMAN on NYSE**
Patents:	**42 issued, 40 pending**

The technology leader in OLED Displays.

Making AR/VR a reality.

*based on closing price on 6/3/20 and 53.8M shares outstanding.

Growth Strategy

Leverage commercial and consumer electronics customer relationships for AR/VR opportunities

Develop partnerships for high volume manufacturing

Grow commercial and industrial presence

Expand military and aviation market share

Deepen penetration of leading-edge dPd™ technology

Increase capacity and production yields; expand manufacturing capability

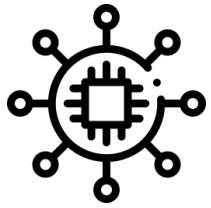
Q1 2020 Highlights: Improving Performance

Improved Financial Trends

- 1Q20 revenue of $6.7 million, 10% YOY increase; including Tier 1 client in the consumer space
- $13.3 million of backlog at 1Q20, 14% sequential and 24% YOY increase
- Sold to 78 customers for 18 new programs; four new customers
- Expect 2Q20 revenue to be sequentially higher

Productivity and Efficiency Gains

- 1Q20 results reflected a 27% decrease YOY in operating expenses
- Reduction in compensation and discretionary expenses
- Expect ongoing improvement in yield and throughput

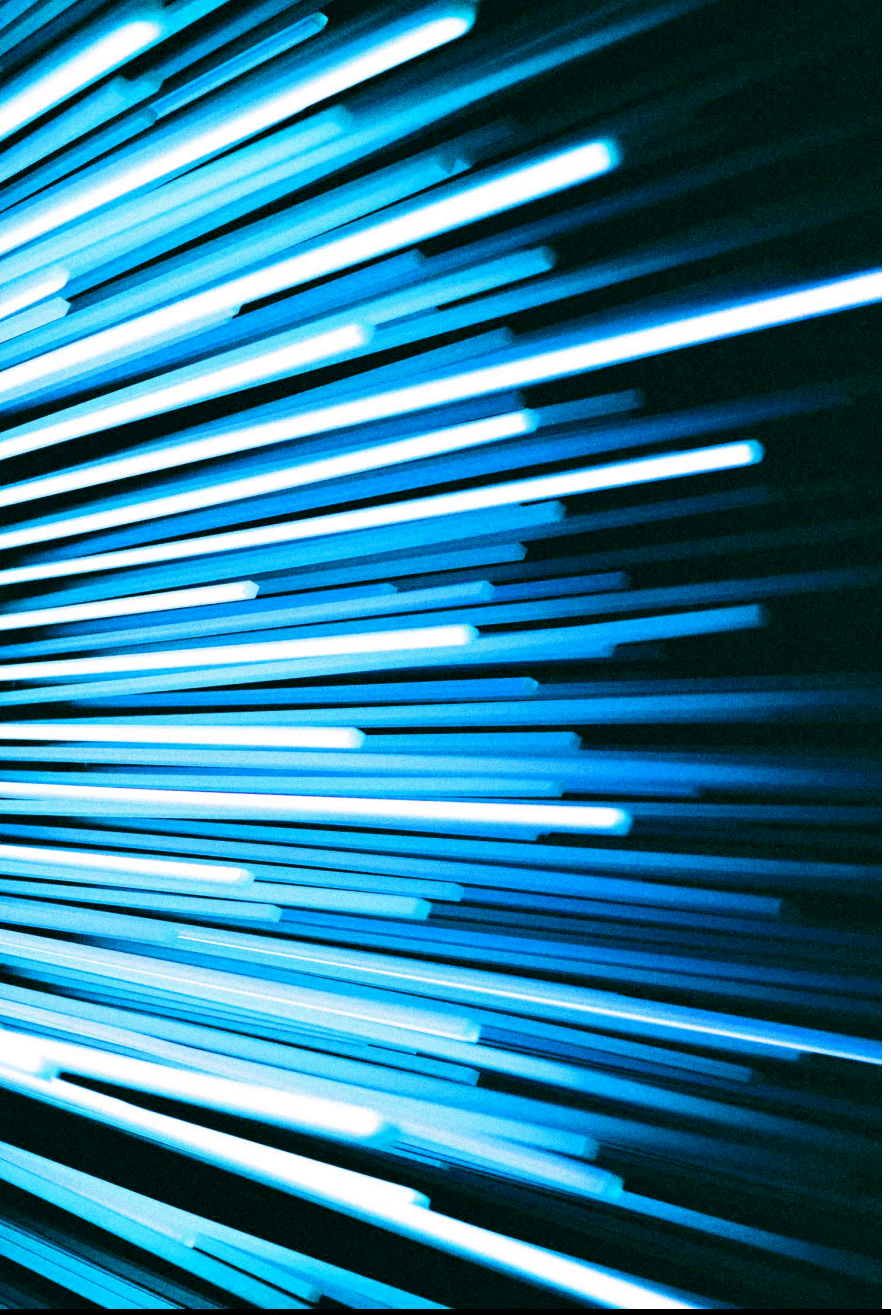


Advancing Product Development

- Will achieve 10,000 nits brightness by 4Q20 and 28,000 nits by 2023, 5x – 10x > competitors
- Improved wafer design for next generation F-35 HMD systems; shipments planned for later in FY20
- Received awards for two-multiyear U.S. helicopter helmet programs in 1Q20
- Providing displays for thermal systems for firefighting/law enforcement and veterinary ultrasound goggles, cataract operating systems, and MRI and LASIK systems in medical market

$5.5 million Department of Defense Award

- Received award under the Industrial Base Analysis and Sustainment (IBAS) Program for Organic Light Emitting Diode (OLED) Supply Chain Assistance
- Recognized by DOD as the only domestic manufacturer of OLED microdisplays designated as a cornerstone of the US manufacturing base
- Phase I funds for procurement and installation of capital equipment at the Hopewell Junction facility to enhance manufacturing capabilities
- Additional awards available through Phase II and III, if funding becomes available, that eMagin could use for equipment designed to increase production of products based on the Company's advanced direct patterning technology



eMagin's OLED Technology Advantage

Lowest Power and Highest Brightness

- Brightest OLED – monogreen over 28,000 cd/m^2; full color 7,500 cd/m^2 demonstrated, full color 10,000 cd/m^2 targeted this year
- Very high contrast – greater than 1,000,000:1
- Lower power consumption– longer battery life
- More compact form factor
- Light-weight solution
- Field tested for reliability and performance
- Nausea-free operation
- Superior performance and a competitive cost at higher volumes

History of Technical Leadership

Many fundamental innovations in microdisplays

- Commercial full color SVGA+ Active Matrix OLED microdisplay
- Full color SXGA OLED microdisplay
- High-brightness monochrome SXGA microdisplay (20k+ cd/m2)
- High-brightness color SXGA OLED microdisplay (700+ cd/m2)

History of Technical Leadership

Promising results of Direct Patterning (dPd)

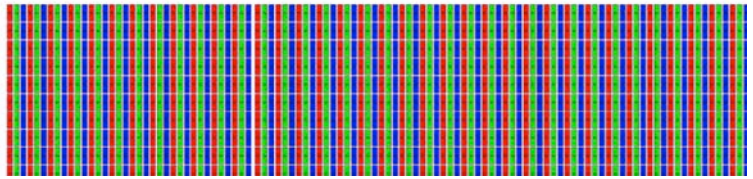
- dPd® demonstrated on 2k x 2k display
- dPd enhancements (<7,500 cd/m2 brightness on a full color WUXGA)
- 4k x 4k microdisplay demonstrated at SID conference

OLED Provides Superior AR/VR Experience

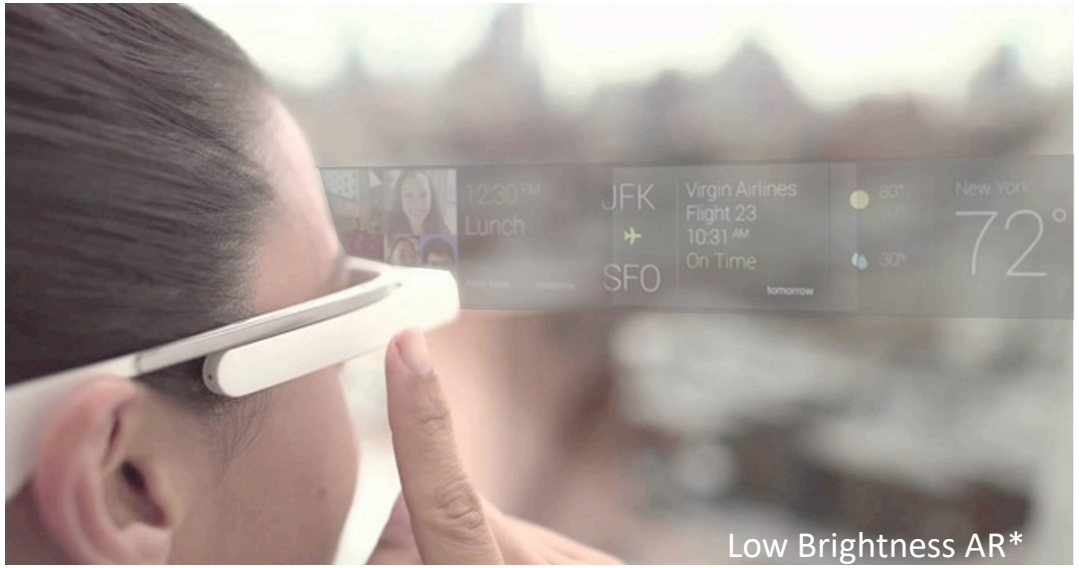
Magnification Highlights eMagin's Superior Fill Factor

Samsung Galaxy S5 OLED
Cell Phone Display / 600 ppi

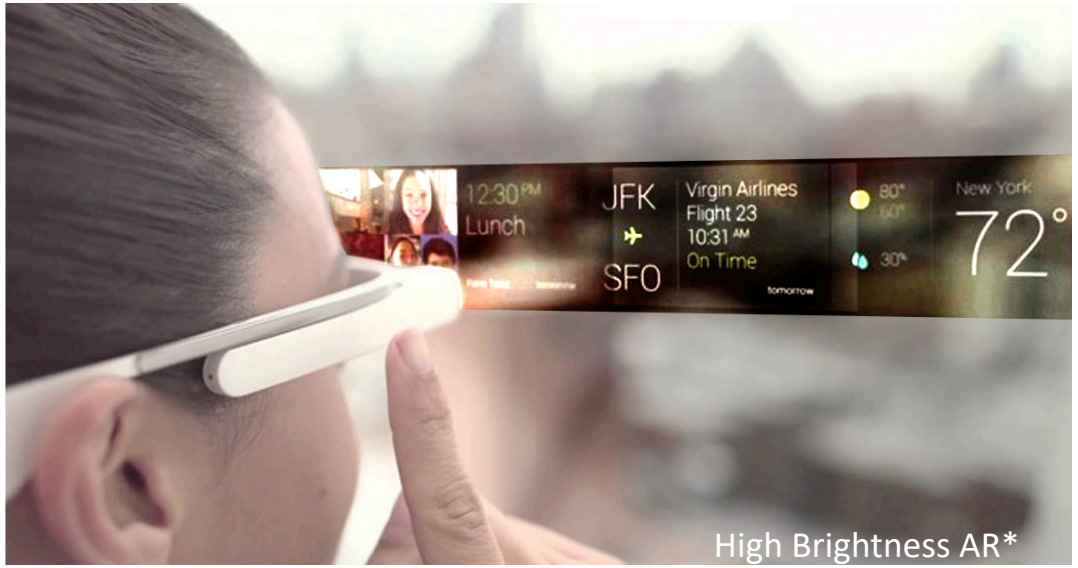
eMagin OLED Microdisplay
>2,500 ppi



The Future of AR/VR Powered by – dPd™



Low Brightness AR*



High Brightness AR*

- Conventional OLED microdisplays use white OLED with color filters
  - Color filters absorb ~80% of the useful light; limited brightness and inefficient

- Only eMagin has Direct Patterned microdisplay technology for direct emission of red, green and blue light without color filters
  - Enables significantly higher brightness; targeting 10,000 cd/m^2 at year end and 28,000 cd/m^2 by 2023
  - Higher efficiency, much lower power consumption

- eMagin is ahead today in full color OLED microdisplay brightness and will stay ahead

*for illustrative purposes only

Deep Application Expertise & Broad IP Portfolio

Patents

- 42 patents issued and 40 pending
- Includes silicon backplane, OLED architecture, process and packaging
- Key patents include ultra-high brightness directly patterned OLED displays

Know-how

- Includes Silicon backplane, OLED architecture, process and packaging
- Back-plane design
- Anode patterning
- Direct patterning of OLED
- Thin film encapsulation
- Packaging methodology

Significant Barriers to Entry

Military & Aviation

Profile

- Predominately sole-source supplier
- Differentiated performance and leader in brightness
  - Visible in bright sunlight
  - High contrast for detail
- First mover in AR/VR for domestic and foreign military applications
- Global market leadership - U.S. Army, Air Force, Special Forces, Navy/Marines
- Proven track record of performing in demanding applications and environments
- Long-standing customer relationships and extended program and product lifecycles
- Favorable secular and cyclical tailwinds
- Military microdisplays addressable market expected to increase five-fold to $1.3B by 2024[1]
- Accelerating activity and program wins in aviation
- Trend away from LCD to microOLED for better contrast and brightness

Customers

BAE SYSTEMS

Naval Air Systems Command

LOCKHEED MARTIN

Elbit Systems

LEONARDO DRS

L3HARRIS™

Rockwell Collins

THALES

SAGEM

TATA POWER

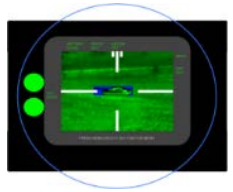
Raytheon Technologies

Products

Enhanced Night Vision Goggle

Helmet Display

Laser Range Finder



Simulation Training Devices

Commercial & Medical

Profile

Abbott LASIK

- Products provide high reliability in stressful environments
- Visualize digital information and imagery
- Successful in supplying to medical imaging devices, thermal cameras and hunting scopes
- Recent customer wins include:
  - $780,000 order from an existing medical device customer upgrading their product with our high brightness XLT technology with anticipated follow-on orders
  - Second order from a new customer that is developing/prototyping a non-invasive surgical application device using our displays

Products

XM Reality AR Guidance System

NordicNuroLabs Visual System

Bug Bovine Ultrasound Goggle

EyeSi Surgical Sim

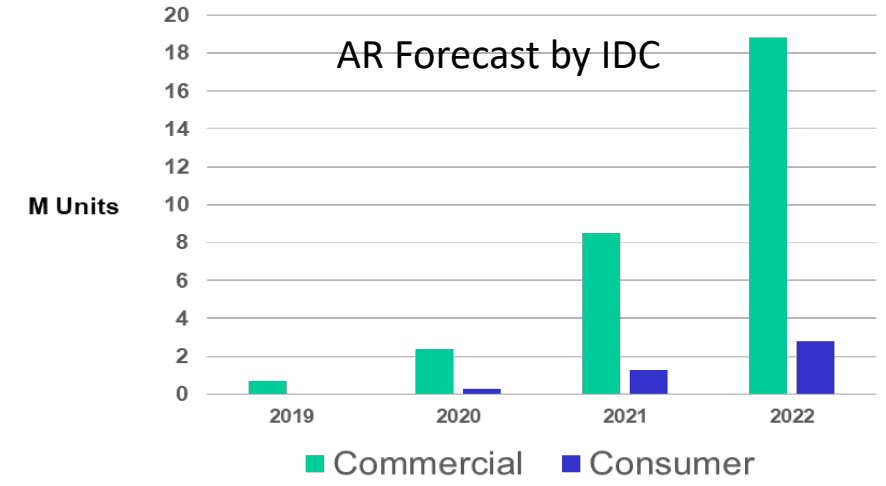
Hunting Scopes

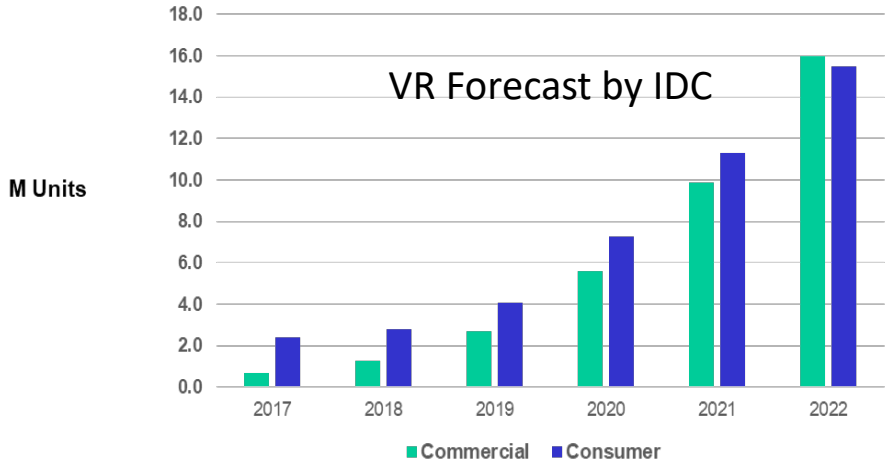
End Market Diversification

Commercial & Consumer

Profile

- ✓ Augmented reality for
  - Equipment repair
  - Factory automation
  - Service technicians
- ✓ Virtual reality for
  - Vehicle design
  - Training and simulation
  - Consumer gaming and entertainment
- ✓ eMagin is the only company with technology that satisfies the key requirements:
  - High brightness
  - High speed
  - High pixels per inch
  - High resolution





Well Positioned To Capitalize on Large Market Opportunity

Manufacturing Footprint - Made in the USA

Hopewell Junction, NY (Headquarters)

- Lease ~42,000 square feet of space
- Houses own equipment for OLED microdisplay fabrication, assembly operations, R&D and product development functions
- eMagin is the only US-based manufacturer of OLED microdisplays
- $5 million DoD award for procurement and installation of capital equipment to enhance manufacturing

Class 10 Clean Room Operations

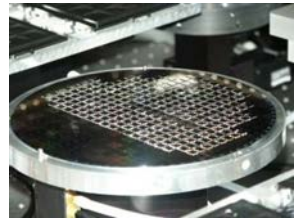
Photo-Lithography

Metal Deposition

OLED Deposition

In-Line Inspection

Glass Lid



Glass Lid Detail

Advanced Packaging Capabilities

Senior Management Team

Andrew Sculley *CEO*	• Over 20 years experience in OLED technology and manufacturing • Led Kodak OLED Systems • MS Physics Cornell, MBA Carnegie-Mellon
Dr. Amal Ghosh *COO*	• Pioneering inventor of disruptive OLED technology at eMagin and Kodak • PhD Physics MIT • Past President of the prestigious Society for Information Display (SID)
Mark Koch *Acting CFO*	• Previously eMagin's VP of Finance and Corporate Controller • +25 years of financial experience • Certified Public Accountant; BS Manhattan College
Oliver Prache *SVP* *Product Development*	• OLED product commercialization pioneer at Pixtech (France) and OIS Optical Imaging Systems • Diplôme d'Ingénieur from E.N.S.E.R.G. Grenoble France
Joseph Saltarelli *SVP Operations*	• Over 25 years of semiconductor, thin films, and packaging manufacturing • Senior Director of Manufacturing Operations, GLOBALFOUNDRIES • BS Ceramic Engineering and Materials Science Rutgers, MBA in Technology Management
Dr. Scott Bukofsky *VP Business Development*	• Over 20 Years experience in semiconductors and sales management • Senior Director of Sales at GLOBALFOUNDRIES • PhD Electrical Engineering from Yale University

Key Messages

1. The only US manufacturer of OLED microdisplays; a technology leader with proprietary and patented direct patterning technology (dPd™) for ultrahigh brightness in color
2. Uniquely positioned to capitalize on growing addressable markets in military, industrial and consumer for high brightness AR/VR solutions
3. Recent US government funding for manufacturing to support improvement in growth, innovation and productivity
4. Deep applications expertise and broad IP portfolio; aligned with blue-chip customer base and long-term industry trends
5. Well-established military and aviation market presence benefitting from secular and cyclical tailwinds; leverageable platform for high growth opportunities in consumer and commercial end markets
6. Highly experienced management team with industry leading technical expertise enabling a substantial runway for value creation

Appendices

Consolidated Statement of Operations

$ in thousands, except share and per share data

	Three Months Ended March 31,	
	2020	**2019**
Revenues:		
Product	$ 5,634	$ 5,507
Contract	1,097	605
Total revenues, net	6,731	6,112
Cost of revenues:		
Product	4,790	4,426
Contract	507	350
Total cost of revenues	5,297	4,776
Gross profit	1,434	1,336
Operating expenses:		
Research and development	980	1,597
Selling, general and administrative	1,798	1,939
Total operating expenses	2,778	3,536
Loss from operations	(1,344)	(2,200)
Other income (expense):		
Change in fair value of common stock warrant liability	(20)	794
Interest expense, net	(17)	(33)
Other income, net	12	—
Total other (expense) income	(25)	761
Loss before provision for income taxes	(1,369)	(1,439)
Income taxes	—	—
Net loss	$ (1,369)	$ (1,439)
Loss per share, basic and diluted	$ (0.03)	$ (0.03)
Weighted average number of shares outstanding:		

Adjusted EBITDA

$ in thousands

	Three Months Ended March 31,	
	2020	**2019**
Net loss	$ (1,369)	$ (1,439)
Non-cash compensation	43	193
Change in fair value of common stock warrant liability	20	(794)
Depreciation and intangibles amortization expense	480	488
Interest expense	17	33
Adjusted EBITDA	$ (809)	$ (1,519)

Consolidated Balance Sheet

$ in thousands, except share and per share data

	March 31,	December 31,
ASSETS		
Current assets:		
Cash and cash equivalents	$ 3,138	$ 3,515
Accounts receivable, net	3,737	3,966
Unbilled accounts receivable	470	155
Inventories	8,821	8,832
Prepaid expenses and other current assets	1,344	1,130
Total current assets	17,510	17,598
Equipment, furniture and leasehold improvements, net	7,926	8,100
Operating lease right - of - use assets	3,545	3,729
Intangibles and other assets	133	160
Total assets	$ 29,114	$ 29,587
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,577	$ 1,302
Accrued compensation	1,566	1,778
Revolving credit facility, net	2,191	2,891
Common stock warrant liability	43	23
Other accrued expenses	1,485	1,401
Deferred revenue	294	277
Operating lease liability - current	791	775
Other current liabilities	351	342
Total current liabilities	8,298	8,789
Finance lease liability - long term	20	24
Operating lease liability - long term	2,863	3,067
Total liabilities	11,181	11,880
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, $.001 par value: authorized 10,000,000 shares:		
Series B Convertible Preferred stock, (liquidation preference of $5,659) stated value	—	—
Common stock, $.001 par value: authorized 200,000,000 shares, issued 53,980,918 shares,	54	50
Additional paid-in capital	260,358	258,767
Accumulated deficit	(241,979)	(240,610)
Treasury stock, 162,066 shares as of March 31, 2020 and December 31, 2019.	(500)	(500)
Total shareholders' equity	17,933	17,707
Total liabilities and shareholders' equity	$ 29,114	29,587