

Organised in conjunction with and support of OASIS





Pebruary 2017
David Intercontinental Hotel
TEL-Aviv
Conference ChairProf. Abraham Katzir

#### Schedule

#### Sunday, 26 February 2017

Sana	Sanday, 20 1 condary 2017					
11:45	Depart by bus to El Op / Elbit Systems  Hotel Lobby at InterContinental David Hotel Tel Aviv					
9 1	Kaufmann Street 12, Tel Aviv					
12:45–15:30	Visit to El Op / Elbit Systems					
ADDRESS:	Hamada 5, Rehovot					
•	Lunch					
•	Company presentation Company tour					
15:30–16:00	Depart by bus to Orbotech					

16:00-18:00 Orbotech

ADDRESS: HaSanhedrin Boulevardd, Yavne

16:00–16:20 EPIC delegation introduction

16:20–16:50 Orbotech presentation

16:50–17:15 Discussion / common interests

17:15–18:00 Orbotech Campus tour

18:00-19:00 Bus ride to Jerusalem 19:00-20:00 Dinner at Kedma Restaurant

ADDRESS: Alrov Shderot Alrov, Mamila Avenue, Jerusalem Dress: Casual (jeans, comfortable walking shoes)

Special thanks to our sponsors: Raicol, AccuBeat, Teramount, Civan & Al Cielo

20:00-22:00 Tour of Old City of Jerusalem

22:00-23:00 Drive back by bus to InterContinental David Hotel Tel Aviv

### Monday, 27 February 2017

08:00-09:00 **OASIS** Registration

Participants to self-govern

ADDRESS: Plenary Hall, InterContinental David Hotel Tel Aviv, Kaufmann Street 12, Tel Aviv

OASIS Conference / Exhibition 08:30-17:00

Participants to self-govern

17:30-20:00 **OASIS VIP Reception** 

Delegation to reconvene for dinner

#### Tuesday, 28 February 2017

08:30-13:00 OASIS conference

Participants to self-govern

13:00–13:10 Walk to Association of Electronics and Software Industries in Israel

Meeting Point: Hotel Lobby

13:10-17:00 B2B Networking Meeting: Association of Electronics and Software Industries in Israel ADDRESS: Association of Electronics and Software Industries, Beit Hataashyanim, 16th floor

29 Hamered Street, Tel Aviv

Special thanks to our sponsors: AEAI, IAESI, ISERD

13:10-14:00 Lunch

14:00-14:30	Greetings & Opening Presentations  European Photonic Industry Consortiu				
	Opening - Haim Rousso - AESII				
	EPIC - Carlos Lee				
	Horizon2020 - Hadas Daar, Director ICT-Security-FET, ISERD				
14:30–14:45	EPIC Sponsor Presentations (5 minutes each, 3-5 slides)				
14:45–15:45	Company Presentations (2 minutes / company, no slides)				
15:45–16:15	Networking Break				
16:15–17:30	Company presentations				
17:30–17:45	Signing of MOU between EPIC and Association of Electronics and Software Industries in Israel				
17:45–18:30	Networking Break				
18:30–19:00	Walk to Maganda Restaurant + Tour of Yemenite quarter given by Zvi Marom,				
	CEO of BATM and Chair of Association of Electronics & Software Industries in Israel				
19:00	Closing Reception + Dinner at Maganda Restaurant				
ADDRESS:	Rabbi Meir 26 Tel Aviv				
	Special thanks to our sponsors: BATM, Gavish, HOLO/OR				

#### Wednesday, 1 March 2017

07:20	Gather	in	Hotel	Lobby
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NB: All to check out now if not staying on. Those going straight to airport from V-GEN should bring luggage on the bus; those coming back to the hotel after V-GEN can store luggage with hotel.

07:30 Depart by bus from InterContinental David Hotel Tel Aviv

08:00-10:00 Visit to ECI Telecom

ADDRESS: Ha-Sivim Street 30, Petah Tikva

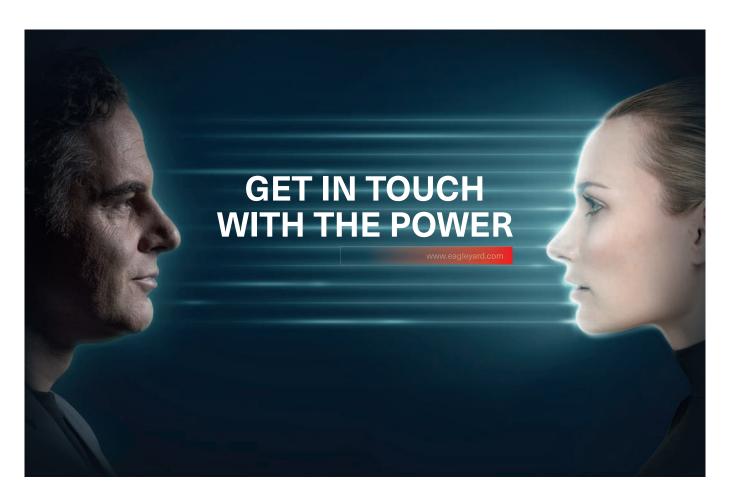
- 08:00 Arrive ECI
- 08:10 EPIC Introduction
- 08:20 ECI Highlights Jonathan Homa, Sr. Director Portfolio Marketing
- 08:30 Apollo optical value chain Rafi Leiman, Sr. Director Product Management
- 08:50 Visit to Apollo Verification and Validation Lab Rafi Leiman, Sr. Director Product Management
- 09:10 Apollo optical transmission modeling Eyal Lichtman, Director Systems Engineering
- 09:30 Apollo demos Ben Yagoni, Director Testing and Technical Support
- 09:50 Discussion, Wrap-up
- 10:15 Depart by bus to V-GEN / Spectra Physics
- 10:30–12:30 Visit to V-GEN / Spectra Physics
  - ADDRESS: Yigal Alon Street 120, Tel Aviv-Yafo
    - NB: There is public transportation (express train) close to V-GEN for those going straight to the airport following the visit
- 12:30–13:00 Drive to InterContinental David Hotel Tel Aviv
  - 13:00 Lunch

For those who have time to spare, we will go for an informal lunch some place close to the hotel (led by Anna Feis)

## **Organizer contacts**

FPIC

Anna Feisanna.feis@epic-assoc.comMobile +27 764 464 496Carlos Leecarlos.lee@epic-assoc.comMobile +32 473 300 433Jose Pozojose.pozo@epic-assoc.comMobile +31 626 978 312Joe van Zwarengood.o.joe@gmail.comMobile +972 549 730 029







**fibeReality** is an independent consulting and market intelligence company specializing in optical equipment and services in the telecommunications and data communications space. We excel at vetting ideas for new solutions or product features, and we meticulously put together customized competitive and strategic analyses. fibeReality also offers published market research reports based on the feedback of buyers of fiber optic gear and services in Europe, North America, Asia, and other parts of the world. www.fibereality.com



# **Participants**

Company	Name	Surname	Job Title	Country
Teramount		(Avi)	Israel	CTO Israel
Duma		Oren	CEO	Israel
Elbit Systems		Ayalon	Business development & innovation manager	Israel
Innolume		Shkolnik	Director Business Development	Germany
Accubeat		Vaksman	Biroctor Business Boroto princing	Israel
CI Systems		Gil	Product Line Manager, Remote Sensing	Israel
Raicol		Yarden	CEO	Israel
EPIC - European Photonics Industry Consortium		Feis	CFO and Photonics Investment Advisor	South Africa
Kilolambda	Ariela	Donovel	СТО	Israel
Micron 3DP	Arik	Bracha	CEO	Israel
Lionix International	Arne	Leinse	Chief Commercial Officer	Netherlands
Optogama	Aurimas	Galinis	Chief Sales Officer	Lithuania
Civan		Gabbai	Operations	Israel
EPIC - European Photonics Industry Consortium		Lee	Director General	Belgium
University Paderborn	Christoph		Professor	Germany
Nanonics Imaging		Lewis	VP Marketing	Israel
CI Systems		Tzafrir	vp General Manager E-O Division	Israel
Nova Measuring Instruments		Oppenhaim	CEO	Israel
Micron 3DP		Gal-Or		Israel
Civan		Shekel	CEO	Israel
CEA LETI		Simoens	Strategic Marketing Manager – Imaging Sensors	France
OpTecBB		Lerch	Managing Director	Germany
Imagine Optic		Clouvel	R&D Engineer	France
ISERD		Daar	Director ICT-Security-FET	Israel
Israel Association of Electronics and Software		Rousso	Board Member	Israel
Teramount		Taha	CEO	Israel
Etesian Semiconductor	lra	Naot		Israel
Accubeat		Weiss	CEO	Israel
HOLO/OR		Grossinger		Israel
Al Cielo Inertial Solutions TEMATYS		Engel Cochard	Director of Engineering	Israel
			Partner, Technology transfer & Research valorization	France
Gavish JNBF		Fitchgiven van Zwaren	President & CEO	Israel
		Pozo		Israel Netherlands
EPIC - European Photonics Industry Consortium  Gavish			Director of Technology CEO	
		Sragowicz Cantarini		Israel France
Imagine Optic Kilolambda		Golding	Business development & Sales - Europe CMO	Israel
V-Gen, Spectra-Physics Tel-Aviv		Lasri	CTO	Israel
LayTec		Binetti	Product Line Manager	Germany
Altechna		Pilkauskas	CEO	Lithuania
AFE	Mark	Johnson	Director of Technology	UK
fibeReality		Lutkowitz	Principal	USA
AEAI		Adler	Tincipal	Israel
eagleyard Photonics		Kneier	VP Sales & Marketing	Germany
Private		Mesh	VI Suics & Marketing	Israel
AIMEN		Otero	Laser Microprocessing Researcher	Spain
SensUp		Picard	Sales Director	France
ISERD		Shalev	Managing Director and National Coordinator	Israel
BATM		Harpak	Chair & CTO	Israel
Eolite Systems		Metivier	President & CEO	France
Altechna		Dobrovolskis	Key Account Manager	Lithuania
Civan		Cohen	Semiconductors	Israel
PI		Jordan	Sr. Director, NanoAutomation	USA
Elbit Systems		Willner	CTO	Israel
Rosh		Halevy	Chair	Israel
Nova Measuring Instruments		Mironi	Director of Technology Partnership Programs	Israel
Optogama		Lipinskas	CEO	Lithuania
Israel Aerospace Industries (IAI)		Feingersh		Israel
eagleyard Photonics		Laurent	СТО	Germany
Color Chip	Tomer	Segev		Israel
IZAK Scientific		Sabati	CEO	Israel
Accubeat	Uriel	Arad	Rubidium oscillators line manager	Israel
Optosigma	Vito	Roppo	Sales and Engineering Manager, EMEA	France
Raicol		Zerem	Chair	Israel
Gavish		Israeli	Marketing Executive	Israel
Raicol	Yehiel	Plaut	VP Sales & Marketing	Israel
Al Cielo Inertial Solutions	Yehuda	Albeck	СТО	Israel
Al Cielo Inertial Solutions	Yehuda	Albeck	СТО	Israel
BATM	Zvi	Marom	Chair	Israel

## Thank you to our sponsors based in Israel



AccuBeat designs, develops and manufactures highly accurate Rubidium Frequency Standard and time generation and synchronization products combined with GPS receivers. AccuBeat's products are used for applications in the Aerospace, Defense, Telecommunications, Research and other industries. Its products and platforms deployed in sensitive Military and Government programs worldwide and have earned the trust of the IDF, the USAF, Project Galileo and others. In the commercial field, their equipment can be found in Telecommunications equipment, SDH networks, cellular base stations, telemetry appliances, calibration and testing solutions and in research facilities worldwide. www.accubeat.com



The Association of Engineers (AEAI) is the professional body that represents engineers, architects and graduates in technological sciences in Israel. It is a central national body which aims to promote developments in the field of technology, and to advance the professional status of engineers, architects and graduates in technological sciences in Israel. <a href="https://www.engineers.org.il">www.engineers.org.il</a>



**BATM** is a high tech company with HQ in Boston MA, USA & Hod Hasharon Israel. The company has several branches in Europe, Latin America and Far East and employs approximately 700 scientists and engineers worldwide. BATM has two main activities structured into divisions: Telecom Division which specializes in the development, production & marketing of:

- Data and telecommunication products in the field of local, Metro and wide area networks
- ATCA based solution for the Access and the Edge
- Access and edge platforms based on carrier Ethernet with emphasis on QOS, Service management, Traffic shaping, load balancing, DPA, DPI
- Cyber solutions

The second is the Medical Lab division which specializes in the development, production & marketing of:

- Medical laboratory diagnostic solutions that include equipment and reagents.
- Sterilization and medical waste disposal unique solutions.

BATM was founded in 1992 by Dr. Zvi Marom as a bootstrap that grew into a multinational technology corporation. The company is listed on the London Stock Exchange (LSE: Ticker BVC). <a href="https://www.batm.com">www.batm.com</a>



Al Cielo Inertial Solutions (ACIS) is a leading manufacturer of closed loop FOG based inertial systems that has been supplying Israeli and International clients with high-performance, reliable, and ITAR free inertial solutions, while maintaining a competitive and fair price. As the only manufacturer in Israel for Closed Loop FOGs, ACIS has delivered products to the top-tier defence industries in Israel: RAFAEL, ELBIT, Israel Airspace industries, Israel Military Industries, as well as many other system manufacturers in Israel, Asia, Europe and the Americas. The company's IMUs and systems are integrated into world class fully operational systems, such as rockets, payloads, UAVs, civilian aircraft protection systems, and many others in Israel as well as in the international defence market. www.alcielo.com



Civan Advanced Technologies is a Jerusalem based Hi - Tech company in the field of electro optics. Since its establishment in 2008, Civan's focus has been the development of high power lasers. Civan's product line includes Single Mode (SM) lasers with Continuous Wave (CW) power ranging from 10 Watt to KWatt. The advantages of Civan's lasers include high reliability, high wall-plug efficiency, energy saving, low cost and low maintenance. www.civan.co.il



**Gavish** is a world leader as a sapphire optics manufacturer by providing quality sapphire components. Gavish is focused on the customer with quick response and total control from crystal production through fabrication, certification, and packaging, backed up by world class customer service and support. www.gavish.com



**HOLO/OR** specializes in the design, manufacturing and commercialization of new products and systems based on diffractive optical elements (DOEs). HOLO/OR has developed and manufactured a variety of diffractive optical elements for high power lasers that accomplish difficult tasks, conventional optics fail to address effectively. Through its in house software and algorithms, the designs of HOLO/OR reach top quality in means of efficiency, uniformity and other required parameters. The company now holds an extensive multifunctional design database, enabling us to give fast solutions for different applications and customer needs. www.holoor.com



**ISERD – The Israel-Europe R&I Directorate** directs Israel's participation in the EU Framework programs. In 1996, Israel was the first non-European country to be associated to the EU's "Framework Program for Research and Technological Development". These seven year programs have become the largest publicly funded R&D programs in the world. The current program "Horizon 2020", which Israel joined in 2014, has a budget of close to EUR 80 billion for 2014-2020. The Israel-Europe R&I Directorate which is an inter-ministerial directorate, established by the Israeli Ministry of Economy, the Ministry of Science, Technology and Space, the Planning and Budgeting Committee of the Council for Higher Education, the Ministry of Finance and the Ministry of Foreign Affairs. ISERD is operated through the Office of the Chief Scientist of the Ministry of Economy, and is Israel's official contact point (NCP) with the EU, for all the activities of the Framework Programs. ISERD Promotes the participation of Israeli entities in Research & Innovation ventures within the European Research Area. www.iserd.org.il



Israel Association of Electronics and Software (IAESI) was established for the purpose of enhancing and promoting the electronic and software industry and is comprised of about 300 companies in the fields of electronics, telecommunications, semiconductors, medical devices, IT and software. IAESI strives to maintain the competitive advantage of Israel's electronics and IT sector in the face of increasing competition from India, China and the countries of the former Soviet Union. Association services include: acting to enlarge and establish the R&D infrastructure of Israel's electronic industry and knowledge; cooperating with the Industrialists Association in order that members shall be adequately represented; and collecting, processing and distributing relevant information deriving from external sources to members of the Association. www.iaesi.org.il



Raicol Crystals specializes in the manufacture of nonlinear optical crystals and electro-optic devices. Raicol's "state of the art" crystals are used in various industries, such as: communications, medical, military, industrial lasers, etc. The company's innovative crystal growth technology ensures that customers receive robust and reliable Gray Track Resistant KTP elements for intra-cavity CW and high average power SHG @ 1064nm. Raicol has also developed growth technology for high quality LBO and BBO crystals. The patented Periodically Poled KTP (PPKTP) fabrication technology makes it possible to manufacture nonlinear elements for applications in wide wavelength ranges from visible to mid-infrared. Specialties include: Crystals, Laser components, Solid state Lasers, and Nonlinear optics. <a href="http://raicol.com">http://raicol.com</a>



**Teramount** developed a novel technology for scalable connection of optics to silicon for high-speed data center and datacom applications. <a href="www.teramount.com">www.teramount.com</a>

#### Special thanks to our organising partner in Israel:



#### Joe van Zwaren, Jerusalem Business Networking Forum

The Jerusalem Business Networking Forum (JBNF) promotes business networking among professionals in business, high tech and investment fields in Jerusalem and its environs. JBNF is dedicated to creating significant, continuous, and sustainable economic growth in the Jerusalem area. Tracing its roots from a

private, one-off initiative, JBNF over the past six years has actively matched an ever-growing number of members to create local businesses and start-ups. JBNF has also been a resource for teams and individuals in search of mentorship and support. <a href="http://jbnf.org">http://jbnf.org</a>

## **Biographies & Company Descriptions**

#### **EPIC MEMBER COMPANIES**



Advanced Fibreoptic Engineering (AFE) has a strong history of development and manufacturing capability in fibreoptics, optoelectronics, mechanics, software and electronics. The majority of our projects are custom developments which range from the packaging and alignment of optical devices and components to full turnkey sensing systems across a range of market sectors. AFE maximises the performance of these systems through our world class manufacturing and optical alignment techniques. AFE are engaged in development projects with leading companies in the defence, security, aerospace, Oil & Gas and Test & Measurement sectors. <a href="https://www.afe-uk.com">www.afe-uk.com</a>



Mark Johnson (Director of Technology) joined the AFE board in 2013, taking responsibility for technology leadership and business development. He had previously held senior positions in blue-chip and niche technology businesses within automotive (Delphi and TRW) and aerospace (Cobham and HAV). These

roles saw Mark oversee significant development contracts, such as diesel fuel injection systems for Freightliner trucks (Delphi) and the air-to-air refuelling system for the Airbus A400M (Cobham). Mark holds a degree in Manufacturing Systems Engineering from Coventry University and an MSc from Warwick. He is a Chartered Engineer and Member of the Institute of Mechanical Engineers.



AIMEN is a leading research centre in Materials and Process Engineering. Located in Northern Spain, it operates as private, non-profit organization to provide high tech services and resources to a wide range of industries, from automotive to energy or medical devices. The research activity of AIMEN is mainly focused in materials engineering, robotics and manufacturing processes, all oriented to industrial applications and advanced manufacturing. The Laser Applications Centre of AIMEN is a dedicated infrastructure for research and development in laser based manufacturing and industrial photonics. This 1200 m2 facility is equipped with state of the art laser-based manufacturing equipment. AIMEN conducts applied research in applications of machine vision and optical sensing, laser materials processing (thick section laser welding, cutting, surface treatment, precision laser machining, down to nanofabrication), together with system engineering and optical system development. AIMEN participates and coordinates multiple national and international research activities, both in publicly funded programs, or under industrial partnership. <a href="https://www.aimen.es">www.aimen.es</a>.



Nerea Otero (Laser Microprocessing Researcher) is Industrial Engineer and DAS in Materials Science. She has experience in project management and development of new laser processes. Since 2008 she is a researcher in the Laser Applications Centre of AIMEN, working in laser materials processing and specifically microprocesses by laser, such as surface functionalization by patterning

and texturing, and micromachining by ablative and additive techniques in different materials: metals, polymers, composites, ceramics, graphene and semiconductors; where she holds several technical papers and communications to international congresses. She has been involved in the development of applications of laser microprocessing and surface functionalization of different materials in national and European Projects. Currently, she is leading the laser microprocessing group.

# **Altechna**

**Altechna** is a supplier of laser related products and solutions, specializing in the following key activity fields:

- \* Laser related components.
- \* Distribution of well-known photonics industry brands in local markets.
- \* R&D solutions in laser optics.
- \* Manufacturing of laser related components.
- \* Quality assurance and measurements to guarantee the highest quality.

An investment by Venture Capital fund enabled Altechna to acquire Optida - optical coating company, thus currently Altechna offers customized and broad diversity optical coatings, including enhanced LIDT high dispersion chirped mirrors and broadband dispersive mirror pairs, ultra low loss mirrors and coatings for high laser power applications. www.altechna.com



Marius Pilkauskas (CEO) holds a Diploma in Engineering in the field of Robotics from the Kaunas University of Technology. He began his career as a Sales Engineer for process meters with Agava, then spent 7 years at Siemens as the Head of Industrial Solutions and Services, and Head of Automation & Drives. He

then moved to Schindler, where served as CEO of Schindler Lithuania & Schindler Russia for a combined 9.5 years. Following his time at Schindler, he spent 3 years as an executive coach and professional independent board member. He took the post of CEO at Altechna in April 2016.



**Pranciškus Dobrovolskis (Key Account Manager)** received a Bachelor degree in Physics in 2014 from Vilnius University. He is currently studying a Masters degree for laser physics at Vilnius University. From 2014 to 2016 he worked at Altechna as a Sales Engineer and from 2016 has been a Key Account Manager for the company.



ce leti

**CEA-Leti** is an applied-research Institute located in Grenoble-France and specialized in micro and nano technologies. The 'Optic and Photonic Department' develops technologies in the field of lighting, display, sensing, imaging and communications. The department is integrated over the whole development cycle (Design, Fabrication and Tests), from the material (Si, Ge, III-V) to devices and circuit fabrication (200mm/8" CMOS fab, 100mm/4" III-V fab), packaging and test. In addition to Leti's 1,700 employees, there are more than 250 students involved in research activities, which makes Leti a mainspring of innovation expertise. Leti's portfolio of 1,880 families of patents helps strengthen the competitiveness of its industrial partners. <a href="https://www.leti.fr">www.leti.fr</a>



François Simoens (Marketing and Strategy Manager) received his PhD degree in electronics from the French Pierre & Marie CURIE University (Paris 6) in 2002 in the field of particle accelerating cavity. He first got involved in electromagnetic compatibility modelling at ONERA, microwave and ultra-sound radar prototyping in ESCPI (Paris High school) and optoelectronics for phased-array antennas in

Dassault Electronique. After seven years of research in the accelerator field at CEA Saclay, he joined CEA-Leti in Grenoble in 2003, where he was first involved in the development of the sub-millimetre PACS focal plane array (for the ESA Herschel satellite) and then in uncooled infrared bolometer technology with the French company ULIS. In 2005, he became project manager (FP7, Euripides projects) before taking the position of program manager and expert in infrared and THz detection. Since the beginning of 2015, he acts as the Marketing and Strategy Manager for the Imaging Technologies and systems developed at Leti from X-ray to Far-Infrared.



eagleyard Photonics is a technology company founded in 2002 and based in Berlin, Germany. eagleyard develops, manufactures and distributes high power semiconductor laser diodes based on GaAs wafer material – the key component for advanced laser systems. Offering wavelengths ranging from 630 nm to 1,120 nm eagleyard has become a leading provider of reliable laser diodes that serves the requirements for industrial, space, defense, medical and scientific applications. The company is certified according to ISO 9001:2008. The product portfolio comprises five basic types of laser diodes, each optimized to meet specific requirements: Single Mode Laser Diodes, Single Frequency Laser Diodes, Multimode Laser Diodes, Tapered Amplifiers, Gain Chips. <a href="https://www.eagleyard.com">www.eagleyard.com</a>



**Thomas Laurent (CTO)** gained his degree at the Humboldt University in Physical Chemistry for research on low-noise laser systems. In 2001, he started his industrial career at a start-up company, where he was responsible for testing and characterization of telecom laser diodes. Together with Joerg Muchametow he founded eagleyard Photonics as a spin-off company from the Ferdinand-Braun-

Institute in 2002. At eagleyard, Thomas is responsible for technology.



Michael Kneier (VP Sales and Marketing) joined eagleyard in April 2006 being responsible for worldwide Sales and Marketing. He brings with him more than 25 years of experience in the optoelectronics industry, 18 years thereof in the sales and marketing playground. That makes him ideally suited to complement the technology competence of eagleyard Photonics with his excellent sales skills and

market knowledge.



**EOLITE Systems** has been launched in 2004 to provide new photonic solutions in instrumentation and laser systems to the scientific and industrial communities. EOLITE Systems has built up a solid know-how in Q-switched fiber lasers and developed original and patented solutions to produce short polarized laser pulses with very excellent beam quality. New technologies such as the rod type fiber were introduced to reach high average power frequency tunable pulsed fiber lasers. These important developments enabled for the first time to produce high power harmonics: green and UV and makes EOLITE to be the pioneer in this field. <a href="https://www.eolite.com">www.eolite.com</a>



**Philippe Métivier (President)** is President of Eolite Systems in France and Director of ESI inc. (Portland-Oregon) laser business unit. Prior to launching Eolite Systems in 2004, Philippe held different management and technical positions at Mondiaquartz in Grenoble, Highwave Optical Technologies in Lannion, CILAS and SAGEM in Paris area. His background is Laser and Optics engineering.



**EPIC** is the European industry association that promotes the sustainable development of organisations working in the field of photonics. Our members encompass the entire value chain from LED lighting, PV solar energy, Silicon photonics, Optical components, Lasers, Sensors, Displays, Projectors, Optic fiber, and other photonic related technologies. We foster a vibrant photonics ecosystem by maintaining a strong network and acting as a catalyst and facilitator for technological and commercial advancement. EPIC works closely with related industries, universities, and public authorities to build a more competitive photonics industrial sector, capable of both economic and technological growth in a highly competitive world-wide marketplace. <a href="https://www.epic-assoc.com">www.epic-assoc.com</a>



**Carlos Lee (Director General)** works closely with industrial photonic companies to ensure a vibrant and competitive ecosystem by maintaining a strong network and acting as a catalyst and facilitator for technological and commercial advancement. He brings with him a strong background in microelectronics which was acquired through several management positions held at the international association SEMI.

He has been responsible in Europe for the SEMI International Standards program, managed technical and executive programs, and together with the advisory board advocated for a more competitive semiconductor and photovoltaic manufacturing industry.



Jose Pozo (Director of Technology) is a Senior Photonics specialist with extensive background in technology, market knowledge and an eye for business opportunities, with 14+ years of professional background. Experienced at building consortia and supply chains for the development of innovative solutions towards improving the state of the art of the Photonics Industry. Highly regarded scientist as

well as an award winning conference speaker with over 70 publications (including a Nature paper in 2015). Member of the board of IEEE Photonics Society – Benelux.



Anna Feis (CFO and Photonics Investment Advisor) advocates for active investment in photonics technologies by working closely with the venture capital, business angel, and corporate investment communities. She is also repsonsible for the management and reporting of EPIC's organisational finances. She has financial

and investment experience across a variety of industries, including construction, real estate development, wealth management for high net worth individuals and pension funds, and technology. She holds a BSBA in International Business from the University of Denver and a Master of Science in History from the University of Edinburgh.



**fibeReality** is an independent consulting and market intelligence company specializing in optical equipment and services in the telecommunications and data communications space. We excel at vetting ideas for new solutions or product features, and we meticulously put together customized competitive and strategic analyses. fibeReality also offers published market research reports based on the feedback of buyers of fiber optic gear and services in Europe, North America, Asia, and other parts of the world. <a href="https://www.fibereality.com">www.fibereality.com</a>



Mark Lutkowitz (Principal) has over three decades of experience in the telecommunications and data communications market, focussing extensively in the fiber optics space. Mark has been a consultant to some of the largest telecom companies in the world involving chips to full systems. He has authored countless

reports as well as monthly strategy newsletters covering such areas as high-capacity transport, optical switching, fiber to the premises, Ethernet/IP, and network management.



**Imagine Optic** is a provider of Shack-Hartmann wavefront sensing hardware and software, adaptive optics technologies and professional services in applied optics. The company works with scientists and industrials in domains including pure science, industrial quality control, space and defense, semiconductors and many others. From X-EUV to NIR wavelengths, we develop, manufacture, distribute and support a very large range of wavefront measurement and correction technologies. From augmenting resolution in bioimaging applications to improving beam shape and propagation for ultra-high intensity lasers, we have the hardware and software to meet customer needs. <a href="https://www.imagine-optic.com">www.imagine-optic.com</a>



Julia Cantarini (Business Development and Sales in Europe) leads Business Development and Sales in Europe for optic and electronic device manufacturers. Her customers are both industrials and research laboratories. In charge of marketing activities and developing sales, she implements technological products

on niche markets by managing strategic cross-functional projects within R&D, production, marketing & sales team. Julia has 10 years of experience: half in research and development and half in business and marketing strategy. After supporting optical diagnostics in the field of thermonuclear fusion research as an optical project leader at the Max Planck Institute in Germany, she has initiated business development for a growing company Nüvü Cameras in Canada manufacturing low light imaging cameras targeting research laboratories then joined the marketing team of a worldwide company Gemalto in France. Before joining Imagine Optic company, she led an entrepreneurial project in the commercialisation of dental optical microscope in France. Julia has a Masters degree in Business Administration, a MBA in Innovation from Kedge Business School in 2015 and a MSc. In Physics from Saint Etienne University in 2005. She likes to create value through technological and business innovation strategy.



**Grégory Clouvel (Optical Research and Development Engineer)** works in the Adaptive Optics for Microscopy and Metrology team, led by Guillaume Dovillaire (Technical Manager) and Xavier Levecq (Scientific Director) from Imagine Optic. The team is a worldwide leader in the field of adaptive optics and wavefront sensing. In 20 years, it built-up a unique knowledge in wavefront sensing and

aberration correction. Grégory Clouvel has 5 years of experience in the optical design of adaptive optics system in Fluorescence Microscopy. He developed image based detection algorithms and deployed the MicAO adaptive optics system dedicated to Spinning Disk and Single Molecule Localization Microscopy. Due to his position in the team he is involved in Custom Shack Hartman Wavefront Sensor development and grant management.

## INNOLUME

Innolume is the premier manufacturer of GaAs-based laser diodes covering 780nm-1340nm spectral window. Combination of wavelength coverage with Quantum Dots Technology and advanced chip design enables a number of novel industrial, medical, and communications applications. Innolume runs full vertically integrated fab which allows fast turn-arounds in product development and modification of standard items for custom inquiries. Mainly concentrated on the chip production (current throughput exceeds 10M chips/year) Innolume holds highly reliable single mode fiber coupling technology. Innolume serves different Industrial, Medical and Scientific markets with High power laser diodes , broad (>150nm) spectrum ASE sources (SLD), unique high power/broad tuning range gain chips, custom wavelength high power DFB lasers and many other type of products.



**Alexey Shkolnik (Business Development)** got his Master Degree in the field of Solid State Physics from St.-Petersburg State Polytechnic University in 2002. After University he started to work in loffe Institute as a researcher where in 2008 he got a PhD degree in the field of Semiconductors Physics. Alexey joined Innolume

GmbH in 2009 as a product manager now he is responsible for company's business development.



LayTec is a major provider of in-situ and in-line optical metrology for thin-film processes. These metrology tools are used in a broad range of thin-film applications such as LED & LASER production, thin-film photovoltaics, oxide and organic deposition as well as other large area deposition processes. LayTec's integrated metrology provides access to all key thin-film parameters in real-time – either in-situ, during the deposition process, or in-line. The implementation of LayTec metrology systems in production processes significantly shortens development cycles and enables an efficient quality control that helps to considerably reduce production and development costs. www.laytec.de



**Marcello Binetti (Product Line Manager)** graduated in Physics at the University of Bari (Italy). After gaining his Ph.D. in Physical Chemistry from the University of Essen (Germany), in 2001 he was granted a post-doctoral Fellowship at the Fritz-Haber-Institut of the Max Planck Society in Berlin (Germany). He joined LayTec in

2004, gaining a broad experience both in the support of semiconductor metrology products and product management. During these years he contributed to establish LayTec as a provider of effective metrology solutions both in research and production environments. Since 2014 Marcello is responsible for strategic marketing in the fields of Compound Semiconductor and Advanced Silicon.



LioniX is a provider in development and small to high volume production of innovative products based on micro/nano system technology: MNT and MEMS. Our core technologies are integrated optics and micro-fluidics. Our customers operate in telecom, industrial process control, life sciences and space markets and include OEM's, multinationals, VC start-up companies as well as research institutions from around the world. LioniX offers design to manufacturing and horizontal integration by partnering with MEMS/MST foundries and suppliers of complementary technologies, such as in: food biotech/genomics, chemistry/pharmaceuticals and water technology. The combination of micro-fluidics and integrated optics gives LioniX expertise in the emerging area of Lab-on-a-Chip. LioniX has its own clean-room facilities with equipment for the proprietary technology and dedicated test/analysis equipment for integrated optics and micro-fluidic devices. <a href="https://www.lionixbv.nl">www.lionixbv.nl</a>



**Arne Leinse (Vice-President)** received an M.Sc. degree from the University of Twente in 2001, followed by a PhD in integrated optics in 2005. After joining LioniX he was at the base of the development of the TriPleX technology. Currently he is part of the management team of LioniX and involved in the strategic roadmap of both the technology and LioniX.



**Optec-Berlin-Brandenburg: OpTecBB e.V.** is the Competence Network for Optical Technologies an Micro Systems Technologies in the German Capital region of Berlin and Brandenburg. It is the aim of the network to connect representatives in industry, research, education, the finance and consulting sector as well as politics, to jointly foster the development and application of Optical Technologies and Micro systems Technologies. Particular focus areas include: 1 laser technology,: 2 lighting technology,: 3 optical and especially x-ray analytics,: 4 biomedical application and ophthalmology,: 5 optical communication and sensor technologies,: 6 microsystems technologies. www.optecbb.de



**Frank Lerch (Managing Director)** studied Business Administration at Free University Berlin and University of Warwick (England). He did research on industrial economics and network management at Free University Berlin, University of Strathclyde (Glasgow, Scotland), the University of Arizona (Tucson, USA) and the University of Armed Forces in Hamburg. He holds a PhD in Business

Administration. He is co-founder of Dahlem Research & Consulting Group GmbH. He joined OpTecBB in Sept. 2012 as Managing Director.

# **Optogama**

**Optogama** designs, develops and manufacture custom laser related products and develops technologies for material processing, spectroscopy & analytical instrumentation, aerospace, security, vision and other applications. <a href="https://www.optogama.com">www.optogama.com</a> Company products and services cover:

- R&D of 1,54 um "eye-safe" range laser sources
- Contract manufacturing of lasers and optical devices
- R&D of lasers for material processing, spectroscopy and medical applications
- Laser crystal materials development and manufacturing
- NIR and MIR Optical components and assemblies



**Tadas Lipinskas (Director)** has a Masters degree in Laser physics and Optical technologies ,Vilnius University. He has 11 year's working experience at Altechna, and has been a Director since 2010. He has Expertise in laser optics & crystals, laser technologies & applications; FP6, FP7, Eurostars. R&D projects coordinator.

His areas of interest include trade and manufacture of laser related components, design & assembling of optomechanical assemblies, Innovative solutions for academic and industrial customers.



**Aurimas Galinis (Chief Sales Officer)** holds an MSc. in Laser Physics (Vilnius university) since 2007. He has worked in photonic companies since 2003. His main background and experience is research and sourcing of popular and novel laser materials for various DPSS lasers. He also has knowledge in dielectric coating

technologies used for advanced laser components.



**Optosigma Europe** is the European subsidiary company of SIGMAKOKI Group, established in early 2014 in France to provide support to our distributors and get closer to the European customers. The structure in France is a Business Technical support and manage the European logistic center. Optosigma is working to build a long-standing partnership with customers by earning their trust and confidence as their Optical component; Thin Film Coatings, Opto-Mechanics, Manual and Motorized positioning supplier of choices. <a href="https://www.optosigma.com">www.optosigma.com</a>



**Vito Roppo (EMEA Sales & Engineering Manager)** took his PhD in Applied Physics in a nonlinear laser-matter interaction with a tracking records of more than 30 peer review published articles. He then moved to project management roles, with scientific projects in collaboration with US Army, European Union and

Australian National University. On 2014 he joined Optosigma Europe with the role of EMEA Sales and Engineering manager with the purpose of boosting the growing of this young branch of the Japanese Sigma-Koki group. The good matching of technical and soft skills allows him to act as an ideal bridge between the scientific world and the production facilities.



PI (Physik Instrumente) with headquarters in Karlsruhe, Germany, in the past four decades has become the leading manufacturer of nanopositioning systems with accuracies in the nanometer range. With four company sites in Germany and fifteen sales and service offices abroad, the privately managed company operates globally. Over 850 highly qualified employees around the world enable the PI Group to meet almost any requirement in the field of innovative precision positioning technology. All key technologies are developed in-house. This allows the company to control every step of the process, from design right down to shipment: precision mechanics and electronics as well as position sensors. The required piezoceramic elements are manufactured by its subsidiary PI Ceramic in Lederhose, Germany, one of the global leaders for piezo actuator and sensor products. PI miCos GmbH in Eschbach near Freiburg, Germany, is a specialist for positioning systems for ultrahigh vacuum applications as well as parallel-kinematic positioning systems with six degrees of freedom and custom-made designs. <a href="https://www.pi.ws">www.pi.ws</a>



**Scott Jordan (Head of Photonics)** is a manager and physicist by training, with an MBA in Finance and New Venture Management. He has driven multiple business development and turnaround endeavors. Scott's patents for fast interfacing and DAC resolution enhancement helped advance nanopositioning performance more than a hundredfold, enabling capabilities for applications as diverse as

nanopatterning, atomic force microscopy, MEMS, microlithography, x-ray interferometry and photonics. He developed the first digital gradient search, fundamental to photonics test and packaging, and established a successful business upon it. He has repeatedly driven the field forward as device designs have advanced. His most recent work enables one-step, global alignment optimization across multiple inputs, outputs and degrees of freedom of today's Silicon Photonics devices. A confirmed technology evangelist, Scott publishes and presents frequently. He was named a PI Fellow in 2016.



**SensUp** designs and manufactures OEM: Original Equipment Manufacturer optical systems based on lasers technology. Products and applications include laser rangefinder for target's distance measurement and laser scanning: LIDAR for obstacle detection. <a href="https://www.sensup-tech.com">www.sensup-tech.com</a>



**Nicolas Picard (COO)** is passionate about innovation and business development to serve strong technological added value industry. As a COO of SensUp, he dedicates his skills in collaborative, multidisciplinary and international projects in optronic field to contribute to the success of the business.



**Tematys** provides a complete range of services to companies and public organizations in the fields of optics, photonics, sensors and material Engineering. Our clients are companies of any size, from international groups to SMEs and start-up. We have also developed a special expertise in R&D valorization and marketing of emerging technologies for Research Organizations and Laboratories. We provide strategic views on optics and photonics markets for publics for clusters and publics agencies. <a href="https://www.tematys.com">www.tematys.com</a>



Jacques Cochard (Founder) founded TEMATYS in 2010, a photonics dedicated market studies company. He is managing the activities of Market Exploration for new technologies and Technology Transfer into commercial ventures. Jacques is directly in charge of the Biophotonic activities at TEMATYS where he has advised

many companies in their diversification from e.g. Telecom components to Biophotonics market. He is advisor for SMEs and large companies in their development into various application like Superresolution, Confocal as well as Raman imaging market and in Biomedical markets like medical lasers, Photoacoustic, OCT and diffuse optical tomography imaging. Since 10 years, Jacques is a member of the WorkGroup Biophotonic in the European platform Photonics21. He is graduated from Ecole des Mines Nancy (Material science).



The research group System and Circuit Technology of University Paderborn and Heinz Nixdorf Institute in Paderborn works on nano-/microelectronic ICs for communications and sensing applications. Research is specifically focused on high-speed IC design for broadband communications (up to more than 100 Gbps) and wireless communications and sensing (up to 300 GHz), Silicon Photonics IC design, and mixed analog-digital IC design. We have access to cutting-edge semiconductor technologies (nano-meter CMOS, SiGe BiCMOS, silicon photonics). Our broadband / RF measurement lab allows for S-parameter measurements up to 125 GHz and digital signal measurement up to more than 100 Gb/s. www.hni.uni-paderborn.de/en



**J. Christoph Scheytt (Professor)** is a full professor for Integrated Circuit Design at University of Paderborn, Germany. He also acts as chairman of the Heinz Nixdorf Institute, Paderborn, and is a co-founder of advICo microelectronic GmbH, a German IC design service company, specialized in high-speed wireless and optical integrated circuit design. Research in his group at University of Paderborn and the

Heinz Nixdorf Institute focuses on wireless and fiber-optic IC design for communications and sensing, and silicon photonics.

## **Companies in Israel**



AccuBeat designs, develops and manufactures highly accurate Rubidium Frequency Standard and time generation and synchronization products combined with GPS receivers. AccuBeat's products are used for applications in the Aerospace, Defence, Telecommunications, Research and other industries. Its products and platforms deployed in sensitive Military and Government programs worldwide and have earned the trust of the IDF, the USAF, Project Galileo and others. In the commercial field, their equipment can be found in Telecommunications equipment, SDH networks, cellular base stations, telemetry appliances, calibration and testing solutions and in research facilities worldwide. www.accubeat.com



**Uriel Arad (Rubidium oscillators line manager)** has 20 years' experience in development of optoelectronics state of the art semiconductor devices like: MQW SLM, QWIP, MEMS micro-mirrors of 100 count high fill factor array and more. R&D and project management of multi-disciplinary activities of optics, mechanical,

electronics, FW testing, Q&R and more. Working across the globe with production sites, development sites and vendors.



Al Cielo Inertial Solutions (ACIS) is a leading manufacturer of closed loop FOG based inertial systems that has been supplying Israeli and International clients with high-performance, reliable, and ITAR free inertial solutions, while maintaining a competitive and fair price. As the only manufacturer in Israel for Closed Loop FOGs, ACIS has delivered products to the top-tier defence industries in Israel: RAFAEL, ELBIT, Israel Airspace industries, Israel Military Industries, as well as many other system manufacturers in Israel, Asia, Europe and the Americas. The company's IMUs and systems are integrated into world class fully operational systems, such as rockets, payloads, UAVs, civilian aircraft protection systems, and many others in Israel as well as in the international defence market. www.alcielo.com



Yehuda Albeck (CTO) Engineering) Itzik Engel (Director of





Alma Lasers is a global innovator of laser, light-based, radio-frequency and ultrasound solutions for the aesthetic and surgical markets. Alma Lasers has been at the forefront of multi-technology systems, revolutionizing existing treatment methods and working to serve the varied and growing needs of both patients and practitioners around the world. With offices, R&D and manufacturing facilities on three continents and distributors around the world, Alma's mission is to provide modular, cost-effective and high-performance systems based on the very latest clinical research and cutting-edge technology. We enable practitioners to offer safe, effective and profitable aesthetic and surgical treatments to their patients, while allowing patients to benefit from the capabilities of state-of-the-art, clinically proven technologies and methods. <a href="https://www.almalasers.com">www.almalasers.com</a>



**BATM** is a high tech company with HQ in Boston MA, USA & Hod Hasharon Israel. The company has several branches in Europe, Latin America and Far East and employs approximately 700 scientists and engineers worldwide. BATM has two main activities structured into divisions: Telecom Division which specializes in the development, production & marketing of:

- Data and telecommunication products in the field of local, Metro and wide area networks.
- ATCA based solution for the Access and the Edge.
- Access and edge platforms based on carrier Ethernet with emphasis on QOS, Service management, Traffic shaping, load balancing, DPA, DPI more...
- Cyber solutions.

The second is the Medical Lab division which specializes in the development, production & marketing of:

- Medical laboratory diagnostic solutions that include equipment and reagents.
- Sterilization and medical waste disposal unique solutions.

BATM was founded in 1992 by Dr. Zvi Marom as a bootstrap that grew into a multinational technology corporation. The company is listed on the London Stock Exchange (LSE: Ticker BVC). <a href="https://www.batm.com">www.batm.com</a>



**Zvi Marom (CEO)** did his combat service in Israel Navy force from 1972-1978. He graduated first in his class from Naval and Advanced Naval Officers Course. He is a member of the US Naval Institute. From 1978-1985 he studied Engineering and Medicine, through the M.Sc. Program for Engineers in Industry at Tel-Aviv University and then at the Tel-Aviv Sacker School of Medicine. From 1978-1981 he

headed several projects in CET, and was a consultant to several major international corporations on software development, signal processing and project management. From 1981-1985 he was the Head of Interactive Software development for CET. From 1985-1989 he was the Head of Electronics faculty, Israel's Open University. Dr. Marom founded BATM Advanced Communications in 1992 as a bootstrap company and has been its CEO since then. He lectures in several universities around the globe and in front of several professional forums.



Ofer Harpak - Chair & CTO, Oxitone (BATM group)



CI Systems is one of the most trusted names in the field of Infrared and optical test equipment. Founded in 1977 to commercialize advanced infrared (IR) remote sensing technology, CI Systems has kept alive its mission to be the most cost effective and reliable supplier of electro-optics test equipment. The company has two divisions: The Electro-Optics (E-O) division develops and commercializes MIL-Standard E-O precision test equipment for all stages in the product life cycle including airborne built-in test equipment and the semiconductor division develops and commercializes optical monitoring equipment for wafers and photovoltaic solar cell manufacturing. Its products include noncontact temperature monitors and liquid monitoring systems. CI Systems maintains a wholly-owned sales and manufacturing facility (CI Systems Inc.) in the USA, a network of sales representatives worldwide, and an R&D facility in Israel. It is part of a group of companies held by CI Technologies Inc, which is a registered Delaware corporation, and is a publicly traded company (TASE). www.ci-systems.com



Civan Advanced Technologies is a Jerusalem based Hi - Tech company in the field of electro optics. Since its establishment in 2008, Civan's focus has been the development of high power lasers. Civan's product line includes Single Mode (SM) lasers with Continuous Wave (CW) power ranging from 10 Watt to KWatt. The advantages of Civan's lasers include high reliability, high wall-plug efficiency, energy saving, low cost and low maintenance. www.civan.co.il



**Eyal Shekel (Founder and CEO)** Prior to Civan, Dr. Shekel founded Al Cielo Ltd., a leading company in the manufacture of Fiber Optical Gyros and navigation systems. Dr. Shekel served as CEO of Al Cielo from its inception in 2005 until the company was sold in December 2007. In 1997 Dr. Shekel founded and served as GM of Chiaro Networks Ltd until 2005. Chiaro developed the largest optical switch

in the world as well as state of the art technologies in the field of optical communications. Dr. Shekel was also the co-founder and board member of Nano-Or which developed and manufactured 3D measurement systems with nanometer resolution for the semiconductor industry. Dr. Shekel is a member of the board of trustees of the Jerusalem Collage of Technology and of the Bney Brak Haredi Collage.

Rami Cohen Serves as Civan's semiconductors expert and head of semiconductor chip fabrication and development. He Earned His B.Sc. and M.sc in Physical – Chemistry from Jerusalem's Hebrew University. Prior to his work in Civan, he serves as R&D group leader and Leading engineer in different FAB projects for Intel for over a decade starting in 2004. As a result of his research in different projects, Rami published over 10 articles on Si photonics.



**ColorChip** is a pioneer in the fields of Integrated optical components and sub-systems. The company is dedicated to the Research and Development of advanced Application Specific Photonic Integrated Circuits (ASPICs). ColorChip's Ion Exchange process can create a multitude of optical functionality based on two main waveguide structures: Y branch, which is used in the design of PLC splitters, from 1×2 to 1×64 where ColorChip's splitters are considered to be of the highest in quality and performance while remaining cost effective; and Directional coupler, which is used in the design of 2xN splitters as well as in wavelength multiplexing and de-multiplexing applications. Multiplexing structures, embedded in the glass, are used in ColorChip's CWDM transceivers, allowing to simplify the design and manufacturing process. www.color-chip.com



**Duma Optronics** is one of the rapidly growing Israeli company specializing in Electro-Optical and laser instrumentation technology. Established in 1989, Duma Optronics offers four main product lines covering laser measurement needs: Laser Beam profilers capable of direct laser beam measuring from less than 0.5μm and up to 15mm; High Power beam analysis product line capable of measuring up to 5kW CW lasers, providing profiles, position and power measurement; the beam positioning product which enables measurement of optical beam position with SpotOn Family; and the beam alignment product line, which enables alignment of optical beam angle with respect to a mechanical datum with Anglemeter, among others. www.dumaoptronics.com



Elbit Systems is an international high-technology company engaged in a wide range of programs. The company is recognized as a developer and supplier of a broad portfolio of airborne, land and naval systems and products for defence, homeland security and commercial aviation applications. Elbit Systems' systems and products are installed on new platforms. The company's major activities include: military aircraft and helicopter systems; helmet mounted systems; commercial aviation systems and aerostructures; unmanned aircraft and unmanned surface vessels; land vehicle systems; command, control, communications, computer and intelligence (C4I) systems; intelligence and cyber systems; electro-optic and countermeasures systems; electronic warfare and signal intelligence systems; and various commercial activities. www.elbitsystems.com



Etesian Semiconductor is a rep company focusing on CMOS Image sensors and specialty process design and development. Etesian's team is composed of sales executives coming from the foundry and IP business with extensive networks and existing commercial activities all over the semiconductors industry in EMEA for many years. The company provides unique integration between customers' needs and manufacturers' capabilities. Through their Boutique Foundry support model, offered to customers, they assume full responsibility for managing their programs throughout the various stages of development, qualification and production. Etesian offers program management and customized solutions for high-complexity semiconductors products with low to medium volume production, targeting professional markets such as medical, scientific, industrial, aerospace, homeland security and other high-end applications. www.etesiansemi.com



**Gavish** is a world leader as a sapphire optics manufacturer by providing quality sapphire components. Gavish is focused on the customer with quick response and total control from crystal production through fabrication, certification, and packaging, backed up by world class customer service and support. <a href="https://www.gavish.com">www.gavish.com</a>



**Joseph Sragowicz (CEO)** has been the CEO Gavish Industries since 2001. Previous to that he held different managerial positions in various manufacturing industries. He holds a Bachelor of Science in Biomedical and Mechanical Engineering from the University of Miami and a Master of Science in Industrial Engineering from the University of Miami.



**HOLO/OR** specializes in the design, manufacturing and commercialization of new products and systems based on diffractive optical elements (DOEs). HOLO/OR has developed and manufactured a variety of diffractive optical elements for high power lasers that accomplish difficult tasks, conventional optics fail to address effectively. Through its in house software and algorithms, the designs of HOLO/OR reach top quality in means of efficiency, uniformity and other required parameters. The company now holds an extensive multifunctional design database, enabling us to give fast solutions for different applications and customer needs. www.holoor.com



Israel Grossinger, CEO



**ISERD** – **The Israel-Europe R&I Directorate** directs Israel's participation in the EU Framework programs. In 1996, Israel was the first non-European country to be associated to the EU's "Framework Program for Research and Technological Development". These seven year programs have become the largest publicly funded R&D programs in the world. The current program "Horizon 2020", which Israel joined in 2014, has a budget of close to EUR 80 billion for 2014-2020. The Israel-Europe R&I Directorate which is an inter-ministerial directorate, established by the Israeli Ministry of Economy, the Ministry of Science, Technology and Space, the Planning and Budgeting Committee of the Council for Higher Education, the Ministry of Finance and the Ministry of Foreign Affairs. ISERD is operated through the Office of the Chief Scientist of the Ministry of Economy, and is Israel's official contact point (NCP) with the EU, for all the activities of the Framework Programs. ISERD Promotes the participation of Israeli entities in Research & Innovation ventures within the European Research Area. www.iserd.org.il



Israel Aerospace Industries (IAI) develops and produces systems for the defence and commercial markets. IAI offers unique solutions for a broad spectrum of requirements in space, air, land, sea and cyber. IAI is the largest government owned defence and aerospace company in Israel. Over the past 60 years, IAI delivered, supplied and supported advanced systems for the Israeli Ministry of Defence as well as many demanding customers worldwide. IAI is engaged in several areas of activities, including: Satellites and Space Systems, Defence Systems, Missiles and Loitering Weapons, and Special Mission and Early Warning Aircrafts; Unmanned Aerial Systems (UAS), Radar and Electronic Intelligence, and Passengers to Freighter Aircraft Conversions; and Command and Control Strategic Systems, Cyber Solutions and Robotics. www.iai.co.il



Israel Association of Electronics and Software (IAESI) was established for the purpose of enhancing and promoting the electronic and software industry and is comprised of about 300 companies in the fields of electronics, telecommunications, semiconductors, medical devices, IT and software. IAESI strives to maintain the competitive advantage of Israel's electronics and IT sector in the face of increasing competition from India, China and the countries of the former Soviet Union. Association services include: acting to enlarge and establish the R&D infrastructure of Israel's electronic industry and knowledge; cooperating with the Industrialists Association in order that members shall be adequately represented; and collecting, processing and distributing relevant information deriving from external sources to members of the Association. www.iaesi.org.il



**IZAK Scientific** provides professional consulting services in the fields of electro-optics, physics, and technology. Their services include:

- Design and development of electro-optics systems, systems that combine light sources (LED, laser, Xenon lamp, etc.), other light sensors (detectors, sensors, etc.), and software applications that command and control the system
- Business Technological consultation: technology feasibility evaluation, mapping the market from a technological and marketing point of view
- · Leading and accompanying projects
- Consultation and support in existing products optimization for existing products, optimization for existing products, cost reduction
- Computerized control and command software setup utilizing LabVIEW
- Writing software that commands and controls engines, pumps, generators, slip rings, sensors, computations, etc. www.izakscientific.com



The Jerusalem Business Networking Forum (JBNF) promotes business networking among professionals in business, high tech and investment fields in Jerusalem and its environs. JBNF is dedicated to creating significant, continuous, and sustainable economic growth in the Jerusalem area. Tracing its roots from a private, one-off initiative, JBNF over the past six years has actively matched an ever-growing number of members to create local businesses and start-ups. JBNF has also been a resource for teams and individuals in search of mentorship and support. <a href="http://jbnf.org">http://jbnf.org</a>



**KiloLambda** is an industry leader in passive optical power control. The company has developed a unique optical layer, based on its proprietary patented nano-technology, that is used in industrial, defense and commercial optical systems. KiloLambda has surpassed the traditional techniques of light control by developing its own nano-technology and applying it in effective manner to everyday applications. It is a technology that controls optical power for all wavelengths and does so in a totally passive manner, as opposed to conventional solutions of limiting or blocking specific wavelengths and the use of active methods. The company is now applying its breakthrough technology in the advanced development of next-generation non-linear components and devices, to control and regulate optical power, passively, www.kilolambda.com

# MICRON3DP

**MICRON3DP** is a pioneer in high resolution molten glass 3d printing and paved the way for innovating a new way of manufacturing glass parts. The company's specialties include 3D Printing, Glass 3D Printing, and High Temperature 3D Printing. The MICRON3DP team is made of multidisciplinary, technology-minded members with extensive backgrounds in additive manufacturing processes. Founder and CEO Arik Bracha has over 25 years of mechanical engineering experience. Arik specializes in the design of multidisciplinary systems such as scanners, plotters, inspection systems and 3D printers. www.micron3dp.com



Nanonics Imaging is a world leader in delivering innovative AFM and NSOM systems in the SPM market. Nanonics has introduced new concepts in system functionality, including its revolutionary approach to NSOM imaging with cantilevered NSOM probes, dual tip/sample scanning AFM systems, Raman/AFM, Multi-probe AFM, and SEM/AFM systems. Nanonics has also evolved a NanoTool KitTM of probes that are both multiprobe friendly and do not obscure the optical or the electron/ion optical axis of the microscope. This NanoToolKitTM includes optical, electrical, thermal and even probes providing nanovacuum and nanochemical writing capabilities. Nanonics systems are distributed worldwide and are the leading instruments in near-field characterization in plasmonics and photonics. www.nanonics.co.il



Nova Measuring Instrument is a leading innovator and a key provider of metrology solutions for advanced process control used in semiconductor manufacturing. A pioneer in integrated metrology for advanced process control. Nova has become a key player in the Optical CD market and now delivers a full range of metrology products to best address the ever-increasing technical challenges arising in the semiconductor industry. Nova's suite of high-performance metrology products combines high-precision hardware and software in the market to deliver a leading-edge portfolio of solutions to the semiconductor industry. The company's products deliver state-of-the-art, high-performance metrology solutions for process control throughout the semiconductor fabrication effective www.novameasuring.com



Raicol Crystals specializes in the manufacture of nonlinear optical crystals and electro-optic devices. Raicol's "state of the art" crystals are used in various industries, such as: communications, medical, military, industrial lasers, etc. The company's innovative crystal growth technology ensures that customers receive robust and reliable Gray Track Resistant KTP elements for intra-cavity CW and high average power SHG @ 1064nm. Raicol has also developed growth technology for high quality LBO and BBO crystals. The patented Periodically Poled KTP (PPKTP) fabrication technology makes it possible to manufacture nonlinear elements for applications in wide wavelength ranges from visible to mid-infrared. Specialties include: Crystals, Laser components, Solid state Lasers, and Nonlinear optics. http://raicol.com



Aner Yarden (CEO) joined Raicol in December 2012 as CEO. Mr. Yarden has extensive experience in laying down strategy and the delivery of complex, mission critical software projects to some of the world's most demanding customers. He also has over 10 years of global experience and business best practices, having worked in Europe,

USA and the Emerging Markets. Mr. Yarden holds an M.Sc. degree in Computer Science from Bar Ilan University in Israel and is a graduate of Mathematics and Computer Science of the Bar-Ilan University in Israel.



**Yehiel Plaut (VP Sales & Marketing)** joined Raicol Crystals during 2016, Yehiel led Sales and Marketing teams in Ophir / Newport corporation and 3M for more than 20 years and possesses vast experience in supporting customers in the electro optics and laser markets.



Ya'akov Zerem (Chair), born in Israel, is the chairman of Raicol Crystals. He was the founder, chairman and CEO of Ophir Optronics Ltd., a multi-national company and global leader in providing Optronics solutions. Dr. Zerem, received his Ph.D. degree in Physics from the Hebrew University in Jerusalem, where he subsequently lectured for several years in the Department of Physics. For a period of 13 years, Dr. Zerem was a

lecturer, senior lecturer and a professor in the department of Electro Optics/Physics at JCT. In 2003 **Dr. Zerem** was honored with the Industry Award bestowed by the Manufacturers Association of Israel.



**ROSH Electroptics** is one of the leading electro-optic distributor/representative companies in Israel. The company supplies components and instruments in many fields such as: Laser Diodes, Lasers, Crystals, Laser Safety Equipment, Motion systems, Fiber-Optics Components and Equipment, Lab equipment and vacuum components. ROSH has also expanded its portfolio of solutions to include microscopy and the bio-technology instruments. Among the established customers of ROSH are the Government of Israel, Rafael, Lumenis, Nanonics, HP Indigo, and ECI Telecom. <a href="https://www.roshelop.co.il">www.roshelop.co.il</a>



**Teramount** developed a novel technology for scalable connection of optics to silicon for high-speed data center and datacom applications. <a href="https://www.teramount.com">www.teramount.com</a>



**Hesham Taha (CEO and co-founder)** has a Ph.D in applied physics from the Hebrew University of Jerusalem. Senior former R&D scientist at Nanonics Imaging. Long track record in production and marketing at the fields of photonics and nanotechnology



**Abraham (Avi) Israel (CTO and co-founder)** has a Ph.D in applied physics from the Hebrew University of Jerusalem. Multiple industrial and research projects in the fields of photonics, nanotechnology and silicon process



**V-Gen** develops, manufactures and markets high-quality innovative laser systems for a wide range of industrial applications. The company's laser systems are the product of extensive experience and the cutting-edge know-how that our professional team has developed over many years. In the industrial field, the company develops and manufactures pulsed Ytterbium, Thulium, Erbium, Green and UV fiber-lasers for such applications as micromachining, fine processing and marking. Our short pulse fiber lasers are also implemented in LIDAR and range-finding applications. V-Gen was acquired by Newport Corporation in September 2014 and it is now part of Spectra-Physics group, as its fiber lasers center of excellence. <a href="https://www.spectra-physics.com/company/tel-aviv">www.spectra-physics.com/company/tel-aviv</a>

# LayTec – integrated metrology for advanced processes

LayTec offers in-situ and in-line metrology for thin-film deposition, thin-film etching and other high value generating processes.



Your partner for in-situ metrology



