



Company Presentation

V 1.7



3D Vision Solutions Sensor Chips

The Need

Machines need
accurate and long
distance 3D
Vision ability



The Gap

Current 3D Image
sensors provide
only partial
solution or are
very expensive



Newsight's Solution

Our CMOS Image
sensors are
accurate and cost
effective, provide
long distance and
low power



Company Board Of Directors



**Eli Assoolin CEO,
Chairman**

Over 25 years experience in lead Positions in Chip design and CAD (Motorola, Magma, ICCOM), GM of Maple Technologies, BSc. , Executive-MBA



**Eyal Yatskan
CTO, Board
Member**

Over 25 years experience, Full custom/ASIC/FPGA design, CTO, R&D Manager, BA Computer Eng. Technion, MBA from Boston Uni., VLSI Dptm. Manager Senior Lecturer HIT, CDC, HTE



**Dr. Likai Li
Board Member**

Founding Partner of Guangsheng & Partners, a law firm based in Beijing, China. Dr. Li served as a government legal counsel in Ministry of Commerce of the People's Republic of China for many years



**Shi Bing
Board Member**

Partner and Managing Director of Infore Investment
BA of Political Science & Law, MA Finance and Law
more than 20 years of investment and securities related industry management experience.

Team of Talents



Dr. Mor Mordechai Peretz

Newsight Advisory Board

Director of the Center for Power Electronics and Mixed-Signal IC, Department of Electrical and Computer Engineering, Ben-Gurion University



Dr. Avi Karsenty

Newsight Advisory Board

Head of the Applied Physics/Electro-Optics Engineering Department at JCT
Head of HaEytanim – The Personal Empowerment Excellence Program at JCT

Head of ALEO – Advanced Laboratory of [Electro-Optics](#)

Head of the JCT Micro/Nanotechnology Educational & Research Center Activities



Beny Bar

Newsight COO

Over 30 years experience in senior positions in Semiconductors industry
BSc. EE Bgu University



Yaron Cohen

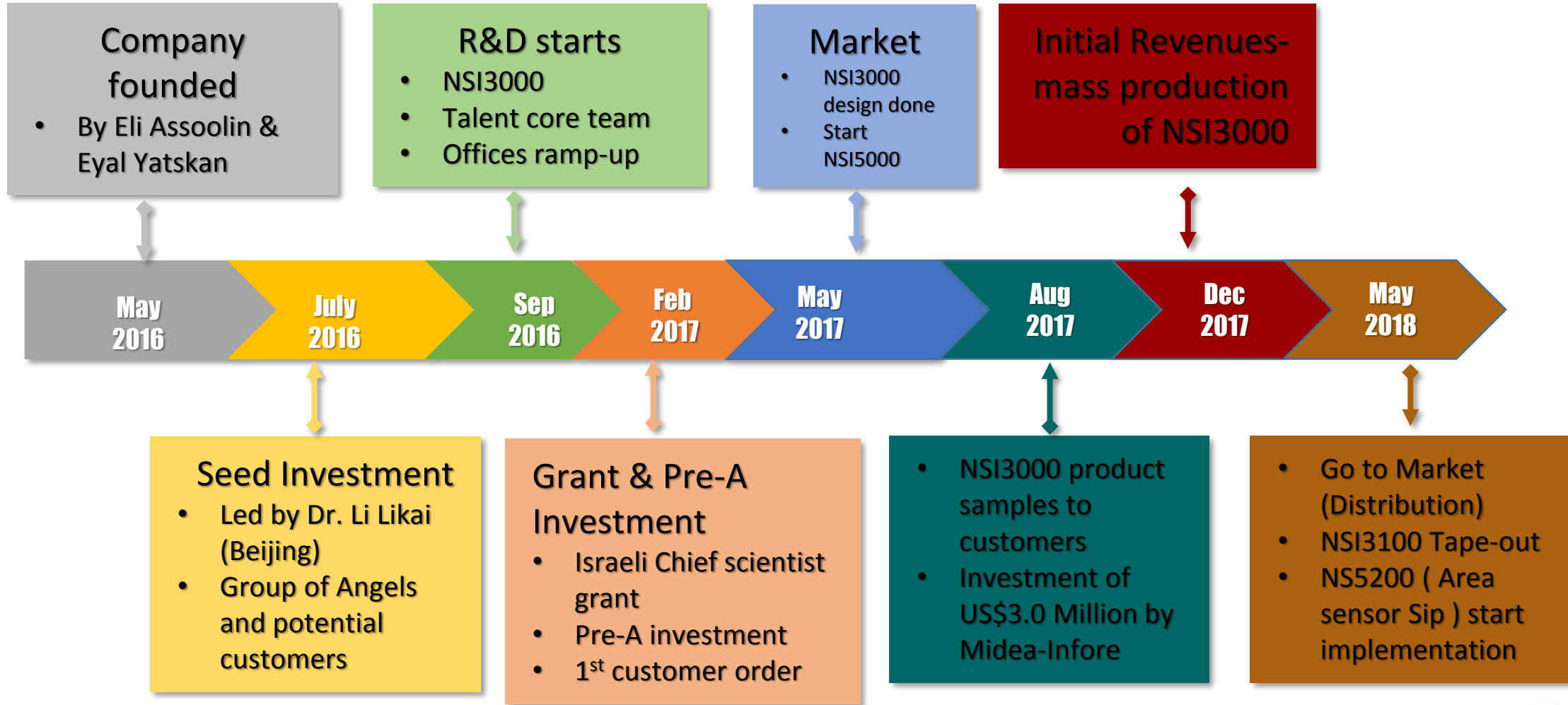
Newsight CFO

Certified CPA, MBA

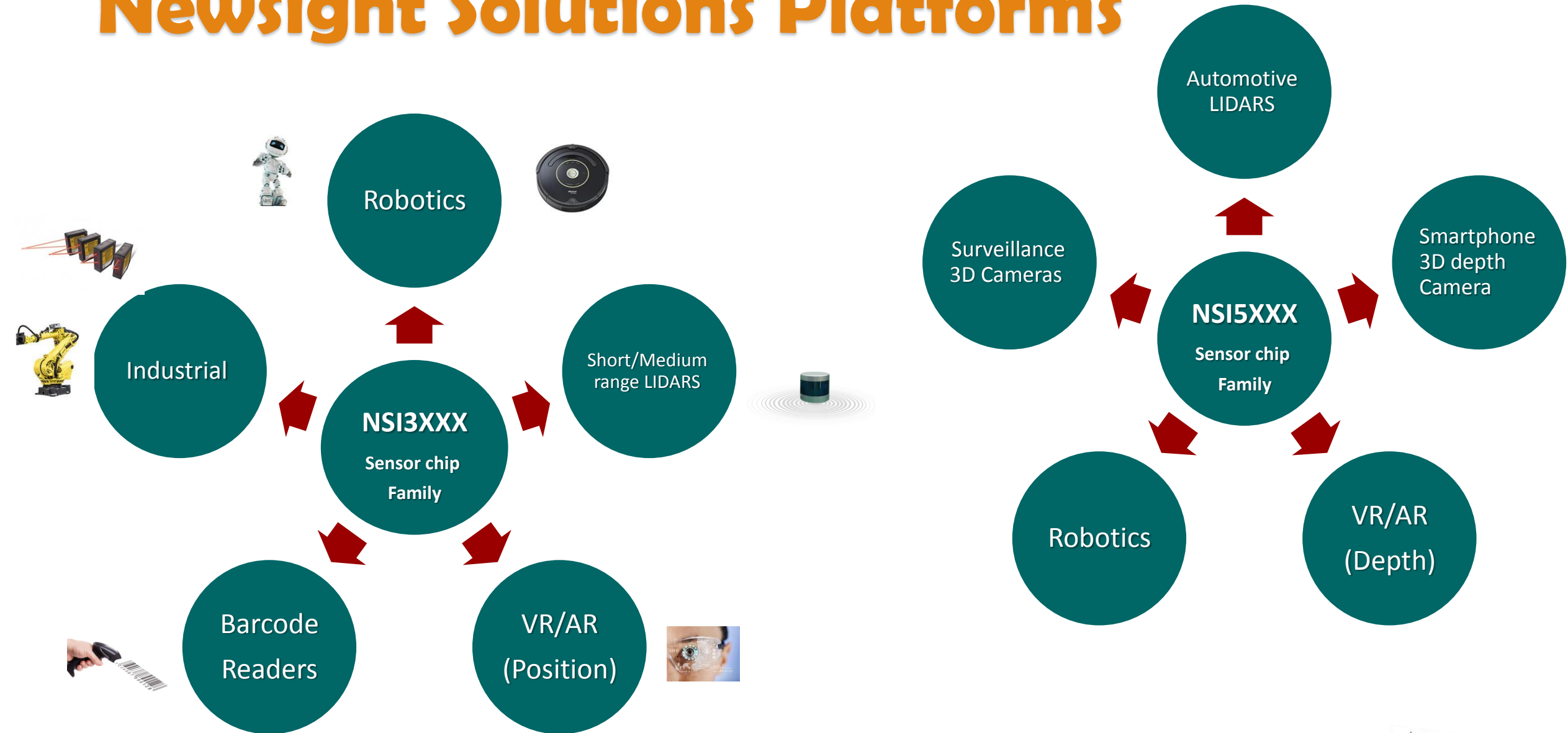
Vast experience as CFO in global companies including Sub in China



Newsight Imaging's Major Milestones



Newsight Solutions Platforms



LIDAR Markets: Newsight Position in Chain

Newsight
Products (CMOS Image
Sensors)

LiDAR 2nd Tier
providers

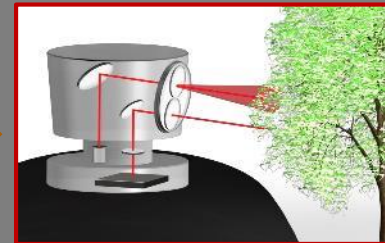
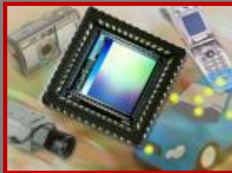
ADAS 1st Tier providers

NSI3000



Robotics

NSI5000



Automotive

The NSI3XXX Family

- Robots LiDAR
- Industrial sensors
- Barcode readers
- 3D modeling
- Body measurement
- SLAM (Simultaneous Localization and Mapping)
- Virtual Reality (VR) and Augmented Reality (AR)
- Industry 4.0



Robotics

AR/VR



Industry 4.0



Newsight On the Industry 4.0 Innovation Map

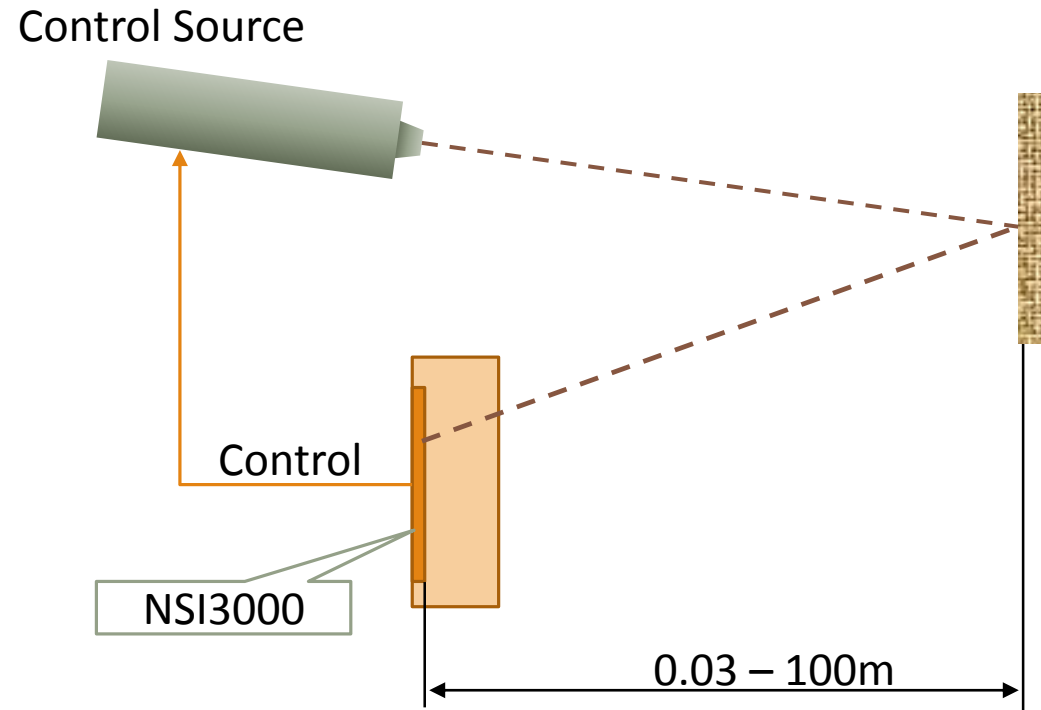


Newsight NSI3000 Advantages VS lead competitor

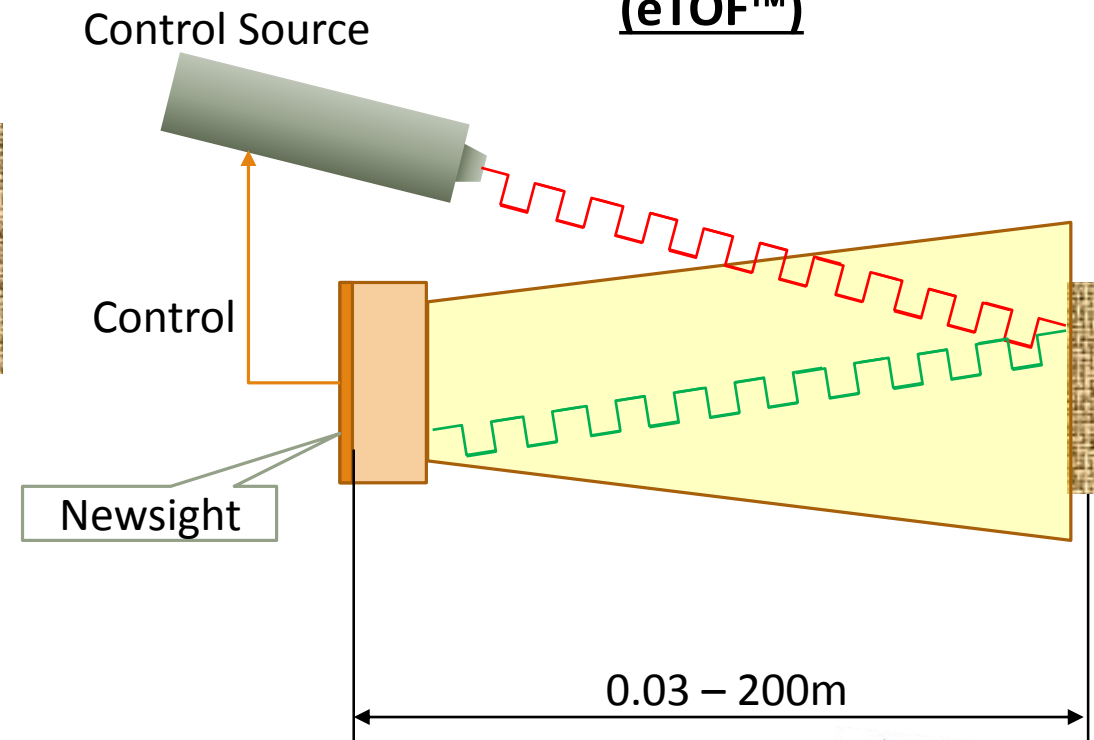
Criteria	Newsight's NSI3000	Lead Competitor
Sensitivity	4X	X
Performance	40K FPS	14.4FPS
Power consumption (At 7.5 MHz Normal mode)	40mW	180mW
Price	20% X	X
ITOF support	Included	None

Supported Technologies

Triangulation



Enhanced Time Of Flight (eTOF™)



Newsight's eTOF™ enhanced Time-Of-Flight

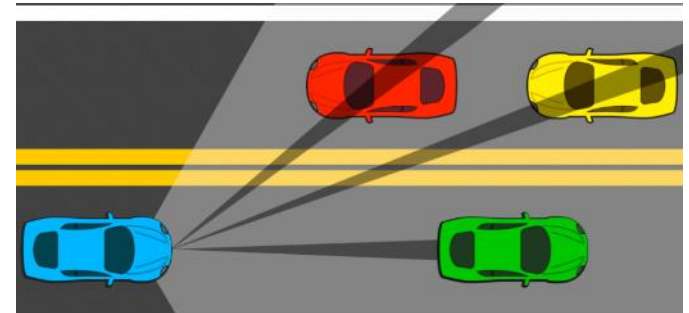
eTOF Offers the iTOF advantages

1. Real 3D - measure the real distance per every pixel
2. Active lighting – can work in the dark
3. Good resolution – VGA, a complete distance picture



But improves...

1. Sensitivity to low signals by process, pixel structure, patent pending of enhanced dynamic range solution
2. Combine short range accuracy and long distance measurements by unique pixel array structure and algorithm, patent pending
3. Improved immunity to sun light and blinding cars, patent pending



The V-LiDAR Program



Newsight Imaging together with 1st class partners established a partners program to deliver "V-LiDAR™", a game changing 3D Automotive LiDAR

- ✓ Accurate
- ✓ Long Range
- ✓ Real Solid State

CMOS Image Sensor Integrated LiDAR Solution for ADAS Applications

Newsight Imaging, Israel

TECHNOLOGY INNOVATION

Newsight Imaging, developer of complimentary metal oxide semiconductor (CMOS) image sensors for LiDAR and LeiShen Intelligent, developer of high-performance laser LiDAR systems, are collaborating to develop "V-LiDAR™" technology. V-LiDAR is three-dimensional (3D) pulsed-based LiDAR that aids in the development of autonomous vehicles and ADAS (advanced driver assistance systems).

TECHNOLOGY ATTRIBUTES

The V-LiDAR is based on Newsight's NSI5000 CMOS image sensor, which leverages its patented eTOF (enhanced Time-Of-Flight) technology. The V-LiDAR product design provides high resolution VGA (variable gain amplifier) or above LiDAR, has the ability to trace short and long-range objects accurately, a processing unit which is directly connected to the sensor, and a laser, which is controlled by the image sensor chip (which also captures the reflected beam and calculates distance).

WORKING PRINCIPLE

V-Lidar generates a pulsed laser beam and samples the reflection into a VGA-based sensing array, then processes it internally and provides the 3D image of the surrounding environment to the ADAS system control.

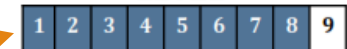
COMPETITIVE FEATURES

- 200 meter object detection range
- Solid state LiDAR with no moving parts and no MEMS technology
- High sensitivity, high accuracy, and high resolution
- Real-time processing of analog and digital signals in the same LiDAR chip.
- Handles weather conditions such as fog, rain, and dust
- Cost-effective and ISO26262 certified solution

APPLICATION AREAS

- Automotive
- Security
- Robotics
- Drones

TECHNOLOGY READINESS LEVEL



COMMERCIALIZATION PLAN

The V-LiDAR product, which is based on Newsight Imaging's CMOS image sensor and LeiShen Intelligent's 3D LiDAR, is expected to be available in the first half of 2018, with opportunities for wide-scale production around 2020.

Frost&Sullivan Highest Grade!

D727-TV

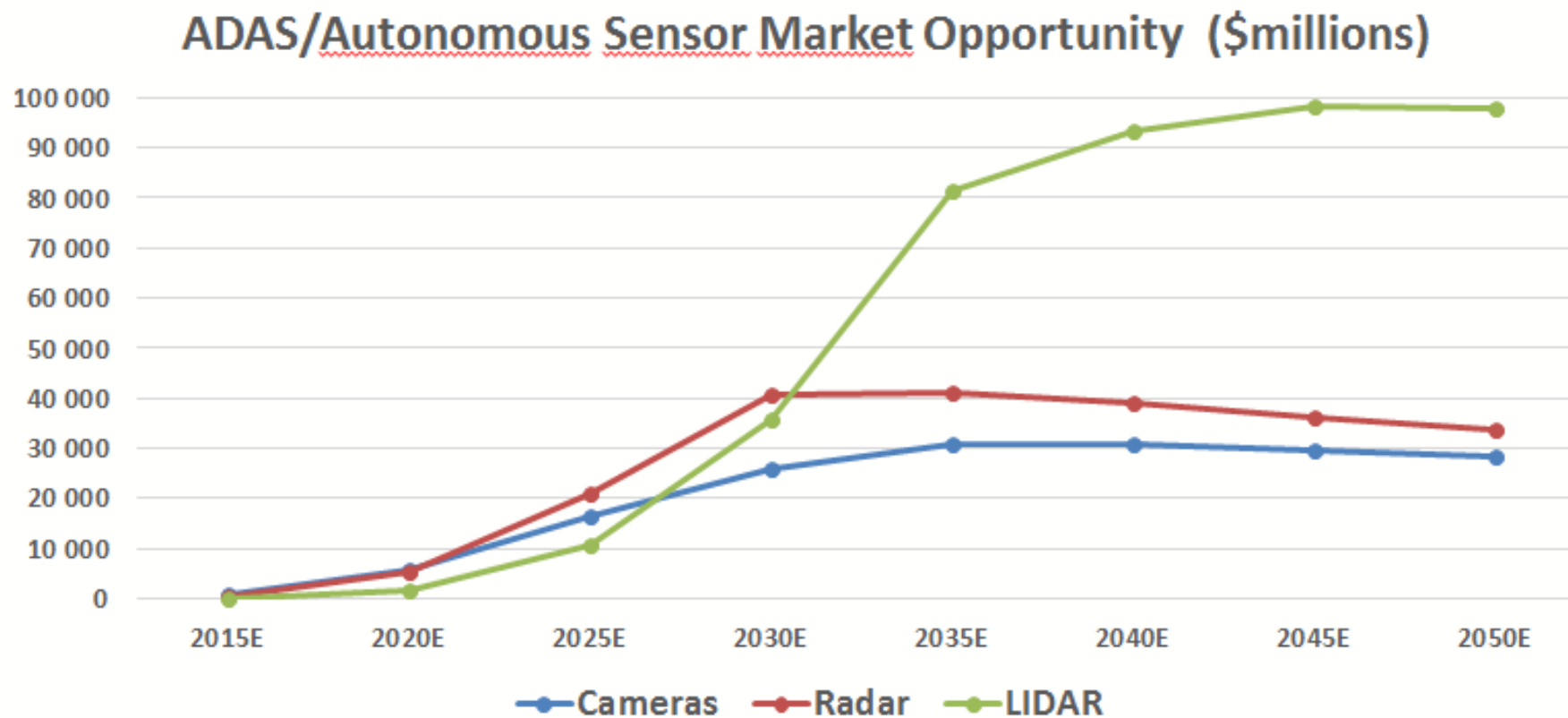
F R O S T & S U L L I V A N

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LiDAR Technology Vs. Alternatives

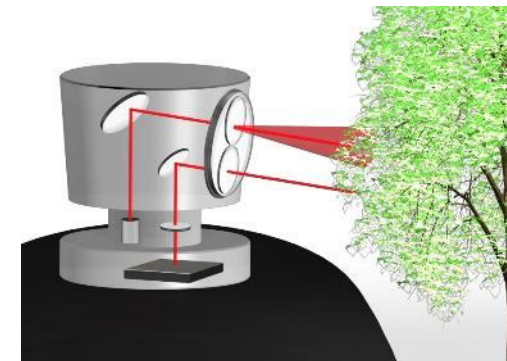
ADAS technologies comparison



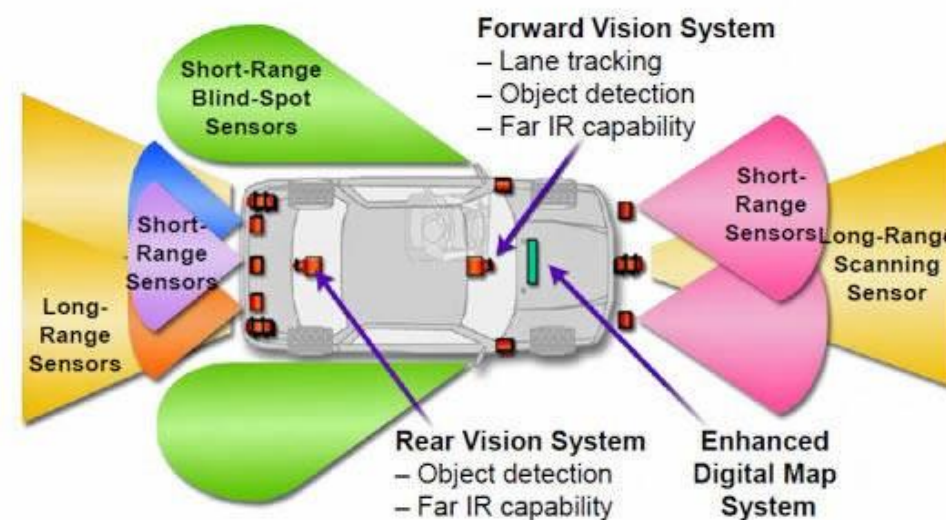
Source: Goldman Sacks

ADAS Challenges

- ✓ Range: need to be more than 200 meter
- ✓ Precision: uniformity and detection of small objects
- ✓ Temperature dependency
- ✓ Reflection : noisy environment
- ✓ Real time processing: depends on intra-car communication
- ✓ Price : very expensive BOM
- ✓ Compliance to automotive standards ISO 26262
- ✓ TOF (Time of Flight) not suitable for short distances



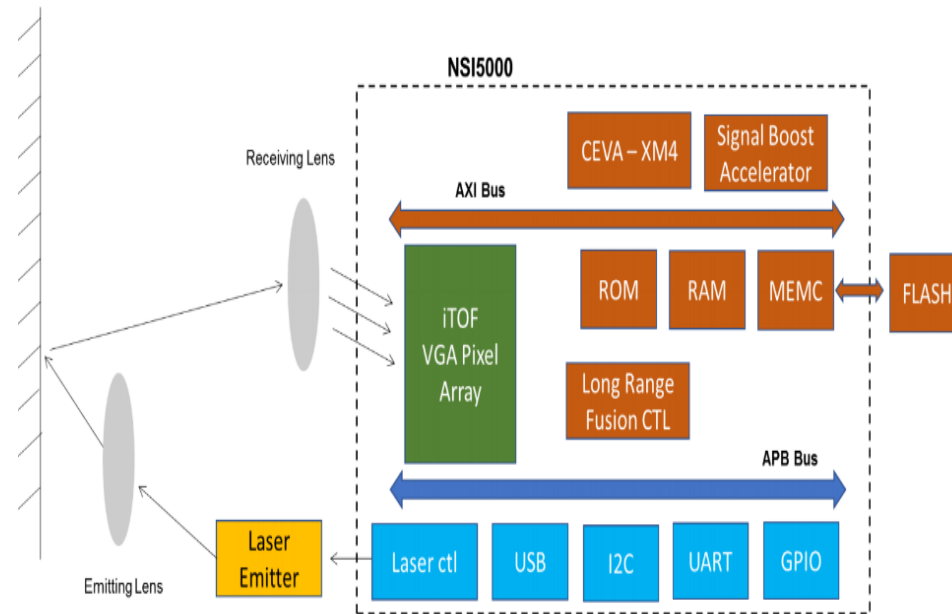
Solid State Laser LiDAR



The NSI5XXX Family

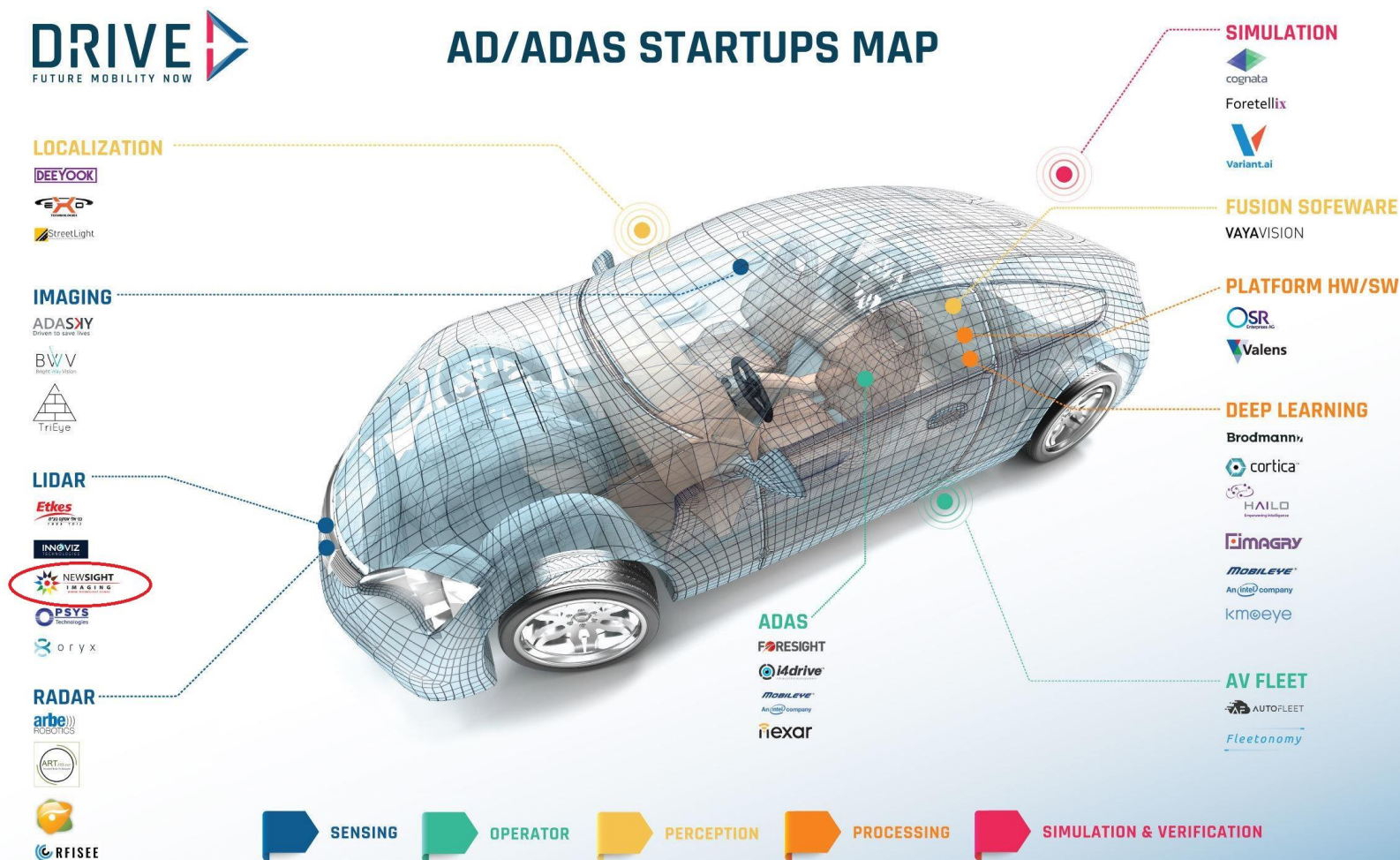
Main Target Applications:

- ADAS Systems LiDARS
- Smartphones Depth Camera
- Surveillance



- System on chip sensor
- Analog + Digital
- Communication/IOT ready
- Low Power

Newsight on DRIVE Israeli startups Map



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