Pixium vision

REGAINING VISION, REGAINING LIFE

JPMorgan – TROUT conference
San Francisco, January 11-14, 2015

Disclaimer

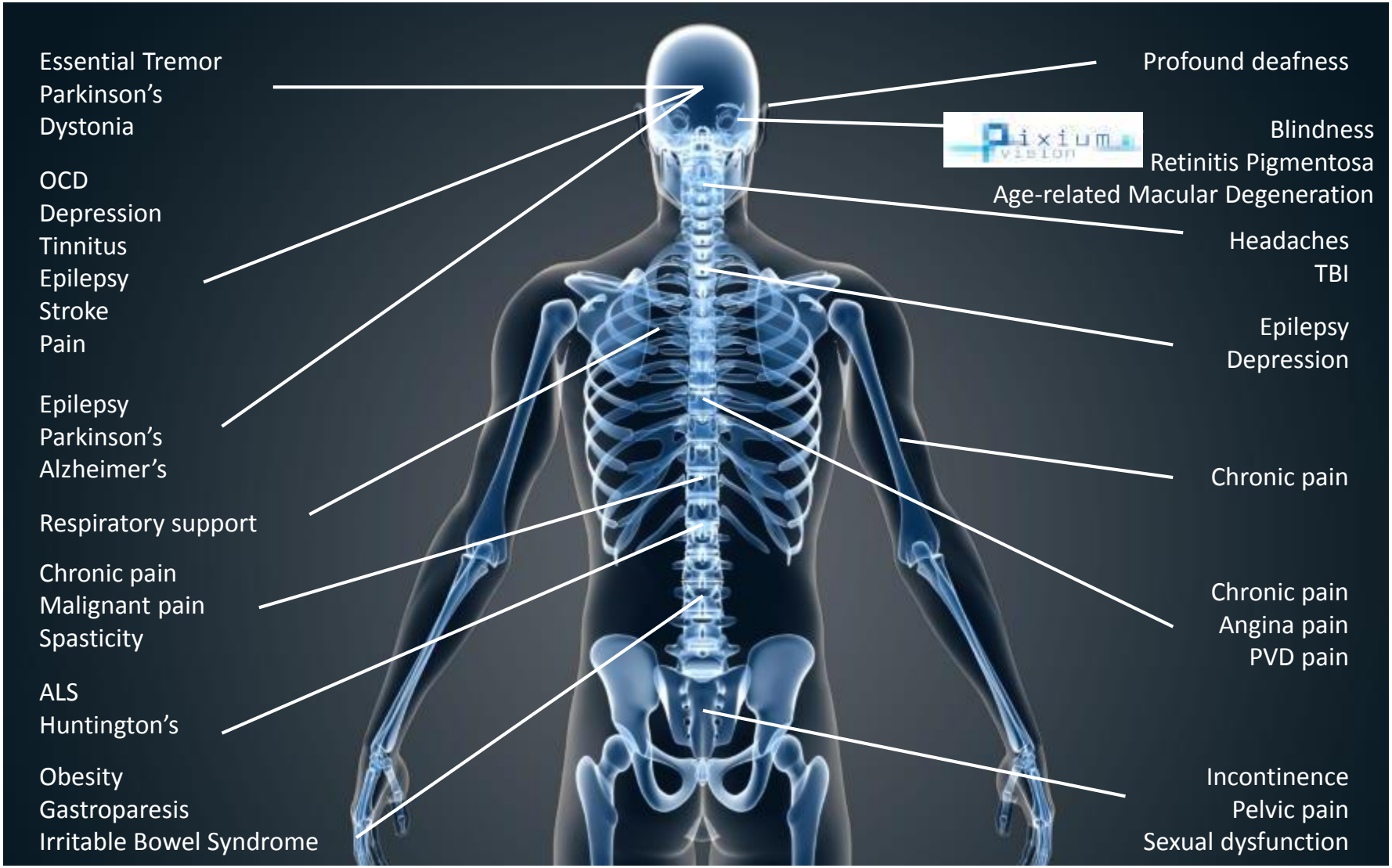
This document contains information on Pixium Vision's markets and competitive position, and more specifically, on the size of its markets. This information has been drawn from various sources or from the companies own estimates. Investors should not base their investment decision on this information. This document also contains certain forward-looking statements. These statements are not guarantees of the Company's future performance. These forward-looking statements relate to the Company's future prospects, developments and marketing strategy and are based on analyses of earnings forecasts and estimates of amounts not yet determinable. Forward-looking statements are subject to a variety of risks and uncertainties as they relate to future events and are dependent on circumstances that may or may not materialize in the future. Pixium Vision draws your attention to the fact that as forward-looking statements cannot under any circumstance be construed as a guarantee of the Company's future performance and that the Company's actual financial position, results and cash flow, as well as the trends in the sector in which the Company operate may differ materially from those proposed or reflected in the forward-looking statements contained in this document. Furthermore, even if Pixium Vision's financial position, results, cash-flows and developments in the sector in which the Company operates were to conform to the forward-looking statements contained in this document, such results or developments cannot be construed as a reliable indication of the Company's future results or developments. The Company does not undertake any obligation to update or to confirm projections or estimates made by analysts or to make public any correction to any prospective information in order to reflect an event or circumstance that may occur after the date of this presentation. A description of those events that may have a material adverse effect on the business, financial position or results of Pixium Vision, or on its ability to meet its targets, appears in the sections "Risk Factors" of its "Document de Base" filed with the French Autorité des Marchés Financiers. By attending this presentation or accepting this document, you agree to be bound by the foregoing restrictions set out above.

Pixium Vision: our mission

To provide the best-in-class vision restoration systems enabling the blind to regain greater autonomy

Pixium vision

Pixium Vision, pushing new frontier of “neuro-ophthal-modulation”



Induction of biological responses from electrical stimulation on nerves or zone where nerve activity is affected

An experienced management team

Bernard Gilly, *Chairman*

- 20+ years experience in the lifesciences sector
- Fovea Pharma (2005-2009) Chairman & CEO - sold to Sanofi
- Sofinova (2000-2005) - Managing Partner
- Transgene (1992-2000) - Chairman & CEO

Khalid Ishaque, *CEO*

- 20+ years experience in the medtech industry in neuromodulation
- Boston Scientific (1997-2014) - General Manager Neuromodulation International

Pierre Kemula, *CFO*

- 14 years experience in Corporate Finance / Financial Markets
- Ipsen - VP IR, Finance & Treasury
- Strategy Consulting (Bossard; Roland Berger)

Guillaume Buc, *CTO*

Karine Chevrie, *RA/QA Dir*

Robert Hill, *COO*

Sylvie Murgo, *IP Dir*

Pixium Vision

1 The only company with 2 proprietary retinal implant systems

- An eco-system of global scientific & technological excellence
- Intellectual Property & Know-How : Over 250 patents

2 Attractive addressable >1 Billion Euro + market opportunity*

3 Two differentiated systems:

- IRIS® system close to commercialization for Retinitis Pigmentosa (RP)
- PRIMA to expand the market opportunity with AMD

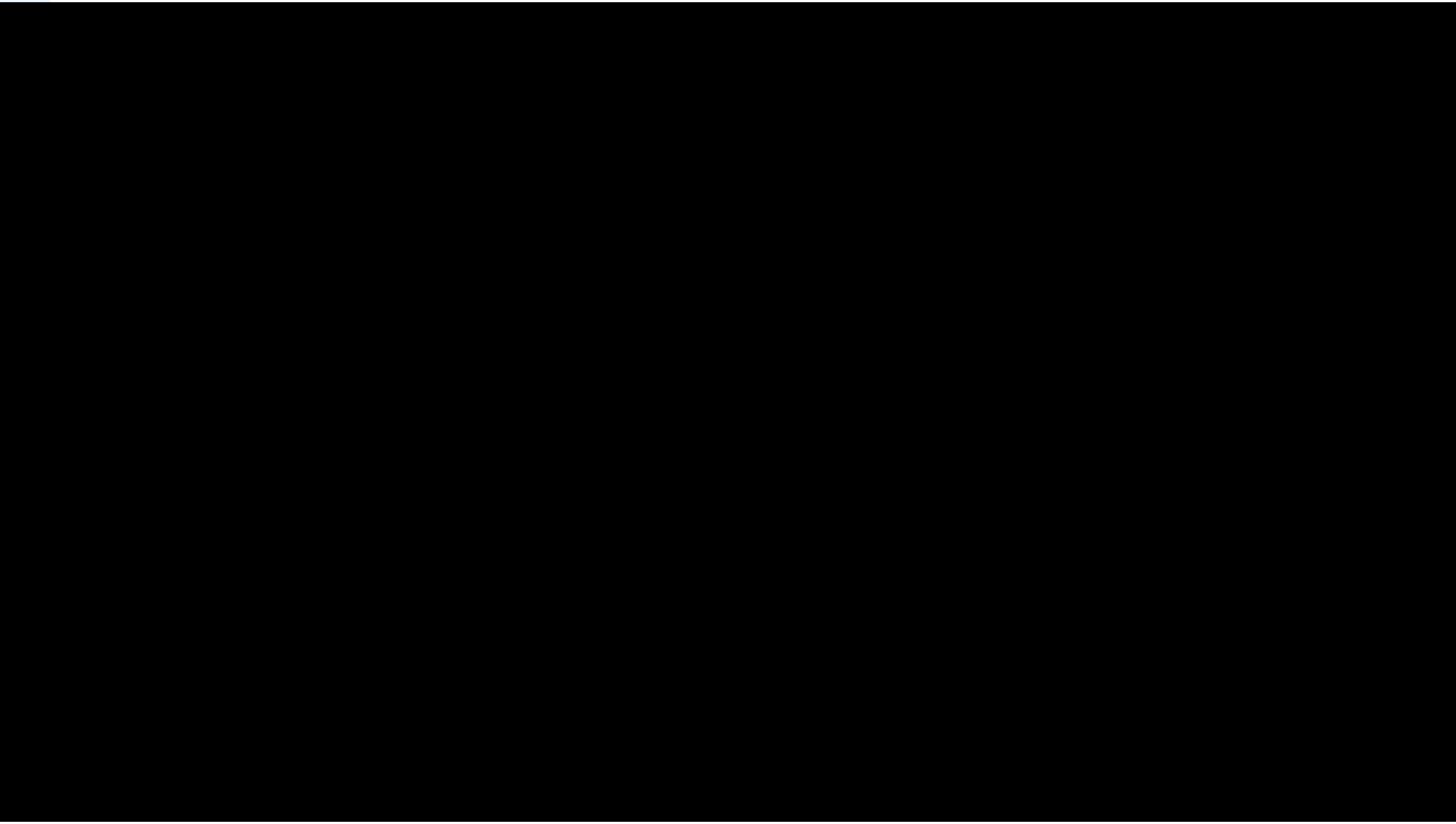
4 Experienced and dedicated management executing the strategy

Establish Pixium Vision's position as a leader in Vision Restoration Systems

* Company Estimate

Imagine how much blind people miss out on…

Progress 15-17 months Observations



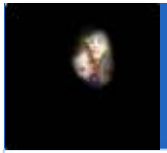
Blindness

Costs and target pathologies

Solving blindness from macular degeneration: a major market opportunity

Blindness epidemiology

- 285 million people in the world are visually impaired
- 40–45 million people in the world are totally blind
- In the US and Europe, blindness costs exceed tens of billions of USD per annum



Retinitis Pigmentosa (RP)

- Genetic disease ~ 1/4000
- Blindness occurrence: ~ 35 - 40 years old
- Worldwide prevalence: 1.5 to 2 million
- Prevalence in the US + EU: 350,000 - 400,000
- Incidence (US + EU): 15k-20k patients annually

Age-related Macular Degeneration (AMD)

- Age-related disease
- Later blindness occurence: 70+ years old
- Worldwide prevalence: 12 to 15 million
- Prevalence in the US + EU: 4 million
- Incidence (US + EU): 350k - 400k patients annually

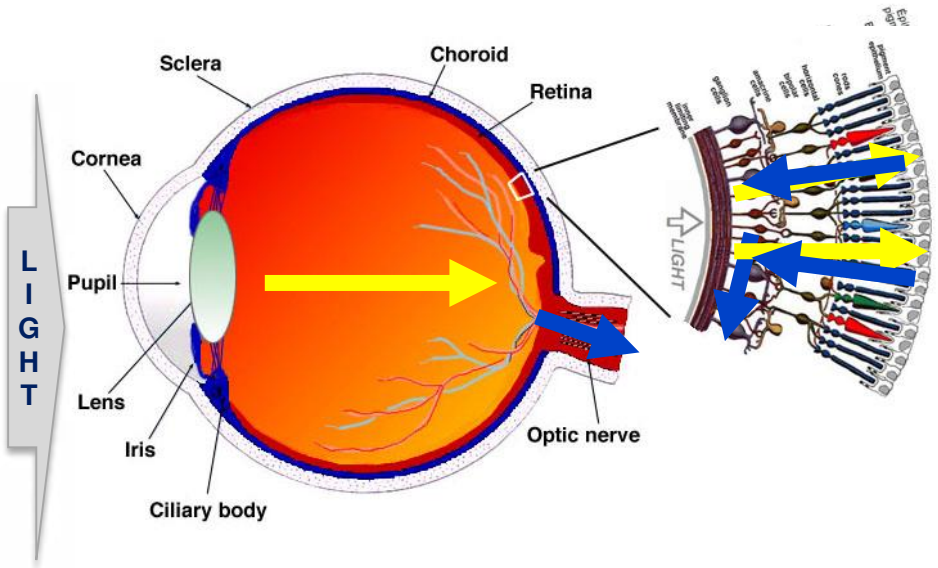
Retinitis Pigmentosa is Pixium Vision's initial target market

Sources: World Health Statistics. World Health Organization -http://www.amd.org -NORC Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States -Study commissioned by Prevent Blindness in America and conducted by University of Chicago -European Forum Against Blindness (EFAB)

Source: 2012 World Health Organization – by 2020 there will be 75 million blind people in the world and 314 million partially-blind people
Fighting Blindness (UK) : 25K in UK and over 2M worldwide
CentralSight fact sheet End-Stage Age-related Macular Degeneration

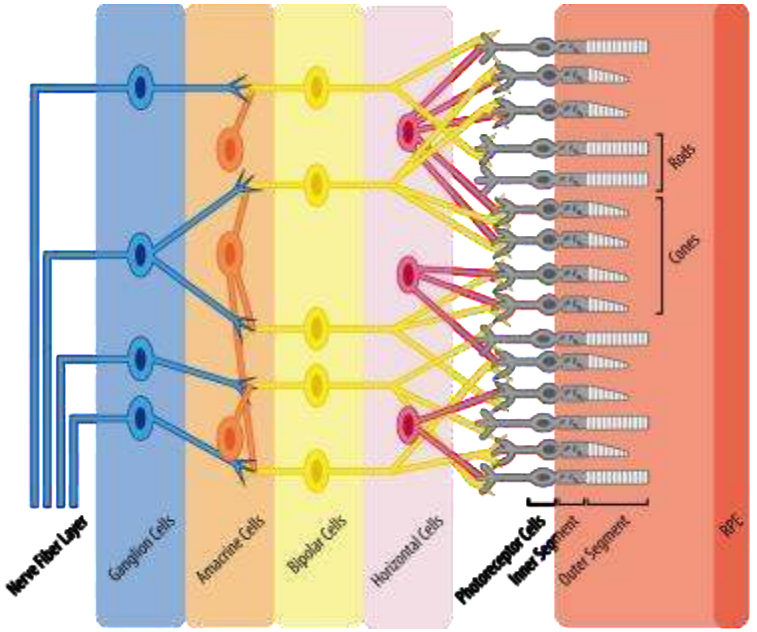
The loss of the photoreceptor function is a major cause of blindness

The eye transforms light into electric signals



- Photoreceptor cells convert light into signals
- The human retina contains 6 million cone cells responsible for central vision

Photoreceptor degeneration does not affect the rest of the retina



- RP and AMD are linked to photoreceptor degeneration
- **However, bipolar cells, ganglion cells and downstream visual pathways remain INTACT and FUNCTIONAL in the vast majority of RP and AMD patients**

Pixium Vision

The convergence of excellence providing a solid intellectual property

Pixium Vision systems are supported by global expertise, resulting in a strong patent position

Optics Image Capture	• Physics	INSTITUT DE LA VISION
Image Processing Algorithms	• Mathematics / Robotics • Neuro-physics	UPMC SORBONNE UNIVERSITÉS
Visual Processing	• Ophthalmology • Electrophysiology	cnrs, Inserm, QUINZE-VINGTS
Micro-engineering and Micro-electronics	• Optronic	SALK INSTITUTE Where cures begin.
Ocular Surgery	• Retinal Surgery	Fondation Ophtalmologique Adolphe de Rothschild
Rehabilitation	• Neuronal computation	STREETlab

Pixium Vision

Pixium Vision has built a strong Intellectual Property & Know-How with more than 250 patents

Pixium continues to strengthen its IP position

New initiatives

- **7** patents granted with IRIS® since January 2015
- **5** new patent applications filed on both IRIS® and PRIMA further strengthen the portfolio

Defensive

The company strives to protect its competitive patent position with:

- **1** patent maintained in Europe following opposition claim by a competitor
- **2** US competitor European patents revoked following successful oppositions led by Pixium Vision

Supporting the technology development and industrialization

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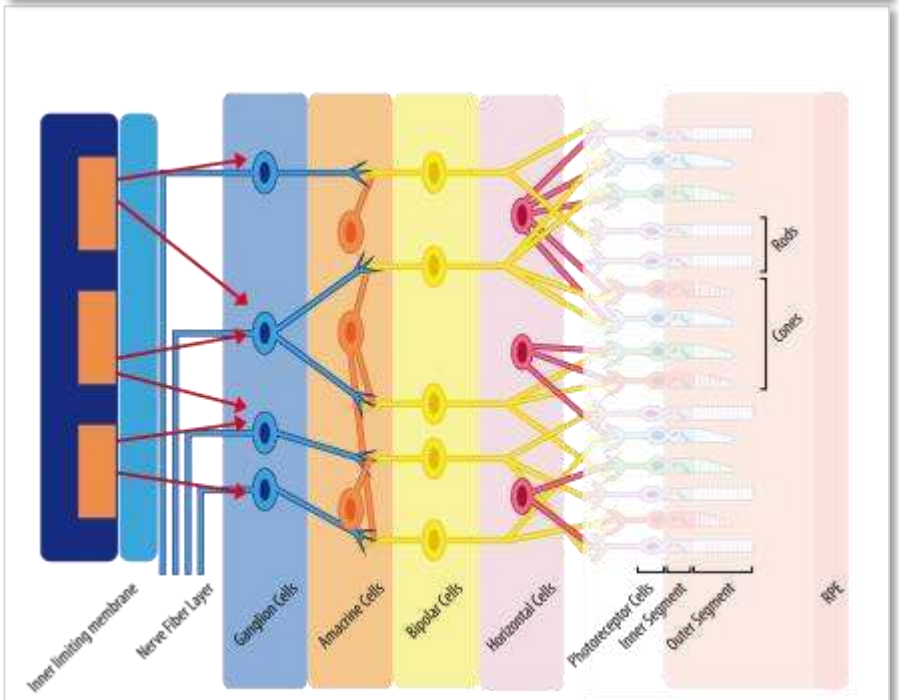
IRIS®

A state of the art Vision Restoration System

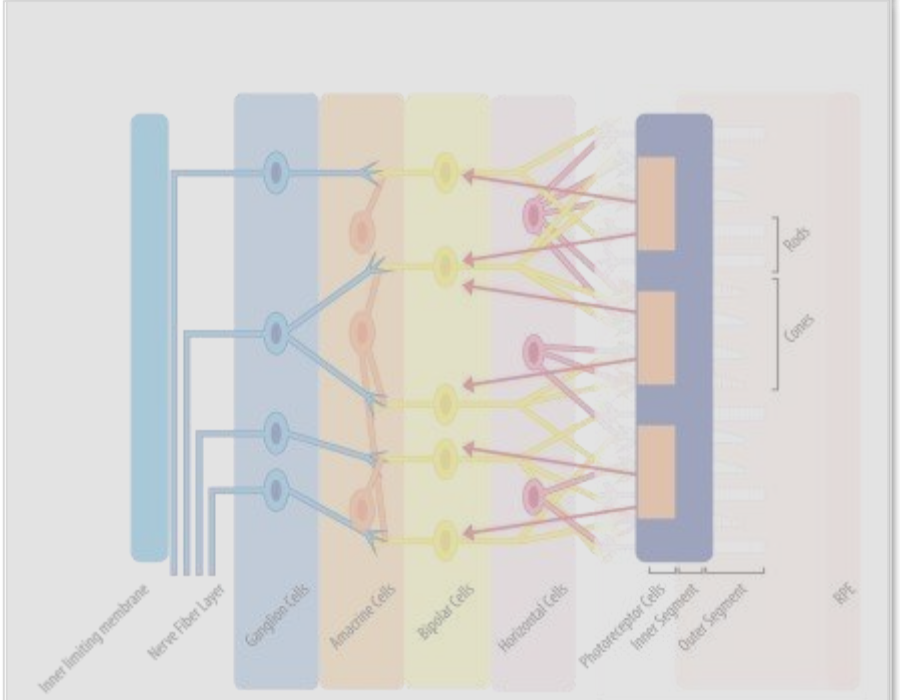
Pixium Vision, the only company to develop two proprietary retinal implant systems

EPI-RETINAL STIMULATION



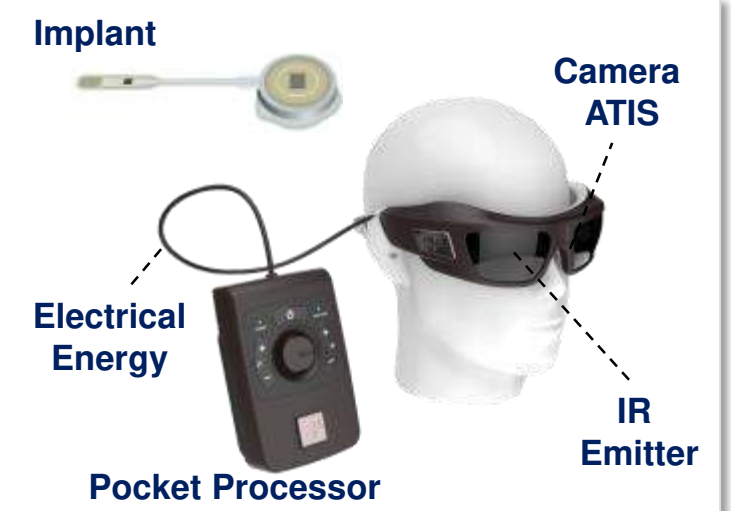
IRIS®

SUB-RETINAL STIMULATION

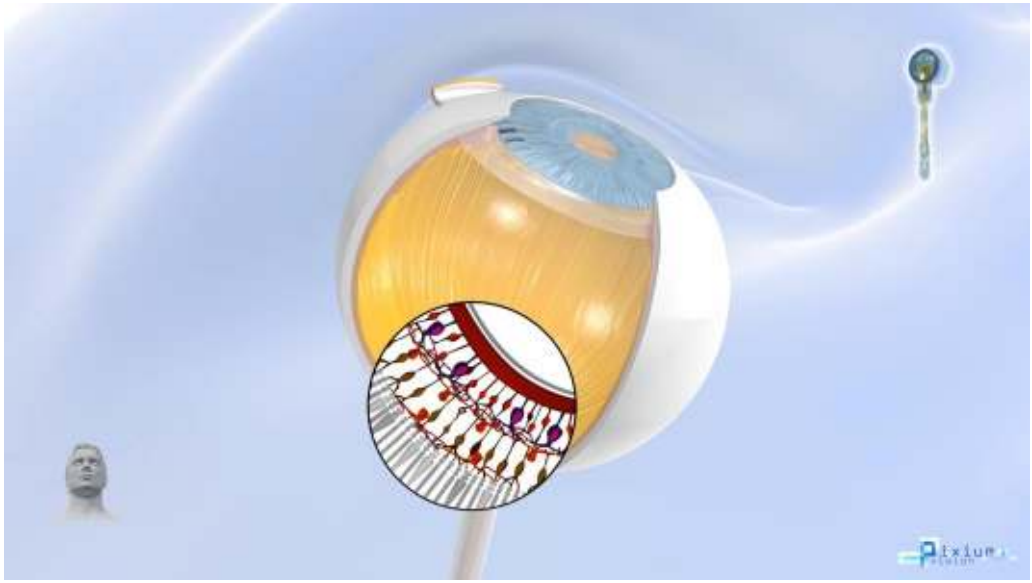


PRIMA

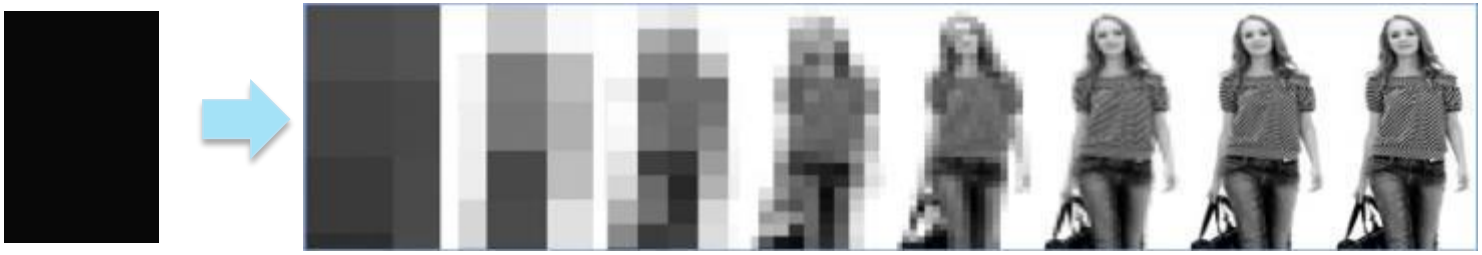
IRIS®, a technically advanced system targeting Retinitis Pigmentosa



Software algorithms transform events into signals



Initial goal is to deliver light and shape perception, and to localize objects giving the patient the ability to negotiate an unfamiliar environment



IRIS® : A technically advanced and differentiated VRS

	Device Features	IRIS®	Main Competitor	IRIS® Advantage
Technology	Camera	Neuromorphic Event Based 	Frame Based	How the human brain works
	Patient Programming - Tuneability	Yes	No	All patients respond and learn differently; IRIS is flexible to patient needs
	Number of Electrodes	150 electrodes	60 electrodes	Allow smarter stimulation combinations
Surgery	Surgical Procedure	2.5 hours	Up to 4 hours	Easier to implant;
	Explant and Replacement	Yes	Replacement not proven	Technology is always evolving and improving; patients need the option of upgrading to new technologies in the future

IEEE SPECTRUM

How Neuromorphic Image Sensors Steal Tricks From the Human Eye

By prioritizing the dynamic parts of a scene, machines can capture images more efficiently

By Christoph Posch, Ryad Benosman & Ralph Etienne-Cummings
Posted 26 Nov 2015

http://spectrum.ieee.org/biomedical/devices/how-neuromorphic-image-sensors-steal-tricks-from-the-human-eye?utm_source=feedburner-robotics&utm_medium=feed&utm_campaign=Feed:+IeeeSpectrumRobotics+(IEEE+Spectrum:+Robotics)

IRIS®, illustration of smart design

Pixium Vision	Competitor
Proprietary epi-retinal tack that allows release of implant on the retina i.e. explantation	Illustration of proprietary epi-retinal tack that ***does not*** allow explantation

Silicon ring (not fitted here) allows release of intra-ocular implant section

Spring does not allow for release of intra-ocular implant section

Patented : a key feature allowing patients to replace / upgrade

IRIS®: A clear path to market

Aiming for a leading market position

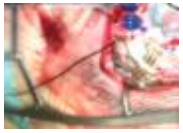
IRIS® : Continue to build evidence for CE Mark

Ongoing Clinical Trial

1. Incidence, severity and duration of all ***adverse events*** at 4, 6, 9, 12 and 18 months
2. Assessment of the capability of patients to ***perform visual tasks*** with and without the device at 4, 6, 9, 12 and 18 months

Regulatory Path

Implantation Surgery → **Implant Activation (after 4 weeks)** → **Rehabilitation Program** → **CE Mark filing Q4 2015**



Clinical Centers

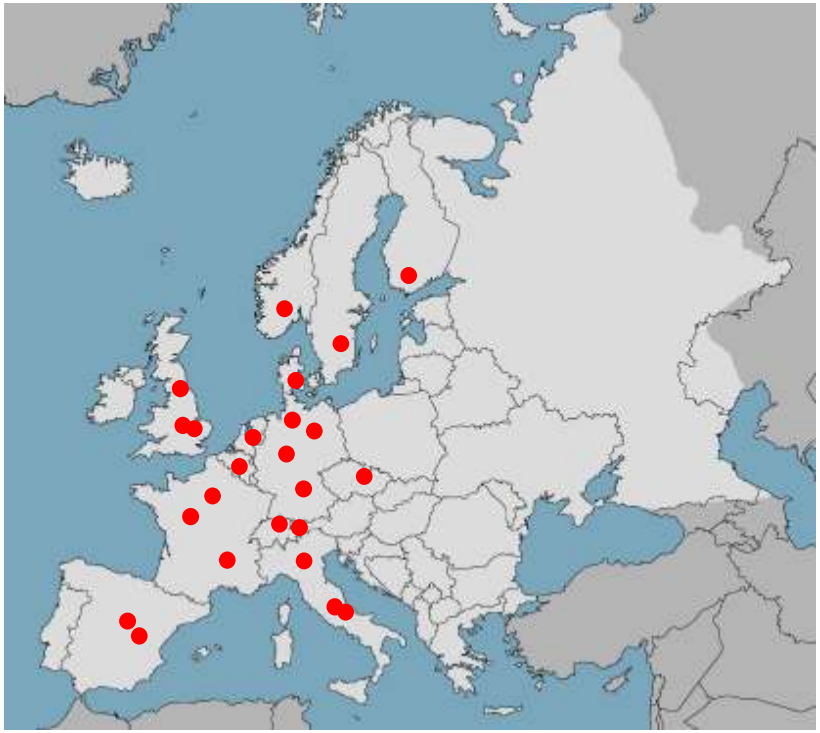
- **Paris & Nantes**
- **Graz**
- **Hamburg & Bonn**

Rehabilitation Program

- Programs tailored for each patient
- Rehabilitation programs will enable further software improvements
- Patients' vision improves during the course of their rehabilitation program

A lean and specialized commercial organization

25 to 30 key ophthalmic surgery centers in Europe



These centres give access to ~80% of qualifying patients*

Market development process

Ongoing:

- KOL engagement
- Discussions with patient associations
- Participation in major scientific and medical conferences

Country/market assessments to select and prioritize centers

Recruitment of a lean internal technical/clinical specialist sales team focused on:

- Commercial & educational activities
- Training & support of orthoptists

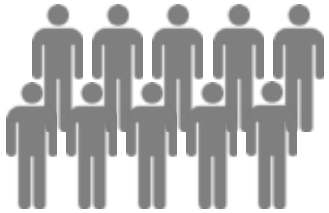
Sales team to reach a peak of 2 to 3 team members per country & sales admin employees

* Company Estimate

IRIS® path to the US market

1

Gather results from European clinical trial



2

File an Investigational Device Exemption (IDE)

- Pre IDE planned for Q2/Q3 2016
- Pixium Vision anticipates that FDA will require clinical results from at least 30 patients with 2 years follow-up

3

Obtain Pre-Market Approval (PMA)

- US launch of IRIS® to start 2019

IRIS® pricing and reimbursement drivers

Cost of blindness

Competitor reimbursement benchmark

€78,000 €100,000

€96,000 c.$100,000

Approved & reimbursed

Quality of clinical data

Comparative MedTech therapies

and software improvement

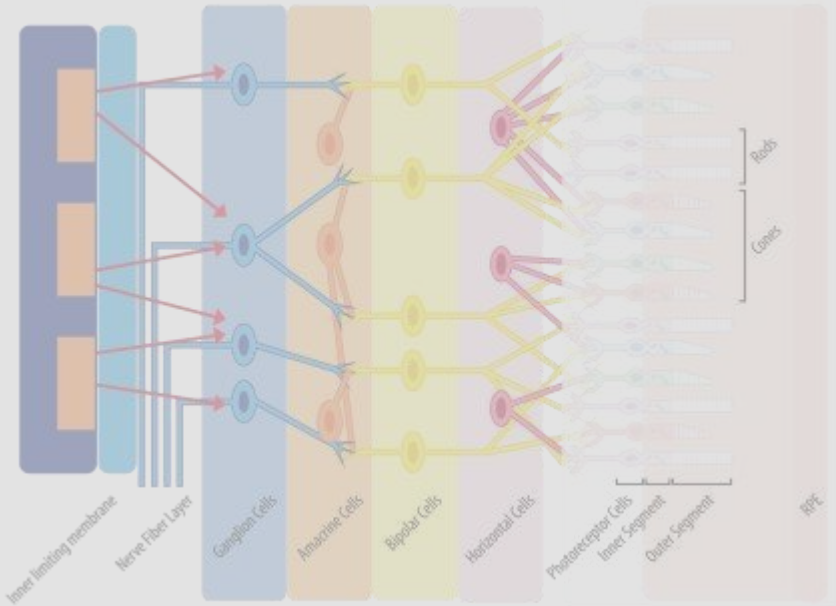
Pricing & Reimbursement Drivers

PRIMA Vision Restoration System

Building on IRIS® leading market position

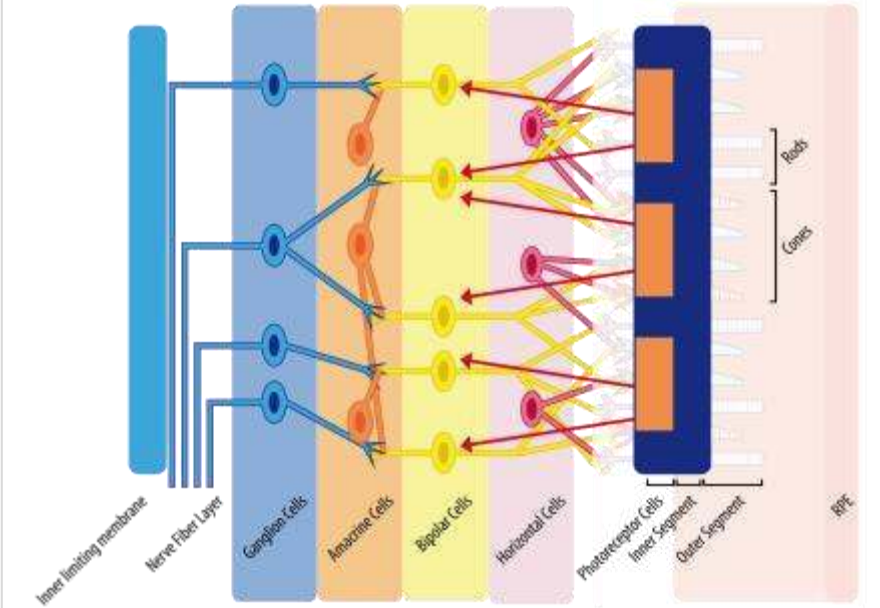
Pixium Vision, the only company to develop two proprietary retinal implant systems

EPI-RETINAL STIMULATION



IRIS®

SUB-RETINAL STIMULATION



PRIMA

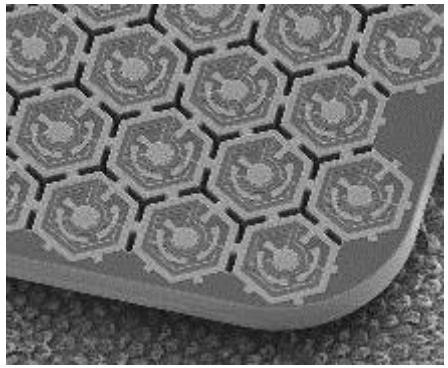
Treating Macular Degeneration AMD :

"Tiny implantable solar panels could help the blind see one day"

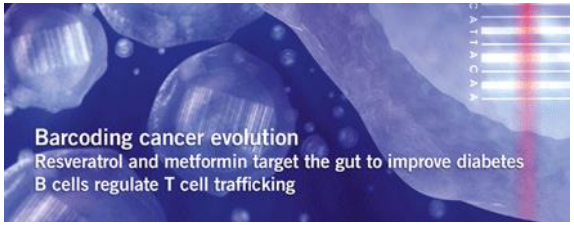
Treating blindness

Bionic eyes

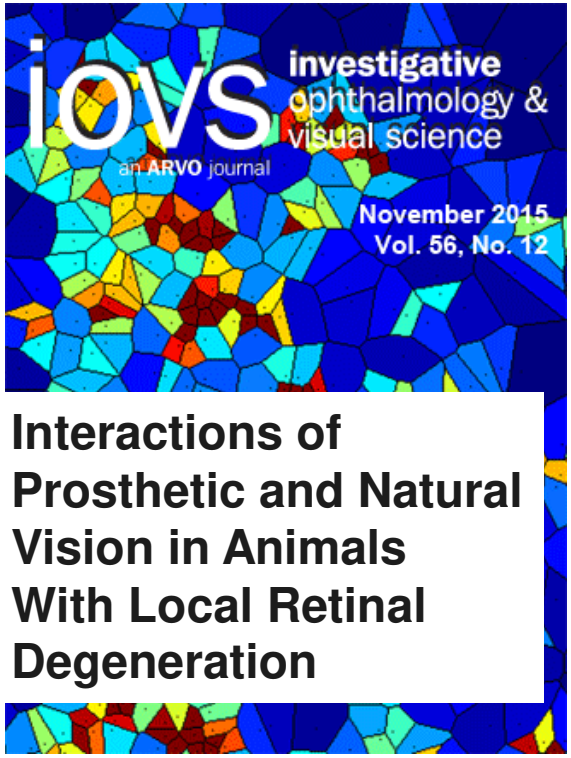
A new device may restore vision to those whose sight is dwindling



Photovoltaic restoration of sight with high visual acuity



Nature Medicine (2015) doi:10.1038/nm.3851
http://www.nature.com/nm/journal/vaop/ncurrent/full/nm.3851.html

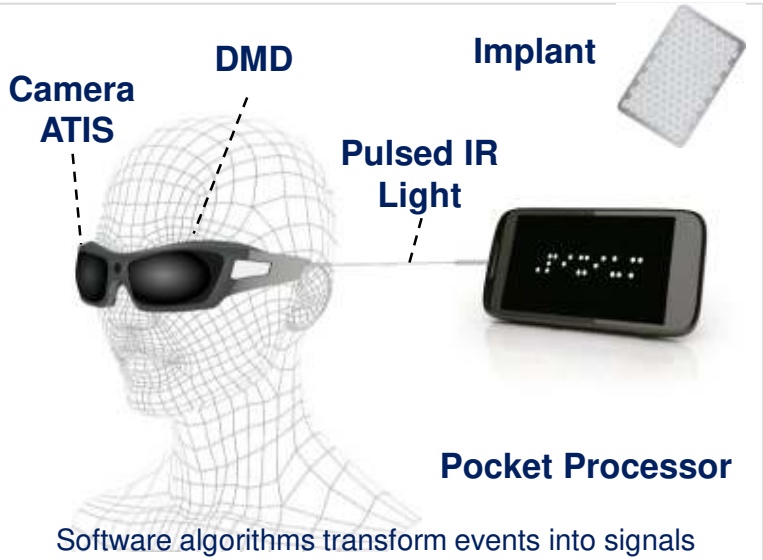


Interactions of Prosthetic and Natural Vision in Animals With Local Retinal Degeneration

Investigative Ophthalmology & Visual Science November 2015, Vol.56, 7444-7450. doi:10.1167/iovs.15-17521
http://iovs.arvojournals.org/article.aspx?articleid=2474145&resultClick=1

The PRIMA System, more optimal approach for AMD

A technically advanced system designed to deliver further clinical benefits



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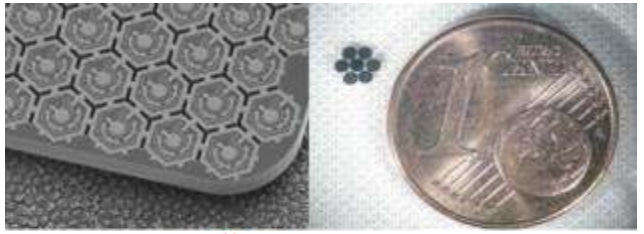
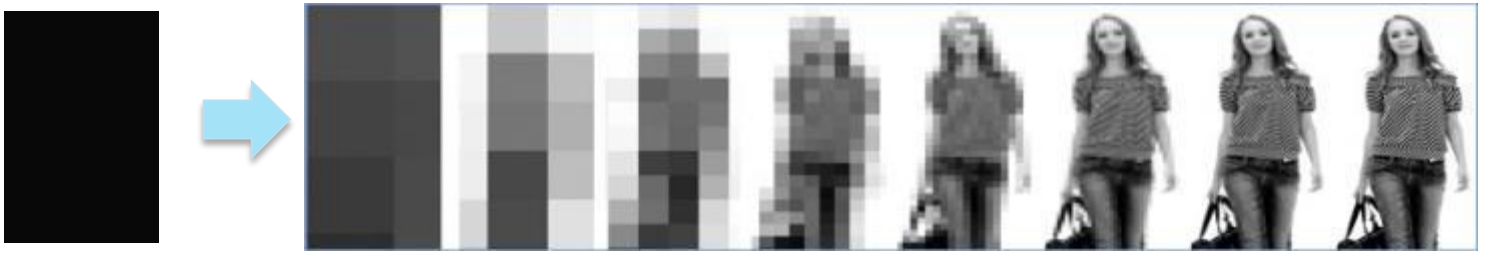


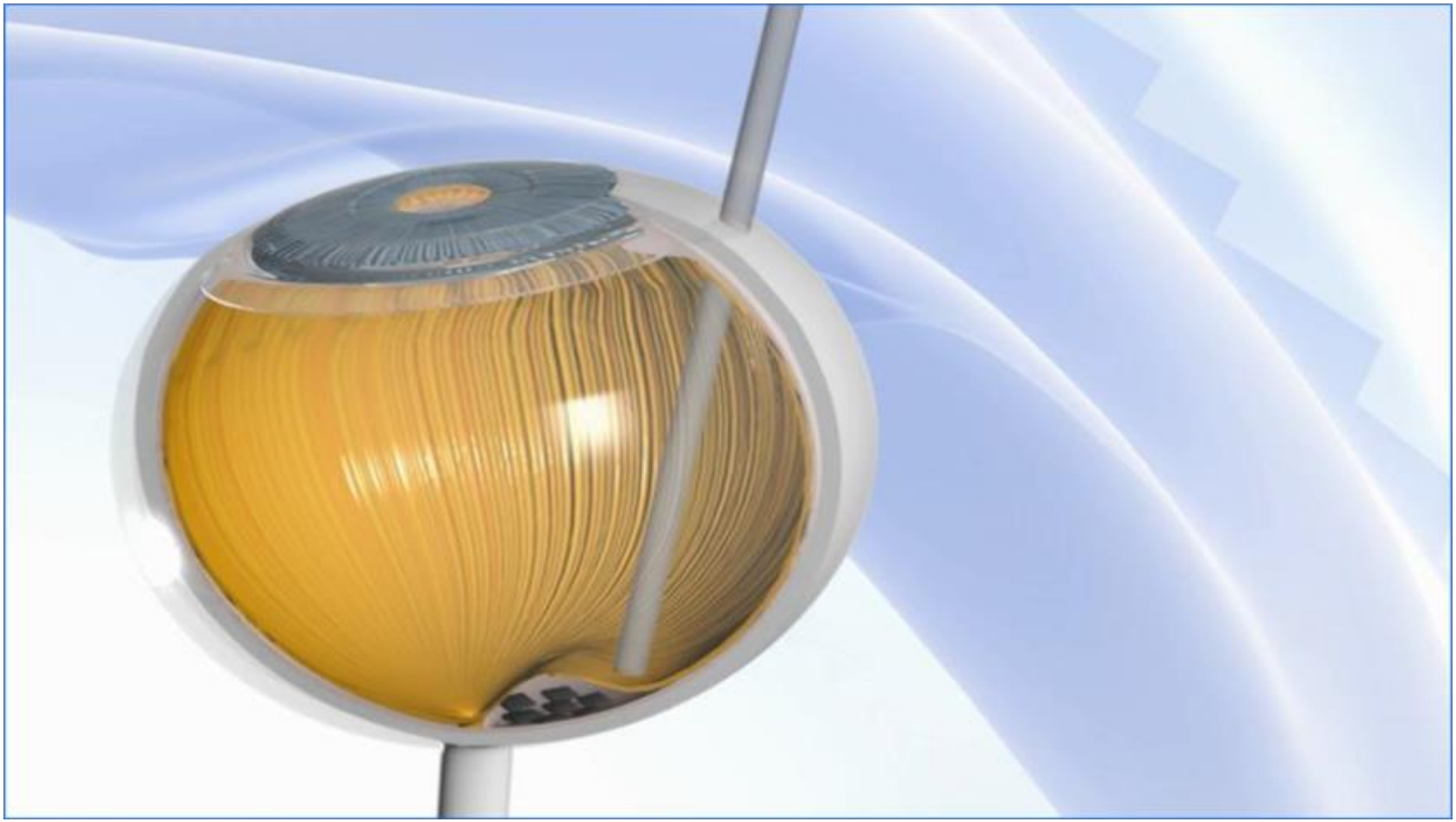
- Physiological signal processing
- Simpler and shorter surgical procedure
- Retinal chips in modules up to several 1000 electrodes
- Advanced processing algorithms
- Reduced energy requirements enabling miniaturization of components

Goal is to deliver improved visual perception to the level of direct facial recognition



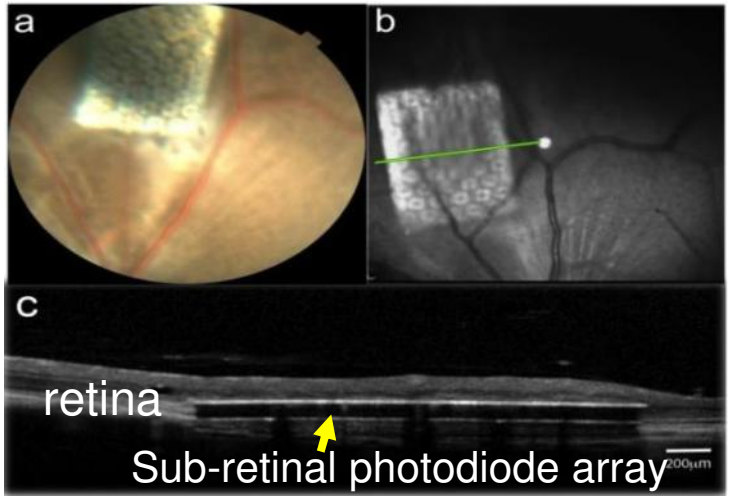
PRIMA, a sub-retinal implant

Prima to directly stimulate the retinal cells that were directly connected to the photoreceptors



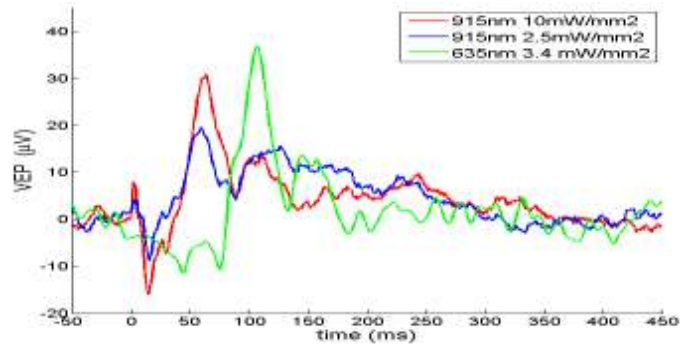
PRIMA: Validated in pre-clinical models

Nature Medicine 2015 : Photovoltaic restoration of sight with high visual acuity

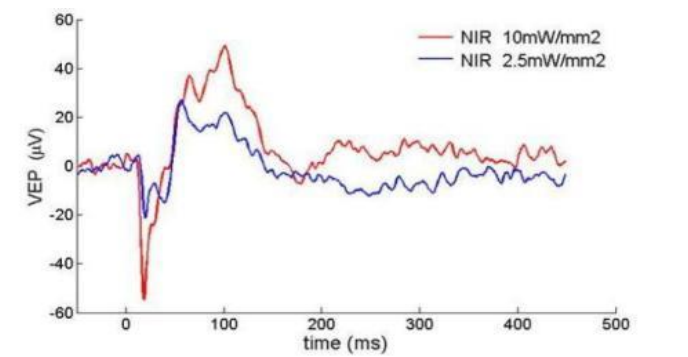


- Proof of concept achieved in rats
- Safety demonstrated in rats and pigs
- Scale-up of manufacturing process ongoing
- First in man expected in 2016

Visual Evoked Potential: Normal rats *



Visual Evoked Potential: Blind rats *

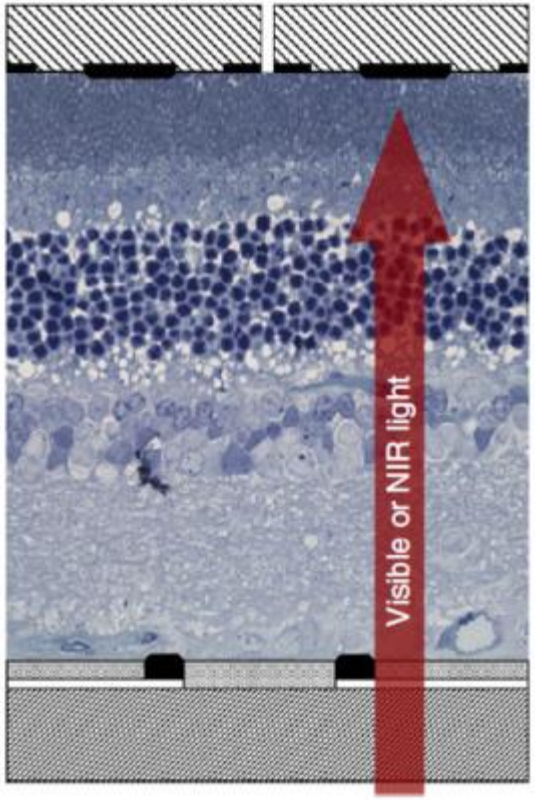


In rats with retinal degeneration, PRIMA elicited retinal responses with a spatial resolution of 64 ± 11 mm, corresponding to ***half of the normal visual acuity in healthy rats***

- Ref: *J. Neural. Eng* 9: 046014(2012)
- IEEE EMBS Neural Engineering Conference 22 April 2015
- Nature Medicine (2015) doi:10.1038/nm.3851 http://www.nature.com/nm/journal/vaop/ncurrent/full/nm.3851.html

PRIMA rat data, published in Nature Medicine, show restoration of half of normal visual acuity

- 70 μ m-wide pixels provide **highly localized stimulation** of retinal neurons in rats
- Electrical receptive fields recorded in retinal ganglion cells were **similar in size to the natural visual receptive fields**
- Similarly to normal vision, the retinal response to prosthetic stimulation exhibited:
  - flicker fusion at high frequencies
  - adaptation to static images
  - nonlinear spatial summation

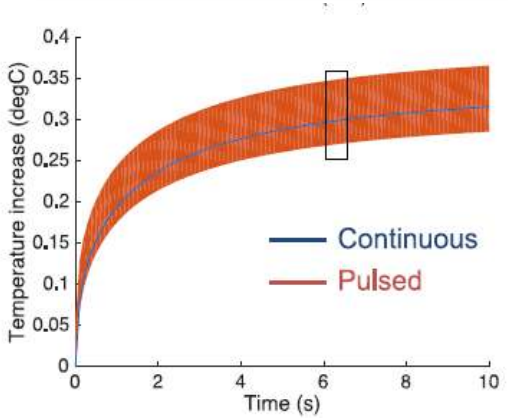


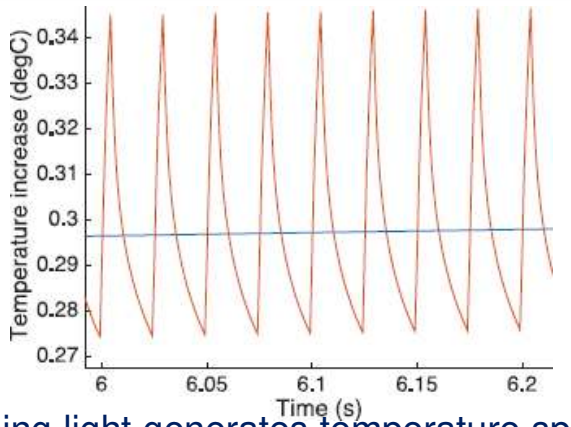
Healthy rat retina sandwiched between a transparent MEA which records electrical field at the ganglion cell layer (GCL) level

In rats with retinal degeneration, PRIMA elicited retinal responses with a spatial resolution of 64 ± 11 mm, corresponding to ***half of the normal visual acuity in healthy rats***

Thermal Safety of PRIMA is demonstrated with temperature rise well within required standards

Model of retinal temperature rise in typical use (5ms, 40Hz) of NIR beam





- In typical use conditions (5mW/mm2, 5ms pulses at 40Hz, with 2-4.5mm diameter implant and 4.5mm beam), the **temperature increase predicted by the model will be within the range of 0.17-0.43°C**
- These power settings are well above levels shown in previous trials to allow stimulation of animal retina.
- Pulsing light generates temperature spikes of about 0.05°C, oscillating around the blue line corresponding to the average power, a negligible variation within the natural temperature range in the body.
- Pulsing allows reduction of the chip temperature increase in a quasi-linear manner vs duty cycle (% of time when light is on).

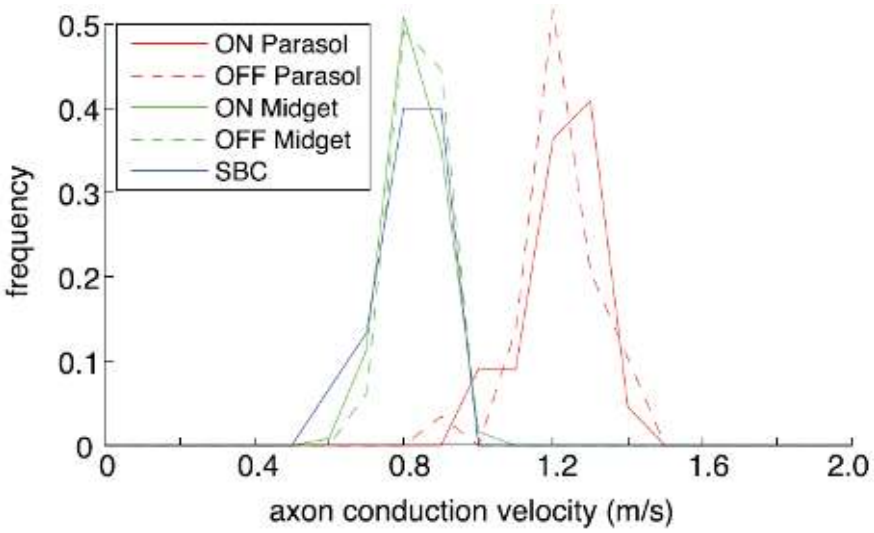
These results are more than 4 times below the recommended thermal safety limit of 2°C for active implanted medical devices

Source: Retinal safety of near infrared radiation in photovoltaic restoration of sight - BIOMEDICAL OPTICS EXPRESS 4 Dec. 2015

Spike speed to differentiate RGC types

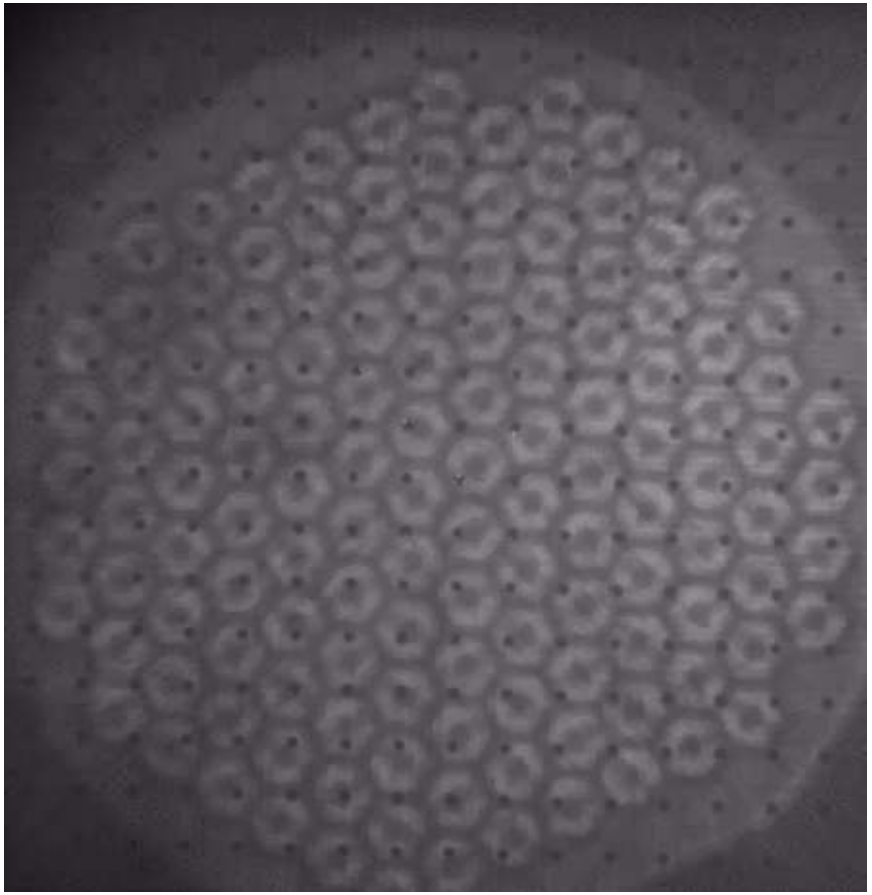
7 pixels stimulation, 75µm pixels, 1.25mW.mm^{-2}, 5ms, 5Hz

4ms video



Anatomical Identification of Extracellularly Recorded Cells in Large-Scale Multielectrode Recordings.

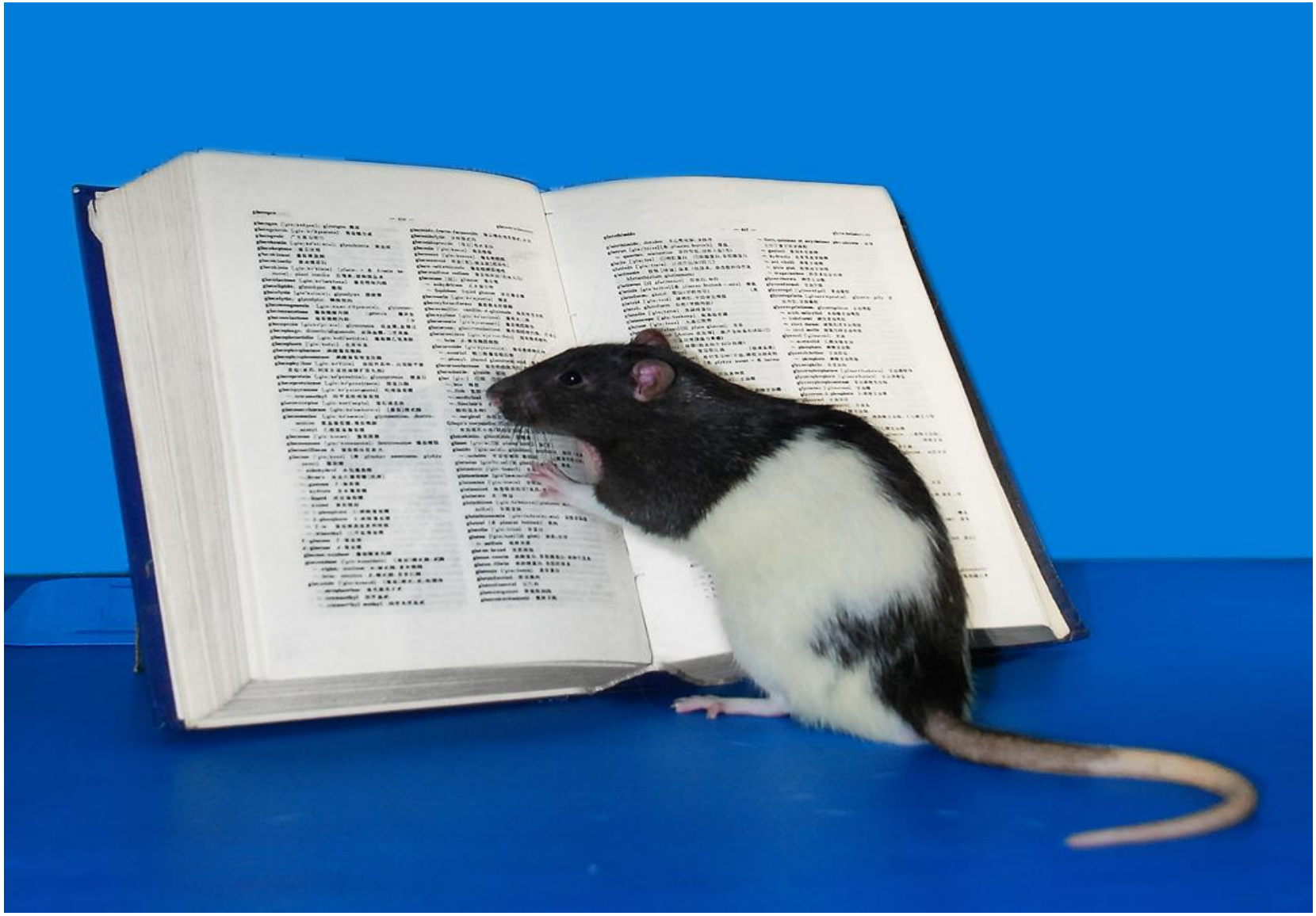
Peter H. Li, E.J. Chichilnisky



Calculated spike speed: 0.73 ± 0.2m.s^{-1}

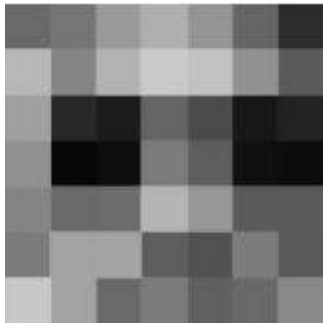
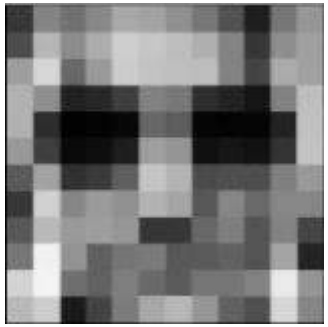
Measure of the interspike interval necessary to differentiate between ON and OFF cell types

Visual Function – in vivo ?



In short

Pixium Vision Creating a world of Bionic Vision

IRIS 50	IRIS 150	PRIMA 1 chip 400 electrodes	PRIMA 4 chips 1600 electrodes
			

Today IRIS

- Epi-retinal implant in clinical with novel proprietary Neuromorphic sensor
- Toward Higher Resolution 150 electrodes

Commercial Launch : 2016 in EU

Tomorrow PRIMA

- Sub-retinal implant with proprietary passive wireless microphotodiodes
- Toward Facial Recognition

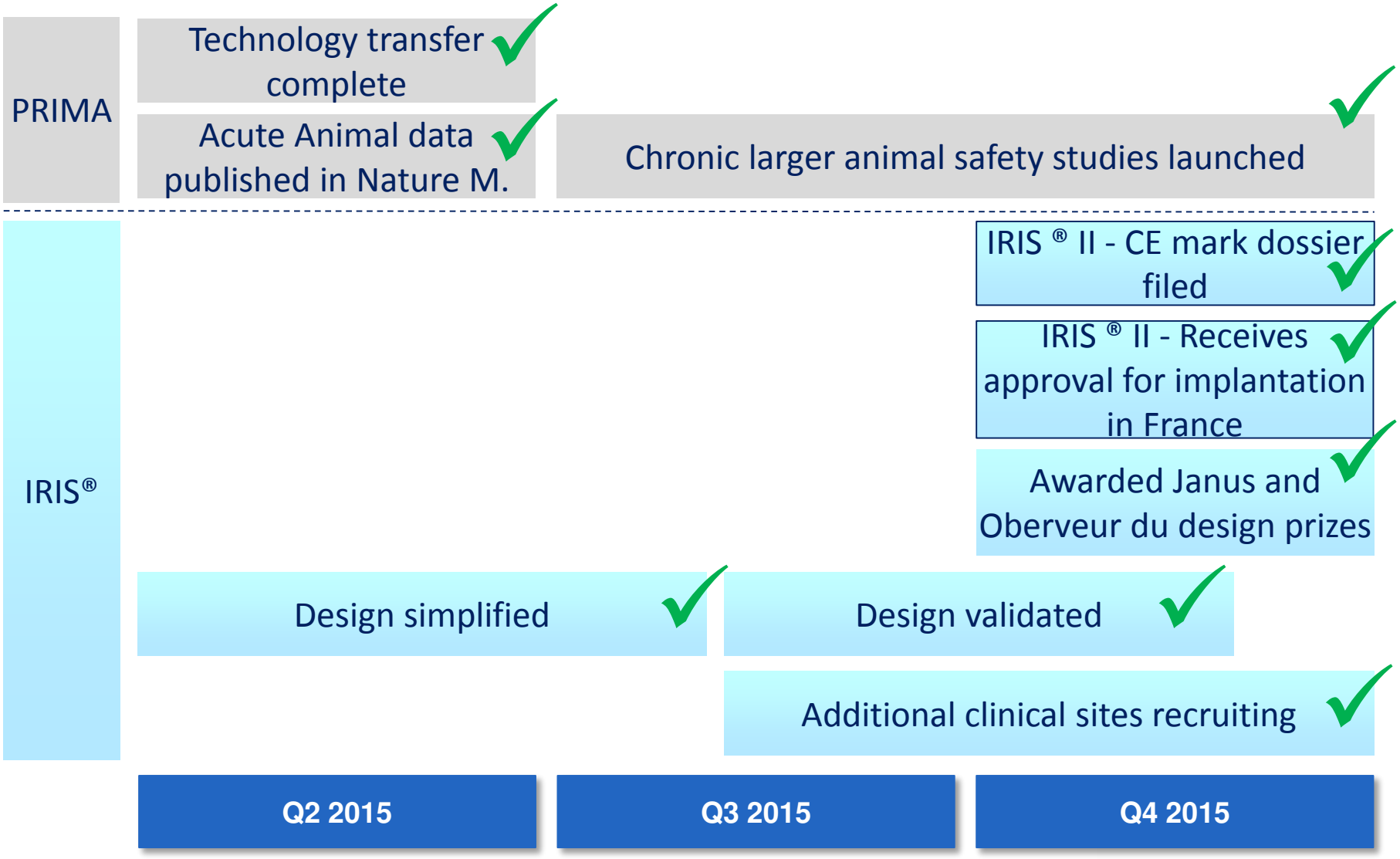
First in man : 2016

Giving sight, giving life : making an impact in lives of people who have lost their sight

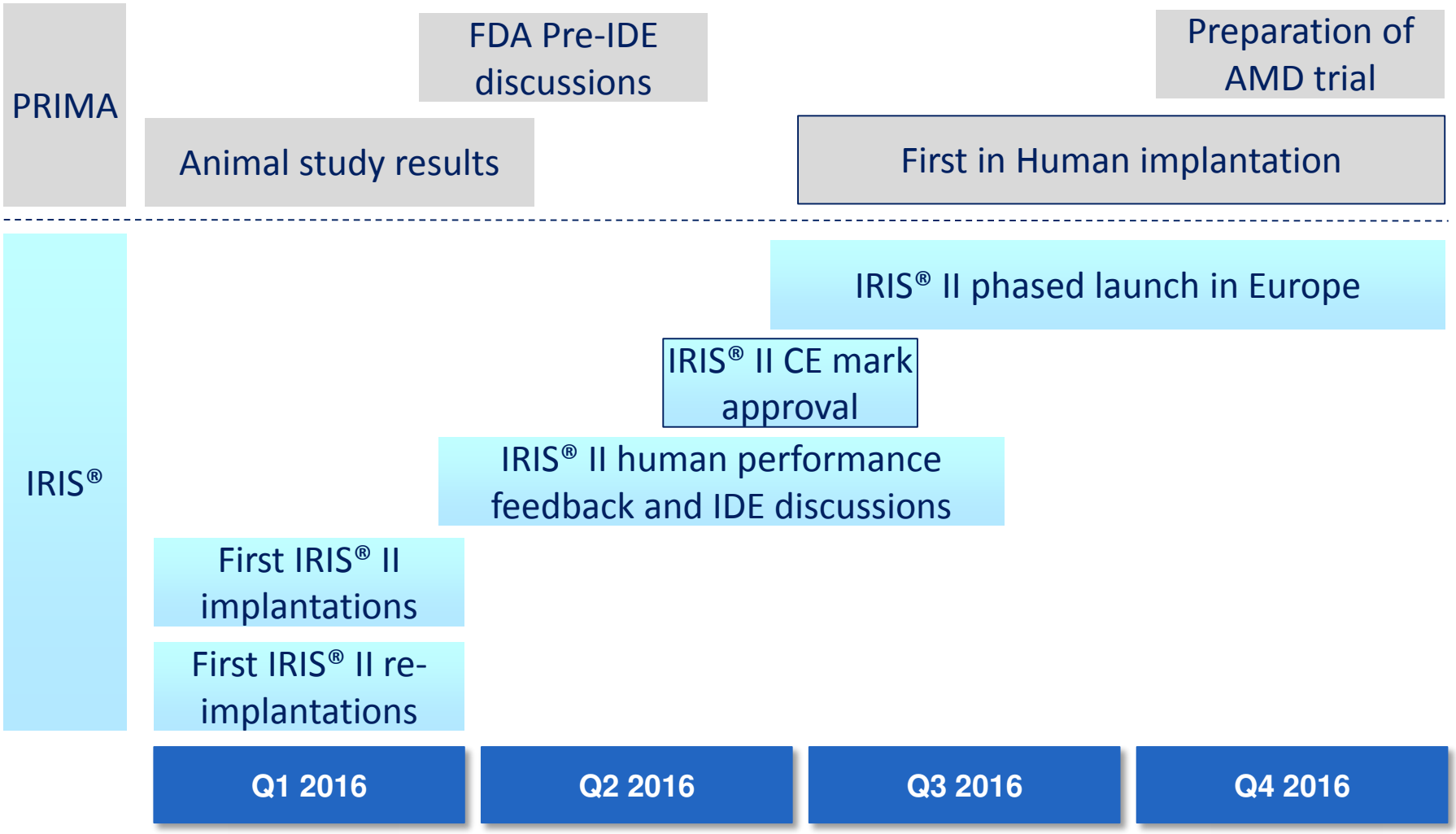
Pixium vision

Continuing to move forward, more to come

Execution accelerating throughout 2015…



… setting the scene for a rich 2016 newsflow



Pixium Vision is listed on Euronext (Compartment C) in Paris.
ISIN: FR0011950641; Mnemo: PIX
IRIS® is a trademark of Pixium-Vision SA

Thank You

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1H 2015 - Update

Strong cash position with €28.1m in cash at September 30, 2015

Other operating income of the first nine months

	First nine months	
in thousand euros	**2015**	**2014**
Operating income / other income	2 652.0	1 564.3

Cash flow statement summary

	First nine months	
in thousand euros	**2015**	**2014**
Opening cash and cash equivalents	42 131.7	9 420.2
(Decrease) / Increase in cash position	(14 049.5)	33 383.6
O/W net cash flows from operating activities	(12 088.2)	(7 538.6)
Closing cash and cash equivalents	28 082.2	42 803.6

Strong cash position with €31m in cash at June 30, 2015

P&L summary

in thousand euros	**H1 2015**	**H1 2014**
Operating income / other income	1 737.7	1 104.1
Research and Development	(7 999.1)	(4 510.6)
General and Administrative	(1 766.5)	(930.1)
Operating income	(8 027.9)	(4 336.5)
Net profit	(7 953.8)	(4 325.7)
Earnings per share	*(0.63) €*	*€ (0.62)*

Cash flow statement summary

in thousand euros	***H1 2015***	***H1 2014***
Opening cash and cash equivalents	*42 131.7*	*9 420.2*
(Decrease) / Increase in cash position	*(11 050.6)*	*32 383.4*
O/W net cash flows from operating activities	*(9 504.2)*	*(4 530.1)*
O/W net cash flows from investing activities	*(1 571.6)*	*(1 629.1)*
Closing cash and cash equivalents	31 081.2	41 803.6

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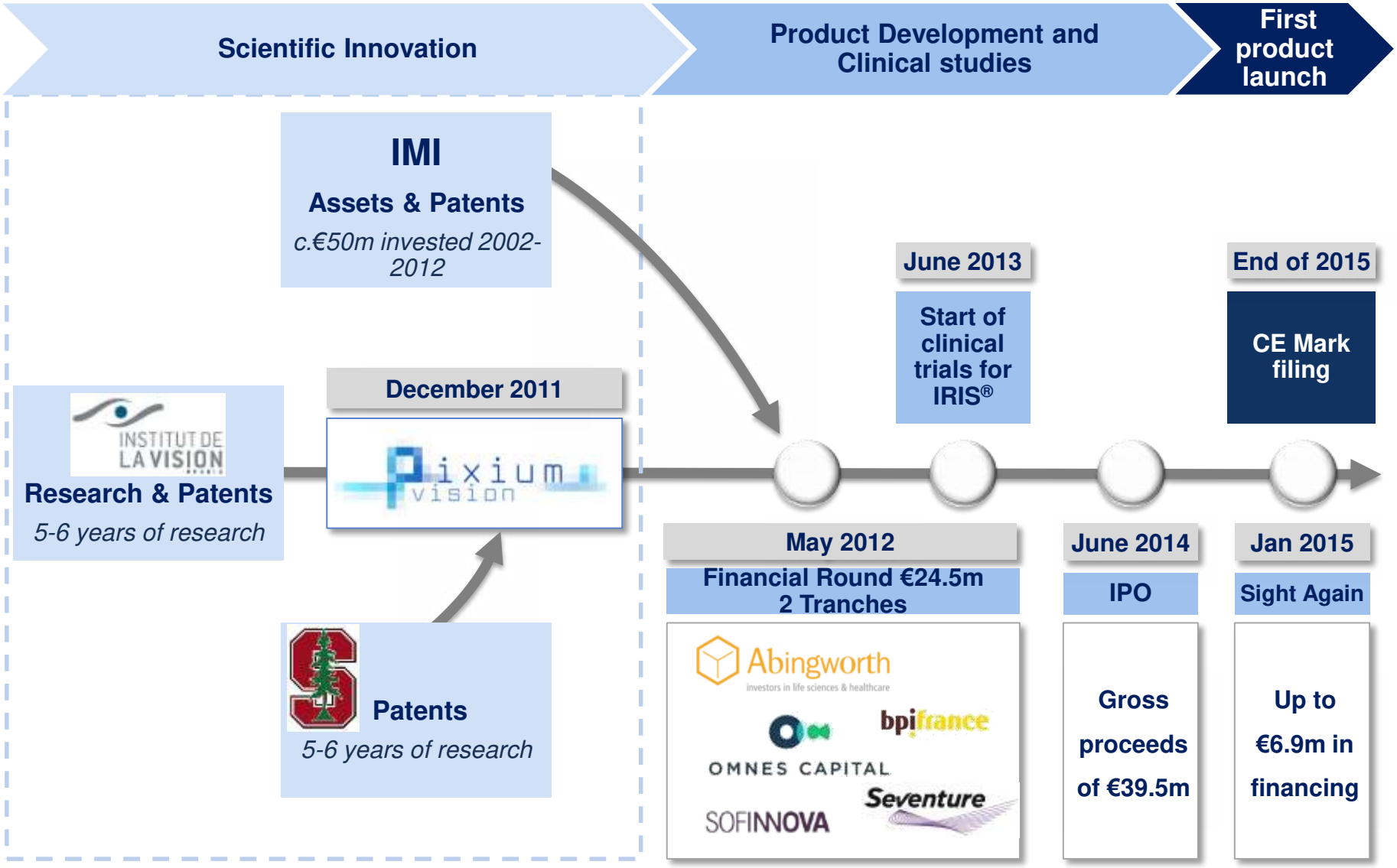
The Pixium Vision story relies on the convergence of technology and financing



With its technology, Pixium Vision is well positioned in the fast growing neuromodulation market

What is Neuromodulation?

- Induction of biological responses from electrical stimulation on nerves or zone where nerve activity is affected
- $5Bn+ market by 2018 implying a high double digit growth rate (around 15%)

Pathology/ Indication	Neuromodulation Technique	US *net** prevalence
Deafness	Cochlear Implants	1,000,000
Parkinson's Disease	Deep Brain Stimulation	216,000
Depression	Vagas Nerve Stimulation Deep Brain Stimulation	775,000
Blindness	Vision Restoration Systems	~175,000 RP ~ 200,000 AMD

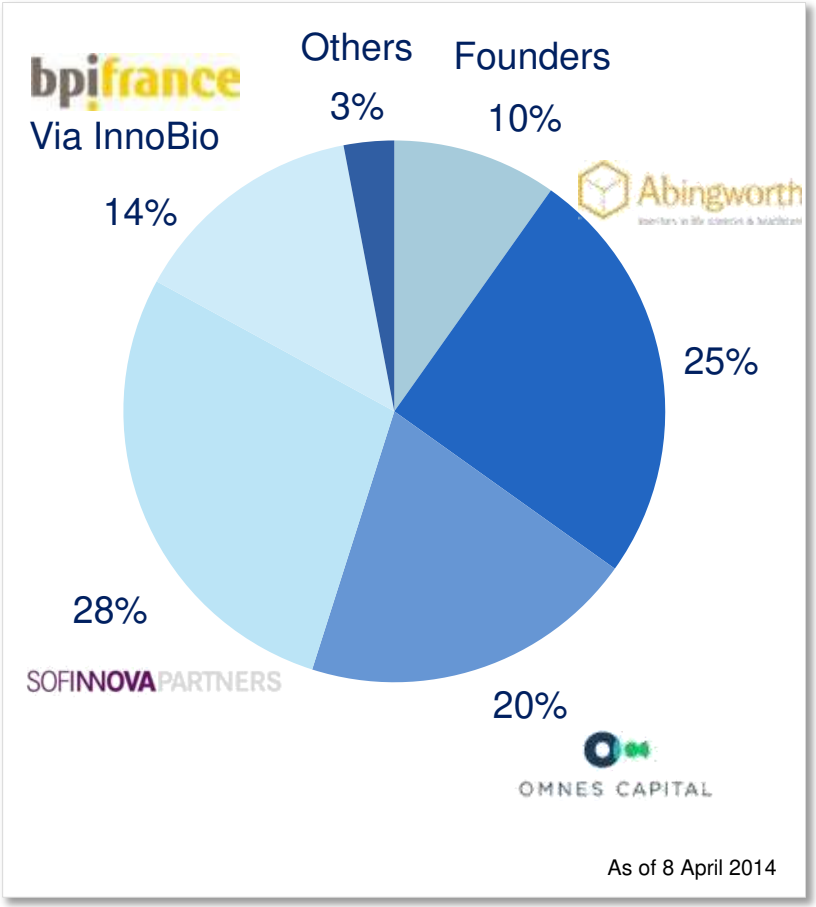
Source: NIH US Net prevalence patient data
US net* prevalence : patients eligible to implants

Existing therapies
Emerging therapies

Shareholder structure

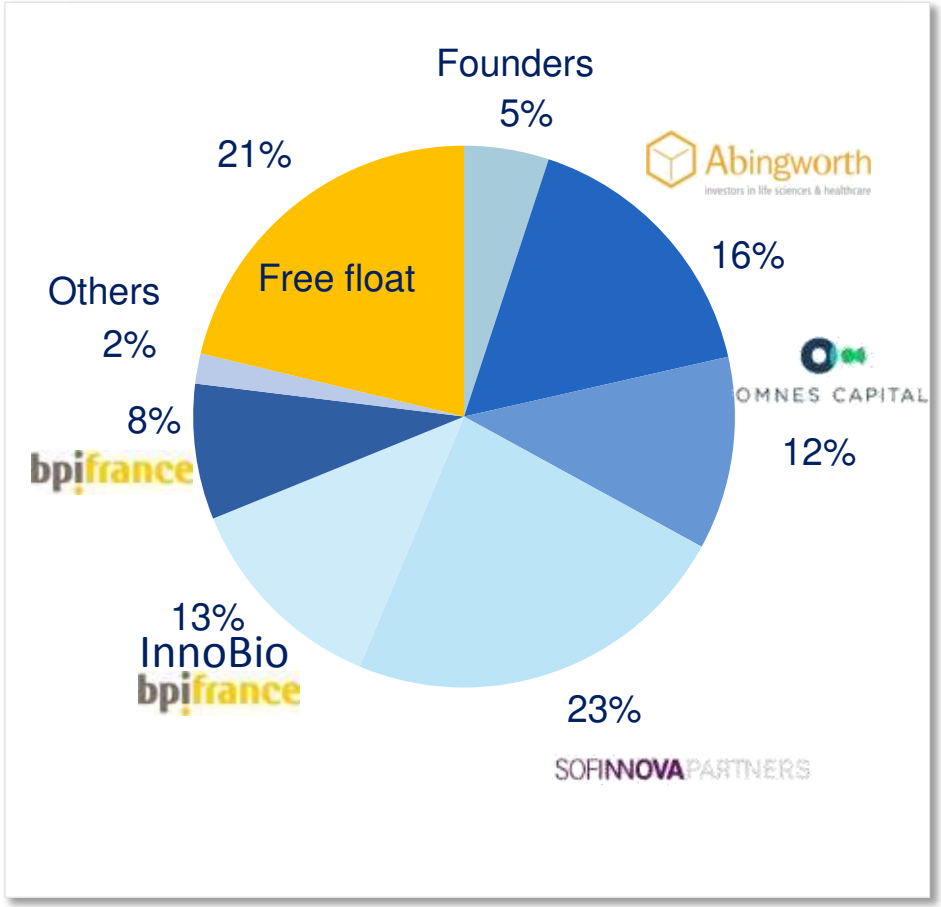
Pre-IPO shareholder structure

On a non-diluted basis



Post-IPO shareholder structure

On a non-diluted basis
(with full exercise of the extension clause and overallotment option exercised at 95.8%)



Competitive landscape

System	Number of Electrodes	Epi-Retinal Or Sub-Retinal	Features & Benefits	Clinical Results	Regulatory Status
Pixium Vision	• IRIS® : 50 to 150 • PRIMA : several thousand	• IRIS®: Epi-Retinal • PRIMA: Sub-retinal	• 2h surgery • Explantable • Neuromorphic Camera • Tunable software	• Short term study on 19 patients • 10 Patients CE mark study ongoing	• CE Mark filing end of 2015
Second Sight	• Argus II : 60 electrodes	• Epi-retinal	• CMOS camera	• Argus I: 6 patients • Argus II: IDE on 30 patients	• Argus-II CE Mark Feb 2011 • FDA HDE Feb 2013
retina implant	• Alpha IMS	• Sub-Retinal	• Visual field of 12° • Non explantable	• 11 patients from 2005 to 2009 • 30 patients CE mark	• CE Mark July 2013
NanoRetina	• 500 electrodes	• Insufficient data	• No camera	• Launch scheduled for 2016	• Pre-clinical phase