

# Creating a world of bionic vision for those who have lost their sight

Corporate Presentation | September 2019



# Forward Looking Statements

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 company's own estimates. Investors should not base their investment decision on this information. This document also contains certain forward-looking statements. These statements are not a guarantee 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 operates 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.

# Company Overview

## Investing into the last stage of clinical development

- Pixium Vision (PIX.PA)
- Market Cap: €24m<sup>(1)</sup> / Cash Position: €10.2m<sup>(2)</sup>
- Headquartered in Paris-France with 29 employees
  
- Focus – Applying proprietary algorithms and artificial intelligence to ophthalmology
- A brain-machine technology company leveraging proprietary algorithms and artificial intelligence to developing bionic vision system for the treatment of retinal dystrophies
  
- Proof of Concept validated in dry-AMD(3) - a \$1.5bn potential with no current therapeutic option
- The Prima System met its primary endpoint, demonstrating successful elicitation of light perception in the central retinal area in all subjects, exceeding initial expectations
- The Prima system could become 1<sup>st</sup> therapeutic option in dry-AMD with \$1.5bn initial market potential
  
- Next development steps
- PrimaVera European pivotal study in dry-AMD to be initiated in H1 2020, read-out late 2022
- PRIMA US Early Feasibility Study (EFS) to implant patients in Q3 2019

(1) as of September 2<sup>nd</sup> 2019

(2) As of June 30<sup>th</sup> 2019

# Age-related Macular Degeneration: Progressive central vision loss

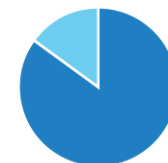
*The Well Served wet-AMD market vs the Underserved Dry-AMD market*

## Age-related Macular Degeneration

- Eye disease leading to progressive loss of central vision
- Onset mostly around 60 years old
- Significant impact on quality of life with restrictions to read, drive, conduct daily tasks and interact socially



## Dry-AMD



- Affects 80-90% of AMD patients
- Chronic progressive neurodegenerative disease
- Challenging multifactorial pathogenesis
- No current treatment approved
- Large unmet medical need

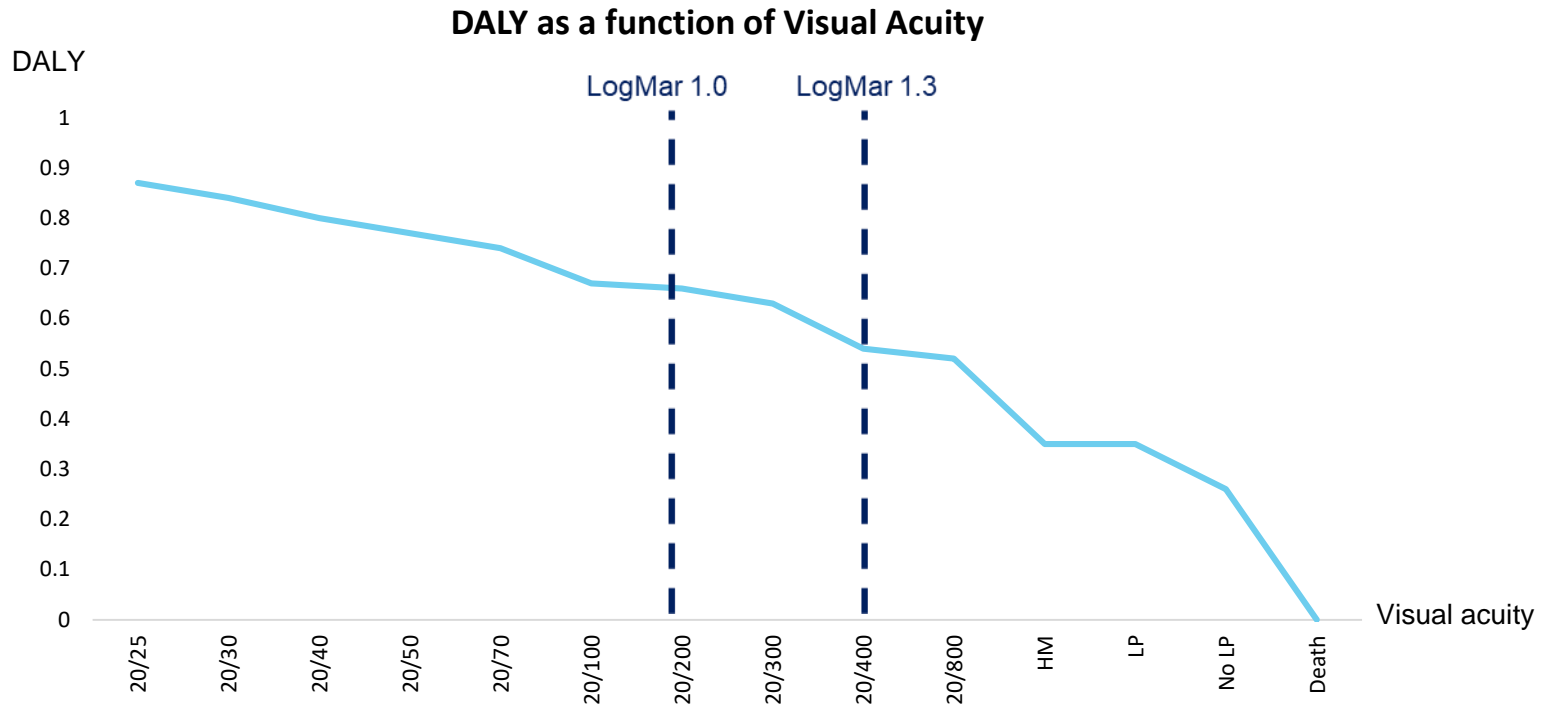
**Pixium's Prima System could become 1st approved treatment**

## Wet-AMD



- Affects 10-20% of AMD patients
- Relatively well treated with Lucentis(1) and Eylea generating over \$10bn(2) in annual sales
- Often evolves to Dry-AMD despite treatments

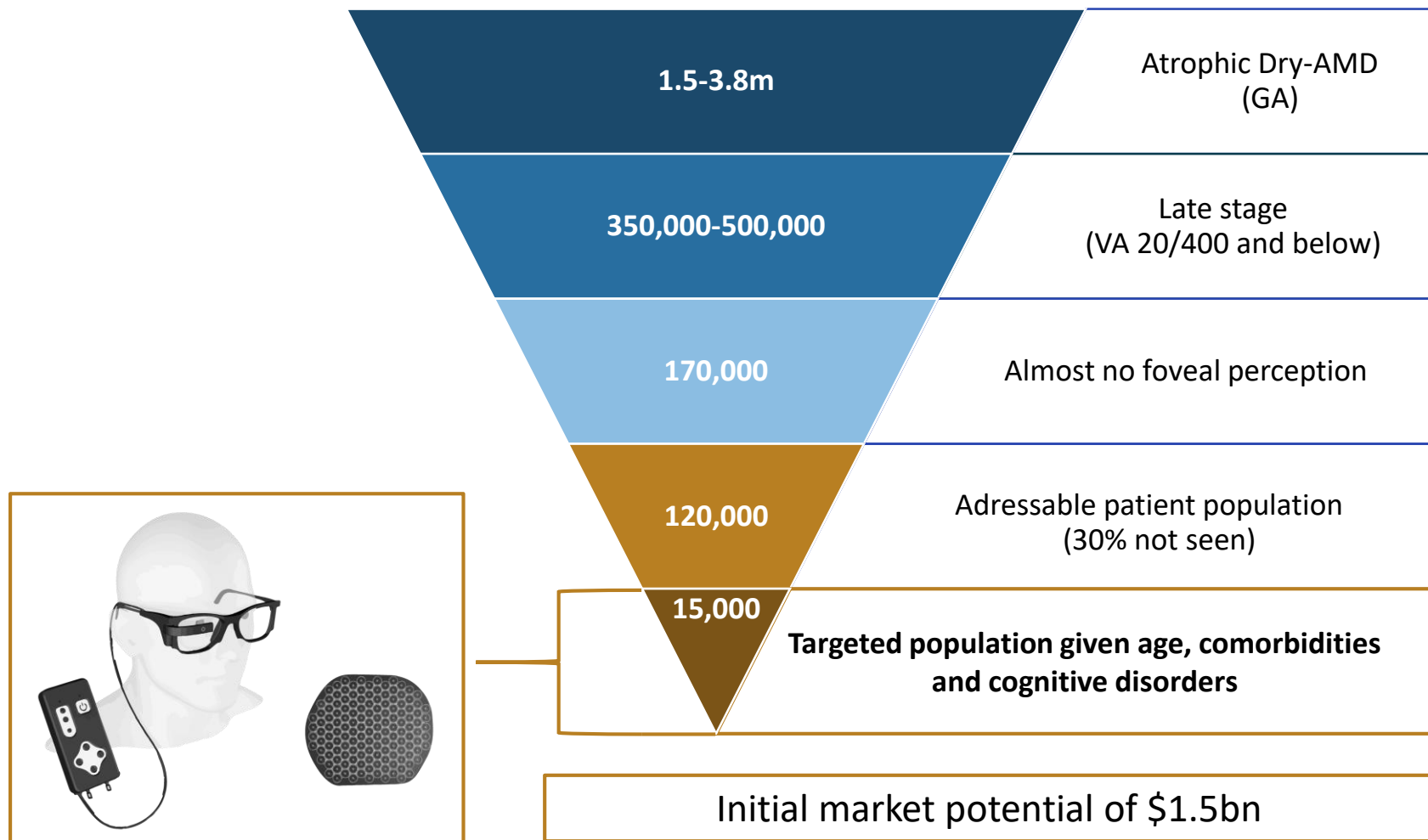
# Progressive Loss of Visual Acuity in AMD patients Leads to Dramatic Loss on Quality of Life

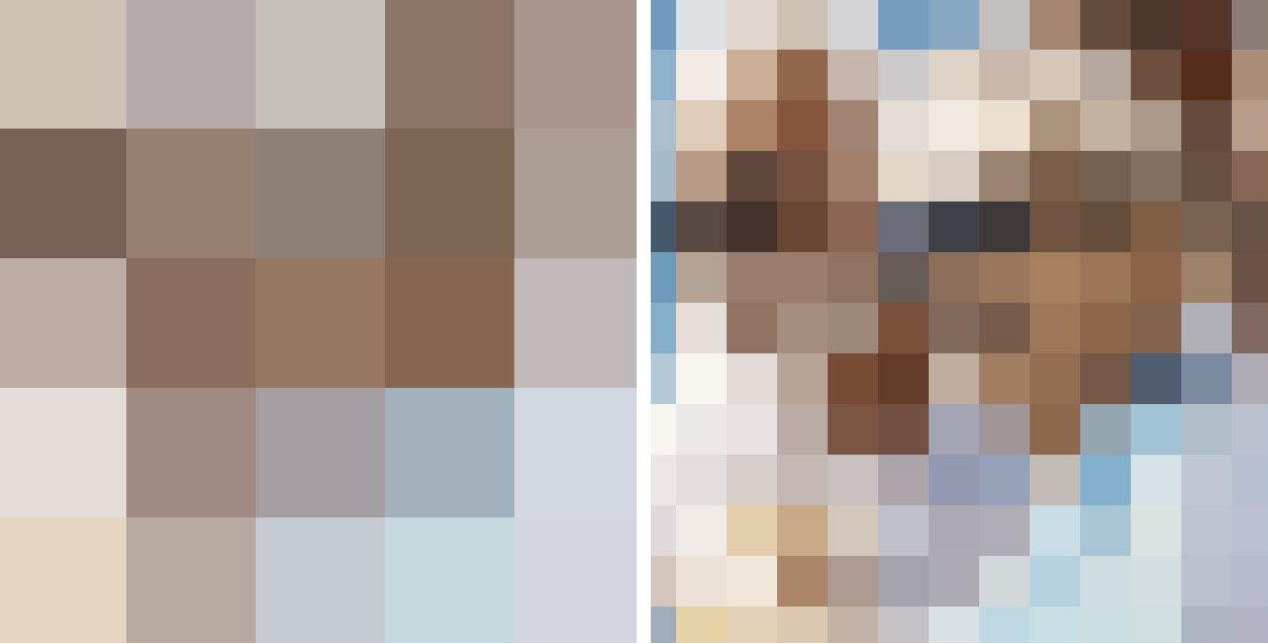


Consistent data in range 70-79 and 80-89 years old based on DALY<sup>1</sup> analysis

(1) DALY is an adjusted version of QALY including the impact of disability

# PIXIUM's Prima System to Initially Target 15,000 Dry-AMD Patients (US & EU)





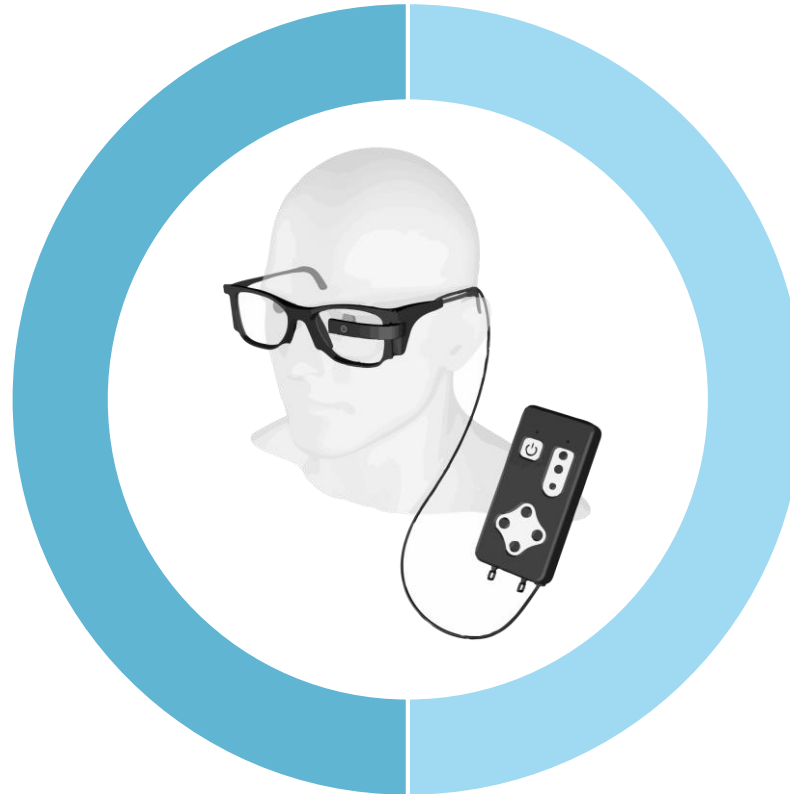
## **Prima System, a breakthrough machine-brain interface for Dry-AMD**



# Prima System, a Cutting-Edge Technology Supported by Multi-disciplinary Partners

## Universities and Research Institutes

## Vision Clinics





# Prima System – 2 Pieces of Equipment

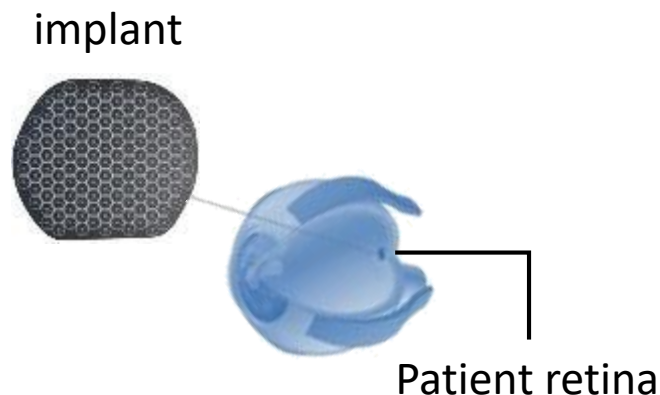
## [1] Vizualisation & image analysis system

- Mini-camera captures images of the environment as a video stream
- Pocket computer transforms the images into stimulation signals using Pixium's proprietary algorithms
- Smart glasses receive images and project patterns onto implant



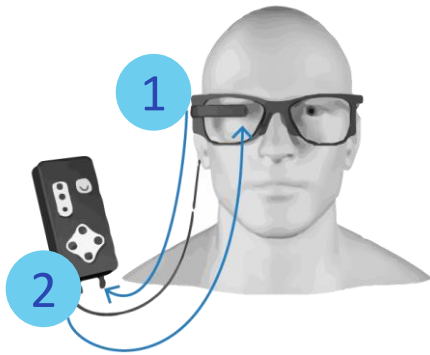
## [2] Wireless subretinal implant

- Subretinal implant surgically inserted on retina via minimally invasive surgery
- Implant electrically stimulates the retina, generating a signal the brain will interpret as bright light



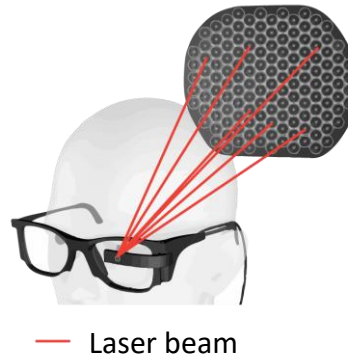
# Prima System – 3 Steps Vizualisation Process

## Step 1 Generating Signal based on surrounding environment



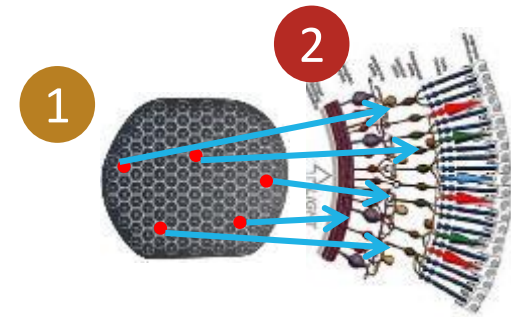
1. Mini-camera captures images of the environment as a video stream and send it to pocket computer
2. Pocket computer transforms the images into stimulation signals using proprietary algorithms and sends back signals to glasses

## Step 2 Transmitting Signal to subretinal implant



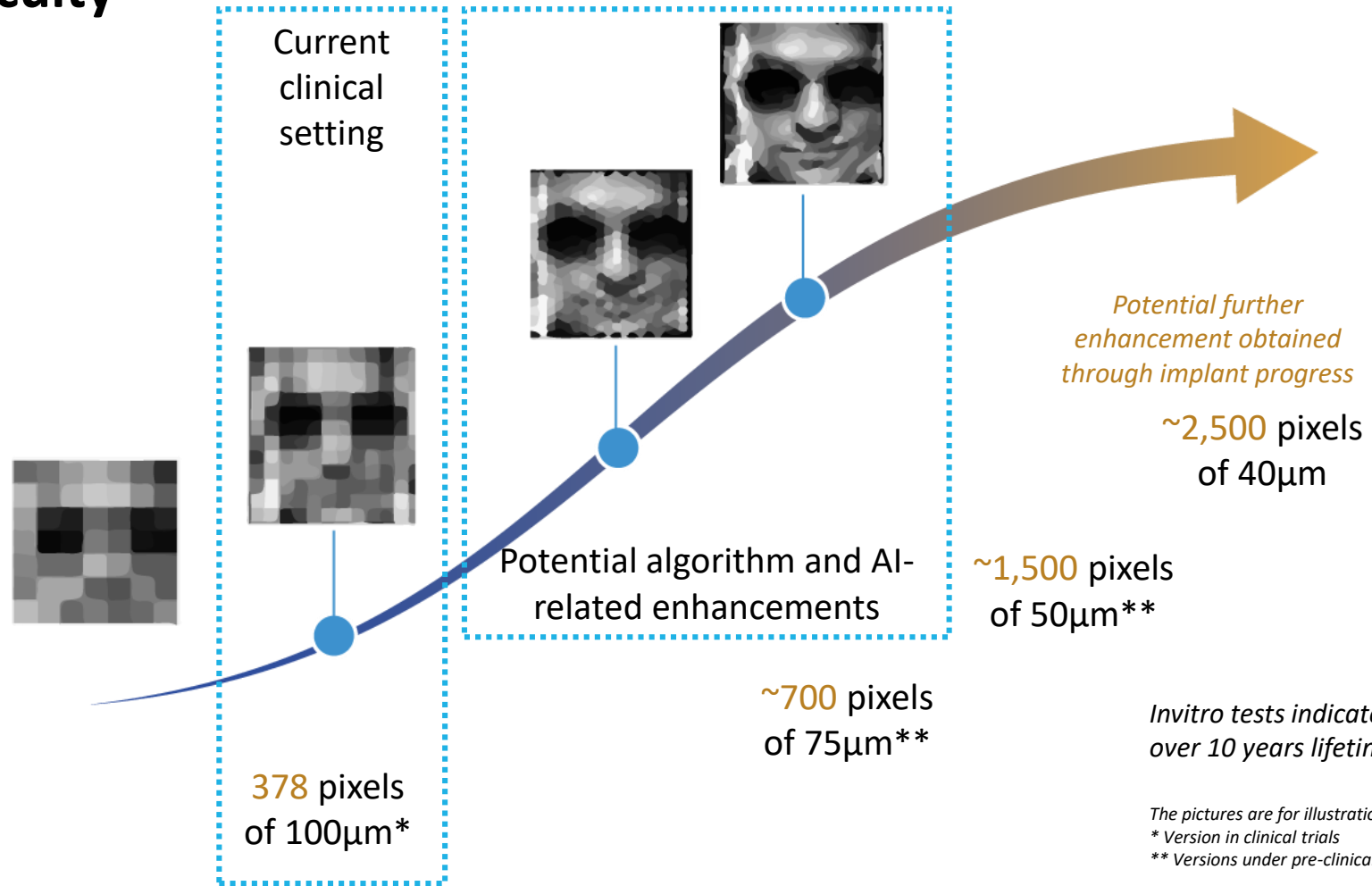
- Glasses project via laser a pattern at the back of the eye based on signal received from image analysis system
- This laser stimulates specific cells of the subretinal implant

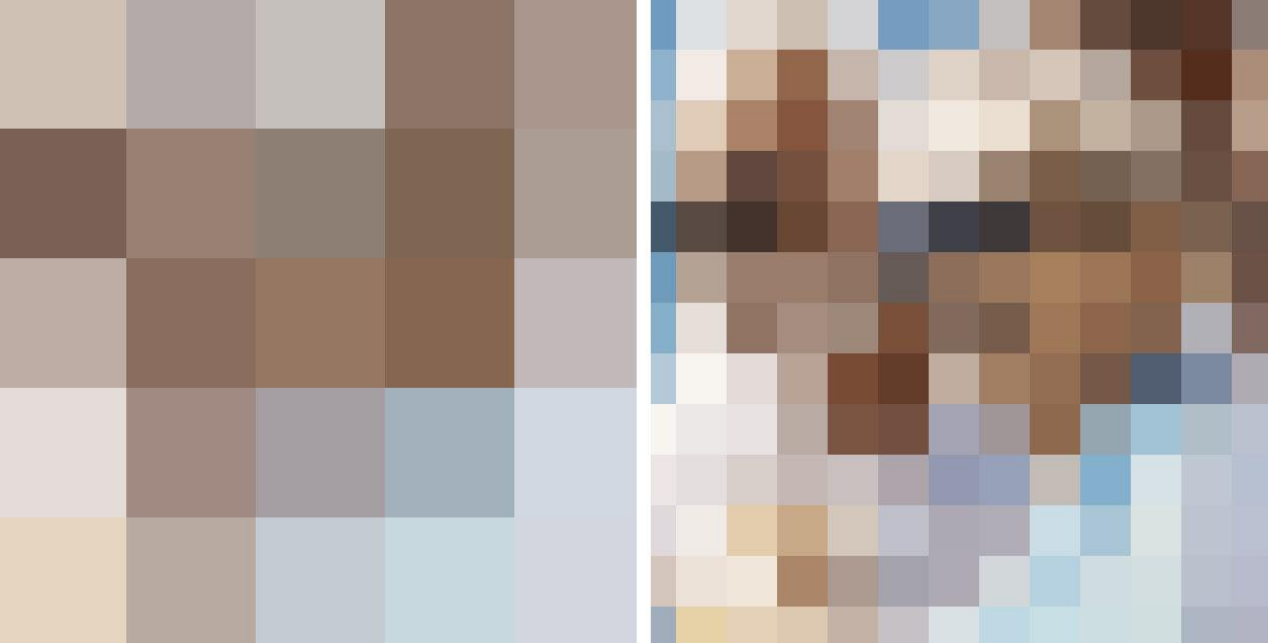
## Step 3 Converting Signal into retina stimulation



1. Stimulated implant cells use photovoltaic property to transform energy received from laser beam into electric current/stimulation
2. Electric current stimulates retina leading to optical nerve stimulation and brain interpretation of stimulus

# An Evolutive “Implant / Image Processing” Ecosystem Working Seamlessly to Provide Enhanced Visual Acuity

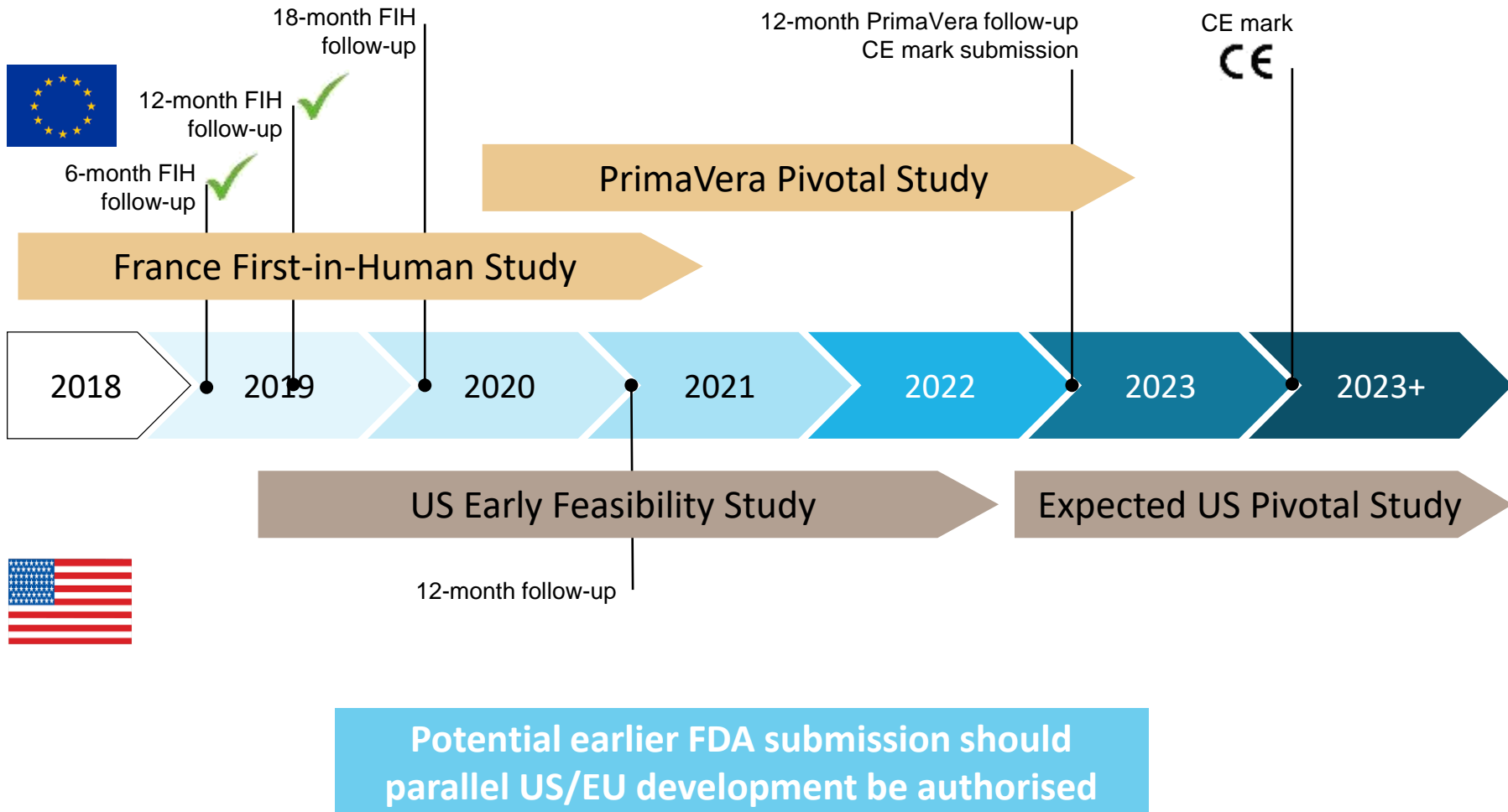




# Clinical development



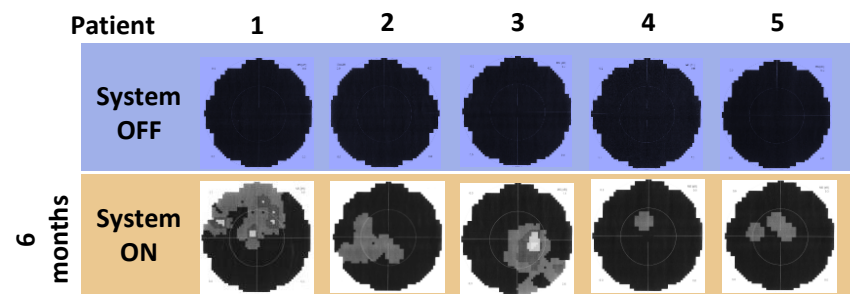
# EU & US Clinical Development Overview



# Clinical Data Collected to Date – France First-in-Human 6-Month and 12-Month Follow-Up<sup>1</sup>

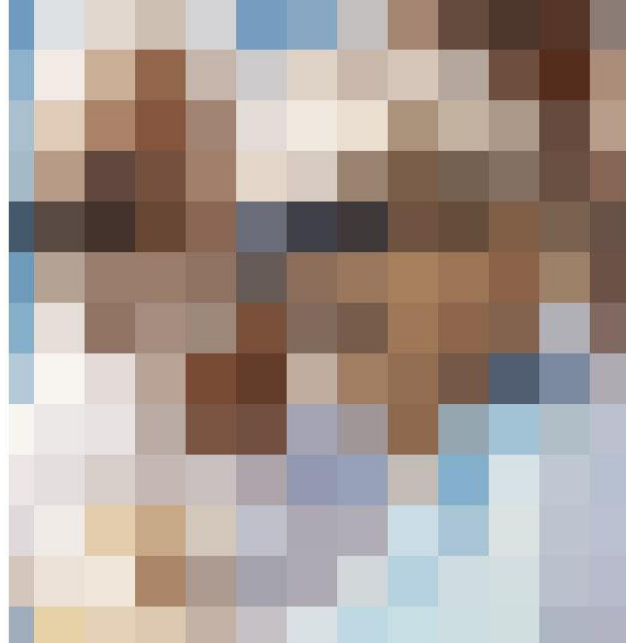
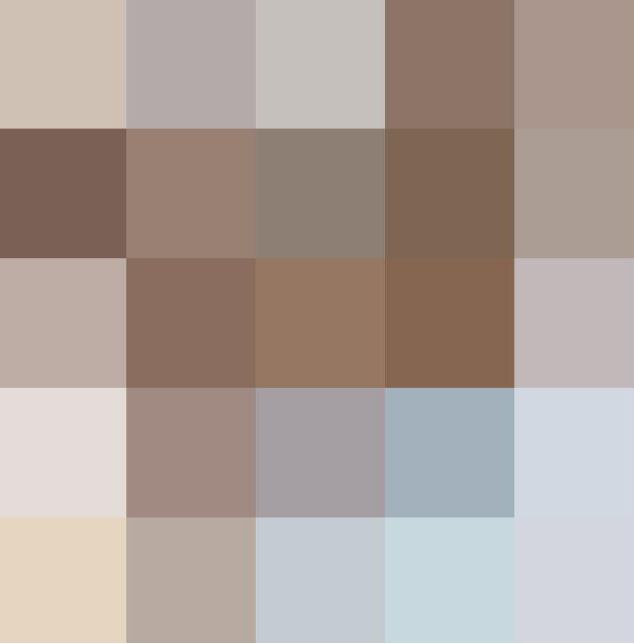
- Clinical benefit at 6-month demonstrated in the 5 implanted patients :
  - All patients demonstrated elicited visual perception (primary endpoint)
  - All patients progressively identified letters and sequence of letters
- Safety profile demonstrated at 6-month:
  - No serious post-operative complications during the follow-up
  - No decrease in natural vision vs pre-trial acuity
- 12-month follow-up demonstrated:
  - Further improvement in elicited visual perception
  - Sustainable safety profile

Central visual perception at 6-month  
*Octopus Visual Field Measurement*



**Prima provides the best prosthetic visual acuity to date**

(1) France first-in-human study (PRIMA FS) recruited 5 patients. Primary endpoint is Elicitation of visual perception at 12 months with up to 36-month follow-up.



## Conclusion



# Pixium Vision Equity Story

**Prima System, a technology platform, with world-leading internal expertise and knowhow**

**Prima System entering last development stage with clear US/EU development path**

**Clinical benefit exceeded expectations clearing the development roadmap to CE mark**

**No close competition in Dry-AMD, an initial addressable market of \$1.5 bn**

**Pixium funded through H1 2020**



# Experienced management team



## Lloyd Diamond, CEO

- 25+ years experience in the medtech industry
- Extensive experience in development, commercial and financing in orthopaedic, ophthalmology and other clinical segments



## Guillaume Buc, CTO

- 20+ years medtech industry experience
- GE Healthcare (1995-2013) – CTO Interventional Cardiology R&D



## Karine Chevrie, RA/QA Dir.

- 20+ years medtech industry experience
- EOS Imaging (2006-2015) – QA/Reg Director



## Ralf Hornig, Clinical Affairs Dir.

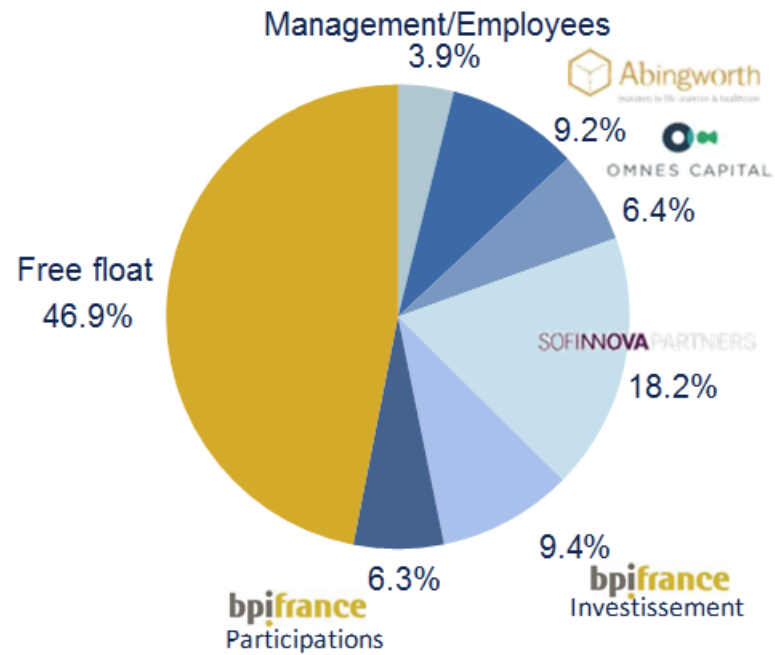
- 20+ years retinal implant technology experience
- Since 2001, working with IMI then Pixium



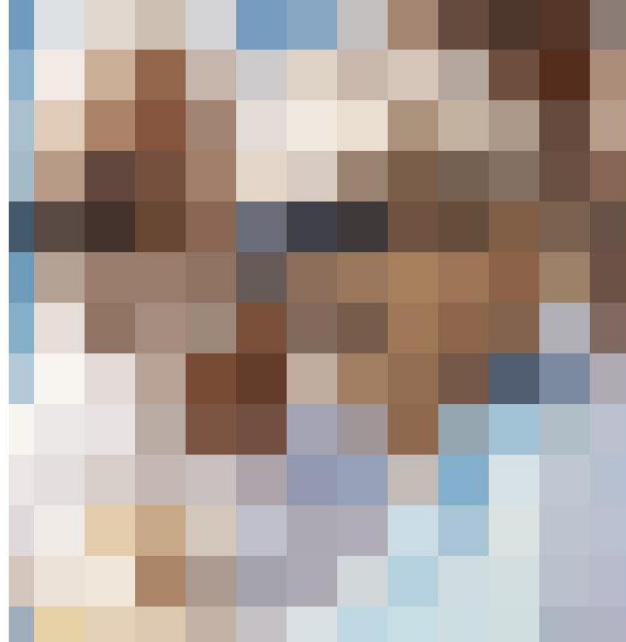
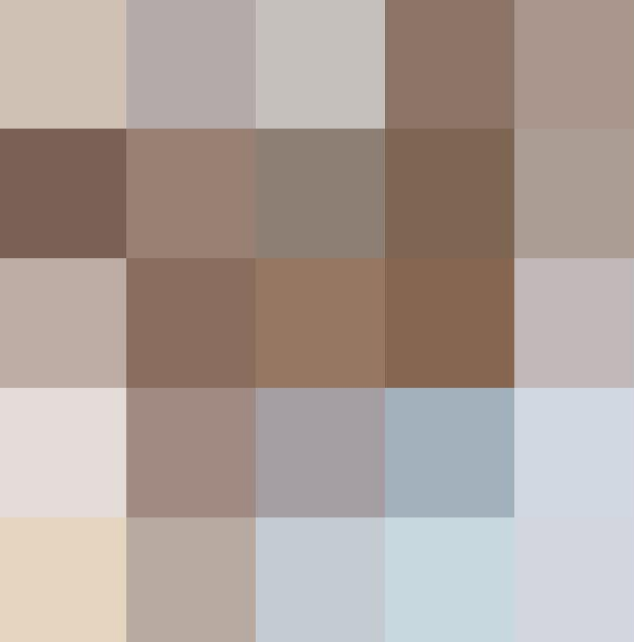
## Didier Laurens, CFO

- 15+ years financial markets experience Korian (2014-2017)
- Director Financing and IR

# Shareholders



Non-diluted basis; as at 31 August 2019



# Thank you

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# Developments Supported and Advised by Knowledgeable Scientific and Medical Experts



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Prof. Frank G. Holz

Prof. Daniel Palanker

Dr. Yannick Le Mer

Prof. Borja Corcostegui

Dr. Mahi Muqit

Prof. Andrea Cusumano

Prof. Jan Van Meurs

*Vision Institute (France) and UPMC (Pittsburgh (USA))*

*University Hospital Bonn (Germany)*

*Stanford University (USA)*

*Fondation Adolphe de Rothschild (France)*

*IMO, Institute of Ocular Microsurgery (Spain)*

*Moorfields Eye Hospital (UK)*

*University of Rome (Italy)*

*Rotterdam Eye Hospital (Netherlands)*



- International
- Multidisciplinary: from basic science to medical expertise
- Highly recognized and respected in their field