



# Capital Markets Day November 2019

Paul McGlone, CEO

Tim Edwards, CTO and Founder

Prof. Mike Lenné, SVP Fleet & Human Factors

Nick DiFiore, SVP Automotive

Patrick Nolan, GM Aviation





# Tim Edwards

Co-founder and Chief Technology Officer



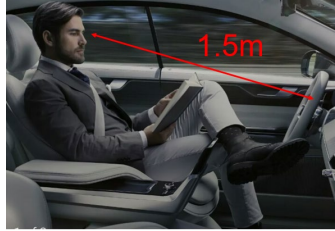
## In The Beginning

- Autonomous vehicle.
- Stereo lane-tracking & pedestrian detection.
- Stereo driver monitoring system with gaze direction tracking.



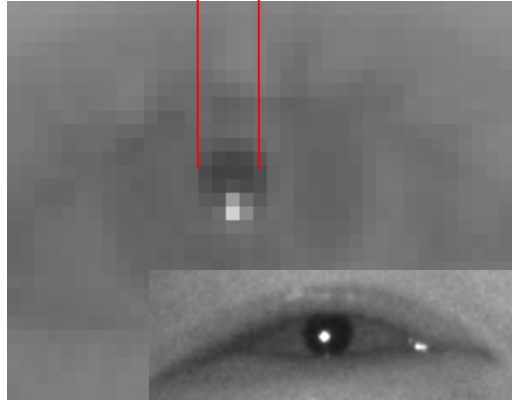


# EYE TRACKING: THE CHALLENGE



At up to 1.5m

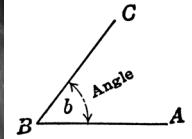
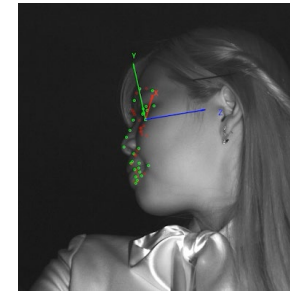
Pupil ~1.5mm



Precision tracking of pupil @ with ~ 6 pixels

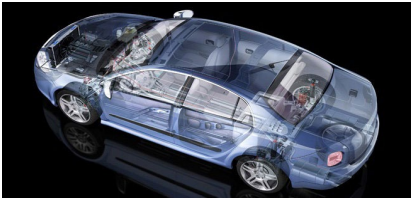


Lighting noise



Extreme angles

AECQ-100



Automotive Grade



Multiple package locations



Across all demographics



Occlusion of the face and eyes

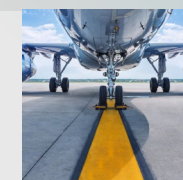
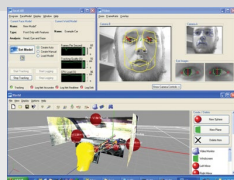
# PRODUCT HISTORY

STATE MONITORING ALGORITHMS

OPTICS & PROCESSING TECH

ALGORITHM EMBEDDING

HEAD AND EYE TRACKING ALGORITHMS



## faceLAB

2001- 2015

Stereo face and eye tracking tool for human factors scientists working with cockpit environments.

## DSS

2007- 2015

Product for mining vehicles.

## GUARDIAN

2015- today

Product for truck fleets.

## DME Gen1

2011- 2017

Software for General Motors (attention monitoring in Level-2 autonomous vehicle system).

## DME Gen2

2015- today

Software for 2 luxury car OEMs.

## FDM Chip

2016- today

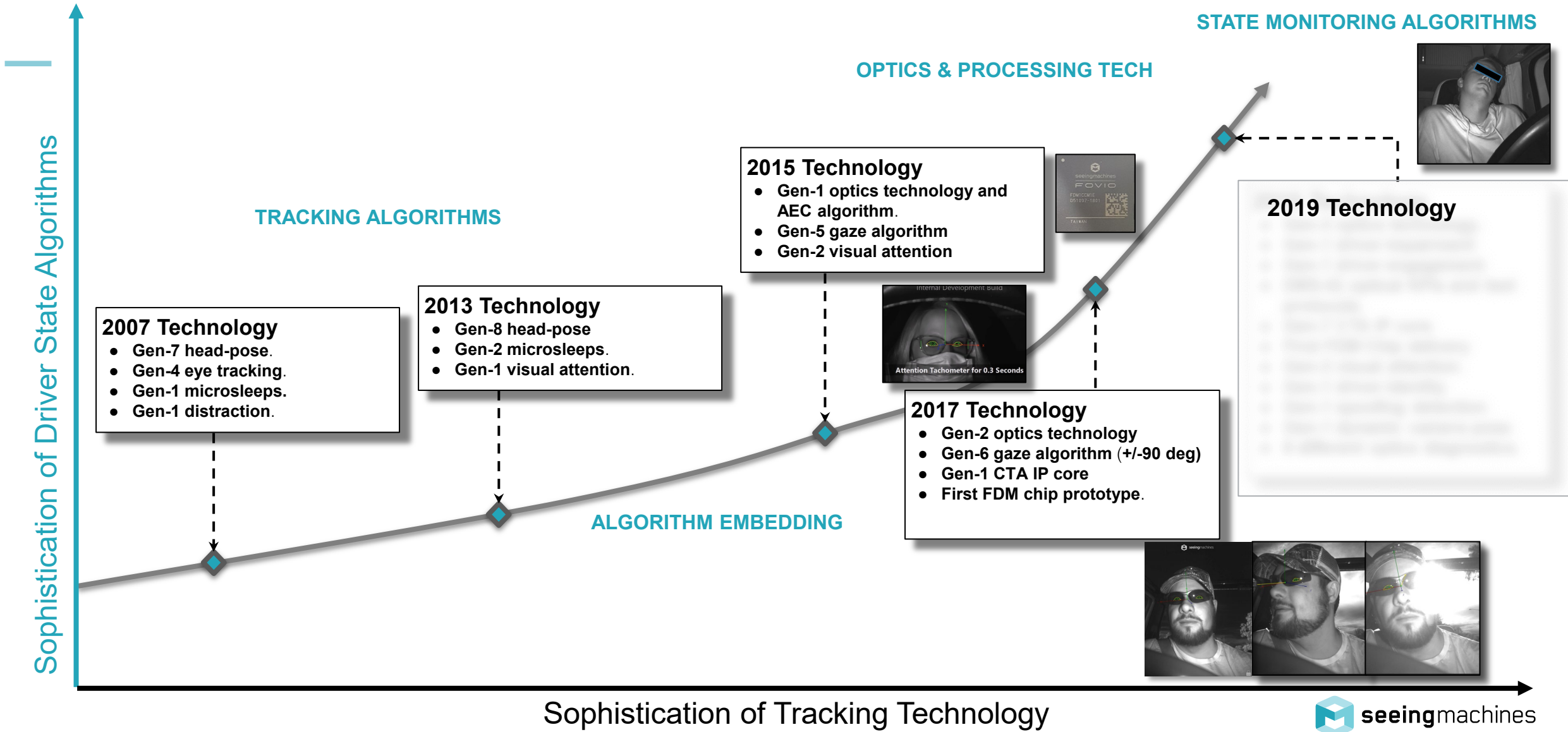
FDM Chip solution sourced by 2 car OEMs. Planned for mass production in 2019 to address automotive market "wave" for DMS.

## AVIATION

2018 - today

Particularly in areas of pilot training (simulators)  
Pilot and crew monitoring (flight cockpits)  
For 2020+ timeframe

# CORE TECHNOLOGY EVOLUTION



# Trusted DMS Technology





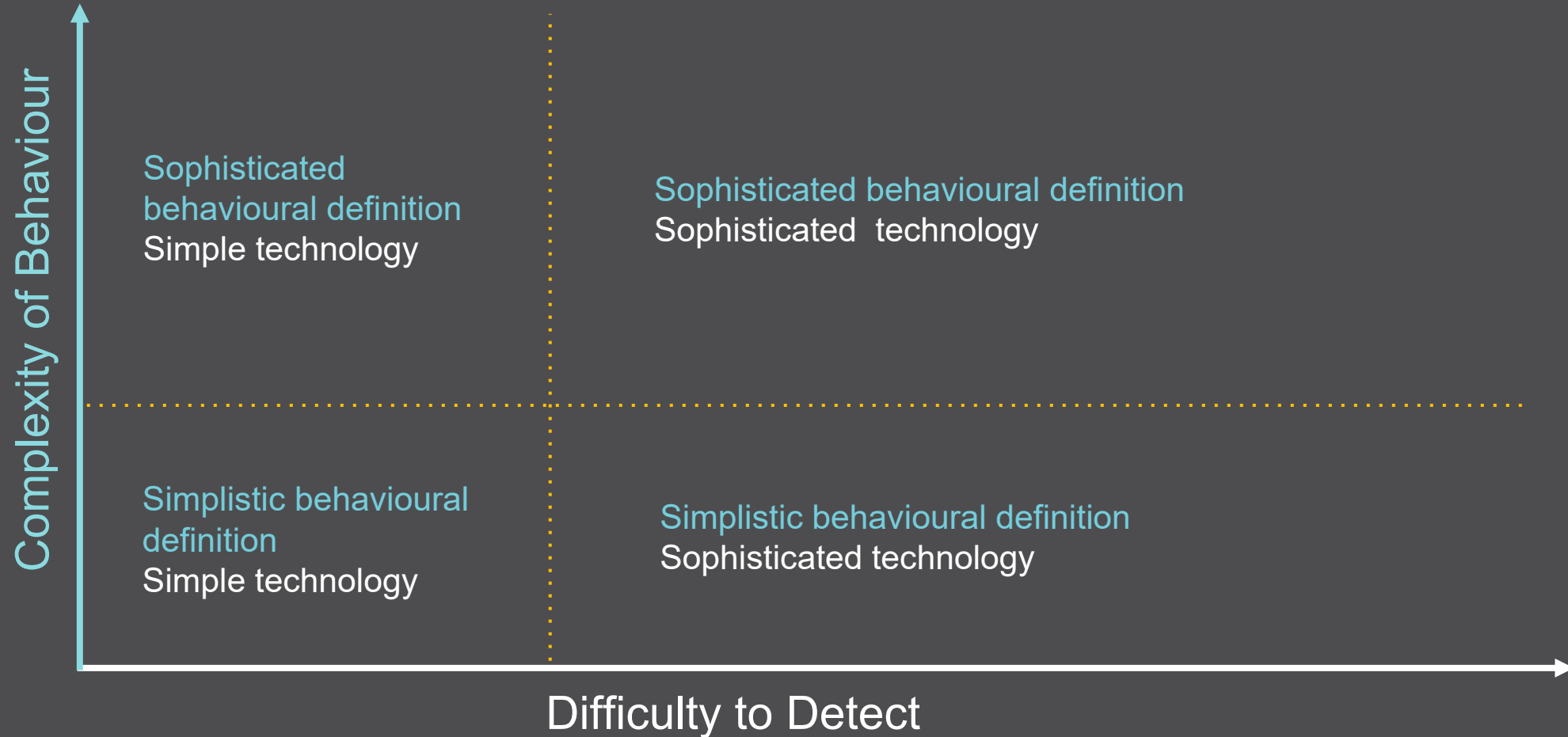


# Prof. Mike Lenné

SVP Fleet and Human Factors



# HUMAN FACTORS HIGHLIGHTS - POLICY







# Advanced Safe Truck Concept

The Project developed a driver monitoring concept that will enhance the way the freight industry can monitor and improve driver safety and wellbeing and will:

- Enhance algorithms to support fleets to manage safety more proactively
- Develop new methods to interface with the driver (the driver (the HMI))



**seeing**machines



**MONASH**  
University

ACCIDENT  
RESEARCH  
CENTRE

**PerFinemore**  
TRANSPORT









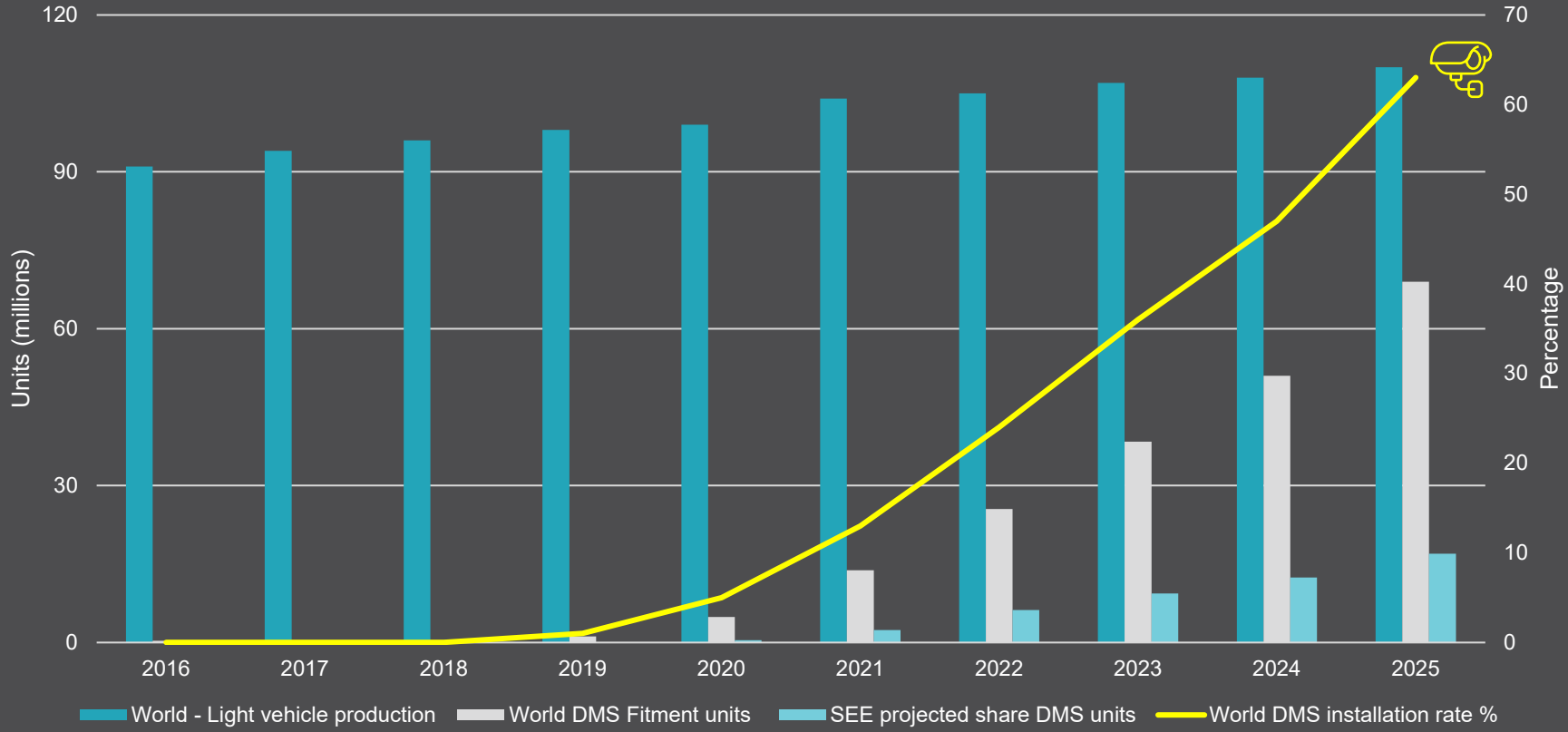
# Nick DiFiore

SVP Automotive



# AUTOMOTIVE DMS MARKET GROWTH




DMS market growth drives total addressable market for Seeing Machines



Source: Semicast Research (2019 edition)

Note: Company projected market share did not come from Semicast Research

# AUTOMOTIVE BUSINESS - STATUS

|  |   |  |  |
|--|---|--|--|
|  <h3>Europe and North America</h3> <p>Established and validated with 6 OEMs in the region on 9 current automotive programs – revenue potential of A\$200m</p> |  <h3>Market Share approaching 30%</h3> <p>Focus on maintaining incumbency on key programs and continue to win profitable business</p> |  <h3>Expansion in Asia</h3> <p>Japan and Korea opening up with additional opportunities for DMS, Seeing Machines active with in-country staff</p> | <h2>Pipeline</h2> <h3>Continued work on RFQs</h3> <p>Range of RFQs to be resolved in coming weeks and months. More expected out of new and existing geographies.</p> |
|--|---|--|--|



# AUTOMOTIVE MOMENTUM



## NCAP Direction

Regulatory driven demand already influencing OEM behavior, Seeing Machines NCAP win previously announced. Expect flow-on momentum in Fleet



## XILINX

Agreement to streamline supply chain for FOVIO Chip, reduce Seeing Machines risk and provide cost benefit for customers.



# Patrick Nolan

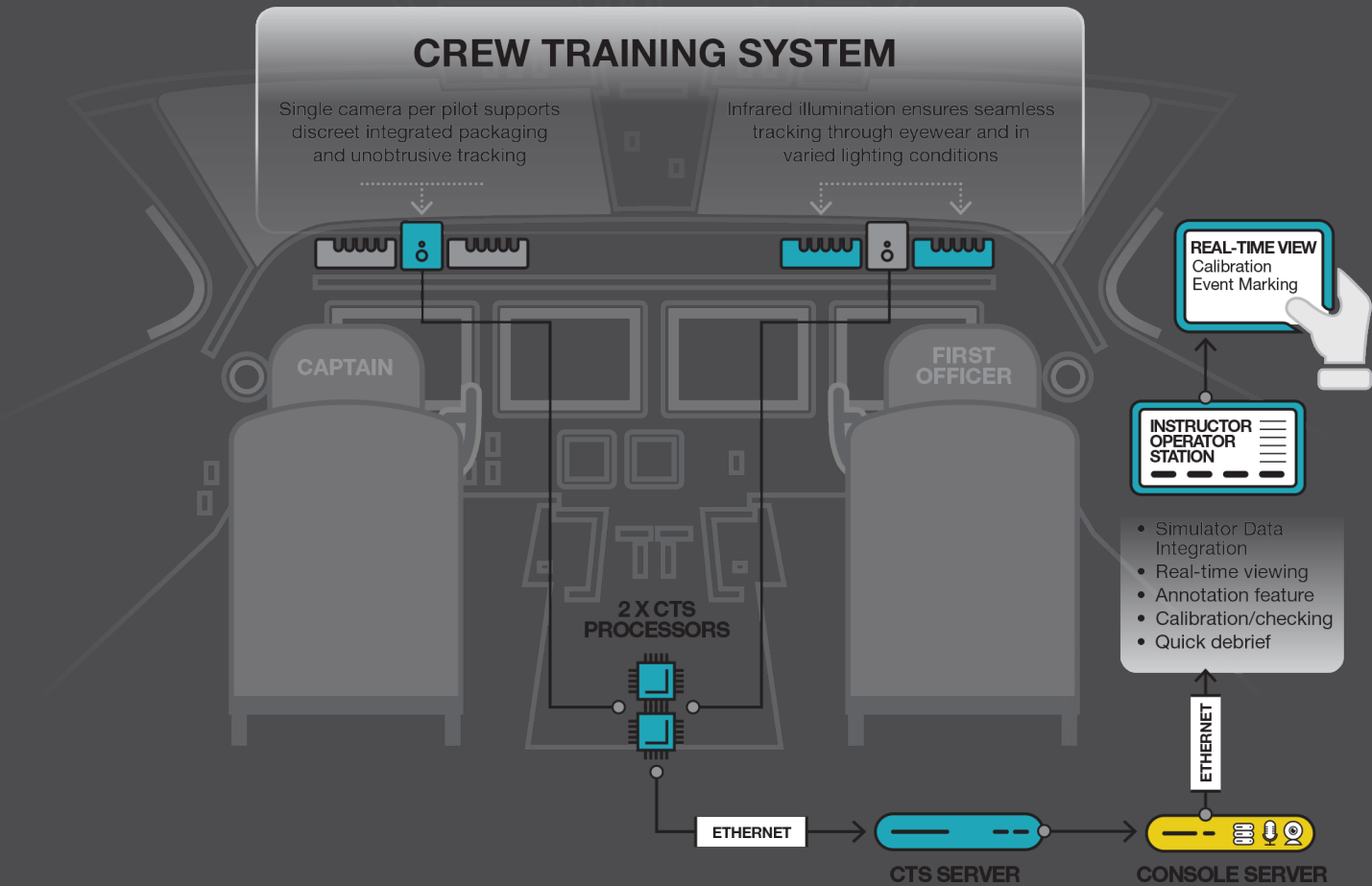
GM, Aviation



# AVIATION HIGHLIGHTS



**Commercialisation of Aviation with the Crew Training System launched into two Full Mission simulators for RAAF and one Full Flight Simulator for a major Australian airline**



# CREW TRAINING SYSTEM – HOW IT WORKS

## IN-SIMULATOR



### 01

#### CALIBRATE

Quick eye gaze calibration for each pilot



### 02

#### RECORD

Start recording of combined crew scan



### 03

#### VIEW

Real-time scanning view available to instructor



### 04

#### ANNOTATE

Manual or automated event marking for notable scan behavior & events

## DEBRIEF ROOM



### 05

#### DEBRIEF

Post-flight debrief with scanning evidence

## TRAINING INTELLIGENCE



### 06

#### LEARN

Organizational learning from aggregate and trending behaviors

“ Much of a pilot’s performance can be traced back to the visual scanning patterns they employ. The cognitive processes driving the scan are yet to be fully understood and the use of eye tracking technology will help training organisations and pilots understand this vital area. In my view, all simulators of the future will be fitted with, as standard, eye tracking technology to allow enhanced and accelerated learning. ”

**Capt. Matt Gray, Qantas Head of Training and Checking**







# Paul McGlone

Chief Executive Officer



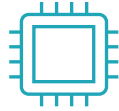
# SUMMARY



Automotive established with close to 30% market share



Regulation driving demand already evident in Automotive and emerging in Fleet



FOVIO Chip complements software play, key to future development of Aviation and Fleet products



Cash conversion, profitable Annual Recurring Revenue, margin expansion



Focus on licensing - multiple use cases, high value ASP, long term recurring revenue opportunity



Strategy shift to leverage Intellectual Property asset across transport sectors to expedite mass-market deployment in strategic markets.

**Validated, scalable, world-leading human monitoring technology**



THANK YOU

