

# NEXYAD

worldwide reference on real time onboard driving risk computing

Reduces Accident Rate by 20% with human driver  
Makes autonomous driving much safer

## NEXYAD Executive Pitch



Mission, products, markets, business models

Alternative link for China : 中国



# What **functions** do we bring ?

One unique onboard real time driving risk computing component and its 3 add-on computer vision modules



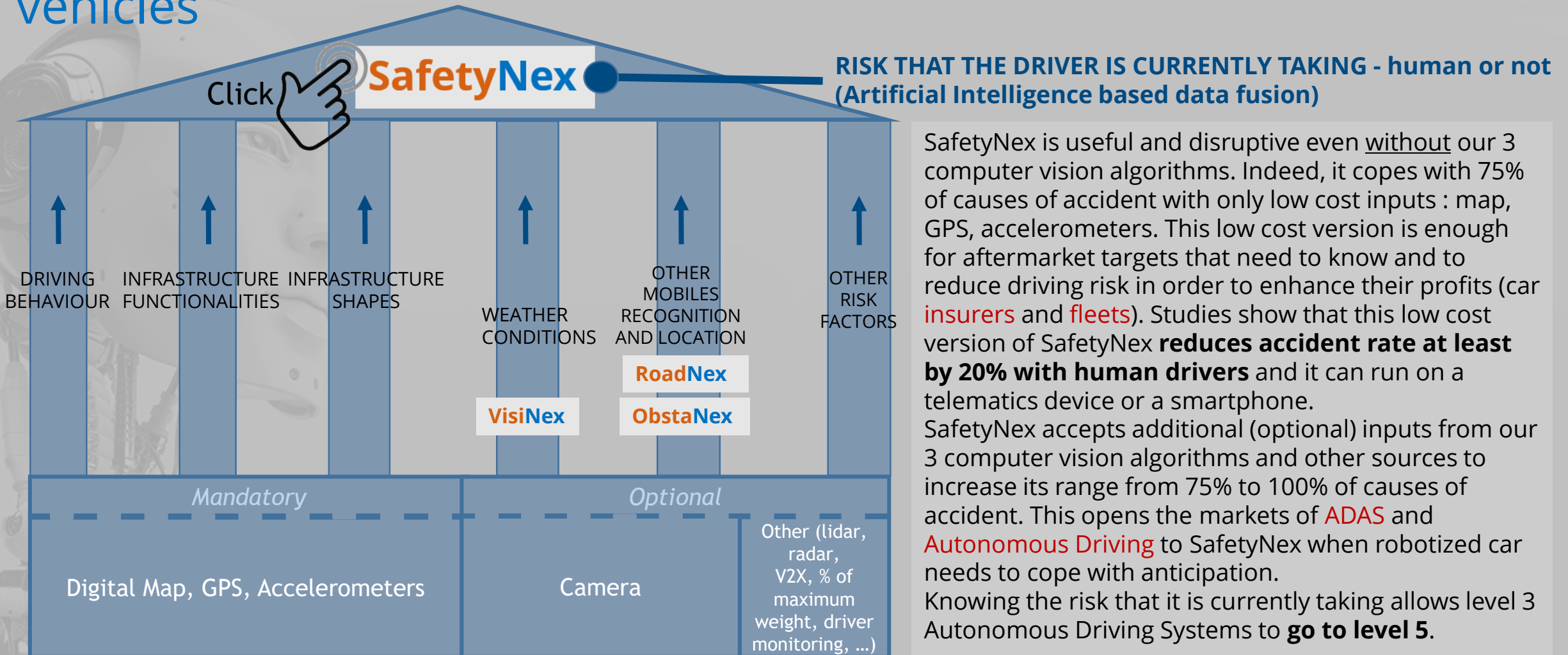
Legend :

**RoadNex** = road detection,  
**ObstaNex** = obstacle detection

**VisiNex** = lacks of visibility detection  
**SafetyNex** = onboard computing at each moment of the risk that driver (human or not) is currently taking

# 4 products or 1 global product ?

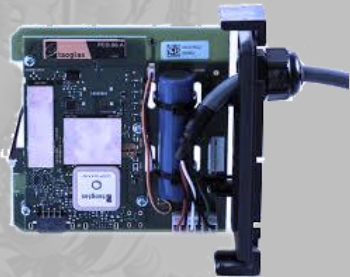
20% of accident rate reduction with human drivers and go to level 5 (including in urban areas) for autonomous vehicles



# What is Market validation ?

Already signed customers for **mass-volume** deployment  
(integration of NEXYAD APIs into **their** products)

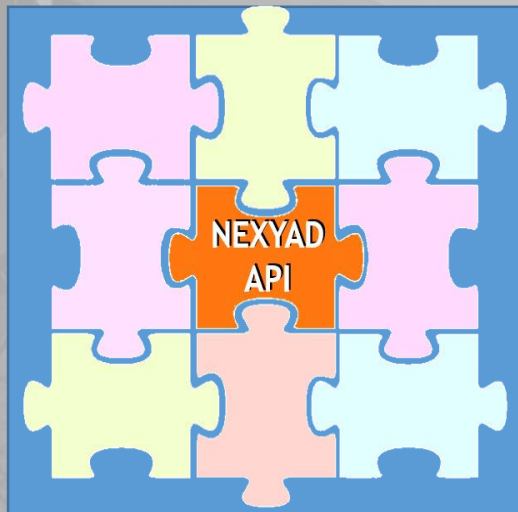
- . **ADAS, CAR INSURANCE, FLEETS** (aftermarket and new cars) : A major Japanese firm of car electronics
- . **CAR INSURANCE, FLEETS** : A British company of car telematics created by a major car insurer
- . **AUTONOMOUS VEHICLE** : A French autonomous PODs and SHUTTLES manufacturer
- . **ADAS** : A European Tier One company
- . **FLEETS** : A French Fleet Management company



# What is our **business model** ?

## Business model for mass volume deployment

OEM, Tier One Company,  
or Integrator ... **Product** :



OEM,  
Tier One,  
or Integrator  
Sales Force

B2B or B2C



NEXYAD provides **AI** and [XAI](#) software components integrated by other companies into **their** ready to use **products** : OEMs/Tier One Companies/integrators, integrate our SDKs/APIs into their products (**their hardware device**, or **their smartphone App**) and sell them to **their** targeted markets. NEXYAD SDKs/APIs run on iOS, Android, Windows, Linux



# What are targeted markets ?

WE SAVE LIVES

1 billion vehicles  
(trucks, cars, ...)

**Telematics for Fleets & car Insurance** (ICV, UBI, ...)

100 Million new vehicles per year (trucks, cars, ...)

**Vocal Driving Assistants**

Robotized car (**ADAS & Autonomous Vehicle**)

Enhanced **navigation & Digital value chain**

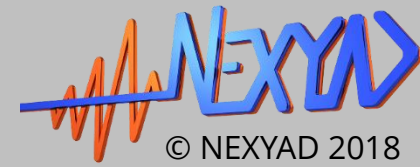
Road **infrastructure monitoring**

Very **low cost** hardware needed for mass volume deployment

DATA for **cloud**

	Real time driving RISK computing <b>SafetyNex</b>	Lacks of visibility detection <b>VisiNex</b>	Road borders and free space detection <b>RoadNex</b>	Obstacles detection <b>ObstaNex</b>
Telematics for Fleets & car Insurance (ICV, UBI, ...)	✓	✓	✓	✓
Vocal Driving Assistants	✓	✓	✓	✓
Robotized car (ADAS & Autonomous Vehicle)	✓	✓	✓	✓
Enhanced navigation & Digital value chain	✓	Does Not Apply	Does Not Apply	Does Not Apply
Road infrastructure monitoring	Does Not Apply	✓	Does Not Apply	Does Not Apply
Very low cost hardware needed for mass volume deployment	✓	✓	✓	✓
DATA for cloud	✓	✓	Does Not Apply	Does Not Apply

# What are our technologies differentiations ?



WE SAVE LIVES

## . **SafetyNex** :

- . Simply the only API in the world that computes onboard, in real time, at each moment, the risk that the driver is currently taking (driver is human or not). SafetyNex is a **XAI** applying Possibility Theory-based symbolic AI models running in real time road safety experts deep knowledge (from 19 countries) extracted during more that 15 years of high level collaborative research international programs (12 official research programs See FAQ page of [SafetyNex presentation](#), and see [background](#)).

## . **VisiNex** :

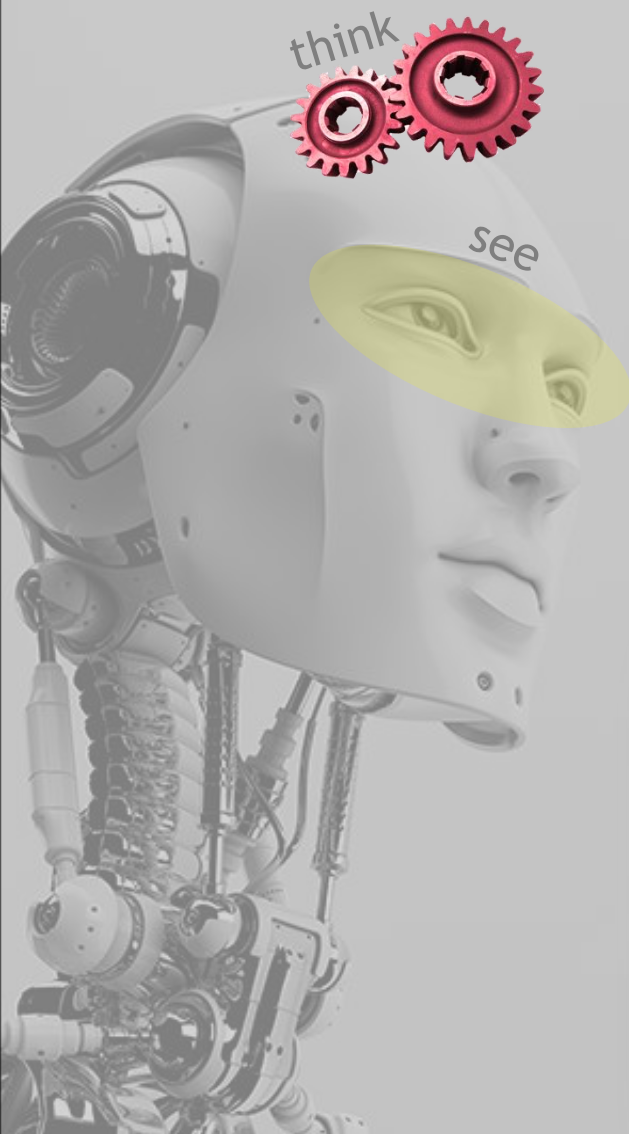
- . Applies complex visibility measurement models developed for military purpose and adapted to civil applications. Transfer from military sector to road safety applications.

## . **RoadNex** and **ObstaNex** :

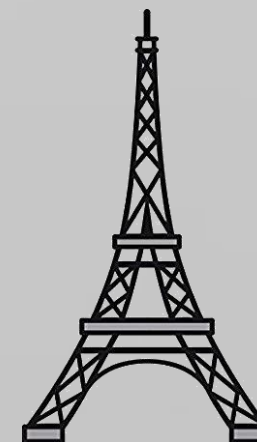
- . Can run in real time on regular devices (such as smartphones, telematics devices, regular ADAS computer, ...) : no need for heavy computing and expensive architectures, no need for a special chip.
- . Deep Learning trained on picky compact databases built with the methodology A.G.E.N.D.A. that allows to take advantage of sensors precision updates by quickly retraining networks (cause if you've been training your ANNs on 100 billion km ... then you will have to capture again 100 billion km if you want to take advantage of new image sensors with better precision : this is not industrial).

Note : NEXYAD founders has been developing deep learning applications for military, automotive, and industrial purpose since 1988. They've been Professors (deep learning, AI) in Master course for several Engineering schools in France. See exhibits ([background](#)).





Thank You  
Let's join our strengths  
to develop your new use  
cases



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## Exhibits (**click** the links)

[NEXYAD on TV](#)

[Prizes and Awards](#)

[Team and Ecosystem](#)

[Focus on ADAS and Autonomous Driving Levels](#)

[SafetyNex : real time driving risk assessment](#)

[VisiNex : Lacks of visibility detection](#)

[RoadNex : Detection of road and free space](#)

[ObstaNex : Detection of obstacles](#)

[Background + Tools and skills](#)

(Artificial Intelligence, Deep Learning, Automotive)