



PARTNERSHIP FOR
HORIZON EUROPE

Thursday, May 15th 2025

KEYIA IN A FEW WORDS

Who we are





KEYIA IN A FEW WORDS

- Equipment manufacturer for Smart Lighting & Smart City ;
- French company, created in 2021;
- Specialized in embedded image treatment and IoT radiocommunications ;
- Based in Toulouse ; Significant know how in embedded electronics ;

- Production in France (Tarn, North of Toulouse) ;
- ~ 4000 sensors and devices sold.

OUR PHILOSOPHY

BECAUSE STREET LIGHTS ARE

- Placed on every street at standard interdistance
- Standardized
- May be 24/24 H electrically powered
- A high point that makes a significant advantage for:
 - Making Radiocommuncations easier
 - Observing uses of the city



THEY HAVE A CENTRAL ROLE IN CITIES DIGITALIZATION

- We consider the street light network as the backbone infrastructure for Cities digitalization ;
- All our products are « adds on » to street lights ;

A COMMON POINT TO ALL OUR PRODUCTS

USE OF THE ZHAGA Socket

- The Standard connector of the Street Light Industry ;
- Increasingly present on street lights (up or above) ;



- Makes the products « Plug & Play » ;
- Makes the products standard & interchangeable ;

OUR RANGE OF PRODUCTS - TODAY

1) IMAGE TREATMENT - DETECTING AND ANALYSING MOVEMENT

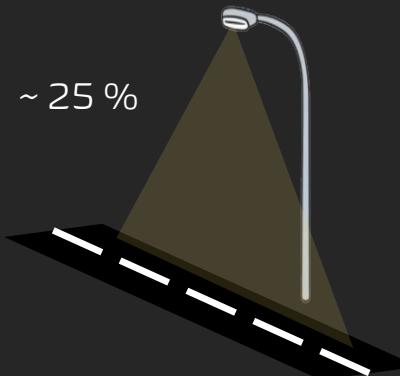
STRIGO®



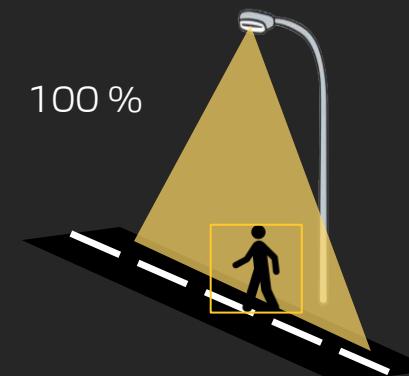
+ 3500 sold

Selective detection > 50% energy savings

STAND-BY



DETECTION OF "VULNERABLE" USER



2) CONNECTING STREET LIGHTS

- Radio nodes for connectivity to cities Supervisors / Hypervisors ;
- Several radio protocols Mesh / Star (LoRa) / 4-5G ;
- Use of a standard for communication : TALQ compatibility.

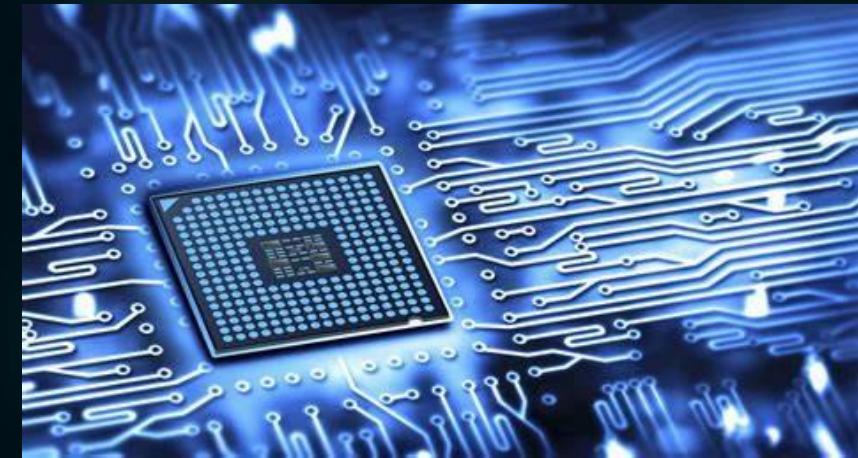


THE DEMIAFE PROJECT

One step further to city digitalization – Embedding AI with NPU

NEW PRODUCTS DEVELOPMENT

- Most recent semiconductors have now onboard NPU (neuronal processing unit - NPU) ;
- NPU are architectures dedicated to AI inferences with a very good power efficiency.



- They allow embedded AI in a small connected objects ;
- With a competitive energy consumption ;



- Makes possible treatment by embedded AI directly from an « adds-on » object on a street light.



SENSOR OBJECTIVES : DATA COLLECTION

- Smart counting / smart flow
- Smart detection / smart parking
- Additionnal services : traffic in wrong direction, too frequent overspeeding ...



- Zhaga socket, standard product, easy to set-up ;
- Data collected in a file/frame – Standardized for TALQ Format – 5G & LoRa networks



THE DEMIAFE PROJECT :

DEMonstrator for Frugal and Embedded Artificial Intelligence
for Smart City applications

- Is a project of Demonstrator - Aiming a Technology Readiness Level (TRL) of 7-8 ;
- Aiming Industrialization stage at end of project ;
- For a 2,5 years duration ;
- Toulouse as a test-pilot City. Other Cities may candidate if interested.

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What we are looking for

PROJECT PLANNING

CURRENT STEP

- Feasibility studies finalized ;
- Project Funding on-going :
 - Public funds with an OCCITANIE region research financing program
 - Private funds



FURTHER STEPS

- Development start : september 25 (if DEMIAFE fully funded)
- Prototypes availability (stage 1) : september 26 - Installation in Toulouse (only)
- Pre-serial availability (stage 2) : mid-27

OUR RESEARCH

- European town(s) interested to test preserial sensors (stage 2) ;
- Supervision / Hypervision plateform editor(s) to test integration (or cities) ;
- Partner(s) for market study / pre-commercialization.



THANK YOU !

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