



# A NEW FINGERPRINT SENSOR

## PYROELECTRIC CONFORMABLE SENSOR MATRIX

### FOR LARGE AREA APPLICATIONS IN SECURITY AND SAFETY



High resolution (500 ppi)



Large Area



Thin & Flexible

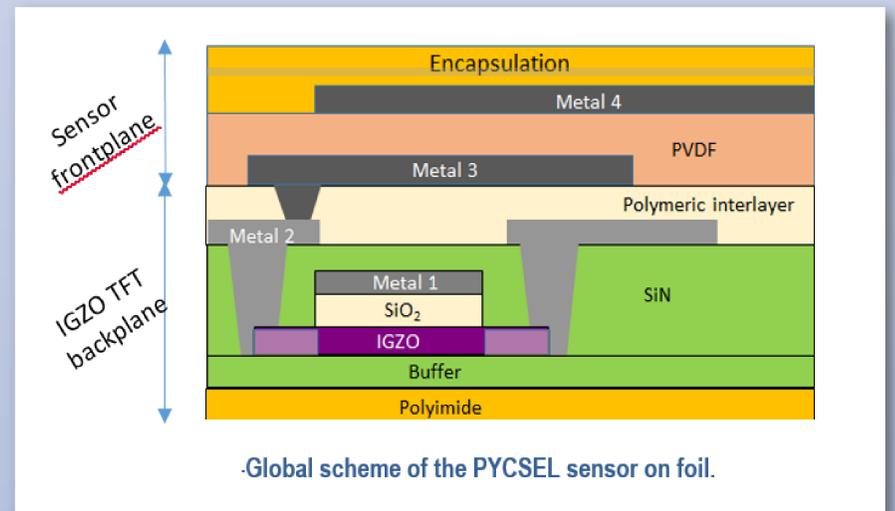
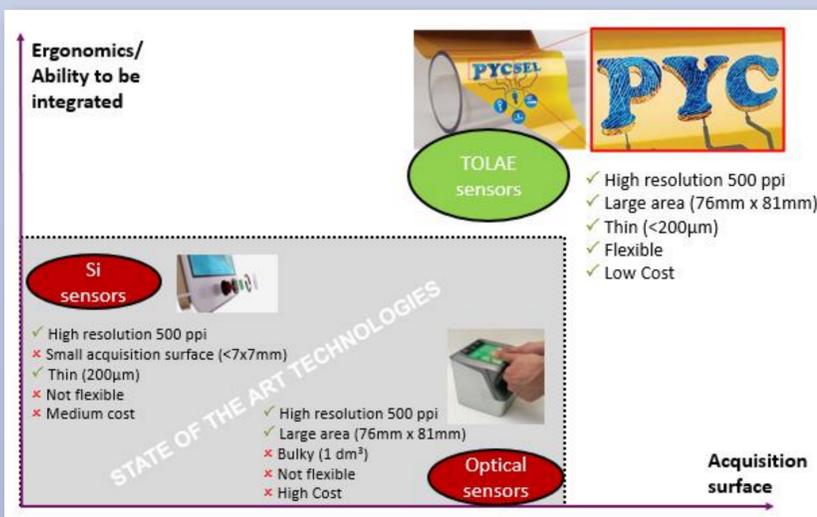


Low cost

## CONCEPT

The PYCSEL project aims to develop and demonstrate very innovative fingerprint sensors enabled by TOLAE technology:

- combining an innovative active thermal sensing frontplane, using PVDF-based pyroelectric material, with an IGZO TFT backplane on a plastic flexible foil
- offering high resolution and large surface compliant with standards (FBI) and multiple fingerprint capture
- allowing easy integration and ergonomic use in future innovative cost-efficient fingerprint identification and grip recognition systems thanks to their conformability,
- Targeting 2 applications: governmental and automotive.



## PROGRESS BEYOND STATE OF THE ART

Today there is neither available nor in development active thermal pixels based on pyroelectric-polymer material, with extremely large area (4 fingers at the same time) and flexible substrate. Thermal and electrical modelling will enable to design a new sensor and to adjust a new fabrication process.

## HIGH SKILLED PARTNERS

