

Towards Ubiquitous Low-power Image Processing Platforms

## TULIPP PROJECT

### A reference platform for low-power image processing applications

The EU Horizon2020 project TULIPP will develop a reference platform (Hardware, Operating System and Tool Chain) that defines implementation rules and interfaces to tackle power consumption issues while delivering high-efficient and guaranteed computing performance for image processing applications.

The TULIPP platform will be application driven and cover the following implementation:

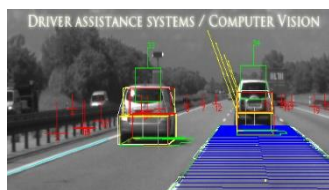
- ✓ a reference HW architecture – a scalable low-power board;
- ✓ a low-power operating system and image processing libraries;
- ✓ an energy aware tool chain.



Surveillance and Rescue UAVs



Medical X-Ray Imaging

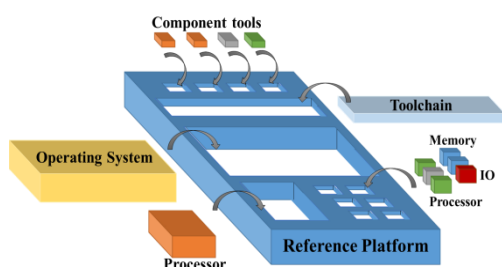


Advanced Driver Assistance

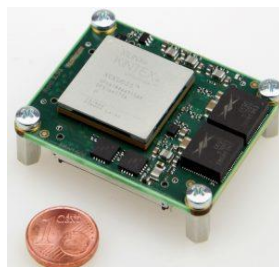
The validation of the TULIPP platform will lead to proof-of-concept demonstrators across different domains:

- ✓ **Medical imaging:** Radiation dose reduction in surgical X-ray systems through real-time image processing
- ✓ **Automotive:** Reliable, affordable and low latency image processing with hard real-time constraints
- ✓ **Unmanned Aerial Vehicles:** More intelligence through an energy-efficient and small on-board controller

TULIPP will concentrate on the design and implementation rules. Following the rules, anyone will be able to produce a compliant platform and benefit from the technological advances generated by the project. The interfaces will be defined, so as to enable any industrial to produce any sub-part of the platform and plug it to other existing platform so as to create a new TULIPP platform.



TULIPP Reference Platform



TULIPP Hardware Module

The TULIPP Advisory Board, comprising a number of European industrial companies, will supervise and monitor the progress of the guidelines and will be testing the developed platform with own applications. Furthermore, it will support the consortium in the standardisation of the TULIPP reference platform.

For further information please visit TULIPP website at [www.tulipp.eu](http://www.tulipp.eu) or contact us at: [Contact@tulipp.eu](mailto:Contact@tulipp.eu)

Consortium Members



Synective Labs

