SENSE - a roadmap for the ideal low light level sensor development
WP2: R&D Cooperation

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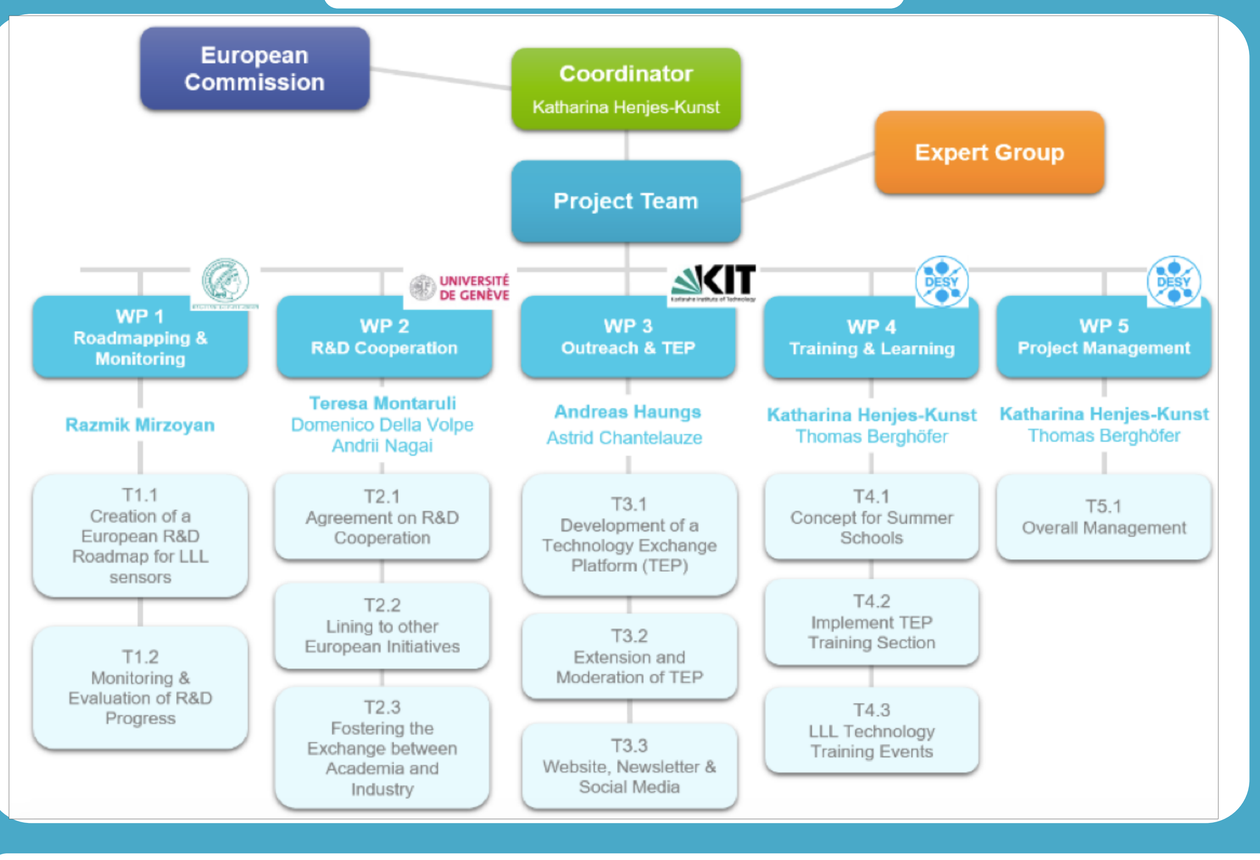
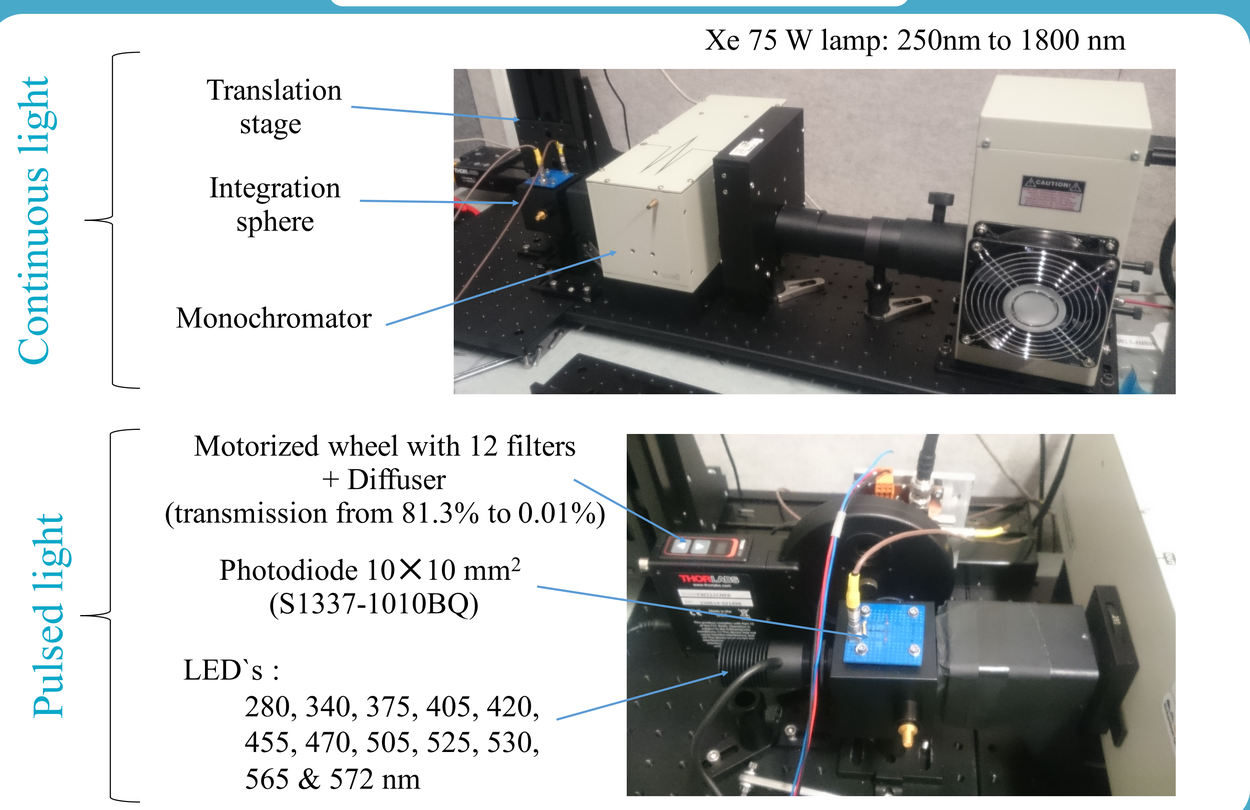
SENSE - a roadmap for the ideal low light level sensor development is a project funded by the European Commission under Future and Emerging Technologies (FET) Open Coordination and Support Action (CSA) (https://www.sense-pro.org).

It aims at coordinating, monitoring, and evaluating the R&D efforts of research groups and industry in advancing low light level (LLL) sensors and liaise with strategically important European initiatives and research groups and companies worldwide. The project`s objectives are: (1) to conduct the development of a European R&D roadmap towards the ultimate LLL sensors, and to monitor and evaluate the progress of the development with respect to the roadmap, (2) to coordinate the R&D efforts of research group and industry in advancing LLL sensors and liaise with strategically important European initiatives and research groups and companies worldwide, (3) to transfer knowledge by initiating information and training events and material, (4) to disseminate information by suitable outreach activities.

SENSE structure



Experimental part



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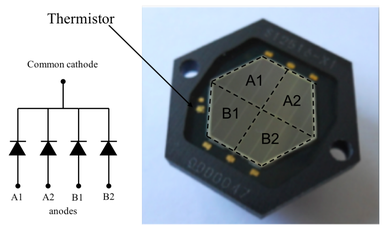
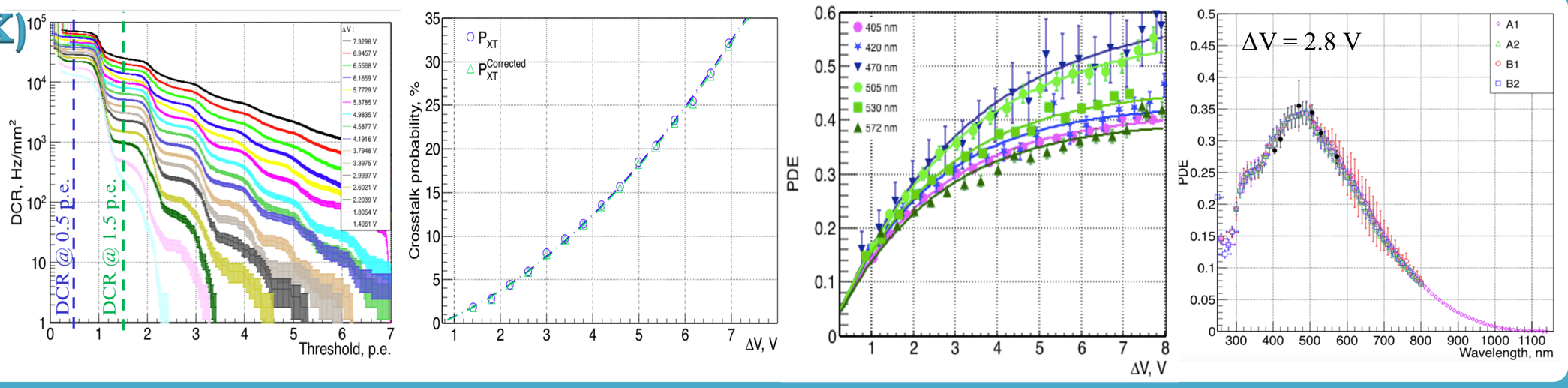
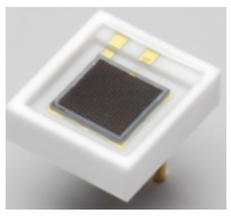


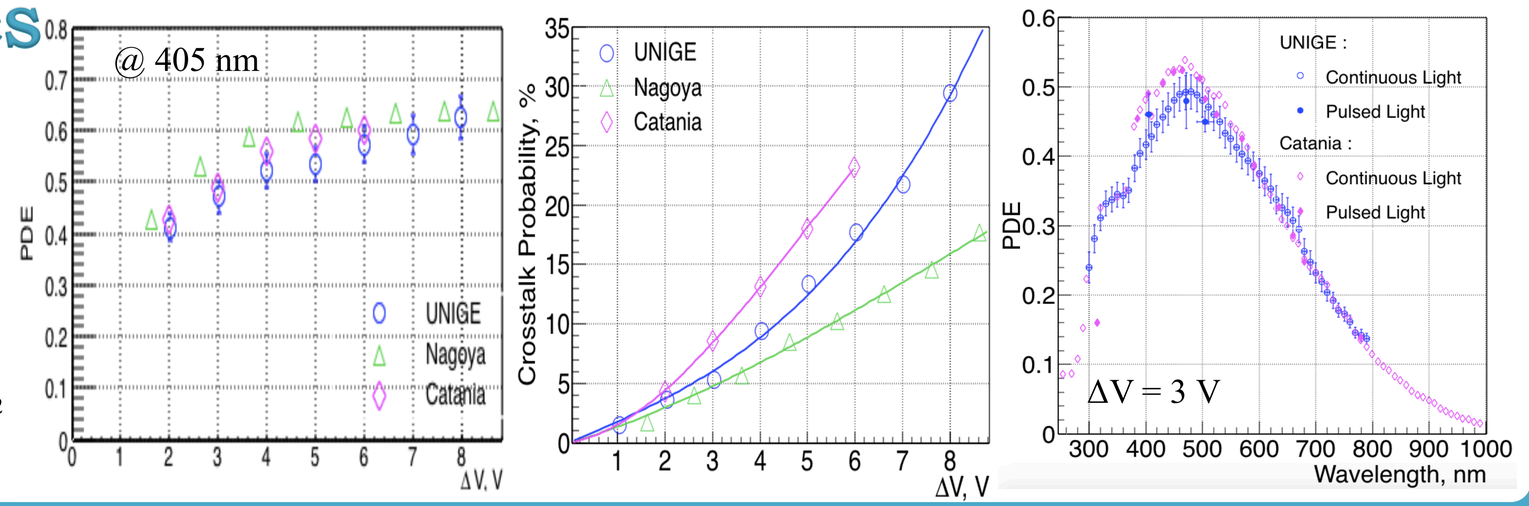
Area: 93.6 mm²
Microcell: 50 × 50 μm²



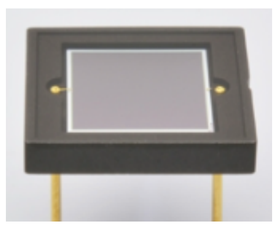
LVR-3050CS



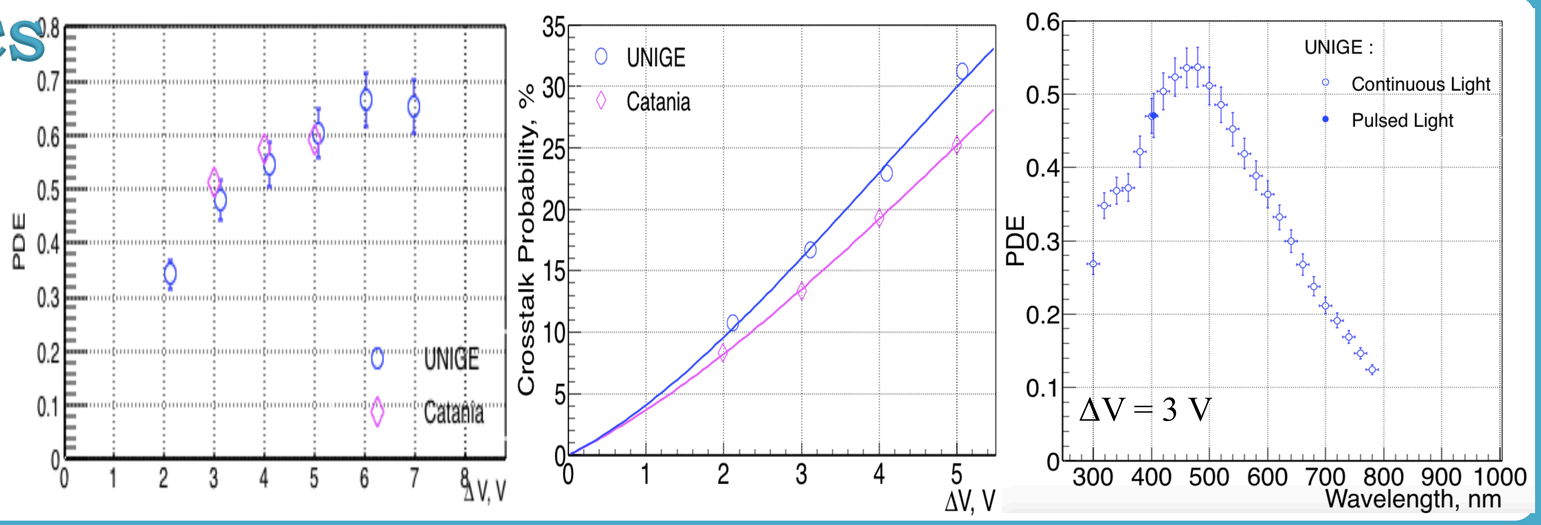
Area: 3 × 3 mm²
Microcell: 50 × 50 μm²



LVR-6050CS



Area: 6 × 6 mm²
Microcell: 50 × 50 μm²



Conclusions:

- The experimental setup was build & calibrated:
  - DCR(ΔV, $V_{Thr.}$), P_{XT}(ΔV), PDE(ΔV, λ);
- Cooperation agreement between 5 institutes was established;
- MPPC devices were distributed between institutes;

Future activities:

- Evaluate systematic errors for each experimental setup;
- Establish measurements and analysis procedures;
- Involve industries;