



Ultimate Low Light-Level Sensor Development

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LIGHT workshop, Ringberg/ Wendelstein, 18. 10. 2017



SENSE Session – Outline



- Some general information on SENSE → Katharina Henjes-Kunst
- Outreach of SENSE → Katrin Link
- Overview on the work on R&D cooperation → Teresa Montaruli, Andrii Nagai
- The Roadmap of SENSE: Idea and developments → Ramik Mirzoyan, John Smedley, Andrii Nagai)
- Wrap up, Outlook and Discussion → Katharina Henjes-Kunst

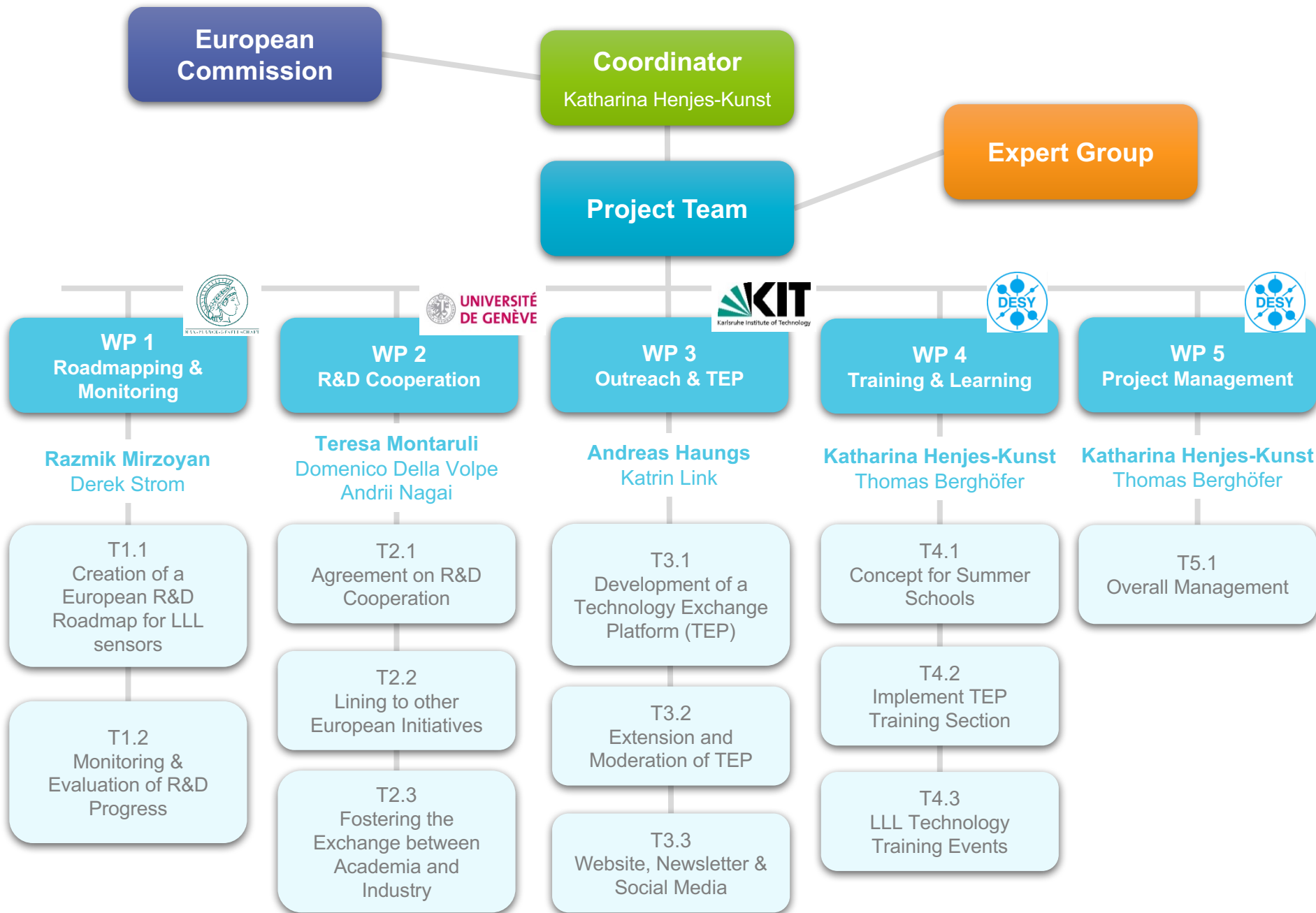


SENSE – Background



- SENSE is a European Commission Horizon 2020 Coordination and Support Action (FET-OPEN) aiming to coordinate research and development efforts in academia and industry in low light level sensing
- Started in September 2016 for three years
- Experience from ASPERA and APPEC technology fora and LIGHT workshops:
 - coordination of European research groups concerned with low light-level sensors is currently missing
 - representatives from academia and industry pointed out that developments could be made faster when one or a small number of labs could take the lead of these activities





SENSE – Expert Group



- the **Experts Group (EG)** comprises **first-rate developers** in the field of low light-level sensors, representatives of major research projects requiring low light-level sensors
- they act as an **advisory panel** to the project:
 - **Razmik Mirzoyan, MPI for Physics, Germany, (head of experts group)**
 - Sergey Vinogradov, Lebedev Physical Institute, Russia
 - Elena Popova, MEPHI, Russia
 - Klaus Attenkoffer, Brookhaven National Lab, US
 - Bayarto Lubsandorzhev, INR of the Russian Academy of Sciences, Russia
 - Samo Korpar, Jožef Stefan Institute, Slovenia
 - Peter Krizan, Jožef Stefan Institute, Slovenia
 - Osvaldo Catalano, INAF, Italy
 - Claudio Piemonte, Broadcom, Germany
 - John Smedley, Brookhaven National Lab, US
 - Stefan Schönert, Technische Universität München, Germany
 - Eric Delagnes, CEA, France
 - Nicoleta Dinu-Jaeger, CNRS Artemis, France



SENSE – Objectives



- to **set up** an expert group and **facilitate** the development of a **European R&D roadmap** towards the ultimate low light-level (LLL) sensors,
- to **monitor** and **evaluate** the progress of the developments with respect to the roadmap,
- to **coordinate** the **R&D efforts of research groups and industry** in advancing LLL sensors,
- to **develop** a **database of light sensor specifications and lab equipment**, test stands and expertise available in the different institutions,
- to **liaise** with strategically important European initiatives and research groups and companies world-wide,
- to **create** the Technology Exchange Platform to enable an efficient exchange between researchers and developers being involved in SENSE,
- to **prepare** training events and teaching material especially towards young researchers,
- to **frame up** a technology training session that can be implemented in any existing summer school.



SENSE – next steps



- **WP1:** draft of roadmap will be published and follow up starts
- **WP2:** R&D cooperation ongoing, further include European initiatives and companies
- **WP2:** Technology forum probably early summer 2018
- **WP3:** Website (<https://www.sense-pro.org>) and forum online <https://www.sense-pro.org/sense-forum>
- **WP4:** Training events in 2018 and 2019, further develop training material



SENSE – come and join!



- share on information with us about your experiments, sensors, companies
- Start discussing about the roadmap/ implementation
- Start to develop further ideas with us



SENSE



Thank you for your attention!

Please visit *sense-pro.org* and the SENSE and stay in contact with us

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