



## KOEN MERTENS | AGRICULTURAL RESEARCH ENGINEER

ILVO

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Dr. ir. Koen Mertens is an agricultural research engineer with Geo-ICT expertise coordinating the ILVO ISense (<http://isense.farm/>) project. This project uses innovative sensor technologies to bring concrete innovations to the agriculture and food sector. He has wide experience in remote sensing, image processing, data analysis and ICT. His team develops methodologies for crop sensing using an unmanned Aerial Vehicle (UAV) and different camera types.

Koen is currently involved in several ICT and UAV related EU projects at ILVO, including ICT-Agri (<http://www.ict-agri.eu/>) and Icares (<http://icaresproject.eu/nl/>) and supports the Internet for Food and Farm project (<https://www.iof2020.eu/>).

ILVO's research in Agricultural Engineering focuses on innovative and environmentally-friendly agricultural systems. The core activities of this research are development and evaluation of new and existing techniques, as well as their integration to create innovative production systems that support sustainable agriculture and horticulture. Technical competency is combined with modern mathematical and IT-based methods. ILVO also has a workshop where we construct our own prototypes and experimental set-ups. Image and sensor engineering are central to precision agriculture research, including multispectral and thermal imaging. These areas of expertise are applied in feasibility studies and the testing of prototypes, often in partnership with SMEs. We have specific expertise in the construction of robust camera- and sensor systems in prototypes for demanding practical circumstances, with attention for speed of data acquisition, stability of the software and algorithms appropriate for use in practice.