

Title: **Combining New Earth Observation Data Sources For a Productive and Sustainable Agriculture**

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Body text:

A successful agricultural monitoring requires the right image at the right point of the crop cycle. To achieve this, new platforms and sensors are available, already today or in the near future. That is the case with Pléiades Neo, a constellation of 4 VHR satellites featuring 30 cm resolution and 6 spectral bands including red-edge, available from 2020. Another key technology which is close to maturity is **High-Altitude Pseudo Satellites** (HAPS), like the Zephyr from Airbus. Deployed in stratosphere for missions of several months, HAPS will offer persistent monitoring over entire regions. A third option for imagery collection are **small drones**.

In combination – satellites for stable and reliable campaigns, HAPS for persistent monitoring and low altitude drones for targeted difficult zones – these technologies will optimise the imagery available for precision agriculture and policy monitoring. Here, the particular benefit of reliable vegetation maps, obtained from **biophysical parameters** extraction, shows its relevance: it opens access to biomass, nitrogen status and senescence assessment in a sensor-agnostic way and without ground measurement calibration – thus getting the best out of any new earth observation technology.