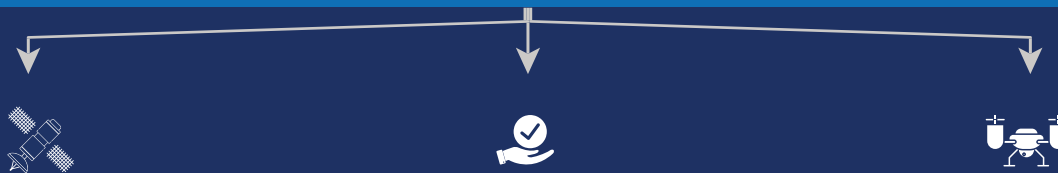


Satellites and drones support in addressing sustainability challenges in agriculture

Product Watch: Satellites and drones for less intensive farming and arable crops



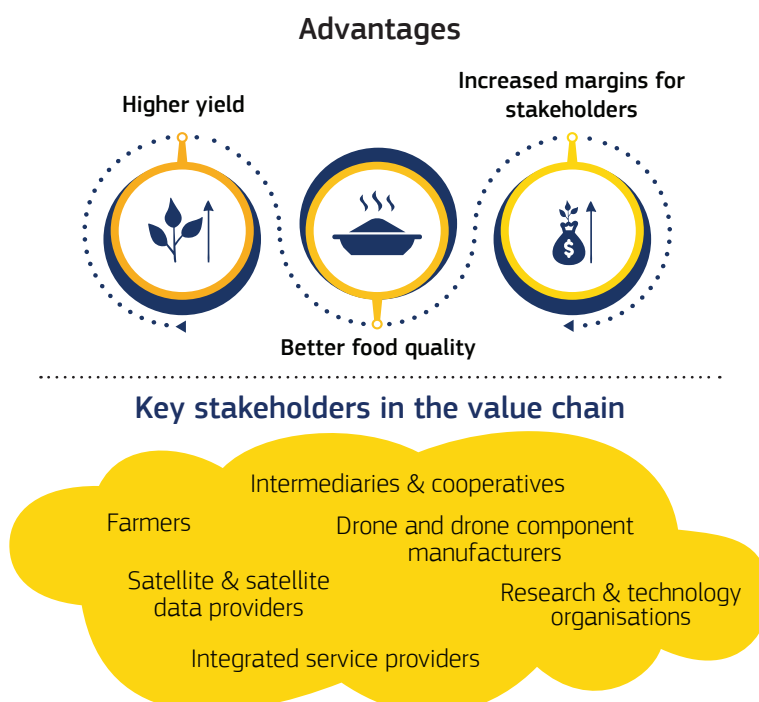
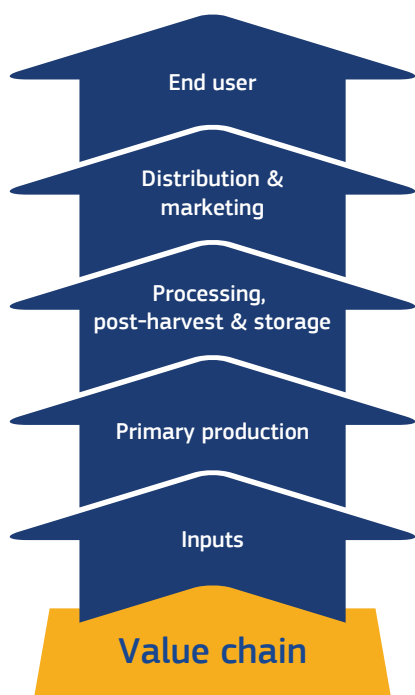
Satellites are able to capture agricultural information through the use of sensors that are mounted onto them, taking images of the earth surface at regular intervals corresponding the moments when a satellite passes over a certain geographic area.

How to choose, drones or satellites?
The main benefit of drones compared to satellites is the flexibility (different sensors are possible, and imagery is available wherever and whenever needed) and the increased spatial resolution. While satellites offer information at specific moments related to their position, drones can be integrated into farming and agricultural advice on an as-needed basis.

Drones are able to provide insights to a multitude of sectors. They are able to offer the same information as satellites on land use and related to the land surface in a transparent and objective way as they use the same spectral resolution and have the same usefulness for farmers.



The uptake has the potential to further improve the efficiency of the agri-food sector



Two issues in the value chain are the fragmented landscape with acquisition and information asymmetries



Fragmented landscape with acquisition

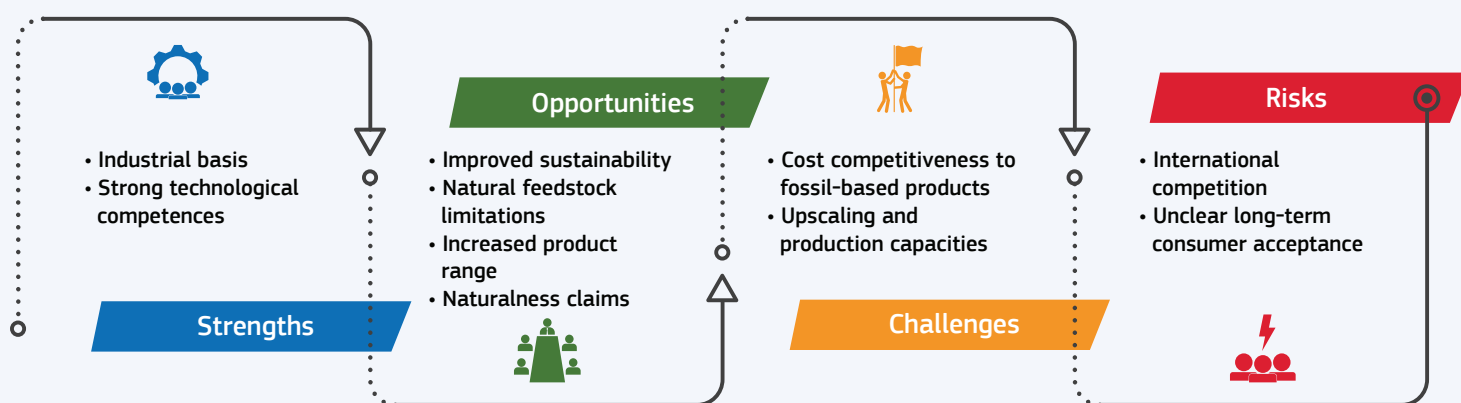
The landscape of, especially, drone manufacturers is considered fragmented, and features a lot of startups. This leads to a lot of competition on a small scale. In recent years this has also included acquisition of small companies by larger dominant players, seeing a lot of takeovers taking place.



Information asymmetries and the role of intermediaries

Farmers and other stakeholders along the value chain are faced with information asymmetries about what is possible to achieve with the data. It is important to have stakeholders that can bridge between the technology providers and the farmers to support the uptake of these technologies.

EU competitive positioning regarding satellites and drones for less intensive farming



About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the **implementation** of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The **Product Watch** analyses novel products that are based on advanced technologies for the development of goods and services – enhancing their overall commercial and social value. It supports cluster organisations and S3 partnerships, providing intelligence on innovation areas where European regions could team up and invest together.

For more information, read the full Product Watch on Satellite and drone data for agricultural decision making here:
<https://ati.ec.europa.eu/reports/product-watch/satellites-and-drones-less-intensive-farming-and-arable-crops>