

Information Agrifood quality estimation using hyperspectral techniques

Spectrofood.

The global food demand is constantly growing; as a result, we need to produce more and in a more efficient way. Moreover, food packaging's environmental impact is substantial, using lots of resources such as energy, water, and chemicals while also contributing to plastic pollution. How can we increase food production, improve the use of resources, reduce packaging without sacrificing food along the way? Spectral imaging seems to hold the promise for that, through non-destructive fruit/vegetable quality estimation and by establishing a link between pre- and post-harvest. The SpectroFood project looks into this promise by looking closely at four unique use cases: broccoli, leek, mushrooms, and apples.



Over the last months, we have thoroughly investigated all previous research conducted on this domain while also spending time with growers and stakeholders to identify the most resource-intensive tasks and each crop's most important quality characteristics. Currently, spectral measurements and experiments have started for the majority of the crops and will continue for the next growing seasons. The goal is to create crop-specific and crop agnostic models able to estimate those quality characteristics.