MEASUREMENT CONCEPT

The key components of the GrainSense solution are the GrainSense device, mobile application, and cloud-based value-added services.

- 1. Mobile application sets up the device with the correct language and the latest grain calibrations.
- The device analyses the protein, oil, carbohydrate and moisture content of the seeds in a matter of seconds.
- The results are sent to a mobile app, which sends the results to a cloud database.
- Based on the analysis of the grain quality measurement data, actionable decision-support for harvesting, silo management, and selling is provided through the mobile app (value-added services).
- All data is stored in the cloud database and can be accessed through a user dashboard for further analysis.



TECHNICAL SPECIFICATION

Size	Hand-held (footprint 270 mm x 115 mm)
Weight	820 grams (+ batteries)
Batteries	6 x AA
Battery operation	Approx. 150 measurements
Measurement principle	Near infrared spectroscopy
Measurment time	Typically 30 seconds (including device warm-up
	and sample loading)
Species	Initially wheat, barley, oats and rye. Later rapeseed
	and other oilseeds
Operation temperature	5 to 45 C
Storage temperature	-10 to 60 C
Protection	Water resistant for outdoor use
Bluetooth	LE 4.1
Language	Multiple languages
Calibration	Multiple calibrations via mobile phone (max 4
	loaded simultaneously)
Mobile application	Android/iOS