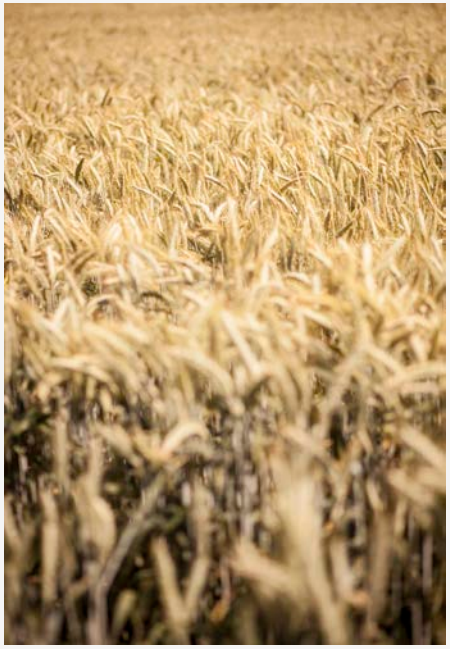
# Case study Agri-tech & precision farming

## Grain metering device for combine harvester

Our client approached us for a device which could be added to their combine harvester range to provide yield data in real-time during harvest



### Approach

- Grain is difficult to measure in real-time due to the non-uniform density of solids
- We assessed different methods of measuring mass flow rate taking into account the dusty and unpredictable, mobile environment
- Mathematical and analytical modelling helped to validate the concept
- A vibrating plate system delivers the force required at a flow rate of one kilo per second

### Benefit

- The client is now able to provide their customers with real-time yield data
- Their customers will be able to tailor chemical and crop care programmes on an area by area basis
- Customers receive a geo display depicting yield levels for precision dosing and irrigation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