



Connected Farming

Where will technology and innovation take us?

SACHIN SHENDE, CO-FOUNDER AND CEO

KISANHUB

Where has innovation and technology
taken our customers?

The story so far

Nov-2012:
First line of
code

2013:
Joined
Cambridge
Accelerate.
Founding
team was
formed

2014:
Raised
capital
(F & F)

2014: First
enterprise
customer

2015:
Formed
wholly
owned
subsidiary
in India

2015:
Second
enterprise
customer.
Formed
Strategic
Partnershi
p with
NIAB

2016:
Raised
seed round

Today:
5
enterprises
2500
Farmers



10 Angel
Investors

What is KisanHub

A cloud based business to business (B2B) software as a service (SaaS) platform for

agricultural enterprises providing readily accessible relevant data.

Enabling corporate agribusinesses to take more data based decisions.

Reducing yield losses, reducing input costs and maximising market opportunities.

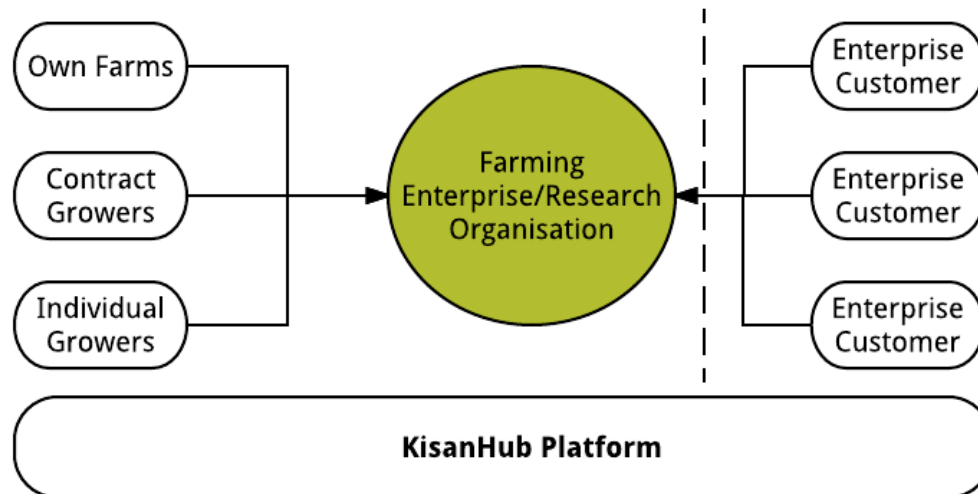
Who we are

Technologists,
data scientists,
agronomists,
designers and
entrepreneurs

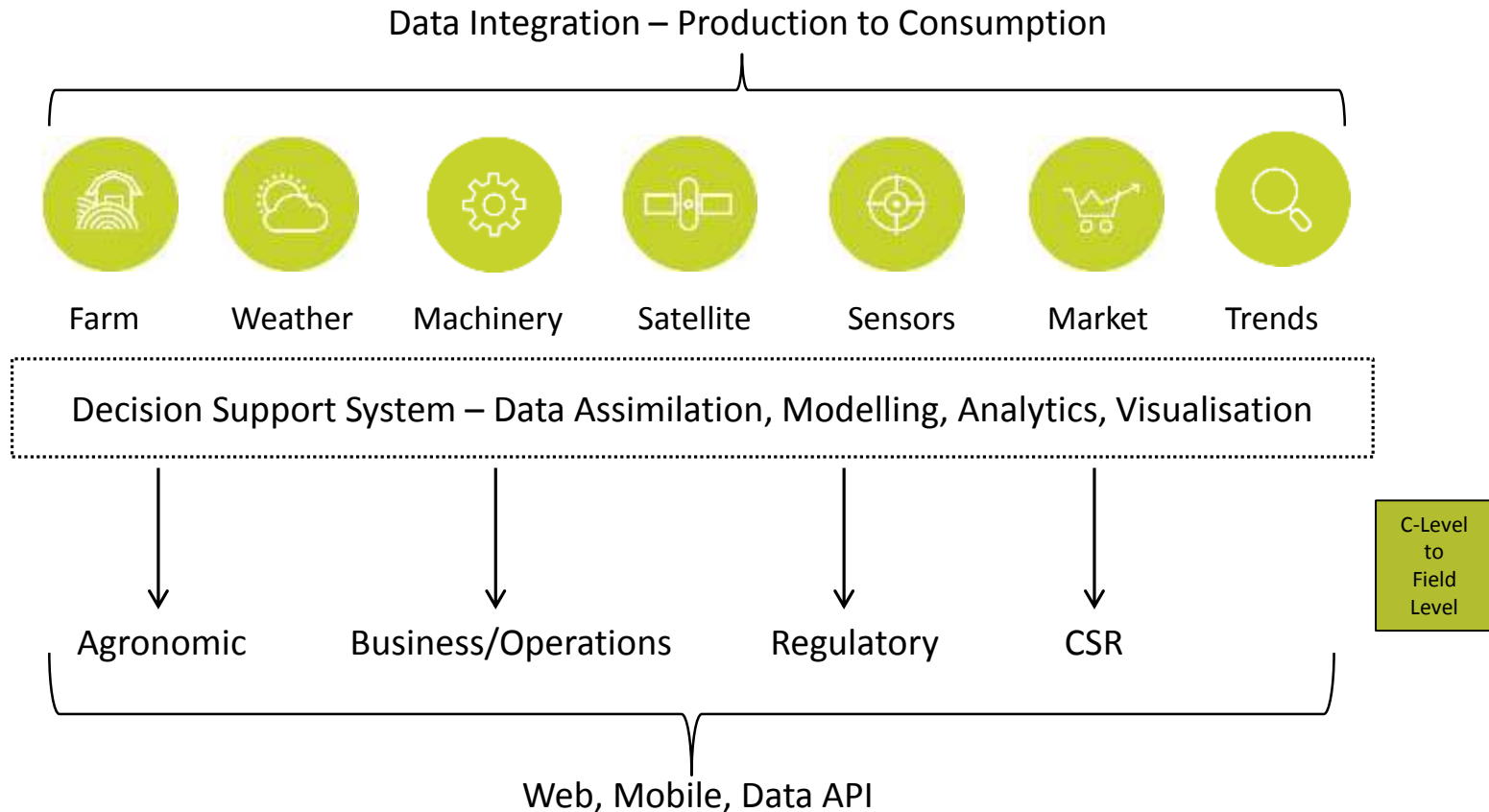
Passionate
people blending
technology with
agriculture

Single-minded
and focused
team called
KisanHub

What we offer



KisanHub platform



Platform offering

- Enterprise platform
 - Full data integration – field to enterprise
 - Hardware integration – weather stations, sensors
 - In-season agronomy tools – pest and disease monitors, crop models, soil water balance model, technical advisory
 - Manage field inventory (uncertainty)
- Potato offering
 - NIAB CUF models – yield estimation, irrigation scheduling
 - Lab assessments – YSI, fry, yield digs
- Trials application
 - Aggregate trials data – protocols, treatments, assessments
 - Connect dots – weather, soil, trials results
 - Disseminate output and reports
 - Bring research and science closer to the field
- Individual farmers - through NIAB Network

What does it look like?

Dashboard

NIAB Farm R S Bealy & Sons

Dashboard Close the sidebar if you prefer

Configure Dashboard to your own preferences

Day	Date	Weather	Temp	Wind	Precip
Wednesday	Oct 26, 2016	Partly Cloudy	14 °C	3.5 mps	0 mm
Thursday	Oct 27, 2016	Sunny Day	14 °C	4.3 mps	0 mm
Friday	Oct 28, 2016	Sunny Day	14 °C	3.3 mps	0 mm
Saturday	Oct 29, 2016	Mostly Cloudy	9 °C	1.6 mps	0 mm
Sunday	Oct 30, 2016	Mostly Cloudy	10 °C	2.0 mps	0 mm

Completed Operations

- Harvest: 25 Oct, 2016
Field: Dairy Farm - Bank
Plot / Crop: PLOT-2016-17-0014 - Winter Wheat
- Harvest: 25 Oct, 2016
Field: Dairy Farm - Bank
Plot / Crop: PLOT-2016-17-0014 - Winter Wheat

Hyper local weather
This is set for the specific location you choose, either a farm or a field

Operations made by farm manager or agronomist. See what action needs to be taken.

App Ecosystem

See the latest articles and reports

NIAB TAG: Seedstats Winter Market 2016 | NIAB TAG Landmark September 2016 | SB16-9138 High yielding spring barley trials

Manage farm

Clicking on the field will bring up all upcoming planned operations, recommendations and hyper-local weather reports

The screenshot displays the NIAB MyFarm mobile application interface. The top bar is green with the NIAB logo on the left and the user's name 'R.S. Beatty & Sons' on the right. Below the top bar, there is a navigation bar with a back arrow, the text 'MyFarm', and an '+ ADD' button. The main content area is divided into a sidebar menu on the left and a central map area. The sidebar menu includes options like Dashboard, Technical Content, Events/Courses, MyFarm, Operations, Field Diary, Profile, Soil, Reports, AgroMet, and Trials. The central map area shows a satellite view of a farm with several fields highlighted in orange. A pop-up window for 'PLOT-2016-17-0016' is open, displaying weather data for Oct 28, 2016, and crop details for Winter Barley. The pop-up window has a blue header with the plot name and a close button. Below the header, there is a table of weather data for the day Oct 28, 2016, and a table of crop details. The crop details table includes fields for Name, Crop, Variety, Expected Sowing Date, and Soil Type. The map area also features a vertical toolbar on the right with icons for adding a field, crop, and other farm management actions. A green arrow points from the text above to the 'OPERATIONS' tab in the pop-up window.

Time	10:00	11:00	12:00	13:00	14:00	15:00
°C	12.1	12.5	13.4	14.4	14.8	14.5
mm	0	0	0	0	0	0
mps	3.6/SW	3.6/SW	3.9/SW	4.1/SW	4/SW	3.8/SW

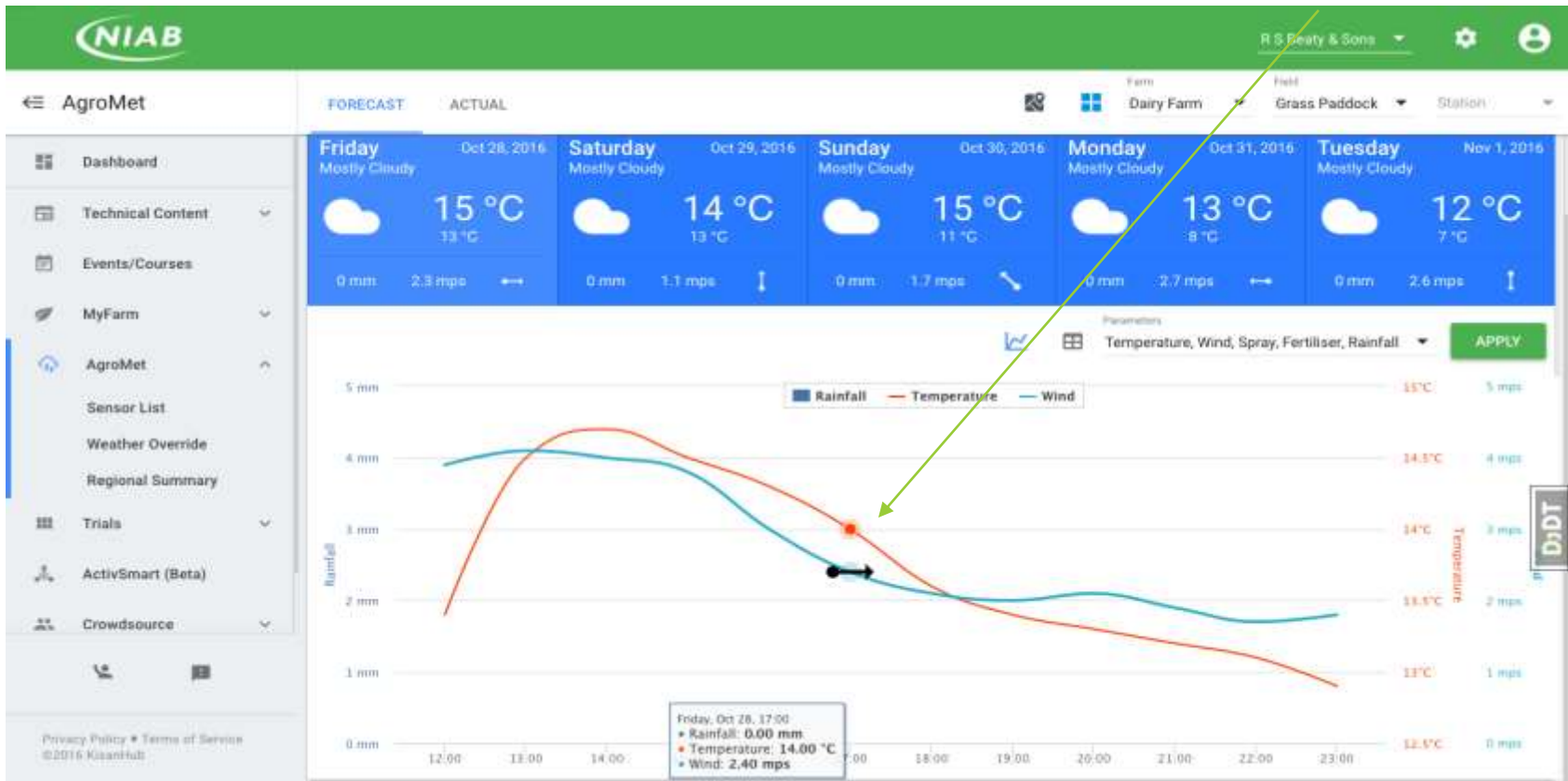
Day	Fri	Sat	Sun	Mon	Tue
°C	15/12	14/13	15/11	13/8	12/7
mm	0	0	0	0	0
mps	W	S	SE	E	N

Name	PLOT-2016-17-0016
Crop	Winter Barley
Variety	Flagon
Expected Sowing Date	Oct 24, 2016
Soil Type	Clay Loam

Icons to add your farm, field, and crop

Decision support

Hover mouse over to get hourly data.

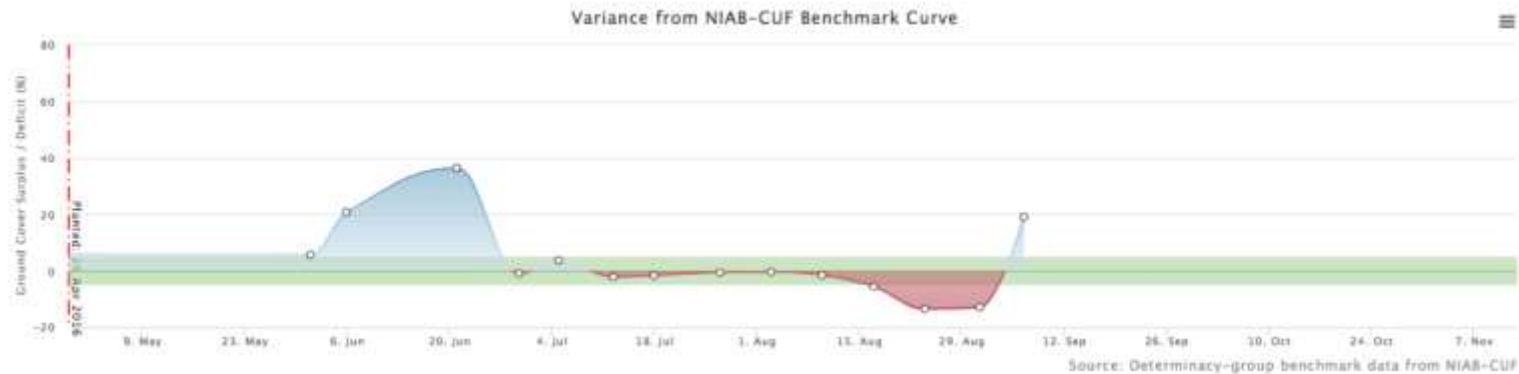
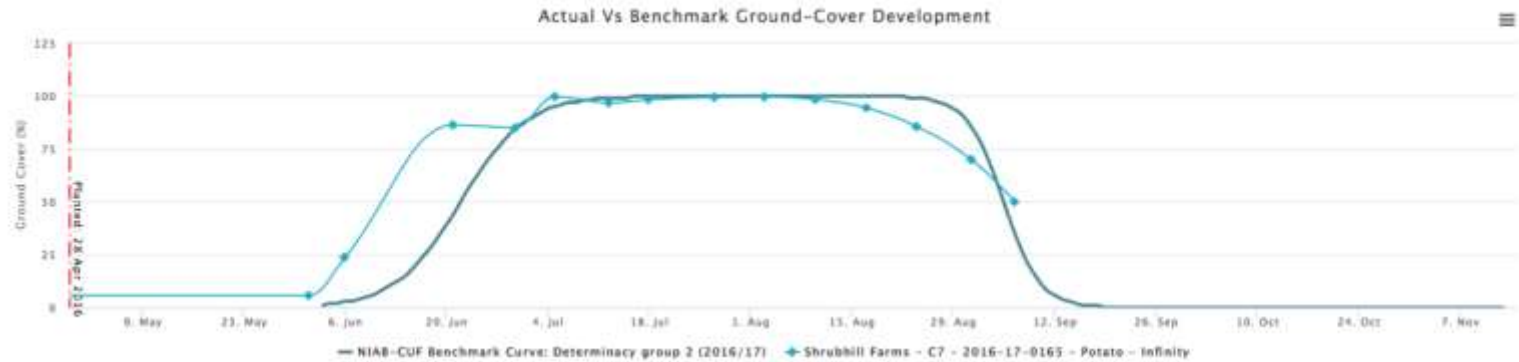


In-season agronomy - Sclerotinia



In-season agronomy – CUF benchmark curves

Ground Cover Benchmarking



Decision support – CUF irrigation schedule



Achievements

- 5 farming enterprises, 2,500 farmers
- Built team of 20 – covering business, engineering, data science, agronomy, customer support
- Established big data and analytics infrastructure – network of over 60 servers – offering end-to-end technology solutions to agri-businesses
- Analysed satellite imageries over 350,000 ha in the first year
- Processed produce worth £20 million in 2016 growing season
- Processed data for about 50 trials in 2016 growing season
- Integrated research models (NIAB CUF, Sclerotinia, Powdery mildew) through well developed API ecosystem
- Integrated hardware, third-party data feeds and third-party enterprise software

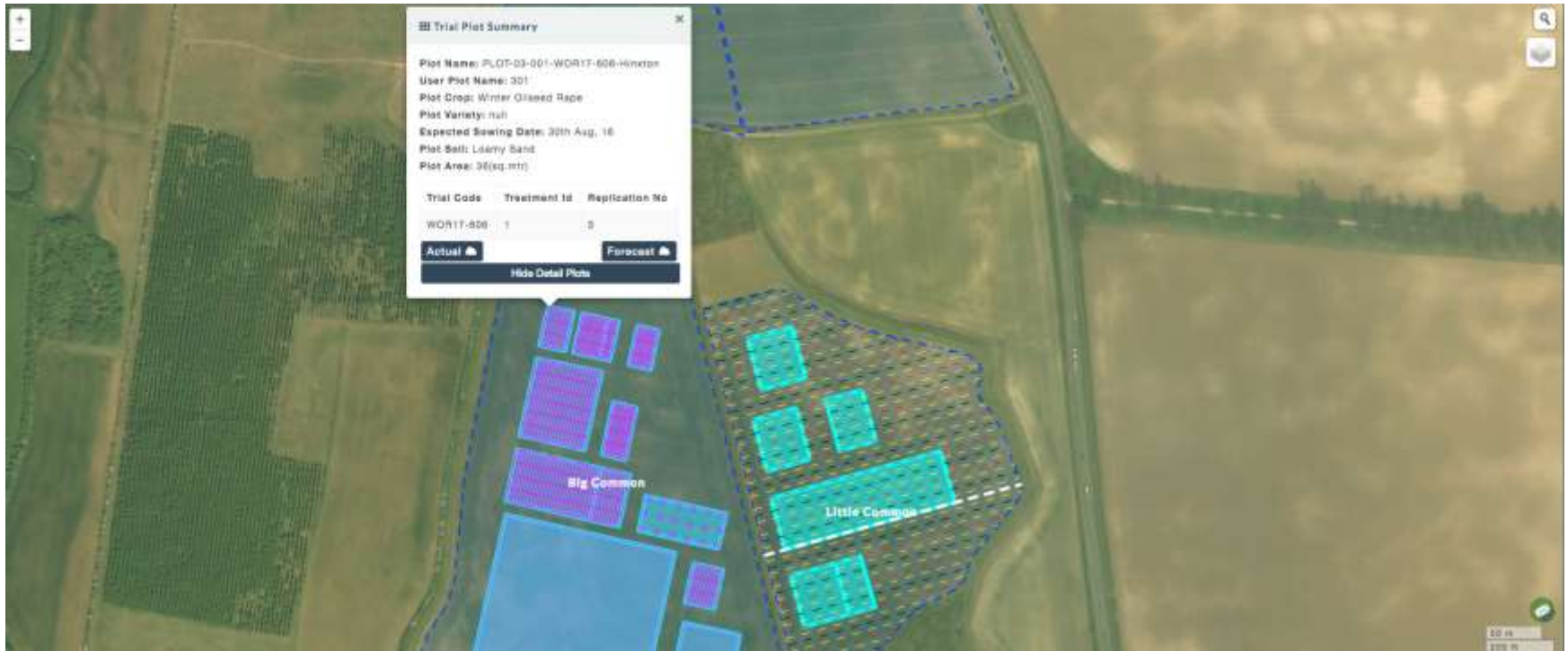
What next?

- Internet of Things (IoT) and sensor integration
- Machine learning and image processing
- Trials data – bring science closer to the farm
 - Identify and bridge yield gaps
 - Best in class agronomy
- Community intelligence

Trial field and farmer's field



Compare crop – trial vs farm



Community intelligence

The screenshot displays the NIAB mobile application interface. At the top, the NIAB logo is on the left, and the user's name 'R S Beatty & Sons' is on the right. Below the header, a 'Crowdsource' menu is visible on the left. The main content area is split into two sections: a top section with a 'Cabbage Stem Flea Beetle Analysis' image and a bottom section titled 'PROPERTIES' containing a table of data. To the right of the properties is a map view showing a field with numerous location pins, each marked with a beetle icon. The pins are color-coded, with green and yellow being the most prominent, and some red pins. A 'D:DT' label is visible on the right side of the map.

PROPERTIES	
Sowing Date	2015-08-20T00:00:00Z
Variety	Mixed
Seed Treatment	Neonicotinoid
Cropped Area	141.56
Few/zero shot Holes	70 %
Numerous shot holes	18 %
Severe grazing	10 %

Discussion



sachin@kisanhub.com



@SachinAShende

@KisanHub

<https://www.kisanhub.com>