

# Agvesto

www.agvesto.com contact@agvesto.com @agvesto 02/02/2017

# To build an *data driven* platform to monitor and manage risk in agriculture.



## Data driven risk platform for Global Agriculture

- We are a climate smart technology business to enable sustainable agriculture using a data and AI driven platform.
- Our SaaS product delivers real time risk monitoring and management to the market participants via an API.
- Target sectors: We target Agricultural value chain where managing risk is closely tied to Balance sheet and P&L such as Insurance, Trade, Investment.
- Social Impact: Our mission is promoting inclusiveness in Agriculture in markets via B2B2C and sustainable food production.



### **Data driven Digital Agriculture**





DATA



**Farmers Trust** 



OAK



Partners can integrate easily

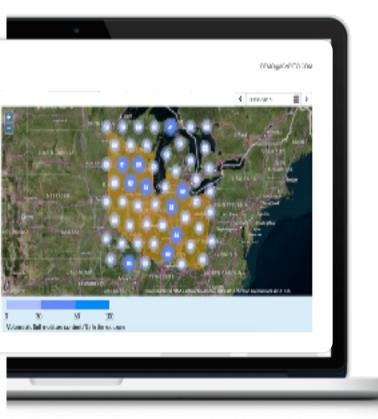
COMMERCIAL



POLICY



### An real time risk analysis with *Deeper* data.





We evaluate all aspects of risk profiles related to an individual farm and regions.

It's not just about data.. it's the context and impact behind it.



#### Real time risk reporting

Manage the farmlands in the portfolio with real time data from captured from space, atmosphere, localised weather and ground based information delivered near real time. Risks accurately reported for historical review and better future planning.



## Transparency to Weather and Climate impacts

Reliable and continuous data to help the stakeholders to understand impact of events and protect their portfolio



#### Compliant

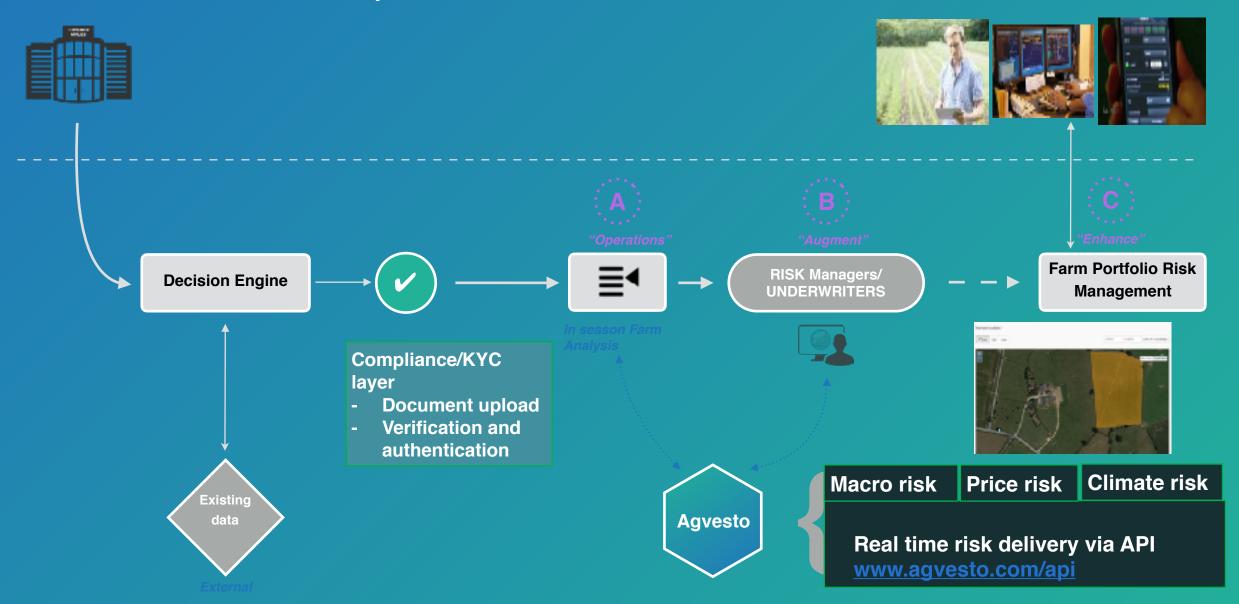
Our platform is secure and complaint with the latest infrastructure by Amazon with Security against DDoS.



#### Cost efficient. Real-time.

Our partners are shaving off time spent by their underwriters for manually-analysed farms. And we can provide instantly.

### **Proposed Process Flow**



### Team



**Dr Srini Sundaram** Founder & CEO

Tech Entrepreneur in Financial Technology, Risk & Credit PhD in Electrical Engineering. Co-Founder of Aire, a Techstars company.









**Lorenzo Savi** 

### **Partnerships**

Ex:Head of OTC Soft & Agricultural Commodities Risk Management at JPMorgan

Ex -Group Chief Risk Manager at Sodrugestvo







Jefferies



### **Martin Massey**

### **Partnerships**

23 years in Insurance industry Expert in ERM, risk modelling and risk financing. Ex-AIG, Marsh.

MBA Cass business school with weather derivatives specialisation



# Agvesto Regional/National level analysis using SMAP and GPM

# Agvesto Regional/National level Analysis using NASA's SMAP and GPM

SMAP Countries Integrated and Available:

North America - US, Canada

Europe - UK, IE, Ukraine, Germany

APAC: Australia, Philipines

Asia - India

Africa - Kenya, Rwanda, Tanzania

### Argentina/Uruguay Case Study

### South America

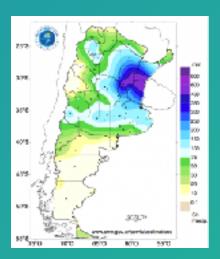
Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
04/10-04/14	Flooding	Argentina, Uruguay	0	7,500+	1.3+ billion
04/15-04/18	Flooding	Chile	12	5,000+	100+ million
04/15-04/25	Severe Weather	Uruguay	10	5,000+	25+ million
04/16	Earthquake	Ecuador	660	10,000+	3.0+ billion

- April 2016 Rainfall More Than 300mm Above Monthly Average
- Excessive rains led to flooding in areas such as Rios Santa Fe, Chaco.
- Parana and Salado rivers overflow.
- 4% of Soybean Crop got damaged.
- Insurance Claims: > 12500

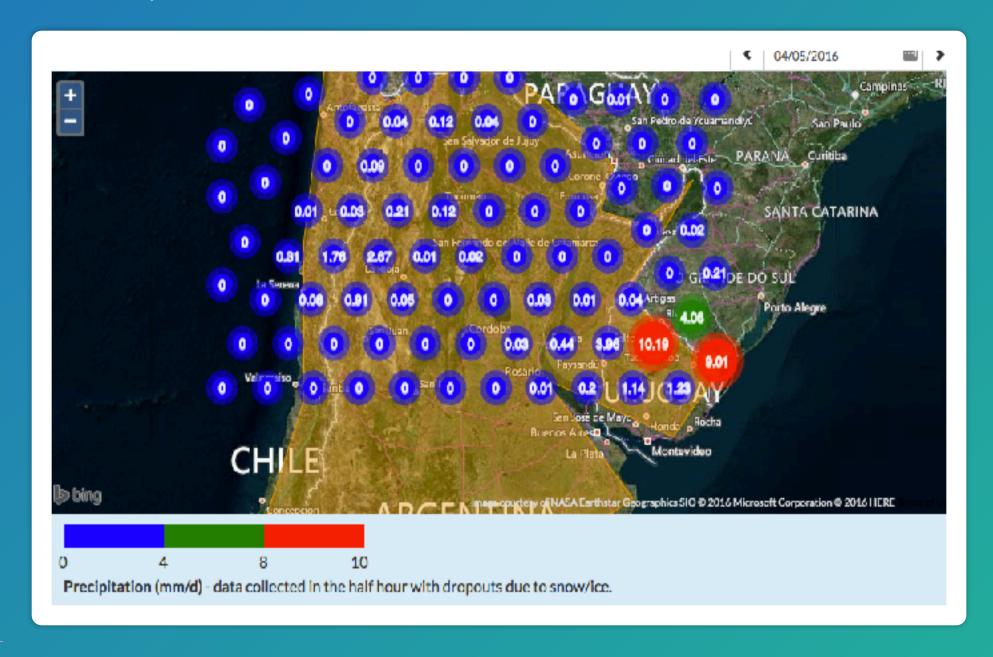


Buenos Aires Grains Exchange projects Argentina's 2016/17 soybean crop at 53.5 million tonnes down from 56 million tonnes in the previous crop year.

**Argentina Ag Ministry** says 1.27 million hectares have been affected by flooding, however, they believe the good yields on higher ground will offset some of the flooding losses.



### Agvesto - GPM Event Capture

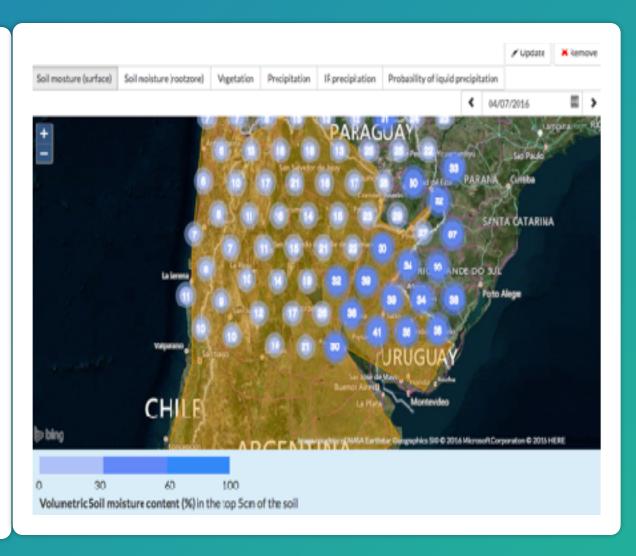


### Agvesto - SMAP Index Capture

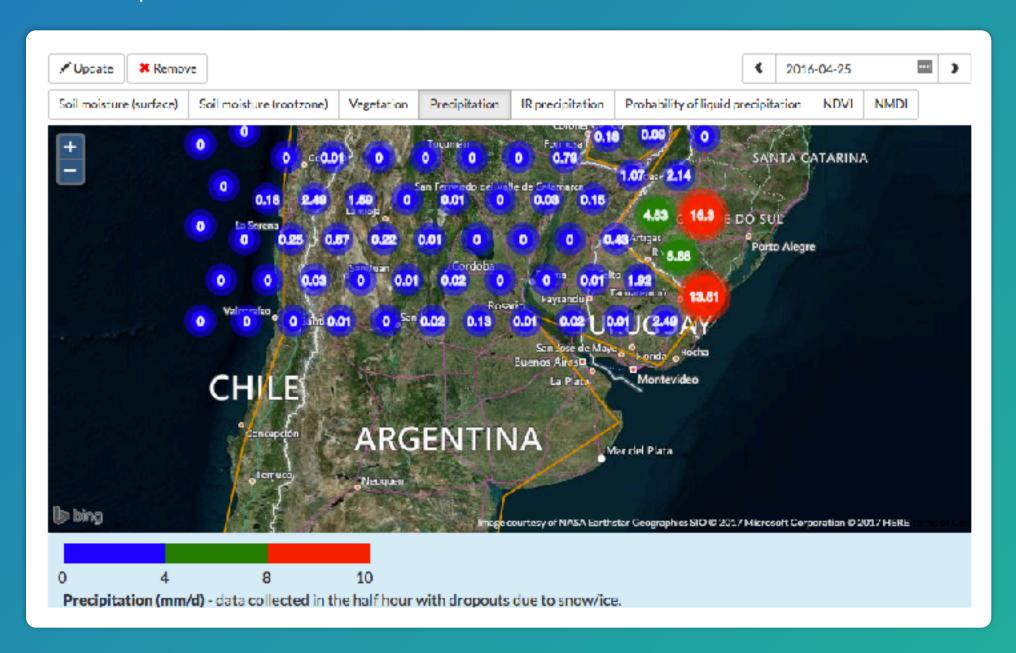
### Pre Event SMAP Profiling

# SANTA CATARINA A DC ENTERPRISE NAME Earthstar Geographics 910 € 201s Microsoft Corporation € 201s HIRE Volumetric Soil moisture content (%) in the top 5cm of the soil

### Post Event SMAP Soil Moisture Profiling

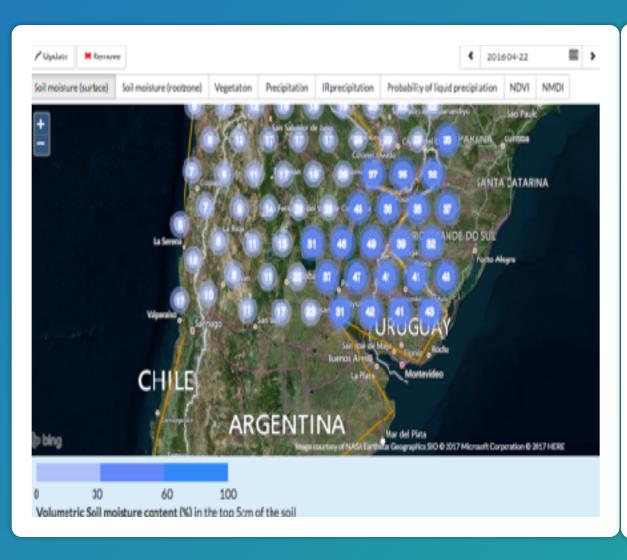


### Agvesto - GPM Index Capture



### Agvest- SMAP Index Capture

### Pre Event Crop condition



### Post Event Crop condition



# Agvesto Farm level analysis using Sentinel 2

### Agvesto Index Capture

**Location**: UK farms (Eastern England) **Period**: June to August 2016 We have used Optical satellites and extracted NDVI and NMDI Indices using Image processing algorithms.

Crop initial condition (June)

Crop growth phase (July-Aug)

