# ENSURING SUSTAINABLE MARKET-DRIVEN FOOD PRODUCTION WITH NEW TECHNOLOGIES

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Presented by Christophe Pelletier @foodfuturist

# THE FUTURE IS ABOUT A NERVOUS SYSTEM

Ability to sense: extra eyes, ears, noses, hands & feet

- Sensors
- Drones
- Satellites

Add a super brain to process all the information

- Data software
- Artificial intelligence

Remove the operator

- Unmanned vehicles
- Robots

### THE FUTURE IS ABOUT A NERVOUS SYSTEM

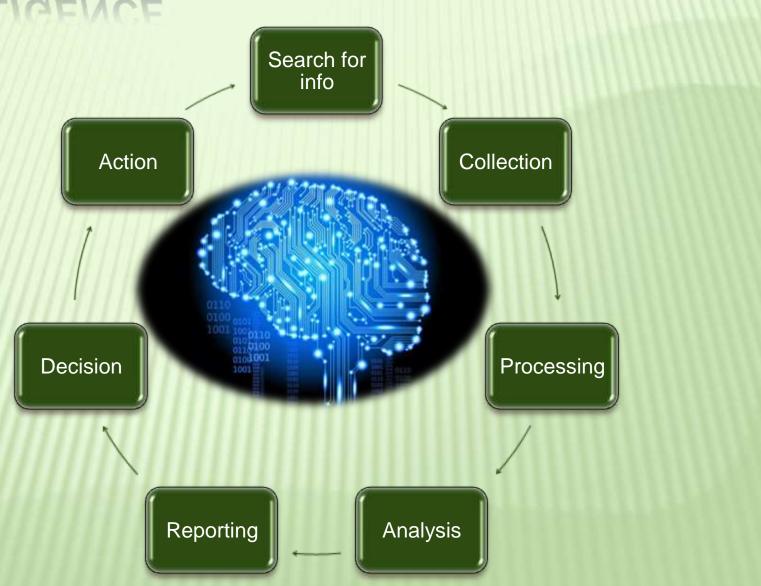
"A nervous system is not made to think but to act"

Henri Laborit

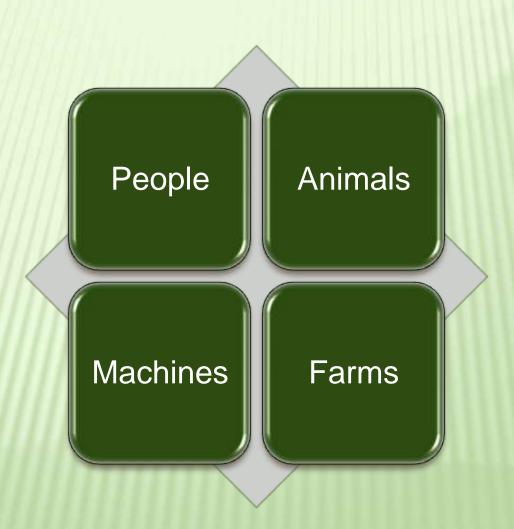
Synapses: interface + speed

Must reach all organs: beyond the nerves, the organism

### INTELLIGENCE

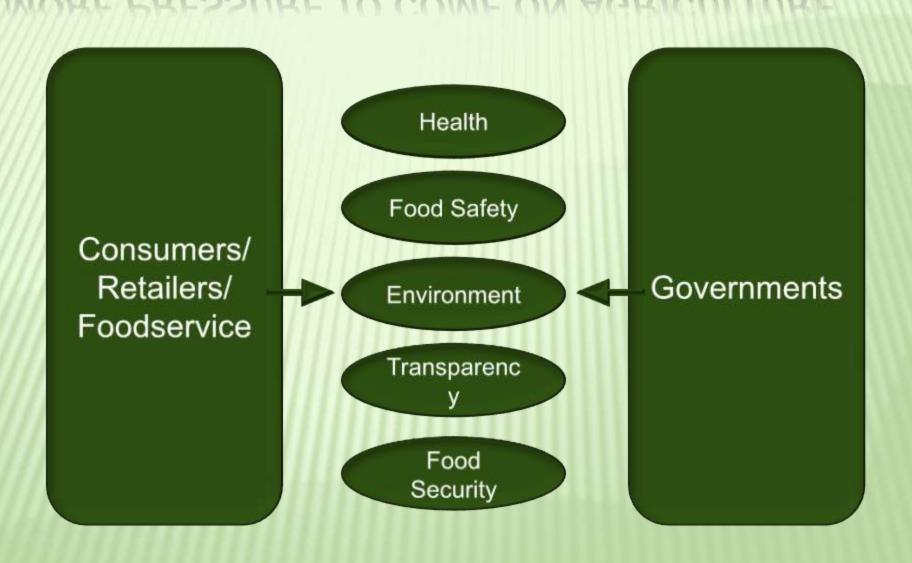


# INTERACTION

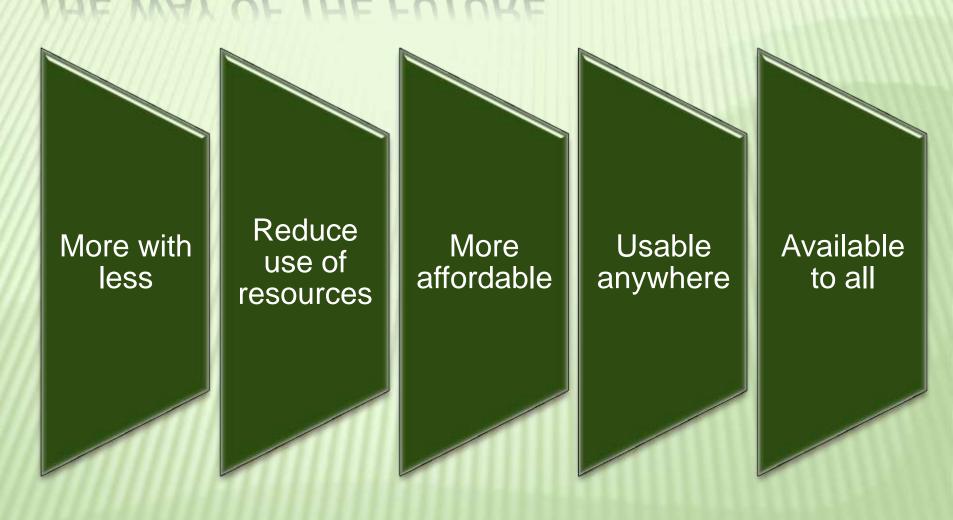




#### MORE PRESSURE TO COME ON AGRICULTURE



### THE WAY OF THE FUTURE



### PRECISION TECHNOLOGIES = SUSTAINABILITY

#### Resources

- Energy
- Water
- Soil
- Fertilizer
- Crop protection



All inputs transformed into food



Waste prevention & reduction

Efficiency= output/input



Different business models through value chains

### PRECISION IS A GAME CHANGER

From quantitative to qualitative growth

From product to service

From price to value

From B2B to comprehensive value chain

# RECONCILING FOOD PRODUCTION WITH ENVIRONMENT AND CONSUMER DEMANDS

### PRODUCTION & ENVIRONMENT

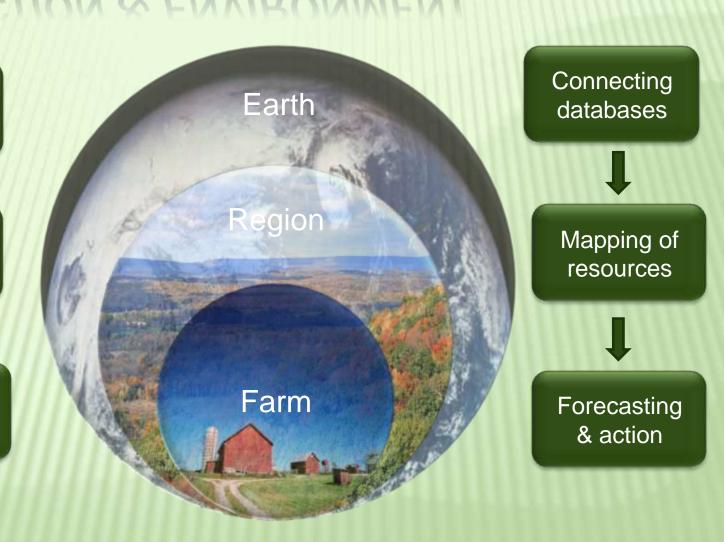
Production data



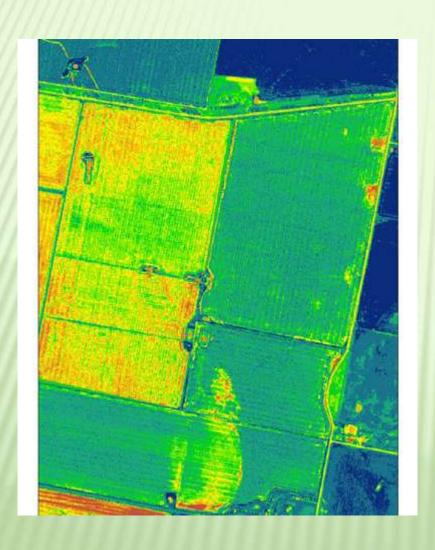
Environment data



Monitoring interaction



### **MAPPING AND MONITORING**



Aquifers

Crops & Yields

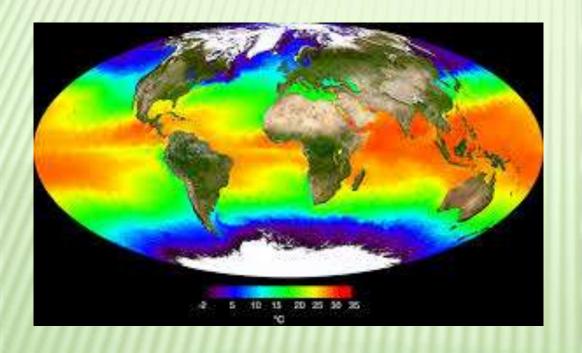
Diseases

**Nutrients** 

Salinity

Soil erosion

# MAPPING AND MONITORING



Currents **Temperatures** Water quality Plankton Contaminants Diseases Fish populations

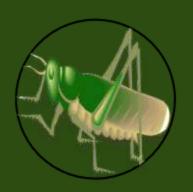
### **FORECASTING & ACTION**



Resources monitoring



Market forecasting

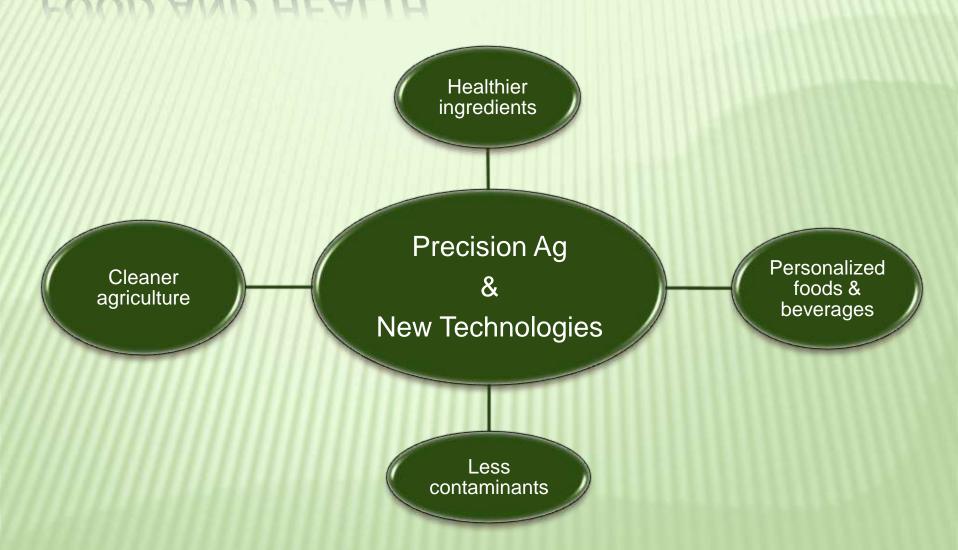


Pest & disaster prevention



Long-term strategies

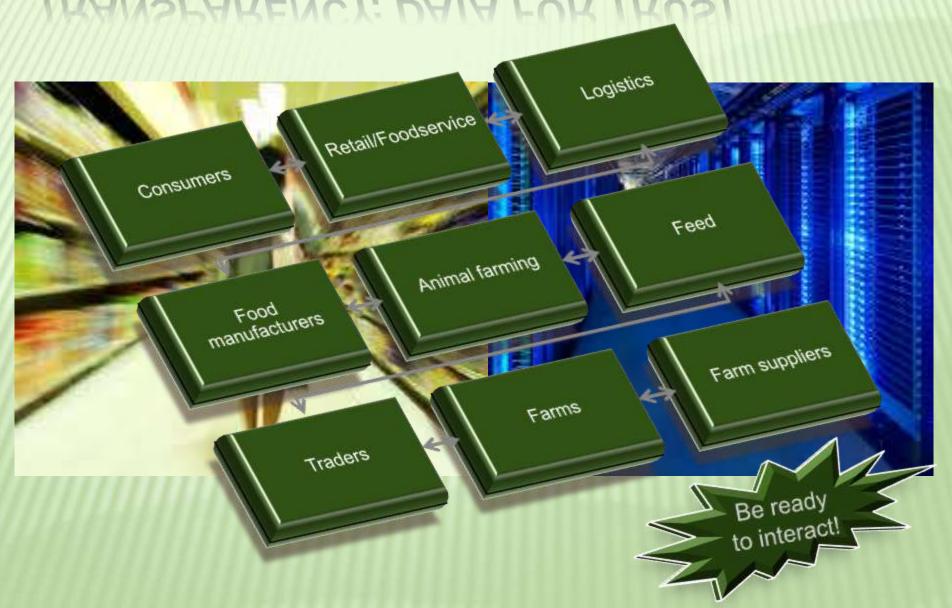
### FOOD AND HEALTH



# FOOD SAFETY/QA/WASTE PREVENTION

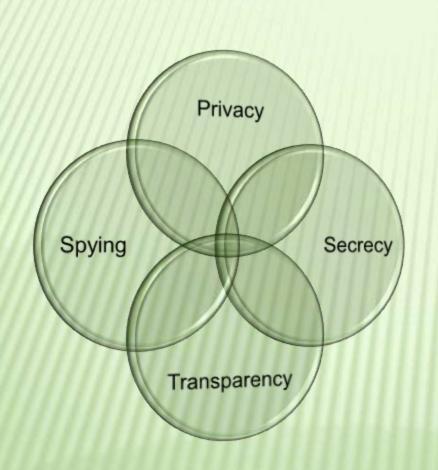


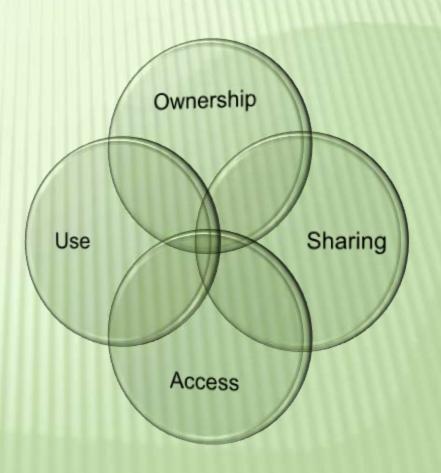
# TRANSPARENCY: DATA FOR TRUST





### THE BIG DATA CHALLENGE





# THE MINDSET OF THE FUTURE

