





Giuseppe Natale CEO, Valagro



## change. challenge. opportunity.

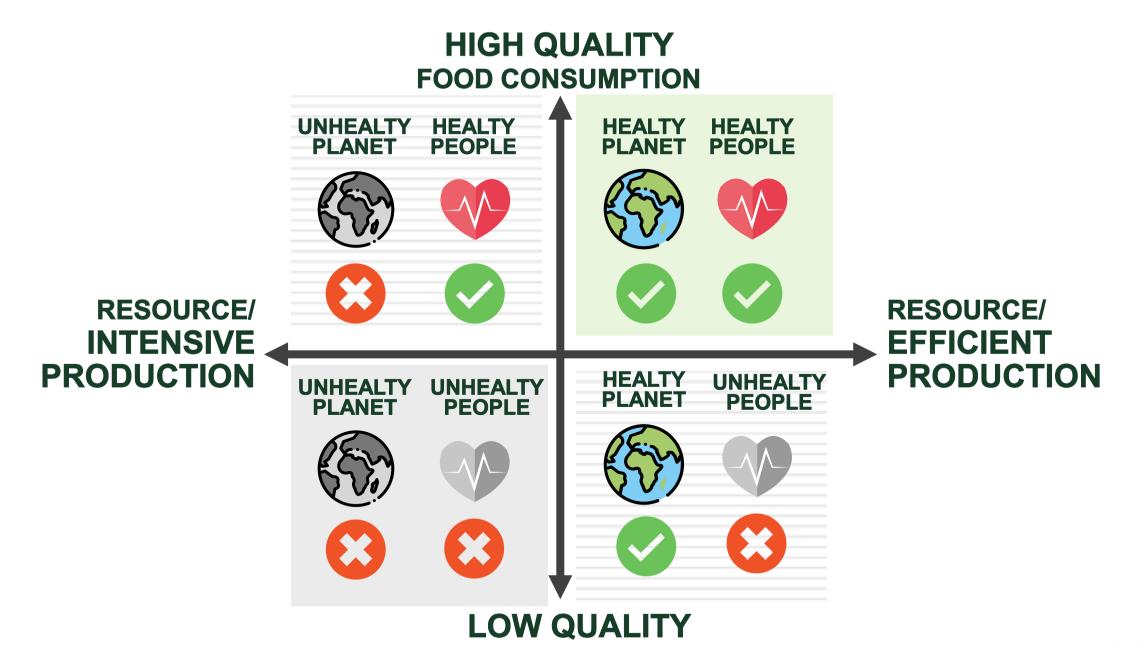


#### FOOD: THE BIG ISSUE





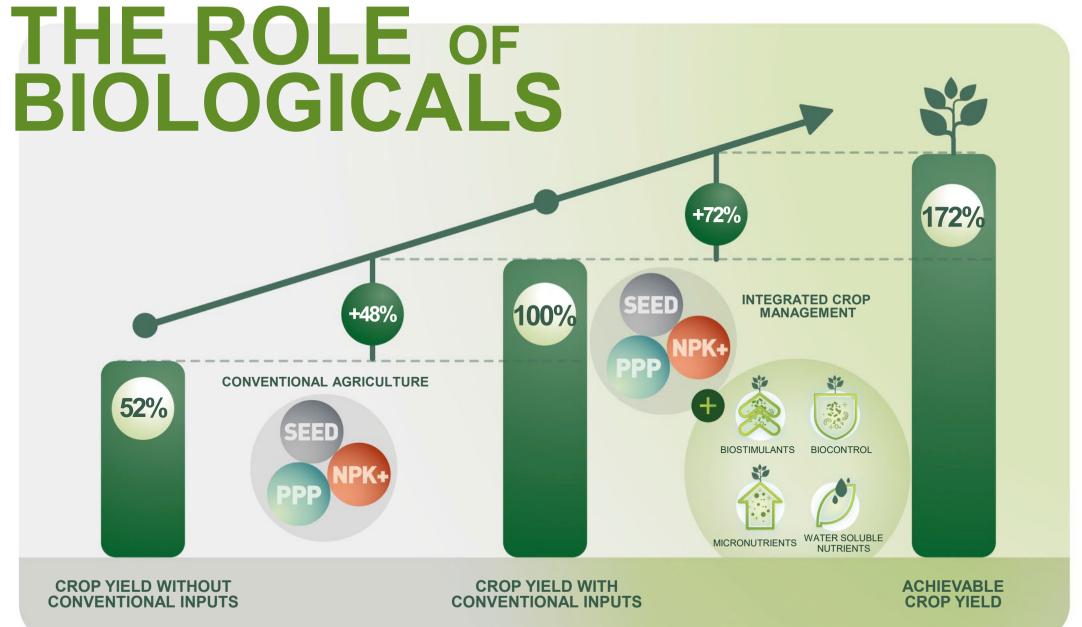
#### FOOD: THE BIG ISSUE



**FOOD CONSUMPTION** 

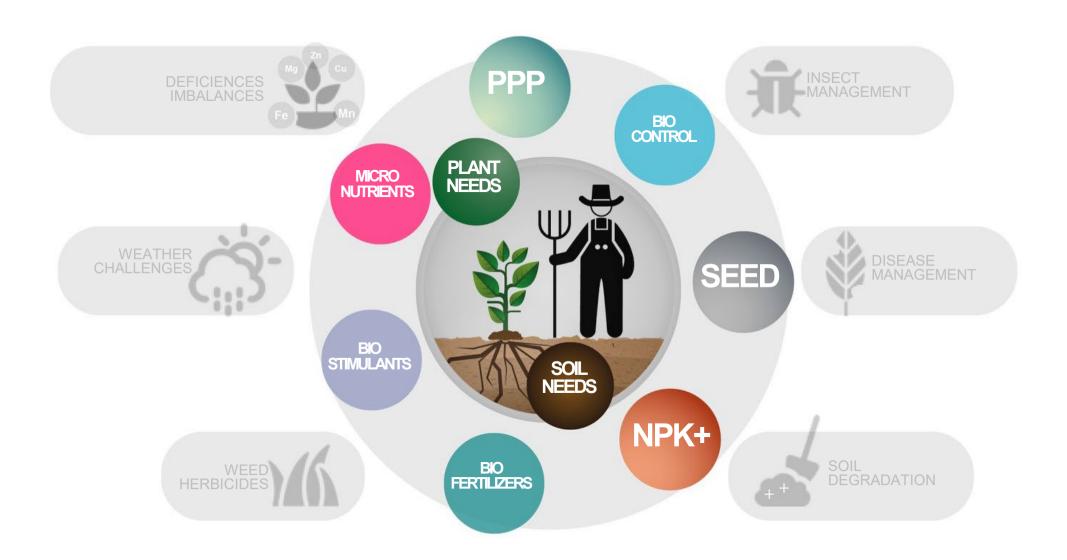


#### **CLEAR LIMITATIONS**

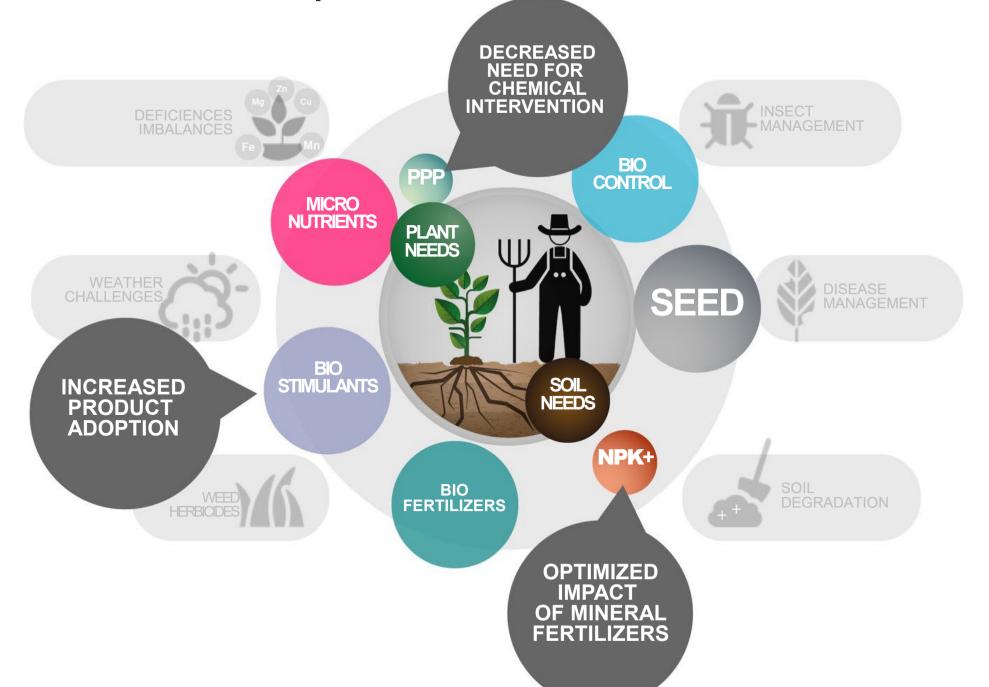




#### **TODAY SHIFT**



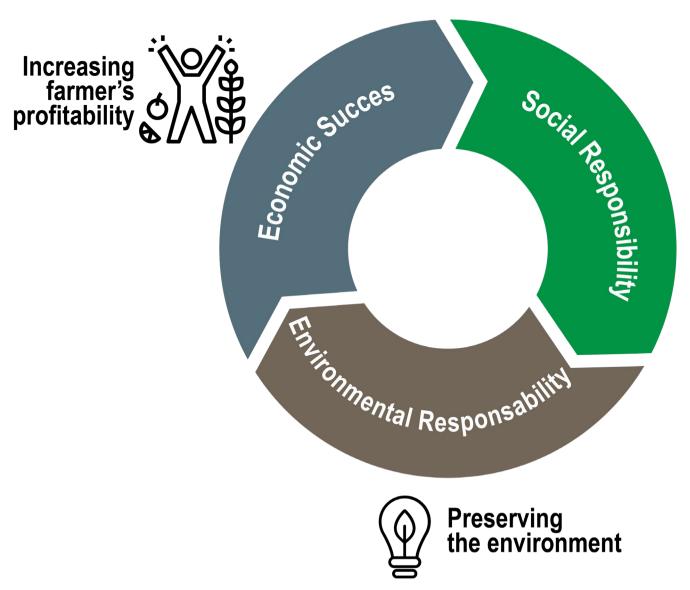
#### TODAY SHIFT | VALUE CHAIN IMPACT





#### **NEED FOR A HOLISTIC VIEW ON SUSTAINABILITY**

DIGITALIZATION WILL DRIVE SUSTAINABLE AGRICULTURE.







## TO THINK DIFFERENTLY and move quickly



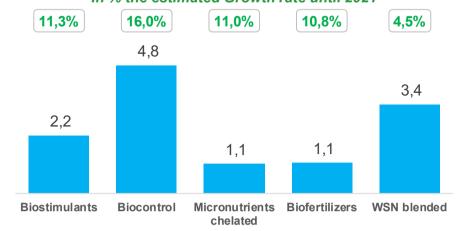
#### TARGET MARKET | INDUSTRY DESCRIPTION AND OUTLOOK

#### **Industry and Outlook**

**Biostimulants market includes** humic and fulvic acids, seaweed extracts, Proteins, amino-acids and microbials. **Biocontrol market** includes biochemicals, Microbials, Macro-organisms, Plant derived pesticides. **Micronutrients chelated** market estimation includes EDTA, DTPA, EDDHA, etc., and accounts about 20% of total micronutrients used in agriculture. **Biofertilizers** includes Nitrogen-fixing, Phosphate-solubilizing Potash mobilizing. **WSN blended market** includes the Water Soluble Fertilizers blended to provide Nitrogen, Phosphorous and Potash (NOT included straight fertilizers).

Source: Plant Biostimulants market size and trend from Global Biostimulants Market (2016-2021) by Market Data Forecast 2017. Biocontrol market size and trend from Global Biopesticides Market (2016-2021) by Market Data Forecast 2017. Chelated micronutrients market size and trend from Global Micronutrient Fertilizers Market (2017-2022) by Mordor intelligence 2017. Biofertilizers market trend and size by internal elaboration from Global Biofertilizers Market Report, 2021 by Global Market Insights 2018. WSN blended market size and trend by Global Water Soluble Fertilizers Market Industry(2016-2022) by Market Litmus 2018.

#### 2019 Forecast value in Billions USD @ Manufacturer level In % the estimated Growth rate until 2021



#### **Focus on Plant Biostimulants**

Biostimulants 2019 market split % by Crop

**57% of total PBS market value** are generated on Row Crops.

**68% of WW Harvested Area** are dedicated to Row Crops (FAO data 2016).



**USA** contributes for **15**% of total PBS market value

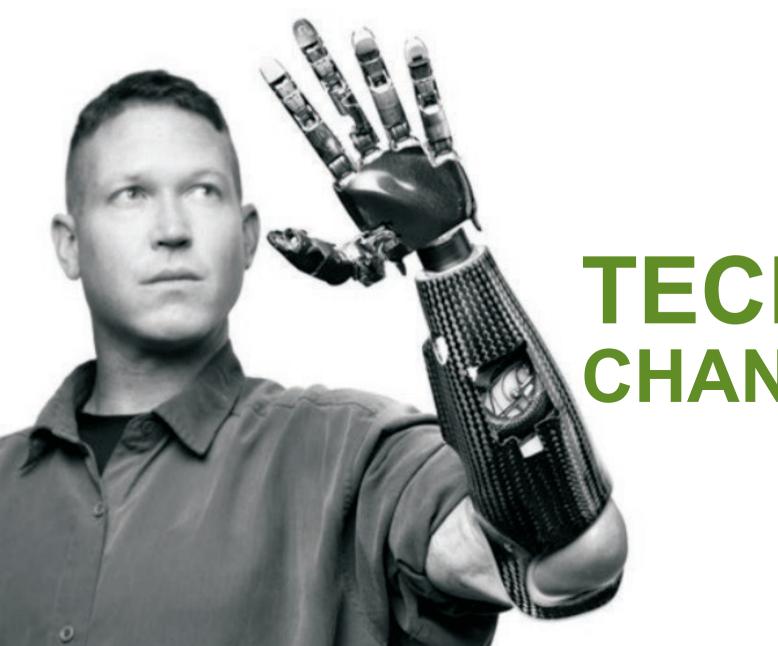
**Brazil, India** and **China** are growing at the fastest growth rate: 14%-16% YoY)

**Source:** Plant Biostimulants market split % by Crop and Country by internal elaboration from Global Biostimulants Market (2016-2021) by Market Data Forecast 2017. Internal elaboration of FAO data 2016.





#### **FUTURE WORLD AGRICULTURE**



TECHNOLOGY CHANGES LIVES



#### **TECHNOLOGY-DRIVEN PLATFORMS**

#### DRIVING MARKET DISRUPTION

| World's largest taxi company owns no taxis



Largest accommodation provider owns no real estate



| Largest phone companies own no telco infra



| World's most valuable retailer has no inventory



facebook | Most popular media owner creates no content



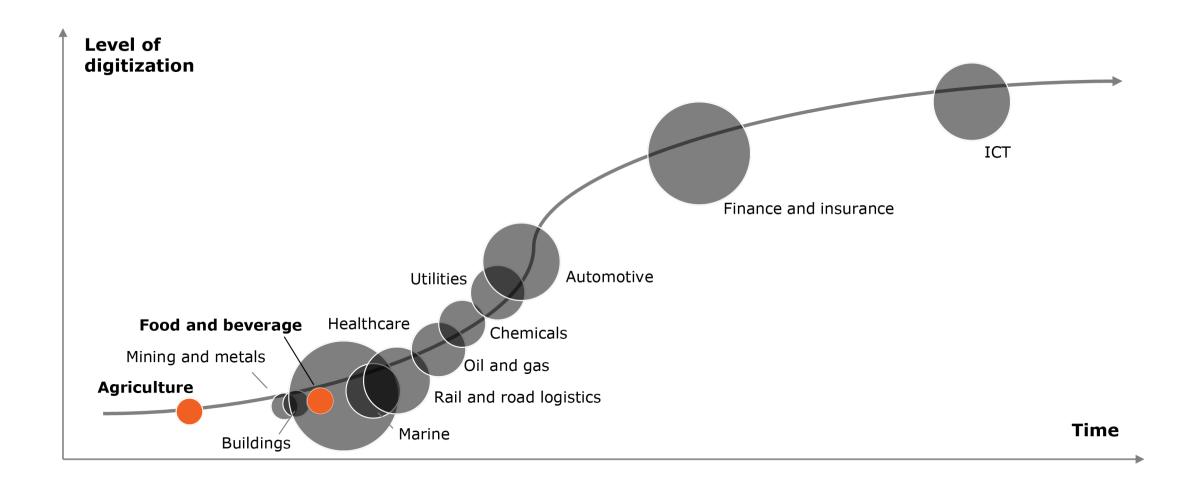
**SocietyOne** | Fastest growing banks have no actual money

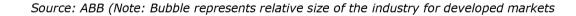


NETFLIX | World's largest movie house owns no cinemas



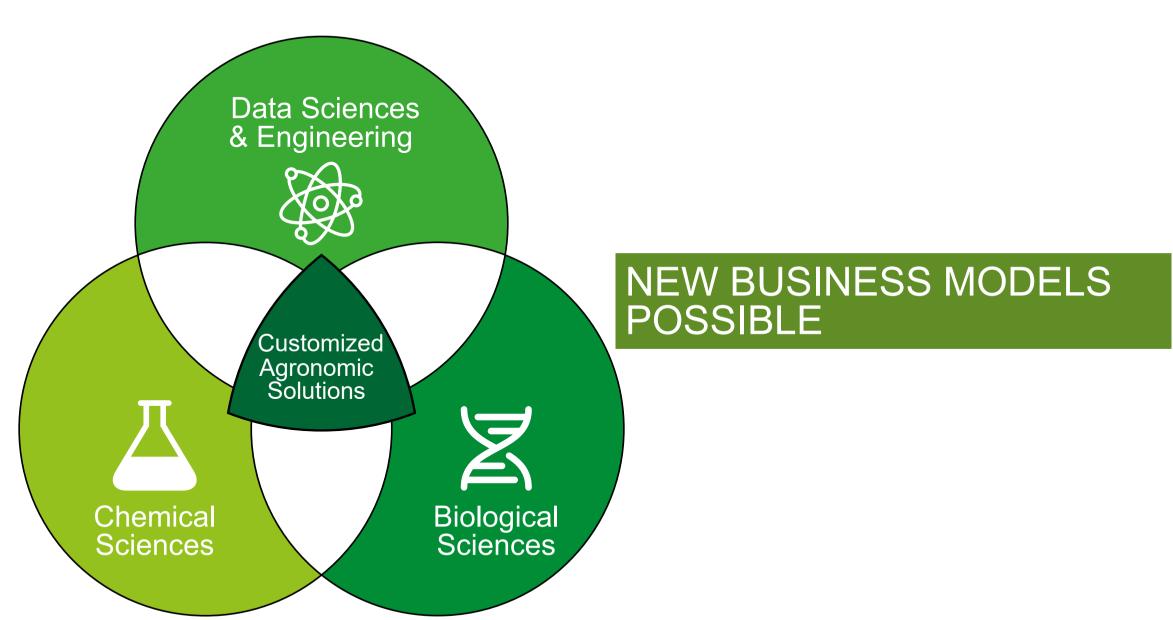
#### **OUR SECTOR IS A LATE MOVER**





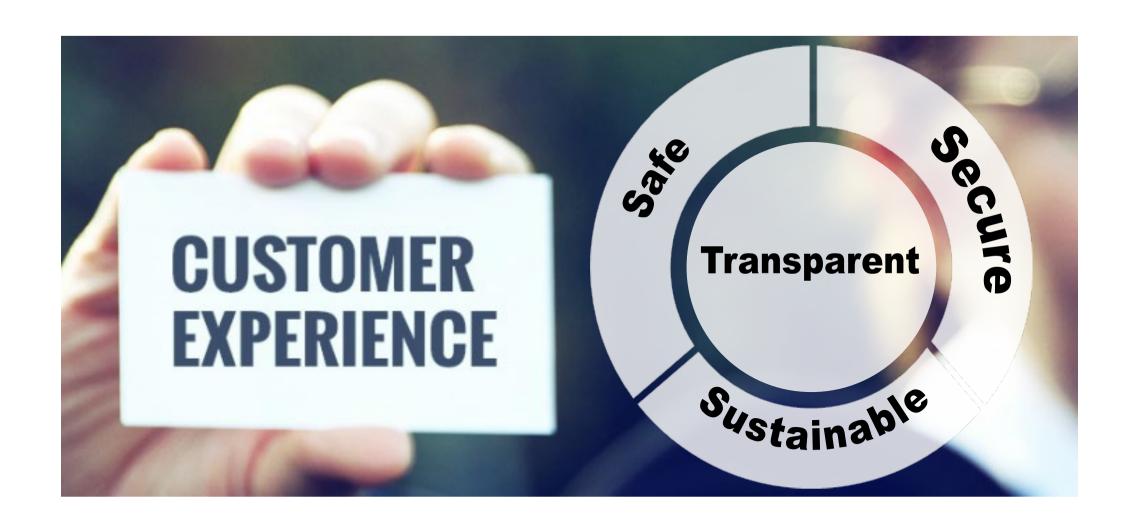


### **INNOVATION** IS KEY TO SOLVING BIG CHALLENGES





#### **NEXT GENERATION OF CUSTOMERS**



### FOCUS CHINA | WHAT'S NEXT?

## SUSTAINABILITY











### FOCUS CHINA | WHAT'S NEXT?

## CREDIBILITY







#### **YESTERDAY**

IN THE PAST, PUBLIC AND PRIVATE RESEARCHERS OFTEN FAILED TO SUBSTANTIATE THE CLAIMS. RESULTING IN SUGGESTIONS THAT SUCH PRODUCTS WERE "SNAKE OIL" **TODAY** 

IN RECENT YEARS, NEW-**GENERATION OF BIOSTIMULANTS HAVE** PROVEN THEMSELVES AS YIELD ENHANCERS

#### **TOMORROW**

**CREDIBILITY REQUIRES A** THROUGH AND FAIR **REGULATION** MAINLY FOR BIOSTIMULANTS WHERE WW THERE AREN'T ANY **REGULATION** 



#### FOCUS CHINA | WHAT'S NEXT?

## INNOVATION



**GEAPOWER** 

GEAPOWER REDUCES THE COST
OF TAKING A SOLUTION TO
MARKET WHILE ENSURING
CONSISTENT EFFICACY



## DEEP KNOWLEDGE OF ACTIVE INGREDIENTS AND RAW MATERIALS

 This enables Valagro to identify, characterize and preserve specific active ingredients that can achieve targeted physiological responses in plants



- Genomics, phenomics and other "omic" sciences allow Valagro to decipher the genetic and molecular triggers for specific physiological responses in plant systems.
- Screening of hundreds of samples per experiment.



#### PROPRIETARY EXTRACTION PROCESSES

 Customized extraction processes help maintain the correct ratio of each ingredient in complex natural mixtures





## PROVEN ABILITY TO PROVIDE COMMERCIALLY VIABLE SOLUTIONS



- Extensive experience with field experiments
- Commercial function and research function are closely integrated
- Allows Valagro to fast-track product candidates with the best chance of attaining commercial viability

# WINTHE CHALLENGE TOGETHER

