

# Sustainability & Nutrition

World Forum for a Responsible Economy
Amiens, 21st of June, 2017
Christophe Rupp-Dahlem



### **WE ARE A GLOBAL PLAYER**







# Our Sustainable Development approach



#### **OUR SUSTAINABLE DEVELOPMENT APPROACH**

A Sustainable Development approach based on 4 pillars:

Sourcing

Innovating

Biorefining

Acting



Member of the Global Compact

Code of conduct

Ethic charter

. . .





#### **OUR SOURCING**



Sustainably

## Our commitments

1 SOURCE SUSTAINABLY

IMPROVE CONTINUOUSLY OUR RAW MATERIAL **QUALITY** 

STRENGTHEN RELATIONSHIP WITH OUR RAW MATERIALS **SUPPLIERS** 

#### Performance



# indicators •

We fully optimize all of our raw materials. They are derived from agriculture and as such annually renewable.

In 2025

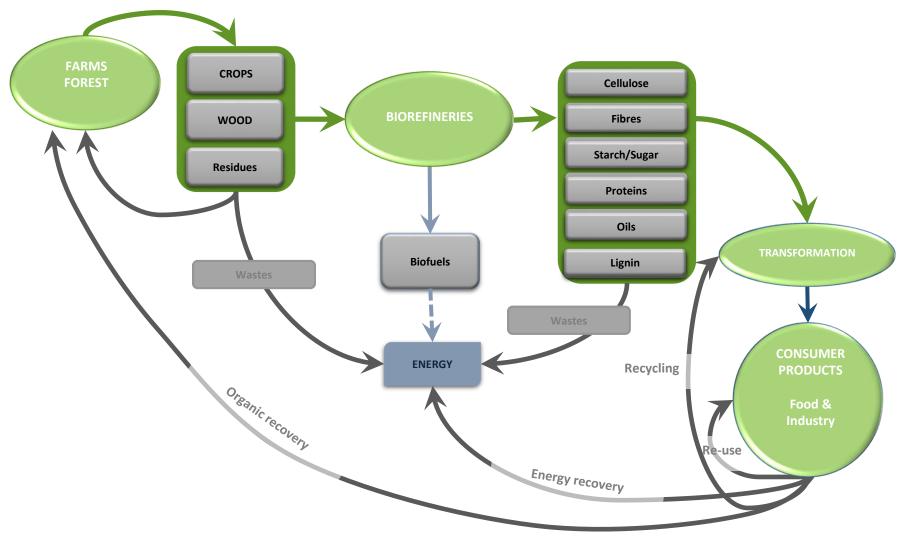
we are committed to ensuring that

20%

of our supplies be certified or rated as "sustainable and responsible."



# EFFICIENT BIOREFINING MODELS: CASCADING & CIRCULAR



Shaximum added-value with bio-based ingredients, excipients and materials Closing the loop and ultimate valorization with bioenergy



#### **OUR BIOREFINING MODEL – COMPLEMENTARITY OF USES**

CEREALS (corn, wheat)



Starch and Derivatives (glucose, polyols)
2/3

Other fractions (proteins, fibers, oil) 1/3

Chemicals & Materials

Food & Health

Food and Animal Feed (displacing cereals and soy uses)

Complementarity of starch uses

Always coproduced, and used In food/feed applications

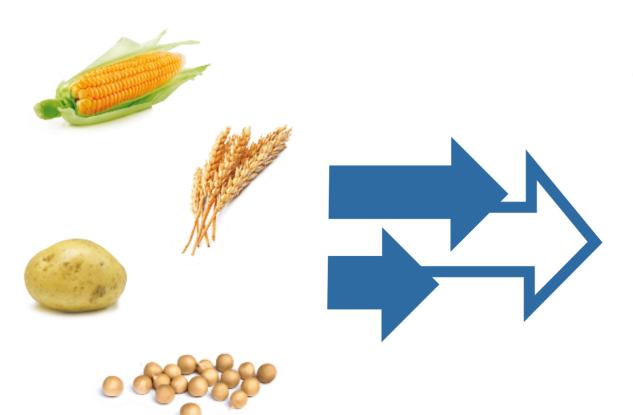




# OUR SOLUTIONS



# DELIVERING OUTSTANDING TECHNOLOGICAL, NUTRITIONAL AND HEALTH BENEFITS SOLUTIONS



### 700+ winning solutions

- Proteins
- Fibres
- Maltodextrins
- Polyols
- Native and modified starches
- Dextrose
- Glucose syrups



### **OUR MARKETS**



**FOOD NUTRITION** 



BAKING SOLUTIONS

















**PHARMA** 



**ORAL DOSAGE** LIQUID AND SOLID **SOLUTIONS** 



**DIALYSIS & INJECTABLES SOLUTIONS** 



**BIOPHARMACEUTICALS VACCINES & THERAPEUTICS SOLUTIONS** 



**INDUSTRIES** 



**BIOINDUSTRY** 



**PERFORMANCE MATERIALS** 



**PAPER** & BOARD



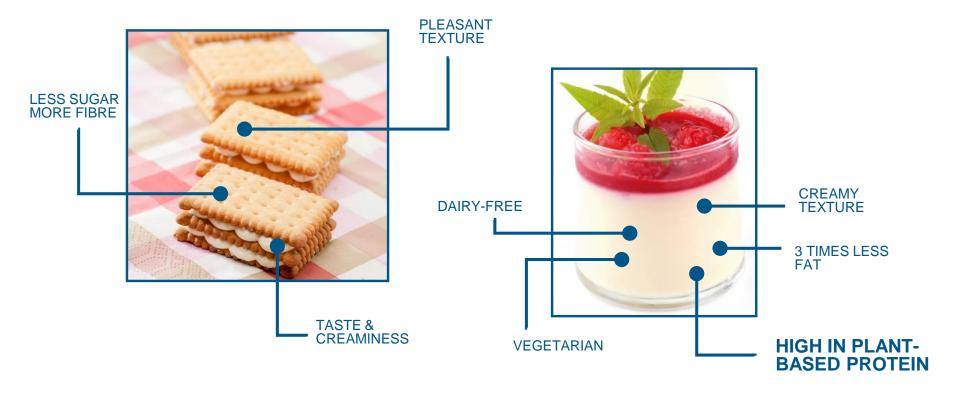
**WATER TREATMENT** 



**CHEMICALS** 



### **EXAMPLES OF OUR SOLUTIONS IN NUTRITION AND FOOD**



We bring high-value nutritional and functional ingredients to our markets, backed by the co-creation services our customers require.



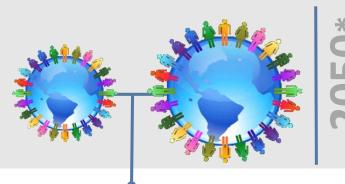


# PLANT BASED PROTEINS



### The indispensable Food revolution

The World is facing a
CHANGING &
GROWING PROTEIN
global demand



9 to 10 billion people to feed

+80 % demand for food

**Different** Food consumption

habits

# ē

# with Multiple sustainability challenges...



**Over 1,6 billion** people are facing water shortage



By 2020, global emissions will increase by 33% from 2002 levels



+82% +102%

between 2000 and 2050



Consumption of meat and dairy products should increase

< by

We need between 10 and 15 kg of plant proteins...



**—** 

... to produce 1kg of animal protein



**-**

Animal feed requires 40 to 120 L of water to produce 1 kg of protein!

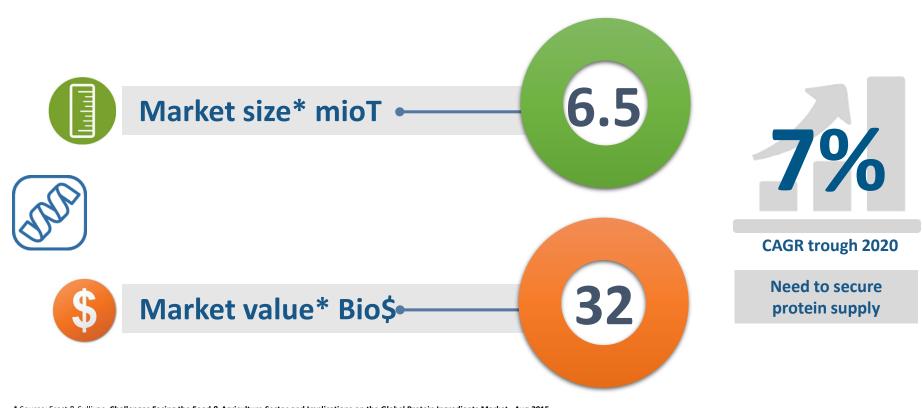


<sup>\*:</sup> ww.fao.org - FAO, 2009, How to feed the world in 2050

<sup>\*\*:</sup> McKinsey Global Institute: World Economic Forum: The Guardian: The Climate Group, SMART 2020; IFAD Rural Poverty Report 2011

#### **GLOBAL PROTEIN INGREDIENTS FOR HUMAN NUTRITION**





<sup>\*</sup> Source: Frost & Sullivan, Challenges Facing the Food & Agriculture Sector and Implications on the Global Protein Ingredients Market, Aug 2015





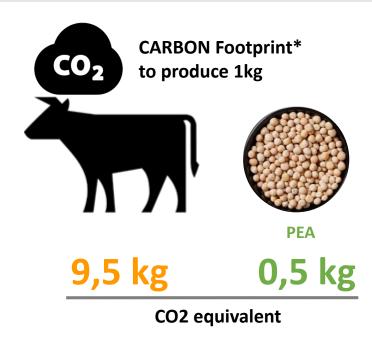
# Yellow PEA: a powerful source of plant protein



#### **YELLOW PEA BENEFITS**



### **YELLOW PEA is GREEN**





WATER Footprint\*
to produce 1 kg
+ TIMES HIGHER than PULSES

43 x

18 x

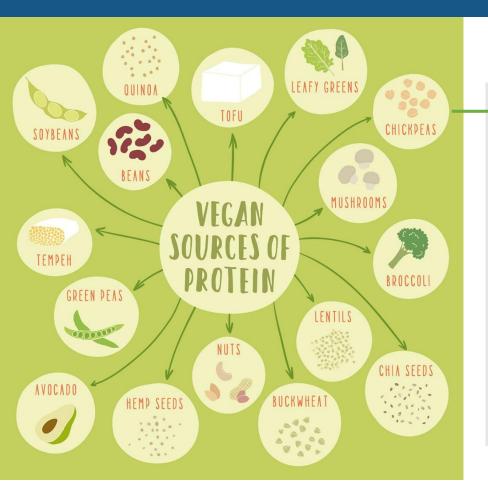
11 x

soybeans

5 X

<sup>\*</sup>Source: Environmental Working Group (2011) Meat Eater's Guide to Climate Change and Health http://www.ewg.org/meateatersguide/

#### **YELLOW PEA BENEFITS**







## YELLOW PEA is GREEN

An amazing and exemplary agricultural resource



# Nitrogen-fixing plant

> Improves soil fertility

Environment impact\* on growing peas in between 2 wheat crops:



- 11% energy consumption



- 14% greenhouse gases



<sup>\*</sup> Source: 2015 INRA study on leguminous plants for sustainable food and farming systems

#### **YELLOW PEA BENEFITS**



# YELLOW PEA, a Powerful source of PLANT PROTEIN



More than **20%** raw **protein** on average



**Allergen Friendly** 



Non Genetically modified



**Gluten-free** 



**Zero Cholesterol** 



Vegan / Vegetarian / Flexitarian friendly



**Sugar free** 



Low Glycaemic index



Source of dietary fibre



Rich in nutrients



High content of **iron and zinc** 



Balanced amino acid profile





### ROQUETTE, PEA PROTEIN WORLD WIDE LEADER



Last investments to contribute to the growth of the company as a global Food, Nutrition and Health leader



Vic-sur-Aisne (France): First investments for pea in 2000s

2015 : 40€ million investment

2017: 40€ million investment



Manitoba (Canada): Greenfield

2017: 300€ million investment

GLOBALLY IN 2019: 250 000 tons/y as PRODUCTION CAPACITY





To be the natural source of innovative plant-based ingredients and formulations for highly demanding industries