

ROQUETTE and its PEA supply chain



For a better nutrition

For a healthier planet

2018 July 12,

Workshop on "Supply Chains in the EU Protein Sector" in Chalon-sur-Saône France

The needs of the industry for value chain building - Bruno Ben Said ROQUETTE

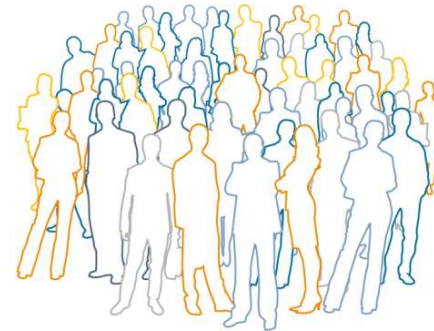
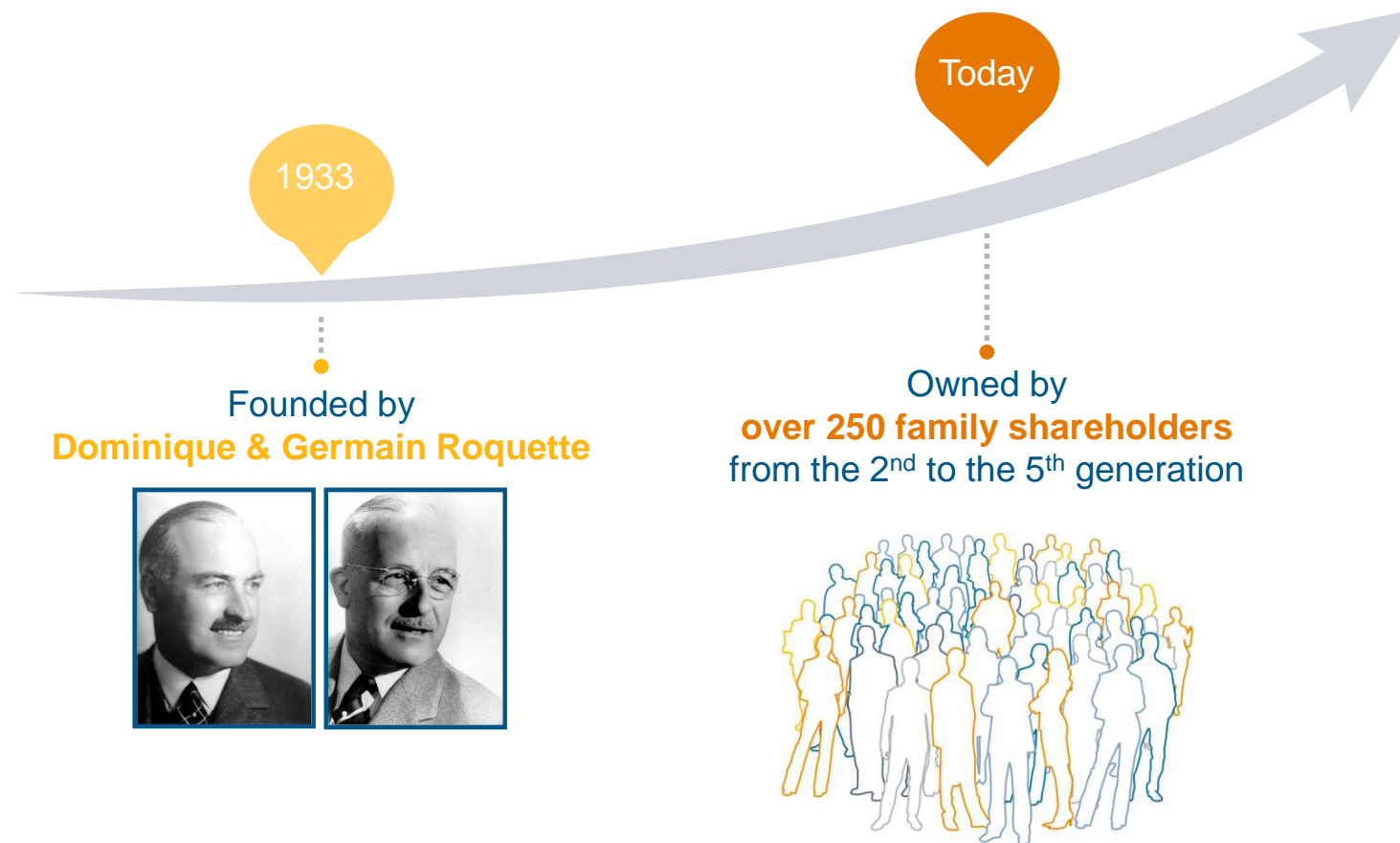


WE ARE A GLOBAL PLAYER

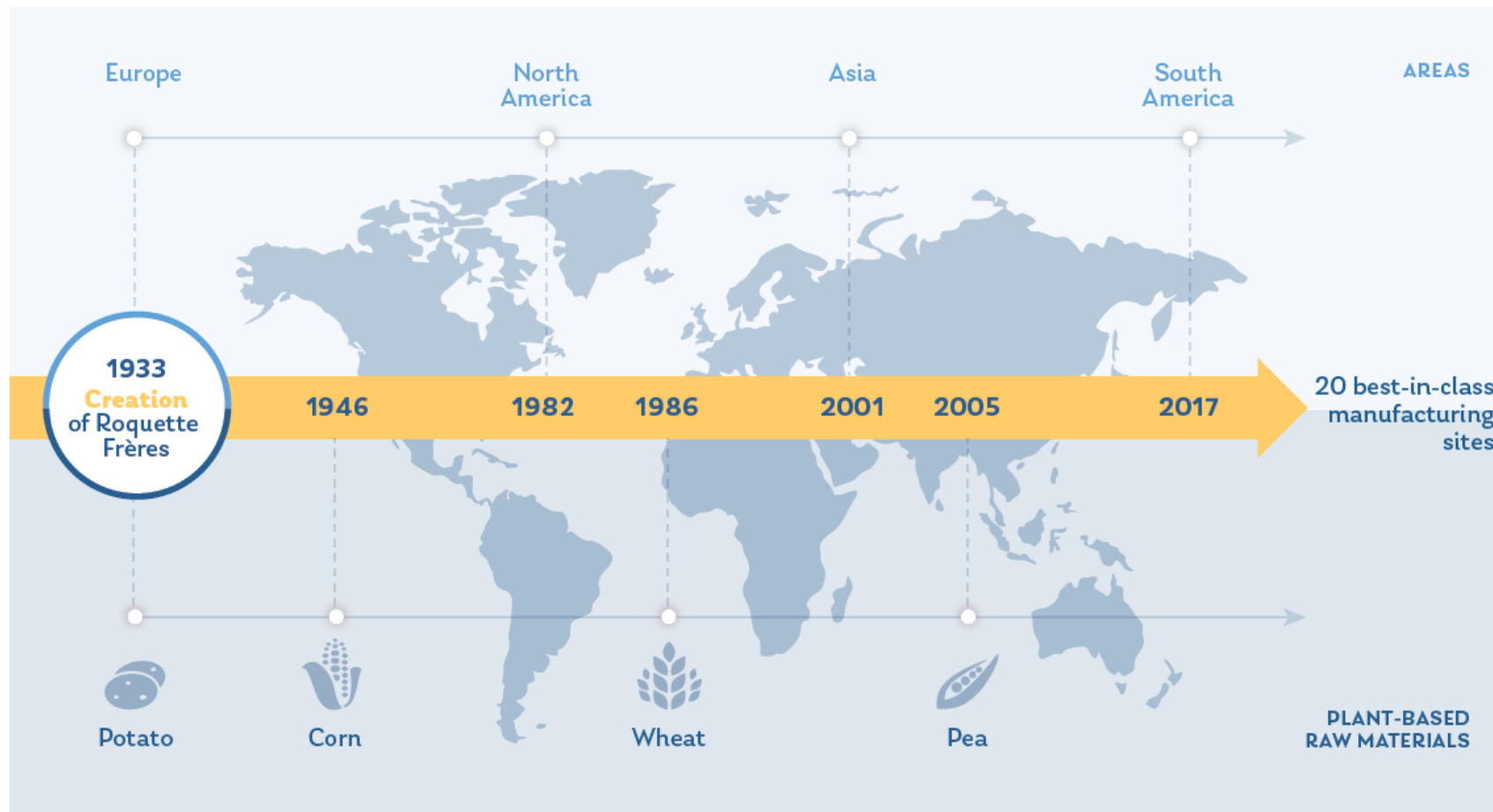


A LONG-TERM ENTREPRENEURIAL SHAREHOLDER COMMITMENT

A FAMILY-OWNED COMPANY SERVING CUSTOMERS GLOBALLY



THE PROXIMITY OF A WORLDWIDE GROUP



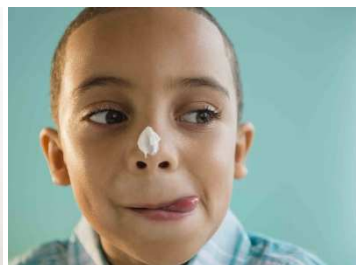
KEY MARKETS



Pharma



Cosmetics



Food & Nutrition



Animal Nutrition



Industries

HIGH QUALITY INGREDIENTS FOR A HEALTHIER LIFESTYLE

Plant-based
proteins for all

Orodispersible
pharma solutions

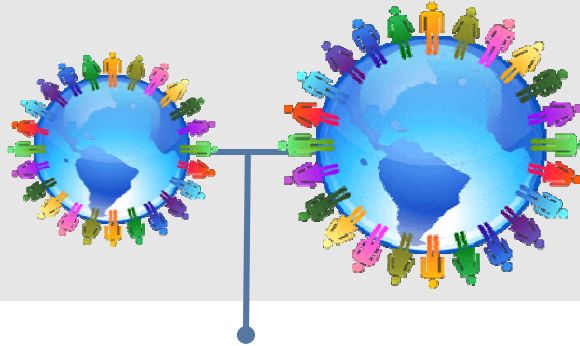
Nutritional
solutions for pets

Roquette Beauté, all about skin
health and nutrition

Ingredients to balance
our nutrition

The indispensable Food revolution

The World is facing a
**CHANGING &
GROWING PROTEIN**
global demand



in 2050*

9 to 10 billion people to feed
+ 80 % demand for food
Different Food consumption
habits



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%
between **2000** and **2050**



+ 102%

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!**



*: www.fao.org – FAO, 2009, How to feed the world in 2050

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

GLOBAL PROTEIN INGREDIENTS FOR HUMAN NUTRITION



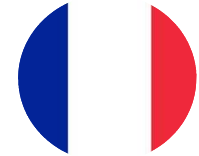
SUSTAINABLE
PLANT PROTEINS



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

A DEDICATED PLANT IN FRANCE: VIC-SUR-AISNE

From fields to Workshop



PEA



Full traceability



Physical process



High quality standards



Vic-sur-Aisne



2015
40 M€

2017
40 M€

- To strengthen the leading position
- To keep it at a state of the art manufacturing standard

- Quality & Food Safety: **ISO9001 / ISO22000**
- Customs-Logistics: **OEA**
- Food Safety: **Halal / Kosher**
- Feed Safety: **EFISC / GMP+Feed**
- Energy: **ISO 50001 (2016)**
- Environment: **ISO 14001 (2018)**

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



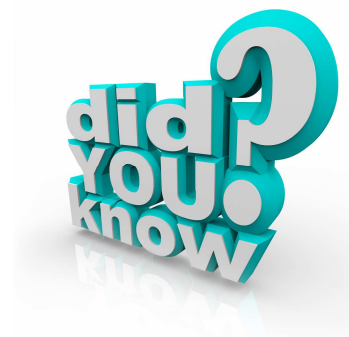
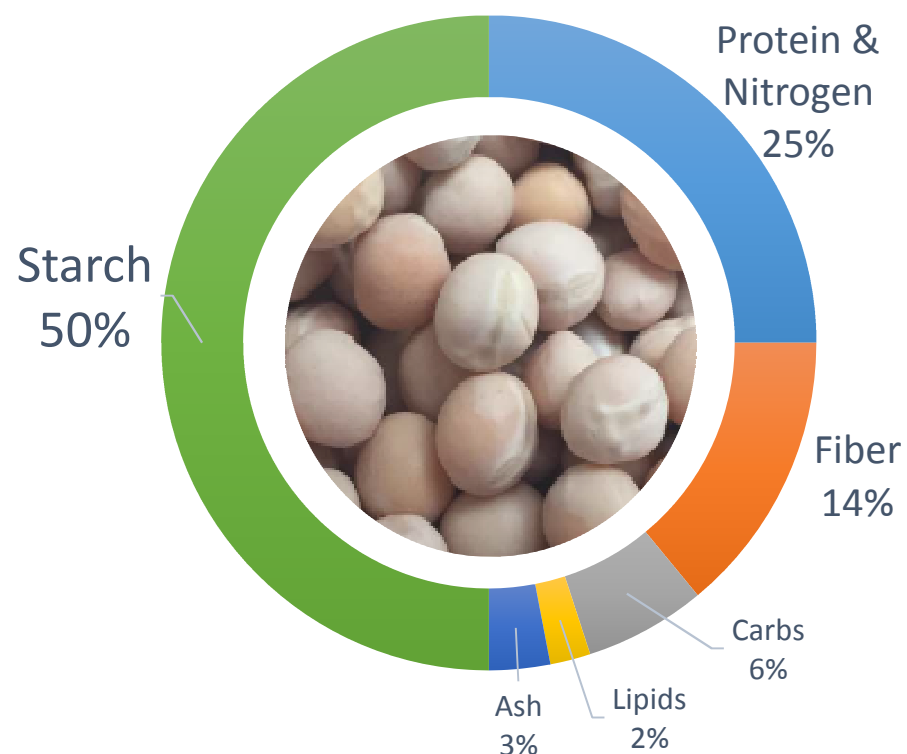
Manitoba (Canada) : Greenfield

2017 : 300€ million investment

Globally in 2019 : 250 000 tons/y as PRODUCTION CAPACITY

ROQUETTE VALORIZES 100 % OF THE PEA GRAIN

Pea nutritional composition



Roquette is **the only pea protein supplier** having access to so different markets to **valorise all the pea fractions**



100 % OF THE PEA GRAIN IS VALORIZED

HULL



PET FOOD
SOLUTIONS



STARCH



SAVOURY
SOLUTIONS



PET FOOD
SOLUTIONS



BAKING
SOLUTIONS



CONFECTIONERY
SOLUTIONS



CARDBOARD
& PAPER
SOLUTIONS

PROTEIN



SPECIALIZED
NUTRITION
SOLUTIONS



BAKING
SOLUTIONS



SAVOURY
SOLUTIONS



DAIRY
SOLUTIONS



PET FOOD
SOLUTIONS

FIBRE



SAVOURY
SOLUTIONS



BAKING
SOLUTION



PET FOOD
SOLUTIONS



SOLUBLES



FEED SPECIALTIES
SOLUTIONS



ROQUETTE
Offering the best of nature™

OUR SOURCING



Sustainably

Our commitments

1 SOURCE SUSTAINABLY

2 IMPROVE CONTINUOUSLY OUR RAW MATERIAL
QUALITY

3 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.”

PEA: A BEST IN CLASS PROTEIN SOURCE!



	SOY	WHEAT	LENTIL	PEA
Sustainability	✗	▲	●	●
Non allergen	✗	✗	●	●
Non GMO	✗	●	●	●
Availability	●	●	▲	●
Affordability	●	●	✗	▲
Functionalities	●	▲	▲	●
Taste	●	▲	●	▲
Nutrition	▲	▲	●	●

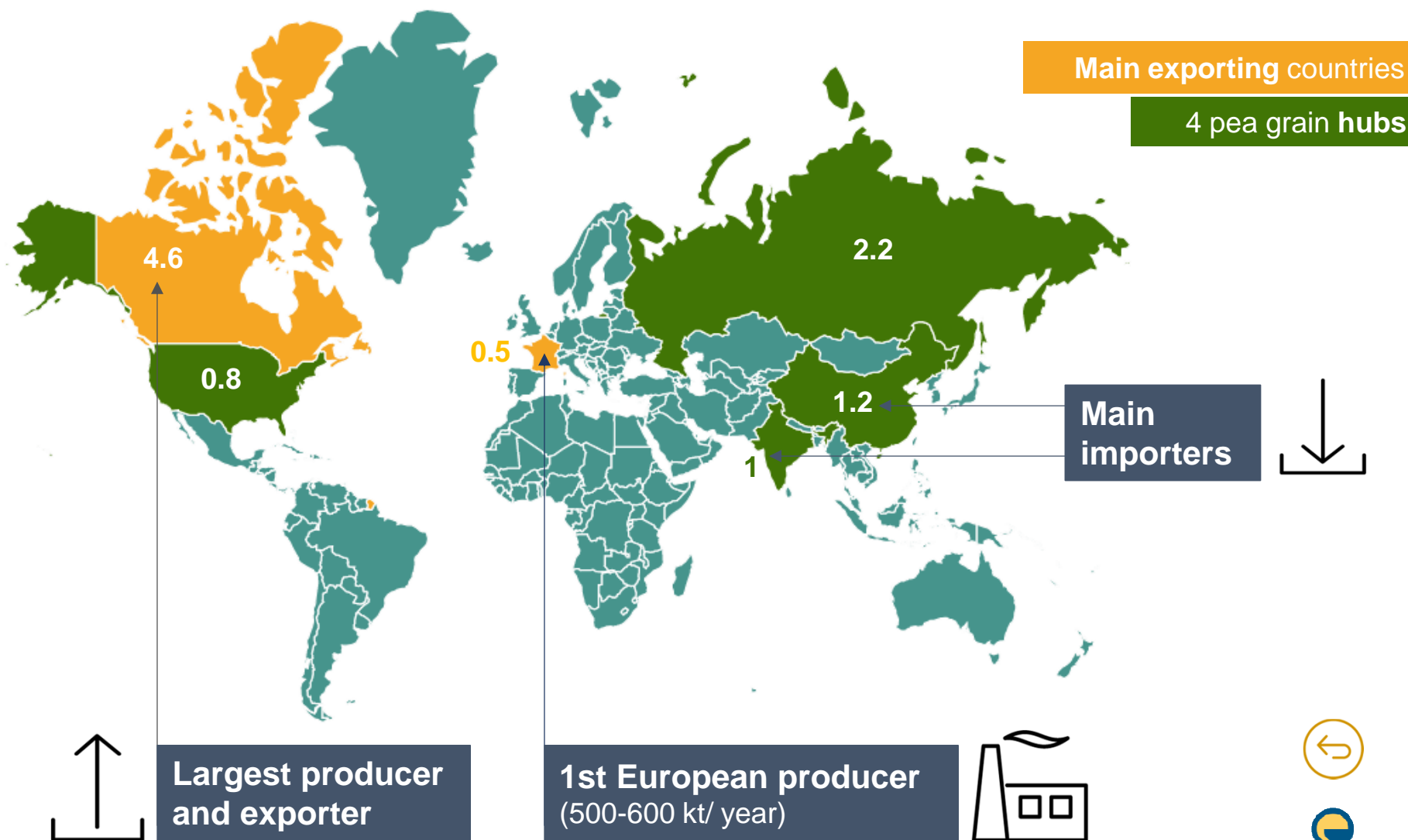


Status:
 ● ▲ ✗
 positive / intermediate / negative

Legumes are one of the best solutions

PEA: A CROP WIDELY PRESENT WORLDWIDE

FAO STAT 2016 IN MILLION TONS

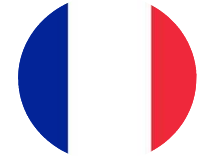


ROQUETTE

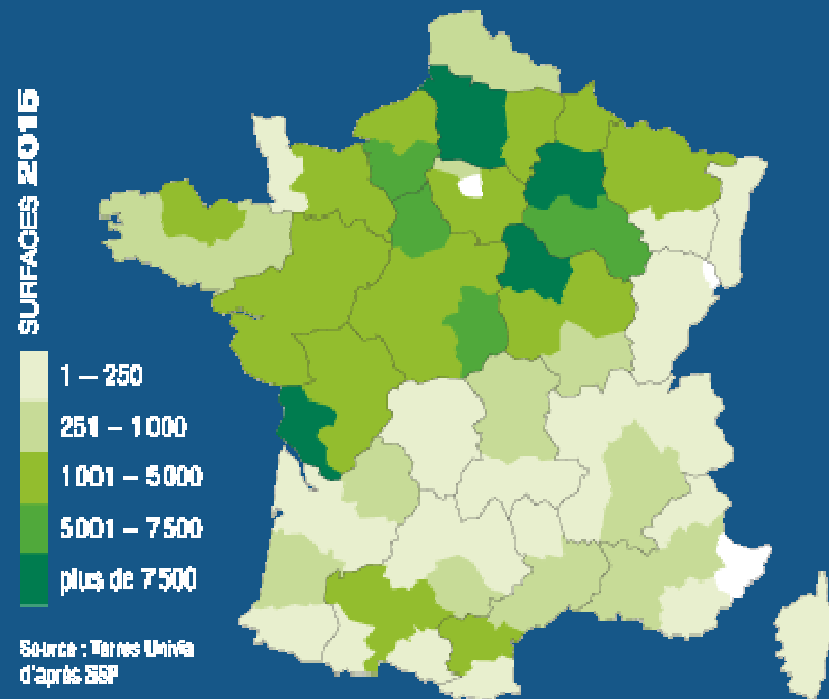
Offering the best of nature™

IN FRENCH FIELDS

An ancient grain and regional ingredient



Main French regions cultivating peas in 2015 (ha)



1st producer of pea in Europe

150 000 ha are cultivated with peas





~10 000 farmers are planting **yellow peas** for Food & Feed markets

2000 farmers located around Vic sur Aisne are supplying our plant

PEA FARMING = A BETTER YIELD ON THE NEXT CROP



Advantages of a crop rotation with peas

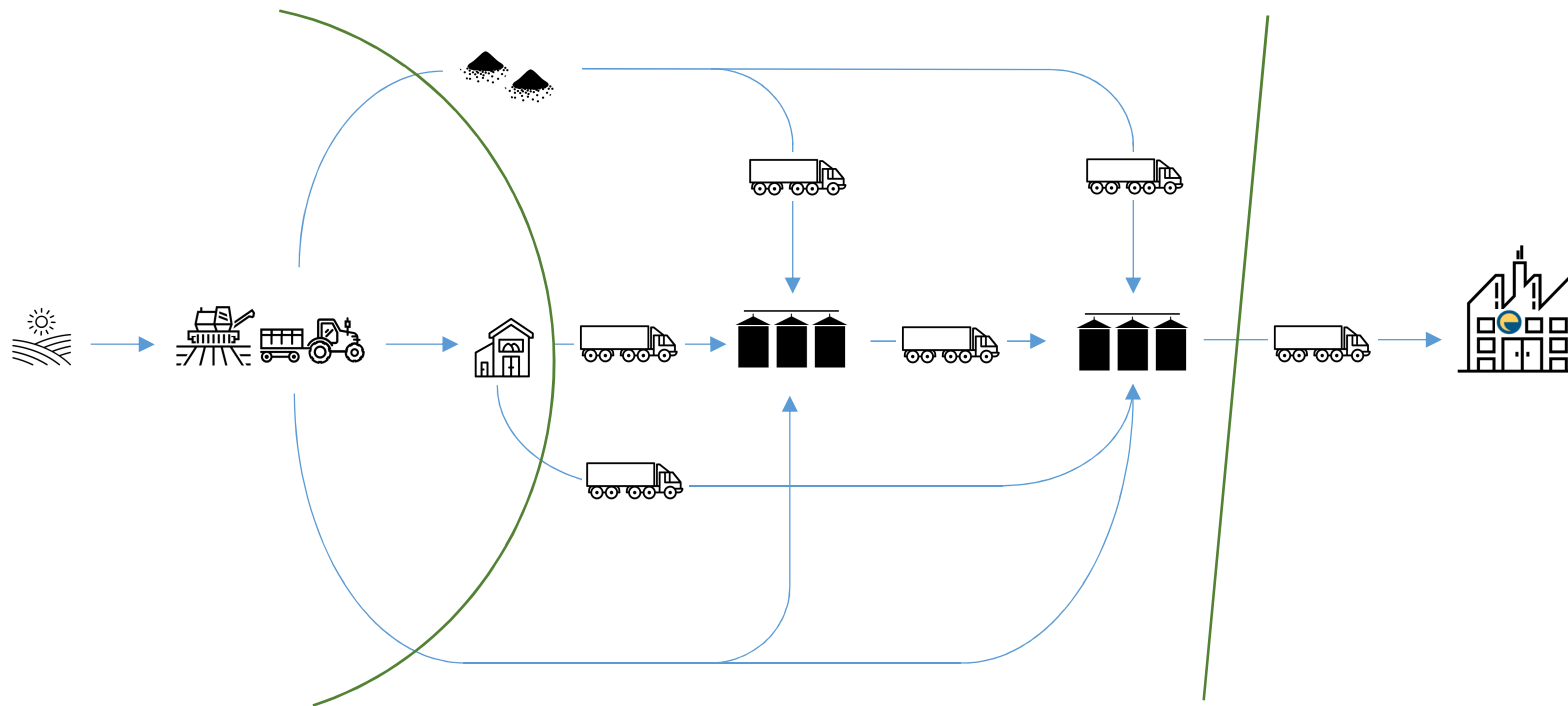
	 With wheat	 With rapeseed
Yield of the next crop 	+ 7,4 q/ ha	+ 0,5 to 3 q/ ha
Nitrogen fertilization 	-20 to -60 kg/ ha	-20 to -60 kg/ ha

ROQUETTE FRENCH SUPPLY CHAIN

AGRICULTURAL WORLD

SUPPLIERS

ROQUETTE



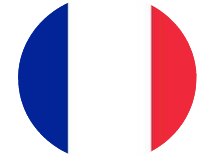
ROQUETTE RAW MATERIAL SPECIFICATIONS

- Spring yellow peas with high thousand kernel weight
- High protein content
- quality standards – low pesticides
- Dedicated storage to preserve quality and avoid cross contamination with pesticides
- No contamination with wheat (allergen) & with soymeal or soybean (GMO)

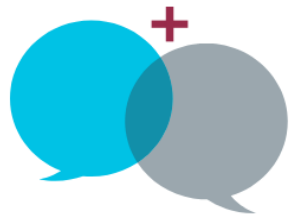
+ physical standard requirements mentioned in French addenda VII (broken grains, splitted grains, impurities, humidity, insects, etc.).

INVOLVED IN THE FRENCH AGRICHAIN...

Roquette is involved in the upstream part



Roquette invests in **internal agricultural skills** to:



Advice on the agronomic conditions

Varieties, yields



Follow the crop cultivation

Inputs, storage



Implement specification with the upstream partners

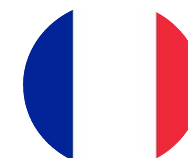
... and be **present in the French Interbranch** working groups with breeders, farmers, collectors, traders ...



ROQUETTE
Offering the best of nature™

... WITH THE ACTORS OF THE AGRICHAIN.

Sustainable economy throughout the supply chain



Roquette is involved in 2 French working groups

PROTEASUPPLY



PEAMUST



Acting with all the **actors** of the **protein crops supply chain** to **support the markets development**

Selection of the **most adapted varieties** for the **best benefit** of all the actors



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