

THE BENEFITS OF OPERATING GLOBALLY

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(EVP - International Rendering
and Specialties Darling Ingredients)

WHO ARE WE?



DARLING
 **INGREDIENTS**



DARLING INGREDIENTS: CREATING SUSTAINABLE FOOD, FEED AND FUEL INGREDIENTS

200+
locations
worldwide

Operations on
5
continents...

...in **18**
countries

Irving TX
headquarters in
USA

136+
years in
business

~10,000
employees
internationally

\$3.7 billion
2017 sales
revenue

DAR (NYSE)
publicly traded
since 1994

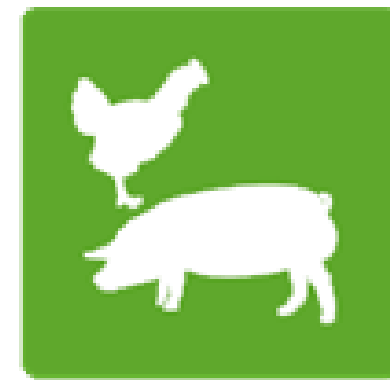
Industries served:



Food



Pharma



Feed



Pet food



Fuel



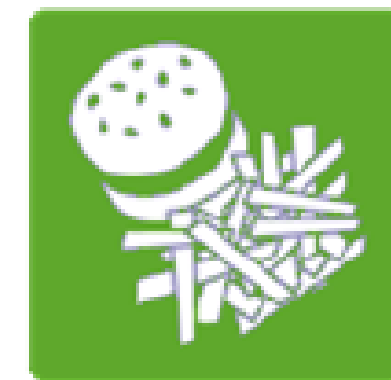
Bioenergy



Technical



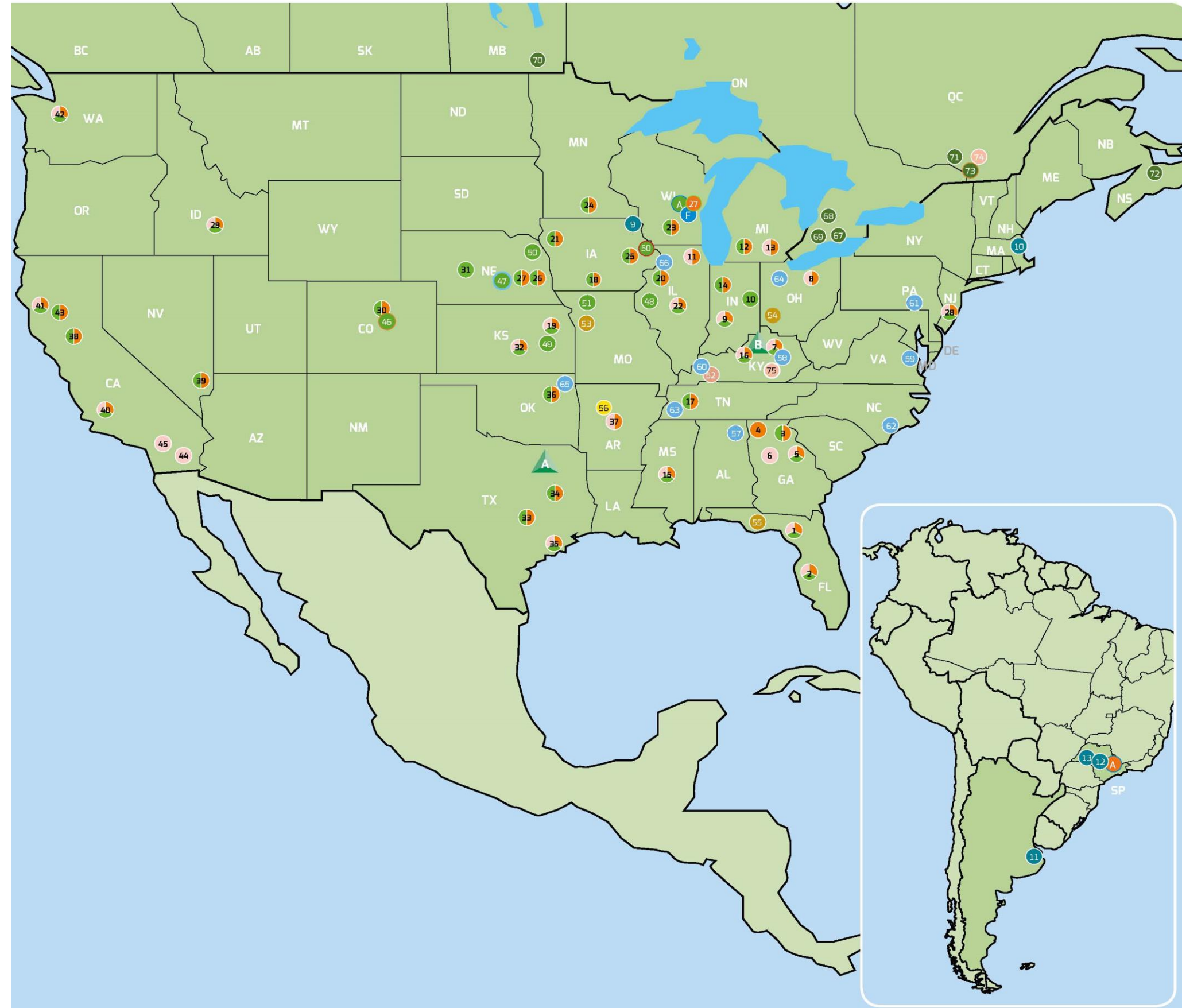
Fertilizer



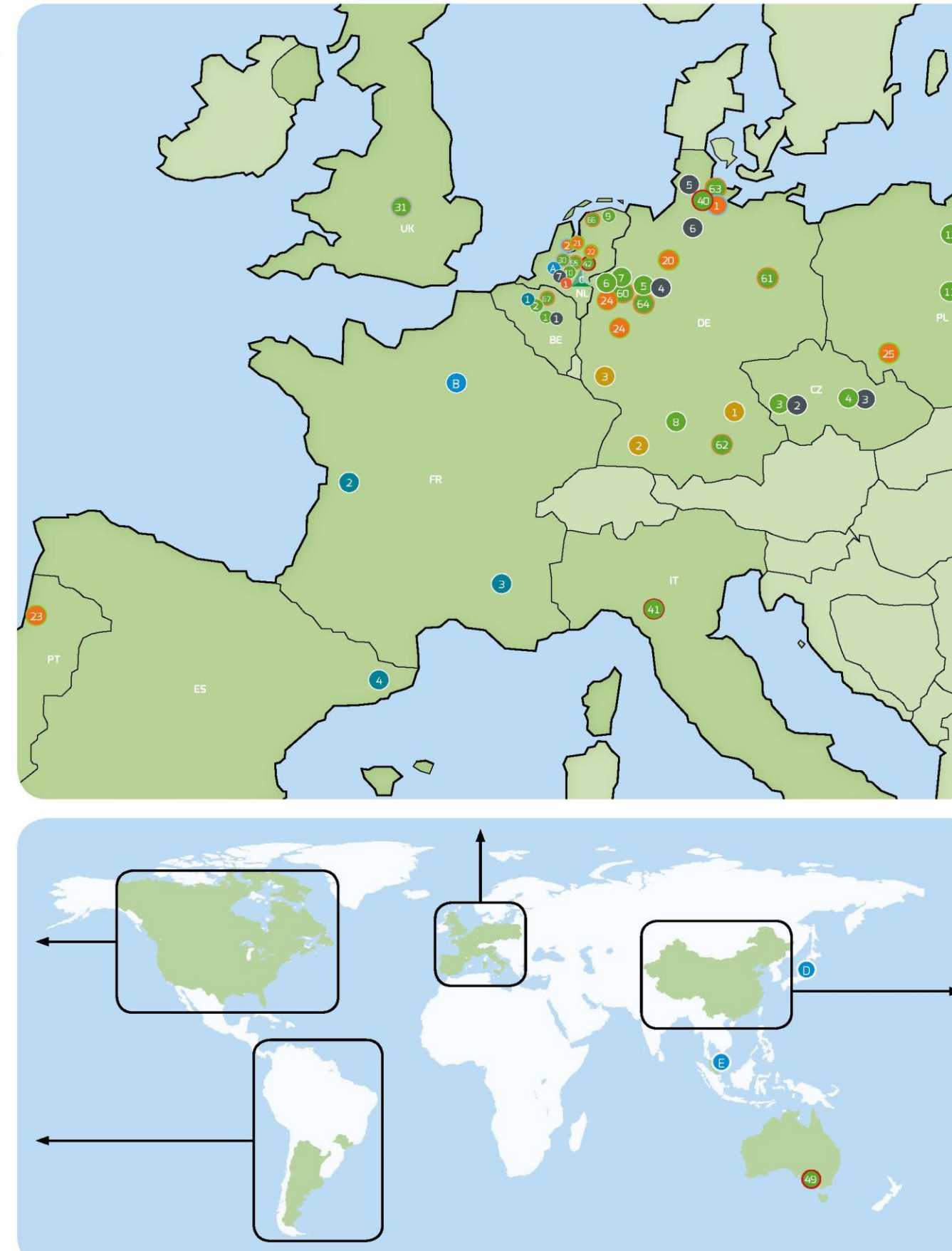
Foodservice



USA, CANADA AND SOUTH AMERICA



EUROPE



CHINA



DAR PRO
INGREDIENTS

Bakery Feeds

Nature
Safe

ecoson

Rousselot

Peptan[®]

RCTHSAY

DAR PRO
SOLUTIONS

hepac

LARU

cth

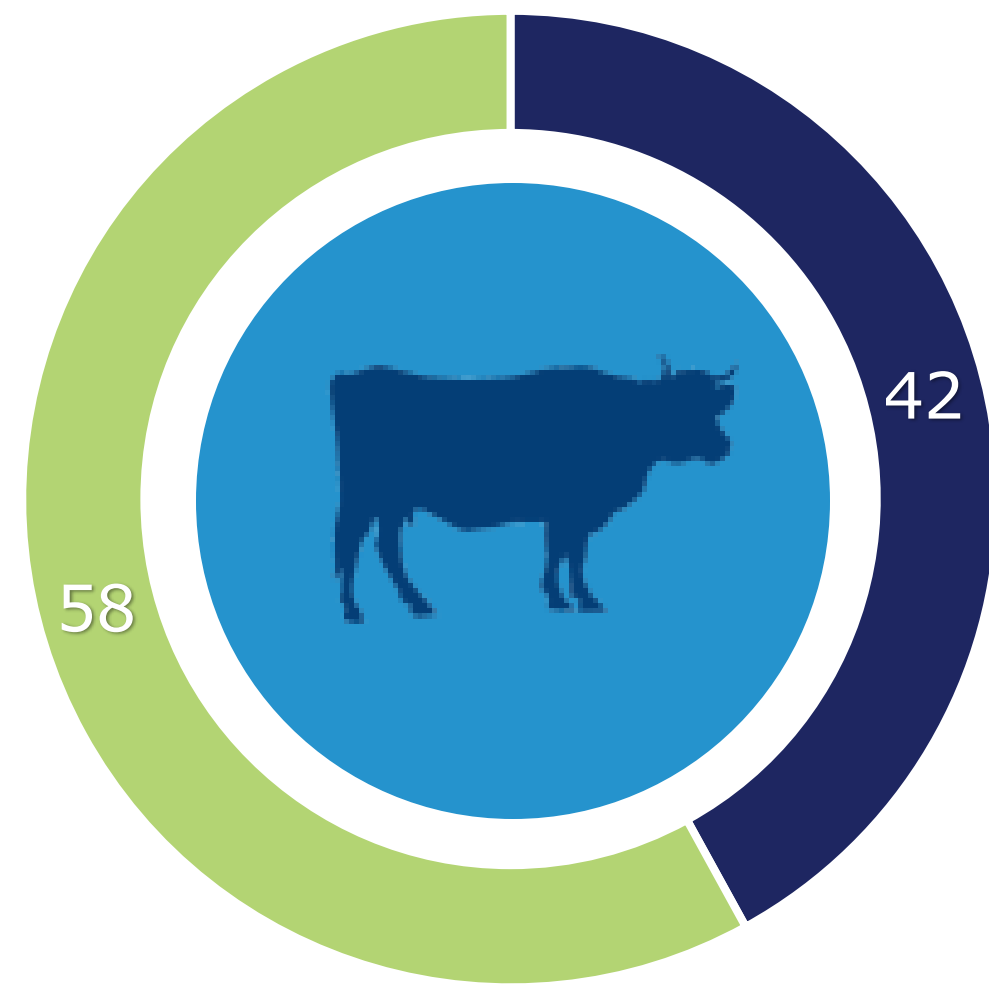
Rendac

DIAMOND
GREEN DIESEL

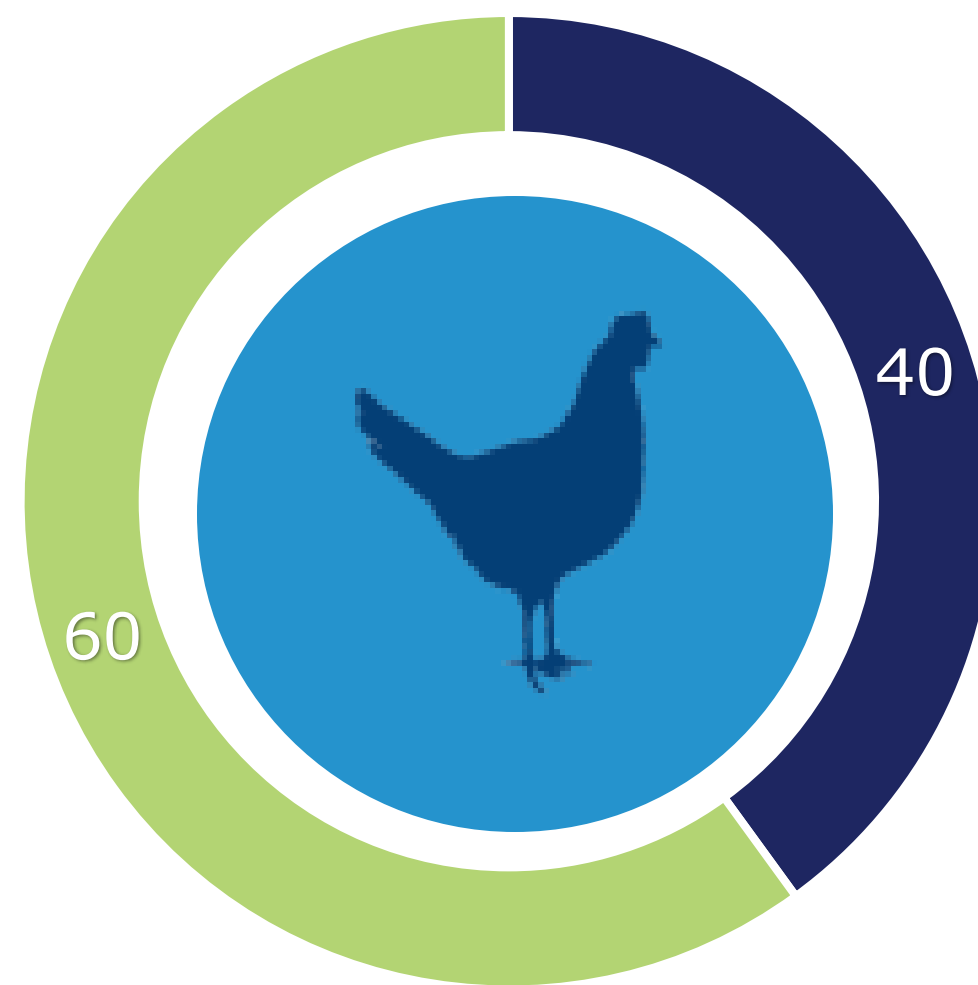
sonac

DAR PRO
BIOENERGY

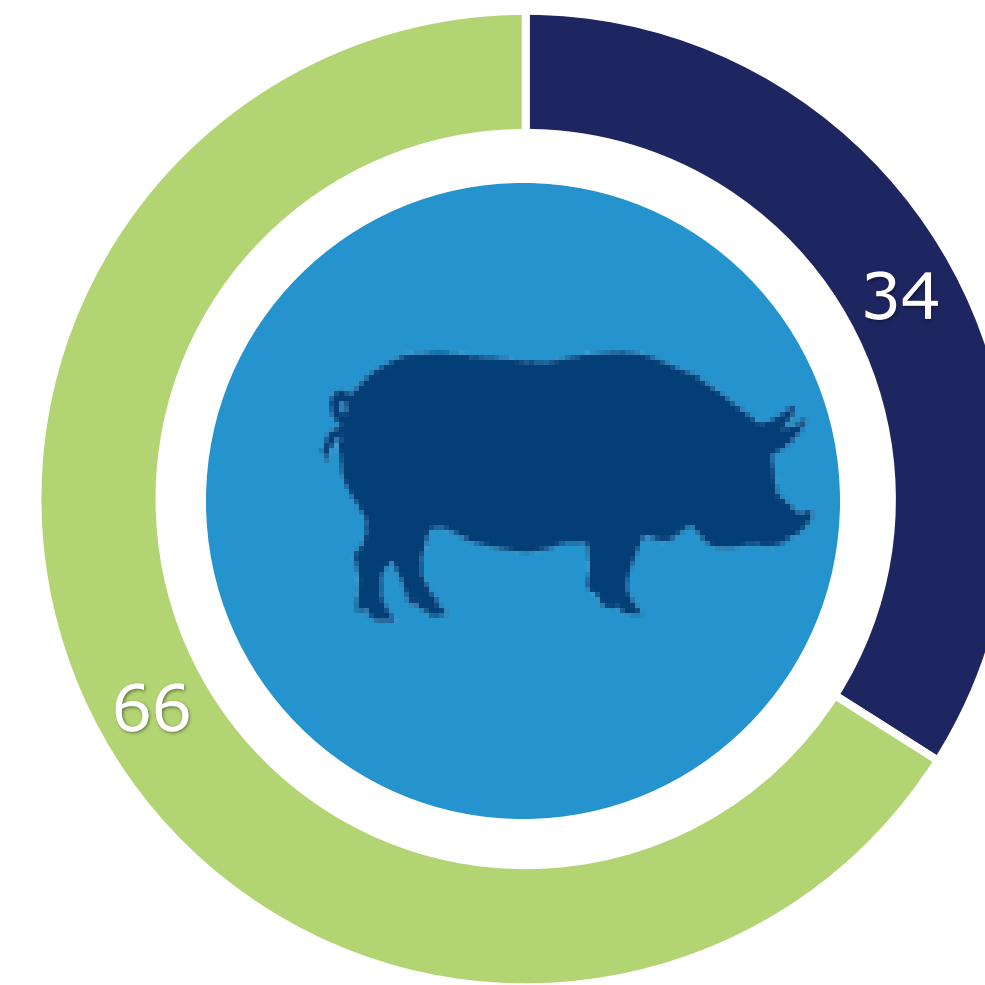
OUR CORE BUSINESS



■ By-Product ■ Meat



■ By-Product ■ Meat



■ By-Product ■ Meat



FOOD

FEED

FUEL

OFFERING A DIVERSIFIED AND UNIQUE PORTFOLIO









Food

Pharma	Food
 Peptan®	 Natural Casings
 Gelatin (Pharma)	 Gelatin (Food)
 Heparin	 Edible Fats

Feed

Specialty products	General products	
 Bone China	 Proteins	 Leather
 Plasma	 Fats	 Organic fertilizer
 MucoPro®	 Cookie Meal®	 Pet food

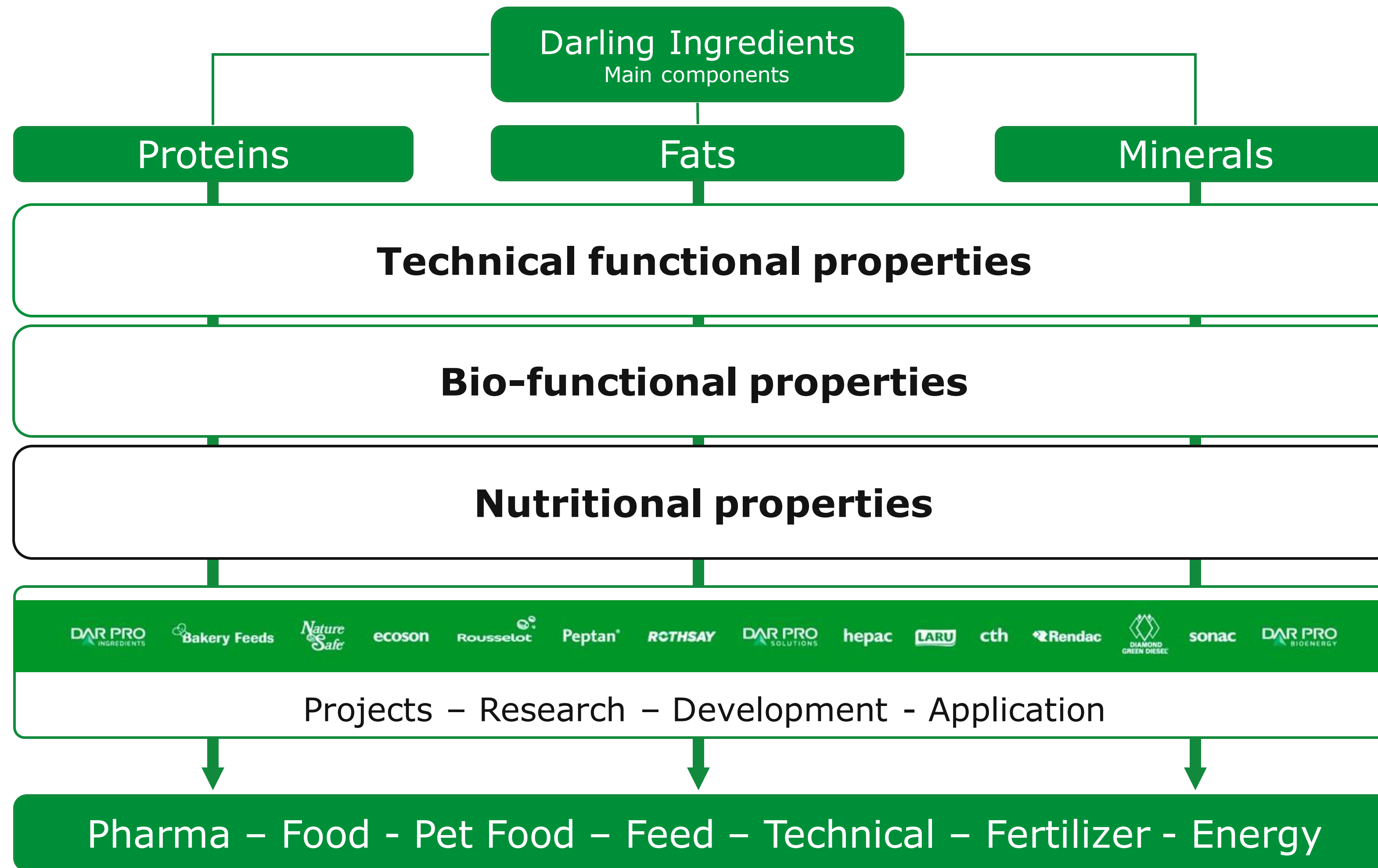
Fuel

Fuel products	thru DGD production
 Renewable diesel	 Butane
 Green Electricity and gas	 Propane
 Biodiesel	 Naphtha

Darling Ingredients:

BROADEST INDUSTRY PRODUCT PORTFOLIO!

GLOBAL LEADERSHIP IN RESEARCH & DEVELOPMENT



OPTIMIZING NUTRITION AND HEALTH: CASE

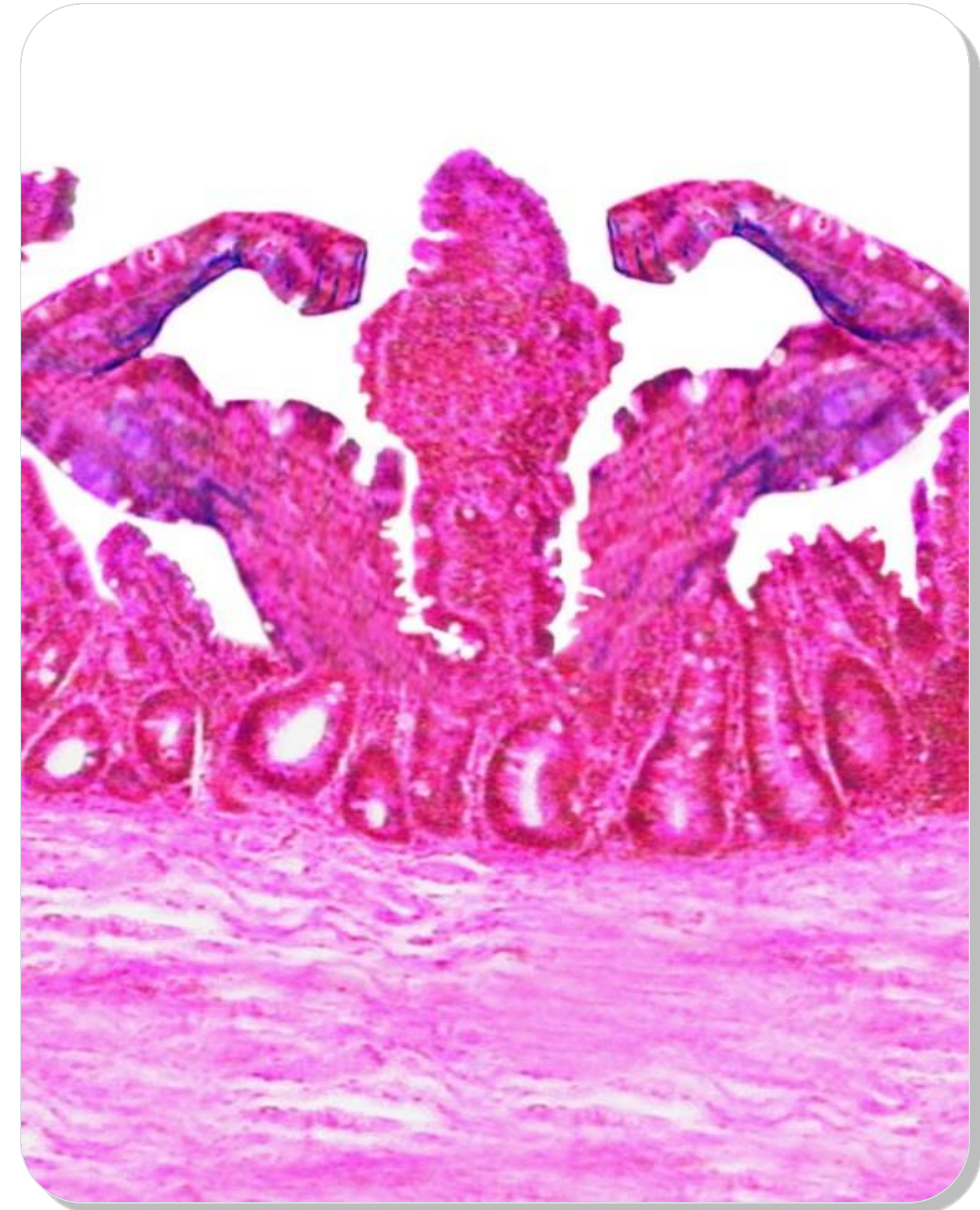


MucoPro® - improved feed intake of young animals

- Type of product
 - Hydrolyzed protein with high content of amino acids and peptides
- Raw material
 - Porcine mucosal tissue from intestines
- Application
 - Feed: Mainly for piglets around weaning

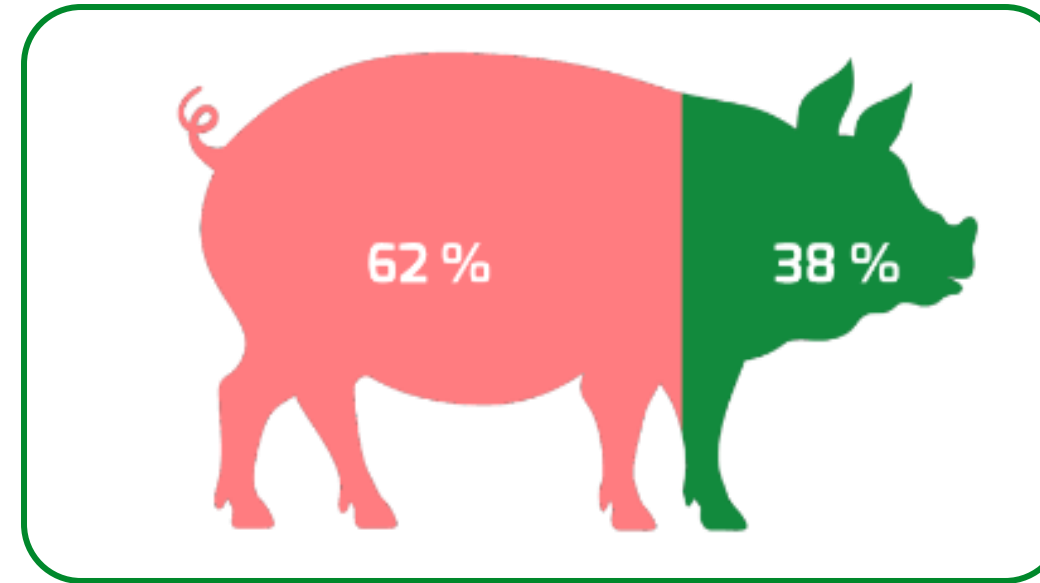
Innovation

Scientific studies confirm reinforcement of gut defense system and improved feed intake of young animals

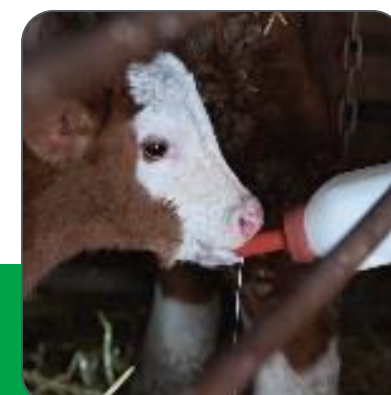




VERSATILITY OF A PIG



Bones	Lard	Blood	Skin	Guts	Hair	Byproducts	Rejects	Manure
Gelatin Ash Fat	Purified fat Protein	Hemoglobin Plasma Fibrin	Gelatin Fat	Casings Heparin Peptones	Fertilizer	Protein Fat	Meal Fat	Biogas Biophosphate



OPERATING GLOBALLY...



SONAC, A DARLING INGREDIENTS BRAND: OPERATING GLOBALLY



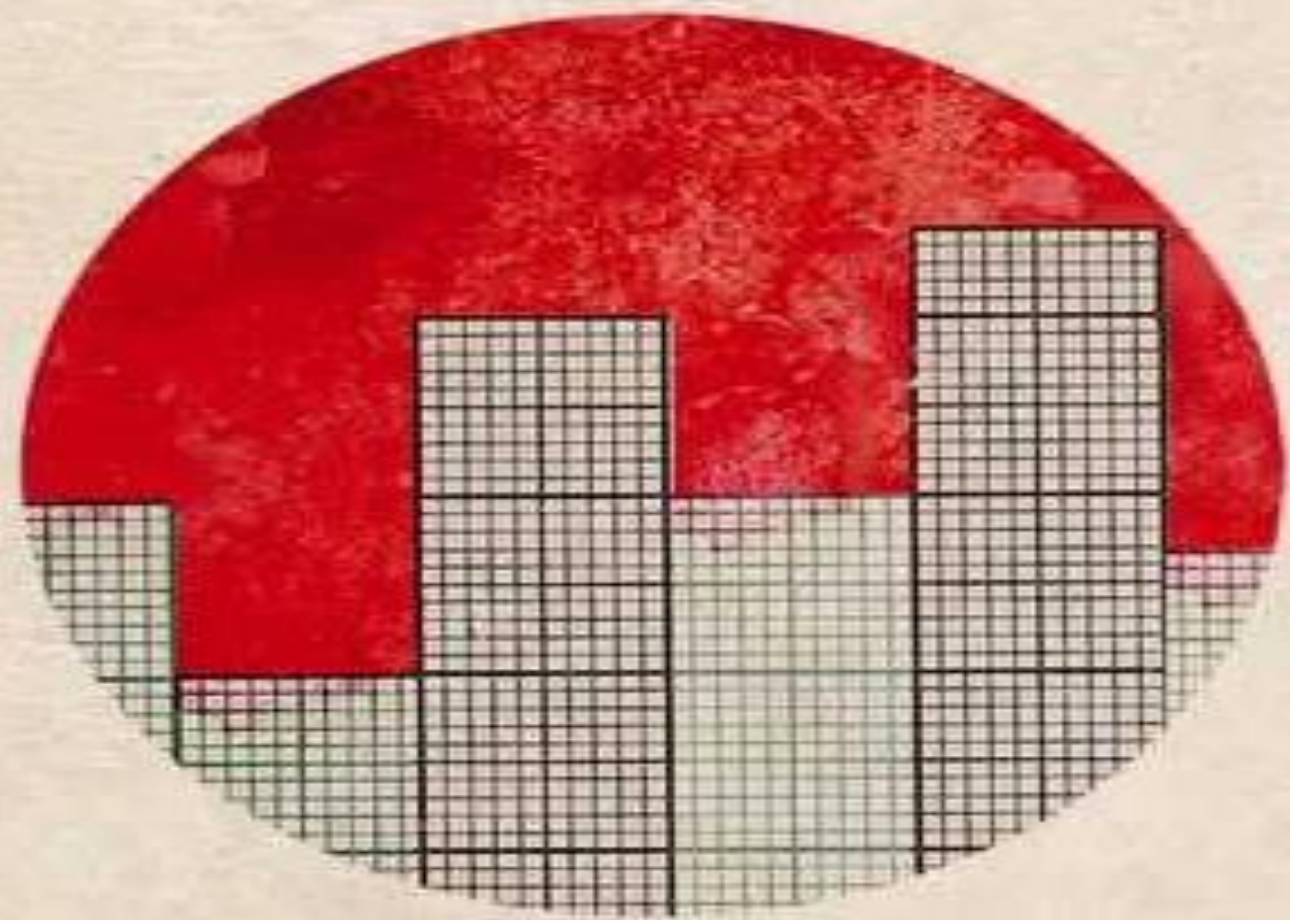
- The **world leader** in the production of ingredients from animal origin
- Operating locations on **five continents**.
- Seeing what others cannot see!
- **Global marketing & sales** system with **dedicated local support**.
- **Global R&D** and **technical sales support** organization
- Broad product portfolio means "**One-stop shop**"





SUSTAINABLE BENEFITS

GREEN ECONOMY =



**LOW CARBON
GROWTH**

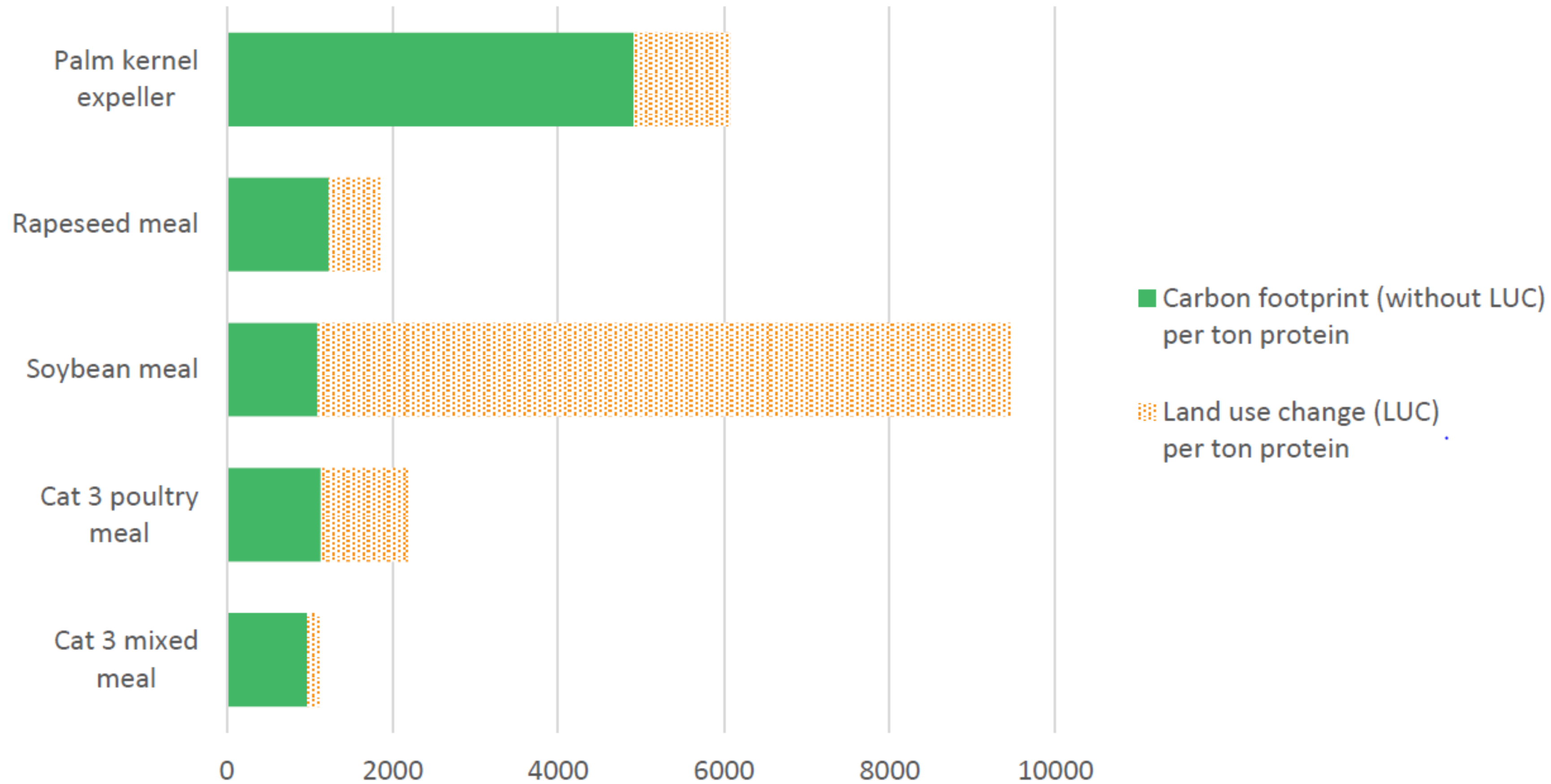


**RESOURCE
EFFICIENCY**



**SOCIAL
INCLUSIVITY**

CARBON FOOTPRINT OF SONAC CAT 3 MEAL



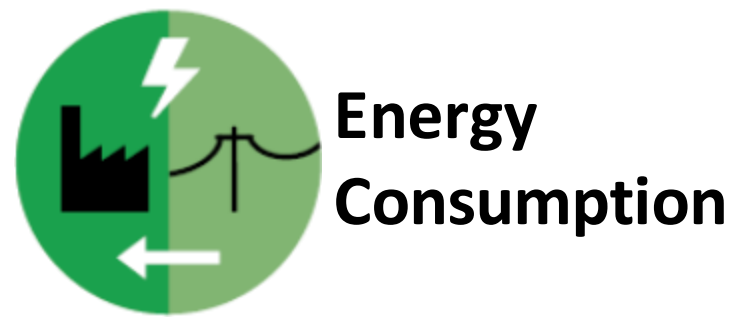
Carbon footprint and land use change emissions of cat 3 animal and vegetable meals
(kg CO₂eq per ton of protein)



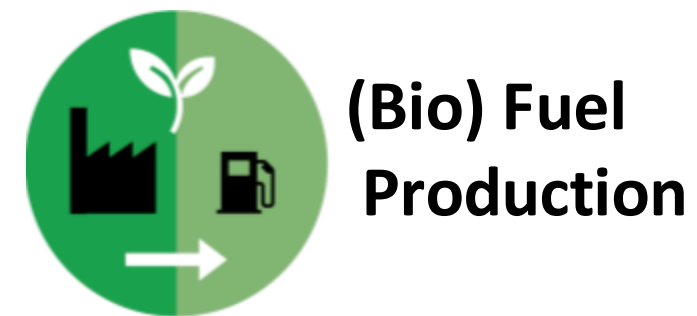
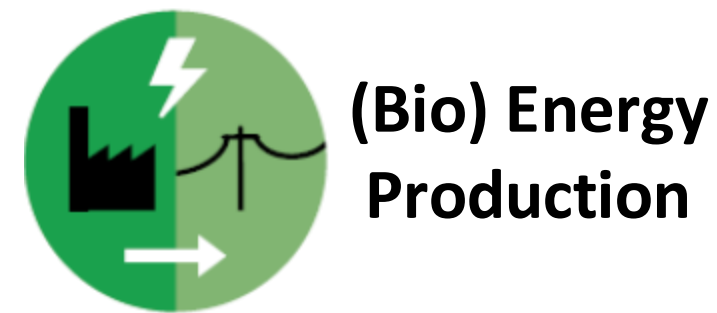
HERE GOES A HEADING

GHG EMISSION METRICS

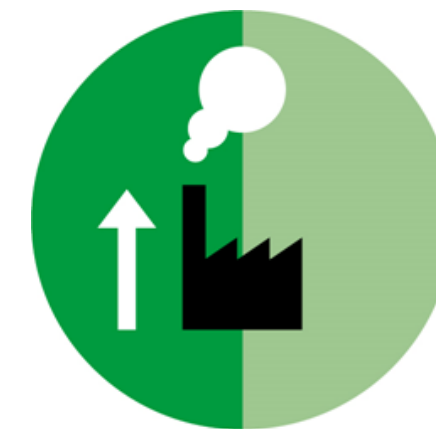
CONSUMPTION (Used)



CONTRIBUTION (Produced)

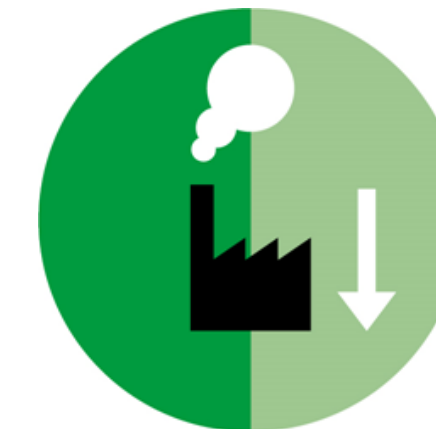


FOSSIL FUEL EMISSIONS



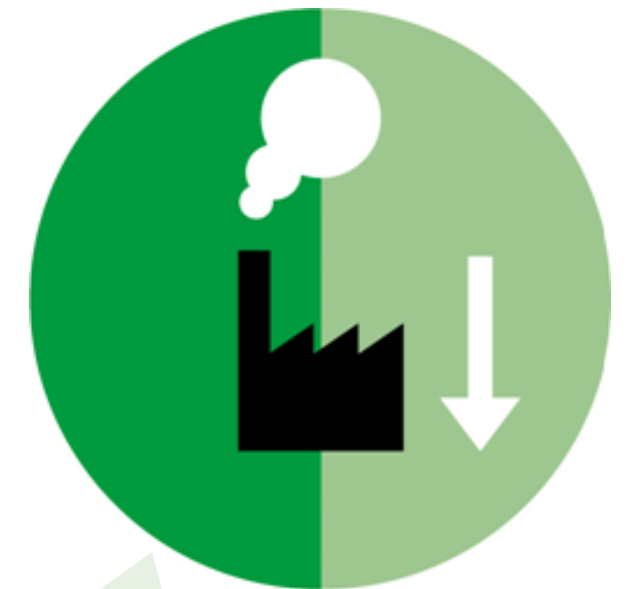
1.7 Mln metric tonnes CO₂e emissions

RAW MATERIAL CARBON CAPTURE



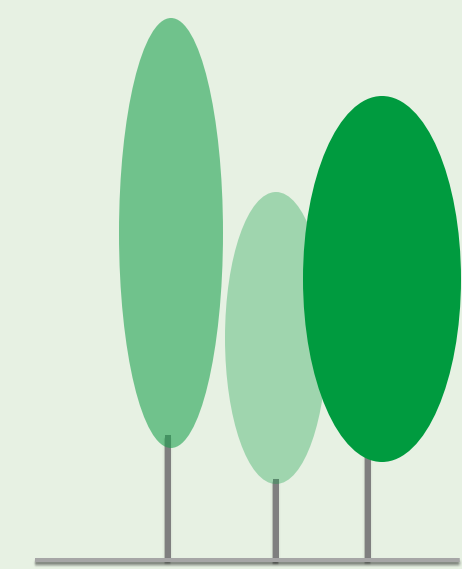
5.3 Mln metric tonnes CO₂e emissions *avoided*

NET CARBON FOOTPRINT



3.6 Mln metric tonnes CO₂e emissions *avoided*

3.6 Mln MT of net AVOIDED emissions = a CO₂ equivalent of planting **165 million trees**



Note: A tree can absorb up to 48 lbs. (21.8 kg) of CO₂ per year. Source: EPA
Metric figures are for global Darling Ingredients rendering operations in 2017.

1

IMPROVING
SUSTAINABILITY

2

REDUCING
CARBON FOOTPRINT

3

RESPECTING
NATURAL RESOURCES

4

INCREASING
PRODUCTION
EFFICIENCY



5

OPERATING
GLOBALLY

6

PRODUCING
HEALTHIER
ANIMALS

7

REDUCING
ANTIBIOTIC USE

8

IMPROVING
FEED EFFICIENCY