

*Cooperl*

---

# The French experience, upstream of the pig chain

Dr. Jean-Noël Sialelli

---



Crete, June 2023

# Our job is to valorize the living

OUR JOB



VALORIZE THE LIVING

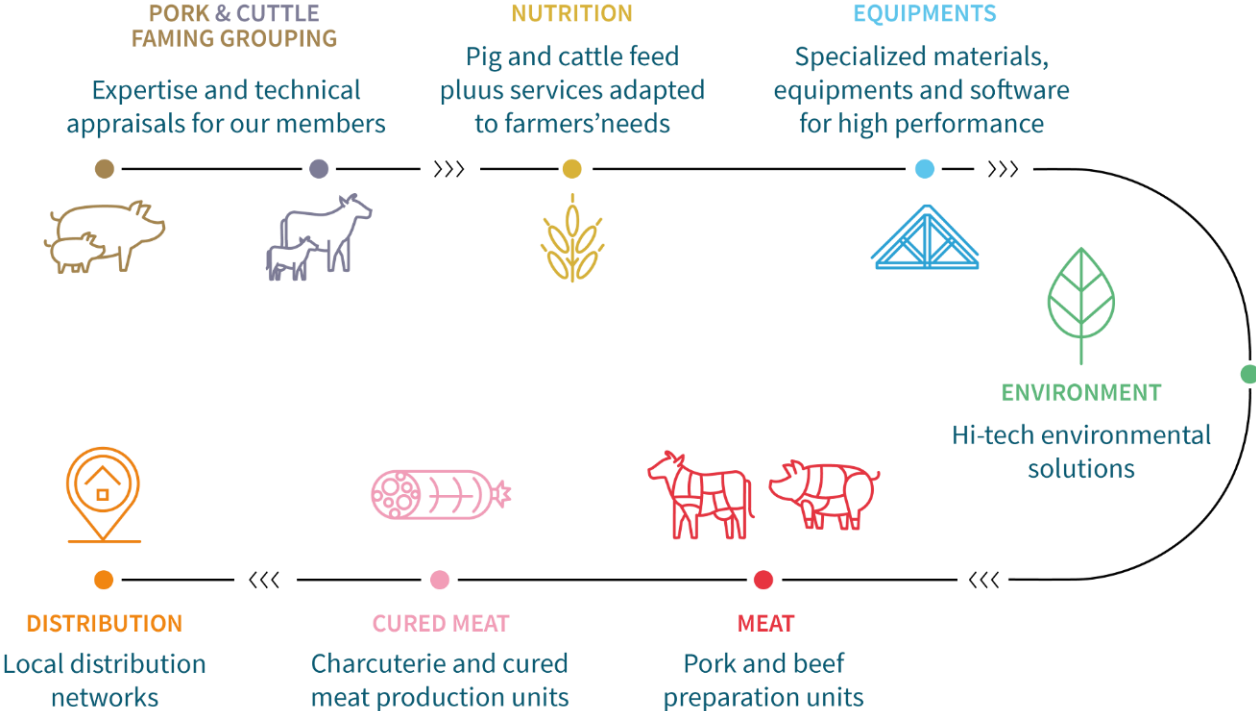


PRODUCE



BIOMASS

COOPERL: 9 Activities, both complementary and interconnected,  
 :: from upstream to downstream of the pig chain



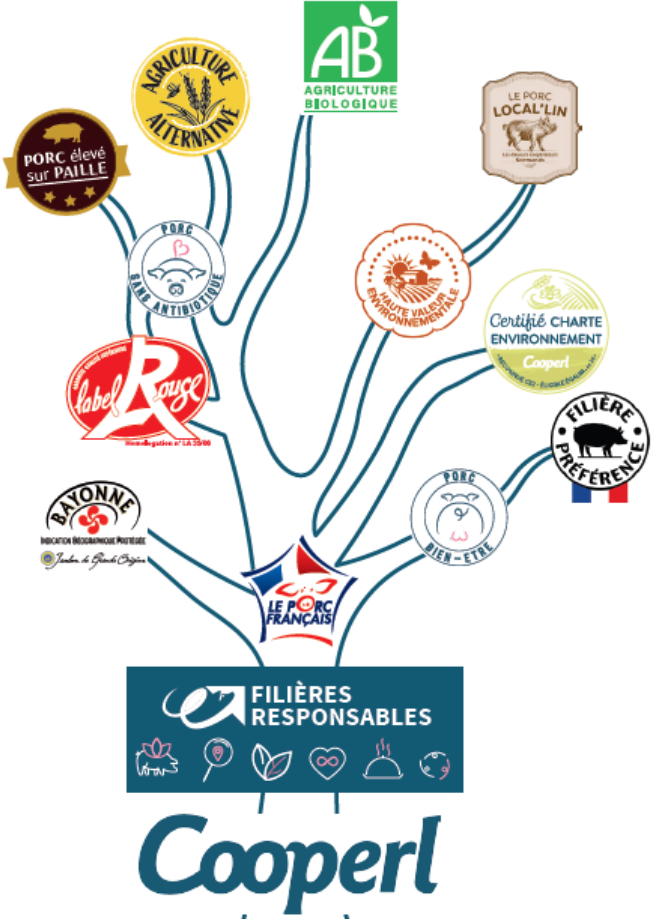
**Cooperative**

- 3 000 members
- 7 700 employees
- 30 industrial sites
- 2.8 billion turnover

COOPERL: segmentation strategy/higher value

:: Certifications:

- Organic
- GMO
- Free antibiotics
- Welfare
- Environmental certification
- Free pesticides
- Low GHG
- ....



## 2030: the major challenges

- Animal Health and Welfare
- Public Health
- Pollution / Eutrophication
- Pesticides & Biodiversity
- GHGs & Climate Change
- Critical resources (water, soil)
- Regional planning



# Corporate Social Responsibility: a key element of Cooperl's strategy



## 4 CSR axes



Humans



Animals



Planet

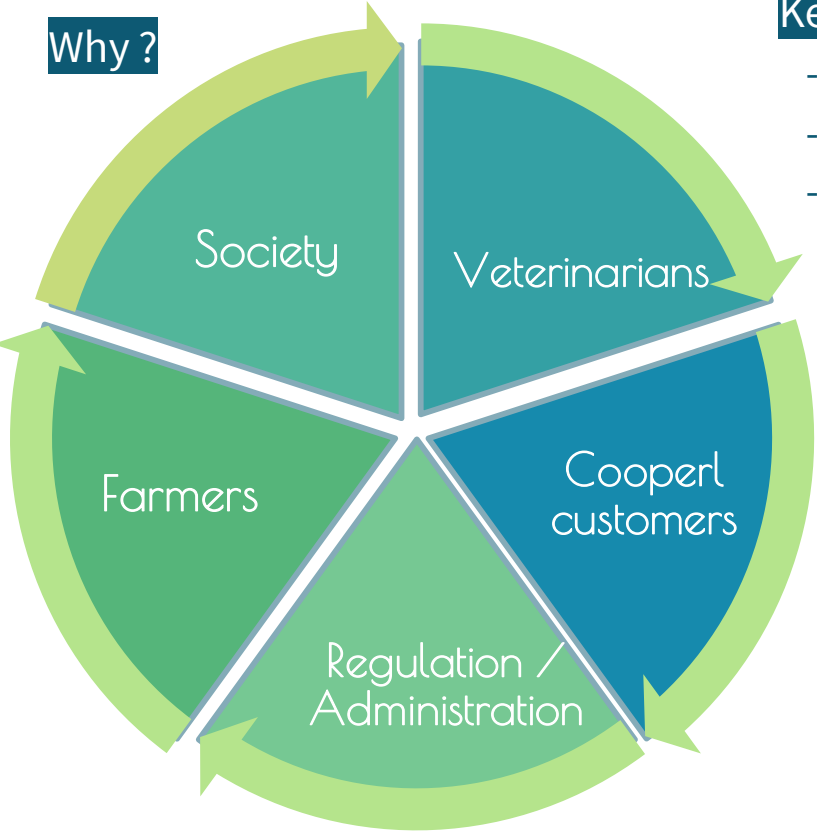


Territories

Solutions 2030   
par **Cooperl**

# The example of the antibiotic free pigs production

## Why ?



## Key figures

- **2013 : proof of concept, 100 000 pigs, 30 farmers**
  - **2014 : beginning of the AFP, 1 Million pigs, 300 farmers**
  - **Today : 3 Millions of pigs, 800 farmers, 50% of the pigs**
- Antibiotic use 2022 : -73% c/w 2014**



## How did we manage it ?

To succeed, firstly set the foundations

Involve all stakeholders to innovate

Evaluate each farm through an “access” audit

Build the monitoring tools & alternatives

Avoid failures... in order to gain trust

Enlarge and expand the project




# 1. To succeed, firstly set the foundations

**2008** : Cooperl starts R&D to ban castration and offers farmers to produce entire males

**2012** : Cooperl decided to stop the antibiotic supplementation in fattening feed



Formulation of ATB-free-adapted post-weaning feed



Development of the Lawsonia vaccination

1. To succeed, firstly set the foundations

∴ Farm Level: without antibiotic nor growth factor  
Insuring high level of gilts and boars

**Health status of  
our reproducers**

**GGP/ GP Farms under  
air filtration**

**Transport under air  
filtration**

**Regular monitoring  
of diseases**



- GGP animals free of:
- PRRS
  - Mycoplasma hyopneumonia
  - Actinobacillus pleuropneumonia



## 2. Involve all stakeholders to innovate

### ANIMAL

Genetics, physiological stage, age, backfat thickness, immunity, ...

### BREEDER

Respect of the protocols, observation and intervention, hygiene, ...

### MICROBISM

Bacteria, viruses, fungi, parasites, ...



### HOUSING CONDITIONS

Buildings, comfort, movements, drafts, humidity, ...

### FEEDING

Colostrum and milk quantity and quality  
Water and feed quality  
...

### FARM MANAGEMENT

Batches, hygiene of the animals, equipment, ...

Our global approach of animal health

Inspired from Tillon's hexagon, 1980

### 3. Evaluate each farm through an “access” audit

Visit each farm with the tech. to evaluate:

- Zootechnical practices
- Buildings
- Ventilation, water quality
- Internal biosecurity
- ...

#### Objectives

- Highlight the risk factors
- Classify the farms (quantify the risk)
- Make a decision:

**Audit ACCESS : pour une approche raisonnée et personnalisée**



“OK we can try to stop ABs but I advise you to improve ...”

or

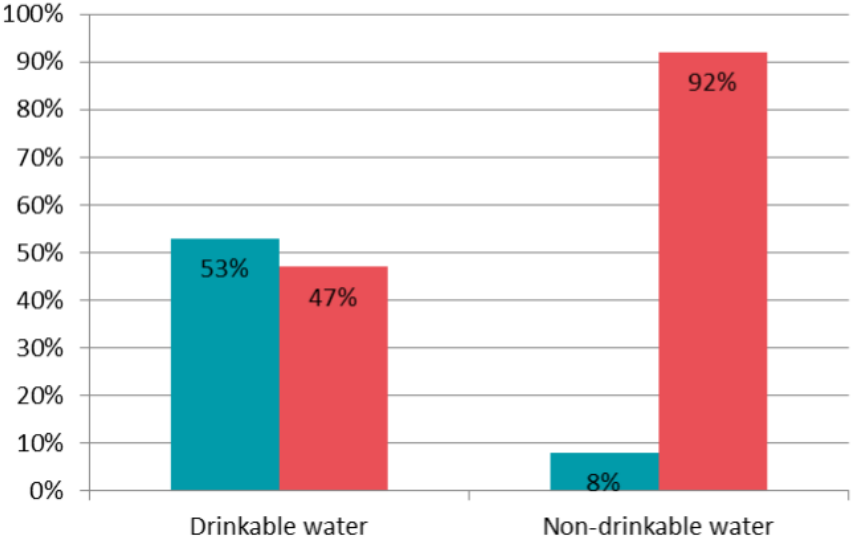


“I don’t think stopping the ABs right now is a good idea, we’d rather modify ... in the first place”

### 3. Evaluate each farm through an “access” audit

... And analyze the results of the farms to advice better

### Incidence of health issues in relation to the potability of the water



■ No health issues  
■ Health issues

**Importance of the drinking water in the ATB free pig production**



Source: Cooperl, 2011.  
Data not published

3. Evaluate each farm through an “access” audit

:: Farm Level: without antibiotic nor growth factor

Adapt the feeding program to the needs of the animals

Respond to the challenge of the weaning period:



Work on the quality of the piglets to face the infections

- Weight and vitality
- Colostrum intakes
- Healthy microbiota
- Immune stimulation

↳ Gestating feed formulated in that way

Learn piglets to eat solid

- Eat and drink
- Palatable feed
- Highly digestible raw materials

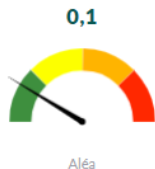
↳ Range of feed to use during lactating period and after weaning



# 4. Build the monitoring tools & alternatives



Build **sanitary indicators** for each farm



Cooperl  
Suite

Lung lesions monitoring at slaughterhouse

Identify and develop **ATB alternatives**  
vaccines, organics acids, postbiotics, ...



farmapro

5. Avoid failures... in order to gain trust

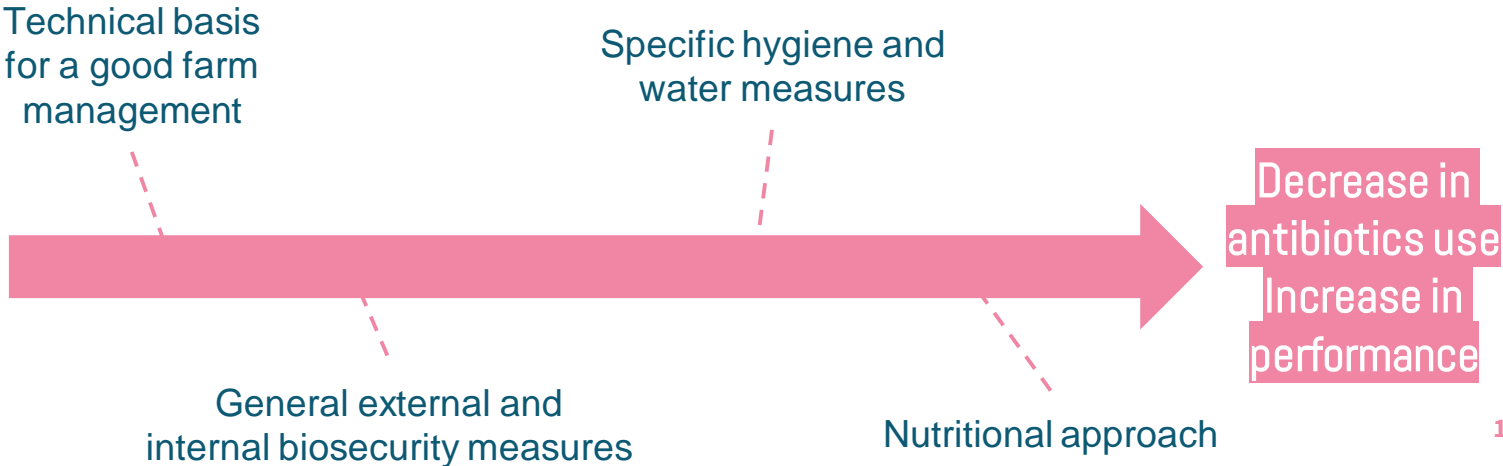


**Begin with the best farms** (those where some previous work is already done)

**Begin easy: No ATB in feed but possible to use them before 42 days of life**

**Be reasonable:** Treating sick animals is necessary

Identification of the objectives





## 5. Avoid failures... in order to gain trust

- The farmer must **earn money**

Group	ALEA +	ALEA -
Level of biosecurity	86,8%	99,3%
Number of sows per farm	268	265
Margin/feedcost (€)	<b>907,83<sup>a</sup></b>	<b>1103,14<sup>b</sup></b>
Health expenses (€)	111,3	122
Vaccines (€)	66,3	77,1
Injectables (€)	12,3	14,3
Supplements (€)	11,26 <sup>b</sup>	7,69 <sup>a</sup>
Pigs produced/sow/year	<b>23,33<sup>a</sup></b>	<b>25,1<sup>b</sup></b>
Consumption rate (8-115j)	2,4	2,39
Losses rate PW&F (%)	6,99	5,86

## 6. Enlarge and expand the project

- With first success, trust and money, everything is easier
  - Add new “harder” farms
  - Continue to the ATB-free production since birth

**Newborn piglets are wet, light and must fight before getting energy.**



Weak digestive system

No immune defenses

No thermal protection

## 6. Enlarge and expand the project

Collaborative project to detect and eradicate disease on farm

**Objective:** Qualify an innovative method to collect air in farm for a rapid, early and targeted diagnosis of infections on pigs



No pain to pigs ⇒ animal welfare  
Very quick analysis  
Portative system  
  
⇒ Early detection



## Take home message

The antibiotic free pig production, a success story made possible by:

Strong management decisions



The involvement of all stakeholders and innovations in all departments



The development of measurement tools to identify where you are



A step-by-step approach to capitalize on quick wins



A test and learn strategy with cause analysis and action deployment



## Conclusion: ATB-free reality or chimera?

### **What is the future of antibiotic-free production?**

Antibiotic-free pig farming has become standard practice. Eventually, this standard will become part of a more global approach to responsible production, taking into account other issues such as animal welfare and decarbonization.

### **Do you foresee the market share of antibiotic-free production to become higher in the future?**

As a new standard, it will become the foundation on which to build our development and increase our market share.
































### **What is need to incentivize this type of production and make it sustainable?**

- Explain why
- Show how
- Reassure, support
- Step back and take a global view
- Continuously measure progress and the value created
- Don't stop at the first hurdle, and learn from your failures, at both farm and collective level.

# Innovation is crucial: covers all pig chain

**Transversal** 10 

 Arnaud BUCHET Animal Sci. Coordinator	 Matthieu CORNIC Robot Coordinator	 Pascal FAVREL Agroecology Coordinator	 Jean-Noel SIALELLI R&D Chairman	 Barbara CLEMENT-LAROSIERE Biotech Coordinator	 Pauline DOUSSAL Food Coordinator
---	---	---	---	---	--

 Noémie DRY	<b>Animal Welfare</b> 4 	 Mathieu GLOAGUEN	<b>Animal Nutrition + Crop</b> 4 	 Jean-François LEPAGE	<b>Ingredients</b> 4 	 Sophie DANJOU	<b>Packaging</b> 3 
 Charlie CADOR	<b>Animal Health</b> 4 	 Christophe BATTAS	<b>Farm Equipment</b> 31  23 	 Charlotte HACHE	<b>Meat Products</b> 5 	 Yannick SIMONIN	<b>Cured + Veggie products</b> 25 
 Cédric DOMAIN	<b>Building</b> 1 	 Corentin VIEL	<b>Energy, resources, microalgae</b> 20 	 Delphine MASSON	<b>Food Concepts</b> 3 	 Stéphane DENIS	<b>Dry products</b> 3 
 Bruno LIGONESCHE	<b>Genetic</b> 4 	 Bastien RIERA	<b>Data Sciences</b> 7 			 Franck REMBLIER	<b>Taste</b> 2 

In total: 123

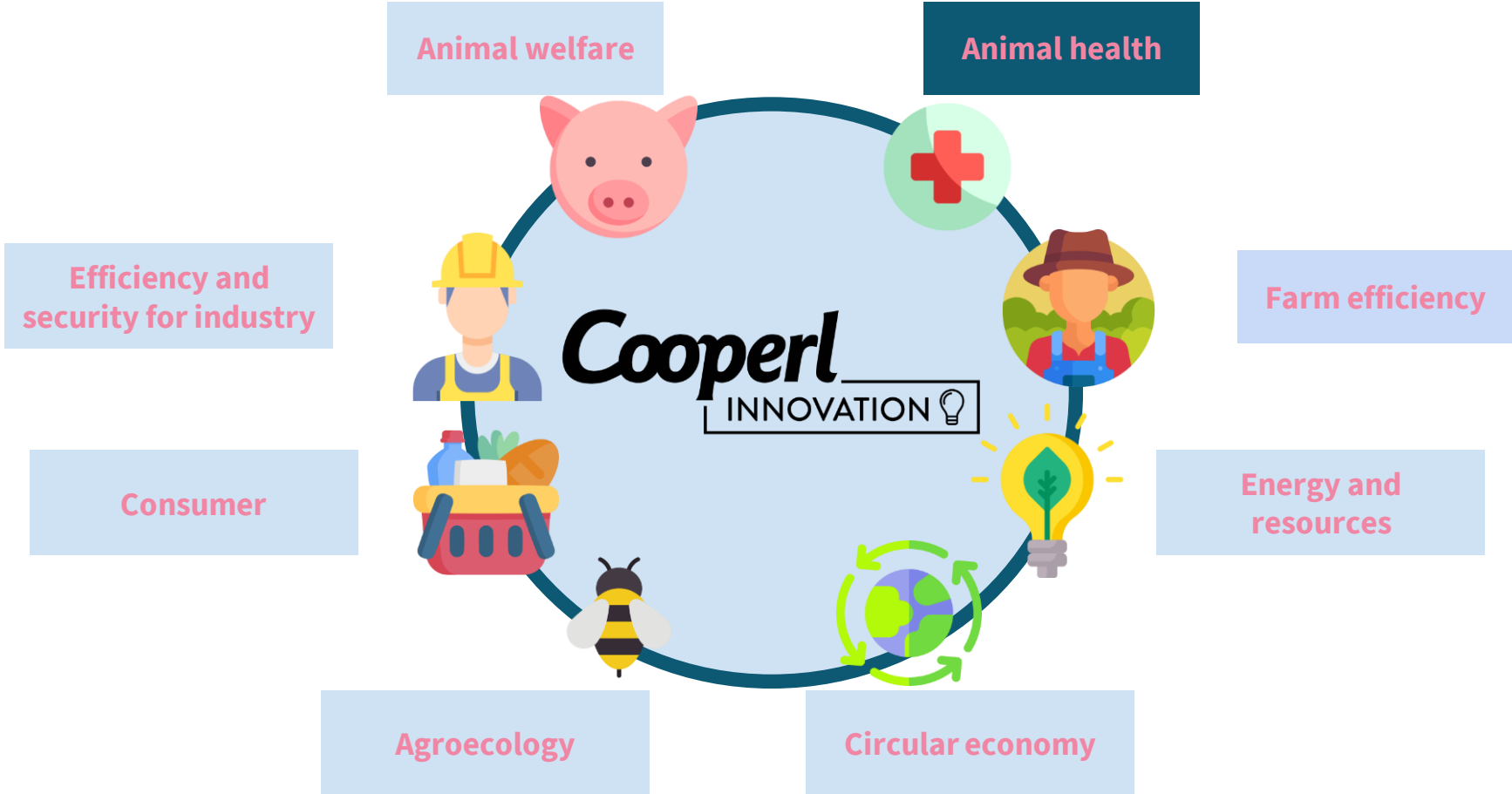


23



nd 7

# Innovation axes have to find solutions to reach sustainability



**THANKS TO**

**AVANT**



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 862829.