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Overview of pig production in the European Union

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Introduction

- Pig meat is produced and consumed throughout the EU
- Considerable variations between and within member states
- Pig farming is a changing sector



H. Flageul, UMR PEGASE



Overview of pig production in the European Union

1. Pig food chains

- Production, consumption, import-export
- Food chain organization (production, slaughter, distribution)

2. Pig farming systems

- Pig farming systems accross UE
- Building, work, feed, sows and pigs managment
- Costs in pig production
- Example of alternative systems

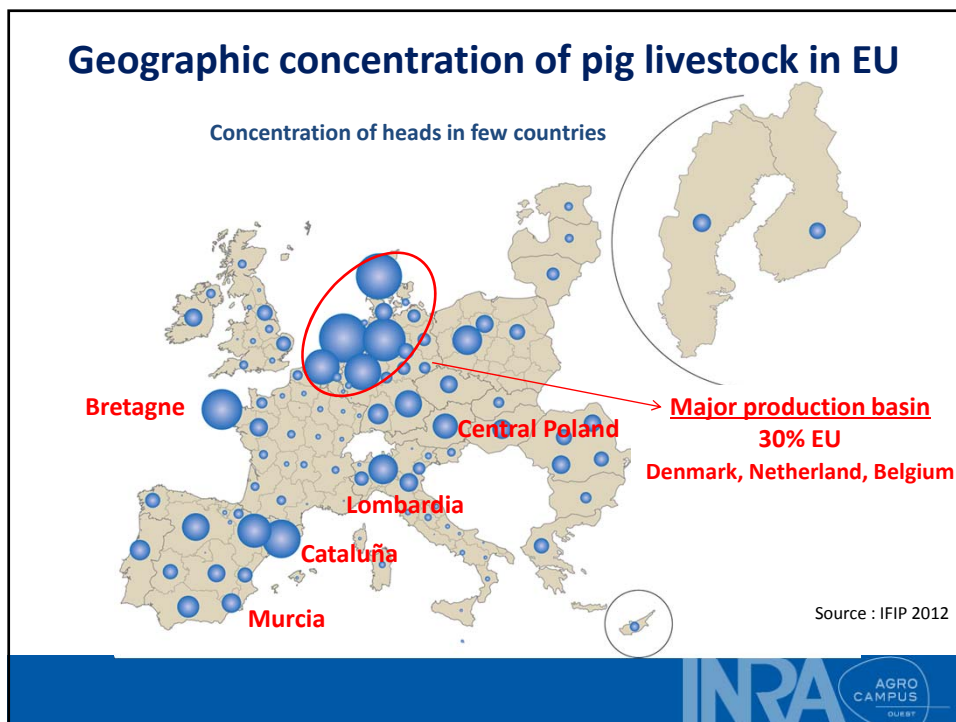
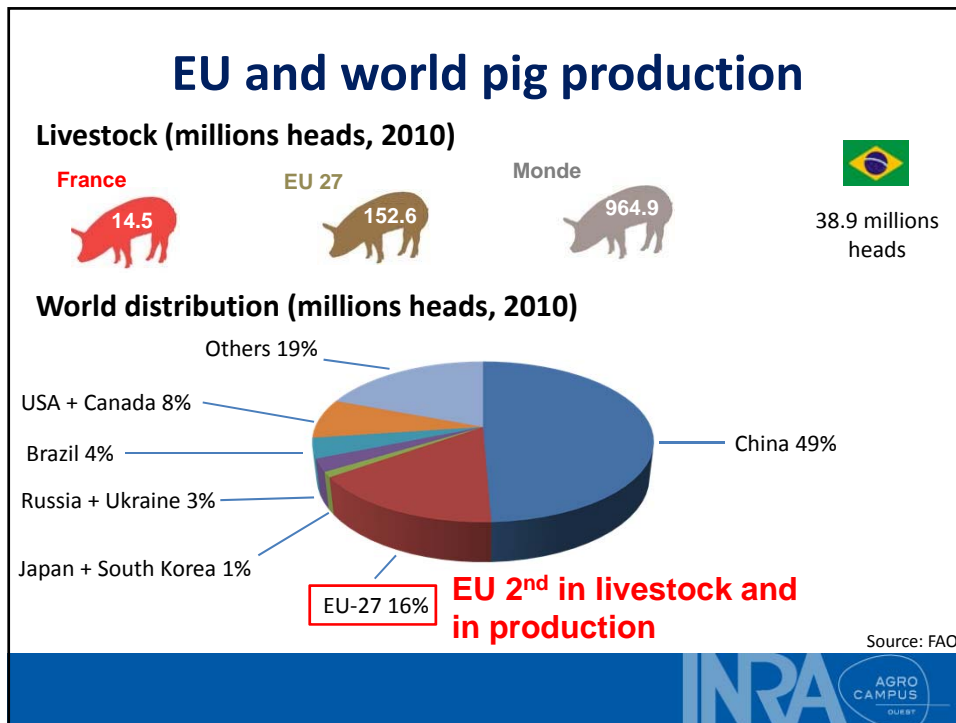
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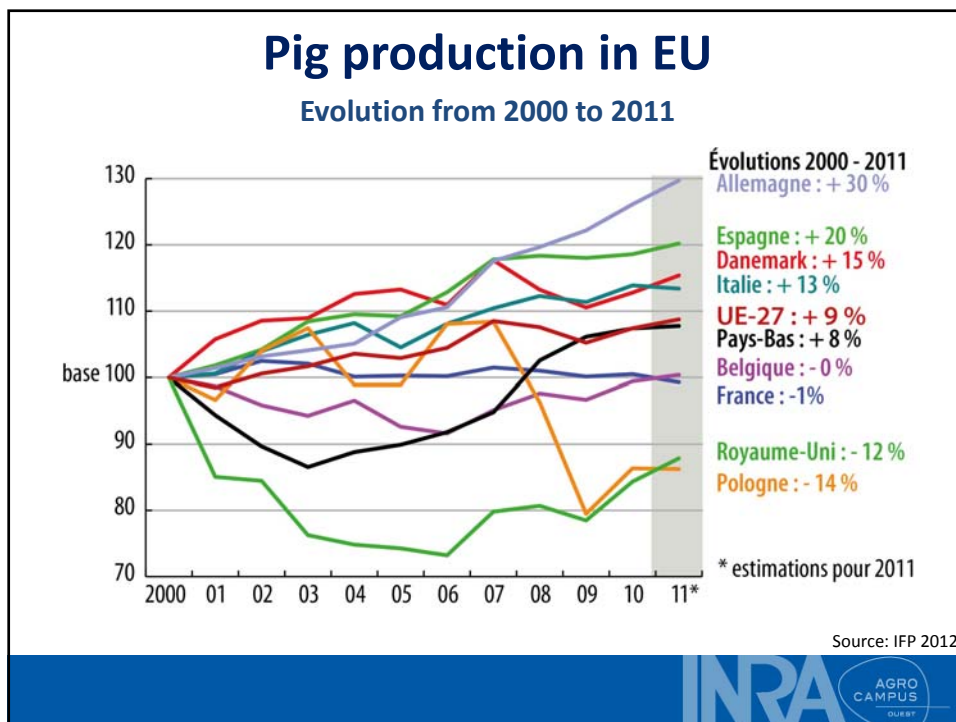
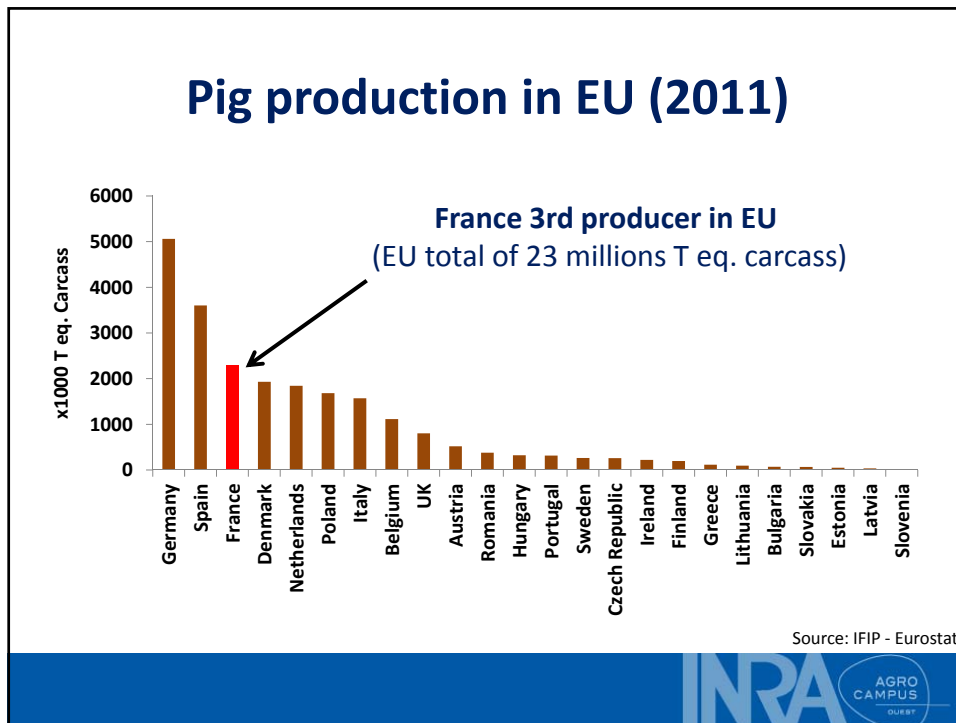
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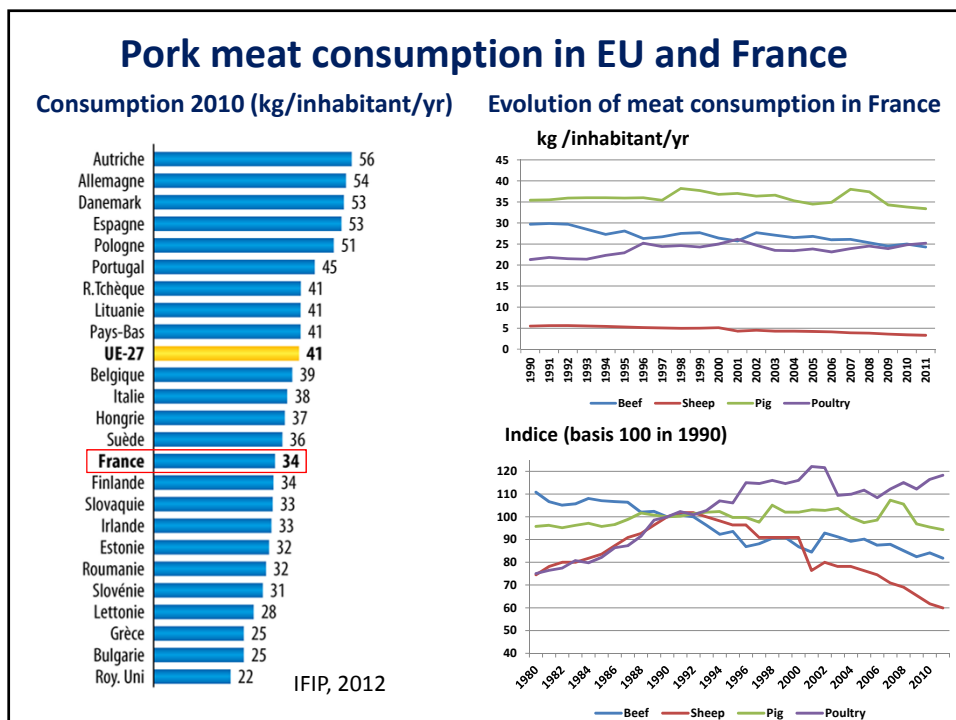
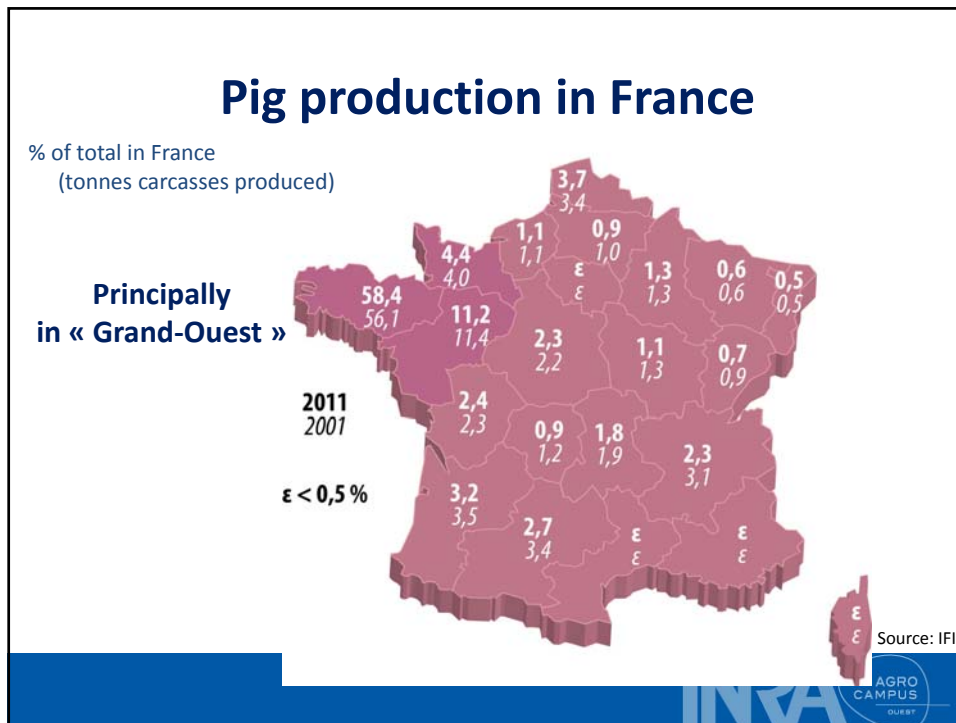
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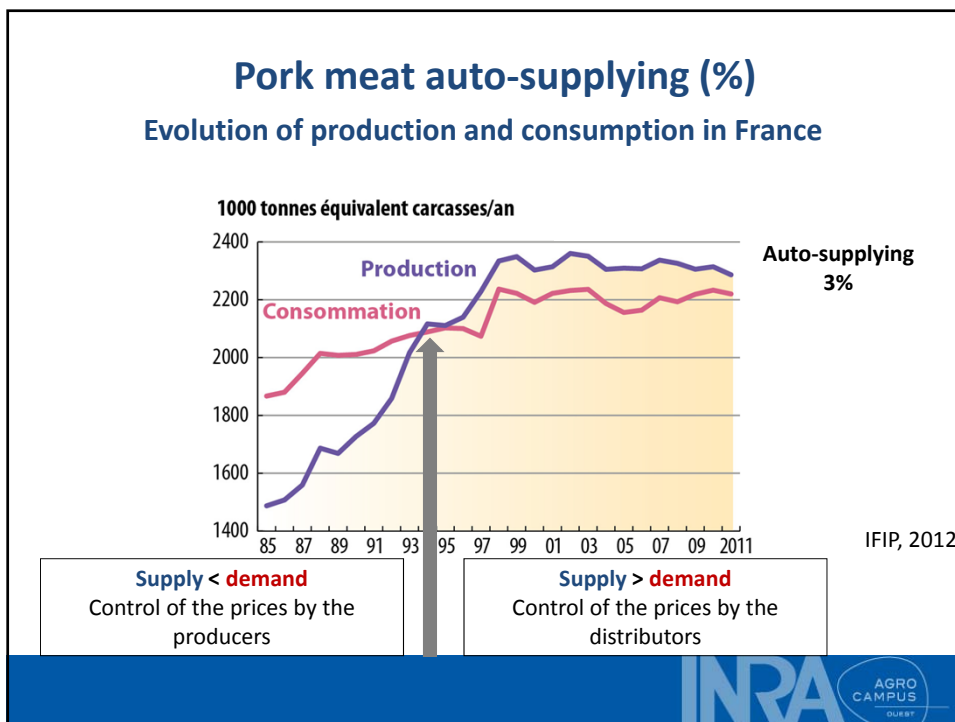
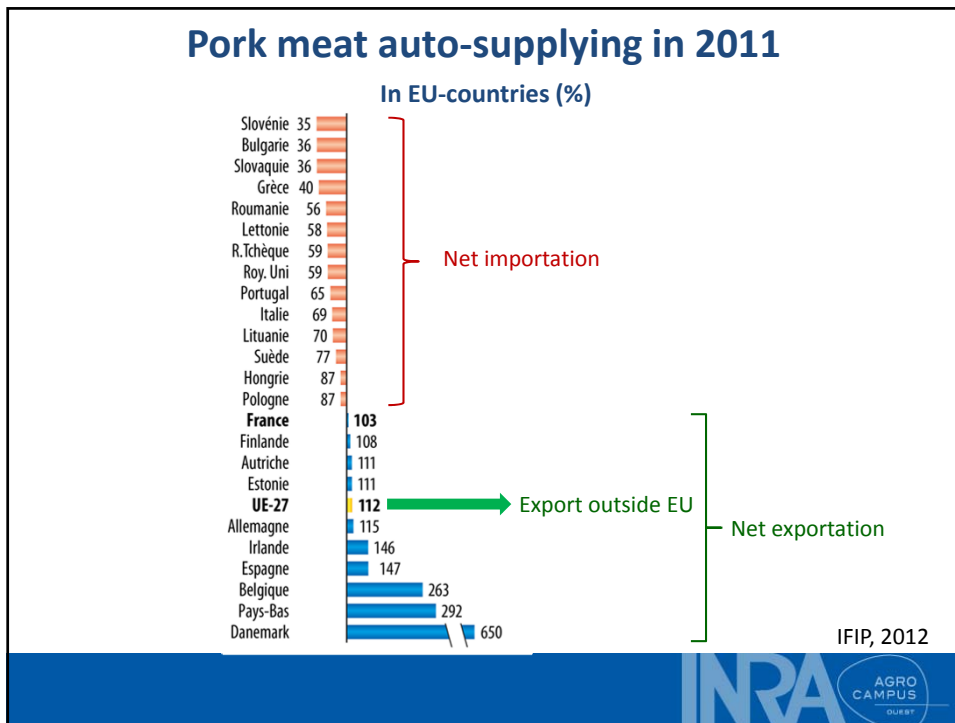
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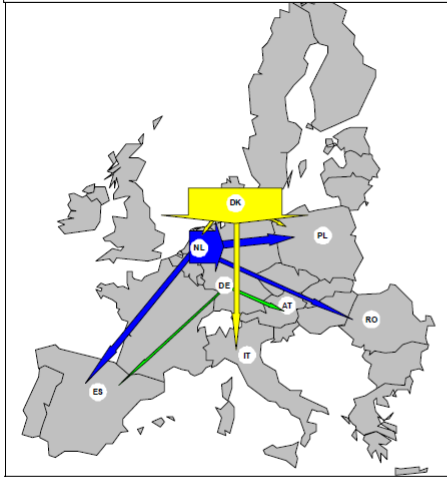






Scheme of the intra-EU exchanges (2008)

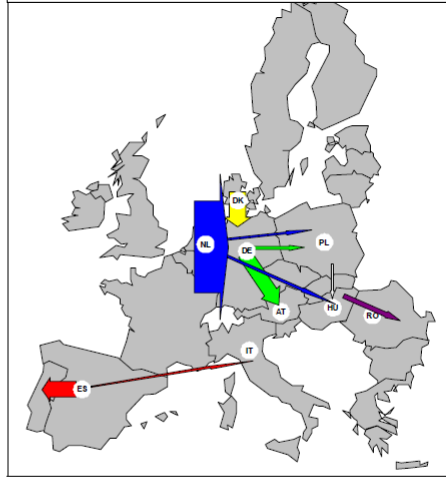
Net exchanges of young pigs



Source: Eurostat ([comext](#))

Arrow width is proportional to the volume of intra-EU foreign trade surplus (in tons).
The 10 main surpluses on pigs weighing less than 50 kg account for 89% of the overall balances

Net exchanges of pigs for slaughtering

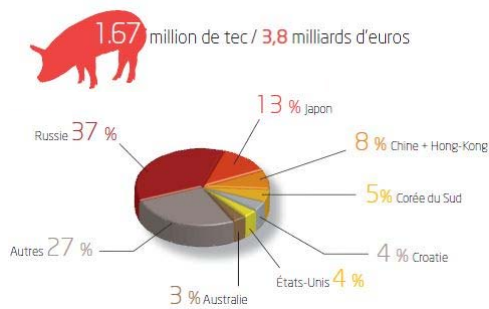


Source: Eurostat ([comext](#))

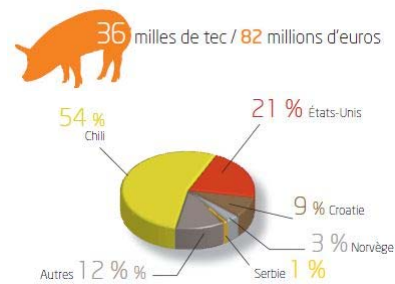
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Pig meat and pork products exchanges between EU and extra-EU countries (data 2009)

Exportations UE à 27 vers les pays tiers



Importations UE à 27 en provenance des pays tiers



EU first furnisher of China and Russia

Source : Douanes

Overview of pig production in the European Union

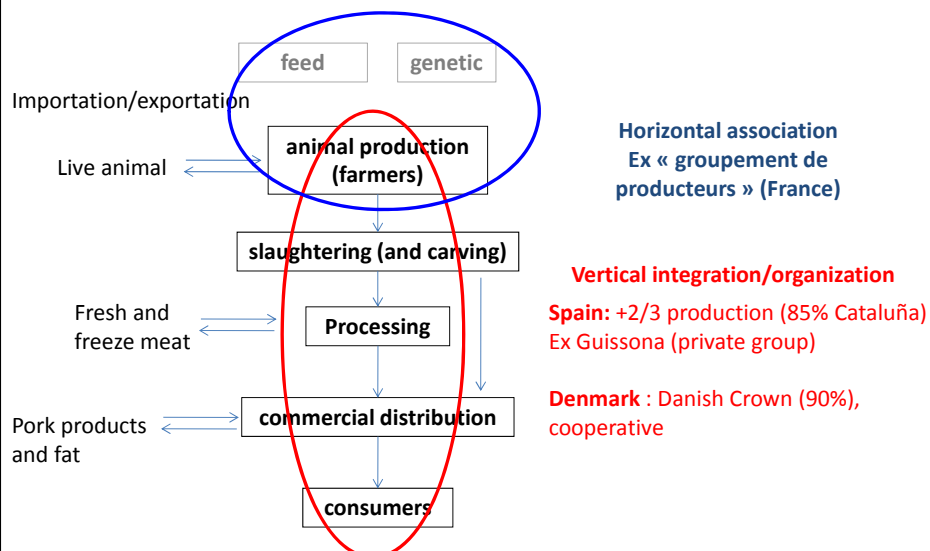
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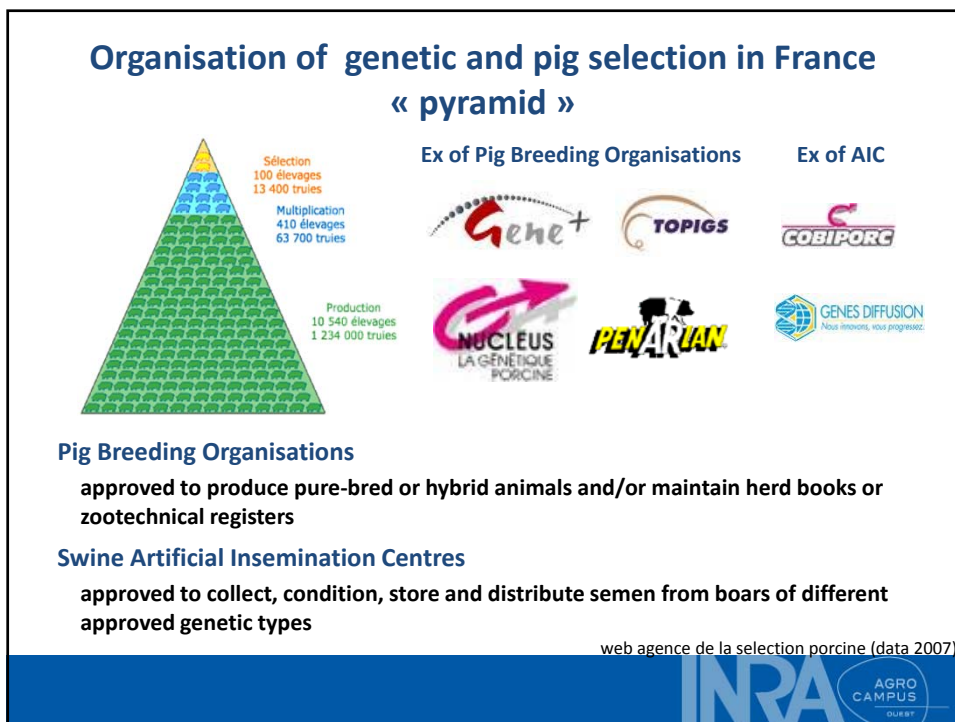
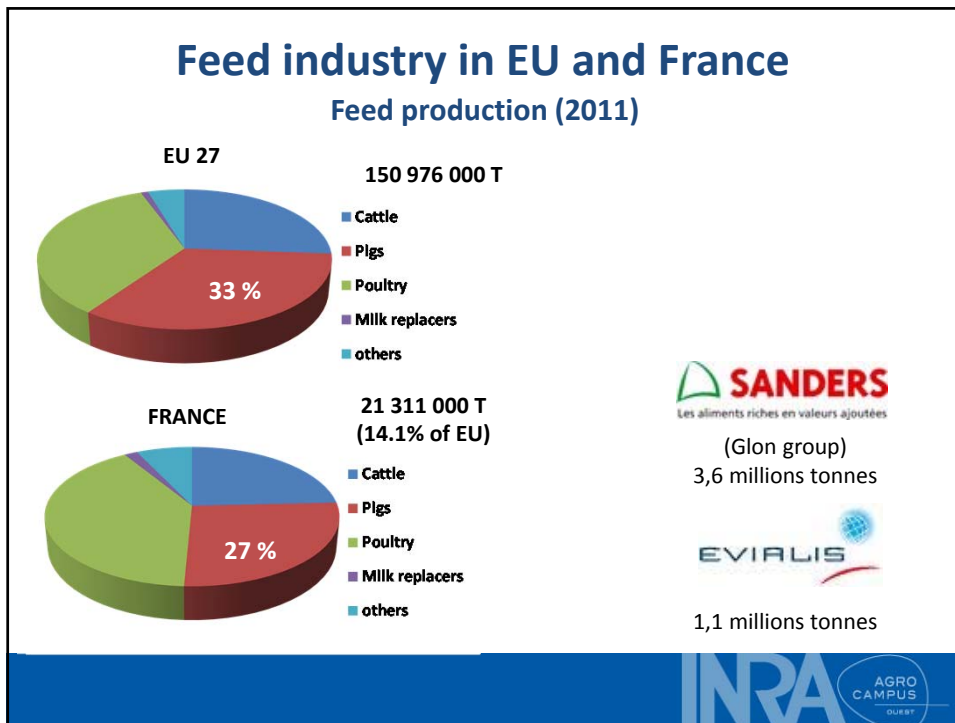
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Pig food chains - organisation





Main characteristics of pig production in France

- 22 300 pig farms (7 900 with sows)
 - 14 millions of pigs (620 pigs/farm)
 - 1.1 millions of sows (141 sows/farm)
- Family farming
- Medium-sized system
 - 62% of farms (61% of sows) => 50 – 300 sows
 - 4% of farms (19% of sows) => > 500 sows
- Dominant system: breeder fattener
 - 62% of pigs, 83 % of sows
- Mixed production farm
 - 65% => 30-100 ha
 - 51% => specialized systems
- 90% of the production => farmers association

Tendency

↘ livestock

↗ farm size

↗ nb of specialised farm

↘ nb association and ↗ size

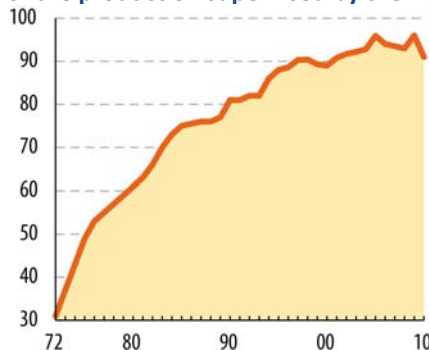


« Groupements de producteurs » : farmers associations

Aims

- Improve the weight of farmer during the trade with the other actors of the chain (feed industry, pig commercialisation)
- Advice/service/farmers formation and information (genetic, health, building,...)
- Supply (feed, pigs,...)

% of the production supervised by the « groupements »



IFIP, 2012



Concentration of slaughter in few groups

en millions de têtes



Groupes	Pays	Porcs abattus
Danish Crown	Danemark (+ PL et RU)	20,0
VION	Pays-Bas + Allemagne (+ RU)	19,3
Tönnies Fleisch	Allemagne (+ DK)	12,0
Westfleisch / Barfu	Allemagne (+ DK)	6,0
Cooperl Arcatlantique	France	5,8
Bigard / Cocopa	France	5,1
D&S Fleisch	Allemagne (+ DK)	3,3
GAD/Europig	France	2,5
Abattoir Bernard JF	France	2,0
EIPozo	Espagne	2,0

IFIP, 2008



Cooperl Arcatlantique 20 % of total slaughtering
 Bigard 19 %
 GAD 10 %



IFIP, 2011



Carcass and meat quality

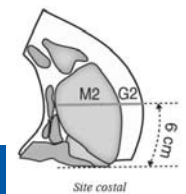
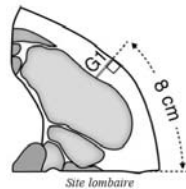


Danish Crown slaughter plant



Photo: www.eupigclass.org

In France



Measurement of the thickness of fat and muscle using the *Capter Gras Maigre* : CGM

↓
CGM equation

Taux de Muscle des Pièces
 $TMP = 62,19 - 0,729 G2 + 0,144 M2$
 RMSEP = 2.03

G Daumas, Ifip



Processing – Dependant of the culinary tradition of each country

Ex Italy

Source : cours P Bosi, IP sustainable pig



Pork meat and product sale : mainly in super and hypermarkets

	Fresh pork	Ham
Butchers	10.2 %	3.8 %
Hard discounters	11.0 %	18.1 %
Supermarkets	28.5 %	29.4 %
Hypermarkets	45.0 %	45.6 %
Online sale	0.1 %	0.6 %
Others (marché, direct sales)	5.2 %	2.5 %

% of quantity sold to home consumers (2011)

(Source Kantar FranceAgriMer)

Main European groups for super and hypermarkets



Main European groups for hard discount



Marché des Lices, Rennes



Decomposition of the price of fresh ham bought by a consumer (France)

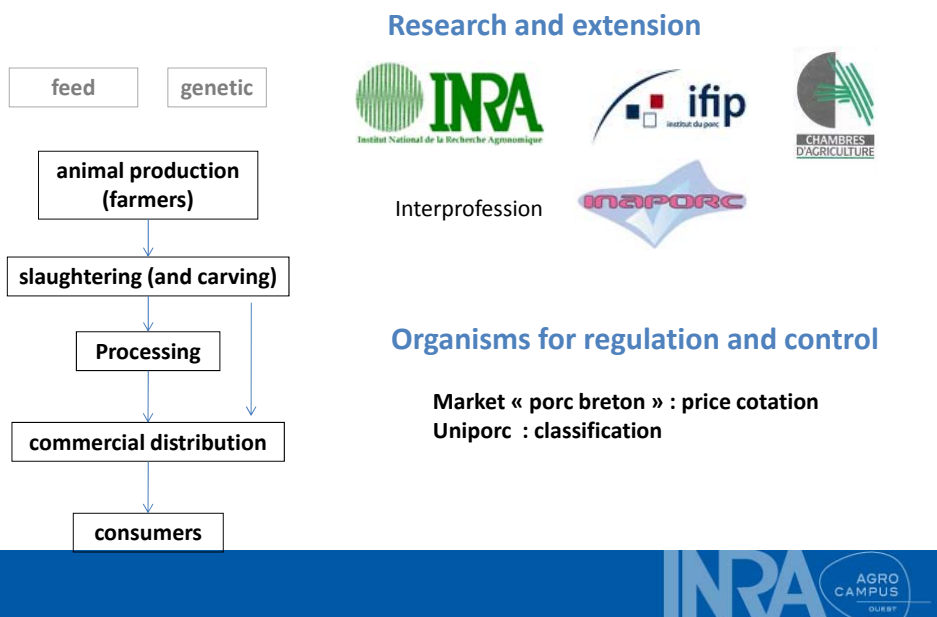
On average 2009-11, when a consumer spend **10 €** to buy cooked ham:

- **2.93 € is for the producer** (to cover production costs : feed...)
- 0.70 € is for the slaughter plant
- 1.58 € is for the processing plant (butchery)
- 4.28 € is for the distributor/saler
- 0.52 € is for the state VAT

Source FranceAgriMer



Pig food chains in France- complements





Objectifs

Répondre aux besoins des acteurs de la filière porcine

Interface entre la Recherche et les éleveurs, les réseaux d'appui régionaux, les groupements de producteurs et les organisations professionnelles, l'IFIP :

- contribue à faire émerger les besoins,
- participe à la construction d'objectifs
- met en oeuvre des actions collectives

Renforcer la compétitivité et optimiser le développement de la filière porcine

Les éleveurs de porcs, les organisations de sélection, les fabricants d'aliments, les abatteurs, les industriels et artisans de la transformation peuvent s'appuyer en permanence sur :

- des références et études**
- des expertises et audits**
- des formations et informations**

Gestion technique et économique

- Face à des choix, les éleveurs et leurs techniciens ont besoin d'outils d'analyse des résultats des élevages ou d'aide à la décision pour identifier points faibles et voies d'amélioration, et tester des hypothèses techniques ou économiques.

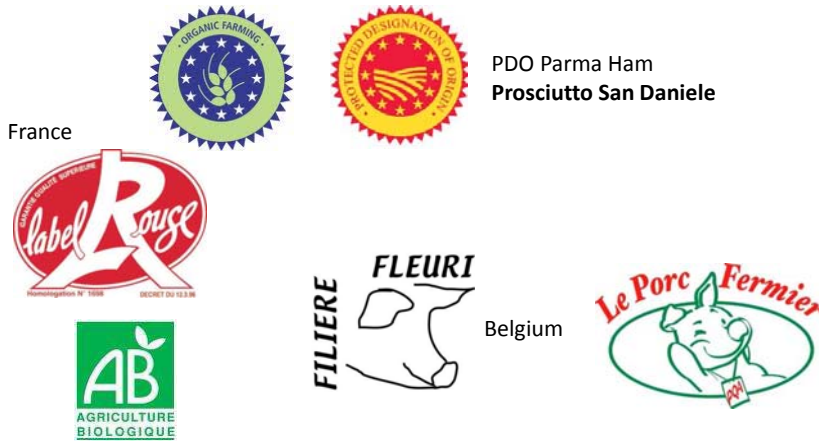
L'institut collecte et analyse les données de références techniques et économiques sur les élevages de porcs français :

- **GTTT : Gestion Technique des Troupeaux de Truies**
- **GTE : Gestion Technico-Economique**
- **TB : Tableau de Bord : coût de revient et rentabilité**

Different pig food chains

Conventional chain : predominant – long chain

Alternative production and chain : a lot of quality labels but concern a small amount of pork product (to be nuanced depending of the country) – short chain



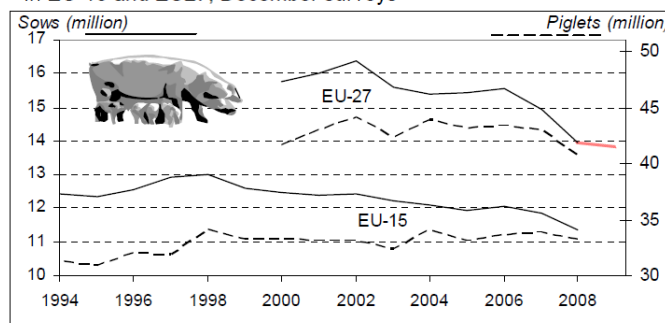
Conclusion part 1

The Western European market is characterized by:

- Change from production oriented to market oriented
- Critical consumers with wishes concerning way of production
- Large market consisting of consumers with a relatively high income
- High production costs compared to other areas.

➔ **Concentration
Abandonment
Restructuring**

Change in the number of sows and piglets
In EU-15 and EU27, December surveys



Source: Eurostat (apro.mt.lspig)



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Characteristics of the « average » pig farm in France

Mix breeder and fattener (data GTE GTTT 2011)

In door system

199 sows (3 to 21 batches)

2.0 UTH (human unit of work)

22.4 slaughter pigs/sow/year

Weaning 21 or 28 days (7.2 kg LW)

BW at slaughter 116 kg

losses and saizures 5.8 %

Land surface 50-60 ha

data GTE GTTT 09 et Agreste

Buildings - Examples in France



Building for fatterner pigs (UMR PEGASE)



Outdoor systems

Rare in France
Increase in some countries (welfare aspects) UK
A key element for some alternative farming systems

Shelter for lactating sows (Netherlands)



“Montanheira” system in Portugal



Source : PT students IP sustainable pig 2010

Hungary



www.depts.ttu.edu



Sows management – lactating sows

Today

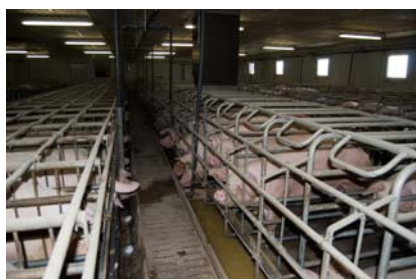


The future farrowing pen in Dk ?

Photo Dk students IP sustainable pig in the EU



Sows management – mating and gestating sows



SCEA Kerguhl, France, Réussir Porc 2008

Gestating sows in group after 2013

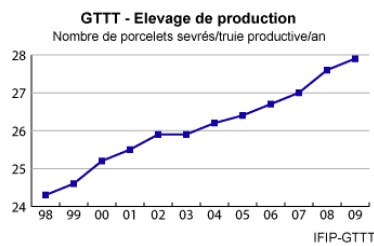


Sows performances

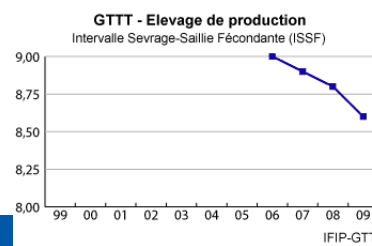
Main characteristics of sows in France (2011)

Productivity (weaned piglets/productive sows/yr)	28.3	
Per litter in nb piglets	live-born	13.2
	dead-born	1
	weaned	11.4
5.2 litters/sow		
Weaning to conception interval	8.3 d	
Farrowing interval	147 d	

Nb weaned piglets/productive sows/yr



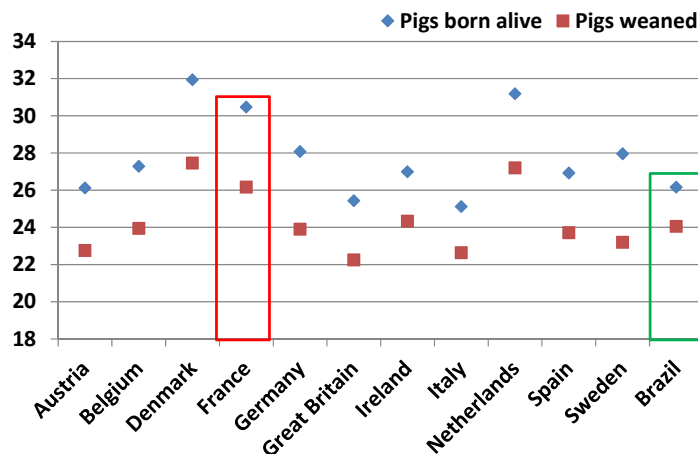
Weaning to conception interval (d)



Sows performances

Comparison between countries (EU and Brazil)

Piglets born alive and piglets weaned/sow/yr (2009)



Piglets management

No castration (PT, SP, others EU countries in the future?)

→ entire male

- | | |
|-------------|--|
| Pros | <ul style="list-style-type: none"> Animal welfare Sustainability -higher feed efficiency Higher meat content Fat quality/more unsaturated fat |
| Cons | <ul style="list-style-type: none"> Boar taint Low fat content Fat quality -soft Carcass composition -heavy fore parts Animal welfare/skin damages |

Chirurgical castration



Photo: www.ilvo.vlaanderen.be

General anesthesia (CO₂)- Nth



Photo: C Gourmelen, Ifip

Castration

with anesthesia (local, global)
Immunovaccination : Improvac (Pfizer)

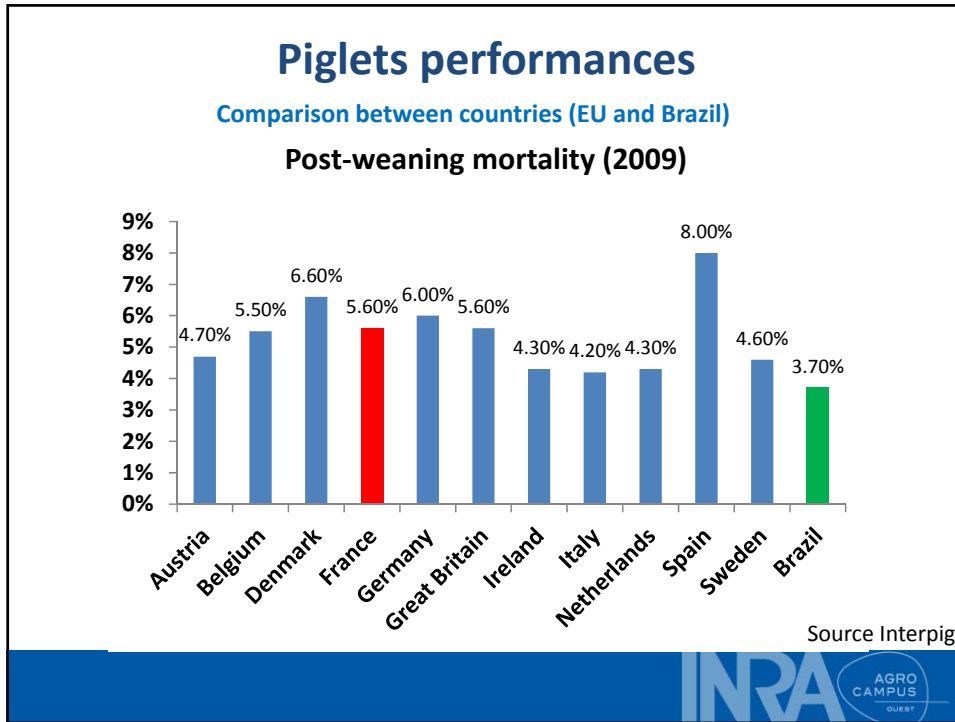


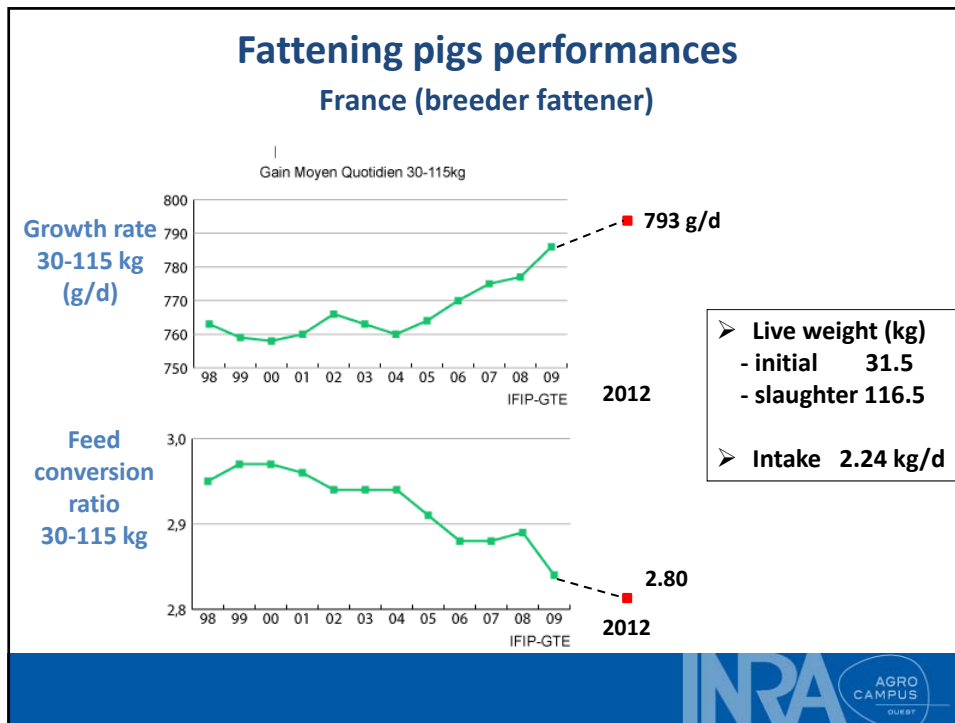
Management of pig health after the weaning

Weaning age 21 or 28 days

- No growth factors antibiotics (in feed) since 2000 (90th Sweden)
- Alternative substances to antibiotics feed additive or medicamentous feed
- A need : the decrease of the use of antibiotic in farm (problem of bacterial resistance)
 - Importance of dietary factor (protein level)
 - Importance of environment (T°, hygiene)







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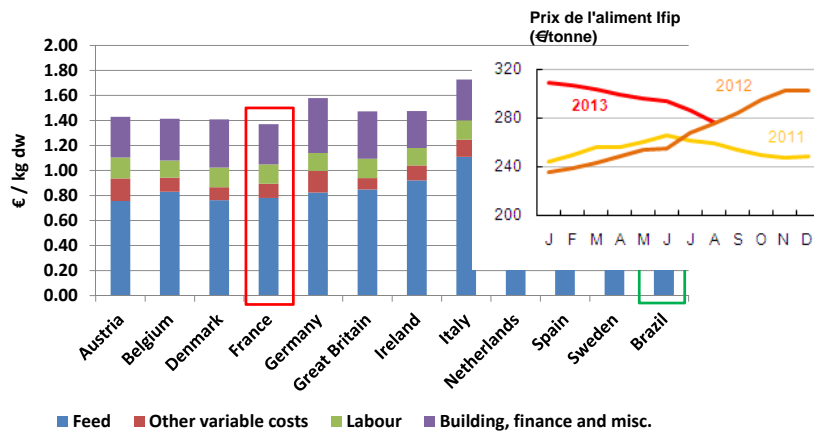
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International comparison of costs and revenues in pig production (2009)



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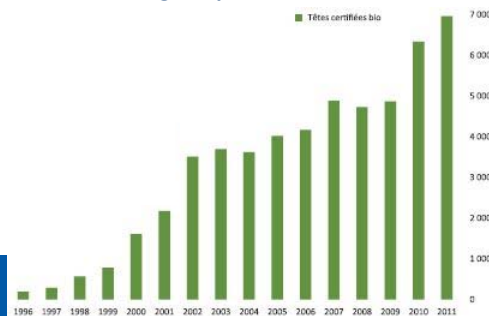
Organic pig farming in France



Not really developed compared with some other countries (Denmark, Germany, Austria) and compared with other animal production (milk), but increase

529 farms in 2011
6962 reproductive sows
71048 slaughtered pigs in organized organic chain : 0.3% of French production
Small farms : 21.6 sows/farm on average

Nb of organic productive sows in France

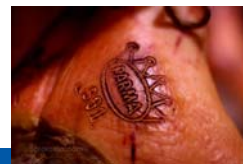
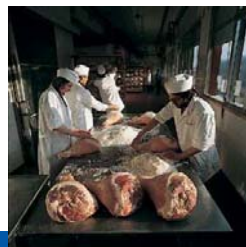


Agence bio



The production of pig for dry-cured ham PDO (Parma) in Italy

- North Italy
- Large White and Italian Landrace breeds or It.LW, It.L × Italian Duroc
- Heavy pigs
slaughter weight 165 kg
>9 months
- List of permitted feedstuffs and their proportion in the diet fixed by the consortium
- Typical seasoning
- High quality product

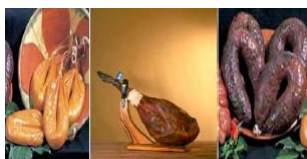


Thanks to P. Bosi (Bologna Univ and the IT-students IP sustainable pig EU !



“Montanheira” system in Portugal

- Extensive systems
- “Alentejano” race pigs
- Weaning - 8 weeks weighting 12 kg
- Fattening (September/February - Montanheira)
- Natural Resources (acorn and pasture) + Cereals
- Finishing weight = 130-160 kg (min weight = 90 kg)
- High quality product (PDO)



Thanks to the PT-students IP sustainable pig EU !



Conclusions – Strengths and limitations of pig production in EU

Strengths

- Economic development in productive basin (agriculture, industry)
- Interaction with the territory (land use, social dimension,...)
- Diversity of pork products
- Food chain organisation in some countries (Dk)
- Advising structure in some countries (ex IFIP-France)
- Taking into account environmental problems and responses (rules) to limit them

Limitations/weakness

- Few alternative systems (consumer concern)
- Competition between UE countries
- High production costs (competitiveness)
- Food chain organization in some countries (France)
- Environmental problems in the main basin (ex Bretagne – Marées vertes)
-

