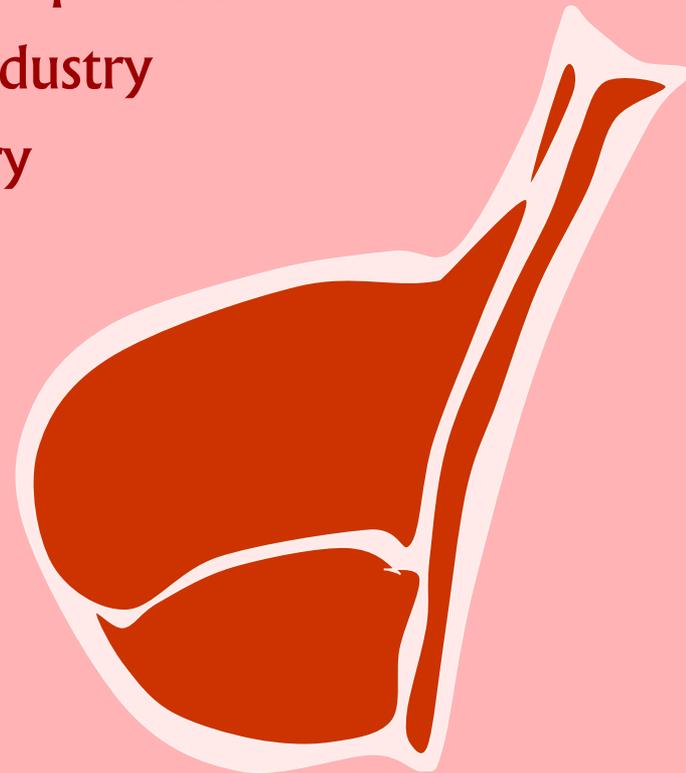
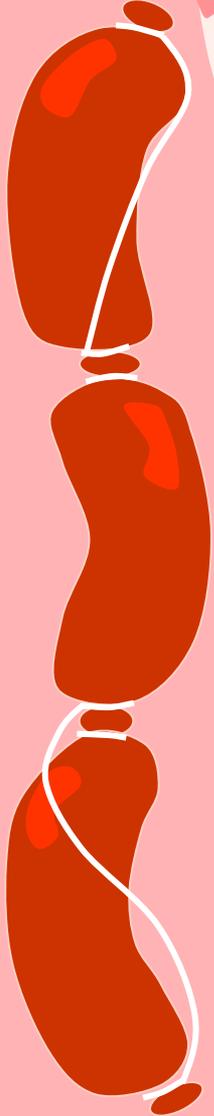


EU MEAT INDUSTRY

In this presentation, we will see the following topics:

- Basic data for the Meat Industry in the EU
- Brief introduction to the production process
- Professional profiles in the Meat Industry
- Change factors in the Meat Industry
- Changes in the professions



MEAT INDUSTRY IN THE EUROPEAN UNION (I)

We will consider data about livestock production, Meat Industry and meat and meat products consumption:

Livestock production

The main productions (in carcass in 2003) are:

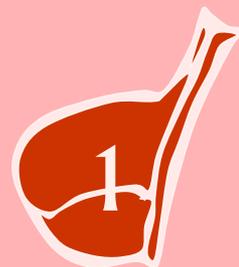
- 1st → Pig – 17,8 million tonnes (DE, ES, FR and IT → 64%)
- 2nd → Cattle – 7,4 million tonnes (FR, DE, IT, ES → 64%)
- 3rd → Sheep – 0,95 million tonnes (ES, FR, IT, DE → 49%)

The trends are:

Pig → Slow increase

Cattle → Slow decrease

Sheep → Slow decrease



MEAT INDUSTRY IN THE EUROPEAN UNION (II)

Meat Industry (I) – General data

Main basic data for Food Industry (NACE 15) and Meat Industry (NACE 151).
In parenthesis, percentage for DE, FR, IT and ES.

	Food Industry	Meat Industry
Nr Companies	282.000 (73%)	47.400 (73%)
Turnover	785.000 mio € (59%)	161.000 mio € (59%)
Workers	4,4 millions (51%)	981.000 (53%)

As for the meat industry, the **Trends** are the following:

	EU	DE	FR	ES	IT
Nr Companies	Down	Down	Down	Up	Up
Turnover	Up	Down	Up	Up	Up
Workers	Up	Down	Up	Up	Up



MEAT INDUSTRY IN THE EUROPEAN UNION (III)

Meat Industry (II) – Subsectors

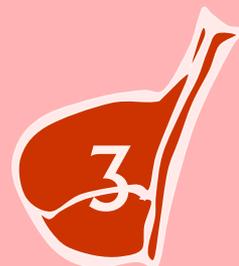
We consider three subsectors: Production and preservation of Meat (NACE 1511), Production and preservation of poultry meat (NACE 1512) and Meat and Poultry products (NACE 1513).

Data are not available for EU, but the aggregated data for DE, FR, IT and ES.

	151	1511	1512	1513
Nr Companies	34768	13,9%	2,8%	83,3%
Turnover	95,400 mio €	37%	14,6%	48,4%
Workers	513,269	22,3%	13,6%	64,1%

As for the trends, for all four countries put together, they are the following:

	1511	1512	1513
Nr Companies	Up	Down	Down
Turnover	Up	Up	Stable
Workers	Up	Up	Down



MEAT INDUSTRY IN THE EUROPEAN UNION (IV)

Meat and meat products consumption

These are the main data concerning the four countries:

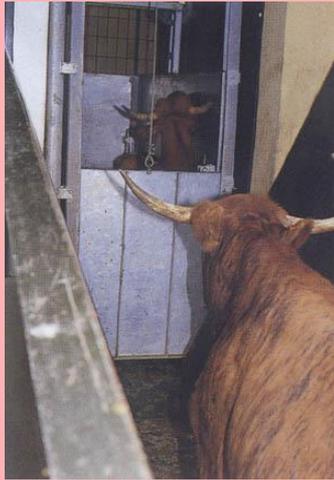
Consumption, million of tonnes

	All four	DE	FR	IT	ES
Total	25,5	Up	Down	Up	Up
Pig	11,7	Down	Stable	Up	Up
Cattle	4,8	Stable	Stable	Stable	Stable
Poultry	3,9	Down	Down	Stable	Up
Goat and sheep	0,67	Down	Down	Down	Up



PRODUCTION PROCESS

Prior to slaughter, the slaughterhouse establishes the conditions for purchasing living animals, according to health regulations. Animals are inspected and washed.



Waiting before the stunning box



Insensibilisation and Stunning



Bleeding



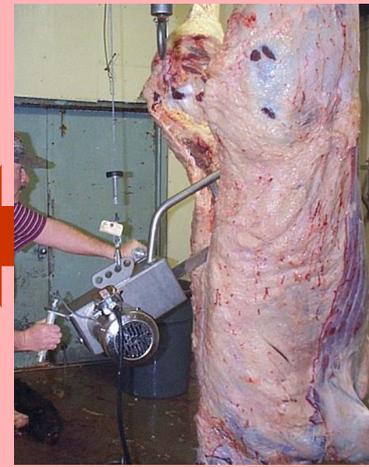
Dehided carcasses



Fresh and packed meat and meat products



Chilled carcasses



Carcass splitting



Evisceration

PROFESSIONAL PROFILES IN THE MEAT INDUSTRY

A provisional classification

From IFES point of view (to be validated and completed by partners), these are the most representative professions in the sector:

	PRODUCTION AREA	QUALITY AREA	COMMON AREAS
Livestock slaughter and meat preservation	<ul style="list-style-type: none"> • Lairage worker • Slaughterer • Meat product preparer / packer • Trimmer • Cold store / warehouse worker 	<ul style="list-style-type: none"> • Quality control expert • Veterinary assistant 	Maintenance <ul style="list-style-type: none"> • Maintenance technician • Cleaner Administration <ul style="list-style-type: none"> • Administrative clerk
Manufacture of meat products	<ul style="list-style-type: none"> • Raw meat product preparer • Heat treated meat product preparer • Meat industry machine tender • Meat product packer • Cold store / warehouse worker • Logistics expert 	<ul style="list-style-type: none"> • Quality control expert 	Marketing <ul style="list-style-type: none"> • Distributor • Marketing agent • Director of operations
Wholesale meat marketing	<ul style="list-style-type: none"> • Logistic expert • Cold store / warehouse worker 	<ul style="list-style-type: none"> • Quality control expert 	Labour Risks Prevention * LRP Expert

This list of professions is **not closed**, new ones may be added in the following phase of the project.



CHANGES IN THE MEAT INDUSTRY

Changes in the Meat Industry will mean changes in the professions and competences, and should lead to changes in the qualifications and training framework.

The main change factors are the following:

- Livestock health issues
- Food safety
- Quality of production, traceability and product labelling
- Animal welfare
- Labour risk prevention
- Environmental preservation
- Incorporation of new technologies
- Changes in market trends
- Territory related production
- Foreign trade and distribution organisation

Together with the description of these changes, a basic reflection will be made on their impact on professions and competences.

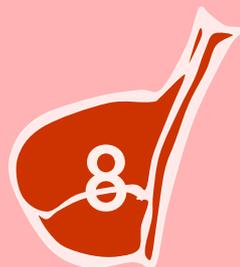


LIVESTOCK HEALTH

Basic rules are established at EU level, in four main areas.

- ❖ Preventive measures for **internal trade** of live animals, to avoid spread of diseases in animal transport. Each single animal has a veterinary certificate, showing that health requirements established by EU legislations are respected.
- ❖ For **external trade**, a similar certificate must be provided by a veterinary officer from the origin country, showing that EU health conditions for importing are respected. A veterinary officer in the EU examines animals, too.
- ❖ Measures for **disease prevention** are established for specific diseases. These measures include control of infected animals, notification of diseases, guides to diagnosing diseases, restriction of the movement of infected animals, vaccination campaigns, controls to importation...
- ❖ Other measures are focused in the **eradication of specific diseases**, financing national programmes and establishing working groups.

These measures affect mainly livestock producers, but, by implementing the traceability measures, meat industries have to record the origin and health situation of the livestock they use. Then, these regulations will have an impact in the definition of professional competences.



FOOD SAFETY

The food crisis in the 90's led to a new EU policy on food safety.

Common elements and principles.

- Comprehensive, cross over and integrated approach, combining different policies.
- Responsibility of all stakeholders in the food chain.
- Traceability and risk analysis as main mechanisms.

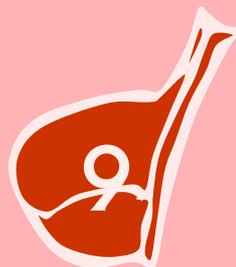
Instruments at EU level

- Promotion of research.
- The activity of the European Food Safety Agency.
- Imports have to follow at least rules at the same level than EU regulations.

Field of action

All the steps in the food chain have been regulated: animal feeding; animal welfare and health; veterinary controls in the internal and external markets; phytosanitary controls; controls on food chain; control on environmental factors; controls on GMO; control on food preparation; promotion of consumers' information.

The rules implemented in food chain have to be known by the different actors, and, then, will mean new competences, and even the increasing in the weight of some specific professions.



PRODUCTION PROCESS QUALITY

Quality in food industry cover a broad number of topics: healthiness, environmental protection, animal welfare, nutritional value, ... To assure food quality “from the farm to the table”, two tools have been established at EU level.

Traceability

Traceability means that all ingredients in a food may be identified and traced back to its origins. It allows to withdraw from the market a product as soon as a health risk is detected in any of these ingredients.

It means that any agent in the food chain will be able to identify the provider of feed, ingredients, live animals, meat... All these inputs will be recorded and, then, allow the authorities to detect quickly any problem.

Labelling

Labelling allows the consumer to have all the needed information about the ingredients of foodstuff. It is, then, a consumers' information related regulation.

Traceability issues means obligation to all the agents in the food chain: from livestock producers to meat products whole and detail sellers. Labelling affect all the agents in the meat production sectors. Then, new competences arise for the professionals in these sectors.

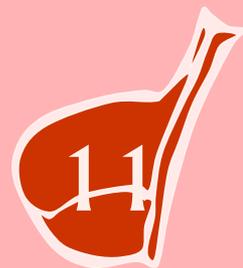


ANIMAL WELFARE

Animal welfare common rules are established at EU level.

- The EU established minimum regulations for specific animal farms. Member States can establish stricter rules.
- Concerning **Transport**, rules define the responsibilities of each agent, control instruments and sanctions. These rules affect both the animal comfort and quality of the meat, in the transport to the slaughterhouse.
- Concerning **slaughterhouses**, rules are mainly centred in the obligation to avoid unnecessary suffering to animals. Stunning will be preferred, then, as a sacrifice method.

Animal welfare issues will have, then, a direct impact in the meat industry: new techniques and tools for sacrifice will be implemented, by instance and it will mean that workers will have to learn new techniques. It has a direct impact on competences.



LABOUR RISKS PREVENTION

Labour risk prevention rules and measures are common in all labour sectors. Meat Industry has one of the highest accident rates.

The main risks for the workers in this industry are:

- Biological risks.
- Injuries from charging or falling animals, lifting weights,...
- Use of sharpened tools, electric saws, chains, hooks...
- Slippery substances (animal fluids, oils...)

Considering that this sector is a high risk one, issues related with prevention have to be considered when defining new competences and contents in permanent vocational training.



ENVIRONMENTAL CONSERVATION

Food industry is more and more concerned about environmental protection. CIAA has as one of its main strategies to improve the awareness of producers. CIAA has established key performance indicators, concerning specific natural resources:

- **Water.** The goal is to reduce water consumption and waste and promote recycling, looking for a balance between hygienic requirements and rational use.
- **Energy.** The food industry looks for cleaner energy sources, a more efficient use of energy, recycling of natural by-products, innovation of processes and equipments...
- **Packaging.** Efforts are made in reducing the packaging material, recycling, etc.
- **CO₂.** Food industries are investing for reducing the emission of such gazes.
- **Waste.** An effort is being made, too, to reduce the amount of wastewater and solid waste.
- **EMS.** Environmental Management Systems have been generally integrated in the food industries.

All these issues will have a direct impact in the meat industry production processes and, then, in competences of workers.



NEW TECHNOLOGIES

The incorporation of new technologies meant changes for the meat industry in issues such as animal health, food safety and quality, labour risk prevention, animal welfare... It may be considered, then, as an horizontal topic. A few examples:

- New technologies allow more efficient labelling and traceability processes.
- In the field of food safety, new technologies allow a closer control of production processes, allowing an earlier detection of potential risks.
- New technologies are used to improve working conditions and reduce, then, the rates of accidents in the meat industries.
- Animal welfare issues are positively affected, too, when, by instance, new technologies allow the introduction of less stressing sacrificing methods, such as stunning.

As an horizontal issue, the implementation of new technologies will mean changes in the tasks of workers, and, then, in their competences



CHANGES IN THE CONSUMERS' TRENDS

Consumers are changing their demands on meat products. The main trends are related to the following issues:

Quality.

Consumers demand higher and higher quality standards, and not only from the point of view of health protection. This goes together with a higher demand of information

Safety.

Another important element for consumer is safety of foodstuff, directly linked with health concern. The recent food crises make producers more aware of this demand.

Diversity.

Consumption habits are changing: consumers demand diversity (pre-cooked food, “exotic” food...).

Sustainability and animal welfare

These aspects are connected, by instance, with the boom of ecological / organic / biological food, or, at least, consumers are more and more concerned by the conditions in which the foodstuff was produced.

All these elements lead necessarily to changes in the meat industry production processes and, then, in the tasks and competences of workers.



GEOGRAPHICALLY LINKED PRODUCTIONS

Concerning quality, too, some productions are linked to a specific area, by Protected Designation of Origin, Protected Geographical Indication or Traditional Speciality Guarantee.

It means that certain production steps and quality standards have to be respected, so a concrete product can get this “Quality Label”.

With this label, this product will be differentiated by consumers.

It means, too, that these products will be protected from unfair competence by other similar products.

There is an European register, held by the European Commission, of such PDO, PGI and TSG products.

When an specific product got, or is looking to get, a PDO, PGI or TSG label, its production process will have to change, to adapt to production regulations. Then, workers will have to implement new tasks and, then, acquire new competences.



FOREIGN TRADE AND DISTRIBUTION ORGANISATION

Foreign trade

Trends are positive in meat products export, but, as the import figures are higher, there is a permanent negative balance:

	1999	2001	2003
Export	42.000	50.000	49.000
Import	50.000	58.000	57.000
Balance	-8.000	-8.000	-8.000

However, the balance is positive with the main trade partners of the EU: Japan and USA

Data are in millions of tons

Distribution organisation

All the issues shown above, meaning changes in the meat industry will have an impact in **distribution** of its products.

All the changes in foreign trade and organisation of the distribution will mean of course changes in the tasks and competences of workers in the areas of marketing, distribution and logistics.



CHANGES IN THE PROFESSIONS

If we consider how the different changes in the meat industry could affect the competences in the professions, we could have the grid showed in page 32 (this slide shows only a fragment).

PROFESSION	AREA OF CHANGE				
	Animal health	Food safety	Production quality	Animal welfare	Work-related risk prevention
Lairage worker	X	X		X	X
Slaughterer		X		X	X
Cutter		X	X		X
Meat product preparer / packer		X	X		X
Trimmer		X	X		X
Cold store / warehouse worker		X	X		X
Raw meat product preparer		X	X		X
Heat-treated meat product preparer		X	X		X
Meat industry machine tender		X	X		X

In the next phase, we'll check this grid, defining which concrete professional competences are affected by these factors, and in which sense.

