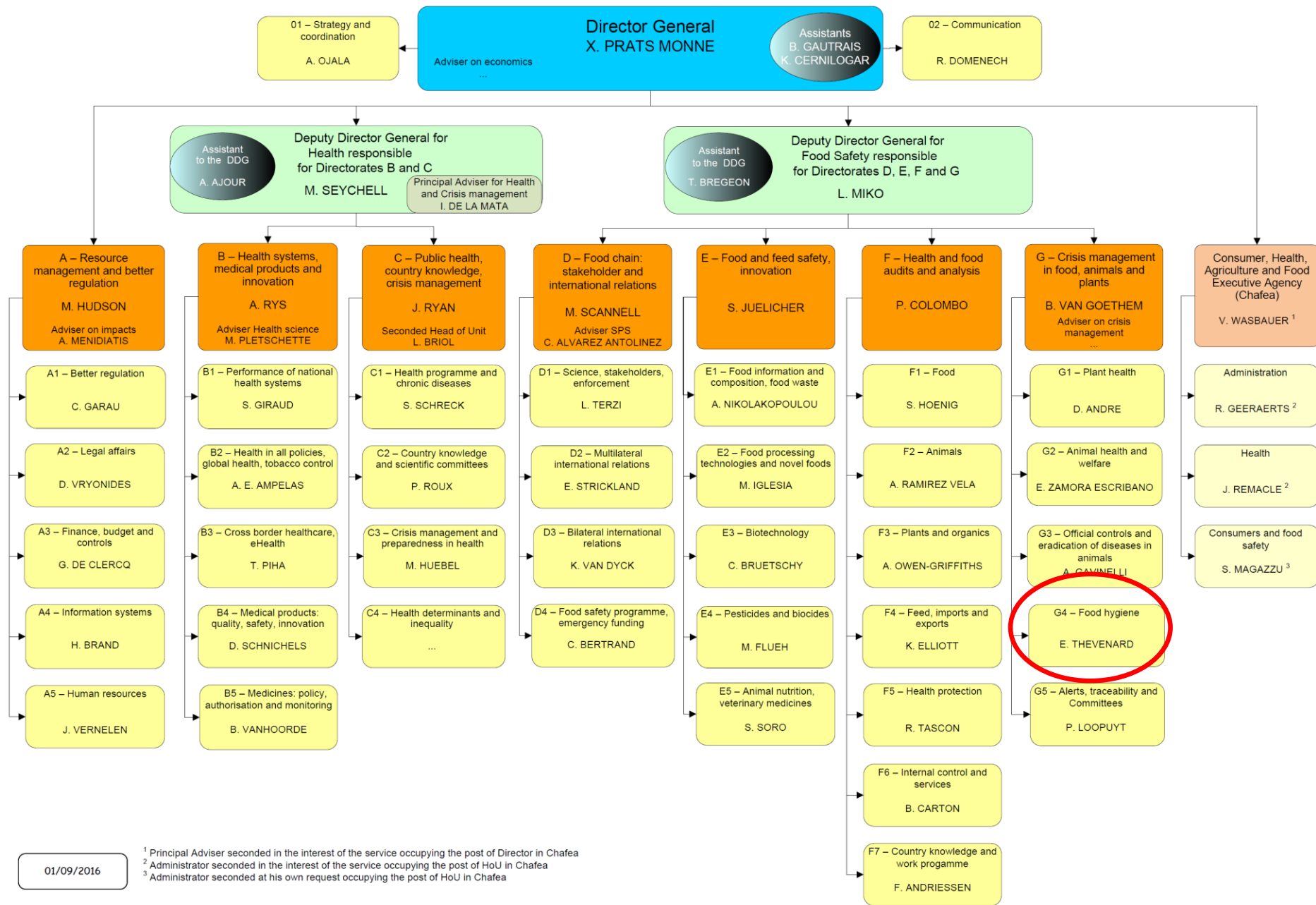


Hygiene Rules in EU Slaughterhouses

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Overview of presentation

- **A (brief!) history of food safety legislation**
- **The "Hygiene Package"**
- **Content of Hygiene Legislation**
- **Policy-making and the legislative process**

"The European Commission aims to assure a high level of food safety and animal & plant health within the EU through coherent farm-to-table measures and adequate monitoring, while ensuring an effective internal market."

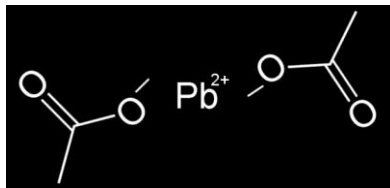


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Where did hygiene legislation come from? A brief history of food safety



- Prehistoric customs based on trial and error, instinctive revulsions for certain biological / chemical hazards, evolved into social mores / religious rules as society became more organised
- Classical antiquity – cities passed many laws on food hygiene
- Roman writers described classical symptoms of lead poisoning associated with consumption of wine sweetened with 'sugar of lead' (lead acetate, PbSO_4) – outlawed by middle ages in many European states



Health and
Food Safety



1820 Friedrich Accum (London)

"Culinary Poisons" (Ground-breaking treatise):

- Lead in cheese and chocolate
- Coffee grounds treated with ferrous sulphate and sheep faeces
- Plaster of Paris added to flour
- Arsenic added to sweets for colour

Accum was threatened and falsely indicted and had to flee back to Germany



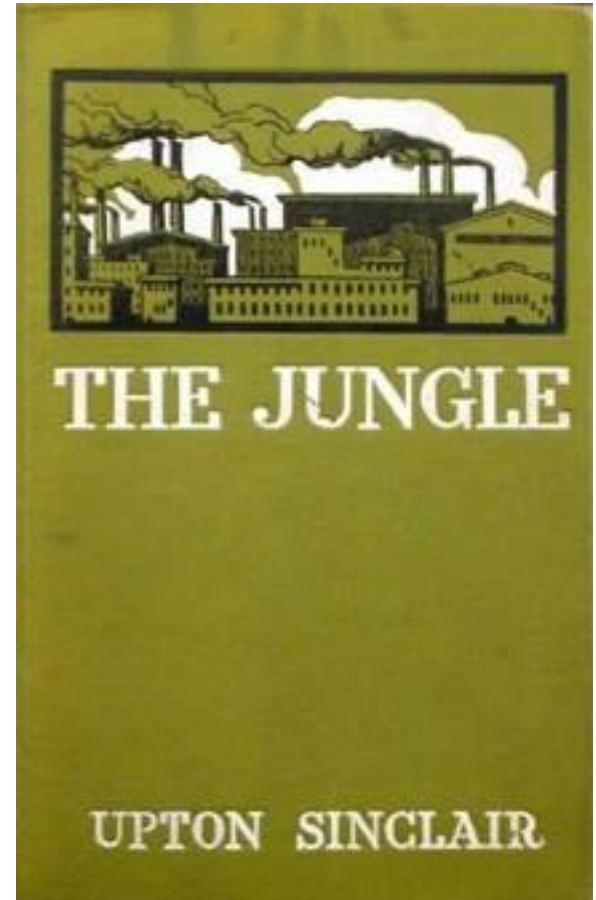
THE GREAT LOZENGE-MAKER.

A Hint to Paterfamilias.

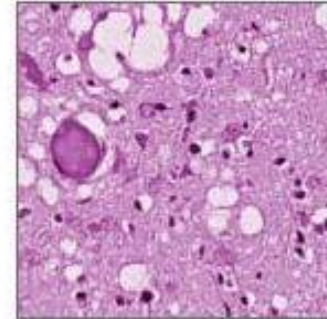
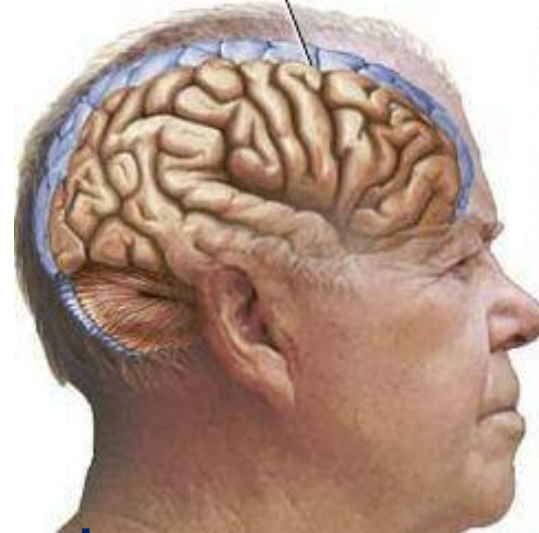


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- **"The Jungle" Upton Sinclair:**
 - **1906 novel on meat industry**
 - **Written in an attempt to highlight appalling labour conditions and hardship of meat workers**
 - **But it also exposed unhygienic practices in slaughterhouses**
 - **Sparked an outcry that led to the Pure Food and Drugs Act and the Meat Inspection Act (marked turning point in the role of government in food safety)**
 - **Sinclair: "I aimed for the public's heart, and by accident hit it in the stomach."**



Brain shrinkage and
deterioration occurs rapidly



Brain section showing
spongiform pathology
characteristic of
Creutzfeldt-Jakob

BSE crisis

- **Feeding of brain and spinal cord of cattle to other cattle gave rise to BSE epidemic, discovered in 1996 to be a zoonosis fatal to humans. 177 people died.**
- **Stringent framework of laws introduced**
- **Other concurrent crises in 1990's (Dioxin, Salmonella) – reappraisal of legal framework which was spread over many legal instruments with some inconsistencies, gaps, and overlaps**
- **Debate led eventually to Hygiene Package (2000's) – coherent unified legal framework**

The "Hygiene Package"

Regulation (EC) No 178/2002 Food law

Competent authorities

Food business operators

**Regulation (EC)
No 882/2004**
General rules
for official controls

**Regulation (EC)
No 854/2004**
Specific rules for official controls
on products of animal origin

**Regulation (EC)
No 852/2004**
General rules
on hygiene

**Regulation (EC)
No 853/2004**
Specific hygiene rules
for products of animal origin

**Regulation (EC)
No 1375/2015**

**Trichinella (Former
2075/2005)**

**Regulation (EC)
No 2074/2005**

Other implementing rules

**Regulation (EC)
No 2073/2005**

Microbiological criteria

“General Food Law”: The pillar

Regulation No 178/2002 of 28 January 2002

- *General principles*
 - Risk analysis and scientific basis
 - Precautionary principle
 - Protection of consumers' interests
 - Principle of transparency
- *All foodstuffs, all stages ('Farm to fork')*
- *Flexibility for small businesses*
- *Sets up EFSA, SCOFCAH / SCOPAFF, RASFF, crisis management procedures*

Regulation (EC) 852/2004

- **Purpose:** to ensure the hygiene of food at **all stages of the production process**, from the primary production stage (mainly farming, hunting or fishing) to the final consumer. Does **not** cover issues relating to nutrition, composition or quality, or the production or preparation of food in the home.
- **What does it do?** defines a set of food safety objectives that firms working with food must meet.
- **Covers areas such as:** food premises and equipment, transport conditions, food waste, water supply, personal hygiene and training of food workers, wrapping and packaging, heat treatment processes.

Regulation (EC) 853/2004

- **Purpose:** To complement Regulation (EC) No 852/2004 on the hygiene of foodstuffs, whose rules mainly cover the approval of operators in the sector
- **What does it do?** Lays down specific hygiene rules for **food of animal origin** for food business operators.
- **Covers areas such as:** Meat, Live bivalve molluscs, Fishery products, Raw milk and milk products, Eggs and egg products, Frogs' legs and snails, Rendered animal fats and greaves, Treated stomachs, bladders and intestines, Gelatine, Collagen

Regulation (EC) 854/2004

- **Purpose:** To complement Regulation (EC) No 852/2004 and Regulation (EC) No 853/2004 on the hygiene of foodstuffs with regard to how controls are carried out.
- **What does it do?** Puts in place a Community framework of **official controls (checks)** on food intended for human consumption.
- **Covers areas such as:** **Approving premises** of food businesses, audits of good hygiene practice, controls on **HACCP** (Hazard analysis & critical control points) procedures, import rules. Covers **fresh meat**, live bivalve molluscs, Fishery products, Raw milk and milk products.

Selected parts of the hygiene package relevant to slaughterhouse rules

- Annex II of Regulation (EC) 852/2004 (good hygiene practices in general)
- Article 5 of Regulation (EC) 852/2004 (procedures based on HACCP principles)
- Specific sections in Annex III of Regulation (EC) 853/2004:
 - o Section I, Chapters II and IV
 - o Section II, Chapters II and IV
- Guidances
- Regulation (EC) 854/2004



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Annex II of Regulation (EC) 852/ 2004 (good hygiene practices)

Annex II GEN HYG REQS FOR ALL FBOs EXCEPT WHEN ANNEX I APPLIES

Chapter I Gen reqs for food premises other than those specified in Ch III

Chapter II Specific reqs in rooms where foodstuffs are prepared, treated or processed

Chapter III Movable or temporary premises

Chapter IV Transport

Chapter V Equipment reqs

Chapter VI Food waste

Chapter VII Water supply

Chapter VIII Personal hygiene

Chapter IX Provisions applicable to foodstuffs

Chapter X Provisions applicable to wrapping and packaging of foodstuffs

Chapter XI Heat treatment

Chapter XII Training



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Article 5 of Regulation (EC) 852/2004 (HACCP procedures)

- "1. Food business operators shall put in place, implement and maintain a permanent procedure or procedures based on the HACCP principles."

4. Food business operators shall:

- (a) provide the competent authority with evidence of their compliance with paragraph 1 in the manner that the competent authority requires, taking account of the nature and size of the food business;**
- (b) ensure that any documents describing the procedures developed in accordance with this Article are up-to-date at all times;**
- (c) retain any other documents and records for an appropriate period.**

Annex III of Regulation (EC) 853/2004

Section I (Meat of Domestic Ungulates)

- Chapter I Transport of live animals to the slaughterhouse
- Chapter II Requirements for slaughterhouses
- Chapter III Reqs for cutting plants
- Chapter IV Slaughter Hygiene
- Chapter V Hygiene during cutting and boning
- Chapter VI Emergency slaughter outside the slaughterhouse
- Chapter VII Storage and transport

Section II, (Meat from Poultry and Lagomorphs) Chapters II and IV

- Chapter I Transport of live animals to slaughterhouse
- Chapter II Requirements for slhouses
- Chapter III Requirements for cutting plants
- Chapter IV Slaughter Hygiene
- Chapter V Hygiene during and after cutting and boning
- Chapter VI Slaughter on the farm
- Chapter VII Water retention agents

EU Guidances

- http://ec.europa.eu/food/food/biosafety/hygienelegislation/guide_en.htm
- **Guidance document on the implementation of certain provisions of Regulation (EC) No 853/2004 on the hygiene of food of animal origin**
- **Industry guidances, e.g. forthcoming UECBV guidance on slaughter hygiene. Legislative basis = Art 9 of 852**



Article 9 of Regulation (EC) 852/2004

Article 9

Community guides

1. Before Community guides to good practice for hygiene or for the application of the HACCP principles are developed, the Commission shall consult the Committee referred to in Article 14. The objective of this consultation shall be to consider the case for such guides, their scope and subject matter.
2. When Community guides are prepared, the Commission shall ensure that they are developed and disseminated:
 - (a) by or in consultation with appropriate representatives of European food business sectors, including SMEs, and other interested parties, such as consumer groups;
 - (b) in collaboration with parties whose interests may be substantially affected, including competent authorities;



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Regulation (EC) 854/2004

Chapter II Official Controls in relation to Community Establishments

Article 3 Approval of establishments

Article 5 Fresh meat

Annex I FRESH MEAT

Section I: Tasks of the Official Veterinarian

Section II: Action following controls

Section III: Responsibilities and frequency of controls

Section IV: Specific requirements

Chapter I- Domestic bovine animals

Chapter II- Domestic sheep & goats

Chapter III- Domestic solipeds

Chapter IV- Domestic swine

Chapter V- Poultry

Chapter VI- farmed lagomorphs

Chapter VII- farmed game

Chapter VIII- wild game

Chapter IX- specific hazards

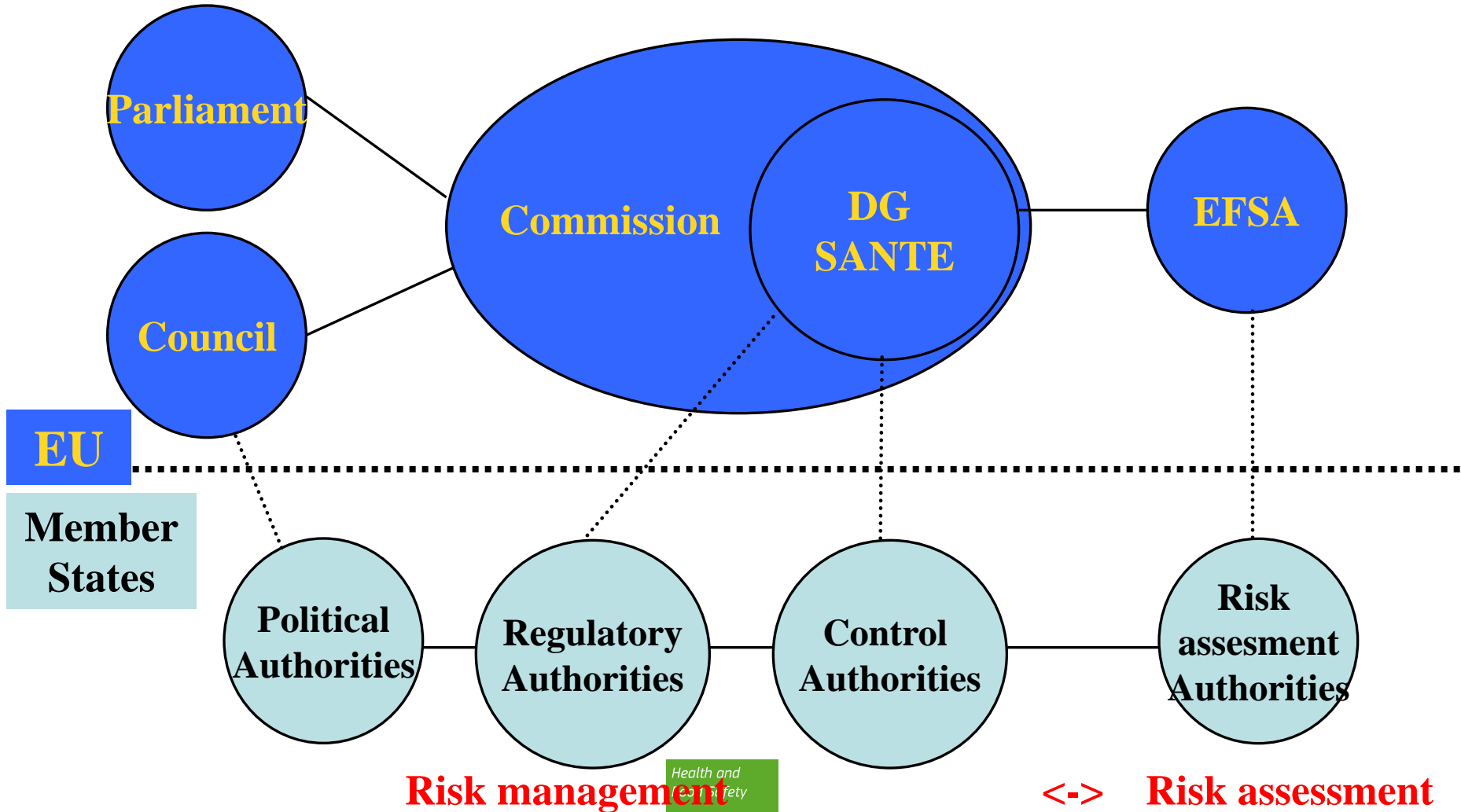
Hygiene package: main possible revisions

- ❑ *Review under Ordinary Legislative Procedure*
 - No fundamental overhaul on the content
 - More risk based approach to control of imported composite products
 - Liaison with revision R. 882/2004 as regards import conditions food of animal origin – Official Controls Regulation
- ❑ *A more risk-based meat inspection*
 - Pigs: finalized, other species: under consideration
- ❑ *Others under comitology procedure*
 - Based on new scientific advice or to solve implementation issues: decontamination, temp. conditions, import certificates, ...



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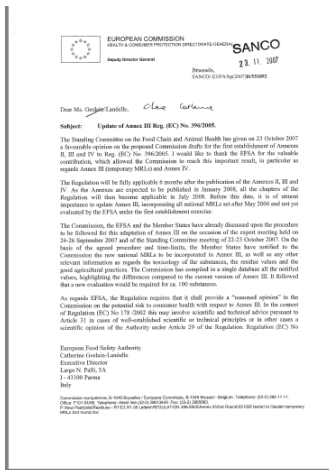
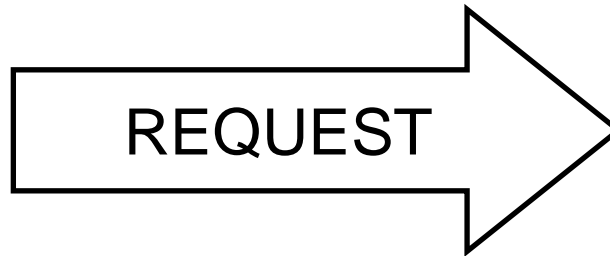
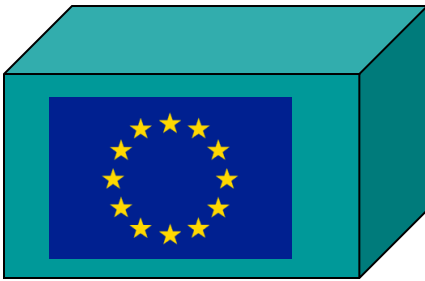
EU/MS Food Safety structures





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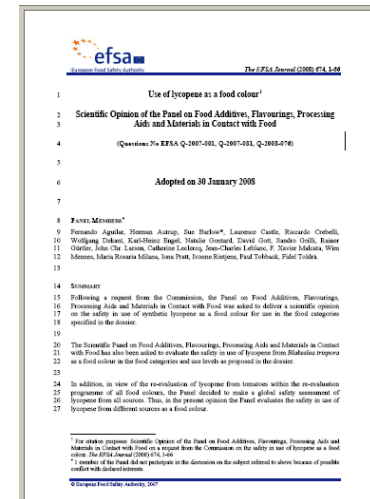
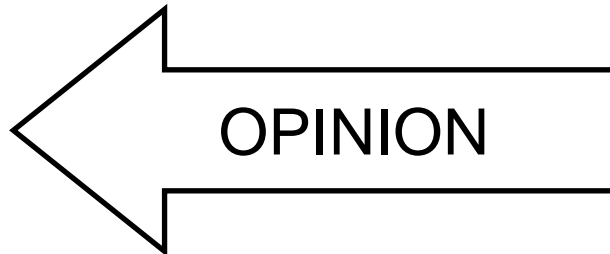
1. From Risk Management to Risk Assessment





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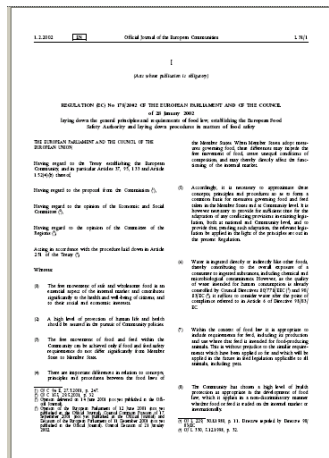
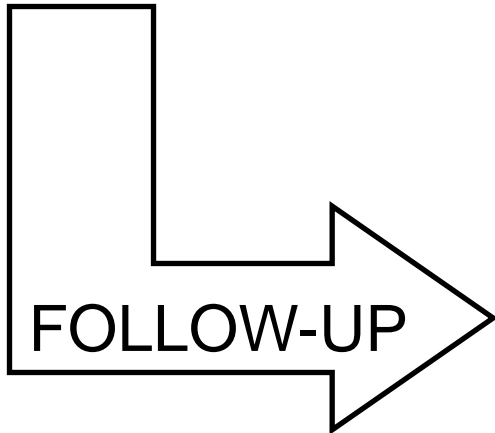
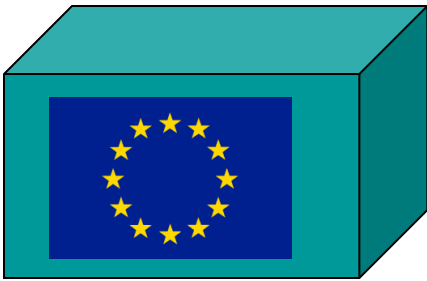
2. From Risk Assessment to Risk Management





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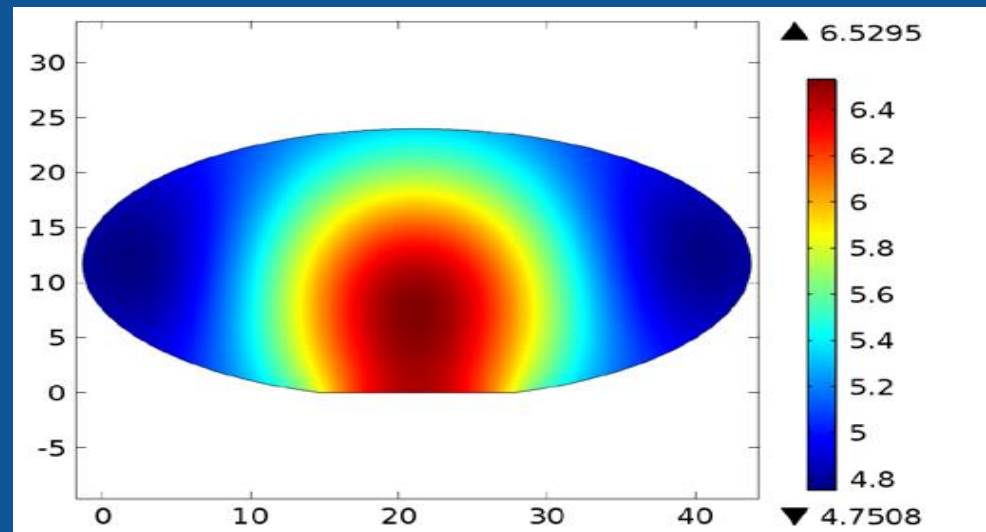
3. From Risk Management to Risk Assessment



LEGISLATION
Health and Food Safety

Temperature conditions during transport and storage of meat

An example of a currently ongoing legislative process potentially amending the Hygiene Package

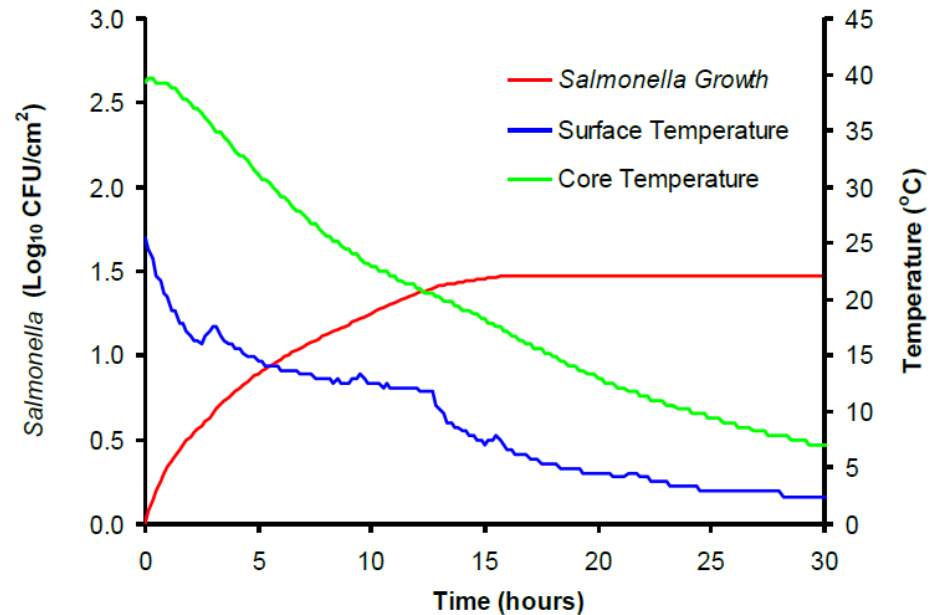


Background

- Current legislation (Regulation (EC) 853/2004) requires carcasses of domestic ungulates to be immediately chilled after post mortem inspection to a **core** temperature of not more than 7°C.
- This must be completed in the slaughterhouse chillers, before transportation can begin. Takes a long time.
- Some studies have shown that this is unnecessary, and that more flexibility of these parameters is possible with no increase in public health risk (ANSES, AFSCA, UK). The European Commission requested an EFSA opinion.

EFSA Opinion

- Used predictive microbiology to estimate growth of Salmonella, Listeria and Yersinia spp and VTEC on meat



- Surface temperature, not core temperature, is the critical factor for controlling bacterial growth
- It is possible to commence carcass transport before core temperature of 7°C is reached, without extra risk



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EFSA Opinion

Proposes combinations of

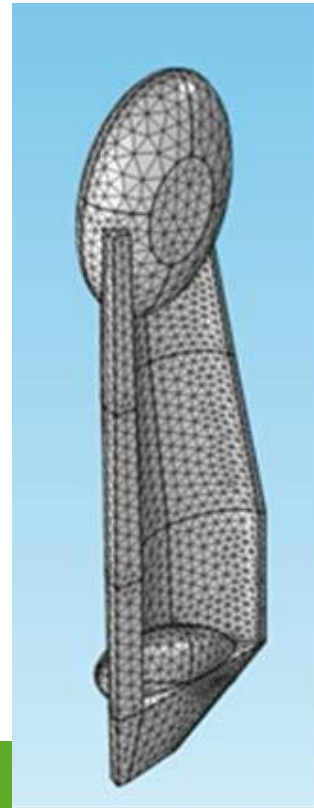
- carcass surface temperatures at loading,
- transport durations and
- transport air temperatures

that would ensure pathogen growth is no greater than under the current chilling requirements, for partially chilled red meat.



Other studies by KUL & TNO

- Modelled, or measured, loss of internal heat from carcasses;
- recommended removal of up to 70% of carcass body heat before transport, to prevent internal carcass heat from causing a rise in surface temperature.





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Legislative Proposal

"Commission Regulation amending Annex III of Regulation (EC) No 853/2004 of the European Parliament and of the Council as regards temperature conditions during transport of meat"

Derogations from the current chilling requirements, provided that

- the chilling is commenced immediately after post-mortem inspection, and
- a chilling curve is maintained which ensures a continuous decrease of the temperature, and
- an attestation of the time of departure and of the surface temperature at that time accompanies the consignment



General issues to be considered in making policy and legislation

- Will proposed legislation answer the expressed need?
- Might it present practical problems on the ground for industry?
- Any other unintended consequences (e.g. will the change facilitate some undesirable unforeseen practice?)
- Will it be future proof – at least for medium term? – industry is innovative
- Acceptable to consumers? Offer the required level of safety ?
- Attitudes of Member States?
- Trade agreements with third countries