Meat Consumption, Trends and Quality – a market perspective

Dr Maeve Henchion,

2nd October 2015

Università degli Studi di Milano, Milan, Italy



A Workshop for Industry & Scientists



Agenda

- Current and future meat consumption
- Quality dimensions of importance to consumers
- Credence aspects of quality, i.e. sustainability and ethics
- Implications for the supply chain and broader policy framework

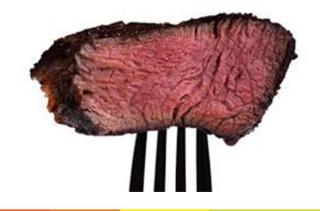




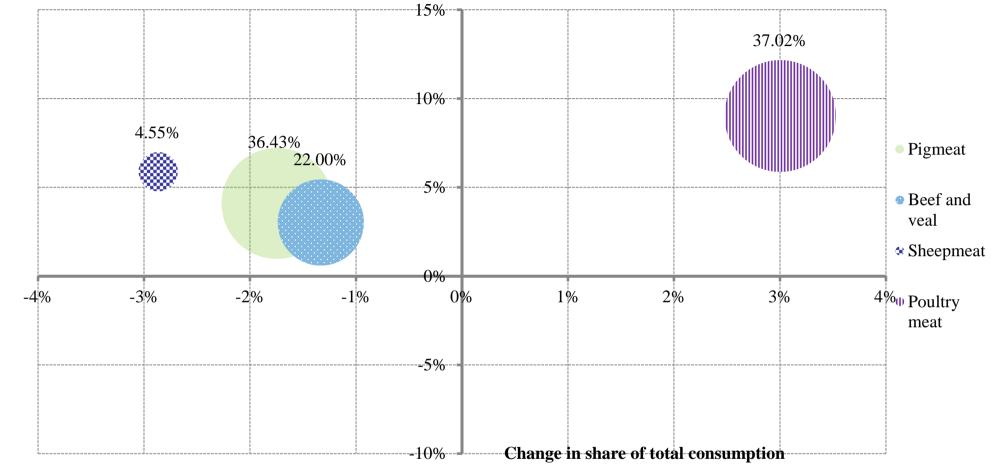
Table 1: Global meat consumption, 1990-2009

	1990	2009	% change	1990	2009	% change
	'000 tonnes	'000 tonnes		Kg/capita	Kg/capita	
Bovine meat	54,065	63,835	18.1	10.4	9.6	-7.7
Mutton & goatmeat	9,100	12,763	40.2	1.7	1.9	11.8
Pigmeat	68,692	105,503	53.6	13.2	15.8	19.7
Poultry meat	40,173	90,664	12.7	7.7	13.6	76.6
Other meats	3,634	6,098	67.8	0.7	0.9	28.6
Aggregate	175,665	278,863	58.7	33.7	41.9	24.3

Source: Henchion, McCarthy, Resconi and Troy, 2013 (based on FAO 2014)



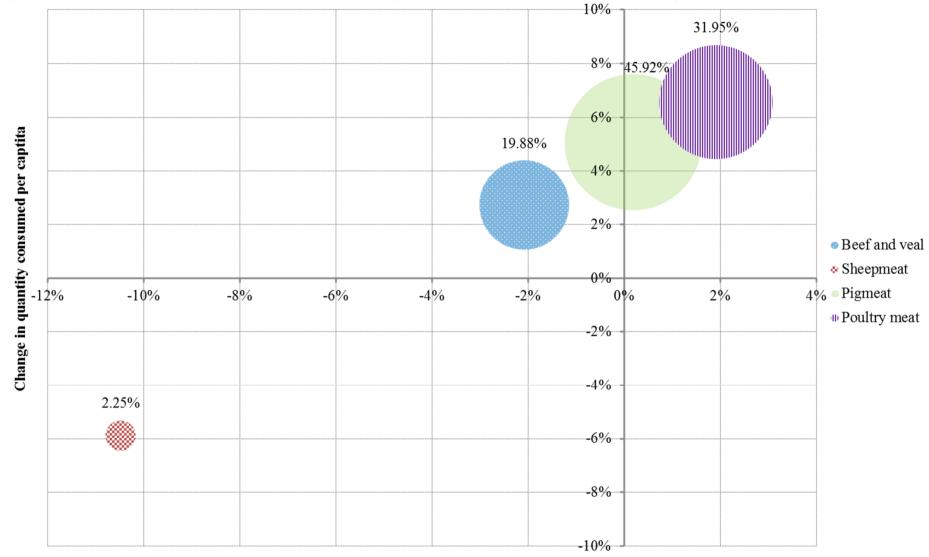
Projected World Meat Consumption in 2022 compared to 2013



Source: Henchion, McCarthy, Resconi and Troy, 2013 (based on FAO 2014)



Projected EU Meat Consumption in 2022 compared to 2013



Change in share of total consumption

Source: Henchion, McCarthy, Resconi and Troy, 2013 (based on FAO 2014)



So what of the future....?

- More of the same?
 - Favourable conditions
 - Growing world population
 - Rising middle class
 - Dietary transitions

But

- Meat consumption per capita has peaked in some countries
- Other factors will increasingly influence meat consumption patterns

More complex human behaviour than traditional micro-economic models alone can model







What are these factors?

Increased health and dietary awareness

 Increased interest in non-meat sources of protein

Increased interest in meat production systems, animal welfare, and sustainability

Increased emphasis on quality

Importance of credence attributes because of weak link between intrinsic attributes and quality Higher order motives







Systematic review of journals on meat quality from consumer perspective: search attributes (preliminary results)

Search attributes	No. of journals (n=33)	Consumer ranking (n=15)
Visible fat	17	5
Labels in general, certif., brands, etc.	14	1
Price	20	6
Colour	8	4
Place of purchase	8	3
Appearance	5	2

Source: Henchion, McCarthy and Resconi (in preparation)







Systematic review of journals on meat quality from consumer perspective: experience attributes (preliminary results)

Experience attributes	No. of journals (n=33)	Consumer ranking (n=15)
Eating quality	27	-
Tenderness	16	2
Flavour	10	3
Juiciness	5	1

Source: Henchion, McCarthy and Resconi (in preparation)









ood Development Authority

MEMEY. com

Systematic review of journals on meat quality from consumer perspective: credence attributes (preliminary results)

Credence attributes	No. of journals (n=33)	Consumer ranking (n=15)
Origin	21	7
Health, nutrition, body weight	20	4
Safety (residues, health, risk, etc.)	17	-
Natural (GM feed, hormones)	12	6
Animal welfare	11	5
Productions system/feeding	10	1
Traceability	8	2
Environmental issues	6	3

Source: Henchion, McCarthy and Resconi (in preparation)





Sustainability and ethical aspects of production

Meat production and consumption "increasingly contested" in gradient countries (Mathijs, 2015)

Consumption restricted or avoided not just for sensory reasons but also for environmental, human health, and ethical reasons related to animal welfare

Two sides to the coin

Livestock systems have both positive and negative effects on the natural resource base, public health, social equity and economic growth (World Bank).

One sided debate









Environment

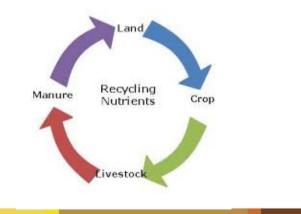
Consumers are hearing about climate change, GHG emissions, carbon footprint, land use.....

BUT not hearing about

Semi-natural habitats and nutrient recycling







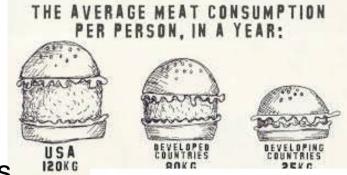




Public health

Two-sided story again Developing countries vs developed countries Meat Technology Centre (MTC) in Ireland

- What is good in meat?
 - (bioactives and micronutrients)









Animal welfare issues

- Number of people concerned and nature of concern deeper and broader
- Living vs death
- Natural lives and humane deaths
- Differences in species
- Animal welfare as an indicator of other product attributes
- Retailer animal welfare standards: drivers?





Implications for the supply chain

Continuing to satisfy increased global demand for meat is not sustainable

- 2 x 2 options
 - market response and/or policy response
 - Supply and/or demand

Need to identify opportunities to add value and differentiate offering (consider non-animal sources of protein also)

Need to communicate with consumers and citizens

- There are two sides to every story
- Trust and role of others
- Labelling and heuristics

Need to work with non-traditional partners...FAO, WWF, Soil Association, public health and nutrition bodies

Need to contribute to shaping regulatory framework (and support production of evidence) – carbon constraints, environmental and animal welfare legislation, quality assurance schemes, health and nutrition





Acknowledgements

UK Foreign and Commonwealth Office

Agri-Food and Biosciences Institute, Belfast, UK

University of Milan and Centro Ricerche Produzioni Animali, Reggio Emilia, Italy

Financial support of DAFM Research Stimulus Fund for the project entitled "Genetic selection for improved milk and meat product quality in dairy, beef and sheep". Project reference number 11/SF/3011







