




Meeting consumer expectations

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- 
- What do we talk about when we talk about food?

Or more importantly

- What do the consumers say?

What do the consumers say?

- lamb focus groups

CAFRE Final Year Student Project

- Lamb consumption is declining
- Investigating and comparing consumer liking of lamb for younger and older consumers
- Conducted three focus groups (Loughry College, Antrim and Glenarm)
- These identified both positive and negative responses

Focus groups:- Negative responses

- Dislike flavour/odour, lingering smell in kitchen
- Expensive
- Unavailability on restaurant menus
- Hardly ever seen 'on offer' in shops/ supermarkets
- Next stage: Currently developing questionnaire

What can we say about consumers?

1. What do they say?
 - lamb focus groups
2. Scoring treatments
 - lamb benchmarking



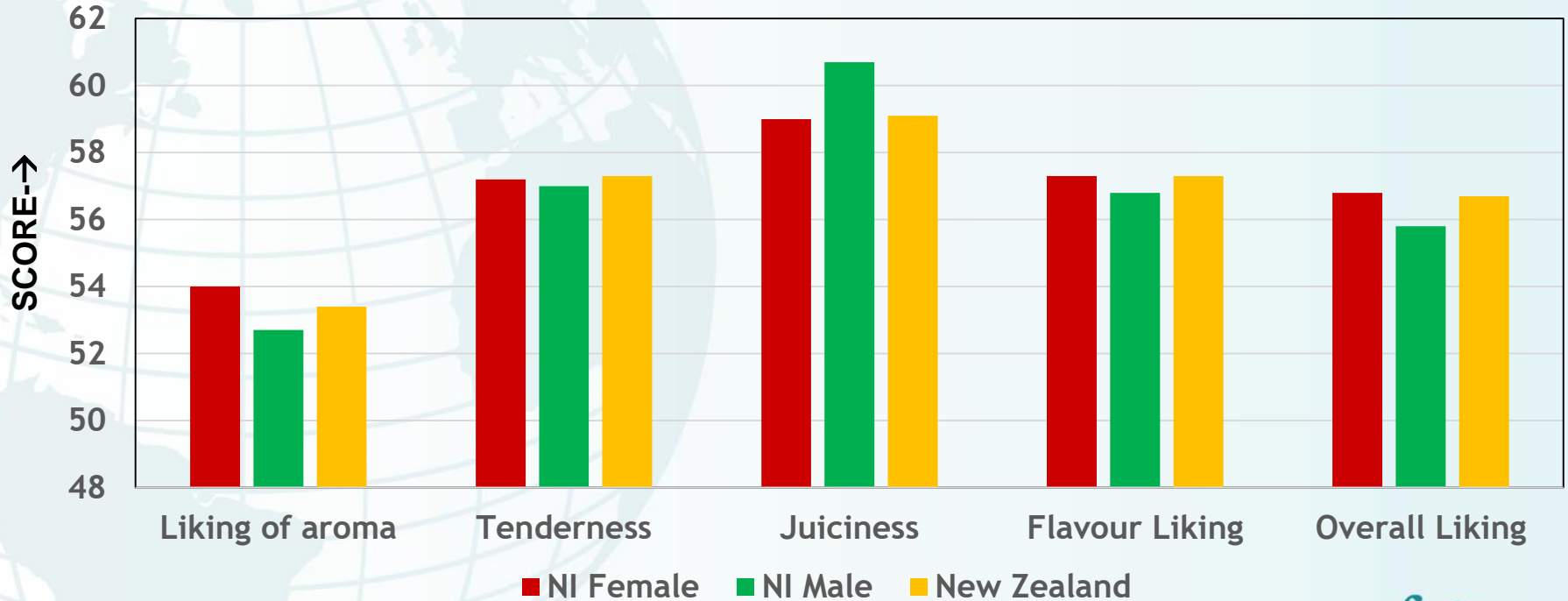
Benchmarking of lamb

Commissioned by Northern Ireland Livestock and Meat Commission.

Objective: To compare the eating quality of lamb loin from Northern Ireland female lambs, entire male lambs (<12 months) and New Zealand sourced lamb (4-6 months).

Method: 120 consumers assessed six samples on the acceptability of aroma, flavour, texture and overall acceptable.

Mean scores for hedonic assessments of lamb loin from three sources



No Significant Differences



Outcome:

NI lamb, harvested at just under 12 months of age was of equal acceptability to 4-6 month New Zealand lamb imported at the same date.

What can we say about consumers?

1. What do they say?
 - lamb focus groups
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However these are average scores

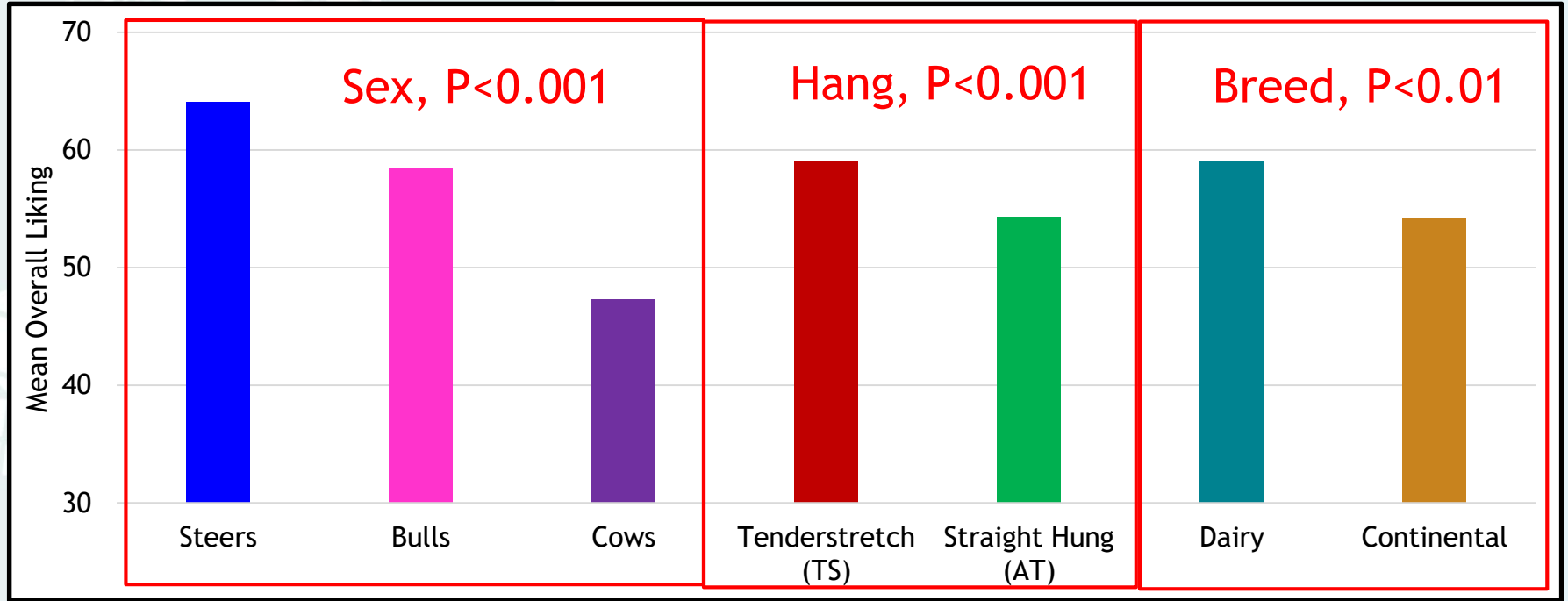
Consumers differ >> cluster analysis

Beef

Investigation into regional differences between consumers.

- Trained sensory profiling panel
- Consumer Panels (360)
- Conducted in Belfast, Cork and Reading

Meat Quality- Consumer Overall Liking

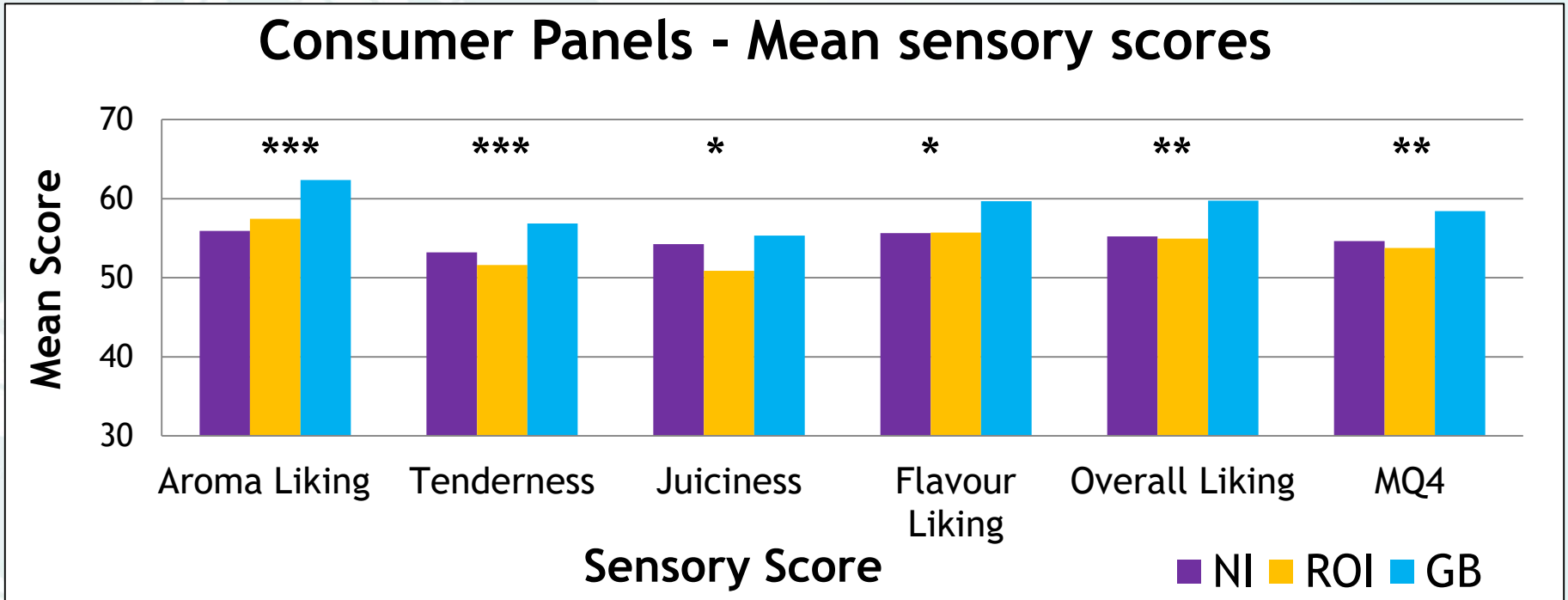


Steers > Bulls > Cows

TS > AT

Dairy > Continental

Are there any regional differences?



* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

Do different regions like different things?

Interactions (6 treatments)

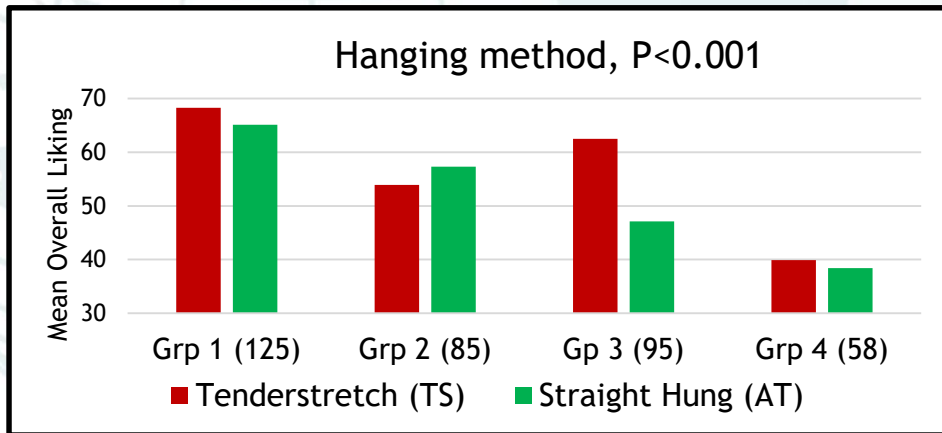
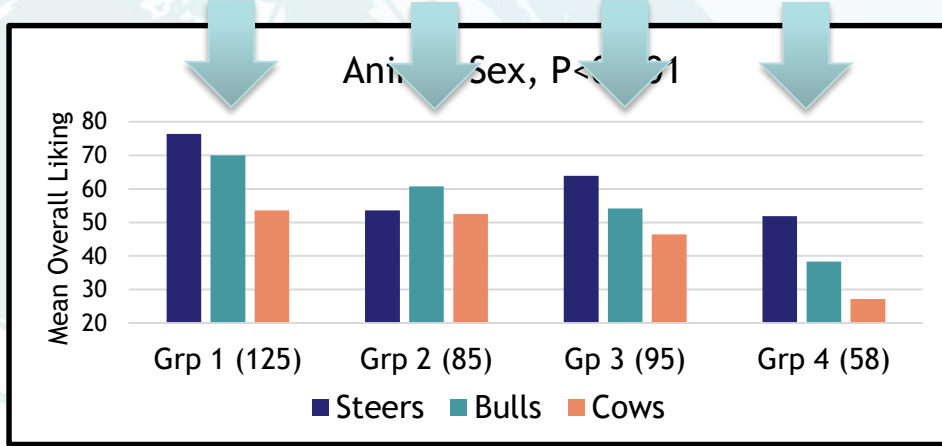
	Treatment (n=6)	Region	Region * Treatment
Liking of aroma	**	***	ns
Tenderness	***	**	ns
Juiciness	***	*	ns
Flavour Liking	***	*	ns
Overall Liking	***	**	ns

* P<0.05, **P<0.01, ***P<0.001

Cluster Group Analysis

	No of consumers	%
Group 1	121	34%
Group 2	85	24%
Group 3	96	27%
Group 4	58	16%
Total	360	100%

Preferences: Treatment



Cluster Groups

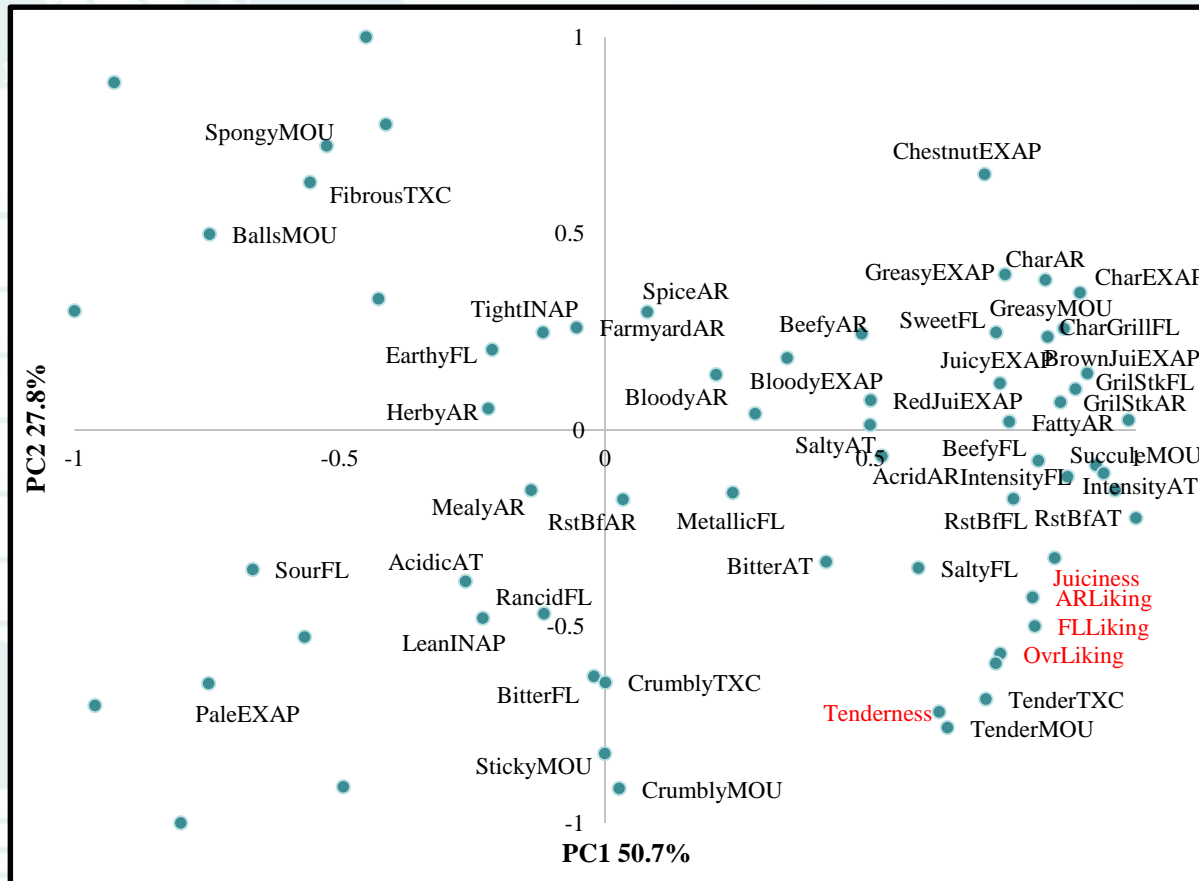
Grp1 – “Easy pleased”

Grp2 – “Bull-beef likers”

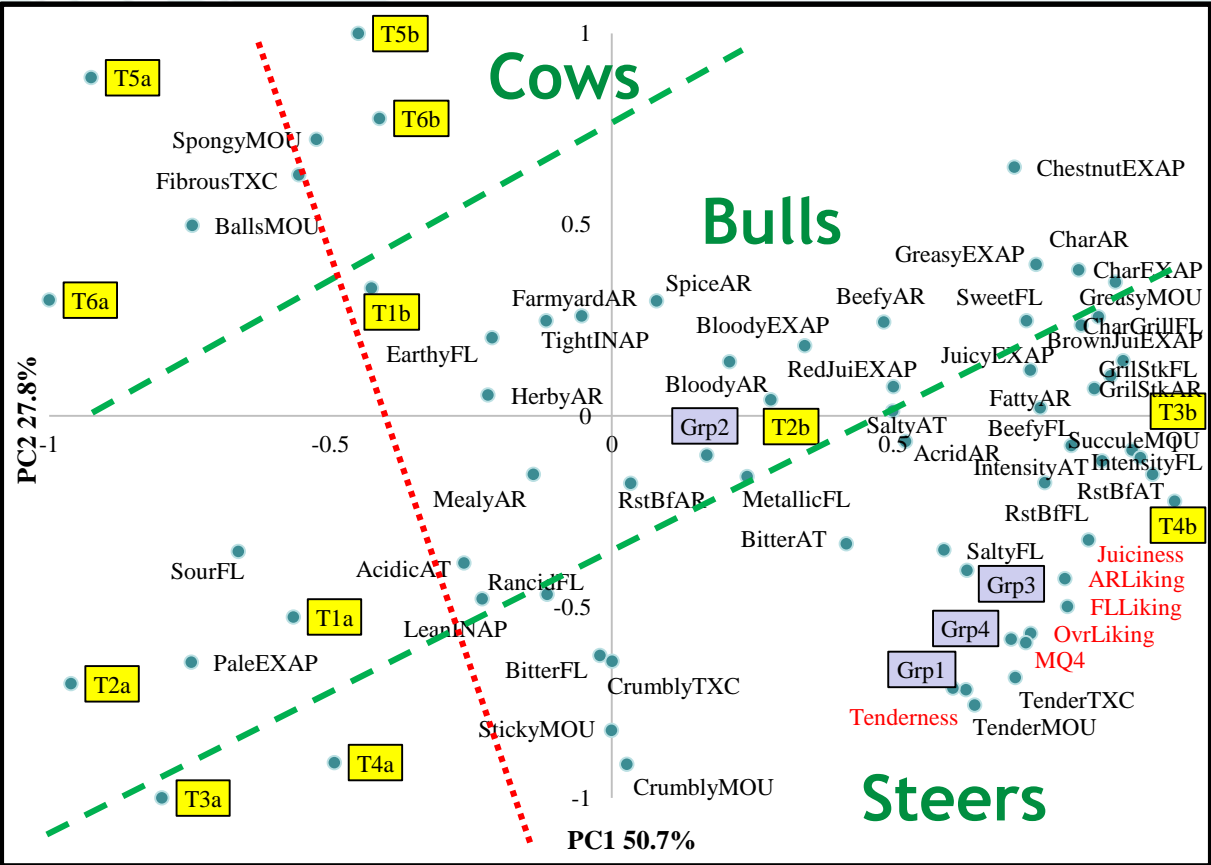
Grp3 – “Tender”

Grp4 – “Fastidious”

External Preference Map



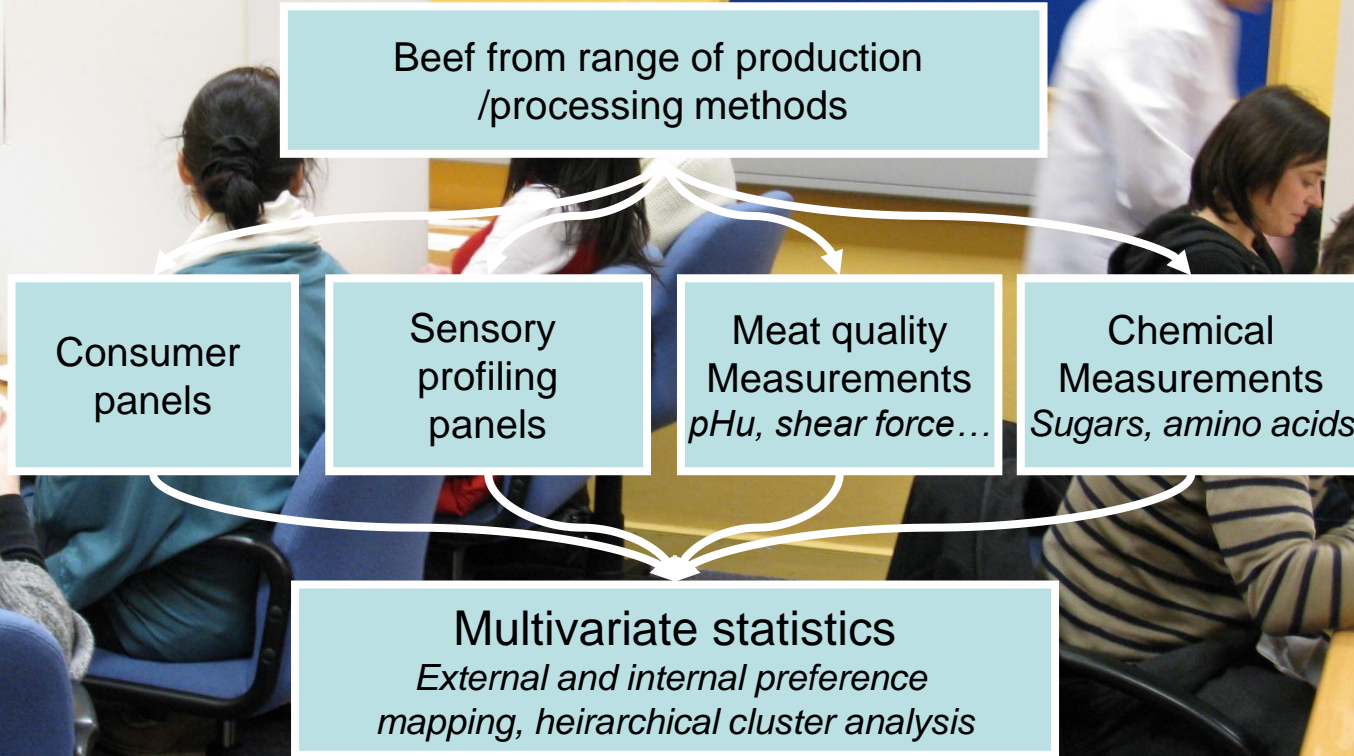
External Preference Map



a = continental

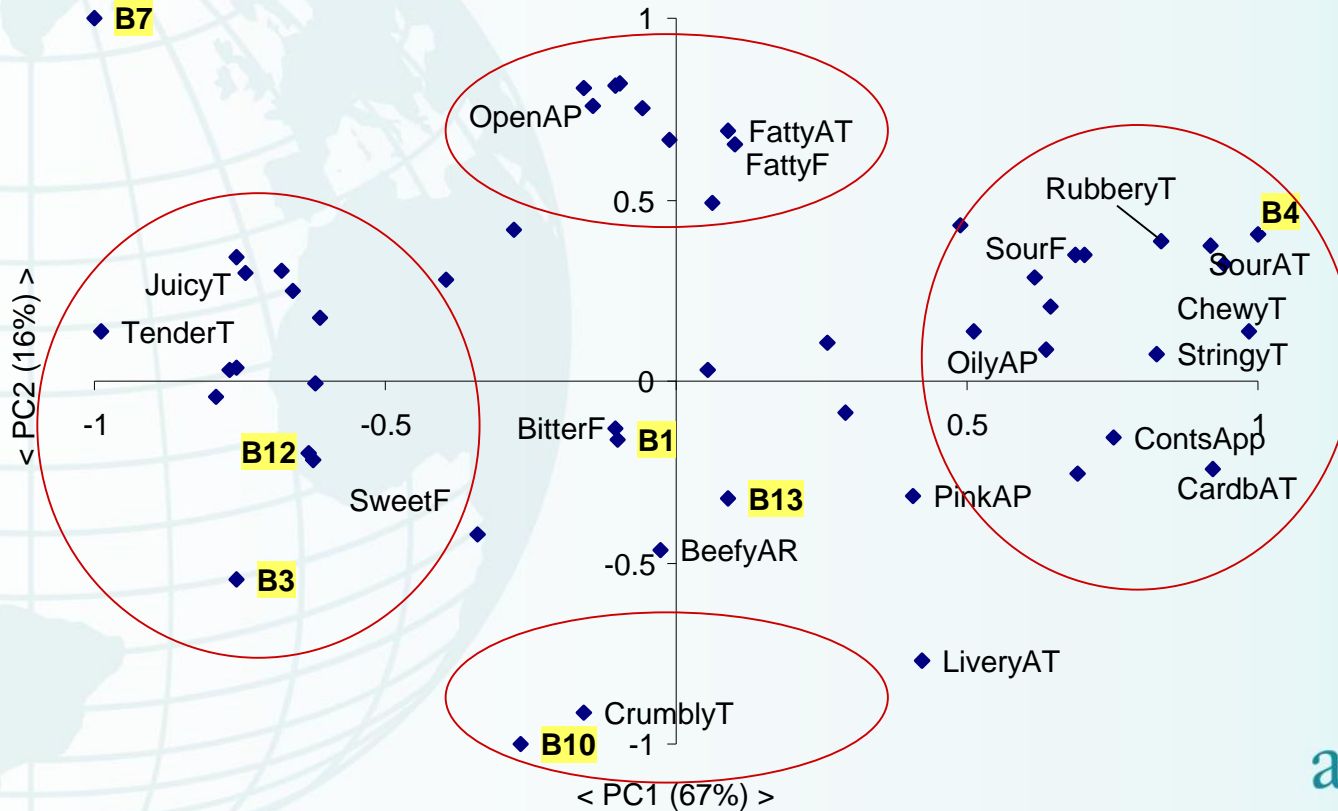
b = dairy

Understanding consumers preference mapping



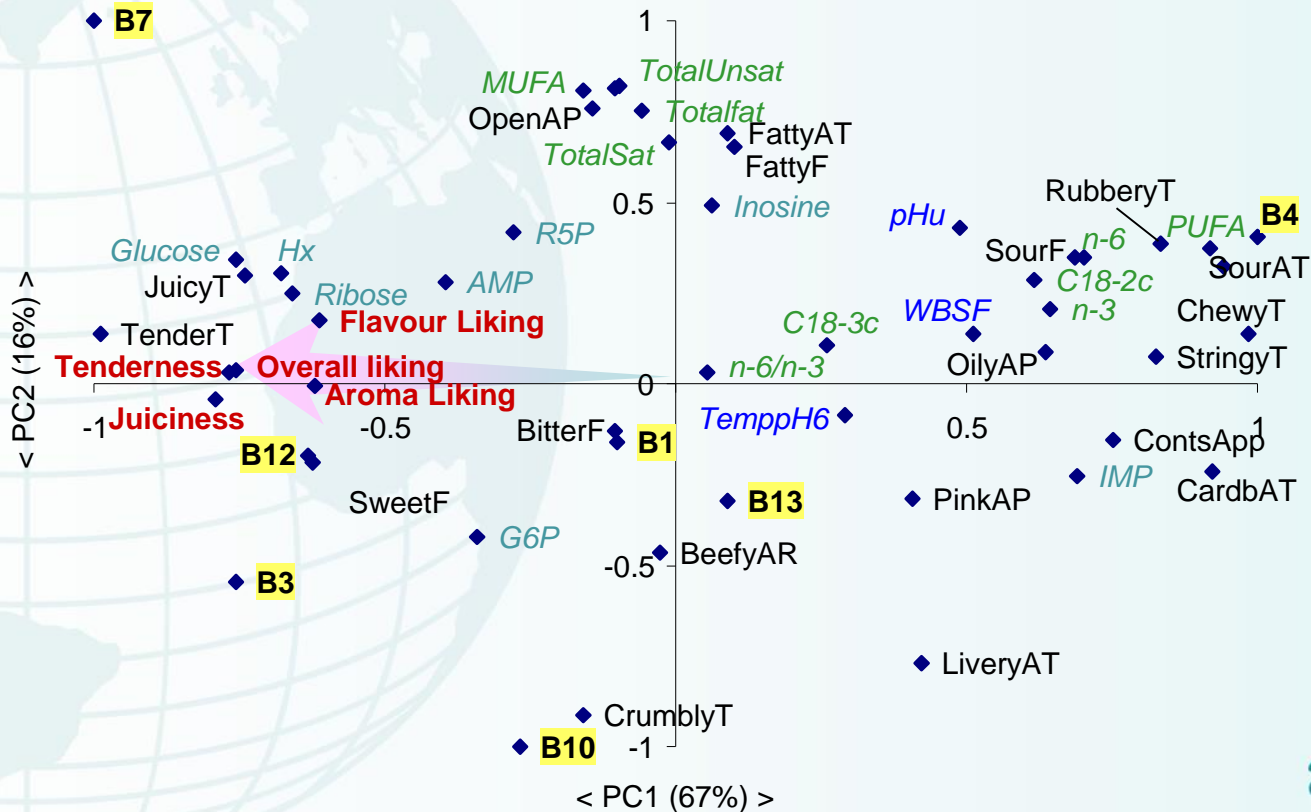
Understanding consumers

External preference map for grilled beef sirloin for principal components, PC1 and PC2



Understanding consumers

External preference map for grilled beef sirloin for principal components, PC1 and PC2



With other flavour precursors

Conclusions

- Wide range of sensory and statistical techniques available to develop an understanding of consumer liking and preference.
- Some are relatively simple, some complex
- Many new and novel approaches still to be explored
- Emotional responses, Temporal Dominance of Sensations (TDS)

Acknowledgments

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