



TRENDS IN EATING QUALITY LANGUAGE STANDARDS

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A CONSUMER FOCUS

A major trend toward language simply describing a cooked meal outcome rather than using anatomical or physical descriptions.

A REVERSAL OF INFORMATION FLOWS

Conventional Language describes animal
& carcass detail



Customer predicts
outcome



EQ Language drives contributing
description & action

Industry guarantees
outcome

CURRENT SYSTEMS

- Classification

- EUROP, South Africa, AUS-MEAT
- Traits – carcass weight, sex, fatness, conformation, eye muscle area, age

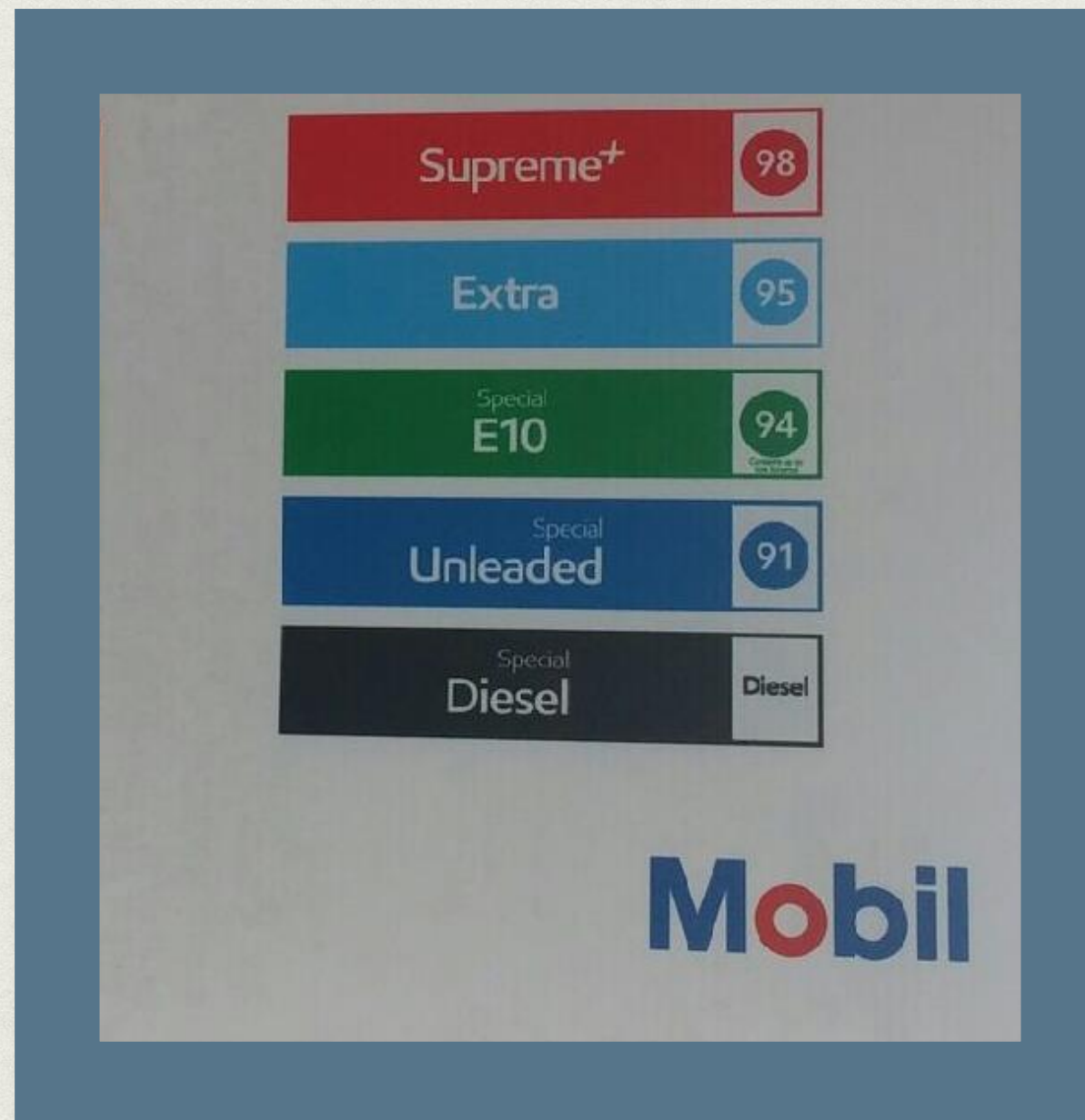
- Carcase based Grading

- USDA, Canada, Japan, Korea, AUS-MEAT (Chiller assessment)
- Traits – marbling, ossification, meat colour/lustre/ brightness and texture, fat colour and texture

- Consumer based cuts grading

- Australia (MSA), New Zealand, Poland

CLEAR, CONCISE OFFER



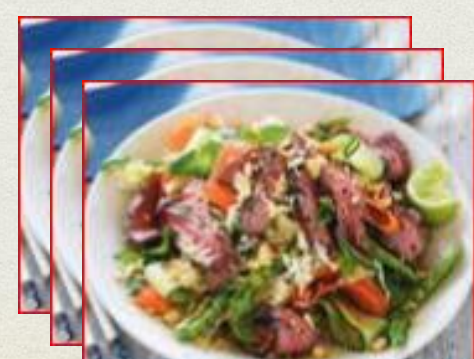
WHAT EXACTLY IS THE MESSAGE





CONSUMERS

Want to buy guaranteed meal results





CONSUMERS

Don't buy cattle





CONSUMERS

Don't buy carcasses

CONSUMERS

Do buy cuts but the descriptions don't work

cut	muscle	GRL	RST	SFR
striploin	STAo45	50	51	52
striploin	STPo45	48	49	51
cut	muscle	GRL	RST	SFR
striploin	STAo45	25	25	26
striploin	STPo45	21	22	24
cut	muscle	GRL	RST	SFR
striploin	STAo45	78	79	81
striploin	STPo45	78	79	81
cut	muscle	GRL	RST	SFR
striploin	STAo45	66	66	68
striploin	STPo45	64	65	67



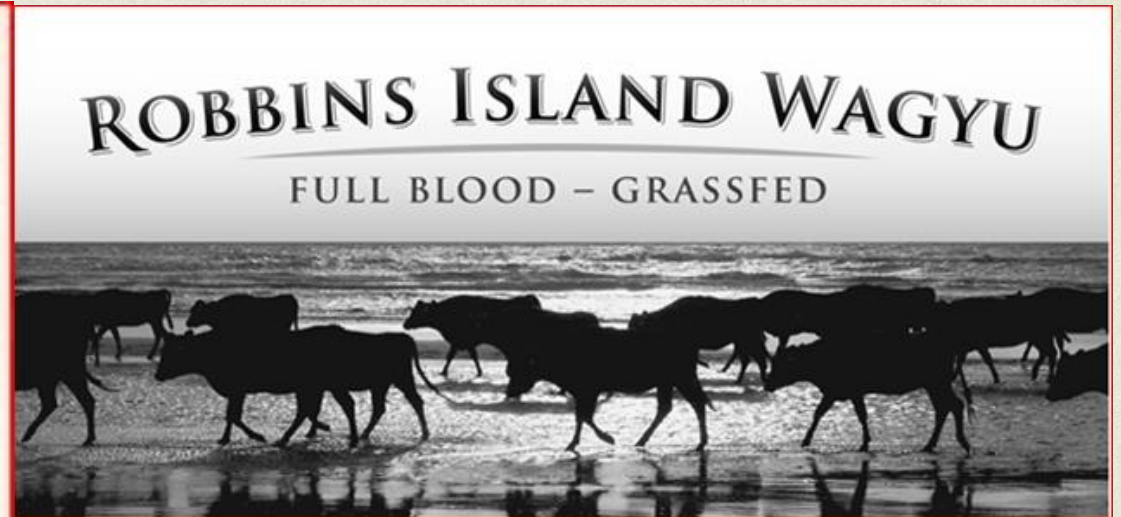
THE PROBLEM WITH CUTS

		GRILL						ROAST						STEW					
CUT	MSA Code	min	max	range	sd	mean	n	min	max	range	sd	mean	n	min	max	range	sd	mean	n
Bolar blade	BLD096	20	90	70	11	56	1044	25	82	57	10	60	345	28	81	53	10	55	277
Chuck eye	CHK074	21	84	63	15	54	43	19	79	60	12	56	65	50	87	37	10	70	18
Chuck	CHK078	14	89	75	15	59	440	24	84	60	12	56	217	34	88	54	11	62	180
Chuck tender	CTR085							20	76	56	15	51	29	25	75	50	12	54	33
Cube roll	CUB045	22	92	70	13	60	1150	23	89	66	11	65	612						
Spinalis	CUB081	24	94	70	8.5	78	297	53	86	33	8.4	71	19						
Eye round	EYE075	15	81	66	11	45	698	19	85	66	12	52	666	11	76	65	11	45	255
Knuckle eye	KNU066	17	87	70	12	55	573	20	87	67	11	62	427	9	73	64	13	43	262
Knuckle cover	KNU099	20	70	50	11	46	227	15	75	60	13	47	90	20	64	44	11	45	84
Outside flat	OUT005	11	84	73	13	43	1381	10	82	72	14	45	1152	9	82	73	14	47	438
Oyster blade	OYS036	22	94	72	11	70	1398	23	88	65	10	63	126						
Rump cap	RMP005	27	95	68	13	65	349	36	95	59	13	67	47						
Tri tip	RMP087	60	90	30	8.2	77	29	40	79	39	10	59	42						
Rostbiff	RMP131	18	85	67	12	54	2067	27	88	61	11	62	594	33	62	29	6.4	45	30
Rump eye	RMP231	18	90	72	12	57	1187	36	88	52	10	66	330						
Strip loin	STR045	8	95	87	14	56	18328	18	90	72	13	58	1208	25	79	54	13	50	156
Tenderloin	TDR062	31	95	64	9.1	77	1704	38	95	57	8.1	75	593						
Topside	TOP073	14	94	80	12	44	1197	11	88	77	13	48	1173	10	85	75	13	42	501

WE CAN GIVE THEM WHAT THEY WANT, ALWAYS

The Occasion	 Grill	 Roast	 Slow Cook	 Stir Fry	 <u>Shabu Shabu</u>	 <u>Yakinku</u>
Very Special	Brand A++	Brand A++	Brand A++	Brand A++	Brand A++	Brand A++
Special	Brand A+	Brand A+	Brand A+	Brand A+	Brand A+	Brand A+
Good Everyday	Brand A	Brand A	Brand A	Brand A	Brand A	Brand A

Use “Meals Language” to deliver a consistent product with a clear consumer value offer



Beef Prime-Cut Roast

Selected from the lean heart of the rump and finely aged, it cooks in under 30 mins and promises rich, tender results.

Flip Pack ↺



Average cooking time : 20-25 minutes medium-rare



AGED

The BEEF SOCIETY



[Eating Quality System >](#)

[Recipes and tips for this cut >](#)

CONSUMER PREDICTION MODELLING

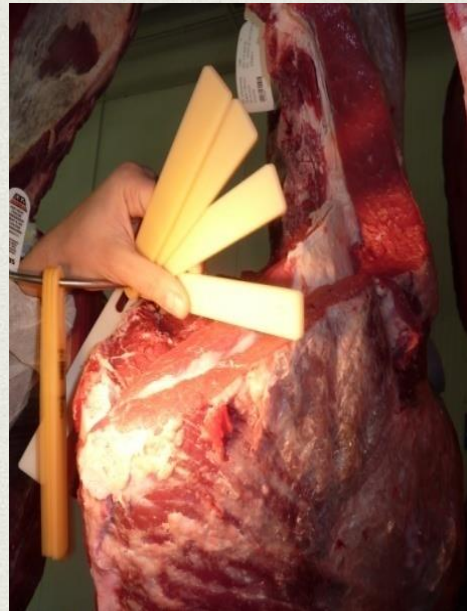
- Requires extensive & varied data
  - Consumer x country
  - Consumer x cooking method
  - Livestock with genetic range
  - Livestock with environmental range
  - Processing treatments

*Optimal result from pooled global data
requires a common global standard*

COLLECTION OF DATA USED FOR MODEL DEVELOPMENT



pH



Fat Colour



Marbling



Ossification



Achilles Hang



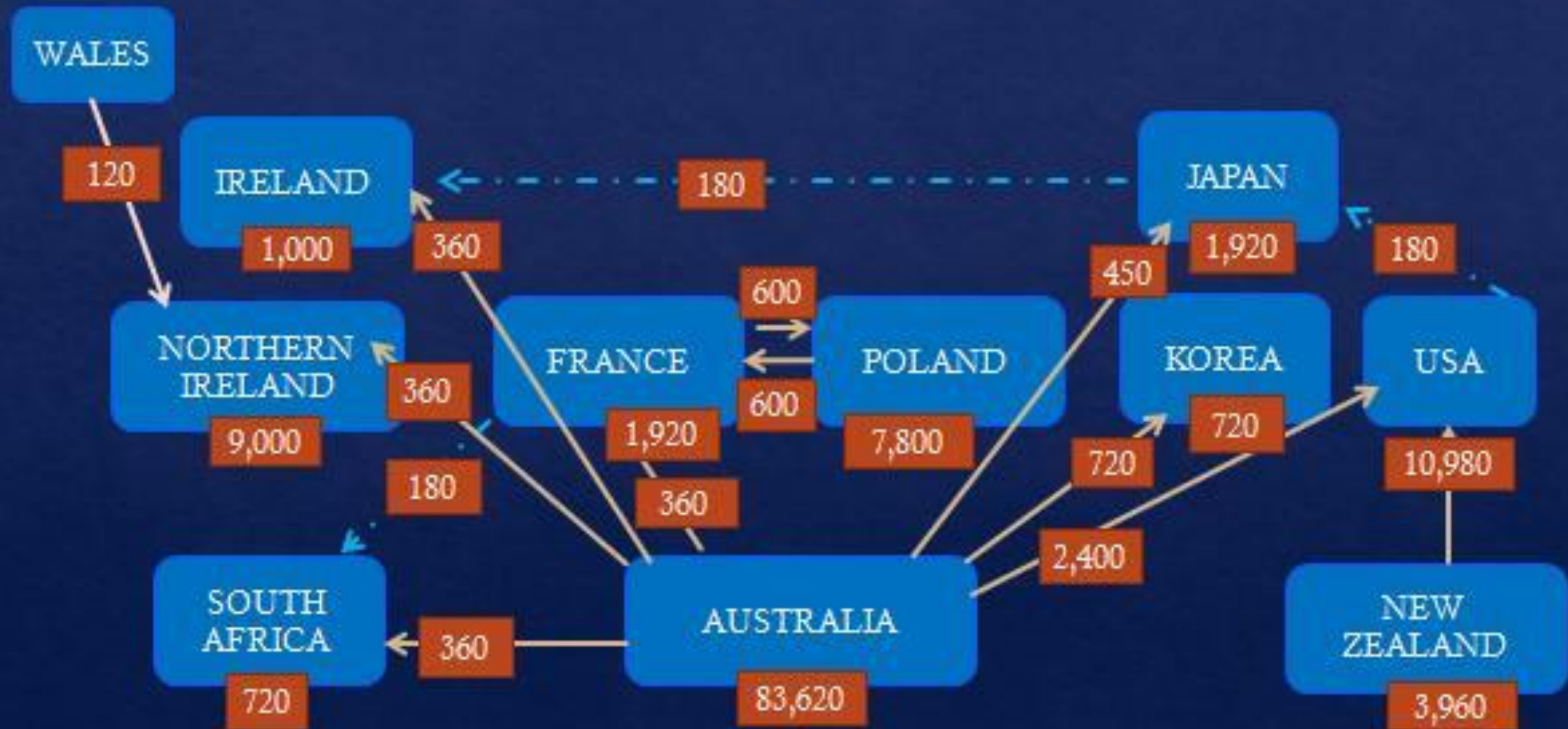
Tenderstretch



Meat Colour



International Beef EQ Consumer Studies

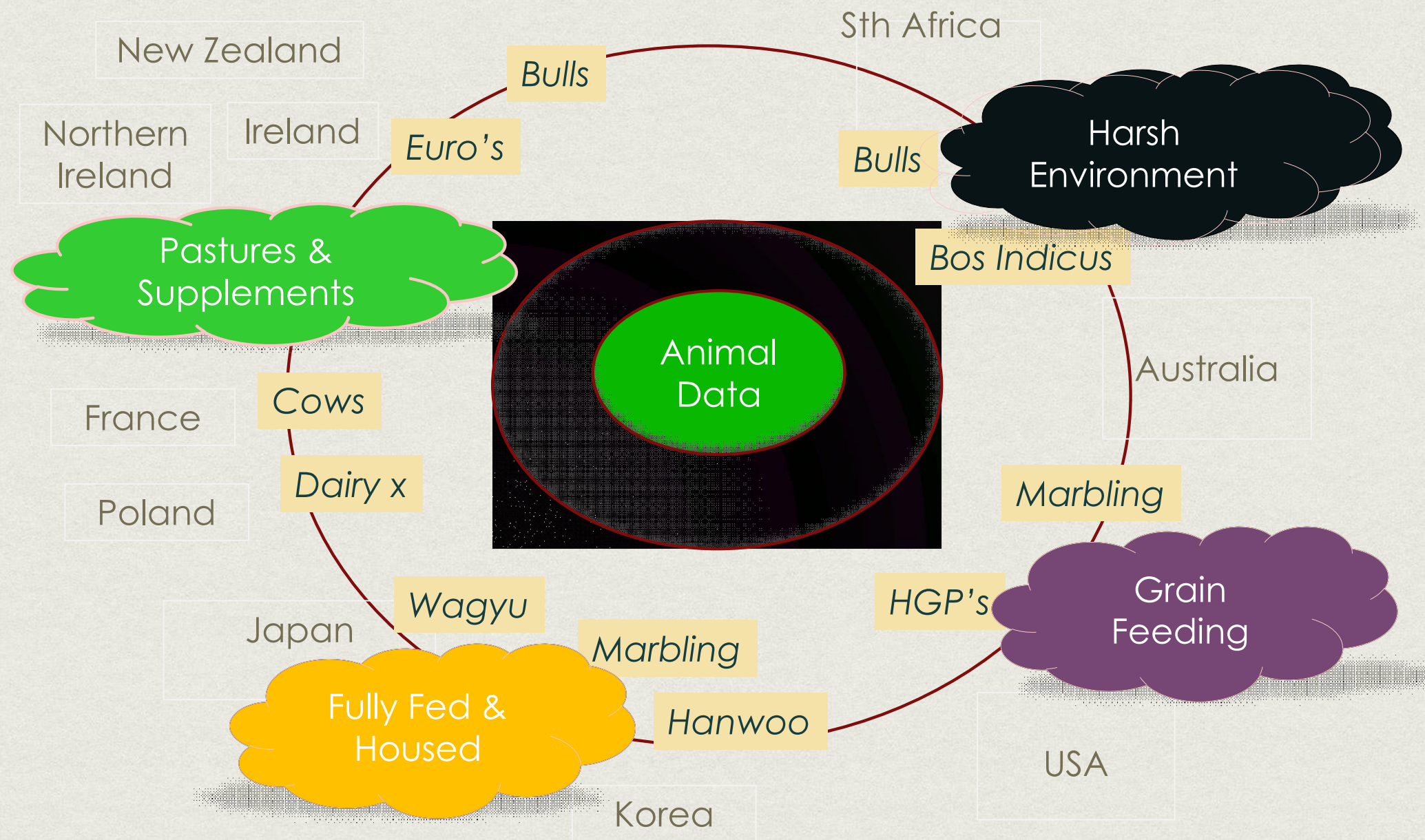


Now over 130,000 consumers in 11 countries and growing

GLOBAL DATA IS PREDOMINANTLY COMPLEMENTARY

		AUST	NZ	KOREA	JAPAN	USA	RSA	NI	IRE	WALES	POLAND	FRANCE
CATTLE	British	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	Euro	y						y	y		Y	Y
	Bos Indicus	Y										
	Bonsmara	y					Y					
	Nguni						Y					
	Wagyu	Y			Y	Y						
	Hanwoo			Y								
	Dairy										Y	Y
	Crossbred	Y	Y			Y					Y	
SEX	Bull	y	Y								Y	y
	Steer	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	Heifer	Y	Y								Y	
	Cow	Y									Y	Y
COOK	Methods	8	4	2	3	4	2	2	2	2	3	1
	Doneness	1	1	1	1	1	1	2	1	1	1	2
	Thickness	1	1	1	2	1	1	1	1	1	2	2

ENVIRONMENTAL & GENETIC VARIATION



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

UNECE STANDARD

BOVINE MEAT

CARCASES AND CUTS

EDITION 2004

Working Party on Agricultural Quality Standards

UNECE STANDARD

Bovine Meat Carcase & Cuts

■ 3.5.2 Bovine category

Bovine category code (data field 5)	Category	Description
0	Not specified	
1	Intact male	Evidence of sex traits, greater than 24 months
2	Young intact male	Less than 24 months
3	Steer	Young castrate
4	Heifer	Young female, uncalved
5	Steer and/or Heifer	Young castrate or young female, uncalved
6	Cow	Mature female
7	Young bovine	6-12 months
8	Code not used	
9	Other	

UNECE STANDARD

Bovine Meat Carcase & Cuts

■ 3.5.3 Production system

The purchaser may specify a production system. In any case the production has to be in conformity with the regulation in force in the importing country. If no such regulation exists the regulation of the exporting country shall be used.

Production system code (data field 6)	Category	Description
0	Not specified	
1	Intensive	Production methods which include restricted stocking, housing and feeding regimes developed to promote rapid growth.
2	Extensive	Production methods which include relatively unrestricted access to natural forage for the majority of the animals' lives.
3	Organic	Production methods, which conform to the legislation of the importing country concerning organic production.
4-8	Codes not used	
9	Other	Can be used to describe any other production system agreed between buyer and seller.

UNECE STANDARD

Bovine Meat Carcase & Cuts



THICK FLANK 2060

Thick flank is derived from a butt (1500) and is removed along the natural seams between the inside (2010) and silverside (2020). The patella, joint capsule and surrounding connective tissue are removed.



ITEM NO.
2060

To be specified:

- Red bark (M. cutaneus trunci) retained or removed.
- Specify degree of exposure of ball tip muscles at rump end.



KNUCKLE 2070

Knuckle is prepared from a thick flank (item 2060) by removing the cap muscle (M. tensor fasciae latae) and associated fat and subiliac lymph node.



ITEM NO.
2070

To be specified:

- Specify degree of exposure of ball tip muscles at rump end.

MAJOR MUSCLES



M. rectus femoris
(eye of knuckle)



M. vastus lateralis
(knuckle cover)



M. vastus intermedius
(knuckle undercut)

4.2 Example

The following example describes a chilled, vacuum packaged, brisket that was trimmed to 3 mm max fat thickness from a steer or heifer raised in an organic production system, forage fed and slaughtered conventionally.

This item has the following code: **10164300153201040050**

No.	Name	Requirement	Value
1	Species	Beef	10
2	Product/cut	Brisket	1643
3	Field not used	-	00
4	Refrigeration	Chilled	1
5	Category	Steer or heifer	5
6	Production system	Organic	3
7a	Feeding system	Forage fed	2
7b	Field not used	-	0
8	Slaughter system	Conventional	1
9	Post slaughter system	-	0
10	Fat thickness	Trimmed to 3mm max fat thickness	4
11	Quality	-	0
12	Weight ranging	-	0
13	Packing	Vacuum packed	5
14	Conformity assessment	-	0

An excellent framework to build on

UNECE BOVINE MEAT STANDARD

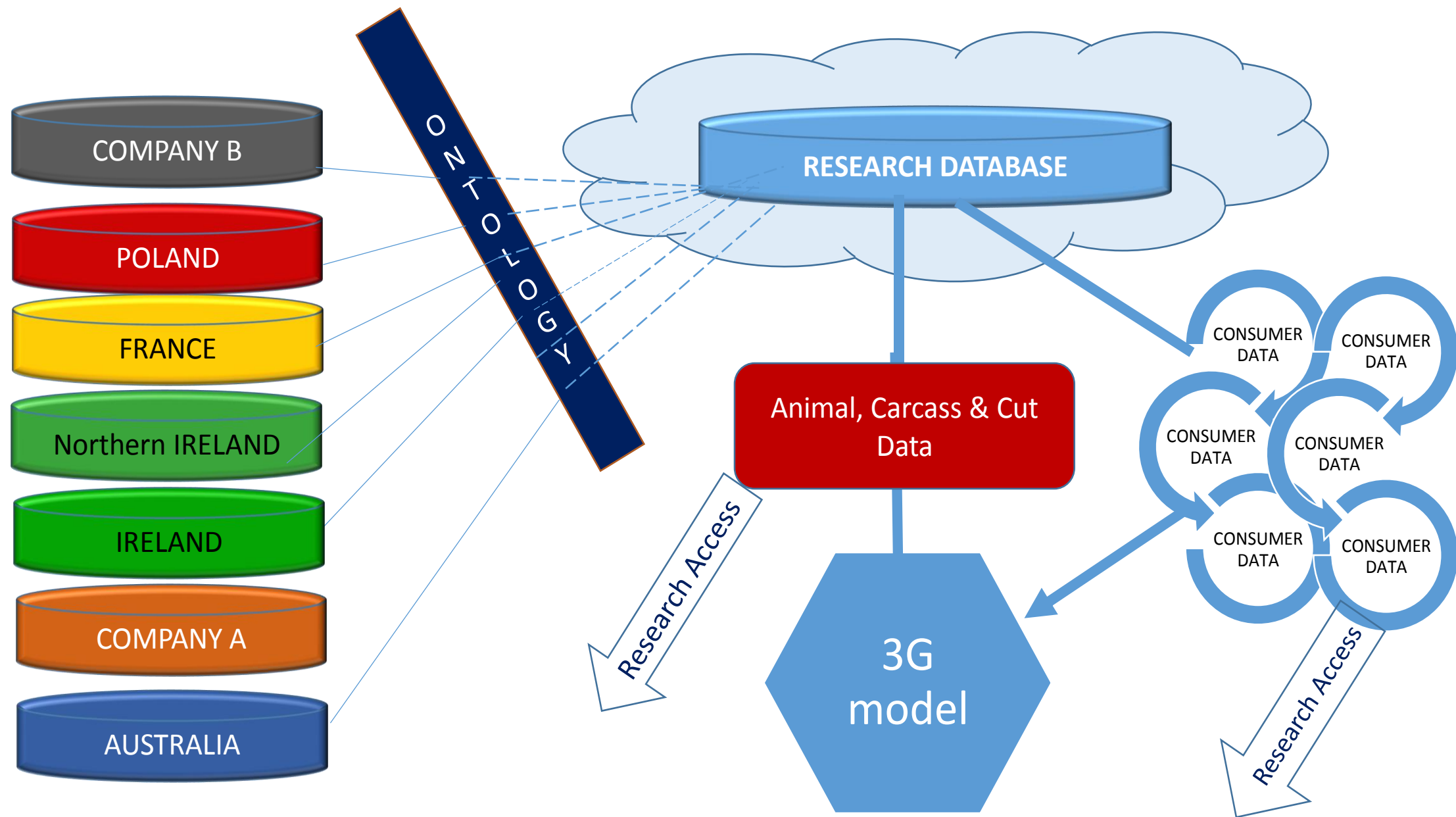
- Excellent technical description of cuts
- Scope for animal & production traits
- Meat quality grading input standards described but have not been readily accessed
- Consumer language not included
- Desire to make appropriate additions to the UNECE language structure to empower consumer focused language evolution & collaboration

CAN WE EMBRACE A GLOBAL STANDARD?

- Pool & share consumer data
- Pool & share animal data
- Develop agreed ontology
- Adopt common carcass assessment standards
- Adopt common biological measurements
- Adopt common consumer testing protocols
- Collaborate on open access models

THE UNECE SHOULD BE THE APPROPRIATE VEHICLE

BROAD CONCEPT FOR DATA STRUCTURE APPLICATION



CONSIDERATIONS

- Establish a common database structure within a cloud environment to facilitate local but compatible data collection
- Utilise MSA Consumer Testing Protocols to standardise consumer data
- Each country retains ownership and control of their own data and uses their own languages
- Data is approved for merging in a data co-operative – ontology used to standardise local terms and language as it is uploaded
- Record kept of data contributions of each party
- Data co-operative managed by an expert working group for research evaluation
- GS1 may be a useful model for commercial application principles