

# Improving Meat Eating Quality for Beef and Sheep

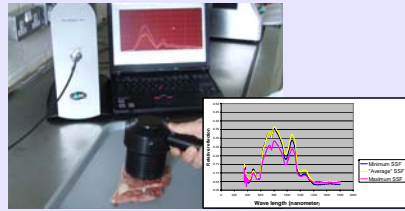
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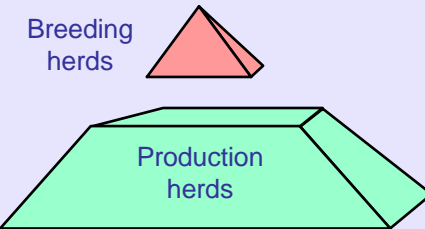
# Work Package 2.5 of the Scottish Government



Livestock Genetics and Management for Product Quality and Sustainability



Strand 1  
Improving product quality

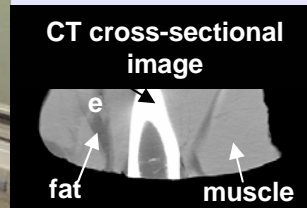
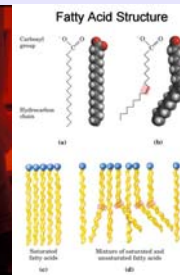
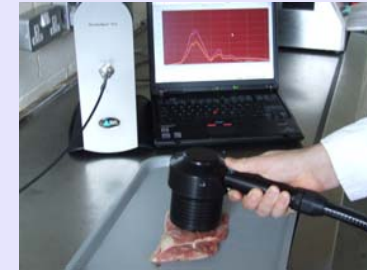
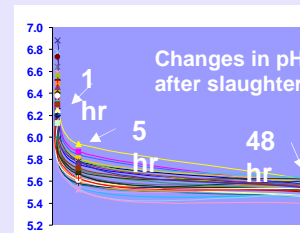
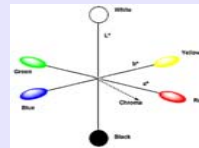
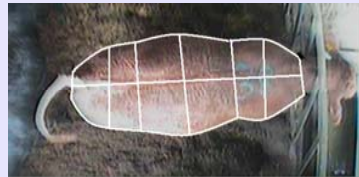
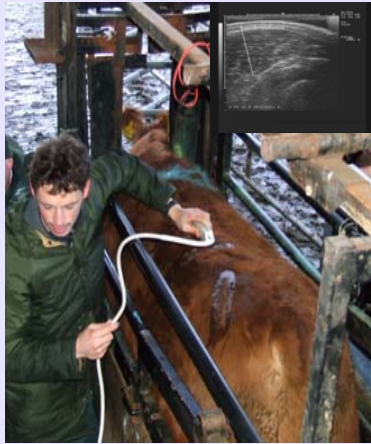


Sub-strand 1.1  
Improved measurement techniques for carcass and meat eating quality in beef and lamb

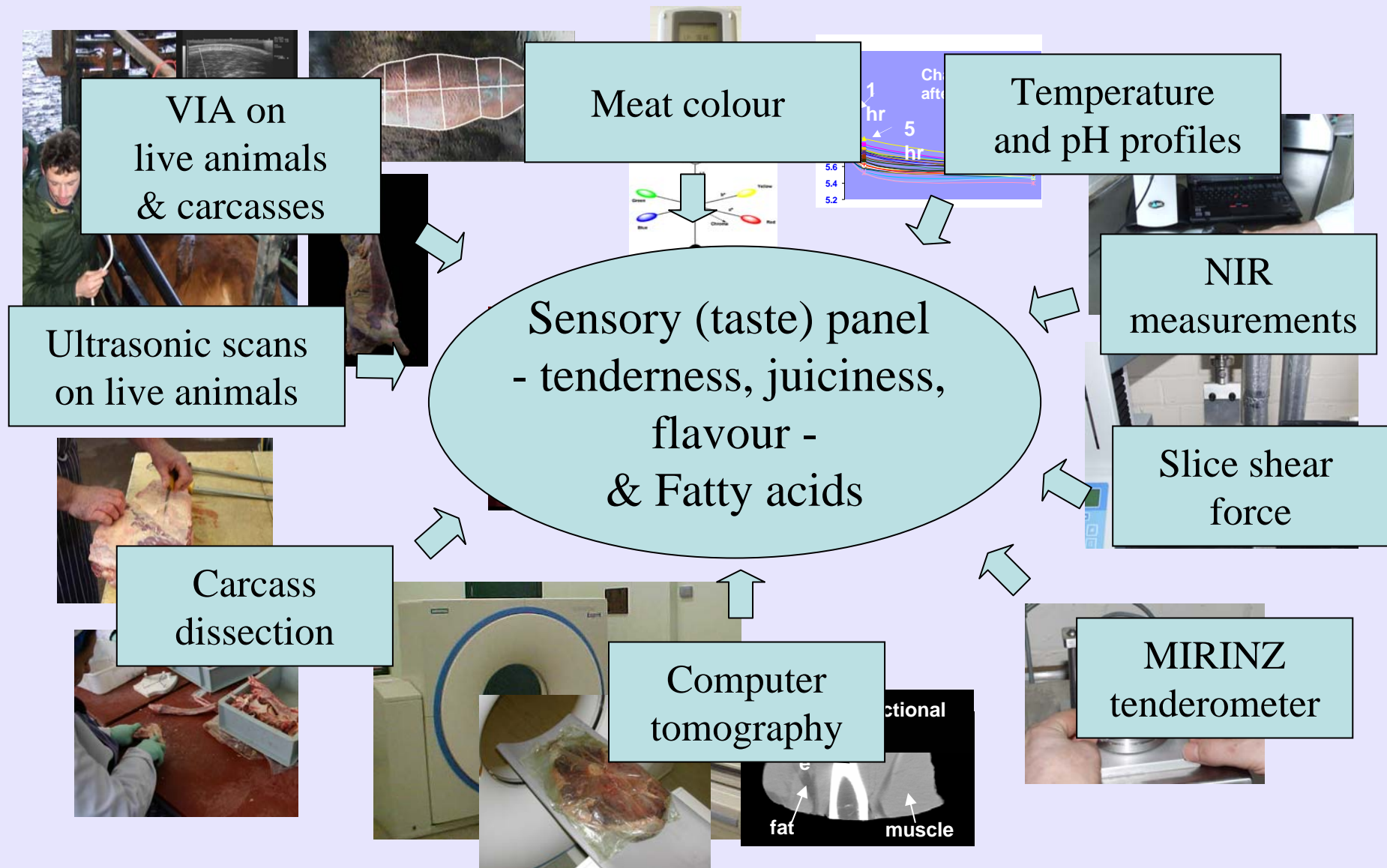
Sub-strand 1.2  
Designing and testing breeding programmes to improve carcass and meat eating quality

**Substantial improvement of the efficiency of Scotland's livestock farmers in an increasingly competitive food chain.**

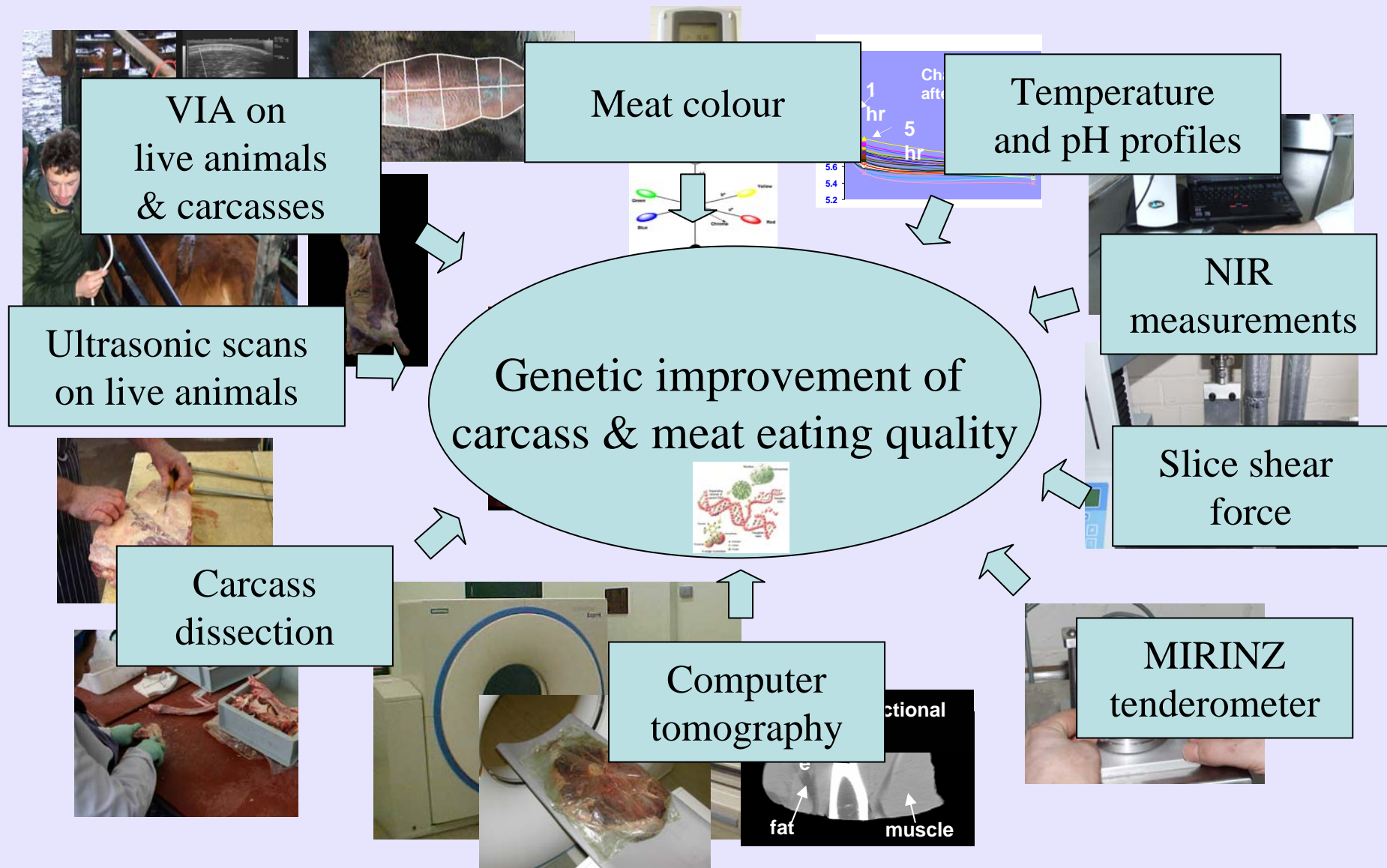
# Improved Measurement Techniques used in Beef



# Improved Measurement Techniques used in Beef

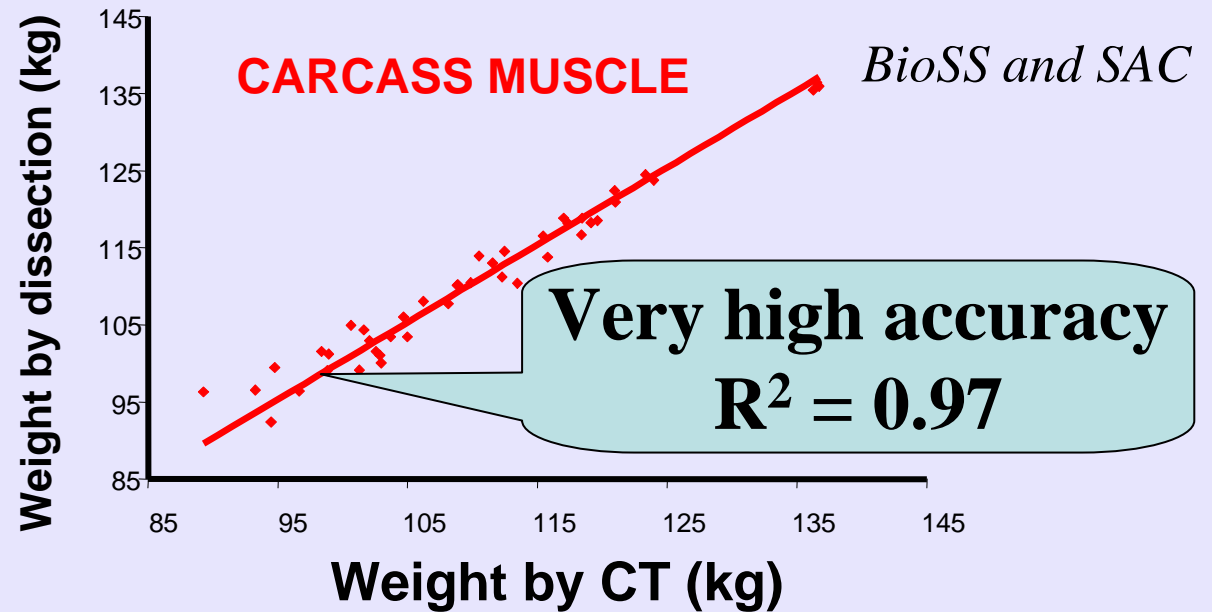
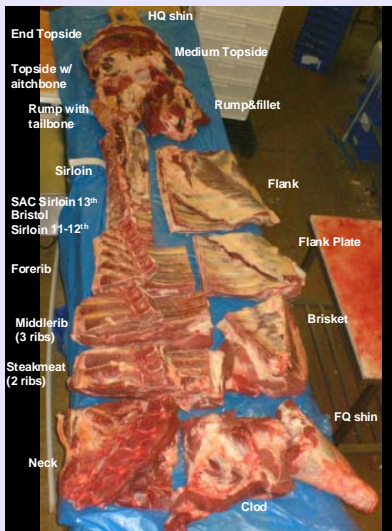
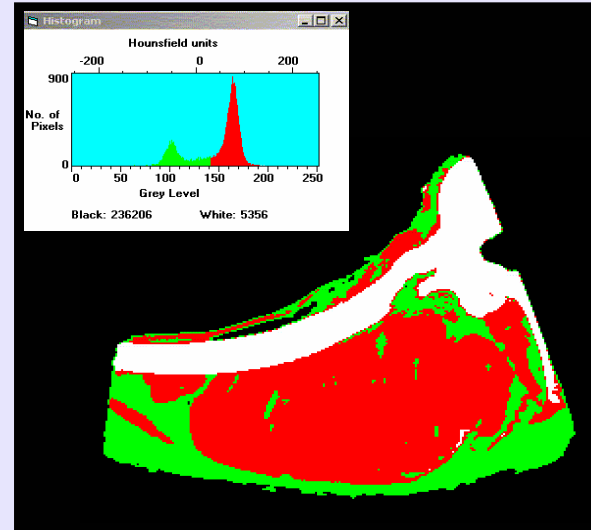


# Designing and testing Breeding Programmes to improve Carcass and Meat Eating Quality in Beef



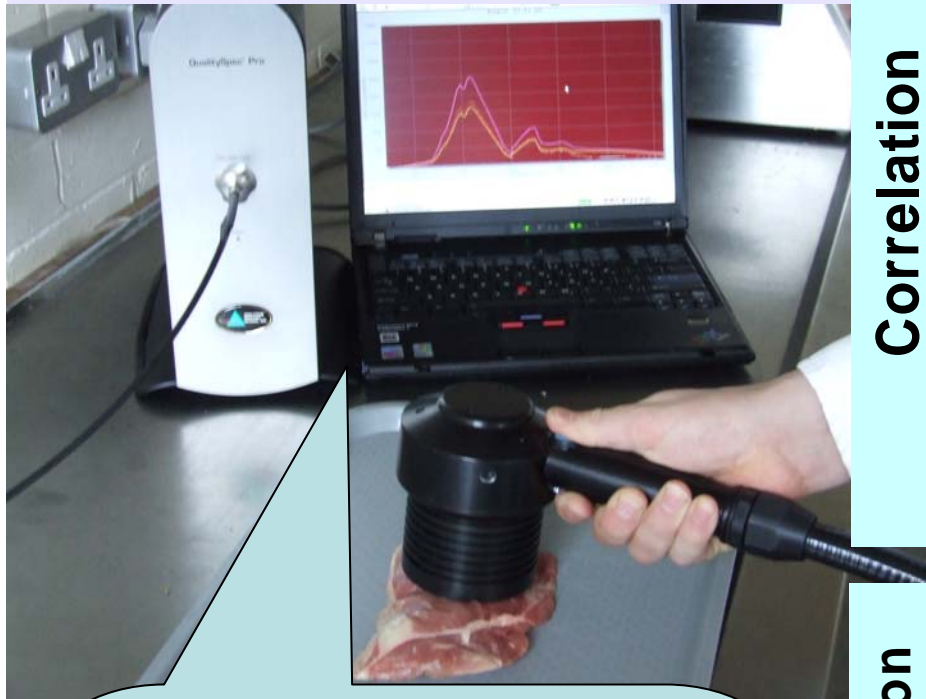
# Results:

## High Accuracy of Computer Tomography (CT) in Beef

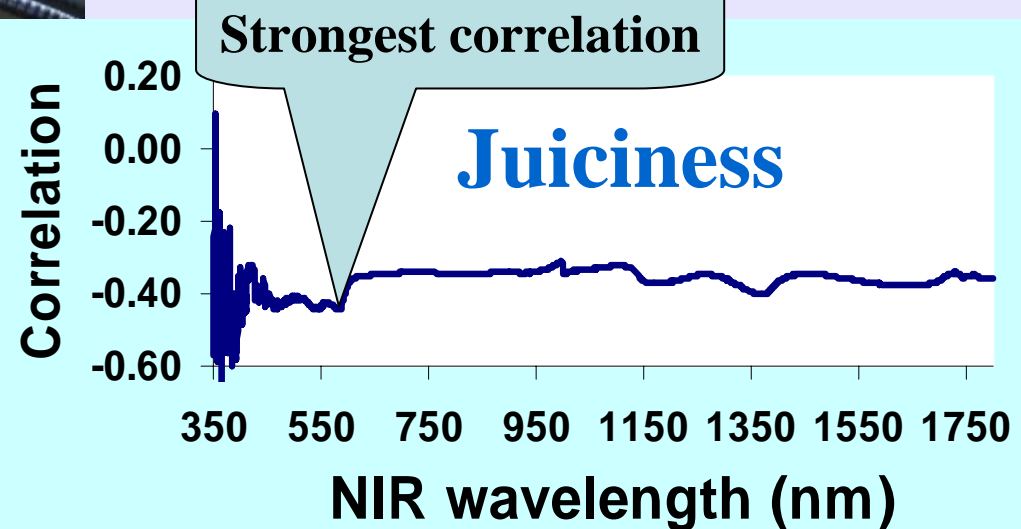
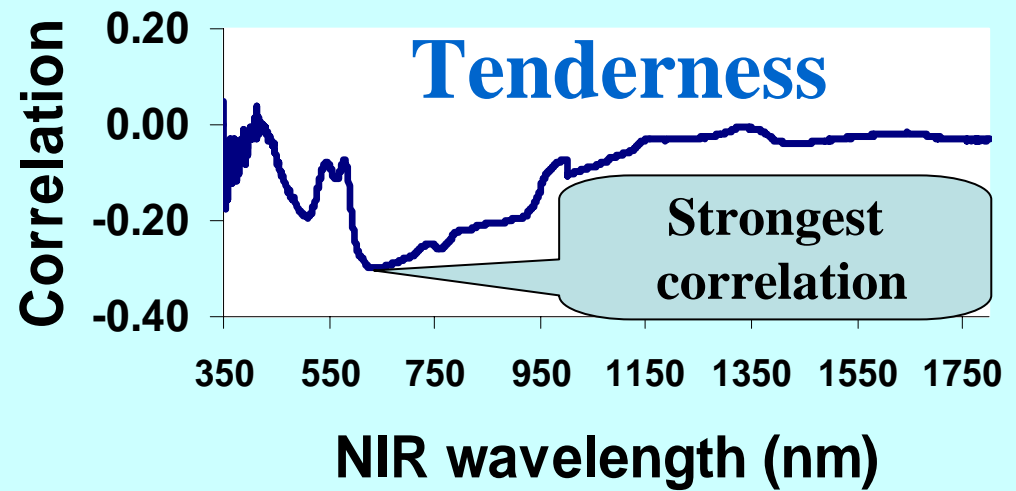


*Results:*

## *Near-Infrared (NIR) Spectroscopy in Beef*



**NIR in the abattoir  
used as early, fast &  
cost-effective  
measurement of  
meat eating quality**



Results:

# Video Image Analysis (VIA) of Lamb Carcasses



## Video Image Analysis Comparison

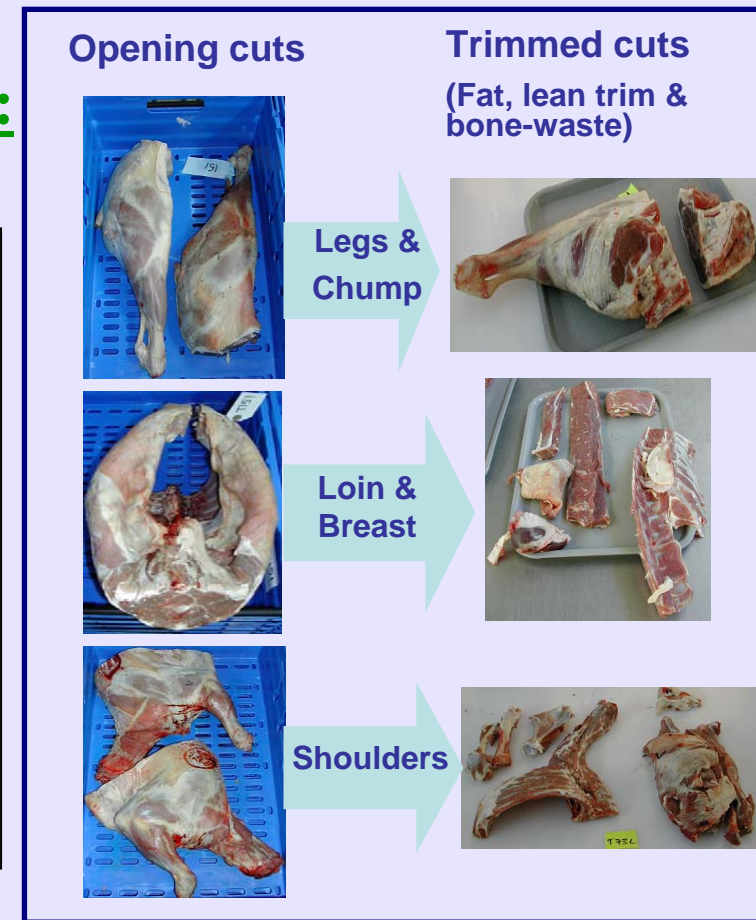


## Comparison

Total primals:

**Precision  
13% higher  
using VIA  
than using  
MLC scores**

## Carcass dissection



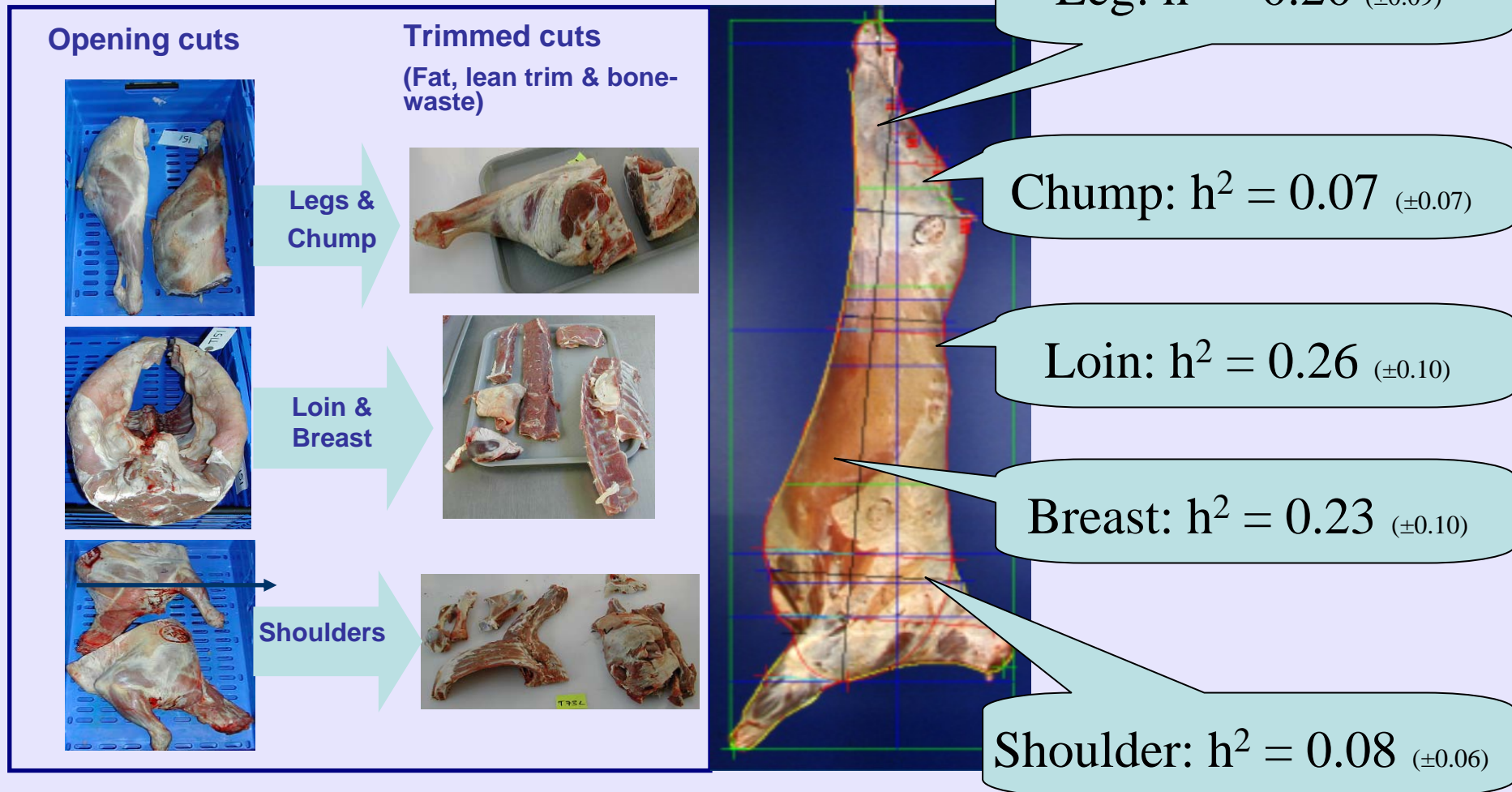


# Results:

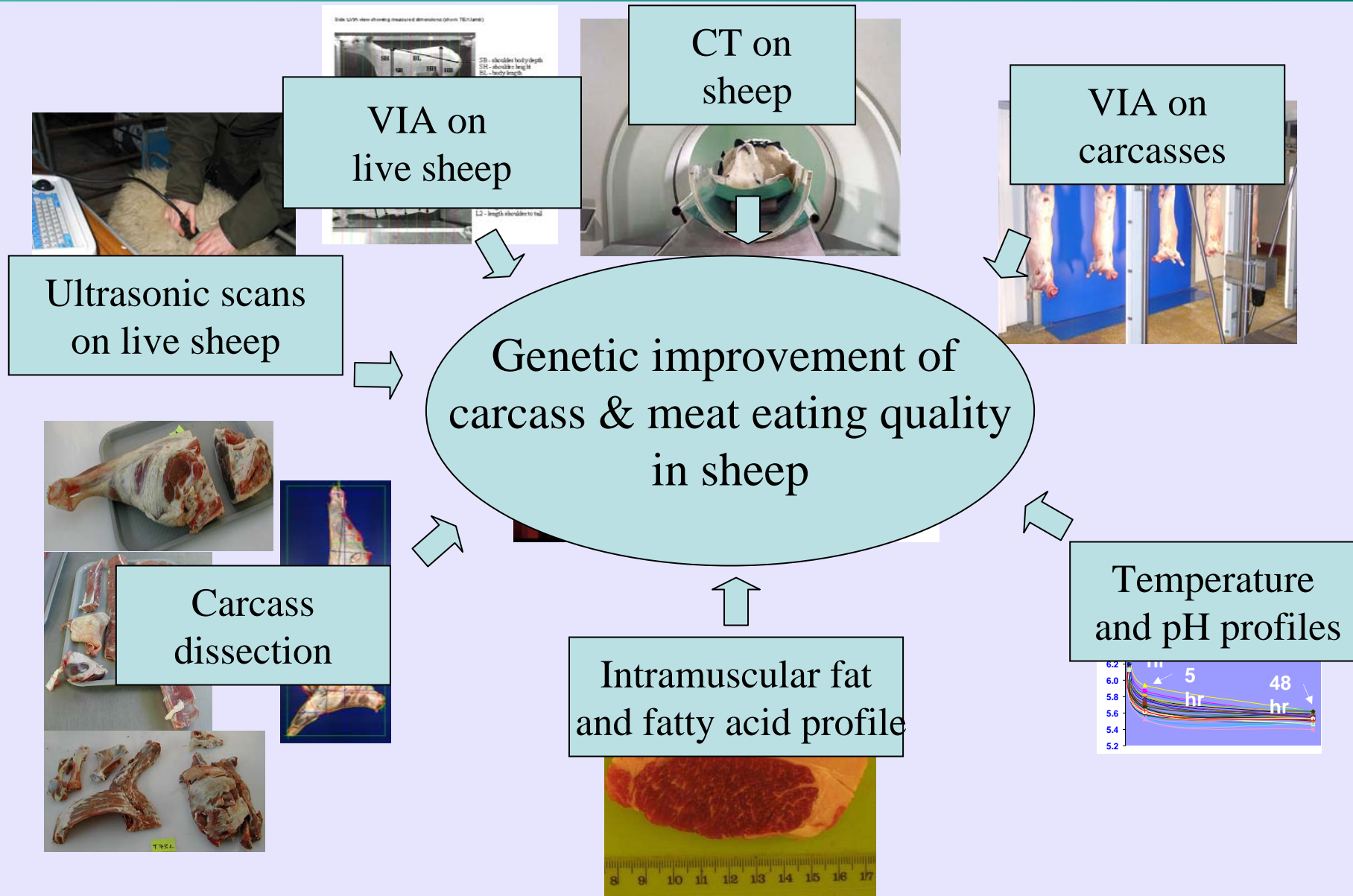
## Genetic Parameters of VIA traits of Lamb Carcasses



### Carcass dissection



# Designing and testing Breeding Programmes to improve Carcass and Meat Eating Quality in Sheep



# Policy Relevance



‘For the future, livestock farmers will need to adopt **practices and technologies** that enables them to **operate effectively** as the first link in an **increasingly competitive food chain**, contributing to the **production of safe, high quality food** at the **right price** and adapting to changing market signals’



*Strategic Research for Environment, Biology and Agriculture 2005-2010 of the Scottish Government*



# Acknowledgements



**BCF Technology Ltd.**

*Pioneering Diagnostic Ultrasound for Animals.*



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funded by the

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as part of Work Package 2.5

Supporting the  
land-based industries  
for over a century

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S A C



**Thank you very much!**