



# LGC Innovation: From Forensics to the Farm?

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Science  
for a safer world



# LGC science applications



- LGC is the National Measurement Institute for chemistry and Biochemistry
- The Government Chemist – statutory role as arbiter of analytical disputes
- Global supplier of reference standards used in analytical tests
- Long established contribution to important animal, and food testing
  - ✓ UK BSE testing service (3.6 m cattle since 2001)
  - ✓ UK scrapie high throughput genotyping programme
  - ✓ Horse meat surveillance and contamination studies
  - ✓ National Reference Laboratory (NRL) for GMOs, pesticides, feed additives, veterinary residues

LGC provides precision products and services, often based on our own cutting edge science

LGC is the UK's leading forensic service provider



LGC also has an **Ultra** high throughput laboratory based service, **millions of samples at pence per test**

# How best to apply cutting edge science and technology to the challenge of bovine TB?



Build on our high throughput genetic expertise;

- Ultimately create a bovine TB testing Service
- Using faecal samples to identify TB infection within a badger sett
- Comparative trial assessment
- Potential to distinguish infection v vaccination by DNA analysis
- UK largest provider of forensic analytical services
  - apply standards to animal health investigation
  - ParaDNA technology - rapid DNA analysis in the forensics field
  - potential application to specific animal testing in the field



# Science supporting animal health strategy



- Partnership of Farmers, Government, Academics, Industry
- No single solution to TB dilemma
- Work in partnership with other companies and organisations developing tests
- LGC can do novel science, robust validation and widely implement cost-effectively

