Background

- Work for SRUC in the Consultancy Division
- Interest in application and implementation of digital tech.
- Met at 2019 IoFT Conference
- Industry worries around data security

The project

- Take a known data source and test Fully Homomorphic Encryption

- Data Source: Langhill Dairy Herd
    - Started in 1970
    - 200 cow pedigree herd
    - Divided into high genetic merit line and a control line
    - Sub divided into a home-grown forage system and a by-products system relying on purchased feed.
    - All data are recorded following strict protocols (verified by a certificated Quality Management System).
    - Data are stored in a central database, made up of emailed spreadsheets from the farm to an automated upload facility. Automated recording equipment sends data straight to a data logger.
    - Full pedigrees are kept on all animals.
    - Won 2017 Queen's Anniversary Prize for Further and Higher Education

- Sample of Milk Yield data selected for IoFT Project