Digital Agriculture

Delivering Data-Driven Decisions for the Business of Farming
Digital agri-food and fibre systems - goals

• Increased efficiency, profitability and sustainability with respect to the use of inputs such as labour, nutrients, water, energy, and agrochemicals.

• Greater traceability and marketability of individual farm commodities and food and fibre products.

• Greater adaptability to changes in the environment and in consumer/market requirements (e.g. quality, nutrition, size).

• Ability to deliver the quantity and quality of commodities and products and meet the challenges of maintaining soil, food and nutrition security.
Digital agri-food and fibre systems - goals

Components of the systems

Breeding → Production → Marketing/Value Add → Storage/Distribution → Use/Consumption

Production/Distribution/Consumption
Digital agri-food and fibre systems - goals

Communication between components of the systems

Traditional linear communication pathways
Digital agri-food and fibre systems - goals

Communication between components of the systems

Enable connections and build extensive system-wide communication that is facilitated by data gathering and utilisation
Digital agri-food and fibre systems - goals

Meeting the goals

• These systems will need to identify, gather and use relevant digital data in a more diagnostic way to optimise management and outcomes across all aspects of the breeding and selection (crops and animals), production, marketing, distribution, retail and consumption sectors.

A great global challenge for young, considerate minds
New stream for agricultural education

- Knowledge of basic biology of animals, plants, pests and diseases.
- Understanding of farming systems and critical decision points.
- Identify, design and apply engineering solutions, sensing technologies, data capture platforms to capture critical information.
- Evaluate supply chains in food and fibre industries
- Analyse/integrate data to devise business-optimal management plans in food and fibre industries.