concentrix
catalyst

Government, Agriculture & the Role of Digital Tooling

Dynamics Most Impacting Farmers

Market Dynamics

Climate Variability

Climate change is creating more severe and abnormal weather patterns which threaten grower and producer output.

Price Volatility

72% of agriculture production is exported, requiring farmers/producers to navigate global markets, and volatile commodity markets.

Labour Shortages

Following the pandemic there were roughly 100K openings for cropping jobs alone, not including other agriculture sectors

Farm Dynamics

Demographic Shift

The average age of a farmer/producer is 63 resulting in changing demographic of farmers in the next 5 - 10 years. A new generation will bring new ways of working & tooling.

Farm Consolidation

Over the last 20+ years there is a growing trend towards selling the family the farm vs. a generational change. This has maintained a high exit rate and low entry rate.

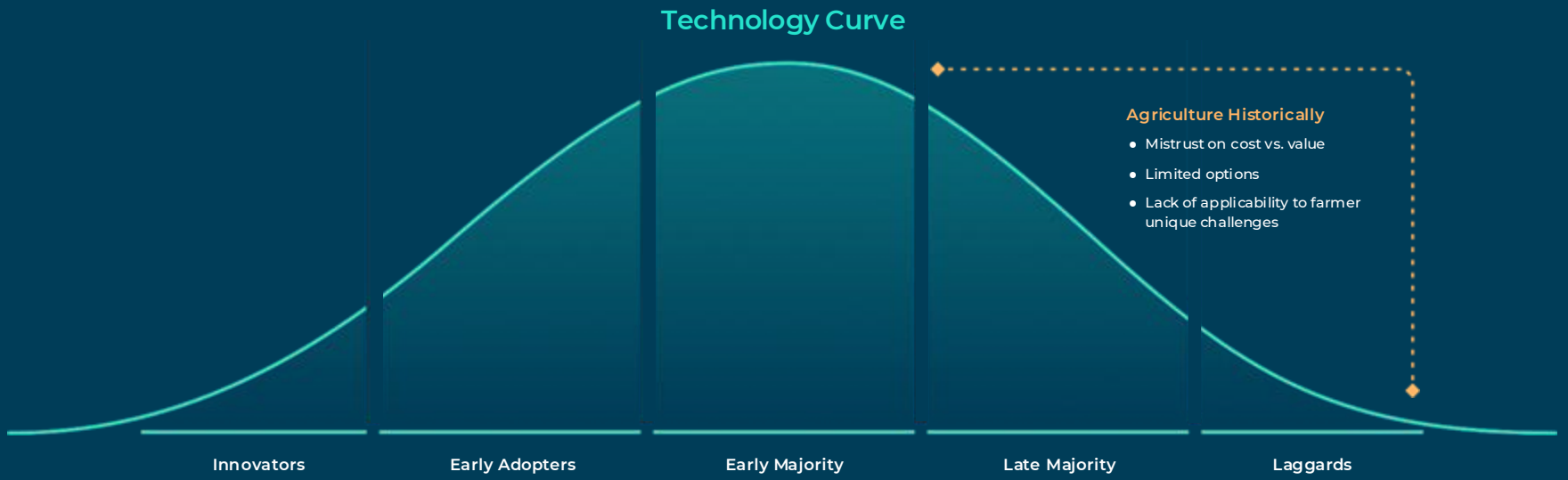
Greater Technology

There has been a shift over the past ten years in investment in development of AgTech and relevant cloud software to combat the industries most pressing challenges.

RD&E & digital tooling are critical in supporting navigating these dynamics today and into the future

Sources: ABS

Farmers Have been Reluctant to Adopt Technology

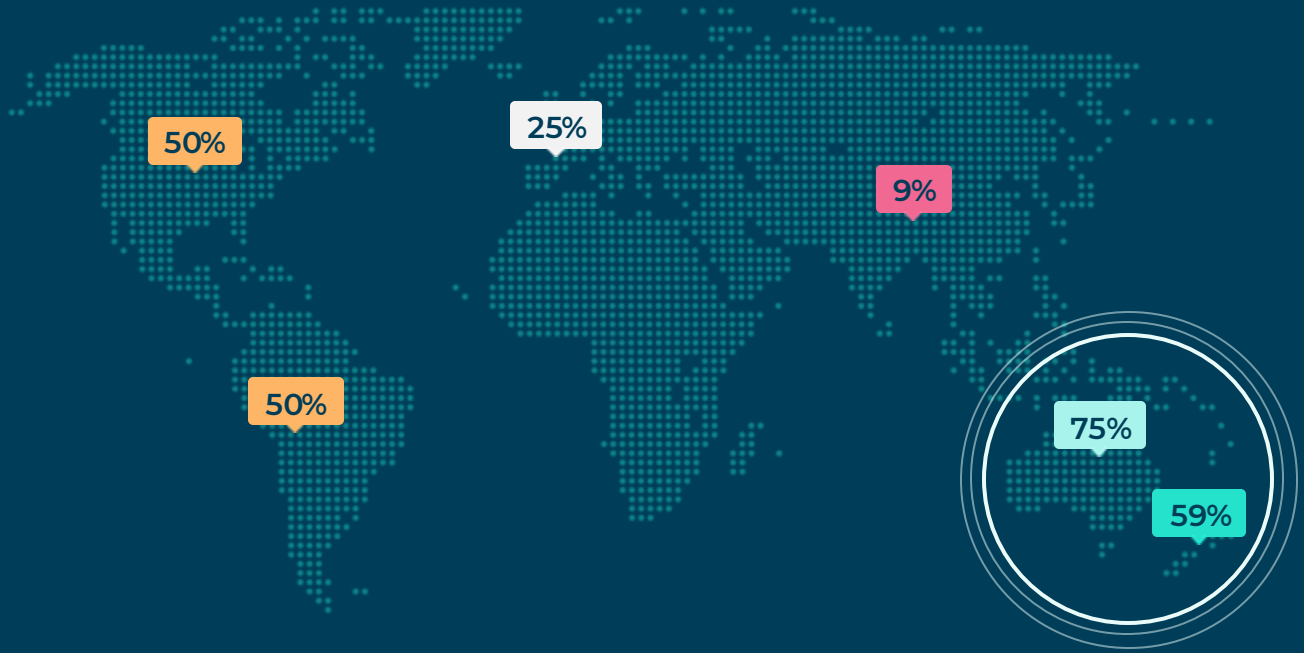


The laggard trends is quickly changing as more options are available and the emergence of Artificial Intelligence (AI)

*Global On Farm Adoption of Digital Agriculture

Adoption Insights

ANZ boasts a high agtech consumption rate compared its global counterparts. **75% of farmers in Australia** use at least one agrotech tool on their farm. Versus **Asia** where just **9%** of farmers use some type of agro tech tooling. Why **European's** agro tech adoption is **25%**, countries like Germany are closer to 70%.



* Percentage of farm that are using at least one agrotech tool on farm

Source: CSIRO, McKinsey, Ravensdown, digitalnationaus.

Digital Landscape

The Digital Agriculture industry in 2023, was worth approx $20B and projected to be $30B by 2028 representing a 8.4% CAGR.

System Change

Tools that transform the farm value chain and operations.

Behavioural Change

Tools that are changing grower and producer expectations and access to critical information.

Source: CSIRO, ABARES, Industry interviews, Forbes & McKinsey

Digital Agriculture

System Change

Remote Monitoring & IoT

Monitor & control operations & crop health & livestock details

Precision Tools

GPS, sensors, satellite imagery, & data analytics into farming & livestock techniques.

Analytics & AI

AI enabled sensors (IoT), Satellites, or cloud technologies that capture & analyse data

Software (Cloud)

Manages the business end of a farm includes.

Robotics & Automation

Autonomous farming equipment that automate manual process

Blockchain

Enables farmers & producers to track crops from the farm to the end use (traceability.)

Behavioural Change

Smartphone

Primary tool used in the field and paddock. Uses vary based on grower and range from strategic to tactical activities.

Decision Support Tools

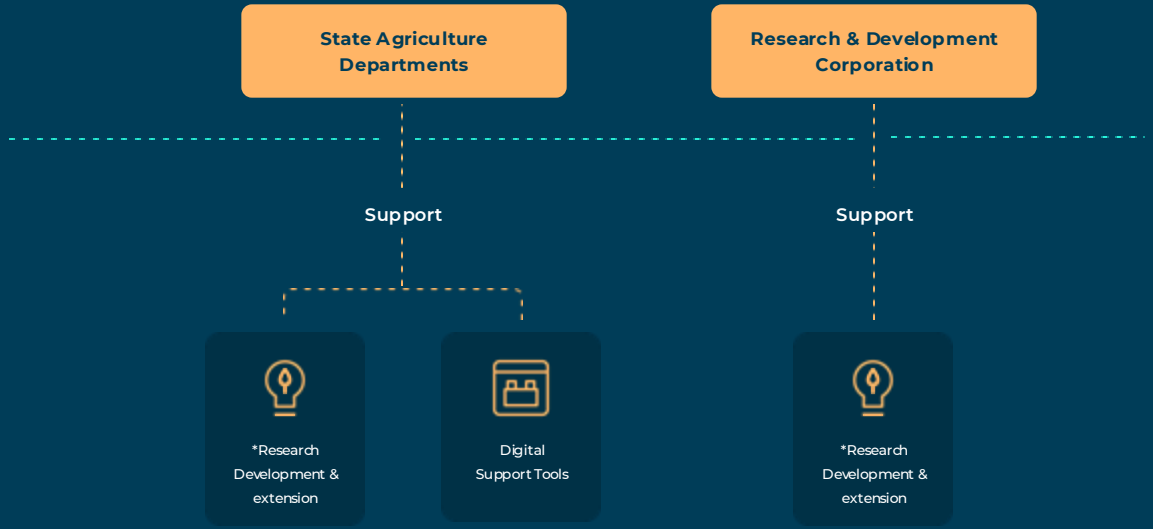
Simple, “plug and play” tools. Farmers provide inputs and outputs are generated.

Source: ABARES; client interviews

Government Organisations are Evolving to Support Changing Farmer Needs

Needs & Preferences

1. Strategic insight into crop types, probable yield, and planning
2. Tactical insights to aid in, in season challenges
3. Tools that offer high value, low cost, low time commitment and are reliable (plug and play)
4. Work offline and in areas with little to no coverage.
5. Provide actionable insights (bullet points)



Market forces are evolving the how, what & where support is delivered.

*RD&E is localised and dependent on the state

Priorities Commonly Observed

Experience

- **Personalisation**
- Multi-Device
- Inclusive data (e.g. Weather)
- Abbreviated findings
- Universally available surveys
- Accurate & reliable
- Offline

Technology

- **Future proof**
- **Incorporation of next generation technologies** (e.g. Gen AI)
- Seamless user experience
- Intuitive
- Interactive

Analytics

- **RD&E attribution**
- **DST adoption**
- **Persona segmentation**
- Popular RD&E
- Stakeholder feedback
- Organisational insights

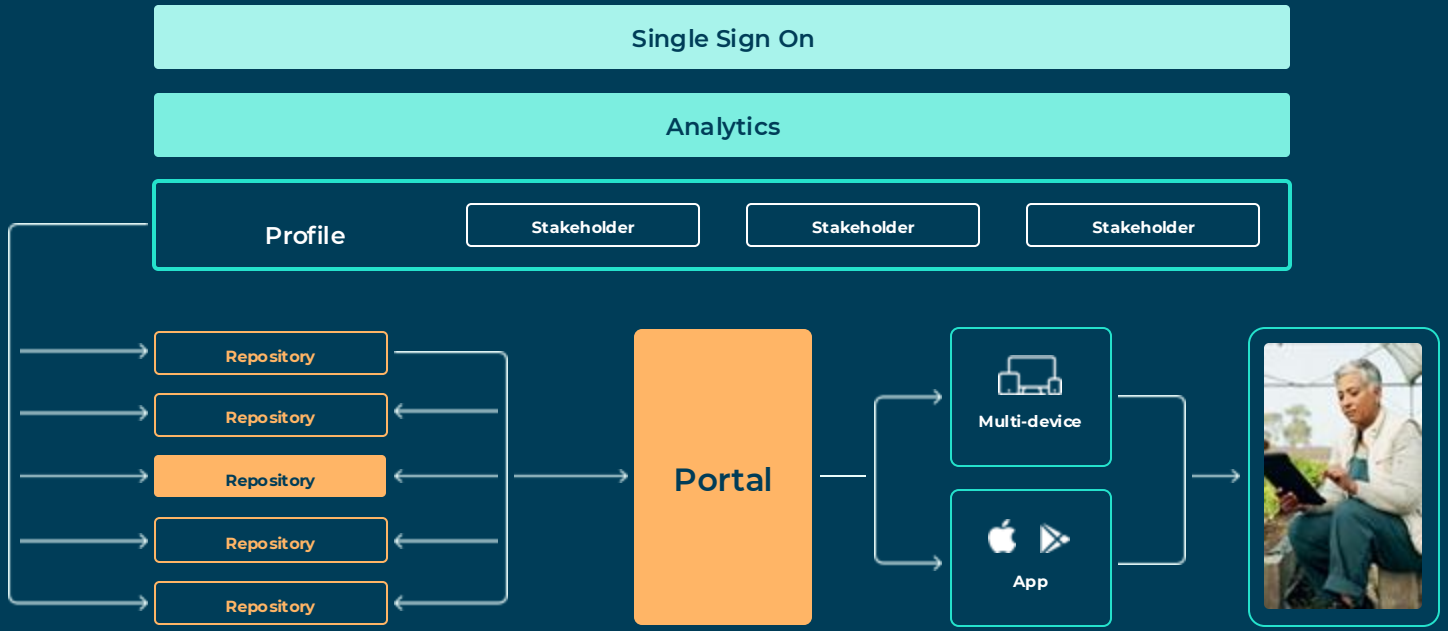
Ideation

- **Pipeline enhancement**
- Analytic driven research projects
- Existing and new topics

● **Denotes critical priority**

RDC's & supporting Governmental Agricultural agencies put their growers and producers at the centre of their operations however a changing Agriculture landscape has placed pressure on agencies to continually evolve and adapt

Example Target State Architecture



Generative AI's Role in RD&E Consumption

Advisers vs. Generative AI in providing localised insights to farmers

Agro Specialist AI Chatbots

Specific RD&E Topics

- Research
- Research
- Research

Wide Variety of RD&E Topics

- Research
- Research
- Research
- Research
- Research
- Research
- Research
- Research
- Research

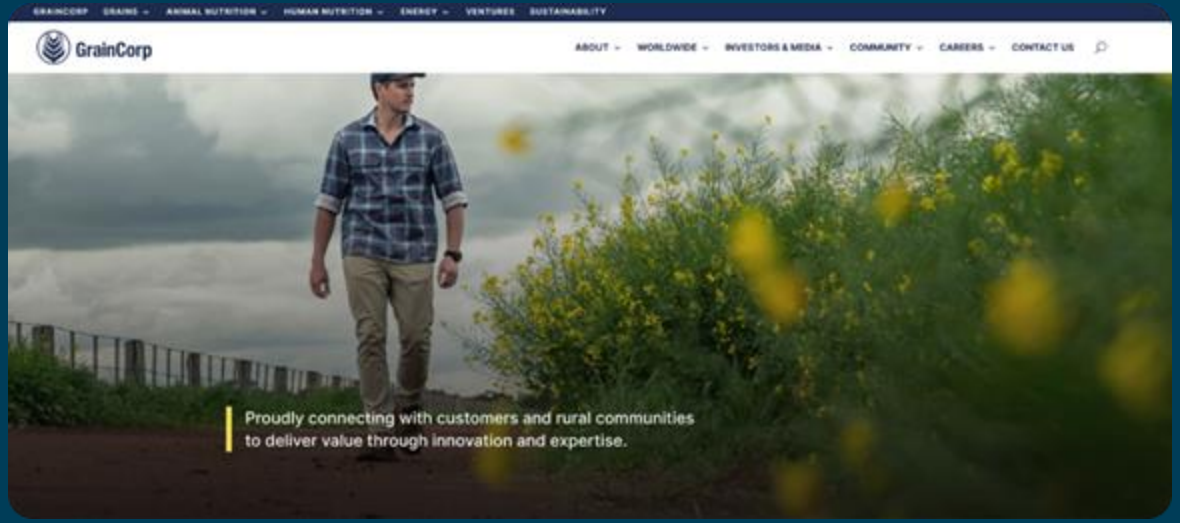
Studies demonstrate when chatbots are educated on a specific crop or livestock type, they become experts, yielding "adviser" level results and overtime produce more localised insight. This LLM programming strategy also minimizes "drift" and hallucinations.

Grain Corporation

Grain Corp engaged Concentrix to scope, devise the business case or, and build CropConnect. A marketplace that brings together 10k suppliers with over 200 buyers, and provides an intuitive, easy to use interface across multiple platforms. It systemises the capture of logistics and quality data for 8M tonnes of grain ($1.9B), 300k inbound truck movements, across 150 delivery sites located across QLD, NSW and VIC.

The result, CropConnect: an industry-leading, award winning, agricultural marketplace, that designed and developed from the ground up, providing a new and innovative solution for the agricultural industry. The platform has not just digitised a process by providing a digital marketplace but has enabled a completely new engagement & operating model between Growers and Buyers.

Product Strategy + Build



Meat & Livestock Authority (MLA)

The Sheep Genetics search tool - a website that allows users to search and view Australian Sheep Breeding Values (ASBVs) - was dated and inefficient to use. Performance was unreliable and the usability needed to refresh to make the content more legible to understand.

Concentrix Catalyst new Sheep Genetics search tool will better serve the needs of commercial and seedstock sheep producers.

Product Strategy + Build

Large Government Client in Grains

A leading provider of Grains Research Development & Extension (RD&E) was seeking a pathway to inform and validate their plans to implement a portal to offer a more personalised experience for its users, and captured analytics to make informed decision across its value chain.

Concentrix Catalyst delivered a full end-to-end product strategy that validated the commercial and market need for change. Held multiple stakeholder workshops, and interviews to pinpoint specific user preferences and needs, which informed the proposed technology architecture and 3 - 5 year roadmap including the use of AI.

Product Strategy + Build

Concentrix at a Glance

Core focus areas

- User Experience Design
- Product Strategy
- Maturity assessment & readiness
- Enterprise Mobility
- Field Services
- Digitisation of manual processes
- Marketplace development
- Integration
- Product Build
- Managed Services

Serving ANZ in the following industries

- Agriculture
- BFSI
- Government & Public Sector
- Energy & Utilities
- Technology

7800+
Global professionals

17
Delivery Centers
NA / LATAM / EMEA / India / EA /ANZ

200+
IP accelerators & frameworks

131
Industry awards

Our Services

DESIGN

Strategy & Design

- Hypothesis driven design
- Human-centered design
- Product Realisation
- Challenge validation
- Market trend alignment
- UX/CX Journey Mapping

BUILD

Cloud Engineering

- Strategy and Architecture
- Cloud Platforms
- Cloud Native Services
- Cloud Operations
- Managed Services

Mobile & Digital Engineering

- Mobile and Web Development
- API and Integration Services
- Immersive Experience
- Edge Computing

Integrated approach & Project Governance

- Agile Operations
- Partner with clients
- Dedicated project governance across the complete lifecycle

Automation & Operations

- CI/CD
- Testing
- Quality Assurance

Analytics & AI

- Data Engineering and Management
- Advanced Analytics
- Large Language Models (LLM)
- Business Insights

RUN

Managed Services

- On going support & maintenance
- Support AWS, Azure, full stack (Front-end, back-end, and infra)
- Custom support solutions
- on-shore, offshore or hybrid

Get in touch

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