Empowering Next Generation Ag in the Upper Murray

Ag Innovation Working Group – Update

Feb 2025

Recap – Innovation Upper Murray

Stage 1 Regional Context Analysis
Identified '*Empowering next generation agriculture*' a potential innovation opportunity

Stage 2 – EDP
Endorsed exploration of above, proceed to Innovation Working Group

Stage 3 – Innovation Working Group (Ag IWG)

Session 1 (Aug) - Agreed (i) need foundational water piece; (ii) continue exploring 'data driven' agriculture

Sept: 1:1s with 11 farmers/producers
Oct: Online survey open to all UM farmers/producers

Session 2 (Oct) - Explored interview & survey findings >> Producer innovation group

Agreed – Appetite for shared learning, local farm trials and possibly aggregating to create regional value.
- Pursue project model of UM producer innovation group (UMP+) focused on above
- Form committee to develop UMP+ project detail & submit application

Update – Foundational water work

To position UM community to understand <u>what it has</u> and if there are <u>realistic options to pursue greater water access</u>

Briefing paper drafted to inform scope of work (Water Working Group)

<u>Recommended</u>

To do

1. UM Producer consultation/ survey (Vic & NSW) to better understand the demand side of water for agriculture purposes, including a sense of scale of the issue/opportunity – e.g. what water is where
   - (i) Water licence volumes – who has them, what are they used for?
   - (ii) What and why water entitlements are not being used [sleeper licences], appetite to trade and if not, why?
   - (iii) If [river frontage] properties had access to more water, would they use it, what for?

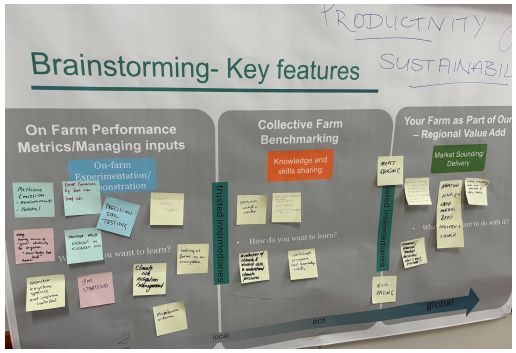
   ➢ Inform development of a water literacy program (AgVic, NECMA, GMW).

   ➢ Can use to understand and establish the opportunity cost of not utilising the water that is available.

UMP+

2. Case studies to understand the productivity and income opportunities that greater access to water in the Upper Murray [river] unregulated zone would bring to region.

UMP+ in a nutshell



Upper Murray Producer + (UMP+)
(Innovation Group)

On-farm Experimentation/ Demonstration	Knowledge and skills sharing	Market engagement / delivery

GIVE & GET

Commitment to share → Commitment to show → Commitment to shout

Example Themes

- **Water Management**
- **Forage/ Feed gap**
- **Productivity**
- **Sustainability**

On farm Performance Metrics/Managing inputs	**Collective Farm Benchmarking**	**My farm Our region** Value add
• What do you want to learn?	• How do you want to learn?	• What do you want to do with it?

Example activities *Demo farms, trials, research, data capture & flows; workshops, benchmarking, open days; data aggregation & market connection*

work → local → act → global

Food for thought … to illustrate potential outcomes

On Farm Performance Metrics/ Managing inputs

Farm Benchmarking

Collective value add – Regional Brand

work → local → act → global

UMP+ overview

Steering Group

UMP+
Producer-based innovation ecosystem

People & Partnerships

UM Producer led organisation

- Operational team
- Producer membership – all farming systems (beef, sheep, cropping, dairy, etc)

Partnerships

- Charles Sturt University
  Global Digital Farm; AgriPark
- Research / education e.g. above
- Commercial / industry / community

Regional Innovation & Demo Farms

On-farm experimentation, trials & demonstration

Example themes

Water / Irrigation	Forage	Precision Ag	Sustainability
Enabling tech Data flows	Enabling tech Data flows	Enabling tech Data flows	Enabling tech Data flows

decisions, research, experiment/ trial, practice change, etc

UM regional data asset development
(AADX / Regional dashboard)

Example UMP+ activities

Demo farm open days & workshops
Benchmarking groups
Knowledge & skills sharing
Regional experimenting & trials
Data capture & transformation
(decisions; value add)

UMP+ Phase 1

Build UMP+ foundation & prepare for Phase 2

Steering Group

UMP+ Innovation Ecosystem

Producer base – open to everyone

Operations roles

- Project admin (auspice) - UMI
- Program Lead
- Project Officer
- Innovation officer – CSU
  (data, research, domain expertise)

Pilot Farm/s

Enabling tech Data flows

Data framework – capture, flows, use

Data asset

Trial data dashboard

Activities

- Building ecosystem foundation & partnerships (e.g. FarmTek)
- Pilot demo farm/s - data protocols, flows & dashboard trial
- Pilot farm/s open days & workshops
- Co-design demo farm themes, detail - Phase 2
- Detailed plan for Phase 2

Phase 2

Phase 2 expansions

Innovation Themes & Demo Farms

Example themes

Water / Irrigation	Forage	Precision Ag	Sustainability

Demo farms

Enabling tech Data flows	Enabling tech Data flows	Enabling tech Data flows	Enabling tech Data flows

Multiple (CSU) Research /Innovation /Extension inputs

Data asset development
(eg AADX/Dashboard)

Develop & grow UMP+ producer membership

Phase 1 will build foundation & prepare for Phase 2

UMP+ - CSU partnership

How innovation themes & demo farms could develop…

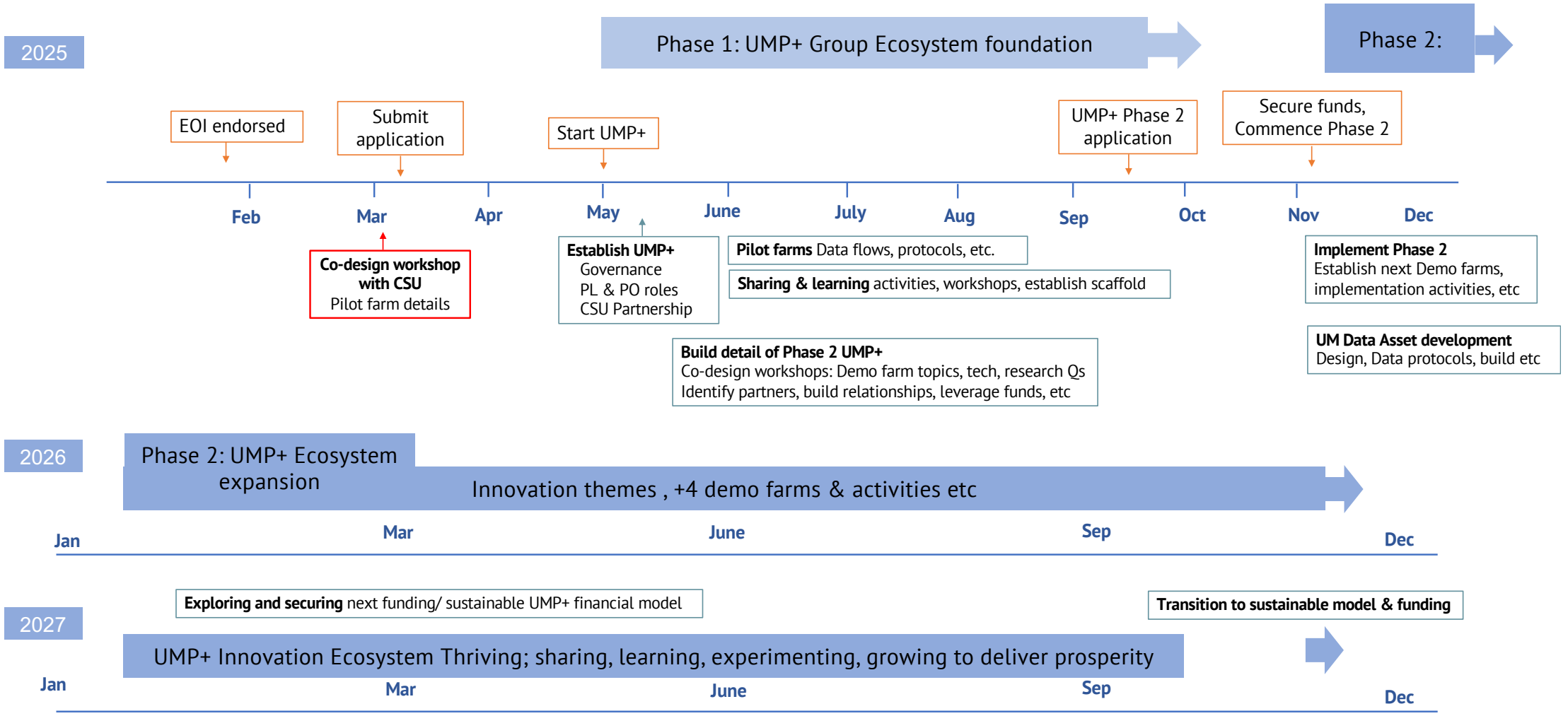
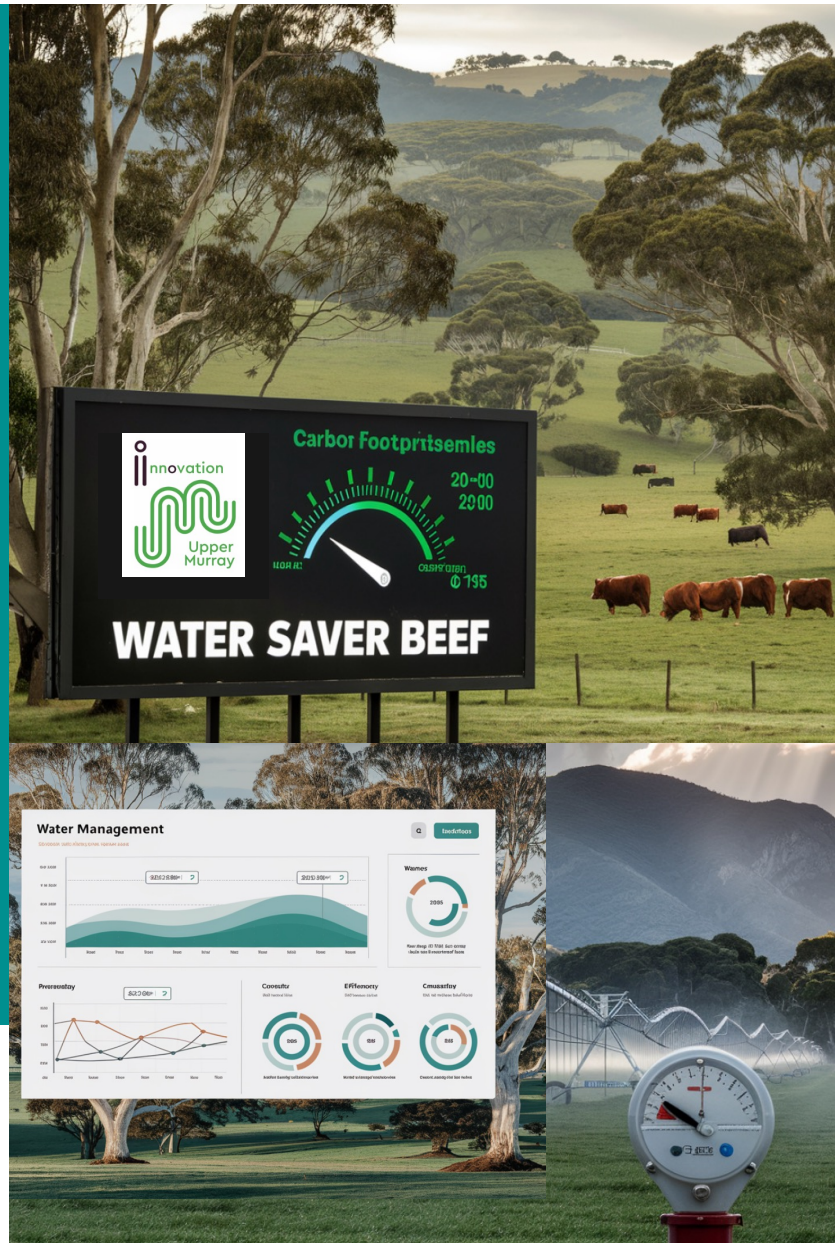
*Content derived from Ag IWG producer 1:1s, survey and workshops

Demo Farm Innovation Themes (Pillars)	Innovation & Skill Development	Farm Benchmarking, Field days, etc.
Topic: Irrigation / Water Management **Who/ Profile:** Anyone who irrigates **What is of interest:** ▪ Irrigation timing-> when ▪ Reducing ponding (over-irrigation)-> where ▪ Reducing water waste (eg too much on 'beaches') -> where	**What is the tech?** ▪ Soil moisture probes ▪ Weather stations ▪ EM38 (soil survey) ▪ Pivot - Remote start-stop (possibly automated) + section control	Pilot Farm - x Pilot Farm – x Pilot Farm x – **weather station?s**	What is the research/ data?
Forage Management **Who/Profile** : Dairy & Red Meat **What is of interest:** ▪ Water & Nutrient use efficiency ▪ Grazing rotation &/or harvest management ▪ Animal nutrition & performance	**What is the tech?** ▪ Biomass & quality sensing (proximal & remote) ▪ Walk over weigh/ / Front foot weigh / carcase quality	Pilot Farm – x Pilot Farm – x Pilot Farm – x **(w optiweight)**	What is the research/ data?
Precision Ag Application **Who/ Profile:** Seed producers, cropping **What is of interest:** ▪ Variable rate nutrient management	**What is the tech?** ▪ EM38 (Soil Survey) ▪ Nutrient correlation – Soil Testing ▪ Yield & Quality Mapping (Protein) ▪ VR (dose) response trials ▪ VRT (install of tech on fert. rig)	Pilot Farm – x Pilot Farm – x Pilot Farm – **yield mapping harvester**/ seed breeder	What is the research/ data?
Sustainability **Who/ Profile**: Hillside land-owners (blackberry etc) / cropping **What is of interest:** Weed management **Who / Profile:** Anyone who cares enough to play a role in this What is of interest: Emissions intensity / Carbon	**What is the tech?** ▪ Drones ▪ Section control spray booms ▪ Green feeders/Calculators ▪ Soil survey, veg assessments	Pilot Farm – weeds (drone spray blackberry) Pilot Farm – x Pilot Farm x – Weeds, sheep, **drone**	What is the research/ data?

Next steps / timeline

- **March 4** (Tue) **–** Co-design workshop with CSU: agree detail Pilot Demo farm/s
- **March –** Submit application for funding to DEECA
- **Mar/Apr/May –** Water work: survey, translate findings
- **April** (late) **–** Outcome of DEECA application (EOI endorsed, we're quietly confident)
- **May –** Commence UMP+ Phase 1 (7 months)
- **Nov/Dec –** Commence UMP+ Phase 2 (2 years)

UMP+ est. schedule – Phase 1; Phase 2



Questions?