

What if? Towards A Goulburn Valley Poly-Technical Education Program (2026–2030)

“Advanced Manufacturing + World Class Education = Sustainable Communities”

Adapting the Chicago Austin Poly-Technical Model for Yorta Yorta and Goulburn Valley

Prepared for: Munarra Centre for Regional Excellence (lead hub) and Kaiela Institute (strategic partner)

Date: April 2026

Author: Peter Botsman (building on *Learning from Chicago*, 2011–2012)

This updates thinking from the 2011 *Learning from Chicago* vision while delivering **Munarra’s Plan for Regional Prosperity** through high-wage, skilled jobs in advanced food manufacturing and engineering. **Rumbalara Football and Netball Club** is integrated as a **core point of active engagement** for Aboriginal young people.

Executive Summary

Goulburn Valley’s food & grocery manufacturing sector generates **>\$3 billion annually** and accounts for **66.5% of regional manufacturing jobs**. Acute skill shortages exist in automation, robotics, CNC, digital literacy and quality control.

The **Poly-Technical Education Program** uses **VCE Vocational Major (VCE VM) + GOTAFE Shepparton VDSS** to create a seamless Year 9–12 pathway.

Munarra Centre for Regional Excellence is the central hub and lead convener. **Kaiela Institute** provides strategic oversight. **Rumbalara Football and Netball Club** is the key community engagement partner, using sport as an active entry point and ongoing support mechanism for Aboriginal young people.

Target Outcomes (by 2030)

- Double the number of Aboriginal students attaining advanced manufacturing credentials.
- 80%+ transition to apprenticeships, full-time roles or Aboriginal-led enterprises.
- Strong contribution to Munarra’s Plan for Regional Prosperity through workforce parity, business ownership and \$150–180 million additional GRP.

1. Vision & Alignment

- **Chicago Poly-Tech Model:** Calculus → programming → CNC/automation → industry credentials + work placements.
- **Munarra’s Plan for Regional Prosperity:** First Nations economic inclusion and shared regional value.

- **Rumbalara FC:** Provides active, culturally safe engagement through sport, mentoring and community events.

2. Victorian Year 9–12 Pathways – Alignment with Poly-Technical Vision

Victoria offers three senior secondary options:

Pathway	Focus	Key Components (Years 9–12)	Poly-Tech Fit
VCE (traditional)	Academic, ATAR for university	English, Maths (Methods/Specialist), Science, electives	Strong academic base (calculus, digital tech)
VCE Vocational Major (VCE VM)	Applied, work-ready (no ATAR)	Literacy, Numeracy, Work Related Skills, Personal Development Skills + mandatory VET	Best fit – direct VET + workplace learning
Victorian Pathways Certificate (VPC)	Foundational support	Literacy, Numeracy, Personal Development + VET options	Entry-level bridge

VCE VM is the ideal vehicle for the poly-technical model. It requires VET credits (Certificate II level or above) and includes structured work placements — exactly like Austin Poly-tech’s blend of classroom + industry.

3. GOTAFE Shepparton Certificates Relevant to Poly-Tech (2025–2026)

GOTAFE Shepparton offers **VET Delivered to Secondary Students (VDSS)** — one day per week at the Shepparton campus while students remain enrolled at their secondary school.

Key aligned certificates (all available as VDSS):

- **Engineering / Advanced Manufacturing**
 - Certificate II in Engineering Studies (22632VIC) — pre-vocational pathway into trades, automation, CNC.
 - Certificate III in Engineering – Mechanical Trade (MEM30219) or Fabrication Trade (MEM31922).
- **Food Processing (core strength for Goulburn Valley)**
 - Certificate II in Food Processing (FBP20122) — operational roles, food safety, processing equipment.

- Certificate III in Food Processing (FBP30121) — production operator, quality control, process improvement.
- Certificate IV in Food Science and Technology (FBP40421) — supervisory/technical roles (product development, automation).

These directly support Goulburn Valley's dairy (52%), fruit/veg (22%), and advanced food manufacturing industries.

4. Poly-Technical Vision for Goulburn Valley

The Chicago Austin Poly-tech model (calculus → programming → CNC machining → NIMS credentials + work placements) is adapted here to **food manufacturing automation**:

- **Academic core:** Maths (calculus/numeracy), Science, Digital Technologies.
- **VET core:** Engineering + Food Processing certificates.
- **Practical core:** Work experience at local processors (Saputo, SPC Ardmona, Bega, Furphy).
- **Cultural & leadership core:** Munarra Centre delivers Yorta Yorta cultural knowledge, business ownership modules, and pathways to Aboriginal-led enterprises.
- **Outcome:** Students graduate Year 12 with VCE VM + portable industry credentials, ready for high-wage roles or business ownership.

5. Program Structure

Core Delivery Model

- **4 days/week** at home secondary school (VCE VM core subjects).
- **1 full Poly-Tech Day/week** at GOTAFE Shepparton + industry.
- **After-school & weekend engagement** through the **Munarra–Rumbalara partnership** (cultural mentoring, leadership, sport and pathways support).

Progressive Credential Pathway

- Year 9–10: Foundation → Certificate II Engineering Studies.
- Year 11: Certificate II → early Certificate III modules.
- Year 12: Certificate III Food Processing or Engineering + paid work placement.

6. Draft Weekly Poly-Tech Day Timetable

Time	Year 9–10 (Foundation)	Year 11 (Cert II level)	Year 12 (Cert III level)
8:30–10:30	GOTAFE: Engineering Studies + Food Processing safety & equipment	GOTAFE: Cert II Engineering (CNC, robotics basics)	GOTAFE: Cert III Food Processing / Engineering (automation, quality control)
10:45–12:30	Integrated maths/science (process control, data)	Digital tech / programming for machines	Advanced process improvement + data analytics
1:30–3:30	Structured site visit / short work experience	Full work placement rotation	Paid traineeship / work placement
After school / evenings	Munarra– Rumbalara cultural reflection, mentoring and sport sessions	Munarra– Rumbalara leadership & enterprise skills + sport training	Munarra– Rumbalara portfolio building, business modules + elite sport pathways

4. Full Implementation Timeline (2026–2030)

Phase 1: Planning & Establishment (2026)

- Q2: Munarra Centre hosts founding Renaissance Council meeting (with Rumbalara FC as founding member).
- Q3: Joint skill-gap audit + co-design with GOTAFE, schools, industry and Rumbalara.
- Q4: Pilot approvals, funding applications, teacher/coach training.

Phase 2: Pilot & Roll-out (2027–2028)

- 2027: First cohort starts Poly-Tech Day at 2–3 secondary schools.
- Rumbalara runs targeted recruitment and after-school support programs.
- 2028: Expand to full Year 9–12 intake.

Phase 3: Scale & Sustainability (2029–2030)

- Full regional rollout.
- Establish Aboriginal-led manufacturing cooperatives.

- Embed Rumbalara “Sport + Skills” pathway across all Shepparton secondary schools.

5. Governance & Stakeholder Roles

- **Munarra Centre:** Lead convener, cultural governance, student support hub.
- **Kaiela Institute:** Strategic partner, alignment with Prosperity Plan.
- **Rumbalara Football and Netball Club:** Key active engagement partner – recruitment, mentoring, leadership development, sport-based retention.
- **GOTAFE Shepparton:** VDSS delivery and credentialing.
- **Secondary Schools:** Host VCE VM core subjects.
- **Industry Partners:** Work placements and funding.

6. Budget & Funding Strategy (High-Level Estimates)

Annual Operating Cost (full program, 200 students): ~\$1.9–2.3 million

- GOTAFE delivery: \$800k
- Munarra coordination & mentoring: \$450k
- **Rumbalara engagement, coaching & pathways programs:** \$250k
- Work placements & transport: \$200k
- Evaluation: \$100k

7. Monitoring, Evaluation & Continuous Improvement

- Annual outcomes report (credential completion, employment rates, business starts, Rumbalara participation rates).
- Student, family and Rumbalara feedback surveys.
- Alignment with Munarra’s Plan for Regional Prosperity targets.

8. Risks & Mitigation

- Engagement of young people → Strong Rumbalara partnership provides trusted, culturally safe entry point through sport.
- Retention → Combined Munarra–Rumbalara mentoring and “Sport + Skills” pathways.

9. Next Immediate Steps (Q2–Q3 2026)

1. Munarra Centre convenes first Renaissance Council meeting (Rumbalara FC invited as founding member).

2. Formal partnership agreement between Munarra, Kaiela Institute, GOTAFE and Rumbalara FC.
3. Launch joint recruitment campaign at Rumbalara training sessions and games.
4. Submit funding expressions of interest.

References

1. Botsman, P. (2012). *Learning from Chicago: Creating Poly-technical Learning Pathways to High Quality Jobs for Australian Aboriginal Communities*. Indigenous Stock Exchange (ISX) Australia / Center for Labor and Community Research (CLCR), Chicago.
2. Victorian Curriculum and Assessment Authority (VCAA). (2025). *VCE Vocational Major (VCE VM) and Victorian Pathways Certificate (VPC) Handbook*.
3. GOTAFE. (2025). *VDSS Course Guide – Shepparton Campus*.
4. Victorian Skills Authority. (2024–2025). *Goulburn Regional Skills and Jobs Profile*.
5. Munarra Centre for Regional Excellence. (2024). *Opening and Strategic Plan*.
6. Kaiela Institute. (2021). *Goulburn Murray Regional Prosperity Plan*.
7. Rumbalara Football and Netball Club. (2024–2025). *Annual Report and Community Pathways Program*.
8. Australian Bureau of Statistics. (2024). *Regional Data: Greater Shepparton – Manufacturing and Food Processing Output*.
9. Victorian Government. (2023). *Food and Fibre Sector Strategy and Closing the Gap Implementation Plan – Victoria*.
10. Center for Labor and Community Research (CLCR). (2008–2011). *Austin Poly-technical Academy Reports*.