VICTORIAN MEDTECH SKILLS AND DEVICES HUB

Building a Skilled Future Medtech Workforce

Analysis, Initiatives & Recommendations

October 2025

Supported by

Collaboration Partners

Foreword

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The Victorian Medtech Skills & Devices Hub (VMH) is a dedicated workforce training organisation focused on building connections, enhancing career awareness and closing identified skills and knowledge gaps in the Victorian medical technology workforce. Through its activities, the VMH is working to ensure there is a growing pipeline of skilled and talented people ready to meet the needs of the evolving medical technology sector.

This report is informed by the VMH Medtech Workforce Study[1] commissioned by the VMH and undertaken by RMIT University to understand the composition of Australia's current medtech workforce and identify where the greatest challenges might be in meeting future workforce and skills needs.

Building on previous sector analysis, including the VMH Medical Technology Skills-Education Gaps Roadmap (2023), this report seeks to provide educators, career advisors and policy makers with a deeper appreciation of the complexity of the sector including barriers to entry, workforce retention and gaps in capacity, capability and experience. This report also provides recommendations on the approach to skill development and solutions for increasing industry work experience opportunities to uplift the sector.

The report highlights VMH initiatives and targeted training programs that seek to address these issues by uniting the deep educational expertise of our education partners (The University of Melbourne, Swinburne University of Technology, RMIT University and the Aikenhead Centre for Medical Discovery (ACMD)), together with the commercial acumen of our industry partners, to create a future ready, and connected, medical technology workforce.

Source
[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH Medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

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The Victorian Medtech sector: Key Findings

1. Sustained growth forecasted for Australia's medtech workforce.

Australia's medtech workforce is forecasted to grow to 20,619 people (13%) from 2024-2034[1] based on current projections notwithstanding changes in government policy, industry investment, technological advancements, demographic trends, geopolitical and economic impacts.

In 2023–2024, Australian medtech job postings rose 34% for data professionals and 54% for software engineers, with demand expected to grow another 25% over 10 years for IT, data and digital professionals.[1]

Medtech manufacturing workforce growth is forecast at a modest 4% over the decade (2024-2034), constrained by current capacity and capability. As the sector is gradually transitioning to Industry 4.0, there is increasing demand for professionals skilled in advanced manufacturing, digital technologies and data management. As automation and digitisation is reshaping roles and required skill sets, this may also impact future total workforce numbers.

2. Increasing cross-sector competition for professionals with advanced manufacturing, digital and data skills.

These professionals are highly sought after across high-tech sectors, intensifying talent shortages. This challenge is expected to escalate due to ongoing digital transformation, sector growth, and Australia's strategic positioning as a global medtech supplier.

13% forecasted growth over the next 10 years for the Australia's medtech sector.

25% forecasted increase in demand for IT, data and digital professionals.

4% forecasted growth for the medtech manufacturing workforce from 2024 – 2034.

Source

[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

The Victorian Medtech sector: Key Findings

3. The Employer - Graduate Disconnect

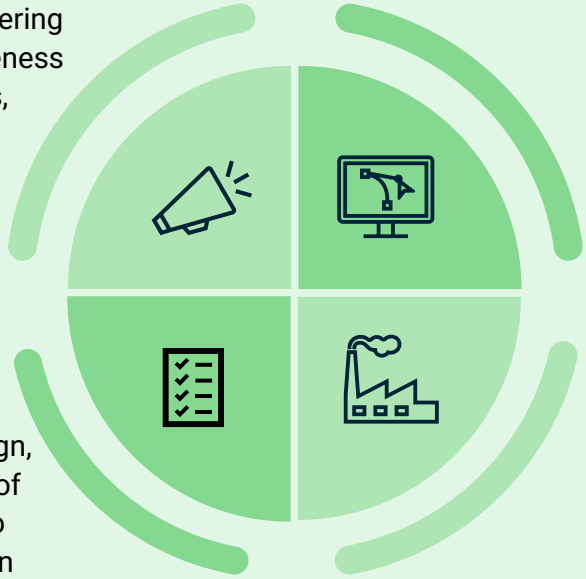
Stakeholder consultation has shown that, unlike other engineering sectors, Victoria's medtech workforce is not suffering from a shortage of graduate engineers but rather a lack of alignment between graduate skills and the commercial needs of industry. This misalignment has been identified in the following areas:

MEDTECH SECTOR AWARENESS

Students enrolled in medtech–relevant engineering and science programs demonstrate low awareness of key industry organisations, career pathways, occupational roles and the competencies required to perform those roles.

BEING JOB READY

Biomedical and medtech-related engineering students often lack exposure to medtech design, manufacturing processes and the application of ISO13485 and GMP standards. Employers also report insufficient hands-on skills particularly in common electronic and mechanical engineering tools and equipment.



LIMITED MEDTECH WORK EXPERIENCE OPPORTUNITIES

University students have limited awareness of medtech internship opportunities, with few positions available often attracting hundreds of applicants. Low exposure to commercial environments, makes the transition from academic rigour to commercial reality challenging, often leading to culture shock and slower adaption, with some leaving the sector.

ATTRACT AND RETAIN ADVANCED MANUFACTURING EMPLOYEES

Cross-sector advanced manufacturing skills development programs will benefit the medtech sector with many transferable skills. Workforce shortfalls may be filled by adjacent sector employees, however there is a 'train and retain' challenge with early to mid career employees having shorter tenures than previous generations.

Source

[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

The Victorian Medtech sector: Key Findings

4. VMH initiatives: Better preparing students to be medtech job ready

Education

- The VMH has supported the development of a number of formal qualifications to strengthen medtech workforce capability, including University of Melbourne's *Introduction to Medtech Innovation* undergraduate subject, *Master of Medical Technology Innovation* (both in launching 2026) and *Foundations of AI in Healthcare* micro-credential series.
- The "*BioDesign Bootcamp"* offers clinicians, researchers and engineering students a two-day introduction to clinical need identification and technology commercialisation.
- In 2026, the VMH will launch an accessible self-paced online "*Introduction to Medtech Commercialisation"* course to equip participants – from tertiary students to innovators, career changers to lifelong learners – with core knowledge about the medtech commercialisation pathway.
- In 2026 VMH's training lab located at ACMD, will provide practical training in GMP, ISO13485 and clean room best practices to higher education and vocational students and local industry staff training.
- The VMH online Education Directory also provides up-to-date listings of medtech related technical courses offered by our education partners.

Expanding industry work placements

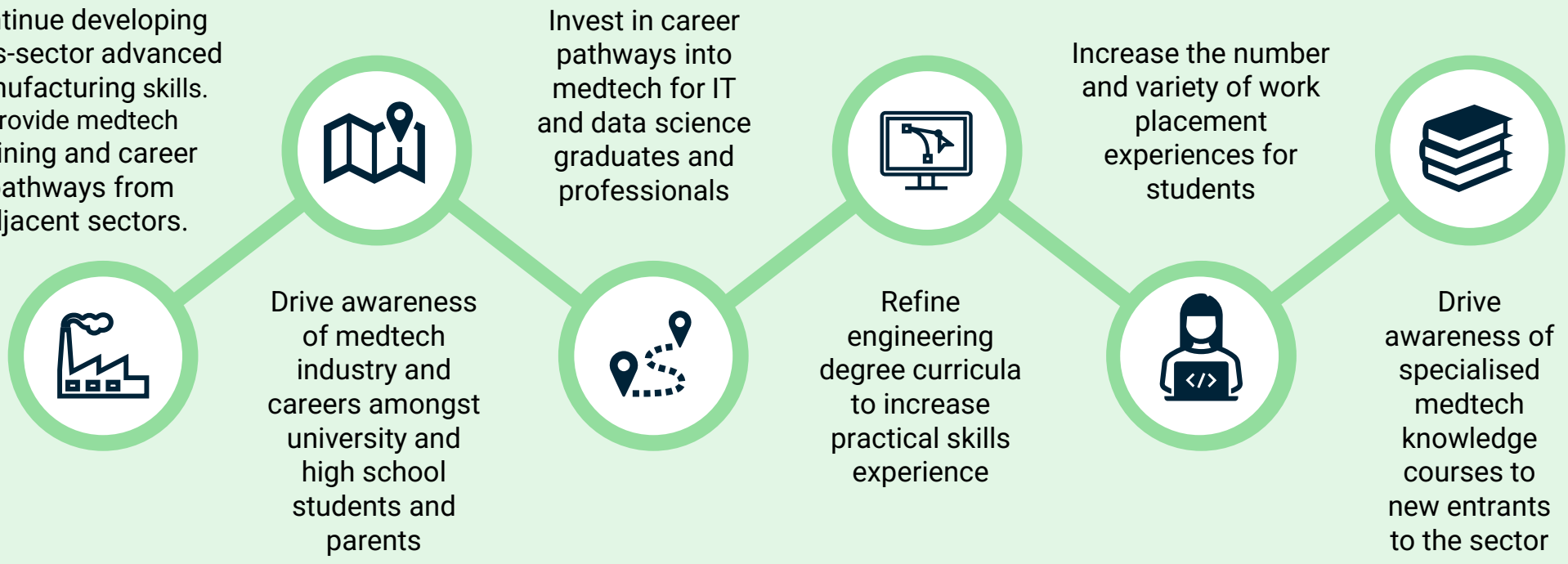
- To complement Universities' Work Integrated Learning (WIL) and accreditation programs there is a need to provide alternative industry experience programs for engineering students. Programs should be flexible and tailored to support SMEs, who comprise a significant part of the medtech sector and face high business volatility and limited supervisory capacity.
- The VMH Medtech Industry Connections (MIC) program, with nearly 200 engineering and science students from multiple Victorian universities, provides participants with access to medtech company work experience, conferences/events, manufacturing site visits and medtech commercialisation training.

Sector awareness and navigation

- VMH's "Medtech Unpacked" initiative aims to increase awareness of the local medtech industry among tertiary and secondary students, highlighting careers, companies in the sector, roles and skills needed. The VMH "Career Bites" program supports university career advisors with knowledge of the sector and reference materials.
- The VMH also provides a navigation function connecting people within the sector and international companies to local providers.

Recommendations Summary

To continue building a vibrant and sustainable Australian medtech industry, it is essential to attract and retain skilled talent, ensure there are meaningful job opportunities, and equip the workforce to meet evolving business, technology and healthcare needs. Success will require a coordinated, whole-of-sector approach involving industry, academia, healthcare, government, and sector enablers.



Australian Medtech Workforce: Current Composition and Future Growth

1.

Definition of Medtech

The term medtech – short for medical technology – is used throughout this report to refer to the use of technology, devices and equipment to diagnose, treat and manage diseases and medical conditions.

Examples include large-scale diagnostic imaging and surgical robots as well as smaller devices like implants, monitors and wearables. Medtech also includes recent advancements such as Software as a Medical Device (SaMD) and the use of AI in products used in healthcare settings.

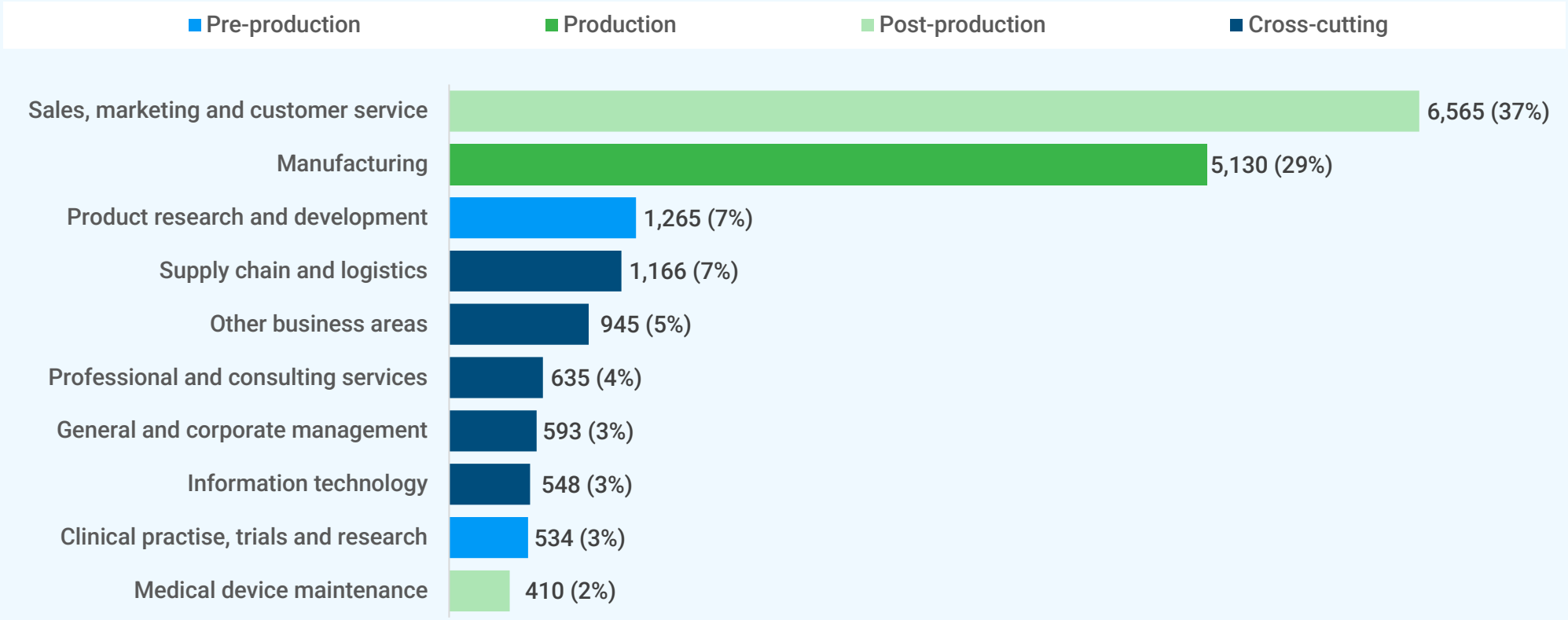
The core purpose of medtech is to improve patient health and is used routinely by healthcare professionals, pathology services, aged care, disability providers and consumers.

75%

Australia's medtech workforce is involved in manufacturing, distributing & selling products

As of 2024, Australia's medtech sector directly employs an estimated 17,800 people with the majority (75%) occupied in the post-production stage of the product lifecycle. Workforce distribution across lifecycle stages has remained consistent since 2020.

In Australia, 35% of the medtech workforce is involved in manufacturing related roles. In comparison, established medtech hub Ireland has 49% of the medtech workforce is engaged in manufacturing-related roles and 8% in product research, development and innovation.



Sources

[1] *RMIT analysis of JSA Employment Projections*

[2] *MTAA, 2024, Value of medtech report – industry headcount*

Note: *Includes people engaged in 'direct' medtech activities including staff, long-term contractors, regular casuals, working directors/proprietors. Doesn't include all people involved in supply chain nor companies that support other sectors in addition to the medtech sector. ('indirect' workforce)*

Strong demand for electrical & electronic engineers by Victorian medtech companies

In the past few years, there has been greater demand for electrical or electronic engineers (32%) by Victorian medtech companies than the Australian average (17%). Ongoing labour market monitoring is needed to determine whether this reflects a sustained geographic trend or a post-Covid anomaly.

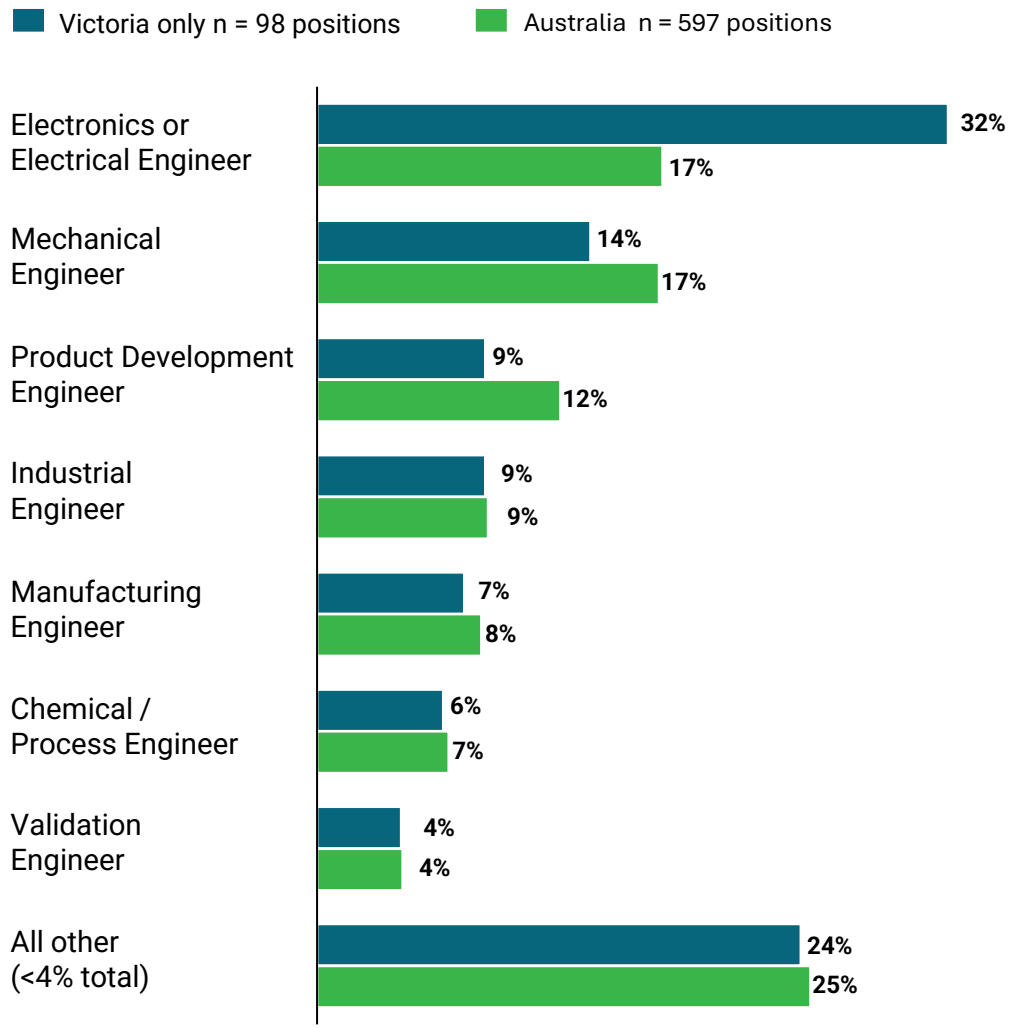
Factors contributing to growth in size and number of Victorian medtech companies that may explain this demand are:

- Local targeted funding programs; e.g., $2B Breakthrough Victoria fund, LaunchVic
- Victoria has had the highest proportion of MRFF grant recipients between 2022-2024[1]
- Multiple medtech and digital health incubators/accelerators based in Melbourne; e.g., Medtech Actuator, ANDHealth, Jumar
- University commercialisation programs; e.g., University of Melbourne's BioDesign Innovation Program, RMIT's Activator Pre-Accelerator, Swinburne University's MedtechVic clinical innovator program, Monash University's MIME.

Source

[1] *Medical Research Future Fund (MRFF) grant recipients https://www.health.gov.au/sites/default/files/2025-09/medical-research-future-fund-mrff-grant-recipients_0.pdf*

Most in-demand engineering occupations based on job postings from medtech employers, 2022-25



Source

Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem
Percentage of engineering job postings by Australian medtech employers, 2022-25, Lightcast data, accessed April 2025

Demand for biomedical engineering qualifications is greatest in NSW

Over the past three years, demand for biomedical engineering professionals is more than three times higher in the rest of Australia than in Victoria.

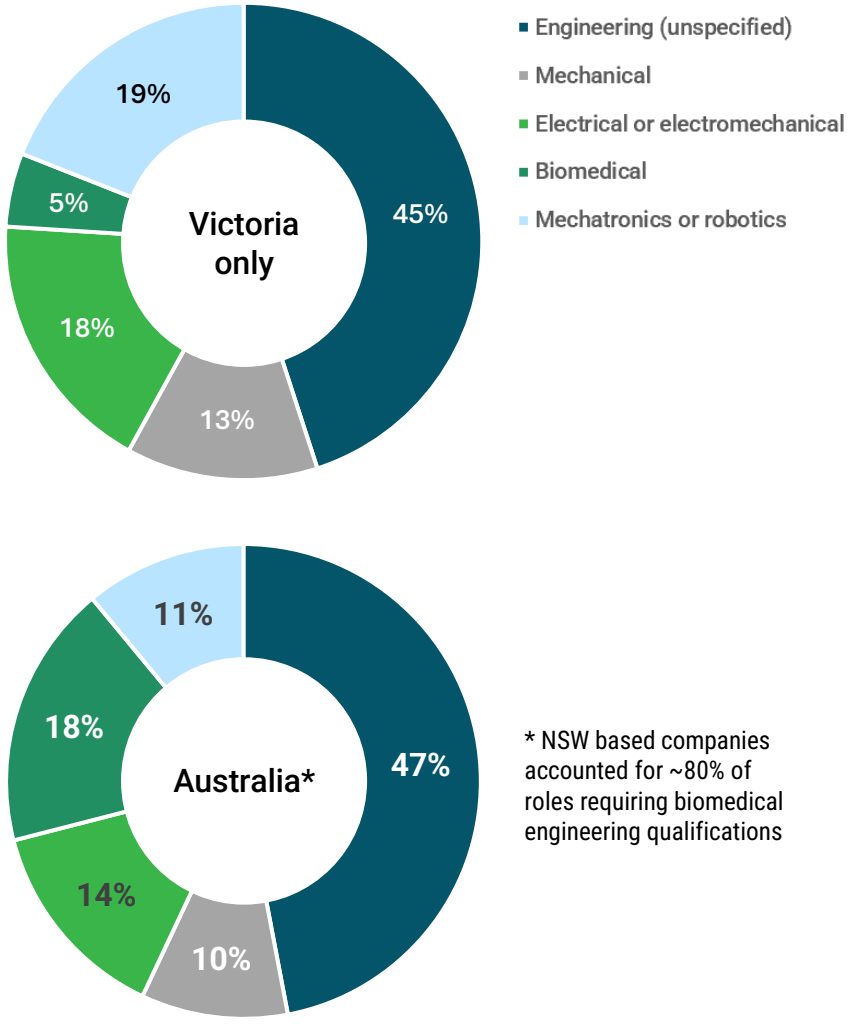
The concentration of global medical and equipment companies in the Sydney area can account for this, with many specialising in hospital equipment, surgical tools and imaging that often require biomedical engineering-qualified field service engineers, product managers and technical specialists.

Sydney-based corporate medtech companies Cochlear, ResMed, Abbott Labs, Saluda Medical, Propeller Health, and Boston Scientific **together accounted for 80% of job postings requiring Biomedical Engineering qualifications.**

In contrast, Victorian medtech employers have sought electrical, electro-mechanical, mechatronic and robotics engineers in this period. This is reflected in the higher demand (18%) for electrical, electronic and electromechanical engineering degree qualified professionals compared to the Australian average.

Ongoing monitoring is required to understand whether these geographic differences are a trend or simply a short-term difference.

Most in-demand engineering majors (field of education) based on job postings from medtech employers, 2022-25



* NSW based companies accounted for ~80% of roles requiring biomedical engineering qualifications

Source:
Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem
Education requirements – percentage of total engineering job postings by Australian medtech employers, 2022-25, Lightcast data, accessed April 2025

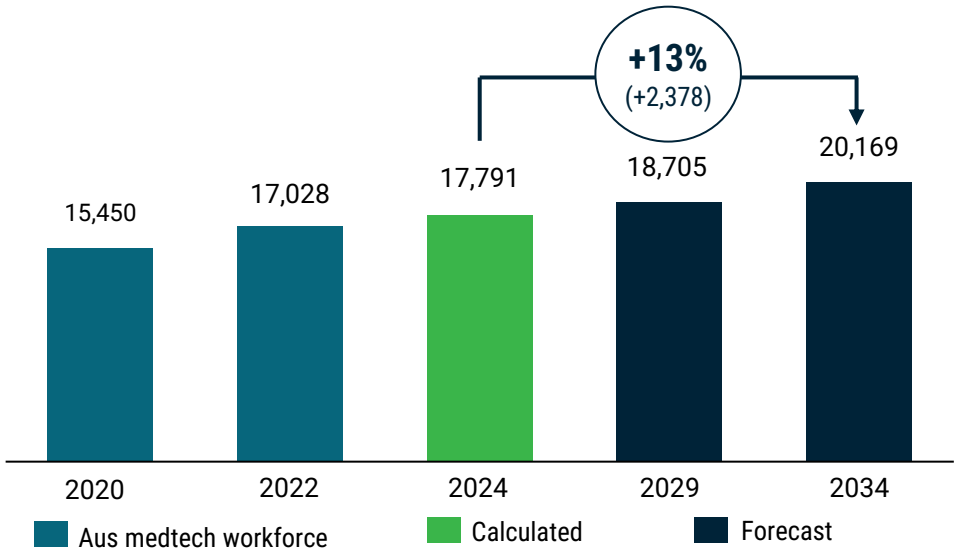
Australian medtech workforce set to grow 13% by 2034

The Australian direct medtech workforce is forecasted to grow to an estimated 20,200 people over the next decade. This excludes those employed by manufacturers supplying components as well as medtech and other sectors, specialised consultancies and clinical research organisations (CROs).

The forecast does not consider future government policies, investment and programs, changes in geopolitics and global economic conditions, demographic trends, technological advancements and consumer demand.

Current and future Federal and State Government targeted programs and investment are aiming to increase job growth.

Forecast Australian medtech workforce numbers to 2034



+2,378

Growth of medtech workforce numbers to 2034

Most occupational segments will grow in line with growth in the Australian labour market provided current graduate numbers, education and skills development programs are maintained.

+25%

Growth of IT professionals in medtech to 2034

Global digitisation trends, rise in AI product availability and adoption by the medtech industry, healthcare sector and consumers will drive demand for IT, software, AI developers, data analyst professionals.

+4%

Growth in manufacturing professionals to 2034

Modest forecasted growth in the manufacturing workforce is predicted based on Australia's current manufacturing capacity and capability. Increasing adoption of automation and digitisation may impact workforce numbers and will shift the type of manufacturing roles and necessary skill sets.

Sources

[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

[2] *MTAA 2023, Value of Medtech Report*

Australian medtech workforce numbers: 10-year forecast by occupational segment

Most medtech occupational segments are expected to grow in line with the labour market, providing the current pipeline of graduates and training pathways are maintained.

Occupational Segment	**2024** Calculated	**2029** Forecast	**5-year** change	**2034** Forecast	**10-year** change
Sales, Marketing and Customer Service	6,565	7,155	+591	7,681	+1,116
Manufacturing	5,130	4,873	-256	5,335	+205
Product Research and Development	1,265	1,392	+127	1,493	+228
Supply Chain and Logistics	1,166	1,271	+105	1,364	+198
Other Business Areas	945	1,031	+85	1,106	+161
Professional and Consulting Services	635	692	+57	743	+108
General and Corporate Management	593	646	+53	694	+101
Information Technology	548	636	+88	686	+137
Clinical Practice, Trials and Research	534	587	+53	630	+96
Medical Device Maintenance	410	422	+12	438	+29
TOTAL	**17,791**	**18,705**	**+914**	**20,169**	**+2,378**

Source:
[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH Medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem RMIT analysis of JSA Employment Projections to 2034, mapped to occupational segment*

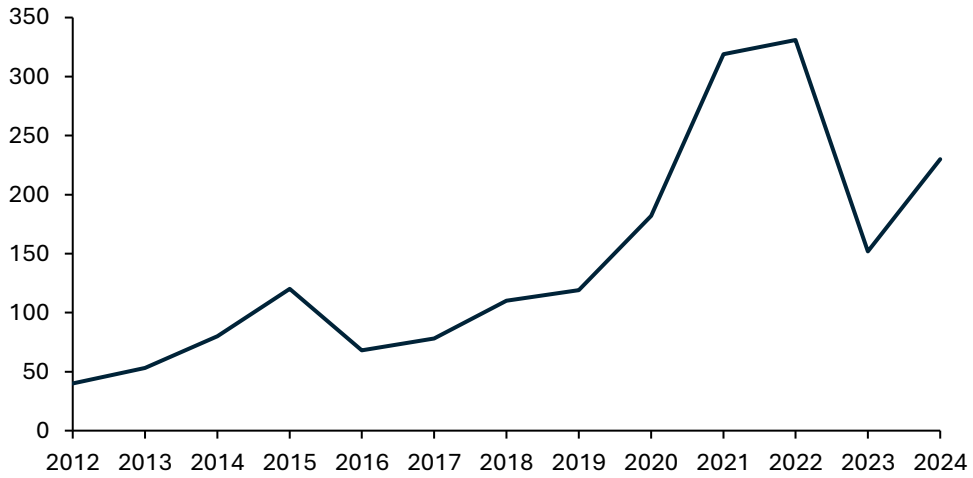
IT and computer science are the fastest growing roles, medtech vulnerable to competing sectors

The greatest demand in the medtech sector is for skilled data, digital and IT professionals with a forecasted 25% increase by 2034.

This forecast builds on strong post-covid growth (2023-2024), when job postings rose 34% for data professionals and 54% for software engineers.[1]

Demand for data and digital skills spans the entire medtech value-chain, not just in specialist roles. This is driven by growth as software medical devices, sensing and wearable technologies, big data, cloud integration, AI platforms and Industry 4.0 gain momentum. Professionals with experience in AI, cybersecurity, data science and management and will be in high demand.

Number of public job postings for IT and computer science roles, Australian medtech sector (2021-2024)



Sources

[1] Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem
Lightcast workforce analytics data, accessed April 2024

Opportunities & Challenges for Medtech Sector

Opportunity to build stronger career pathways between medtech and digital industries to fast-track professionals with digital skills into medtech.

Targeted education upskilling programs for digital professionals to educate them in medtech-specific standards and healthcare privacy requirements. These programs should be accessible, scalable, affordable and timely.

Medtech may struggle to attract data, digital and IT professionals due to lower advertised salaries compared to other advanced manufacturing sectors. Medtech companies also lack the brand awareness of fintech, software and consulting companies, who actively recruit graduates. Targeted investment in sector brand building, growth initiatives and promotion of medtech's value – better health through innovative technologies – could help address this.

Attracting, retaining and building Australia's advanced manufacturing workforce

The national employment forecast predicts slow growth in several key advanced manufacturing industry workforces 2024-2034, including medical device manufacturing*. This projected slow down reflects broader long-term trends such as automation, globalised supply chains, and a shift towards capital-intensive production models.[1]

For medical devices, increased outsourcing, reliance on offshore component manufacturing and limited onshore scale-up activity may further constrain local employment growth without targeted intervention.

Ambitions to grow medtech manufacturing risks being undermined by a shrinking talent pool (aging workforce, attracting and retaining younger workers)[2] and intensifying cross sector competition for qualified workers.

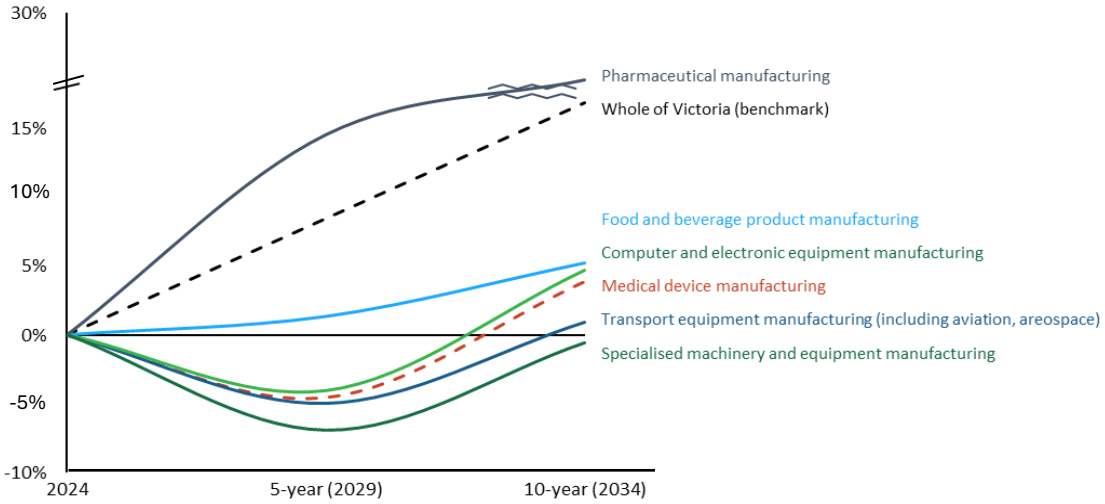
Targeted Federal and State Government investments to stimulate advanced manufacturing infrastructure capabilities (e.g., additive manufacturing, robotics, advanced imaging) in medtech may compound the problem if sector growth outstrips the size of the locally available workforce.

Sources

[1] Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem
[2] Manufacturing Workforce Plan 2024 – Manufacturing Industry Skills Alliance
[3] MTAA 2024 Value of medtech report
[4] MTP Connect, 2021, MTPConnect REDI Initiative Skills Gap Analysis: Second Report, March 2021, p.36
[5] RMIT analysis of Lightcast, 2025, Time Series Analysis of Job Postings – Medical Technology sector (custom filter) and all Victorian Manufacturing sectors, Manufacturing role advertised salaries, Australia, accessed April 2025

** Professional and Scientific Equipment manufacturing*

Forecast Australian workforce growth rates by selected advanced manufacturing industries[1]



Stakeholders note that restricting funding, support and capacity building activity for manufacturing to "rigid sectoral or technology silos, particularly for dual- and multi-use manufacturing capabilities and technologies", has the potential to hinder growth across not only medtech, but also the broader Victorian advanced manufacturing sectors.[3]

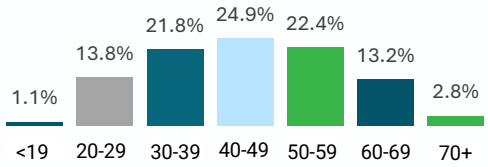
Opportunity to support cross-skilling programs for skilled professionals from other advanced manufacturing industries to transition into the medtech sector to maximize the available pool of talent in Australia.[4]

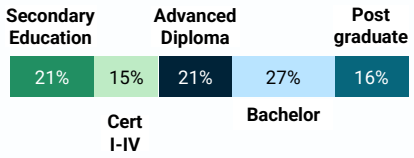
> Highlighting that 88% of medtech manufacturing roles exceed $75,000, compared to just 29% across broader Victorian manufacturing sectors[5], can help position the sector as **purpose driven and financially rewarding.**

Rising demand for degree talent in medtech manufacturing

Manufacturing job vacancies advertised in 2022 - April 2025 indicate Australian medtech manufacturers are seeking more highly qualified candidates[1]. Several industry stakeholders have indicated some university graduates, including postgraduates, are accepting lower qualified entry-level roles to gain a company 'foothold'. Further analysis is needed to confirm if this reflects a broader shift in medtech employer expectations. Initial recruiter feedback suggests higher qualifications are generally sought for manufacturing engineer roles, with technician roles requiring TAFE qualifications (particularly for component manufacturers).

Like other manufacturing sectors, medtech remains male-dominated, revealing an opportunity to attract more women and under-represented groups to meet future workforce growth aspirations.





Source: Australian Bureau of Statistics, 2021, Census

Sources

[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH Medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

[2] *Manufacturing Workforce Plan 2024 – Manufacturing Industry Skills Alliance*

Job Vacancies

78%

of Australian medtech manufacturing job vacancies advertised between 2022–April 2025 required a bachelor's degree as a minimum (excluding component suppliers).

Higher Education Qualification

57%

of the existing medtech manufacturing workforce do not have a higher degree qualification.

Employees Over 50 Years Old

38%

of Victorian medtech manufacturing employees are aged over 50yrs, slightly higher than the pharma manufacturing sector (30% over 50yrs)[1].

Gender Representation

63% **37%**

female representation in the Victorian medtech sector is slightly lower than the pharmaceutical manufacturing sector (44% female)[2].

Employer – Graduate Disconnect: Developing a Connected Future Medtech Workforce

2.

Industry insights

Multiple recent industry consultations conducted by the VMH[1,2] with representatives including CEOs, senior management, HR executives, recruitment consultants, sector enabling organisations and university students have consistently revealed the following:

Limited awareness of the medtech sector amongst tertiary students (and graduates) who study engineering and science.

Ability to attract and retain manufacturing professionals, with younger employees leaving once trained.

Limited medtech industry work experience opportunities available to university students to gain commercial experience prior to graduation.

Being job ready – University students, including biomedical engineers often have a poor understanding of medtech commercialisation and key business drivers. Students and employers have also reported there are few opportunities to develop practical skills in higher education courses.

The following section highlights VMH initiatives, other programs and recommendations to address these gaps.

Sources

[1] *VMH internal industry consultations (N=38): Companies represented SMEs = 12, CDMOs = 9, Corporate medtech = 7, Consultants = 5, Enabling organisations = 5. Representatives were senior executives/CEOs involved in talent development/recruitment*

[2] *Victorian Medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem. (N= 27). Included medtech companies = 18, enabling organisations = 8, University = 1)*

Building Sector Awareness

2a.

Low sector awareness limits the medtech talent pipeline

Engineering students unaware of the majority of job opportunities

Extensive consultations by VMH with 15 student engineering societies across four universities, career advisors and early career professionals[1] reveal a clear gap: STEM students — including biomedical engineers — know little about the medtech industry or the wide range of roles beyond start-up product development.

This lack of awareness is largely due to the lack of established and promoted career pathways into medtech compared to other technology sectors. There are several contributing factors:

i. the complexity and fragmentation of the sector
ii. the lack of in-depth knowledge of the medtech sector by university career advisors
iii. the diversity of companies/organisations and roles within medtech and life sciences in general

Product development roles in medtech start-ups are the most well known amongst students and yet the most common job titles advertised by Victorian medtech employers between 2022-April 2025 were in manufacturing, supply chain and logistics, sales, marketing and customer and field service. Whilst development and clinical trial roles were in demand, the majority of job titles advertised were in post-development areas.[1]

Targeted effort to promote medtech specific roles

Whilst there are a number of general student-industry career events hosted by universities and student societies, many focus on multiple sectors relevant to an area of study (e.g., electronics).

Greater awareness of the diversity of medtech companies, roles and skill sets required will assist with setting graduate expectations of early career opportunities and help them decide on the courses that best fit with their interests and meet future employment expectations.

Example initiatives to support, promote and/or scale:

- **Tech School network** Government supported medtech/lifescience career opportunities awareness program integrating into existing high student curricula
- **Nucleate** student led volunteering program operating globally. Targeting life science students offering mentoring, networking and educational resources
- **AiGroup Centre for Education Training** career advice targeting VET students and career advisors
- **University Job Fairs** with greater outreach and medtech industry presence at Universities student networking events

Sources

[1] *Victorian Medtech Skills and Devices Hub, 2025, The VMH Medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

VMH initiatives: Building sector awareness and career pathways

VMH “Medtech Unpacked” annual event

This annual initiative is a dedicated student and industry networking event to address the lack of sector awareness amongst engineering and science students.

Students from multiple Victorian universities, across multiple disciplines were in attendance and had the opportunity to learn about career pathways and speak face-to-face with medtech industry representatives about their own journeys and experience of the sector.

The VMH is aiming to grow the awareness of Victoria’s medtech sector by increasing collaborations with organisations involved in school programs, university career fairs and social media.

VMH’s Medtech Unpacked August 2025 hosted 145 students from 5 universities with 19 industry representatives in attendance.

VMH “Career Bites”

This program equips university career advisors with knowledge about the medtech sector, typical roles and job titles, skill sets required and typical qualifications so they can best advise students on subject selection and career opportunities.

These lunches bring university career advisors together to learn about the sector, discuss opportunities to advise students and provide reference materials about the medtech sector, the companies that exist and the careers available.

Attracting and Retaining Advanced Manufacturing Talent

2b.

Retaining advanced manufacturing professionals remains a challenge

Attracting workers to advanced manufacturing and lifting VET course completion rates are key challenges with several initiatives underway to solve this.[1] VMH consultations with medtech companies have identified a 'train and retain' issue, with businesses upskilling interns and early career employees in advanced manufacturing best practice, only to lose them to competitors or other sectors (e.g., defence).

Opportunities to consider include:

i. Continued long-term support of national campaigns promoting manufacturing careers to both traditional and more diverse groups will also benefit the medtech sector.[2]

> Further market research to test medtech manufacturing's value propositions (e.g., high-tech, purpose-driven, transferable skills) amongst target groups would also be valuable.

ii. Sharing effective recruitment and retention practices through industry associations could bolster workforce pipelines. Simply increasing staff wages alone is having little effect in improving staff recruitment.[3]

Sources

[1] *Manufacturing Workforce Plan 2024, Manufacturing Industry Skills alliance*
[2] *https://amtil.com.au/make-it-manufacturing-careers-campaign-launch/*
[3] *Jobs and Skills Australia, 2023, Towards a Jobs and Skills Roadmap*

Cross-sector skills development in advanced manufacturing will benefit medtech

Australia needs sustained investment in advanced manufacturing skills, particularly digital competencies. Medtech, biotech and cleantech companies (and component suppliers) are all seeking workers with advanced technical skills, and demand may intensify as government and private investment fuels growth in high-tech sectors.

Whilst Australian medtech manufacturers are not yet as automated as food or pharmaceutical producers, there are increasing levels of automation, digital monitoring, specialised production process robotics and supply chain platforms being adopted. Employers are now competing for workers with advanced manufacturing skills across multiple roles, with several companies indicating they have had difficulty filling positions.[1]

National Reconstruction Fund (NRF) programs and state initiatives like Victoria's Advanced Manufacturing Centre of Excellence (AMCOE) are addressing skills shortages. However, gaps remain in advanced electronics, semi-conductors, automation, robotics maintenance and repairs, digital competencies, big data analytics and AI product development.

Ongoing investment in developing these highly transferable skills will strengthen the advanced manufacturing workforce and enhance worker mobility across sectors, helping to address workforce shortages.

> Further market research to test medtech manufacturing's value propositions (e.g. high-tech, purpose driven, transferable skills) amongst target groups would also be valuable.

Sources

[1] *VMH industry consultations 2025*

Exploring advanced manufacturing pathways into medtech

MTP Connect's REDI Skills Gap report 2021 identified the shortage of local expertise in general and additive manufacturing needed for high tech and specialised medical devices, particularly for smart devices, bionics and implants. Knowledge of intelligent devices, connectivity, data analytics and the ability to maintain and repair complex robotics used in manufacturing are essential skills for advanced manufacturing of medical devices.

Federal and state governments are significantly investing in programs to grow the number of start ups and scale ups in deep tech (i.e., biotech, medtech, digital health, climate change and energy). There has also been a focused effort in securing global companies to set up R&D and manufacturing sites in Australia (e.g., Moderna 2024, BioNTech 2024).

A key factor in supporting the future growth of Australia medtech scale ups and attracting global medtech companies to set up in Australia is knowing they have a local talent pool with skills in advanced manufacturing of medtech products. Alongside tertiary training of young people, we considered the likelihood of workers in adjacent sectors transitioning to medtech, assuming they received specialized training in regulatory and quality assurance (e.g., ISO13485, ISO9001, GMP).

To assess potential workforce transition from adjacent sectors into medtech, Victorian manufacturing engineering and technician job ads (2022–2025) were analysed by qualifications, experience and remuneration to gauge eligibility and mobility (refer to table p27). Based on these job criteria, manufacturing engineers and technicians were the most promising to attract to medtech. Competition for manufacturing software engineers may constrain medtech sector growth, with fewer medtech roles advertised above $100k p.a. compared to other sectors.

If cross-sector workforce transitions are prioritised, pharmaceutical/ biopharmaceutical, agritech/food and zero/low emission technology sectors are recommended starting points due to their similarities in regulated product development, GMP, industry 4.0 focus, workforce occupations and strong government investment.

> 'Supporting cross-skilling programs for highly skilled process engineers from other high-tech industries … to transition into the MTP sector would also be valuable in helping maximise the available talent pool in Australia.'[1]

Source

[1] *MTP Connect report 2021*

High–level comparison summary of hiring criteria across sectors: Insights from Victorian job ads, 2022-2025

Occupation And Sector	Transition Rating	Education Requirements (Medtech Cf. Other)	Experience & Remuneration (Medtech Cf. Other)	Top Employing Manufacturing Sub-Sectors (Victoria)
Degree qualified Manufacturing Engineers (all sectors)	**High potential**	▪ Job titles consistent between medtech and other manufacturing sectors ▪ Minimum Bachelors degree qualified candidates due to engineering accreditation requirements	▪ 15% medtech manufacturing employers required 6yrs+ experience ▪ 31% other manufacturing employers required 6yrs+ experience	▪ Engineering and design consulting ▪ Energy and materials ▪ Pharmaceuticals ▪ Mining and construction machinery ▪ Aerospace and transport
VET qualified Manufacturing professionals (all sectors)	**High potential**	▪ Minimum education requirements are similar (~20% VE, ~75% bachelors)	▪ Regulatory and quality related job titles are less common outside of medtech / Pharmaceutical ▪ 80% medtech roles required 3yrs+ experience ▪ 70% Other roles required 3yrs+ experience ▪ 44% medtech roles offered $100K p.a. ▪ 7% roles in other sectors offered $100k p.a. with similar education requirements	▪ Food and beverage ▪ Pharmaceutical ▪ Mineral product ▪ Transport equipment
Software Engineers Manufacturing (all sectors)	**Medium**	▪ Job titles consistent between medtech and other manufacturing sectors ▪ Minimum education requirements are similar	▪ 74% medtech roles required 3yrs+ experience ▪ 86% other sector roles required 3yrs+ experience ▪ **26% medtech roles advertised salaries over $100K p.a.** ▪ **83% other roles advertised salaries over $100k p.a.**	▪ Pharmaceuticals ▪ Food and beverage, ▪ Chemical manufacturing ▪ Engineering and design consulting

Source: *Victorian medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem*

Industry Work Experience Growth Opportunities

2c.

Growing the number of medtech industry work experience opportunities

In addition to increasing medtech specific knowledge, the real benefits are realised in its application. One of the best ways to achieve this is through workplace experiences within medtech companies.

Work Integrated Learning (WIL)

There are a number of opportunities available to students through tertiary WIL programs and are integrated into course curriculum calendars. These include:

- Industry sponsored Capstone projects
- For-credit internship subjects
- Degree accreditation work placements

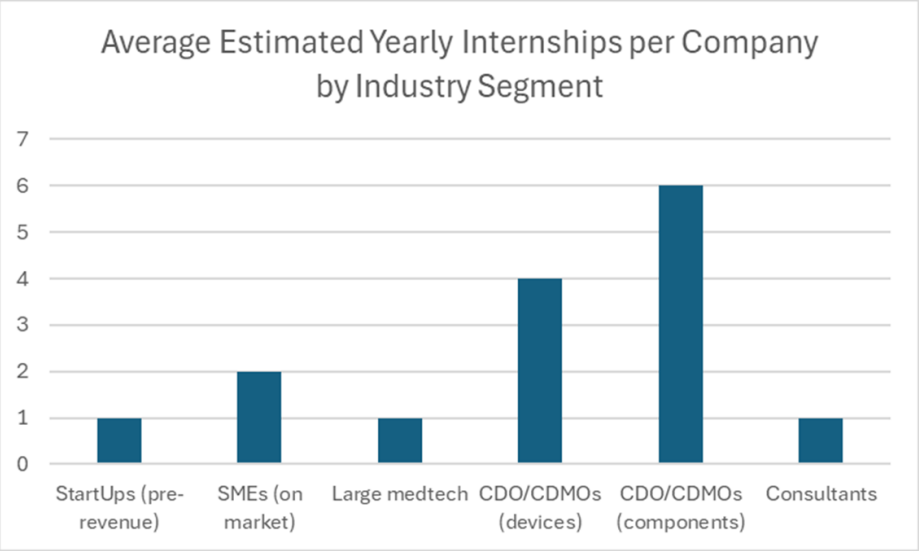
Other opportunities

- Summer internship opportunities promoted by universities and individual companies with positions available locally and interstate
- Industry/Clinician/University Student group projects

Some larger medtech companies offer internship and graduate programs annually as they have the supervisory and financial resources to do so and often host multiple students throughout the year.

The Challenge

University engineering student demand for medtech internship opportunities is greater than the number available.[1,2,3]



VMH internal industry consultations (N=38): Companies represented SMEs = 12, CDMOs = 9, Corporate medtech = 7, Consultants = 5, Enabling organisations = 5. Representatives were senior executives/CEOs involved in talent development/recruitment

Students report a lack of awareness of medtech-related internship opportunities and the number that are available often attract hundreds of applications.

Through numerous in-depth interviews with industry representatives[2], the VMH has identified an opportunity to grow the number of work experience opportunities for engineering and science students who are interested in medtech career.

Sources

[1] Victorian medtech Skills and Devices Hub, 2025, The VMH medtech Workforce Study: Research to inform the design of more impactful workforce and skill solutions in Victoria's medtech ecosystem
[2] VMH internal industry consultations (N=38)
[3] VMH internal Victorian universities student societies – 15 societies across University of Melbourne, Monash University, RMIT and Swinburne University of Technology

Victorian medtech companies' internship insights

Key insights from VMH industry consultations.

Timing flexibility

Victoria is home to numerous medtech SMEs and start-ups and contract design and manufacturing companies. For many of these companies, business and project volatility make it difficult to predict when they may have the capacity to supervise students making it difficult to 'plug in' to university calendar timelines.

Duration flexibility

Many companies what the option to extend beyond project timelines, particularly if the student is a good cultural fit in the company. Companies and students also desire the option to flex up or down depending on project demands and student availability.

Administration

Start-ups also struggle under the administrative burden involved in recruitment with tens of job applicants via online recruitment platforms or dealing with multiple universities if seeking diverse students from a variety of disciplines.

As innovative start-ups develop technologies that involve AI, biotech and medtech skills, so too does the need for deep domain knowledge to support companies in identifying students with cross-functional skill sets.

Untapped Opportunity

A significant segment of the Victorian medtech sector are product distributors and global medtech offices with most roles in sales, marketing, customer service, field service, market access and regulatory affairs. Typically, companies are seeking more experienced candidates for these roles with the exception of field service and technical product specialist roles where graduates are actively sought after.

VMH Medtech Industry Connections (MIC) Program

The VMH has established the Medtech Industry Connections (MIC) program to provide greater connection between students and industry, increase knowledge about local companies and career pathways and provide access to work experience opportunities. It is open to all Victorian-based university students and free to join.

The MIC program offers students the opportunity to access:

- Medtech company paid work experience placements at any time throughout the year
- Specialised medtech training (e.g. industry led workshops at student rates)
- Manufacturer site visits
- Attendance at Medtech industry conferences & events

The MIC program has nearly 200 engineering and science students from a range of Victorian universities. Students are studying a variety of disciplines including biomedical engineering, mechatronics, mechanical, electronics, software and data analytics.

Medtech companies have valued gaining shortlisted students with the right technical skills, flexible timing and duration, and the chance to shape and train their potential future employees.

VMH MIC program student ambassadors at AusMedtech 2025

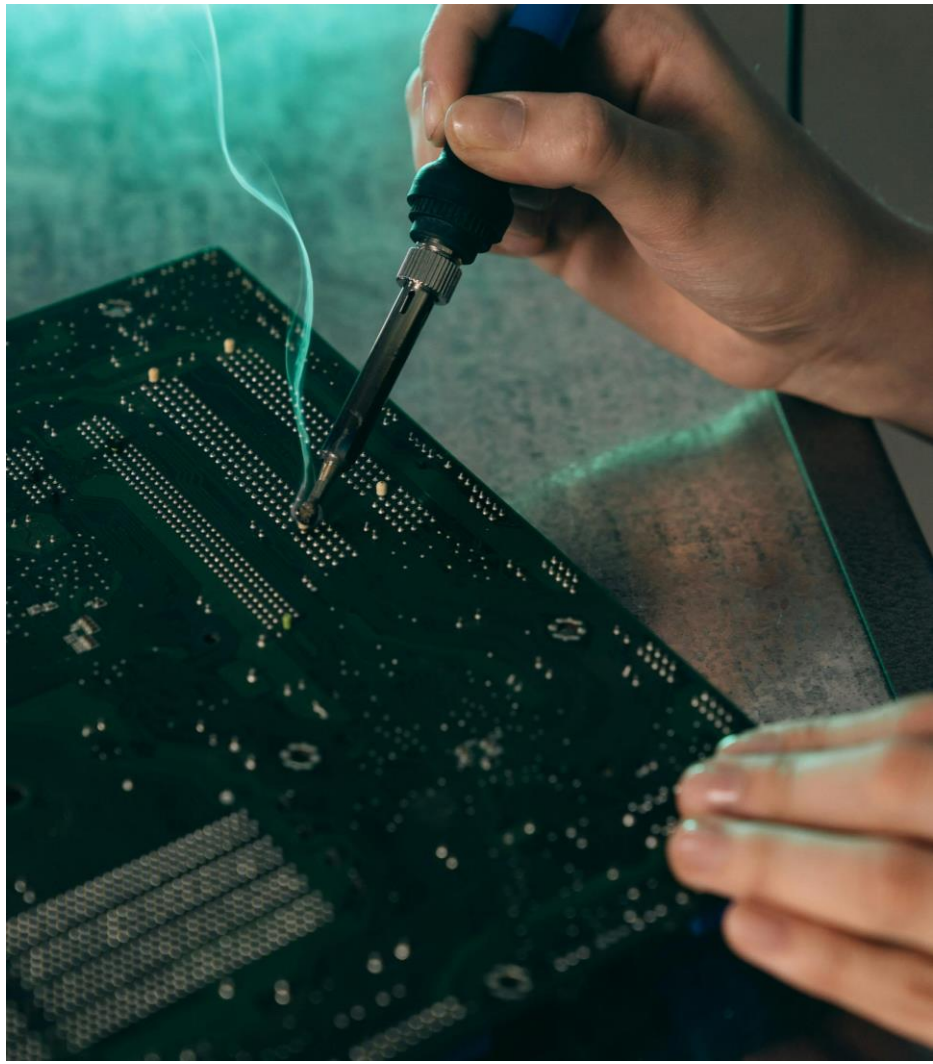
> ‘The VMH helped Ventora Medical bring on its first intern by matching us with a curated shortlist of quality candidates. By understanding our needs and the role requirements, the VMH effectively facilitated introductions to candidates who had the skills, experience and passion required for our role.’
>
> Edward Buijs (CEO, Ventora Medical)

Being Job Ready

2d.

Meeting Expectations: Improving skills alignment between University and Industry

Tertiary education programs have undergone significant change in the last decade with increased knowledge and advancements in science and engineering, shifts to online and hybrid learning, increasing costs for practical education classes and pressure to increase graduate numbers in areas of workforce shortage. These along with accreditation requirements and other social factors have made it challenging to develop curricula that meets all stakeholder needs.



01.

Need for greater practical skills training for engineering students

Experienced industry professionals have highlighted the limited opportunities for practical training in higher education engineering degrees. Experience in using tools that are involved in the development process is vital to ensure engineers create designs that are manufacturable, enhance their ability to problem solve, and be able to work with and train technical staff. Specific technical skills raised were:

- Electronics engineering students: how to solder electronics boards, surface mounting
- Mechanical engineering students: how to use a CNC machines, lathes, 3D printers
- Software engineering students: increased programming skills, embedded software knowledge

Opportunity for universities to work with industry in refining current engineering curricula to put greater emphasis on practical skills development. TAFE organisations programs also have the potential to be part of the solution.

Meeting Expectations: Improving skills alignment between University and Industry

02.

Need for specialised medtech knowledge

Multiple industry consultations have flagged a lack of medtech-specific knowledge in regulatory affairs and ISO13485 quality standards across different level job roles. Yet without a critical mass of global medtech companies undertaking R&D and manufacturing in Australia, investment in VET-level medtech courses is hard to justify.

Whilst there are opportunities for most Biomedical Engineering degree students to learn about regulatory affairs and quality assurance, it tends to be high level with limited experience in the application of this information in the 'end to end' design and manufacturing process.

Stepping-stone approach in education

For VET students, until a tipping point is reached where the size of the local medtech industry would justify embedding specialised medtech knowledge into VET programs, alternative training options could be considered to fill the gap. These options would need to be accessible, affordable and practical, suitable for new entrants and career changers.

An example is the VMH cleanroom training lab at the new ACMD site (launching 2026). Training participants will learn about ISO13485 and clean room operations best practice, and experience simulated workplace challenge scenarios. This will be available to VET and degree students, professional industry training providers and companies looking to upskill staff.

The VMH has supported the development of a number of formal qualifications to strengthen medtech workforce capability, including University of Melbourne's *Introduction to Medtech Innovation, Master of Medical Technology Innovation* (launching 2026) and the *Foundations of AI in Healthcare* micro-credential series.

Opportunity to embed product design principles and application of quality standards into biomedical engineering degree core subjects; e.g., application of ISO13485 framework into relevant capstone projects.

03.

Employers to consider skills-based rather than qualification-based hiring for entry level roles

University engineering students indicated they have difficulty in meeting criteria for entry level positions with employers likely to stipulate engineering qualifications rather than specific technical skills required in the role. With the number of multiple degree qualifications and electives on offer, it is difficult for students to identify skills they may have attained that may be relevant to particular roles.

Without skills-based recruitment, it also raises the possibility that VET qualified candidates are overlooked for roles they would be more than capable of performing.

Recommendation: Employers and universities to work more closely so employers have a better understanding of course curricula to consider skills-based recruitment approaches rather than defaulting to qualification-based hiring practices for entry level positions.

Meeting Expectations: Improving skills alignment between University and Industry

04.

Medtech Specific Skill and Knowledge Development

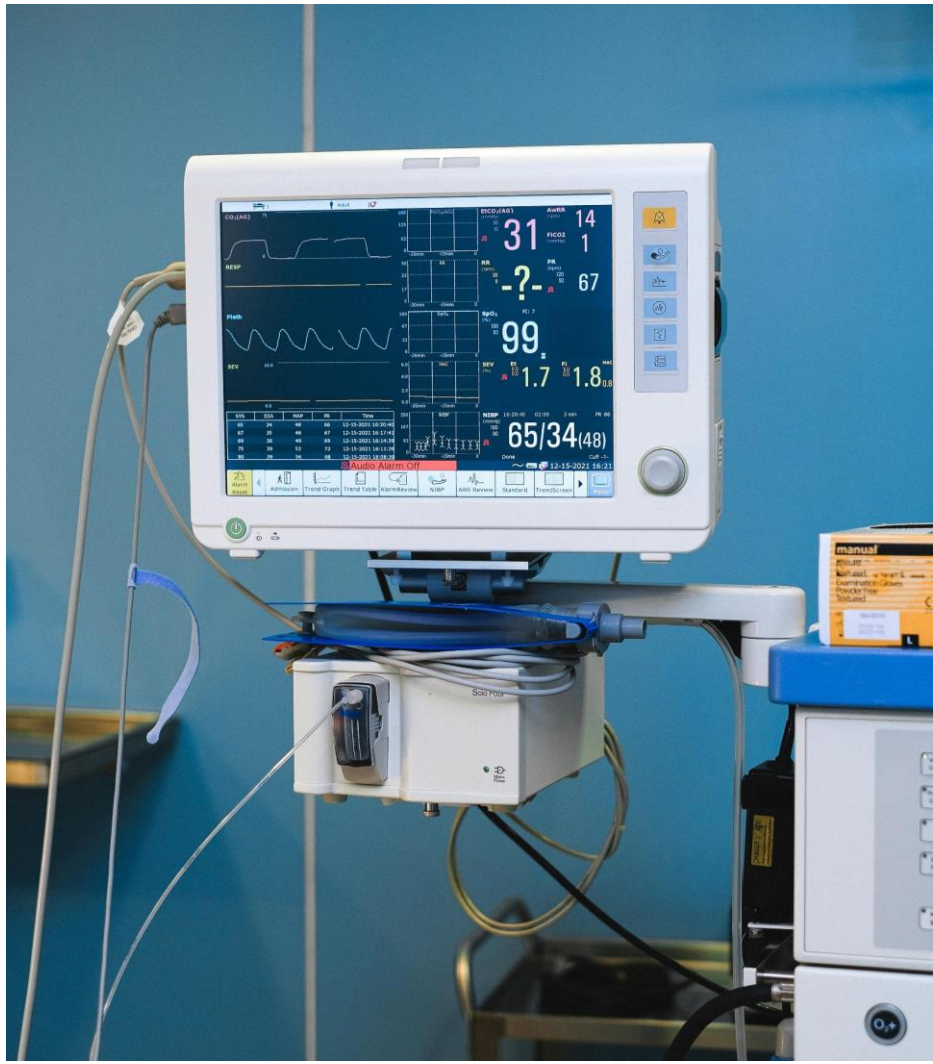
Whilst there are a number of online programs covering various aspects of medtech commercialization, there are few that provide a comprehensive introduction and are accessible to those outside of industry. The VMH will be launching an online learning program in 2026 to provide foundational knowledge of the key steps involved in bringing a medtech product to market.

Medtech Commercialisation Essentials – online program

The Medtech Commercialisation Essentials online program is a self-paced learning program. It will provide foundational knowledge of the medtech commercialisation process and focusses on knowledge gaps that have been identified by industry stakeholders. It will be accessible to anyone who is interested in a career in medtech, translating research or thinking of launching a start-up.

The online program will:

- Build awareness of medtech commercialisation concepts and stages
- Deliver practical insights for beginners from industry and academic professionals
- Be a launchpad for further skills training, professional education courses and accelerator programs
- Be free to students who are part of the VMH Medtech Industry Connections (MIC) program



Recommendations

3.

Recommendations

01. Continue cross-sector advanced manufacturing skills development.

Government & Sector Support Opportunities

Technical and digital skills development in advanced manufacturing is valuable across multiple high-tech sectors including medtech. It is challenging to justify embedding specialised knowledge of regulatory and quality frameworks into relevant VET courses until Australia has a sizeable medtech manufacturing sector needing a larger talent pipeline.

To support the sector in the meantime, investment for affordable and accessible high quality training options is required especially for practical training (e.g., GMP, cleanroom practices).

VMH Initiatives

- VMH will be launching an online medtech commercialisation foundation course in 2026 including design for manufacturing and advanced manufacturing modules.
- A new practical training facility at ACMD with industry-led education programs dedicated to GMP and ISO13485 practices.

02. Drive awareness of Australia's medtech industry

Government & Sector Support Opportunities

Increase targeted outreach programs to attract tertiary students from relevant engineering, computer science and digital disciplines to consider medtech as a rewarding career.

Provide accessible, high-quality information on Australia's medtech ecosystem, career pathways, qualifications and skills to have a fulfilling long-term career in medtech. Government, tertiary and secondary education providers, industry and ecosystem enablers can all play a role in this.

VMH Initiatives

- Anchored around our annual university student event, VMH's "Medtech Unpacked" program is striving to increase secondary and tertiary school student knowledge of the local medtech industry, careers available and qualifications required to secure a role in the sector.

Recommendations

03. Increase awareness and promotion of medtech career pathways

Government & Sector Support Opportunities

Understand the key drivers in attracting people to the sector, particularly IT and digital professionals. Promote innovation and the positive impact values of the medtech/health tech industry.

VMH Initiatives

- VMH "Career Bites" program to educate career advisors at tertiary and secondary education providers.

04. Refine engineering degree curricula to increase practical skills experience

Government & Sector Support Opportunities

Tertiary institutions to explore opportunities to provide greater practical training. Potential to involve the VET sector in practical skills training for higher education engineering students.

VMH Initiatives

- A new practical training facility and industry-led education program at ACMD will provide students with knowledge of GMP, ISO13485 and clean room best practice.

05. Increase the number & variety of work placement experiences

Government & Sector Support Opportunities

Explore 'earn and learn' models for paid on the job training particularly for VET qualified students in advanced manufacturing companies.

Explore options to scale number of paid industry work placements. Programs should be flexible to meet small to medium sized business needs.

VMH Initiatives

- VMH Medtech Industry Connections (MIC) program gives tertiary students access to industry work experiences, industry conferences and connections, workshops and specialist medtech training.

06. Provide and/or promote specialised medtech courses and electives

Government & Sector Support Opportunities

Refine university curricula to focus on the application of specialised medtech knowledge into relevant core biomedical engineering degree subjects.

Support training courses focused on design to manufacturing of medical products to VET and degree students through accessible and affordable courses to complement formal qualifications.

Education providers to develop formal medtech commercialisation qualifications linked to sector demand.

VMH Initiatives

- Online, self paced medtech commercialisation training courses launching 2026.
- The Master of Medical Technology Innovation at the University of Melbourne, launching 2026

Future

Collaborate, Complement & Amplify

The VMH will continue to collaborate and support ecosystem enabling organisations, promote career pathways and offer complementary education and training programs to meet sector needs. We look forward to strengthening our medtech sector through long term, targeted initiatives to achieve widespread measurable positive impact.

BUILD

greater awareness of local medtech companies and career pathways into medtech for tertiary students and career changers.

GROW

the number of opportunities for tertiary students to gain industry work experience.

PROVIDE

accessible specialist medtech training for new career entrants, innovators, researchers and industry professionals.

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