

# MANUFACTURING INDUSTRY

## *STARTER KIT*

2025

A PRACTICAL KIT FOR SCHOOLS



# PURPOSE OF THIS KIT

To support educators in guiding students on their career exploration and the exciting opportunities available to them in the manufacturing industry.

What's included?

- Queensland manufacturing overview
- How school subjects and VETiS link to manufacturing careers
- Manufacturing Career Bullseyes and industry packs
- Gateway to Industry Schools Program
- Other programs of interest
- Resources available to schools

## **Who is this kit for?**

- Career Counsellors/Advisors
- Industry Liaison Officers
- Employment Pathways Officers
- Transition Pathways Officers
- Link & Launch Officers
- Heads of Department – Science, technology, engineering and mathematics
- Teachers – Science, technology, engineering and mathematics
- SET Plan Advisors



# PURPOSE OF THIS KIT

Transforming materials, components, or parts into finished goods that meet a customer's expectations or specifications. Typically, it involves a series of operations that convert inputs into products using labour, machines, tools, and chemical or biological processing or formulation.

This process often includes:

- Design of the product
- Selection of materials
- Sequential production steps
- Quality control
- Fabrication, making, assembly of components

## **A diverse industry:**

- Aerospace and Defence
- Chemicals, Hydrocarbons and Refining
- Food and Beverage
- Furniture and Other Products
- Meat and Seafood Processing
- General Manufacturing and Engineering
- Pharmaceutical and Medical Technology
- Polymers, Plastic and Rubber
- Printing and Graphic Arts
- Pulp, Paper and Packaging
- Renewables
- Textiles, Clothing and Footwear
- Timber and Wood
- Transport and Machinery
- Laboratory Operations



# MADE IN QUEENSLAND

You might be amazed to discover the diverse array of products manufactured right in your own backyard. From artisanal foods and beverages to cutting-edge technology and fashion, the products made in Queensland are impressive and innovative. Manufacturers are producing everything from gourmet honey and sweet treats to trucks, tanks and textiles.

Next time you're making a purchase for home or work, ask 'is this made in Queensland?'

## LICK ICE CREAM

Indulge in Queensland's legendary Strawberry EKKa Sundae! This handcrafted delight boasts luscious cream and rich egg yolks, creating an irresistibly creamy and decadent treat. A true taste of local tradition—pure bliss in every spoonful!



## MEDICAL TECHNOLOGY

Queensland's medical device industry thrives with innovation, research collaboration, and diverse product range. Medical devices manufacturer here include cochlear, respiratory monitor, reproductive units and more.



## VINYL REVIVAL

Suitcase Records, a family-operated vinyl pressing plant in Brisbane/ Meanjin, crafts vinyl with passion. They're dedicated to supporting artists in bringing their music to life on this classic medium.



## HEALTH PRODUCTS

Queensland hosts pharmaceutical manufacturers producing health supplements, skincare, and medicines. The industry adheres to strict quality standards, serving both local and international markets.



## SUPERYACHTS!

What charter boat? We're talking super yachts. Made right here in Queensland. Manufacturers including Riviera are creating beautiful yachts every day.



## SOVEREIGN DEFENCE

Queensland's MILVEHCOE produces advanced military vehicles, including Boxer combat reconnaissance vehicles. This \$170 million facility boosts the economy and creates jobs in defence manufacturing.



## SWEETS AND TREATS

Queensland excels in sweet treat production, with manufacturers like Priestley's leading way, offering a variety of delectable locally-made products.



## VOLVO TRUCKS

Volvo Group Australia's Wacol plant produces Volvo and Mack trucks, employing 700+ people. From 2024, all trucks will use eco-friendly HVO fuel.



## BUNDABERG DRINKS

Bundaberg, Queensland, is famous for its iconic rum and ginger beer. The region also produces craft beers, fruit-based sodas, and non-alcoholic beverages, showcasing local flavors.



## AIRCRAFT EQUIPMENT

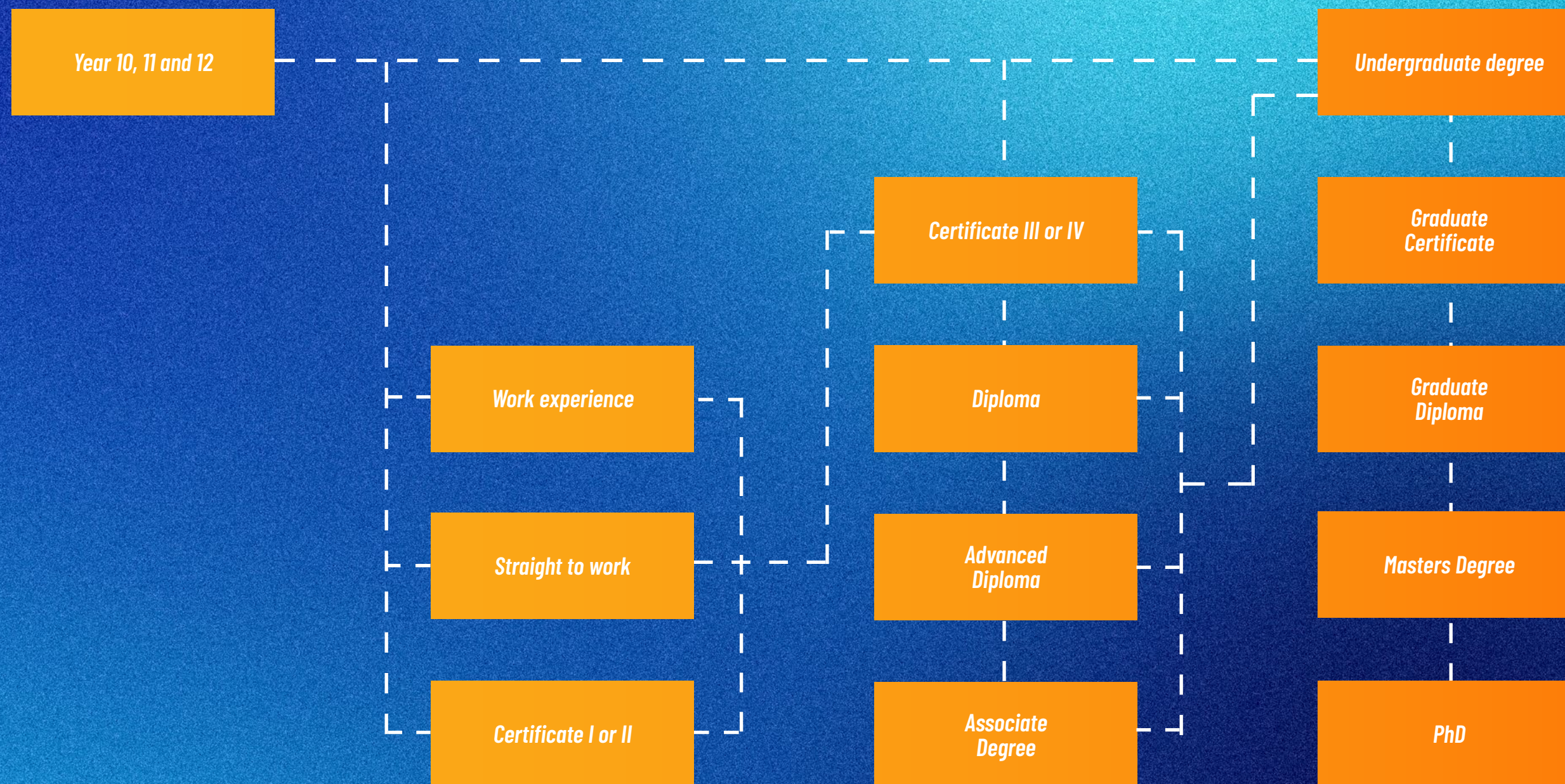
Queensland's aerospace industry boasts 300+ enterprises, including Boeing's MQ-28 facility. The sector covers aircraft design, manufacturing, maintenance, and advanced component production, supporting commercial and defense needs.





# PATHWAYS TO MANUFACTURING

Choose your pathway into the exciting world of manufacturing.





# PATHWAYS TO MANUFACTURING

Where can your school subjects take you?

SUBJECT	EXAMPLE CAREER POSSIBILITIES	SUBJECT	EXAMPLE CAREER POSSIBILITIES
Engineering Skills	<ul style="list-style-type: none"><li>CNC Machinist</li><li>Maintenance Technician</li><li>Robotics Technician</li><li>Automation Specialist</li><li>Fabrication Technician</li></ul>	Digital Solutions	<ul style="list-style-type: none"><li>Systems Engineer</li><li>Software Developer</li><li>PLC Programmer</li><li>IoT Specialist</li><li>Cybersecurity Analyst</li></ul>
General Mathematics	<ul style="list-style-type: none"><li>Operations Manager</li><li>Plant Technician</li><li>Systems Engineer</li><li>Compliance and Safety Officer</li><li>Trainer and Assessor</li></ul>	Design	<ul style="list-style-type: none"><li>Graphic Designer</li><li>Industrial Designer</li><li>Product Developer</li><li>CAD Designer</li><li>Prototype Specialist</li></ul>
Design and Technologies	<ul style="list-style-type: none"><li>Non-Destructive Testing (NDT) Technician</li><li>CAD Technician</li><li>Product Designer</li><li>Manufacturing Technician</li><li>Robotics Technician</li></ul>	Food and Nutrition	<ul style="list-style-type: none"><li>Agribusiness Professional</li><li>Food Safety Specialist</li><li>Quality Assurance Manager</li><li>Product Development Technologist</li><li>Food Scientist</li></ul>
Chemistry	<ul style="list-style-type: none"><li>Plant Technician</li><li>Additive Engineer</li><li>Quality Control Analyst</li><li>Research and Development Technician</li><li>Process Development Chemist</li></ul>	Information & Communication Technology	<ul style="list-style-type: none"><li>Data Analyst</li><li>Compliance and Safety Officer</li><li>Artificial Intelligence Engineer</li><li>CNC Machinist</li><li>Multimedia Designer</li></ul>



# PATHWAYS TO MANUFACTURING

Where can your school subjects take you?

SUBJECT	EXAMPLE CAREER POSSIBILITIES	SUBJECT	EXAMPLE CAREER POSSIBILITIES
Marine Science	<ul style="list-style-type: none"><li>Marina Worker</li><li>Marine Equipment Technician</li><li>Boat Builder</li><li>Marine Systems Engineer</li><li>Aquaculture Technician</li></ul>	Furnishings Skills	<ul style="list-style-type: none"><li>Cabinet Maker</li><li>Product Designer/Developer</li><li>CNC Machine Operator</li><li>Flooring Technician</li><li>Industrial Designer</li></ul>
Science in Practice	<ul style="list-style-type: none"><li>Laboratory Technician</li><li>Quality Control Technician</li><li>Research Assistant</li><li>Field Technician</li><li>Environmental Monitoring Officer</li></ul>	Fashion	<ul style="list-style-type: none"><li>Textile Technician</li><li>Fashion Designer</li><li>Sustainability Officer</li><li>Textile Designer</li><li>Production Planner</li></ul>
Building and Construction Skills	<ul style="list-style-type: none"><li>Cabinet Maker</li><li>Joiner</li><li>Furniture Maker</li><li>Factory Worker</li><li>Engineering Draftsperson</li></ul>	Industrial Graphic Skills	<ul style="list-style-type: none"><li>Multimedia Designer</li><li>Engineering Draftsperson</li><li>Graphic Designer</li><li>Industrial Designer</li><li>Draftsperson</li></ul>
Engineering (General)	<ul style="list-style-type: none"><li>Aircraft Component Technician</li><li>Aircraft Line Maintenance Worker</li><li>Mechanical Engineer</li><li>Electrical Engineer</li><li>Manufacturing Engineer</li></ul>	Industrial Technology Skills	<ul style="list-style-type: none"><li>Engineering Technician</li><li>Trade Assistant</li><li>Systems Engineer</li><li>Process Improvement Analyst</li><li>Industrial Engineer</li></ul>



# PATHWAYS TO MANUFACTURING

Where can vocational education  
and training take you?

Qualification Name	Qualification Code	Training Package	Example Occupation	Post-Secondary Qualification	Then do this at university	To become this
Certificate I in Engineering	MEM10119	MEM	Engineering Assistant	Certificate III in Engineering – Fabrication Trade	Bachelor of Engineering (Mechanical)	Manufacturing Process Engineer
Certificate II in Engineering Pathways	MEM20422	MEM	Engineering Tradesperson	Diploma of Engineering – Advanced Trade	Bachelor of Engineering (Mechatronics)	Automation Systems Engineer
Certificate II in Manufacturing Technology	MSM20216	MSM	Production Worker	Certificate IV in Manufacturing Technology	Bachelor of Applied Science (Manufacturing Engineering)	Manufacturing Systems Analyst
Certificate II in Furniture Making Pathways	MSF20522	MSF	Furniture Maker	Certificate III in Furniture Making	Bachelor of Design (Industrial Design)	Product Development Manager
Certificate II in Food Processing	FBP20221	FBP	Food Processing Worker	Certificate III in Food Processing	Bachelor of Food Science and Technology	Food Manufacturing Technologist
Certificate II in Baking	FBP20221	FBP	Baker’s Assistant	Certificate III in Baking	Bachelor of Culinary Management	Industrial Bakery Production Manager
Certificate II in Autonomous Technologies	ICT20120	ICT	Robotics Technician	Diploma of Applied Technologies	Bachelor of Engineering (Robotics and Mechatronics)	Industrial Robotics Specialist
Certificate II in Process Plant Operations	PMA20122	PMA	Process Plant Operator	Certificate IV in Process Plant Technology	Bachelor of Engineering (Chemical)	Process Optimisation Engineer
Certificate II in Applied Fashion Design and Technology	MST20619	MST	Fashion Design Assistant	Diploma of Applied Fashion Design and Merchandising	Bachelor of Design (Fashion)	Textile Designer/Fashion Designer
Certificate II in Aircraft Line Maintenance	MEA20418	MEA	Aircraft Maintenance Helper	Certificate IV in Aeroskills (Avionics)	Bachelor of Aviation (Maintenance Management)	Aircraft Manufacturing Quality Assurance Manager
Certificate II in Sampling and Measurement	MSL20122	MSL	Laboratory Assistant	Certificate IV in Laboratory Techniques	Bachelor of Science (Chemistry)	Manufacturing Quality Control Chemist
Certificate II in Process Manufacturing	MSM20116	MSM	Process Manufacturing Worker	Certificate IV in Manufacturing Technology	Bachelor of Engineering (Manufacturing)	Lean Manufacturing Consultant
Certificate II in Polymer Processing	PMB20121	PMB	Plastics Production Worker	Certificate IV in Polymer Technology	Bachelor of Engineering (Materials)	Advanced Materials Engineer
Certificate II in Furnishing	MSF20122	MSF	Furniture Finisher	Certificate III in Cabinet Making	Bachelor of Interior Architecture	Furniture Manufacturing Design Manager
Certificate III in Construction Crane Operations	CPC32920	CPC	Crane Operator	Certificate IV in Building and Construction	Bachelor of Construction Management	Heavy Equipment Manufacturing Project Manager
Certificate II in Engineering – Production Technology	MEM20219	MEM	Production Technician	Diploma of Engineering – Technical	Bachelor of Engineering (Industrial)	Industrial Production Manager



# EXPLORING MANUFACTURING

## INDUSTRY PACKS

Discover what makes Queensland's manufacturing landscape so dynamic.

There are 14 industry packs designed to help students and educators explore manufacturing.

M1	M2	M3
M4	M5	M6
M7	M8	M9
M10	M11	M12
M13	M14	

- M1 Aerospace and Defence
- M2 Chemicals, Hydrocarbons and Refining
- M3 Food and Beverage
- M4 Furniture and Other Products
- M5 Meat and Seafood Processing
- M6 General Manufacturing and Engineering
- M7 Pharmaceutical and Medical Technology
- M8 Polymers, Plastic and Rubber
- M9 Printing and Graphic Arts
- M10 Pulp, Paper and Packaging
- M11 Renewables
- M12 Textiles, Clothing and Footwear
- M13 Timber and Wood
- M14 Transport Equipment and Machinery



DOWNLOAD NOW

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# HOW TO FIND INDUSTRY

Want to see what Industry is around you?  
Here's how to do it on Google Maps.

## 1. Start by going to:

*Quick tip: Sign in if you want to save places for later!*

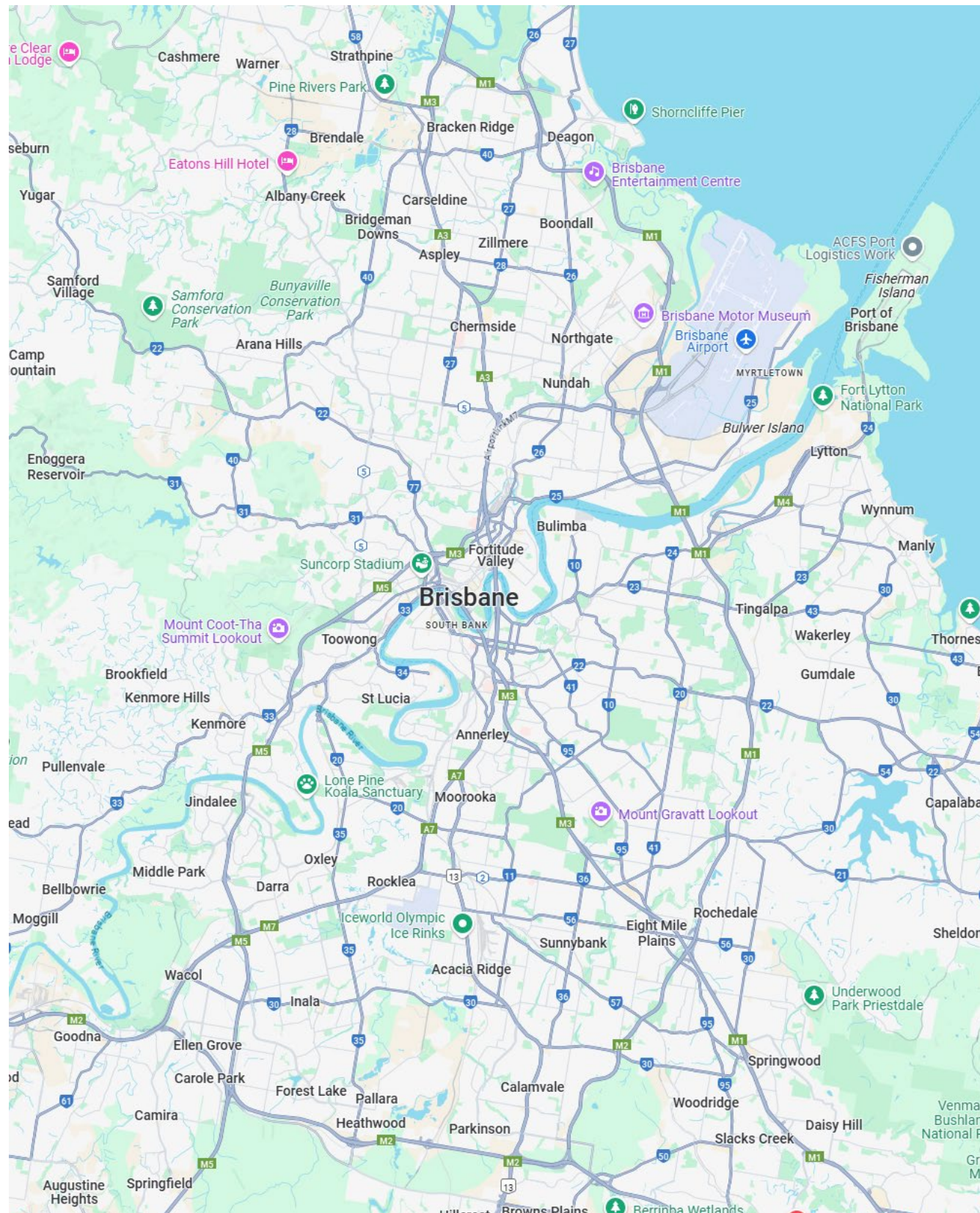
**2. Type in what you're looking for** using the knowledge you have, and include where you want to find it, for example:

*"machinery fabrication QLD"*

**3. Refine your search.** Read the industry packs to understand search teams for different industries.

Some general search tips:

- Always include "QLD" or "Queensland" in separate searches
- Add your postcode or "near me" to find stuff nearby
- Moving around the map? Click "search this area" to find new places
- Use Street View to get a closer look
- Found something interesting? Save it to your lists





# AEROSPACE AND DEFENCE

## Soaring to new heights

The Aerospace and Defence manufacturing sub-industry is a cornerstone of innovation, pushing the boundaries of technology and engineering. From commercial aircraft to military hardware, manufacturers working in this area are at the forefront of creating cutting-edge solutions that keep our skies safe and our nation secure. Australia is significant player in the global aerospace market, particularly in the areas of aircraft maintenance, repair, and overhaul as well as the production of advanced defence systems.

### Download the industry pack



### Advice for career seekers

*"For students considering this career path, I recommend focusing on key subjects. Technical subjects like Aerospace Systems, Engineering, Chemistry, and Mathematics are crucial. Business studies are also valuable. In terms of applied subjects, I'd suggest Engineering Skills, Industrial Technology Skills, Essential Mathematics and English, and Business Studies."*

*My advice to any Year 10 student thinking about manufacturing is simple: identify what you enjoy doing and what you're good at, then talk to different people about how those skills could be applied in the industry."*

- Managing director, manufacturer



Explore these careers

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# CHEMICALS, HYDROCARBONS AND REFINING

## Powering innovation and energy

Chemical and refining companies are part of the manufacturing ecosystem, and have established themselves as leaders in innovation, efficiency, and environmental stewardship. The industry leverages the country's abundant natural resources, world-class research institutions, and skilled workforce to create products that are essential for modern life and to develop solutions that address global challenges in energy, healthcare, and environmental sustainability.

Download the industry pack



### Advice for career seekers

*"My pathway here involved obtaining a Bachelor of Business and previously running a chemical processing operation. Interestingly, before entering the industry, I had almost no knowledge about manufacturing - I didn't even realise the extensive impact of chemical processing in everyday life."*

*My advice to Year 10 students considering a career in manufacturing? Go for it, you'll be home in time for dinner each night and you can leave your stress at the office."*

- Chief executive, chemicals, hydrocarbons and refining

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# FOOD AND BEVERAGE

## Nourishing the nation

The food and beverage industry is a vibrant and diverse area that plays a crucial role in the country's economy and culture. From iconic brands to artisanal producers, this industry encompasses a wide range of products that cater to domestic and international markets. With a reputation for high-quality, safe, and innovative food products, our manufacturers are at the forefront of meeting changing consumer preferences and global food trends.

### Download the industry pack

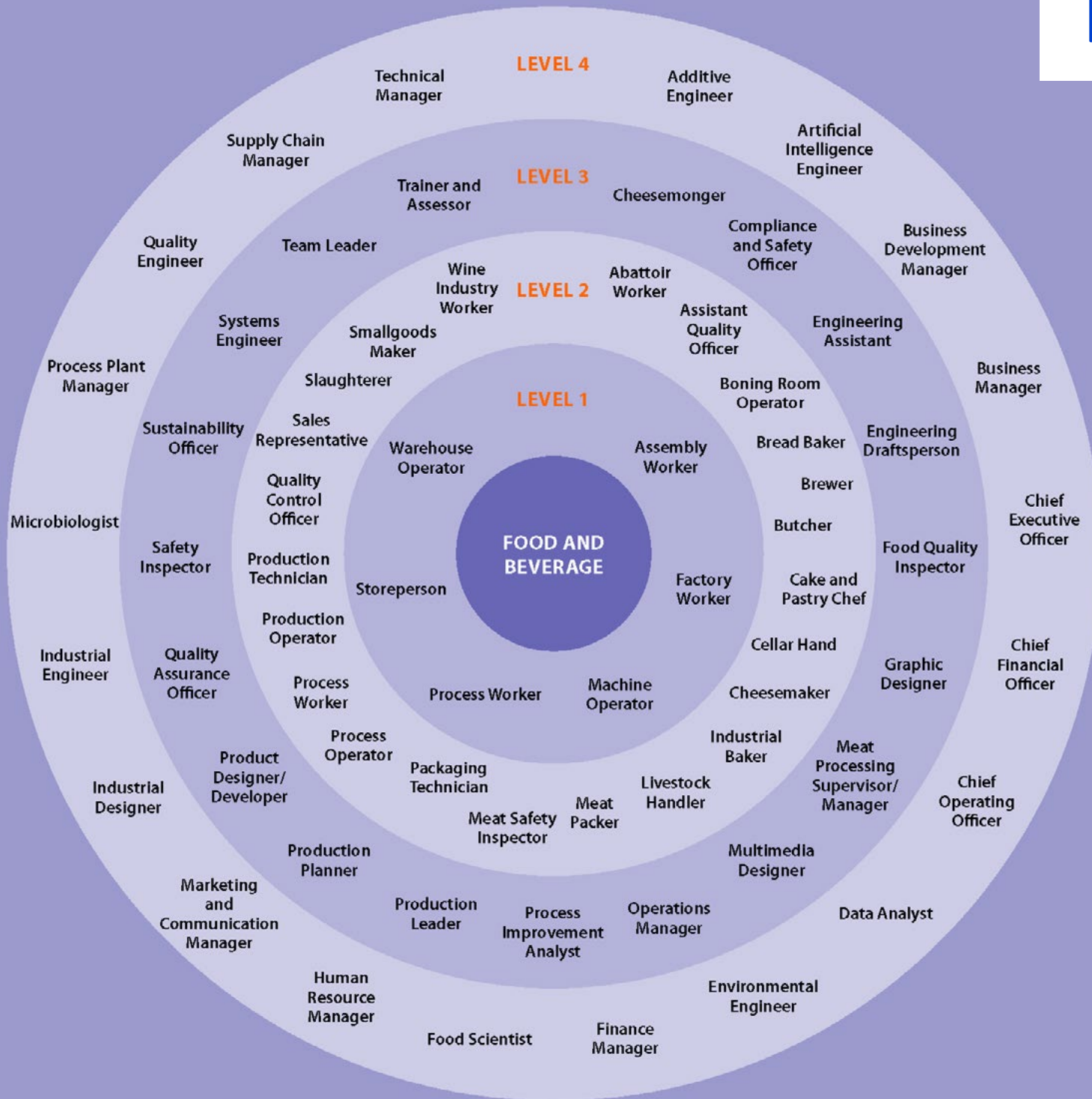


### Advice for career seekers

*"The key skills I've developed in this role are problemsolving, decision-making, and leadership. For students interested in similar roles, I recommend studying these general subjects: Business, Chemistry, Design, Economics, and General Mathematics. Applied subjects that would be beneficial include Business Studies, Engineering Skills, and Hospitality Practices."*

*My advice to Year 10 students considering a career in manufacturing is: Be open to learning and don't expect to be the boss from day one."*

*- Chief executive, craft distillery*



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# FURNITURE AND OTHER PRODUCTS

## Crafting comfort and style

The furniture and other products industry in Australia is a dynamic sector that combines creativity, craftsmanship, and innovation to produce a wide range of items that enhance our living and working spaces. From bespoke handcrafted furniture to mass-produced office equipment and many other products, this industry plays a crucial role in shaping the aesthetics and functionality of our environments.



Explore these careers

## Advice for career seekers

*"For students interested in this industry, I recommend focusing on certain subjects. General subjects like Engineering and Mathematics (whether General, Specialist or Methods) are particularly valuable."*

*My advice to any Year 10 student considering manufacturing is this: Use the opportunity to get in and try your hand at as much work experience as you can. This will give you an insight into the career pathway that you maybe thinking and it is a great chance for you to speak and work alongside those that have been working in the industry for a long period of time."*

- Apprentice and Training Manager, yacht manufacturer

## Download the industry pack



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# MEAT AND SEAFOOD PROCESSING

## Bounty of land and sea

The meat and seafood processing industry in Australia is a cornerstone of the country's food sector, transforming the finest cuts and catches into high-quality products enjoyed domestically and internationally. With a reputation for excellence in food safety, traceability, and product quality, Australian processors play a crucial role in maintaining the nation's status as a premium food producer on the global stage.



Explore these careers

## Advice for career seekers

*"I work within a sector focused on domestic meat processing. Our core business involves the processing of natural processing products for either retail or food service production. Our industry is undergoing significant technological changes, with innovations being driven by both overseas and domestic developments. Key areas of focus include animal welfare, meat safety, production, waste management, energy and water resources, and refrigeration."*

*My advice to students considering a career in manufacturing is simple: Please consider all rewarding opportunities."*

- Innovation and Communications Manager, meat processor

## Download the industry pack



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# ENGINEERING Making our future

The general manufacturing and engineering industry is a diverse and dynamic area that forms the backbone of the country's industrial capabilities. From precision components to large-scale machinery, this industry encompasses a wide range of activities that drive innovation, productivity, and economic growth across multiple sectors of the economy.

## Download the industry pack



## Advice for career seekers

*"Australia's manufacturing industry is the perfect place for creativity to join with technology and build the future. With established and emerging industries, many at the worldwide forefront of innovation, it's a field full of opportunities - and as a Year 10 student you're in the perfect position to begin launching your career. Focus on subjects like maths, science, and design, and seek out hands-on experiences through practical classes, work experience, or even hobbies that challenge you to create and problem-solve. It's not just about making things - it's about solving problems and shaping a better, greener world, one puzzle at a time."*

- *Quality Manager, steel manufacturer*



## Explore these careers

**LEARN MORE** →

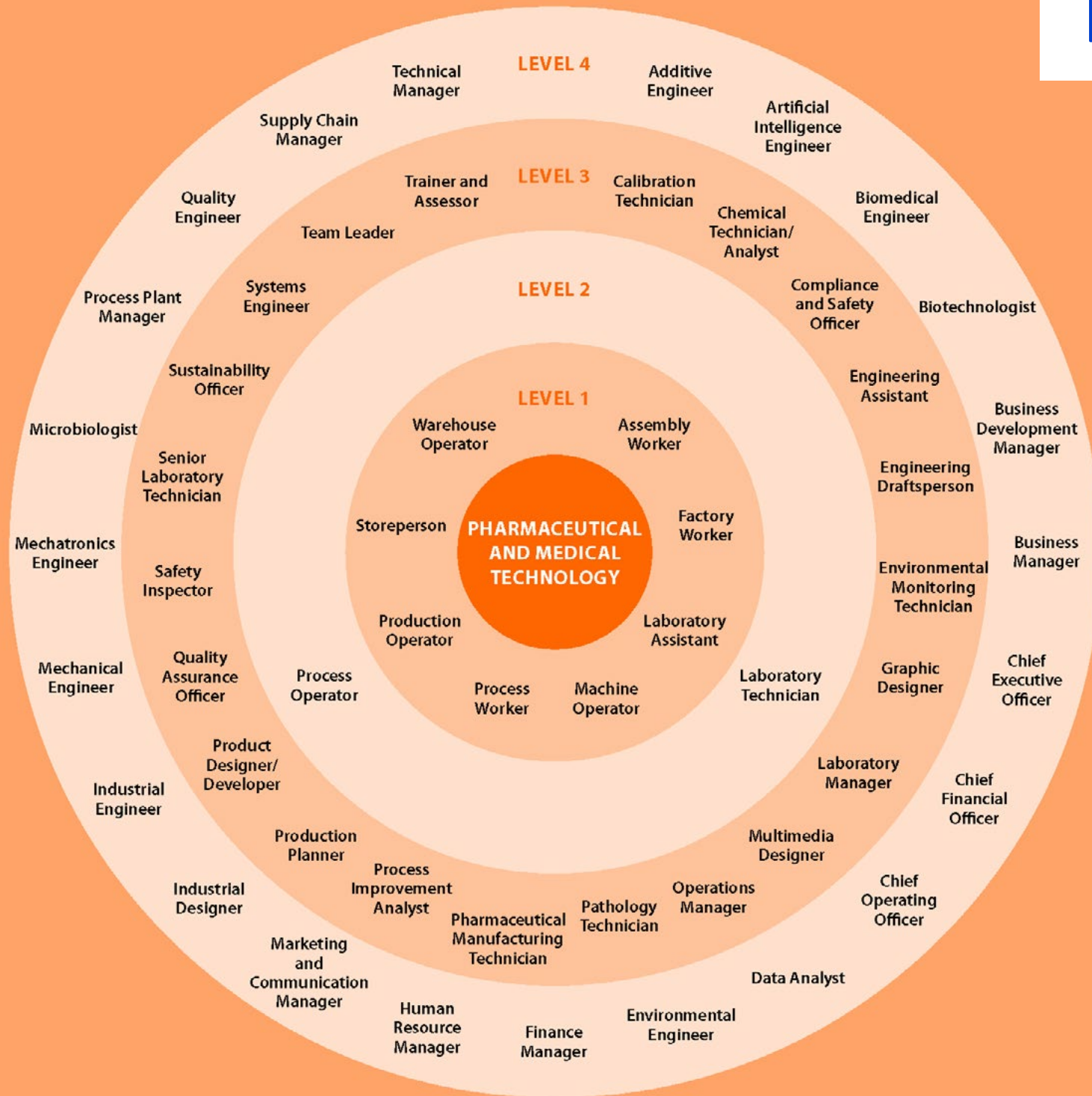
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# PHARMACEUTICAL AND MEDICAL TECHNOLOGY

## Advancing health

The pharmaceutical and medical technology industry is a dynamic and rapidly growing area sector that plays a crucial role in advancing healthcare and improving quality of life. From life-saving medications to cutting-edge medical devices, this industry is at the forefront of scientific innovation and technological progress, contributing significantly to Australia's reputation as a leader in health research and development.



### Advice for career seekers

*"Technology deployed in manufacturing businesses is far more complex than basic email, word processing, or spreadsheets. Manufacturing enterprises require different systems and technologies to achieve different goals. Being competent in using different systems will set staff apart from others on the floor. For students considering this career path, manufacturing operates in a dynamic environment unlike any other business. The enterprise-like business model enables students to explore many different fields of knowledge for career development."*

- Managing Director, equipment manufacturer

### Download the industry pack



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# POLYMERS, PLASTIC AND RUBBER

## Shaping a flexible future

The polymers, plastic and rubber field is a versatile and innovative sector that plays a crucial role in manufacturing and everyday life. From packaging materials to high-performance components, this industry produces a wide range of products that are essential to numerous sectors of the economy, including construction, automotive, healthcare, and consumer goods.

## Download the industry pack



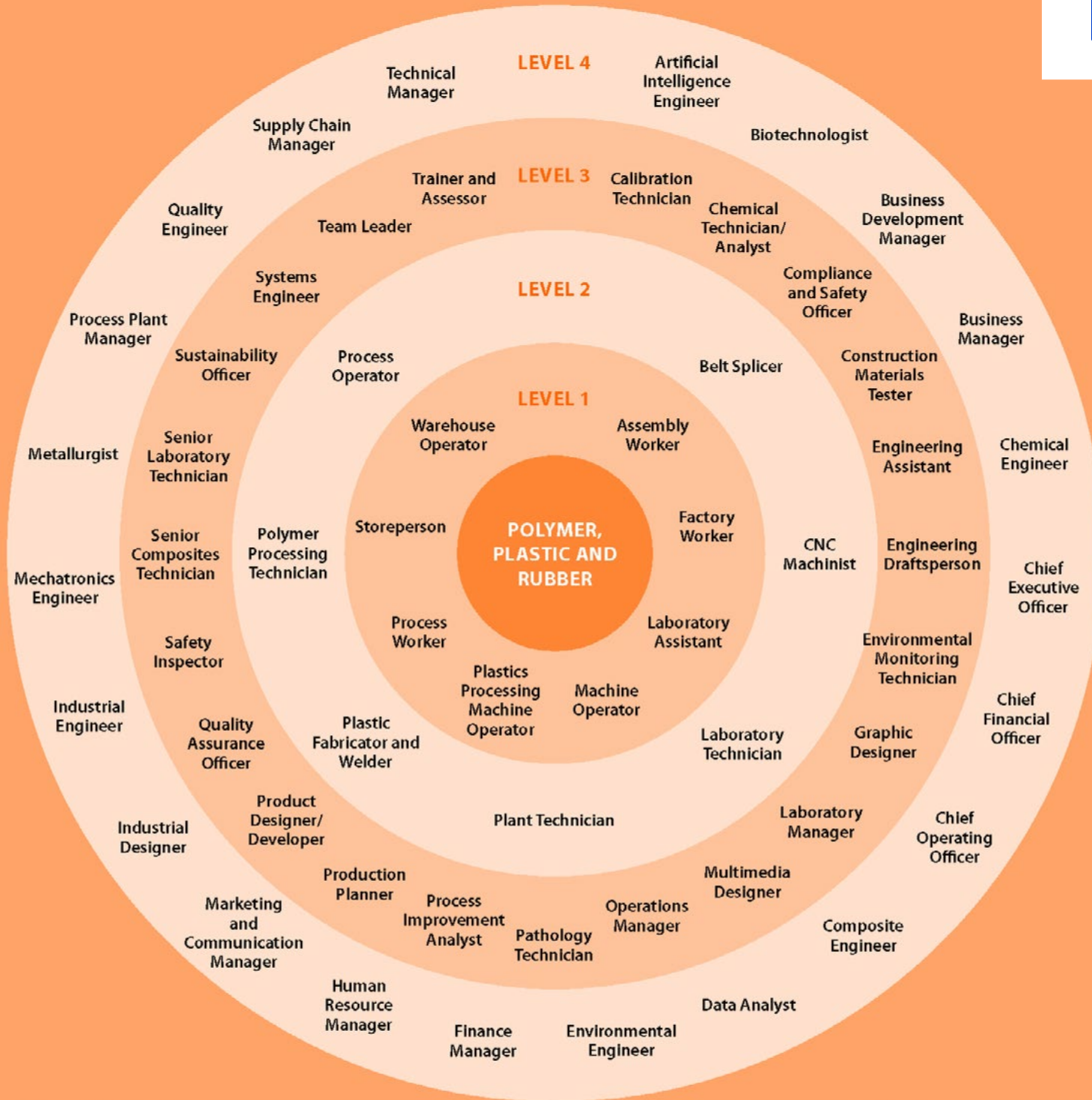
## Advice for career seekers

*"Plastic is ubiquitous in modern life, and our manufacturing processes help transform polymers into essential products. Our industry is currently shaped by technological advancements, particularly in injection molding and automation. For students considering this field, I recommend studying general subjects like Accounting, Business, and Engineering, as well as applied subjects such as Engineering Skills and Industrial Technology Skills. My advice to a Year 10 student would be simple: Just start. Manufacturing offers diverse opportunities for innovation, learning, and growth, and there's no better way to discover your path than by diving in."*

- Managing Director, plastics manufacturer

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Explore these careers



# PRINTING AND GRAPHIC ARTS

## Always in colour

The printing and graphic arts industry stands at the crossroads of creativity and technology, playing a pivotal role in shaping how we communicate visually in today's digital-first world. From traditional print media to cutting-edge digital designs, this sector continues to evolve, adapting to new technologies while preserving the timeless art of visual storytelling.

## Download the industry pack



## Advice for career seekers

*"I've learnt on the job over 30 years in industry. Being an early adopter of technology helped pave my career direction and gave me opportunities. My prior knowledge came from my dad, who was a graphic designer, and I worked with computers as a young person, so I had a decent understanding of digital arts. I have a passion for anything creative. For students considering this career, my advice is: Embrace change and keep up with technological advances. This is the area which grows every year and if you don't understand it you will fall behind."*

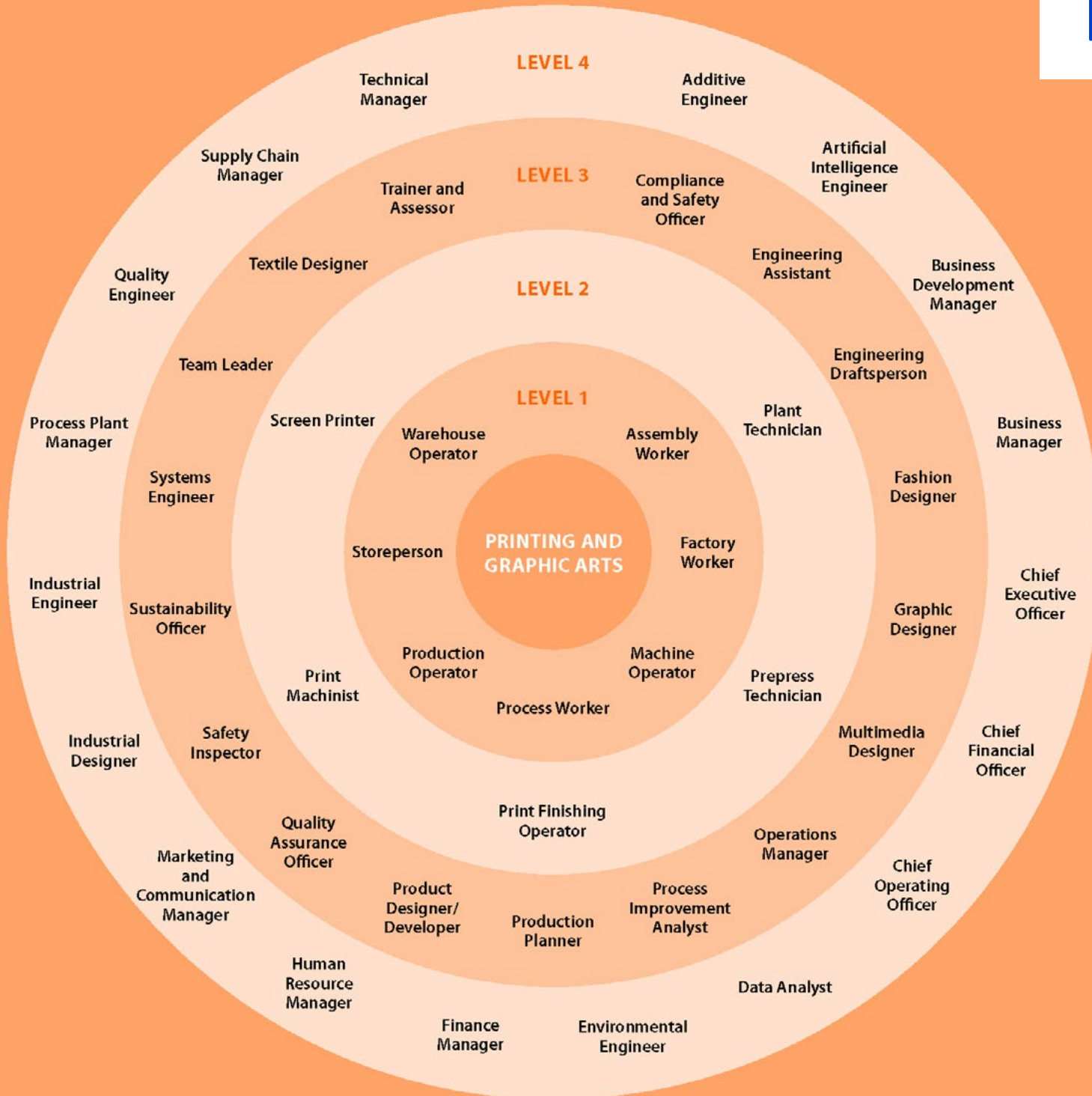
- Operations Manager, printing and graphic arts business

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Explore these careers





# PULP, PAPER AND PACKAGING

## Be on the cutting edge

Despite the digital revolution, the demand for paper and packaging continues to evolve and grow. The Australian industry has risen to the challenge, embracing cutting-edge technologies and sustainable practices to remain competitive in a global market. Our pulp and paper mills are among the most efficient and environmentally friendly in the world, utilising advanced recycling processes and responsible forestry management. The packaging arm of the industry is experiencing a renaissance, driven by the e-commerce and environmental issues.

### Download the industry pack



### Advice for career seekers

*"Our industry is evolving through continuous improvement and significant investment in factory automation, including automated guided vehicles (AGVs). We have R&D teams working with clients to develop new products, and ways to reduce distribution costs and waste."*

*I recommend finding opportunities to learn about manufacturing. There are often holiday work opportunities and helping relatives or friends who produce, or market products can be valuable. For those interested in trades, improving mechanical aptitude is important."*

- Project Manager, packaging business

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Explore these careers



# RENEWABLES

## Be on the cutting edge

Australia stands at the cusp of a renewable energy revolution, with its renewables manufacturing sub-industry poised for significant growth. While the sector is still in its early stages compared to some global counterparts, it represents a landscape rich with opportunities for innovation, investment, and expansion. The current state of renewables manufacturing in Australia is characterised by limited domestic production capabilities, but this very limitation presents exciting prospects for future development.

## Download the industry pack



## Advice for career seekers

*"Looking ahead, the transition from fossil-fuelled power stations to new technology gas/hydrogen and nuclear stations presents favourable opportunities for our technology's continued growth and profile. I recommend studying Business, Design, Engineering, and Mathematics at the general level. In terms of applied subjects, Business Studies, Engineering Skills, Industrial Technology Skills, and Information & Communication Technology would be beneficial. My advice to Year 10 students considering a career in manufacturing is to take on some vocational training to aid in deciding if this is the career of choice."*

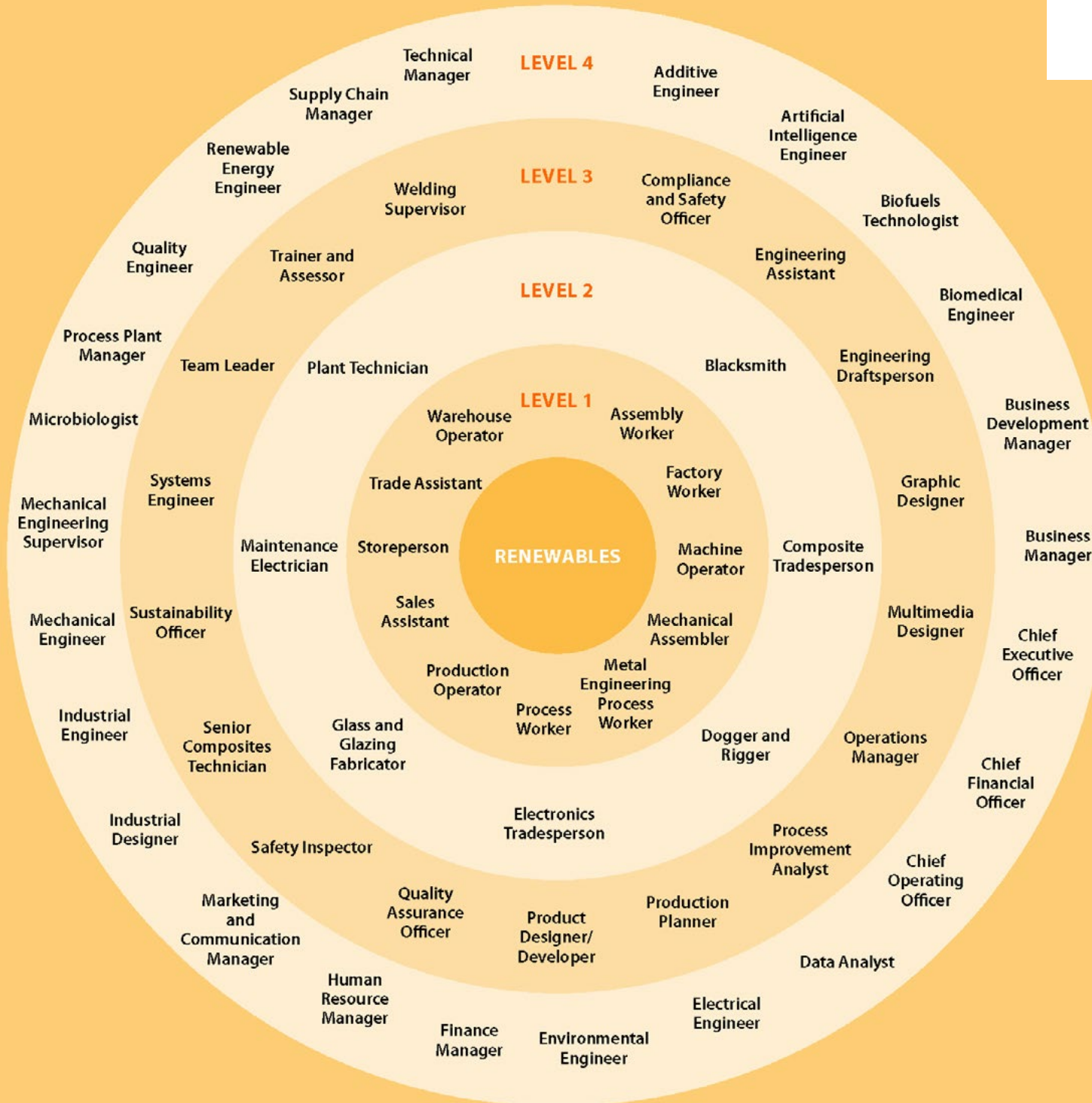
- Chief executive, hydraulic equipment manufacturer

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Explore these careers





# TEXTILES, CLOTHING AND FOOTWEAR

Fashionable and functional

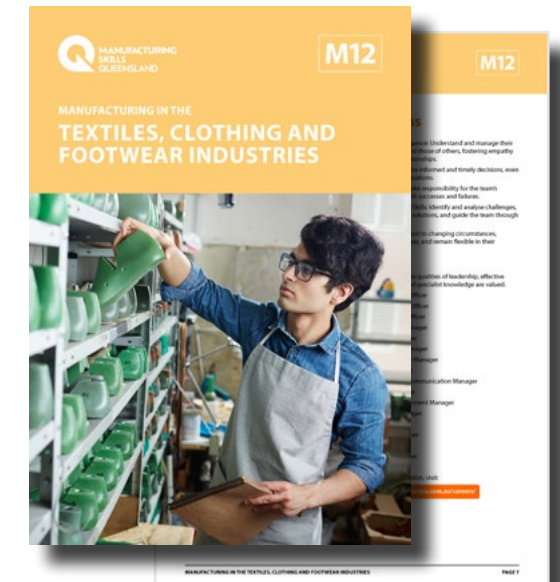
Deeply rooted in Australia's manufacturing heritage, the textiles, clothing and footwear industry has undergone a remarkable transformation in recent years, embracing cutting-edge technologies and sustainable practices to carve out a unique niche in the international fashion and textile landscape. From the sun-drenched cotton fields of Queensland to the high-tech textile labs in Melbourne, the industry spans a diverse range of activities, each contributing to a vibrant ecosystem of creativity and production.

Download the industry pack

## Advice for career seekers

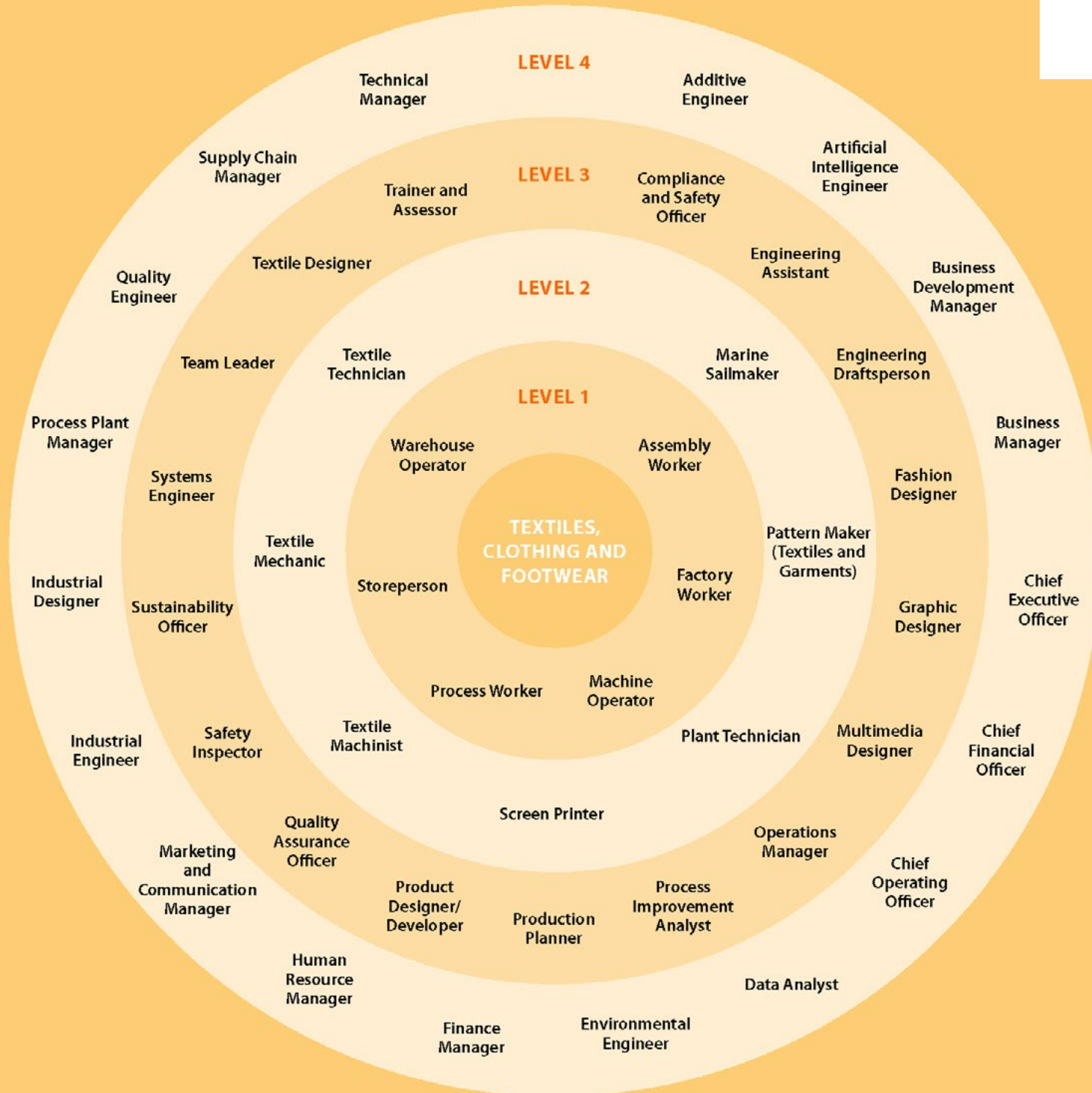
*"I lead a company specialising in recycling plant and equipment technology for textiles and rubber products. Our core business is 'repurposing the hard stuff!' We conduct research and development with a small recycling production line established to shred and granulate PVC/PET tarpaulins. My advice to students considering manufacturing? Firstly, define your passion. What will get you excited to wake up every day for the next 50 years? For me personally, it wasn't until I was 35 and started in manufacturing that I discovered my true passion. So, if you don't get it right the first time, that's ok, you will find your path over time."*

- Founding director, textiles and rubber recycling business



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Explore these careers



# TIMBER AND WOOD

## Modern marvels and everyday living

Our timber and wood industry stands as a testament to the nation's rich natural resources and innovative spirit. Spanning vast eucalyptus forests and pine plantations, this sector bridges our ancient landscape with cutting-edge sustainable practices, crafting a future where tradition and technology intertwine. Innovation drives manufacturers in this field forward. Advanced technologies are revolutionising every aspect of timber production, from forest management to final product manufacturing.

### Download the industry pack



### Advice for career seekers

*"Looking at industry trends, sustainable and environmentally friendly product manufacturing solutions are becoming increasingly important. To students considering a manufacturing career, I'd say: Explore what interests you most about how things are made! Take every chance to learn about machines, building things, and problem-solving. If you can, visit factories or workshops and ask lots of questions. Keep up with maths and science, as they're important in manufacturing. Later, look into technical courses or apprenticeships; hands-on skills are valuable in this industry. And remember, teamwork and curiosity are key!"*

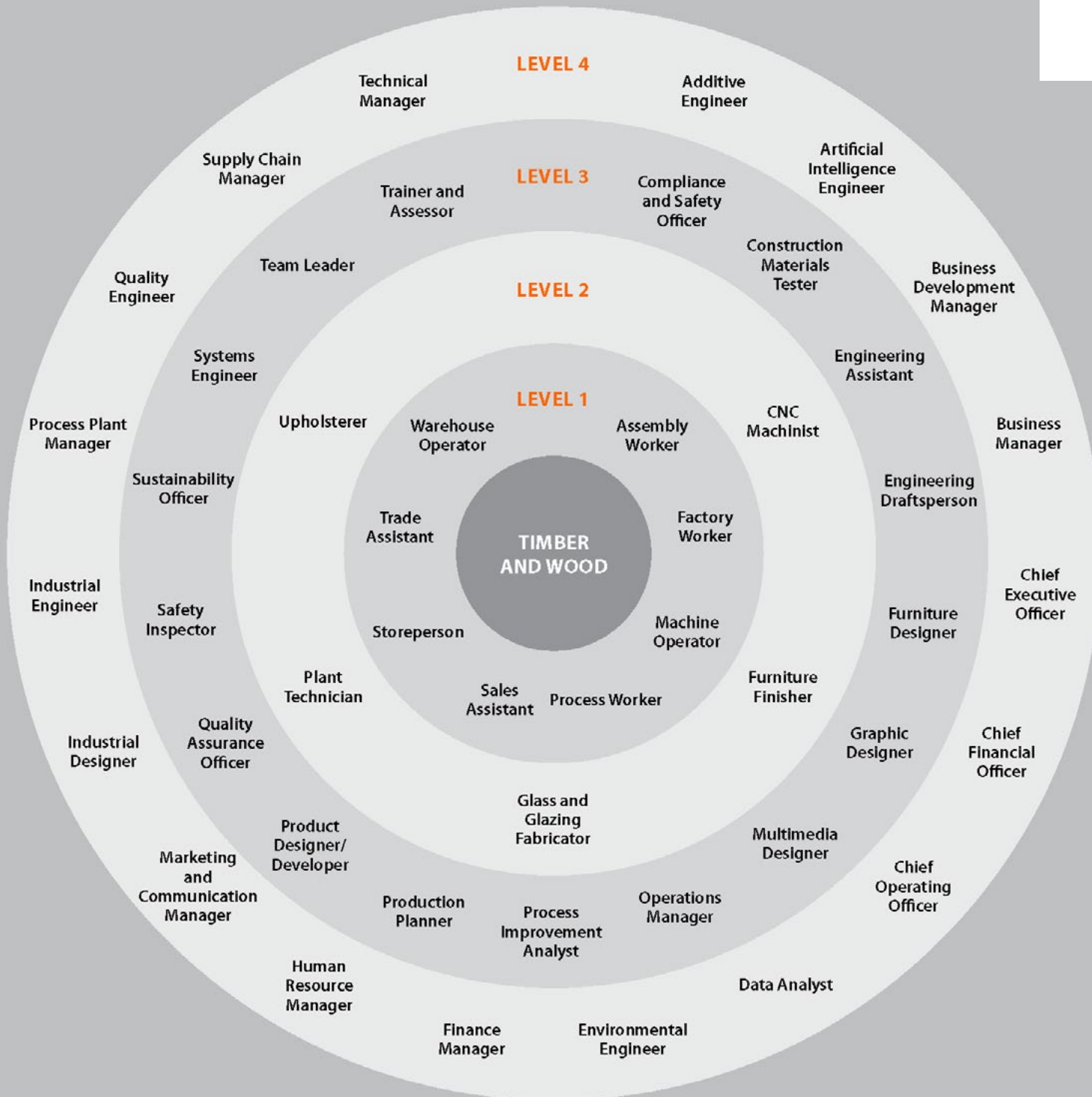
- Head of People, Culture and Safety, timber and wood manufacturer

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Explore these careers





# TRANSPORT AND EQUIPMENT

## Driving innovation

At the heart of Australia's industrial landscape lies the transport and machinery manufacturing sub-industry, a powerhouse sector that quite literally drives the nation forward. This dynamic industry is responsible for producing the vehicles, equipment, and machinery that keep Australia's economy in motion, from the bustling cities to the vast outback. It encompasses a wide range of products, from heavy-duty trucks and specialised mining equipment to agricultural machinery and public transport vehicles.

## Download the industry pack



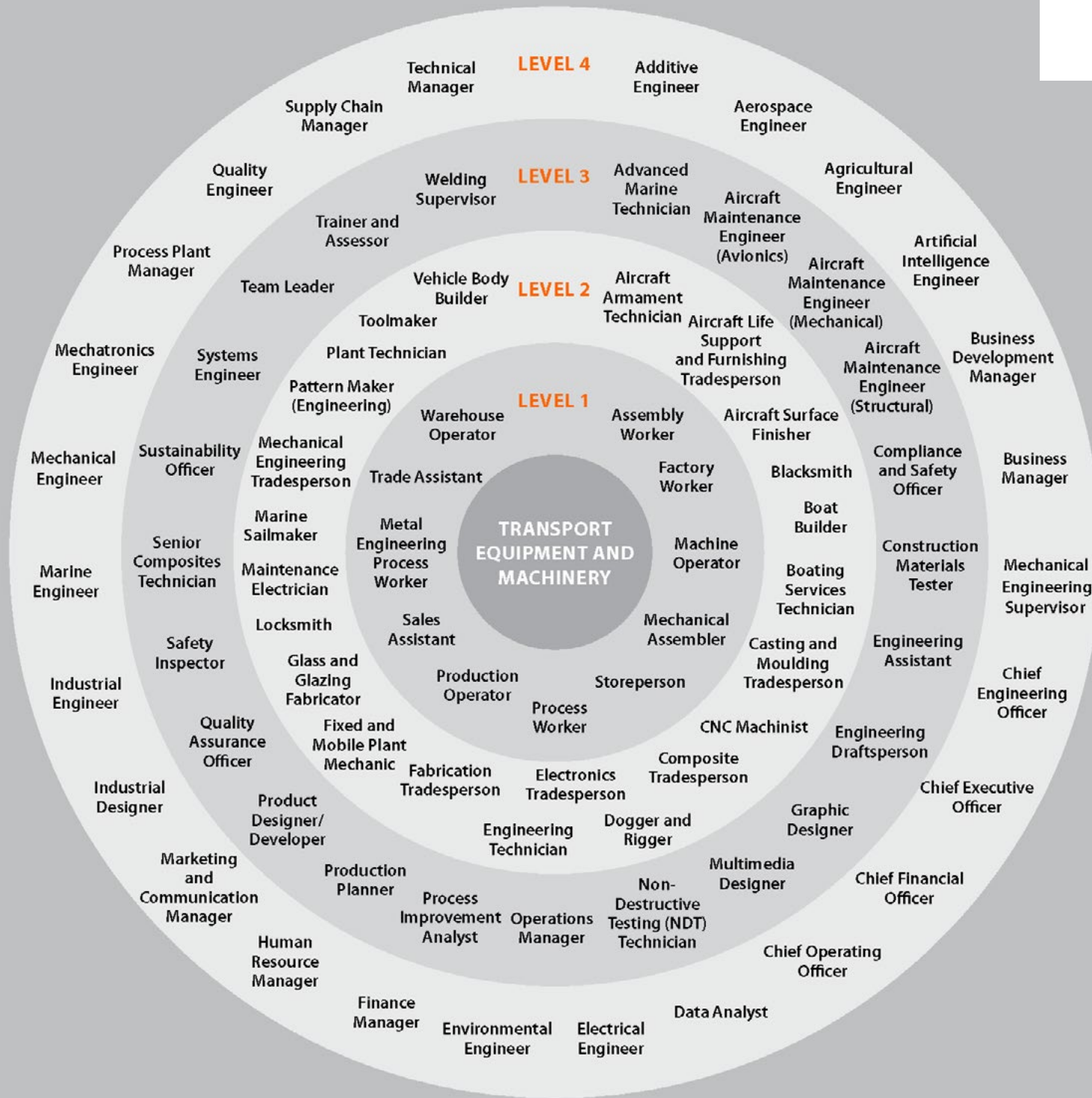
## Advice for career seekers

*"Our core business focuses on truck bodies, particularly refrigerated units, and we're primarily aligned with the transport and machinery sector, with additional involvement in metal manufacturing and engineering. Looking ahead, electric vehicles (EVs) represent a significant technological trend that will likely transform our industry over the next 5-10 years. I recommend focusing on several key general subjects: Business, Digital Solutions, Engineering, General Mathematics, Mathematics (General, Specialist or Methods), and Physics. My advice to students is: Learn early; be keen and hard working. It will take you places."*

- Managing director, truck body manufacturer

LEARN MORE →

[manufacturingmatters.com.au/industry-packs](https://manufacturingmatters.com.au/industry-packs)



Explore these careers



# Gateway to Industry Schools Project

## ADVANCED MANUFACTURING

**MANUFACTURING INDUSTRY**  
**STARTER KIT**

2025

The Gateway to Industry Schools Program bridges the gap between education and the workforce, empowering young people to make informed decisions about their future in advanced manufacturing.

### Student Programs

- Virtual reality experiences – bringing manufacturing to life
- Coordinated tours to industry locations
- Careers in Manufacturing Short Course
- Pathways to a Trade (Engineering Skills 2024 QCAA resources)
- Support to coordinate Work experience
- Structured workplace learning program 2026

### Educator Programs

- Teacher professional development
- Industry and educator webinars
- Mentoring

The Gateway to Industry Schools Program for Advanced Manufacturing is presented by Manufacturing Skills Queensland and funded by the Queensland Government.

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### KEY INFORMATION

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Strong partnerships between schools and industry

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Enhanced knowledge in STEAM (Science, Technology, Engineering, Arts, and Mathematics)

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Exclusive access to resources, and professional development opportunities

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Exposure to various advanced manufacturing industries

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Development of skills and attributes needed to thrive in the manufacturing industry



# Gateway to Industry Schools Project

## ADVANCED MANUFACTURING

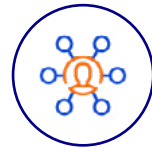
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### Virtual Reality Experiences

Bringing manufacturing careers into the classroom –  
With Volvo and Bridgeman



### Industry Tours

Providing real world insights and firsthand experiences for students and teachers



### Pathways to a Trade

Partnering with QUT to develop industry led resources for the QCAA Engineering Skills syllabus



### Teacher 'Toolbox Talk'

Web-based seminars featuring industry experts discussing trends, technologies, practices



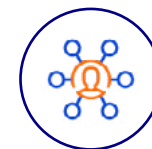
### Careers in Manufacturing Short Course

MSQ presents an innovative career education program designed for Year 10 to 12 students highlighting careers manufacturing



### Work Experience

Work experience aims to strengthen ties between industry and schools by enhancing work experience opportunities in the manufacturing industry



### Teacher Mentoring

Pairing teachers with industry professionals for ongoing guidance and knowledge exchange



### Manufacturing Matters

Online resources to explore career opportunities in the manufacturing industry and support classroom delivery of curriculum



# Virtual reality experiences

## BRINGING THE REAL WORLD TO THE CLASSROOM

**MANUFACTURING INDUSTRY**  
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Industry based simulations to provide exposure and hands on interactive experiences for students to learn about careers in the manufacturing industry.

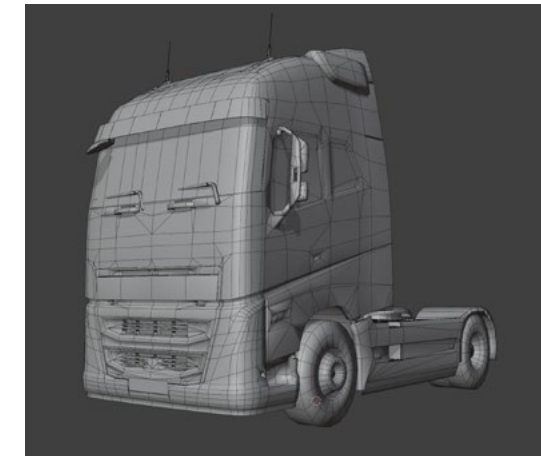
- Bridgeman – Steel fabrication
- Volvo – Truck manufacturing

Example interactives – Factory Hand, Assembler, Boiler Maker, CNC Machinist, WHS Officer, Draftsperson, Mechanical Engineer.

Statewide school visits to deliver VR experiences to students in Years 9 – 12.

Supporting curriculum learning:

- **Work Skills**
- **Engineering Skills**
- **Industrial Technology Skills**
- **Design & Technologies**
- **Career Education**





# Pathways to a trade

## ENGINEERING SKILLS SYLLABUS

**MANUFACTURING INDUSTRY**  
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In consultation with the Australian Industry Group (Ai Group) and the Australian Manufacturing Workers Union (AMWU), MSQ aim to develop a program to equip students with the skills required to succeed in the manufacturing industry.

Working with a Queensland University of Technology (QUT) to develop resources to support the delivery of the QCAA Engineering Skills 2024 applied senior syllabus.

The program will support current and future teachers by providing high-quality industry informed resources to deliver relevant theory and practical skills to set students up for future employment opportunities in the industry.

Resources will be mapped to support some units of the Certificate II in Engineering Pathways.

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### KEY INFORMATION

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2024/25 – Unit A: Fitting and Machining

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2024/25 – Unit B: Welding and Fabrication

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Teacher Delivery Guide

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Teacher Professional Development

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Work Experience Program



# Teacher professional development

## INVESTING IN EDUCATORS

**MANUFACTURING INDUSTRY**  
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- We are committed to enhancing the professional development opportunities available to Queensland educators. Our program design will be informed by educators (annual teacher PD survey) and supported by industry, VET and higher education providers.
- We will invest in programs to support PD including access to self paced learning modules, webinars, mentoring and face-to-face skill development opportunities.
- MSQ Teacher PD will contribute to CPD hours and will also provide complimentary resources for use in the classroom.
- A calendar of events will be published on the Manufacturing Matters website and in e-newsletters.

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### KEY INFORMATION

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Industry & Educator 'Toolbox Talks'

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Mentoring Program

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Teacher Skills Tasters

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Online Learning Modules

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Teacher PD Survey  
TELL US WHAT YOU WANT





# Industry Partnership Support

## How We Connect Industry to Schools

- Facilitate direct engagement between industry professionals and students
- Organise industry-led workshops and presentations in schools
- Coordinate school visits to manufacturing facilities
- Support connections for work experience placements for students
- Support industry mentorship programs for teachers

## Benefits for Schools

- Real-world context for academic learning
- Enhanced career guidance for students
- Access to latest industry practices and technologies
- Improved student engagement and motivation
- Access to industry informed educational resources

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## KEY INFORMATION

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Virtual Classroom Visit

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Physical Classroom Visit

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School to Industry Tour

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Work Experience Opportunities

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Teacher to Industry Tour

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Teacher Mentoring

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Teacher 'Toolbox Talk'

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Educational Resource Creation





# INTERESTED IN A CAREER IN MANUFACTURING?

→ [manufacturingmatters.com.au](https://manufacturingmatters.com.au)

*Make something of your future.*



## Choose your career

Manufacturing is a dynamic and innovative industry that offers endless opportunities for growth and success. From cutting-edge technology to sustainable practices, this sector is at the forefront of shaping our future. Whether you're a student, job seeker, or looking for a career change, manufacturing provides diverse pathways to exciting and rewarding careers.

Manufacturing Matters – a comprehensive digital resource showcasing the diverse and exciting world of manufacturing careers in Queensland.

- Explore more than 190 manufacturing career opportunities
- Learn about entry pathways into the manufacturing industry
- Discover educational resources specifically developed for educators
- Enhance your understanding of the manufacturing industry

**LEARN MORE** →

[manufacturingmatters.com.au](https://manufacturingmatters.com.au)



# Manufacturing careers start here

with the Manufacturing General Induction

The general induction covers essential topics including:

- Workplace safety
- Workplace expectations
- Industry knowledge
- Digital skills
- Quality practices
- Effective teamwork

**MANUFACTURING INDUSTRY**  
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## MANUFACTURING GENERAL INDUCTION

### Description

The course equips manufacturing employees with essential skills and knowledge to navigate various aspects of the workplace, from understanding industry standards and technology systems to fostering collaboration and maintaining a safe, respectful environment. Through practical tips, industry examples, and relevant best practices, participants will gain the tools needed to contribute effectively to both individual and team success in the workplace.



Duration: 6 hours; 6 x 1 hour modules



eLearning



Computer, tablet or mobile

Workplace Safety

Module complete

Workplace Expectations

Module complete

Industry Knowledge

Module complete

Digital Skills

Start module

Quality Practices

Start module

Effective Teamwork

Start module

**ENROL NOW** →



[go.msq.org.au/  
general-induction](https://go.msq.org.au/general-induction)



# MANUFACTURING INDUSTRY **STARTER KIT**

2025

## A PRACTICAL KIT FOR SCHOOLS

### LEARN MORE AND CONNECT WITH US

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