



Manpower Update Report Advanced Manufacturing Industry 2026



ACKNOWLEDGEMENT

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Introduction

Background

The Advanced Manufacturing Training Board (AMTB) of the Vocational Training Council (VTC) is responsible for determining manpower demand of the industry, assessing whether the manpower supply matches manpower demand, and recommending the development of vocational and professional education and training (VPET) to meet the assessed training needs.

To better capture workforce dynamics, AMTB conducts a comprehensive quantitative manpower survey every four years, complemented by two manpower updates focused on qualitative insights. The manpower survey was completed in 2022, with the first manpower update delivered in 2025 and the second in 2026.

This manpower update report consists of:

- (a) insights from a focus group of industry experts covering recent industry developments, workforce demand, recruitment difficulties, training needs, and recommended measures to address the challenges the industry faces; and
- (b) desk research and analysis of recruitment information obtained from major recruitment platforms.

Objectives

The objectives of the manpower update report are:

- (i) to examine the latest trends and developments of the industry;
- (ii) to explore the job market situation and recruitment challenges;
- (iii) to identify the training needs; and
- (iv) to recommend measures to meet training needs and ease the manpower shortage problem.

Methodology

Overview

This manpower update report aims to provide the latest development of the advanced manufacturing industry through views collected from a focus group meeting, supplemented by desk research on job advertisements from major recruitment platforms.

Focus Group Meeting

The focus group meeting was conducted on 8 December 2025 and the topics discussed were supported by the AMTB. To collect the best insights possible, the composition of the focus group members included the industry leaders, technology providers, academic experts and training specialist. The discussion at the focus group meeting was recorded and transcribed to facilitate analysis.

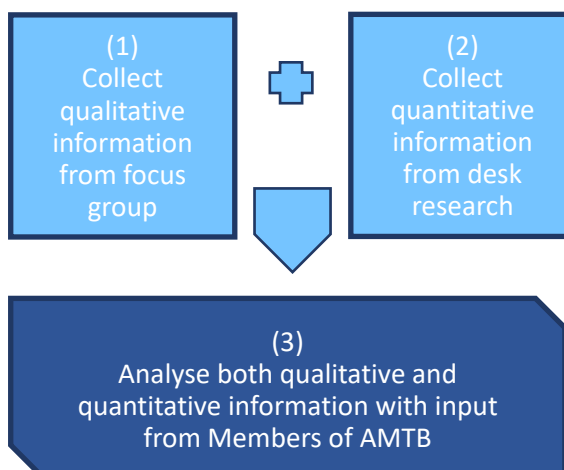
Desk Research

An information system was developed to capture relevant recruitment data from major online recruitment portals, covering the period from December 2024 and November 2025. Collected information was mapped against the list of related sectors under the advanced manufacturing industry under the Hong Kong Standard Industrial Classification devised by the Census and Statistics

Department. After mapping and de-duplication of records, a total of 3,862 job advertisements were collected during the research period and served as indicative information of the job market trend.

Data Analysis

The analysis consists of three steps:



Limitations

As this is not a manpower survey, the findings and recommendations of the focus group meeting are more qualitative in nature, and the report focuses on the manpower trends. The job advertisements were collected from major recruitment portals, such as CPJobs, CTGoodJobs, JobsDB, Recruit and Labour Department. Other channels, such as recruitment through human resources vendors and referrals, were not covered. Since the data does not reference to any historical data, this can only serve as supplementary information to the findings of the focus group meeting.

Findings

Factors Affecting the Industry Development

Hong Kong is strategically positioning itself as a hub for advanced manufacturing, leveraging its advantageous location, robust infrastructure, and dynamic business landscape. This shift from traditional manufacturing to technology-driven processes, marked by the integration of automation, artificial intelligence, and advanced data analytics, necessitates a well-structured environment to meet the unique demands of this industry. To foster innovation, enhance competitiveness, and secure its position as a leader in the advanced manufacturing arena, Hong Kong must address several critical factors:

Establishing a Robust Ecosystem for Advanced Manufacturing

While Hong Kong benefits from a free economy, a solid legal framework, and strong intellectual property protections, the advanced manufacturing industry requests a tailored ecosystem. Key components for its sustained growth include:

- **Enhanced Infrastructure:** Investing in and continuously enhancing physical infrastructure, encompassing state-of-

the-art facilities and sophisticated logistics systems, is fundamental for advanced manufacturing. Such upgrades are not merely beneficial but essential to effectively support complex, high-tech operations. They are instrumental in guaranteeing highly efficient production workflows and establishing robust, agile supply chains, which are critical for maintaining competitive advantage and meeting dynamic market demands.

- **Access to Financial Resources:** Facilitating robust access to diverse funding mechanisms, including venture capital and strategic investments, is crucial for companies to accelerate their investment in cutting-edge innovation and the rapid adoption of advanced technology.
- **Industry-Specific Standards:** Developing and implementing industry-specific standards are crucial for addressing the industry's unique operational and technological challenges, ensuring superior product quality, upholding stringent safety protocols, and fostering interoperability throughout the entire value chain.

Addressing the Critical Skilled Workforce Gap

A skilled workforce is paramount for driving innovation, operational efficiency, and sustained growth in advanced manufacturing. However, the industry faces a significant shortage of qualified professionals, posing risks to its development and overall competitiveness.

- **Talent Shortage and Ageing Workforce:** The industry struggles with a limited pool of skilled workers, exacerbated by an ageing workforce. As experienced professionals retire, there is a substantial risk of losing critical expertise and undermining knowledge transfer, both vital for upholding rigorous manufacturing standards and sustaining innovation.
- **Demand for Adaptability:** The rapid pace of technological change necessitates a workforce that is not only skilled but also highly adaptable. Employees must be capable of continuously learning and integrating new tools, methodologies, and processes.

Without a robust talent pipeline aligned with industry needs, companies will struggle to remain competitive in a market that increasingly prioritises innovation and efficiency. Addressing this skills gap is therefore crucial for Hong Kong's advanced manufacturing industry to

navigate challenges, seize emerging opportunities, and thrive.

Fostering a Balanced and Inclusive Growth Strategy

In cultivating high-end manufacturing sectors, it is imperative not to overlook the significance of traditional/fundamental manufacturing sectors. Neglecting these areas can lead to economic imbalances, as they often provide foundational jobs, contribute to local supply chains, and deliver essential goods and services to the community.

To maintain a balanced and resilient ecosystem, policies should promote inclusive growth through:

- **Skill Development Across Sectors:** Offering comprehensive training and upskilling opportunities, not only for high-end sectors but also in traditional/fundamental manufacturing sectors, empowers workers, enhances productivity, and ensures broad societal benefit.
- **Encouraging Innovation Across All Tiers:** Fostering innovation throughout the entire manufacturing landscape, from foundational processes to advanced applications, ensures that all segments contribute to and benefit from technological advancements.

Such inclusive policies are vital for creating a sustainable manufacturing

environment where all segments of society contribute and thrive.

Leveraging Government Support

The Hong Kong government is committed to bolstering high-tech industries, as outlined in the recent Policy Address. Increased funding for research aims to drive innovation and enhance manufacturing processes, enabling businesses to maintain a competitive edge. Key initiatives include:

- **Financial Assistance Programmes:** These programmes are designed to alleviate financial barriers for companies engaged in technological development, fostering a more innovative environment.
- **University-Industry Collaborations:** Initiatives are strengthening partnerships between universities and industry, facilitating joint research that translates theoretical insights into practical, market-ready applications.
- **Innovation and Technology Fund:** Enhanced support for projects that improve manufacturing capabilities, benefits both startups and established enterprises.
- **Talent Development Programmes:** Significant resources are allocated to programmes focused on R&D skills, ensuring that the workforce is

prepared for the industry's evolving demands.

- **Tax Incentives for R&D:** Financial incentives for R&D investments encourage companies to pursue technological advancements and innovation.

Furthermore, the government has committed HK\$1 billion to establish the Hong Kong AI Research and Development Institute in 2026, aimed at promoting AI research and practical applications. Plans for a data facility cluster at Sandy Ridge will also provide advanced computing resources essential for supporting data and AI-related industries. These concerted efforts create a supportive ecosystem that fosters innovation, collaboration, and the development of a skilled workforce, further establishing Hong Kong as a leader in advanced manufacturing.

Strategic Alignment with China's 15th Five-Year Plan

The strategic objectives outlined in China's 15th Five-Year Plan are crucial for the evolution and growth of Hong Kong's advanced manufacturing industry. The plan aims to foster an environment conducive to integrating cutting-edge technologies and has several key focuses:

- **Innovation-Driven Development:** A primary emphasis is placed on innovation-driven development. Promoting the adoption of advanced

technologies that enhance human-machine interaction and improve workplace ergonomics and significantly boost productivity and safety within manufacturing environments.

- **Research and Development Collaboration:** The plan highlights the importance of R&D, creating opportunities for collaboration among academic institutions, research facilities, and manufacturing companies in Hong Kong. These partnerships are vital for developing innovative applications that cater to niche markets, enabling businesses to differentiate themselves and meet specific consumer demands.
- **Support for Startups and Innovation:** The plan fosters a supportive ecosystem for startups and innovation, allowing Hong Kong to explore various niche areas within advanced manufacturing. This nurturing environment encourages new ideas and entrepreneurial ventures that contribute to industry advancement.

By aligning with the strategic goals of the 15th Five-Year Plan, Hong Kong's advanced manufacturing industry can position itself at the forefront of industry innovation, capitalise on emerging technologies, and enhance its global competitiveness and economic growth.

Manpower Demand

The advanced manufacturing industry in Hong Kong, driven by rapid technological advancements and evolving market demands, faces a dynamic landscape of manpower needs. To sustain its growth and competitiveness, the industry requires a diverse and highly skilled workforce. This demand is shaped by the imperative for digital transformation, innovation, and adherence to global standards. Key areas of manpower demand include:

Specialised Proficiency Technical Proficiency

The core of advanced manufacturing relies on professionals equipped with robust technical foundations and specialised expertise. This includes:

- **Foundational Core Competencies:** Personnel with strong fundamental knowledge are essential for effectively implementing technological innovations, particularly in areas like artificial intelligence and automation. These skills enable workers to adapt to new methodologies and seamlessly integrate advancements into existing operations, enhancing overall efficiency.
- **Expertise in Emerging Technologies:** As the industry embraces digital transformation, there is a critical need for specialists proficient in advanced

technologies such as Artificial Intelligence (AI), Robotics, and Data Analytics. These experts are vital for optimising manufacturing processes, boosting productivity, and leveraging innovative technologies to maintain competitiveness.

- **Composite Talent (Theory & Practices):** A growing demand exists for professionals who possess strong expertise in both scientific principles and engineering practices. This dual competency allows individuals to seamlessly integrate scientific insights with practical engineering solutions, driving innovation and improving operational processes in a rapidly changing technological environment.

Innovation and Adaptability

In addition to core technical skills, the industry critically requires individuals who can drive innovation and adapt to an accelerated pace of change:

- **R&D and Innovation Drivers:** There is a high demand for professionals who can make meaningful contributions to Research and Development (R&D) initiatives. These individuals ensure businesses remain at the forefront of technological advancements by developing groundbreaking products and services, understanding market dynamics, and responding swiftly to

evolving consumer needs.

- **Adaptability for AI-Driven Solutions:**

The increasing adoption of AI applications, including AI-powered analytics and AI agents, necessitates workers who not only possess technical proficiency but also exhibit high adaptability, critical thinking, and innovative problem-solving skills. This is particularly crucial as industry shifts towards more customised solutions and niche markets.

Quality Assurance and Compliance

As the advanced manufacturing industry increasingly operates within global supply chains and stringent regulatory frameworks, expertise in quality assurance and compliance is paramount:

- **Compliance and Quality Experts:**

Professionals skilled in quality management systems, international standards, and regulatory requirements are essential to ensure products meet global benchmarks, mitigate risks, and maintain the industry's reputation for excellence. This expertise is vital for navigating complex compliance landscapes and securing market access.

Desk Research

Between December 2024 and November 2025, a total of 3,862 job advertisements were collected from major recruitment platforms. This figure reflects a decrease of 12.8% compared to the previous manpower update.

A comparative overview of the top three principal job roles across various sectors has been conducted. Detailed findings are presented on the following page, providing an analysis of the evolving landscape of the job market.

1. Manufacturing

Year	Job Ads	Top Three		
		1	2	3
2023 - 2024	1,889	Technician (621, 32.9%)	Engineer (286, 15.1%)	R&M Workers (209, 11.1%)
2024 - 2025	1,043	Technician (321, 30.8%)	Production Operator/Worker (282, 27.0%)	Engineer (208, 19.9%)

The substantial decrease in total job ads indicating a potential industry consolidation or increased automation affecting overall headcount. Core technical expertise remains significant, as evidenced by the Technician retaining the top position with a steady share of postings (30.8%). The rise of Production Operator/Worker to second place (27.0%), suggests a strategic shift towards scaling up production, optimising operational output, or potentially an increased demand for direct labour to manage automated production lines. Concurrently, strategic investment in innovation continues, with the Engineer increasing its share to 19.9%, demonstrating a targeted commitment to process optimisation and R&D for long-term competitiveness.

2. Trading

Year	Job Ads	Top Three		
		1	2	3
2023 - 2024	2,041	Merchandiser (330, 16.2%)	Technician (270, 13.2%)	Marketing/ Sales Executive (196, 9.6%)
2024 - 2025	1,932	Project Engineer/Manager (460, 23.8%)	Marketing/ Sales Executive (309, 16.0%)	Merchandiser (258, 13.4%)

This sector highlights a transition from operational execution towards a more dynamic, project-driven, and commercially aggressive direction. The most prominent trend is the dramatic increase of the Project Engineer/Manager (23.8%) in 2024-25, reflecting a significant investment in strategic initiatives such as the major projects in logistics automation, infrastructure upgrades or digital supply chain integration. A substantial growth in Marketing/Sales Executive highlights an aggressive drive for revenue growth and market capture. Companies are prioritising technical sales, market expansion, and commercialisation of enhanced services offerings. The relative decline of the Merchandiser suggests the digitisation of procurement and inventory tasks. The exit of the Technician from the top three reflects a de-prioritisation of routine maintenance, potentially due to automation.

3. Engineering Services

Year	Job Ads	Top Three		
		1	2	3
2023 - 2024	354	Engineer (135, 38.1%)	Chemist/Lab Technician (112, 31.6%)	Technical Officer (40, 11.3%)
2024 - 2025	761	Chemist/ Lab Technician (282, 37.1%)	Engineer (267, 35.1%)	Technician (65, 8.5%)

This sector is experiencing exceptional growth, with job advertisements more than doubling (+115%) year-over-year. This surge highlights its critical role as a partner for industrial transformation. The expansion is characterised by a strong focus on core technical expertise, with Chemist/Lab Technician and Engineer dominating over 72% of job ads. This reflects high demand for outsourced materials science, advanced testing, and analytical services. Simultaneously, the rise of Technician indicates a strategic shift from pure consultancy toward integrated service delivery, offering end-to-end solutions from design to implementation, commissioning, and maintenance. In conclusion, the sector is solidifying its position as the essential knowledge and execution partner for the modern industrial base.

4. Manufacturing Services – Advanced Materials / Smart Manufacturing / Industry 4.0 Solution Providers

Year	Job Ads	Top Three		
		1	2	3
2023 -2024	145	Consultant (34, 23.5%)	Researcher (23, 15.9%)	Technical Officer (22, 15.2%)
2024 -2025	126	Technical Officer (36, 28.6%)	Researcher (25, 19.0%)	Production Operator/Workers (18, 14.3%)

This sector reflects a natural progression where the market has moved beyond the initial "what to do" phase (driven by consultants) to the "how to do it" and "making it happen" phase (driven by technical officers and production staff). The decreased prominence of "Consultant" is not a de-prioritisation of their value but rather a reflection that the strategic groundwork has been laid, and the current imperative is to build, operate, and optimise the solutions that were previously conceptualised. The market is now actively seeking skilled professionals to drive tangible results and operational efficiency, showcasing a robust move towards practical execution and direct contribution.

Training Needs

To effectively address the evolving manpower demands in advanced manufacturing, a strategic and structured approach to workforce training is essential. The following outlines the key training needs required to cultivate a capable, innovative, and competitive talent pipeline.

Foundational Education and Core Competencies

Training must establish a solid base of core capabilities to enhance workforce readiness and performance. Programmes should focus on:

- **Technical Proficiency:** Building foundational knowledge in engineering principles, manufacturing processes and quality and safety standards.
- **Cognitive Skills:** Developing strong problem-solving abilities and critical thinking to navigate complex scenarios.
- **Soft Skills:** Fostering effective communication and teamwork to enable seamless cross-functional collaboration across engineering production, IT, and supply chain domains.

This comprehensive foundation prepares employees to thrive in technology-driven environments, improving individual productivity, supporting continuous

improvement, and reducing operational errors.

Cultivating Composite Talent (Theory and practices)

To develop professionals with high proficiency in both theory and practices, target initiatives are required:

- **Interdisciplinary Curriculum:** Implementing educational pathways that integrate core scientific principles with practical engineering applications.
- **Experiential Learning:** Incorporating hands-on, project-based learning experiences that simulate real-world challenges.

This approach deepens technical knowledge while inherently fostering the innovation and adaptability needed to meet the industry's evolving demands.

Specialised Training in Data Science and AI

Programmes must equip teams with expertise to leverage data and artificial intelligence effectively. Key training components include:

- **Foundational Knowledge:** Building competencies in data science, algorithms, and advanced machine learning.

- **Practical Application:** Providing hands-on experience in applying AI in real manufacturing workflows, such as predictive maintenance, computer-vision quality inspection, and process optimisation.
- **End-to-End Implementation:** Covering the full lifecycle of AI solutions, including data acquisition, model development, validation, edge/cloud deployment, performance monitoring, and cybersecurity.

This specialised training ensures teams can reliably translate data insights into tangible operational outcomes, enhancing efficiency and competitiveness.

Enhancing Research and Development (R&D) Competencies

Specialised training in research and development (R&D) methodologies is critical to accelerate innovation:

- **Technical Upskilling:** Advancing skills in key disciplines such as scientific research, systems engineering, digital manufacturing (automation, robotics, AI-driven analytics), materials science, and additive manufacturing.
- **Structured Process:** Implementing a rigorous, data-driven innovation framework that guides teams from hypothesis and experimentation through prototyping, validation, and commercial scale-up.

Developing these capabilities helps reduce development risks, shorten time-to-market, and enable cross-functional teams to tackle complex technical and operational challenges.

Skills for Customisation and Niche Market Development

As industry shifts towards tailored solutions, training must focus on customer-centric innovation:

- **Market Insight:** Developing a deep understanding of customer needs and emerging market trends.
- **Agile Development:** Teaching product design principles, agile development practices, and effective customer interaction strategies.
- **Adaptive Mindset:** Fostering an organisational culture that prioritises adaptability and responsiveness.

This skillset enables employees to create innovative, customised products and services, strengthening the organisation's position in niche markets.

Building Expertise in Quality Assurance and Compliance

Comprehensive training is essential to ensure products meet global standards and regulatory requirements:

- **Systems and Standard:** Providing in-depth knowledge of Quality

Management Systems (QMS) and relevant standards (e.g., ISO 9001, IATF 16949, ISO 13485).

- **Practical Capabilities:** Developing hands-on skills in root-cause analysis, corrective/preventive actions (CAPA), and statistical process control.
- **Professional Certification:** Supporting certification in industry standards to enhance employee credibility and demonstrate organisational commitment to repeatable practices.

This training strengthens risk management, accelerates market access, builds customer trust, and safeguard competitive advantage.

Recruitment Challenges

Expanding Skills Gap

The advanced manufacturing industry is facing a significant and expanding skills gap, which substantially undermines ongoing recruitment efforts. A primary contributor to this challenge is the widespread lack of practical experience among candidates concerning cutting-edge technologies and modern production methodologies. These competencies are now indispensable for achieving success within high-performing manufacturing environments.

This growing disparity between industry requirements and the capabilities of the available talent pool creates increasing difficulties for organisations to recruit new employees who can immediately contribute effectively. Moreover, the inherent complexity of modern, interconnected manufacturing ecosystems necessitates multidisciplinary skill sets that seamlessly integrate engineering principles, sophisticated data analysis, and advanced operational expertise. Such comprehensive capabilities remain critically scarce.

Consequently, this pervasive skills deficit not only impedes operational efficiency but also constrains innovation and diminishes the industry's capacity to swiftly adapt to dynamic market conditions.

Talent Scarcity and Intense Competition

The advanced manufacturing industry is experiencing heightened competition, which is intensifying the challenge of recruiting from a constrained pool of highly skilled professionals. This challenge is further compounded by the rapid pace of technological evolution, necessitating highly specialised and advanced capabilities that are often in short supply.

Moreover, a perceived lack of appeal within the industry itself can significantly impede efforts to attract prospective candidates. Collectively, these dynamics escalate competition for scarce expertise, making it increasingly difficult for organisations not only to attract but also to retain employees possessing the requisite experience and skills.

Aging Workforce and Knowledge Drain

The advanced manufacturing industry is confronting a critical talent challenge stemming from its aging workforce. This demographic shift creates a significant structural headwind, substantially reducing the available pool of experienced candidates.

Consequently, the impending contraction of the talent pool intensifies competition for scarce expertise, leading to extended time-to-fill for specialised roles and significantly elevated acquisition costs. Furthermore, accelerating retirements are causing a rapid erosion of invaluable institutional knowledge, making the effective transfer of expertise to new hires increasingly difficult.

This deepening knowledge drain not only undermines the effectiveness of onboarding processes but also fundamentally limits an organisation's capacity to uphold rigorous standards and operational excellence within complex manufacturing environments. Ultimately, this poses a substantial risk to long-term competitiveness and innovation within the industry.

Industry Perception and High Turnover

A prevalent perception exists that career opportunities within the manufacturing industry are less competitive or appealing than those offered in sectors such as finance or technology. This perception significantly deters younger, highly educated professionals, thereby constraining the industry's capacity to attract fresh talent.

Furthermore, a notable trend indicates that young professionals who initially embark on careers within manufacturing frequently transition to other sectors after

a relatively short tenure, contributing to elevated employee turnover. This phenomenon further exacerbates the existing talent deficit and poses substantial challenges for manufacturing organisations in retaining their skilled workforce.

Recommendations

Government

Elevating Industry Perception and Talent Acquisition

To elevate the perception of the advanced manufacturing industry in Hong Kong and attract a skilled workforce, the government should implement a strategic public awareness campaign. This campaign should effectively highlight the industry's technological sophistication and diverse career opportunities.

Additionally, facilitating industry-specific networking events will cultivate connections among key stakeholders, including manufacturers, technology experts, and policymakers, thereby fostering the dissemination of best practices and knowledge exchange within the community.

Finally, producing compelling marketing collateral that highlights clear career paths and showcases success stories of professionals in the field will inspire the next generation to pursue careers in advanced manufacturing.

Standardising Quality for Global Competitiveness

The government is strongly recommended to intensify its efforts in establishing clear and standardised benchmarks for product

quality and safety, specifically tailored to the advanced manufacturing industry. By prioritising the development and promotion of these industry standards, the government can empower advanced manufacturers to ensure their products consistently meet international requirements, thereby facilitating smoother access to overseas markets.

Furthermore, active collaboration with industry associations and international bodies is essential to align local standards with global best practices. This collaborative approach will not only foster knowledge sharing but also critically underpin the advanced manufacturing industry's sustained competitiveness on the international stage.

Strategic Reskilling for a Future-Ready Workforce

To effectively address the evolving demands of the advanced manufacturing industry and cultivate a future-ready workforce, government intervention is crucial. This should prioritise the promotion of comprehensive reskilling initiatives, developed through strategic partnerships with renowned and reputable enterprises. These collaborations would facilitate the creation of training programmes meticulously tailored to meet the needs of both employees and employers.

Establishing a structured reskilling framework is essential. This framework would empower workers to acquire critical skills in advanced technologies, including artificial intelligence, robotics, and data analytics. Integral to this framework would be partnerships with leading organisations, providing invaluable hands-on learning opportunities, mentorship, and direct exposure to the latest industry practices.

To encourage widespread participation, the government should incentivise enterprises to engage in these reskilling efforts through targeted financial mechanisms such as tax breaks, grants, or subsidies. These incentives would stimulate businesses to invest proactively in workforce development, thereby contributing significantly to a more skilled labor pool.

Furthermore, the government can play a pivotal role in facilitating workshops, seminars, and industry forums. These platforms would strategically connect training providers, employers, and professionals, fostering vital collaboration and knowledge exchange. This approach would also ensure that training content remains dynamic and consistently aligned with the most current trends and technological advancements within the sector.

Training Institutions

Strengthening Academia-Industry Partnerships

Training institutions should significantly enhance their efforts to establish more strategic and robust partnerships with leading enterprises in the advanced manufacturing industry. This enhanced collaboration can facilitate a greater number of internships, cooperative education programmes, and mentorship opportunities, thereby providing students with invaluable practical experience. By actively engaging with industry professionals, training institutions can more effectively prepare students for the current practices, cutting-edge technologies, and evolving challenges within the field.

Enhancing Practical Skills Through Project-based Learning

Training institutions must intensify their focus on hands-on experience, primarily through project-based learning methodologies. This strategy should involve expanded simulation laboratories, practical workshops, and collaborative projects designed to accurately replicate authentic manufacturing scenarios. By providing increased opportunities for the practical application of advanced technologies, including automation, robotics, and data analytics, students can develop the essential skills and confidence necessary to make immediate

and valuable contributions in the modern workplace.

Interdisciplinary Curriculum for Holistic Development

To effectively prepare students for the complexities of advanced manufacturing, training institutions must enhance their curriculum by integrating interdisciplinary elements that combine engineering, business management, and technology. A focused effort to establish a holistic educational framework will ensure that students acquire not only technical skills but also a solid understanding of essential business concepts relevant to the industry. This comprehensive approach will foster composite talent, empowering students to succeed in a dynamic and interconnected work environment while effectively navigating the challenges of advanced manufacturing.

Employers

Fostering Growth Through Mentorship

Employers are strongly encouraged to implement formal mentorship programmes, through which experienced professionals can guide and support newer or younger employees. By fostering structured relationships between mentors and mentees, organisations can effectively facilitate critical knowledge transfer, accelerate

skill development, and cultivate a highly supportive learning environment.

This initiative not only contributes significantly to the professional growth and integration of junior staff but also provides seasoned employees with a profound sense of purpose and recognition as they impart their valuable expertise. Ultimately, such mentorship programmes serve to reinforce teamwork and collaboration, yielding substantial and sustained benefits for the entire organisation.

Cultivating a Collaborative Culture

Employers should actively strive to create an open and inclusive working environment that fundamentally encourages collaboration and transparent communication across all levels of the organisation. By promoting transparency and fostering a culture of constructive feedback and innovation, employers can significantly enhance employee satisfaction and improve retention rates.

Regular team-building activities and open forums for idea-sharing can further strengthen team cohesion and bolster the overall workplace atmosphere. This collaborative approach not only boosts morale but also directly drives sustained organisational success.

Driving Engagement Through Co-ownership

Fostering a sense of shared goal and tangible stake among employees can be a worthwhile idea for organisational sustainable growth. These co-ownership models are designed to align employee interests with company goals, encouraging team success and building a more engaged and committed workforce. Among the possible co-ownership methods, Performance-Linked Financial Rewards offer a practical approach. For example, profit-sharing schemes distribute a set percentage of the company's yearly profits among employees. This directly connects employees' financial well-being to the company's overall success, encouraging teamwork and a shared commitment to making profit. Also, where appropriate for the company's structure and operational context, Direct Share Grants can be given, especially to key talent. These grants act as rewards or long-term incentives, strongly motivating employees to build deep commitment and ensures alignment with long-term strategic objectives. This option might be more common for larger or publicly traded companies than typical SMEs.

Data-Driven Workforce Alignment

Employers are strongly encouraged to disseminate employment data with key stakeholders, including human resources departments and training institutions. Analysing this data can strategically

facilitate the identification of critical skills gaps, enable the refinement of job specifications, and allow for the precise tailoring of training curricula.

By aligning workforce development strategies with actual industry needs and emerging trends, employers can proactively ensure that their employees are effectively prepared for future challenges and opportunities within the advanced manufacturing sector. This proactive and data-driven approach will significantly enhance both workforce readiness and overall organisational success.

Employees

Continuous Learning and Development

Employees are strongly encouraged to actively pursue continuous education, focusing on critical areas such as artificial intelligence (AI), innovation, and foundational industry knowledge. A robust understanding of core principles and established practices is indispensable for effectively adapting to emerging technologies and evolving methodologies.

Engaging in online courses, specialised workshops, and industry seminars can not only significantly enhance individual expertise but also deepen the practical understanding of how to strategically apply these innovations within the

manufacturing context. Furthermore, obtaining relevant professional certifications will bolster credibility and unequivocally demonstrate a commitment to upholding industry standards.

This dual approach, emphasising both a solid foundational knowledge base and ongoing professional development, empowers employees to remain highly competitive and concurrently fosters a culture of excellence within their respective organisations.

Upholding Industry Standards

Understanding and adhering to industry standards is crucial for employees to maintain high-quality outputs and ensure regulatory compliance. Employees must dedicate time to thoroughly familiarise themselves with relevant standards and best practices. This commitment not only enhances their professional reputation but also significantly contribute to the organisation's credibility. Such knowledge is indispensable for optimising operational processes and implementing innovative solutions that consistently align with industry expectations.

Leverage GBA Opportunities and Intellectual Protection

Employees are strongly encouraged to proactively explore the significant opportunities available within the Greater Bay Area (GBA), recognised as a dynamic hub for innovation and technology. Strategic networking with professionals

across this region can unlock new avenues for collaboration and professional growth.

Furthermore, leveraging Hong Kong's robust legal framework and comprehensive intellectual property protections is crucial. This will support employees in their innovative endeavors, ensuring that their creative contributions are effectively safeguarded and duly recognised within the advanced manufacturing industry.