

FACTSHEET

LAUNCH OF THE PROCESS CONSTRUCTION AND MAINTENANCE INDUSTRY DIGITAL PLAN

Background

The Process Construction & Maintenance (PCM) sector comprises over 500 companies, with 98% being SMEs. Employing a workforce of over 30,000, the PCM sector is an important enabler for the Energy and Chemicals industry. The companies deliver reliable and efficient construction, maintenance and turnaround services to a range of process plants such as refineries, petrochemicals, pharmaceutical, water and semiconductor plants. As these process plants use specialised equipment and machineries in their production processes, the construction and maintenance of the production units require niche skills and expertise from the PCM sector.

Process Construction and Maintenance Industry Digital Plan

The PCM Industry Digital Plan (IDP) is part of the SMEs Go Digital programme that aims to make going digital simple for SMEs.

INFOCOMM MEDIA DEVELOPMENT AUTHORITY | SMEs GO DIGITAL

3 STEPS TO GO DIGITAL

1 | **Is your business digital-ready?**
Find out using the Industry Digital Plan (IDP) for your sector.

2 | **How do you get started?**
Take up pre-approved solutions with grant support.

3 | **Where can you get help?**
Contact your nearest SME Centre for support.

For more information
Scan the QR code or visit www.imda.gov.sg/SMEsGoDigital

Support available

- Industry Digital Plans
- Pre-Approved Solutions
- Start Digital Pack
- Grow Digital
- Government Grants (e.g. Productivity Solutions Grant (PSG); SkillsFuture Enterprise Credit (SFEC))
- Advanced Digital Solutions
- Consultancy Services (SME Digital Tech Hub)

The Infocomm Media Development Authority (IMDA) and Enterprise Singapore (ESG), in partnership with the industry, jointly developed the PCM IDP to guide SMEs on their digital transformation efforts, providing an easy-to-use, step-by-step guide on the digital solutions to adopt at each stage of their growth, solutions available and the training required to raise their employees' digital capabilities.

The IDP will be reviewed and updated regularly in line with the latest digitalisation and technology advancements in the sector.

Components of the PCM IDP

1. Digital Roadmap

The three-stage digital roadmap of the IDP charts out the digital solutions that enterprises in the PCM sector can adopt at each stage of their growth to support their digital journey.



- a. **Stage 1: Getting Ready for the Digital Economy.** The initial stage aims to help SMEs start their digital journey by adopting basic digital solutions to streamline operations and optimise the use of resources.

- b. **Stage 2: Growing in the Digital Economy.** The second stage highlights digital solutions for SMEs that are ready to scale their digitalisation efforts. These solutions enable them to leverage IoT and data analytics to enable better planning decisions, thereby optimising the use of resources, be it manpower or equipment.
- c. **Stage 3: Leaping Ahead.** The third stage recommends advanced technologies that SMEs can adopt to strengthen their competitive edge to provide employees the opportunity to take on higher-value roles and reduce risk of workplace accidents.

2. Digital Training Roadmap

The IDP also includes a Digital Training Roadmap to guide the sector in preparing their workforce with the necessary skills to adopt digital solutions, so that they are ready for changes that come with digital transformation.

DIGITAL SKILLS NEEDED: DIGITAL ROADMAP ON TRAINING

This training roadmap serves as a guide to prepare companies' workforce to adopt digital solutions at each of the three stages of growth.

	STAGE 01 Getting Ready for the Digital Economy	STAGE 02 Growing in the Digital Economy	STAGE 03 Leaping Ahead
"TECH BASICS" All employees in the industry	<ul style="list-style-type: none"> • Project Management Professional Training • SkillsFuture for Digital Workplace (SFDW) • Mindset Transformation for the Workplace • Basic Digital Confidence 	<ul style="list-style-type: none"> • Fundamental Data Analysis using Excel 2016 • Introduction to Data Analytics and Applications • Data Analysis using Python • Data Analytics Using R • Robotic Process Automation • Intermediate Robotic Process Automation • Robotic Process Automation Implementer • Strategies for Effective Data and Information Management • Fundamentals of Data Architecture, Governance and Strategy • SolidWorks – 3D Modelling and Drawing • AutoCAD 2018 Basics (2D & 3D) • Business Needs Analysis – a Data-Driven Approach • Introduction to Data Engineering 	<ul style="list-style-type: none"> • Autonomous Mobile Robots (AMR) Implementation and Applications • Application of Robotics • Autonomous Robots and Computer Vision • Technology and Applications of Digital Transformation and Robotics • AI E-Enabled Robotics for Beginners • Introduction to Predictive Analytics for Maintenance
Vendor Solution-Specific Training			
"TECH ADVANCED" Employees that use or are exploring advanced tech in their work / organisation	<ul style="list-style-type: none"> • Introduction to Predictive Analytics for Maintenance 	<ul style="list-style-type: none"> • Appreciation of IoT and Data Management • Collaborative Robot Cell Integrated with Vision for Shop Floor Applications • Industrial Robotised Polishing • Data Engineering for Effective Data Analytics 	<ul style="list-style-type: none"> • Introduction to AI and Machine Learning • Analytics and Computational Modelling
Training programmes are aligned to Skills Framework and emerging areas under SkillsFuture Series			
Course directory: https://www.sp.edu.sg/pace/courses/course-type/short-modular			

3. Online Self-assessment Checklist

SMEs can use the [online self-assessment](#) checklist to assess their digital readiness and identify opportunities to go digital based on their current business operations, level of digitalisation and business expansion plans. For more information, visit www.imda.gov.sg/SMEsGoDigital.

4. Tapping Expertise of Partners

SMEs can approach **Business Advisors at their nearest SME Centre**¹ for business diagnosis and advisory on digital solutions relevant to their operations. SMEs that require specialist consultancy on sophisticated technologies, such as data analytics and cybersecurity, can engage **Principal Consultants at the SME Digital Tech Hub**². These digital consultancy services are provided at no cost to SMEs.

Further support under SMEs Go Digital

5. Pre-Approved Solutions

To make it easy for SMEs to adopt the digital solutions recommended in the PCM IDP, IMDA provides a list of pre-approved solutions assessed to be market-proven, cost-effective and supported by reliable vendors. SMEs can visit GoBusiness Gov Assist (<https://govassist.gobusiness.gov.sg/productivity-solutions-grant/>) for the contact information of the pre-approved solution providers. If funding support is required, SMEs can apply for the Productivity Solutions Grant (PSG) on the Business Grants portal, before purchasing and implementing digital solutions.

SMEs can also participate in digital sector projects that are initiated jointly by IMDA and industry leaders. Such projects pilot new digital solutions or platforms that have the potential to uplift the whole sector.

6. Start Digital

SMEs that have just started their businesses or are new to digital technology, can tap on the Start Digital Pack to start their business right with foundational and competitively-priced digital solutions. These solutions cover: Accounting, Human Resources Management & Payroll, Digital Marketing, Digital Transactions and Cybersecurity. SMEs can take up any two solutions and receive cost waivers for at least six months when they sign up for a minimum 18-month contract. The solutions are pre-approved by IMDA and offered by Start Digital Partners like DBS, M1, Maybank, OCBC, Singtel and UOB. More information available here: www.imda.gov.sg/startdigital

¹ List of SME Centres can be found at www.enterprisesg.gov.sg/smecentre.

² For more information, please refer to www.digitaltechhub.sg.

7. Grow Digital

For SMEs that are willing and ready to seize business opportunities in overseas markets, they can tap Grow Digital to get a head start in going global. It connects SMEs to Business-to-Business (B2B) and Business-to-Consumer (B2C) e-commerce platforms. Pre-approved by IMDA and ESG, these platforms have good track record and operating experience in multiple markets with regional or global reach, strong networks with complementary business service providers (e.g. logistics and financing).

8. Advanced Digital Solutions

SMEs can also receive funding support to adopt advanced and integrated solutions³ to improve their business resilience and long-term competitiveness.

³ For more information, visit: www.imda.gov.sg/advanceddigitalsolutions