

## Fact Sheet

### THE ENVIRONMENTAL SERVICES INDUSTRY DIGITAL PLAN

The Environmental Services Industry Transformation Map (ES ITM) was launched on 11 December 2017, unveiling the strategies and initiatives to ensure a vibrant, sustainable and professional industry that will provide services and solutions to help achieve the Zero Waste vision and a clean and liveable Singapore.

As the demand for environmental services continues to rise amidst manpower challenges, transforming the industry through digital technology is essential. Digital technology plays an important role to assist companies in optimising their resources, improving operational productivity and promoting business growth.

#### Industry Digital Plan

The Environmental Services Industry Digital Plan (IDP) is developed by Infocomm Media Development Authority (IMDA) in partnership with the National Environment Agency (NEA) to guide SMEs in the Environmental Services industry on their digital transformation effort. SMEs can use the IDP to assess their digital readiness and identify digitalisation opportunities relevant for their businesses, as well as identify skill gaps to support their digitalisation.

The Environmental Services IDP also includes a Digital Roadmap (Training) that has been developed in partnership with SkillsFuture Singapore, Ngee Ann Polytechnic and the Institute for Technical Education. The Digital Roadmap (Training) ensures that the industry's workforce is adequately prepared with the necessary skills to adopt digital solutions, and is ready for changes that come with digital transformation.

The Environmental Services IDP will be updated over time as new technologies are introduced and made relevant as the industry progresses. It is targeted at SMEs in the cleaning and waste management sectors within the Environmental Services industry

## Key components of the Environmental Services IDP



\*Includes training under SkillsFuture Series and Skills Framework

## Digital Roadmap

**The digital roadmap** provides a reference on solutions relevant for SMEs in Environment Services industry across 3 stages: “Getting Digital Economy Ready”, “Growing in the Digital Economy” and “Leaping Ahead”. It also provides a reference on the training programmes required to raise their employees’ digital skills.

Larger enterprises in the ES industry can also use the digital roadmap to guide their digitalisation decisions, where relevant.

### Stage 1: Getting Digital Economy Ready

Ready-to-go digital solutions are identified to enable SMEs in the Environmental Services industry to digitalise their operations and optimise their resources. Ideally, these solutions should digitalise the workforce, fleet, assets and recyclables to enhance productivity.

### Stage 2: Growing in the Digital Economy

More advanced digital solutions to enable SMEs in the Environmental Services industry to grow and scale up through the usage of integrated real-time environmental sensing that enables dynamic response capabilities in real-time.

### Stage 3: Leaping Ahead

Revolutionary digital solutions to help SMEs in the Environmental Services industry exploit autonomous robotics and advanced technologies to maximise business impact. This includes the harnessing of aggregated data for collaborative operations across the ecosystem and enabling higher levels of autonomous operations .



**Digital Roadmap (Solutions)**



A **self-assessment checklist** is available online ([www.imda.gov.sg/environmental-services-idp](http://www.imda.gov.sg/environmental-services-idp)) where SMEs can assess their digital readiness and identify the digitalisation opportunities based on a broad understanding of their business operations, current level of digitalisation and business expansion plans.

The **Digital Roadmap (Training)** which serves as a reference for businesses when deciding on suitable training programmes to upgrade their employees' digital skills. The Digital Roadmap (Training) is aligned to the digital skills and competencies of the Skills Framework for Environmental Services. It also includes SkillsFuture Series programmes in eight emerging areas.

### **Digital Consultancy**

For a more comprehensive review of their business, SMEs in the Environmental Services industry can approach SME Centre business advisors for business diagnosis and advice on relevant digital solutions. SME Centre business advisors will also refer SMEs that require specialist advice on more advanced digital solutions, such as data analytics and cybersecurity, to **the SME Digital Tech Hub**. These digital consultancy services are provided at no cost to SMEs.

### **Digital Solutions**

SMEs requiring productivity tools will continue to receive support through access to pre-approved digital solutions. SMEs can visit the Tech Depot<sup>1</sup> ([www.smeportal.sg/techdepot](http://www.smeportal.sg/techdepot)) for more information on these solutions.

### **Digital Project Management Services**

To reap the full benefits from going digital, SMEs in the Environmental Services industry can engage digital project management services to support their implementation of the digital

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<sup>1</sup> The Tech Depot is a one-stop, centralised platform under the SME Portal aimed at improving SMEs' access to technology and digital solutions

solutions. Through business processes re-engineering and job redesign, the digital project managers can help SMEs yield more sustainable outcomes from digitalisation.

***About Infocomm Media Development Authority (IMDA)***

*The Infocomm Media Development Authority (IMDA) leads Singapore's digital transformation with infocomm media. To do this, IMDA will develop a dynamic digital economy and a cohesive digital society, driven by an exceptional infocomm media (ICM) ecosystem – by developing talent, strengthening business capabilities, and enhancing Singapore's ICM infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment, and enhances Singapore's data protection regime through the Personal Data Protection Commission.*

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