

## MEDIA RELEASE

### **NEW TECHNOLOGY ROADMAP AND GUIDE TO SMART FM LAUNCHED IN SUPPORT OF TRANSFORMATION EFFORTS FOR THE FACILITIES MANAGEMENT SECTOR**

- *Consortium Operations and Technology Roadmap comprises more than 50 technology solutions charted to improve service delivery for Facilities Management (FM)*
- *Smart FM guide developed to help building owners identify and implement technology solutions*

**Singapore, 1 October 2019** – The Singapore International Facility Management Association (SIFMA), in partnership with the Agency for Science, Technology and Research (A\*STAR), has launched a Consortium Operations and Technology Roadmap (COTR) as part of efforts to transform the Facilities Management (FM) sector to be future-ready. This was announced by Mr Zaqy Mohamad, Minister of State for National Development at the opening ceremony of the International Facility Management Conference. The roadmap was also developed with support from the Building and Construction Authority (BCA), Infocomm Media Development Authority (IMDA) and Enterprise Singapore.

2 With Singapore's growing number of buildings, aging workforce and manpower constraints, the local FM sector faces significant challenges in ensuring that service standards are met. The use of innovative technologies will help to ensure buildings are well maintained at optimal performance and sustainability. The COTR charts more than 50 near-, mid- and long-term technology solutions aimed at

improving service delivery outcomes. It also maps technology solutions that may require further research and development. More information on the COTR can be found in *Annex A*.

3 “Digitalisation is taking the world by storm and has disrupted Singapore’s FM sector. With the reconstitution of SIFMA, we believe that it is timely to work with our partners and government agencies to plan for a future-ready FM sector. With the development of the FM COTR, this will enable us to work towards the digitisation of the FM sector while improving the productivity, effectiveness and sustainability of the nation’s buildings. We are excited to build towards the FM sector of tomorrow while tackling the challenges of today”, Said Tony Khoo, President, SIFMA.

4 Professor Tan Sze Wee, Assistant Chief Executive of A\*STAR’s Science & Engineering Research Council, added, “By putting a technology roadmap in place, SIFMA members will be able to make better-informed decisions in their innovation strategies and future-proof their businesses. This will help improve the competitiveness of the facilities management sector. A\*STAR is glad to be part of this multi-party collaboration, and we will continue to support the sector’s needs with our technologies and roadmapping expertise.”

5 One key outcome of the COTR is the development and adoption of advanced technology solutions that enable integrated and data-driven predictive FM services. In rolling out this roadmap, A\*STAR, BCA, Enterprise Singapore and IMDA will work alongside SIFMA to promote the use of such technologies by FM companies.

### **Facilitating the wider adoption of Smart FM**

6 A Guide to Smart FM was also made available to developers, Government Procurement Entities and building owners as an easy-to-use reference to identify, implement and reap the benefits of smart technology solutions for their business operations. This guide was jointly developed by a taskforce under the tripartite Facilities Management Implementation Committee (FMIC), comprising representatives from various agencies, building owners, service providers and

industry bodies. More information on the Guide to Smart FM can be found in *Annex B*.

7 Mr Hugh Lim, CEO of BCA, said: “BCA is glad to be working closely with SIFMA and our tripartite partners in developing the COTR and the Guide to Smart FM, with more than 100 people from 50 organisations involved in workshops and consultations. The COTR and the Guide to Smart FM help firms identify and implement technologies and solutions for FM, such as AI-assisted centralised management systems and 3D printed parts for FM. We hope these efforts will greatly help to improve service delivery through Smart FM technology adoption and facilitate a more progressive and productive FM sector.”

### **Reconstitution of SIFMA**

8 The Singapore International Facilities Management Association (SIFMA) has recently amended its constitution to take in corporate memberships. This would allow SIFMA to better represent and serve the industry by amassing more support and awareness for industry development efforts like the COTR.

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**Jointly issued by the BCA, SIFMA, A\*STAR, IMDA, Enterprise Singapore  
on 1 October 2019**

### **About BCA**

The Building and Construction Authority (BCA) of Singapore champions the development of an excellent built environment for Singapore. BCA’s mission is to shape a safe, high quality, sustainable and friendly built environment, as these are four key elements where BCA has a significant influence. In doing so, it aims to differentiate Singapore’s built environment from those of other cities and contribute to a better quality of life for everyone in Singapore. Hence, its vision is to have "a future-ready built environment for Singapore". Together with its education arm, the BCA Academy of the Built Environment, BCA works closely with its industry partners to develop skills and expertise that help shape a future-ready built environment for Singapore. For more information, visit [www.bca.gov.sg](http://www.bca.gov.sg).

## **About the Agency for Science, Technology and Research (A\*STAR)**

The Agency for Science, Technology and Research (A\*STAR) is Singapore's lead public sector agency that spearheads economic oriented research to advance scientific discovery and develop innovative technology. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit society. As a Science and Technology Organisation, A\*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by contributing to societal benefits such as improving outcomes in healthcare, urban living, and sustainability. We play a key role in nurturing and developing a diversity of talent and leaders in our Agency and research entities, the wider research community and industry. A\*STAR's R&D activities span biomedical sciences and physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For ongoing news, visit [www.a-star.edu.sg](http://www.a-star.edu.sg).

## **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.

For more news and information, visit [www.imda.gov.sg](http://www.imda.gov.sg) or follow IMDA on Facebook IMDAsg and Twitter @IMDAsg.

## **About Enterprise Singapore**

Enterprise Singapore is the government agency championing enterprise development. We work with committed companies to build capabilities, innovate and internationalise.

We also support the growth of Singapore as a hub for global trading and startups, and build trust in Singapore's products and services through quality and standards. Visit [www.enterprisesg.gov.sg](http://www.enterprisesg.gov.sg) for more information.

## Annex A

### Background

A\*STAR started the Operation & Technology Roadmapping (OTR) initiative in 2003 as part of the Growing Enterprises through Technology Upgrade (GET-Up) programme to help local enterprises, especially SMEs, develop customised roadmaps aligned to their business strategies and goals. The initiative aims to help local enterprises identify technologies to increase their competitive edge.

### Consortium OTR

Building on the success of the OTR initiative, A\*STAR launched the Consortium OTR (COTR) in 2017 to develop technology roadmaps for groups of local companies within the same sub-sector, in collaboration with industry partners including Trade Associations and Chambers (TACs). This will enable A\*STAR to reach out to more local enterprises, in line with our efforts to foster pervasive innovation in the economy.

Following the identification of technologies or innovation solutions to meet the consortiums' needs, A\*STAR will link potential solution providers to the participating companies for potential adoption. If there are no readily available technologies, A\*STAR can work with the participating enterprises to co-develop these new technologies, together with other public agencies, relevant Research Institutes and Institutes of Higher Learning (IHLs).

Below are some examples of the technologies being mapped out by the OTR.

	Examples include:
<b>Near-term technologies</b> <i>Currently available in the market</i>	<ul style="list-style-type: none"><li>• Robots for walls/floor cleaning</li><li>• Drones for façade inspection</li></ul>
<b>Mid-term technologies</b> <i>Within 3-6 years</i>	<ul style="list-style-type: none"><li>• Facial recognition for manpower management</li><li>• Central command centre for integrated and Smart FM</li></ul>
<b>Long-term technologies</b> <i>6 years and beyond</i>	<ul style="list-style-type: none"><li>• 3D printed parts for FM</li></ul>

### Pilot projects

So far, A\*STAR has successfully conducted pilots of Consortium OTR in sectors such as food manufacturing, logistics, marine & offshore, as well as medtech. In line with the plans set out under the Industry Transformation Maps (ITMs), Consortium OTR workshops will be held for other sectors and will involve participants from government agencies, industry, and research performers.

## **Annex B**

### **Guide to Smart FM**

As part of the Real Estate Industry Transformation Map (ITM) launched on 8 February 2018 by Mr Desmond Lee, Minister for Social and Family Development and Second Minister for National Development, the Building and Construction Authority (BCA) was tasked to coordinate the development of the Facilities Management (FM) sector.

A tripartite Facilities Management Implementation Committee (FMIC) was formed in April 2018. The FMIC brings together major stakeholders, comprising both public and private building owners, FM service and solution providers, trade associations and chambers (TACs), and unions, to develop detailed action plans to implement the strategies identified in the Real Estate ITM.

A key strategy in the Real Estates ITM is the reduction of reliance on manpower by leveraging on data analytics, predictive maintenance and smart technology solutions. A Smart FM Taskforce, was subsequently formed to develop a framework for implementation and formulate strategies for adoption of smart FM by industry. The Guide to Smart FM is an output of the Taskforce. It aims to provide Building Owners and their FM Managers with an easy-to-use reference to guide them on the key steps to take in their smart FM journey.

The Guide to Smart FM is available on the BCA webpage at [http://www.bca.gov.sg/GreenMark/others/Guide\\_to\\_Smart\\_FM.pdf](http://www.bca.gov.sg/GreenMark/others/Guide_to_Smart_FM.pdf)