

Media Release



**300 funded assessments of the Singapore Smart Industry
Readiness Index to help companies adopt Industry 4.0**

*Accreditation program will also be developed to train and qualify assessors to
scale industrial transformation*

Singapore, March 22, 2017 – Dr Koh Poh Koon, Senior Minister of State for Trade and Industry and National Development, announced the provision of 300 funded assessments of the Singapore Smart Industry Readiness Index (“Index”), to help SMEs and MNCs across all industries accelerate their Industry 4.0 transformation. To further amplify the reach and use of the Index, an accreditation programme will also be developed to train and qualify assessors.

The Index, developed by the Singapore Economic Development Board (EDB), in partnership with global testing, inspection, certification and training company TÜV SÜD, was launched in November 2017. It is a world-first diagnostic tool developed by the Government in partnership with the industry, to drive industrial transformation by helping companies harness the potential of Industry 4.0 in a systematic and comprehensive way.

“The Index has received positive reviews since its launch and we are heartened that companies have found it useful in their transformation journeys,” said Dr Koh. “However, through feedback from public workshops, we recognise that having a qualified assessor can help companies overcome the initial barriers to transform. As such, we have committed 300 funded assessments and an accreditation programme, to ensure companies receive sufficient guidance in using the Index to evaluate their facilities and identify priority areas to focus on.”

Facilitated assessments to help companies accelerate transformation

EMBARGOED UNTIL 10:00AM, 22 MARCH 2018

In a facilitated assessment, qualified assessors will aid companies in using the Index to develop an Industry 4.0 strategy. This will take place over two half-day consultations across two weeks (see Annex A).

During the first consultation, assessors will clarify the Index's assessment principles and assist in conducting the evaluation across 16 dimensions. This will help companies understand the current state of their manufacturing facilities and readiness for transformation. In the second consultation, the results will be used by the assessors to identify high impact initiatives that the companies could focus on to realise Industry 4.0.

TÜV SÜD, the technical advisor and project manager in the development of the Index, will be conducting the 300 funded assessments.

Accreditation programme to qualify Index assessors

To help scale and sustain the use of the Index, an accreditation programme will be developed to train and qualify individuals to conduct Index assessments. More details will be released at a later time.

Support and recognition from TACs

Recognising that industrial transformation is a multi-year effort that requires the involvement of key stakeholders, the Government will also be fostering closer collaborations with Trade Associations and Chambers (TACs) to drive the use of the Index. Through the TACs, the Government will deepen engagements with companies across all industrial sectors, and extend the necessary support and guidance to help businesses transform.

Since its launch, the Index has garnered both local and international interest with over 500 people from more than 200 MNCs and SMEs attending the public workshops conducted by EDB and TÜV SÜD.

Companies who wish to register their interest for the funded assessments can do so at <http://www.edb.gov.sg>

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About the Singapore Smart Industry Readiness Index

The Singapore Smart Industry Readiness Index is a world-first tool developed by the Government in partnership with the industry to drive industrial transformation. The Index is a diagnostic tool that companies - across all industries and sizes - can use to better understand Industry 4.0 concepts, evaluate the current state of their facilities, architect a comprehensive transformation roadmap and deliver concrete, sustained value for their businesses.

About the Singapore Economic Development Board (EDB)

The Singapore Economic Development Board (EDB), a government agency under the Ministry of Trade and Industry, is responsible for strategies that enhance Singapore's position as a global centre for business, innovation, and talent. We undertake investment promotion and industry development, and work with international businesses, both foreign and local, by providing information, connection to partners and access to government incentives for their investments. Our mission is to create sustainable economic growth, with vibrant business and good job opportunities for Singapore.

For more information on EDB, please visit www.edb.gov.sg.

For media queries, please contact:

Mr Clement Cher
Senior Lead, Public Affairs
Singapore Economic Development Board
Tel: (65) 6832 6706
HP: (65) 9650 8435
Email: clement_cher@edb.gov.sg

Ms Vivian Quek
Senior Lead, Public Affairs
Singapore Economic Development Board
Tel: (65) 6832 6919
HP: (65) 9794 6121
Email: vivian_quek@edb.gov.sg

Annex A: Timeline of a facilitated Index assessment



Timeline



Milestone



Annex B: SUPPORTING TRADE ASSOCIATIONS AND CHAMBERS (TACs)

Association of Aerospace Industries Singapore

The Association of Aerospace Industries (Singapore) or AAIS, is a not-for-profit organisation established in 2003, to promote the development of Singapore as a leading aerospace hub.

AAIS represents companies involved in aerospace maintenance, repair and overhaul (MRO), manufacturing, parts distribution, research & development, training and education, and services. It serves as the voice of industry to influence future directions and policies, engenders the development of the aerospace community and facilitates business development.

Association of Singapore Marine Industries

The Association of Singapore Marine Industries (ASMI) is a non-profit trade association formed in 1968 to promote the interests of the marine industry in Singapore. ASMI represents a wide cross-section of the Singapore ship repair, shipbuilding and rig building industry. The major ship repair yards, rig builders and shipbuilders in Singapore as well as most of the established local and foreign manufacturers and suppliers of marine and offshore components, and major marine and offshore engineering companies are among its members. It also represents marine and offshore engineering contractors and companies, whose activities are directly related to the industry including classification societies and marine consultants.

Singapore Chemicals Industry Council

The Singapore Chemical Industry Council Limited (SCIC) is the official industry association representing the Singapore chemical industry in the private sector. It plays a proactive role in representing the interests of the local chemical industry and continues to promote it as a major economic pillar of Singapore.

Singapore Food Manufacturing Association

The Singapore Food Manufacturers' Association (SFMA) is a trade association formed in 1967 to develop and promote the local food manufacturing industry. With over 300 members today, SFMA has evolved into the apex body for the food manufacturing industry of Singapore. Members comprise small family companies, small-and-medium enterprises, public listed companies, traders and various supplier companies related to the food industry. Activities organised by SFMA include exhibitions, seminars, conferences, workshops, trade missions, networking & business matching sessions.

Singapore Precision Engineering and Technology Association

The Singapore Precision Engineering and Technology Association (SPETA) is a trade association representing locally registered companies engaged in the manufacturing of moulds and dies, jigs and fixtures, metal stamping, metal castings, plastic and rubber mouldings, precision machining, photonic and semiconductor equipment, aerospace, automotive and medical parts as well as in providing services related to the precision engineering and technology industry.

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Singapore Semiconductor Industry Association

The Singapore Semiconductor Industry Association (SSIA) is the voice of Singapore's semiconductor industry. SSIA members today include companies and organizations throughout all parts of the complex and comprehensive value chain – IC design companies, manufacturers, fabless companies, equipment suppliers, photovoltaic companies, EDA and material suppliers, training and service providers, IP companies, research institutes and academia, as well as individual members.

Annex C: Press release for the Launch of The Singapore Smart Industry Readiness Index

Launch of The Singapore Smart Industry Readiness Index

World's first index to help companies embark on Industry 4.0 transformation

Singapore, November 13, 2017 – Singapore Economic Development Board (EDB), in partnership with global testing, inspection, certification and training company TÜV SÜD, launched a world-first tool – *The Singapore Smart Industry Readiness Index* – to help industrial companies harness the potential of Industry 4.0 in a systematic and comprehensive way.

The Index serves as a diagnostic tool that companies - across all industries and sizes - can use to better understand Industry 4.0 concepts, evaluate the current state of their facilities, architect a comprehensive transformation roadmap and deliver concrete, sustained value for their businesses.

EDB's Assistant Managing Director Lim Kok Kiang said, "As part of our efforts to enhance the competitiveness of Singapore's manufacturing sectors, the Index provides a common framework for all companies to participate in, and benefit from, Industry 4.0."

He added, "Many companies often put technology first. With this Index, we put people and processes alongside technology, so that companies can maximise the potential of Industry 4.0."

Prof Dr -Ing Axel Stepken, Chairman of the Board of Management, TÜV SÜD described the Index as a world-first for the industry.

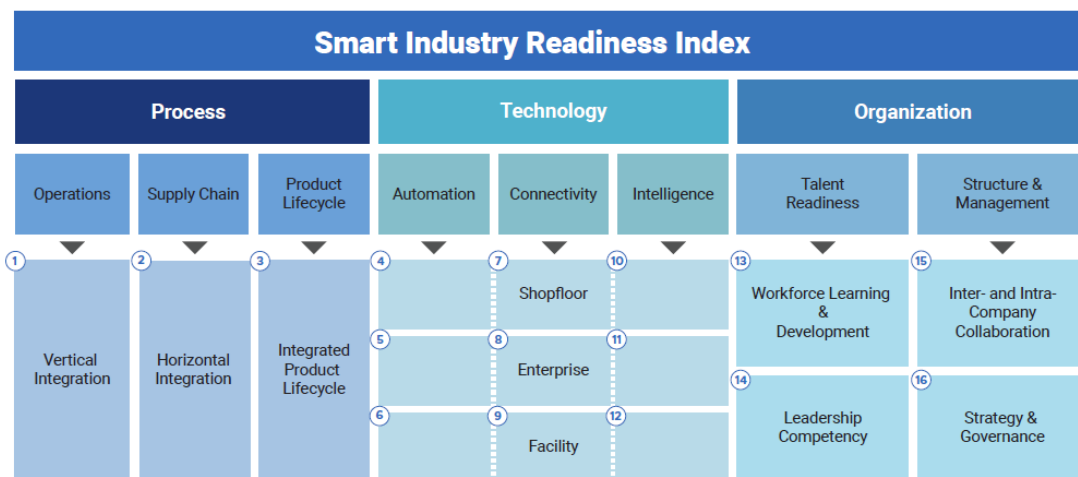
"The Index gives clear orientation to manufacturers on what Industry 4.0 means and how they can initiate their transformation journey. It is a world's first Industry 4.0 tool that is developed by the government for nation-wide transformation of industrial sectors. Strongly aligned with Industry 4.0 and other global

manufacturing initiatives, it has the potential to be the global standard for the future of manufacturing,” he said.

The Index draws reference from the RAMI 4.0 framework¹ and was validated by an advisory panel of 21 academic and industry experts. To strike a balance between technical rigour and usability, the Index was piloted with both small medium enterprises (SMEs) and multinational corporations (MNCs) in Singapore. The Index also received the support of Singapore Government agencies. (See Annex A for details of partners and the advisory panel)

“While the term Industry 4.0 was created several years ago, many manufacturing companies, particularly SMEs, remain unfamiliar with it,” said Mr Desmond Goh, Director of food manufacturing SME, People Bee Hoon, “This Index is an intuitive and realistic reference framework which is useful for all industrial companies, both big and small, to not only learn these new concepts but also to apply them to our facilities.”

The Index: ensuring no aspects are overlooked



The Index comprises three layers. At the top are the 3 fundamental building blocks of Industry 4.0: *Process*, *Technology* and *Organization*. Underpinning these building blocks are 8 pillars of focus. These pillars then map onto 16

¹ Reference Architectural Model for Industry 4.0 (“RAMI 4.0”), which was developed by Plattform Industrie 4.0. Today, RAMI 4.0 has been formally acknowledged by key experts and renowned associations globally to be the reference architecture model as it embodies the key concepts and ethos of Industry 4.0

dimensions of assessment, which represent the key components that any organisation must consider.

For each of the 16 dimensions, the Index provides an assessment matrix which companies can use to evaluate their current processes, systems, and structures within one to two days. The assessment matrix also doubles as a step-by-step improvement guide, as each dimension provides intermediate steps needed for companies to progress.

To Mr Yeoh Pit Wee, Director for Manufacturing Operations, Rockwell Automation, the Index helps companies perform a comprehensive evaluation of their facilities.

“Often, companies tend to focus excessively on shop floor automation and under-invest in equally important areas such as process design and workforce competency. The Index serves as a useful counter-check to ensure that no dimensions are overlooked, in order to capture maximum value from any Industry 4.0 initiatives,” he said.

Mr Hashim Baba, Plant Manager, Becton Dickinson Singapore added, “The Index allows our manufacturing team to take stock of what we are doing well and where we can do better. This forms a good basis to build a shared Industry 4.0 vision and strategy, enabling us to take decisive action in initiating a multi-year transformation journey.”

Workshops on the Index

To help companies understand and use the Index, EDB and TÜV SÜD will be conducting a series of four workshops in the next few months. Companies can register to attend for free.

Details of the workshops and a downloadable copy of the Index can be found at <https://www.edb.gov.sg/content/edb/en/news-and-events/news/2017-news/advanced-manufacturing-release.html>

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