

## SINGAPORE INTERNATIONAL WATER WEEK, WATER CONVENTION 2022

17 April – 21 April 2022

### Hot Issues Workshop: Digital Transformation of the Water Sector and Role of Digital Twins

(Co-organized with SWAN Asia-Pacific Alliance) – TENTATIVE PROGRAMME

<b>Date:</b>	<b>17 April 2022 (Sunday)</b>
<b>Time:</b>	<b>10.00 – 17.00 GMT +8</b>

#### Synopsis:

The pace of digital transformation has been accelerated by the COVID-19 pandemic which drove the need for working remotely. While digitalisation has improved operations, maintenance and customer service, concerns and issues remain in the implementation of digital solutions in the water sector. In the first part of the workshop, utilities will share the needs and challenges of the water sector today as they embark on their digital transformation journey. A panel of utilities, consultants and solution providers will then discuss on the solutions to overcome some of the challenges and what to expect in the road ahead. The second part of the workshop will focus on digital twins and their applications in different parts of the urban water cycle, from water treatment, distribution, used water collection, treatment, recycling and receiving waters. The workshop will end with a panel discussion on challenges and benefits of an integrated digital twin solution across the entire water loop.

#### Programme:

<b>10.00 – 10.10: Welcome and Introduction (10 min)</b>
<b>Welcome and introduction by the moderator for first part of the workshop</b> <ul style="list-style-type: none"> <li>Mr. Amir Cahn, Executive Director, SWAN, UK (<i>accepted</i>)</li> </ul>
<b>10.10 – 10.30: Presentations on Overview of Digital Transformation in the Water Sector (2 x 10 min, i.e. 20 min)</b>
<b>1. Overview of digital transformation in water collection, treatment, and distribution network</b> <ul style="list-style-type: none"> <li>Mr. Miguel Ángel Ayllón Mesa, Head of Drinking Water, Global Omnium, Spain (<i>accepted</i>)</li> </ul>
<b>2. Overview of digital transformation in used water collection, treatment, and reuse</b> <ul style="list-style-type: none"> <li>Mr. Thomas Kuczynski, VP of Information Technology, DC Water, US (<i>accepted-remote</i>)</li> </ul>
<b>10.30 – 11.00: Presentations on Challenges of Digital Transformation in the Water Sector (3 x 10 min, i.e. 30 min)</b>
<b>1. Human resistance to change</b> <ul style="list-style-type: none"> <li>Ms. Jennifer Rebeiro, CIO, Greater Western Water, Australia (<i>accepted</i>)</li> </ul>

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## 2. Solutions and systems in silos

- Mr. Min Zhong, Asset Information Management Lead, NEOM, Saudi Arabia (*accepted*)

## 3. Cybersecurity

- Ms. Barbara Wilson, Vice President of Technology Programs, Ampcus Inc., US (*accepted-remote*)

**11.00 – 11.30: Q & A (30 min)**

**11.30 – 12.00: Tea Break (30 min)**

**12.00 – 13.00: Panel Discussion on Solutions in the Digital Transformation of the Water Sector (60 min)**

**Moderator:** Mr. Amir Cahn, Executive Director, SWAN, UK (*accepted*)

### Panellists:

- Mr. Ridzuan Ismail, Director Water Supply Network, PUB, Singapore (*accepted*)
- Mr. Eric Skowron, Three Waters Network Strategy Executive, ProjectMax Ltd, NZ (*accepted-remote*)
- Ms. Gigi Karmous-Edwards, Founder & Co-chair of SWAN Digital Twin H2O Work Group, US (*accepted*)
- Mr. Jesper Kjelds, Chief Digital Information Officer, Aarhus Vand, Denmark (*accepted-remote*)
- Ms. Maree Lang, Managing Director, Greater Western Water, Australia (*accepted*)

**13.00 – 14.00: Lunch Break (60 min)**

**14.00 – 14.15: Welcome and Introduction (15 min)**

### Welcome and introduction by the moderator for second part of the workshop

- Mr. Andrew Shaw, Associate Vice President, Black & Veatch, US (*accepted*)

**14.15 – 15.00: Presentations on Digital Twins (3 x 15 min, i.e. 45 min)**

## 1. Overview of SWAN's digital twin architecture

- Ms. Gigi Karmous-Edwards, Founder & Co-chair of SWAN Digital Twin H2O Work Group, US (*accepted*)

## 2. Case study of digital twin in water collection, treatment, and distribution network

- Dr. Ting Lu, Business Practice Leader for Digital Solutions, Clean Water Services, US (*accepted-remote*)

## 3. Case study of digital twin in used water collection, treatment, and reuse

- Dr. Tao Guihe, Principal Specialist (Water Reclamation), PUB, Singapore (*accepted*)

**15.00 – 15.30: Q & A (30 min)**

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**15.30 – 16.00: Tea Break (30 min)**

**16.00 – 17.00: Panel Discussion on One Twin to Rule Them All? (60 min)**

- **Moderator:** Mr. Albert Cho, Senior Vice President, Xylem, US (*accepted*)

**Panellists:**

- Mr. Melvin Koh, Director Joint Operations, PUB, Singapore (*accepted*)
- Ms. Agnethe Pedersen, Industrial PhD student, VCS Denmark (*accepted*)
- Mr. Iznul Muazim, Project Manager, SWAN Asia-Pacific, Malaysia (*accepted*)
- Mr. Andy Smith, Smart Water Strategy Manager, Anglian Water Services, UK (*accepted-remote*)
- Mr. Chengzi Chew, Business Development Manager, DHI, Denmark (*accepted*)

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