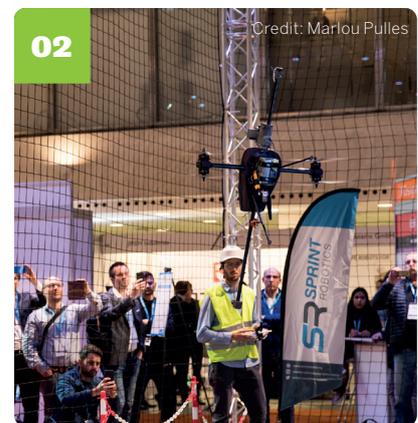


# ACCELERATING DEPLOYMENT OF ROBOTICS FOR INSPECTION AND MAINTENANCE

The SPRINT Robotics Collaborative focusses on the value that robotics can deliver to end-user organisations at the forthcoming world conference



> **ROBOTICS FOR** inspection and maintenance (I&M) is becoming increasingly embedded in the overall strategies of companies managing and maintaining capital-intensive assets. Environmental advantages and safety performance are drivers for the increased use of robotics, as well as benefits such as operational efficiency and cost reduction associated with maintenance and unplanned shutdowns. In addition, robots offer significant opportunities to increase the safety of performing inspection, maintenance and cleaning activities, preventing human entry of vessels and other equipment.

The field of robotics for I&M has seen a massive transformation in a short span of time. From a small niche with few viable robotic technologies and solutions, to a dynamic industry with a large ecosystem of companies, asset operators are embracing robotics as a mainstream solution.

## THE SPRINT ROBOTICS COLLABORATIVE

The SPRINT Robotics Collaborative is leading the way in the effort to promote the field use of I&M robotics

of capital-intensive infrastructure on a large scale. Launched in 2015 by several large asset owners from the energy industry, SPRINT Robotics has become an internationally recognised platform for I&M Robotics with a support base of over 100 companies and organisations globally. The member companies of the collaborative consist of Participants (asset owners and operators) and Associate Participants (service providers, technology providers, manufacturers and research institutes), with currently three regional chapters around the world: Asia-Pacific, Europe, and North America.

Engaging the whole value chain, from end users to service and technology providers, SPRINT Robotics strongly focusses on the value that robotics for I&M can deliver to end-user organisations, i.e. the operators and owners of capital-intensive infrastructure. Robots are a means to an end and not a goal in themselves.

'A unique aspect of SPRINT Robotics is that we start from the asset operator perspective. Robotic developers and suppliers come to us exactly for that reason, we connect real world problems to potential robotic solutions,' says Dr Tjibbe Bouma, chairman of SPRINT Robotics.

## WORLD CONFERENCE FOR INSPECTION & MAINTENANCE ROBOTICS 2022

SPRINT Robotics organises a wide variety of events throughout each year: from seminars and regional roadshows to the annual World Conference for Inspection & Maintenance Robotics which has grown to become the world's leading global event for robotics for inspection, maintenance and cleaning.

The 2022 edition of the SPRINT Robotics World Conference for Inspection & Maintenance Robotics will be held in Singapore on 29-30 March, marking the first time the event will be held in Asia. The two-day conference and exhibition will also be fully accessible virtually to I&M professionals from around the globe.

George C Williamson, chairman of the conference programme committee, commented: 'As we all thankfully experience the continued opening of business travel and opportunities to attend collaborative events, we are proud to announce the 2022 edition of the SPRINT Robotics World Conference for Inspection & Maintenance Robotics in Singapore. This industry-specific event gathers stakeholders from around the

globe to share the innovative progress and rapid development of robotics for inspection and maintenance.

Some of the most exciting recent developments are robotics solutions for storage tanks. Innovative new technologies for the internal in-service inspection of hazardous fluid tanks and a showcase of global service providers will be a part of the conference in Singapore.

The two-day conference programme covers a broad scope of inspection- and maintenance-related industries, aiming to create synergies between different sectors. Attendees have the opportunity to hear insights from more than 50 international speakers: innovators and trailblazers that are taking on challenges faced in inspection and maintenance operations and who are reshaping the world of asset integrity.

As clean energy is gathering speed and industries are rapidly shifting their focus to new markets, the impact of the energy transition and the role I&M robotics can play will unquestionably be one facet of the conference programme. Another aspect highlighted will be the vulnerabilities the COVID-19 pandemic has revealed in supply chains, demonstrating that the reliance on human presence in facilities is a risk to continuity. These new insights have provided a whole new dimension to the importance of automated solutions, remote operations and robotics. Allowing robotics for I&M to execute these tasks offers a significant opportunity in solving these challenges.

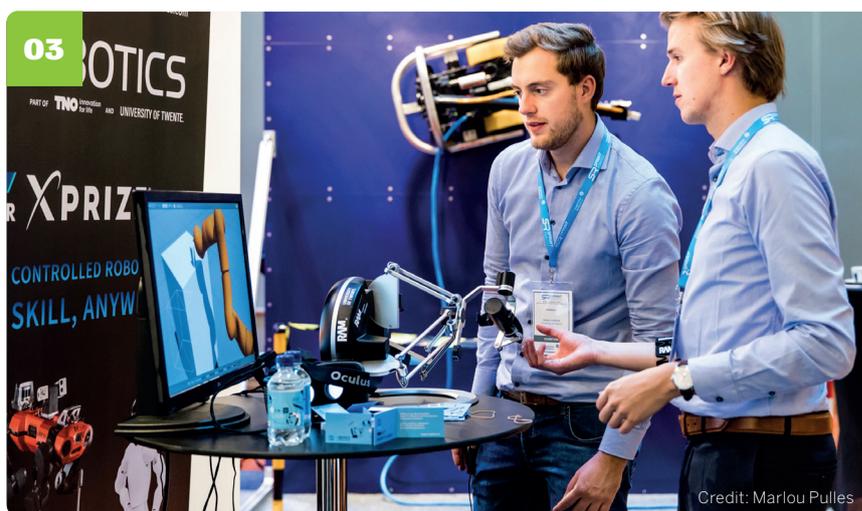
Presentations during the conference will also focus on specific segments such as scaling, remote operations and cleaning and fabric maintenance, and highlight a wide range of innovative robotics applications including cleaning and inspection of pressure vessels, process piping and storage tanks.

### ACTION GROUPS

Within SPRINT Robotics are four action groups (storage tanks, pressure vessels, process piping and remoter operators): four areas that have the highest priority for improvement within the I&M domain, as reflected in the SPRINT Robotics Strategic Roadmap.

As part of the conference, each of these asset groups is designated a presentation track. In looking forward to Singapore, Nader Sharara, leader of the Action Group Storage Tanks and Steven Trevino, programme manager of the Action Group Storage Tanks share insights and focus points of the Group.

'In recent years robotics has enabled operators to redefine their integrity strategy for aboveground storage



tanks, by way of in-service tank bottom scanners that operate in hazardous product. We are now seeing a number of certified safe systems being commercialised and it is our responsibility to lead the industry in understanding their performance in real-world conditions, so that we may leverage them to their full potential. As we kickoff version two of the *Guidelines for the Application of Robotics for In-service Inspection of Aboveground Storage Tanks*, we will evaluate similar robotic platforms that may be applied to other tank components such as the shell, roof, chime, and nozzles/appurtenances, driving quality and repeatability while acquiring more data than ever before. Building confidence in the decisions we make first begins with being able to confidently deploy these systems and that takes a collaborative effort to assess their performance in the lab, in the field, and ultimately every site around the globe,' says Sharara.

Trevino adds: 'We are very fortunate to live in a time where technology can intersect directly with our wildest dreams. For so many years we have envisioned the deployment of sensors in these applications, but the limiting factor has always been the hardware and the associated electrical certification schemes these devices must meet to safely operate in explosive environments. Addressing the most difficult electrical certifications in the world, we now have many robotic systems capable of deployment today. It is exciting to think about their scalability, but to enable that, we must work together to understand the value these solutions bring in terms of safety, efficiency, and ultimately revenue. Assisting the industry in a collaborative way, with so many subject matter experts involved, we can have significantly accelerated knowledge generation and understanding of these systems for tangible real-world results that are built on industry best practices.'

### EXHIBITION

The SPRINT Robotics World Conference also includes an exhibition, offering an opportunity to view some of the latest market-ready robotic and digital solutions and engage with professionals in I&M robotics. For the 2022 edition, the exhibition will be in-person in Singapore as well as supporting an unlimited number of service and technology providers online.

With 400+ delegates, 50+ international speakers, an evening banquet, panel sessions and a broad scope of industries, the SPRINT Robotics World Conference for Inspection & Maintenance Robotics is the best place to share knowledge, learn about existing end user cases, network with industry experts and gain new perspectives into the global status of robotics for I&M.

### For more information:

[www.sprintrobotics.org](http://www.sprintrobotics.org)

[conference.sprintrobotics.org](http://conference.sprintrobotics.org)

SPRINT Robotics Strategic Roadmap – <https://shop.sprintrobotics.org/collections/sprint-robotics-guidelines-and-documents/products/sprint-robotics-strategic-roadmap>

*Guidelines for the Application of Robotics for In-service Inspection of Aboveground Storage Tanks* – <https://shop.sprintrobotics.org/collections/sprint-robotics-guidelines-and-documents/products/ast-guidelines>

- 01 The expo floor at the World Conference for Inspection & Maintenance Robotics 2019 in Rotterdam
- 02 The technology demo cage at the World Conference for Inspection & Maintenance Robotics 2019 in Rotterdam
- 03 The expo floor at the World Conference for Inspection & Maintenance Robotics 2019 in Rotterdam