

Information on the first seven NIC challenge statements

S/N	Problem Owners	Theme	Challenge Statement	Agency-In-Charge
1	<p>TAC-lead: Container Depot & Logistics Association of Singapore,</p> <p>Corporates: 12 local and overseas partners across the aviation, maritime, land mobility, logistics, and trade sectors –</p> <ol style="list-style-type: none"> 1. Continental Automotive Singapore 2. Tristar Group 3. Global eTrade Services 4. Lumens Auto 5. Nursultan Nazarbayev Foundation 6. Pacific International Lines 7. SATs Ltd 8. Singapore Post 	<p>Emerging Stronger: Trade and Connectivity</p> <p>The Trade and Connectivity Challenge 2020 (TCC 2020) is in its second year running, with 28 problem statements this year.</p>	<p>i) CDAS' Automated Inspection of Shipping Containers at Container Depots:</p> <p>Develop an autonomous or remote inspection solution that can effectively detect, assess and classify defects on containers and tag findings to respective containers. The solution should improve container depots¹ handling capacity. This will increase the sector's productivity and reduce reliance on manual labour. Remote inspection capability will also make the sector more attractive to locals.</p> <p>ii) SATS' Tagging solution for Airfreight Shipments – Industry Use of Air Waybill (AWB) Label/Tags to Replace Normal Printed AWB Label:</p> <p>Develop a cost-effective common tagging solution for the Singapore airfreight industry to track and trace air cargo and provide visibility at each stage of the handling process (e.g. warehouse handling, arrival, uplift onto aircraft).</p> <p>iii) YCH's Management and Dynamic Allocation of Resources in a Post-COVID-19 Work Setting:</p> <p>Develop a cost-effective and user-friendly AI/ML-enabled resource management and planning solution which enables measurement and optimisation of productivity with regard to manpower and equipment utilisation. This solution should cater to post-COVID 19 work settings, where operations has to factor in Business Continuity Planning (BCP) requirements, social distancing and workforce segregation.</p>	ESG

¹ There are 11 operators in Singapore with about 20 depot yards.

	<p>9. Sumitomo Corporation Asia and Oceania</p> <p>10. Tech-Link Storage Engineering</p> <p>11. Teckwah Value Chain</p> <p>12. YCH Group</p>			
2	<p>Sector-lead: BCA</p> <p>Co-owner: Kajima Group</p>	<p>Safe-Reopening and Emerging Stronger for the Construction Industry</p>	<p>Given the current challenge brought about by COVID-19 for the construction industry, there is a need for a digital solution that would allow an integrated management of both worksite and workforce to ensure a Covid-safe work environment. This will help the construction industry resume work with confidence, as well as mitigate both manpower and supply chain risks in order to secure business continuity.</p> <p>The integrated management of workforce and worksite will enable greater work continuity on worksites albeit unexpected disruptions. This will provide an immediate boost to the site productivity level whilst supporting the long-term growth of the business.</p> <p>The system will also be scalable to other adjacent sectors e.g. manufacturing, that require scheduling of resources (e.g. manpower, machinery, raw materials), improving overall operating efficiency for best-fit work result. The solution will have the potential to scale regionally.</p>	IMDA
3	<p>Sector-lead: NHB</p> <p>Co-owner: Kampong Glam Precinct</p>	<p>Safe-Reopening of Tourism, Heritage and Cultural Experience</p>	<p>Create a novel tourism experience using 5G-enabled virtual AR/VR platform that accentuates online consumption of cultural and heritage experiences.</p> <p>The envisaged digital augmented virtual reality platform is a scalable platform that can create a compelling and interactive experience for cultural and tourism sites, to renew engagement and build resilience to the industry, currently flat-lined. When solved, it will immediately increase tourism spent through the in-platform commercial capabilities (e.g. payment, delivery) for virtual visitors, and in the medium-long term, it will complement physical visits, enabling online-offline engagement, providing more visitor content options. Through 5G network (when ready), it can provide even more collective and immersive experience.</p>	IMDA

			The virtual platform has the potential for other use cases, for example, for F&B or retail industries, where such platform can help generate spending via virtual shopping experience.	
4	TAC-lead: Singapore Association of Convention, Exhibition Organisers and Suppliers (SACEOS) Co-owner: Informa, GlobalSign.in	Safe-Reopening of Tradeshows, Conventions and Conferences	<p>Develop an integrated platform with safety measures put in place to re-attract visitors for tradeshows, conventions and conferences.</p> <p>COVID-19 has changed the way MICE events are organised. The solution is forward planned to cater for such change, providing confidence and bring back the MICE visitors and exhibitors in a safer environment. The solution will provide a robust and secured platform for real-time density detection and integrated communications to alert hot-spots during the event. Post-event, event organisers are able to use the submitted data to continue engage the visitors with relevant information, until the next event.</p> <p>The solution is to be designed with a centralised control platform with the ability to integrate with various existing 3rd party applications (eg. 3rd party event management system, SafeEntry, TraceTogether, Chatbot, epayment etc).</p> <p>The solution has potential to be exported to regional event organisers, as currently, many conference organisers are using disparate standalone apps.</p>	IMDA
5	Sector Lead: PSA Corporate	Safe-Reopening of workplace - Ports	<p>Develop an integrated track and trace system of port workers on-site for effective risk control, mitigation and intervention, without increasing manpower resources.</p> <p>Currently, standard safety measures are put in place in ports. However, the interaction of ports workers is high, and there is no ready solution that can track the movement, especially for workers who work or stay on vessel, or take unofficial breaks (e.g. smoke break). The solution will allow risk profiling of incoming vessels as well as remote monitoring of workers to determine location and safety. The solution will be designed with interoperability and reusability in mind, so that the solver is able to contextualise and customise it for adjacent sectors (e.g. early childhood safety management).</p>	IMDA