

# DSO has come long way in 50 years of tapping technology to help defend S'pore



Prime Minister Lee Hsien Loong at DSO's 50th anniversary dinner in Shangri-La Hotel on Oct 14, 2022. ST PHOTO: ARIFFIN JAMAR



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SINGAPORE - When Singapore's pioneer leaders like Dr Goh Keng Swee built up the Singapore Armed Forces (SAF), they knew that as a small island state, the country had to make full use of technology to overcome its manpower limitations.

However, as critical technologies were sometimes not available to the Republic, he decided to set up the Electronics Test Centre or ETC in 1972.

ETC, now known as DSO National Laboratories, was named after the initials of the first three pioneers of the outfit - Mr Er Kwong Wah, Mr Toh Kim Huat and Mr Benny Chan - said Prime Minister Lee Hsien Loong at its 50th anniversary dinner in Shangri-La Hotel on Friday.

PM Lee added that while many defence technologies were available commercially, Singapore preferred not to buy "so as to keep our secrets secret".

"The moment SAF revealed what it had, potential adversaries would start searching for ways to defeat it, and we would lose the important element of surprise," he said, adding that this made it important for the country to develop its own secret-edge technologies.

Today, DSO has come a long way whether in more established areas like electronic warfare, guided weapons and cryptography, or in newer domains such as chem-bio-defence and satellite technology, he added.

Its bio-defence capability, including being able to develop diagnostic kits to identify different types of pathogens, proved to be invaluable during the Covid-19 pandemic. It quickly developed [Singapore's own polymerase chain reaction test kits](#), which helped to identify and isolate positive cases.

Today, DSO's mission - to develop and deliver secret-edge technologies to SAF, to help safeguard Singapore's security and sovereignty - remains unchanged, and has become more relevant than ever, said PM Lee.

This comes as warfare is becoming more tech-intensive and armed forces are increasingly relying on cutting-edge technologies such as robotics and artificial intelligence.

In the current troubled strategic landscape, countries are restricting exports of sensitive technologies. This will affect Singapore's access to components and advanced products.

At the same time, the cyber domain has become a new battle arena. [Cyber-security threats are growing in scale and sophistication](#), as societies become more connected and more dependent on digital technologies, he said.

"To stay in the game, SAF needs to maintain its technological edge, and integrate cutting-edge technologies into its formations and operations, for better sense-making, command and control, and strike," he added.

SAF and its officers have become more knowledgeable and discerning users of technology, PM Lee said.



Prime Minister Lee Hsien Loong touring the exhibition at the DSO Golden Jubilee Dinner at Shangri-La Hotel. ST PHOTO: ARIFFIN JAMAR

The creation of the fourth service of SAF - the [Digital and Intelligence Service](#) - reflects and continues this long process of maturation, and SAF's growing mastery of modern information and technological warfare.

PM Lee urged DSO to continuously innovate and adapt to stay relevant. He also talked about its most important asset - its people. Today, it is 2,000-strong, with more than 1,600 research scientists and engineers.

He noted how one engineer, Mr Vincent Cai, spent 12 months away from his family, including two months in quarantine. He was working on the NeuSAR satellite technology project, which involved a lot of overseas testing activities even at the height of the pandemic.

With the intensifying competition for science and technology talent, DSO must be able to interest, inspire and induct a continuing flow of high-quality people, PM Lee said.

"Much of what you do will be highly classified, and kept out of the public eye. But if you have done something outstanding at DSO, we will make sure that you know it, and that your achievement is properly recognised, secretly if necessary," he added, as he encouraged budding scientists and engineers to consider DSO as a career choice.

In conjunction with its golden jubilee, DSO held an exhibition which displayed archived documents, artefacts and photos at the hotel.

DSO also launched its DSO50 commemorative website "[The Relentless Pursuit](#)" on its 50-year journey in defence science and technology.

Chief executive Cheong Chee Hoo said in his address that DSO's mission remains as it was when it started 50 years ago - to develop technologies and solutions that provide a cutting edge to the defence of Singapore.

"We are extending our capabilities to support related needs in other national security agencies and whole-of-government crisis preparedness and management efforts," he added.

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