



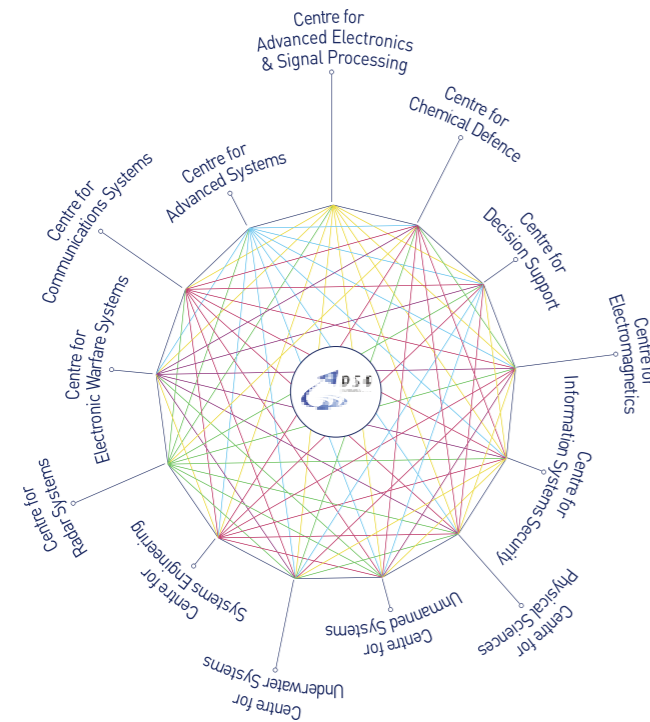
BACK TO THE FUTURE

QUEK TONG BOON, CEO, DSO

It has indeed been an exciting 30-year journey for DSO. Our cloistered beginnings and MINDEF's unwavering support, provided shelter and nurture for Dr Goh Keng Swee's visionary seedlings to take root.

The secrecy and seclusion that characterised DSO in its early years came with some cost. Advancement in scientific research thrives when there is sharing of knowledge. The strict codes of compartmentalisation in DSO at that time inhibited this process. Recruitment was problematic, as few even knew of the existence of DSO. Lack of interaction between DSO and the SAF created a gap between the technology developers and end-users; this was the *gulf* that RAdm (NS) Teo Chee Hean referred to.

Over the years, certain fundamentals in DSO have remained unchanged. We continue to focus on core capabilities such as electronic warfare and sensors as we did in the '70s and early '80s. In these areas, we can do today what we could only dream of, even as recently as ten years ago. Where possible, our users



The DSO R&D Strike Force – Inter-disciplinary, Innovative and Energetic.

have pitted our proposals against global benchmarks and “best of breed” market options, to ensure that DSO is offering the best and most appropriate solution to the SAF.

Our capabilities have since expanded in breadth, depth and bandwidth. In breadth and depth, our R&D capabilities have expanded to include areas such as cyberspace security, C3 (command, control and communications), underwater technologies and chemical-biological defence. In bandwidth, projects that we undertake are increasingly more complex and multi-disciplinary.

Today, our expertise resides in 13 centres of excellence, working collaboratively with each other. They constitute our R&D strike force. What makes DSO unique in the Singapore research community today is our ability to deliver integrated and inter-disciplinary solutions.

However the reader would have noticed that since day one, our key asset is people. When we talk about capabilities, we are really talking about our *people*. Therefore, the story of DSO is really about how we have built up our people and how we have co-evolved with MINDEF and the SAF as part of the defence ecosystem in Singapore.

Over the years, what has changed is the way we manage our people, our process, our customer relationship and our organisational culture. We are now a more open, mature and confident organisation.

Our corporatisation in April 1997 has prompted us to be even more customer-focused. We have in fact, incorporated it as one of our core values and spun a web of linkages at various levels with key users of our expertise in the SAF, MINDEF, DSTA and other national security agencies. Applied R&D is about working with our users to understand their problems, and create knowledge or solutions where none exist before. For our outputs to be operationally useful, thinkers, tinkerers and end-users must connect, communicate and collaborate.

In reality therefore, our users are our partners rather than our customers. Our researchers are now operationally more aware and our partners technologically more savvy. The *gulf* that existed between DSO and

the SAF has not only been bridged but has evolved into a symbiotic relationship.

“**With greater capabilities, your contributions went beyond being a mere provider of technological solutions. DSO has directly influenced SAF tactics and doctrines... Unfortunately, many of DSO’s contributions cannot be discussed openly... The few stories that I have just mentioned only give a glimpse of the substantial operational payoffs provided by DSO to the SAF over the years. Let me therefore take this opportunity to acknowledge your consistent and invaluable support to the SAF and for all the secret edge capabilities that ironically, we all hope the SAF don’t have to use.”**

LG Lim Chuan Poh, Chief of Defence Force
Keynote Address delivered at DSO Workplan Seminar
9th May 2002

Over the last few years, we have also strengthened our collaborative linkages with various R&D establishments – both locally and internationally – to enable us to benchmark our research efforts and conduct complementary research. Our researchers take pride in being able to spar intellectually with world-class R&D partners and researchers.

The spectrum of our activities today spans from providing impartial technical advice to creating technological wonders that Tom Clancy would be proud to use in his novels. As advisors, we help our

partners to differentiate reality from fiction. As creators, we strive to transform fiction into reality. We have shown that once we set our mind on something and focus our attention on it, no endeavour is too complex or high-tech, transcending Singapore’s resource limitations. This is the tremendous confidence that comes from learning by doing. Through our *can do* and *gung ho* spirit, we have shown that Singapore can excel in knowledge creation.

One has to see to believe how passionate and committed our people can be. In one of our laboratories, researchers sport T-shirts with the slogan “I don’t work here. I am just doing my hobby.” Another of our top researcher was asked if he would leave DSO for another company. He replied, “No, not even if I am offered three times my salary because I can never get the same type of challenges elsewhere.”

Therein lies our key challenges – people, environment and work challenges. DSO aims to be the magnet for quality people who are passionate about working at the frontiers of science and technology. Like our founding father, Dr Goh Keng Swee, we want our engineers and scientists to have the curiosity of a child, always asking “why?”, “why not?” and “what if?” They must be fired up and the adrenaline must rush when they encounter challenging real-life problems. Such challenges provide them the opportunities to grow and glow.

The mission of DSO is a serious one. It is a mission for Singapore by Singaporeans. But that does not mean that we should be staffed with boffins in white laboratory coats or nerds at ease only with computers. We believe in making DSO a place where staff can have fun doing serious work.

The tragic events of 11 September 2001 and the subsequent shocking discovery of the Jemaah Islamiyah group in Singapore, have brought home the gravity and reality of the threats of global terrorism. The events have brought fundamental changes in perception about local and global security. It has brought greater urgency to efforts DSO initiated a few years ago to explore how expertise we have built up for defence, can also be applied to other facets of our national security to counter asymmetric threats.