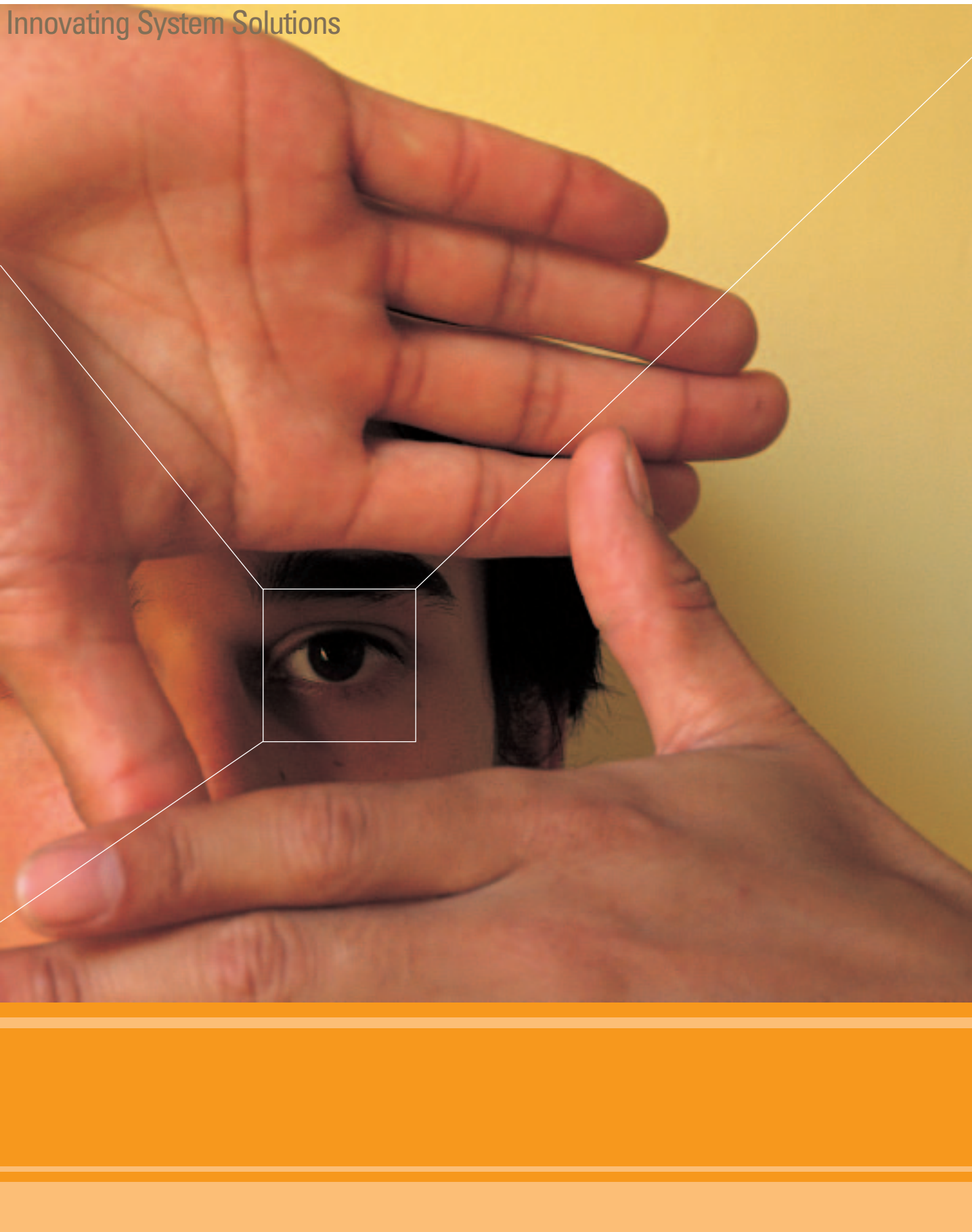


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Innovating System Solutions



## **Vision**

To be a Global World-class System House in Electronic Technologies

## **Mission**

To deliver innovative electronic solutions that exceed customer expectations and constantly create value for our stakeholders

## Our Company

Singapore Technologies Electronics Limited (ST Elect) is one of the largest electronics system houses in the region, specialising in the design, implementation and delivery of innovative electronics system solutions for commercial, industrial, defence and public services applications worldwide.

Established in 1969, ST Elect's presence can be found in Australia, China, Hong Kong, Korea, Malaysia, Mexico, Taiwan and the United States, paving our way to becoming a leading provider of advanced electronics systems and solutions. We have achieved a firm global presence covering mainly the Asia Pacific region and marketing to more than 50 countries worldwide. Over half of our 2,800 staff are engineers and professional personnel, offering a level of service unmatched by most.

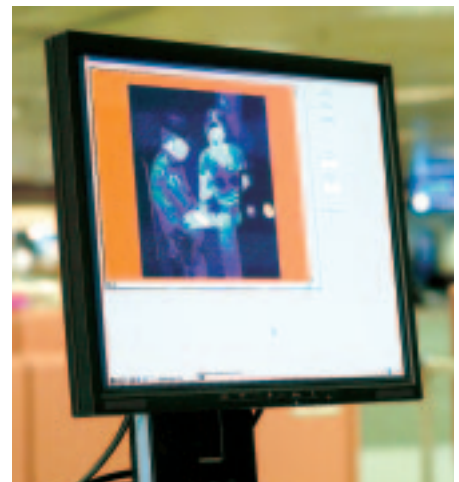
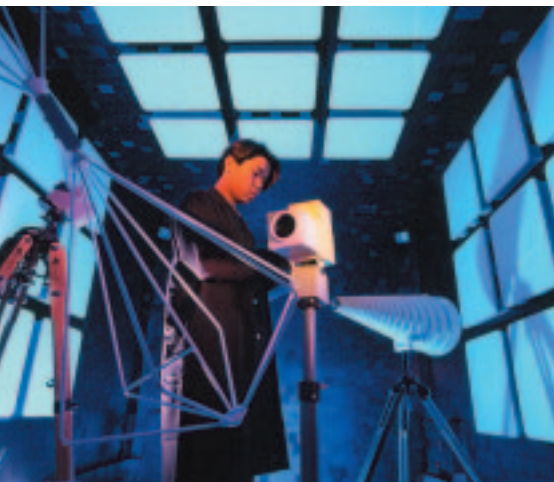
ST Elect is a wholly-owned subsidiary of Singapore Technologies Engineering Limited (ST Engg), one of the largest public-listed companies on the Singapore Stock Exchange. Supported by a staff strength of about 11,500, ST Engg is a reputable global engineering group providing integrated solutions for aerospace, electronics, land systems and marine industries.

### TECHNOLOGY & RESEARCH AND DEVELOPMENT

The zealous pursuit and application of leading-edge technologies in all our solutions is one of ST Elect's pivotal advantages. Our progressive design methodologies and applications are consistently upgraded and improved to meet the ever-increasing stringent requirements of customised electronics systems and solutions.

Our R&D efforts have resulted in the development of the IFss (Infrared Fever Screening System) in April 2003 together with the Defence Science and Technology Agency and Chartered-Electro Optics. This new system was developed in response to the urgent need for accurate and speedy fever screening due to the outbreak of SARS (Severe Acute Respiratory Syndrome). The IFss was deployed at the Singapore Changi Airport, making Singapore the first country to deploy such a system for safe and unobtrusive mass screening.

Research and development is key to our acquisition of technologies spurring the creation of cost-effective proprietary products at both system and component levels. The result is innovative and quality solutions for our customers.



## Our Philosophy

Our commitment to our customers is absolute and it is this spirit that drives us to attain even higher standards each time, in a highly competitive arena.

We strive to understand the unique and individual needs of each customer in order to deliver exceptional results, seamlessly customised to serve and support their respective business needs.

ST Elect's ultimate goal is to be an active participant in the enhancement of our community's well-being – to be a responsible corporate citizen, protecting and improving the environment we live in, while pursuing our business objectives.

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**Connecting  
the world**



# ST Elect Business Solutions

ST Elect's expertise and innovative systems solutions are delivered through its three business groups:

- Communication and Sensor Systems Group
- Software Systems Group
- Large-Scale Systems Group

ST Elect's key subsidiaries which provide the expertise behind its core capabilities are:

- Agilis Communication Technologies Pte Ltd
- CET Technologies Pte Ltd
- SES Systems Pte Ltd
- ST Training & Simulation Pte Ltd

## COMMUNICATION AND SENSOR SYSTEMS

At ST Elect, our complex communication, sensor and real-time software systems are developed with painstaking care and attention.

Because lives, public services and the economy are at stake, our solutions are uncompromising in safety and reliability, while maintaining cost-effectiveness and efficiency.

### Communication Systems

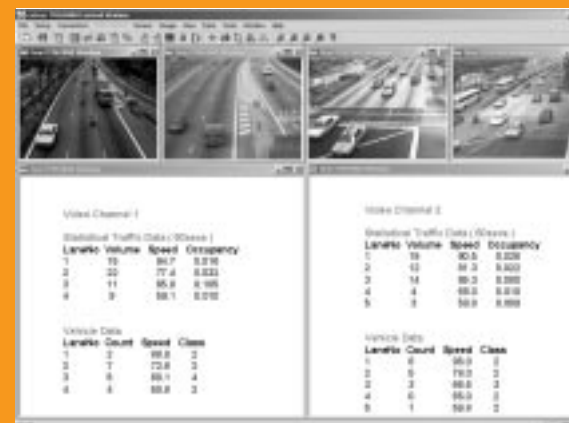
ST Elect's comprehensive range of innovative communication systems and products are specifically designed to meet the most demanding applications, and to deliver integrated info-communication solutions for the international market.

Whether they are for use in the commercial, enterprise, industrial or mission-critical, rugged military and paramilitary environment, our integrated communications solutions, including switching systems, network systems and unified messaging systems, multichannel multipoint distribution systems, have

been well-accepted and trusted by our customers.

Where total asset visibility and security are not to be compromised, ST Elect's new Mobile Track & Trace initiative offers an end-to-end, seamless and scalable solution through our attested products and systems solutions such as Radio Frequency Identification and Fleet Management Systems.

We provide technical consultancy in the area of communications covering both breadth and depth of knowledge, from EMC/EMI analysis to wireless network design and implementation and information security solutions and products.



### ***Microwave Systems***

ST Elect's in-house design, development and manufacturing capabilities make possible a broad selection of leading-edge microwave products and communication systems to meet both the commercial and defence industry needs.

This includes a wide array of Very Small Aperture Terminal (VSAT) products and systems for satellite communications, as well as digital microwave radio for point-to-point terrestrial communications, microwave sensors for sensing and real-time surveillance applications in

security, industrial, intelligent traffic management, intelligent building and homeland security markets.

### ***Intelligent Traffic and Fleet Management Systems***

ST Elect's Intelligent Traffic Management Systems are designed to improve efficiency and safety conditions on the roads. Our patented vision-based traffic management system employs advanced image processing and artificial intelligence techniques to monitor traffic conditions and automatically detects incidents on the roads. Real-time statistical traffic data obtained from

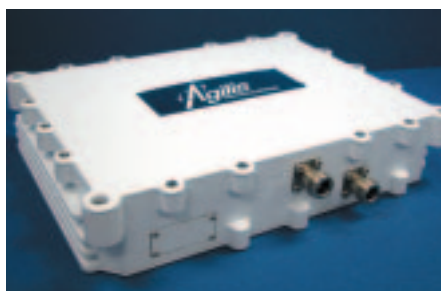
this system can then be used for traffic management and road planning purposes.

ST Elect is a world-class supplier of GPS-based fleet management system. Our Advanced Fleet Management System has helped local and regional commercial fleet owners and owners of public safety vehicles gain notable success in areas such as automatic tracking and despatching of vehicles, enhanced security and customer servicing, as well as greater efficiency and cost-savings.

### ***Mobile-Commerce***

ST Elect has seized the opportunity to invest in the anticipated growth area of mobile-commerce. Leveraging on our capabilities in mobile communication systems and software design, we provide mobile-

**Because lives, public services and the economy are at stake, our solutions are uncompromising in safety and reliability, while maintaining cost-effectiveness and efficiency.**



commerce solutions that allow users to communicate data and effect transactions easily through various applications on mobile appliances such as cellular phones and GPRS devices. This allows for remote working and mobile payments for purchases.

### ***Electro-Optic Systems***

In both defence and commercial applications, electro-optics (EO) devices form a crucial part of reconnaissance, detection and security systems. ST Elect's related company, Chartered Electro Optics, is a leading EO company in the local market and is actively expanding into the regional markets. Over the last 15 years, it has developed and produced more than 1,000 EO systems and devices.

We offer a full spectrum of design and engineering expertise in electro-

optics namely optics, electronics, mechanical as well as system engineering. We are able to offer services from design conceptualisation, prototyping to full production, testing and integration of sensor systems.

The company can provide complete sensor systems as prime contractors for "turnkey" solutions or as sub-contractors in complex multi-technology programmes. With our expertise and excellent facilities, we also provide intermediate and depot level maintenance of EO systems.

The company has established capabilities in core sensor technologies such as mid-wave and long-wave infrared thermal imaging, image intensifier night vision imaging, laser range finding and designation. Our customers include

the military, para-military, security services, search and rescue as well as fire-fighting services. In the commercial sector, we are developing innovative applications in industrial, medical and transport businesses.





## SOFTWARE SYSTEMS

The irony of working for defence and emergency sectors is that experience provides the best form of practice. As such life-threatening scenarios are not easily replicated, ST Elect's Software Systems Group offers the much-needed support in terms of real-time support systems and defence simulators, so that civil and defence personnel may best respond to emergency situations by "experiencing" such scenarios without the actual dangers and high cost of resources.

### ***Real-Time Systems***

In Command, Control and Intelligence (C2I) solutions, ST Elect focuses on providing quality real-time decision support, mission-critical solutions and services for defence, homeland security and enterprises globally. Our customers include civil and defence decision-makers all over the world.

ST Elect has established a reputation for being the leader in the Defence C2I arena, recognised as the

Command and Control solution partner of the Singapore Armed Forces. We have sharpened our edge in building high quality command centres, ruggedised systems, mission planning systems and constructive simulation hubs.

On the Homeland Security front, our expertise spans the broad spectrum of public safety systems, emergency management solutions, resource tracking applications and computer-aided despatch applications to government agencies in managing the challenging emergency situations today. Apart from these intricate systems, we also offer state-of-the-art biometrics identification systems, sophisticated intelligence information systems, BCR (Biological, Chemical and Radiological) monitoring solutions and data security solutions to equip organisations with the latest systems critical in these uncertain times.

For commercial enterprises, ST Elect offers a comprehensive range of products, covering aviation systems, financial solutions, including

brokering, e-payment and e-banking solutions, as well as security applications, Linux solutioning, and mobile computing applications.

ST Elect is able to offer speedy and customised systems solutions based on our in-house developed CAP (Common Application Platform) – a re-usable and iterative implementation architecture on which some of our company's systems operate. The systems range from air-traffic control to mobile vehicle management systems, from naval shipboard combat command to container port traffic management systems.

Our activities span the broad spectrum of consultancy, design, development, systems integration, commissioning and life-cycle support of operational systems.



**Providing security  
and peace of mind**



### **Training & Simulation Systems**

As the premier training and simulation systems developer in the Asia Pacific, ST Elect provides one-stop complete life-cycle solutions; from the design and development of new innovative training systems to the maintenance and upgrade of legacy training systems.

Our extensive expertise in crucial training methodologies, subject matter and underlying simulation and training technologies allow us to develop innovative and value-added training and simulation systems. These solutions effectively reduce learning time, improve training efficiency and effectiveness, and enhance safety while enabling users to save on training costs.

Our world-class products and solutions utilise our very own groundbreaking technologies such as intelligent Computer Generated Forces, high-resolution and high fidelity display systems, real-time simulation kernels, high-fidelity model repositories, inter-operability sub-kernel based on the High Level Architecture (HLA) standard,

real-time computing & networking, real-time data-link communications, and cutting-edge visual simulation solutions. Our solutions cover the three classes of simulators, namely Live, Virtual, and Constructive Simulators, as well as their integration. Simulators have come to play an essential role in the

Procedural Trainers, Mission Trainers, Operational Trainers, Combat Information Centre Trainers, Gunnery and Tactical Simulators, and Simulators for Train, Bus and Crane drivers. We have delivered instrumented solutions for rangeless training for combat aircraft and naval vessels. In addition, we have

**ST Elect provides one-stop complete life-cycle solutions; from the design and development of new innovative training systems to the maintenance and upgrade of legacy training systems.**

defence and commercial sectors, and are critical to the successful development and deployment of staff and resources. Our systems help train personnel, in a wide scope of activities, whether as individuals, teams or as an aggregate whole, such as handling equipment, coping with emergency situations, as well as working under different environmental and situational conditions. Examples of such solutions include

recently unveiled training systems to train personnel involved in the Homeland Security arena.

ST Elect is actively involved in virtual reality applications through immersive 3-D visualisation and 3-D virtual walk-through services for a diversified customer base. We also meet the e-learning needs of corporate users with end-to-end solutions.





## **LARGE-SCALE SYSTEMS**

With the onslaught of modern technology comes a whole new world of possibilities. Intelligent “life” can be developed in buildings and systems for the purpose of creating a more comfortable and convenient lifestyle for human beings. Whether it is systems integration for civil or defence use, ST Elect employs technology to the fullest to generate a seamless experience for people using our systems.

### ***Defence Electronics***

ST Elect provides quality service in combat systems engineering, including the design of integrated electronics systems for naval and land applications. We are a centre of excellence for instrument calibration, automatic test equipment, ruggedisation of Commercial-off-the-Shelf (COTS) equipment and consoles, as well as a one-stop centre for related total life-cycle maintenance and after-sales support.

Our full range of maintenance services ranges from field services to system modifications and upgrades, fully supported by a pool of defence

engineers and technicians at a comprehensive in-house maintenance facility.

### ***Intelligent Building Management Systems***

ST Elect is the leading supplier of Intelligent Building Management Systems (IBMS) solutions that maximise building performance to meet the needs of modern residential and business complexes in this millennium.

By integrating computer, control and communication technologies, IBMS is designed to help building owners and property managers operate more efficiently and economically, while ensuring a conducive and safe environment for its occupants.

### ***Intelligent Transportation Systems***

In response to increased passenger throughput in airports, transit systems and expressways, ST Elect offers transportation management systems that combine safety, speed and cost-effectiveness.

Our Expressway Monitoring and Advisory System (EMAS) helps keep

Singapore’s expressways “free-flowing” even during peak hours. It provides motorists with updates on road and traffic conditions, and estimates travelling time on feeder roads that adjoin expressways.

Our expertise is also employed in the installation of Integrated Communications Systems for Mass Rapid Transit and Light Rail Transit systems in Philippines, Taiwan and Singapore, to ensure the smooth, efficient and safe operation of the trains. The Supervisory Control System and Signalling Systems delivered by ST Elect and our partners ensure that passengers enjoy safe and secure rides.



## Awards and Achievements

The ST Elect Group has, over the years, achieved a creditable list of awards – testimony to our innovative system solutions and customer-focused corporate culture.

As part of the Singapore Technologies Engineering Group, ST Elect was awarded the Singapore Quality Award in 2002 – the most prestigious award in Singapore for business excellence.

For our success at commercialising our Research and Development projects we received the National Technology Achievement Award in 2000, while our streamlined processes saw us achieving the National Productivity Award and ISO 9001:2000 Standard. In addition, ST Elect places a high degree of importance on R&D and actively files patents for its product ideas and solutions. The company had filed more than 25 patents and has been granted about 11 as at the end of 2002.

The ST Elect group has received various accolades for its commitment to high standards and providing the right solutions for its customers and partners:

– In recognition of our commitment to ensuring the welfare and

development of our staff, our subsidiaries Agilis Communication Technologies and CET Technologies were among one of the earliest companies to attain the People Developer Standard. These companies together with ST Training & Simulation, were also awarded the Singapore Quality Class for their high standards in quality management.

– For their efforts in improving and maintaining high safety, quality and environmental standards, ST Elect's Large-Scale Systems Group received the ISO 14001 (Environmental Management System), the OHSAS18001 (Occupational Health & Safety Management System) and the ISO 9001:2000 (Quality Management System) Awards.

– The Defence Technology Prize (DTP) Team Award was received for joint development of "Air Command and Control Hub" project by Defence Science & Technology Agency, Republic of Singapore Air Forces, DSO National Laboratories and SES Systems (formerly known as Singapore Engineering Software Pte Ltd) in 2002.

– ST Training & Simulation received the People Excellence Award in 2002 – the highest accolade given to organisations in Singapore in recognition of outstanding people development approach, contributing significantly to business excellence.

The quest for achievement and excellence in business, management and process improvements will continue for ST Elect and this will see the company adding to its list of achievements in the years to come.



Cert No.: 92-1-0004  
SS ISO 9001 : 2000



Cert No.: 2002-0167  
SS ISO 14001 : 1996



Cert No.: OHS 2002-0029  
OHSAS 18001 : 1999



