

## **SPEECH BY MR LEE HSIEN LOONG, PRIME MINISTER, AT THE OPENING OF FUSIONOPOLIS, 17 OCTOBER 2008, 6:10 PM AT FUSIONOPOLIS**

It gives me great pleasure to be here today for the opening of Fusionopolis. This beautiful, distinctive building has transformed the surrounding landscape, and added colour and character to the Ayer Rajah area.

Fusionopolis is home to the science and engineering research community and the infocomm and media industry. It follows the establishment of Biopolis in 2003 for the biomedical sciences. Fusionopolis and Biopolis are the anchors of the one-north development, which is designed as an entire integrated innovation ecosystem. One-north has comprehensive facilities offering work, live, play and learn elements. It includes research laboratories as well as service apartments, commercial and retail amenities, F&B outlets, sports facilities, beautiful sky gardens, and landscaped park areas. Here researchers can mingle and discuss and share knowledge and ideas, and scientists can fire their imaginations to dream up the next big thing.

### **SUPPORTING RESEARCH AND DEVELOPMENT**

The Government has made major investments in R&D, in order to foster our economic growth and long term competitiveness. Last year we spent 2.6% of GDP on R&D expenditure, putting us on track to achieving our target of 3% by 2010. We have attracted a constellation of scientific and research talent to Singapore. Today, A\*STAR employs more than 2,500 researchers from over 50 different countries. Foreign researchers supplement our local talent base, and enhance the diversity of expertise, experience and ideas in Singapore.

The current global financial turmoil has clouded Singapore's economic outlook. Our economy has gone into recession. We must expect slower growth and greater uncertainties at least over the next year. But our R&D programme takes a longer term perspective. It will proceed despite these immediate ups and downs. Its funding will not be affected. The Government remains fully committed to investing in R&D, in order to develop a key capability that will keep our economy competitive in the long term. Our steady commitment will continue to draw researchers to set up and root their research activities in Singapore, and give investors the confidence to establish high tech industries and corporate R&D centres here.

### **CONTRIBUTION OF PUBLIC RESEARCH INSTITUTIONS**

While the scale of our R&D effort is new, R&D itself is something which we have pursued for some time. It has played an important role in Singapore's industrial development. Our public Research Institutions (RIs) are the bridge that translates public R&D into useful outcomes for the economy and society. Many RIs have grown alongside the industrial sectors they support. By intertwining their research programmes with the needs of industry, our RIs provide companies access to new knowledge and innovative technologies that help to sustain their competitive edge.

The data storage industry is a good example of this. This industry is characterised by relentless technology change, cut-throat competition and enormous cost pressures. We have been manufacturing hard disk drives in Singapore for more than two decades, but we have not stayed in this business by standing still. We used to have about 45% share of the global hard disk drive market. Progressively, we have shifted out of low-end disk drive assembly activities, into complex manufacturing and storage-related services. Today, we have close to 80% share of the world market for high-end enterprise disk drives, and 40% share of the world market for hard disk media. As a result the industry still provides good jobs, and continues to invest and upgrade itself in Singapore.

One reason for this success story is the Data Storage Institute (DSI), which is one of the tenants of Fusionopolis. DSI has collaborated extensively with key industry players on next-generation product developments. Its work has also spawned new high value-added activities. This has persuaded companies

such as Fujitsu, EMC, Seiko and Nitto Denko to establish corporate R&D laboratories in Singapore. In particular, Seiko and Nitto Denko have decided to co-locate with DSI right here in Fusionopolis.

## **PUBLIC-PRIVATE PARTNERSHIPS**

Indeed, one of Singapore's key strengths is the ability to integrate public and private R&D efforts. So far, 13 companies have decided to move into Fusionopolis to join the three RIs already there. They belong to the IT and infocomm, electronics and energy sectors, and include names like Vestas Technology R&D, Thales Technology Centre and Electronic Arts. The co-location of private corporate labs with public labs is an important attraction for companies, as it promotes collaboration and an exchange of ideas. Furthermore, companies can easily plug into the facilities and resources in Fusionopolis to start up operations quickly. Both start-ups and MNCs can draw on the capabilities and expertise of the research community to grow their businesses. There is also ready infrastructure to take research beyond laboratory stage for test-bedding and market development.

Consequently, between 2000 and 2007 private sector R&D has grown at a compound annual rate of almost 13%, outpacing the public sector's 9%. Private sector R&D expenditure now accounts for two thirds of total R&D expenditure. This balance reassures us that we are on the right track, and that R&D being done in Singapore is market oriented and productive.

## **PUSHING INTO NEW GROWTH AREAS**

Two decades ago, we started off with only one RI: the Institute of Molecular and Cell Biology. Today, we have 14 RIs, doing research in diverse fields in the physical sciences and engineering and biomedical sciences. Many new scientific and technological breakthroughs will occur at the boundaries of the different disciplines. In one-north, we can take full advantage of the integration of the different capabilities to push new frontiers in science and technology.

An example of new frontier research is the Human Sixth Sense Program, which will study how humans can interact with the digital world as seamlessly as they would with their five natural senses. This is a 5-year programme undertaken by the Advanced Digital Sciences Centre (ADSC), to be set up by the University of Illinois Urbana-Champaign (UIUC) in Fusionopolis early next year. ADSC will do research in areas such as Cyber-Physical Infrastructure, Multimedia and Human-Machine Interfaces, and Trusted Information Management. The Centre will add richness and diversity to the research environment, and contribute to the growth of the ICT and Interactive Digital Media (IDM) industry.

Research organisations in other countries are also moving into this multi-disciplinary research space. Examples include Harvard's Allston Campus, Japan's National Institute of Advanced Industrial Science and Technology, and the UK Research Councils. Singapore has an advantage because we are able to work cooperatively across organisational boundaries, and so move faster and more decisively to achieve the best outcome for Singapore.

## **CONCLUSION**

Many of you here today have helped us by serving on scientific advisory boards and panels, and management boards in A\*STAR and her research institutions. I applaud and thank you for the important work that you do for Singapore's R&D effort. I am confident that Fusionopolis, with the full support of all its stakeholders, will grow into a top research and innovation hub in the near future.