



CREATING GROWTH. ENHANCING LIVES.

A*STAR and Fujitsu Set Up First Centre of Excellence to Build A Greener Singapore

The Centre leverages on high performance computing (HPC)-enabled R&D technologies based on real-world data to enhance Singapore's urban sustainability & create key innovations for industry development

1. **Singapore and Tokyo, 26 March 2013** – Singapore's Agency for Science, Technology and Research (A*STAR), and Fujitsu Limited (Fujitsu) have signed a Memorandum of Understanding to explore the creation of the first Centre of Excellence (CoE) for Computational Social Science and Engineering in Singapore, to identify technological solutions and opportunities for sustainable urban development in key areas such as transportation management and energy efficiency with HPC-enabled technologies based on real-world data.
2. The Memorandum of Understanding was signed today at Fujitsu's Tokyo headquarters between Dr Raj. Thampuran, Managing Director, A*STAR, and Mr Kenji Ikegai, Corporate Senior Executive Vice President and Representative Director, Fujitsu, in the presence of Mr S. Iswaran, Singapore's Minister in Prime Minister's Office, Second Minister for Home Affairs, and Second Minister for Trade and Industry.
3. Facing similar challenges and demands on infrastructure and energy usage, both Japan and Singapore need to develop long-term urban sustainability solutions to ensure high standards of living, ample work opportunities for the populace as well as quality economic growth.
4. The CoE will utilise data from various agencies in Singapore to derive an understanding of complex dynamics within the city and exploit the power of modelling and simulation to guide both critical decisions and implementation of solutions. This, in turn, will create greater efficiencies in resource usage and allocation as well as generate vital growth opportunities in new areas. Some potential areas are described below:
 - **Transportation Management:** An efficient and sustainable transportation system demands the ability to monitor and understand the travel behaviour and dynamics of commuters, road users and network systems. The insight can be leveraged to optimise transport services, project future demand, identify tipping points and assess system performance.

- Energy Management: This involves analysis of the dynamics of energy supply and demand, such as using technology to track energy consumption while reducing wastage, and optimal energy management.
- Computational Social Systems: The development of computational systems and methods for near-to-real-time processing of social information such as the consumer behaviour and lifestyle of the populace to enhance public, business, healthcare and educational needs/services and communication for the sustainability for urban living.

5. The Institute of High Performance Computing (IHPC) will lead the collaborative effort within A*STAR by drawing upon its capabilities in HPC-enabled analytics of real-world data provided by various sources, as well as its knowledge of complex systems and social behaviour. Fujitsu will leverage on its broad field knowledge on big-data and supercomputing-enabled simulation to pursue their joint research work within the CoE.

6. Both parties envisage that the collaboration will effectively address issues faced by modern cities in planning and implementing urban sustainability initiatives. The partnership will also unlock further economic opportunities through engendering key innovations for industry development and creating local employment opportunities.

7. “This collaboration marks another milestone in our long-term partnership with Fujitsu and we are excited that they have taken this opportunity to expand their activities in Singapore. The joint investment in resources and sharing of know-how will focus on tackling deep and complex problems facing metropolitan areas and facilitate the development of new approaches in big data. It is highly anticipated that insights and outcomes derived from the research will drive further innovations and create prospects that may be applied to other big cities,” said Professor Alfred Huan, Executive Director, IHPC.

8. “By participating in building a smart city through the use of high-performance computing and big data, Fujitsu’s goal is to develop new skills and practical experience, create the next generation of solutions, and establish new business models for global or ASEAN companies moving into Singapore,” said Mr Masahiko Yamada, President, Technical Computing Solutions Unit, Fujitsu Limited.

9. Other partners in this COE include institutions and government agencies from both Singapore and Japan such as the National University of Singapore (NUS), Singapore’s National Research Foundation (NRF) and Fujitsu Laboratories Limited, Fujitsu’s research and development organisation. The partners will convene across a series of workshops, projected to start in April 2013, to identify the research themes to be jointly studied by the CoE.

10. The CoE is expected to undertake projects by the end of this year through a team of engineers and researchers from Singapore and Japan.

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Embargoed till Singapore 1.00 pm & Tokyo 2.00pm on 26 March 2013

*Enclosed: **Annex A: Chinese Translation List***

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About the Institute of High Performance Computing (IHPC)

As a national research institute supported by A*STAR through its Science and Engineering Research Council (SERC), the Institute of High Performance Computing (IHPC) was established in April 1998 to provide leadership in high performance computing as a strategic resource for scientific inquiry and industry development. IHPC seeks to power discoveries through advanced methodologies, techniques and new tools in modelling, simulation and visualisation. Its core research areas are in the realm of complex-coupled systems, mechanics and fluid dynamics, large-scale systems, digital modelling, adaptive and collaborative computing, data mining and analysis, computational electronics and electromagnetics, computational materials science and chemistry.

For more information about IHPC, please visit www.ihpc.a-star.edu.sg.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is the lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A*STAR oversees 14 biomedical sciences and physical sciences and engineering research institutes, and six consortia & centres, located in Biopolis and Fusionopolis as well as their immediate vicinity.

A*STAR supports Singapore's key economic clusters by providing intellectual, human and industrial capital to its partners in industry. It also supports extramural research in the universities, and with other local and international partners.

For more information about A*STAR, please visit www.a-star.edu.sg

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.5 trillion yen (US\$54 billion) for the fiscal year ended March 31, 2012. For more information, please see <http://www.fujitsu.com>.

CHINESE TRANSLATION LIST

English Term	Chinese Translation
Agency for Science, Technology & Research (A*Star)	新加坡科技研究所 (新*科研)
Institute of High Performance Computing (IHPC)	高性能计算研究院
Dr Raj. Thampuran Managing Director, A*STAR	Raj. Thampuran 博士 管理董事 新加坡科技研究所 (新*科研)
Professor Alfred Huan Executive Director Institute of High Performance Computing (IHPC)	范清鸿教授 执行董事 高性能计算研究院
Mr Kenji Ikegai Corporate Senior Executive Vice President, and Representative Director Fujitsu Limited	生貝健二先生 副总裁执行董事 富士通株式会社
Mr Masahiko Yamada President, Technical Computing Solutions Unit Fujitsu Limited	山田昌彦先生 Technical Computing解决方案事业本部长 富士通株式会社
Centre of Excellence (CoE)	卓越研究中心
Sustainable urban operations	城市持续发展及操作
Urban greening	城市绿化
Transportation management	运输管理
Energy efficiency	能源管理
Disaster mitigation	灾难防卫系统
National University of Singapore (NUS)	新加坡国立大学
National Research Foundation Singapore (NRF) Prime Minister's Office	新加坡国立研究基金会 总理公署
Fujitsu Laboratories Limited	株式会社富士通研究所