



**Asia-Pacific
Economic Cooperation**

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Agenda: 19.5.1

Singapore's Experience in Helping SMEs Build Innovation Capabilities

Purpose: Information
Submitted by: Singapore



**42nd Small and Medium Enterprises Working Group
Meeting
Ho Chi Minh City, Viet Nam
27–28 April, 2016**

Singapore's Experience in Helping SMEs Build Innovation Capabilities

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42th APEC SMEWG Meeting

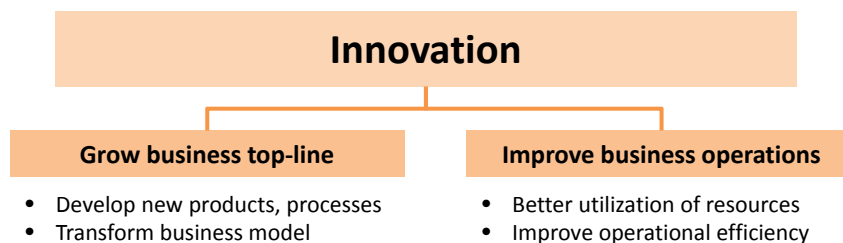
Singapore is investing in Research & Innovation to drive economic growth through value creation

Resources for Research and Technology Development	Programs that Support Technology Commercialization	Drive Outcomes that Benefit the Economy
<ul style="list-style-type: none"> Universities Research institutes Technology translation partners 	<ul style="list-style-type: none"> Industry collaborations mechanisms (e.g. MNC-SME) Technology market-place (e.g. IP intermediary) Technology commercialization partners 	<ul style="list-style-type: none"> Enable industry growth Create good jobs Build strong core of innovative enterprises Position economy for the future

Researchers/ Tech Creators
Technology Commercialization Partners
Government
Businesses (SMEs, MNCs)

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Innovation is key to enabling SMEs to grow their top-line and improve business operations



What have we done?

Strengthen Ecosystem to Support Innovation

- Centres of Innovation (COI), Intellectual Property Intermediary (IPI)

Foster Capability Upgrading at Enterprise-level

- Partnership for Capability Transformation (PACT) programme

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Establish infrastructure to help SMEs access technology know-how



Centres of Innovation (COIs)

Help companies, especially SMEs with their technology development and commercialization needs

Intellectual Property Intermediary

Technology broker that assists with tech sourcing, tech scanning, tech matching and tech assessment services for companies

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COIs run technology workshops and develop solutions for adoption by SMEs



Internet of Things (IoT) Technical Workshop with electronics MNC - NXP

Help SMEs to pick up new technologies e.g. wireless charging and cyber security solutions and test-bed idea



Supply Chain Innovation Lab

Develop innovative logistics solutions (e.g. driverless forklifts, automated picking systems) for adoption by SMEs



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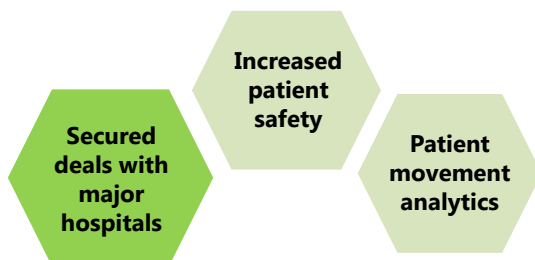
COIs also work with SMEs to develop new products to meet market needs



1Rwave LLP

Wireless electronics design company specialising in active RFID solutions

Worked with the Centre of Innovation for Electronics to develop Active Tracking Tag for monitoring patient movements



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Help SMEs to address business challenges and improve operations through innovative processes



Self-Service Concepts



Cashless Payments



Centralized Kitchens "Robocooks"



Advanced Robotics

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Intellectual Property Intermediary (IPI) - Connecting enterprises to innovation

Technology Sourcing

Help companies identify technology needs, search for the IP globally, contact the technology provider and establish business model for licensing and collaboration

Technology Scanning

Scan technology portals, conduct patent analysis and build technology partnerships



Technology Scanning

Team of experienced technology specialists help companies assess technology competency and readiness level in order to utilise acquired technologies

Technology Matching

Facilitate matching of technologies with businesses through global network of technology partners

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At the enterprise-level, helping SMEs to foster collaboration with partners to upgrade innovation capabilities



Example: Collaboration with large organizations through the Partnership for Capability Transformation (PACT) Programme

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Example: SME-MNC collaboration in the area of technology innovation that benefits both parties

Tapping Growth Opportunities through PACT: Packaging Material R&D and Robotic Project



- HP Indigo**
- Worked with SPM to design the moulded pulp tray; and with
 - MPT to modify the new packing line to handle the new material



- The new moulded tray**
- is eco-friendly
 - reduces weight by 50%
 - needs 75% less warehouse storage space
 - allows each worker to carry 50% more canisters



- Super Pak Manufacturing (SPM)**
- Developed a 100% biodegradable moulded pulp tray to pack HP's ink canisters
 - Expanded to other product lines and manufacturing sites overseas

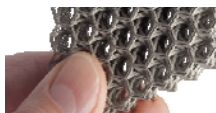
- Mega Plus Technology (MPT)**
- Gained new tooling design knowledge
 - Continues to contribute its automation expertise to HP, which is setting up a new plant in Singapore

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Next lap – Helping SMEs venture into new emerging areas of innovation



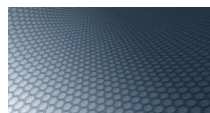
Robotics



Additive
Manufacturing



Internet of Things
& Data Analytics



Advanced
Materials

- National Robotics Programme to support the development and deployment of robotics in industries like logistics, healthcare, manufacturing and construction
- Smart Nation Initiative to get industries, research institutions, businesses and the government to co-create innovative solutions that harness info-comm technology, networks and data to support better living and more opportunities for businesses

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