

Regional Forum
on
Strategies to Enhance Innovation and Management Capacities of Startups and SMEs

18-19 July 2018, World Trade Centre, Manila, Philippines

Fostering Regional Cooperation to Promote Technology Startups in Asia and the Pacific

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Outline

- Introduction
- Key Challenges Related to National Innovation Systems (NIS)
- Regional Cooperation for SMEs/Startups
- APCTT's Regional Platforms for Technology Transfer
- Selected Examples of APCTT's Accomplishments
- Concluding Remarks

Introduction

- Small and Medium Enterprises (SMEs), because of their size and resource constraints rely heavily on technology transfer to compete and grow in the globalized business environment
- SMEs typically make up more than 90 per cent of all registered enterprises in any country
- **SME life cycle:** market entry, survival, possible prosperity, and ultimate exit. Some SMEs may encounter just one or two of these stages (such as entry and exit), while other SMEs may experience all four stages.
- Policymakers typically pay the most attention to market entry, and relatively less effort is expended on the latter stages,

Definition of SMEs – South East Asia

(Source: UNESCAP)

Cambodia	Firms that employ between 11 and 50 employees and have fixed assets of \$50,000 to \$250,000 are categorized as small. Firms with 51-200 employees and fixed assets of \$250,000 to \$500,000 are medium sized.
Indonesia	Fewer than 100 employees.
Lao People's Democratic Republic	Small enterprises are those having an annual average number of employees not exceeding 19 persons or total assets not exceeding two hundred and fifty million kip or an annual turnover not exceeding four hundred million kip. Medium sized enterprises are those having an annual average number of employees not exceeding 99 persons or total assets not exceeding one billion two hundred million kip or an annual turnover not exceeding one 1 billion kip.
Malaysia	Depends on the business sector. Different criteria, based on the number of employees and annual sales turnover
Philippines	Fewer than 200 employees and less than P 40 million in assets.
Thailand	Depends on the business sector. Different criteria, based on number of number of employees and fixed capital size.
Viet Nam	With registered capital not exceeding VND 10 billion or annual labour not exceeding 300 people.

Enabling Environment

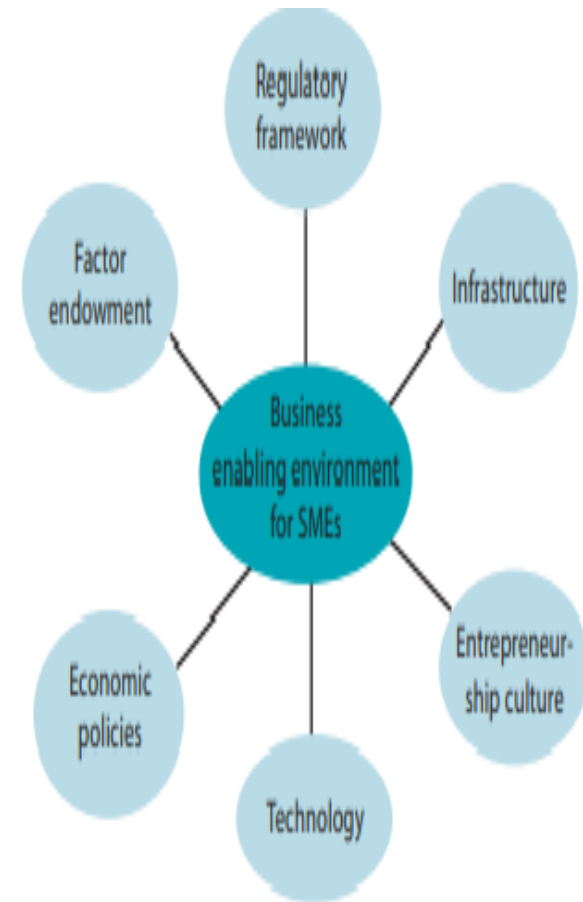
Sound monetary policy to control inflation preserves individual savings that are so often used as seed capital for SME start-ups.

Openness to competition and investment prepares SMEs for the global economy.

Factor endowments can be natural resources, human capital or an advantageous geographic location. In the absence of valuable natural resources, a diligent, well-educated workforce, favourable geographical location and a well-trained civil service to direct industrial development can be ample compensation.

Entrepreneurship culture - an appetite for risk and prosperity. Fear of failure and the stigma attached to failure, hinder entrepreneurial activity

Infrastructure: Reliable roads, ports, electricity, water, and other such facilities



Key Challenges Related to National Innovation Systems (NIS)

- Inadequate supportive **institutional** (finance, information, skill development, and technology brokering) and **physical infrastructure**
- Inadequate mechanisms for **intellectual property protection**
- **Lack of local suppliers** who can deliver quality supplies and lack of policies to develop such suppliers
- **High dependency on foreign suppliers** and imports
- **Lack of good education and training institutions** to upgrade technical and vocational skills

Key Challenges Related to National Innovation Systems (NIS)

- **Ineffective legislation and incentives** such as tax holidays, tariff adjustments, and industry parks to promote technology transfer
- Ineffective and sometimes **excessive government intervention and regulation**
- **Foreign exchange** restrictions
- **Inability** of new ventures **to compete** with former monopolies, often owned by government

Regional Cooperation for SMEs and Technology Startups

- Cross-border cooperation provides enormous opportunities for SMEs and startups to grow **financially, technologically** as well as **geographically**
- The networks and partnerships help them can **gain access to a larger market** and hence **revenue generation possibilities** also are immense
- They also learn **from experiences, failures, success stories and best practices** from their counterparts that makes them more competitive in a globalized and interconnected world
- Regional cooperation also helps them in terms of **gaining access to new technologies and capital** that helps them to expand their portfolio and/or market share

APCTT's Regional Cooperation Platforms for SMEs and Startups

APCTT has developed various free of cost, regional information repositories in the form of internet-based on-line tools and information platforms. Some of the key technology transfer on-line tools / information platforms are provided below:

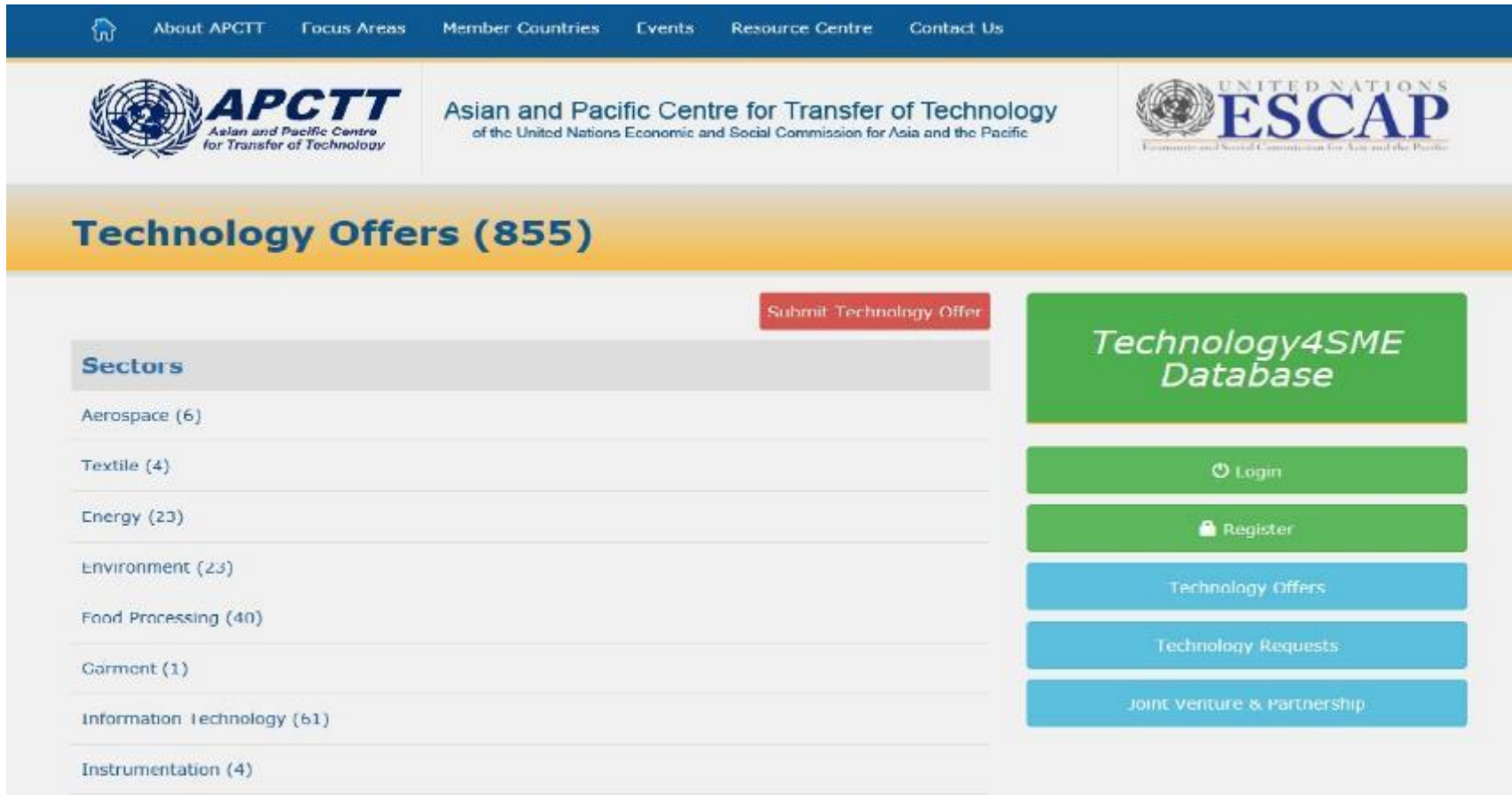
- ❖ **Technology4sme Database (www.apctt.org)**
- ❖ **Global Technology Databases (www.apctt.org)**
- ❖ **Renewable Energy Technology Bank (www.apctt.org)**

APCTT's Regional Cooperation Platforms for SMEs and Startups

Technology4sme is

- A regional platform for technology suppliers and seekers from the Asia-Pacific region and beyond
- An IT powered mechanism that helps technology based small and medium enterprises in exploring opportunities across the region
- An effective source of information on technological development at regional level and also on technology related events such as conferences, workshops, exhibitions organized in the Asia Pacific region

APCTT's Regional Cooperation Platforms for SMEs and Startups



The screenshot displays the APCTT website interface. At the top, a navigation bar includes links for 'About APCTT', 'Focus Areas', 'Member Countries', 'Events', 'Resource Centre', and 'Contact Us'. The header features the APCTT logo (Asian and Pacific Centre for Transfer of Technology) and the ESCAP logo (United Nations Economic and Social Commission for Asia and the Pacific). A prominent yellow banner reads 'Technology Offers (855)'. Below this, a red button labeled 'Submit Technology Offer' is visible. On the left, a 'Sectors' list includes: Aerospace (6), Textile (4), Energy (23), Environment (23), Food Processing (40), Garment (1), Information Technology (61), and Instrumentation (4). On the right, a green box titled 'Technology4SME Database' contains buttons for 'Login', 'Register', 'Technology Offers', 'Technology Requests', and 'Joint venture & Partnership'.

Preparing & Uploading Tech offers / Tech requests

Uploading Tech Offers

Submit Technology Offer

This section enlists all the technology offers available under various sectors. The members can browse and submit a new technology offer. While submitting tech offers, the members should fill in the fields appropriately as it makes their technology offers stand out better.

* Indicates fields are mandatory

* Title of Technology	<input type="text"/>
* Sector	Select <input type="button" value="v"/>
* Country	India <input type="button" value="v"/>
* Description	<input type="text"/>
* Area of Application	<input type="text"/>
Advantages	<input type="text"/>
Environmental aspects	<input type="checkbox"/> Cleaner Production <input type="checkbox"/> Energy efficiency <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waste utilization <input type="checkbox"/> Systems integration <input type="checkbox"/> Other
Development Status	<input type="checkbox"/> Idea <input type="checkbox"/> Laboratory Model <input type="checkbox"/> Commercial Prototype <input type="checkbox"/> Design <input type="checkbox"/> Pilot Plant <input type="checkbox"/> Fully Commercialized
Legal Protection	<input type="checkbox"/> Trade Mark <input type="checkbox"/> Patent <input type="checkbox"/> Others
Technical specifications	<input type="text"/>
* Transfer Terms	<input type="checkbox"/> Consultancy <input type="checkbox"/> Technical services <input type="checkbox"/> Turnkey <input type="checkbox"/> Subcontracting <input type="checkbox"/> Technology Licensing <input type="checkbox"/> Others <input type="checkbox"/> Joint Venture <input type="checkbox"/> Equipment Supply
Target Countries	Afghanistan Albania Algeria American Samoa (For multiple selection use "ctrl" key)
Estimated cost(US\$)	<input type="text"/>
Upload	<input type="text"/> <input type="button" value="Browse..."/>
Upload	<input type="text"/> <input type="button" value="Browse..."/>
Contact Details (Click to fill / Edit)	
Do You wish to display your contact details online?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Uploading Tech Requests


Submit Technology Request

This section enlists all the technology requests available under various sectors. The members can both browse and submit a new technology request. While submitting tech requests, the members should fill in all the fields appropriately as it makes their technology requests stand out better.


* Indicates fields are mandatory

* Title of Technology	<input type="text"/>
* Sector	Select <input type="button" value="v"/>
* Country	India <input type="button" value="v"/>
* Description	<input type="text"/>
* Area of Application	<input type="text"/>
* Keywords	<input type="text"/>
* Transfer Terms	<input type="checkbox"/> Consultancy <input type="checkbox"/> Joint Venture <input type="checkbox"/> Technology Licensing <input type="checkbox"/> Subcontracting <input type="checkbox"/> Technical services <input type="checkbox"/> Others <input type="checkbox"/> Turnkey Plant <input type="checkbox"/> Equipment Supply
Studies Available	<input type="checkbox"/> Feasibility Report <input type="checkbox"/> Environmental Impact Studies (EIA/EIS) <input type="checkbox"/> Others
Project Type	<input type="radio"/> Start Up <input type="radio"/> Diversification <input checked="" type="radio"/> New Idea <input type="radio"/> Expansion/Modernisation
Estimated project cost (US\$)	<input type="text"/>
Target Countries	Afghanistan Albania Algeria (For multiple selection use "ctrl" key)
Assistance sought from potential partner	<input type="text"/>
Additional information	<input type="text"/>
Upload	<input type="text"/> <input type="button" value="Browse..."/>
Upload	<input type="text"/> <input type="button" value="Browse..."/>
Contact Details (Click to fill/ Edit)	
Do You wish to display your contact details online?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Global Technology Databases



APCTT
Asian and Pacific Centre for Transfer of Technology
of the United Nations Economic and Social Commission for Asia and the Pacific



Global Technology Databases

APCTT has compiled a list of global as well as country-wise technology databases that deal with the technology transfer related services for SMEs and entrepreneurs.

If a particular technology search has been made using APCTT's Technology4SME database and if the search did not yield desired results, the users could use this section to extend their search to other databases listed in this section.

Over 18 technology databases could be readily accessed through this service of APCTT. More technology databases from countries across the globe will be added periodically for the benefit of SMEs and entrepreneurs.

SS-GATE Technology Database
<http://ss-gate.info/project-list/>

SATNET Agricultural Technology Database
<http://satnetasia.org/database>

UNIDO Environmental Technology Database
http://www.unido.org/plan-activities/technology_transfer/technology_db/

TECA-FAO Database
<http://teca.fao.org/technologies>

CTI- PFAN Database

Renewable Energy Technology Bank

Renewable Energy Technology Bank (RET-Bank)

Home > Renewable Energy Technology Bank (RET-Bank)

RET-Bank Search

Country

- All -

Technology

- All -

Search

Quick Links

Objectives

Target Countries

Cooperation Mechanisms

RET Resource Assessment

Guide book on Intellectual Property

APCTT's Renewable Energy Cooperation-Network for the Asia Pacific (RECAP) is an institutional cooperation mechanism that has been set up in accordance with United Nations ESCAP Commission resolution 64/3 of 30 April 2008 on promoting renewables for energy security and sustainable development in Asia and the Pacific. APCTT received generous funding support of the Ministry of New and Renewable Energy, Government of India for establishing this institutional cooperation mechanism for promoting cross-border cooperation in the promotion of renewable energy among countries in the Asia-Pacific region. RECAP aims to strengthen the capacity of member countries to promote the utilization and development of renewable energy technologies (RETs) to meet their energy needs and foster sustainable development. As on date, there are 15 member countries, viz. Bangladesh, China, FI, India, Indonesia, Islamic Republic of Iran, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand, and Viet Nam are part of the RECAP network. This Institutional Cooperation Mechanism is in the form of a network of member countries, facilitated by APCTT, that would continue to perform four major functions, namely:

- Collection and dissemination of information on renewable energy technologies (RETs),
- Sharing of best practices on renewable energy (RE) promotion and utilization,
- Developing capacity to plan and implement RET transfer projects, and
- Promoting research and development (R&D) collaboration in renewable energy technologies.

Since June 2009, APCTT planned and implemented several activities towards establishing this cooperation mechanism including the design and development of RECAP website and RECAP On-line Solution Center to cater to the need of renewable energy practitioners in member countries in the Asia-Pacific region. The primary objective of RECAP network is to facilitate technology transfer cooperation among countries in the Asia-Pacific region in the area of renewable energy. Towards this end, APCTT has developed a "Renewable Energy Technology Bank (RET-Bank)" of tested and proven renewable energy technologies (RETs) initially in the areas of solar, biomass, wind, mini-hydro power and geo-thermal energy. It is envisaged that this technology bank would act as a repository of information on renewable energy technologies that are readily available for transfer and deployment. APCTT has developed this Renewable Energy Technology Bank as on-line technology database freely available for public access through its RECAP website. Visit RET-Bank.

News

Search

What's In Store for Offshore Wind in the Next Five Years?

Cost Cutting: Is Q&Q the CCS Innovation Solar Needs?

Green Tech States Are Not Necessarily Democratic

>> more

Other Links

REEP

RESOLVE

RESO

REN-21

Technology4SME Database

Global Technology

SATNET Agricultural Technology Database

SATNET
ASIA PACIFIC

[Home](#) [About](#) [Announcements](#) [Discussions](#) [Resources](#) [Contact](#)

[Home](#) / [Database](#)

Technologies And Good Practices In Sustainable Agriculture



This database contains information on sustainable agricultural technologies and good agricultural practices promoted by development practitioners and implemented by small farmers in various countries of South and South-East Asia. It is the result of research by the SATNET Asia – an open network of institutions and individuals sharing a common interest and concern in addressing the urgent need for innovative approaches to increase agricultural productivity to feed the growing population in a sustainable manner.

The Food Security Centre of the University of Hohenheim, Germany, has led the collection and analysis of technologies in this database. For more information on the experts who contributed to the database, please consult the [list of contributors](#).

Direct Technology Transfer Mechanisms

APCTT is assisting SMEs, R&D Institutions, Researchers, Technology Seekers, Technology Providers, Government Organizations through

- Sharing information on technology sources
- Technology based business partnerships
- Latest trends in specific technological sectors (through publications)
- Cross-border technology transfer events (B2B meetings in specific sectors).

Selected Examples of Key Accomplishments

Establishment of India SME Technology Services Ltd.

- In partnership with the Small Industries Development Bank of India (SIDBI), APCTT incubated the **Technology Bureau for Small Enterprises (TBSE)** in its premises by providing access to technology transfer networks that the Centre had established over a period time as well as the technology databases
- TBSE has been renamed as **India SME Technology Services Limited (ISTSL)**. It is currently operating independently and providing vital support to Indian SMEs in technology transfer and financing.

Selected Examples of Key Accomplishments (Contd.)

Establishment of Technology Parks and Indian University Technology Database

- ❖ APCTT in partnership with UNDP implemented a project entitled, “Nurturing Technological entrepreneurship through S&T Entrepreneurship Parks (STEPS) & Technology Business Incubators (TBIs)”.
- ❖ **Two technology business incubators** were established. In partnership with Science and Technology Park, University of Pune and UNDP
- ❖ APCTT also set up the **University Grants Commission’s Indian University Technology Database** which is the key technology transfer database for technologies developed by Indian universities. This database covered about **17 technological sectors**.

Selected Examples of Key Accomplishments (Contd.)



Home Technologies Project Videos Experts & Resources Hot Spots in China Most Innovative Countries Value chain About Us

首页 / 技术网络 / Market Research & Distribution

Market Research & Distribution

Shanghai Technology Transfer & Exchange

Shanghai Technology Transfer & Exchange (STTE), the first state-level permanent technomart in China and a public institution that provides clients with public services, was jointly founded by Ministry of Science & Technology of China and Shanghai Municipal Government, in December, 1993.

STTE is dedicated to promoting trade of technology and high-tech products between different regions, industries and organizations to accelerate the industrialization and commercialization of scientific and technological achievements. With the goal of promoting technology transfer projects successfully, STTE has played an important role in constructing independent innovation system and performed an effective work in last decades.

IP Protection

Financing

Market Research & Dist.

Regulatory & Access

CROs and R&D Network



Technology Supply ▾

Search

Home

About Us

News Center

Technology Library

Download Zone

Home > Technology Library > Technology Supply

Technology Name:

Organization:

search

Technology Library

Technology Supply

Technology Demand

Successful Cases

Industry



Electronic Information

Equipment Manufacturing

Biomedicine

New Materials

New Energy and Energy Efficiency

Environment Protection and Resources Utilization

Modern Agriculture

Innovation Services

Others

Country



Australia

Austria

Canada

Germany

Swedish

The USA

• Novel Diuretic and Inhibitor of Gastric Acid Secretion

[2017-12-04]

• Prevention of Browning in Fruits and Vegetables

[2017-12-04]

Selected Examples of Key Accomplishments (Contd.)

Technology Atlas Project

- APCTT developed a “Framework for Technology-based Development” for countries in the Asia Pacific region under the Technology Atlas Project funded by Government of Japan in 1984.
- Many countries in the region including Bangladesh, China, Indonesia, Philippines, Malaysia and Pakistan introduced technology atlas methodologies in their respective countries
- Technology Atlas framework is till date one of the widely accepted and comprehensive methodologies for technological assessment of countries

Selected Examples of Key Accomplishments (Contd.)

Technology Transfer Capacity Building

Training of Trainers Programme on Technology Transfer

APCTT has been organizing Training of Trainers (ToT) programmes on Planning and Managing Technology Transfer projects for strengthening the technology transfer capacity of ESCAP member countries. Over 5000 representatives from SMEs and SME support institutions have been trained by APCTT in Bangladesh, Nepal, Thailand, Philippines, India, Fiji Islands, Pakistan, Islamic Republic of Iran, Sri Lanka, Viet Nam, Malaysia, Indonesia and China.

Concluding Remarks

- Unless an enabling environment that nurtures and supports startups and SMEs is available, countries' transition from manufacturing economy to knowledge economy will not be possible
- Strengthening National Innovation Systems (NIS) that governs the science, technology and innovation ecosystem is the most critical step for developing countries to bridge technological gap with developed economies .
- APCTT supports SMEs and Startups through its technology transfer platforms, knowledge products, partnership channels through its regional cooperation networks in new and emerging technological areas and business fora such as the Asia Pacific Business Forum (APBF) organized by United Nations ESCAP

Concluding Remarks

- To provide support to SMEs for developing critical skills in cross-border technology transfer, APCTT organizes technology transfer capacity building programme for SME Support Institutions in member states.
- This programme aims at imparting skills in technology transfer and the use of TT planning and implementing approaches to carefully selected trainers from participating member countries.
- These trainers will then train others thereby creating a multiplier effect so that within a short period a critical mass of skills can be developed in each participating member country to provide assistance to SMEs.

Thank you

For more information, contact

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