

# Global Innovation & Technology Alliance



Department of Science & Technology Government of India



Confederation of Indian Industry



Department of Science & Technology
Government of India

## **Promoters**

he Department of Science & Technology (DST), Government of India, has assured an important role in building a strong base for Research, Development and Demonstration in India. DST, as a national agency for strengthening the base of Science and Technology in the country has made sincere attempt to address national concerns of India in basic research.

The International Cooperation Division of the Department of Science & Technology deals with the International Scientific and Technological Affairs including the negotiations and implementation of S&T Cooperation Agreements. The Division operates in close cooperation with the Ministry of External Affairs, Government of India, Indian missions abroad, foreign missions in India and UN bodies.



**Confederation of Indian Industry** 

he Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 113 years ago, it is India's premier business association, with a direct membership of over 7500 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 83,000 companies from around 380 national and regional sectoral associations.

CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes.

With 63 offices in India, 8 overseas in Australia, Austria, China, France, Japan, Singapore, UK, USA and institutional partnerships with 271 counterpart organisations in 100 countries, CII serves as a reference point for Indian industry and the international business community.



Mr. Kapil Sibal
Union Minister for Science &
Technology & Earth Sciences &
Chief Patron, GITA



Dr. T Ramasami
Secretary
Department of S&T
Government of India and
Chairman Governing Body, GITA



Mr. K V Kamath
MD, ICICI Bank Limited &
President, CII and
Co-Chairman - Governing Body, GITA

GITA partners with CII and DST to host the Technology Summit & Technology Platform, India's largest technology event for the past 13 years.

lobal Innovation and Technology Alliance (GITA) is a not for profit society promoted jointly by Department of Science & Technology (DST), Government of India and Confederation of Indian Industry (CII) for promotion and facilitation of international industrial research & development programmes.

GITA was launched in May 2007 by Hon'ble Minister for Science & Technology and Earth Sciences, Mr. Kapil Sibal aims to make the programmes more goal oriented with greater participation from industry and academia. The initiative is being steered by Dr. T Ramasami, Secretary, DST and Mr. KV Kamath, President, CII. The Governing Body has representation from both government and industry.

#### Vision

To be a catalyst in transforming India to one of the leading nations in Global Technology Index.

GITA is a unique public-private-partnership model of executing government programmes through an arms length organisation having a professional delivery mechanism. Funding support from government is facilitated for industrial R&D by GITA, which is responsible to effectively strategise, promote and execute programmes within a target time frame. To implement these programmes it works in collaboration with counterpart similar agencies in the partner countries.

#### **Functions**

- Manage and implement India's bilateral/ multilateral industrial R&D Programmes
- Promote and facilitate joint industrial R&D and Partnership Development Activities like thematic missions, seminars & workshops
- Management of joint R&D projects
- Information and networking support to Indian Industry/academia seeking partnerships with global S&T organizations
- Facilitate Technology Transfers & match making to Indian Industry for overseas tie-ups
- Country research and resource mapping

GITA is working towards developing into a knowledge bank for providing a platform for entrepreneurs seeking bilateral/multi lateral S&T collaborations. It envisages to function as a clearing house for all industrial international S&T projects in India and to facilitate technology transfer on commercial mode. GITA also seeks to bring in venture capital funding for new & innovative projects and provide partnership opportunities to small & medium enterprises looking for technology tie ups.



# Bilateral Industrial R&D Programme

ndia has signed bilateral Science and Technology (S&T) Cooperation Agreements with several countries to encourage, develop and facilitate collaborative activities between the two countries in S&T in the fields of common interest and mutual benefit. Within the context of the S&T agreements with certain countries, funding mechanisms have been streamlined, through which universities / colleges, research organizations and industry may seek support for joint bilateral research and development (R&D) projects.

For some of these countries, GITA is the implementing organisation of the S&T programme on behalf of DST. GITA, facilitates financial support from the government in the form of soft loans/grant to the Indian Applicant for joint R&D, based on funding guidelines and criteria of individual programmes. Counterpart agencies will implement the programme in the partnering country.

Collaborative research is planned research or critical investigation aimed at the discovery of new knowledge, with the objective that such knowledge may be useful in developing products, processes or services, or in bringing about a significant improvement to existing knowledge, products, processes or services. The main objective of the Joint R&D programme is to stimulate, promote and support Industrial and Institutional R&D for the mutual benefit of Indian and international counterpart. The fundamental principles of joint R&D programmes are scientific and technology excellence, shared benefits & equality, prospects for economic returns, protection of intellectual property and peaceful uses.

# **Basic Application Requirements**

- Participation from both countries
- Joint submission of projects to GITA and international counterpart agency
- Mandatory industry participation from both countries
- Clear commercial goals and commercialization strategies
- Applicants must demonstrate the capacity to manage, conduct and benefit from the proposed research and development
- Intellectual property management plan
- Opportunity for young researchers to participate

#### Global Innovation & Technology Alliance



Dr. T Ramasami, Secretary, DST and Chairman, GITA, during an interactive session



Mr. Y P Kumar, Head, International Cooperation, DST & CEO - GITA & Dr. Barbara Bludau, General Secretary, Max Planck Society with the Max Planck delegation, ICD and GITA team

Apart from these requirements, each Call for Proposals will have certain specific criteria. These will need to be referred to for confirming eligibility and for preparation of Expression of Interests/ Proposals.

Call for Proposals is announced from time to time by GITA in collaboration with counter part implementing organization of the partner country. The process for submission of proposals may be two-step or a single step depending on the guidelines of the Call. In the two step process, first an Expression of Interest needs to be submitted. EOIs meeting the basic requirements of the Call are invited to submit the full proposal. In the single step process, the full proposal can be submitted directly.

The process of screening/evaluation of Expressions of Interest/ Full Proposals is carried out independently and in parallel by implementing agencies on both sides. Basic evaluation criteria for joint industrial R&D proposals are as follows, though individual programme criteria will differ:

- i. The scientific merits of the project and the degree of innovation inherent in the product, process or service being developed; with discrete R&D as opposed to exploratory investigation
- ii. The business opportunity of the proposed project and its capacity for commercial success in the near future;
- iii. Active participation (both in terms of work and finances) including industry participation from both countries and
- iv. Extent to which the participants share in the research, process and product development and introduction to the market, as well as the benefits to be derived by each participant/country during project as well as during subsequent phase of commercialization.



Dr. Barbara Bludau, General Secretary, Max Planck Society & Dr. T Ramasami, Secretary DST, Chairing the inaugural session in the DST-Max Planck workshop on Modern Science Management.



An interactive session with industry

# **Partnership Development Activities**

Partnership Development Activities are designed to foster relationships and partnerships leading to the development of collaborative research and development projects and other forms of research collaboration between two countries.

For some of the countries with which the government has a standing S&T agreement, GITA, on behalf of the government, supports activities that involve exchange programs among scientists, technical experts and academia. These include, but are not limited to scientific seminars, workshops, symposia, conferences and activities. Counterpart agencies will implement the programme in the partnering country. All PDAs must have participation from both partnering countries.

GITA, in order to promote and facilitate bilateral R&D / ventures select countries also organises, partnership development activities.

# Agood PDA application should

- ➤ Be focussed on a particular topic, with clear objectives and proposed outcome
- Offer opportunities for establishing one or more collaborative R&D initiative that could result in economic benefits to both countries
- Potential to engage a large number of personnel in the related field
- Involve young researchers
- Preferably have commitment from alternate funding source(s)
- Fit well into the applicants' strategic plans for collaboration with the partner country

Apart from these requirements, each Call for Proposals will have certain specific criteria.

More information on the programmes is available at its website: www.gita.org.in



- NDIA-ASEAN Science and Technology Development Fund
  India-Taiwan Programme for Cooperation in Science and Technology

## ONGOING PROGRAMMES

ndo - Canada S&T Cooperation Programme with International Science & Technology Partnerships, Canada (ISTP).

Indo - Israel Initiative for Industrial R&D (i<sup>4</sup>RD) Programme with MATIMOP - Israeli Industry Centre for R&D, Israel

Indo - Taiwan Programme in S&T Cooperation with India - Taipei Association, Taiwan

Indo - ASEAN S&T Development Fund

#### **Our MoU Partner**

Indo - Russian Collaboration in Developing & Exchanges in IT with National Centre of Information Technology, Russia.



#### India, Israel to leverage THE FINANCIAL EXPRESS tech for alternative energy New Delhi, Tuesday, June 17, 2008

programme

aimed in providing a platform for the Indian and Israel companies to

collaborate to build

under India-Israel Industrial R&D

TUESDAY 17 JUNE 2008

**NEW DELH** Business Standard The Statesman

India-Canada MoU

India and Canada have launched 10 joint initiatives worth \$17 million to boost cooperation in science and technology. The announcement was made by Science and Technology Minister Kapil Sibal and Canadian Minister of Foreign Affairs and International Trade David Emerson.

O NEED TO KNOW

FOREIGN AFFARIS Canada, India for joint science, tech initiatives

Science, tech initiatives of tawa: Canada and India bunched 10 S17-million (8673 crore) joint initiatives and technological cooperation agreement. These joint projects will enhance the collaboration between our scientists and commercialize their discoveries, Said David Emerson, Canadas minister of foreign affairs and international trade. He made the announcement with India's visiting Union minister of science and technology and earth sciences Kapil Sibal Eight of the joint initiatives deal with research two establish.

simulation too to test fraughe afficers and air-related equipment for a new generation of regional aircraft. There is also a joint project to study the use of biofuels in aircraft gas turbine engines made from Canadian and Indian feedstocks. AFP

India, Canada new research tie-up

New Delhi: A new partnership between India and Canada in researches in science and technology is in the offing. A deal to this effect was signed between the Indian science and technology minister Kapil Sibal and the Canadian minister for foreign affairs, international trade and Pacific Gateway, David Emerson in Ottawa on Sunday, involving research initiatives also by companies on both sides valued at more than \$17 million. Anew research partnership initiative with the department of biotechnology in India was also launched. According to a press release issued by CII, eight of the initiatives would be joint research projects while the other two initiatives would be partnership development activities (PDAs). PDA initiatives would fosterjoint activities aimed at generating new

NEW DELHI TUESDAY 17 JUNE 2008 \$17m India,

> Canada initiatives Statesman News Service

NEW DELHI, June 16: India and Canada have announced 10 joint research and development (R&D) initiatives involving Canadian and India companies and researchers valued at more than \$17 million. The announcement was made in Ottawa, Ontario, vesterday by the science and technology minister, Mr Kapil Sibal, canadian mivid Emerson. Canadian mivid Emerson cign affairs & internional trade and minister for the Pacific gateway.

Eight of the initiatives are joint research projects while the other two initiatives are Partnership Development NEW DELHI, June 16: India

THE ECONOMIC TIMES NEW DELHI TUESDAY 17 JUNE 200

# India, Canada start 10 joint initiatives to boost research

TORONTO: India and Canada have launched 10 joint initiatives worth \$17 million to boost bilateral co-operation in science and technology, particularly to explore creative ways to develop nextgeneration research as part of a pact signed in 2005. The announcement was made by science and technology minister Kapil Sibal and Canadian minister of foreign affairs and international trade David Emerson here.





- < Indo-Israel Initiative for Industrial R&D (i'RD) Programme
- < INDIA-ASEAN Science and Technology Development Fund < India-Taiwan Programme for Cooperation in Science and Technology

# INDO-CANADA SCIENCE & TECHNOLOGY COOPERATION PROGRAMME

ndia and Canada have signed a bilateral science and technology agreement in Novemeber 2005 to encourage, develop and facilitate cooperative activities between the two countries. Funding support from Department of Science & Techology through GITA is available for Joint R&D Projects and Partnership Development Activities. International Science and Technology Partnerships Canada Inc. (ISTPCanada), selected by the Government of Canada is the counterpart implementing agency in Canada.

#### Focus Areas

- Alternate Energy and Sustainable **Environmental Technologies**
- Biotechnology, biopharmaceuticals, Health Research & **Medical Devices**
- > Earth Sciences and Disaster Management
- Information and Communication **Technologies**
- Nanoscience / Nanotechnology
- Aerospace engineering
- Photonics and synchrotron science

For Joint R&D projects, active Industry participation from both countries is mandatory. Funding is limited to 50% of the eligible national cost with a ceiling amount of \$600,000 Cdn on each side. Maintaining this overall criteria, for Indian applicants public funded academic and research institutes may receive grant up to 100% and industry may receive up to 50% of the eligible national cost by way of soft



Mr. David Emerson, Canadian Minister of Foreign Affairs & International Trade and Minister for the Pacific Gateway and the Vancouver - Whistler Olympics and Union Minister Mr. Kapil Sibal, Minister of Science & Technology and Earth Sciences during the announcement of the results of the first call for proposals.

loan repayable upon completion of the project. Subsidiaries of firms headquartered and owned outside India are not eligible for support.

The first Call for proposals was announced in October 2007 and eight projects have been recommended.

For PDA, funding is limited to CDN\$25,000 or equivalent Indian Rupees per activity. For Indian participants, GITA may provide up to 100% of the eligible costs only to public funded institutions. In Canada participants can receive up to 50% of the eligible costs of their national component. Presently there is an open Call for PDA applications with Canada.



- < Indo-Canada Science & Technology Cooperation Programme

- NDIA-ASEAN Science and Technology Development Fund
  India-Taiwan Programme for Cooperation in Science and Technology

# APPROVED PROJECTS - FIRST CALL FOR PROPOSALS - OCTOBER 2007

on'ble Minister for Science & Technology and Earth Sciences, Mr. Kapil Sibal during his visit to Canada in June 2008 announced the following joint R&D projects for support through GITA/ISTP in the first Call for Proposals:

Use of acoustics to monitor the bottom of above ground storage tanks: Tisec Inc. Canada, National Metallurgical Laboratory, Jamshedpur; Samro International, New Delhi.

The use of biomimetic material to integrate and repair the human cornea: Evasight Instrument Inc., University of Ottawa Eye Institute; Canada & L.V. Prasad Eye Institute, Polymer Tech International, India.

The use of transponders to track the flow of vehicles and use the information to manage traffic flows and reduce fuel consumption Partners: Ipico Inc; McMaster University, & IIT, Delhi; Strategic Consultants, New Delhi.

The creation of a common modelling and simulation tool to test multiple aircraft and air-related equipment for a new generation of regional aircraft: CAE Inc., National Aerospace Laboratories, Bangalore; Macmet Technologies Pvt. Ltd., Bangalore.

The design of an interoperable geoportal product that permits the transfer of spatial data infrastructure across different computer platforms and portal products: CubeWerx Inc., Canada; Infotech (Geospatial) Enterprises Ltd., Hyderabad.

The development of a simple diagnostic tool for use on the farm or feedlot to test dairy and cattle for diseases such as bovine respiratory disease and mastitis: Vaccine and Infectious Disease Organization, University of Saskatchewan, Safeguard Biosystems, Canada; BAIF Development Research Foundation; Vetnex Livestock and Canine Business, RFCLLtd., India.

The use of bio fuels in aircraft gas turbine engines made from Canadian and Indian feedstock: Pratt & Whitney Canada Corp., McGill University, Université Laval, Ryerson University, Toronto; National Research Council, Canada; Infotech Enterprises Ltd., Indian Oil, Hindustan Petroleun, IIT- Kanpur, IISc, IIP, India.

The development of technology that permits broadband internet access on existing power line technology in India: Corinex Communications Corp; Canada Maple Leaf India Pvt. Ltd., New Delhi; Indian Institute of Information Technology, Allahabad.



- NDIA-ASEAN Science and Technology Development Fund
  India-Taiwan Programme for Cooperation in Science and Technology

# INDO-ISRAEL INITIATIVE FOR INDUSTRIAL R&D (i⁴RD) PROGRAMME

ndia and Israel have signed a bilateral science and technology agreement in May, 2005 to form i<sup>4</sup>RD with a primary aim to support joint industrial R&D projects aimed at development of products or processes leading to commercialization in the global market. Funding support from Department of Science & Technology through GITA is available for Joint R&D Projects and Partnership Development Activities. MATIMOP, the Israeli Industry Center for R&D. on behalf of Office of Chief Scientist (OCS) of the Israeli Ministry of Industry, Trade and Labor (MOITAL) is the counterpart implementing agency in Israel. As a national liaison organisation, MATIMOP implements international R&D cooperation frameworks and promotes the participation of Israeli companies in collaborative programmes and other international initiatives.

#### **Focus Areas**

- Nanoscience / Nanotechnology
- Water Management
- Non-Conventional Energy Resources (particularly solar)
- Biotechnology
- Space Science and technology

For Joint Industrial R&D projects, at least two science and technology companies from the respective countries is mandatory. The i<sup>4</sup>RD financial support will be provided in the form of returnable soft loan /royalty to the selected projects and is limited up to an amount equivalent to US\$ 500,000 per project, split between



Mr.Daniel Zohar Zonshine, Consul General of Israel addressing the opening session on Renewable Energy Technologies, Mumbai

the Indian and Israeli partners. The total funding from the Government of India will be limited to 50% of the Indian component of the total project cost. Subsidiaries of firms headquartered and owned outside India are not eligible for support. There is an open Call for Proposals under this Programme. The processing time for Proposals in each Call is three - four months

Three project proposals have been recommended for joint financial assistance under the i4RD Programme.

Renewable Energy Technologies & Water were identified as focus areas for promotion of S&T collaboration. As part of the programme's objectives to promote and facilitate bilateral R&D / ventures in this area, a Mission from Israel on Renewable Energy visited India between April 6 - 11, 2008. Eight Israeli companies / universities were part of the delegation. More than 120 Indian industries participated in the five day programmes



- < Indo-Israel Initiative for Industrial R&D (ifRD) Programme
  < INDIA-ASEAN Science and Technology Dovel
- NDIA-ASEAN Science and Technology Development Fund
  India-Taiwan Programme for Cooperation in Science and Technology

# INDO-ISRAEL INITIATIVE FOR INDUSTRIAL R&D (i<sup>4</sup>RD) PROGRAMME

which consisted of industry interactive sessions, discussions with policy makers, technology presentations from both Indian & Israeli companies and planned B2B meetings. As a follow up, a mission to Israel focussing on Renewable Energy Technologies and Water Technology, Harvesting & Management has been scheduled.



[L-R] Mr. Raul Goldemann, Director, Asia & Pacific International Cooperation Programme, MATIMOP, Mr. Mark Sofer, Ambassador of Israel, Mr. Y P Kumar, Head, International Cooperation, DST & CEO -GITA, Dr. Y S Rajan, Principal Adviser, CII, Mr. Anjan Das, Sr. Director/CII & Head-Technology/ GITA during the visit of the Israeli delegation.



B2B meetings during Israel Mission on Renewable Energy Technologies April, 2008



- < Indo-Israel Initiative for Industrial R&D (i'RD) Programme
  < INDIA-ASEAN Science and Technology Development Fund
  < India-Taiwan Programme for Cooperation in Science and Technology

# INDIA-ASEAN SCIENCE AND TECHNOLOGY DEVELOPMENT FUND

uring 12th Technology Summit and Technology Platform in India, the leaders of the ASEAN country delegations lead by Dr. Jamaluddin Mohd. Jarjis, Minister of S&T and Innovation, Malaysia and Indian S&T Minister agreed to create an India-ASEAN S&T Development fund to facilitate collaborative R&D and technology development in the areas of common interest. The Ministry of External Affairs (MEA) and Department of Science and Technology (DST), India have contributed jointly US\$ 1 million to GITA to initiate the actions. Activities under this fund will be spearheaded by GITA in partnership with ASEAN Secretariat.

Scope

To realise shared goal of using knowledge for wealth creation through collaborative R&D and technology development in common areas of interest.

# **Upcoming Activities**

- Mission from India on Functional Food
- Mission from ASEAN on Renewable **Energy Technologies**
- Virtual Institute of Intellectual **Property Rights**
- > Technology Information & Commercialisation Portal
- Call for proposal for joint R&D

I am happy to announce that we have created this fund with an initial corpus of 1 million UDS. This fund should be used to encourage collaborative R&D and technology development so that we can harness knowledge for the creation of wealth?

Dr. Manmohan Singh during 6th India ASEAN Summit, Singapore



Union Minister Mr. Kapil Sibal, Minister of Science & Technology and Earth Sciences delivering the inaugural address in 12th Tech Summit with ASEAN as Partner



Dr. TRamasami, Secretary DST in the welcome address

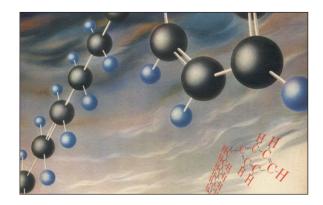




- < Indo-Israel Initiative for Industrial R&D (i\*RD) Programme
- INDIA-ASEAN Science and Technology Development Fund
  India-Taiwan Programme for Cooperation in Science and Technology

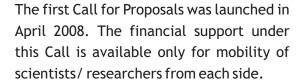
# INDIA-TAIWAN PROGRAMME FOR COOPERATION IN SCIENCE AND TECHNOLOGY

Memorandum of Understanding (MoU) was signed between the Taipei Economic and Cultural Centre (TECC) in New Delhi and the India-Taipei Association (ITA) in Taipei on S&T cooperation in April 2007. GITA in collaboration with National Science Council of Taiwan, invited joint research proposals for the implementation from 2009-2011.

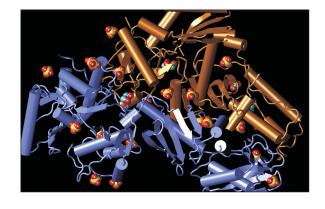


#### **Focus Areas**

- Earthquake related science & engineering
- Organic Chemistry including supramolecular chemistry & drug discovery
- Structural Biology and Functional Genomics
- Nano technology including advanced materials



Twenty three proposals have been received jointly under the first Call for Proposals and are under preliminary evaluation process for financial assistance.









Global Innovation and Technology Alliance
India Habitat Centre, Core 4-A
4th Floor, Lodi Road, New Delhi - 110 003.
Tel: +91-11-2468 2230-35 / 4150 4514
Fax: +91-11-2468 2229
Email: ypk@nic.in; anjan.das@ciionline.org; s.chakravarty@ciionline.org
Website: www.gita.org.in