



INSTEC

A national network centre for

Indian-Swedish Cooperation on Technical Research and Education

Background

The effects of the globalisation process are leading to the movement of people, capital, goods, services, information and technology across regional and national borders, resulting in a growing global competition. Investments in R&D are also becoming more and more internationally mobile seeking the regions and countries that offer the best conditions. This means that not only production and services are outsourced, but also research. Companies that wish to carry out research can now establish facilities in any part of the world and they are more prone to base their decisions on available local capabilities, costs and availability of qualified researchers. The development of new knowledge and innovations is increasingly taking place in different partnerships between research organisations and enterprises in different countries. Cross-border flows of research and development are now changing from USA, Europe and Japan towards emerging economies like China, India and Brazil.

The global competition has stressed the importance of how to promote growth and profitability in small and mid-sized companies by identifying areas where new knowledge can develop new ways of working, new products and new markets. The capacity of smaller companies to break into new markets should be strengthened in order to make use of the great potential that exists for new exports and operations in foreign markets. Increased exports are anticipated by offering smaller enterprises the opportunity to bridge initial barriers to participation in strategically important markets abroad.

Industry and the business community need incentives to collaborate in research networks and better information about how such collaboration can be brought about. If Sweden shall be able to continue to compete successfully in a knowledge-based economy, it is of fundamental importance that Swedish research and education are of world class. To maintain the strong international position of Swedish research continued efforts need to be made in research and postgraduate education. International cooperation with an emerging economy like India will bring opportunities to strengthen Swedish education and research. An effect of this will also be stronger demands placed on Swedish higher education institutions and research environments to be more internationally competitive.

Indo-Swedish cooperation

With its emerging economy and a rapidly growing technical base, India is becoming an increasingly interesting potential partner for developed economies in the area of education, research and joint ventures. The traditionally good technical educational level, neutral geopolitical positions and more recent significant technological advances in the two countries, point to many potential areas for active and fruitful collaboration between India and Sweden.

In spite of this potential, direct interaction, collaboration and joint ventures between Sweden and India have been of limited success over the past decade. Also the academic contacts have been rather limited, given the importance and size of Indian research activities. In this context it is of particular importance to point out that collaborations within science and technology are based on long term interests and can act as doorways for contacts between industries. Expansive and knowledge-intensive industries, traditional industries and the public sector all need access to new knowledge in order to develop technological innovations and modernize their operations. Research provides the basis for developing new knowledge.

INSTEC

In order to take better advantage of this potential for both countries, and significantly expand the collaboration over the next decade, **a national centre/network - Centre for Indian-Swedish Cooperation on Technical Research and Education (INSTEC) has been created.** It is a network of partners from Swedish universities and industry cooperating with Indian partners.

The mission of INSTEC is:

To provide a long-term basis for expanding exchanges of human resources between India and Sweden on technical/engineering research as a platform for joint ventures and expanding industrial collaboration.

Joint ventures and collaboration that could develop from the exchange platform provided by INSTEC would ultimately benefit both countries by strengthening their respective technical/economic competitiveness in the global market.

The three specific objectives of INSTEC are to:

- Promote and support collaboration between Indian and Swedish academic/research institutions and industry in **research** (development of joint research projects, exchange of researchers/ post-graduates, etc).
- Promote and support exchange between Indian and Swedish academic/research institutions and industry in **education** (MSc, continuing and distant education programmes, exchange of students, teachers and teaching materials)
- Stimulate and help establish **industrial contacts** and promote **joint ventures** between interested Swedish and Indian enterprises and research institutes in all areas of technological and natural resource development.

Role of the centre

The role for the centre is to be a creative meeting-place for researchers and companies in order to create strong environments for Indo-Swedish collaboration. At present, there are few structures for advice or meeting places where creators of ideas, entrepreneurs and financiers can meet in order to develop the possibilities of the Indian market and research community. They may need both advice and help to turn good ideas into successful products. Working in networks will give rapid access to a broad and extensive knowledge base and play an important role in promoting commercialisation of research results and ideas.

Ways of collaboration

INSTEC is a platform for cooperation between Swedish and Indian academic research and education, industry, SME:s, government and non-government organisations, funding agencies and private sector foundations within strategically important technologies. Collaboration may take place through:

Joint research programmes; Tailor-made courses for industrial training; Joint development of academic courses e.g. distance education; Prototype/pilot/case studies in different areas; Academic exchanges at various levels; Joint-ventures between industries and research institutes; Networking and dissemination of information

Tasks and services

INSTEC provides professional services and assistance to partners, programmes/projects and other stakeholders through the following activities.

- Function as a gateway for cooperation
- Development of a website as a tool for collaboration, communication and information for the network partners and stakeholders
- Initiation of projects in close cooperation with partners and funding agencies
- Supporting fundamental and needs-driven research, with the aim of stimulating new innovations for growth and sustainable development
- Establishing close cooperation and partnerships funding agencies
- Involving private sector research into the programmes
- Acting as a research broker - Enable SME:s to access research in both countries.
- Providing professional services to partners regarding projects and activities
- Issuing planning grants for research applications
- Promoting student, teacher and researcher exchanges
- Involving people with strong competence and experience from industrial projects and business development into research projects
- Increasing the mobility between academic institutions and industry for researchers, post-doc programmes
- Initiating, stimulating and supporting cooperation through conferences, workshops, visits, information, meetings, seminars and other networking activities
- Coordinating consultations and exchange of information between researchers and industry, governments, foreign ministries, aid directorates, other public institutions, media, private business, and NGOs in both countries

Areas of collaboration

INSTEC aims at collaboration between India and Sweden in all areas of mutual interest and benefit, creating competitive cross-boundary research environments taking advantage of the international competitiveness of Swedish industry to create value for users.

Institutional affiliation

INSTEC is affiliated to one of the partner universities, but it will constitute a national entity. Administration and overall management will be located at this university, while the different activities (programme coordination etc) will be located with the cooperation partners.

For further information contact: Göran Baurne, Dept. of Land & Water Resources Engineering, KTH.
Ph: +46-8-7908624, Mob: +46-70-7227378, E-mail: baurne@kth.se