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STRATEGIES FOR GLOBAL MARKETING OF R&D SERVICES FROM INDIA

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Introduction

SERVICES are accounting for an ever-increasing proportion of national gross domestic product all over the developed world as they do for some developing countries such as India. In India, the share of services now accounts for almost the same as the combined share of agriculture and manufacturing sectors do for GDP. With the coming of GATS in WTO, services sector, which was earlier considered to be mostly non-tradable in character, has become tradable.

The services offered by countries, however differ markedly in their patterns of national competitive advantage, just as they do in manufacturing. For example, Swiss firms are strong in banking, logistical services, training, etc whereas Singaporean firms are strong in ship repair, port and terminal services. Many developed countries in the world like Germany, France, Japan, USA and Sweden have earned international recognition in service industries.

Since India has strong R&D infrastructure and technological capabilities, lot of business potential and opportunities exist internationally.

To assess the present position with respect to R&D services under General Agreement on Trade in Services (GATS) and to evolve appropriate strategies for marketing India's R&D services globally, a one-day National Workshop on "Strategies for Global Marketing of R&D Services" was organised by IIFT's Centre for International Trade in Technology (CITT) in association with Department of Scientific and Industrial Research (DSIR), Government of India and Council of Scientific & Industrial Research (CSIR), on November 27, 2002 at IIFT, New Delhi. The workshop was well attended and the efforts of CITT were greatly appreciated. About 140 representatives from various organisations including Scientific (R&D) and academic institutions, social science R&D institutes, industry, policy-makers from various government departments such as MoC, MIT consultants, Industrial Associations, etc. attended this workshop. Two comprehensive research papers were prepared by IIFT and presented for discussions. A summary of the papers, and recommendations emerging out of those discussions is mentioned below.

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R&D Services Scenario in India and World Market

The total investment on R&D in the world during 1980 was of the order of US$208.4 billion. This increased to US$271.9 billion in 1985 and further to US$452.6 billion in 1990. One of the most commonly used indicators for international comparison of science and technology (S&T) efforts is the proportion of GNP devoted to R&D activities. The expenditure on R&D as percentage of GNP for the whole world in 1990 was 2.55 per cent. For the developed countries, it has gone up from 2.22 per cent in 1980 to 2.62 per cent in 1985 and further to 2.92 per cent in 1990, whereas in case of the developing countries the percentages for these three years were 0.52, 0.54, and 0.64 respectively. India spent 0.81 per cent of GNP during 1998-99.

In India, in the year 1998-99, about 55 per cent of the total expenditure was accounted for only three sectors – Defence, Space and Development of Agriculture, Forestry & Fishing. The share of basic research was 17.6 per cent, applied research 39.9 per cent, experimental development 33.3 per cent and the related supporting activities were 9.2 per cent.

Central government including public sector, accounted for 67.5 per cent of the total national R&D expenditure during 1998-99. Majority of total expenditure was done by five major scientific agencies, viz. DRDO, DOS, ICAR,

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DAE, and CSIR which put together accounted for 86 per cent of the total R&D expenditure.

World over, R&D activities were earlier closely controlled by the multinational corporations, which were the principal investors. Subsequently, they started collaborative research work with strategic foreign partners. The increasing cost of research coupled with the ever shortening period during which monopoly profits could be derived are forcing the companies to enter into such partnerships. The trend towards a global network of strategic partnerships has also opened up business opportunities for Indian R&D service providers to enter the global markets. There is also an increasing trend towards global outsourcing of R&D services. This has become especially visible in the pharmaceutical sector. The estimates for total world market for R&D services are not readily available. However, it is expected to be quite large as Canadian supply of R&D services alone estimated to be worth approximately $2.35 billion using 1996 data while the total demand for Canadian R&D services is estimated to be valued at approximately $3.13 billion. Thus, Canada alone imports R&D services worth about $1 billion.

In the face of it, there is a need for R&D organisations to develop short-term and long-term strategies for both domestic as well as global market. This will not only contribute to the well being of the society through research but also will enhance the economic prospects as well. All this will largely depend upon their capabilities and competitive edge in certain sectors.

Scientific and Technical manpower is one of the major input resources for scientific and technological activities and is also an indirect measurement of the development stage of any country. India is fortunate in having this vital resource available in plenty. As per the government estimates, 3.08 lakh personnel were employed in R&D establishments as on 1 April 1998. About 77 per cent of them were employed by the institutional sector and 23 per cent by the industrial sector. According to the nature of work, out of the total, 30.9 per cent of the personnel were engaged primarily in R&D work, 32.7 per cent were performing auxiliary activities (technical support) and 36.4 per cent were doing administrative and other non-technical activities. Considering that those directly engaged in R&D activities and those extending technical support are by and large qualified in Science and Technology (S&T), it may be estimated that 1.96 lakh S&T personnel were deployed in R&D sector as on April 1998, which is just 2.9 per cent of the total estimated stock of S&T personnel for the year 1998. This also reflects that the average number of auxiliary personnel per R&D person was 1.05, varying from 0.78 to 2.20 in the institutional sectors compared to 0.69 and 0.58 in public and private sectors respectively. The number of administrative personnel per R&D personnel varied from 0.90 to 2.19 in the institutional sector and the same for public and private sectors was 0.39 and 0.38 respectively.

The number of parameters like patents sealed, products developed, processes developed, import substitutes developed, design prototypes developed and consultancy services rendered by R&D institutions in different sectors are also indicators of a country's technological capabilities The patent statistics, during 1998-99, indicate that out of 8,954 applications filed for patents, India filed only 2,247. It is also a fact that in most of the above parameters, industrial sector has the major share except in case of consultancy services, inspite of the fact that majority of the investment goes into the institutional sector. This clearly shows

that the institutional sector has not been able to be productive to the extent it should be and there is a need to redefine the objectives and strategies to be followed by the institutional sector.

Marketing Strategies

While formulating strategies at the macro level, relative competitiveness and relative wealth position of the country is to be kept in mind. Though, India is strong on relative competitiveness, it is low on relative wealth position. In order to realise our potential in world economy, a large domestic market and world-class competitors are necessary to be developed simultaneously. Therefore, the imperative for Indian R&D organisations would be to achieve world-class competitiveness and provide world-class services to the domestic market. A service organisation can become successful in global marketplace only if it has established itself in the domestic market.

R&D services unlike most "pure" services, is a tangible dominant service, where there is a definite tangible component in the overall product package. The results/products/processes have to be shown to the customers and have to conform to definite specifications, as is the case with pure products. The services are to be provided usually by a scientific body or institution(s) who may have a number of subordinate laboratories and research centres; where the services are developed, the physical location of these institutions also plays a major role in creating an impression in the mind of the customers since in most of the cases the customers have to go to the laboratories or bring the samples for getting the job done.

The services can mainly be classified into three categories to assess cost competitiveness. However, it is not uncommon to see the combination of the two or sometimes all of them. The three categories are:

- Service seekers travel to a country to have services performed.
- Firms from one country provide services into other country using domestically based personnel and facilities.
- Firms from one country provide services into other countries via foreign-service locations, staffed with either expatriates or local nationals.

Companies falling into each of the above categories need to clearly demarcate their potential customers, competitors and markets and accordingly frame the organisation-specific strategies.

Most of the Indian organisations fall into the first or the second category. We cannot operate under the third category since it eliminates our cost competitiveness, which is due to the relatively cheaper human capital. On the first two categories Indian organisations are generally very price-competitive as compared to other developed and developing countries. However, what is important here is to assess the extent to which the services offered by us are price elastic in the global marketplace. We have advantage in terms of cost but we need to look at it from the customer's point of view. The time delay and other "irritations", which might be caused due to red-tapism in our organisations might be nullifying whatever advantage we have due to lowly-paid knowledge workers.

Marketing strategy has to be unique in itself as it is organisation and situation specific. Some directions for marketing strategy for R&D services may however be drawn keeping in mind the special characteristics of these services. These are outlined below:

- There is a need to uniquely position oneself in the minds of the target customers.
- The organisations need to create an ambience within their facilities, which can speak highly of the organisation.
- There is a need to continuously focus on developing products and technologies, which have greater applications for the industry. This will help not only in generating positive image about the organisation but also in enlarging the clientele base.
- The organisations should not just market to external customers but also to their own scientists and researchers, so as to develop marketing culture in the organisation.

The basic points for strategic marketing planning therefore are:

- What business are we in, and what are the organisational mission and overall objective?
- Who are our customers and what benefits do they seek? How can we build or defend our competitive position?
- How should we offer new service that help/ strengthen our competitive position?

Service organisation can become successful in global market only if it has established itself in the domestic market. Fortunately in our country, a huge untapped

domestic market exists.

Commitments for R&D Services under GATS

As far as provisions of R&D services under GATS are concerned, India has made only limited commitments so far, and several other countries have made commitments of varying nature.

First, India should make an in-depth analysis of the commitments made by other countries and estimate the R&D business potential including areas of R&D in those countries.

Secondly, there would be an increasing pressure on India to open up more and more sectors for R&D services so that other countries can take advantage of the R&D business opportunities in India. This should be done through a careful assessment of our capabilities and needs.

Thirdly, there should be coherence between our national policies and the commitments made at WTO.

Recommendations

1. Keeping in view the availability of strong R&D capabilities and facilities in several sectors, there is a large potential for export of R&D services from India. However, there is a need to identify these sources and exportable R&D services through various studies and surveys.
2. There is a need to strengthen the networking and interactions of Ministry of Commerce and other agencies concerned with WTO matters, with the scientific and academic institutions offering R&D services.
3. There are some anomalies in policies related to FDI and the commitments made by India for R&D services under GATS. The same need to be examined and appropriate action taken.
4. Member countries should establish contact points to facilitate the access to R&D services suppliers from developing countries.
5. Tax and other incentives available to Indian R&D units in India including EXIM Bank facilities may also be considered for foreign R&D companies in India.
6. There should be mutual recognition of qualifications, technical standards and licensing requirements among member countries.
7. A study of capabilities and export performance of foreign units who have established their R&D units in the FDI mode through FIPB or automatic route or otherwise should be undertaken for better understanding.
8. Careful assessment of R&D needs is required before responding to other member countries who want more commitments from us. India should also place a request list on other member countries.
9. A data bank should be developed on R&D services not offered by other member countries.
10. In high-tech areas, the presence of a natural person may be required for a longer time and hence, rules related to movement of natural persons, specially for R&D services, need to be liberalised.
11. Considerable R&D expertise in high science and technology areas resides in government departments, some educational and R&D institutions and PSUs. These agencies will have to look for a paradigm shift in their approach for trading in R&D services. Administrative and managerial systems need to be evolved which are much more responsive to the global needs. Also, scientists involved in technology transfer, etc. may be trained in international marketing.
12. The R&D services and expertise in social sciences available in the institutes under ICSSR and various universities can be marketed to other countries specially the developing ones. Some of the areas in which R&D services can be provided are:
    - Creation of Databases;
    - Training & Research Methodology and Techniques;
    - Formulation of Research Proposals; and
    - Evaluation of on-going Social Programmes, etc.
13. International market surveys may be conducted among the signatory countries of the GATS Agreement to ascertain their specific requirements with respect to R&D services in different sectors.
14. More aggressive approach is required in setting up/ buying research laboratories, etc. abroad to promote exports of R&D services. Indian brand of R&D services need to be popularised abroad.
15. R&D services in areas such as energy audit, efficiency & reliability, improvement of industrial plants, machinery and processes, may be promoted.

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RECENT EXPORTABLE TECHNOLOGICAL DEVELOPMENTS IN INDIA

Cipla to Launch 9 Drugs in Europe

Cipla Ltd. is gearing up to begin exports of asthma inhalers (cortico steroids) to Germany and Britain. The company expects approvals from medical regulatory bodies in both countries to come through shortly. Inhalers contribute a considerable part of business to the company. It also expects to get German approval to export Budesonide CFC-free inhalers shortly. Cipla has already received approval to export Beclomethasone based inhalers into the UK.

Cipla has reportedly tied up with some German firms to market their products in Europe. This will be followed by a phased rollout of nine other products – both inhalers and rotacafs (tablets).

These are the Foracort (Formoterol and Budesonide) and Seroflo (Salmeterol and Fluticasone) lines which will be launched in various dosages. n

Rishabh Launches New Range of Instruments

The Maharashtra-based Rishabh Instruments Pvt. Ltd. has launched a range of electrical measuring instruments and analysers. Rishabh has a range of electrical instruments of test and measurements, quality and energy management, and electrical power engineering. It offers both analog and digital versions of the equipments. This company is interested in joint ventures or technology transfer agreements with US or European companies for analog and digital electrical, electronics and light measuring and control measurements, electronic energy meters and products. It recently entered into a contract with Gossen-Metrawatt GmbH for supply of digital multi-meters for sale in the US and EU market. n

L&T Courting Chinese Market for Medical Equipments

Larsen & Toubro (L&T) has made a foray into the Chinese market with its medical equipments. It is a modest entry with its patient monitors, achieving sales of Rs one crore. The company is also exploring the possibility of entering the Chinese market with its air circuit breakers (ACBs).

L&T is the dominant player in the domestic ACB market, estimated to be around Rs 120 crore. The Chinese market is four-five times the size of the domestic ACB market. L&T manufactures ACBs in the 400A to 6,400A range and is amongst the top five manufacturers in the world. n

Rane Brake Focuses on Europe

Chennai-based Rane Brake Linings Ltd. plans to export to European markets. In 2001-02, company's exports contributed five per cent of its sales turnover of Rs 107.85 crore. The export income was expected to go up from Rs 5 crore in 2001-02 to about Rs 7.4 crore in 2002-03. Its target is to get 15 per cent of turnover from exports within next four years.

Rane Brake Linings is in the process of switching over to a wide range of environment-friendly products so that they are accepted in the global markets. Products devoid of lead content as also a range of asbestos-free products for composite brake blocks and disc pads are in pipeline. New products would contribute to 15 per cent of the turnover. Other areas the company would look at included aircraft disc pads and the wind mill sector. Rane Brake is developing an aircraft disc pad for Hindustan Aeronautics Ltd.

The improved sales are the result of marketing policy of developing products for several new vehicular platforms with support from Nisshinbo Industries Inc of Japan, Rane Brake's collaborator. Nisshinbo has a 10 per cent stake in Rane Brake. A lot of new product development are taking place for import substitution. n

Camlin to Focus on Exports and R&D

Camlin Ltd. has to put more effort into increasing exports and focus on R&D in a bid to maintain growth. "The road map lays emphasis on reducing costs, investment of self-generated funds for modernisation of existing plants, penetration in rural markets, contract research for pharma, expansion of food grade anti-oxidant range in the world market and investment in ERP," the company said in a press release.

In its consumer products division, there will be an additional focus on writing instruments and fashion and hobby products. The pharmaceutical division, will focus on institutional business, dermatological, anti-inflammatory and anti-septic range, with investments in R&D facilities for procuring contract research business from Indian and

foreign companies. As regards the fine chemicals division, the main thrust will be on R&D of specialised chemicals on various anti-oxidants for foodgrade items. n

TAL to Expand Marketing Set-Up Abroad

TAL Manufacturing Solutions Limited, the Tata Enterprise, is planning to expand its marketing set-up abroad especially in USA, China, and Japan to provide high-end machine tools solutions. The market for high-end solutions in these countries is estimated at around $9 billion. China and USA import half of their machine tools requirements and it is hard for Indian companies to dislodge suppliers from Taiwan and Korea in the lower-end of machine tools business.

But, high-end tool market is highly competitive with companies from Germany, Japan, and Italy in the fray. Of late, India has gained a cost advantage enabling it to enter this market. n

Rs 59 crore for R&D in Iron and Steel

The Government of India has approved 27 R&D projects in iron and steel sector. It has released Rs 59 crore for the purpose during the last three years. Of the 27 approved research projects worth Rs181.5 crore, which include a steel development fund component of Rs 90.8 crore. The four completed projects have benefited the industry in terms of energy efficiency improvement in secondary steel sector, online generation of operating parameters in continuous casting machine to ensure quality products.

The projects have also helped in assisting engineering institutions to design steel-based construction and reducing cost of production of high-tensile steel. The empowered committee, which is chaired by the Secretary (Steel), grants approvals for research projects, both for public and private sectors. The committee was set up in 1998 following the Government decision, a year earlier, to spend up to Rs150 crore per annum from the Steel Development Fund (SDF) to supplement R&D activities in iron and steel sector. n

JB Chem Bags Patents for NCEs in South Africa, USA

JB Chemicals & Pharmaceuticals has received patents from South Africa and USA for all the 20 new chemical entities (NCEs) invented by it in therapeutic areas of non-steroidal anti-inflammatory drugs (NSAID). The company has also approached the EU for filing the patent.

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RSP Bags Export Orders Worth Rs 98 lakh

Rourkela Steel Plant (RSP) has achieved a major breakthrough in its effort to tap the South Asian market by bagging three export orders worth about Rs. 98 lakh. Out of the three orders, one consignment of chequered plates had already been dispatched to Bangladesh, while the other two orders will be despatched to Nepal.

The Plant dispatched 62.5 tonnes of chequered plates to Ms Prattasha Enterprise, Dhaka in November 2002. This consignment is valued at about Rs10 lakh. This is also the first-ever export order bagged by RSP for Bangladesh.

The other two orders for HR coils are from M/s Mainawati Steel Industries Private Limited for 300 tonnes and Ms Hulas Steel Industries for 350 tonnes. Both the orders from Nepal which are valued at around Rs 88 lakh are expected to be serviced shortly.

It is noteworthy that RSP commenced its export campaign in the current fiscal by despatching 165 tonnes of chequered plates in two consignments to Nepal in May-June 2002. RSP has also serviced an order of 64 tonnes of plates from plate mill for Nepal in the last financial year. By meeting the stringent requirements of its foreign customers in terms

of quality and specification, RSP is gradually strengthening its foothold in the South Asian steel market. n

Yokogawa Blue Star Bags $3.85 mn. Order

Process automation company Yokogawa Blue Star Ltd has bagged a $3.85 mn. order from SPF-TKP OMIFRO SNC, a joint venture between Samprogetti of Italy and Tecnip-Coflexip of France for supply of distributed control system, emergency shutdown system and related equipment to Oman-India Fertilizer Project in the Sultanate of Oman. n

Wipro Bags Dubai Dry Docks Deal

Wipro Infotech has won an order from Dubai Dry Docks. Wipro Infotech will implement an integrated enterprise-wide application across key organisation functions including finance, production, technical, commercial and human resources for Dubai Dry Docks.

The project is in line with the global trend of outsourcing. It leverages on Wipro's global delivery model, which means that the development of the project will be carried out from a Wipro development centre in Bangalore in India. Company's vision is to be among the top10 IT services companies globally. The Middle East is a critical component of our global expansion strategy, with an IT services market, estimated to be worth $5 billion and growing at a healthy rate. n

(Contd from p. 6)

JB Chemicals, the flagship of the Unique Group, is also conducting further studies on these 20 NCEs. Preliminary toxicology studies on certain selected molecules have shown potent anti-inflammatory activity.

The company, which is planning to complete preliminary trials by June 2003, has also short listed two molecules for further evaluation and pre-clinical trials. The preliminary would include assessment of mode of action and safety and efficacy studies. Other research initiatives planned include ascertaining COX2 inhibition selectivity.

JB Chemicals, which is planning to invest around Rs 50-70 crore on R&D over three years, has 11 production units at four locations in India to produce bulk drugs, intermediaries, pharma specialties and herbal remedies, among others. The company is involved in R&D including basic research on new chemical entities, novel drug delivery systems, abbreviated new drug application and standardisation of herbal products. n

JOINT VENTURES

Rolta India Launches Operations in UK

Software company, Rolta India Ltd, has launched operations in UK through a wholly owned subsidiary Rolta UK Ltd. It will offer complete range of services in the areas of GIS, automated mapping and facilities management, plant design automation, mechanical design automation, product life cycle management and e-Business. With this move, Rolta India can consolidate and scale up operations in Europe and UK. n

Voltas to Enter China

Voltas has formed an alliance with the Jardine, Matheson group of Hong Kong, a 20 per cent shareholder in Tata Industries, for marketing a major foray into China. Voltas is primarily looking at leveraging its strength in engineering, electro-mechanical turnkey projects and water and pollution management for the China foray. The company will bid for more contracts in the range of Rs 70-200 crore.

Voltas currently has projects worth over Rs 1,000 crore in the Middle East, executed through Voltas International, the overseas subsidiary which has now been merged with the Voltas. The execution of premium projects in Singapore and Hong Kong has given the confidence to Voltas to venture into China. n

Veronica Plans to Set Up Joint Venture in Kenya

Veronica Laboratories, which entered into a strategic alliance with Enpee Healthcare for marketing of a new herbal anti-AIDS drug Herbtab, is finalising an agreement with the Nairobi-based Solanki Pharmaceuticals for setting up a joint venture company in Kenya for marketing of the new drug in the African countries.

Both Veronica Labs and Solanki Pharmaceuticals will hold 50 per cent each stake in the proposed venture. Besides Kenya, the new JV will also market the AIDS drug in neighbouring African countries such as Zimbabwe and Mozambique. Africa is the single largest market for anti-AIDS drugs.

In addition to the proposed JV in Kenya, Veronica is also in the process of setting up a wholly-owned subsidiary

in Canada for marketing its new anti-AIDS drug. Sources said Veronica is also on the lookout for a small-sized pharma company in USA for either a buyout or a strategic alliance for launching its new anti-AIDS drug in the lucrative US market.

Veronica's overseas expansion plans are in line with its plans for putting in place a wide marketing network for effective marketing of the Herbtab drug. The company is targeting to achieve a turnover in excess of Rs 100 crore from its new herbal anti-AIDS drug over the next two years. n

Telecom Agreement between India and Italy

India and Italy signed an MoU for cooperation and collaboration in the telecom sector for an initial period of three years. The MoU also established a joint working group to facilitate and identify areas of cooperation in the telecom sector. The MoU underlines the need to tap the opportunities in the sector in a more comprehensive and focused manner. n

BBUNL to Set Up a Railway Wagon Assembly Unit in Kuala Lumpur

Bharat Bhari Udyog Nigam Limited (BBUNL) is the leading engineering conglomerate in the field of design, manufacture and supply of railway rolling stock, track maintain machines, material handling equipment, bridges, and refractory products for steel plants, etc.

BBUNL signed an MoU with M/s SMH Rail SDN BHD, Kuala Lumpur, Malaysia for setting up a joint venture Railway Wagon Assembly Unit in Kuala Lumpur. This joint venture set-up will enable BBUNL to capture the railway rolling stock market in Malaysia as well as ASEAN countries. n

Ranbaxy Sets Up 50:50 Joint Venture in South Africa

The Ranbaxy has announced yet another initiative in the South African market by forming a 50:50 joint venture between its wholly-owned subsidiary Ranbaxy SA (Pty) and Tiger Brands Healthcare division of Adcock Ingram, a leading South African pharmaceutical company.

The joint venture is for exclusive marketing and distribution of Ranbaxy's range of anti-retroviral products in South Africa. According to the company, this joint venture will mark a formidable entry platform for Ranbaxy into the South African anti-retroviral market. Adcock Ingram will leverage its strong distribution network and leadership position in the pharmaceutical private market and hospital sector to market Ranbaxy's range of anti-retroviral products.

Ranbaxy markets its anti-AIDS range of products in several countries including Africa. Applications for registration for most of these products have been lodged with the South African Medicines Control Council. n

Apollo Hospitals in Tie-Up with Dubai Group

The Apollo Hospitals Enterprises Ltd has entered into a joint venture agreement with the Dubai-based Belhoul Group of Companies to set up the Belhoul Apollo Hospital in Dubai.

The 60-bed Belhoul Apollo Hospital built over an area of 1,40,000 square feet would begin operations in the second week of December. While the investment in the construction of the hospital has been done by Belhoul Group, Apollo will be responsible for the management and functioning of the hospital.

The Belhoul Group has incurred a cost of close to $35 million in setting up the hospital. According to the company, the Belhoul Apollo Hospital will be a superspeciality hospital having angioplasty, bypass surgery, neurosurgery, orthopaedics, gynaecology, paediatrics, intensive care unit (ICU), ENT, ophthalmology. n

HCL Tech in Joint Venture with US Apparel Firm

The HCL Technologies recently announced the formation of a strategic technology joint venture with US-based company Jones Apparel Group Inc.

The new company will be called HCL Jones Technologies, with HCL Technologies holding a 51 per cent stake and the Jones Apparel Group holding the remaining 49 per cent stake.

The joint venture is expected to augment HCL Technologies' expertise in the retail business bringing together the domain knowledge of Jones Apparel Group, which has built a reputation in operational execution, with HCL's offshore delivery capability and composite technology bandwidth.

This synergy of strengths should position the joint venture as a premier IT solutions provider in the emerging global retail marketplace.

Jones Apparel Group Inc., a Fortune 500 company, is headquartered in Pennsylvania (USA) and is a designer and marketer of branded apparel, footwears and accessories.

The joint venture company would also provide services to various divisions of Jones Apparel and other companies in the retail and wholesale apparel segment. n

India, Russia for Joint Tech Transfer

India and Russia have decided to set up a joint centre for transfer of technologies, evolved through collaborative efforts to developed and developing countries.

The two countries have also identified 80 new key scientific projects, including some in strategic areas for collaboration.

A Russian-Indian Centre for Ayurvedic Research is also underway. Another Indo-Russian venture of global importance is related to the integration of Russian seismic sensors with Indian digital recorders and stationing them at various sites of the Indian Meteorological Department for field observations.

This was decided at a meeting between a 20-member Russian Delegation headed by academician F.A. Kuznetsov and Minister for Human Resource Development Dr. Murli Manohar Joshi. n

Asian Paints Agreement with Egyptian Company

Asian Paints has signed an agreement to buy 60 per cent of Egyptian paint company SCIB Chemical for Rs 25 crore as part of its strategy to enter fast-growing emerging markets. SCIB's existing promoters, Orascom Construction Industries group, the Moussa family and the Hafez family, will hold the remaining 40 per cent.

This is Asian Paints' third overseas acquisition in the past four years. The company, which is present in 11 countries, acquired units in Sri Lanka and Australia in the past.

The company will now provide value-added products in the Egyptian market. It is planning to consolidate its presence in the Egyptian market before using SCIB as a hub for neighbouring markets. Asian Paints has been using Oman as a hub for the Middle East operations.

Asian Paints has a turnover of Rs 1,656 crore in 2001-02. It sells around 200,000 million tonnage of paints annually. The company has established nine joint venture units in countries like Fiji, Tonga, Solomon Islands, Vanuatu, Australia, Sri Lanka, Oman, and Mauritius. n

Infosys Sets Up Development Centre in Melbourne

Infosys Technologies has set up a global development centre in Melbourne. This development centre, the first for the region, is initially expected to create in excess of 100 jobs and will be integrated with other Infosys development centres located in USA, Europe, and India. The setting up of the centre will enable the import of best practices and the global experience of Infosys to the Australian market.

The centre will leverage Infosys' key strengths—technology, infrastructure, people and high quality processes to provide predictable and quicker time to market solutions through its low-risk global delivery model.

The centre will also enable customers to deploy technology that aligns with its business imperatives and maintain a competitive edge. Infosys' Australian clients include Suncorp Metway, Vodafone, and Telstra. n

Greaves Plans Tie-Ups Abroad

The Greaves Ltd. has announced plans to tie up with Gomaco, USA, leaders in concrete paving, Soilmec Spa, Italy, for piling machines, and Extec, UK, for crushers impactors and screens.

The company is also bringing in a series of new and advanced technology products from partners Bomag of Germany and Cifa of Italy. These alliances are likely to provide Greaves the latest hitech construction equipment to meet the infrastructure industry's needs.

The Greaves Ltd. has made efforts to forge alliances with global players that have technologies that suit Indian conditions. This combines the benefits of having a global technology backed by a nationwide network of prompt aftersales service and parts support.

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GLOBAL TECHNOLOGY EXPORT RELATED ISSUES

South Korea to Spend $811 mn. on Technology Research

The South Korean ministry of information and communication said, it would invest 971.8 bn. won ($811.4 mn.) next year in R&D projects in the information technology sector.

Of that amount, the ministry earmarked 706.1bn. won for IT technology development and another 168.8 bn. won for the training of technicians and engineers. It also plans to spend 29.2 billion won and 67.7 bn. won in technology standardisation and supporting research projects, respectively. The ministry of commerce, industry and energy said planned capital investments by the 200 biggest companies are expected to rise 10 per cent next year to 31.02 trillion won.

Companies in the automobile, machinery and petroleum industries plan to sharply increase their investments next year, after a cutback this year. Semiconductor, information technology and electronics companies will continue raising their investments. Total capital investments made by those companies – which have the highest annual sales in South Korea – are estimated at 28.15 trillion won in 2002. n

Global Group to Develop New Gene Map

A $100-mn. project to develop a new kind of map of the human genome was announced by an international consortium. Its goal is to hasten discovery of the variant genes thought to underlie common diseases like diabetes, asthma and cancer. The consortium includes government agencies from Japan, China, and Canada, and a medical charity, the Wellcome Trust of London.

The map will be constructed by analysing the genomes of people in four ethnic groups: Japanese, Chinese, the Yoruba people of Nigeria, and Americans of Northern and Western European descent. If these four groups do not capture a thorough enough pattern of human variation, more may be added later.

The principle underlying the map is a discovery about the human genome made only a year ago by Dr. Mark J. Daly and colleagues at the Whitehead Institute in Cambridge, Massachusetts. They found that human DNA has been inherited generation after generation in large, unchanged blocks, up to 100,000 units in length, from the ancestral human population and, contrary to what had been assumed, has not yet been thoroughly mixed by the vigorous shuffling of DNA from the maternal and paternal chromosomes that takes place between generations.

These large blocks of DNA are known as haplotypes, and the new map, called the international HapMap, will chart the location of these blocks in the human genome.

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Philips Sees China as Centre for R&D

Philips Electronics NV is seeking to bolster its presence in China. This company plans to turn China into one of its three main centres for global product R&D.

The R&D initiative of Philips in China will focus on two large cities: Shanghai and Xian. R&D operations are focusing on areas like optical storage, digital televisions and wireless communication products.

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RECENT POLICY INITIATIVES

Science and Technology Policy 2003

The Science and Technology Policy 2003 has been announced by the Hon'ble Prime Minister in January 2003. The policy recognises the changing context of the scientific enterprise, and the need to meet present national needs in the new era of globalisation. The following are some of the objectives of the policy:

(i) The objectives of the S&T Policy 2003, include, *inter aila*, to provide necessary autonomy and freedom of functioning for all academic and R&D institutions so that an ambience for truly creative work is encouraged, while ensuring at the same time that the science and technology enterprise in the country is fully committed to its social responsibility and commitments.

(ii) This Policy 2003 encourages research and innovation in areas of relevance for the economy and society, particularly by promoting close and productive interaction between private and public institutions in science and technology. Sectors such as agriculture (particularly soil and water management) education, industry, energy including renewable energy, communication and transportation would be accorded higher priority. Key leverage technologies such as information technology, biotechnology and materials science and technology would be given special importance.

(iii) The Policy has an objective to establish an Intellectual Property Rights (IPR) regime, which maximises the incentives for the generation and protection of intellectual property by all types of inventors. The regime would also provide a strong, supportive and comprehensive policy environment for speedy and effective domestic commercialisation of such inventions so as to be maximal in the public interest.

(iv) It is recognised that these objectives will be best realised by a dynamic and flexible S&T Policy, which can readily adopt to the rapidly changing world order. This Policy reiterates India's commitment to participate as an equal and vigorous global player in generation and harnessing advances in S&T for the benefit of all human kind.

(v) On the implementation strategy of this Policy, it will through its own resources and also through contribution by industry, raise the level of investment to at least 2 per cent of GDP on science and technology by the end of the Tenth Plan.

(vi) For technology development, transfer, and diffusion a strong base of science and engineering is a must. The Policy 2003 says priority will be placed on the development of technologies, which address the basic needs of the population; make industries – small, medium or large – globally competitive. Special emphasis will be given not only to R&D and the technological factors of innovation, but also to the other equally important social institutional and market factors needed for adoption, diffusion and transfer of innovation to the productive sectors.

(vii) The Policy further adds that intensive efforts will be launched to develop innovative technologies of a breakthrough nature; and to increase our share of high-tech products. Aggressive international bench-marking will be carried out. Simultaneously, efforts will be made to strengthen traditional industry so as to meet the new requirements of competition through the use of appropriate science and technologies.

(viii) Deriving value from technology-led exports and export of technologies will be facilitated through new

STRATEGY AND IMPLEMENTATION PLAN

1. Science and Technology Governance and Investments
2. Optimal utilisation of existing infrastructure and competence
3. Strengthening the infrastructure for S&T in academic institutions
4. New funding mechanisms for basic research
5. Human resource development
6. Technology development, transfer & diffusion
7. Promotion of innovation
8. Industry & scientific R&D
9. Indigenous resources and traditional knowledge
10. Technologies for mitigation and management of natural hazards
11. Generation and management of intellectual property
12. Public awareness of S&T
13. International S&T cooperation
14. Fiscal measures
15. Monitoring

policy initiatives, incentives and legislation. This will include, networking of capabilities and facilities within the country.

(ix) Rigid quality standards, and accreditation of testing and calibration laboratories according to international requirements, will be given an enhanced push to enable Indian industry to avoid non-tariff barriers in global trade.

(x) Every effort will be made to achieve synergy between industry and scientific research. Autonomous Technology Transfer Organisations will be created as associate organisations of universities and national laboratories to facilitate transfer of the know-how generating industry.

(xi) There has to be increased investment by industry in R&D in its own interest to achieve global competitiveness to be efficient and relevant, the Policy 2003 concludes. n

Notification Issued for Conversion of EPZs into SEZs

Notifications from the Government of India have been issued for the conversion of four Export Processing Zones (EPZs) – Noida (UP), Falta (West Bangal), Chennai (Tamil Nadu) and Visakhapatnam (Andhra Pradesh) – into Special Economic Zones (SEZs) from 1 January 2003.

In addition, three formal approvals and 14 in-principle approvals have been granted for the establishment of SEZs in private, state and joint sectors. The export performance of SEZs and EPZs during April-October 2002 amounted to Rs 5,380.97 crore for the corresponding period in 2001 – a growth of 9 per cent.

Policy initiative taken to promote SEZs include duty-free import/domestic procurement of goods for development, operation and maintenance of SEZs and SEZ units, external commercial borrowing up to $500 million in a year without any maturity restriction through recognised banking channels and a facility to set up overseas banking units in SEZs.

The SEZ units have also been given exemption from central sales tax on sales made from the domestic tariff area to SEZ units and exemption from service tax to SEZ units and developers. The Government had earlier announced an SEZ scheme, in April 2000, to promote exports. The policy provided for the setting up of SEZs in the public private and joint sector, or by state governments.

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Law Soon to Protect Bio-diversity

The Government will soon have a legal framework to regulate the commercial use of Indian bio-diversity by both the domestic and foreign firms. With the approval of the Biological Diversity Bill, 2002, by the Lok Sabha, it will see the creation of a three-tired structure to facilitate the conservation, sustainable use and equitable sharing of benefits accruing out of all biological resources and knowledge. Biological diversity encompasses plants, fungi, micro-organisms, mammals, birds, reptiles, amphibians, fish, insects and so on. India accounts for 8 per cent of the world's known bio-diversity with 46,000 species of plants and 81,000 species of animals. To protect this wealth, a National Biodiversity Authority (NBA) at Chennai, state bio-diversity boards and bio-diversity management committees will now be created.

While the Bill provides for recognition and protection of traditional knowledge (TK), grey areas do exist because the modalities for protecting informal knowledge held by individuals, organisations, groups of people and communities as well as definitions of novelty and innovativeness are still emerging. The Bill has, therefore, provided an umbrella provision to protect TK, through registration of knowledge by developing a *sui generis* system. An estimated 9,500 plant species are utilised by native communities for 7,500 medicinal purposes, 3,900 edible uses, 700 material and cultural requirements, 525 for fibre and coradage, 400 for fodder, 300 for pesticides, 300 for gums, resins and dyes and 100 for incense and perfumes. n

FEEDBACK

Dear Readers,

Indian Institute of Foreign Trade (IIFT) in collaboration with Department of Scientific & Industrial Research (DSIR) has already brought out several issues of Quarterly Newsletter, *Technology Exports.*

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