SESSÃO 4
INDIA E CHINA:
POTÊNCIAS MUNDIAIS?

SUMÁRIO

- Países Emergentes e BRICs: Conceitos idênticos?
- BRICS: Semelhanças e diferenças
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- China: Democratização *versus* crescimento?
- Gigantes empresariais
- Desafios para Portugal e a Europa

Países Emergentes e BRICS: Conceitos idênticos?

- Países Emergentes: Um conceito vago e pouco preciso
  - Novos países de economia de mercado?
  - Países em crescimento rápido?
- BRICS: Brasil, Russia, India, China & South Africa
- Será possível (e conveniente) estabelecer uma correspondência entre os dois conceitos?

BRICS.
Semelhanças e Diferenças

- As Semelhanças: Dimensão, Relevância Regional/ Continental, Potencial de crescimento...

- As Diferenças: Dimensão, Características Geo-demográficas, Características políticas, Inserção na economia de mercado, Dinâmica e Potencial de crescimento regional e nacional...

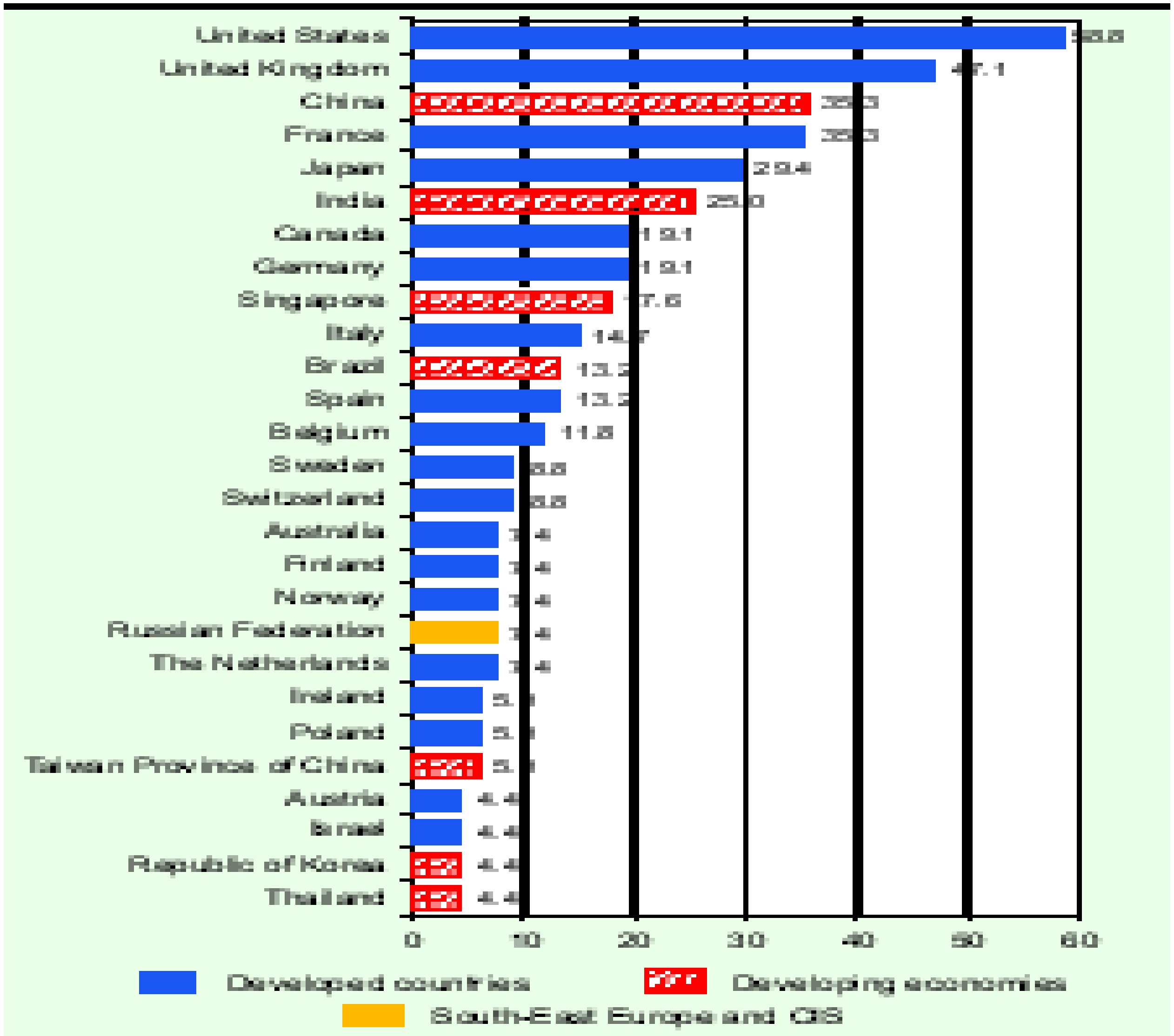
- As Diferenças são muito mais significativas que as Semelhanças

A Ásia como Desafio e como Oportunidade

- **Os Desafios**: Dimensão e Dinâmica populacional, Ética de trabalho, Empenhamento em aprender, Dinâmica económica, Ambição nacional (especialmente no caso da China), Economias de aglomeração e inter-acções, Redes internacionais e regionais, Operações de aquisição...

- **As Oportunidades**: Dimensão e potencial de crescimento dos mercados (Being where the action is), Integração de novos estratos populacionais, Exploração de EspecializaçõesRecíprocas, Envolvimento global...

Figure IV.8. Current foreign locations of R&D in the UNCTAD survey, 2004
(Per cent)



Fonte: UNCTAD, WIR (2005)

Box IV.5. The boom in R&D-related FDI inflows in China

R&D-related FDI inflows in China have surged in recent years. The accumulated R&D investment of TNCs in China had reached approximately $4 billion by June 2004 (estimated by the Ministry of Commerce), while the number of foreign-affiliate R&D centres, registered according to the eligibility criteria in place since the year 2000, reached 700 by the end of 2004. Although the first TNC R&D centre dates back to 1993, most of the known projects are recent (established after China's accession to the WTO in December 2001).

Most foreign-affiliate R&D centres are wholly-owned by their parent companies, although some of them are joint ventures (such as the one established by Lenovo and Intel in 2003). The majority of these centres still focus on adaptive innovations for the Chinese market. However, some do innovative R&D that is closely integrated with TNCs' global innovation networks, and thereby target global markets.

R&D-related FDI inflows have been concentrated in technology-intensive industries such as ICT, automotive and chemicals (according to the data of the Beijing Municipal Bureau of Statistics). The ICT industry, in particular, has witnessed a boom in R&D investment by TNCs (box table IV.5.1). Motorola (see also box IV.6), one of the largest foreign investors in China, had set up 15 local and global R&D centres in China by the end of 2004, with several others under construction. In addition to Motorola, major R&D investments have been made by Microsoft, Nokia, GE (box table IV.5.1) as well as IBM, Siemens, Nortel, Dupont, General Motors, Honda, Hitachi and Toshiba, to mention only a few (Sigurdson 2005a, p. 2).

Foreign-affiliate R&D centres in China are concentrated in large cities with strong technological bases and skilled human resources, particularly in Beijing and Shanghai (box figure IV.5.1). At the end of 2004, 189 centres were located in Beijing alone, with almost 60% of them in the ICT industry. Many of them followed on the footsteps of IBM, which established its wholly-owned R&D centre there in 1995. Within the capital, the Haidian District (where Zhongguancun Science Park is located) is home

Box table IV.5.1. Selected foreign affiliate R&D centres in the electronics and ICT industries of China, as of 2004

Company	Number of R&D centres in China	Location	Features
General Electric	1	Shanghai	• China Technology Centre, opened in Shanghai in 2003, is the third global R&D centre of the company after those in the United States and India. • Invested $640 million and centralized its previously existing R&D units in China. • 500 R&D engineers (planned to increase to 1,200 in 2005).
Microsoft	5	Beijing Shanghai	• Invested $130 million. • Microsoft Research Asia (MRA), established in 1998, is the company's basic research facility in the Asia and Oceania region and the fifth largest research centre in the world. • MRA employs over 170 researchers.
Motorola	15	Beijing Shanghai Tianjin Suzhou Nanjing Chengdu	• The first TNC R&D centre in China (set up in 1990). • Total of 1,300 R&D engineers. • Invested $300 million in R&D in China until 2001. • Motorola China Research Institute (MCRDI) was established in 1999. • Will invest $500 million in a new R&D centre in Beijing.
Nokia	5	Beijing Shanghai Hangzhou	• Nokia China R&D Centre, established in 1998, employs 300 R&D engineers. • Hangzhou R&D Centre, established in 1998, employs 180 R&D engineers (will increase to 400).

Source: UNCTAD, based on company press information.

/...

Fonte: UNCTAD, WIR (2005)

INDIA

Castas e Pobreza no País do *Software*

INDIA
Elementos retirados de Wilsdon & Keeley (2007)
The Atlas of Ideas, Demos

Table 1– Key scientific and social indicators

	Figure	Source
Inputs		
GDP growth rate	– 8.2%	Dahlman and Utz, World Bank, 2005
	– India has 17% of the world's population but only 2% of global GDP and only 1% of world trade	ITPS (Swedish Institute of Growth Studies), 2005
Percentage GDP on R&D	– 0.8% GDP	NSTMIS, Department of Science and Technology, Government of India, 2002/03
Annual science budget	– $4.5 billion	Department of Science and Technology, Government of India, 2006
Human capital creation		
Annual enrolments at the level of graduate and above	– 6.6 million in 1995/96 – 9.84 million in 2004	National Council for Applied Economic Research (NCAER), India Science Report, 2005
Within this, the percentage studying engineering has almost doubled	– 6% in 1995/96 – 11.2% in 2003/04 (= 8.2% growth from 1995 to 2000, risen to 21.9% growth from 2000 to 2004)	
Pool of young university graduates (those with 7 years or less of work experience)	– Roughly 14 million – This is 1.5 times the size of China's, almost twice that of the US, and is topped up by 2.5 million new graduates in science, engineering and IT every year	Farrell et al[9]
Engineering graduates per year	– Approximately 350,000[10] – Predictions claim there will be as many as 1.4 million by 2015	A study by UGC and CLSA Markets
Science PhDs per year	– 5000–6714	Mashelkar,[11] ITPS, NSTMIS
R&D staff at work in science or industry	– 21 researchers per 1000 employed	OECD, 2001/02

Table 1– Key scientific and social indicators (cont.)

	Figure	Source
Inputs cont.		
Size of R&D infrastructure	– 229 universities – 96 deemed universities – 13 institutes of national importance – 400 government research labs – 1300 (approx) industrial R&D units	Ministry of Human Resource Development, Government of India, 2006
Quality of broadband infrastructure	– Urban India has only a 3 per cent adoption rate among its top three socioeconomic classes	Forrester research published in SDA[12]
FDI as a % of GDP	– 0.07	World Bank WDI (World Development Indicators), 2005
Comparative FDI	– India is the fifth most preferred investment destination for foreign money in Asia, attracting $6.6 billion in 2005 (compared with China's $72.6 billion in 2005)	UN Conference on Trade and Development (UNCTAD), World Investment Report 2006
Outward FDI	– India's *outward* FDI has grown at an average of over 50% on a three-year moving average, between 1992 and 2004	UNCTAD, World Investment Report 2006
Growth competitiveness index, 2005	– India is ranked 50th, one place below China. India is up five places from 2004, whereas China is down three.	World Economic Forum (WEF), 2005

	Figure	Source
Outputs		
US patents	– 341 US patents granted in 2003 (China 424) – 1164 US patent applications in 2003 compared with just 54 ten years earlier	US Patent and Trademark Office (USPTO)
Indian patents	– Nearly 23,000 applications in 2005/06 compared with 17,266 in 2004	Indian Patent Facilitation Centre[13]
Peer-reviewed articles	– 12,500 scientific papers were published and included in the Thomson ISI database in 1999, rising to 15,600 in 2003	Science and Development Network, 2005

Table 1– Key scientific and social indicators (cont.)

	Figure	Source
Key social indicators		
Percentage of population with no schooling	– Decreased from 66.6% in 1980 to 43.9% in 2000	World Bank, 2001[14]
Percentage of population completing postsecondary education	– Risen from 0.7% to 2.2% of the population in the same period	World Bank, 2001
Literacy rate	– 58% men/31% women (1985) – 68% men/45% women (2000)	World Bank, 2006
Life expectancy at birth (years)	– 63.3	Human Development Index (HDI), 2003
Population living below $1 a day	– 34.7%	HDI, 2003
Population living below $2 a day	– 79.9%	HDI, 2003
Ratio of Indian population living below the poverty line	– 55% (1973/74) – 26% (1999/2000)	World Bank, 2006

Table 2 Scientific impact in relation to GDP per capita/year

Country	Scientific publications			Citations		
	SCI publications (1997–2001)	GDP per capita	SCI publications per GDP capita per year	SCI citations (1997–2001)	GDP per capita	SCI citations per GDP capita per year
India	77,201	487	32	188,481	487	77
China	115,339	989	23	341,519	989	69
US	1,265,808	36,006	7	10,850,549	36,006	60
Germany	318,286	24,051	3	2,500,035	24,051	19
UK	342,535	26,445	3	2,199,617	26,445	18
Japan	336,858	31,407	2	1,852,271	31,407	12
Canada	166,216	22,777	1	1,164,450	22,777	10
Italy	147,023	20,528	1	964,164	20,528	10
Korea, Rep.	55,739	10,006	1	192,346	10,006	4
France	232,058	240,461	0.2	1,513,090	240,461	1

SCI, Science Citation Index

Source: RA Mashelkar, director general, CSIR, presentation to Demos, 27 Jun 2006.

The 15 largest Indian populations around the world outside India (India's population is 1.1 billion)

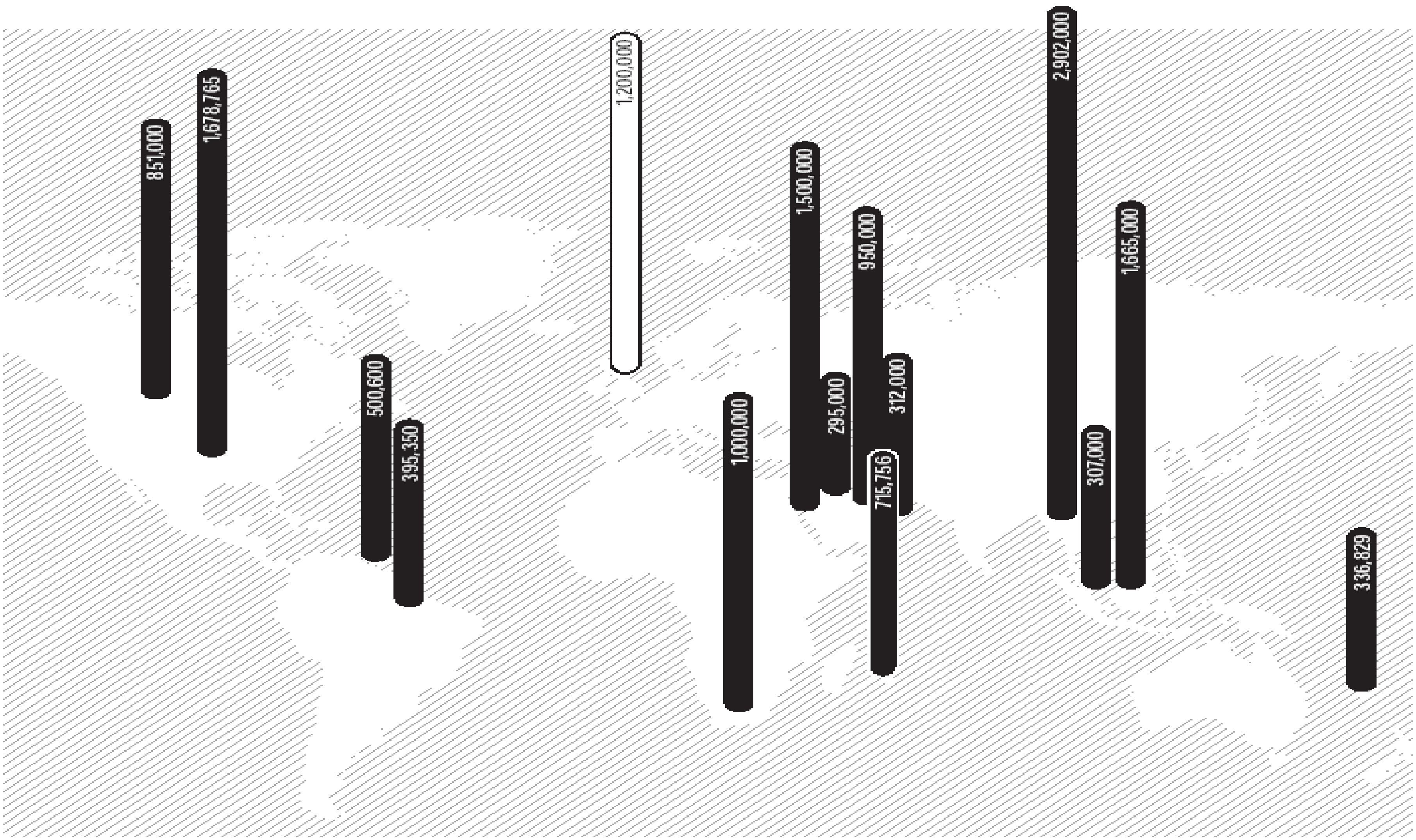
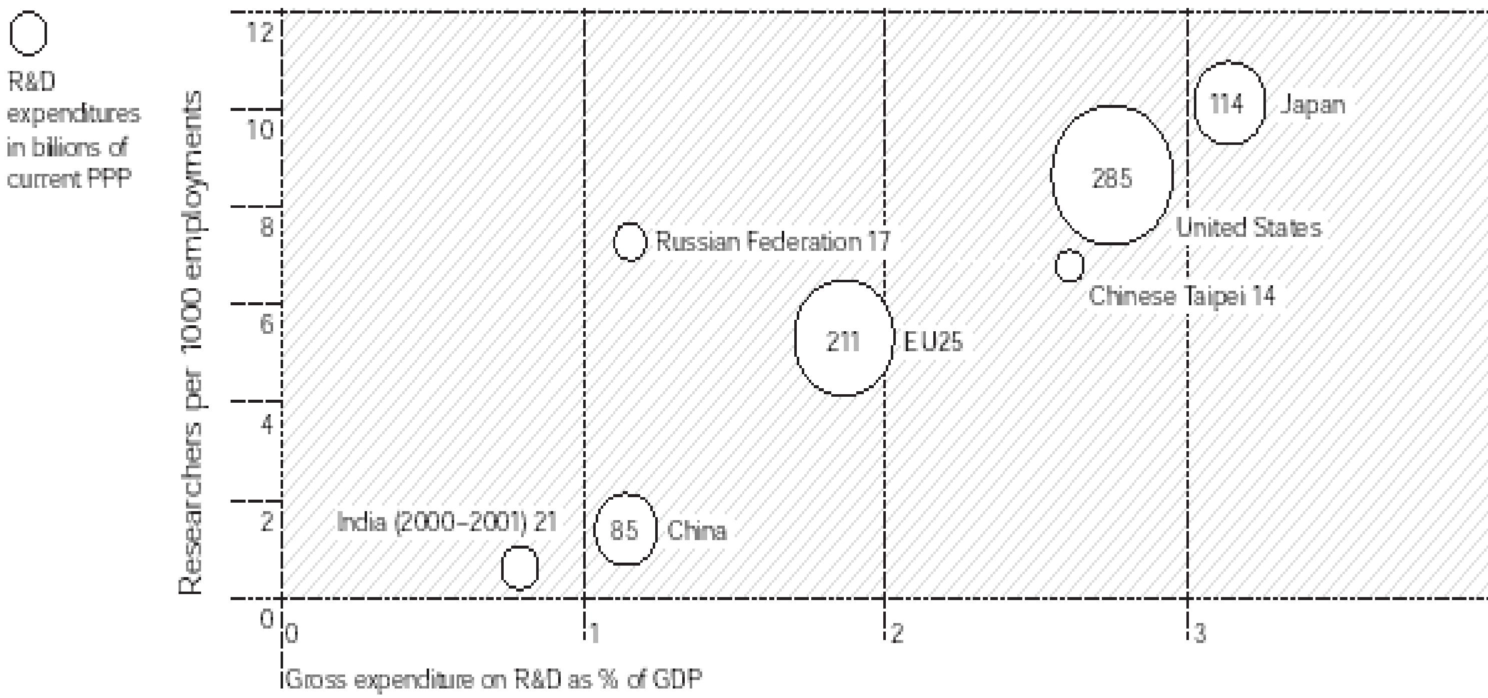


Figure 4 Researchers per 1000 persons employed plotted against R&D expenditure



Note: The size of the bubble represents R&D expenditure in billions of current USD in purchasing power parities (PPP), based on data in constant 2000 prices. For researchers per 1000 persons employed: EU25, 2002; US, 1999; and India, 1998.
Source: OECD, Science, Technology and Industry Scoreboard 2005: Towards a knowledge-based economy; for statistics links see http://dx.doi.org/10.1787/083778005723 (accessed 29 Nov 2006).

4 Maps
The changing landscape of Indian science

Table 4 Ranking of top five Indian players among the PCT rankings of developing countries in 2002

Rank	Indian applicant	No of applications (based on record copies)
1	CSIR	184
2	Ranbaxy Laboratories Ltd	56
3	Dr Reddy's Laboratories Ltd	19
4	Orchid Chemicals and Pharmaceuticals Ltd	16
5	Biocon Ltd	10

Figure 6 The paradox of Indian science

India		
BMW science	—	**Bullock cart science**
Bangalore (Bengaloru)	—	Bihar
Democracy and rule of law	—	Corruption (one-fifth of members of parliament arrested for crimes according to *Newsweek*)
45 million graduate population	—	500 million Indians depend on agriculture for survival
Modern, affluent and growing middle class	—	Ancient society
Conformity with global rules for the protection of intellectual property through WTO TRIPS	—	Traditional and ancient scientific knowledge such as ayurveda, requiring new concepts of knowledge ownership
Science as the answer to the development question	—	Importance of religion, astrology and superstition in daily life
Innovation increasingly important as a source of market differentiation and profit (from a low base)	—	Innovation, ingenuity and adaptiveness as a daily necessity for survival
English-speaking, western-educated scientific elite	—	Around 20 officially recognised languages spoken and numerous more dialects; multilingual capabilities as standard

Figure 7 Number and distribution of India's internationally co-authored papers, comparing 1996 and 2003

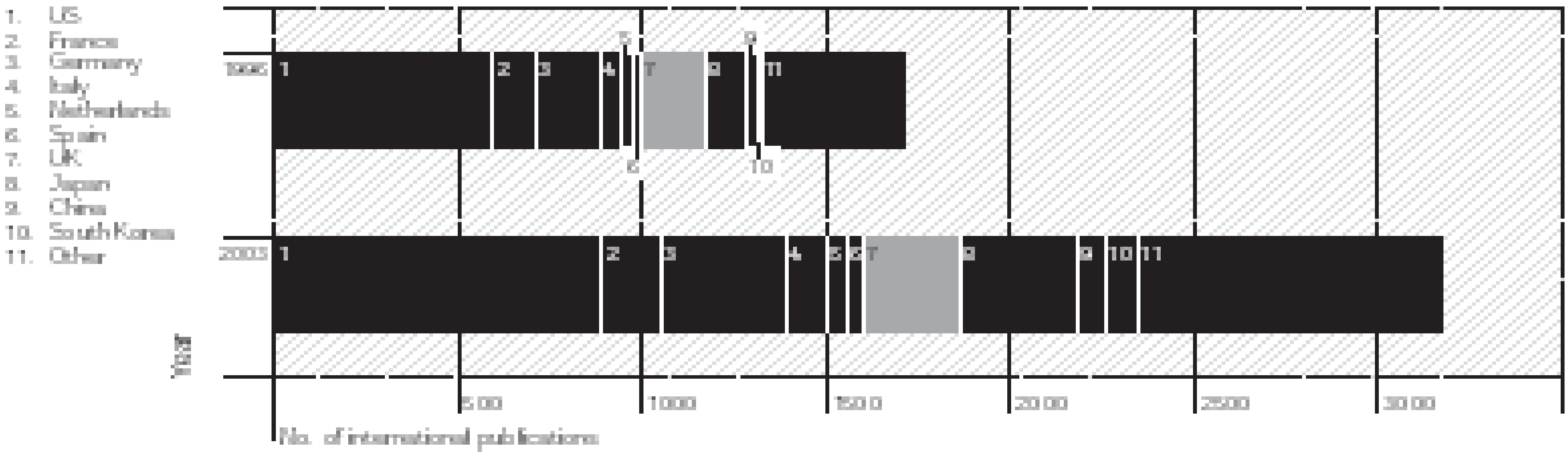


Figure 8 Relative change in proportion of India's internationally co-authored papers, comparing 1996 and 2003

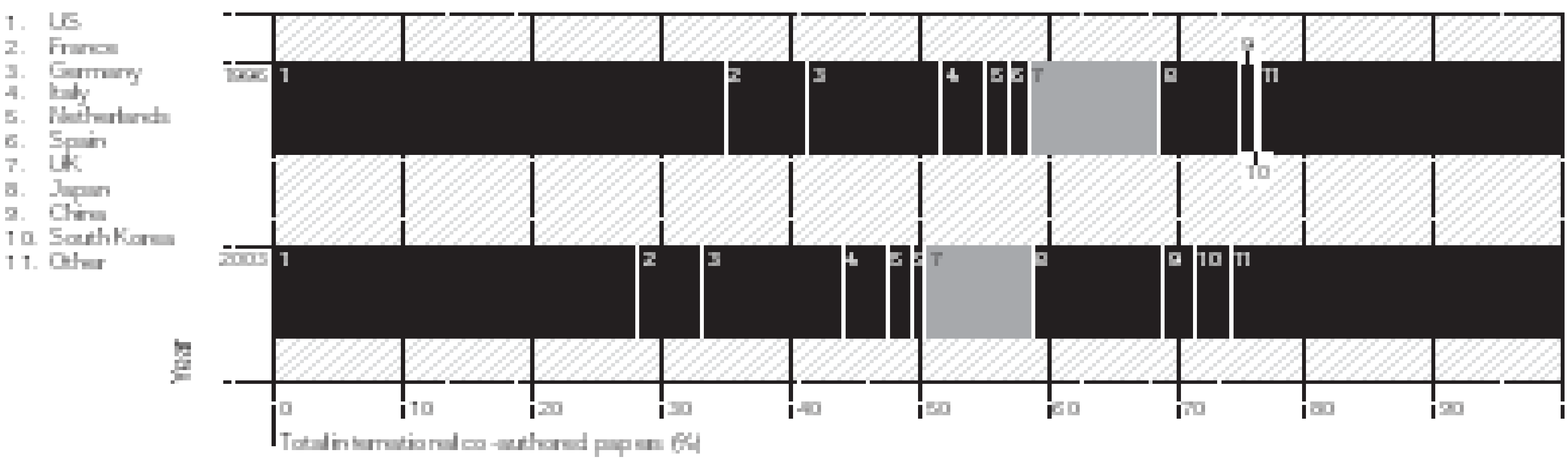
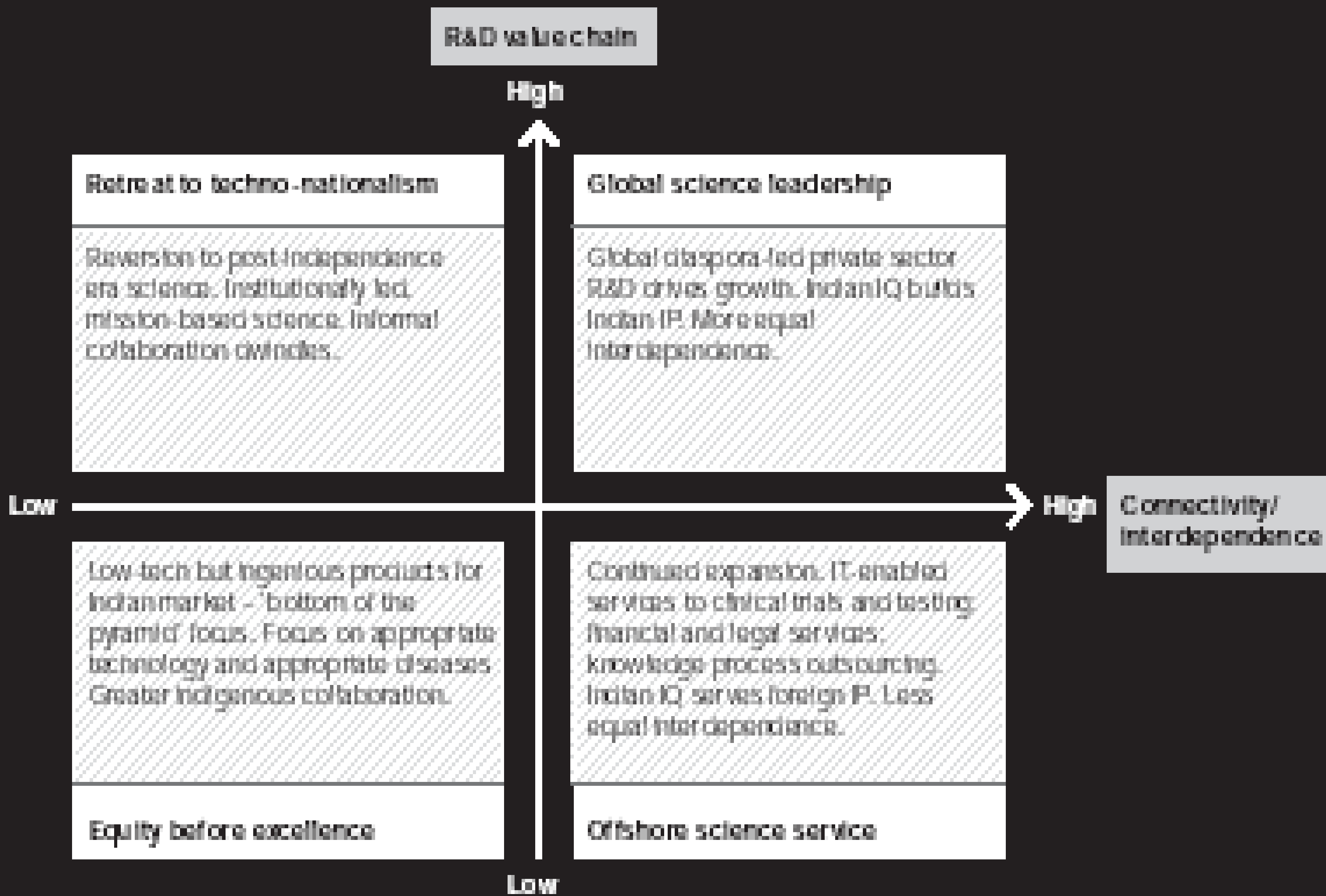


Figure 10 Possible futures for science and innovation in India



CHINA

Democratização versus Crescimento?

Table 1. China's share in major markets (% of total imports)

Partner	1990	2000	2001	2002	2003	2004
Japan	5.2	14.5	16.6	18.3	19.7	20.8
United States	3.1	8.6	9.3	11.1	12.5	13.8
Korea	2.1	8.1	9.5	11.6	12.4	13.4
Australia	2.7	7.9	9.0	10.3	11.3	13.0
EU-15	2.5	6.2	6.8	7.7	9.1	10.7
New Zealand	1.2	6.3	7.0	8.0	9.0	10.2
Canada	1.0	3.2	3.7	4.6	5.5	6.8
Russia*	1.6	2.1	3.9	5.7	5.7	6.3
Mexico	0.8	1.7	2.4	3.7	5.5	na
Turkey	1.1	2.4	2.3	2.7	3.9	4.8

Note: *For Russia, 1990 refers to 1996.

Source: UN Commodity Trade Statistics Database (COMTRADE); EU data derived from OECD International Trade Statistics in OECD (2006b).

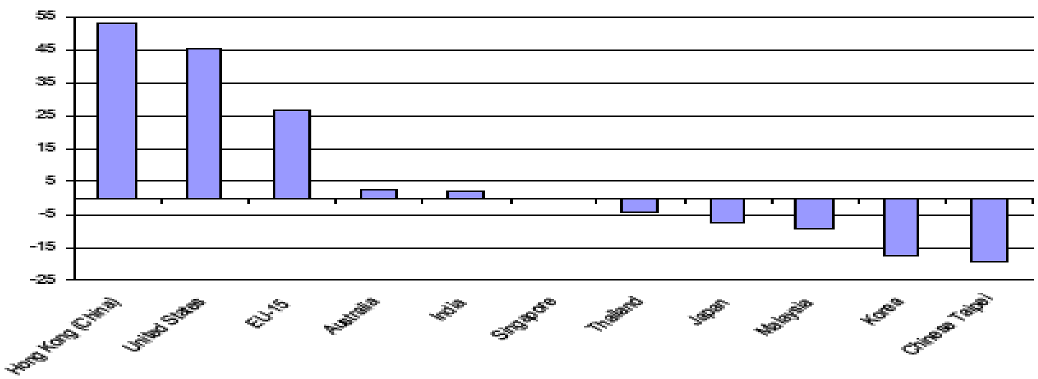
Global value chains: not a pure North-South phenomenon but a two-way process

Although emerging countries are of growing importance, trade and FDI of OECD countries are still largely concentrated within the group of developed countries, suggesting that the globalisation of value chains is not primarily a North-South issue. In 2004, almost 78% of all OECD exports of manufactures went to other OECD countries, while 75% of the manufacturing imports in OECD countries came from within the OECD area. At the same time, globalisation is a two-way process with trade and FDI between OECD and non-OECD countries giving rise to flows in both directions. While manufactured exports of emerging countries have risen rapidly, so have the corresponding imports in these countries, as their domestic markets expand and demand for intermediate products increases. FDI data show that developing countries are starting to invest abroad, although the level of outward investment remains small.

move further up the value chain and specialise in higher value added activities. Trade balances of China in ICT illustrate this triangular pattern very well: China reports trade surpluses with the United States and the EU-15 and trade deficits with most ASEAN countries (Figure 12). An important question then is whether China is merely assembling component parts or whether there are indications that the country has added increased value in industries like ICT.

Figure 12. China's trade balance in ICT goods, 2005*

Billions USD



Note:

*Data for EU-15 and Chinese Taipei are for 2004.

Source: OECD ITS Database.

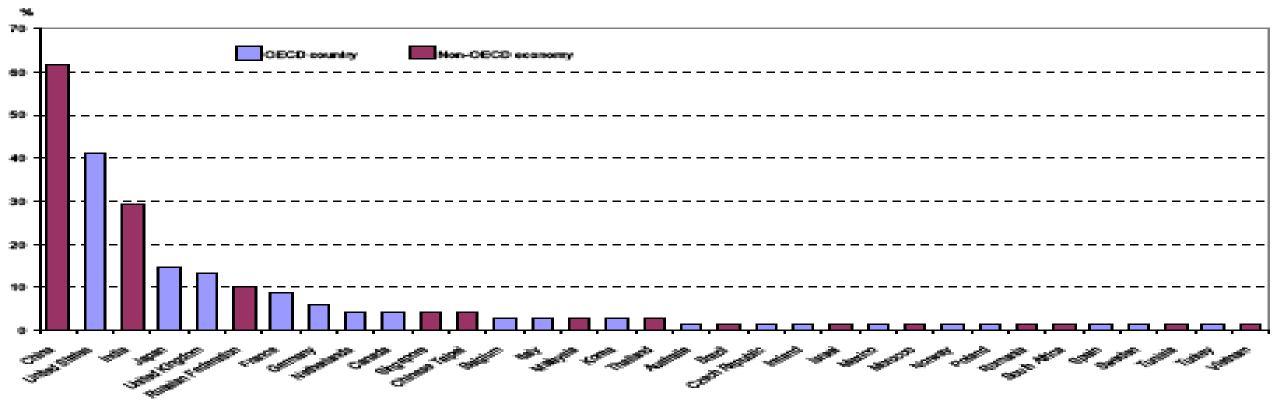
Another important question is how long this specialisation in labour-intensive activities will last and whether China will develop its own technological capabilities. Until the end of the 1990s, China relied heavily on the support of foreign capital and foreign technology embodied in high-tech imports, which seems to have resulted in only limited knowledge spillovers and benefits to the local Chinese economy. Furthermore, given the remaining large number (over 100 million) of low-skilled agricultural workers that could move into the manufacturing sector over the coming decades, it is likely that China's comparative advantage may remain in labour intensive activities and products for years to come. However, China has recently implemented a new policy which emphasises the development of domestic innovative capability. This has led to increased spending on R&D and a growing researcher base, but is not yet translating into stronger performance in many technological indicators.

The internationalisation of R&D is creating new competitive pressures for OECD countries

Following the offshoring of manufacturing and services, high-skilled business functions like R&D also seem no longer immune to being outsourced and off-shored. This has contributed to concerns about the future of the domestic knowledge base and resulting impacts on competitiveness, notwithstanding the fact that increased international R&D links can promote faster technological change and broader diffusion of technological advances worldwide. R&D investment abroad by multi-national firms has grown strongly as MNEs' strategies focus on global technology sourcing. This involves building networks of distributed R&D globally in order to tap into local knowledge and develop sources for new technology development. While most R&D internationalisation still takes place within the OECD area, developing countries are increasingly attracting R&D centres, although these remain relatively small in a global perspective (Figure 13). Large increases in foreign R&D investment in Asia, in particular in China and India, have attracted much attention in recent years. It can be expected that this shift will continue to some extent as these countries offer a combination of relatively low wages with a good education system, resulting in a large pool of well-trained researchers.

Figure 13. Most attractive foreign R&D locations: UNCTAD survey

% of responses



Source: UNCTAD (2005) in OECD (2006d).

CHINA

Elementos retirados de Wilsdon & Keeley (2007)

The Atlas of Ideas, Demos

The uncertain promise of Chinese science

'By the end of 2020… China will achieve more science and technological breakthroughs of great world influence, qualifying it to join the ranks of the world's most innovative countries.'

President Hu Jintao, 9 Jan 2006

Table 4 – Headlines Statistics

	Quantity	Year	Source
GDP growth rate	9.9%	2005	National Bureau of Statistics, China/MOST
% GDP spent on R&D	1.3%	2005	
GDP total	18,232 billion RMB	2005	
Government R&D budget	71.6 billion RMB	2005	
Annual rate of growth in government R&D budget	19.2%	2005	
S&T workforce	2.25 million scientists and engineers	2004	National Bureau of Statistics, China
	1.15 million person years spent on R&D	2004	
Enrolment in tertiary education	15 million	2004	Ministry of Education
Enrolment in postgraduate programmes	820,000	2004	
Number of science, medicine and engineering undergraduates	6,508,541	2004	
Number of science, medicine and engineering postgraduates	502,303	2004	
PhDs awarded	23,500 (70% in science-related subjects)	2004	
Number of students studying abroad (1978–2003)	700,000	1978–2003	
Number of overseas students returned to China (by 2003)	170,000	2003	
Number of colleges and universities	1731	2004	Ministry of Education
Number of graduate schools/research institutes	769	2004	Ministry of Education
Number of universities in global top 200	6 (Beijing, 14; Tsinghua, 28; Fudan, 116; China University of Science and Technology, 165; Shanghai Jiao Tong, 179; Nanjing, 180)	2006	*Times Higher Education Supplement*

Table 4 – Headlines Statistics (cont.)

	Quantity	Year	Source
Number of universities in global top 100 for science	5 (Beijing, 12; China University of Science and Technology, 32; Tsinghua, 41; Fudan, 63; Nanjing, 70)	2006	*Times Higher Education Supplement*
ICT uptake	390 million mobile phone users	2005	*The Economist*
	111 million internet users	2005	
Number of scientific publications (in SCI)	13,500 46,000	1995 2004	Evidence Ltd
Share of world citations	0.92% 3.78%	1995 2004	
Applications for invention patents	130,000 (around half from multinationals)	2005	State Intellectual Property Office of China (SIPO)
Growth rate of invention patent applications	23% annually since 2000	2005	SIPO
Share of total applications for invention patents	Foreign companies: 86% Chinese companies: 18%	2005	SIPO
Chinese enterprises that have never applied for patents	99%	2005	SIPO
National share of international patents filed with World Intellectual Property Organization	1.4%	2005	WIPO
US patents granted to Chinese applicants	424	2003	US Patent and Trademark Office
Inflows of foreign direct investment	US$72.6 billion	2005	United Nations Conference on Trade and Development *World Investment Report*
Multinational R&D centres in China	750	2005	Chinese Ministry of Commerce
Multinational centres performing innovative R&D	c. 60	2006	Swedish Institute for Growth Policy Studies
Chinese companies in top 500 global companies by R&D investment	4 (PetroChina, 185; China Petroleum, 260; ZTE, 298; Lenovo, 356)	2006	UK DTI global scoreboard

Table 4 – Headlines Statistics (cont.)

	Quantity	Year	Source
Value of Chinese high-tech exports	US$165.5 billion	2004	*China Yearbook on High Technology Industry*
Forbes magazine top 1000 billionaires	8 Chinese	2006	*Forbes* magazine
Gross income per capita	US$1290	2004	UNICEF
% of population living below US$1 a day	17	2003	
Average life expectancy at birth	72 years	2004	
Total adult literacy rate	91%	2004	
Deloitte Competitiveness Index	24 (out of 25 countries)	2005	Deloitte
World Economic Forum Global Competitiveness Index	54 (out of 125 countries)	2006	WEF
World Economic Forum Network Readiness Index	41 (out of 104 countries)	2006	WEF/INSEAD
Transparency International Corruption Perceptions Index	70 (out of 163 countries)	2006	Transparency International

The war for talent: views from the frontline

When people say to me, 'How far is China behind the US in terms of technology?,' I say 'three months if you don't count creativity'. If someone at MIT posts some results, then China can recreate it in three months. But it takes longer than that to train and instil creativity.
Harry Shum, Managing Director, Microsoft Research Asia

Creativity is a problem, especially when people start working here. Also a willingness to take responsibility and to show leadership. For example, at first, when I asked people to produce a research report, they would complete it but not put their name on it. They gave it to me as if I was the one who was then responsible for its contents. So I had to say, 'No, you need to take ownership of these ideas and put your name to them.' There are so many different cultural assumptions.
Christian Rehtanz, Director Corporate Research, ABB China

The Confucian tradition of respecting customs and hierarchy has cast a long shadow over modern China… Deference to authority and to existing paradigms is a major barrier to scientific breakthrough.
Mu-Ming Poo, Professor of Neurobiology, UC Berkeley and Director, CAS Institute of Neuroscience, Shanghai

Initiative and creativity can be a problem, especially with recent graduates, but it is changing slowly for the better. When we recruit graduates, at either Master's or PhD level, it takes about two years for them to work really effectively. If we recruit people who've studied or worked abroad, it's much quicker.
Ya Cai, Director, Unilever Research Centre, Shanghai

It's easy to find engineers. But finding the mid-level managers, the people who can grow talent and nurture the next level is very tricky. The fact that I'm sitting here talking to you in Shanghai is a sign of our failure to do that. But the problem really stems from the Chinese education system. It teaches you to follow instructions, but not to think on your feet. I'm more interested in the outsiders, those who are less conventional, who get left behind.
James Stanbridge, Director, Global Service Operations, Microsoft China

When I came to China, I discovered that one particular technology which we'd developed was already here. Someone had copied it, and it was quite widely available. We didn't even realise it was here… We hadn't kept track of who was doing what here, or what was being published in Chinese journals. We urgently needed experts who could follow these things for us.
Christian Rehtanz, director of corporate research, ABB Beijing R&D Centre[97]

At first, the research we were doing was related to market access. But to be honest, we've found it even more cost effective to do R&D here than I thought was possible. The speed with which we can develop prototypes is key. The turnaround is so fast that even if the quality is a little lower, we get them so quickly that we can have many more attempts at getting them right. We get more shots at the same problem for a lower cost.
Ralph Lofdahl, general manager, Radio Network R&D Center[98]

Decisions about where to locate manufacturing are relatively easy. It's now a science, with established methodologies. But locating R&D is more of an art. For Intel, our top factors are: 1) people; 2) people; 3) people; 4) customers; 5) government.
Mark Griffin, head of PRC Digital Enterprise Group, Intel[99]

Lower costs are still a factor, but not as much as they were. It's more about being close to where the market is growing fastest… Availability of talent is also key. Our labs in Europe are finding it harder to recruit in certain areas; there's a noticeable tightening of availability. And there's also the use of TCM [traditional Chinese medicine] to generate new products. We are now just one step away from TCM-based products being launched on the global market.
Ya Cai, director, Unilever Research China[100]

Table 5 Top ten Chinese global brands

1	Lenovo	6	Tsingtao Brewery
2	Haier	7	CCTV
3	Bank of China	8	CNOOC
4	Air China	9	Huawei
5	China Mobile	10	Ping An

Source: *Financial Times*/McKinsey survey; see R McGregor, 'China's companies count down to lift off', *Financial Times*, 30 Aug 2005

5 TIPOS PRINCIPAIS DE COLABORAÇÃO

- Multilateral programmes and projects
- Multinational corporate R&D
- Bilateral programmes or centres
- Bottom-up networking and joint research
- Research fellowships and travel scholarships

Gigantes Empresariais

CHINA	INDIA
Lenovo	Tata
Shanghai Auto	Ranbaxy
China Const. Bank	Wipro

Desafios para Portugal e a Europa

Fonte: Simões (2007)

The Future (I)

The Global Environment

- ✓ The World economic landscape is changing
- ✓ Different Dynamics and Growth rates: East *versus* West;
  Pacific *versus* Atlantic
- ✓ Companies are moving towards the places ‘where action is’
- ✓ Educated and Committed Workforce supply makes a difference

The Future (II)

A Greying Europe

✓ Europe is really ‘at Fifty’: Getting old without wisdom?
✓ ‘En quête du temps perdu’: Failing to recognise that the World has changed, and is changing fast
✓ Nice words... but lack of coordinated action
✓ ‘Enlargment hopes’ not turned into reality: not enough new blood
✓ Is an Europe of services sustainable?

The Future (III)

A ‘slowing’ Portugal

- ✓ Correct policies...but too slow a pace for recovering
- ✓ An economy very vulnerable to external shocks
- ✓ Lack of consistent FDI strategy: what is the country aiming at?
- ✓ Overcoming the ‘dual perspective’
- ✓ Fostering dynamic linkages
- ✓ The need to build on existing strengths: adaptability, creativity and ‘bridging’
- ✓ Can outward investment play a role?
- ✓ Learning from the success stories

The Future (IV)

- Understanding the new challenges and avoiding complacency
- Promoting European ‘anchoring’ with a global vision
- Attracting new blood with new ambition
- Creativity and relational capabilities as assets for Europe in an Eastern-bound 21st. century