



eLSi
e-learning for Life Sciences
internationalisation

www.elsi-project.eu

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eLSi Partners



e-learning for Life Sciences internationalisation

eLSi – an e-learning platform to support your internationalisation

The life science sector has never been so global and there is an increasing need for international collaborations and entering high growth markets outside Europe.

This new context requires a good understanding of the life science and healthcare sectors in the target countries and specific intercultural business skills.

The new e-learning platform eLSi addresses these needs by providing a free interactive platform compatible with any electronic device with online resources on eight high growth regions.

- If you are at the early stage of your internationalisation strategy and want to know more on these markets, eLSi offers you a range of documents and videos including the key information you need to know: structure of the life science markets, key country players, healthcare regulation, culture facts....
- If you already targeted one or more of the countries available on the platform, you will find relevant information on how to start your business, the negotiation process, business etiquette and language tips.

eLSi – a range of resourceful materials

Each country package on the platform can be consulted independently and does not require more than 10 minutes for an overview of the topics. The five main areas covered are:

- The current status of the life science industry
- Life science business, culture and negotiation process
- Business etiquette
- Starting your business
- Language basics and tips

Materials provided include:

- Insight reports on the life science sector and its regulation
- Maps with life science hot spots of the target country
- Legal guidelines and key contacts
- Videos from industry and intercultural business experts
- Weblinks for further readings

eLSi – a multi beneficiaries tool

The flexibility of the eLSi platform makes it accessible to various stakeholders who are:

- Pharma, medtech, biotech and healthcare companies' managers
- VETs (Vocational Education Trainers) and business Consultants
- Culture and Language service providers
- Cluster/business support organisations

Australia



Australia has English as the official language with an educated population from over 200 countries enjoying a relatively high standard of living. Australia offers investors a low-cost/low risk investment opportunity, with free trade agreements with many of its regional partners including conventions with countries in the ASEAN (Association of Southeast Asian Nations) group, Chile, New Zealand, Singapore, Thailand and the USA. These bilateral trade agreements provide competitive advantages for international investors in the operation of these markets.

Australia has been viewed as a hot spot for biotechnological research for over 10 years, growing from 190 biotechnology companies in 2001, to 1,000 biotechnology/medtech companies in 2011, split 60% red biotechnology (medical focus), 20% green (agricultural and food-oriented), and about 4% grey (environmentally focused).

The sector is mainly small to medium private and public companies located in the 5 main coastal cities that have a very direct business style and understand the need for International trade. Tax credit incentives make Australia a very attractive location for foreign investors, with 73% of pharmaceutical sales being into their National Healthcare system. The majority of these are in therapeutics (48%) with medical devices and diagnostics being 38%.



Population 22m
 Area 2.97m mi²
 GDP 1,525bn \$(US)
 400 Biotech Companies
 600 Medtech Companies

Brazil



Part of the BRIC group Brazil is one of the fastest growing economies, with the life sciences economy diversified and growing particularly in human health, animal health and agricultural biotechnology.

Brazil is the seventh largest economy in the world and is expected to grow at a rate of 12.0% per year, with the vast majority (85%) micro and small enterprises. Business incubators and science parks play an important role in creating biotech startups, typically with turnover of BRL 1m or less and are characterised by strong technological content and potential for innovation.

Corporate partnerships are highly attractive, reducing the risk of the investment with third parties, and adding competencies and accelerate development. There is a high level of complementarity between the challenges faced by life science companies and the skills and resources of medium and large-sized companies, creating business opportunities for the European biotechnology and medical equipment industries.

Healthcare is a critical sector for the biotechnology sector, with Brazil offering great opportunities both for technology transfer and direct investment.



Population 201m (2013)
 Area 3.3m mi²
 GDP 2,476bn \$(US)
 Pharma Value \$22bn US
 (2010)

China



The world's fastest growing economy for the past three decades, China's coastal regions, including Beijing and Shanghai and other locations in the East of the country, are the most developed areas with large-scale high-tech industry and science parks providing vibrant and international environments for research and development (R&D). Most global pharmaceutical and technical companies now have facilities in China and with manufacturing costs rising the focus is shifting towards innovation and development of new products (or improved products like biosimilar drugs). This trend has been accelerated by the return of many Chinese from their training abroad, (usually US), creating new companies and start-ups.

China now has substantial opportunities in the life sciences and healthcare sector, with a strong scientific base at the universities, a reformed and expanding healthcare system and a powerful pharmaceutical industry. Demand for innovative drugs products is continuously rising, but a highly segmented market and strong cultural differences can be a real barrier to success. China has an ambitious innovation strategy with biotechnology and pharmaceutical R&D seen as critical, with financial incentives in this sector even available to foreign companies, provided they form a Chinese joint Venture.

Regulatory affairs, e.g. for marketing authorisations for drugs and medical devices, are handled by the central agency CFDA. Patent protection and IP law issues, historically a problem, are being tackled and resolved, with many domestic Chinese companies facing this issue which has made IP protection a key issue for Government legislation. Life sciences products and projects are often better protected due to their inherent complexity and the specialist skills required, but European businesses should not underestimate the impact of cultural differences that can hinder negotiations and progress with Chinese partners.



Population 1.364bn (2013)
Area 3.75m mi²
GDP 8,358bn \$(US)

India



India is the largest democracy in the world, with one of the fastest-growing industrialised economies. Government policy has nurtured the biotechnology sector, seeing growth from \$500m (US) in 2003 to \$4bn in 2011, a growth rate of 20% year-on year.

The biotechnology and healthcare sectors have the potential to grow at a rate of 25-30% and generate revenues of US \$10bn by 2025, with India on the threshold of a decade of innovation and Indian biotechnology poised to provide solutions to many challenges faced in health, food and fuel security. These areas are fundamental for India's success if it is to evolve into a bioeconomy.

The opportunities lie mainly in biologics, especially biosimilars and vaccine manufacturing, stem cells, medical devices and diagnostics. In addition contract research and manufacturing, integrating scientific evidence-based traditional knowledge into healthcare, agri-biotechnology green biotechnology, and bioenergy.

India has the potential to become a global hub for R&D and manufacturing in all aspects of biotechnology.



Population 1.243bn (2013)
Area 1.27m mi²
GDP 1,872bn \$(US)

Japan



Japan's medical and healthcare market is second only to the US in size and is expected to expand significantly in the future to meet the needs of their aging population, with the Government implementing policies for preventive medicine focused upon age-related diseases. The Japanese medtech market ranks third in the world, after the U.S. and Germany, and is expected to grow significantly in the next two years. It has a highly competitive market for diagnostic imaging systems, exporting half of all products manufactured, whereas the market for therapeutic instruments is largely dependent upon imported products. The prospects for novel medical devices is high, taking advantage of Japan's highly advanced technologies such as electronics and IT.

European biotechnology and medtech companies are exploiting the strong and increasingly open Japanese life science market, with Japan offering opportunities for collaborations in various scientific fields, e.g. in protein and stem cell research. Progress has been seen in the development of next-generation drug delivery systems (DDS), combinations of drugs and medical devices, and molecular imaging in the field of nanomedicine. The Japanese pharma industry shows an active interest in cooperation, licensing deals, M&A, and is opening up more and more to international partners. European life science SMEs with their innovative products and services are highly valued in Japan and benefit from a fast and sustained profitability on the Japanese market.

Cardiovascular drugs is the strongest therapeutic area with new anti-cancer drugs due for approval. Growth in biotechnology-based antibodies and low-molecular-weight targeted agents has been significant, the expanding healthcare sector offering opportunities, in generics, over-the-counter drugs (OTCs), and health management services. Novel drugs and medical devices, including biopharmaceuticals and nanomedicines, are also under development

Japan is offering development support in the area of orphan drugs, and some vaccines that are less marketable despite high medical needs, with opportunities for foreign-affiliated companies possessing patents on many active ingredients of prescription drugs expected to enter the non-prescription drug market, possibly in joint venture arrangements.



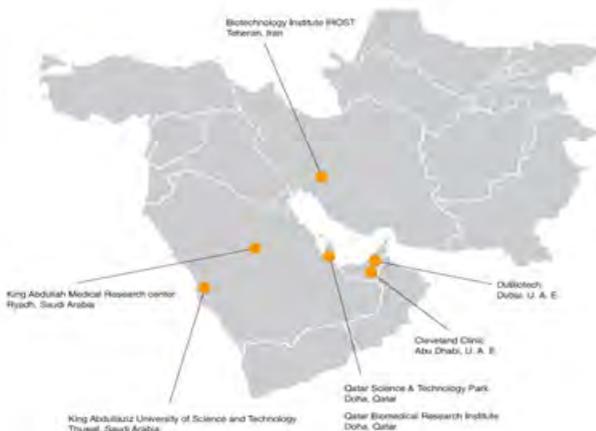
Population 127m (2013)
Area 0.146m m²
GDP 5,960bn \$(US)

Middle East

The Middle East continues to thrive with immense opportunities for foreign investment and continued economic growth and a demand for appropriate medicines and healthcare provision. Many of the regional governments have policies of diversification intended to encourage foreign SMEs and multinationals to invest.

There is a strong demand for healthcare services, with continued growth in demand for pharmaceutical products, resulting in the outlook for the medical/pharmaceutical industry being a strong one. The healthcare market is projected to grow at an annual rate of 11% to \$43.9bn (US) by 2015 from approximately \$25bn (US) in 2010. Outpatient and inpatient markets are expected to account for 82% and 18%, respectively, of the overall market size

The region has seen an increase in the incidence of lifestyle diseases, and healthcare costs are rising due to new and advanced technologies as well as high pharmaceutical costs. Studies suggest that new medical technologies lift healthcare costs by 38–62%. There are many hospital projects, but more growth in smaller clinics serving local residential developments. The Region has a low cost advantage as a healthcare provider, which is expected to generate the medical tourism potential in addition to servicing an expanding and aging population.



Population 120mn (2013)
Area 1.50m mi²
GDP 1,740bn \$(US)

United States of America



The USA has the world's largest economy, and its life science industry's research activities, led by the biopharmaceutical sector leads the world, and accounts for almost half of the global R & D spend. There is strong Government support for biotechnology, which promotes the commercialisation of products for national and international trade

America is the largest consumer of biotechnology products worldwide, with 9 established life sciences clusters across the USA, 1,300 companies employing more than 5.5m scientists, engineers and technicians. 1.3m staff work directly in the field of biosciences and another 5.8m are active in related industry sectors.

Medical biotechnology is the largest sector, producing biological drugs, vaccines and in-vitro diagnostics. Major areas of research are diseases with no effective treatments such as autoimmune and infectious diseases, cancer as well as HIV. In the agricultural sector, biotech crops are expected to yield gains of 10-15% through commercialisation. Nanotechnology, enzymes and biofuels are major investment areas, with the development of renewable energy and biodiesel important, as conventional fossil fuel energy sources are reducing.

The pharmaceutical sector is driven by innovation in the biotechnology industry coupled with scientific research, resulting in the U.S. owning the intellectual property rights to the majority of newly developed medicines. Generics, sold much cheaper as over-the-counter (OTC) drugs play an important role in the American pharmacy in light of an aging population and the objective of transforming prescription medicine into OTC ones. About 272,000 people work in the pharmaceutical industry with a sector spend on R & D in 2010 of \$67.4bn.



Population 318mn(2013)
Area 3.72m mi²
GDP 16,244bn \$(US)_

Did you know that.....

Australia is often used as a test market for medical devices?

Each Chinese province has its own pharmaceutical market structure and its own network of distributors?

Working with the Middle East counterparts you could expect your contracts to be changed during their validity period? And you can also do it...

That maintaining eye contact is not considered as good etiquette in South Korea?

That Americans want to debate issues directly and openly?
Coded speech and verbosity is often seen as a waste of time.

Find out more at
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