Letter from China

Shanghai, 6th November 2006

The terrible news of the Chernobyl accident reached me when I was staying at the Peace hotel, this was in April 1986 and it was my first time in Shanghai. In those days little had changed in that City since the Japanese occupation and the Communist take-over. Once this Paris of the Orient had the second tallest skyscrapers in the World, now it was drab, poor and faded - even the players in the hotel's famous Jazz Band had not changed their Glenn Miller tunes and their

white hair somehow had remained black.

I have since returned every year or so. By 1996 if one looked across the river from the Bund, one saw a forest of cranes. Hundreds of cranes! A sight never to be seen anywhere. Within a few years the marshes of Pudong have become the Manhattan of the largest metropolis in the World. This city, the most populous in the World, now has the most spectacular buildings in the

World and no other city exudes more growth, ambition, energy and vision.

During the last 10 years China's GDP has grown at an average of 10% a year, its gross fixed capital formation (investment in infrastructures and production capacity) amounts to 46% of GDP, beating the record figures of Japan and Korea at the peak of their growth. More airports and motorways have been built in this country than in the rest of the World put together. Since 2002, 750 multinational firms have built research centres in the PRC. Between 1995 and 2003. China increased its investment in R&D from 0.6% to 1.3% of its GDP - in comparison the USA is at 2.5% and Europe languishes at 1.8% - despite every Lisbon China trains 200,000 Agenda effort. scientific university graduates per year - as many every year as there are Swiss chemists and engineers! By 2010 it is estimated that about 90% of all scientific Ph.D.s will be Asians. Another catalyst of this process is the flow of about 200,000 "returnees" -Chinese nationals, mainly

scientists, who trained and worked in the West- that return to the Motherland and are now leading science based companies. 174 of the Fortune 500 firms have set up regional headquarters in Shanghai and 185 multinationals also have set up R&D centres there. In this city R&D already represents 2.4% of its GDP.

Hovione has had a presence in the PRC, through its Macau plant, since 1984. But for any manufacturer China represents such a monumental tidal wave, that I felt it



imperative that Hovione's Board of Directors should ao and see for itself. We were in China for nearly а week last November in Shanghai, Guandong and Macau visitina competitors,

meeting local bankers and experts. At the end the Board met at our plant in Taipa.

WuXi is the largest Chinese CRO (Contract Research Organization). Set up 6 years ago and led by 50 Returnees. With sales of \$70million of R&D services (preparing compound libraries, carrying out pre clinical tests. toxicology studies. process synthesis...), they employ 1300 scientists and are growing 30% a year. We also visited the new plant of the most admired company in our Industry, Lonza, in Nansha. We discovered a 35 acre site where we found an elegant symbiosis of Swiss discipline, Oriental attention to detail and Chinese energy and enthusiasm - an

industrialist's dream of eagerness to learn and to excel. This is their second Vitamin B3 production unit. They have a 60 strong R&D process chemistry group. Two new plants, each with 200m3 reactor capacity, will be built - one for GMP APIs (active pharmaceutical ingredients made under Good Manufacturing Practices) and the other for non-GMP intermediates. Lonza is already negotiating the purchase of an adjoining plot of 40 acres. You might find it odd that competitors allowed us to visit. It is not surprising, Hovione is well respected in

the industry, but more importantly in China everyone is beaming with optimism and they have every reason of being proud of their achievements - so they welcome their peers.

What will the next decade look like ? Japan and Korea, destroyed by wars, started from a level similar to China only a few decades ago, and they are at present well ahead in the group of the



rich countries. Both are substantially richer and more developed than Portugal; in other words, they have overtaken the average European country in less than two generations.

The 21st Century will the China's coming of age. Over the last 2000 years China and India, because of their large populations, were always vastly richer than any other nation. Economic theory tells us that at same levels of technology, values, transportation and communication infrastructure all nations have about the same productivity. The only short exception to Asian global leadership were the last 250 years when the Europe and its "spin offs" driven by a *continued* favourable rule of law, values that promoted competition and market forces, and superior technology, was able to increase dramatically its productivity. The West generated wealth to an unprecedented level, and in so doing built up transportation and communication systems that supported not just their growth but, in turn, that of the whole World.

China and India are today in a phase of fast development, albeit following very different models. Their amazing growth rates are fuelled by improvements of productivity this is owed not only to the importation of technologies but especially because these great countries seem finally to have created the conditions for their markets to become efficient at managing supply and demand, for their people to be given skills and knowledge and allowed freedom and motivation to work. Additionally this whole process has been catalysed by globalization and the internet.

China's growth is very much responsible for the recent increase in commodity prices: trebling in oil prices and doubling in steel. In order to assure a continued supply of raw materials China is investing economically and diplomatically in many commodity rich developing countries: African states and Brazil are specific examples. Only yesterday CITIC's president invested, personally, \$800m in taking a share of Anglo-American, a mining giant with its base in South-Africa. The recent appointment of Dr. Margaret Chan to the position of Director General of the WHO, the first appointment of an ethnic Chinese to the leadership of a UN Organization, is a clear sign of China's growing role in World Affairs.

But not everything is positive. If on one hand China seems to be returning to its Confucian traditions (in the long passport control queues at the Guandong/Macau border I saw for the first time a line for "Over 65s"), China has major structural problems.

As a consequence of two generations of the single child policy to mitigate population growth, China's population now finds itself short of young people - it is very typical for 4 grandparents to have, between them, a single grandchild. Chances are China will become old before it becomes rich. Environmental tragedies are also far more frequent than the media reports and the trend is frightening. Air pollution in most



Hovione's Board Members taking the magnetic levitation train to Shanghai airport (431km/h)

large cities is several levels of magnitude higher than WHO safe levels. Social unrest fuelled by pollution issues as well as arbitrary political decisions is on the rise. This explosive economic growth occurs while in Europe manufacturers are handcuffed by regulations and anaesthetized by political correctness. Everyone lives beyond their means, either by eroding capital or by mortgaging our future. While our compliant plants stand idle and the best trained people are unemployed, our competitors in China grow at 40% per year... Some wise men predict that after the Beijing Olympics there will be an inflexion point. On verra.

But for us in the West, what was once called the Free World, there is not much ambiguity... our Society is in relative decline. Within the next 20 or 30 years China's GDP per capita will surpass that of the EU average - and since they are three times more numerous - they will have an economic weight three times that of the EU. Within the short space of time that is our children's lifetime, we shall have to accept that China will overtake Europe in terms of Global economic relevance. We shall have to accept that the West's supremacy is a thing of the past, that we are now - with any luck -Nº2 or 3, and that we are a minority. In other words what we today take for granted - that we are at the fore-front, that we set the standards, that we are the leaders of the World in values, fashion, art, science and technology - will mostly be a thing of the past. This will be very, very hard for us to accept - but the sheer numbers will force us to swallow our pride.

What about Hovione - my view is that we need to continue to constantly adapt our

business model to match the opportunities. We need to accept that our only sustainable competitive advantage is our ability to learn. I am confident -and the evidence shows- that our bet on Custom Synthesis for Exclusive customers is a winning proposition. That work in new areas of R&D such as nanotechnology and inhalation will bring us robust margins. Serving demanding customers and offering them solutions they can't find elsewhere will never go out of fashion. On the other hand our industrial activity in China will need to "bite the bullet" - there is no doubt that to succeed in Generics we need to be in a low-cost location, to provide low-price APIs at a quality level that is just right, just good enough for the medicine agencies to be satisfied. We can no longer afford to provide our Generic customers with the excess quality they are not willing to pay for. As such the Board appointed a team to study the matter and present alternatives until the end of the year.

The World is changing fast; Hovione will need to move faster.

Guy Villax Chief Executive