

**GOLF TECHNOLOGY PARK BEIJING**  
**(A park for the Olympics Games)**

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Key words: Golf, industry, technology, R+D, jobs, transfer, profitability and business  
ABSTRACT. Among the different models of science and technological parks we have selected one of which since its starting meets the best conditions for creating work, employment, A+D, social and economic development and business. The key should be the attractiveness for the financial market and other investment groups. The concentration of knowledge and technology are in progress. They are the two vital elements for promoting regional progress more quickly. In addition, three other elements to be taken into account are the following(s): management, bureaucracy and the Olympic Games. To be more accurate: the first is for setting the wheels in motion; the second for waking up and working in real time (sun rise must be sun rise); and the third as a wonderful opportunity for sport, social and business relationships.

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COMING UP TO THE POINT,

Some friends and members of our Organisation should remember that ten years ago the XII IASP WORLD CONFERENCE ON SCIENCE AND TECHNOLOGY PARKS took place in Beijing. People came from everywhere. Together with the technical and scientific features it was very easy to appreciate a predilection for the direct contact with the culture and the society of China... The legends, Marco Polo, the immensity of its population and its land, and, in addition, the feeling that within a few years the Chinese giant would occupy the top level of international affairs, brought to bear a field magnet to the travellers. On the other hand, the minutes of the IASP General Assembly offered two main courses: the election for the presidency and the selection of new headquarters. The emotion was assured. Finally, my friend Lex de Lange, from Zernike (Holland), came to be the new president, a fantastic businessman, indeed, and as tall as a basketball player; the height, dear reader, until now is the pole position for looking over things. A few days later at his side appeared, Luis Sanz or Lord of the Rings. What a manager for the IASP! We were in luck with the team Less-Luis. Second, the headquarters went to Malaga (Spain). The Spanish team was very active before the competition, a small Olympiad in which cities from nine countries competed for the position after showing the virtues of their proposals. At last, Málaga better fulfilled the Olympic motto: Citius, Altius, Fortius (swifter, higher and stronger). Meanwhile, a decade went by since this nice story as the Chinese giant has broken all records on growth and will soon need one or two new planets, not only for itself, but also because the IASP has since also grown and turned into a very impressive organisation sought after by regions and governments. We have our own way of measuring time, as we divide IASP'S history into the age before Beijing and the age after it.

AND NOW TO OTHER STEP

Once upon a time there was a belief that the coincidence of sun, good roads and quality of life were the appropriate conditions for a phenomenon of indubitable influence on regional development, the birth of technological parks. Everywhere Silicon Valley played the principal role. But little by little the existence of parks under the different

suns of the world was easily understood in terms of strong, middle and pale. To light the question up or not, many definitions are given about the parks and their goals and their elements. Although the technologists know the truth, we venture their conception as a space of intelligence and technology, or much better a concentration of knowledge and technology. One of the greatest mysteries of our modern times consists in the fact that knowledge has been kept only for science and technology, leaving management with just the art of joining projects, people, production, and marketing: just the art of dealing with handicaps, putting up with the headaches and bearing all the responsibility with a smile. Consequently, the manager combines the characteristics of the pioneer, the decathlon-man and the magician, that is the intuition of new horizons, an iron-health and the skill for taking solutions out of his hat or from his pocket.

## FACTS

Every project must be a business and, therefore, the manager is a genuine businessman, and precisely at this point we find the key to the success of the three technological parks which are located in the Basque Country (northern Spain), the three building a network, the headquarters at Zamudio-Bilbao and its branches in Avilés and San Sebastian; and also the success of another one: the Parque Tecnológico de Andalucía, located in Málaga (southern Spain). A quick look at those first three gives out these numbers: a 4 million square meter surface, 10.000 jobs, 300 tenants with an annual turnover of €3b, while the last one presents 1.7 million square meters, 7.000 jobs, and 235 tenants with an annual turnover of €850mn. At these parks R+D reaches on average 25% of employment. Four perfect business environments. Besides Malaga and Bilbao I have had the opportunity of following other initiatives, also successful, but the fact is that the first years have been very hard for every one. The entrepreneurs wondered whether it was worth the trouble going into the parks and crossing the heavy bureaucracy with great difficulty when they knew that to buy or to sell a plot anywhere didn't need so many papers, but in big and small ways things were changing and, at last, we saw the light. The business came.

However, for the private investor building and selling parks must be completely different. Their mentality works faster. A business plan has to show benefits as soon as possible, because they are used to investing. The strategy differs from the public sector. An entrepreneur or group buys a plot and since then, the prices and facilities remain clear for the future clients. Doubts, questions about conditions and characteristics find the answer in the shortest possible time, mostly without any delay, almost simultaneously. So, why not operate with the same principles in all the spheres? Parks and centres mean progress, welfare for everybody and therefore the obligation to follow the best method further away from the nature of the developer, both public and private and mixed as well. We are fond of the parks and the technology, of its force to have good times. Municipalities and regions should get ready for such instruments under the best conditions. Here there cannot be any doubt that the target will decide the dimensions and the functions, without forgetting that the new economy asks for efficiency and quick style.

Precisely that is what I have tried to do with the model "Beijing", so called because Beijing is a capital in permanent development and one of the greatest centres of gravity

of the world, a qualified capital for quickly multiplying welfare, technology and businesses.

This model of a park or model “Beijing” differs from the traditional line of parks. In the beginning it is based on different elements with synergy: sports, industry, services and housing. It begins or should begin with a business plan, presenting the goal of stimulating innovation and local and regional development and in the special case of the Beijing Capital under the influence of the Olympic Games 2008, an event of world wide importance that without any doubt will lead to great financial changes and investments, modern projects and business.

This project is made up of four areas:

- Sports
- Industrial, R+D and Transfer of knowledge
- Social activities, Hotels and Services
- Housing

This idea raises two important questions:

1. Will the above mentioned areas succeed in promoting investment and in accelerating the concentration process of innovative activities, technologies and industries?
2. Does this association of golf, sport and residences offer sufficient vitalising elements to provoke R+D, transfer of knowledge and industrial creativity and to provide new jobs as well as entrepreneurial competitiveness quicker than the traditional systems in use up to now?

In my opinion the answer to these two questions is clearly a positive one. This set of factors allows the Technology Park to develop a region and to transform it into an employment centre, business area and promote the transfer of knowledge to other spheres and regions. To mention golf as an example, there are few sports to which there is so much attention paid, especially by businessmen, multinationals, politicians, artists and enthusiasts in general. Its competitions are real events where you can meet personalities from the world of finances, economy, science, culture and mass media. Golf is a real meeting point of society and business.

But before going on I want to talk about technology as one of the basic principles of Golf Technology Park Beijing, giving a concrete and practical example. Technology and its experts usually speak a strange and not amusing language. The laymen, on the contrary, only understand a few words, the ones necessary for distinguishing between a bulb and a screen. Perhaps we need to tune our ears, but between being or not being, it is better to ask for some assistance. The non-government association, ASIT, and its president, myself, have a long-term professional relationship with the Technology Centre CETECOM, a world-wide reference located at the Parque Tecnológico de Andalucía (Málaga), which provides testing and type approval services, test systems technology development in various Telecom technologies as GSM, GPRS, UMTS, BLUETOOTH, WIFI, DECT, which as I speak are in the research and development phase of new fields such as RFID, UWB, WIMAX or the new Chinese standard for 3G: TD-SCDMA. In the Chinese Market CETECOM has already worked with important Chinese organisations such as SRMC and is transferring and helping to gain strategic know-how towards new products and technologies. Only a few months ago, the WIMAX Forum delivered a statement in San José (California) making known that CETECOM had been appointed as world-wide official laboratory in order to certify the

WIMAX's technology. The Wimax Forum Certificate is the guarantees the introduction of wireless technology into the market. A pathway for the Future!

Don Quixote (400th anniversary): "Fortunate the time and blessed the age when my famous needs will come to light, worthy of being carved in bronze, sculpted in marble, and painted on tablets as a remembrance in the future".<sup>1</sup>

And leaving the future and coming back to the present I will disclose the model "Beijing" and its respective areas:

### SPORTS AREA

An excellent sports area should be made up of

- Two 18-hole-golf-courses, plus two training fields, with the necessary conditions for international championships.
- Ten tennis-courts
- An Olympic size swimming pool
- A gymnasium with facilities for Olympic disciplines
- Tracks for Athletics
- Table tennis facilities
- A skating track
- A basketball court
- A racing track for cars guided by radio control at a scale of 1/5, 1/8, 1/10

With these activities comes the opportunity for R+D in new materials, telecommunications, resistance, biotechnology, water treatment, recycling, medical sports care, garden areas, ecosystems, and business, because the main goal is to promote innovation, local and regional economic development and news jobs.

Talking about golf we would like to point out that the province of Malaga and its Sunny Coast are one of the few places in the world with a great number of courses. We can count 45 courses on not more than 7.200 square kilometres, which is the whole surface of the province. We remember that the Ryder Cup took place once in our region. There is much knowledge about golf, as a sport and as a business. Many people arrive every year looking forward to doing wonders with the unpredictable ball. Very often it is also possible to watch across the course the excellent skills of the well-known professional players. Malaga receives around 8.5 millions tourists yearly, a high number of them dreaming of the game, the holes and the "green". And Beijing and China will, in a very short time take up the top level of the tourism market. Most of the predictions point out that a hundred million travellers are expected. Here, in Málaga the experience shows that tourists need, beside the monuments, history, cities, mountains, sea and sun, a first class sports facility. Therefore, Beijing has to foresee the appropriate framework for such a high number of sportsmen and don't forget that, as said, golf combines sport and business. There are many attractive circles made from multinational corporations, mass-media, advertising, and championships.

It isn't only golf that has got the power to influence the regional development of a project. For example small model car races are gaining more enthusiasts every day and gaining the attention of industry and multinational companies. These types of cars are composed of about one hundred parts, all of them permanently due to R+D: Drive train, tires, brakes, a wireless telemetry system, internal combustion micro engines, electronic,

radio control system. As the industry is fully aware the mass-production of these models and their parts are in great demand.

We have to clarify that the proposal of sport elements is merely enuntiative. A city as big as Beijing admits the whole set because of its high population, foreign residents, travellers. But, of course, many other cities, smaller, or even the rural areas don't need to do projects and take into account the related pieces and ingredients. The same dress is of no use for everybody, the sizes change according to the stomach, the legs and, sometimes, the head. For a smaller model it would be enough to establish two or three tennis courts, a swimming pool, a gymnasium and some table tennis facilities.

#### THE INDUSTRIAL AREA, THE R+D AREA AND THE TRANSFER OF KNOWLEDGE.

It's this area, unlike the other ones, that must take the place of the focus for knowledge and technology, besides industry. The evolution of both basic and practice technology, the improving of new systems and advanced services meet a high rate of R+D. This subject should be mandatory for the future tenant. Without any doubt progress comes out of the laboratories. Internet and all sundry wireless communications mean a change in our social life, in our habits. We think that the technological revolution is as important as the industrial revolution. Or perhaps a little more. Their real time and permanent innovation form the support of globalisation. It is the latest phenomenon that doesn't know boundaries and that is creating a new society. According to this reality, the parks and the centres have the mission to teach and to bring to the citizen the technology, mostly to the ones uninitiated; because what is the use of an informed society, which ours is supposed to be, if even the most basic and necessary information is denied to one? Therefore we recommend the Park projection as leader of an informed society. Meanwhile, welcome to the new times!

China has become the new motor of world-wide economic growth. The Chinese government started a series of measures to maintain the flow of investment from foreign companies. For instance, all projects, which are under 100 million dollars, can be approved directly by provincial authorities. This is good news for encouraging business before and after the Olympic Games. However the beneficiary of the Golf Technological Park shouldn't be only the sport manufacturing industries. It's open to all those who fulfil the established technological level. The most important condition is that they must be clean industries.

Telecommunications technologies are quite important in China; as an example in just a few years the Chinese manufacturers have become competitive players in Mobile Communications, companies as: TCL, Amoisonic, Datang, ZTE, Huawei, Bird, DBTel, etc. are now planning a very big increase in their export to US and Europe. Many large EU and US manufacturers are also setting up their production plants and some R&D activities in China.

But there is more coming after Mobile Communications ...

As I presented the example of CETECOM, several wireless technologies were mentioned. We do believe that some of the emerging technologies in Telecommunications could be developed in this park, just to mention:

(Beauty isn't only skin deep).

WiMAX

This broadband wireless technology is becoming a very important one when it comes to providing services to areas/markets with poor coverage or access. For a huge country like China, WiMAX is meant to be a key technology, in fact, local companies as Huawei and ZTE are already quite active in this technology as members of the WiMAX Forum. One of the main benefits that WiMAX is offering today is a limited cost, easy deployment, and very good coverage that can reach kilometres...up to 50 km. in the near future (802.16e).

(As quick as lightning)

#### RFID

Also known as radio frequency identification, it represents a revolution for many industries. It is basically a very low cost radio identity card for each product or even person. Some claim that it could become a replacement for the barcodes; even if it just replaces a part of all barcodes it will mean a significant change in the business models for many industries (health, retailing, transport, logistics, security, etc.). As an example, imagine that when you do your shopping at a supermarket, all your products (having a RFID Tag) would be read passing through a reading area and you could pay with no queuing...

(There is more to it than meets the eye)

#### UWB

Ultra wideband is a low power, low consumption and also low cost radio technology that is meant to link three Worlds: IT (PC, printers, scanners, etc.), Telecoms (mobile phones) and Consumer Electronics (TV, DVD players, Digital Cameras, etc.). Imagine for a while that such technology would be available in all the devices that we just mentioned; for example, I could take a picture, print it with no cable and send it to my mobile phone which would send it to a friend.

(While we are about it)

This park could be the benchmark park for the Chinese and foreign industry in the development of these technologies, in the following fields:

- Product Research & Development
- Applications Research & Development
- Testing and Certification Services

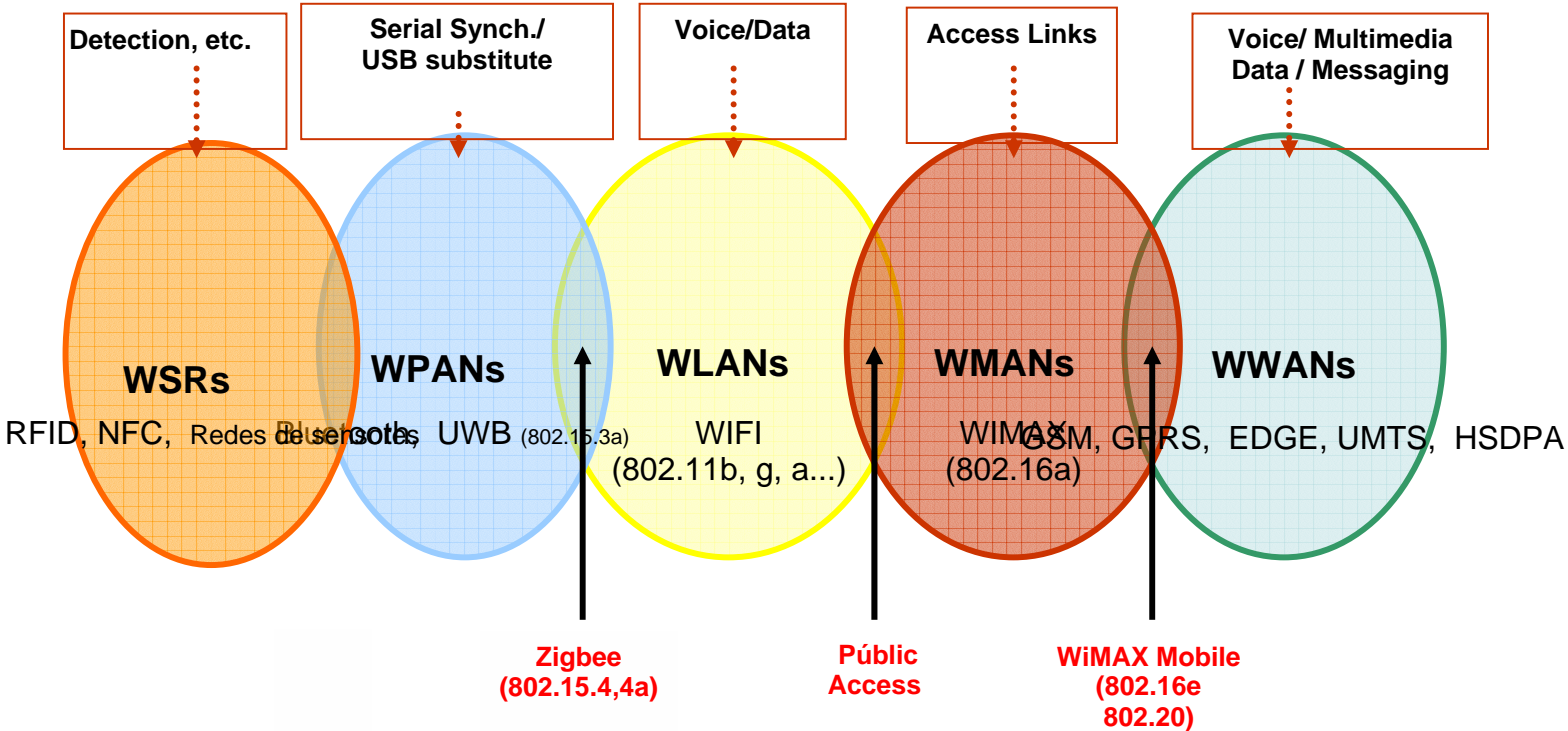
Being new technologies it would be a good solution given that many key companies and resources would be located in the same area, promoting in this way co-operation and growth.

Also the park would attract foreign investment as this park will concentrate on emerging technologies and services and it will perfectly fit the US or European companies needs.

A company like CETECOM could support this initiative transferring know-how and training local resources.

(What a test for readers as the one following)

The following figure illustrates where these technologies fit:



<b>WWANS</b> (Wireless Wide Area Networks )	GSM, GPRS, EDGE, UMTS, WiMAX Mobile ,
<b>WMAN</b> ( Wireless Metropolitan Area Networks )	WiMAX
<b>WLANS</b> (Wireless Local Area Network )	Wi-Fi
<b>WSR</b> (Wireless Short Range)	RFID, NFC
<b>WPAN</b> (Wireless Personal Area Network )	Bluetooth,

## THE SOCIAL, HOTEL AND SERVICE AREAS

A park of the mentioned characteristics must contain:

- A social club for regular meetings, equipped with the most modern and ‘intelligent’ facilities, services, and a restaurant.
- A hotel of 200 rooms with modern infrastructure and rooms for holding seminars and congresses.
- A business school where participants have the opportunity to create new business, improve the existing business and to design activities and projects together. There should be opportunity to develop new skills in management, marketing, administration and taxes but essentially this should be a place where teaching will lead to the strengthening of the business spirit and the opening of new horizons.
- A supermarket for exhibition and sale of sport and electronic articles.

## HOUSING

(Where shall we live)

Don Quixote: 'I want you to realise that all the things I am doing are not jokes, but very real. Otherwise, I would be contravening the rules of chivalry that command us never to lie, or else suffer the punishment of those to relapse into sin, and doing one thing instead of another is doing the same as lying.'<sup>1</sup>

Nowadays housing is growing at a phenomenal rate. Everybody wants to own his or her home. In our opinion after petrol it is the best business.

A magnificent opportunity exists in the development of an attractive architectural layout, groups of houses in different parts of the "Beijing's Golf" with a maximum of 500 houses of different kinds, all of them provided with components of domotic, i.e. 'intelligent' houses which can be worked at a distance with reliable security systems.

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In order not to repeat myself I shall wait until the end for what Beijing's Golf will be, a model ecosystem, with green belts against noise and with a perfect waste-recycling system, an example of sustainable technology.

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## MORE DETAILS

Total surface of the project: a 4.000.000 square meters plot of land subdivided as follows:

Sport area	1,500.000 square metres		
Tech-industrial, R+D area	2.000.000	"	"
Social, hotel and service area	250.000	"	"
Housing area	250.000	"	"

And now I come to the greatest difficulty, budget and profitability. Of course, I am making some big assumptions based on big risks and daring effect. What's more I don't know the prices and buying conditions in accordance with Chinese law. If the houses are built and sold in phases, a hundred at a time, after our experience in Málaga (Spain), for example, the initial budget of the "Golf Technology Park Beijing" could be of about 75 million dollars or less. With regard to profit, it can range between 20% to 30% of the investment, in a relatively short time.

There is much demand for industrial plots of land and housing because their development is seen as a secure business, which is coveted by banks and large financial companies. Beijing, with the Olympic Games of 2008, will be at the centre of an important urban, industrial and financial expansion.

Again bureaucracy and the management come to my mind, but don't worry dear reader. We promise you no more speeches. So bureaucracy reminds me of the following anecdote<sup>2</sup>:

"Minister (Dept. of administrative affairs):



‘We simply have to slim down the civil service. How many people are there in this Department?’

‘About twenty three thousand Minister, and we have discovered we need another five thousand people’, said Sir Humphrey, a civil servant for ever.”

And one thing leads to another.

Is there a group of volunteer managers ready for launching a global innovation programme with the goal of building 100 more technology parks around the world? The developing countries are waiting for better times, and the technology know how to bring then forward.

We are before a sensitive subject. The only advice is to follow the way Henry Ford I, the best entrepreneur of 20<sup>th</sup> century.

Don Quixote: ‘And I shall be so bold as to swear that your grace is not well known in the world. Which is always unwilling to reward rare talents and praiseworthy efforts?’<sup>1</sup>

What a dreaming platform: IASP and ASIT!, just to set the ball rolling in no time.

That’s all!

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<sup>1</sup> Don Quijote de la Mancha by Miguel de Cervantes. Translation by Edith Grossman. 2003 London

<sup>2</sup> From the book ‘Yes, Minister’ written by Jonathan Lynn and Anthony Jay. 1989. London