



Arnaud Lefevre

Chapter 3: Accelerating the creation of a local office: which perils will you prevent?

Opening your office in China is a key commercial strategy, and your approach to open in China may or may not produce specific advantages to your industry: recent examples such as the setbacks of the US e-commerce industry, such as eBay, MSN, Yahoo and Google on the mainland.

The pharmaceutical industry recently faced obstacles such as GSK, Novartis, Eli Lilly and Aventis; similar problems happened in the milk industry for Nestlé and Danone.

All these companies have something in common with the B2C market; they are blamed by the state owned media regarding their high prices, their legal practice, or their poor relations with their local partners.

The common failure between all these companies is the human performance: either with their public relations, their commercial strategies, their sales network, or the legal environment.

This article will catalogue some of the standard mistakes your company still faces today as regards to your commercial approach in the Chinese nuclear power market when you decide to open your office.

(Note: in some cases, we cannot reveal the names of the companies or individuals involved, we will use only the nationality of the company and scope of business).

The information in this paper will deal with the commercial set up of your business in China, which means the localization of your team, your unstable sales and marketing network, the necessary intensification of your budget and the confusing labor law.

Phase 1: “By failing to prepare, you are preparing to fail.” Benjamin Franklin

The competition is increasing

More than three hundred foreign companies sell safety related equipment in the Chinese nuclear power market. This number will hardly be increased, since the safety authority occasionally certifies its chosen entrants to the market.

Civil engineering is monopolized by state owned enterprises:

List of companies certified for civil engineering and installation

- Zhejiang Thermal Power Construction Co.
- Tianjin Power Construction Corporation
- Third Electric Power Construction
- Company of Jiangsu Province
- Shenzhen Shandong Nuclear Power Construction Co., Ltd.
- Shanxi No.4 Electric Construction Company
- Shanghai Power Construction Co.
- Second Electric Power Construction Company of Jiangsu Province
- Jiangxi Thermal Construction Co.
- Hunan Provincial Thermal Power Construction Co.
- Guangdong Thermal Power Engineering Corporation
- First Electric Power Construction Company of Hebei Province
- China Nuclear Industry Huaxing Construction Co., Ltd.
- China Nuclear Industry 5th Installation Corporation
- China Nuclear Industry 24 Co.
- China Nuclear Industry 23rd Construction Corporation
- China Energy Engineering Group Tianjin Electric Power Construction Company (extension)
- China Construction Second Engineering Bureau Ltd.
- Anhui No. 2 Electric Power Engineering & Construction Co.
- First Electric Power Construction Company of Jiangsu Province

The Non-Destructive Testing market is split between two segments: some Class 1 equipment for foreigners, and the major market to four domestic enterprises:

NDT Market	
SOE	Foreign entity
China Nuclear Power Operation Technology Corporation, Ltd.	Intellige NDT Systems & Services GmbH
Nuclear Power Institute of China (NPIC)	Intercontrole
CGNPC Inspection Technology Co., Ltd.	Tecnatom S.A.
State Nuclear Power Plant Service Company (SNPSC)	WesDyne International LLC

The education business is already mature, the training market just starting

In the education business, the top universities (Tsinghua University, Shanghai Jiaotong University, Xi'an Jiaotong University, Haerbin Engineering University and Harbin Institute of Technology) are already affiliated with tens of foreign counterparts from more than twenty countries; one specific project must be taken into account: the IFCEN (French Chinese Institute of Nuclear Engineering) with Sun YatSen University.

In the training business two recent deals were awarded: the Center of Excellence signed between the Department of Energy (USA) and the China Atomic Energy Authority (CAEA), and recently the signing of training in management of nuclear projects between China Nuclear Power Engineering (CNPE) and Areva.

The maintenance and operation market is the next segment in particular with opportunities for the "ten year inspection". Two examples can be cited:

The investment of French companies (ex: Apave in Guangdong) recently invested in Guangdong province at the request of EDF and China General Nuclear Power Company (CGNPC) for the Daya Bay Nuclear Management Company operations.

As for China National Nuclear Power Company (CNNP) that runs nine nuclear plants and has set up its own base in Qinshan, the company just signed two-research programs with EPRI (Nuclear Maintenance Application Center and Non-destructive Evaluation).

Localization is unavoidable

Despite the slow localization of key equipment (around 40 foreign companies produce safety related equipment in China)

and the pressure to reach an 85% localization rate, many foreign entities opened their offices in the country.

This is particularly the case when a company has more than 90% of its activities in other fields (Oil, Gas, Chemical, Transport and even Pharmaceuticals) and chooses to expand its nuclear business directly from China.

The growing competition, the recurrent technical requests from the EPC and utilities since Fukushima motivated this new step in the market. That is particularly the case for US companies that a time difference of 12 to 13 hours with the China, and need to catch up with the construction of the AP1000 in Xudapu, Lufeng and the next ten units in 2014 and 2015.

Define your strategic approach:

The gradual strategy of foreign companies in the country goes through the traditional following steps:

First approach in the country is participation in trade missions with the following authorities:

- Commercial section of the Embassy (ex: Awex/Belgium),
- Lobbying groups (ex: PFCE/France)
- Chamber of Commerce (ex: ECP Nuclear Power Working Group/USA)

First investment and indication of a mid-term presence:

Representative office.

Hiring a delegate without experience in lobbying groups (ex: International Volunteer in Business with the GIIN/France)

Rent an office in a Chamber of Commerce or group of enterprises (ex: German center).

First service center to support a sales network and repairation:

Either by using a subsidiary:

- Ex: Chauvin-Arnoux (Enerd is in Shanghai)
- Ex: AZZ-NLI (AZZ trading in Shanghai)

Or creating your own premises:

- Ex: Velan Valve, Suzhou
- Ex: Sandvik Material Technology, Shanghai

First plant:

Most of the time as a joint venture, with the big three:

- Ex: KSB with Shanghai Electric (Shanghai area)
- Ex: Daher Vanatome with Haerbin Electric (Haerbin/

Heilongjiang)

- Ex: Areva with Dongfang Electric (DFEM) (Deyang/Sichuan)

Or wholly owned foreign enterprise:

- Ex: Valinox Nucleaire (Nansha/Guangdong)

Each step is basic to assess the market.

The industrial parks close to the NPP will eventually offer tax or land opportunities, however you will never get any support for the local certification (HAF 601) or even a guarantee to sell your products. A strong sales and marketing team is the only way to build your network and take the decision to localize your production.

The dilemma of foreign expatriate versus local management

If your operations in China require a foreign representative, various situations often occur:

A sales engineer from the company, expatriate, who may have some experience with China.

Advantages: represents the culture of his company, can move fast and influence the strategy according to the market needs.

Weaknesses: Cost of sending the expatriate and his family (insurance, school for kids, housing...), often not focused in the nuclear industry, does not speak Chinese, which limits the understanding of the networking, relies too much on the Chinese staff.

A foreign sales representative hired locally, who has experience of the Chinese environment but limited understanding of the company's business culture.

Advantages: often speaks Chinese, often looking to settle in China between five and seven years, accepts the impact of the pollution and the pressure from the business environment.

Weaknesses: Does not have strong knowledge of the corporate culture, limited understanding of the Chinese nuclear industry in China will rely more on his overseas engineering department for meetings and will be perceived as a messenger rather than a decision maker.

When the company wants to hire a foreigner, it must take into account the marital status of the representative (many foreigners leave China due to the impact of the pollution in the family), the rising cost of living, the language proficiencies

(English and Chinese), the public relation skills (ex: frequent lunches and dinners with a strong local spirit, social events during the weekend, to be helpful to family members and friends of the network) and the steadiness of the locally hired. In both cases, it is at best expected the foreigner will remain in China between five and seven years.

Basic Cost of a foreign expat per year:

Salary: 72,000 USD

School for kids (if any): 20,000 USD

Rental of apartment: 40,000 USD

Bonus (2 months salary): 12,000 USD

International Airfares for holidays: 8,000 USD



A Chinese sales representative, who has knowledge of a comparable market (ex: oil and gas, chemical industry) with limited understanding of the nuclear industry, or somebody who has been working inside the EPC but has no sales experience.

Advantages: can be trained overseas, knows the local competition, the bureaucracy and administration requirements, and will not face visas issues.

Weaknesses: will not perform as expected, unless the company is willing to invest for the long-term, if not graduated from the top schools will need to build a network from scratch, and often use back channels including corruption.

A Chinese sales representative hired from a competitor, who is looking for a new challenge.

Advantages: brings his network, understands the sales process, internationally oriented most of the time, wants to stay close to the EPC and benefit from his assets.

Weaknesses: unfaithful, often looking for new challenges, will take a maximum of the company's information and network within the first 24 months before leaving for a competitor.

When you hire a Chinese sales representative, you expect the candidate to have either a strong understanding of your

technology and/or a robust network in the Chinese nuclear industry.

The amount of information exchanged in this network exceeds the segment of your market. If the sales person is smart, he will use this knowledge to create a parallel business, often through a trading company. When your sales representative is only focused in your company, this indicates a lack of ambition.

China is a country of merchants, and anyone with a minimum of ambition works for his company and creates another business.

Basic Cost of a Chinese representative per year:

Salary: 72,000 USD

Rental of apartment: 30,000 USD

Bonus (2 months of salary): 12,000 USD



Where are your clients located?

China has a land area of 9,6 millions square kilometers, and the nuclear power plants are dispersed over 4,500 kilometers (from Changjiang in Hainan, to Hongyanhe in Liaoning).

The nuclear power industry is dispersed in 26 provinces and municipalities (see [INDEX 1](#))

The business is segmented between the NPP (PWR/Candu/Fast Reactor/SMR), fuel cycle and waste management, operation and maintenance, training and education, supply to Chinese manufacturers and forgings, and most importantly, sales to the engineering and design companies.

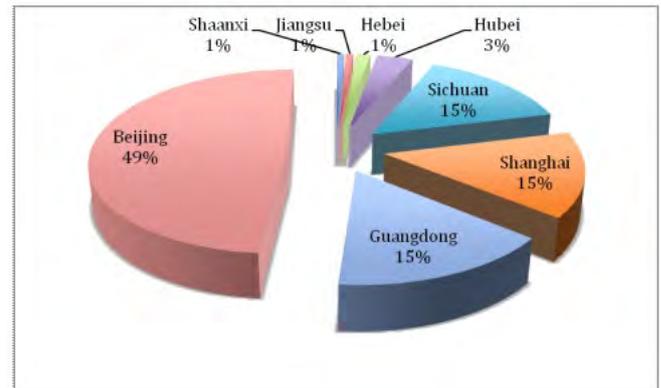
The location of your sales department should be (in order of importance):

1. Beijing (close to CNNC and SNPTC headquarters and CNPE),
2. Shenzhen (close to CGNPC),
3. Shanghai (close to the SNERDI),
4. Chengdu (close to NPIC).

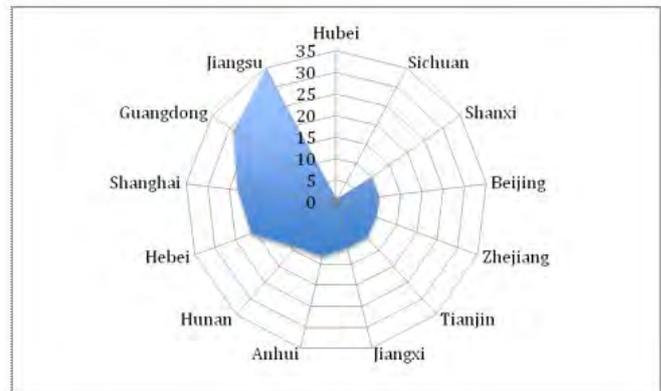
If you supply equipment to:

1. French based technology (M310/CPR1000/ACP1000), you should focus on Shenzhen and Beijing,
2. AP1000/ CAP1400, you should set up in Shanghai and Beijing,
3. SMR (ACP100/HTR) and reactor engineering, you should remain in Chengdu and Beijing.

Location of major research centers and design projects:



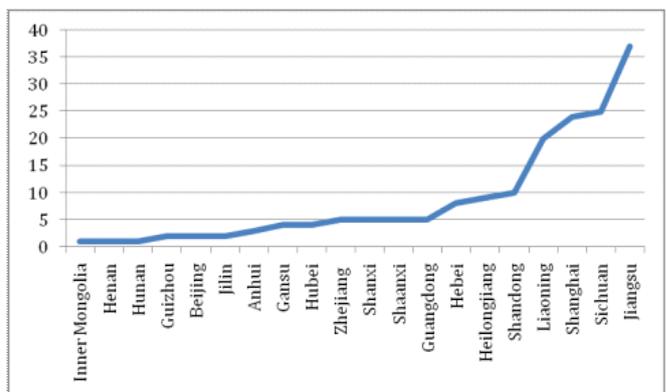
If you provide services to Chinese civil engineering companies focus on Jiangsu, Guangdong, Shanghai, Hebei and Hunan.



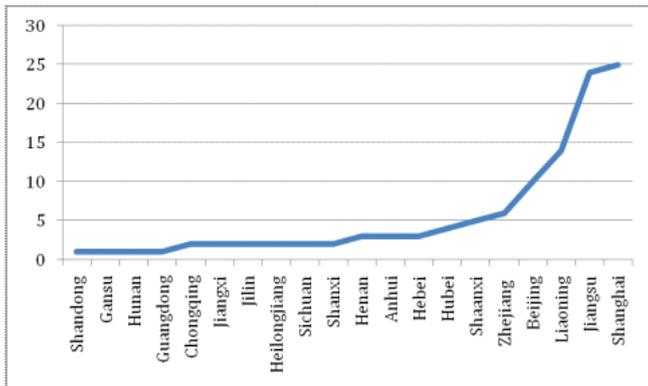
If you provide nuclear safety expertise, the main cities (Beijing, Shanghai, Chengdu, Shenzhen and Suzhou) will be your playground.

Other area, such as the supply of components to Chinese manufacturers is more complicated, as the industry is dispersed.

Location of Chinese Manufacturers for safety related equipment:



Location of Chinese Manufacturers that have design capabilities for safety related equipment:



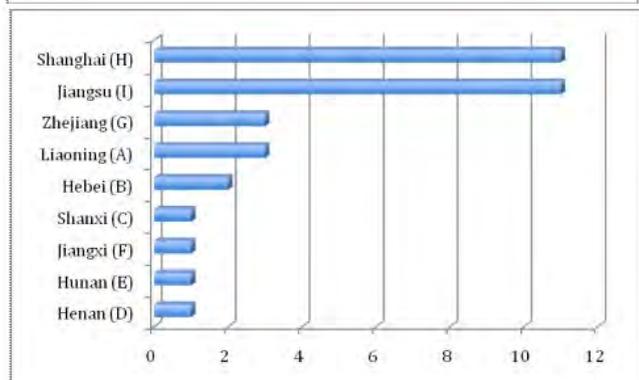
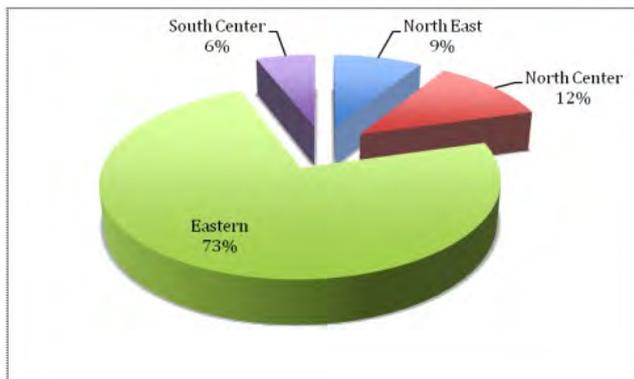
Example: The valve industry.

A company provides components, castings, design service, maintenance and reparation to valve manufacturers.

This industry is split between nine provinces, with 34 companies manufacturing safety related valves. This market covers more than 3,250 km.

Your sales department should be located in Shanghai to cover 73% of your market. The location in Shanghai would also let you offer positions to foreigners, or hire a Chinese sales representative with a strong background of engineering (Shanghai Jiaotong University).

Below: location of valve companies



Basic Cost for sales development per year:

- Airfare tickets: 18,000 USD
- Hotel: 10,000 USD
- Entertainment (lunches and dinners with clients): 8,000-9,000 USD
- Office rent (100 sqm): 57,000 USD
- Office supplies and other costs: 7,000 USD

Phase 2: “Action is the real measure of intelligence.” Napoleon Hill

Organizing meetings in this industry is not complicated. The local manufacturers want to acquire your technology to become your competitors, the EPC wants your expertise to grow and support the domestic industry, and the utility wants a direct contact with you to reduce the price of your product and service.

The time of Daya Bay, when the French companies even sold the fence outside the nuclear power plant at a very high price is over. The local procurement departments have strong experience in the assessment of the equipment value, and the competition between foreign companies is growing, in particular between European and US companies. Your advantage needs to be elsewhere: your brand and your network.

Prior to any action: Know when your client will buy

In your action plan, it is essential to know when your client

prepares its budget.

The design and engineering companies must get their budget approved from the government.

That means any type of expertise will require one year of communication to get approved the year after. The budget is prepared before the Chinese new-year (January-February).

The international tenders will determine how your sales team will work: if your company has HAF 604, you may need to be listed by the procurement department of the EPC (CNPE/SNPEC/CNPEC), which takes six months from the time you are accepted by the department.

If your company does not have the HAF 604 certification, you must create a dedicated team or externalize this obligation. The sales representative will focus on his relations with the procurement departments.

Your relation with the procurement department

The procurement department of CNPE is the largest and most powerful units in the company. The relations you will develop with the engineers that will evaluate your technology will help you to convince the management to buy.

Many companies focus either on the top management rather than the “*small hands*” that assess the service and equipment.

A few years ago, a German company met with a large engineering company in Beijing to sell its expertise. The meetings seemed to go well, and the vice-presidency level was opened to acquire the technology. One deputy director in charge of the evaluation of this technology decided not to go on for one reason: he was trained over the years by a French competitor, and did not trust the new comer. The procurement department did not give any bad message; it just did not follow up and played the game to ask more and more questions and was never satisfied by the answers.

If your sales representative has acquired a strong support from the buyer you will have the opportunity to “help” the procurement department to define the specifications for the tenders.

For example, a company based in Shanghai, involved in instrumentation and automation for the AP1000, used the specifications of a company based in the mid-Atlantic region in the US (specialized in simulation solutions) for the tenders in the next AP1000. This company was guaranteed to win the

tenders as more than half of the points are based on technical aspects.

Your marketing intelligence on the ground

Your sales people have different ways to gather information on the competition (exhibition), the market (seminars) and the buyers project (in their office).

The exhibitions are the best way to hunt. Not only can your representative start hiring new employees on spot, but also gather information about the competition's presence and their actual projects. The marketing and sales departments of your competitors love to talk about their success: let them confess!

Two types of exhibition must be attended:

The first type is: China International Exhibition on the Nuclear Power Industry (last April in Shanghai), and the Nuclear Industry China (next April 2014 at the China National Convention Center in Beijing).

The second type is: events organized by the China Council for the Promotion of International Trade and the China Chamber of International Commerce (CCOIC), such as the China International Exhibition Center Group Corporation (CIEC).

The seminars split in two different categories:

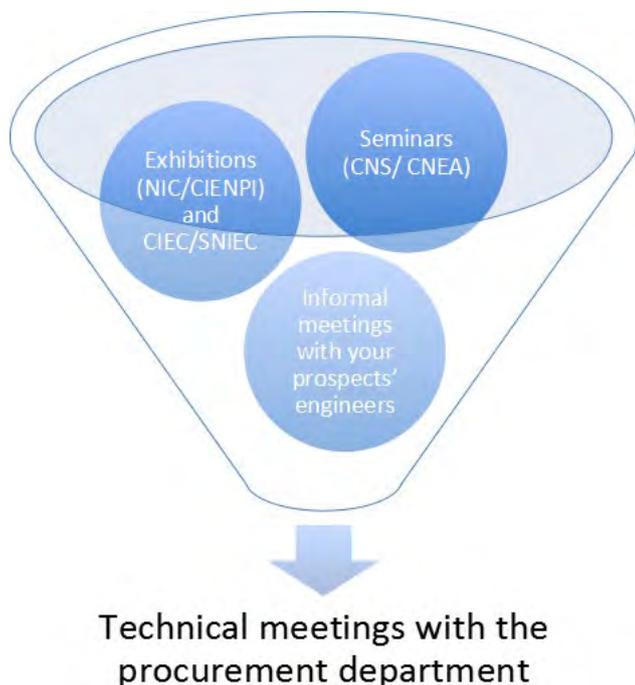
The option for new comers: the events are organized by marketing companies and show mostly each company trying to please some utilities. EPC is invited for the occasion. The cost is around 2,500 USD and experienced sales representatives will learn a little. This type of venue is interesting for new entrants.

The second category: events organized by the China Nuclear Energy Association (www.china-nea.cn) and the Chinese nuclear society (<http://www.ns.org.cn>). These seminars are focused on specific topics and many experts from the industry will remain with your sales during two days, which is enough time to expand your network.

Finally the most important aspect is to have the information directly in the office of your client -he likes to play the competition and will educate your sales managers on his projects and needs. Most of the meetings are informal, on the desk of your contact, during lunchtime, nothing different than what you already do in your country.

The technical meetings will be formal and indicate the

expected results your company has to provide.



**Phase 3: “We cannot solve our problems with the same level of thinking that created them.”
Albert Einstein**

This phase is actually the most important to manage your sales, and must be taken into account first before you decide to open a sales office in China.

We discussed above the general cost of hiring a manager, foreigner or Chinese, and the cost of business development.

As a matter of fact, this cost is way below the reality but gives you an indication of the cost in this market.

The hidden cost is the quality of the management. Recent surveys done by the American Chamber in China indicate that a poor labor force is the main problem above any other aspect, and that is the reality: compared to the quality and the integrity in western market, China offers the worst-case scenario:

- The academic system does not prepare to the market and you will expect too much even with a low standard.
- Human resources is a real issue and the hiring process is a tragedy.
- The market is moving fast, and opportunities occur all the time, the turnover is around two years.
- The reporting process faces the problem of “information is power” and your sales people do not like to share their network and report their meetings in detail.

- The labor law is a joke for any company that wants to apply a non-competition agreement or fire an employee for immoral violation of the company rules.
- The corruption culture is permanent: you will face the dilemma of “Guanxi” versus integrity.

The diploma does not match your criteria

When you want to hire a local salesperson, you expect to have someone who speaks fluent English, understands your technology and the sales process.

Unless you hire somebody from your competitor, most of the resources from the industry that you will find useful come from the non-nuclear segment. The young sales people that seem cheap and hard working will lose your company a lot of time in training, communication and business negotiation.

The main reason is the lack of interaction between three majors: Language/Engineering/Management and Business. All of these are compartmented. Language is the easiest aspect and can be integrated over the first year of work.

However, when you hire an engineer, he understands your product, but will often remain focused on the technical aspect of the deal rather than the human relationship and the understanding of the needs of your prospect.

This lack of emotional intelligence needs a long education and supervision from a foreigner or a returning Chinese who has work experience overseas.

Another aspect is the lack of use of modern tools: the universities do not teach how to use Microsoft Office tools and modern marketing technology. Often the salesperson does not have any presentation skills and will mostly discuss your product rather than presenting the problems in the market and showing how your company can find solutions: “*Market data crushes product data.*” Chet Holmes.

The marketing intelligence which is taught in Europe and North America, is not applied in China. Your sales team will meet face to face, and try to match a requirement. The analysis of the market trends, competition and macroeconomics is not used nor understood by individuals that are only focused on selling a product, whatever it is.

An amateurish hiring process

The hiring process remains poor due to the lack of experienced professionals. This market does not offer many solid and reliable experts in negotiation and sales skills. Therefore, when you find somebody that matches your basic requirements, you just jump.

The websites such as Zhaoping, 51job, ChinaHR are just a pool of fresh graduates, you will lose your time, and time is the most precious asset you need in this fast growing market.

The headhunters are just here to save your time during one year, they will hire back your guys, avoid them unless you need somebody for a short mission of 24 months.

The resume is often exaggerated: Ask the candidate to give you the name of the dean of the school. As for the candidate's previous experience, the HR department of the head of your company in China, almost never calls the previous employers, or the candidate will give the name of a friend.

You will give your technology to be sold in the most competing market and your company does not call the previous employers and get a full assessment of the candidate? That seems nonsense but that is the case.

A few years ago, a company based in Beijing hired a returning Chinese specialized in instrumentation solutions. This company represented multinationals but failed to deliver any contract. The company lost the representative contract and soon the sales person left the party. He is now working for a major European multinational, and acts as a director of the procurement department. The manager of the previous company never received any call, email or letter to assess the value of the candidate.

This happens all the time: managers do not check the past of the employees enough.

Pressure on the family = impact on your turnover

Take into account the following elements:

- 70% of Chinese women will marry a man who owns an apartment.
- The cost of real estate never stops climbing, in particular in the cities where business and industry are booming (Beijing, Shanghai, Shenzhen, Dalian, Nanjing, Suzhou, Chongqing etc).
- Cost of health due to pollution is rising; kids must take care of their parents lives. Social welfare is not adapted to the real cost of healthcare.
- China pushes GDP growth and middle class consumption.

Your sales team is only looking for one outcome: make more money to face the above fundamentals. Within two years, the employee will assess the market, his value, and the opportunities in your company, the openings for new entrants, and how much money he can get to move forward.

If the pressure from management increases, the salesperson

will just leave, because smart business oriented persons in China are rare and they know it, and between the pressure from the family and being faithful to a company that cannot match new demands, the salesperson will look after his own interests.

A Chinese engineer from a major EPC company joined a German valve company. At first, the company was impressed by his knowledge of the procurement process and network but soon discovered this person did not want to sell to his former procurement department. The company decided to give him the chance to sell to other EPC's in China. This person was traveling often, maybe too much, and his reports had a lack of substance and contacts. This engineer left for another valve company after two years of "presence" for the German manufacturer. He joined a French competitor that belonged to a US group, and left that company after a few months to join another Swedish company specializing in heat exchangers. He left that the company after two years.

Despite being a nice person, this engineer illustrates what you can see in the human resource market: people move fast, and they move fast with their network and your knowledge. You may benefit for a while from their "guanxi", but if there is no reporting process and "pig-headed discipline" is implemented, you will lose your network in this market.

Information is king but you won't benefit from it

Chinese are not team players. The one child policy has clearly shaped in each family a little emperor who collects rather than shares. Information and "Guanxi" are rather personal and the reporting process does not follow the same rules as in western countries.

If your operation manager is not a foreigner or a returning Chinese with strong commitment to your business, you will catch 80% of the meetings between your salesperson and the prospect. The 20% remaining are related to other business, which may not impact your own market, but the wealth of your employee.

Your company must designate an independent employee who checks that every computer and information from the meeting is properly sent using a secured server to your headquarters. Information in China is not safe and "proprietary information" has no meaning here.

If your sales team does apply the reporting with discipline, just "kill one to warn a hundred" as we say here.

Recently a Belgian company fired a sales manager due to his poor results. A Chinese agent contacted this sales person. What were learned from the discussion are the sales person

would come back to his previous company with his expanded network and data from the company. This case leads to the lack of enforcement of the non-competing agreement.

Non-Disclosure and Non-Competing Agreements: get them signed anyway.

With a rising labor cost that matches what you pay in the US and Europe, the Chinese employees are expected to fulfill the same obligations as your national staff and to acknowledge the same enforcement of the labor law.

On the first working day, your salesperson must sign these agreements, in Chinese and English.

According to the Chinese labor law and the interpretation of the Supreme People's Court, you are protected. In fact, your employee will leave, this will be to "go back to school", take care of a "sick parent", or whatever lame excuse he will find.

In fact, the non-competing agreement cannot last more than two years and you will have to pay around 30% of your ex-employee monthly salary during that period.

Is this non-competing agreement respected? Rarely, because the nuclear field is wide: you can have sales person that works for a piping company and decides to join a valve factory.

A major European engineering company based in Wuhan sees his staff leaving to work in the aerospace business.

We have tens of cases in mind and one of them needs to be cited as this is typical example of the market:

A few years ago, a European company hired an engineer who had a specific expertise in thermo-hydraulics. He left his previous US company and competitor for a while and was looking for a job. After two years, he left this European company to work for another business, still in the nuclear field, but not in the same area.

The violation of a company's handbook and regulations has no effect.

Even if your company asks the salesperson and any other employee to read, acknowledge and sign the company's handbook and other regulations, this will not have any effect in the court of justice or arbitration.

The way a judge will see the infringement is based on hard proof: if a fake invoice is given to the company, the employee must sign and admit it.

If the employee has stolen company's name cards and documentation, the company must prove it.

If the employee is using the premises during holidays, weekends and the manager is not informed, the labor law will not accept this type of violation as sufficient matter to fire the employee

In front of the court, you will have to compensate for firing the employee anyway; you must anticipate the damage and how much money you are ready to pay.

Any shortcut in this market has its price tag

With tens of nuclear power plants in construction and the pressure to localize, foreign companies expand their presence and hope to export as much as possible before the transfer of technology to a Chinese partner.

This pressure on your salesperson and the dreams from your shareholders to conquer the Chinese market may increase the risk of corruption, which can take any form.

Transparency International has already done its job on the ranking. China is well known as a bad student despite government campaigns.

The nuclear market is strategic and Kang Rixin was a famous example of how corruption can impact a major SOE.

You have to keep in mind the salesperson is the frontline, takes your prospect for dinner, goes to expensive karaoke with officials and often promises more than expected to secure the business.

The integrity of your salesperson is constantly challenged by the need to succeed fast. This happens often if your technology does not offer specific advantages. If your company is not recognized as a global top 3, you will be competing with the local industry that has no regard for business etiquette and global standards.

A major South Korean company lost its sales in the AP1000 tenders for the last twelve months because the local competitors invested ten times the amount of "entertainment" to keep their market share. Despite the localization of the factory in the eastern part of China, this company is losing ground to competitors that do not have the same reliability in the market.

What can you learn from this?

Any market has its advantages and weaknesses, but only China has THE market of the century.

Any company that works in the nuclear industry must take into account the Chinese business environment: first on the mainland, and soon overseas, such as Pakistan, Argentina, UK, Brazil, and South Africa to cite only a few.

Your investment in China can be done either directly and you may face some of the issues raised above, or you can externalize through an agent who will have to deal with the same problems -for a much lower fee.

Your company has to prepare a durable strategy, then act fast locally with a local and international team, and use a well-managed operation unit to protect your information, network and labor issue.

Index1

	M310/ EPR/ CPR1000/	ACP600/ 1000	AP1000 / CAP1400	ACP100	HTR	VVER	CANDU	Fast Reactor	Fuel Cycle	Forging	Waste Management	Manufacturers	Training/ Maintenance / Operation	Education	EPC
Anhui			x							x		x			
Beijing	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Chongqing												x			
Fujian	x	x	x	x				x							
Gansu									x		x	x			
Guangdong	x		x						x		x	x	x	x	x
Guangxi	x		x												
Guizhou										x		x			
Hainan	x	x													
Hebei				x								x			x
Heilongjiang		x	x							x		x	x	x	
Henan			x	x					x	x		x			
Hubei			x	x						x		x	x	x	x
Hunan			x	x						x		x			
Inner Mongolia									x			x			
Jiangsu		x								x		x		x	x
Jiangxi			x	x								x			
Jilin			x									x			
Liaoning	x	x	x							x		x	x	x	
Shaanxi												x			
Shandong		x	x		x					x		x			
Shanghai			x				x		x	x		x		x	x
Shanxi									x	x		x			
Sichuan	x	x	x	x	x	x	x	x	x	x		x	x	x	x
Tianjin												x			
Zhejiang	x	x	x				x					x	x	x	