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## The Six main reasons why foreign companies will fail in the Chinese market

From 2013 until 2020, one trillion Yuan (around 160 billion USD) will be invested in the nuclear power industry.

70 to 90 percent of the nuclear power plants will be localized.

The remaining market is to be shared between 220 foreign companies which supply safety related equipment, and less than 50 others dedicated to other sectors of the industry.

Most of these 270 companies will be kicked out of the market.

We will reveal the transformations in the market that impact the business of foreign companies in China:

- Failing to prepare a long-term strategy
- Ignoring the local requirements from the Safety Authority
- Accelerating the creation of a local office
- Spreading a negative message which affects local opinion
- Cutting off the investment in market intelligence and competition analysis
- Obstructing the Chinese partner from going global

### Chapter 1: Failure to prepare a long-term strategy

Most of the European and North American companies came to China for the same reason: to be involved in projects signed by Areva, Westinghouse, Rosatom and AECL.

AECL did not have new CANDU projects in China, and the Canadian industry, while highly experienced, left the Chinese market to this year. The industry is looking to return to China with a new project.

This example coincides with the French and German companies behind Areva, US businesses involved with Westinghouse, and Russian companies with Rosatom.

We outlined eight recommendations prior to your development in China:

1. Top three in the Global Market
2. Agreements signed between China and your country
3. Clarify your expectations within 18 months
4. Transfer your technology
5. Invest in a local entity
6. Collaborate with the EPC

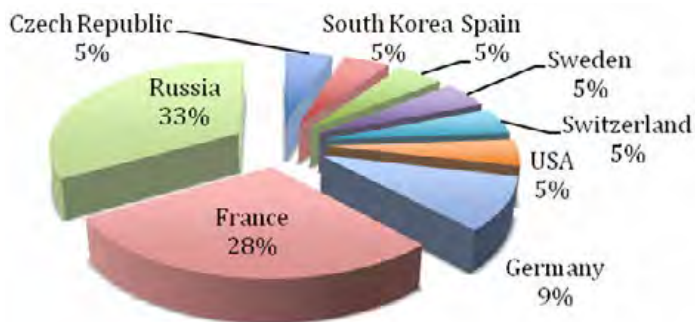
7. Audit the budget for your expansion

8. Legitimize your Title

### 1. Top three in the Global Market

The first question to be asked is about your global ranking: Are you globally in the top three of your line of business?

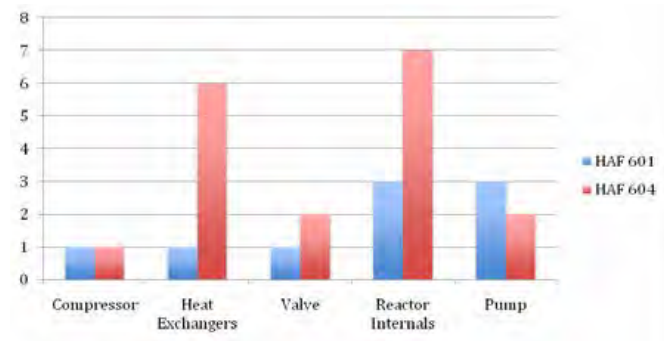
The list of HAF 604 certificates from the National Nuclear Safety Authority (NNSA) indicates companies which only supply Class 3 safety related components, and therefore do not offer any technological edge in the market, they are particularly from the following countries:



Above: percentage of manufacturers per country, exporting Class 3 equipment to China

Most of these enterprises obtained their certificate between 2008 and 2009 for the Ling Ao project (The Russian companies are only involved in the Tianwan project).

Since 2008, a growing number of local competitors have been certified, and their number will increase to reach at least three entities.



Above: Companies that provide only "class 3" equipment to China.

Why is this number three? This is the basic number for any tender according to the Chinese law, and the safety authority has received a guideline to keep this number of three local competitors in order to guarantee the localization of equipment.

If you are not considered to be in the top three globally, do not go to China.

## 2. Agreements signed between China and your country

Most of the countries involved in nuclear power signed a bilateral cooperation agreement with China.

There are around 133 international bilateral agreements signed between China and 30 countries (non included IAEA).

According to our experience during the last five years, only state owned companies, or entities working for government projects are aware of the variety of agreements signed.

Most private companies do not investigate the range of the agreements, and just focus on the construction of nuclear power plants, rather than accompanying ongoing agreements.

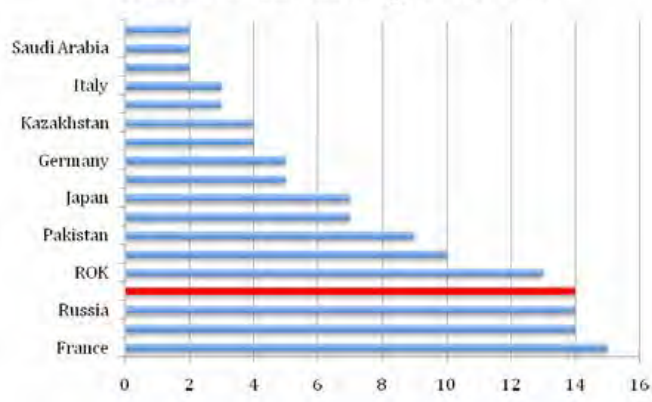
The diplomatic relations between both countries must be followed. The recent crisis in the Sankaku-Diaoyu Islands has a direct impact on Sino-Japanese commercial relations in every sector, including nuclear.

In 2008, during the France-China crisis, the order was similar: to halt any project until the French government would kneel.

In another domain, the recent victory of Kepco in the United Arab Emirates has indicated to China that Korea has become a strong international competitor.

China is therefore closing its market to new entrants despite a strong commitment of Korean companies in China.

### Bilateral nuclear agreements



Above: Number of Bilateral agreements focused on nuclear cooperation, including two agreements with Euratom

If you do not follow the agreements and the diplomatic relations between your country and China, start your homework!

## 3. Clarify your expectations within 18 months

Despite the fact that China will be the largest nuclear market for the next twenty years, opportunities for foreign companies are still limited.

If you plan to develop your business in China, you need to take into account the time needed to set up an office (the factory will be discussed later):

- In Beijing, be close to CNNC and SNPTC.
- In Shanghai, be close to SNERDI for the AP1000 projects.
- In Shenzhen, be close to CGNPC.

Forget Wuhan, Chengdu, Qingdao and Hangzhou and remain close to your clients: Proximity is power.

If you plan to go back and forth between your country and China, expect a meeting every three months maximum if you are just developing your business for the first time on the mainland.

Most companies expect their first order within one year, which is not realizable even if the following conditions are respected:

• **Your product does not need HAF604:** HAF604 requires eighteen to two years to be granted by the NNSA. If you do not need the HAF, the competition is greater.

• **Your product interests the management of the SOE:** You have to spend time with the engineers in charge of the procurement who assess the technical features of your product. If a young engineer thinks that your product has no advantage, nobody will take the risk to sign the agreement. If anyone in the decision process refuses to take a risk, the result will be the same, even if you have a strong technological advantage. A major North-American company delayed the delivery of its distributed control system by two years for a large number of reactors. The new entrants could not persuade the buyer to modify the technology for the actual and next reactors. The decision process was frozen.

• **Your product is required by an SOE or an institute:** any budget for new purchase will be reviewed and granted before the Chinese new-year (around the mid of January). Any deal should be prepared between February and August and be signed the year after.

• **Your company has already established historical relations with the industry:** many SOEs have established commercial relations with the suppliers of Daya Bay/Ling Ao and Sanmen/Haiyang and have

been trained by their suppliers for many years. New entrants will need to raise the standard such as transfer of technology, or lower the price.

**•You closed a first deal and the payment was made fast.** Companies such as CNEIC in charge of the import-export business for CNNC need an approval for payment from the Tax bureau. It takes between three to four months to have the approval before making the first payment. This is usually done after every agreement. Your cash flow will be affected.

Your company needs at least 18-24 months to be noticed by the end user. You will foresee the first deal (negotiation, signature and first payment) between the 24-36 months.

**4. Transfer your technology**

Much bidding in China requires transfer of know-how. Recently a leading French-German consortium had to accept the delivery of the know-how for Fuqing 5/6 while the US competitor withdrew from the bid due to this significant requirement.

In other fields, such as fuel cycle (enrichment, reprocessing, manufacturing), Areva, TVEL, CFM and WEC transferred the line of production to Baotou and Yibin.

Your company has to accept a partial transfer of technology, however it is important to create a black box if you want to protect your patent.

We advise every businessman to read the excellent (and free) digital book by James McGregor, NO ANCIENT WISDOM, NO FOLLOWERS: The Challenges of Chinese Authoritarian Capitalism.

The registration of your intellectual property in China is mandatory, but the enforcement of the law is rarely efficient compared to what exists in the US and Europe. Do not expect any compensation if your partner or competitor is a SOE.

Many cases of dispute can be found on China Law Blog (<http://www.chinalawblog.com/>)

Transfer or not transfer? Your expansion in China will require this step. You will bring a technology and know-how that will create either a competitor or a long time partner, that will depend how you decide to play with your expertise.

If your strength is in developed countries, such as Europe and North America, you can start the process. However if your company is just starting its first international exposure, you will certainly create a competitor.

Most of the newcomers in key technology markets are required to transfer their technology immediately in order to gain access to the market.

If your strategy does not secure sustainability for your factory between the third and fifth years of business, do not enter the market.

**5. Invest in a local entity**

In June 2013, there were twenty Joint Ventures (JVs) and ten wholly owned foreign enterprises (WOFEs) that received HAF 601 from the NNSA.

Dalian Deep Blue Pump Co., Ltd.
Jiangsu Biaoxin Jiubaotian Industrial Co., Ltd.
Shanghai KSB Co., Ltd. Shanghai Electric
Dalian Hermetic Pump Co., Ltd.
Yantai Taihai Manoir Nuclear Equipment Co., Ltd.
Dongfang Areva Nuclear Pump Co., Ltd.
Nanjing Sun Tola Ripple Tube Co., Ltd.
CNNC SUFA Technology Industry Co., Ltd.
Shenzhen Shiyingda Pipeline Co., Ltd. CNNC 23
CGNPC Inspection Technology Co., Ltd.
Shanghai Cable Factory
Dalian Danai Pumps Co., Ltd.
Shanghai Yidian Foxbolo Co., Ltd.
Neway Valve Suzhou Co., Ltd.
Shanghai neles-jamesbury valve Co., Ltd
Jilin Zhongyi Nuclear Pipe Manufacture Co., Ltd
THT (Siping Juyuan Hanyang Plate Heat Exchanger Co., Ltd)
AREVA Dongfang Reactor coolant pumps Co., Ltd
China Nuclear Industry 23rd Construction Corporation
Sichuan HuaDu Nuclear Equipment Manufacture Co., Ltd

Above: List of current HAF 601s for Joint Ventures.

More companies, in particular from France, continue to invest in Guangdong province due to their proximity to CGNPC, such as Valinox, CNIM, Site and ACP.

The investment from international firms with a local partner fails most of the time. The common strategy is to create an entity, expand in the Chinese market and contain it.

This is WRONG.

Any Chinese entity wants to expand globally.

However most of the JV are contained to the Chinese market and therefore you will create a frustrated partner who ultimately becomes your competitor.

The strategy in China must be seen as an expansion to new markets.

China has solid advantages in markets that you have not accessed, and your business should monitor the meetings organized by the ministry of foreign affairs and other countries. You can anticipate the next move of your local partner in the overseas market just by looking at websites that display routine information that are critical to your strategy:

The Ministry of Foreign Affairs

[http://www.fmprc.gov.cn/mfa\\_chn/](http://www.fmprc.gov.cn/mfa_chn/)

<http://www.fmprc.gov.cn/eng/wjdt/wsrc/>

The list of Embassies in China and information on their relation with China.

<http://www.embassiesinchina.com/>

By monitoring such information, you will foresee where your partner wants to expand and anticipate the risk of creating a competitor: join him with your own resources in new markets.

In the case where your company has established a WOFE in China, monitoring is also a MUST in order to become a partner of the EPC.

If you do not monitor the activities of the Chinese agencies in the overseas market, you cannot foresee the next move of your partner and competitors.

## 6. Collaborate with the EPC's engineering team

How many times have we heard that Chinese engineering companies have used your drawings and other technical information to copy your know-how? All the time.

Let's be very clear about this issue: everybody does the same.

France is the one example: the French industry spent time in the seventies and eighties in the USA to copy any kind of information for the French program, and continued in Belgium for the reprocessing and fuel cycle.

The Japanese and Koreans used the same behavior in France and the USA during the nineties.

We could even continue with India and the CANDU technology.

That is not the subject of this article.

The winners in China are companies that will cooperate with the EPC.

The losers will only sell equipment.

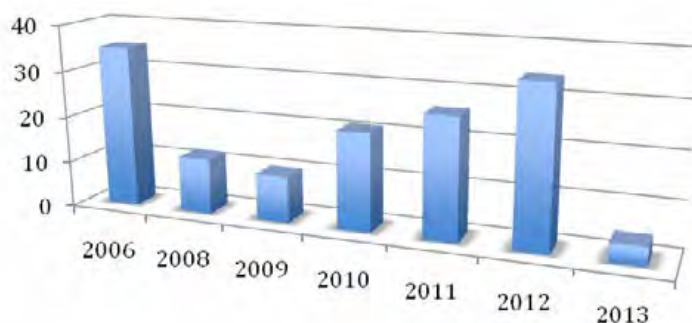
However our sole responsibility is to guarantee that China will have the best and safest technology and to avoid another Fukushima.

One of the top engineering companies from Belgium has

implemented this philosophy. The company specializes in cooling towers. When its CEO was in Beijing, he met the two best EPCs from CNNC and CGNPC and told them: "We build the best, the highest, the safest and most advanced cooling towers in the world and we want to partner with you and share our technology".

This company has since trained both groups who want to keep this Belgian partner for all their national and international projects. This company became a strategic partner for the Chinese nuclear program.

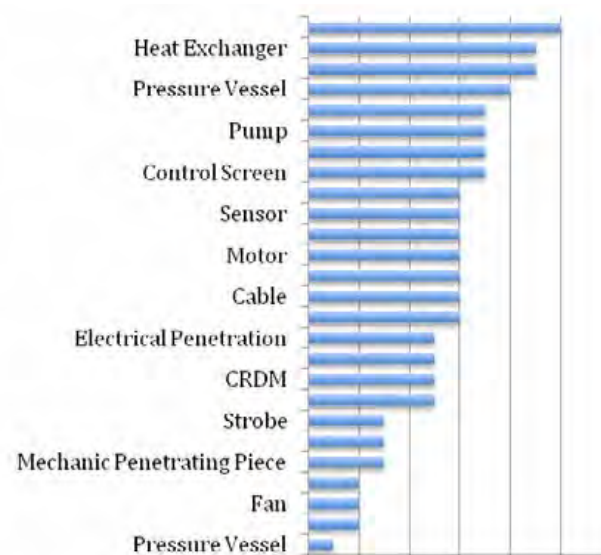
Foreign companies do not track the certifications awarded to local EPCs. These certifications will allow the manufacturing partner to sell equipment according to the specifications of the EPC. The number of certificates increased between 2009 and 2012 (our data shows only the first quarter of 2013).



Above: HAF 601 certificates awarded to Engineering Companies for Design

Most of the certificates awarded are related to Classes 1&3 for mechanical equipment, which indicates to manufacturers of Class 2 that either they should increase their sales force, or cooperate with the EPCs to widen their spectrum.

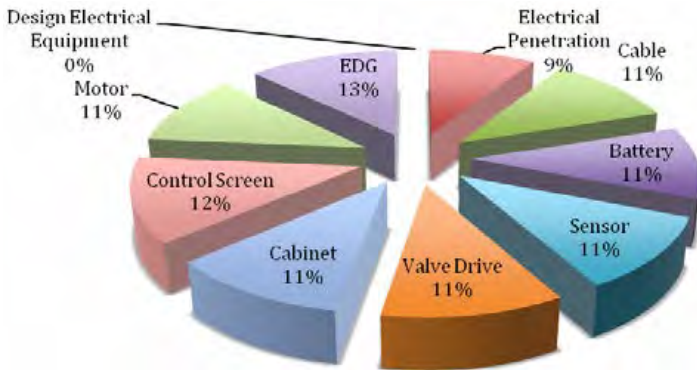
What are the main areas of design targeted by the EPC? The table below shows basic data (contact our research department for more information):



Above: Range of HAF 601 certificates awarded by the NNSA to Engineering companies since 2006

What will happen in the case of there being no cooperation between your company and the EPC? You would not have the opportunity to educate the EPC on the best standards available on the market, and you could expect a local SOE to benefit from the outcome.

If you do not cooperate with a local EPC, you increase the risk of more local competition emerging and seeing your specification denied during the tenders.



Above: HAF 601 certificates for Design of Electrical Equipment awarded to Chinese engineering companies.

**1. Audit the budget for your expansion**

Dozens of websites, consulting firms and even your finance department determine the budget for expanding your business in China.

That is Wrong.

Take as an example a professional runner who trains for local, regional, national and international competitions. For each competition the athlete will focus on the outcome of the specific event. A competition in Ohio compared to the Olympic Games does not have the same effect on the mindset of the athlete. The best experts in that “market” would review their preparation, information on the competition, the weather, and equipment.

The Chinese nuclear power market is the Olympic Games: this will be the most important and most competitive market in the world for the next twenty years, and Chinese companies retain the field advantage.

The main problem is that foreign companies see China as the Olympics, but they invest and prepare their business as for a

local competition.

Let’s compare two cultures: the European and the US.

Europe: most of the companies willing to expand in China are small and medium sized, and still think as small and medium size. Their budgets are the main concern, not the outcome.

I remember a company requiring us to come to its factory to discuss the market, they did not ask any questions and promised to follow up, but since then, when I meet the sales manager at exhibitions I hear complaints that there is no business or future will be uncertain.

This strategy to “suck” information and try to do everything is used by many companies looking to save money before expanding in China.

USA: most of the companies have too much red tape, bureaucracy and every step must be explained before any action is taken. In the 19th century, the fathers of the USA’s industrial development, such as Vanderbilt, Rockefeller, Carnegie, Morgan and Ford used bold actions to win markets. Nowadays the industry is just waiting for “corporate assessment”.

What are the expenses needed in China?

- Trips to the major provinces where nuclear power is developed.
- Marketing support.
- Technical support.

Budget for entertainment (much lower than what is currently used in Europe and the USA).

And that is it.

The problem is not only the budget; you need to have the right person to implement your strategy. Most foreigners are not willing to spend money to travel twice a week in China, spend twelve hours a day with clients and spend weekends with them as new friends.

That is not part of the foreign culture, which is: to work from Monday to Friday, and stay with family at the weekend. If this

is your way of working, the Chinese market is not for you.

How do you forecast the budget needed for the right strategy to implement in China?

Use the same budget you would use to hire the best person in your top market in your own country. China is like the USA and Europe, this is a top country.

You want to underpay your employee? They will learn from you then leave for your competitor.

You want to limit your dinner and entertainment with your clients? They will never become your friends.

You want to read China Daily and Google news to find information about your field? You will not have a clue of what is really happening in the market.

If you do not forecast the cost of your development in the Chinese market proportionally to your expectations, but limit the investment to an arbitrary budget, you will not get any results within 24 months.

## 2. Legitimize your title

The representative you will send to China is not usually the decision maker.

Your company will send a salesman, even create a local team who has to report and follow up the expansion of your business. The most "appropriate" persons at headquarters will take the decision.

Ebay, Yahoo, Home Depot, Groupon failed in China due to this strategy or due to their lack of trust of local managers.

Until last year, a major French company based in Beijing had only one role: to report to headquarters. There was no decision making process in the Beijing office. The company is changing rapidly because the US competitor based in Shanghai has a local strategy with technology that will get half of the Chinese market.

If you send someone, the person should be experienced, internationally oriented and understand the Chinese market - or at least have a good approach to the local business manner.

The EPC and end user will organize the meeting according to the rank of the person you send.

I recently met a company that has the right strategy: Daher Group. The representative in China is from the family business; the representative from the nuclear company is the decision maker. The process can go very fast to expand and answer the customer's need.

In the same way, the head of L3-Mapps, a world leader in simulators, travels to China and can decide immediately what action to take.

If your representative or project manager is not the decision maker, the Chinese counterpart will look for your competitors.

What have we learnt in this article?

Most companies come to China with a tactical versus a strategic approach:

1. **Top three in the Global Market**
2. **Agreements signed between China and your country**
3. **Clarify your expectations within 18 months**
4. **Transfer your technology**
5. **Invest in a local entity**
6. **Collaborate with the EPC's engineering team**
7. **Audit the budget for your expansion**
8. **Legitimize your Title**

The preparation of your team's entrance to China requires strong marketing, technical and sales support that must be initially approved by your headquarters for a stated period of 36 months.

Your company must clarify its outcome in China, understand the local needs, foresee the global expansion of Chinese nuclear power and have the right person to handle a long run.

Next month: Chapter 2, Ignoring the local requirements from the Safety Authority