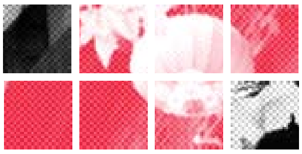


CASE STUDY

9 JESA SHANGHAI TRADING CO. LTD

Bearings Industry

SUMMARY

JESA produces and sells specialty bearing solutions from its Swiss factory and standard bearings sourced out of China, for machines, tools, automobiles, equipment and furniture. This case explains JESA's sourcing strategy in China, focusing on:

- the purposes of JESA's sourcing in China
- the business set up for JESA's China trading and the solutions applied
- the factors that account for JESA's success in China

Figure 1:
JESA's activities in China
Source: Swiss China Survey, 2005

		B2B				B2C	
		Industrial Component	Industrial Equipment	Raw Material	Services	Consumer Goods	Services
Producing							
Purchasing	For own China operations						
	For mother company	JESA					
	For third party	JESA					
Selling	SOE						
	POE	JESA					
	FIE Global	JESA					
	FIE Local	JESA					

SOE -State-owned enterprises in China
POE -Private-ownd enterprises in China
FIE Global - Foreign-owned international enterprises with operations in China that are clients of Jesa in the global scale
FIE Local - Foreign-owned international enterprises with operations in China that are not clients of Jesa in the global scale

GLOBAL INDUSTRY TRENDS and OUTLOOK

The global market for ball bearings has been going through an extensive consolidation which reduces the number of market participants. Production of standard ball bearings is expected to be concentrated among a few major players. As a result, smaller players focus on the specialized niche markets.

Region	2003 Sales volume (in USDbn)	Market share	Change in sales volume from 2002
North America	229.5	49.0%	+11.0%
Europe	115.4	25.0%	+8.0%
Japan	52.4	11.0%	+3.0%
Asia (excl. Japan), Africa and Australia	37.3	8.0%	+12.0%
Latin America	17.4	4.0%	+6.0%
Rest of Europe	14.3	3.0%	+14.0%

Figure 2:
Accelerating growth trend of demand for bearings in the Asia Pacific region
Source: The Freedonia Group

Market consolidation

The ball bearing market is a major part of the general mechanical engineering industry which is currently going through a recession due to intensive price pressure and relocation of production activities to low-cost countries. The worldwide demand for bearings closely follows the general economic cycles and is projected to grow on average at 5.7% per annum to reach USD35bn in 2007. It is driven by increasing Original Equipment Manufacturers' (OEM's) output for bearing-consuming products, especially in developing regions. The table below shows the bearing demand growth in the Asia Pacific region.

Currently, the ball bearing market is dominated by a handful of large groups operating on a multinational basis, both market- and production-wise. The part of the market that is not served by the few big players' market (i.e. SKF, FAG/INA, NSK, Koyo Seiko, NTN, Timken, Torrington and NMB) is very fragmented. The mid-sized and smaller producers of ball bearings are spread out all over the world. They are expected to continue to find business opportunities in specific market niches.

The market for standard bearings as well as for bearings in specific versions or even special bearings in large volumes, like hubs for cars, is mainly serviced by the big bearing manufacturers, either directly or through distributors. The market for specific versions of standard bearings in smaller quantities represents a small proportion of the overall market. It is serviced either by the big manufacturers with limited interest due to their lack of flexibility or by specialty distributors which either carry stocks or are able to modify standard bearings. Meanwhile, the market for special bearings in smaller quantities is serviced mainly by small manufacturers and a limited number of big producers.

In this complex and highly competitive market environment, the leading multinational bearing companies are struggling for market share and volume. Many rely on external growth through acquisitions of other bearing producers as a means to generate higher sales volume. These acquisitions also enable these companies to enlarge their range of products for their customers.

Market size

The world bearing market is estimated to be worth about USD28.3bn with the following segmentations:

Figure 3:
Product types
Source: JESA Shanghai

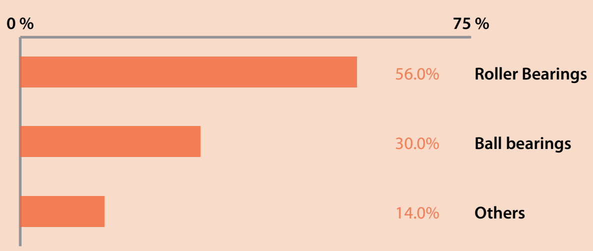
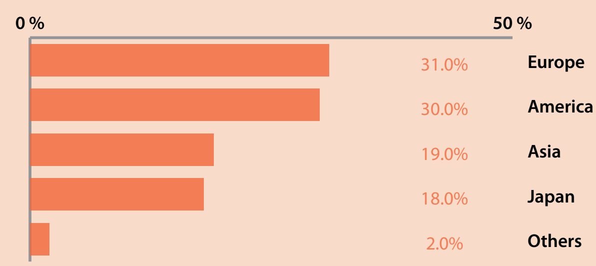


Figure 4:
Geographic distribution
Source: JESA Shanghai



MOTHER COMPANY – JESA CH

Company background and current situation

JESA was founded in 1969 to produce ball bearings in Fribourg, Switzerland. It is now a member of the POLYGENA Group. Two production sites were active until 2004 — one in Fribourg (with 130 employees and currently the only production site) and one in Slovakia which was closed in 2004 after the China set up was completed.

Sales representatives are stationed in Switzerland, France, United Kingdom and Germany. The company's yearly turnover is about CHF45m (USD36m). JESA is certified ISO 9001:2000 compliant.

JESA began its trading activity in 1969 by purchasing and selling standard ball bearings from Japan. In 1995, JESA and Bosch agreed to source bearings from China at competitive costs with the aim of continuously developing quality. Bosch has remained an important customer of JESA. Other customers have also been developed over the years which utilize ball bearings from JESA's Chinese sources.

Product lines

JESA's product range is divided into four main families:

- special bearing solutions
- plastic over molded ball bearings
- ball bearings unit
- standard bearings.

The range varies from low margins, high-volume standardized bearings to customized special bearings for specific applications. Standard bearings customers are large companies that use them, for example, for power tools and escalators. Custom bearings are developed jointly with clients for the automotive industry as well as for other industries.

Geographical markets

JESA is selling its products in most European countries: Switzerland, Germany, France, the Netherlands, Italy, Great Britain, Slovakia and other East European countries. The company's long-term goal is to develop sales through a direct presence in other key markets.

Competitors and competitive advantage

The extensive consolidation of the ball bearing market in recent years has reduced the number of market participants to less than 200 firms which are involved in the manufacturing of ball bearings. In the years ahead, the global ball bearing market is expected to continue consolidating into a quasi oligopoly structure – consisting of only a small number of major multinationals based almost exclusively in developed countries.

Most of the leading bearing-producing multinationals are well diversified as they offer a wide range of products in addition to bearings for the automobile, aerospace or related industries. However, their ball bearing production has constantly accounted for a substantial part of their total operations. The chart below shows that the top companies account for more than three-quarters of the world bearings market.

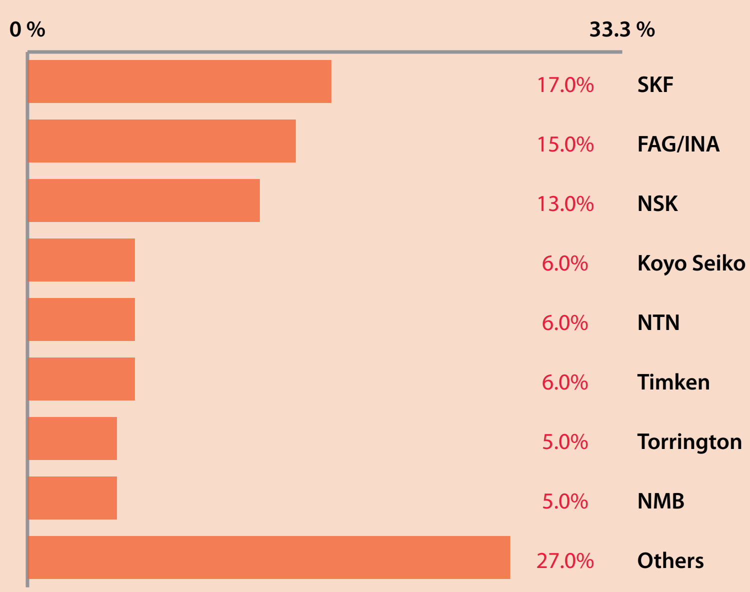


Figure 5:
The top companies of the world's bearings market.
Source: JESA Shanghai

JESA differentiates itself from competitors by focusing on the following dimensions:

- customers' needs
- innovation
- technology
- precision engineering
- service

JESA's advantage is its specialty production of precise miniaturized bearings and plastic over-molded bearings. JESA China's access to low-cost production also generate a competitive advantage.

CHINA INDUSTRY TRENDS and OUTLOOK

Exported bearing from China during the first half of 2005

Through the first half of 2005, China reported that the country's bearing exports reached 1.24 billion sets, up by 18% over the same period of last year. The total value of all finished bearing and bearing component exports is reported as USD694.3m for the 1st and 2nd quarter of 2005, up by more than 38% from 2004. Since steel costs have been going up and the overall sales price level going down, margins of bearing manufacturers have certainly not increased. These figures clearly show that China is producing more and more sophisticated bearings, commanding higher prices per set.

The bearing production industry in China

Bearings factories in China can be categorized in three groups.

a) **Small enterprises**

There is a big quantity of small factories (employing not more than 200 people) and possibly many dozens that produce all possible types of bearings in China. These companies' organization level is poor and the quality level can range from very low to acceptable. The bearing standard goes from rolled tracks with ball tracks ground and polished. They are mainly family-owned and either they produce for the local market or have some export activity through trading companies. Due to the very low cost level, they offer the lowest possible prices but stability of the process and quality of the products are not guaranteed.

b) **Medium to big companies**

This is a group of producers which have made significant progress in the last ten years. These companies have sold their products to organizations in China that produce for export or have already exported their bearings for some years. Due to regular contact with demanding customers, the manufacturing and quality level of these companies have made significant improvements. All of these companies are ISO-certified — some through Chinese certification bodies and others through the likes of TUV [i] and SGS [ii]. The manufacturing capability of these companies is improving steadily while manpower is being gradually replaced with automated machines. These producers often copy Western manufacturing processes sometimes in ways that make little sense. The production equipment is normally of Chinese origin, completed with a few imported machines.

Their quality standard is normally quite satisfactory, especially since manufacturing processes involve stringent quality control (QC) steps. The raw material is produced locally with the exception of critical elements such as seals or special greases. The export activity of these medium to big companies is conducted through agents but some of them have set up their own sales organization in Western countries.

c) **Subsidiaries of Western or Asean (i.e. Japan, Taiwan) bearing manufacturers**

All major multinational bearing manufacturers (SKF, FAG, INA, NSK, NMB, etc.) have already set up at least one production base in China for the following reasons:

- to manufacture for global customers producing in China which require international group standards locally (mostly for the automotive industry)
- to have a cost-effective production base for exporting to the world market
- to produce for the growing demand of the local market

The production processes of these manufacturers is the same as in Western production sites. Although the machinery is usually not of the latest generation, it is made up of fully functional modern equipment. The quality standards of these subsidiaries mirror their respective mother companies'. The raw material is commonly imported with some local content. The tendency is to develop the quality of local raw materials and soon after, switch gradually to 100% local content.

JESA in CHINA

Subsidiary background and current situation

JESA China ("JESA CN") is a sourcing, trading and quality control subsidiary of JESA CH. It currently employs ten personnels.

JESA started its activities in China because Japanese bearing manufacturers became less and less competitive over the years. In order to keep its trading activity, JESA CH established a partnership with Chinese manufacturers in 1995. Purchases were done through a Chinese trading company (CMEC) who was dealing with six bearings factories in Wuxi (simply named W1 to W6 factories).

The yearly turnover made with ball bearings purchased in China currently accounts for one-third of JESA CH's total turnover.

JESA CN's activities are divided into two profit centers:

- Sales to JESA CH
- Direct sales to other customers, both local and foreign

The products delivered to JESA CH are used both as:

- finished products for re-selling to clients
- semi-finished products that need to go through additional production processes in JESA CH prior to selling

Business development has been very strong for JESA CN with sales expected to reach USD9.86m by the end of 2005, mainly to JESA CH. As a result, full return on investment is expected to be achieved only two years following the subsidiary's set up.

Motivation and market entry strategy

Development in China as well as in communication technology makes it easier today for JESA's clients to purchase directly from low-cost suppliers. In addition, some of JESA's large customers are setting up their own manufacturing subsidiaries in China and will no longer find the need to import what they can source locally. Without an operation in China, JESA would definitely lose business from its clients that are moving to China. Should the subsidiaries of these clients successfully source from China, in time, their mother companies in Europe will certainly use the sourcing knowledge of their daughters in China and cease purchasing from JESA in Europe.

Through JESA's full knowledge of the sector in China and direct access to local producers, JESA's China subsidiary is able to obtain the best possible prices and ensure quality. There is also an opportunity for a local JESA entity to sell to international clients that JESA does not yet serve – for instance, the USA.

Due to the above reasons and the importance of its trading business (33% of total turnover), JESA decided to set up its own subsidiary in China. In so doing, it protects its trading activity by adding more value to its position in the supply chain (better prices and quality) and by serving clients (in China and abroad) who want to purchase directly from China.

JESA CN activities are summarized in Figure 6 below.

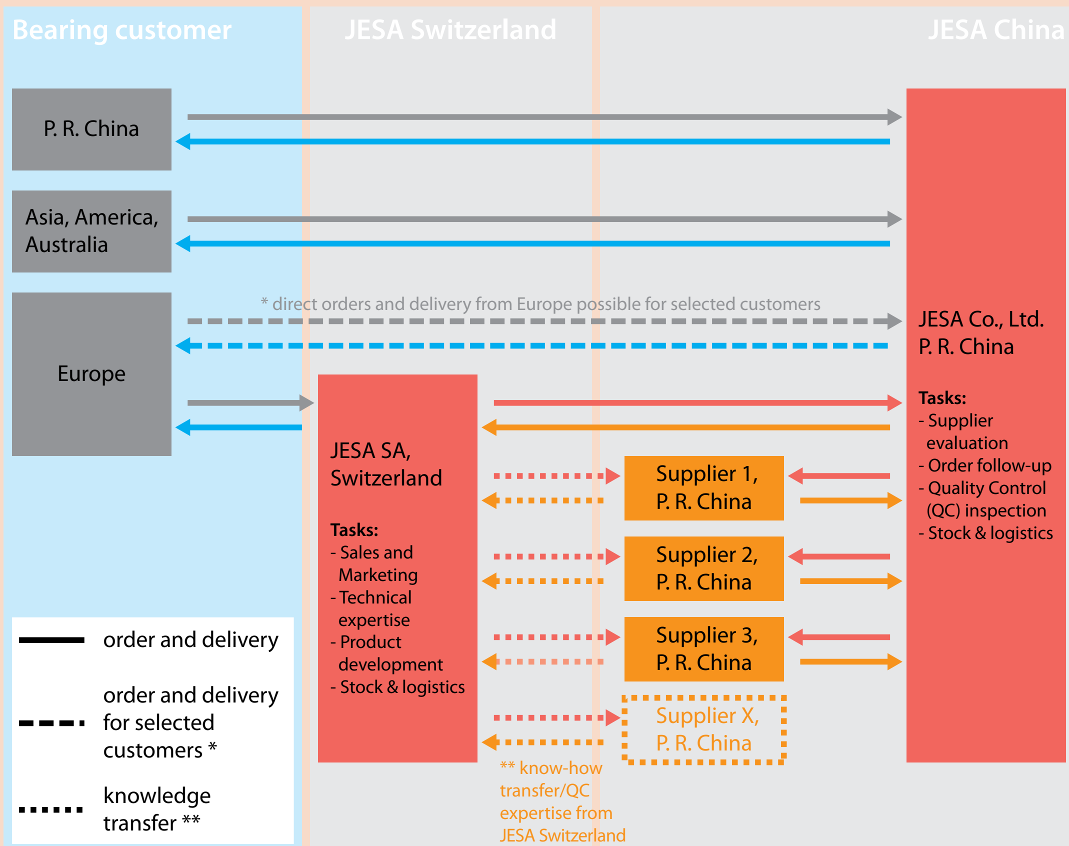


Figure 6:
JESA CN activities / business model
Source: JESA Shanghai

In order to fulfill these needs and maintain continuity, after obtaining advice from China-based business professionals, JESA decided to set up a joint venture (JV) with its trading partner in China. This allowed the acquisition of the JESA business know-how in China, including the relationships with the W1 to W6 factories.

The negotiations for setting up the operation in China began in 2002 and operations officially started in 2003. JESA CN was set up in the duty free zone of Waigaoqiao in Pudong (foreign-invested trading enterprises are permitted to register in the Shanghai area only in the duty free zone at this time. JESA CN is an equity joint venture owned 70% by JESA CH, with a business scope that allows trading and services on goods traded. General Management of JESA CH is ensured by the local partner.

To maintain continuity and to handle return of value added tax (VAT) on export, the previous Chinese trading company, CMEC, was also retained albeit only as an export agent that effect payment to suppliers, export goods and collect returned VAT from the Chinese government (in the range of 13% of amounts exported). These services are rendered against a commission proportional to the capital needed involvement. Such activity is indeed capital intensive as VAT returns are made only within 6 to 18 months after export. Since operations began in Wuxi and Ningbo, a representative office of JESA CN was established in Wuxi where all the operations are conducted.

JESA responsibilities and the shutting down of the Slovak operation

After the successful set up of JESA CN, the group management decided to close its Slovak manufacturing operation. JESA Slovakia was lacking flexibility and was unable to match the low cost levels of China. A majority of the Slovak production was subsequently outsourced to the Chinese suppliers of JESA CN.

The main responsibilities of JESA CN are:

- sourcing, selection of suppliers and supplier management
- handling of orders, technology improvement, quality control with suppliers and claims (bridging the language and culture gap)
- sales to direct clients (local and foreign)

At the beginning of the activity, the complete sales volume went through JESA CH — the geographic market being Western and Eastern Europe — where JESA CH provides technical and logistic support to end users. Today, when volume and products allow, administrative and logistic support for the customer is also transferred to JESA's Chinese operation.

Resolving conflict of interests between JV partners, business controlling and results

Considering that JESA CN is a joint venture, in which the minority partner functions as General Manager, the income scheme for the China operation has been set up in order to generate a common interest between Switzerland and China. Although JESA CN's interest would be to sell to JESA CH at highest possible price and JESA CH's is just the opposite, both entities are united by the general purpose of buying at lowest possible prices in China and selling at highest possible prices to final customers. As a result, the income sources for JESA CN are set as follows:

■ **Gross margin for sales to direct customers**	as high as possible
■ **Gross margin for sales to JESA CH**	a fixed % to cover JESA CN costs
■ **Participation of JESA CN in the gross margin of JESA CH trading**	a fixed low % to generate profit

Setting the gross margin of JESA CH at a level that will cover JESA CN's costs ensure JESA CH with the lowest prices, while the contribution to the gross margin offsets the disadvantage for JESA CN. In addition, the volumes that JESA CH brings to JESA CN make the relatively low contribution of JESA CH to the margin acceptable. Both JV partners have a mutual interest to sell from JESA CN to direct clients to as high prices as possible, in order to maximize profits. This is reliant on the skills of the local management and the market situation in China.

JESA CN is making use of a third party controlling organization in Shanghai to manage JESA CN's accounting procedures. This is to ensure adherence to the corporate governance principles against corruption. Indeed, there is a risk that JESA CN purchasing employees might take actions to draw personal benefits from the purchasing transactions.

Customers / market segment

JESA CN's major market orientation is export (local sales are made to those customers of JESA CH that need bearings for their Chinese operations). However, JESA CN's direct sales in China and markets where JESA CH is not active has remained minimal with just one large volume, low margin, client at the time of printing. Possible JESA customers with bases in China are:

- Bosch Group (28 joint ventures)
- Bobst (production unit in Shanghai)
- Schindler (production unit in Suzhou)
- Saia-Burgess (production unit in Shenzhen)

At a later stage, JESA CN plans to gradually develop its direct selling activities to other countries.

Local competitors and competitive advantages

There are a lot of local trading companies selling Chinese bearings in Western markets. Additionally, bearing producers have started exporting directly as well. The main advantage of JESA CN, in comparison to its local competitors, is its access to the European market. JESA CN differentiates by selling to market niches where a higher level of reliability, service and precision are required. The mother company's geographical and cultural closeness and her engineering skills translate into the capability to engineer customized, precision bearings for clients while producing them in China.

Suppliers becoming competitors, JESA CN in the value chain

With their quality level improved through years of JESA purchases and support, JESA CN suppliers are also increasingly expanding their own direct sales in Europe. A lower level of contact and service with European clients is increasingly becoming sufficient; thereby JESA CN suppliers or other Chinese bearing suppliers are more able to sell directly in the standard range. The technical and communication ability of Chinese suppliers is bound to grow. The day may come when the best and bigger ones will set up their own customer relations management offices in Europe and compete on JESA's niche.

For the long term, JESA is considering options to secure its position in the value chain in more aggressive ways by:

- improving its service level in Switzerland and China to serve increasingly demanding clients with products that require more sophistication in terms of both handling communication and technical abilities
- taking over the manufacturing processes in China which would ensure JESA technical superiority over Chinese suppliers and increase JESA's competitiveness

Location and legal environment

The choice of the location of JESA's subsidiary was influenced by two factors — the need to set up a foreign-invested trading company (only possible in Shanghai Waigaoqiao Free Trade Zone in the Yangtze Delta) and its local proximity to suppliers. This last factor also determined the establishment of the subsidiary's representative office in Wuxi.

From January 2005, and in accordance with WTO agreements, the Chinese government authorizes foreign-invested enterprises to set up trading and distribution companies outside of the Free Trade Zones all over the country. However, implementation policies have not been published so far, therefore, registration of such companies is granted on an experimental and case by case basis. JESA CN has the option to move its trading company's legal seat to Wuxi and will exercise it if such application does not generate too many and complex administrative efforts.

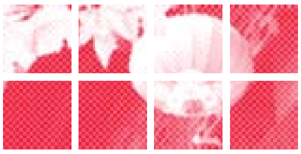
FACTORS FOR SUCCESS, RISKS and OPPORTUNITIES

Opportunities

Through its long relations with suppliers and its local operation, JESA has the opportunity to purchase technically complex products in China that others would need to purchase in Eastern or Western Europe. Moreover, its existing relationship with the Chinese suppliers and the relatively large volumes purchased from them should also enable JESA to lock them in its supply chain. JESA CN also provides the Group the opportunity to stay at the edge of new developments in China and to constantly evaluate the production market for new suppliers, new products and better prices.

Risks

The major risks for JESA's trading business rest in the development of the competition and in the forward integration of the Chinese suppliers. They may unavoidably become JESA's direct competitors; some of them may do so after benefiting from JESA's technical support and after having been introduced into the European market by JESA. This risk is increased by European companies that may try to purchase directly from China and even set up their own sourcing offices locally.



Success factors

■ **Early start (Japan 1969; China 1995)**

This pioneering attitude has allowed JESA to build a strong supplier base and a proportionally important size of purchases along with them, while consistently offering customers competitive products from China at attractive prices. Overall, this has provided JESA with both customer and supplier interest and loyalty. In addition, it has created a tested working relationship with a Chinese trader and their managers who are now able to manage JESA's own set up in China without prior training.

■ **Local support for strategy and business controlling**

Without support from a local expert, the joint venture set up may not have been successful as JESA was unaware of the possibilities and risks of a JV in China and a fortiori of how to translate common interests into a working cooperation. Of importance is also JESA's long-term strategy in China, for which local support is necessary in order to not depend only on JESA's Chinese partner for information and opinions. Unethical behavior from purchasing personnel entails the important risks of loose quality control and finally, disagreeable shipments. These, in turn, may result in the loss of important customers as well as considerable economic losses in the future. Local business controlling reduces the risks of JESA CN staff's improper behavior. Besides and on the financial side, it guarantees that constant attention is put into details which make JESA CN competitive. Indeed, in order to avoid having JESA's global clients sourcing directly from suppliers while maintaining a margin, it is essential that JESA CN purchases at a most competitive quality/price ratio and provides excellent service.

■ **Efficient bridge between European clients and Chinese suppliers**

JESA's presence in China for purchases and in Switzerland to develop technical solutions with clients provides an efficient bridge to the technical and cultural gaps between Europe and China. JESA has been able to derive good value out of this expertise. This bridge, however, entails technical support to suppliers and pushes JESA to develop strategies to integrate its suppliers to prevent them from turning into JESA's competitors.

Information on JESA courtesy of :
Michael Ma - General Manager, JESA CN
André Brülhart- Managing Director, JESA CH
***Case Study written by:** Patrick Schaufelberger*
***Approved for publication on:** September 2005*

Notes

[i] TUV - (TUV Rheinland Group) is a global leader in independent testing, certification and assessment services.

[ii] SGS - is one of the world's leading inspection, verification, testing and certification companies.