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(Two-part series: 2)
Global Strategic Alliance between Arcelor and Nippon Steel
—The Progress and Results of the Alliance in the Past Four Years—

Operating Roundup

Commencement of Business by Baosteel-NSC/Arcelor Automotive Steel Sheets
Baosteel-NSC/Arcelor Automotive Steel Sheets Co., Ltd., a joint venture founded in Shanghai by Nippon Steel, Baoshan Iron & Steel Corporation of China and Arcelor of EU, held an opening ceremony at its factory premises on November 8, 2005.

“Documents Consecrating to the Earth”
(A series of fieldwork installation by Kei Tsuji)
—Contribution for December 2005—
Installation in Hierve El Agua, Oaxaca, Mexico (2000)

Born in Tokyo 1953, Kei Tsuji displays her installations centered on dyeing and weaving in deserts, woodlands and waterfronts the world over. Produced through a fieldwork approach, her installations represent a continuous pursuit of the connection between herself (dyed and woven cloth) and the realm of time and space (principles of the natural world).
Global Strategic Alliance between Arcelor and Nippon Steel

The Progress and Results of the Alliance in the Past Four Years

Arcelor was formed by the amalgamation of Usinor, Arbed and Aceralia in 2002. In 2004, the company produced 47 million tons of crude steel to become the world’s largest steelmaker. In April 2005, Mittal Steel took over that position when its production capacity reached 57 million tons following their takeover of ISG of the United States. But at the same time, CST of Brazil became a 100% subsidiary of Arcelor, thus expanding its capacity to some 55 million tons, just a shade under Mittal Steel in scale.

Arcelor and Nippon Steel signed a Global Strategic Alliance Agreement (GSA) in January 2001. The two parties to the GSA—a European and a Japanese company that are geographically distant from each other—aimed to build an innovative business model that would enable them to strengthen their competitiveness and utilize their management resources effectively without actually merging or integrating any of their businesses. Recently, four years after the signing of the agreement, the two companies made a comprehensive review of all their cooperative activities.

This two-part series (nos. 335 and 336) describes the progress and results of the alliance to date, and presents interviews with Mr. Jacques Chabanier, Senior Executive Vice President of Arcelor, Dr. François Mudry, Senior Vice President and Arcelor’s Resident Representative at Nippon Steel, and Mr. Yoshihiko Kawai, General Manager and Nippon Steel’s Resident Representative at Arcelor. The current 336 issue highlights interviews with Dr. François Mudry and Mr. Yoshihiko Kawai, and a review after four years of activity.
Progress and Results of the Alliance over the Past Four Years

Interview with Dr. François Mudry, Senior Vice President and Arcelor’s Resident Representative at Nippon Steel

How have you been pushing the global strategic alliance forward?

The functions I am supposed to perform as Arcelor’s representative in charge of technical affairs at Nippon Steel are specified in the Global Strategic Alliance Agreement (GSA).

First, I promote mutual understanding of the technical aspects of the alliance. This is to fill any gaps between the two parties that lie beyond the differences in cultural or economic backgrounds between them. Second, I make arrangements for and attend all the Steering Committee meetings. Third, I collect information about the economy, regulations and environment of Japan, and grasp the financial conditions of the two companies, the status of various projects, strategy contents, and so on. This is one of my most important tasks.

Working out proposals for the GSA at strategic and tactical levels and submitting them to the management and Study Committee for discussion is another of my tasks. In addition, I strive to coordinate joint R&D activities to promote R&D programs. Furthermore, I talk with the chief representatives of the two companies at regular intervals.
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Differences in Approach between Arcelor and Nippon Steel

Are there any differences in approach to work between the two companies?

I can see one difference in approach between Arcelor and Nippon Steel even during discussions. Many Japanese nod while listening to an explanation made by someone, but such nodding is not always a sign of agreement or acknowledgment. There were several cases where so many detailed questions about the subject matter were raised by the Japanese attendants after a meeting that I had to bring them back to my office for review. At first, that was perplexing to us French who attach primary importance to the general concept, rather than the details, of any matter. However, on several occasions, I found, after deliberation, that a question raised by Nippon Steel involved a very important point.

Thus, it is extremely important to strive to strengthen the alliance by making the most of the characteristics of the two parties. I think that the results of such efforts have led to these successful alliance activities.

Interview with Mr. Yoshihiko Kawai, General Manager and Nippon Steel’s Resident Representative at Arcelor

Dignity and Ability Truly Befitting the World’s Leading Steelmakers

As Nippon Steel’s Resident Representative at Arcelor, how have you helped to promote the global alliance between these two companies?

It is important and beneficial for Arcelor and Nippon Steel, as the world’s two leading steelmakers, to maintain and promote a strategic alliance. As the technological liaison representative (TLR) in this relationship, I regard my role to be extremely
important.

Being the second TLR from Nippon Steel, I believe that my most significant mission is to serve as a conduit for promoting reciprocal communication between the two companies with different corporate cultures and to make every effort to ensure that both sides clearly understand the other with regard to individual alliance activities. Well aware of the disparities between the two companies’ approach to work that result from differences in corporate culture, I have tried to sustain good communication between the two.

In addition, in recognition of the different ways of thinking that are ascribable to dissimilar corporate cultures, I have always attempted to be open-minded in my dealings with Arcelor people.

The alliance framework includes Steering Committees and ad hoc committees in several business areas comprised of experts, involving a number of people from both companies. Our joint activities encompass a broad spectrum of areas including core automotive steel sheets, other applications of flat carbon steel products, procurement of raw materials and operational materials, stainless steel, and environment. Although I am not in a position to work directly on specific issues, I am always prepared to learn, since my duties require that I be knowledgeable in a wide variety of fields.

Tell us about the advantages of each company that you have discovered while carrying out your duties.

While previously working for the IISI, I observed that Arcelor and Nippon Steel had many things in common. Generally speaking, each company, blessed with world-class human resources in every field, has a rich product line and boasts a high level of product quality as well as a first-rate responsiveness to customer expectations, while at the same time remaining fully committed to environmental preservation, striving towards sustainable development. In fact, the two companies now exhibit a dignity and ability that are truly appropriate to the world’s leading steelmakers. This is clearly reconfirmed through my involvement in the alliance.
Global Strategic Alliance between Arcelor and Nippon Steel

A Review after Four Years of Activity

Arcelor and Nippon Steel entered a Global Strategic Alliance Agreement (GSA) in January 2001. The GSA creates an innovative business model wherein an independent European company and an independent Japanese company aim to strengthen competitiveness and utilize corporate resources effectively without merging or integrating businesses. As four years have passed since the GSA’s birth, the two companies have reviewed the full portfolio of cooperative activities and progress made thus far, emphasizing outputs.

Satisfying Automotive Demand

—Technical Common Product Offer
- To satisfy the needs of customers requiring equivalent products for their worldwide platforms, we have selected approximately one hundred products, including very high-strength steels (up to 1,200 or 1,500 MPa), through the detailed comparison of both companies’ products and assessment of our manufacturing procedures. We have thus built common technical/products offer (solutions) for automobile production in the major areas such as Europe, Japan, North and South America and China.
- To expand this common products offering, the two companies have also already exchanged licenses for five products, and customers are already using some licensed products on a commercial basis.
- The list of “Common Products” is periodically updated, including new license agreements and new co-developments.

—Technical Approach
- The two companies have together been actively supporting auto manufacturers’ challenges to apply higher tensile strength steel to their auto bodies for lighter body weight and improved collision safety. Such common technical support to customers includes: developing new steels, simulating press and collision tests and developing welding technology. Our customers highly appreciate our efforts.
- In response to requests from several auto
manufacturers seeking to establish worldwide specifications, the companies made joint technical proposals based on their own technology and knowledge in the field of steel materials and sheet manufacturing.

- Since establishing the JV in China, the two companies with JV staff have already taken a similar technical approach to meet the needs of transplants of Japanese, European and American auto manufacturers and components manufacturers.

  In the particular case of the Indian market, the two companies concluded an Automotive Steel Technology Cooperation Agreement with Tata Steel in April 2004 and have provided technical assistance on production and utilization of automotive sheets.

**Joint R&D**

For joint R&D, the two companies have selected themes of cooperation focused on new steel development, production processes and steel solutions, mainly related to high tensile steel. We have completed foreseen exploration of most themes selected four years ago, and we have started common R&D on newly identified themes.

- As a first outcome of the joint R&D, both companies completed development of “new anti-corrosion and high-strength steel sheets, superior in collision safety and formability,” whose quality has been approved by the customer. Commercialization is expected in the near future. Another example of the real fruits of shared R&D stems from the precise analysis of forming technologies for high strength steels, based upon a physical model. This analysis is available for practical use in “technical approach” for customers.
- We have already created more than twenty co-owned patents through joint R&D.
- Both companies named jointly developed products “ANTRIP,” after the initial letters of the two companies’ names.
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**Establishment of a Joint Venture Company to Produce Automotive Sheets in China**

One of the important targets of the alliance is to progressively build a global supply network of high-grade automotive sheets for our “global” customers, who need supply of “equivalent” steel products in all regions where they have production facilities. The establishment of a joint venture company with Baosteel is one very important step along this track.

- This joint venture company was established in Shanghai, to meet expanding demand for automotive sheets in China in July 2004.
- The cold rolling mill and coating facilities, which started operation in spring of this year, are practically the first facilities designed for high-grade automotive sheets in China. They will allow us to supply Japanese, European and American transplants with the same quality products as in their home countries, as well as supplying Chinese auto manufacturers with products of global standard.
- The two companies have already sent engineers and staff for smooth operation and to prepare for quality approval with major customers.

**Other Aspects of the Alliance**

—**Procurement**

The two companies have established a scheme and implemented combined shipping of raw materials, which has reduced empty-cargo ratios of vessels and made an efficient and competitive transport possible.

- The companies cooperate to encourage development, expansion and stable supply of promising sources of raw materials.
- The companies engaged in general information exchange on mid-long term demand and supply balance of global raw material market.

The two companies established a cross-functional team for iron-making process. This team, consisting of buyers and iron-making engineers, users of raw materials, promoted technical information exchange on qualities and utilization of raw materials to reduce the total cost.

- In order to diversify the supply source of machinery and sub-materials, both companies introduced some of each other’s quality suppliers.

—**Environment: To Contribute to Sustainable Development**

- The two companies have exchanged information on changing environmental regulation in
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Europe and Japan, and on leading and cutting-edge technologies available from both companies for environmental protection, etc.

- As leading companies in the world steel industry, they jointly proposed to IISI setting up an international project to develop breakthrough technologies with the goal of significantly decreasing CO\textsubscript{2} emissions during the steel manufacturing process.

—Benchmarking

The two companies improved their effectiveness, through the technical exchange of technical ratios between engineers in charge of operations at iron making, steel making and rolling mills for flat products. The companies have agreed to continue this kind of exchanges among different steelworks, even enlarging it to activities other than production.

Conclusion

During these four years, both companies have made significant efforts to implement the alliance. They have each exchanged one full time technical representative, who is welcomed at the other party’s head office. An estimated 40 “full time equivalents” on both sides are involved in common activities, as alliance-related activities have become trans-company activities for both, expanding from automotive sheets to other products and including many divisions—such as R&D, purchasing and environment—as well as numerous steelworks. Both companies agree: this cooperation already bears fruits, both tangible (as detailed above) and intangible. Amongst others, we have improved our ability to negotiate with other cultures and our people have been exposed to new ideas, new ways of thinking and doing, as well as improving languages skills.

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Due to their positive evaluation of the experience until now, both companies decided to continue developing this alliance, pursuing strengthened competitiveness and effective use of corporate resources. Thus, the two companies continue efforts to expand and deepen ongoing cooperative activities in the automotive area, and the two companies strive to activate cooperative activities beyond the auto area. Specifically, we are identifying new themes for common R&D on a wide range of products and process technologies, even beyond automotive sheets, and we are discussing possibilities for specific collaboration on products or technologies in the areas of flat products for appliances and construction, stainless, and packaging materials (amongst others).