



Teaching case

STEELSCREEN.com: why IT is not everywhere in B2B and the role of the CEO in 'IT'

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Abstract

This case is intended to serve as the basis for one or two sessions of an introductory Information Technology course at an MBA program or for one session at a senior executive program. The aim is to address what needs to be known by general managers in terms of technology and at the same time serve as an introduction for those who want to deepen their knowledge in business-to-business (B2B) technologies. Thus, it is intended to cover basic technology principles and concepts essential for any CEO/MBA. It also covers key business concepts that are impacted by information technology such as industry convergence and B2B. The approach we suggest be taken with this case is an integrative one where both technology and business concepts are intermingled throughout the class discussion. An essential ingredient of this approach is to provide a business rationale for why technology matters – using this case in the first session before drilling-down into the more specific technology details of XML and metadata in a possible second session. We have worked on other cases to extend this approach to a full-scale introductory MBA/senior executive class. There are two unique features of this approach. First, it is neither technology centric nor business centric. Instead, it links executive decisions with solid information technology fundamentals. Second, our approach would be concise not requiring more than 200 pages of core case material for a full 25-session course. We believe this is an important feature because MBA-style audience base does not go into a CIO career path most of the times and will therefore not be able to afford the amount of time a longer approach would require.

Journal of Information Technology (2004) **19**, 149–158. doi:10.1057/palgrave.jit.2000015

Published online 17 August 2004

Keywords: B2B; eBusiness; executive leadership and IT

Introduction

It was early September 2000, and Arve Utseth was thinking back to May the same year, when he had decided to leave a safe and promising career in a large multinational car manufacturer to pursue opportunities in the 'new economy'. Back then, he had been tempted precisely by a more dynamic and rapidly changing business environment, but he had not expected things to be quite as volatile as they turned out to be.

Before he took his decision to accept the position as Steelscreen's Country Manager for Spain in the spring of 2000, he had researched the sector carefully, and found Steelscreen to be very well placed to pioneer business-to-business (B2B) services for the metals industry in Europe.

The summer had been dedicated to setting up the local office. Now that the dull nationwide holiday month of August was over, he had finally been able to spend time meeting clients and industry players. In the meantime, the industry had seen an avalanche of e-commerce initiatives. Not only had more than 50 new competitors (see Appendix A for a selection of competitors) emerged on the world scene, but also the industry players (steel and aluminum manufacturers, and large distributors) had taken key decisions on how to approach the e-commerce issue.

The September 21st issue of *Metal Bulletin* (a leading publication of the global metals industry) confirmed the industry's focus and attention on e-commerce, and in that

issue alone there were nine advertisements of electronic marketplaces for the metals industry. Also, *Metal Bulletin* invited subscribers to complete a questionnaire, with the aim of mapping progress on e-commerce activities in the industry.

Arve now found that he was addressing a market that had matured to quite some degree from where it was in May, and also that newly generated industry expectations and trends affected the perceived competitiveness of Steelscreen. In late September he would attend his first European coordination meeting with his colleagues from the other European branch offices and the top management from the Stockholm HQ. He was keen to share his thoughts with his colleagues, and get a feel for the strategic adjustments the company would have to make in the wake of recent developments. He was particularly concerned about the state of the technology. Would Steelscreen now have to invest heavily in a different technological focus to satisfy market expectations?

The European metals industry and e-commerce

Industry structure

The European carbon steel, stainless steel and aluminum sectors turned over products in the order of EUR 150 billion a year. Metal product sales and procurement were highly time consuming and laborious in terms of human interaction, and therefore the benefits of e-business for the metals community appeared very significant, in spite of this, trading procedures in steel and other metal products were still very traditional, relying to a large extent on telephone and fax communication.

The steel and aluminum sectors were highly concentrated and mature, with large industrial conglomerates dominating the European markets – as a result of a long series of mergers and acquisitions amongst the stronger players, in the aluminum industry, there were less than a dozen large European players, whereas in steel and stainless steel the number of significant players was about the double.

As an example, in a 1999 ranking based on crude steel production figures, *Metal Bulletin* (Appendix B) estimated the top European steel makers to be:

USINOR	France	22.15 Mio Tonnes
CORUS	Anglo/Dutch	21.29 Mio Tonnes
ARBED Group	Luxembourg	21.00 Mio Tonnes
LNM Group	UK	19.90 Mio Tonnes
Thyssen Krupp	Germany	16.50 Mio Tonnes
RIVA Group	Italy	14.10 Mio Tonnes

Second-tier European steel makers that did not form part of these large international conglomerates were in a relatively different league in terms of capacity:

Salzgitter Stahl	Germany	4.90 Mio Tonnes
Voest-Alpine	Austria	4.70 Mio Tonnes
HKM	Germany	4.50 Mio Tonnes
Rautaruukki	Finland	4.18 Mio Tonnes
Huta Katowice	Poland	3.70 Mio Tonnes
Lucchini	Italy	3.70 Mio Tonnes

On the distribution side, the major steel and aluminum manufacturers usually had strong control over the physical stockholding and distribution structure – either through own marketing organizations, or part/fully owned distribution subsidiaries. Hardly any large independent steel and aluminum distributors were left in Europe, and even they had to rely largely upon long-term supplier agreements with the principal European manufacturers.

There were manufacturers on other continents, but trade between continents faced significant barriers due to anti-dumping policies and import quotas in Europe, Japan, and the US. Also, for certain products, transport costs made it difficult to compete with local manufacturers. Finally, the industry was careful to regulate itself in terms of matching capacity to demand in each continent, in order not to generate downward pressure on prices and create incentives for intercontinental trading. If a major player wanted to participate in markets on other continents, this was usually done through local direct investments. The ex-USSR and Eastern bloc steel and aluminum manufacturers were currently playing a bit of a rogue role in the European market. However, their lack of efficient marketing channels and need for investments in modernization of their plants would in the medium term create incentives for them to forge alliances with the dominant Western players.

The end users, from large companies such as automobile manufacturers to SMEs such as E20 m construction companies, enjoyed good service levels. The large players through personalized framework agreement and often even direct EDI connections to the manufacturers. The SME were served through a vast network of large and small warehouses. This network was particularly atomized in France, Germany and Spain.

The Internet and the steel industry

The Internet had developed over the previous few years from being purely an information carrier to being used more and more to simplify commercial transactions. The development included entertainment services, sales of consumer goods and services such as banking, and trading in stocks and shares.

Many thought the next stage would be for the Internet to become more and more a means of simplifying trade between companies, the so-called B2B trading. It was predicted that B2B transactions would multiply in the following few years. A well-known US market research firm, Forrester Research, had predicted that trade between companies in the USA via the Internet would grow in value from 48 billion US\$ to over 1300 billion in 2003. Specifically for the metals industry, Andersen Consulting had projected that by 2005 40–60% of all metal produced in the world would be sold via electronic commerce on the Internet.

Steelscreen's aim was to be completely neutral *vis-à-vis* the manufacturers and buyers/consumers of metals. The purpose was to offer the manufacturers and distributors the opportunity to sell their products with lower operating costs than they had had to date. Buyers were offered a simplified negotiating process. Steelscreen would be able to support the transactions right from the choice of material to the tender and negotiation process, where the buyer, in

order to find the best conditions, would communicate with only one party (Steelscreen as a communication node) rather than having to communicate on a one-to-one basis with all relevant suppliers (see Figure 1 for a schematic description of how Steelscreen saw the differences). Steelscreen thought of itself as a third-generation e-commerce site (see Appendix ‘E-commerce Trading Models’). In this particular example, there are four producers, eight purchasers and three wholesalers. With Steelscreen’s e-commerce solution, the 68 relationships and contacts of the traditional model would be replaced by 15, which would mean reduced costs for all the parties involved.

Arve was convinced that the communication procedures for trade in metals would change considerably in the next few years. With the tremendous surge of new Internet-based offerings, there were great opportunities for simplifying the existing transaction processes and making them more efficient. Steelscreen was an example of how to exploit new technology in an old industry – an industry that for most of its existence had progressed and survived due to its ability to adopt technical achievements in its manufacturing processes.

Steelscreen: company and Services

Overview

Steelscreen was founded in June 1999. Trading on the website started during the spring of 2000, and within a few months of launch several hundred companies in the industry had registered with the trading site. By the end of August 2000, more than 700 members had joined, and

significant tonnage volumes of product had been traded and/or committed over the site.

Steelscreen’s goal was to become the leading marketplace for metal products in Europe, by making the purchase and sale of metals on the European metals market simpler and more efficient, through a neutral marketplace. The proposition of Steelscreen was to offer a meeting point for buyers and sellers, enabling them to communicate more efficiently with a trading tool tailored to the needs of the metals industry. At no time would Steelscreen take possession of the product or play the role of an agent or trader. Steelscreen also aimed to offer a range of related value-added services, to be provided by service partners (financial services, logistics and transport, quality and product inspection, etc.).

Steelscreen was a European company focusing on the specific requirements of the European metals markets. The head office was in Stockholm, with local offices in London, Paris, Milan, Duisburg, and Barcelona. Steelscreen’s e-marketplace was available in 10 languages: English, Swedish, French, German, Italian, Spanish, Turkish, Finnish, Polish and Russian.

To accelerate the use of e-commerce and reduce the costs of Internet integration between metals buyers and sellers, Steelscreen had launched the world’s first industry standard for on-line metal trading. The open XML standard initiative, known as MetalXML (<http://www.metal-xml.org/>), was available to all interested parties to assist in its development and had been welcomed by the metals industry and technology companies including Intel and SAP.

Steelscreen provided the metals industry with the most advanced system yet for steel and metals trading. A unique tailored standards system allowed sellers and buyers to

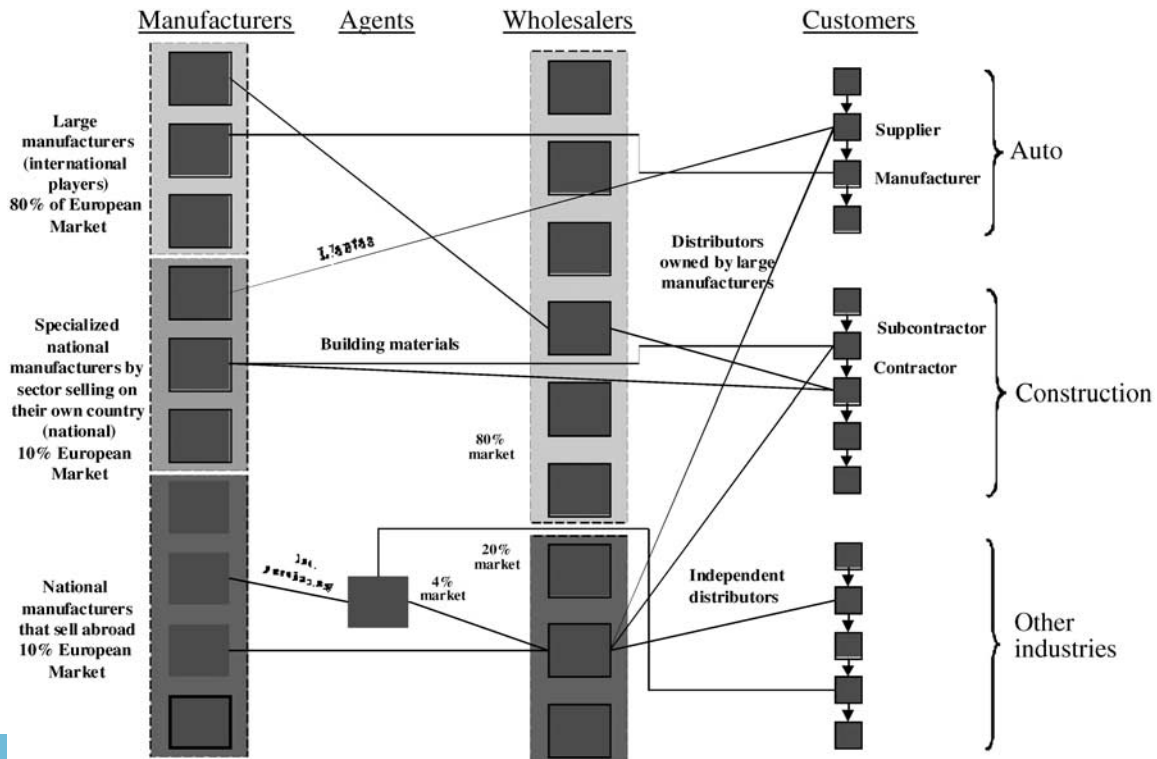


Figure 1 Difference between traditional trading and the Steelscreen model.

define almost any combination of product characteristics, and in addition, its specification engine ensured material specifications were technically viable.

Other support included:

- Material selection support for carbon, stainless and aluminum products (>20,000 grades & product combinations)
- request for proposal (RFP) transaction models;
- request for bid (RFB) transaction models;
- direct offers transaction models;
- tailored standards transaction model;
- all major international steel standards.

The revenue model for Steelscreen was based on sales commissions of 0.5–1% of transaction value. No fee was charged to the purchasing party. Value-added services, such as financial services and logistics, were seen as an important future source of revenues.

Steelscreen had signed strategic alliances with 11 suppliers of essential commercial services that were complementary to the buying and selling of steel itself (see Table 1)

Apart from advertising in the relevant industry media such as *Metal Bulletin* and other steel sector publications, the key marketing tool for recruiting new members was the personal visit. Good PR work, and appearing in the local press, would help raise awareness, and sometimes even convince potential members to register spontaneously with the marketplace. However, experience had shown that a member who had not been visited, briefed, analyzed, and motivated never really used the marketplace for trading activity. This was also the reason why Steelscreen had opted for a decentralized organization, with regional sales support offices across Europe. The local marketing organizations spent much of their time arranging meetings and presentations with potentially interested members.

Arve, while preparing field visits, had compiled a list of the most important reasons for using Steelscreen:

- *Cheaper*: The fee that selling members paid was never more than half the commission fees charged at that time by other intermediaries.
- *Faster*: Inquiries and offers were distributed to all potential business partners immediately.

Table 1 Essential service suppliers

Service	Partner
Trade finance and foreign exchange	Deutsche Bank
	ABN AMRO Bank
	Skandinaviska Enskilda Banken
	Royal Bank of Scotland Group
Metal hedging	ED&F Man International
	ABN AMRO Futures
Credit insurance	Coface
	NCM Group
	Allgemeine Kreditversicherung
Material inspection	Inspectorate SGS

- *Simpler*: Both inquiries and offers were specified simply on the web site.
- *More efficient*: You could reach all the members of Steelscreen with the same inquiry.
- *Time-saving*: You avoided spending time following up contacts that did not lead to fulfilled purchases.
- *Up-to-date*: You had constant access to up-to-date market facts, trends and analyses.
- *Comprehensive*: Steelscreen provided a steadily growing number of services linked to metals trading such as insurance, transport, tracking, financing and much more besides.
- *Independent*: Steelscreen was independent of all players in the market, and was neutral in relation to both the buying and selling sides.
- *European*: The marketplace was adapted to European standards and available in a number of European languages.
- *Secure*: Maximum security had been a matter of course to Steelscreen in developing the trading site.

There were four types of members: selling, buying, buying and selling, and associated. Typically each member category would be made up of:

- (a) Steel mills/manufacturers: potential selling members
- (b) Large consumers: potential buying members
- (c) Stockists: potential buyer/seller members

Table 2 describes functionalities that each member would use.

Market feedback

Up until the second quarter of 2000, none of the major European steel mills had announced any official e-commerce strategies, and the steel-making industry, in general, had not yet taken a conscious approach to the opportunities that the new technology offered.

However, as companies like e-Steel, MetalSite and Steelscreen started to draw attention and awareness to the issue, more and more of the big steel mills started announcing their decisions and intentions with regard to adopting e-commerce in their marketing strategies. Most of the steel mills opted for solutions that created a traditional direct sales channel, intending to offer only their own products. However, great expectations were generated when industry heavyweights Krupp Thyssen, Corus, Usinor/Ugine and Arbed/Aceralia announced in July that they would join forces to create a common Internet-based steel marketplace, called Steel24-7 (in allusion to its being open 24 h a day, 7 days a week).

This, in turn, caused other major manufacturers to rush into similar initiatives, such as Rautaruukki, Riva Group and Voest-Alpine, who in August announced a joint venture with Steelscreen’s US-based competitor, e-Steel, to create a new European electronic marketplace for steel products. Similar news stories appeared for the US and Asian markets, where major players also scrambled to position themselves in the technology race.

However, all these announcements merely indicated intentions, and their time schedules were all rather medium term. Also, Arbed, Usinor and Corus had simultaneously

Table 2 Types of membership

<i>Member Type</i>	<i>Uses Steelscreen for . . .</i>	<i>Has access to . . .</i>
Selling member	Information and sale The open/public section Future value-added services	The trading section of the marketplace The Metal Barometer
Buying member	Information and purchasing The open/public section Future value-added services	The trading section of the marketplace The Metal Barometer
Buying and selling member (e.g. wholesalers)	Information, purchasing and sale The open/public section Future value-added services	The trading section of the marketplace The Metal Barometer
Associated member	Information	The open/public section The Metal Barometer

announced that each was developing plans for its own, separate solution for direct sales through the Internet – more like extranet solutions. This all suggested that these large players still wanted to keep their options open. And for none of them did the options seem to include joining an independent marketplace – at least not short term.

Large consumers/end users

The large consumers of steel products included large industrial companies in sectors such as automotive components, domestic appliances, construction, etc. The leading companies in these categories had in the past pioneered administrative and logistical systems integration with their main suppliers through EDI-based interfaces and long-term supplier agreements.

They were generally very interested in developing purchasing relations with new and alternative suppliers using Internet-based marketplaces, as this opened up opportunities for new and alternative sourcing, and the possibility of achieving EDI-like integration with new suppliers at a much lower cost than in the past.

However, it was clear that these large consumers of steel were dependent upon the major European steel mills for the lion's share of their consumption, and the complexity of their technical requirements and delivery schedules often required special, highly sophisticated solutions that only these manufacturers could provide. Common to these large steel consumers were also their strict quality requirements and rigid approval procedure for new suppliers.

All this made it difficult for members in this category to become early adopters of the marketplace, as they would not be able to do spontaneous business transactions with unknown suppliers. Again Steelscreen seemed dependent on having some of the major steel mills making their products available in the electronic marketplace.

Stockists/distributors

Although stockists, in theory, would be characterized as buyer/seller members in that they normally would use the site both to buy stocks and to resell them to their customers, they would in most cases only be relevant as buyers.

Most of the customers of domestic Spanish steel distributors would be small to medium sized companies

that still were at a very early stage in terms of adopting the Internet for their business activities. Consequently, the only short-term opportunity would lie in offering steel stockists the opportunity to use the marketplace for their own purchasing activities.

However, the majority of the large distributors would also be fully or partly owned by one or several of the major European steel mills, in which case most of their purchases would be made from their parent companies. The challenge was that the majority of the big steel mills had recently announced that they would not join any independent electronic marketplace, and that they would rather develop their own extranet and/or direct sales facilities through the Internet.

Given the dominant position of the major European steel mills in their own local markets, this could in effect put 70–80% of the European installed steel and aluminum capacity out of reach for Steelscreen and its members.

While the months of July and August had mostly been spent organizing the new local office and structuring market information, September brought a round of frenetic travel and visits. Arve was keen to get on with the job and at last get in touch with the market players. To his satisfaction, it was not difficult to arouse the industry's interest in e-commerce solutions for metal products, since the issue was already on the agenda of most companies of a certain size. Also, the general philosophy of an Internet-based electronic marketplace, with the many advantages it could offer in terms of market reach and efficiencies in administration and logistics, was readily accepted and understood. However, there was also a very large degree of pragmatism reigning among the Spanish metal industry players. Although they mostly agreed that, in the future, e-commerce would be an important tool for their sector, most were hesitant to pioneer trading over the web.

Those who showed a willingness to sign up and trade, were characterized by a pro-active management that wanted to make sure they were fully up-dated on what e-commerce entailed in their sector.

The strategic dilemma

It seemed clear to Arve that his work was going to be more challenging than he had anticipated. Most important, how should Arve prioritize its time with customers? What

customers should he target first and with what value proposition? Of course, he had expected to encounter resistance to adopting new trading tools such as an electronic marketplace. But when the benefits were clear to both buyer and seller, and there were clear opportunities to rationalize the entire transaction process, it was surprising to find the market so slow to test out the new technology (see Appendix E for Frequently Asked Questions about Steelscreen).

On analyzing the events that had taken place in the 3 months that had gone by since he joined Steelscreen, it seemed to Arve that large parts of the industry had not yet understood the concept of an independent and neutral marketplace. Currently, with most players wanting to adopt an intermediate option of 'own controlled' direct marketing or extranet solutions, there seemed to be a very high demand for technology solutions that would enable all these major players to execute their short-term Internet and e-commerce strategies.

Many international and local software suppliers offered generic trading platforms, but all of these would require a significant amount of customization and adaptation to satisfy the specific needs of the metals industry. And then there was the issue of whether the metals industry's ERP systems were in condition to take full advantage of an integrated trading solution.

In view of this technology vacuum, should Steelscreen change its business? Should the company give up the original business model of an independent market place and instead sell its advanced technology and become an e-commerce solutions provider to the metals industry?

Arve knew that no other competitor had a better or more advanced functionality than Steelscreen, and he also knew that the steel business was too specialized for generic enabling packages like Commerce One and Arriba to be a real alternative. If the industry giants wanted to develop their own in-house solutions, they would need significant investments in time, people, and money – not only in the development stage, but also in the operating and contin-

uous development stage. Steelscreen's technology could clearly be very valuable, and its team's knowledge would put it in a unique position to advise the industry on e-commerce strategies.

On the other hand, what would be the consequences of such a strategy change for the company? Was Arve simply experiencing a spell of frustration as he faced the cold reality of pioneering a new philosophy in a very traditional industry? What would be needed for Steelscreen to be successful as a technology provider, and what were the risks of this new business? Was it really up to Arve to consider these issues? After all, he was only responsible for one of many markets, and should trust the company's management to have made a sound strategic analysis before embarking on this route. All these were questions that Arve tried to get to grips with, as he started to organize his thoughts for the imminent meeting with the Steelscreen European management group.

About the author

Brian Subirana is Visiting Associate Professor of Information Technologies at MIT Sloan. (He is currently on sabbatical at MIT.) He is also Associate Professor at the MIS department of the IESE Business School-University of Navarra. His current research at MIT is focused on RFID, computational modeling of firms, value and IT, and activity-based performance measurement of complex processes. His research interests include also technology and operations; information technology and executive leadership; industry transformation; e-Contracting; and advanced learning technologies. Professor Subirana holds a Doctor of Philosophy (Computer Science) degree from the MIT Artificial Intelligence Laboratory and an MBA from the MIT Sloan School of Management. Prior to joining IESE and later MIT he was with The Boston Consulting Group in the High Tech and Media Convergence practices in their Boston office. He is always ready to windsurf, ski and to learn more about amphibians.

Appendix A

Extract of some known metals dot.com initiatives are summarized in Table A1.

Table A1 Extract of some known metals dot.com initiatives

Aceronet.com	http://www.Aceronet.com
Aluminium.com	http://www.Aluminium.com
Anysteel.com	http://www.Anysteel.com/Intro.asp
Asiasteel.com	http://www.Asiasteel.com
Autoxchange.com	http://www.Autoxchange.com
Basemetal.com	http://www.Basemetalsexchange.com/bmexchange.cfm
Businesshere.com	http://www.Businesshere.com
Buystainlessonline.com	http://www.Buystainlessonline.com
BuyForMetals.com	http://www.BuyForMetals.com
Buysteel.com	http://www.Buysteel.com
Chinasteelnet.com	http://www.Chinasteelnet.com
Clickforsteel	http://www.Clickforsteel.com/htms/indexasp
COALonNET	http://www.COALonNET.com
Comdaq.net	http://www.Comdaq.net
DaewooTrade	http://www.DaewooTrade.com/index_en.html
Dealsteel.com	http://Dealsteel.com
Dito.com.au	http://www.Dito.com.au
DoveBid.com	http://www.DoveBid.com
DSSI – Direct Sourcing Solutions Inc.	http://www.Direct Sourcing.com
Earbed.com	http://www.Earbed.com
Ecopper.com	http://www.Ecopper.com
e-IMR	http://www.e-IMR.com/FrontPageFrameset.html
e-MaterialCut	http://www.e-MaterialCut.co.uk
Emetra	http://www.Emetra.com/index.jsp
e-STEEL.com	http://www.e-Steel.com
Eurasia-steel.com	http://www.Eurasia-steel.ch
Europe-steel.com	http://www.e-steel.com
Excess Materials	http://www.ExcessMaterials.com
Ferrousexchange.com	http://www.Ferrousexchange.com/FeX
ForgeFinder.com	http://www.ForgeFinder.com
Freemarkets	http://www.Freemarkets.com
GeoInside	http://www.GeoInside.com
Global Steel Exchange	http://www.Gsx.com
Goindustry.com	http://www.Goindustry.com.en
Imark.com	http://www.Imark.com
Industrydeals.com	http://www.Industrydeals.com
IndustrySearch	http://www.IndustrySearch.com.au
Innotime Network	http://www.Innotime.com
IntercontinentalExchange	http://www.Intcx.com/index1.html
Ispatudyog.com	http://www.Ispatudyog.com
iSteelAsia	http://www.iSteelAsia.com
Liquidation.com	http://www.Liquidation.com
LiveSTEEL.com	http://www.LiveSTEEL.com
Materialnet.com	http://www.Materialnet.com
Matinet AG	http://www.Matinet.de
Metalauctions.com	http://www.Metalauctions.com
Metalclick.com	www.Metalclick.com
Metalexplorer.com	http://www.Metalexplorer.com
Metalmart.com	http://www.Metalmart.com
Metal-Pages	http://www.Metal-Pages.com
Metalprocurement.com	http://www.Metalprocurement.com

Appendix B
e-Commerce trading models

As the Internet gradually came to be adopted as an alternative channel for business transactions, several models or approaches to e-commerce had emerged. The choice of one model or the other partly depended on which party was taking the initiative to adopt Internet technology (Figure B1).

First-generation e-commerce

When a vendor offered products for sale, the purchaser had either to accept the price and terms the vendor offered or,

alternatively, negotiate with the vendor. An example of this would be the auctioning process, where the actual negotiating is done by a third party, the auctioneer, whilst the transaction takes place between the purchaser and the vendor. Another example is a supermarket, where you put goods in a shopping basket and, without negotiating, you accept the vendor's terms. In these examples, it is the vendor who controls the transaction. The earliest electronic marketplaces (e-commerce) were designed on this principle – first-generation e-commerce.

Second-generation e-commerce

The Internet had also made a whole new way of trading possible. Letsbuyit.com had taken the exploitation of the Internet's possibilities as its starting point. It used the new technology to connect up a large number of potential customers and so build a strong position for negotiating volume discounts with vendors. Portals that pooled demand in order to create bargaining power were referred to as second-generation e-commerce.

Third-generation e-commerce

The most recent e-commerce models were what were known as virtual marketplaces. In this case, the Internet was used as a means of bringing together a large number of buyers and vendors, offering them a meeting place and a negotiation tool. The key features of this transaction model were transparency and neutrality since neither the vendor nor the buyer controlled the process. This model was called third-generation e-commerce.

Figure B2 shows examples of the different types of e-commerce, each of which of course had its advantages and disadvantages; these are summarized in Table C1 of Appendix C.

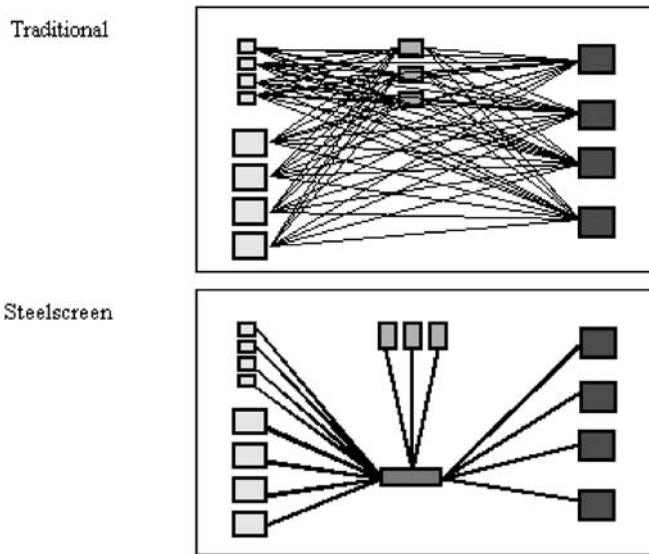


Figure B1 Current industry structure (sample European industry players).

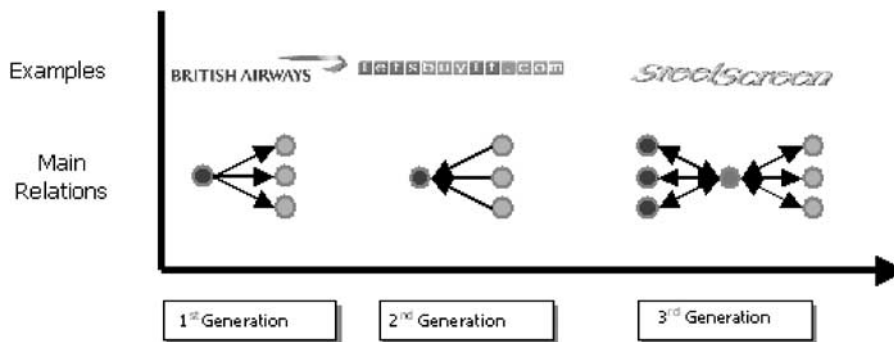


Figure B2 Development of e-commerce trading models.

Appendix C

Advantages and disadvantages of different e-commerce models are summarized in Table C1.

Table C1 Advantages and disadvantages of the different e-commerce models

	<i>First generation</i>	<i>Second generation</i>	<i>Third generation</i>
Advantages	<p>Easy for seller to adapt new technology to its existing IT system</p> <p>Easy to adapt business processes to the existing organization</p> <p>Both current and new products can be made available through the channel</p>	<p>Puts buyers in the driver's seat in terms of pricing and terms</p> <p>Often attracts many users due to its opportunistic nature</p>	<p>Neutral</p> <p>Room for negotiation</p> <p>The needs of both buyer and seller are satisfied</p> <p>Normally reaches most users</p> <p>Does not require large own IT investments</p>
Disadvantages	<p>Difficult to reach many users</p> <p>Buyer cannot easily compare conditions and prices</p> <p>Expensive to run and develop</p>	<p>Sellers can find it difficult to accept the model</p> <p>Is only suitable for extremely standardized products</p>	<p>No great disadvantages</p>

Appendix D Steelscreen management team

David Schelin, CEO. Age: 34 years. *Background:* Graduate in electrical engineering from Chalmers University of Technology; was involved in building up Europolitan in the early 1990s; 4 years in Ericsson Instrumental, as manager of Network Design Consultant Services.

Peter Anderberg, Marketing Director. Age: 35 years. *Background:* International Business Administration, Linköping; degree from IMD, Lausanne; 10 years in Avesta Sheffield AB. Product manager, CEO of the French sales company, marketing manager for hot-rolled sheet.

Anders Candell, Chief Technology Officer. Age: 30 years. *Background:* Graduate in metallurgy, Royal Institute of Technology (KTH); 5 years in Avesta Sheffield AB; advisory metallurgist, responsible for Internet development in ASAB; Head of Hot-Rolled Sheet Business Area.

Fredrik Öhrn, Financial Director. Age: 37 years. *Background:* Graduate in geology from Uppsala University; MBA at University of Massachusetts, Amherst; 9 years in Boliden AB; CEO, metals market analyst, metals risk assessment, deputy financial manager; 2 years in ABB Financial; consultancy work, chief consultant.

In addition to the top management team at the HQ, they had attracted a team of experienced steel industry specialists for the European sales offices in the UK, France, Germany, Italy, Spain and the Nordic Region. These would, in turn, have a team of sales and technical support persons to address their local markets.

Apart from the daily management of the company, supervision of strategic issues was also conducted by the Board of Directors and an Advisory Committee:

The Board

The Board of Directors consisted of the following: Allan Weiner, Peter Sederowsky (solicitor and management professional), David Lockwood (MD Reuters Greenhouse Fund), David Schelin, Peter Anderberg, Fredrik Öhrn, Anders Candell and Anders Frisk.

Advisory committee

Steelscreen had linked up with a number of the most experienced European advisers in the metals industry. The group currently included Hans Jacob Waern, formerly marketing manager of Avesta Sheffield, and Orvar Nyquist, formerly CEO of SSAB, the Swedish Ironmasters' Association, etc.

Investors and owners

Principal investors included:

- Reuters Greenhouse Fund
- Prime Technology Ventures
- Speed Ventures
- The four founding partners

Appendix E

Source Steelscreen.com

Frequently asked questions about Steelscreen

1. Why should we use Steelscreen?

By using the Internet Marketplace of Steelscreen, it will be possible for you to reduce your selling/procurement costs while speeding up your transactions and gaining



competitive advantages. The marketplace is independent of metal suppliers and consumers, thus ensuring impartiality. Steelscreen will be offered in all the main languages of Europe, focusing on European material standards and requirements.

2. What will happen to our market knowledge?

(a) *Will our negotiation skills become redundant?* Steelscreen will not make negotiation redundant; it provides a new, more efficient marketplace. This will give all participants the possibility to focus on the important, value-adding activities. You can also actively promote your business through Steelscreen.

(b) *Our customer/supplier relationships?* Relationships will remain as important as ever. Customers will, for example, be able to call off previously contracted volumes using the Steelscreen network. The total value of the suppliers' products and services will become even more important using Steelscreen.

3. Why does Steelscreen intend to increase transparency?

It is Steelscreen's belief that greater market transparency will be to the advantage of both sellers and buyers as the

increased knowledge will reduce risk and simplify the business.

4. How much will it cost to use Steelscreen?

Most of Steelscreen's services will be free of charge. Sellers of metals will be charged a sales fee (commission) that will be, at most, half of today's selling costs.

5. What products are suited for Steelscreen?

Any metal product will be tradable over Steelscreen. The more standardised the product, the easier it will be to use the system.

6. How will we be able to convince our existing market organization that using Steelscreen is in their best interest?

Steelscreen does not intend to be a substitute but rather a complement to existing market organizations. By using modern technology a market organization will be able to focus on true value-added tasks while at the same time dramatically increasing the efficiency of the sale.

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