

Mannesmann 1890: a European Enterprise with an International Perspective*

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1. Objective of the Study

My article is intended to be a contribution to the history of the Mannesmann Company for the period from its foundation and initial expansion until the beginning of the First World War. My interest in this firm and this period is justified by the fact that this enterprise distinguished itself by its early predisposition and strategy from most others - it was already in its inception a European firm with an international perspective.¹

Characteristics such as "international" and "global" have become common attributes in the self-descriptions of firms. This year's management symposia in St. Gallen garnered world-wide attention with its lectures on the rewards and dangers of globalization. It is not

¹ Paper delivered at the fourth Joint Workshop of the Universities of Reading, Düsseldorf and Erlangen-Nürnberg on the topic "Integration, Internationalisation" held in Munich on 16 and 17 July 1999.

¹ An overview of the history of the enterprise is found in: Horst A. Wessel, *Kontinuität im Wandel. 100 Jahre Mannesmann AG 1890 - 1990*, (Düsseldorf, 1990); for the financial development in the early phase: Horst A. Wessel, 'Finanzierungsprobleme in der Gründungs- und Aufbauphase der Deutsch-Österreichischen Mannesmannröhren-Werke AG 1890-1907', in: Dietmar Petzina (Hrsg.), *Zur Geschichte der Unternehmensfinanzierung*, (Berlin, 1990), pp. 119-171 (Schriften des Vereins für Socialpolitik, vol. 196); see also Horst A. Wessel, *100 Jahre und kein Ende! Zwei berühmte Walzverfahren für nahtlose Röhre wurden 1891 patentiert* [100 years and no end in sight! Patented in 1891: Two famous rolling processes for seamless steel tubes] in: report *Information für die chemische und petrochemische Industrie* [information for the chemical and petrochemical industry, C 17], (Düsseldorf, 1991), S.(pp. 25-26).

only business enterprises which strive for the status of a "global player" and refer to their policies with reference to global influences. The process of globalization which has received so much attention in recent times is neither new nor unprecedented; it is new only with respect to a never-before achieved quality and intensity.³

"Global" has different meanings according to experience, knowledge, conception and economic relations, but always refers to the contemporary known world. In contrast, the word international may be restricted to the relations between states. From the microeconomic point of view this begins with two enterprises and can extend to world-wide interacting partners - here international and global may overlap. I would like to distinguish 'global' and 'international' with respect to quantity and quality and in the following pages to analyse the beginnings of the Mannesmann concern exclusively from the perspective of international - even though it is clear that also aspects of a global strategy were present in the first years of its existence.

2. A newly-founded international Company

Business history has a number of instances of enterprises which were founded with domestic and foreign capital. Typical examples are the Rheinische Stahlwerke⁴ which, in addition to German capital,

³ Carl Christian von Weizsäcker, *Logik der Globalisierung*, (Göttingen, 1999); Global Player mit Bodenhaftung, in: RWE agenda 1/1998; Matthias Wissmann, 'Globalisierung bietet dem Mittelstand mehr Chancen als Risiken', in: *Unternehmensbeteiligungen* (Special Supplement to the *Frankfurter Allgemeinen Zeitung* (FAZ) (April 20, 1999), p. 1; Dieter Wolf, 'Die Wettbewerbspolitik im Zeichen der Globalisierung', in: FAZ (May 10, 1999); in der "Globalisierung versagt die Extrapolation / Management-Symposium" (St. Gallen), in: *ibid.* June 1, 1999; "UNDP-Studie mit Vorschlägen zur Beseitigung der Hilflosigkeit internationaler Politik", in: FAZ (June 11, 1999); "Wieviel Ordnung braucht der globale Kapitalismus?", in: *ibid.*, (July 5, 1999); Klaus von Dohnanyi, "Es gibt keinen Schutz vor der Globalisierung", in: *Rheinische Post* (Düsseldorf, July 10, 1999); Rolf-E. Breuer, "Offene Bürgergesellschaft in der globalisierten Weltwirtschaft", in: FAZ (January 4, 1999); Dirk Schünier, "Von der Sehnsucht, die Uhr zu besiegen. Der globalisierte Mensch in der Zeitrommel", in: *ibid.* (January 2, 1999) (Saturday supplement); "Die Globalisierung vergrößert den Spielraum nationaler Sozialpolitik", in: *ibid.* (March 18, 1999); "Der Global Player Jürgen Klinsmann verabschiedet sich im Gottlieb-Daimler-Stadion ins Privatleben", in: *ibid.* (May 22, 1999).

⁴ Jakob Haßlacher, *Der Werdegang der Rheinischen Stahlwerke*, (Essen, 1936).

was also financed by Belgian investors, or the Phoenix, Aktiengesellschaft für Bergbau und Hüttenbetrieb⁴ which in addition to the aforementioned groups also included French investors. It is more unusual, though, that this co-operation is also expressed in the company name.⁵

The enterprise which was created to exploit the process, invented by the brothers Reinhard and Max Mannesmann, of producing seamless steel pipes by means of rolling, had German founders, such as the members of the Siemens family who were internationally active, and also investors from neighbouring countries such as Austria, represented by the 20% share of the Wiener Bankverein. Accordingly, even though not exclusively for this reason as we shall see, the new company received the name "Deutsch-Österreichische Mannesmannröhren-Werke AG". The headquarters of the firm was in Berlin, and the Austrian influence was documented by the representative offices in Vienna and Komotau in Bohemia.⁶

The cross-border co-operation was facilitated by a longstanding collaboration of the Deutsche Bank and the Wiener Bankverein and by the common commercial legal system which existed between Austria and the German Reich until after the turn of the century. The Common German Commercial Code had been accepted on both sides of the border since the 1860s.⁷

⁴ *Phoenix-Actien-Gesellschaft für Bergbau und Hüttenbetrieb zu Laar bei Rubrort*, (Düsseldorf, 1902); *Phoenix AG für Bergbau und Hüttenbetrieb in Hoerde i. W.*, (Aachen, 1908); "Geschichtliche Entwicklung und gegenwärtiger Stand der Phoenix, AG für Bergbau und Hüttenbetrieb in Hörde". *Denkschrift zum 60-jährigen Bestehen des Unternehmens*, (Düsseldorf, 1902); Lutz Hatzfeld, "Anton Wilhelm Hüffer (1786-1868) - ein Vater der Stadt Montan", in: *Duisburger Forschungen* 8 (1965), p. 24 - 33; Babette Nieder, *Der französische Einfluß beim Aufbau der Montanindustrie im Ruhrgebiet (1852 - 1873)*, (Konstanz, 1988).

⁵ These were usually trading firms, and in many cases, such as that of the Russian-Austrian-Hungarian Trading Agency E. Brandis in Vienna, it only helped to define their area of activity without mobilizing foreign capital.

⁶ Horst A. Wessel, "Die Erfindung und ihre Paten", [in: report] *Information für Kunden und Freunde unseres Hauses* [Information for our customers and friends], ed. Mannesmannröhren-Werke AG, (Düsseldorf 1990), pp. 7, 10 - 13.

⁷ Lutz Hatzfeld, "Hansemann wollte ein Archiv. Eine handelsrechtliche Anekdote zum 200. Geburtstag eines rheinischen Unternehmens", in *Archiv und Wirtschaft* 23 (1990), pp. 143 - 146.

3. An international Marketing Strategy

The first Mannesmann tube plants were already set up with a marketing strategy in mind. The founding plant in Remscheid⁸ was to supply the North German and Scandinavian markets, the plant in Bous on the Saar River⁹, which could also have been built a few kilometres to the west on the other side of the German border, supplied the southwest German and west European markets. The plant in Komotou profited from the traditionally excellent business relations of the Habsburg empire with the states of Eastern and Southern Europe.¹⁰

In the context of internationalisation, the importance of the fourth Mannesmann tube plant in Landore, close to Swansea, in South Wales must be ranked even higher. This location, near the steel works of William Siemens, was chosen in view of the strong potential British market, especially the merchant marine and British navy, as well as the difficult-to-estimate market of the world-wide British empire. The ownership of this plant was shared in equal parts by the Siemens and Mannesmann families.¹¹

On the basis of a correct estimate of the potential of the British plant, almost all of the founders of the main Mannesmann corporation had insisted that it be included within its structure¹², but this was prevented by the opposition of the Siemens family who believed that it would be more useful to stay outside the concern. Werner von Siemens wrote to his brother Friedrich in 1890 that: "Only when it has expanded to a world-wide business which includes America, France etc. can we consider a merger with the Landore plant".¹³ Nevertheless both firms closely co-operated with each other from the beginning. There was a contractual agreement concerning the allotment of orders and even the exchange of know-how and technical experts. The

⁸ Wessel, *Kontinuität im Wandel*, pp. 43 - 45.

⁹ *Ibid.*, pp. 37 - 38.

¹⁰ *Ibid.*, pp. 38 - 40, 42.

¹¹ *Ibid.*, pp. 40 - 42, 49, 110 - 115.

¹² *Ibid.*, p. 54.

¹³ Conrad Matschoß, *Werner Siemens. Ein kurzgefaßtes Lebensbild nebst einer Auswahl seiner Briefe*, 2 vols., (Berlin, 1916), pp. 995 - 996.

strengths or specialities of the various plants were shrewdly utilised and the products manufactured where it was most economical.¹⁴

The first large orders were deliveries to the British merchant fleet¹⁵, to Sofia¹⁶, Antwerp¹⁷, the Caucasus¹⁸ and Rio de Janeiro¹⁹. The orders from municipalities were to be used in constructing modern water supply systems and in the Caucasus the first high-pressure pipeline was being laid. The pipes of the Mannesmann firm were more expensive than the usual cast-iron pipes which were used in the drinking water and sewage systems, but they had the advantage of being lighter and more resistant to damage from being struck or dropped and did not require heavy-duty transport equipment. This meant less losses during shipments with numerous reloadings and the possibility of animal transport in difficult terrain. It thus made possible the construction of projects through the jungle without special equipment and only with human labour - for example in the Dutch East Indies. The further the distance and the more the reloadings, the more the advantages of the Mannesmann pipes became apparent - and this alone helped to account for the rapid world-wide expansion of its seamless pipes. And in the first years in which the patent was still in effect, all seamless pipes were Mannesmann products and to a degree this became their generic name, even after other producers entered the market. From the beginning, the export trade was dominant for Mannesmann.

¹⁴ Wessel, *Kontinuität im Wandel*, pp. 60, 110 - 111; *idem.*, "Mannesmann in Great Britain (1888 - 1936): An Investment Dependent on Politics and the Market", in: *The Journal of European Economic History* 26 (1997) no. 2, pp. 399 - 410.

¹⁵ Wessel, *Kontinuität im Wandel*, pp. 111 - 113.

¹⁶ *Ibid.*, pp. 56 - 57.

¹⁷ *Ibid.*, pp. 57.

¹⁸ *Ibid.*, pp. 49, 56, 66; Horst A. Wessel, *Die kaukasischen Erdölgebiete und ihre Bedeutung für die deutsche Wirtschaft vor dem Ersten Weltkrieg. Absatz- und Vertriebsorganisation deutscher Erzeugnisse der Stahlröhren- und Maschinenbauindustrie* (in press); *idem.*, Die erste Pipeline aus Mannesmannröhren [The first pipeline made from Mannesmann pipes], in: report. *Information für die Erdöl- und Erdgasindustrie* [Information for the Oil and Gas Industry], p. 18. (Düsseldorf, 1991), pp. 25 - 26.

¹⁹ Frank J. Nellißen, *Das Mannesmann-Engagement in Brasilien von 1892 bis 1995. Evolutionspfade internationaler Unternehmenstätigkeit aus wirtschaftshistorischer Sicht*, (München, 1997) (*Schriftenreihe zur Zeitschrift für Unternehmensgeschichte*, vol. 2), pp. 84-94.

4. Setting up a world-wide Distribution Network

All orders markets, including export deliveries to overseas, were secured by independent sales representatives in the first years. The South American market was serviced by the Remscheid export firm of Hasenclever.²⁰ This connection derived not only from the common city of origin with the original Mannesmann works but also from the fact that Remscheid in this period was an important export centre, as its nickname of "seaport on the mountain" indicates. Remscheid export sales representatives travelled in their own ships and supported trading offices in North, Middle and South America. The story is told that a scientist who travelled to the furthest corners of Brazil reported on his return that the letter of recommendation of the firm of Hasenclever had been of great assistance and often helped him out of difficulties.²¹ Other export merchant firms with whom Mannesmann co-operated had their headquarters in the German export ports of Hamburg and Bremen and their other offices in America and Asia²². In Milan the Mannesmann interests were represented by Julius Franken who was born in the Lower Rhine District and who also worked for the Belgian firm of Cockerill and the Grusonwerk of Magdeburg among others.²³

The Mannesmann supervisory board selected Carl Johann Senfft in 1900 as a director and gave him the task of building up a world-wide distribution and marketing system. Senfft had spent 10 years after completing his military service in foreign countries working for an export firm in Paris and then in London for banks which specialised in export financing. Thereafter he worked as head of an office of a silk-weaving firm, sales director of a pipe-producing plant and finally as the managing director of the Gas and Boiler Pipe Cartel. The latter had a close working relationship with the British pipe producers. Senfft had thus not only become acquainted with the practices of international business early in life, but also acquired competence in

²⁰ *Ibid.*, pp. 40, 83 - 84, 93.

²¹ Based on the helpful information of Dr. Walter Lorenz, Remscheid.

²² Nellißen, *Das Mannesmann-Engagement*, pp. 82 - 83.

²³ Wessel, *Kontinuität im Wandel*, pp. 67 - 69.

the most important business languages, including especially English and French as well as Italian and Portuguese.²⁴

In the first ten years in which Senfft was active for Mannesmann, he was constantly travelling - often as much as nine months of the year. World-wide he sought out possibilities marketing and organised the distribution system. With letters of recommendation from the export merchant firms which co-operated with Mannesmann as well as from the Deutsche Bank, he travelled to the countries which had become important markets for the tubes and to those which promised good sales potential. He visited the export merchants, checked their potential and made new business contacts. In a report to the board of supervisors in the spring of 1905 regarding his recent travels to South and North America, Senfft wrote: "At first I very carefully instructed our representatives in these countries concerning our products and then visited our main customers with examples, especially the important state and municipal authorities. In part, this led to immediate orders, including, for example, one for 2,000 cylinders for carbon dioxide and one order for approximately 23,000 metres of 4 inch pipes with thread and sleeve. In part, larger orders were prepared and are now being energetically followed through. The competition, especially from the British and Americans, is very strong, we will go as far as possible with prices and we will also have to adjust our payment modalities because our competitions are prepared to go further than we usually do. This means a somewhat larger risk, but we will, of course, be very cautious. In my opinion, the sales region, especially Argentina and Chile will develop positively for our firm, provided that the political and economic conditions in South American countries continue to stabilise further."²⁵

At that time it was usual in South America to pay with a "90 day sight draft after receiving the goods" (bill of exchange). This no doubt represented a greater risk than Mannesmann was used to and

²⁴ *Ibid.*, pp. 127-128; Lutz Hatzfeld, "Carl Johannes Senfft (1858 - 1927)", in *Rheinische Lebensbilder*, vol. 9, (Cologne, 1982), pp. 227-235.

²⁵ Mannesmann-Archiv, M 11.050, Minutes of the meeting of the board of supervisors on March 30, 1905.

prepared to accept. To be sure, the political developments often proved to be of much greater hindrance toward the realisation of various projects. A good illustration of this problem is given by the central water project in Quito, the capital city of Ecuador. Senfft had acquired this order in 1904, which totalled about 1.8 m. marks, a huge sum for this time. Two experts, a manager and a water construction engineer with the necessary language skills, made their way in the spring of the following year to finalize the deal. The conclusion of the contract, which had required long negotiations with the government and at the same time laborious efforts to coordinate the results by telegraph with Düsseldorf, was continually delayed by revolutionary disorder. Instead of the planned six months, it took four years for the tubes to be on their way and two further years before the project was completed. To receive at least the order for the delivery and installation of the water pipes, Mannesmann had to pay a deposit of 100,000 marks. To be sure, after the signing of the contract, the government made a 300,000 mark partial payment on the 1.3 m. total cost and transferred the rest of the sum as soon as the goods were shipped.²⁶

In November 1901, General Director Eich reported to the supervisory board on the relationship to the "Verein für Handel, Gewerbe und Ackerbau" (Association for Trade, Commerce and Agriculture) in Lemberg, which organized the complete drilling business in the Romanian province of Galicia and which had been one of the main customers for drilling pipe produced by the Komotau plant. In order to keep this business connection, the board of directors felt it was necessary to give this organization the exclusive right to sell drilling and supply pipe in Galicia and the Bukowina. The Association was to agree to set up and maintain a warehouse with an

²⁶ *Ibid.*, minutes of the meeting of the board of supervisors on December 13, 1905; M 11.009, minutes of May 15, 1909; M 30.102 b; M 18.540; M 30.048; p. 190; Horst A. Wessel, "Wasser für Quito", in: report R 21, *Informationen für den Rohrleitungsbau*, (Düsseldorf, 1992), pp. 26-27 [Water for Quito. How revolutions in Ecuador almost thwarted a water pipeline project], in: report R 21, *Information for the pipeline industry*, (Düsseldorf, 1992), pp. 26-27.

inventory value of 300,000 crowns. Senfft had drawn up a contract proposal and had solicited expert opinions. His proposal was accepted by the board.²⁷

While the chairman of the board of directors gave his report, his director colleague was in North America. His itinerary led him from New York to Montreal, then to the Middle West including Chicago, St. Louis and Kansas City, to California and, finally, to Mexico.²⁸ Six months later, Senfft again travelled to North America because of the high pipe prices and large-scale production of the pipe producers there. These firms had been for a number of years manufacturing seamless pipes according to a slightly modified Mannesmann process which a former engineer of the Mannesmann works in Landore, Wales, had brought with him to the USA. Because of its significantly lower production costs, Mannesmann had still been able to compete with these American producers - even after paying the 30% *ad valorem* tariff. Since one expected poor business in Europe in the autumn and an even worse winter, Senfft was instructed to acquire one or two bigger contracts. His personal presence was required because the correspondence with business partners had not led to any results.²⁹

Several months later, he went on the previously postponed Asian trip. He travelled through Russia by train, visiting the offices of the German trading firms in St. Petersburg and Moscow on the way, and thereafter those in Japan, Hong-Kong, India, Australia and New Zealand. In the year 1903 his travels took him to the Dutch-East Indies, Malaya, in 1904 South America - Brazil, Argentina, Chile, Ecuador, and in 1905 Transvaal and Natal in Southern Africa were on the program of the Mannesmann sales director. Mannesmann was represented at the Cape by a German firm, but it was felt that personal negotiations with the customers would stimulate further business. These did not remain one-time visits as Senfft and, after a few years, other company

²⁷ Mannesmann-Archiv, M 11.050, minutes of the meeting of the board of supervisors on November 23, 1901.

²⁸ *Ibid.*, M 11.002, report to the board of supervisors March 14, 1901.

²⁹ *Ibid.*, letter of General Director Eich to the chairman of the board of supervisors, Seintal, July 23, 1902.

officials, travelled with great regularity to the most important countries and made new business contacts. It became the rule that Senfft travelled in 1906 and between 1908 and 1911 at least once a year to South America where he opened the market for Mannesmann products in Chile and Peru. He travelled on all seven seas and through almost all continents with unrestricted power to close deals.³⁰

5. International Sales Organization

Depending on the local conditions, Mannesmann used different sales methods. In a meeting of the board of directors at the end of 1903, it was agreed that the Mannesmanröhren-Werke and the British Mannesmann Tube Company would use the same representatives or agents in the various countries. Where Düsseldorf had named an exclusive representative, Landore was to become a partner of the agreement.

Furthermore it was agreed that the firm Weyersberg & Co, Ohligs in Solingen and Salisbury, should be the representative of both Düsseldorf and London in Rhodesia. This firm had demonstrated through a number of orders that it had competence in this market. But because of the special nature of the British management and the dependence of the colonies on the merchant houses in London, it was necessary to make a special agreement with the Weyersberg firm that the British Mannesmann firm could continue to do business with its London merchants.

Düsseldorf and London agreed on common agents which were named for Australia, Canada, Argentina and Chile. The Cape and Natal were not covered by the contract. In New Zealand the representative of British Mannesmann Tube was to take over the sub-agency of Mannesmann-Düsseldorf so "that the orders are worked on from hand to hand". Final agreement on the representation in India was to be postponed until after a visit from Senfft to London, but if possible, the firm of Schröder, Smidt & Co. in Bombay was to receive the business.

³⁰ *Ibid.*, also M 33.070 - 75; M 11.050; M 11.009; M 11.011 und M 11.012.

Under the condition that the Japanese firm of Okura was prepared to give all orders to Mannesmann, the firm was prepared to give assurances that any offers to third parties would be 10 % higher. The firm was only prepared to deal exclusively with Okura if it, in turn, would only deal with Mannesmann.

In all agreements, especially with those in Australia and the Transvaal, a differentiation was made between trade and factory business. Trade business or 'real trader' business was to be handled only through the common representative. Factory business, which covered deliveries to manufacturers who produced for export, could be completed without this middle man. To make certain that London and Düsseldorf would not be played off against each other, it was agreed that the sales departments "should daily keep themselves informed about the incoming inquiries", i. e. should daily exchange reports about incoming orders. The proposed construction of a warehouse in London was temporarily not realised, but the warehouse in Landore and that in Birmingham were enlarged.⁴¹

In an expert opinion of the Chamber of Commerce in Düsseldorf in 1904, Mannesmann voiced its support for the creation of a special sales agency with sub-agencies in the most important economic centres in Australia in order to stimulate sales to that continent. It was argued that the smaller success of German products relative to British and American products was not due to higher prices but due to the lack of advertising and the insufficient scope of the goods on offer. Since the main competitor in the tube business, the firm of Stewarts & Lloyds, Ltd., in Glasgow and Birmingham had recently opened warehouses in Sydney and Melbourne, thus also competing against local importers and wholesalers, it was seen as a favourable moment to introduce new products to these local firms. The success of the Americans was partially attributed to this strategy, but "their goods are not especially liked".

The firm demanded energetic measures in order to counter the surprisingly rapid increase in North American competition and thus

⁴¹ *Ibid.*, M 12.150; File Protokolle, secret note on the conversation of December 6, 1903.

to secure a large and growing market for German producers. To counter-balance the existing preference of the Australians for British and American products, it was deemed absolutely necessary to actively influence the Australian market. An important element in the North American success was that London was used to finance the business, but the deliveries were made from the Pacific coast ports directly to the Australian customers. If the orders were placed with London merchants, then there was a bidding process with the lowest priced offer receiving the contract. But if prices were equal, no British merchant would give an order to a German firm.

It was therefore first priority for German industry to deal directly with Australia and New Zealand and not to go via London or even via German merchant houses. This did not mean that the firm wanted to bypass the merchants completely. However, for products in markets with strong competition it was felt that direct sales would be more advantageous since the various middle-men such as merchant houses and export agents would drive up the price and thus prevent the conclusion of a sale. Unquestionably, the traditional method of export business had been more comfortable, but the higher volume which was possible through direct selling at lower prices soon compensated for the extra effort, and the financial risk also remained within reasonable bounds. The new sales office with its subsidiary offices was not made part of one of the existing merchant houses but remained independent and thus not under local influence. Mannesmann staffed these offices with both a sales agent and a technical representative. They reported regularly on market developments to London and Düsseldorf.

Special attention was given by Mannesmann to the presentation of its brand. Every product, every piece of paper, every bill had to carry the Mannesmann trade mark. "In this way the customers will be influenced to ask for those products from the wholesaler and he will be forced to keep these products in his inventory. Unfortunately in Germany this has not been appreciated enough, even though certain firms owe their success in Australia to a large degree to the public knowledge of its trade mark. The buyer wants to see the trade mark so that the wholesaler has

difficulties in case...these are lost because the buyer assumes immediately that there is an attempt to substitute a less good product. The effort and costs which the branding and the constant mentioning of the product entails is so negligibly small, that in comparison to the advantages which this brings, they can be totally neglected and therefore the German firms should not hesitate to practise this".⁵²

Warehouses were, if possible, set up by and paid for by the local merchant firms and these were supported through granting special discounts or payment modalities or, if necessary, also through credits. In this way Mannesmann was spared the necessity of investing substantial amounts of capital which such warehouses entailed and also avoided the risk that the customers, especially for larger contracts, would bypass the warehouse and deal directly with the producer. There were regional variations in this respect. Mannesmann built its own warehouse in Southern Africa and even staffed it with a technical representative because there was no other way to do business⁵³. In Russia the local merchant firm was supported in its efforts to construct and later expand a warehouse in Baku through a credit on delivered goods and longer payment arrangements.⁵⁴ In no case was the business given over to authorised dealers, such as was common in domestic business.⁵⁵ The warehouse in Africa was given over after a few years to an authorised firm - the value of the warehouse was estimated at half a million marks in 1906.

By contrast, in Argentina a warehouse was taken over in 1907 in order to "definitely separate [Mannesmann]" from the representative firm there.⁵⁶ However, common arrangements were made with the

⁵² *Ibid.*, M 11.011, File Steinthal, assessment of May 20, 1904.

⁵³ *Ibid.*, M 11.050, minutes of the meeting of the board of supervisors on February 21, 1902 and of June 28, 1904, also December 16, 1905, and October 22, 1906; cf. a. M. 11.011, note on a conversation between Eich and Steinthal on June 27, 1912, M 11.002, also February 21, and July 23, 1902.

⁵⁴ *Ibid.*, M 11.050, minutes of the meetings of the board of supervisors on Mai 14, 1900, February 21, 1902, March 31, and October 27, 1904, November 23, 1906; M 11.002, also February 16, and June 16, 1902.

⁵⁵ For details see Nellißen, *Das Mannesmann-Engagement*, p. 103 - 108; Wessel, *Kontinuität im Wandel*, pp. 126-131.

⁵⁶ Mannesmann-Archiv, M 11.007, letter Eich to Steinthal, September 7, 1907.

large oil companies as well as with their house banks. The oil companies were thereby relieved from having to keep up their own warehouses with large inventories in order to guarantee uninterrupted production and the necessary safety. This also saved interest charges and capital for other uses. The fear that the existing representatives of other firms might start countermeasures in order not to be pushed out of this business did not materialise, because the various firms did not drop their representatives.³⁷ With respect to the opening of new markets, it is of interest that an - in the end unsuccessful - attempt was made in 1907. In this year, Mannesmann shared the cost of the one-year trip of two employees of a Rotterdam firm to the Dutch East Indies "to intensively study the market potential for tubes and similar products".³⁸ Although the potential was judged to be very good, the common sales organization had to be liquidated after a few years. Mannesmann followed the usual pattern and assigned the complete sales programme to a merchant firm which had bases at various points in this huge territory and which was capable of managing a large tube warehouse. To support these efforts, a Mannesmann employee was delegated to take over the tube department.³⁹

The decision in the Caucasian oil-producing region was encouraged by the peculiarity of the local drilling and producing firms which covered their needs at the local warehouses, and because the merchant representing Mannesmann tubes was well situated in the local market.⁴⁰ To supply the Rumanian oil fields, where in 1903 another Mannesmann employee was active, the opening of a warehouse was considered. Because of the need to minimise the risk as far as possible, a number of other alternatives were investigated. The idea of a price agreement among the relevant producers was rejected because the possibilities of control were inadequate. Another idea of establishing a jointly-financed warehouse which would fill

³⁷ *Ibid.*, M 12.006, minutes of a meeting of the board of directors on September 16, 1904.

³⁸ *Ibid.*, M 11.050, minutes on the meetings of the board of supervisors on October 10, and December 14, 1907.

³⁹ *Ibid.*, comment for a meeting of the board of supervisors on April 11, 1911.

⁴⁰ Wessel, *Die kaukasischen Erdölgebiete*.

orders according to a quota agreed upon among the producers who would otherwise refrain from making separate offers also could not be realised. A similar fate was shared by the last plan, that the three main suppliers would combine to form a cartel or to build a common warehouse with one-third participation in the cost and the quota.⁴¹

6. The Founding of Mannesmann-owned Sales Organizations in Foreign Countries

Despite careful selection and regular visits, Mannesmann was not satisfied with the sales results achieved everywhere. In the opinion of general director Eich this was because "the representatives take in occasional orders with as large a profit as possible, but that everything which would entail intensive work and still only bring in small profits is ignored, just as it is everywhere. The directors would thus like to move forward and successively create its own sales organization in order to secure a suitable share of the market in every single area."⁴²

Already, a year before Eich made these comments at a meeting of the board of supervisors in December 1908, the Sociedad Tubos Mannesmann, Buenos Aires, was at work. Because the firm had developed well and good results were promised by this new organization, it was transformed into a corporation in which Mannesmann and the Mannesmann representative held a 100,000 marks share.⁴³

The model of the Argentine firm was increasingly followed and one after another Mannesmann created its own sales organization in the important markets of the world. In Chile the situation was more difficult than in Argentina. Mannesmann's travelling experts had found a large potential market for tubes, but only a small part was being filled by its products. Several firms had secured for themselves

⁴¹ Mannesmann-Archiv, M 11.003, minutes of the meeting of the board of supervisors on December 29, 1903. M 33.069 and M 33.069 b (Photographs and statistical documentation); Horst A. Wessel, "Mannesmann pipe for oil and gas field service", in: report. *Information for the Oil and Gas Industry*, p 19, (Düsseldorf 1992), pp. 24 - 25.

⁴² Mannesmann-Archiv, M 11.059, minutes of the meeting on December 11, 1908.

⁴³ *Ibid.*, M 11.050, minutes of the meetings of the board of supervisors on December 14, 1907, and December 11, 1908.

influence in government and private circles. With two of these, one with headquarters in Chile and the other in Hamburg, successful negotiations about a shared interest in the sales organization were conducted. Mannesmann held 300,000 marks of the original capital and 30,000 Marks were paid in by the other two partners. Both partners committed themselves to procure their whole requirements in tubes and tube products exclusively from the common firm and not to engage in any competition with it directly or indirectly in Chile. As compensation they received, independent of their smaller share capital, the same share of profits as Mannesmann. To prevent a repeat of the mistaken policies of other sales representatives, who had maximized prices in order to maximize profits per order instead of aiming for greater sales, Mannesmann was to receive the full sales price and would then pay a commission of 10% to the sales organization.⁴⁴

Only a few months after the founding of the Chile sales firm, an independent Mannesmann corporation was formed in Brazil.⁴⁵ The manager and the supervisory board had complete responsibility and thus freed Mannesmann from worries over the course of the business, the risks that were being taken and over everything else. Previously an engineer had worked the Brazil market and had established good contacts with the customers in a short time, but he did not possess enough business talent "to let him continue to represent our interests in Brazil".⁴⁶

In a letter to the chairman of the supervisory board of Mannesmann, the general director wrote: "The full power of attorney which we would have to give to young persons as soon as they deal with government officials would be so unlimited that we have the severest reservations about whether to let these go out of our hands." These powers of attorney were no longer necessary once the sales activities were given over to a corporation under the laws of the land. Mannesmann also gave up a 4.5% share in the sales corporation to a reputable import

⁴⁴ *Ibid.*, December 11, 1908, and February 27, 1909.

⁴⁵ *Ibid.*, February 27, 1909.

⁴⁶ *Ibid.*, M 11.078, discussion between Eich and Steinthal, February 1, 1909, (quotations); cf. Nellißen, *Das Mannesmann-Engagement*, p. 98 - 115.

merchant firm which had an important influence in Brazil. The distribution of the profits followed the example of the firm in Chile.

The supervisory board discussed the expansion of the Mannesmann export sales organization under point 3 of its meeting on June 20, 1911. It was reported that the export organization had "proven itself splendidly"⁴⁷ and that a further expansion, at first in Cuba⁴⁸, China⁴⁹ and Spain⁵⁰, later in Canada⁵¹ and Australia⁵² was being considered. The representation in Japan⁵³, which had been limited to one Mannesmann employee since 1910, was to be strengthened with the expansion of business and in South America further branches of the existing sales organizations were to be opened in Sao Paulo, Lima, and Rosario among other places.⁵⁴ In Mexico two Mannesmann employees had been working since 1908. Shortly after the setting up the office the business succumbed to the revolutionary chaos. One of the employees was then ordered to Cuba to set up an office there.⁵⁵

A visit to Cuba had shown a large potential demand for tubes there. Even though assuming that the US would continue to dominate the market in Cuba, it was believed that a number of Mannesmann specialities could be sold and would justify opening a sales organization there.⁵⁶

⁴⁷ *Ibid.*, M 11.050, minutes of the meeting of the board of supervisors, June 20, 1911

⁴⁸ *Ibid.*, minutes of the meetings of the board of supervisors on March 30, 1905, and June 20, 1911.

⁴⁹ *Ibid.*, June 20, 1911.

⁵⁰ *Ibid.*, further report on a visit of the Sociedad Tubos Foriados Bilbao, March 9, 1911, comments for the meeting of the board of supervisors on April 11, 1911.

⁵¹ *Ibid.*, October 31, 1912.

⁵² *Ibid.*, M 11.011, p. 101 - 103, expertise of sales to Australia.

⁵³ *Ibid.*, M 12.006, discussion on December 6, 1903, M 11.002, letter Eich to Steinthal, July 23, 1902; Horst A. Wessel, "Erste japanische Pipeline mit Mannesmannrohren gebaut!" [First Japanese Pipeline Built with Mannesmann Pipes!] in: report. *Informationen für den Rohrleitungsbau* [Information for the Pipeline Industry], R 37, (Mülheim a. d. Ruhr, 1997), pp. 28-29.

⁵⁴ Mannesmann-Archiv, M 11.050, minutes of a meeting of the board of supervisors on June 20, 1911; M 18.514, audit reports; Nellißen, *Das Mannesmann-Engagement*, p. 63.

⁵⁵ Mannesmann-Archiv, M 11.050, minutes of the meeting of the board of supervisors on July 20, 1911, further on June 28, 1904; March 30, and December 13, 1905; on October 10, 1907; M 11.012, on January 17, 1916.

⁵⁶ *Ibid.*, M 11.050, minutes of the meeting of the board of supervisors on June 20, 1911.

In China in the years immediately before the beginning of the First World War, Mannesmann was represented by two independent export merchant firms. While one of these had hardly had any sales success before 1911, the other left the impression that it only ordered what it could finance and install itself. Business was thus lost to Mannesmann because firms installing tubes were not prepared to buy from their competitors.⁵⁷ Mannesmann was prepared to take the consequences and made preparations for opening its own sales office. It was to be headed by the employee who also staffed the Japan office which was to continue under his direction. He was an engineer who had previously worked in the Siamese civil service.⁵⁸ His co-worker in Japan was a technician who, as son of a master technician in the Mannesmann Tube works in Düsseldorf had grown up with the production of tubes and had gathered experience in Landore and London on his way to his tasks in the Far East.⁵⁹

The founding of a sales organization in Canada was completed after long negotiations at the end of the year 1912. The long-standing representative firm in Canada, the British Mannesmann Tube Co. and Mannesmann in Düsseldorf had agreed to set up a common selling organization under the firm Mannesmann Tube Co. Ltd. with its seat in Montreal. In contrast to the other sales organizations, the majority of the capital was not held by Mannesmann but by the former sales representative.⁶⁰ Once the Mannesmann Office in New York opened in 1914,⁶¹ the concern was represented in all important markets - through independent representatives, through its own employees attached to partner firms or through sales organizations in which Mannesmann usually held the majority of the shares. There were other export-oriented enterprises in Europe which had similar good representation

⁵⁷ *Ibid.*

⁵⁸ Oskar Altmann (1880-1948); M 20.017; M 11.010, minutes of the meetings of the board of supervisors on February 19, 1910; M 11.060, also July 1, 1913; M 11.050, also June 20, 1911.

⁵⁹ *Ibid.*, M 11.050.

⁶⁰ *Ibid.*, October 31, 1912.

⁶¹ Nellißen, *Das Mannesmann-Engagement*, p. 63; Horst A. Wessel, "Weltausstellung in Chicago 1893" [Chicago World Exhibition 1893], in: report. *Information für den Maschinen- und Fahrzeugbau* [Information for the Machine Building and Vehicle Construction Industries], M 22, (Mülheim a. d. Ruhr, 1993), pp. 22-23.

internationally and who had also taken the step to set up their own selling organization, but their number was so small, that they can be considered pioneers. And there was no other tube producer among them.

7. The Expansion of Foreign Production

At the beginning of these remarks, it was mentioned that Mannesmann was at its foundation not only an enterprise with foreign capital but also - and this may be considered unique - with domestic and foreign production facilities. And this strategy was continued in the following years. Shortly before the turn of the century, the British enterprise with its facility in Wales was integrated into the concern and, before the outbreak of the war, construction was begun on a new factory in the neighbouring town of Newport.⁶² Investments in new capacity were also made in Austria in 1904/05 with the take-over of an existing firm, which was continued as the Schönbrunn Division until 1907 when it was combined with the Komotau factory into the newly founded Österreichische Mannesmannröhren-Werke Ges.m.b.H., Vienna. Düsseldorf had drawn the appropriate legal conclusions from the close cooperation of these two operations but creating the new firm also recognized the much enhanced interest in Austro-Hungary and the greatly increased national feelings of the public. The recently passed law regulating the GmbHs, which meant that Austria was abandoning the common commercial code, no doubt also influenced the timing and structure of the new corporation. Sales of the new firm in the Austrian-Hungarian market was handled by the office in Vienna and the export was co-ordinated in Düsseldorf.⁶³

Following Austria and Great Britain, Italy also received an independent production company. This case also revolved around

⁶² Wessel, *Mannesmann in Great Britain* (1888 - 1936).

⁶³ Horst A Wessel, "Mannesmann und die Tschechoslowakische Röhrenindustrie in der Zwischenkriegszeit", in: B. Barth/J. Faltus/J. Kren/E. Kubu, eds., *Konkurrenzpartnerschaft. Die deutsche und die tschechoslowakische Wirtschaft in der Zwischenkriegszeit*, (Essen, 1999), (*Veröffentlichungen der Deutsch-Tschechischen und Deutsch-Slowakischen Historikerkommission*, vol. 7, also *Veröffentlichungen des Instituts für Kultur und Geschichte der Deutschen im östlichen Europa*, vol. 14) pp. 75-93, especially pp. 75-81.

the issue of securing an important sales market. It was necessary to take into account the nationalistic procurement policies, especially those of the navy and other state organs. These markets could not be supplied only through exports. The Italian government attempted to stimulate the creation of new employment opportunities and to counter emigration by demanding that the important importing firms set up local production facilities which would then be shielded against foreign competition through tariffs.

In 1906 Mannesmann founded the Societa Tubi Mannesmann in Dalmine near Bergamo with the Italian firm Societa Metallurgica Italiana which had unsuccessfully attempted to set up a production facility for seamless tubes. Mannesmann held three quarters of the shares of the new corporation. In this connection Mannesmann was awarded two state prizes for new investments - for the production of seamless tubes and for the production of quality steel with the new electro-process. Distribution was handled by a new sales office in Genoa. The strategy for securing this market paid off; the Italian peninsula and also the other countries bordering the Mediterranean Sea were important markets until the First World War. At the beginning, the Italian works could contribute very little because, similar to the Wales facility, it had serious start-up problems. In addition, Düsseldorf lacked the control methods which would have quickly brought this to its attention and effected an early resolution.⁶⁴

Further production facilities were planned, but were not put into effect before the outbreak of the war. The Mannesmann family failed in their efforts to build up a firm in New Jersey in the 1890's⁶⁵ and in

⁶⁴ Peter Hertner, "Deutsches Kapital in Italien: Die "Società Tubi Mannesmann" Dalmine bei Bergamo, 1906 - 1916", in: *Zeitschrift für Unternehmensgeschichte* 22 (1977) pp. 183 - 204, 83 (1978), Heft 1, S. 54 - 76. Claudio Franzì, *Gli Investimenti Tedeschi nel Processo di Industrializzazione Italiana: Il caso della "Societa Tubi Mannesmann" 1906 - 1916*, (Milan, 1996).

⁶⁵ Wessel, *Kontinuität im Wandel*, p. 128; *idem.*, "Die Techniker der Familie Mannesmann", in: W. Weber, (ed.), *Ingenieure im Ruhrgebiet*, pp. 134-135 (Rheinisch-Westfälische Wirtschaftsbiographien, vol. 171); (Münster, 1999); *idem.*, "Reinhard Mannesmann (1856 - 1922)", in: report. *Informationen für Kunden und Stahlrohverwender* [Information for the world of steel tube and pipe applications], S. 35. (Mülheim a. d. Ruhr, 1997), p. 25.

Russia they did not advance beyond plans for such a plant.⁶⁶ It is worth mentioning that Mannesmann made an effort to enter the Spanish market. In 1911 an offer was made to the firm Tubos Forjados in Bilbao to become the general sales representative for Mannesmann products, with the further task to rework the tubes to the specifications required by the Spanish market. It was also promised that the firm would be put into a position to finish some Mannesmann products "so that they could be effectively presented as domestic products against the local competition". In order to keep some control, Mannesmann wanted to take up some shares in the Spanish firm.⁶⁷

8. Conclusion: a world-wide operating international Firm

Mannesmann was from the beginning a firm with an international perspective. This is true for its capital, especially for its production facilities and above all for its sales organization. From the beginning, exports dominated its fortunes, and deliveries to overseas markets played a major role. Of decisive importance for this focus was the patented process which revolutionised the production of seamless tubes. At first this process was protected by patents, then later the accumulated knowledge of the workers and engineers secured an almost monopoly-like market dominance. The special characteristics of the Mannesmann tubes, such as their imperviousness to the vagaries of long-distance transport with many transshipments, and their suitability for installation in difficult terrain with relatively few skilled and unskilled workers, made them highly desired products for customers in the public administrations of cities and states. The international expansion of the firm was aided by the Deutsche Bank which was influential not only in North and South America. Mannesmann's sales strategy was one of flexible response to the market in which the quality

⁶⁶ Ruthild Brandt Mannesmann, *Reinhard Mannesmann, Max Mannesmann. Dokumente aus dem Leben der Erfinder*. (Remscheid, 1965), pp. 84 - 87. Wessel, *Kontinuität im Wandel*, p. 130.

⁶⁷ Mannesmann-Archiv, M 12.150, report on the visit of March 9, 1911.

of employees was not less important than the local conditions which dominated the market. Unquestionably it was in this respect an advantage for Mannesmann that, from the beginning, it produced not only in Germany but also in Great Britain and Austria-Hungary which were important for overseas exports and for sales in the east and south-east European region.⁶⁸

As long as sales experts were lacking, Mannesmann worked together with export merchants. But as soon as conditions changed, Mannesmann sent out individual sales and technical experts who consulted customers in cooperation with the export merchants and, if necessary, took over projects. The next step in improving their market position was in founding sales corporations, usually in co-operation with locally-established sales firms. The most complete commitment in local markets came with the construction of production facilities - through participation in local firms as in Spain, through the step-by-step evolution of legally independent firms such as in Austria or through the founding of new corporations as in Italy. Before the beginning of the First World War, Mannesmann was much further advanced in this process than most firms. And yet it was still much less than the leaders of the firm had envisaged. Already in 1906, the general director, Eich, had considered the establishment of a Mannesmann-Export Corporation to coordinate all of the activities of the concern in foreign countries. This was not completed before 1914. However, this would not have made Mannesmann into a global-player as a whole: without considering the qualitative and quantitative penetration, it was not an enterprise in which all departments were oriented to the world market but only one - the export department. Mannesmann was from its founding a world-wide operating international firm - with all of the consequent advantages and, because of remaining weaknesses in Management and control - with all risks also.

⁶⁸ Cf. also Nellißen, *Das Mannesmann-Engagement*, p. 404.