Further Expansion of the Siemens Concern: 1890 to World War I

Siemens Goes Public

In the last decade of the nineteenth century, the management structure of Siemens & Halske began to change. The change was in response to the altered conditions of the electrical industry. The company underwent a major management reorganization under the influence of the Deutsche Bank. Werner von Siemens’s retirement and death freed the company to undergo such a transformation. In spite of his outstanding technical talents and his general business acumen, Werner had never fully grasped the changes occurring in the nature of his industry, especially the importance of competition from giant rivals such as AEG, and had been reluctant to accept changes in the corporate form of his enterprise. The company did, however, begin a change in its legal form in 1890, as we have seen, a change that was completed in 1897. This reorganization of Siemens & Halske was an indication that the firm had reoriented its strategy.¹

Even earlier, at Wilhelm’s suggestion, the London firm had been converted into a public corporation in 1881. Also, the St.
Petersburg Society for Electrical Lighting was founded as a public corporation in 1886. Then, effective January 1, 1890, the former ordinary partnership Siemens & Halske was converted into a limited partnership, the assets of which were estimated at 14 million marks. Carl Siemens and Werner’s sons Arnold and Wilhelm were the personally liable partners (the owners of the business), while Werner remained a limited partner with a capital contribution of 6.2 million marks.

Although Werner von Siemens died a wealthy man, his estate and the capital of the firm that bore his name proved insufficient to meet the needs of the business in the 1890s. In his will Werner von Siemens had specified the transfer of his portion of the capital of the enterprise to his six children in equal parts. Besides the three liable partners, the limited partnership was made up of five limited partners with a total capital contribution of 12 million marks. The total contribution of the three liable partners to the firm’s capital was at least as great as the capital contributed by the limited partnership. Accordingly, the firm had a capital of at least 24 million marks at its disposal when Werner died. In the electrotechnical industry, however, the demand for capital rose considerably, particularly in years when the organization of corporations and contractor enterprises, following the example set by AEG, was rapidly increasing. As early as October of 1892 Siemens & Halske had to take out a loan of 10 million marks at an interest rate of 4.5%, secured by a mortgage—the first money drawn from external sources since the founding of the firm.

Siemens & Halske finally became a public corporation in 1897, albeit one in which members of the Siemens family were firmly in control. The conversion into a public corporation was finally triggered by the plans of Emil Rathenau to merge AEG and the Union-Elektrizitäts-Gesellschaft. For Siemens & Halske, such a merger would have meant the loss of support from all the large banks in Berlin. Formally, the founding of the Siemens & Halske Corporation took place on June 3, 1897, effective as of August 1, 1896, by transferring all assets and liabilities of the limited partnership Siemens & Halske to the new corporation against shares worth 28 million marks.
Additional shares at a par value of 7 million marks were taken over by members of the Siemens family, who thus held all the stock of the corporation. In order to secure the ironclad influence of the family, and against the opposition of the Deutsche Bank and its director, Georg Siemens, the details of the corporate charter were written in such a way as to permit effective exclusion of any major outside influence. In paragraph 22 the charter of the corporation granted the supervisory board rather sweeping rights and invested it with full authority in paragraph 25: "At any time the chairman of the supervisory board is authorized to monitor the entire conduct of business of the board of management and will accordingly have access to all books and correspondence of the company. The supervisory board is also entitled to transfer the execution of the aforementioned authority as well as other specific assignments to members of the supervisory board and other persons outside of the management and to specify the applicable remunerations." This regulation was entered into a draft granting a "delegation of the supervisory board" (Delegation des Aufsichtsrates) far-reaching authority. Despite reservations expressed in bank circles, the statutes of the new company were set up so as to maintain the earlier influence of the liable partners in the new legal form of the enterprise.

There were further provisions for ensuring the family's continuing control of the corporation. According to paragraph 20 of the charter, the corporation's board of management was subject to the instructions of the supervisory board. According to paragraph 27 the supervisory board was authorized to transfer the execution of its authority onto individual members, in reality onto the chairman of the supervisory board, who acted as the "chief of the House" (Chef des Hauses) and guaranteed the uniform conduct of the Siemens concern. The basic principles of these regulations remained unchanged until a revision of the charter required by a new German law of 1937 spelling out the rules for corporations. These regulations were undoubtedly in accordance with the family's interests; yet the intended cementing of the influence of the family made a rapid increase of the capital stock of the firm more difficult.
The Founding of Siemens-Schuckertwerke Ltd.

The German electrical industry began to be concentrated into the hands of a few firms in 1901 and 1902. Siemens and AEG emerged from this process as the dominant firms in the industry. Enterprises in financial straits were either taken over by AEG or Siemens or jointly liquidated by the two large companies in order to eliminate competition and increase their dominance of the market. When the Union-Elektrizitäts-Gesellschaft and the Elektrizitätsgesellschaft vorm. S. Schuckert & Co. met with difficulties in 1902, Schuckert & Co. entered into negotiations with AEG but eventually merged with Siemens & Halske. Siemens & Halske transferred its own activities in the field of electric power into the newly founded Siemens-Schuckertwerke Ltd.

Siemens undertook this merger rather unwillingly, and agreed to it only to prevent the further growth of AEG. Siemens-Schuckertwerke (SSW) Ltd., founded in 1903, integrated all the activities in the field of electric power of the Siemens Corporation and the Nürnberg Elektrizitäts-AG vorm. Schuckert & Co. (Nuremberg Electricity Corporation, the former Schuckert & Co.) founded earlier by Sigmund Schuckert, which dominated a substantial part of the market, above all in Bavaria. Schuckert’s cash balance had risen from 20.3 to 136.5 million marks between 1893 and 1900/01, yet the firm had not been able to secure the commensurate financial backing. Its internal financial base was relatively small, and when the firm was hit by a crisis it could not count on sufficient support from the smaller banks in southern Germany. Part of the difficulties probably also arose from the fact that Schuckert’s director general, Alexander Wacker, was not paid a fixed salary. Wacker theoretically received 15% of the net profit, but his share was reduced by an allocation to the statutory reserve fund and the payment of interest on the stock of the company. In effect, then, he received only 4% of the net profit. With this in mind, Wacker obviously was interested in disbursing large profits. Between 1893 and 1902 Schuckert had distributed dividends amounting to 19,479 million marks.
and additionally distributed 5,313 million marks in dividends from means made available by the capital market. In order to secure future access to the capital market, the dividends were continuously increased in order to demonstrate the soundness of the enterprise.

Financial considerations precluded a full merger, which would have been the most logical course. The integration was reduced to a partial one, which resulted in Siemens & Halske’s having control of the majority of the stock. Schuckert was transformed into a pure holding company.\textsuperscript{13} Despite the separation of the fields of production, the production of incandescent lamps remained with Siemens & Halske. The same was true of the department in charge of constructing Berlin’s elevated railway and subway system, which later developed into a branch company of its own.\textsuperscript{14} Siemens was ready to cooperate with AEG in certain fields, but no longer was it willing to leave the field to its most dangerous competitor without a fight.\textsuperscript{15} By pooling all its own divisions in the field of electric power with Schuckert to form Siemens-Schuckertwerke Ltd., the Siemens concern, which through Siemens & Halske had had ever since its founding a leading position in the market in low-current technology, also advanced into a strong position in areas where AEG was principally active.\textsuperscript{16} The result was that Siemens became almost equal to Emil Rathenau’s enterprise, even though substantial funds had to be invested during the first years. Within the Siemens concern, Siemens & Halske Corporation and Siemens-Schuckertwerke occupied the position of core companies. The capital of Siemens-Schuckertwerke Ltd. amounted to 90 million marks, split almost equally between Siemens & Halske and Schuckert, with Siemens & Halske’s share exceeding Schuckert’s by 100,000 marks—to have a clear definition who was the boss in case of disagreement in matters involving the centralized management of the enterprise. Siemens & Halske and Siemens-Schuckertwerke Ltd. were actually directed by a common management, even as they legally remained two independent companies.\textsuperscript{17} By founding Siemens-Schuckertwerke and through the ensuing transfer of the electric power business, Siemens &
Halske Corporation became a mixture of a manufacturing and holding company, although it considered itself rather a "technical holding company." ¹⁸

Although in terms of sales or assets Siemens and AEG were almost of equal ranking during the last years before World War I, there were important differences between them. Each firm exhibited characteristic features indicating their different management policies. Whereas AEG had indisputable priority in the field of electric power technology and in the contractor business, Siemens dominated low-current technology and played a leading, if not dominant, role in the field of electric power. Siemens focused on activities involving electricity and before World War I avoided excursions into nonelectric technology (the sole exception was its starting to produce automobiles in 1906). In this regard the firm continued to follow Werner von Siemens's original principle of being active in the entire field of electrical technology. Siemens & Halske dealt with all kinds of communication—whether via cables or overhead lines, or wireless (radio)—and with measuring technology. It also produced cables and insulated wires for communication technology.

Time and again new fields of research and production developed from this wide range of activity, as the firm was able to utilize the results and the experiences collected in one field in the promotion and refinement of another. Innovations such as high-speed telegraphy, simultaneous transmission of several telegrams via a single line, telex, direct dialing telephone systems, telephone communication via cables, access to the precise time via telephone, radio technology, and sound in movies were all in some way associated with the name Siemens & Halske.

For their part, Siemens-Schuckertwerke produced generators, electric motors, and transformers; manufactured switchgear and switchgear plants; and constructed and commissioned entire power plants. Its scope of production included accessories and components for electrical installations; incandescent lamps; lighting systems for cities, households, and factories; motors and associated equipment for farms,
mining, industry, households, and heating appliances; and
cables and circuits for electric power.\textsuperscript{19}

Even after the change in its legal status to that of a limited
company, Siemens stuck to the system of self-financing typical
of a family-run enterprise, while AEG frequently tapped the
capital market. The stock of the Siemens & Halske Corpora-
tion, which had been augmented in 1900, was not raised again
till 1909. The funds acquired via loans during the nineteenth
century lasted until 1912. New financial means obtained in
1909 and 1912 were required primarily by the financial needs
of SSW Ltd., as the initial capital of 90 million marks remained
unchanged and SSW Ltd. had, owing to its legal structure, no
easy access to the capital market. Consequently, most of the
investments made by SSW were also self-financed. Starting in
1906/07 the dormant reserves, which were already consider-
able, were increased enormously by the practice of fully writ-
ing off the machines and instruments in the year of their
purchase. This cautious way of financing, which can be traced
back to the founder and was still practiced a century after his
death, preferred safeguarding a long-term liquidity in contrast
to aiming for optimal profitability. On December 27, 1910,
Wilhelm von Siemens commented on the Siemens & Halske
balance of 1909/10: “About 6 to 7 million again to be added
to the dormant reserve, at a dividend of 12% . . . SSW about
5–6 million entered into the dormant reserve.”\textsuperscript{20}

This financial policy served Siemens well during Germany’s
difficult years between World War I and World War II. The fin-
cancial caution exercised by Siemens proved decisive in help-
ing the firm gain and hold a strong competitive position and a
high level of technical progress. For the remainder of the twen-
tieth century, thanks to its management’s financial caution,
Siemens performed better as a business, overall, than did Ger-
man competitors that preferred riskier ways of financing
and that assumed those risks in order to diversify into nonelec-
trical fields.\textsuperscript{21}

The foundation laid by Werner von Siemens served his fam-
ily, his company, and the electrical industry well. By 1914,
when World War I broke out and German and European his-
tory experienced a turning point, the essential elements of electric power technology and electronic communications were known, were well under development, and had found wide application. Electrical energy turned out to be the least expensive and most versatile and efficient form of energy. New areas for the use of electrical energy were opening almost daily during the first decades of the twentieth century. Among the different forms of energy, electrical energy had gained the leading position because it was easy to transport in large quantities and over long distances and could be converted conveniently and efficiently into other forms of energy. In the field of power technology, all kinds of machines were known and being used in a variety of specialized applications. The demand for electrical energy had enormously increased since the introduction of the incandescent light and the growth in the demand for electrical motors. After the turn of the century, a particularly intensive development was initiated by the use of individual electrical motors in industry, above all in mining and in heavy industry. The ratings of the electric power stations continually increased. After the turn of the century the process of linking individual power stations into power grids began. Within a decade the power of the electrical machines increased from less than 100 horsepower at the beginning of the 1880s to 1,000 horsepower and to more than 5,000 kilowatts after the turn of the century. In this way even before World War I the electrical industry had outgrown its initial role in the production of machines providing mechanical energy without exhaust gases or refuse, in the production of equipment for lighting, and in communications. Developing equipment and devices to control and regulate industrial processes and sequences by means of electricity, the industry had developed into an indispensable supplier of an ever increasing variety and quantity of equipment for other industrial branches. The Siemens companies substantially contributed to this growth of electrical technology and of the German electrical industry. The work of Werner von Siemens as an inventor and as a businessman was bearing great fruit.