## Technological Change, Competitive Advantage, and Corporate Response in the 20th Century European Shipping Industry: The Case of the Ahlers Shipping Company, 1960-1980

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The role of shipping in the economic, industrial, and political development of European nations is often overlooked in contemporary business and management studies. As Tracy [1990, 1991] points out, the public and private management of shipping businesses and industries shaped the course of a wide variety of commercial activities in Europe and across the globe. In many instances, European shipping companies were managed on behalf of mercantile states instead of shareholder or stakeholder interests well into the nineteenth century. But as the late nineteenth century unfolded, the introduction of professional management, cost-saving technologies, and competitive strategies became more important for shipping companies and emerging industrial powers such as Japan, the United States, and Germany which moved to challenge the power of the British merchant fleets. In this respect, Yui and Nakagawa [1985] are correct in pointing out that the period from the 1900s to the pre-World War II period of the 20th century marks a turning point in the roles that comparative advantage and competitive strategy began to play in the management of European shipping companies.

As Alan W. Cafruny [1987] correctly states, the post-war period marked the beginning of a new phase in the structure of European and global shipping regimes and the conduct and performance of shipping firms. During this period, European shipping companies were openly challenged in their lucrative markets as their cartelistic conference system came under attack by the United States and Japan. To a large extent, changes in the maritime sector were the result of technological innovation and changing competitive strategies as governments and shipping companies rapidly moved to take advantage of unprecedented postwar economic growth and industrial expansion.

According to Scholl [1985] and others, the transformation of the European and global shipping industries in the 20th century was the direct result of changing patterns of trade, technological change, and the shifting patterns of comparative and competitive advantage on the part of German, British, U.S., and Japanese shipping companies. In this respect, the manage-

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ment of technological change was required to gain successful competitive advantage by European shipping companies such as Ahlers N.V. in Antwerp, Belgium. Therefore, technological change and innovation in shipping strategies can be viewed as historical and strategic processes.

In the case of the Ahlers Company, the most important factors in its corporate evolution since its creation at the turn of the 20th century was its historical connection to the Northern German Hansa, and its precarious position as a German company operating in Antwerp during two world wars.<sup>1</sup> Due to its historic links to the Northern German shipping Hansa, the Ahlers Company faced many commercial and political challenges to its strategic position in the European shipping industry. As a consequence of its position in the strategic port city of Antwerp, the Ahlers company held competitive advantage relative to other companies due to its location in the Benelux region which has been known throughout history for its role in trans-European and international trade, finance, and sea transport. Moreover, the Ahlers company continued its tradition as a niche shipping market firm, which meant that management had to avoid direct competition with the larger European companies. Consequently, rapid identification of technological trends and structural changes in the European and global shipping industry, as well as new sources of competitive threats and opportunities, were required to ensure the viability of the company.

### Post-WWII Resurrection and Transformation of Ahlers N.V.

Within this context, Herwig Ahlers and his future son in-law and heir apparent, Andre Leysen, faced conflicting business and market interests as the United States pushed for the liberalization and privatization of national and global shipping industries in the postwar period. At the same time, European governments and shipping companies were also faced with the demands of regional market integration, postwar reconstruction, and the protection of national shipping industries and conference arrangements from increasing competition by newly independent countries in Asia and Africa.

In response to these business challenges, Herwig Ahlers increasingly relied on his Flemish son-in-law, Andre Leysen, for the introduction of new management techniques and technologies to transform the Ahlers company into a world-class shipping company. In many ways the appointment of Andre Leysen as the future CEO of Ahlers was in and of itself a strategic decision. As the first Flemish executive in the Ahlers company, and as the son-in-law of Herwig Ahlers, Andre Leysen was the best combination of German and Flemish culture and management style.

<sup>&</sup>lt;sup>1</sup> According to Lax [1969], the decision to create an Antwerp base for the Northern German Hansa was taken by Oltmann Ahlers in 1909. Through this office of Selb & Huverstuhl, the Antwerp based Ahlers office would service world class German and British companies such as Norddeutscher Lloyd of Germany and J.H. Wackerbarth & Co, Ltd. of London.

Born in 1927, Andre Leysen had a dramatic but formative childhood during the interwar and World War II period. As the son of a Flemish merchant family in Antwerp, Leysen learned from his parents that subjugation under the Walloon (French speaking) community was neither necessary or desirable. On the contrary, leadership in personal and professional affairs required a clear vision of the future to determine where one was to end up in the new, radically changed post-war world.

Influenced by the strong Flemish movement which advocated cooperation and collaboration with the increasingly assertive German Reich, Andre Leysen was educated in a pro-German environment, which led to his participation in the Hitler Youth [Leysen, 1995, pp. 11, 154, 248-262]. After the war, Andre Leysen demonstrated a strong talent for reflection, pragmatism, and vision, which in part was the result of escaping the death penalty for wartime collaborators in both the Walloon and Flemish communities in Belgium. Instead, Andre Leysen developed a strong belief in social solidarity with those different from himself, and an acceptance of the need to recreate himself within the Flemish community and Belgium. This response was in direct contradiction to the actions of his parents who spent the war with Baroness von Urach in Bavaria, and were later broken by the hostility and social shunning that occurred when they returned to Belgium after the war.

Perhaps it was his affinity for German culture and business practice, or his flexible and resilient mind, that made him an attractive son-in-law and future heir of the Ahlers fortune. But it is without question that Herwig Ahlers recognized the strategic and visionary mind that would be needed to preserve this German shipping company in postwar Belgium. During this period rapidly changing political economy of the European and global shipping industry required cultural and managerial flexibility. In this respect, the development of Flemish/German leadership for the company presented a pragmatic option for Herwig Ahlers who, in the tradition of many past and present German corporate leaders, looked for family or close acquaintances to carry on the family business. Moreover, this desire and requirement on the part of Herwig Ahlers was in direct response to the changing regulatory and competitive structure of the European shipping companies as they faced new competitive threats in the Americas, Asia, and developing countries in the 1960s and 70s.

Shortly after the death of Herwig Ahlers in 1963, Andre Leysen became the CEO of the Ahlers Shipping Company. Subsequently, the company moved into its current premises on June 20, 1970. In response to the changing trends and business environment that faced this Antwerp-based German/Belgian shipping company, Andre Leysen moved to rapidly reposition the Ahlers Company as a modern world-class firm that embraced technological innovation and professional management strategy. Throughout the 1960s, the Ahlers company expanded its business activities to include the development of complementary transport businesses. As a result of these trends, Andre Leysen was faced with a situation in which the competitiveness of the Ahlers company depended on increased investment in specialized cargo management equipment and world-class ships [Sager and Panting, 1990, p. 54].

By 1962, Ahlers' management decided to reposition the company as a ship-owning enterprise, and subsequently purchased two "ice class" ships for its Northern European and Baltic business lines. The ships were named the "Helmi" and the "Hilkka" and were launched into service in January 1963. During this period, Ahlers management started a liner service to Russia with another ship, called the "Hella." By 1964, a liner service to Sweden was added to complete the Northern European and Baltic shipping business of the Ahlers company.

By the late 1960s, Andre Leysen had also built a fleet of reefer ships and bulk carriers in cooperation with Ernst Russ and F. Laeisz. While this was a strategic alliance, the Ahlers Company managed the fleet of ships. Eventually, the Ahlers Company fleet grew to approximately 30 ships. However, the rapid expansion of ships, and increasing investment in the technological innovation of the Port of Antwerp and cargo management systems resulted in the need for increased capital investment and strategic alliances within and outside of Europe.

# Technological Innovation in Cargo Handling: The Post-War Advantage for the Ahlers Company

As the postwar period advanced, rapid industrial and economic growth increased the demand for shipping of goods and raw materials across the globe. In response to this favorable market trend, containerization became a source of technological innovation and competitiveness for the Ahlers Shipping Company. After its introduction in 1956 by Malcolm McLean in the United States, the process of moving cargo with integrated truck and ship carriages saved time and money for world-class shipping companies.<sup>2</sup> Through this innovation in cargo handling and storage, an integrated transport system was created, which connected previously discrete rail, surface, and sea transport equipment.

Through the adoption of this technique [Suykens and Coppieters, 1967, p. 207], cargo management and intermodal transport systems were combined and offered the following technological advantages:

- reduced risk of cargo tampering;
- reduced need to constantly check the condition of cargo contents for damage;
- reduced risk of cargo damage;
- easy movement of cargo to and from ships to the intermodal transport system;

<sup>&</sup>lt;sup>2</sup> According to Kendall [1983], a few shipping companies began to store cargo in heavy steel boxes as early as 1911. As a result, goods could be transported through inter-city train routes. Occasionally, these goods could be shipped overseas in the same steel boxes. However, separate transfer and management functions were still required by the shipper since this was not yet common mode of cargo transport. By the end of World War II, the practice of storing goods in containers for shipping began to catch the attention of management in world-class shipping companies in Britain, Denmark, Belgium, the Netherlands, Germany, and France.

- reduction of ocean freight transport rates to reflect the lowered cost of port to port shipping since cargo handling was reduced;
- transfer of responsibility of cargo storage in containers to shippers;
- reduction in total transport time from warehouse to warehouse;
- port terminals increased efficiency and productivity due to the mechanization of container shipping and its integration with the intermodal transport sector.

By the late 1960s the management of container ships and intermodal transport of cargo became a major focus for the Ahlers Company under the leadership of Andre Leysen. At that time, the management of container cargo was viewed by Andre Leysen as part of a larger system of mechanization and automation in the European and global transport sector. According to Suykens and Coppieters [1967], as the containerization trend advanced, the shipping time and turnaround times at ports rapidly decreased as world trade and demand for shipping services increased. Unfortunately, the increased speed of ships was not yet balanced by technological innovation in cargo handling by the shipping companies or the ports. Instead, the following forces faced Ahlers and other European shipping companies during that time:

- liner ships were spending more time in ports than at sea;
- in the advanced industrial countries more than half of the freight revenues were lost due to expensive cargo handling and port charges;
- in comparison to the rapidly changing production and manufacturing technologies, cargo handling was antiquated and at a very low level of technological development which made planning impossible, and finally;
- with the exception of bulk cargo, ships and ports still lacked the specializations needed to take advantage of economies of scale in the expanding trade of goods during the postwar period.

Eventually, containerization grew and became an important feature of U.S./European shipping company strategy. But more important, this technological innovation spread throughout the global shipping industry and required a strategic response by ports and shipping companies. As a result, Ahlers management and the Port of Antwerp authorities acknowledged the threat of increasing competition from container ships in faraway and developing countries and markets such as Australia, Japan, West Africa, South Africa, the Mediterranean, Central and South America, as well as Scandinavia, and the Arctic regions of Siberia and Alaska. In response to the introduction and diffusion of containerization from America to Europe in the postwar period, the strategic position and management practices of Ahlers changed significantly.

In many ways, Andre Leysen exhibited a strong sense of corporate social responsibility, which was reflected in his continuous cooperation with Mr. Ferdinand Suykens, who at that time was a leading government official at the Port of Antwerp. Together, Andre Leysen, with the support and loyalty of Hugo Coppieters, worked to position Ahlers as an innovative and responsive family-owned shipping company. As a result, the rapid growth of cargo traffic and competition in the European and global shipping industry that resulted

from the containerization "revolution" were embraced as opportunities for corporate change, and cooperation for the development of the Port of Antwerp to manage the following impacts on the shipping business:

- large-scale investment by port authorities, shipping lines, and cargo handling companies;
- stronger and more professional techniques of operations management;
- the use of modern management strategies for the business and transport service delivery;
- improved methods of documentation; and
- the integration and coordination of shipping, intermodal transport, and cargo handling.

According to Hugo Coppieters, [interview, August 1996] the second in command to Andre Leysen during the 1960s and 70s, many leaders in the Belgian shipping industry resisted the trend to containerization. At that time, many Belgian shipping executives laughed at this American innovation as an improbable method for the cargo management and intermodal transport. However, in direct contrast to his contemporaries in the Belgian shipping industry, Andre Leysen viewed this technological trend in the American shipping industry as a potential threat and opportunity for the competiveness of the Ahlers company.

As if the confiscation of the Ahlers Company by the Belgian government in 1945 were not enough, many of Andre Leysen's efforts to rebuild and position the Ahlers Company for the rapidly changing global shipping industry were viewed askance by his contemporaries, who refused to admit him to highlevel meetings. However, the period spent as a young man in prison, and later in a re-education program, prepared Andre Leysen for independent thought and action in the midst of conventional thinking and management practice. Instead, Andre Leysen sent Hugo Coppieters, his Managing Director, to represent the Ahlers Company at these meetings, and to investigate the exact nature and potential impact of containerization on the competitiveness of American shipping companies.

More importantly, however, Andre Leysen was interested in this transport technology revolution with a view to increasing the competitive position of the Ahlers Company in the rapidly changing shipping industry. Andre Leysen accepted the fact that very long and detailed economic and technical analyses were no longer useful for European shipping companies such as Ahlers. Instead, the acceptance, in moderation, of the American approach to technological innovation and trial-and-error by management was now, in his view, the only way forward, given the dramatic growth and change in the regional and global shipping industry.

While many European countries resisted the attempts of the United States and its allies to shift the balance of market power in favor of their merchant shipping fleets, it was clear to Andre Leysen that time waits for no one, and that to hesitate in the face of the changing global system would mean the demise of the Ahlers Company. Therefore, embracing change through

technological innovation became a trademark of Andre Leysen's long and successful career as the CEO of the Ahlers Company.

# Transformation of the Port of Antwerp Through Public/Private Partnership with Ahlers N.V.

By the 1950s, when containerization was introduced as a permanent component of American shipping strategy, it became evident that existing port infrastructure was unable to meet the growing volume of cargo or the growing size of ships. In contrast, ship owners historically spent large amounts of money on ships that were a fraction of the investment in port facilities. Likewise, the life of a ship was increasingly shortened during this period due to the increasing rate of technological change. Therefore, it became increasingly clear to shipping companies such as Ahlers that globalization, regional integration, and technological innovation in the industry required joint planning with the Antwerp port authorities to ensure the proper design and support of the new ships that were being commissioned as part of corporate strategy. Moreover, this partnership between the Port of Antwerp and Ahlers' management was necessary to build corporate competitiveness as the company entered into strategic alliances with European and foreign partners in the postwar period.

As the postwar period unfolded, port infrastructure and technological innovation of port facilities became a major factor in the regional and global competitiveness of shipping companies. However, the increasing rate and cost of technological change in the postwar shipping environment required partnerships between government port authorities and the management of shipping companies. Moreover, port authorities faced the challenge of meeting the needs of technological change for themselves and their corporate customers through long-term investment in shipping technology and support services.

As the containerization and intermodal transport revolutions accelerated and diffused across national and regional shipping industries, efforts were made to avoid the risks associated with incompatible ships and port facilities. In this regard, the long-term relationship between Andre Leysen and Ferdinand Suykens of the Port of Antwerp would prove to be a strategic alliance which supported the regional and global competitivenesss of the port and the Ahlers Company. Moreover, this trend would also become important as the Ahlers Company moved to expand its fleet of ships, and extend its range of transport services throughout the postwar period.

In response to the challenges of global competition and technological change in the postwar period, Andre Leysen rapidly moved the company forward to embrace these new technologies in cargo handling and port management. This included participation through the purchase of shares in the Scheldt Towing Company (STB), an inland storage and distribution company, and Rhenus Antverpia, which was purchased as a joint venture with the Stinnes Shipping Company based in Mulheim, Germany. According to Hugo Coppieters, a senior management executive in the Ahlers Company during this period, the draft of the Scheldt River in Antwerp was restricted to 34 meters.

During the 1950s this was not a problem since the largest ship to dock at the port of Antwerp in 1950 had a DWT of 17,400 tons. This was not a problem in the prewar period when the size of Belgian merchant fleet was smaller. However, the exploding demand for increased shipping services and cargo movement in the post-war period presented problems for the Belgian port authorities.

Over the next four decades, the load of ships docked in the port of Antwerp would reach approximately 278,000 DWT. For example, in 1950, the Port of Antwerp handled approximately 21 million tons of cargo. By 1960, the amount of cargo that passed through the port of Antwerp was approximately 37 million tons. This figure more than doubled to approximately 80 million tons by 1970 which illustrates the increased volume and business opportunity for the Ahlers Company. However, the rapid growth of inland cargo transport represented a business challenge and strategic opportunity for Ahlers' management. Therefore, the decision was taken to expand into inland shipping services in the Port of Antwerp.

In response to the changing volume of European and global shipping, the Belgian government commissioned the construction of the Boudewijn lock in 1955. A few years later, the Port of Antwerp authorities launched an extensive 10-year plan to increase port capacity and landside space and, in cooperation with Ahlers management, to innovate the port and increase shipping services. During this period, the Zandliet lock was constructed and opened in 1967, while a Scheldt river dredging program was implemented to increase the maximum draft factor to 42 meters in 1973. At the same time, the Rotterdam-Antwerp crude oil pipeline was opened and eventually resulted in the shift of large crude tanker ships to the Port of Amsterdam. As a result, the Port of Antwerp lost a considerable portion of the large crude tanker business to Amsterdam. Nevertheless, the port expanded on the left bank of the Scheldt River through the opening of the Kallo Dock, and this would later result in the increase of the shipping tonnage to over 100 million tons per year in the 1990s.

### Conclusion

By 1975, Andre Leysen transferred the day-to-day management of the company to J. Saverys, K.D. Ahlers, and P. Claerhout with the support of Hugo Coppieters, who faithfully served as the Managing Director. In 1984, Christian Leysen, the son of Andre Leysen emerged as the heir apparent in Ahlers N.V. As the 1980s progressed, the strategic alliance between Ahlers and Stinnes proved to be successful. However, strategic thinking and vision prompted Christian Leysen, the son of Andre Leysen, and heir to the Ahlers Shipping Company and family holdings, to view competitiveness from a new corporate perspective. Consequently, the decision was made to buy back the family shares from Stinnes, and thereby return Ahlers N.V. to family ownership and management control.

As the 1980s progressed, management succession was viewed as necessary strategy within the Ahlers Company. As his predecessors had done before him, the decision was made to select a member of the family with

demonstrated management and leadership capability. But more importantly, a new generation of shipping executives was needed to address the changing environment that faced the European shipping industry as the conference system began to erode under increasing pressure for market liberalization. As regional integration accelerated in Europe as well as the Americas and Asia by the end of the 1980s, Ahlers N.V. moved to expand its position within the Benelux, and opened offices in Russia and the Baltic States, as well as China. In this respect, Christian Leysen, with his training in engineering and finance, work experience in the Far East, and openness to multiculturalism, is in a good position to carry out the tradition of technological innovation and proactive competitive strategy in what is now a world-class Flemish shipping company in the Port of Antwerp.

In conclusion, the ability of the Ahlers shipping company to respond to technological change and shifting patterns of competitive advantage was in large part due to the visionary leadership of Andre Leysen. While accepting the historical position of the Ahlers Company in Antwerp, over time the need to find new niche market strategies provided an opportunity for Andre Leysen to embrace the technological, economic, and political changes that were transforming European and global shipping companies. In response to these strategic market forces, Andre Leysen, his close colleague Hugo Coppieters, and Ferdinand Suykens, a senior official in the Port Authority of Antwerp, developed a progressive partnership for the Ahlers shipping company and the Port of Antwerp. As a consequence of this public/private partnership, Ahlers N.V. and the Port of Antwerp were able to compete effectively in rapidly changing European and global shipping markets. At the same time, Andre Leysen, as the first Flemish CEO of the Ahlers Company, was able to introduce a new element in the company's Northern German corporate management style and strategic positioning as a Belgian/German company.

Through his unique participant and observer positions in the Belgian and German business cultures, Andre Leysen developed independent thought and innovative management strategies. As a result, he was able to accept and rapidly respond to globalization and technological change in a manner that strengthened the competitiveness and viability of the Ahlers company during the turbulent postwar period. This view of Andre Leysen's leadership of the Ahlers Company during the postwar period is also confirmed by his strong emphasis on training, technical innovation, and openness to new ideas from other management and shipping strategies inside and outside of Europe. When viewed in this context, it is clear that Ahlers N.V. was fortunate to have strong Flemish/Belgian management and a leader who was able to overcome the problems of the postwar period by looking forward to the company's future.

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