Changing Games.

Leader firms in the Dutch shipbuilding industry after 1983: The case of Royal IHC and the Damen Shipyards Group.

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Summary and methodology:

After the collapse of Rijn-Schelde-Verolme, the largest shipyard in The Netherlands in 1983, the activities and expansion of both IHC (Internationale Handels Combinatie, est. 1944) and the Damen Shipyards Group (est. 1927) did not attract a lot of attention in the Dutch media. After 1983, being the years of overall felt crisis within the Dutch shipbuilding industry, dredging vessel specialist IHC expanded by opening a brand new shipyard in the small municipality of Kinderdijk in 1984. Three years later, while the remaining former RSV-shipyards were still competing heavily amongst each other for precious new building orders, the Damen Shipyards Group more than doubled its production facilities at the existing shipyard in Hardinxveld-Giessendam. Moreover, from 1983 onwards, the Damen Shipyards Group had incorporated various existing construction- and repair shipyards, both within the Netherlands and abroad, thereby laying the foundations for a worldwide shipbuilding conglomerate a few decades later.

In 2012, both shipbuilders accounted for 60% of the turnover generated by the overall Dutch shipbuilding industry, rendering them the largest shipyards within the sector for that year. In the meantime, the sector had transformed itself into a cluster, an interconnected network of leader firms and supplying companies, each specializing in their own fields and adding to the international competitiveness of the entire industry. However, the strategies of IHC and Damen varied to a large degree. This paper presents a comparative analysis of both strategies embedded in the Dutch and global developments that created the playing field for a shipbuilding industry trying to re-invent itself.

This paper is an adaptation of the second chapter of the dissertation for the project "The history of the Dutch shipbuilding industry after 1983", supplemented with parts of planned separate chapters on Royal IHC and the Damen Shipyards group based on primary and secondary sources. Whereas it has been impossible to prevent the use information from non-peer reviewed commemorative books commissioned by the shipyards themselves, information will be verified by interviews with key actors and research in company archives later this year.

Introduction

The insolvency of the Rijn-Schelde-Verolme shipyard declared by the Rotterdam Court of Law on the 9th of February 1983 marked the beginning of the most troublesome period in the recent history of the Dutch shipbuilding industry. From that moment onwards more than thirty individual subsidiaries that had been incorporated into the RSV conglomerate faced years of uncertainty. The companies that were not liquidated immediately, had to rethink and regroup themselves in the long search for a viable re-launch, whether or not in cooperation with old or new partners within the industry. The degree of success varied; some shipyards were closed almost immediately, some prolonged their productivity for another couple of decades, others managed for just a few years.[1] For instance, the Nederlandse Scheepsbouw Maatschappij (NSM) in Amsterdam closed its gates definitively in 1984, leaving its terrain to be occupied by wanderers, squatters, and vagabonds in the next decades. [2] With the NSM, the newly built shipbuilding industry left the Amsterdam area, only to be revived by super yacht builders Feadships' Royal Van Lent in 2019.[3] Compared to the NSM more luck fell upon former RSV member Koninklijke Maatschappij De Schelde (KMS) in Vlissingen, which remained in operation until 2000, when in was incorporated into the Damen Shipyards Group.

In the years after 1983 the companies that had been a part of RSV were a worrisome group for the Dutch shipbuilding sector. Confronted with the uncertainty of independency without government support amid a global shipbuilding crisis, the old-established shipyards pushed the scenario of the permanent loss of clientele, know-how and relevancy in the maritime world for the entire Dutch shipbuilding industry in case of bankruptcy. At the same time, every individual shipyard was aware of the industrial overcapacity and employee overspill, creating major overhead costs for the entire sector. Understandably, no individual shipyard was prepared to cut into its own flesh to save the others. In short, the future of the Dutch shipbuilding industry seemed questionable at best in 1983. Nonetheless, it would be wrong to assume that the uncertain situation during the 1980s of the now independent members of the disintegrated RSV family were representative for the industry in its entirety. Undeniably the industry collectively suffered from the withdrawal of financial government support after 1983. However, sources indicate that the situation might not have been as dire as was perceived. For instance, just a year before the 1983 crisis shipyard Van der Giessen-De Noord had commissioned Europe's largest indoor berth (250 x 64 x 45m.) in Krimpen aan den IJssel, which in the future would prove its profitability and convenience to dredging vessel specialist Royal IHC until present day.[4] Moreover, Royal IHC's predecessor, IHC Holland opened a brand new shipyard on the 26th of May 1983 in Sliedrecht, just a few months after the RSV shutdown, proclaiming it's trust in the profitability of shipbuilding for the near future.[5] Another relatively small company in 1983, the Damen Shipyards Group, owned three locations in The Netherlands that were involved in building a limited portfolio of small vessels, predominantly small tugboats and patrol vessels. In the decades after 1983, the

[1] "Het Cebosine-jaarboek 1983", in: *Schip en Werf. Tijdschrift voor maritieme techniek,* no.17 (1984) 276.
[2] www.ndsm.nl (07-06-2022).
[3] www.jachtbouwactueel.nl/koningin-maxima-opent-royal-van-lent-in-amsterdam/ (07-06-2022).
[4] H.J.G.W. Leerink, *Maritiem profiel. Voorsprong door specialisatie* (Amsterdam, Cramwinkel, 1991) 128.
[5] "IHC Sliedrecht" in: *Schip en Werf. Tijdschrift voor maritieme techniek,* no. 15 (1983) 194; J. Korteweg, *70 jaar IHC Merwede* (Arnhem, Boekschap 2014) 187.

Damen Shipyards Group managed to gain a leading position within the Dutch shipbuilding industry, and was even able to incorporate some of the old-established shipyards, such as De Schelde at Vlissingen and Wilton-Fijenoord at Schiedam.[6] In 2010, both Royal IHC and the Damen Shipyards Group accounted for 60% of the turnover generated by the overall Dutch shipbuilding sector, rendering them the largest shipyards within the sector for that year.[7] What strategies were responsible for this growth? How did Royal IHC and the Damen Shipyards Group evolve from relatively small participant in 1983, to the largest Dutch shipbuilding companies in 2000 and onwards?

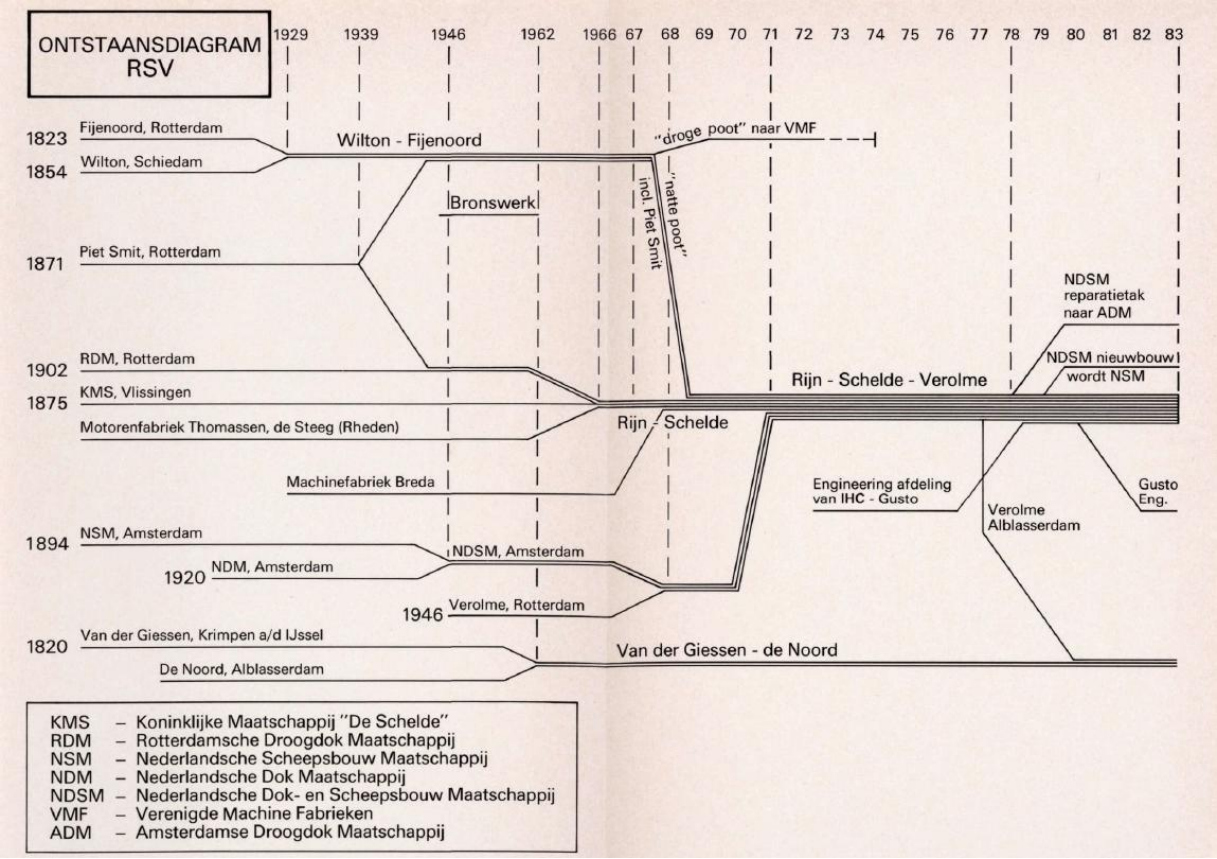

Image 1: The RSV- family tree. Source: Tweede Kamer der Staaten-Generaal, *RSV. Opkomst en ondergang van Rijn-Schelde-Verolme. Verslag van de Parlementaire Enquêtecommissie RSV (1983-1984)* (Tweede Kamer, vergaderjaar 1984-1985, 17817, nr.16) 601.

In this paper the economic and political circumstances relevant to the Dutch shipbuilding industry in 1983 will be outlined, to provide insight in what exactly the starting conditions were from which the industry had to reposition itself. An inventory of circumstances relevant for the industry will demonstrate the means and instruments the industry had to its disposal in its attempts to face the presented challenges in the aftermath of the RSV debacle. Within the context of an industry fighting decline, it will be explained how new players such as the

[6] See appendix 2.
[7] A.A. Oosting, "De maritieme cluster is klein maar fijn want ijzersterk in export", in: *SWZ Maritime* no.10 (oktober 2012) 5.

Damen Shipyards Group and Royal IHC were able to strengthen and consolidate their positions as leader firms.

The Damen Shipyards Group: a brief history

The 23rd of April 2017 marked the 90th anniversary of the Damen Shipyards Group, its headquarter located in Gorinchem within the Dutch Rhine/Waal river delta. During the celebrations, the story of the company's origin was commemorated regularly. With a touch of nostalgia the first building project by the brothers Jan and Marinus Damen in 1927 was proudly placed in retrospective lineage with the modern company, which in 2017 was by far the largest shipbuilding company in the Netherlands.[8] Whereas the Damen brothers started the shipyard by building small sized inland going vessels, in ninety years the company had grown into a global family owned conglomerate, incorporating 36 new build- and repair yards located amongst others in Romania, China, Vietnam and South-Africa. In the same year, the group acquired a large shipyard in Mangalia, Romania as a new member, after which the total number of employees would amount to a total of 12000, all together responsible for the production of 165 new build vessels and 1300 ship maintenance and repair projects in 2017.[9] The significance of the Damen Shipyards Group for the Dutch shipbuilding industry in 2017 is reflected the turnover figure for that year of € 2 billion, comprising nearly 29% of the total € 6,9 billion the overall Dutch maritime technology sector had generated.[10]

Before 1927, the founding Damen brothers tried to provide for their mother and sisters in compensating for the lost income of their recently diseased father by repairing bikes, providing for chores and refitting small boats in the municipality which for its economy depended heavily on the nearby Merwede River.[11] After building a boat from scratch for a local costumer, they decided to professionalize their free time trade by erecting a shipyard. Two years later, the financial crisis hit, immediately forcing the brothers to innovate. A second hand bought T-Fords saved the shipyard; the bodywork was sold as a henhouse; the engine was installed in a small provision carrier vessel. Traditionally, for the shipowners living with their families on inlands going ships, the Merwede River was a point of buying provisions from floating grocery boats known as *parlevinkers*, a trade performed from rowing boats at that time. The secondhand T-Ford engine motorized this profession. After the crisis, the Damen brothers received 22 more orders for motorized *parlevinkers*, which added to their knowledge on boatbuilding. After all, to save time and money, shipowners did not slow down during buying supplies, so the motorized *parlevinkers* needed to be fast and agile.[12] The company itself underscores how customer feedback has been crucial in this process.[13] Knowledge on fastness and agility in boats became a trademark for the Damen brothers, attracting the attention from the government services who, in the South-Holland river delta area, all had maritime divisions. After the low production years of the Second World War,

[8] https://archive.damen.com/en/news/2017/04/90_years_for_damen (07-06-2022).
[9] See appendix 1.
[10] Damen Shipyards Group, *Sustainability Report 2017* (Gorinchem 2018) 2-3. Netherlands Maritime Technology, *Sectorjaarverslag 2017* (Rotterdam 2018) 8.
[11] https://archive.damen.com/en/news/2017/04/90_years_for_damen (07-06-2022).
[12] D. De Jong, *Scheepswerf Damen 75 jaar (*Hardinxveld-Giessendam 2002) 17-18.
[13] Damen Shipyards Group, *Damen Year Book 5* (Gorinchem 2017) 69.

government services such as the police, firefighters, coast guards and rescue patrol services increasingly approached the Damen Shipyard for their products. This clientele would provide for a regular flow of shipbuilding orders in the decades to come; at the end of the 1960's, the Damen shipyard employed forty-three people divided over two production locations. Until today, patrol vessels are regularly sold to various Dutch maritime and international government services and constitute a significant part of the shipyards' product portfolio.[14]

As was not uncommon in the 1960s, the son of Jan Damen started working at his fathers' shipyard. Gradually, the young Kommer Damen developed innovative ideas of operating a modern shipyard. In his opinion, instead of building on client's orders, a lot of money and time could be saved by building ships hulls in stock. He proposed to reorganize production, but his ideas did not resonate with the rest of the family. After consideration, and with financial aid from his father, the company was split up. Accompanied by eight employees, Kommer Damen was given the opportunity to test his new corporate philosophies, which proved very successful in the years ahead.[15]

Several factors were important for the successful start-up of the new Damen shipyard. Firstly, Damen was able to secure a government client from the old company in the emergency and rescuing service K.N.Z.H.R.M.,[16] which during the years of start-up ordered a series of vessels. Rescue vessels operate under the hardest of weather conditions, so the demanded standard of quality was to be as high as possible. Damen was able to meet those standards, after which other government services were increasingly motivated to place their new built orders at the new Damen Shipyard.[17] Secondly, Damen developed a new port- and dredging aiding vessel, taking into consideration that Dutch dredgers received many order for port construction works in the Middle East in the early 1970s, only to be propelled after a surge of capital inflow after the oil crisis of 1973. In selling his products, from his early start Damen was aided by shipbroker Boogaard, who already assisted the Damen family for many years. By means of Boogaards' contacts with the dredging companies Damen was able to secure a loyal clientele operating in the Middle East.[18] Thirdly, Damen was able to make payment agreements with Caterpillar, the supplier of the boats engines, allowing him to postpone payments until after the moment of sale, avoiding unnecessary debts and interests.[19] In 1983, Caterpillar and Damen celebrated the delivery of one thousand engines since 1969.[20]

The idea of building hulls in stock proved to be an economizing concept. After placing an order, the client was given several –but limited- prefabricated options to adjust the ship to his own needs and wishes. Although not radically new –the United States had been building the Liberty- and Victory series at the end of World War Two in sections-, the idea was radically different from traditional ways of doing business in Dutch shipbuilding, where basically no ship was built twice.[21] Instead of a large amount of time spent on designing,

[14] www.damen.com/catalogue/defence-and-security (07-06-2022).
[15] Leerink, "Maritiem profiel", 118.
[16] *Koninklijke Noord- en Zuid-Hollandse Reddingmaatschappij*, i.e. Royal North- and South Holland Rescue Service. Presently *Koninklijke Nederlandse Reddingmaatschapij(KNRM)* i.e. Royal Dutch Rescue Service. De Jong, "Damen 75 jaar", 48.
[17] De Jong, "Damen 75 jaar". 45-46.
[18] Idem, 43-44.
[19] Idem, 41.
[20] "Duizend Cat's voor Damen" in: *Schip en Werf. Tijdschrift voor maritieme techniek,* no. 15 (1983) 192.
[21] J. Korteweg, *Nederlandse Scheepsbouw. Dynamiek in dertig gesprekken* (Arnhem, Boekschap 2015) 44.

drawing and troubleshooting, Damen prefabricated sections of his boats, which only needed to be assembled after the client placed its order. Building time was reduced from months to weeks, without additional costs for the client, giving Damen a large competitive advantage. Moreover, building in series allowed for product development and perfection, adding to the overall quality.[22] The new formula resulted in the interest of clients worldwide. In 1978 Damen sold around one hundred dredging aiding boats in the Middle East. In order to provide for after sales service and repair works, initially a team of technicians travelled to Bahrein regularly. In 1978, the shipyard opens a local service hub, Damen Bahrein. The formula of providing service for, and thereby binding clients results in a global expansion of service and repair yards globally in the next decades.[23] Furthermore, in the late 1970s revenues made enabled the shipyard to expand its portfolio to workboats and tugs, all produced according to the section building formula.[24]

During the crisis that hit the Dutch shipbuilding industry after 1983, Damen was not a significant force yet to be reckoned with compared to the large and long-standing RSV-shipyards. Predominantly focusing on small work boats and aiding vessels for the dredging industry, the crisis in the large seagoing shipbuilding industry went by Damen Shipyards relatively unnoticed.[25] Contradictory to the shipyards who were struggling to redefine their positions after the entanglement from the RSV conglomerate, Damen started a period of growth and expansion in the 1980s, leading to the incorporation of former RSV shipyards in the next decades such as Wilton-Fijenoord in Schiedam and De Schelde in Vlissingen. On the 1st of July 2017, the Verolme shipyard at Rozenburg was added to the company infrastructure, accomplishing the fact that every repair yard once part of RSV now was exploited by the Damen Shipyards Group. Moreover, the company's portfolio expanded from specialization in small workboats and tugs in the 1980s, into a generalized product offer from the 2000s and onwards, such as naval vessels, super yachts, offshore platform refits and high speed personnel carriers.[26] The companies' strategy evolved to be present in every niche shipbuilding has to offer, in order to shift production to one ship type when another market is low. Moreover, the shipyard developed an extensive portfolio in maritime financial services such as aftersales, leasing and insurances.[27] As a partner in various joint industry groups with maritime research institutions such as Delft Technical University and MARIN in Wageningen, the Damen Shipyards Group contributed significantly to new product development and innovation within the entire Dutch shipbuilding industry.[28] Furthermore, as a leading customer, the Damen Shipyards Group is an important contractor for a large amount of subcontractors, and a large and well-known client within the maritime supplying industry.

[22] Leerink, "Maritiem Profiel", 118.
[23] Damen Shipyards Group, *Damen Year Book no. 3* (Gorinchem 2015) 19.
[24] Damen, "Year Book 5", 75.
[25] Korteweg, "Nederlandse Scheepsbouw", 44.
[26] www.Damen.com/catalogue (07-06-2022).
[27] www.Damen.com/services/cuctomer-finanance (07-06-2022).
[28] www.damen.com/concept/research-and-development (07-06-2022).

Royal IHC: dredging and offshore specialist.

Royal IHC was founded in 1943 as Internationale Handels Coöperatie Holland (International Trade Cooperation Holland) by six individual shipyards focussing on the construction of dredging equipment as a specialisation amongst other building activities.[29] The primary objective was to face international competition together, and to distribute large building orders amongst the partners, each benefiting from each other's results in product development and research. During subsequent decades, the six shipyards developed a mutually enforcing marketing and shipbuilding strategy, thereby diversifying the product supply chain through innovation, often instigated by customer demands. In 1963, five of the shipyards merged, and added a specialisation in the design and production of offshore equipment to the curriculum, driven by a rapidly developing world economy. Although very successful in the early 1970s, the building of oil rigs got lost in the worldwide shipping and shipbuilding crisis of the late 1970s.[30] Knowledge on research and development however was retained and stored in a separately set up design and construction bureau, SBM Offshore, which still exists today.[31] After 1983, Royal IHC has increasingly positioned itself as a pivotal player within the cluster of dredging companies based in The Netherlands and Belgium, who together control 75 % of the global dredging market. The shipyard delivers dredging vessels and materials to the Dutch based Van Oord and Boskalis, and to DEME and Jan de Nul located in Belgium.[32]

Concomitantly, the core business of building dredging vessels was never lost out of sight. Propelled by three developments, IHC Holland decided to expand its scope in product placement after the global crisis of the 1980's. Firstly, increasing oil prices motivated the countries around the North Sea in the exploitation of the treasures into the seabed by developing new offshore activities, providing IHC Holland for the opportunity to implement the readily available knowledge into the development of new offshore aiding material such as pipe and cable layers and anchor handling vessels. Secondly, after the global marine crisis of the 1980s, the construction of regular freight carriers was largely abandoned, making the technically more advanced dredging and offshore supply vessels one of the primary focal points, highlighting the importance of the preservation of a technological competitive advantage on newcomers from the Far East in the industry. Lastly, from the 2000s and onwards, IHC Holland implemented offshore -and dredging knowledge spin-offs into other marine and civil construction industries, such as deep sea-mining and construction, pile-driving, and tunnelling, projects that increasingly proved their worth onshore as well as offshore. IHC Holland increasingly implemented a policy of independence from the supplying industry, and strategically incorporated supplying companies which possessed cutting edge

[29] Joke Korteweg provided for an extensive study on Royal IHC's business history until 2013 in: Joke Korteweg, *70 jaar IHC Merwede* (Arhem, Boekschap, 2014). Also very informative is the commemorative book: B. Kips, *IHC Sliedrecht 1983-2008. Van ons, voor ons, door ons* (Alblasserdam 2008).

[30] C. Nieuwendijk; "De sluiting van Gusto, een noodlottig samenspel", in: *Historisch Jaarboek Schiedam 2017* (Schiedam 2018) 5-29.

[31] https://www.sbmoffshore.com (07-06-2022).

[32] Korteweg, "70 jaar IHC", 297, 301. See: https://boskalis.com/ ; https://www.vanoord.com/ ; https://www.deme-group.com/ ; https://www.jandenul.com/nl (07-06-2022).

technology, and research and design facilities into its conglomerate. From 2002 onwards, this strategy resulted in a period of thirteen consecutive years of net profits.[33]

Shipbuilding in the 1980s: a Dutch, European, and global crisis

The forced unification of the Rijn-Schelde concern with Verolme Verenigde Scheepswerven into Rijn-Schelde-Verolme in 1971 had been an attempt to withstand the upcoming competition from the Far East. With hindsight, the RSV plan can be labeled as a form of crisis management itself, performed by a government who was afraid of mass job losses, high levels of long-term unemployment and the inevitable subsequent social unrest, a fear embodied in the riots on affordable housing at the coronation ceremony of queen Beatrix of Orange in Amsterdam in 1980. The deeply felt sense of economic crisis did not limit itself to the Dutch shipbuilding industry exclusively. In 1982, the year before RSV went into a state of solvency, one third of all large Dutch industrial enterprises had been rendering losses.[34] This partly explains the fear of the government in their reluctance to withhold state support to RSV in the years prior to 1983, for the possibilities of relocating large numbers of primarily "blue collar workers" was extremely limited. Still, in despite of large sums of support injected into the Dutch shipbuilding industry, between 1975-1983 the number of companies active in this sector employing ten persons or more declined from 300 to 260. Between 1975 and 1981, the total number of employees working in the industry declined from 50,000 to 35,000, a number that would have been higher without the governments' implemented industrial policy.[35] As table 1 shows, the predictions on the unemployment figures from the Ministry of Economic Affairs proved to be not far from the truth; during the hard years of crisis, the number of employees in Dutch shipbuilding and repair industry was decimated by a mere half, only to stabilize around 16.000 when recovery set in in 1989.

Year	Employees Dutch shipbuilding
1981	35,100
82	33,400
83	29,500
84	27,100
85	24,480
86	22,830
87	18,640
88	15,500
89	15,900
90	16,100

Table 1: employment numbers within the Dutch shipbuilding industry 1981-1990.
Source: *Cebosine jaarverslag* 1981-88 / *VNSI yearbook* 1989-90.

[33] Korteweg, "70 jaar IHC", 284.
[34] "Toekomst van het bedrijfsleven in de maritieme techniek" in: *Schip en Werf. Tijdschrift voor de maritieme techniek, no. 8* (1983) 98.
[35] Ibidem.

In 1977, it became clear by disappointing results from RSV that further action was required. Another national plan to revive the Dutch shipbuilding industry was presented in that year by the Beleidscommissie Scheepsbouw, comprising an extensive program for restructuring and reducing surplus capacity within the entire industry, both RSV-yards as well as individual shipyards.[36] As a result, the perceived as redundant offshore material building yard IHC-Gusto Schiedam in 1979 was closed down, an event that still resonates in local municipal history until present times.[37]

Although the restructuring program promised an optimistic future, it did not take the oil crisis after the Iranian revolution in 1979 into account.[38] The following war between Iran and Iraq, and the globally increasing oil prizes as a direct result presented another major setback for shipping and shipbuilding worldwide. High oil prices propelled high shipping tariffs, creating a surplus in global shipping cargo space, and subsequently plunging the world into a major economic crisis.[39] After the initial promising results because of the 1977 restructuring program, a strong decline in building orders showed itself in 1979-80. Some degree of recovery presented itself in 1980-1981 for the entire Dutch shipbuilding industry, but the recovery did not further materialize in 1982. [40] Within this context, RSV tried to remain in business, fully relying on government support in the same year. For this reason, in the beginning of 1982 Minister of Economic Affairs Van Aardenne ordered an independent inquiry into the longevity of the individual companies that were part of the dysfunctional RSV family.[41] Based on the inquiry's conclusions, Van Aardenne decided on the 9th of February in the next year to quit all financial support.

Historical studies and public media have since 1983 tried to identify guilt in the downfall of RSV, with various results.[42] Van Aardenne on his own terms sought the reasons for the downfall in international affairs, not only referring to the cutthroat competition from the Far east, but also the more recent global economic problems. Dutch shipbuilding in general, and the RSV problems especially, were inseparably entangled into global affairs.[43] Indeed, in the face of both Far East competition and recent economic crisis, the Dutch shipbuilding industry was not unique in its struggles to survive. Increasing freight prices due to expensive oil created a large surplus of shipping capacity after 1979 worldwide. Starting in early 1982, ship owners collectively decided to lay up ships. Accepting the overhead costs

[36] C. De Voogd, *De neergang van de scheepsbouw en andere industriële bedrijfstakken* (Vlissingen, De Ruiter, 1993) 90-95.
[37] A. Olthuijs; D. Carasso; "Wij waren de Gusto", in: *Historisch Jaarboek Schiedam 2017* (Schiedam 2018) 45-51. Korteweg, "70 jaar IHC", 192-194.
[38] J. Verhoog; J. Van der Hulst, *Luctor et Emergo. 125 jaar Koninklijke Schelde 1875-2000* (Noordwijk, Uitgeverij aan Zee, 2001) 86-87.
[39] "Toekomst van het bedrijfsleven in de maritieme techniek" in: *Schip en Werf. Tijdschrift voor de maritieme techniek, no. 8* (1983) 98.
[40] Ibidem.
[41] K.J. Saurwalt, "Tegenwind en slecht weer in de wereldscheepsbouw" in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 4 (1983) 41.
[42] De Voogd, "De neergang van de scheepsbouw", 100-109; I. Harms; J. Terlingen; "RSV onder de hamer", in: *Vrij Nederland* no. 11 (1984) 4-31; J. Harren; M. Van den Bos; *De RSV Show. De onthullingen van dag tot dag* (Zwolle, Tulp. 1984); Tweede Kamer der Staaten-Generaal, *RSV. Opkomst en ondergang van Rijn-Schelde-Verolme. Verslag van de Parlementaire Enquêtecommissie RSV (1983-1984)* (Tweede Kamer, vergaderjaar 1984-1985, 17817, nr.16).
[43] "Toekomst van het bedrijfsleven in de maritieme techniek" in: *Schip en Werf. Tijdschrift voor de maritieme techniek, no. 8* (1983) 98.

while ships were laying idle was a cheaper option then continuation of transporting products without any margins for profit. By the end of 1982, the amount of 403 tank carriers were laid up, being 20 % of the global carrier fleet. Additionally, 1146 dry bulk carriers were laid up, 7 % of the total global dry bulk carrier fleet.[44] Overall, 12 % of the seagoing global fleet was laid up, a number that would increase to 15% by the end of 1983, the equivalent of more than a one hundred million deadweight tons. [45] Additionally, not every ship owner was prepared to pay for the overhead costs of unused property being laid up. Some were forced to decommission their vessels, leading to a mere 6 % of the global commercial fleet to be demolished in the beginning of 1983. [46]

With those amounts of vessels being laid up and awaiting better times, there was no reason for ship owners to expand or renew their fleets with new built material. New built orders plummeted globally, leading to major crises in already over-capacitated shipbuilding industries worldwide. European shipbuilding countries all shared in the crisis; Swedish shipbuilding capacities had been reduced by 75 % since the middle of the 1970s. Nonetheless, further reductions were planned, and state support was still needed to prevent the closure of the remaining shipyards.[47] In Ireland, the once largest shipyard in the world Harland & Wolff received an amount of £ 7,000 in state support for each employee annually to remain in business.[48] German shipyards were also running out of orders at the beginning of 1983, it was calculated that current orders would provide work for only the nearest six months into the future. According to one commentator, the German shipyards were lagging in competition with the Far East for their proclivity to build highly (unnecessary) complicated technical vessels, difficult in operation, compared to the *narrensichere* ships that were easily deployable, and demanded no highly skilled maritime personnel.[49] Moreover, the Norwegian government had asked consultancy bureau McKinsey to assess their shipbuilding industry, only to be informed later that the most profitable way to act was to foreclose all new built shipyards and orient the industry fully on offshore activities.[50]

The crisis in shipbuilding did not confine itself to Europe. In Canada, mass layoffs had occurred in the industry at the beginning of 1983. The Canadian government did not pursue an industrial support policy resembling the European states. As a result, six thousand employees lost their jobs. The Canadian industry expected even more layoffs, while at the same time plans were made to let the shipbuilding industry bleed out in favor of fishing and offshore.[51] Meanwhile, the Far East competition also did not escape the crisis; despite the low labor costs on brand new shipyards, South Korea found itself in a price war with Japan, both

[44] K.J. Saurwalt, "Volhouden", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no.10 (1983) 123.
[45] J.N. Joustra, "Op goede wegen", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 15 (1983) 191.
[46] "Behoud en vooruitgang. Herstructurering en innovatie scheepvaart vragen vaste koers van de overheid", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no.1 (1983) 1.
[47] "Zweedse regeringsnota over toekomst van de scheepsbouw-industrie", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no.11(1983) 149.
[48] K.J. Saurwalt, "Gewoon doorgaan", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no.6 (1983) 69.
[49] K.J. Saurwalt, "Tegenwind en slecht weer in de wereldscheepsbouw", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 4 (1983) 42.
[50] "Sterke teruggang in de Noorse scheepsbouw" in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 12 (1984) 206.
[51] K.J. Saurwalt, "Tegenwind en slecht weer in de wereldscheepsbouw", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 4 (1983) 42.

producing ships below cost prize to prevent slipways and berths being empty.[52] It is highly remarkable that, notwithstanding the cutthroat competition between nations and shipyards globally, in which calculated profits were (if any) minimal at best, in China, Singapore, Chili and Thailand the capacity for new building and repair were increasing.[53] This, understandably, much to the despair of the European shipyards experiencing major crises already, the Dutch shipbuilders being no exception. European governments seemed to fail in reviving their moribund shipbuilding industries while the Far East competitors locked each other into a race to the bottom. The winner of this unhealthy competition was to find new adversaries that was able to compete with even lower prices. Within this global context, the Dutch shipbuilders were knocking off the dust from the RSV debacle.

IHC and Damen within an industry fighting decline

The development of Royal IHC and the Damen group in the context of Dutch declining shipbuilding 1983-2020 can be subdivided into four consecutive periods, each characterized by unique historical developments. Firstly, the timeframe 1983-1989 is characterized by a deep sense of crisis within the industry, followed by a sharp recovery starting in 1989. Royal IHC follows the overall pattern of crisis, Damen takes the opposite route. Subsequently, the years 1990-1999 set the stage for an increased internal restructuring, not in the least pressured by international economic and political developments. Thirdly, between 2000 and 2008, the by then largest Dutch shipbuilders in the industry, Damen Shipyards and Royal IHC consolidate their leading position within the industry. Lastly, after 2009, an already existing growing awareness on the impact of industry and the use of energy on ecology and environment finds a catalyst in the oil crisis of 2014, spurring a nationwide debate about ecologically responsible innovation, providing for opportunity for the development of new industrial activities

<u>1983-89:</u>

The relationship between the shipbuilding industry and the Dutch government became increasingly pressurized after 1983. Apart from generic industrial support settlements, the newly adopted neo-liberal economic doctrine proscribed that no individual company that was part of RSV could count on any government aid in their restructuring efforts. Adding to the nervousness was the soloistic character of the policy of the Dutch government within the European context. All over Europe, shipbuilders had been experiencing adversity in recent years, and had received various forms of support from their governments.[54] News coverage on continued state support in for instance adjacent Germany stirred anxiety amongst the Dutch members of the industry. In Germany, financial aid policy was decentralized, providing opportunity for the separate German estates to support local shipyards, steering away from

[52] K.J. Saurwalt, "Het spant ook in het buitenland", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 17 (1983) 221.
[53] K.J. Saurwalt, "Tegenwind en slecht weer in de wereldscheepsbouw", in: *Schip en Werf. Tijdschrift voor de maritieme techniek,* no. 4 (1983) 41-42.
[54] "Afbouw steunverlening scheepsbouw blijft een moeilijk proces", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no. 18 (1984) 307-308.

regulations on national support programs as was intended by the EEG.[55] This especially was feeding the concerns for the industry's international competitive position, because there were no reasons to assume that other EEG members would follow the Dutch example, resulting in an uneven European competitive playing field.[56] Worries were vented in industrial corporate magazines as well as in public media, adding to the overall damage done to the public image by the daily televised reports on the parliamentary inquiry into the RSV-debacle.

The Dutch shipbuilders felt strongly neglected, addressing the government to adjust support programs to at minimum provide for a European level playing field. In reality however, the proclaimed strict policies on government support showed more ambivalence then was presented to the public. For instance, both IHC and Van der Giessen-De Noord benefited from their own separate agreements on support.[57] Off course, both shipbuilders never had been a part of RSV, and therefor did not bear the stained inheritance that was publicly adjudicated. Next to Van der Giessen-De Noord and IHC, De Schelde enjoyed a *status aparte* in the eyes of the government. Following the German example, the Zeeland provincial Estates were allowed to participate as a stakeholder for 10% in De Schelde. The remaining 90% was procured by the national government, on strict conditions that the shipyard would search for and find a new owner within ten years.[58] To some degree the Dutch government, but primarily the estates of the province of Zeeland considered De Schelde as indispensable, not only for its expertise in the building of naval vessels, but also from fear for the expected devastating social effects in the case of closure and loss of employment opportunities.[59] De Schelde, just as Rotterdamse Droogdok Maatschappij (RDM) in Rotterdam and IHC-Gusto earlier in Schiedam, was the owner of large residential areas in the vicinity of the shipyard for the accommodation of its workers.[60] Bankruptcy would result in removing the very fabric of these communities. Moreover, during the RSV entanglement it became clear that De Schelde had been one of the most stable and profitable shipyards of the conglomerate. Not one cent of the governments millions had been directed towards De Schelde's building projects.[61] Additionally, De Schelde was considered to be of crucial importance for the Dutch government in the building of naval vessels, and thereby for the continuance of the independency of the Dutch Navy in the context of the Cold War. At the moment of RSV's bankruptcy, both the 11th and 12th vessels in a series of twelve standard frigates ordered by the Dutch Navy were being built on the berths in Vlissingen. To safeguard De Schelde's continuity in production, the Dutch government pushed the order of four more naval vessels forward.[62]

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[55] "Afbouw steunverlening scheepsbouw blijft een moeilijk proces", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no. 18 (1984) 307-308.

[56] "De scheepsnieuwbouw en de financiële steun door de overheid", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no. 6 (1984) 93.

[57] "Interimsteun voor zeescheepsnieuwbouw", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no. 12 (1984) 205.

[58] Scheldepoort vrij", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no.14 (1983) 179-180.

[59] Verhoog; Van der Hulst, "Luctor et Emergo", 125-131.

[60] G. Moeyes, Het hart van Vlissingen. N.V. Kononklijke Maatschappij 'De Schelde' " in: J. Ter Brugge; G. Moeyes; E. Spits (eds.); *Scheepsbouw in perspectief. Werven in Nederland circa 1870-2009* (Zutphen, Walburg pers, 2009) 19.

[61] "Scheldepoort vrij", in: S*chip en Werf. Tijdschrift voor de maritieme techniek,* no.14 (1983) 179.

[62] Verhoog; Van der Hulst, "Luctor et Emergo", 120-121. P.A. Luikenaar, "Marine opdrachten", in: *Schip en Werf. Tijdschrift voor maritieme techniek,* no 10 (1984) 157-158.

Contrary to the problems experienced by the old-established shipyards, the Damen Shipyards Group was expanding, and was in the 1980s building on new corporate strategies in sales and organization. In 1974, Damen's contacts in sales were secure enough to thank shipbroker Boogaard for his service and incorporate the shipbroking division into the groups' activities by erecting Damen Marine Services.[63] Additional services in after sales, ship leasing possibilities or sales return opportunities were incorporated in 1986 into Damen Trading, adding to the possibilities of clients in the use of Damen's increasing product portfolio. In 1987, Damen bought shipyard Bodewes at Millingen aan de Rijn and shipyard De Hoop Schiedam, both shipyards engaged in building inland and maritime industry aiding vessels. At the end of 1987, Damen expanded again by overtaking seagoing vessels repair yard Niehuys & Van den Berg in Rotterdam-Pernis, currently one of the most advanced ship repair and service hubs in the Rotterdam area. In the subsequent year the Amsterdam based Oranjewerf was also added to the Damen company, and internationalization of the shipyard set in in 1990, by procuring Antwerp Ship Repair and the Schlömerwerf in the German town Leer, the latter to gain from German credit insurance facilities.[64] In the following decades Damen would grow substantially, comprising of 36 shipyards and 22 additional companies worldwide in 2018, providing employment for 12,000 people.[65]

1990-1999:

After 1989 the effects of the oil crises watered down, and the global economy started to recuperate. Building orders for transport ships followed the growth in global trade. However, after the disintegration of the Sowjet Union and the Warschau-pact in 1989, the immediate threat of an international escalation of Cold War tensions decreased, resulting in a diminished urgency for the Dutch government to keep a large naval fleet operational. As a result, after 1990 the remaining naval vessel builders De Schelde Vlissingen and RDM Rotterdam were confronted with the consequences of postponed and cancelled naval orders, in an attempt to scale down the now too voluminous and expensive Dutch navy.[66] Moreover, both shipyards were taking severe blows from the collapse of public and political interest for nuclear energy after the reactor accident in Chernobyl in 1986. Both shipyards had invested heavily in production for the nuclear industry in the search for profitable land-based projects to gain more financial independency from the ever unpredictable and dangerous core business that shipbuilding proved to be in the 1980s. The collapse of the nuclear market initiated a process for De Schelde of returning to the core business of building ships and push off other activities that were long believed to supplement the shipyards revenues.[67]

In the case of De Schelde, a counterbalancing attempt to compensate for lost navy orders was sought after in and eventually found in commercial new build orders, the first one being a ferry for the provincial estates of Zeeland.[68] Unfortunately, De Schelde was not able to depart from the high technical standards necessary for the building of naval vessels, and

[63] De Jong, "Damen 75 jaar", 44.
[64] Leerink, "Maritiem profiel", 117. De Jong, "Damen 75 jaar", 66. For an overview of the acquisitions by the Damen Shipyards Group: see appendix 2.
[65] www.Damen.com (07-06-2022).
[66] Verhoog; Van der Hulst, "Luctor et Emergo", 120; 152-154.
[67] Idem, 137.
[68] Verhoog; Van der Hulst, "Luctor et Emergo", 215.

thus was not able to build commercial ships profitably. After an exhausting series of internal restructurings demanded by the provincial estates who formally still were De Schelde's owner, at the end of the millennium the Vlissingen shipyard was sold to the Damen group for the ceremonial sum of 1 guilder under the condition that the new owner would vitalize the shipyard, renaming the shipyard Damen Schelde Shipyards and still operational today. The decline in naval orders also hit Van der Giessen-De Noord substantially, who next to building ferries as a specialization, were largely dependent on navy orders for glass fiber enhanced polyester based mine sweepers and aiding vessels. Van der Giessen-De Noord was taken over by IHC in 1996.

After a short recovery in commercial shipbuilding orders in the early 1990s, a remarkable phenomenon presented itself. Strong international competition spurred improved technical ability and innovation in shipbuilding worldwide. In turn, this resulted in a declining market. Success resulted in misery, showing the strong anti-cyclical economic tendencies of the shipbuilding industry within the global economy. Ships growing in size were able to take on larger amounts of cargo. Technical improvements prolonged the lifespan of ships, reducing the need for ship owners to replace their vessels. Improvements in radar technology led to less collisions and other accidents on sea and in ports, reducing the need for repair works. Dredging vessels became bigger and more efficient. The implementation of bow thrusters reduced the need for tugboats. Fishing vessels became more efficient, and naval vessels – already a declining market- grew in offensive capabilities, onboard weaponry became more efficient. New anti-fouling paints on ships hulls reduced the need for regular maintenance.[69] Overall, the initial strong demand for cargo space spurred innovation and competition, again resulting in a declining global market for shipbuilders in the second half of the 1990s. This development hit the Dutch shipbuilding sector hard; at the end of the 1990s, all -except a small shipbuilding cluster in the Northern provinces- Dutch shipbuilders engaged in building general cargo ships had disappeared. Both Damen and IHC were able to evade that development, and, contrary to the cargo vessel builders, positioned themselves firmly into the niche markets in which they operated. Damens' strategy of taking over and restructuring necessitous shipyards allowed the company to add specific products, the shipyards building specialties such as fishing vessels, super yachts, dredging vessels, and in the case of De Schelde, naval vessels into its portfolio, all incorporating the yards into the already existing infrastructure of building in sections and standardized specifications. Royal IHC on the other hand developed a strategy of walking on two legs; the Sliedrecht shipyard was used for building standard cutter dredgers, providing for a regular flow of revenue. The Kinderdijk location specialized in high technological development and experimenting for increasingly challenging dredging projects, as well as land-based projects such as medical equipment and new transportation systems.

2000-2008:

In the 1990s and early 2000s, the increasing unification of the European Economic Area not only has had major consequences for labor market mobility, it also provided opportunity for the Damen group, who by an active expansion policy grew out to be the largest Dutch

[69] Leerink, "Maritiem profiel", 119.

shipbuilder. Besides Damen, IHC was also highly successful and growing in this timeframe. Contrary to shipyards policies for internal restructuring, thereby selling or closing subdivisions that were traditionally part of the shipyards constituency, in this timeframe IHC was increasingly incorporating supplying companies in-house. After 1989, shipyards like De Schelde and RDM denounced the practically traditional notion that shipyards needed to produce every part of a new build ship within the company, and started to shed of supplying subdivisions in a what has been framed by one of De Scheldes' employees as "a salami policy", referring to cutting slices from a shrinking sausage, privatizing subdivisions into individual companies and contracting them as subcontractors.[70] This allowed for cutting costs and minimizing financial risk on the one hand, and the acquisition of new costumers and product diversification for the now independent subdivisions on the other. In contrary, remarkably, IHC started to concentrate itself increasingly on inventing and selling products for land based construction projects, steering away from shipbuilding.[71] The motto for IHC in the 1990's would be "we aren't a shipyards, we possess a shipyard", underscoring its positioning in the high tech market as "the technology innovator".[72] So, IHC chose the complete opposite strategy in this timeframe, and implemented a strategy of concentric expansion, incorporating all relevant know-how in the production process. Not without merits, because annual profits were increasing. Interestingly, this strategy also differed widely from the strategy implemented by Damen Shipyards, which in this timeframe increasingly relied on section building, lean production and subcontracting. Both shipbuilders increasingly seemed able to shed of the traumas of the RSV debacle which had haunted the industry for such a long time. Meanwhile, the world economy suffered a severe blow from what came to be known as the 2008 *credit crunch*.

2009-2020:

Although the effects of the 2008 credit crunch were clearly noticeable globally, the Dutch shipbuilding industry as a sector lived through the economic crisis relatively well. During the years the world was recovering from this global financial crisis, other tensions build up internationally, resulting in a more direct threat for the Dutch shipbuilders. In the United States, due to oil prices increasing since the year 2000 and the decreasing availability of relatively easy to mine oil fields, investments were made in the development of technology for the mining of shale-oil. Hydro fracturing and horizontal drilling opened up the previously inaccessible oil reserves for the global market, resulting in an increase in oil production in the United States by 48% between 2008 and 2013.[73] In an attempt to out-compete the US, Saudi-Arabia responded by increasing their oil production.[74] Meantime, Libya, recovering from internal strife also increased its production by 25% in the second half of 2014.[75] Apart from the increases in crude oil production, the global market found itself disturbed by international

[70] Verhoog; Van der Hulst, "Luctor et Emergo", 169 e.v.
[71] Korteweg, "70 jaar IHC", 232.
[72] Idem, 259.
[73] https://www.weforum.org/agenda/2015/01/how-has-shale-oil-affected-the-global-oil-price (07-06-2022).
[74] https://www.imf.org/en/Publications/WP/Issues/2016/12/31/An-Analysis-of-OPECs-Strategic-Actions-US-Shale-Growth-and-the-2014-Oil-Price-Crash-44064 (07-06-2022).
[75] https://oilprice.com/Latest-Energy-News/World-News/Libyan-Oil-Production-Reaches-Highest-Point-Since-December-2014.html (07-06-2022).

political unrest such as the wars in Syria and Ukraine. Moreover, economic developments in Europe and China did not live up to the expectations.[76] Overall, between June 2014 and January 2015 the oil prices on the global market fell by a mere 60%, propelling oil companies worldwide to abandon their investment programs because the prognosis on profitability was highly unstable. Globally the offshore industry was hit hard. In the Netherlands, for the offshore aiding vessel specialist Royal IHC the crisis meant an end to a series of profitable years, resulting in a downward spiral that could only be stopped by government intervention in 2021, evoking memories in government policies in 1983 again.[77]

In contrary to the case of Royal IHC, the crisis in the offshore oil winning industry provided for chances for the primarily Dutch based maritime engineering company Allseas. The inventor of the dynamic positioning pipe laying method announced her building concept for a vessel able to both install and decommission single unit oil rigs and platforms already in 1987, but it took until 2014 until the South Korean Daewoo Shipbuilding and Marine Engineering delivered the specially designed catamaran vessel.[78] The *Pioneering Spirit* was shipped to the Rotterdam Maasvlakte, where she was baptized on the 27th of Februari 2015. After the celebratory events, completions of the largest vessel worldwide started, giving impetus for innovation and trouble shooting at the newly opened Allseas design bureaus in the Netherlands, as well as on the drawing tables of various Dutch and European subcontractors. Ever since the commissioning the Pioneering Spirit has engaged in challenging offshore operations worldwide, adding to the body of knowledge and know-how in Dutch shipbuilding and subcontracting in marine engineering so valuable in remaining competitive in a global market.

The decommissioning of oil rigs in oceans worldwide designates two major developments that supersede the presented timeframes here. Firstly, the fundamental nature of shipbuilding changed radically compared to the years after 1983. Whereas shipyards were still inclined to supervise the building process on their own births and slipways from keel laying to baptism, ship assembly increasingly became a fluid process in organisation and management of outsourcing and subcontracting. Not only is this illustrated by Allseas, who designs their own ships for their specific tasks offshore, but also for instance Damen Shipyards shows how lean production and section building caters to the diversifying wishes of costumers. Damen was the first shipbuilder to successfully develop a producer's market, offering a limited product portfolio from where costumers were able to choose, instead of shipbuilders building –and losing money- over customers' ever variable wishes.

Secondly, the design, building and commissioning of the Pioneering Spirit was on par with a rising ecological awareness starting in the 1980s with concerns for acidic rain in some Western industrialised countries, expanding into a globally shared concern for the outcomes of climatic changes due to the increasing need for fossil fuels. Steering away from fossil fuels, new offshore industries such as sea-based windmill parks and solar collector fields arose, each accompanied by new needs for maintenance ships and highly sophisticated cable layers an

[76] https://blogs.worldbank.org/developmenttalk/what-triggered-oil-price-plunge-2014-2016-and-why-it-failed-deliver-economic-impetus-eight-charts (07-06-2022).
[77] M. Straver; R. Velthuizen, "Recente staatssteun aan Royal IHC niet vergelijkbaar met steun aan RSV in de jaren zeventig". www.esb.nu/blog/20062509/recente-staatssteun-aan-royal-ihc-niet-vergelijkbaar-aan-steun-rsv-in -de-jaren-zeventig (07-06-2022)
[78] www.allseas.com/company/history (07-06-2022).

pipe laying vessels that are able to build the energy infrastructure of the near future. The increasing ecological awareness also provided for new opportunities for shipyards engaged in repair, maintenance, and conversion. The (inter)national body of law on the reduction of environmental pollution and carbon dioxide emissions has been growing rapidly ever since the Conference of Parties in Paris in 2015. Pairing up with the agreements made there, marine sector- and company policies increasingly proclaimed not only to focus on economic value anymore, but also recognize ecological impact and sustainability in their mission statements. For a world fleet that has primarily used crude oil as fuel for decades, this means a refit to cleaner and more efficient engines, reduction of carbon dioxide and sulfur emissions, and the implementation of new and cleaner innovations such as scrubbers, additional rotor sails, and more recently, air lubrication systems. Apart from refitting projects, the new build shipbuilding industry joined the challenging innovation trend that was spurred by the need for sustainability. Damen Shipyards for instance recently launched its first full electricity powered tugboat *Sparky* to the port of Auckland, New Zealand, which with a bollard pull capacity of eighty tons by no means performs any less than a conventional tugboat.[79]

The optimistic outlook on the future in Dutch shipbuilding is contrasted sharply with the sense of crisis in the years after 1983. As the different sections in this paper suggest, the narrative of the longevity of the industry cannot be interpreted as a story of success. In contrary, both Damen and Royal IHC find themselves in serious problems in 2020. Notwithstanding the optimism within the industry on the wave of innovation with ecological objectives in mind, Damen Shipyard presented net losses over the years 2018-2012.[80] Royal IHC needed a both industry and government supported rescue operation, from which the results are currently not known yet, apart from the fact that major job losses have been announced.[81] Not covered in this paper, but equally important for the industry, is the emergence of a new niche market in super yacht building, a sector with a significant and increasing importance for the sector. Nonetheless current setbacks at the Damen Shipyards Group and Royal IHC, the optimistic expectations about the near future are very different from the situation as was experienced in the years after 1983.

[79] www.offshore-energy-biz/damen-fits-batteries-on-its-all-electric-tug (07-06-2022).
[80] www.maritiemland.nl/news/derde-ver;ies-op-rij-maar-verdubbeling-orderboek-damen (07-06-2022).
[81] www.maritiemmedia.nl/waarom-hoge-baggerheren-scheepsbouwer-ihc-redden (07-06-2022).

Conclusion

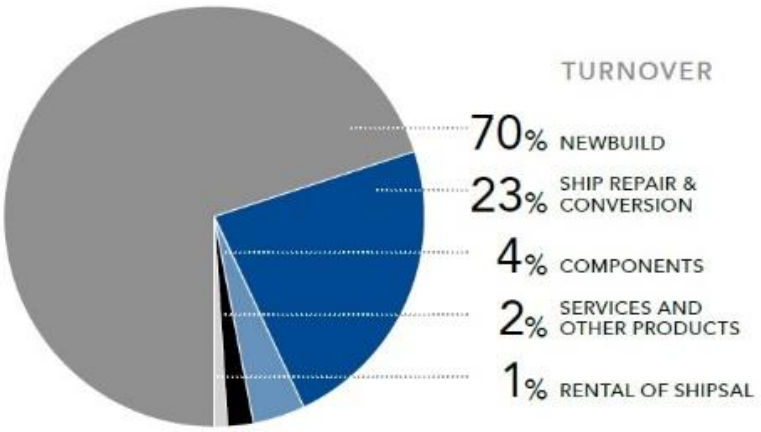
After the 2010s, both the Damen Shipyards Group and Royal IHC were the two largest shipyards within the Dutch Shipbuilding industry. Old established shipyards, in this paper represented by De Schelde, were not able to refrain from locked in modes of production, and moreover, not able to refrain from the products they specialized in. Traditionally building for the freight market, they were outcompeted by Far East competition. Only a small cluster of freight ship builders remain in the provinces of Groningen and Friesland. How these yards were able to withstand what made other yards close down, falls beyond the scope of this paper. In the timeframe 1983-2020, all other Dutch shipyards building for the freight market disappeared. Royal IHC managed to secure its position as a specialist in building highly sophisticated dredging material, next to a more standard production line of dredging vessels. In the 2000's, Royal IHC transplanted gained technological know-how to not only land based building projects, but also other highly specialized sector of technological industry, implementing a strategy of concentric expansion, incorporating suppliers to shield off innovation and a unique market position for competitors. Paradoxically, this strategy incorporated by Royal IHC was the exact opposite of what De Schelde had been doing a decade earlier, namely shedding of the additional activities next to shipbuilding and turning back to the core business. After the problems presented by the offshore crisis following 2014, Royal IHC saw itself in the position De Schelde had experienced earlier, and following its example, returned increasingly to the core business of shipbuilding.

The Damen Shipyards Group had just one business from its early start, and explicitly never refrained from that. Building small material in the 1980s, Damen increasingly transplanted its strategy of section building, lean production and standardized product development to near bankrupt shipyards which it could buy cheaply, increasingly adding to a growing infrastructure of new built- and repair yards, accompanied by the development of financial service and sales organizations. In the early 2020s, the Damen Shipyard group was active in every niche market relevant for the Dutch shipbuilding industry, allowing for fluctuations in one market segment to compensate for fluctuations in another.

Both Damen and Royal IHC face some difficulties at the start of the 2020's, and although it is not the task of a historian to predict the outcome of developments too close to the present, historically the market conditions are not as bleak as it was in 1983. Both Damen as Royal IHC operate within a well-defined client base, serving different market segments. The highly technological, client driven products Royal IHC delivers, do not fit the philosophy of standardization lean production of the Damen Shipyards group. Both shipyards have contributed significantly to the longevity of the Dutch shipbuilding industry. Future historians will describe if they will remain to do so for the next years.

Appendix 1: Key figures for the Damen Shipyards Group in 2018:

Damen Shipyards Group:	54 companies worldwide
In The Netherlands:	25
Foreign:	29
Number of shipyards:	36
In The Netherkands:	16
Foreign:	20
New built yards:	23
Repair yards:	18
Total revenue 2018:	€ 2 billion
Number of employees:	12 000
In The Nederlands:	3 500
Foreign:	8 500
New built yards:	10 000
Repair yards:	2 000
Delivered vessels:	
Annually:	> 175
Total:	> 6500
Annual repair orders:	> 1 500
Delivered vessels 2018:	176
Tugs/Workboats:	76
Offshore Vessels:	3
High Speed crafts & Ferries:	40
Pontoons & Barges:	21
Dredging & Specials:	13
Defence & Security:	18
Yachts:	5



Appendix 2: Damen Shipyards Group relevant acquisitions and take overs (incomplete):

The Netherlands

Amels (Makkum/Vlissingen)	1991 >2007
Damen Anchor and Chain Factory (AKF)	2005
Damen Green Solutions	2014
Damen Dredging Equipment	1942
Damen Marine Components	2018
Damen Marine Services	1974
Damen Schelde Marine Services	1975
Damen Schelde Naval Shipbuilding	2001
Damen Shiprepair Amsterdam	2013
Damen Shiprepair Harlingen	2006
Damen Verolme Rotterdam	2017
Damen Shiprepair Rotterdam	2000
Damen Shiprepair Vlissingen	2001
Damen Shipyards Den Helder	1993
Damen Shipyards Gorinchem	1976
Damen Shipyards Hardinxveld	1940
Concordia Damen Shipbuilding	2017
Damen Trading	1975
Damen Maaskant Shipyards Stellendam	1984
Damen Shiprepair Oranjewerf	1989
Damen Shiprepair Van Brink Rotterdam	2003

Poland

Damen Engineering Gdansk	
Damen Marine Components Gdańsk	2018
Damen Shipyards Gdynia	1996
Damen Shipyards Kozle	2018

United Kingdom

Brixham Marine Services	2008

Romania

Damen Shipyards Galati	1999
Damen Shipyards Mangalia	2017/18
Marine Engineering Galati	2004

Norway

Damen Shipyards Stavanger	2012

Sweden

Damen Oskarshamnsvarvet Sweden	2012

France

Damen Shiprepair Brest	2012
Damen Shiprepair Dunkerque	2012

Ukraïn

Marine Design Engineering Mykolayiv	2006

Turkey

Damen Shipyards Antalya	2013

South Africa

Damen Shipyards Cape Town	2007

Cuba

Damex Shipbuilding & Engineering Cuba	1995

Curacao

Damen Shiprepair Curaçao	2016/17

United Arab Emirates

Albwardy Damen	1978

Qatar

Nakilat Damen Shipyards Qatar	2010

United States of America

Damen Area Support North America	2016

Russia

Damen Engineering Saint Petersburg	2019

China

Damen Marine Components Jiangyin	2018
Damen Shipyards Changde	1994/2002
Damen Yichang Shipyard	1998
Damen Trading Suzhou	2007

Vietnam

Damen Song Cam Shipyard	2014
Song Cam Shipyard	2014
Song Thu Corporation	2013
Company 189	2014
Ben Kien Shipyard	2014
Ha Long Shipyard	2013

Singapore

Damen Schelde Marine Services Singapore	
Damen Shipyards Singapore	1990/2000

Indonesia

Dumas Tanjung Perak Shipyard	2008

Australia

Damen Services Brisbane	20

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