

# Shipyard Progres<sup>1</sup>

## Introduction

Shipyard Progres is located alongside the Winscotencanal in the province of Groningen, in the north of the Netherlands. Since 1837, when the business was established, it has been engaged mainly in building ships for what is nowadays called Shortsea shipping. Progres specializes in multipurpose dry-cargo vessels, but it sometimes builds other types of ships as well, such as tankers for liquefied gases and chemicals, tugs, fishing boats, and ferries. The shipyard has about 140 permanent employees and its sales over 2000 amounted to approx. €25 million.

Progres and the other shipyards in the north of the Netherlands, most of which are located alongside the Winscotencanal, concentrate on building relatively small sea-going vessels. Progres is one of the largest shipyards alongside the Winscotencanal. Like the other shipyards in the north of the Netherlands, Progres contracts out a considerable portion of its work to all kinds of specialized suppliers, such as engineering firms and wainscoting businesses.

Despite fierce international competition, Progres and several other shipyards in the north of the Netherlands have managed to keep going for the past fifteen years. Their success is largely due to their great expertise, innovativeness, and the fact that they specialize in high-quality types of ships. The total turnover of Dutch shipyards specializing in 'relatively small' sea-going vessels was approx. €400 million in 1999.

However, the shipyards alongside the Winscotencanal, including Progres, have to contend with limitations on the dimensions of the ships to be built. These limitations relate to the draught and – because of the maximum opening of the bridges between the shipyards and the sea – the width of the ships, in particular. For various reasons, the dimensions of ships for the shipyards' main customers have gradually been increasing more and more. Most of these customers are small shipping companies, family businesses in the Netherlands and a few other countries in North-West Europe, which have done business with the shipyards for a long time.

The increasing size of the ships means that some of the ships required by the usual customers can no longer be built by the shipyards alongside the Winscotencanal, or at least cannot be completed there by them. Their inventiveness has resulted in an increase in the maximum dead weight of their ships (expressed as tons deadweight all told (DWAT) and tons deadweight cargo carrying (DWCC)), in which shipowners are particularly interested. However, slowly but surely the shipyards have reached the limit of what is feasible without the stability of the ships being affected, e.g. Progres cannot build ships of over 6,000 to 6,500 DWAT at the shipyard alongside the Winscotencanal. The shipyards realize that in the long run this situation may lead to big problems. They will miss out on orders for large ships and at some stage some of their loyal customers might place all of their orders elsewhere.

For many years the shipyards have examined and discussed the possibility of a joint investment in a large, capital intensive, offshore shipyard in Eemshaven harbour in the north of Groningen. Their consultations have not yet led to any concrete results, despite inducements offered by Dutch and European authorities. On the one hand, the shipyards know that they have to rely on each other to find the best possible solution to the problems caused by the increasing dimensions of the ships they build. On the other hand, the owners of the shipyards – mostly families which have been shipbuilders for generations – have always been used to running things their way. Moreover, to a certain extent the shipyards are competitors.

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## **A dock in Eemshaven harbour**

Financially and technically speaking, Progres was one of the strongest businesses alongside the Winscotencanal in 1999. Because the shipyards had been making little headway with their plans for building an offshore shipyard, the board of Progres decided to take it upon itself to explore the possibility of building 'large' ships elsewhere.

A temporary and relatively inexpensive solution was the purchase of an existing dry dock – which could be moored in Eemshaven harbour – where Progres's ships could be assembled and completed. In that case, sections built by Progres alongside the Winscotencanal would be transported by tugboat to Eemshaven harbour and assembled there, after which the ship would be completed. All this would obviously lead to certain organizational and technical complications. However, the board of Progres did not think that there would be any insurmountable problems.

After a detailed analysis of the anticipated revenue and expense resulting from the purchase of the dock, the board of Progres reported the data mentioned in Table 1 to the supervisory board of Progres during a meeting in February 2000. The supervisory board, which had to assess the project, had decided to limit itself to the revenue and expense over the next five years, because it could not say anything with certainty about the following years.

During the supervisory board meeting Chris van der Burg, financial manager of Progres, explained the dry dock project. 'Of course', he said, 'it would be wrong to make light of the difficulties of working at two locations'.

In addition, he stressed the necessity of constantly obtaining sufficient orders for large ships and the rather low cost of the simple plans. The enthusiastic financial manager said that the net cash flows in Table 1 (i.e. additional annual inflows minus additional annual outflows) were, as usual at Progres, rather conservative estimates.

'Assuming that the data in the table are correct and Progres's cost of capital amount to 11%, the dry dock will be an attractive investment to us, even if there should be a temporary slump in the demand for newly built ships', Van der Burg added.

**Table 1 Estimated net cash inflows after the purchase of a dry dock (€million)**

2002	1.0
2003	1.4
2004	1.9
2005	1.5
2006	1.2

At the end of 2001 an amount of €4,1 million would be required for the dock and further investments in Eemshaven harbour. The net cash inflows in Table 1 would be coming in at the end of each year.

## **The investment and the strategy of Progres**

After the plans had been presented during the supervisory board meeting, those present ended up discussing much more than the dry dock project. During the lively discussion numerous pots of tea and coffee and lots of biscuits were brought in, and the box of cigars and cigarettes on the conference table was opened. It was not long before the conference room was blue with smoke. The nonsmoking policy pursued by the government for many years had evidently not yet had an impact on the board and supervisory board of Progres. During this discussion Jan Smit, general manager of Progres, said the following.

‘This project is completely in line with our strategy and that's why it is a good idea to start building larger ships and developing an extra production site. We want to keep focusing on the market for high-quality ships, where arguments for purchasing such a ship are quality, flexibility and expertise rather than low prices. Also, we want to keep up our profits and keep supplying relatively small Shortsea shipping vessels for containers and other dry cargo to our current customers, mostly from the Netherlands, Germany and the United Kingdom’, Jan said.

‘In addition’, Jan continued, ‘we want to retain or attract customers for relatively large Shortsea shipping vessels. We want to enter new geographical markets as well as pay more attention to types of ships that we have not really focused on until now. Our expertise will be required for those types of ships and may result in good profit margins. So we will be trying to specialize in a wider range of ships, particularly gas tankers. To that end, we will increasingly be focusing on customers outside North-West Europe. The dock may be one of the means of achieving all our goals. If we invest in the dock, we will have to strive for a higher average building cost of the ships and try to increase the annual output from five to seven ships now to a total of eight to twelve ships in about three years’ time. The average building cost of the Shortsea vessels and tankers that we can build at the present location is now about €8 million. An amount somewhere between €4 million and €6 million is for our shipyard’.

‘By the way’, Van der Burg added, ‘when we were calculating the figures for the dry dock project in Table 1, we hardly took account of that desirable increase in output. Being sensible men from Groningen, we did not want to be too optimistic’.

‘Let me tell you more about our future after investing in the dock’, Smit said enthusiastically. ‘To be able to build more ships and new types, we will also have to invest in increasing knowledge of building new types of ships, phasing production processes at two locations, and marketing. Most of our current buyers are loyal customers. We know them and maintain good relations with them. Chris or I visit them when they have had good or bad news. Of course we should keep doing that. But we must take far more active steps to approach prospective customers, especially outside Europe, for expensive and more profitable types of ships, like gastankers’.

‘To be able to supply high-quality products and make the most of the dock, we will have to improve our employees’ expertise all the time, because it is one of our great strengths. If the employees always know the latest production techniques, we will be able to use the latest in cutting, forming, welding, and coating, and continue doing a good and efficient job. Internal production and contracting out must become even more efficient and flexible processes than they are now, particularly because we will have staff on two production sites’.

‘Luckily, most of our employees are quite enthusiastic about our plans. Many of our employees will have to commute more because of the two locations, but I am sure most of them will not mind. There are strong bonds between a lot of our employees and our business, sometimes these bonds have existed for generations. Our employees are proud of our products and they know we value our employees. We employ down-to-earth, discerning men and women of few words. But they know very well what innovations are necessary to the future of our business – and to their jobs. It is our experience that changes hardly ever cause problems among our employees, partly because they know that we do not talk rubbish to them’.

‘I have touched on a number of things that we will be faced with in the coming years. Clearly, quite a lot of factors play an important part in the dry dock project. It will not be easy to incorporate the project into our strategy and turn it into a real success. I do realize there may be problems in store for us; we do not yet know what is going to happen. But it is clear that we cannot keep talking about an offshore shipyard forever without doing anything about it’, Smit concluded.

## **Balanced scorecard: means of concretizing and realizing the strategy of Progres?**

‘Maybe it is time for a drink now’, supervisory director Jop Gerards sighed, when Smit had finished. ‘But first I would like to go into what you have said, Jan’, Jop, who was a professor of management accounting, added immediately.

‘Good short-term financial results do matter’, Jop said. ‘But we should also check regularly what the project contributes to the strategy of Progres. The point is whether Progres will achieve its long-term goals and stay healthy’.

‘The possibilities outlined by you’, he said, ‘show that we should see the project in a much wider context, so not only as a relatively simple solution to problems caused by the present location. I am not really concerned about the amount of money involved in the dock; Progres is sure to come up with the money. No, what I am concerned about is that we should focus regularly and systematically on the subjects you have just brought up with so much enthusiasm. Now we have been philosophizing about these things this afternoon, we must make sure that we will discuss them again soon. Especially because what you have just said, Jan, is so important. The supervisory directors, myself included, should talk things through too’.

‘The significance and consequences of the dock to the strategy we have recently decided on obviously cannot be expressed in financial figures only. If our profit over next year were €3.5 million, it would be a wonderful result. But how was that profit realized and how is the business doing in general? That is important too. The strategy of Progres seems quite clear, we have discussed it once or twice with small groups of people who work here. But what exactly do we want to achieve and what should our message be for the heads of the office, the sales department, the design department, and the production teams? Can we say to them: look, this is the strategy of Progres, you had better get cracking? Or should we be more specific and say to them: look, this is the strategy, that is the direction Progres is going in and that may be the consequences for your department, we think. To my mind, we should ask them there and then: are you fine with that or do you disagree?’

‘Of course we can use our strategy to indicate that we want to innovate, enhance marketing, and constantly improve our production processes’, Jop continued. ‘That is all very well, but what does it mean exactly? Should we also specify the profit on the new types of ships to be made five years from now? And how do we determine in two years’ time that we are on the right track? If we succeed in defining more concrete goals on the basis of our strategy, I would also like to know exactly how those different goals are interconnected. Actually, I believe I am getting more and more enthusiastic about such an approach, while talking about it’.

‘So you are saying’, Jan Smit responded, ‘the goals Chris and I have thought and talked about among ourselves should be put down on paper. That we should consult with our people. And that we should check regularly whether what we wanted to achieve through the dock, is actually becoming a reality. We should not only focus on obtaining orders and then making sure that we get the new ships off the slipway on time’.

‘Yes’, Jop Geerards said, ‘we should talk regularly with each other. We need not philosophize every month, but it could be very useful to do it once or twice a year. The balanced scorecard might be a good tool for us, although it has been criticized by some academics and businesses that have been using it. Of course there is no magic formula, but our ambitions, the board’s enthusiasm, and our personnel’s positive attitude make me think that we could be successful in developing a scorecard. In any case, we should think it over. Perhaps you, Chris, and your financial staff could develop further ideas and the first concrete elements of such a scorecard’.

## **Suggested assignment**

Please write a brief report on the following.

- Assuming that it is now the end of 2001, please calculate the internal rate of return on the investment in the dry dock, using the data mentioned in the Progres case (see Table 1).

Give a detailed example of the calculation of Progres's safety margin, i.e. calculate the decrease in annual net cash inflow which does not result in an internal return which is lower than Progres's cost of capital. Comment briefly on the results of your calculations and on Progres's preferred method of evaluating the project, i.e. evaluation based on data about net cash inflows.

- Please describe briefly and in general terms what the balanced scorecard is and what its developers, Kaplan and Norton, see as its aims.

- Using the available data – and any reasonable assumptions –, please give an example of a concrete balanced scorecard (BSC) for Progres. Develop this BSC without necessarily including any figures in your BSC. Put forward arguments for the goals and indicators included in your BSC and describe the relationships you expect to exist between the goals and indicators in the four perspectives of the BSC. Give a clear explanation of the contents of your BSC.

- Please discuss to what extent the way in which Progres is being run is conducive to the implementation of a balanced scorecard. Discuss how the implementation and use of the balanced scorecard by Progres relates to the use of two levers of control described by Simons, namely diagnostic control and interactive control.