

“LOOKING AHEAD IS VITAL FOR US”

Nils van Nood succeeded Han Mommaas as Managing Director of GustoMSC in July 2012. Innovations have made GustoMSC a very successful company. Van Nood: “GustoMSC’s know-how and analytical abilities continue to be first class.”



When the Gusto shipyard closed down at the end of the 1970s, the design activities were continued in two separate companies: Gusto Engineering and Marine Structure Consultants (MSC). One of the chief analysts at the time was Han Mommaas. At MSC he was responsible for all the analyses, calculations and design activities for the Cantilever Jack-ups (CJ series) which have helped to make GustoMSC so successful.

An interesting detail: Mommaas’ initials are also C.J. He comments: “After a while, people notice that my initials are the same as the initials of the series. So this is a conversation topic with new clients that always breaks the ice. But the CJ series was not actually named after me.”

Mommaas was Managing Director of MSC for nearly twenty years and one of the initiators of the combination of MSC and Gusto: GustoMSC. Van Nood: “He has largely built up the company and its business model to what it is today.” Mommaas is still connected to GustoMSC as an Advisor. Van Nood started his career at Gusto as a structural engineer. He later headed the Structural Design Department and the Product Development Group and was ultimately responsible for all engineering

activities within Gusto. After the creation of GustoMSC, he volunteered to join and became the Manager Designs.

Perfectionist engineers

One of MSC’s first clients was a combination of the Dutch oil company Nederlandse Aardolie Maatschappij (NAM) and drilling company Neddrill. They were looking for the optimal jack-up design for the NAM fields on the Dutch continental shelf. The somewhat conservative design approach in this project was what prompted the development of the CJ46. Mommaas: “As perfectionist engineers, we believed that the design should be better, more cost effective, more efficient. With the knowledge that we already had, and the ideas that came up during this process, we started to create a new design. One with three legs, with a distance of 46 meters between the legs: the CJ46. We performed very extensive and detailed calculations of the loads and structural capacity.”

Van Nood adds: “GustoMSC’s analytical abilities have always been and still are first class. We develop our own software and test it thoroughly so that we know exactly what we are doing; no black boxes. We are able to analyze



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Nils van Nood
Managing Director GustoMSC (I)

our designs down to the detail and to optimize them. Consequently, our units can operate in deeper waters, in higher waves and stronger currents than comparable units designed by our competitors. The area in which the GustoMSC jack-ups can work is therefore larger. We are not easily satisfied; there is always room for improvement.”

How do innovations come about at GustoMSC?

Mommaas: “You can sit down together and brainstorm about something new. This usually does not directly result in anything concrete. Sometimes, you suddenly get an unexpected idea. This is, in fact, the way the idea for the X-Y Cantilever arose. Nonetheless, it was not until two years later that we were able to incorporate the X-Y Cantilever into a CJ being built for Maersk as the launching client. Another idea – one that remained on the shelf for about twenty years – was a self-propelled jack-up with four legs, the later NG series. The NG, hinting at New Generation, turned out to be the ideal solution for the installation of wind turbines thanks to a combination of useful features: it is self-propelled, has a fast and efficient pre-load procedure and provides a stable platform. Moreover, we constantly interact with the end users of our units: each of them has their own wishes and requirements. When we hear similar requirements more often, we look into it and see what we can do.” Van Nood: “It is all about identifying the real demands of the market and taking initiative.”

After giving the matter some thought, Mommaas states that pressure from competitors is also an important



“OUR MOST SUCCESSFUL INNOVATION AMONG THE CJS IS CERTAINLY THE X-Y CANTILEVER.”

Han Mommaas
Former Managing Director,
current Advisor GustoMSC

driver for innovation: “When the competition has a better position or threatens to obtain a better position in the market, this is an incentive to come up with something better in order to improve or maintain our position. It is the same the other way around. The X-Y Cantilever is an innovation that we developed, and many of our competitors would like to have something similar.”

Why invest in innovation?

Van Nood: “As a company we have to invest considerably in new developments. For example our newly developed CJ80 jack-up is suitable for a record water depth of 175m in North Sea conditions. As the market for these products is relatively limited, there are only a few competitors that enter this niche market. And it is only by investing that we can stay ahead of the competition.”

Mommaas adds: “A lot of the development work we do also concerns optimizing and continuously improving our know-how and design as well as customizing designs in accordance with our client’s wishes. By means of an intensive interaction between the engineers and the outside world, we are able to come up with ideas that correspond to what the market wants.”

What is GustoMSC’s most successful innovation?

Mommaas: “Our most successful single innovation among the CJs is most certainly the X-Y Cantilever. Without this system, the CJs would have been less distinctive and we would have sold fewer of them. Moreover, we have a complete series in various sizes, a commercial system with licenses and we also supply the associated equipment.”

Van Nood: “We are always working on new developments. We developed a new type of crane for the NG series of which five have now been delivered. This crane is located on a jack-house and revolves around the leg providing more efficient operations and more deck space. Because of this innovation and our knowledge of construction jack-ups, we have been able to acquire a majority market share in the installation units for offshore wind farms in the North Sea.”

What are the most important future developments in the market and for GustoMSC?

Van Nood: “We have been separate from SBM for almost two years now. Initially, the sector adopted a wait and see attitude as to whether we would be sold to a competitor. Now that it is clear that we will remain independent our clients are having no difficulty finding us. Our independent position is very important to us: we are less sensitive to

conflicting interests and we remain accessible for a large part of the market. Another advantage is that we can continue to pursue our own innovation agenda.”

Van Nood continues: “Mobile offshore units are increasingly being built in China, where labor costs are lower, but the shipyards in China and their clients need reputable designs and technology partners. Our products and services fulfill this need and are also attractive for the more well-established shipyards in Korea, Singapore and the rest of the world. The choice for our designs is also driven by the fact that clients demand the maximum possible capability and the maximum possible uptime, i.e. the time in which their units can effectively work. Our designs satisfy these demands. After the recent success of the CJ46, we expect for the coming years an increase in the demand for larger family members of the CJ series, in particular the 50, 54 and possibly also the 62 models. These CJs are very suitable for use in Mexico, for example, or in parts of the North Sea, the Middle East and the Far East.”

Mommaas anticipates another development: “Over the years, there has been a development towards deeper waters and more equipment, so more weight, and towards a larger useful surface area and a larger number of people on board. When we started out in the eighties, 70 people were already considered a lot. Oil companies now want to be able to accommodate 150 people or more on board. And not only in deeper waters, but also in Arctic waters. With the CJ80, we are now active in areas where previously only semi-submersibles could work. While such a large CJ is not cheaper than a semi-submersible, it does offer a higher number of workable days.”

What is on GustoMSC’s innovation agenda?

Van Nood: “Looking ahead is vital for us. For instance, we see that harsh environments and Arctic areas are on the operators’ agendas. We are developing new ideas to be able to employ jack-ups, drill ships and semi-submersibles in those areas. New engineering approaches and calculation methods will have to be further defined, refined and verified, where necessary based on model tests.

GustoMSC has already built up a strong reputation as engineering company, but we also supply associated equipment with our designs and we are constantly improving and innovating in that field as well. That includes the services we provide with our equipment. We will certainly continue to cooperate with our clients and develop the next practices for mobile offshore units that serve the global offshore energy market.”