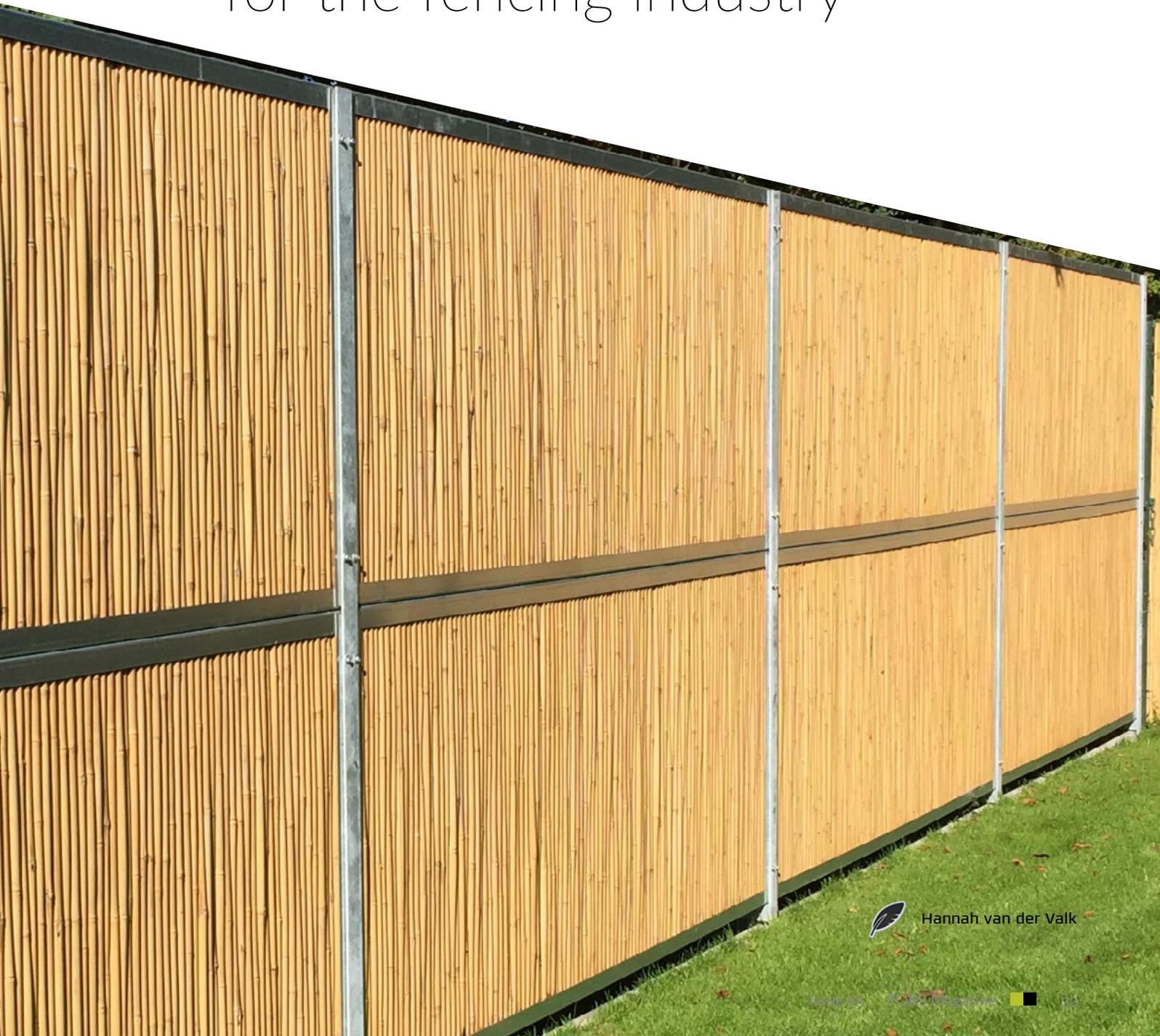




Soundproofing for governments and private individuals

Growth markets with potential for the fencing industry



Hannah van der Valk

The German branch of Heras in Rhede, near Bocholt, has been designing and supplying solutions for noise pollution for 10 years now. This industry is also very interesting for the fencing industry. An important advantage compared to other projects is that soundproofing is usually designed and realised in the early stages of a construction plan. Often even before the plot is opened up. So at a moment when there are funds and the pressure of time is manageable. These factors are often lacking, when choosing and installing a fence as an access or sight barrier is used to balance the budget of a construction project.

“The interesting thing about the soundproofing market is the fact that the need is already there,” says Matthias Kötter, product manager at Heras. “It is not a market that we need to develop first. Nowadays mobility takes priority and everybody wants to move from A to B quickly. The accompanying traffic density causes considerable noise levels.” Noise pollution has increased significantly in recent years. Apart from freight traffic, rail traffic and air traffic, industrial areas and business parks are also important sound sources. Civilians are even increasingly exposed to noise disturbance in their living environment because of sporting activities, recreation and neighbours.





Damage

European studies have shown that noise has a negative influence on the quality of life and can even cause health issues. Kötter: *"When you are annoyed by street noise or other noises, your general health is clearly damaged. You can start suffering from headaches or your productivity at work decreases. The results of the studies indicate that Europe will suffer significant economic damages as a result of these issues."* This has prompted the EU to deal with this problem more intensively and make funds available to tackle it. In Germany the National Plan for the Protection against Traffic Noise (Nationale Verkehrslärmschutzpaket II) was introduced in 2009. It had the working title 'Lärm vermeiden - vor Lärm schützen' (English: 'Avoid noise

- protect from noise'). The main goals of this programme for municipalities are reducing the number of noise hotspots and managing traffic noise, despite the ever increasing traffic flows. According to the statement of the German Ministry of Transport, Public Works and Water Management, several billions of Euros are made available for this programme. *"This amount of money already indicates that we are dealing with a huge market. Federal and EU funds can exclusively be called upon by government bodies, like municipalities. They are not meant for private households. That means demand from private individuals has to be added to that,"* says Kötter.

Action plan

Since 2005 Germany has had rules for drawing up so-called noise maps and noise action plans. Unlike the EU funds, the national financial support does not only relate to preventing and reducing road traffic noise, but also air and rail traffic noise, industrial noise and all other noise sources. Kötter explains: *“Every municipality or other government body has to assess the area they are responsible for on noise sources and map them. In green areas, everything is alright. In areas that are marked red, the noise is too dominant and measures have to be taken. Since 2008 governments have been obliged to define in an action plan how they will make red areas green again. Furthermore the authorities have to check the noise maps and action plans every five years and update them if necessary.”*

Standards

Noise is subjective. *“Every human experiences a different sound as being annoying. But there are guidelines that take into account that there is an increased risk for your health from a certain noise level upwards,”* Kötter clarifies. In residential areas during the day this defined level is an average of 55 decibels. That matches the volume of a normal conversation. At night the limit is at 40 decibels, comparable with the sounds in a quiet home. *“Everything above those levels has to be on a noise map. This way it is objectively determined when soundproofing is necessary. Noise barriers are often the method of choice. A product can be described as a soundproofing element as soon as it yields a reduction of at least 25 decibels. There also are European standards for reflection and absorption properties. Smooth surfaces reflect sound and are not effective. Only absorbing or highly absorbing products with a rough surface are eligible for effective soundproofing.”*





Wilhelmshaven

But what was the motivation for fencing and gate manufacturer Heras to expand their product range in this direction? *“A newspaper article gave us the idea in 2006. At that time the federal state of Lower Saxony built the deep sea port JadeWeserPort in Wilhelmshaven. The port is located on the open sea, so that large tankers can be unloaded. Transporting goods to the mainland is done by a railroad through the Wadden Sea. But the endangered bittern nests there. The federal state planned a sound barrier alongside*

the railroad, so these birds would not be disturbed in their breeding behaviour. It was an investment of a whopping million Euros,” Kötter explains. *“At that moment we were just researching where possible new applications of fencing could be, or what possibilities there were for further development. Because manufacturing mesh panels with various mesh widths, wire gauges or coating techniques no longer was enough for us. Because of the mega-project in Wilhelmshaven we subsequently were engaged in the topic of soundproofing more intensively.”*



Well-being

The company's first product for this purpose was a system with special geotextile in a mesh panel-post-construction. *"In association with a partner company which is located near our Rhede branch, we had a sound technical report concerning the noise-reducing and sound insulating characteristics of the product drawn up in the laboratory."* Shortly after that, the sound barriers based on coconut fibre came out. Heras marketed them in 2007. One of the main differences with conventional

concrete solutions was the possibility of vegetation. *"Soundproofing also has something to do with the well-being of people. The construction of a sound wall is optically drastic, of course. So just as important as the noise reduction, is the visual overall impression. Through talking to architects we concluded that natural building materials, that can also be greened, are a good solution,"* says Kötter. With flat vegetation like ivy, the lifespan of such a sound wall is about 30 years. *"Because of the vegetation, the sound insulation of the wall can even increase further."*



Municipalities

Meanwhile Heras offers a complete series of soundproofing products, which meet the different requirements of both public and private purposes. They were all certified and registered as soundproofing. Walls of the Koko Wall series are mainly used by municipalities. The same goes for the highly absorbing sound walls of the Noise Reducer product range. Public, large-scale projects not only demand specific sound technical qualifications. The stability also needs to be calculated and documented adequately. Kötter illustrates: *"If a two-metre high wall is built in the public sector, it often occurs that the foundation is also two metres wide. One metre on either side of the wall. This way the sound wall offers adequate resistance to the wind pressure, that mainly burdens the top part. For private projects these foundations are not an option of course."*

Private market

Heras issues factory recommendations for the foundation and gauge of the posts for sound barriers at private residences. Because the profiles are smaller and the maximum construction height is also limited, they are less demanding. Every fencing installer can install them, without the need for heavy machinery. *"Since a few years ago we have been offering the Koko Wall Lite for instance, for the private market. Just like the name implies, it is a slimmed-down and very narrow version of the product for the public domain. Designers and architects like to use variants of the Noise Reducer as soundproofing for generators and pumps in the countryside. A new product is the Bamboo Wall with a natural bamboo look,"* Kötter adds. He explains the increased demand for sound barriers also with their dual functionality. *"Because of their dense surface, the products double as visual barriers. Especially private individuals use them as an enclosure, instead of fences."*

Partners

Heras uses different strategies for the marketing of sound barriers. *"We have many partner companies, who develop their own local markets,"* says Kötter. *"But there also are fencing installers who work as subcontractors. That especially goes for public projects. We are purely the manufacturer. The implementation is done by fencing installers who we retrain and accompany at the construction site as required. In principle we supply to every company and we do not work with protected*

regions. But when it comes to large-scale projects, we always check if the fencing installer can actually handle the project. That does not only apply to manpower and organisation at the construction site, but also to the engineering. For greater heights for instance, a construction crane or telescopic crane is indispensable, because the project can not be realised otherwise. Our premise is joint success."



Win-win

Kötter is convinced that soundproofing offers interesting possibilities for fencing installers. Especially when you take into account that many segments of the fencing and gate industry are quite saturated, there also is high competitive pressure and the profit margins are correspondingly limited. "When a fencing installer works for us as a subcontractor, the project is riskless for him," he says. "We have taken on the entire preparation process, we organise the main part of the technical aspects and we calculate the construction site with him. This way the fencing installer can focus on what he does best. If so wished, during installing an advising technician can come to the construction site from time to time. All in all you can say it is a win-win situation. We are happy that the project was concluded well, the fencing installer has yet another reference project and maybe he even acquired some new knowledge. Both for us as the manufacturer and for the fencing installer, the topic of soundproofing is an excellent selling point with potential new customers."



Hum

The product manager also sees soundproofing for the private market as a segment that is interesting to delve into for fencing installers. He thinks of reducing the emissions of heat pumps for example, which are set up in private gardens. "For each pump only three or four sound-reducing elements are needed. Because of the increasing use of alternative energy and the ever smaller house plots, in densely built new developments it can be very annoying if a pump is working in every garden," he knows. "If you hear the same hum day and night, however minimal, it affects the residential quality. By putting up highly absorbing soundproofing elements directly in front of the pump housing, the nuisance decreases clearly. That creates new opportunities for fencing installers as retailers."

Expansion

After Heras has mainly focused on the German market for their soundproofing products these past few years, in the near future geographic expansion in Europe will be the main point on the agenda. The first target countries are the Netherlands, Great Britain, France and Scandinavia, where the company already has branches. "Like I said before, soundproofing is a European topic. Demand will increase further in coming years. We want to and we will meet that demand with our product range," Kötter concludes. ■

