

The complex logistics of sea salt

& the sustainable company behind it



Family company Zoutman is a sea salt refinery that specialises in processing different types of sea salt that are also used for food applications. The Belgian company annually ships 300,000t of sea salt in small packages, sacks or bulk to over 60 countries, which is quite a logistical challenge.

All photos courtesy of Zoutman

Bert Lamote comments, "We may not be a logistics company, but logistics does play a big part in our business. In fact, the logistic cost defines in some cases 70% of the sales price. This makes salt a logistic-sensitive product."

"And our logistics is also rather complex," adds Logistic Director at Zoutman, Wouter Lambert. "We deliver worldwide to all kinds of markets, all types of transport and packages."

"To really understand this," Mr Lamote continues, "you must realise that salt is a cheap and widely available product. We deliver road salt no further than 300 kilometres, as the costs are just too high. Not for us of course, but for our customers."

Automated logistics

Other logistical challenges lie in the entire production chain, as Lambert explains, "It begins with the shipment of raw materials, for which we use large vessels that can ship over 50,000 to 75,000t. We store all of the raw materials at our terminal in Ghent. Some of these will be transported by inland waterway vessels to our refinery in Roeselare and others – such as the salt for technical use, de-icing and agricultural applications – will be processed on site and transported by truck."

Automating the internal logistics is key in this production chain. "Since we work with products that differ in terms of purity, grain size, moisture content, and packaging, automation ensures that everything is as our client requires."

Sustainable logistics

Thanks to a well-designed production flow, Zoutman has a zero-discharge status. "Everything is filtered and reused," says Mr Lamote. The use of a photovoltaic system in the Roeselare and Ghent branches means that they can meet more than 60% of their own energy requirements. Alongside solar panels, Zoutman also finds energy-saving resources in terms of infrastructure, such as frequency-controlled engines and heat conductors. For drying the sea salt, Zoutman uses a gas-powered dryer that is pre-heated with steam recovered from a neighbouring company. To produce the brine, Zoutman produces its own drinking water.

Sustainable transport

When it comes to transport sustainability is once again important for Zoutman. By using sea transport, for instance, CO₂ emissions are minimised due to the huge volume shipped in one shipment. Materials are also transported by water from the site in Ghent to Roeselare, even though road transport would be more economical. Nevertheless, this decision keeps more than 4,500 trucks off the road each year.

Another sustainability project was digitalising the enterprise's overall logistics. "For example, we have digitalised our paper consignment note this year. After delivery, we now immediately know how much salt has been delivered, and our client receives all shipment documents directly in their inbox. No more paper or lost tickets," clarifies Mr Lambert.

AT THE TERMINAL IN NORTH
SEA PORT ZOUTMAN STORES
AROUND 300,000T A YEAR.



UNLOADING THE RAW MATERIALS AT ZOUTMAN'S DOCK IN NORTH SEA PORT.

Zoutman has already been using Paperless Customs and Excise (PLDA) since 2007, and has been digitalising invoices for several years. "With the newly implemented e-CMR, we have even less administration and save a huge mountain of paper," adds Mr Lamote. "This allows us to keep on growing without having the excessive amount of paperwork. In this kind of low value business these are critical savings."

Logistical challenges

Digitising also brings some logistical challenges since there are a lot of parties involved. "The logistics sector still has to accelerate in this new digital age. It is not like the big packaging companies that are already used to digitalisation. Transporters are often small companies that are widespread," comments Mr Lambert. "And even though they all have a smartphone, they seem to want to stick to pen and paper."

Zoutman nevertheless has to depend on this fragmented sector. Mr Lambert says, "To find the cheapest and right transporter for the right destination is challenging, but

something that we always need to strive for with our cheap product."

Mr Lamote states that changing policies and taxes make things quite challenging as well. "For instance, bulk transport has become much more expensive since the new road tax. It has even resulted in a 10% increase in our sales costs for some products. This is why we are always looking for ways to decrease cost in other segments, such as by digitalising our paperwork."

Acceptable prices

Today, about 70% of Zoutman's sea salt is used in food products or water-treatment products. For these high-demanding sectors, food especially, the refinery can offer a flexibility in purity, size, additives, packaging and so on, all on short notice. This added value makes the cost price more acceptable, even if it has to be shipped to countries with a high transport cost, such as the United States or Canada.

"The costs in logistics are fair as we produce a high-quality



Facts & Figures

Area	73.000m ²
Hangar surface	38.000m ²
Storage volume	> 300.000 metric mt
Loading and unloading capacity	15.000 metric mt in bulk/day



HALF OF ALL CONSIGNMENT NOTES ARE ALREADY BEING GENERATED DIGITALLY.



MR LAMBERT, LOGISTICS DIRECTOR AT ZOUTMAN, AND MR LAMOTE, COO AT ZOUTMAN.

product," continues Mr Lamote. "Furthermore, sea salt is the only salt that can be extracted in an ecological manner using sun and wind. Most of the West European salt market is however dominated by mine salt, which is not sustainable and causes irrevocable damage to the earth. Thankfully we see more and more companies changing from mine salt to sea salt."

Logistical opportunities

Zoutman would like to decrease the number of truck loads. To do so, they are looking at inland shipping or railways. "But this goes very slowly, usually due to all the different parties and countries involved," says Mr Lamote. "When there is an initiative, we wish to jump in to make it happen. Because we certainly believe in the potential of other means of transportation."



AT THE REFINERY IN ROESELARE, ZOUTMAN PRODUCES SEA SALT FOR THE FOOD INDUSTRY, INCLUDING THEIR OWN BRAND.

WWW.ZOUTMAN.COM