

— case study

high-performance solution for an exceptional brewery Lupulus

eloy



57,000
liters/day

context

— the requirements

Lupulus brewery

The world of beer has long been monopolised by a few beer brands sharing the entire market. With Belgian consumers now demanding more complex beers with new tastes, we see an increase in the number of breweries in our country. New figureheads are emerging, one of which is the **Lupulus brewery, located in Belgium and set up in 2004 by Pierre Gobron, creator of La Chouffe beer.**

This establishment, the only ambition of which, to begin with, was simply to supply the neighbouring bar, has met with resounding success thanks to the creation of a thoroughbred beer that takes its name from the Latin name of the hop used (*Humulus Lupulus*). With their strong character and subtle, hoppy aromas, the brewery's beers took the market by storm.

— problematic

order and issues

With its fast growing production, the brewery soon had to consider an extension to its production facilities. This extension and the future production growth lead to **increasing requirements for wastewater treatment.** Furthermore the **Belgian government demanded more demanding permits** since the brewery is located in a sensitive ecological zone, subject to very restrictive legislation.

Under current conditions, the maximum total daily flow has been estimated at 35 m³/d with a possible increase with the same installation to 57 m³/d (**20% growth included**).

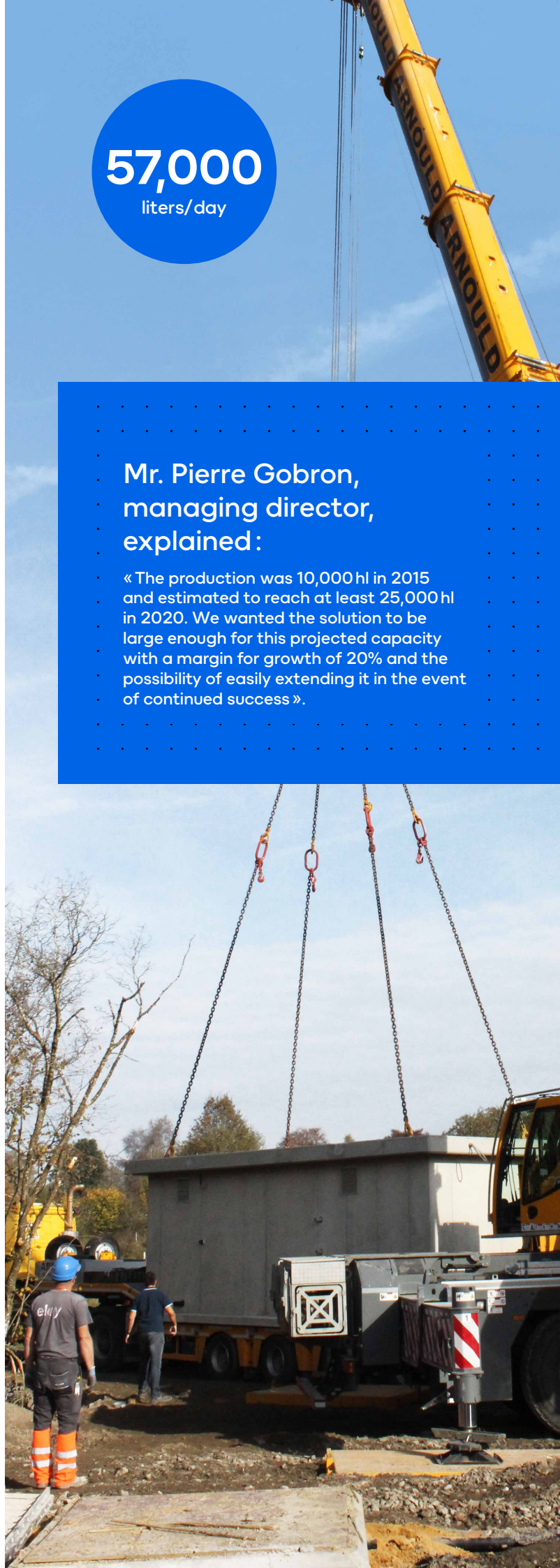
The future installation must meet various constraints, including **compliance with the regulations for discharge quality, low costs of operation and perfect integration into the site, reducing any noise and, above all, no odours.** Finally, the solution should also cope with the **variations in organic and hydraulic loads** due to production varying during the week.

57,000

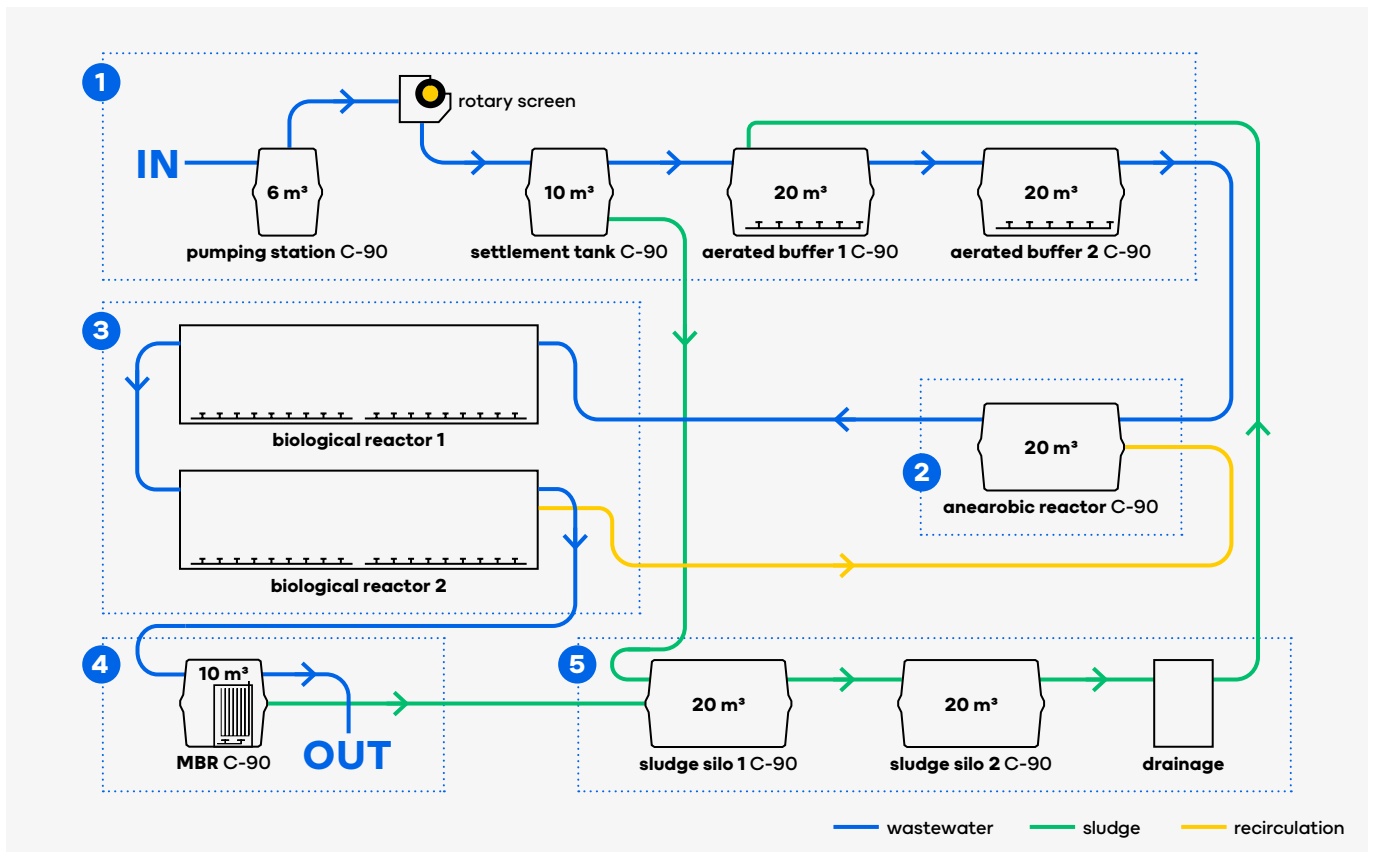
liters/day

Mr. Pierre Gobron, managing director, explained :

« The production was 10,000 hl in 2015 and estimated to reach at least 25,000 hl in 2020. We wanted the solution to be large enough for this projected capacity with a margin for growth of 20% and the possibility of easily extending it in the event of continued success ».



process



— operation

eloy water offered a **solution with membrane reactor** which will deliver very high performances, reliability of treatment and flexibility in use despite a considerable influent variation.

The system has the advantage of being **fully automated**, reliable and robust, producing no odours, all in very limited space. Indeed, the solution, consisting of 10 underground tanks and a control room above ground, has a footprint of 400 m². Finally, on specific request, it offers the possibility of reusing the treated wastewater.



the advantages

- optimised operating and installation costs
- very high performances, water reuse
- ideal management of variable organic and hydraulic loads
- automated operation
- scalable solution in the event of future extension
- no visual, odour or sound impacts

job completed

discover
our video



The brewery now has a **high-performance and scalable treatment plant capable of treating the wastewater subject to weekly variations and ready for production growth** over the coming years.

A particular attention to the control of the overall costs: from implementation of the treatment plant with reduced installation and on-site time to minimisation of the operating costs.

The plant is **automated for ease of use and personnel training sessions permit ideal autonomy** for day-to-day operation at the highest level.

Finally, the followup period after installation enabled eloy water to refine all the adjustments.

industrial brewery influent – 57,000 liters/day

wastewater treatment plant daily flow and influent (IN)/effluent (OUT)

| parameters | unit | influent | limits | performances* over a 24 hour period |
|------------------|---------------------|----------|-----------|--|
| pH | - | 5.8 - 10 | 6.5 - 9.0 | 8.26 |
| COD | mgO ₂ /L | 5,870 | < 150 | 56 |
| BOD ₅ | mgO ₂ /L | 3,000 | < 25 | 5.00 |
| TSS | mg/L | 300 | < 60 | 2.00 |
| NO ₃ | mg/L | 29.5 | < 20 | 0.50 |
| P total | mg/L | 15 | < 50 | 1.70 |

* measured by an independent laboratory



Mr. Pierre Gobron, managing director, concluded:

« We were looking for a company capable of successfully realising the project while becoming fully involved to give us confidence. We chose eloy water after talking to and visiting companies with similar projects.

We were not let down: eloy water got the measure of our ambitions and did everything to make the project a complete success while meeting our demanding conditions with regard to efficiency and cost control.

The fact that the solution was factory made at eloy water was of real benefit in reducing the time on site at the brewery and the related costs.

A real success ! »

— contact us

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