

# UVision

Paper

## Sustainable water treatment

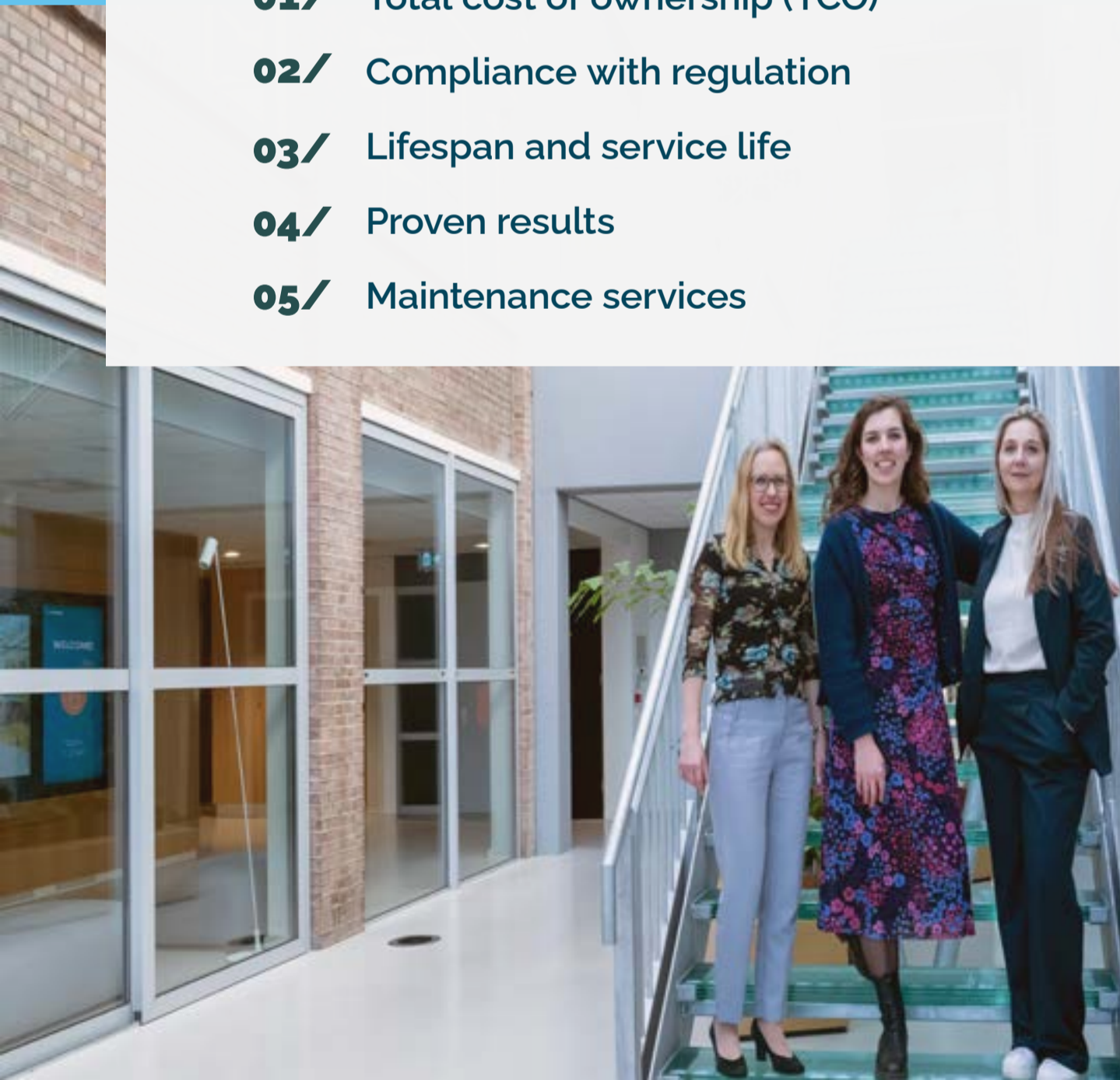
# Basic principles for development of high quality UV systems

We believe that for an honest comparison, we need to establish common principles for evaluation of UVC treatment systems in water processes and applications. In this way we can further professionalize and grow the UV market together.

As UV Alliance, we strive to ensure the professional application of UV technology. By establishing general guidelines, we aim to maximize the full potential of this technology, ensuring it contributes to sustainable, reliable, and guaranteed water treatment.

The key principles for evaluating UV systems are:

- 01/** Total cost of ownership (TCO)
- 02/** Compliance with regulation
- 03/** Lifespan and service life
- 04/** Proven results
- 05/** Maintenance services



# 1 Total cost of ownership

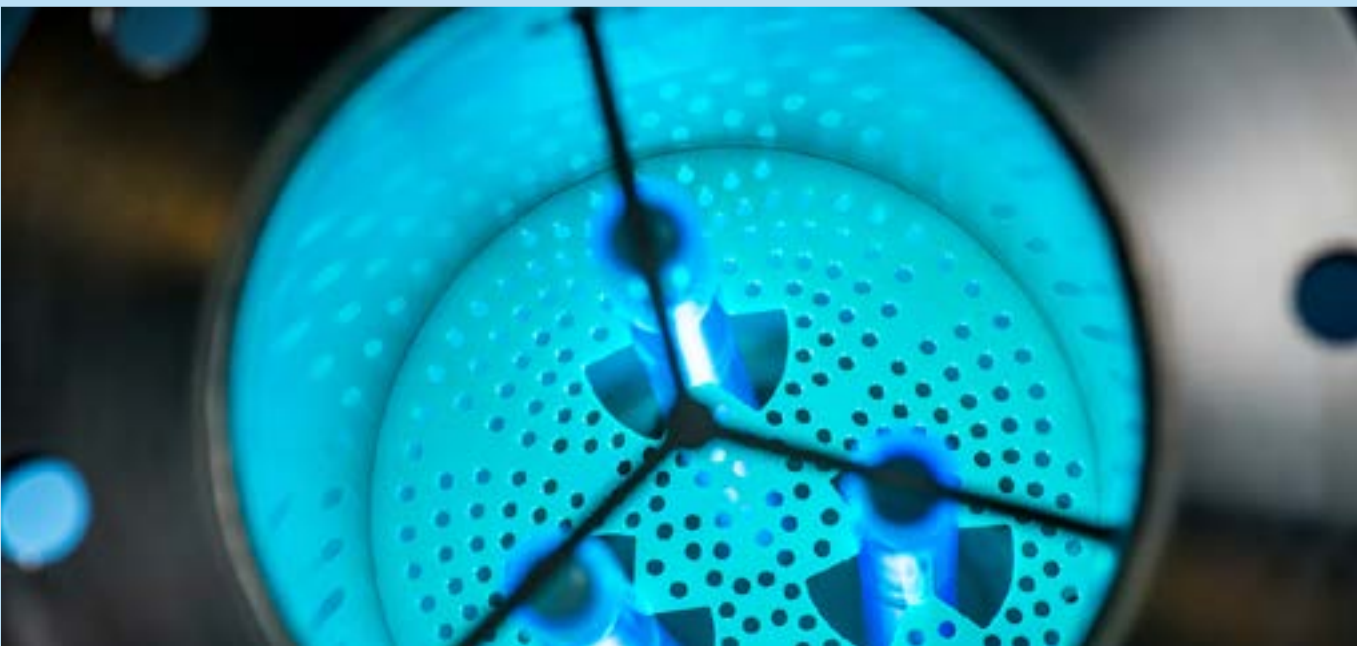
When looking at the total lifecycle-cost of a UV solution, you take into account all cumulative costs and consumptions of that product over its service life.

To make a fair comparison with other technologies or UV solutions, these costs can be divided by the amount of product treated. For instance €/m<sup>3</sup> of water that is treated. When done methodologically sound this serves as an excellent comparative value. As the UV Alliance, we aim to enable a fair comparison by objectively evaluating systems based on Total Cost of Ownership (TCO) per €/m<sup>3</sup>.



# 2 Compliance with regulation

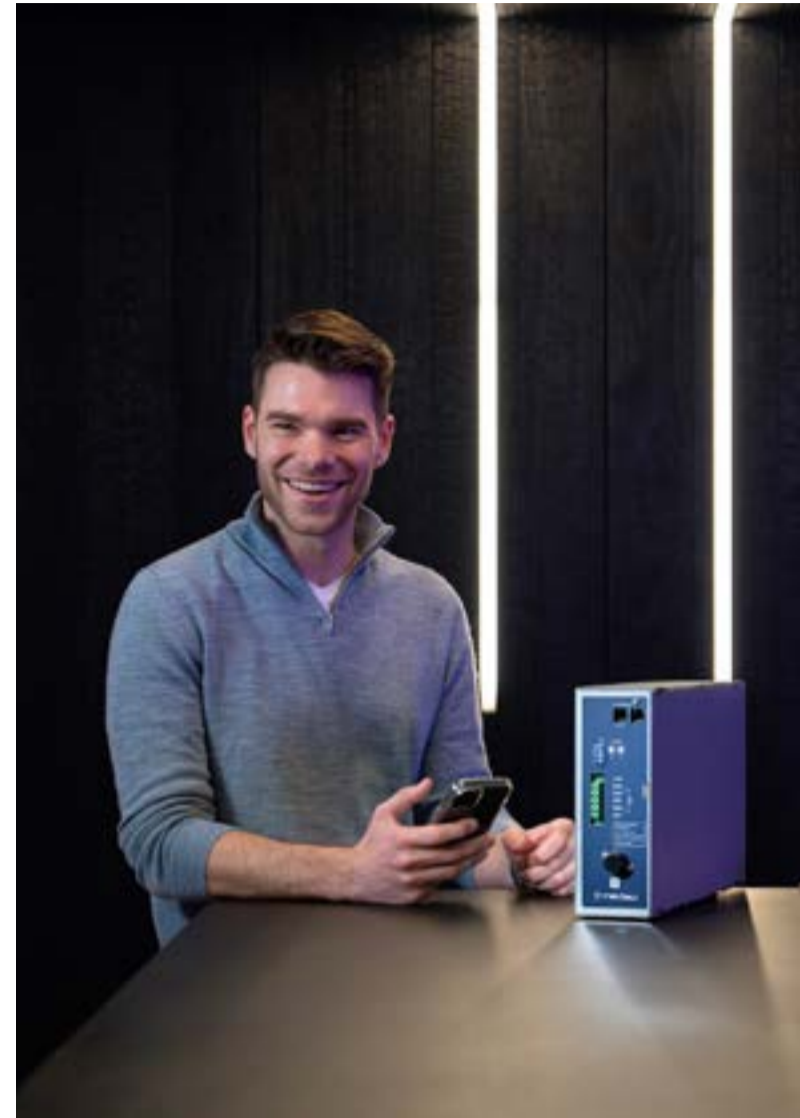
The application of UV technology falls under various laws and regulations, depending on its specific use and sector. These also vary by country. When UV technology is used in newer applications, guidelines may sometimes be lacking or outdated. As the UV Alliance, we strive to align these guidelines with the latest innovations and the



### 3 Lifespan and service life

Sustainable, state-of-the-art UV solutions may have a higher initial purchase cost, but they offer a lower Total Cost of Ownership. Lifespan and maintenance costs, including spare part services and repair options, determine the overall quality of the solution.

This is especially crucial in industrial applications, where dozens of lamps may be in use, directly impacting the system's sustainability. The reactor design and control method significantly influences energy costs and repair expenses. Awareness plays a crucial role in this, and with the UV Alliance, we aim to contribute to that.



Ton van Remmen |  
Van Remmen UV Technology

*"I am truly passionate about UV technology and the positive impact it can have. But I find it frustrating that so many myths exist in the market. There is a huge gap between what the market knows and what this technology is actually capable of. We need to close that gap. That's why I took the initiative to establish the UV Alliance. I stepped out of my comfort zone and reached out to my competitor. At first, it felt a bit uncomfortable, but we quickly realized that we were facing the same challenges. From there, we joined forces. With the launch of the UV Alliance, we have reached a real milestone. Together, we can showcase the true impact of UV technology."*



## 4 Proven results

To ensure that UV technology meets expectations and customer requirements, it is crucial to validate the solutions. This can be done in various ways, depending on the application and specific requirements. By making the results transparent and sharing best practices, we demonstrate that UV technology can be a sustainable and economically attractive alternative to existing water treatment solutions.

## 5 Maintenance services

Well-maintained UV systems not only reduce energy consumption and repair costs but also ensure consistent water treatment effectiveness. Proper maintenance of UV systems is essential to ensure optimal performance, efficiency, and longevity. So, when evaluating UV systems, maintenance costs and services are an important consideration. As the UV Alliance, we aim to share our knowledge and expertise in this area to ensure that UV systems are assessed correctly and fairly.



## Contact us



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