

## Press Release

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### Five million euros for wastewater recycling company Membion

- Series A capital for wastewater treatment plant technology with ninety percent energy savings
- TechVision Fonds invests together with co-investor DeepTech & Climate Fonds (DTCF)

**Aachen, January 16, 2024** – [Membion GmbH](#) from Roetgen near Aachen receives an investment of around 5 million euros led by [TechVision Fonds \(TVF\)](#) and [DeepTech & Climate Fonds](#) (DTCF). The company develops and produces membrane bioreactor (MBR) modules for wastewater treatment. With the multi-patented technology, municipal and industrial wastewater treatment plant operators can meet the growing demands on water quality and significantly reduce operating costs. Membion will use the capital to achieve broad market entry, set up further production lines and develop additional product features.

"Our customers want and need to achieve higher water quality, but often don't have enough space to expand their wastewater treatment plant. If they convert these to our Membion MBR modules, the bacterial load of the wastewater can be reduced by a factor of 1,000 compared to a conventional plant. Compared to conventional MBR plate modules, 75 percent less space is required," says Dr. Klaus Vossenkaul, CEO of Membion. "In addition, our MBR modules are aerated in a revolutionary way, reducing the energy required to flush the filters by more than 90 percent compared to MBR plate modules."

#### **More filter performance in a smaller space – with up to 90 percent less energy consumption**

Over many years of research and development, the experienced Membion founding team, consisting of Dr. Klaus Vossenkaul and Dirk Volmering, has developed unique membrane filters, so-called hollow fiber MBR modules, which achieve significant energy and thus operating cost savings – and with significantly reduced space requirements compared to competing systems. There is no need for secondary clarification as in conventional systems. Both are decisive factors for the future, as ever-increasing demands on water quality will soon require a so-called "fourth purification stage". In addition to the separation of sewage sludge and water that has been implemented to date, this will also have to filter microplastics, antibiotic-resistant germs, pathogens and trace substances such as drug residues from the water.

To meet these future requirements, sewage treatment plants will need additional space for retrofitting a purification stage. Additionally, the growth of urban areas requires extra capacity for water purification.

Membion's self-developed production plant has a scalable, highly automated production unit. Target customers are operators of municipal wastewater treatment plants and industrial water treatment plants.

### **High market potential expected**

"We see Membion as the future technology leader in a dynamically growing international market," says Björn Lang, the responsible partner at TVF Management GmbH. "The aim of Membion is to revolutionize wastewater treatment, align it with the needs of future generations and at the same time make it much more economical." According to studies, the market for MBR will grow to a size of almost seven billion US dollars by 2030.

Dr. Elisabeth Schrey, Managing Director of the DTCF, says: "Both established wastewater systems and new industrial water applications need innovations in order to use the valuable resource of water responsibly. I am delighted that we are able to support such an experienced entrepreneur in Klaus Vossenkaul, and we share his vision of energy-saving water recycling."

### **Team with tech expertise and entrepreneurial experience**

Membion founders Dr. Klaus Vossenkaul and Dirk Volmering studied process engineering at RWTH Aachen University and have over 20 years of experience in the industry. "Climate change, water scarcity and the increasing intensity of agriculture mean that more and more water must be available in good quality. In future, operators will have to pay fines under German and European legislation if they do not meet these quality standards," says Vossenkaul. "As a result, wastewater treatment plants must become even more efficient. The patented Membion technology makes this possible."

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## About TVF

TechVision Fonds (TVF) is the leading early-stage VC fund from the Rhineland/NRW with a focus on technology start-ups in the pre-seed to Series A phases. TVF focuses on outstanding teams from the region, including the neighboring Netherlands and Belgium. The TVF management has experience from four fund generations and currently has over € 100 million in assets under management. The fund is backed by strong investors such as NRW.BANK, seven savings banks from western NRW and more than 15 successful entrepreneurs.

The TVF supports start-up teams with proximity, network and expertise and paves the way for them to become the next international industry leader. Through the network of the S-UBG Group, the TVF offers unique access to over 150 successful companies in various industries and establishes contacts between start-ups and their first customers, partners and advisors.

TVF – Brain | Cash | Proximity

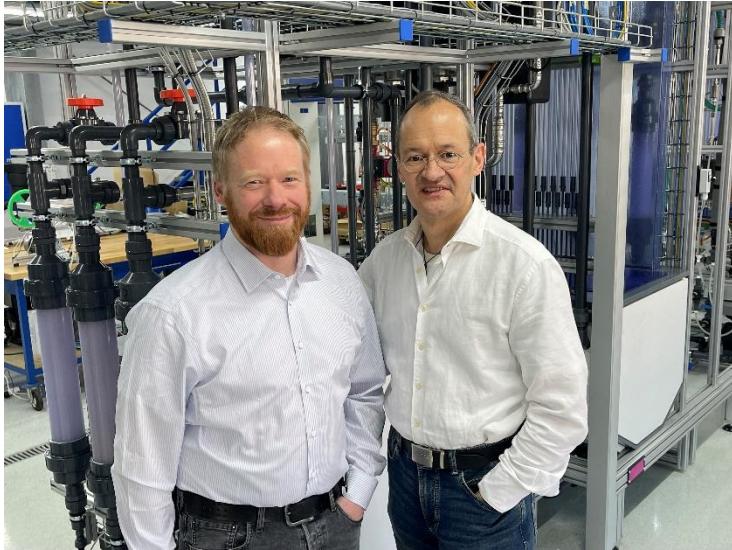
## About Membion

Membion is a membrane manufacturer and specialist for membrane bioreactors (MBR), i.e. for wastewater treatment plants with membrane technology. The two founders have many years of expertise in the field of MBR, having already developed and successfully launched one of the leading MBR products on the market before Membion. With Membion, they have further developed the technology, achieving significant operational and plant engineering advantages that will lead to a quantum leap in the economic efficiency of the MBR process and accelerate the implementation of the technology. As not only the product but also its production has been further developed, simplified and largely automated by Membion, the membrane filters can also be produced economically in Germany.

## About DTCF

The DeepTech & Climate Fund (DTCF) is a new fund that invests in the growth of companies with future technologies. It is financed by the Future Fund and the ERP Special Fund and helps to expand the technology ecosystem of the future. As an anchor investor and partner of long-term investors such as family offices, the DTCF will invest up to one billion euros in the coming years to develop the new technology-based SMEs of tomorrow.

**Images:**



**Image 1:** Dipl.-Ing. Dirk Volmering, Head of Research and Development, (left) and Dr. Klaus Vossenkaul, CEO (right)

**Image source:** Membion GmbH