AMA MUNDU TECHNOLOGIES

Extracting recyclable materials from wastewater

Considering wastewater not as water loaded with pollutants but as a resource: this is the approach adopted by Ama Mundu Technologies and the philosophy behind the company's technology.

Thanks to its technology and the principle of membrane filtration, the Luxembourg company Ama Mundu is able to filter out, step by step, the various elements present in wastewater. These water samples contain a large number of organic and inorganic compounds that need to be recovered. "In the same way as sorting solid waste, we sort liquid effluents. In wastewater, there is obviously water and tailings. By cleverly separating these different elements, we can obtain fractions with immense value potential," says Vincent Popoff, the company's Deputy Director.

Ama Mundu's solution is aimed at farmers who want to adopt an economic and ecological management of their slurry. It also targets biogas producers aiming to improve the productivity of their methanisation plants by making better use of their digestates, as well as tourism professionals, real estate developers in sustainable cities and municipalities who wish to pursue an environmental approach.

The municipality of Waldbillig, in eastern Luxembourg, will be the first to use this technology: "The construction of a new wastewater treatment plant will take several years before it becomes operational," explains Mr Popoff. "We have provided an intermediate solution: a filtration plant with a very low energy consumption that is immediately operational. It is also mobile in order to allow possible reuse."

Changing paradigms to innovate

The solution comes in the form of a very compact industrial unit. It is made exclusively of clean and recyclable materials and assembled in Luxembourg. No chemical or biological products are used for water filtration. "We have made processes evolve, >

that's where our innovation lies, the approach is different. We deliver turnkey machines, from design to maintenance," says the Deputy Director.

Ama Mundu Technologies has been recognised with several innovation and environmental awards for its innovative and patented solution and has received co-funding from the Ministry of the Economy for its first R&D project. The company is also involved in a second research project, this time a European one: "Persephone", an Interreg project involving, over a three-year period, 13 partners from the Greater Region to discuss the development of the biogas sector. "In this context, the choice to settle in Luxembourg was really strategic for us. It is a real gateway to the European market," says Mr Popoff.

Population growth, industrialisation, urbanisation or simply current lifestyles are all threats to drinking water resources. "Wastewater reuse is not new. It is already commonplace in space or military operations," he explains. "However, as far as everyday life is concerned, current regulations do not yet allow this resource to be fully exploited. We are ahead of the regulations because the technology is ready." X

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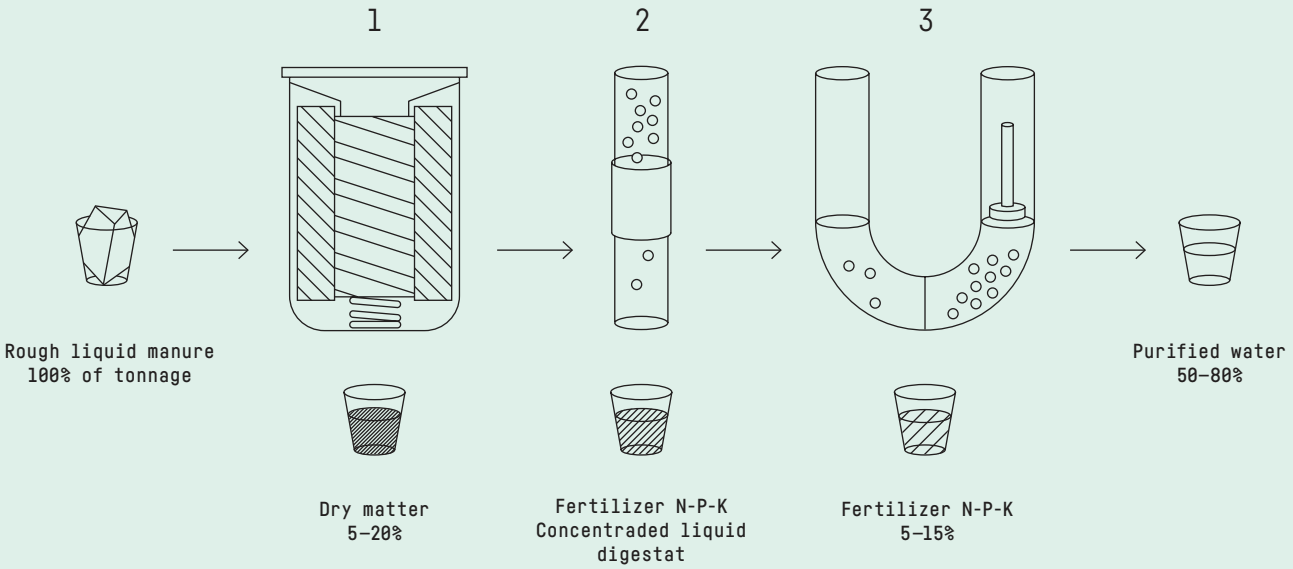
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