

Alpha Cleantec AG

Newsletter February 2024

Dear Madam or Sir,

We hope this email finds you well.

In February, we launched several new project- related promising business cooperation's in Germany, Austria, France, Spain and Italy in the fields of industrial wastewater treatment, the pretreatment of sludges to boost the production of biogas and reduce sludge volumes to be disposed of after dewatering, the recycling of sludges as fertilizer, the treatment for reuse of wastewaters from car batteries' recycling, and soil remediation on heavily contaminated sites. We signed a framework agreement with an important international partner in the field of soil decontamination. Furthermore, we had an opportunity to present our vegetation control solution at the Railway Weed Control: Challenges and Solutions conference in Szeged, Hungary. In addition to this, we are proud to have been chosen to participate in the Sandbox Program of the Forest Valley Institute.

From our R&D department, we are happy to provide you with a new update regarding customer projects.

Connection of the Standalone Sludge to Biogas unit to an operating anaerobic wastewater plant.

The Problem: Anaerobic wastewater plants have a great potential for the generation of biogas. However, today, most of the biogas units on anaerobic wastewater facilities work with less than 50% efficiency. This situation can be changed with an efficient pre-treatment of the sludge before the digester. We propose a pre-treatment unit that can significantly increase the efficiency of biogas units. However, wastewater operators are reluctant to connect this pre-treatment unit to their digester as eventual problems in the pre-treatment unit could affect the efficiency of the digester up to total operations stop.

The Solution: We developed a small, containerized, standalone and plug-and-play unit including one pre-treatment unit and two digestors. One of those digestors is connected to the pre-treatment unit, and the other one runs simultaneously without the pre-treatment unit. This process allows us to show the efficiency of the pre-treatment unit in real-time without any risk of compromising the wastewater plant's digester and impacting on plant's regular operation.

The Status: Our unit is operational and is planned to be available in April after first operation's feedback expected at the end of March.



If you want to try our unique unit in your plant. Please feel free to contact us.

<https://www.linkedin.com/company/alpha-cleantec-ag/>





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About Alpha Cleantec AG

We believe that our eco-system requires looking after so we have a world worth living in to pass to our next generations. Decontamination of soil and water from hazardous contaminants plays a major role in this regard, in our view. This is why we established Alpha Cleantec AG as an environmental technology company in 2016 with the vision to provide safe, green, rapid, efficient and cost-effective technologies to resolve environmental harms and hazards caused by inadequate human and industrial activities.

For Decontamination of a wide range of contaminants (see table below), we provide two technologies, AFA and SOA, achieving decontamination ratios of up to 97% in just hours (such as for Hydrocarbons, BTEX, Petroleum leftovers, Aromatics, PAHS, Chlorinated Solvents, PCBs, Dioxins as well as Pesticides and Herbicides) to be applied in soil, groundwater, wastewater and railway ballast treatment.

For wastewater facilities we have developed, based on our proprietary technology, a process allowing to pretreat sludge before the digester, thereby significantly increasing biogas generation (up to 50%) and decreasing dry sludge disposal at the end of the process (up to 20%).

For Vegetation control we have developed a process based on an environmentally friendly mixture of inorganic salts that generates concentrated (non-Glyphosate) herbicide absorbing water from the plants and drying the plant including the roots, without changing the salinity of the soil.

Table of contaminants treatable by our technologies

CONTAMINANTS	IN-SITU		ON SITE	
	SOA	AFA	SOA	AFA
BTEX				
Benzene	*	*	*	*
Toluene	*	*	*	*
Ethylbenzene	*	*	*	*
Xylene	*	*	*	*
PETROLEUM HYDROCARBONS				
Gasoline Range Organics (GRO)	*	*	*	*
Diesel Range Organics (DRO)	*	*	*	*
Oil Range Organics (ORO)	*	*	*	*
AROMATICS				
Chlorobenzene	*	*	*	*
Bromobenzene	*	*	*	*
Dichlorobenzene	*	*	*	*
Nitrobenzene	*	*	*	*
Phenol	*	*	*	*
Styrene	*	*	*	*
Naphthalene	*	*	*	*
Trichlorobenzene	*	*	*	*
Trimethylbenzene	*	*	*	*
PAHS				
Phenathrene	*	*	*	*
Naphthalene	*	*	*	*
Acenaphthylene	*	*	*	*
CHLORINATED SOLVENTS				
Tetrachloroethylene	*	*	*	*
Trichloroethene	*	*	*	*
Dichloroethene	*	*	*	*
Vinyl chloride	*	*	*	*
Tetrachloroethane	*	*	*	*
Trichloroethane	*	*	*	*
Dichloroethane	*	*	*	*
Dibromochloroethane	*	*	*	*
Bromodichloromethane	*	*	*	*
Carbon tetrachloride	*	*	*	*
Chloroethane	*	*	*	*
Chloroform	*	*	*	*
Chloromethane	*	*	*	*
Chlorotoluene	*	*	*	*
Methylene chloride	*	*	*	*
PCBS				
DIOXINS				
PESTICIDES AND HERBICIDES				
Glyphosate	*	*	*	*
Goal	*	*	*	*

We plan to inform you in the future about newly accomplished projects, pilots or case studies. Please let us know if you do not wish to receive our company news.

Kind regards/ Mit freundlichem Gruß

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