

Advancing food industry sustainability

GEA at the Anuga FoodTec trade show: Sustainability innovations bolster food industry resilience

Düsseldorf, February 23, 2024 – The food industry is under pressure to transform, with the major global challenges of food insecurity on the one hand and environmental damage and climate change on the other hand. This is exacerbated by the energy crisis and evolving consumer interests. To resolve these issues, an extensive restructuring of our global food systems is essential. And innovative food technology is the master key.

Food industry must be willing to change

The agrifood industry has successfully contended with a doubling of the global population since the 1970s. Today, it feeds eight billion people. This is a feat not without consequences. In its latest The State of Food and Agriculture report, the Food and Agriculture Organization of the United Nations (FAO) puts the estimated hidden costs for people and the planet at USD 10 trillion¹, or 10 percent of global GDP. According to the FAO, one fifth of these costs is attributable to emissions, land use, and water consumption. The food industry has admittedly proven its ability to keep up, but it now needs to show willingness to change. This calls for more sustainable food production methods that are environmentally friendly while remaining safe, available and affordable.

Foodtech as a transformation driver

At the leading international Anuga FoodTec trade show in Cologne, Germany (March 19–22, 2024), systems supplier GEA will present technologies that help make this change of direction possible. How can GEA's process solutions support both established food industry players and newcomers from the new food sector in their quest for sustainability? How do these solutions unlock innovations that enhance the productivity and efficiency of manufacturing facilities?

"Re:think Food Tech" – Time for new thinking. Innovative technologies are already paving the way for more sustainable food systems that will be capable of feeding 10 billion people with our finite resources by 2050.

At Anuga FoodTec, GEA will focus on the following innovations to set the global food industry on course for transformation:

¹ Source: [The State of Food and Agriculture 2023 \(fao.org\)](https://www.fao.org/state-of-food-and-agriculture-2023)

Added note: In the most recent report by the Food System Economics Commission (FSEC), the unaccounted costs of the burdens placed on people and the planet are estimated to be as much as USD 15 trillion per year. [FSEC-Executive_Summary-Global_Policy_Report.pdf \(foodsystemeconomics.org\)](https://www.foodsystemeconomics.org/fsec-executive-summary-global-policy-report.pdf).

Low-consumption dairy technology

The GEA innovations featured at the trade show will center on water and energy consumption in dairy industry processing. High-efficiency centrifuges such as the [bacteria removal separator GEA ecoclear i](#) will take center stage. Its integrated direct drive in the cartridge design not only significantly reduces energy consumption but also minimizes downtime and maintenance costs.

The sustainability line for [GEA's MSI skimming separators with GEA EngySpeed](#) is also catalyzing a paradigm shift in separator design. In place of smaller but higher-speed centrifuges, which are still standard in many places, larger bowl volumes are now coming to the fore. For dairies, this means achieving the same throughput at lower speeds and with less power requirement. The EngySpeed system reduces the power consumption of GEA milk skimmers by up to 40 percent.

The [GEA NiSoMate](#) inline quality monitoring system measuring the homogenization effect and deriving physical product features such as density, change of composition, dilution. This new device enables contact-free, real-time monitoring of liquids during the process by means of sensors to measure the product quality and achieve the target at the lowest possible pressure.

Digital process control enhances energy efficiency

Digital innovations offer a way through the major challenges faced by a food industry required to produce more and more while at the same time consuming less energy and generating less waste. GEA's high-performance systems have their own intelligence in the shape of progressive sensor technologies, cloud connectivity and cutting-edge analytics. Transparency, system productivity and resource efficiency are the watchwords.

Smart services such as [GEA InsightPartner](#) enable food producers to respond flexibly using real-time data. A [cloud-based web application for processing and packaging lines](#), the latest addition to the GEA InsightPartner family, will make its debut at the trade show. Integrated into continuous machine monitoring, advanced analytics and predictive elements suggest ways to save resources in operations. The GEA Partner families with products such as [GEA KPIinsight for separators](#), GEA InsightPartner and [GEA OptiPartner for spray drying](#) are at the vanguard of self-learning systems, adapting independently and thus ensuring maximum productivity at all times.

Technological leap for the new food industry

GEA will also be focusing on the alternative protein industry at Anuga FoodTec. For the first time, the new food experts will discuss their [perfusion platform – a key technology for state-of-the-art upstream bioprocesses](#) that also enables continuous processing in cell cultivation and precision fermentation. In this process, cells from the GEA Axenic bioreactor are separated from the nutrient solution containing inhibitors using the GEA kytero single-use separator to improve the density of living cells and boost productivity. This technology offers great potential for the reprocessing of media, which represents a considerable cost factor in new food production and hence in the end products. The reuse and purification of media through perfusion would mark a major milestone on the path to reaching price parity between conventional and novel foods.

Link to download high-resolution images:

<https://assets.gea.com/gea/action/directLinkImage?assetId=315308>



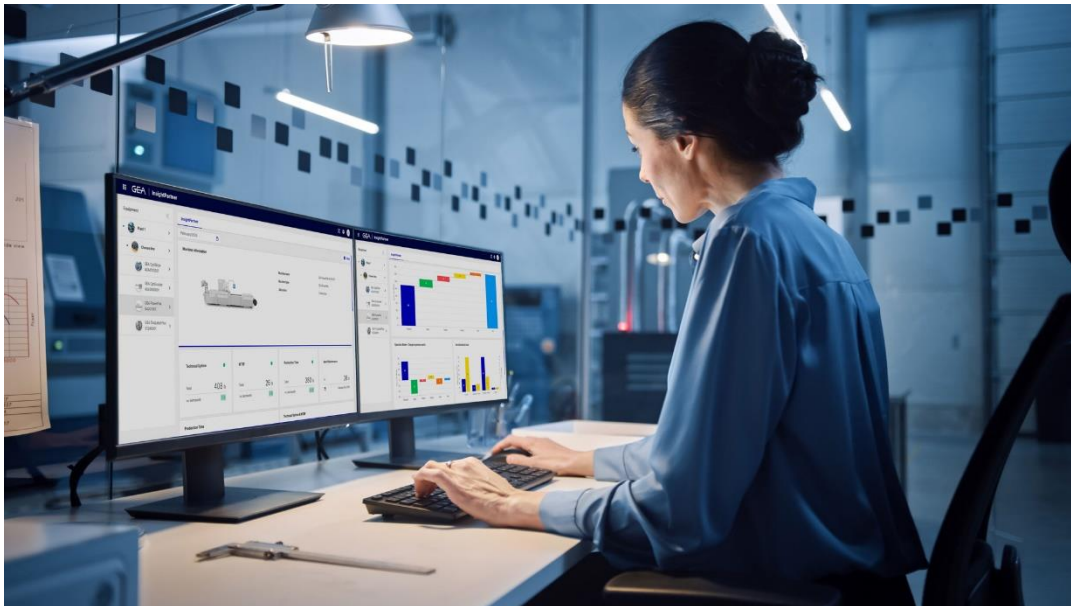
“Re:think Food Tech”: Innovative GEA technologies are already paving the way for more sustainable food systems that will be capable of feeding 10 billion people with our finite resources by 2050. Source: GEA



The new bacteria removal separator GEA ecoclear i features an integrated direct drive in cartridge design that not only significantly reduces energy consumption but also minimizes downtime and maintenance costs. Source: GEA



The GEA NiSoMate inline quality monitoring system measuring the homogenization effect and deriving physical product features such as density, change of composition, dilution. Source: GEA



A cloud-based web application for processing and packaging lines, the latest addition to the GEA InsightPartner family, will make its debut at the trade show. Integrated into continuous machine monitoring, advanced analytics and predictive elements suggest ways to save resources in operations. Source: GEA



For the first time, the new food experts will discuss their perfusion platform – a key technology for state-of-the-art upstream bioprocesses that also enables continuous processing in cell cultivation and precision fermentation. This solution consists of GEA Axenic bioreactors and the GEA kytero single-use separator. Source: GEA

NOTES TO THE EDITORS

- GEA goes KI: **Brains of steel: AI drives sustainability for GEA and its customers**
- About the Anuga FoodTec highlights:
 - [gea.com/engy\(gea.com\)](https://gea.com/engy(gea.com))
 - **A bioreactor for new food applications | GEA Axenic® C for Cell Culture**
 - **GEA Kytero single-use Separator for cell harvesting, without SIP/CIP (gea.com)**
- Further **information** about GEA
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About GEA

GEA is one of the world's largest suppliers of systems and components to the food, beverage, and pharmaceutical industries. The international technology group, founded in 1881, focuses on machinery and plants, as well as advanced process technology, components, and comprehensive services. With more than 18,000 employees working across five divisions and 62 countries, the group generated revenues of more than EUR 5.1 billion in fiscal year 2022. GEA plants, processes, components, and services enhance the efficiency and sustainability of production processes across the globe. They contribute significantly to the reduction of CO₂ emissions, plastic usage, and food waste. In doing so, GEA makes a key contribution toward a sustainable future, in line with the company's purpose: "Engineering for a better world".

GEA is listed in the German MDAX and the STOXX® Europe 600 Index and is also among the companies comprising the DAX 50 ESG and MSCI Global Sustainability and the Dow Jones Sustainability World Index.

More information can be found online at [gea.com](https://www.gea.com).

If you do not want to receive any further information from GEA, please send an e-mail to pr@gea.com.