



Ministry of Economy



The Israel Export &
International Cooperation Institute



Samuel Neaman Institute
For Advanced Studies In Science And Technology



Israeli Technology in the Food & Beverage Sector

Improving the efficiency of CIP (cleaning in place), decreasing sodium concentration in wastewater, and reducing bio fouling and energy usage present just a few of the areas in which the sector can benefit from water technology innovation so as to compete in a rapidly changing global environment.

Israel has been a pioneering force in global efforts to develop the technologies that can address some of these challenges, offering innovative technologies that promise to dramatically alter the playing field. The cutting-edge technologies now available include:

- An innovative water treatment applying the techniques of UV disinfection, fiber-optics and hydraulics. Achieving safety levels unparalleled in previous UV systems, without chemical interference, this technology provides industry and municipal authorities with a treatment system that fosters safety, ecological sustainability and measurable outcomes.
- Colorimeter based Multi-Parameter analyzer providing flexible measurements including: Free Chlorine, Total Chlorine, Conductivity, Turbidity, pH, ORP, temperature and flow.
- An amperometric technology providing versatile multi-parameter measurements including High Chlorine (9-199ppm), conductivity, turbidity, pH, ORP, temperature and flow.
- An online, amperometric technology providing versatile multi parameter
- measurements including Total Chlorine (0-10ppm)
- A Virtual ICT (Information & Communication Technology) network that opens a reliable, redundant, safe and secure event channel for real time remote control, monitoring and crisis management.

The food & beverage sector needs solutions. Israel has them. To find out more about the Israeli water technologists which are helping to advance industry while shaping a better global future, **contact Israel NewTech: israelnewtech@economy.gov.il**

www.export.gov.il

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Israel
NewTech
National energy & water program



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The Food and Beverage Sector



Introduction

Overcoming the challenges of an arid climate has been vital Israel's growth since its establishment. Driven by circumstance to maximize its creative capacity, Israel's innovations in the realm of water technologies, management, and long-term planning have made sustainable water consumption a reality in 2013, and well into the future.

Among the impressive range of innovations, nationwide reclamation of treated domestic wastewater for irrigation in the agricultural sector, solutions for industrial wastewater, and the large-scale production of desalinated water have been especially groundbreaking. In fact, Israel has the highest level of water reclamation in the world today.

Israel NewTech, the Israeli national program for the promotion of the Cleantech sector, led by the Ministry of Economy in collaboration with the Samuel Neaman Institute at the Technion and the Israeli Export & International Cooperation Institute, conducted strategic research to identify global current and future challenges of water usage, in six dominant industry sectors: Oil & Gas, Mining, Pharmaceuticals, Food & Beverages, Semiconductors & Metals. This research helped to identify the challenges unique to each sector and to estimate the potential contribution of Israeli water technologies in offering innovative solutions.

The Food and Beverage (F&B) Industry

A large and growing sector, the international food and beverage industry finds itself at an important crossroads, as shifting global circumstances bring questions of economic efficiency and environmental sustainability to the fore.

Central to food and beverage manufacturing and critical to production methods that meet changing industry needs, water is the natural resource upon which manufacturers rely most heavily. Used for processing feed, cooling, air conditioning, steam generation, cleaning, rinsing purification and production, effective techniques for water management and wastewater treatment are becoming increasingly more important.

Furthermore, in a climate of heightened public interest in food safety, product reliability, and environmental standards, coupled with increasing global water shortages and growing governmental regulation, food and beverage companies are actively seeking the types of innovative technologies that can ensure optimal usage of water resources and efficient, cost-effective, and sustainable production practices.

By adopting the economically efficient and environmentally sustainable water technologies available to date, the food and beverage industry can position itself to continue to meet growing global food needs in a sustainable and profitable manner, spawning significant growth while responding to the changing needs of today.