

EHEDG Goes Global: Taking Food Hygiene Principles Worldwide

In response to a significant increase in membership, the European Hygienic Engineering & Design Group (EHEDG) is broadening its international footprint with the aim to advance its mission of promoting safe food by improving hygienic engineering and design in all aspects of food manufacture. For EHEDG, 'going global' means expanding access to its extensive suite of hygienic design solutions and expertise, no matter where food industries operate in the world.

"'European' may be the first word in our organizations' name," says **EHEDG President Ludvig Josefsberg**, "but the need for applied science-based know-how in the hygienic engineering and design of food production equipment and facilities knows no borders. This is why EHEDG is experiencing tremendous growth in membership beyond continental Europe in recent years."

In fact, EHEDG's membership has more than doubled in the past decade, with a significant increase of enrollment from nations outside of Europe. Today, with **more than 400 participating companies and institutes** and **270 individual members in 55 countries worldwide**, EHEDG is able to leverage the know-how of **nearly 1,300 experts** from food and food equipment industries, scientists, thought leaders and innovators in hygienic design and engineering. This fast-growing expert network, from Europe via the Middle East and Asia to the Americas, is powering EHEDG's global reach and expanding its platform for exchanging state-of-the-art know-how in food production hygiene, from research to users.

"EHEDG fosters a collaborative environment in which experts from all of these links in the food chain contribute to developing best practices and technical guidelines," states **Josefsberg**. "As the organizations' pool of expertise expands throughout the world, so does EHEDG's ability to drive improvements in industry food safety and hygiene standards, which will go a long way toward minimizing food safety hazards and contamination risks to the benefit of all consumers."

A World of Hygiene Knowledge

Since its inception in 1989, EHEDG has gained a global reputation as one of the foremost authorities on hygienic engineering and design for food manufacturing.

The Dutch non-profit Institution for General Benefit (ANBI) is comprised of equipment manufacturers, food producers and retailers, facilities designers, service suppliers, universities and research institutes, public health authorities, legislators and food safety enforcement agencies. Although EHEDG members hail from different points along the global food supply chain, all have a common goal: To advance and improve hygiene during the processing and packaging of food products.

Achieving this aim is critical to food industries the world over, whether an operation is a small business enterprise with one or two production lines or a multinational with hundreds. Modern trends in consumer demand - from minimally processed and reduced additive/preservative foods, to pre-prepared ready-to-eat/ready-to-cook meals - are placing increased pressures on all food manufacturers, not only to innovate but to stay on top of food safety challenges. Food producers must ensure that products are protected throughout production by restricting access and controlling conditions for survival of microorganisms, pests, foreign bodies, and chemical contaminants such as lubricants or cleaning agents. By incorporating hygienic equipment and facility design into the operation at the same level of importance as Good Manufacturing Practices (GMPs) and Hazard Analysis and Critical Control Point (HACCP) programs, food manufacturers not only significantly reduce potential food safety hazards but can realize energy-, water-, and cost-savings.

For nearly 30 years, EHEDG has led the way in guiding the food industry in hygienic design solutions by offering practical guidelines, test procedures, training and education. To develop a comprehensive food production hygiene toolkit, EHEDG garners knowledge from the practical experience of food and beverage processors, the technical expertise of equipment and component manufacturers, and the scientific findings of

respected academic and research institutes. This information translates into EHEDG's best practices resource portfolio that includes industry guidelines, hygienic equipment certification, and training workshops.

"EHEDG provides food manufacturers with science-based but practically oriented guidelines and other resources for applying hygienic design and engineering principles in their plants," **Josefsberg explains**, "enabling them to construct more food-safe, efficient, sustainable and cost-effective food production systems and facilities. In addition, we bring together top scientists and engineers from the equipment manufacturing sector and world-renowned scientific research centers to collaborate on ways to produce equipment and design facilities to improve cleanability and process controls."

Among the most recognized resources produced by EHEDG is its series of practical, consensus-based hygienic design and engineering guidelines. **More than 400 experts worldwide participate in about 20 EHEDG Working Groups**, which are charged with developing new technical guidelines or updating existing ones. Working group topics range from: hygienic systems integration, testing and certification, and building design, to equipment design principles, open and closed systems hygiene, and cleaning validation, monitoring and verification. **A total of 45 documents have been published** on these and other subjects, including Document 43, *Hygienic Design of Belt Conveyors for the Food Industry* and Document 45, *Cleaning Validation in the Food Industry - General Principles, Part 1*, just published in 2016. The latter guideline will be completed with additional supplements in the near future.

EHEDG guidelines provide the foundation for the organizations' worldwide training and education offerings. Basic and advanced courses cover a wide variety of hygienic design and engineering topics of interest to food manufacturers and quality and safety personnel from the cosmetics, pharmaceutical, biotechnology and chemical industries. Training aids, such as case studies, equipment and component demos and videos, help participants in the one- to four-day courses learn how to apply hygienic principles of design in their own operations.

EHEDG also has earned international recognition for its equipment certification scheme, which sets quality standards for manufacturers who design with hygiene in mind. As part of EHEDG's mission to ensure that food production equipment is constructed, installed and fitted to the highest standards of cleanability and hygienic operation, the organization offers two types of certifications. **Type EL certification** applies to equipment cleaned with liquids, which includes both closed and open equipment that undergo wet clean-in-place (CIP), sterilization-in-place (SIP) or must meet other clean disassembly/reassembly requirements. **Type ED certification** applies to open or closed equipment that require dry cleaning only, whether cleaning requires dismantling or not.

EHEDG conducts design reviews using rigorous test procedures for equipment certification. **Certification evaluations are conducted at one of seven EHEDG-authorized test institutes** located in: **Denmark, France, Germany, Netherlands, Spain, United Kingdom and United States**. **EHEDG also cooperates** with a number of international technology and standardization organizations, **including US-based 3-A Sanitary Standards**.

Global Network, Global Outreach

The increase in EHEDG membership worldwide also has boosted the number of the organization's regional sections, extending its global reach. Of **the 30 EHEDG Regional Sections**, 15 hail from European Union (EU) countries, which represent 74% of all food and drink manufacturers in the 28 EU member states. Of these **EU15**: Belgium, Croatia, Czech Republic, Denmark, France, Finland, Germany, Ireland, Italy, Lithuania, Netherlands, Poland, Spain, Sweden, and the United Kingdom - the food and drink sector represents an annual turnover of more than €921 billion, or 92% of total EU28 food industries earnings.

Non-EU EHEDG Regional Sections are based in: Armenia, Macedonia, Russia, Serbia, Switzerland, and Turkey. In recent years, EHEDG has attracted a significant number of individuals, companies and institutes from Asia and Latin America to its membership roster **on other continents level**, and as result now boasts **regional sections** in Argentina, Brazil, Mexico, Uruguay, China, Japan, Taiwan, and Thailand.

EHEDG has approved plans to establish 20 new regional sections by 2020. With the addition of EU28 members from Austria, Romania and Bulgaria in 2016 and Portugal, and Hungary projected to join in 2017, EHEDG will operate regional sections in 21 EU nations in which the food and drink sector represents 97% of companies with 98% annual turnover. Of the non-EU nations targeted for expansion by 2020, four are in the Americas (United States, Canada, Chile and Peru); two in Oceania (Australia and New Zealand); three in Asia (Indonesia, Malaysia and South Korea); and four in Africa (South Africa, Egypt, Morocco and Tunisia).

EHEDG Regional Sections take a 'think global, act local' approach, disseminating EHEDG's hygienic design know-how at the local level. These groups organize seminars, workshops, training courses and trade shows to share knowledge about EHEDG guidelines, the EHEDG certification scheme, and general membership benefits. Members of these groups also translate guidelines, website content and other information materials into local languages, ensuring that a wide audience has ready access to the organization's knowledge platforms and resources.

Of course, EHEDG also delivers comprehensive information through a variety of formats, including its website (www.ehedg.org) and publications such as the EHEDG Yearbook, which features a mix of technical and scientific review articles on innovations in hygienic design approaches and technologies. Another opportunity for food, pharmaceutical and cosmetics manufacturers and equipment suppliers to interact and access EHEDG's expanding global network is its biennial congress. The 5th EHEDG World Congress on Hygienic Engineering & Design took place 2-3 November 2016 at MCH Messecenter Herning in Herning, Denmark (www.ehedg-congress.org). Designed to educate, equip and empower delegates, EHEDG's flagship conference delivers practical know-how in hygienic engineering and design for improving product safety, process efficacy, and production efficiencies.

As EHEDG's worldwide membership base continues to expand, so too does its ability to optimize the resources in its hygienic design solutions toolkit for use in food industries across the globe, adds **Josefsberg**.

"As a central, internationally-recognized source of excellence on hygienic design and engineering, EHEDG's objective is to harmonize guidelines and best practices on a global scale," says **Josefsberg**. "With a rising membership that represents the best of cross-continental expertise, EHEDG is well positioned to go global with the practical, science-based solutions that help food industries attain the highest levels of food safety and quality."