

University of Delaware Honorary Degree

**HANS-JÖRG
BULLINGER**
DOCTOR OF SCIENCE

The practice of granting honorary degrees dates back to the medieval period. European universities began granting dispensations from particular academic requirements in the 15th century, with the first recorded honorary degree awarded at Oxford University in 1479 to Lionel Woodville, Dean of Exeter and brother-in-law of King Edward IV. Degrees granted "for the sake of honor" (*honoris causa*) from the 15th through the 17th centuries were largely settled upon members of the nobility and high-ranking clergy, though gradually, universities conferred degrees on certain scholars whose career achievements warranted such recognition as well. The first honorary degree awarded in America was a doctor of divinity degree awarded by Harvard University to its president, Increase Mather, in 1692.

The honorary degree is the highest honor bestowed by the University of Delaware. The University bestows honorary degrees to recognize those persons who have attained true distinction in intellectual, civic, industrial, or spiritual realms for the purpose of publically and dramatically affirming the values for which the University stands. These persons may have attained prominence at a local, regional, national, or international level and may or may not have a previous direct relationship with the University of Delaware.

Distinguished academician, you studied mechanical engineering at the University of Stuttgart and earned your doctorate with distinction. In 1978, you completed a post-doctoral fellowship. Two years later, you were appointed Professor of Industrial Engineering/Human Engineering at the University of Hagen in Northrhine-Westphalia. You have been Professor of Industrial Engineering and Technology Management at the University of Stuttgart since 1982.

Pioneering research engineer and astute businessman, you began your foray into manufacturing early on, serving an apprenticeship at Daimler-Benz while still a teenager. In 1971, while still studying, you began work as a research assistant at the Institute for Factory Operation and Automation IFF at Stuttgart University, an organization that seeks safe and sustainable systems for logistics, automation, process and plant engineering, and digital engineering.

In 1975, you were appointed chief engineer with responsibility for heading the corporate planning division at the Stuttgart Fraunhofer Institute of Production Technology and Automation, a program linked to the University of Stuttgart. Working in close cooperation with some of Germany's most outstanding companies, you were responsible for many applied research projects in the field of design and manufacturing. By 1991 you had become director of the newly founded Fraunhofer Institute for Industrial Engineering IAO in Stuttgart.

Just over a decade later, you became president of Fraunhofer-Gesellschaft, one of Europe's largest applied research organizations, with 15,000 scientists and engineers working at more than 80 research institutes in Germany and in international locations in the U.S., Asia, and the Middle East. During your tenure as president, you focused on strategy development and portfolio process as well as internal and external networking. In so doing, you built Fraunhofer into a powerful network for innovation, both in Germany and abroad.

Valued partner to the Delaware Biotechnology Institute at the University of Delaware, you continued and enhanced a partnership between Fraunhofer and the University that had begun in 1996, when the company established a subsidiary in Delaware that was closely associated with the University's Center for Composite Materials. That initial Fraunhofer Resource Center has since undergone dramatic evolution and become the Fraunhofer Center for Molecular Biotechnology (CMB), which is affiliated with the Delaware Biotechnology Institute at the University of Delaware.

Since its establishment in 2001, Fraunhofer CMB has become one of the flagship research centers for Fraunhofer in the United States, focusing on rapid, low-cost, and safe production of valuable proteins by using proprietary technology in plants that can then be used for vaccines, protein therapeutics, and industrial enzymes.

German-born economist and Harvard Business School professor the late Theodore Levitt once said, "Just as energy is the basis of life itself, and ideas the source of innovation, so is innovation the vital spark of all human change, improvement, and progress." Dr. Bullinger, you have dedicated your professional life to research and innovation in pursuit of practical, sustainable, and profitable solutions for our world.

Therefore, under the authority of the Board of Trustees of the University of Delaware, I have the pleasure and honor of conferring upon you, Hans-Jörg Bullinger, the degree of Doctor of Science and do declare you entitled to all the rights, honors, and privileges to that degree appertaining throughout the world. In testimony thereof, I am pleased to present to you this diploma.

A. Gilchrist Sparks III
May 31, 2014