

A century in physics – DOI: 10.1051/epn/2024203

Herwig Schopper, EPS President from 1995 to 1997, recently celebrated his 100th birthday.

Herwig Schopper was born on 28 February 1924 in Lanškroun (Landskron), in a German-speaking region of what is now the Czech Republic. After an idyllic childhood, he found himself in turbulent times: in 1938 his hometown was annexed by Germany following the Munich Agreement, and in 1942 he was drafted into the German military. Fortunately, his technical talent was already evident, and he was able to work on telecommunications and radar, which saved him from being deployed to the front lines. Shortly after the end of World War II, Herwig began studying physics at the University of Hamburg. After receiving his PhD in 1951, he spent a period as research assistant with Lise Meitner in Stockholm. In 1956-57, he worked with Otto Frisch in Cambridge, and he obtained his “Habilitation” at the University of Erlangen in 1957.

Most of Herwig's early work was devoted to experimental nuclear physics, where he made landmark contributions to the understanding of parity violation in weak interactions. He developed the first polarized proton source and, with the help of circularly polarized gamma rays, demonstrated the opposite helicities of neutrinos and antineutrinos. A year with Robert R. Wilson at Cornell in 1960-61 marked his first encounter with particle physics. In his professorships in Mainz, Karlsruhe, and later Hamburg, he made a lasting impact on shaping the German research landscape. Particularly productive were his years Karlsruhe, where he initiated a vigorous R&D program on superconducting RF cavities, essential today for the construction of large particle accelerators, and during a stay at CERN, he developed the first hadron calorimeter – still an integral part of most particle physics experiments today.

Herwig Schopper's talent and success as a science administrator did not go unnoticed internationally. In 1970, he was appointed Leader of the CERN Nuclear



▲ Herwig Schopper in 1982, during his term as Director-General of CERN in front of a map of the LEP tunnel, which today houses the Large Hadron Collider.

Physics Division and in 1973, chairman of the DESY directorate. His DESY years were marked by the construction of the PETRA electron-positron storage ring, which led to the discovery of the gluon, and by DESY's diversification into synchrotron radiation science with HASYLAB. In 1981, he became Director-General of CERN, a position he held until 1988. His foresight in insisting on a 27 rather than a 22 km tunnel for the LEP electron-positron collider paved the way for the Large Hadron Collider (LHC), which was later installed in the same tunnel. After his term of office at CERN and retirement from the University of Hamburg, Herwig did not rest on his laurels but embarked on a new career as science diplomat that keeps him active until this day. From 1992-94, he was president of the German Physical Society and managed the integration of the Physical Society of the former German Democratic Republic, the first merger of two major scientific societies following the reunification of Germany. In 1995-97, Herwig served as president of the EPS, where we remember him mostly as the president who steered our society calmly through a tumultuous period when the seat and the secretariat were moved from Geneva to Mulhouse, saving the EPS from a severe political and financial crisis and

building a new basis for the universal representation of European physicists.

In the following years, Herwig held several important positions at UNESCO, including chairing the advisory committee for the International Basic Science Programme (2003-2009). Guided by his strong personal vision of “science for peace”, he embarked on his most ambitious science diplomacy project: the SESAME light source in the middle east under the auspices of UNESCO and built on the CERN model of international cooperation and governance. SESAME, which includes Israel and Palestine amongst its members, was established in Jordan and formally inaugurated in 2017. It continues to deliver world-class results, notwithstanding the current political turmoil in the region.

On 1 March 2024, Herwig's unique personality and countless achievements were celebrated at CERN with a festive symposium, “A century in physics”, by a prestigious line-up of speakers who had witnessed different stages of his life and career. His daughter Doris, herself a physician, disclosed Herwig's secrets for reaching the age of 100: the right genes (his mother reached the age of 98!), a healthy lifestyle, a passion for science and music, and – most important – lifelong curiosity. Herwig himself announced his next target: reaching the age of 105. The EPS congratulates and wishes him good luck on the journey to this next milestone – and beyond! ■

■ James Gillies, Rolf Heuer and Rüdiger Voss (CERN)

Reference

- [1] Herwig Schopper and James Gillies: *Herwig Schopper – Scientist and Diplomat in a Changing World*, Springer 2024: <https://link.springer.com/book/10.1007/978-3-031-51042-7> (Open Access).

¹ <https://indico.cern.ch/event/1366175/timetable>