Marcel Vivargent 1923–2010

Marcel Vivargent, a leading figure of French high-energy physics, passed away on 31 January 2010 in his 87th year.

Marcel Vivargent started his scientific career at the French Centre National de la Recherche Scientifique (CNRS) in 1951, joining the group of Frédéric Joliot-Curie in the Laboratoire de Physique et Chimie du Collège de France in Paris. After his thesis, in 1958, he contributed to the start of the cyclotron of the Institut du Radium in Orsay.

He came to CERN in the early 1960s to pursue his research at the new Proton Synchrotron. First by himself, and then with a small team from the Institut du Radium, he started collaborating with European colleagues to perform “electronic experiments”, which provided important results in the production of identified hadrons and in kaon physics. His experimental skill was soon recognized, in particular in the field of Cherenkov counters.

In 1968 Marcel took over as head of the High-Energy Physics Division of CNRS, which included particle physicists at the Institut de Physique Nucléaire Orsay and the Faculté de Paris Jussieu. Meanwhile he contributed to the CERN–Hamburg–Orsay–Vienna
experiment at CERN’s Intersecting Storage Rings, studying elastic and diffractive processes in proton-proton interactions at the highest energies then available. It was also at this time that, together with physicists and engineers in Orsay and Saclay, he worked on the design of a 45 GeV accelerator project in France, which never saw life.

In parallel, together with some colleagues from Orsay working at CERN, he proposed and convinced the director of the newly created Institut National de Physique Nucléaire et de Physique des Particules (IN2P3) to set up a new laboratory near CERN. In 1976, with the support of local authorities, the Laboratoire d’Annecy-le-Vieux de Physique des Particules (LAPP) was opened, with Marcel as its first director; he remained in charge until 1982.

During the same period, he contributed to the start of the European Muon Collaboration, which was later to bring important results on proton-structure functions. As president of the European Committee for Future Accelerators from 1978 to 1980, he also played a key role in the preparation of the Large Electron-Positron (LEP) collider at CERN.

Marcel initiated the participation of the LAPP and the Institut de Physique Nucléaire Lyon groups in L3, one of the four LEP experiments, and he was their representative from 1981 to 1991. He was responsible for the conception, building and testing of a new type of electromagnetic calorimeter in L3, which used about 10,000 crystals of bismuth germanate oxide (BGO) and was developed through a worldwide collaboration. This detector performed exceptionally well and was used successfully during the whole period of LEP running (1989–2001).

At the end of his career Marcel contributed effectively to the setting-up of the Crystal Clear Collaboration that performed key R&D work on new types of scintillating crystals. One of these (lead tungstate) is now used in the CMS experiment at the LHC and elsewhere. After his retirement, he still followed the developments in physics as an emeritus research director, with a special interest in the ALICE experiment at the LHC.

Besides his qualities as a physicist and a leader, Marcel Vivargent was a most courageous, open and critical man, never hesitating to engage himself and serve the community. In 1944 he interrupted his studies to join the French Resistance. After his retirement he was active in a project to transport freight in a dedicated railway tunnel under Mont Blanc. He was also involved in solar energy and he managed to set up in Dakar an International Center for Study and Training in Solar Energy, CIFRES, which was inaugurated in 2003 by the president of Senegal. In 2009 he was made Chevalier de la Légion d’Honneur by the president of France.

Marcel was held in high esteem by his colleagues of all ages. He will be remembered for his strong personality, his talents and his outstanding ability to tackle difficult challenges and to lead them successfully.

We offer our condolences to his wife, daughter and granddaughter. His friends and colleagues.

Marcel Vivargent, then president of ECFA, right, with Jean Teillac, then president of CERN Council, during the Council meeting in June 1978.