

Daniel Enard 1939–2008

Martin Cullum
ESO

Daniel Enard died in Paris on 2 August 2008 at the age of 68 following a serious illness. He made a major contribution to ESO over the many years he served the Organisation and is considered by many as the technical father of the Very Large Telescope project.

Daniel graduated at the École Supérieure d'Optique in Paris in 1963 and completed his doctoral thesis in 1965. After spending eight years working for the Optical Division of Matra, he joined the ESO Telescope Division in Geneva as an Optical Engineer in the Ray Wilson's group in February 1975. Although the 3.6 m telescope was well advanced at that time, the instrumentation programme was seriously delayed. So after the arrival of Lo Woltjer as Director General, Daniel contributed to an updated instrumentation plan for the 3.6 m telescope and the Coudé Auxiliary Telescope (CAT). In the following years he played a key role in the development and commissioning of the Coudé Echelle Spectrometer (CES), which remained the only high dispersion instrument of this facility.

After ESO moved into the new headquarters building in Garching in September 1980, Daniel took over the leadership of the Instrumentation Group and initiated the development of several new instruments for the 3.6 m telescope. These included CASPEC, IRSPEC, OPTOPUS and EFOSC, which were all highly innovative instruments at that time. IRSPEC was ESO's first cooled-grating infrared spectrograph and OPTOPUS used fibre optics to enable a classical slit spectrograph to be used for multiple-object spectrometry. EFOSC was a very efficient multi-mode instrument that employed refractive optics. Daniel was among the first to recognise that new optical glasses enabled refractive solutions that were far more compact, more efficient and also cheaper than conventional Schmidt camera systems.



In June 1983, a VLT Project Group was set up under Daniel's leadership. In this role, his broad understanding of optics and general engineering disciplines enabled him to steer the VLT project through its difficult conception phase, in which the many different wishes from the ESO community were weighed and evaluated, toward the pioneering, but solid engineering, concept that was finally approved by the ESO Council in 1987. Fundamental to the whole VLT concept was the application of the active optics that Ray Wilson had so successfully applied to the NTT, but in a much more extreme form. This was a bold decision, which proved to be fully justified after the implementation by Lothar Noethe and colleagues.

In June 1996 Daniel was seconded to the VIRGO gravitational wave detector project at Cascina near Pisa where he served as Technical Manager. After the creation of the European Gravitational Observatory (EGO) in December 2000, Daniel became the Deputy Director of this organisation. Daniel retired from EGO at the end of December 2003, shortly after the project had been successfully inaugurated.

However, this was not the end of Daniel's involvement with ESO. After the 100 m OWL telescope concept design review in November 2005, Daniel was appointed Chair of the ELT Design Working Group and later, in March 2006, he chaired the ELT Science and Engineering Committee (ESE) that advises the ESO Council on the E-ELT project and now oversees Phase B of the programme. As for the VLT project some 25 years earlier, this was a critical period for the E-ELT due to the diversity of views within the European astronomical community on which concept should be selected. Daniel's broad experience and calm approach was fundamental to the eventual adoption of the novel five-mirror concept at the European ELT Workshop that was held in Marseille in November 2006. He continued chairing the ESE committee until the beginning of 2008 when illness prevented him from continuing.

Daniel will be missed and remembered by many friends and colleagues at ESO, not only for his technical knowledge and insight, but also for his open and generous personality that was greatly appreciated by all who worked with him.

He leaves a widow, two daughters and five grandchildren.