

Gianpietro Marchiori, EIE, and the VLT Survey Telescope saga

By Prof. Massimo Capaccioli

I had a chance to meet Gianpietro occasionally when I was still working at the Padua University and he had started his collaboration with Cesare Barbieri on the TNG. In 1993 I moved to the Naples Astronomical Observatory at Capodimonte (OAC) where, four years later, I conceived the project of building a large new-technology survey telescope in a joint venture with the European Southern Observatory, eventually baptized VLT Survey Telescope, in short VST.

EIE entered in this enterprise pretty soon. Owing to his proven experience, Marchiori won the tender issued by ESO for the realization of the VST dome in the platform of the Cerro Paranal Observatory, on the Andes, among the VLT giants. In 2002 the VST high-tech enclosure had been erected and tested, and was awaiting for the telescope, whose construction was in progress in the Naples area. So far there had been not much direct interaction between Gianpietro's and the OAC team but through ESO which was pivoting the project.

In June, just after the main optics produced and masterly polished by LZOS in Moscow arrived at Paranal, it became apparent that M1 had gone into small pieces during transport by sea. The shock was enormous but the reaction prompt. ESO authorized us to procure a new mirror, which we did anon successfully. However the halt to the project had not been without consequences. LZOS had already started the polishing of the optics for VISTA, the British IR larger twin of VST, and therefore our new M1 was placed in a queue. Also, the VST team of engineers partly dissolved due to economic as well as psychological reasons: not all sailors remain on the boat taking in water. The dream of building the instrument in house with just our own strength had gone. We asked Marchiori's help to review the design of the telescope and to manage the project for a while, in a critical moment.

Two young EIE engineers worked with us in Naples for several months (one of them went back home with a splendid gift from Naples, my delicious assistant who soon became his wife). Their contribution to VST, and the overall support of EIE and of Marchiori in person, was crucial in a moment of great confusion for the project. Many things had already been done by the OAC team, and in general quite well, but the vision of the system was still lacking. Through its delegates Jason Spyromilio and Roberto Tamai, ESO was also helping us a lot with suggestions and positive criticisms.

Finally, with the assistance of EIE and in spite of some stumbles such as an unsuccessful critical design review, the telescope structure was transported to Chile and erected inside its dome. It was immediately apparent that the machine did its duty quite well. But the VST adventure was not yet over. The active optics units supporting the two main mirrors, completely refurbished under industrial support, paid another shipping accident in their way to Chile, which caused a further delay. A nightmare defeated by the skill and by the perseverance of those who, at Capodimonte and elsewhere, had continued to believe in the project. At the end of 2010 the telescope, fully assembled, saw the first light.

Since October 2011 VST is scanning the sky every night with its big eye, producing splendid images: a very reliable machine where the expertise of Italian engineering combines with the generosity and ingenuity of the people of the South. Due to the success of the instrument, to-day they are many who like to recall their real or putative participation in the enterprise. EIE has built a splendid dome and has been at our side also, and especially, in difficult times to ensure that the tenant of the enclosure proved high-class. We all won. Thanks, Gianpietro, and Happy Birthday to your EIE.