Juan Antonio Rubio 1944–2010

Juan Antonio Rubio, director-general of CIEMAT (the Spanish research centre for energy, the environment and technology) passed away on 17 January. He vigorously dedicated his professional life to the development of basic research and technology, but experimental high-energy physics was his original and permanent passion — and CIEMAT and CERN were two of his three homes.

Born and raised in Madrid, Juan Antonio studied physics at the university there from the age of 16. In 1968 he was lucky to be selected as a CERN fellow — just in time, because Spain would quit CERN in 1969. From 1968 to 1971 he worked on bubble-chamber experiments with Lucien Montanet, the French “grandfather” of Spanish high-energy-physics. Back in Spain at CIEMAT, then called “la Junta”, and armed only with his fresh PhD, Juan Antonio and
his few colleagues had to face years of “lean cows”, with no institutional support and with international connections only on the personal level.

Not easily discouraged, Juan Antonio, with his irresistible enthusiasm, attracted many young and brilliant physicists to the then seemingly desperate endeavour of high-energy physics in Spain. Even more difficult, he secured sufficient support to maintain a small team that initially continued their bubble-chamber work and eventually joined and contributed significantly to the European Hybrid Spectrometer and, with the inestimable collaboration of Sam Ting, to the MARK-J experiment at DESY and L3 at LEP. In 1986 Juan Antonio negotiated with Carlo Rubbia for the participation of CIEMAT in the UA1 experiment. The period of Juan Antonio’s leadership in particle physics at CIEMAT continued until 1987; it will never be forgotten by those who collaborated with him at the time.

It is jokingly but correctly said that, just to avoid Juan Antonio’s unbearable insistence, the Spanish authorities would grant him anything they could. In this way, a Mobilizing High-Energy Physics Plan was born – a pioneering concept in which a new system for Spanish R&D was developed. Simultaneously, he spearheaded an effort so bold that many people would have given up on it: the re-entry of Spain as a CERN member state in 1983. One of us, amazed to this day, witnessed how Juan Antonio finally extorted the entrance fee from a minister, in the form of a substantial cheque to be brought to CERN by hand! The entire high-energy physics community could never sufficiently thank him for all that was made possible by that cheque – and subsequent ones.

In 1987, after a few years as scientific director of CIEMAT, Juan Antonio returned to CERN, where he served as CERN’s group leader for L3, as scientific adviser to the director-general (1990–2000), and leader of the Education and Technology Transfer division (2001–2004). During the last years of this period he devoted more time to education, communication, outreach and technology transfer, as by-products of the fundamental research in high-energy physics. He also tirelessly fostered relations between Europe and Latin America, energetically supporting collaboration projects such as the network, HELEN. He was an acknowledged leader in creating high quality high-energy physics schools in Latin America. In addition he embarked on other extremely challenging endeavours. One of them – a tau/charm factory in Spain – never saw the light of day; another was the validation of Carlo Rubbia’s project of an Energy Amplifier.

In 2004, Juan Antonio was appointed director-general of CIEMAT, stirring up the place with his characteristic impetus. He promoted successful collaborations with several Spanish regional governments and wide-scattered institutes on all known promising alternative-energy resources, as well as specific projects in accelerator science and in the medical applications of high-energy physics technologies. He also supported CIEMAT’s by-now traditional activities in fusion research, high-energy physics and its sister disciplines, including the LHC experiments CMS and ALICE, and the cosmic-ray satellite AMS. How he could do all this not only simultaneously, but so intensively remains a mystery even to those who know that he was, seven days a week, the first to reach his work place and the very last to leave.

It has to be admitted that, like every great achiever, Juan Antonio left behind a trail of small-minded detractors. However he had many more admirers and there are many who thankfully admit that they owe to him a good fraction of their professional careers. He also has many close and sincere friends.

During the last six months of his life Juan Antonio had to fight an invincible adversary. He battled against his illness with his customary and unbelievable determination. He never exteriorized fear, to the point that those who would visit him to offer comfort would come out comforted. As he himself would put it: “La medida de la grandeza de un hombre no la da la abundancia de sus recursos, sino lo extenso de sus sueños” (the measure of a man’s greatness is not the wealth of his resources, but the breadth of his dreams).

His friends and colleagues.