This special volume of POLEN presents the results of a work team formed by various research groups of the Spanish Aerobiology Network (Red Española de Aerobiología, REA). This study was carried out with the financial support of the Comisión Interministerial de Ciencia y Tecnología, Programa Nacional I+D en Medio Ambiente, under a Co-ordinated Project entitled: Short and long forecasting models, optimisation of airborne pollen and spores as tracers of environmental biological contamination. Ref. AMB97-0457-C07.

Seven Spanish Universities located in different climatic zones took part in this project. The study included three provinces from Galicia, in the north-western part of the Iberian Peninsula, an area characterised by a rainy and warm climate; Vigo and Santiago de Compostela were the only two provinces from the Euro-Siberian Region, while Ourense belongs to the Mediterranean Region, with a drier climate, similar to the that of the other sampling sites. Girona, Lleida, Barcelona and Tarragona are part of Catalunya, in the north-eastern part of the Iberian Peninsula, Girona and Lleida belong to the Meso-Mediterranean belt, while Barcelona and Tarragona are part of the Thermo-Mediterranean belt, with a drier and warmer climate. The province of Leon is part of Castille-Leon, in the north-western part of the Iberian Peninsula. Despite belonging to the Mediterranean Region, it is influenced by Euro-Siberian characteristics. Moreover, it is located in a Supra-Mediterranean belt. It is probably the most continental site of all the sampling points. Madrid is located in the Centre of the Iberian Peninsula and is part of the Community of Madrid. It belongs to the Meso-Mediterranean belt. The other provinces are part of Andalucia, in the South of the Iberian Peninsula, Granada and Jaén belong to the Meso-Mediterranean belt. Córdoba and Malaga belong to the Thermo-Mediterranean belt. Córdoba, however, given its inland location, present certain continental features. Malaga is located on the coast, with a mild climate.

The main aim of this study was to examine the behaviour of the most important pollen types, from both an allergological and agronomic standpoint. Different behaviour was evidenced in different climatic zones of the Iberian Peninsula. All the pollen types studied are the best represented from the pollen spectra of the Iberian Peninsula. This was also the first step for studying the relationship between pollen concentration and meteorological variables, in order to obtain forecast algorithms in different bioclimatic areas for further studies. This type of study would not have been possible without the co-operation and exchange of information between the different groups of the existing network organisation (REA).