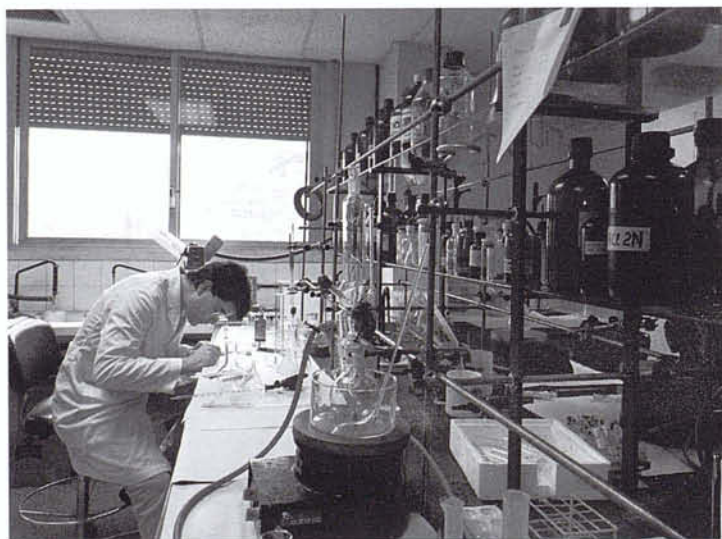


RESEARCH AND UNIVERSITY

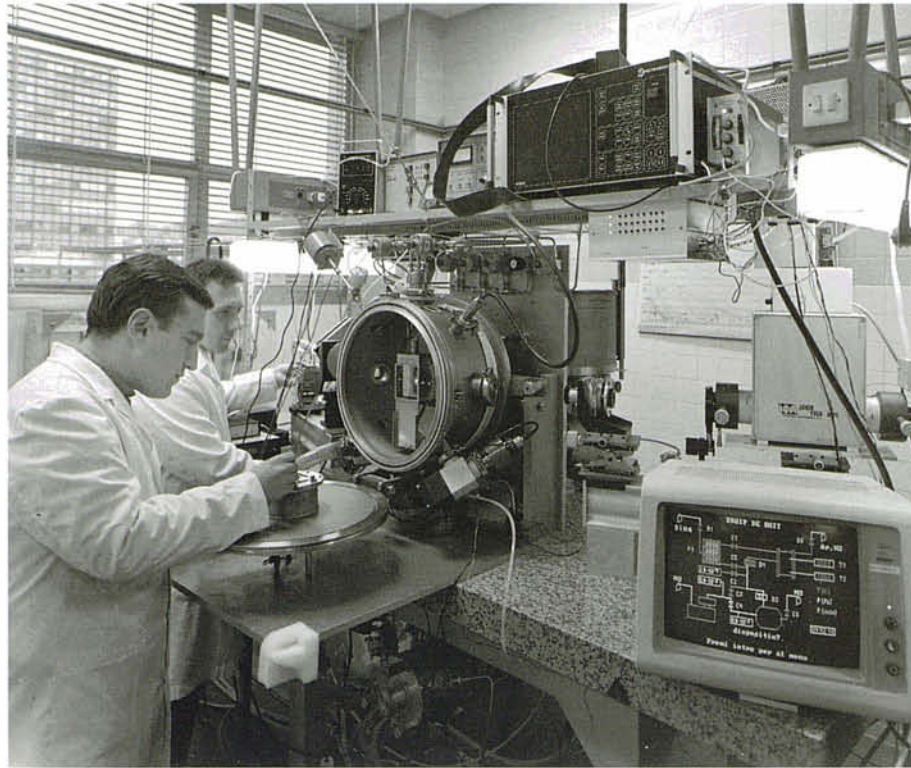


AFTER LITTLE MORE THAN TEN YEARS OF DEMOCRACY,
CATALAN RESEARCH WORK HAS PROGRESSED IN A WAY WHICH
WOULD HAVE SEEMED IMPOSSIBLE IN THE MID-SEVENTIES.

JOSEP FONT CIERCO AUTONOMOUS UNIVERSITY OF BARCELONA



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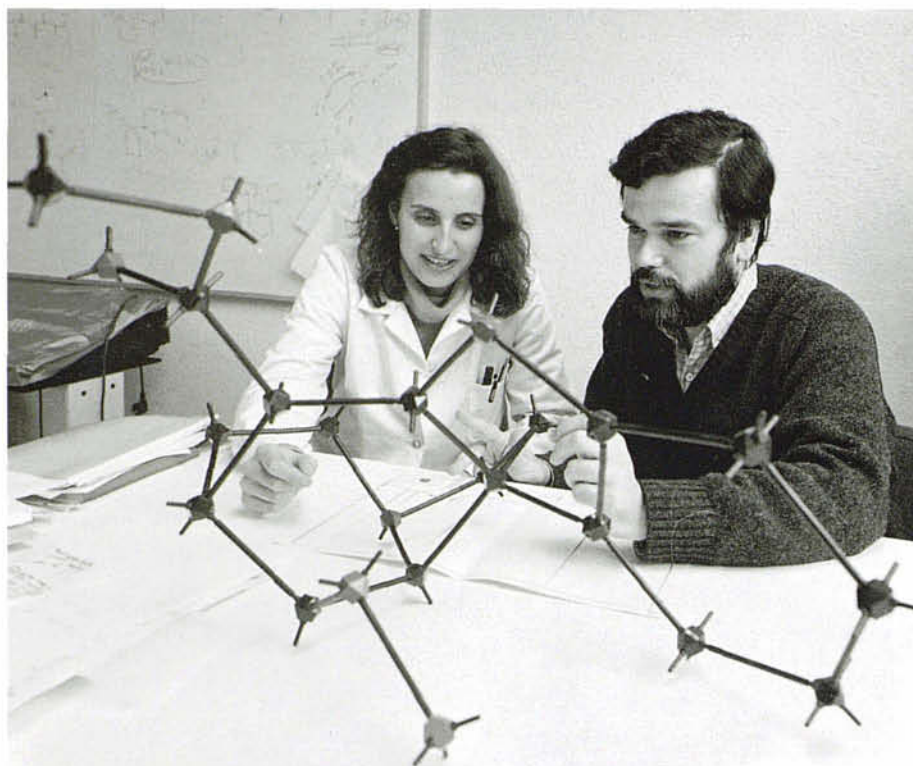
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Although Catalonia's statute of autonomy gives sole responsibility for scientific and technological research to the Catalan autonomous government, the fact is that the Spanish government has not yet transferred these powers to the *Generalitat*. Nevertheless, this has not been an obstacle to Catalan research work, which, after little more than ten years of democracy, has progressed in a way which would have seemed impossible in the mid-seventies. The factors which have contributed to this progress have been: i) the magnificent training researchers received from a series of university lecturers during the darkest years of the dictatorship; ii) the incorporation of these researchers on the teaching staff of the three Catalan universities (the University of Barcelona, with campus in Barcelona, Lleida and

Tarragona, the Autonomous University of Barcelona, with campus in Cerdanyola-Bellaterra and Girona, and the Polytechnic University of Catalonia, with campus in Barcelona and dependent schools in various Catalan cities such as Lleida, Terrassa, Girona, etc.); iii) the enormous effort these professionals have made to continue research on an international scale in spite of the heavy teaching load placed on them as a result of the acute overcrowding in the universities; iv) the progressive increase in the financial assistance research work receives from the state via its various administrative organisms. The proportion of the gross national product set aside for research and development has increased from between 0.3 and 0.4 % in the seventies to between 0.8 and 0.9 % in the last few years. Although this figure is still

quite low compared to other OECD countries, it has allowed an overall increase in the funds available for university research. Organizations such as the CAICYT (advisory board for scientific and technical research) at state level and the CIRIT (interdepartmental commission for technological research and innovation) at autonomous level have made a special contribution to this progress.

Most of the basic investigation in Catalonia is carried out in the universities. This would appear to be logical, bearing in mind the scarcity of CSIC centres (higher council for scientific investigation), most of which are in Madrid. However, this has not always been the case. In other periods, research work, faced with an unresponsive university, had to seek refuge in other, independent schools and organi-



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zations. The present situation, due to the diversification inherent to universities, has allowed progress in practically all fields of knowledge. For this very reason, it is difficult to single out any particular area as being more advanced than others. If we look at the leading international scientific publications, we can often see evidence of the work of Catalan researchers working in Catalonia. From Mathematics, with its *Institut de Recerca Matemàtica* which, under the auspices of the Catalan universities and the *Institut d'Estudis Catalans*, has attracted the attention of the world's leading mathematicians, to Biochemistry and Medicine, in which researchers have earned considerable prestige, all the Basic Sciences have made positive advances which have put Catalan science on an equal footing with European and American science.

The Catalan universities have been the setting for work in Theoretical Physics, Physics of Irreversible Processes, Electronics and Microelectronics, Computer Studies, Quantum Chemistry, Organic Chemistry and the Chemistry of Metallic Complexes, Cellular Biology, Genetics, Molecular Biology, Biophysics, Ecology—both aquatic and terrestrial—, Pharmaceutical Sciences, etc. There has also been remarkable progress in technology research, thanks to the consolidation of the old further education centres for industrial engineers and architects as well as the introduction of further education centres for Telecommunications, Roads, Waterways and Ports, Agriculture, etc.

It would be no exaggeration to draw the conclusion that the Catalan universities are now in a position to face the

challenge presented by the changes in science and technology which are going to take place in the twenty-first century.

The human potential of the new generation, trained according to internationally valid scientific criteria, will be important. It is a fact that established multinational companies—for whom this is always particularly significant—are aware of the situation and are opening factories in the area. We can only expect that an efficient policy for science, on the part of the Spanish state and of the Catalan autonomous government, will result in the consolidation of the work carried out so far, so that the universities provide the driving power behind the socio-economic transformation of Catalonia, in accordance with their traditional role in western culture. ■