

## **RESEARCH USE OF PATENTED INVENTIONS**

Opening remarks by Jose Manuel Fernandez de Labastida, Vice-president CSIC

Next year we will be celebrating the centennial of the foundation of the Council for the Extension of Studies and Scientific Research (“Junta para Ampliación de Estudios e Investigaciones Científicas”). This institution, precursor of the Spanish National Research Council (CSIC), was created at the onset of the 20th Century aiming at “ending Spain’s isolation and forging links with European science and culture”.

The effort to reform and regenerate the country became a national undertaking independent of political vicissitudes and in which intellectuals of various ideologies were involved.

When in 1939 the CSIC became heir of the Council for the Extension of Studies and Scientific Research, the newly created institution continued playing an important role in bringing the benefits of science to society. In fact, during the decades of isolation from the international context, the CSIC contributed significantly to the modernization of our industry. However, autarchy and science advancement do not fit well together. No wonder, when democracy came to Spain and borders –and markets- were opened, a substantial part of our industry proved to be old fashioned and could not survive in a competitive environment and another part turned out to be too dependent on foreign technology.

The need for modernization, bringing the Spanish Science-Technology-Industry system closer to international standards and making our economic development model less dependent on imported technology, was again, as in 1907, a prime objective of the democratic governments and formed the basis of the so known as “Science Act”, passed in 1986.

Today, the Spanish National Research Council is the country’s main body for scientific research. It represents by itself 20% of the scientific output of the country or 0.55% of the world’s scientific publications.

CSIC is also the first applicant from Spain to the Patent Cooperation Treaty. With its 62 applications in 2003 it ranks indeed above not only all the country’s universities, but all the industrial companies too. It is also the third European public research organization, behind the CNRS and the Fraunhofer Institute.

As a multidisciplinary research organisation, the Spanish National Research Council covers virtually every field of knowledge. CSIC has 125 institutes installed all over Spain and almost half of them in Madrid, where the central headquarters are also located. Besides libraries and laboratories, CSIC owns museums, oceanographic vessels, natural parks and reserves, experimental farms and astronomic observatories.

More than 12.000 people work in the CSIC, from tenured scientists, to technicians, administrative staff and research fellows. Around two thousand graduated students are carrying out their Ph. D. thesis in CSIC’s institutes.

CSIC is convinced that it will only fulfil its mission if it is capable of performing R&D of the highest quality. This means, among other things, forming part of the international scientific community and using its tools and methods.

It is well established that communication of results among scientists of different institutions all over the world is essential for science and science advancement. Not only to be able to perform incremental research but, above all, to achieve those breakthroughs that have, along the last couple of centuries, improved the quality of life. Communication of results, sharing of experiences, exchange of researchers, etc., are therefore considered essential for us.

Short after the Bayh - Dohle Act (1980) was passed in United States, allowing universities to patent inventions in order to promote technology transfer, the CSIC set up its Office for Technology Transfer (OTT), thus becoming in 1986 one of the first research institutions in Europe to recognize the need to structure and support technology transfer.

By doing so, CSIC soon acknowledged the need to meet present society's demands that public research organizations must contribute not only to the creation of knowledge, but also to the creation of wealth.

In today's economic model, creation of wealth from scientific results needs the participation of industry, which needs to invest on them until they are ready to go into the market. In order to make our results attractive to industry, we need to "prepare" them; usually, this means assuring that their exploitation is preserved only to the interested party. Sometimes, the best way to do this is achieved by

keeping the key parts of the new technology secret; but most of the times, by patenting our results.

At this point, it is important to point out that, for an institution as CSIC, with a broad spectrum of research areas and activities, performing high quality, competitive R&D, patents mean the best, and in many cases the only way to make knowledge dissemination compatible with industrial use of obtained results.

In other words, for us, as a public research organization, the present patent system is overall a well thought mechanism to stimulate the creation of new, economically valuable knowledge, while at the same time allowing for knowledge-dissemination.

Let me bring in here another point which is of the highest importance in, I would say, all the agendas of countries and research organizations; certainly it is in the Spanish and CSIC's agenda. I am referring to knowledge and technology transfer by means of the creation of spin-off and start-up companies. These are new companies created with the participation of researchers and research institutions, as a way to further develop research results while positioning them into the market.

I will not go here into the advantages of using this technology transfer strategy and tool, but it is important to say that while it is proving to be one of the most effective, its development is most of the times linked to the value of its portfolio of patents. This is easily understood if one considers that for a new company, which does not have a product in the market, patents are its most important asset, as seen by potential investors.

At CSIC, we are now ending the design of our strategic plan for the next four years. We are introducing very challenging objectives: among others we expect to double in 4 years the number of invention disclosures, going from the 150 in 2005 to 300 in 2009, we aim to achieve a 50% increase in the number of identifications of technologies or results which might constitute the basis of a spin-off company, going from 80 to 120 in the same period and, additionally, we plan to increase the rate of creation spin-off companies from 10 per year, as today, to 15.

You may easily understand that this will not be achievable unless we convince our researchers of the importance of protecting their results before they are communicated to the scientific community.

To succeed in these goals we must help them with appropriate tools and resources. Depending on future developments, this may mean that we will sometimes have to make them aware that a certain technology that they are using has already been patented by others ... and that, therefore, they cannot use it freely, not even to progress in their research, without having to go, in the best of cases, through certain cumbersome procedures. Sometimes we must let them know that we, as an institution, are preventing their colleagues from using their results for their research...

I think we will not risk too much if we bet that today's scientists, especially in public research organizations, will not be at all happy about either of these possibilities. For them, the ideal world is one without regulations. However, CSIC, as a public research organisation, will be ready to compete in the playfield, whichever the playing rules are.

The aim of this conference is to engage policy makers and stakeholders from OECD countries in policy relevant discussions related to the use of patented inventions and the knowledge embedded in them for research in the public and private sector.

You are here today to advice on the design of the future patent system. In other words, you are here to advice on the rules under which we will be performing science and technology tomorrow. A large responsibility, since economic development, welfare of our country men and women, of our families, will depend on it.

It is an honour for us, in the CSIC, to play a role, though small, in this initiative, by co-organising this “conference on the research use of patented inventions”.

Thank you.