

**STATEMENTS OF MARIA L. CALVO  
FOR THE CANDIDACY OF ICO SECRETARY  
(PERIOD 2005-2008)**

At the time of writing this short report, I am considering that three years have passed since my first statements dated earlier in July 2002. I am reporting here a brief summary of my activities at ICO Secretariat during the period October 2002-July 2005. It was indeed in October 2002 when I officially initiated my responsibilities at ICO Secretariat. The first important aspect to be mentioned is the enormous help I have received at all times from the past ICO Secretary, Dr. Pierre Chavel. His work at the Secretary for twelve years was outstanding and to initiate my duties with that support has had a great meaning.

ICO Secretariat is the common house of all those who work, investigate and develop academic activities in the field of optics and photonics. Nowadays, our community is having great presence in the world of science and technology, in the world of industry and emerging new technologies, inside nano and micro-optics, lasers for all utility purposes and applications (industry, medicine and life science, optical communications and even cultural heritage),... The scope of optical applications has extended enormously so that one can think from atom optics up to optics for astrophysics and astronomical images. This amazing diversity makes our field extremely active and incisive with a dramatic impact on today's society. This is one of the reasons why the challenge to work for the improvements of optics in our community displays a great attractiveness: it amounts to cooperate in building up a more equalized and sustainable developing society. One may state that photons will play for the 21st century a role similar to what electrons did in the past 20th century.

In my former statements in July 2002 I presented several statistics regarding the current requirements for young population in the world to have access to high degree education. At the present dates those statistics continue to apply, rather essentially. According to UN annual statistics, the world population is growing by about 80 million people per year. The percentage of young population with potential access to education is of 2,043 millions of which 13.9% are from more developed areas and 86.1% from less developed regions. In particular, this number of young population is increasing (up to the year 2050), it represents a very high percentage of world population and it is mostly localized in Africa, America and Asia. As an example, the African continent represents 14% of the world population and still the indices of illiteracy are unfortunately rather high. It is a main focus (in particular for ICO) to increase the capabilities for accessing to high technology training of young population that will constitute the professionals holding graduate degrees and specialization in the near future. Very recently, the Presidents of eight Academy of Sciences (from Canada, France, Germany, Italy, Japan, Russia, UK and USA) have agreed on and delivered a document in which they claim that we all are called to join common forces for facing such problems as climate change and to enhance the scientific and technological developments in areas such as many African countries. It is compulsory that we all be aware about the tremendous tasks to be faced.

During the previous three years period I have been able to visit various education and research centers all over the world and, in all of them, I have found young researchers eager to afford their future with a minimum of infrastructure in order to pursue their future carriers. I have found as well an interest in improving installations and in achieving results with an impact inside the world of science. I am therefore convinced that our focus to achieve an efficient work needs to be continuously reinforced. Inside ICO, at the Secretariat, I shall be ready to pursue this unique opportunity with the same enthusiasm as I did in the precedent period. Still, many actions are on the agenda and I can only expect that at least a fraction of them, regarding reactivation of activities at many areas inside academia, spreading of current research novelties and industry links, not yet quite developed, will be achieved. These statements will only have a meaning if I were able to count on the essential support of colleagues ready as well to participate on this join venture.

Madrid, Spain, July 18, 2005