

WELCOME ADDRESS ON BEHALF OF THE EUROPEAN SPACE AGENCY

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Señor presidente muchas gracias por recibirnos en esta magnífica región Toledo, permítame I will continue in English.

This region was the centre of the world 500 years ago and here we are again 500 years later, and I am very pleased to sit with you around this table, and to be here in Toledo with you all the friends and colleagues and potential users and builders of the Far InfraRed and Submillimetre Telescope.

I am very pleased to be here because I remember fourteen years ago we were also in Spain, near Madrid, in Segovia in 1986, and this was the time when FIRST started and there was not so many people in the room, but there were people who believed in the impossible and the impossible at that time was to build the FIRST. In fact, some of you were in Segovia fourteen years ago and you certainly have memories of the history of this telescope, of this observatory.

In fact, when we originated the Horizon 2000 program, which includes FIRST as one of its major programs, there were already studies which were made in 1982-83 for a Large Infrared Space Telescope, which at that time had a mirror of 8 metres. It was also the time when American colleagues in the USA at JPL started studying what they called the LDR (the Large Deployable Reflector).

So the origins of FIRST have to be seen in this context. All missions that we start in the science program of ESA like FIRST, XMM-Newton, Rosetta: missions impossible; and it is only after long periods of studies that we can make these missions possible. Cooperation with NASA was at the beginning a very evident task for us to do, but I remember that at time already that it was not so easy to get Europeans and Americans in the same room discussing the very delicate technologies which were to be used between LDR and FIRST. But after so many years I am very pleased to see that we can cooperate, and, in fact, you will see in the room many international faces not only from Europe, USA, or Japan, and I am very sure that FIRST will deliver its promises and will be a truly international observatory.

In the jargon of ESA, FIRST is called a cornerstone; a cornerstone is a project which has very privileged and specific fate, situation. First of all it means that its budget is fairly substantial. If you add the cost of the satellite,

its operations and the instruments, usually a cornerstone costs more than one billion Euros or one billion dollars.

As for all cornerstones in the Horizon 2000 program there is moment of truth, there are many moments of truth, first of all to be first a cornerstone, to be born and to get this privileged status. Second to make sure that it is not completely impossible, and third to give it a rank in the series of projects. FIRST has been submitted to this analysis exactly seven years ago in November 1993, when it was decided for obvious technology preparation reasons that FIRST should be in fact the last of the four cornerstones of Horizon 2000; and FIRST became cornerstone number four in November 1993. Again at this moment, the mirror had been a little bit reduced, it shrunk from 8 meters to 4 meters and it is probably now between 3.5 and 4 meters.

In 1993 FIRST would have been launched in 2005-2006 but it became very obvious finally that the payload would not be ready and the funds for the payload would probably not be enough to make it possible to launch FIRST just after Planck in that period. In fact the merging of the FIRST telescope with the Planck telescope has been a major decision, not very popular, especially not in the Planck community. I am responsible for that, I must say, because I had to find some money to make sure that other programs could start and continue; and thanks to your efforts and to the understanding of the Planck community we now have a cornerstone plus an intermediate mission, which fit in a budget which originally was set to contain only the cost of FIRST. We are very pleased that we could make this decision and we are very firmly on track for launch now of FIRST together with Planck in the same launcher, but not into the same orbit in February 2007.

In fact, at the moment while I am talking, a large number of engineers in our facility at ESTEC are analyzing the proposal that we received from industry to build the FIRST and Planck telescopes. So this is simply a major point and I am very happy that we have gone so far in the process. Now of course the problem will be for you to be ready. 2007 is in seven years; in fact it is a little bit less than this because in February 2001 we will be 6 years from the launch. You have to deliver the instruments, you have to prepare the observing programs and it will be a long process, not so easy, certainly, but very challenging for all of you and for all of us.

Now, it strikes me that we are here in Toledo in the year 2000 and it is exactly 200 years ago that a famous musician in Germany and England, but also a famous astronomer, Sir William Herschel, discovered very cleverly that by putting a thermometer in the remote part of the solar spectrum he could measure heat. By this trick, very clever, he discovered infrared light. He also was a builder of the biggest telescopes to look at the faintest objects in the universe, and those which in fact he thought were the origin of the world. He started studying with other astronomers at that period the first nebulae and galaxies.

In fact, Göran Pilbratt, the Project Scientist who has been with us since 1991, leading the difficult FIRST project together with the now Project Manager, Thomas Paßvogel, has suggested that we should maybe think of giving the name of William Herschel to the FIRST telescope. I think that it is a very good idea, and I fully support this.

So I hope that this meeting will be marking two events; first of all the very promising utilization of FIRST, and second the adoption of the new name, the Herschel Space Observatory.

This being said, I would like to thank you, again welcome you, wish you a very good meeting, very successful and I will listen to your speeches and to the conclusions of this important meeting.

Thank you very much!