

SPACE RESEARCH OPPORTUNITIES IN GREECE*

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Ladies and Gentlemen,

I have been kindly asked by the Chairwoman of the Scientific and Organizing Committee, Dr Papadelis, to say a few words on the research done in Greece on matters related generally to the notion “Space”.

I shall start with a general introductory remark. Then, I shall show you a few of my activities as the National Delegate of Greece to the European Space Agency(ESA)/ Directorate “Human Spaceflight, Microgravity, and Exploration”, and, finally, I shall describe briefly the on going research on “Space” in our country.

Let me start with the general introductory remark, which, from the financial point of view, is very important, I

would say crucial, for the whole United Europe, and, of course, for our country as well, as revealing “a war ante portas”.

Serving as the National Delegate of Greece to the European Space Agency (ESA)/ Directorate “Human Spaceflight, Microgravity, and Exploration”, I have repeatedly and officially emphasized that the objectives of our country as a member of ESA should be

1) the use and exploitation of all the opportunities offered to us by the International Space Station and, especially, the European Space Laboratory “Columbus”, already docked with the International Space Station, and the various programmes of ESA,

2) the full use by the Greek academic community and industry of the ambitious “European Life and Physical Sciences” (ELIPS) programme, and

3) the full use and exploitation of the freely accessible diverse educational material of the European Space Agency(ESA), for all levels of education.

Also, in my opening address here a couple of days ago, I said that we all know that the European Space Laboratory “Columbus”, already docked with the International Space Station till, at least, 2020, is a manifestation of the way “Space” is entering our every-day life in Europe and, also, is changing the old beliefs and the old “status quo” in research, education, technology and industry.

What is not widely known today, however, is a very important and special collaboration between the *European Space Council*, the *European Parliament*, the *European Strategy Forum for Research Infrastructures (ESFRI)*, the *European Union Framework Programme*, and the *European Space Agency*.

The objective of such a wide collaboration is the following: « the European Space Laboratory “Columbus”,

will be a European Research Infrastructure of the European Union, and the use of “Columbus”, will be Research Priority for Europe in the 7th Framework Programme of the European Union, namely, at a pan-European level.

Let me recall that the importance of this collaboration is verified by the fact that the USA and NASA have already, since 2005, declared the American Sector of the ISS as a “National Laboratory” for USA.

These developments, namely, “Columbus” to become a European Research Infrastructure, and the research on “Columbus” to be Research Priority for Europe, constitute for ESA and the United Europe an important objective for both strategic and financial reasons.

Let me clarify just one such reason, as I see it from the point of view of a University teacher and researcher .

It is a undisputable fact that the current bad economic conditions prevail worldwide, the economic crisis is still here. Also, it is known that, quite naturally, there are also other non interdisciplinary competetors of “Space”, seeking for the, surely non-negligible, governmental and international funding.

Given the above, I strongly believe- I am confident that the interdisciplinarity of “Space”, with its many facets, will be the decisive factor in the short- and long- range programmatic preparations, plans and prospects, of every government, concerning priorities, namely, scientific research, education, industry, and technology.

These priorities, if wisely decided, could help, especially our country and particularly our young people, in utilizing, in the best possible and productive way, all the opportunities

ffered to us by the European Union and the European Space Agency.

Now, at an entirely different spirit, it is well known, that, up to now, the scientific symbol of the Unified Europe, from at least the scientific and research University point of view, is CERN. However, CERN is characterized by its limited thematology, an almost complete lack of applications to every-day life on Earth, and all these being accompanied by the nonexistence, during the last 35 or so years, of any experimental verification of the otherwise too many and interesting theoretical results.

Therefore, sooner or later, every European, at least, government will confront the dilemma of to whom to give the governmental funding, taking into account that, in any case, the money available is limited and, also, it can not be divided to be given, effectively, to many recipients.

Will the governments give the dominant part of the funding to CERN, as it was done up to now, and in the way it was done up to now, or will they give it to “Columbus, ISS, ESA, with their interdisciplinary actions of obvious every-day practical interest and usefulness?

In relation to this, let us remember that today the mutual isolation of a specific scientific field is an old past, in the sense that a specific scientific field (e.g. Physics) can not, anymore, be considered independently of the other scientific fields (e.g. Engineering, Medicine, Geology, Law). There is an unavoidable overlapping between different scientific fields, and the multidisciplinary scientific fields are to be preferred for funding!!!

And, as I have repeatedly emphasized orally and in written, I strongly believe that, under the present circumstances, the governmental money shall not be directed to CERN but to “Columbus, ISS, and ESA.

Therefore, as you understand, **“A war is ante portas!!!”** between the theoretical physicists (the most numerous and powerful part of the scientific community) and all the rest of the scientific community.

We have to be well informed and prepared for such an inevitable war!!!

These developments will have further broader consequences. More specifically, considering and adding the rich variety of the subjects and interests of ESA, ISS and “Columbus” on space technology, research and education, shall create the **new scientific symbol of Unified Europe**, and this new symbol will be “Columbus”, not CERN anymore.

Everybody understands that, in this way, the funding of CERN will be deteriorated, not unjustifiably, however, and not without painful consequences.

At the same time, the fact that “Columbus” will be the scientific symbol of Unified Europe, will be decisive in clearly *specifying the kind of research here on Earth*. Additionally, it will affect severely the funding of research at national, and European levels, and, of course, in our country.

In other words, “what is done up there will specify both what will be done down here as well as its funding!!!”

In no way, all the above important news and coming developments should be underestimated, or, even worse, ignored. On the contrary, they must be kept in mind, be correctly appreciated and properly realized by all of us, and, in the framework of Unified Europe, be used for the national benefit.

A cautious national policy in favour of the notion “Space” will be consistent to the previously described prospects for “Columbus”.

On these, soon coming, developments and the approaching inevitable “war”, the government (General Secretariat for Research and Technology), the Universities, the “National Scholarships Foundation” (the well-known IKY), the Academy of Athens, and the relevant Scientific Unions of our country have been officially informed, by emphasizing to all of them, in a quite clear way, that ISS and especially “Columbus”, along with the ELIPS programme and the exploitation of ESA’s rich and diverse educational material, should be the main ESA-priorities of Greece, at least from the HME point of view.

In view of all the above, therefore, another important objective emerges, this Conference can serve, namely, to contribute, in a really helpful way, towards the national effort for the success of the official joining of Greece with the European Space Agency.

This can be accomplished by enhancing the collaboration with the Greek industry, as the important factor of the above success.

I, really, look forward to the fulfillment of this objective.

After this Introduction, I shall proceed to my next two objectives on the activities in Greece related to “Space” and ESA. This will be done in the form of a ppt presentation.

From all the above, concluding, it is obvious that, at least in the University of Thessaloniki, there are a lot of colleagues working on various aspects of “Space”. Our objective should be to, somehow, “synchronize” all of them, something that, I hope can really be done with the help, among others, the University of Thessaloniki, the Academy of Athens, and,

**mainly, the General Secretariat of Research and Technology,
representatives of which are with us here today.**

I thank you for your patience and attention!!!

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