



15/08/2011

## **TÜBİTAK Research Institute for Basic Sciences (TÜBİTAK TBAE)**

After the decision to relocate TÜBİTAK TBAE from the Boğaziçi University Kandilli Campus to the TÜBİTAK Gebze Campus, we wanted to share some information for the purpose of correctly informing the public against the purported assertions that have been made by some individuals and institutions lacking the necessary information and do not have any validity.

First and foremost, the TÜBİTAK Science Board has taken the said decision by assessing countless data and information that has and has not been set forth in this report, consulting expert opinions, and taking all scientific sensibilities into consideration. Furthermore, this decision has been taken in the belief that basic sciences are the foundation of all scientific endeavors and that scientific and technological impetuses are realized only in those countries that have attained a specific level of achievement in the basic sciences.

In its restructuring as a separate institute under the roof of the BİLGEM Center, TBAE will continue its training towards developing human resources at an increased level by further developing its national and international cooperation and in this way, will become an institute that produces more knowledge and conducts more research. The opportunities and capabilities possessed by TÜBİTAK BİLGEM will also enable the science and technology impetus that has recently been obtained in our country to reflect more rapidly to TBAE as well as to the field of basic sciences in Turkey.

It should not be forgotten that with the transfer of the wrong information to public and international scientists, before anything else, it will be the Turkish Research Area that will be affected by any attitudes that may cause an overshadowing of the recent, enviable, and positive developments of our country in the field of “Science, Technology and Innovation” as also observed throughout the world (*App.1*)

### **Name of the Institute**

Established as the “Applied Mathematics Unit” in 1968, the name of the Institute became the “Basic Sciences Institute” in 1981 and the “Research Institute for Basic Sciences” in 1982. Then in February of 1998, the matter of renaming the Institute “Feza Gürsey” in the name of the prominent Turkish scientist was taken into the agenda of the TÜBİTAK Science Board and it was decided that this matter would again be discussed by the Science Board after consultation with Boğaziçi University (BÜ). Based on written correspondences between BÜ and TÜBİTAK at that time, it is understood that a consensus was not reached on the matter of “whether this title would be preceded by BÜ or TÜBİTAK.” This matter, however, was not deliberated again by the TÜBİTAK Science Board. Accordingly, the official name of the Institute has never been Feza Gürsey. In the following period, it is planned that this matter will again be undertaken.

### **Mission Statement of the Institute**

In June 1981, the Science Board resolved that TBAE would be established within TÜBİTAK. The Science Board further determined the mission statement of the Institute to be **“Determining the basic and applied research challenges of basic sciences, and to resolve or contribute to the solution of these challenges.”**



## **Status of the Institute's Staff**

The staff of the Institute has been an average of 38 between the years 1996-2008. The total number of visiting scientists (in accordance with the 38<sup>th</sup> clause of Law No. 2547), between the years 1999-2011 was 23. 19 of those 23 faculty members serving in TBAE have come from two of the universities in Istanbul. With only 8 of the appointments being made for a duration of two years or less, 6 of the terms have been made for a duration of three while 5 of them have been made for four years, and the terms of some individuals have been extended up to 12 years. After the expiry of the protocol that was made with Boğaziçi University, since 2009, based on the fact that studies to determine the way in which the Institute would be structured in the future were still ongoing, new positions for permanent staff were not opened and the appointments that were made based on the 38<sup>th</sup> clause of Law 2547 were temporarily terminated. In the framework of Public Financial Management and Control Law (Law No:5018), because TBAE is considered to be a separate expenditure entity, the need for administrative personnel has further been exacerbated. Therefore, in order to provide for the effective and efficient use of resources, the need to restructure the Institute within a center in the TÜBİTAK Gebze Campus, whose administrative infrastructure is stronger, has arisen.

## **The Institute's Budget and Utilization Status**

The appropriations that have been allocated to TBAE have risen since 2000; however, especially since 2006, the Institute has not spent a large part of these appropriations. Moreover, it is observed that the share of administrative expenses, including the personnel cost of administrative staff has gotten the lion's share which is a situation that needs to be changed in favour of the researchers.

The expenses for those activities that the Institute must undertake in order to realize its founding objectives, such as seminars, courses, and summer school activities, within the total of all expenses, has been very low. This rate, which fluctuated between 6 in ten thousand and 5.6 in a thousand between 2000 and 2006, has shown some increase since 2007. Yet even at its peak in 2010, it is seen that the highest value was only 10%.

## **Scientific Publications of the Institution in 2000-2010**

Based on searches that were made utilizing the Thomson Reuters ISI-WoS index, while the impact factors of TBAE's publications are at the average value of Turkey, they are half of the world average in the field of physics and under half in the field mathematics. Again, the (h) and impact factors of the Institution's publications are below those of all TÜBİTAK publications.

## **Training Activities of the Institution in 2000-2010**

Seminars and related activities are the most prominent activities of the Institution. In 2006-2010, the average annual number of seminars and related activities was 40. One of the aims of the plans that are prepared for the future period is to develop the training, seminar and related activities of the Institute in a manner similar to the impetus that has recently been achieved by the TÜBİTAK Science Fellowships and Grant Programs Department (BİDEB) (App.2).

The unit costs of all activities that are undertaken by TBAE, due to the difference in fixed costs, are also much higher in comparison to those of TÜBİTAK BİDEB programs.



## **Research Project Activities of the Institution**

Throughout Turkey, in the period of 2005-2010, while the grants provided by TÜBİTAK for basic sciences increased by 8.5 fold compared to 1999-2004, it has increased by more than 13 fold in 2000-2010. Unfortunately, in the period of 2000-2010, there were no research project activities of TÜBİTAK TBAE.

Furthermore, especially in contrast to our country's academicians who utilize international funds, between the years 2000-2010, the Institution did not have any granted project in the context of multilateral cooperation agreements. The Institute further did not have any applications or granted projects in the context of ERC, Marie-Curie programs, etc. that award grants to basic sciences projects in the 6<sup>th</sup> and 7<sup>th</sup> EU Framework Programmes (*App.3*).

## **Relocation of the Institute to the Gebze Campus**

In total, there are 5000 researchers in the TÜBİTAK Gebze Campus of which 2500 are in the TÜBİTAK institutes and about the same in the Technology Development Zone (TÜBİTAK MAM Technopark). In both the institutes and the MAM Technopark, scientific and technological research activities are conducted in advanced technology fields. As in every institute in the World that conducts applied research, the natural need for basic mathematics and physics research are also manifested in the research units at the TÜBİTAK Gebze Campus.

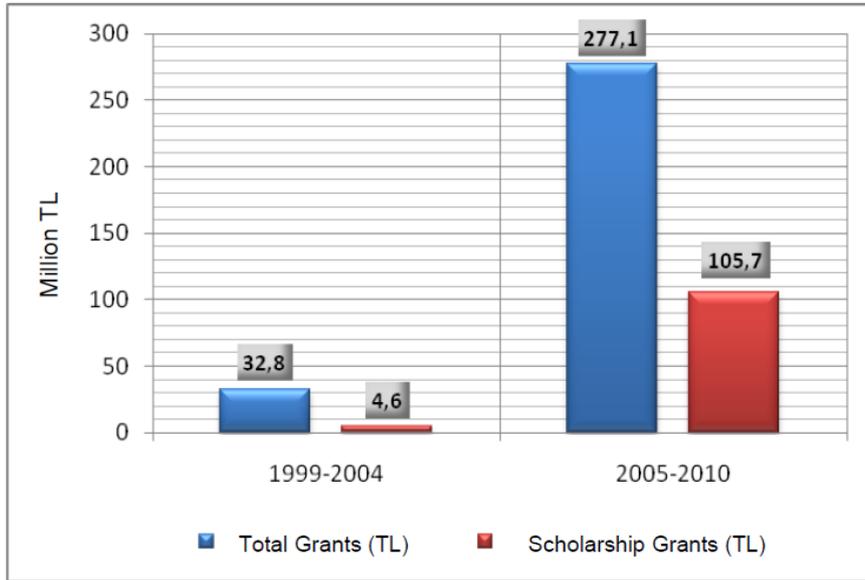
The TÜBİTAK Gebze Campus is at the center of a geography in which the best state and private universities of Turkey are located. Transportation from the Campus to Istanbul, Kocaeli and Sabiha Gökçen Airport can be met around an hour. The scientific and technological infrastructure of the Campus, including accommodation facilities, are world class.

Furthermore, as of July 2011, TÜBİTAK BILGEM had a total of 1333 employees of which 1151 were researchers. 20% of the 125 researchers who held doctorates and higher titles were from the field of mathematics and physics. In contrast to perception of the public in general, the Center conducts not only classified research but also civilian oriented research. The rate of the classified projects in total projects is around 50%.

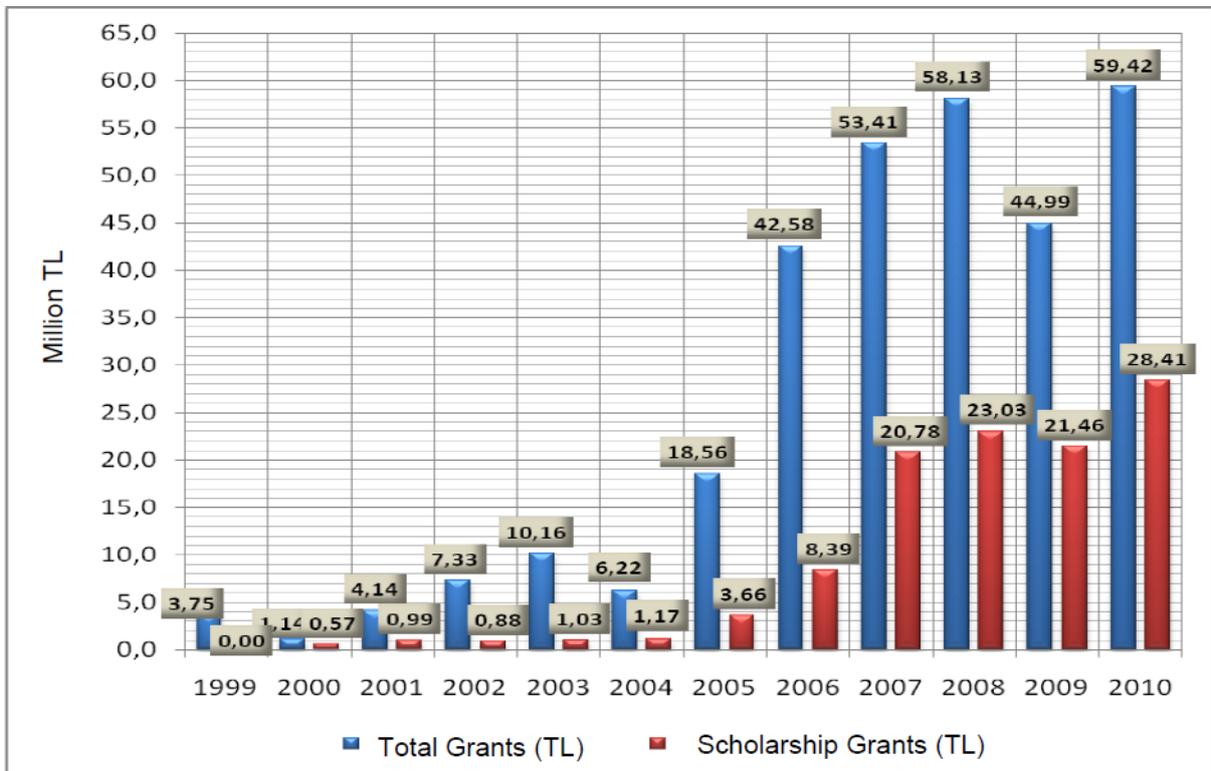
One of the reasons behind the restructuring of TBAE as an autonomous institute within BILGEM is also better understood by the statement of our prominent scientist Prof. Dr. Tosun Terzioğlu, who was the president of TÜBİTAK between 1992 and 1997 and a member of the Science Board afterwards:

*"In its very first establishment years, UEKAE has of course a small group of researchers. There were two groups of people. Some of them were engineers, electronics and computer scientists. Some of them were mathematicians. However, almost none of the mathematicians had done any research in the field of "coding theory." Most of them were algebraist. Yet they studied very well together. They communicated very well. The mathematicians are highly indebted to Gündüz İkedâ for that interaction that emerged successfully. He did real leadership." (The Magazine of TÜBİTAK BILGEM, Volume 3, Number 6, May-August 2011, p.154)*

**Appendix 1**



*Figure 1 : TÜBİTAK Support for Basic Sciences*



*Figure 2 : Total Grants Provided for Basic Science by TUBİTAK*

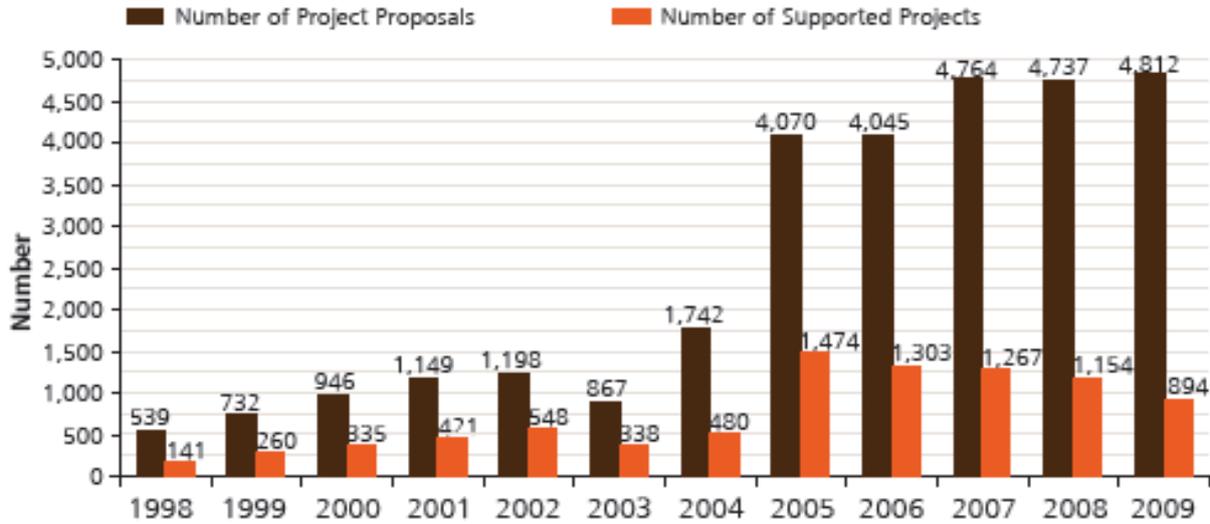


Figure 3 : The number of project applications and granted projects during the years 1998-2009 for the TUBİTAK Academic Research Funding Programs

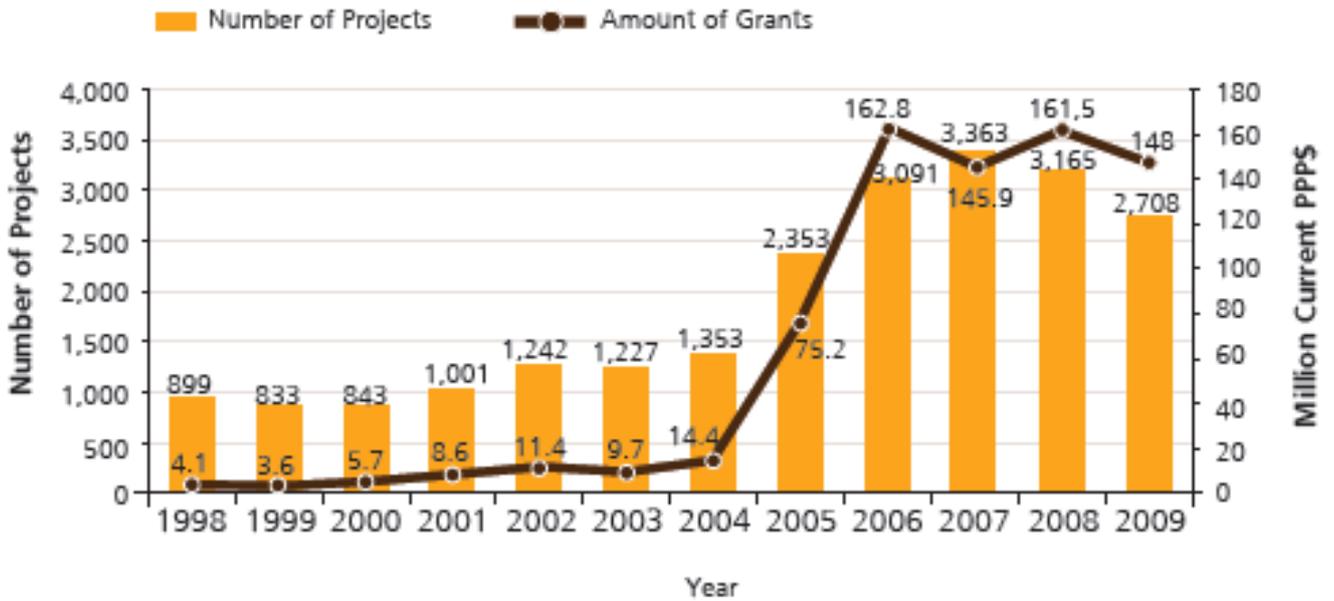


Figure 4 : The number of annual active projects and the amount of grants given for those projects during the years 1998-2009 within the context of the TUBİTAK Academic Research Funding Programs

## Appendix 2

### Supports of TÜBİTAK BİDEB

Within TÜBİTAK Science Fellowships and Grant Programs Department (BİDEB). there are different grant programs to provide support for similar seminar and activities from which all universities can benefit. Through these programs, important increases in the grants provided to the Turkish Research Area since 2005 for the following activities have been recorded:

- Scientific Activities of Undergraduate and Pre-undergraduate Teacher and Students,
- Graduate Summer School and Other Similar Activities,
- Domestic Scientific Activities.

For example, the grants given in 2010 from the TÜBİTAK 2223- Support Program for Domestic Scientific Activities has increased 227 fold in comparison to 2000 and 30 fold compared to 2005. These grants are not the grants that are given to the individuals or institutions directly. In order to get the grants, a project proposal must be submitted to TÜBİTAK. All the applications are peer reviewed by the scientists who are experts in the related field and any decision to provide the grant is based to the decisions of the peers.

In many respects of these grants provided by TÜBİTAK, positive and widespread results throughout Turkey have started to take place. For instance, in the 52<sup>nd</sup> International Mathematics Olympiads (IMO) organized in Amsterdam in 2011, the Turkish team recorded a premier success. With 159 points, the team ranked 6<sup>th</sup> after China, USA, Singapore, Russia and Thailand and ranked as the fifth in the medal ranking with 3 gold, 2 silver and 1 bronze medals. On the other hand, this year, in the 42<sup>nd</sup> International Physics Olympiads (IPhO), which was organized in Bangkok, the Turkish team won 1 gold and 4 silver medals.

*Table 1. Scientific Activities Granted by TÜBİTAK BİDEB*

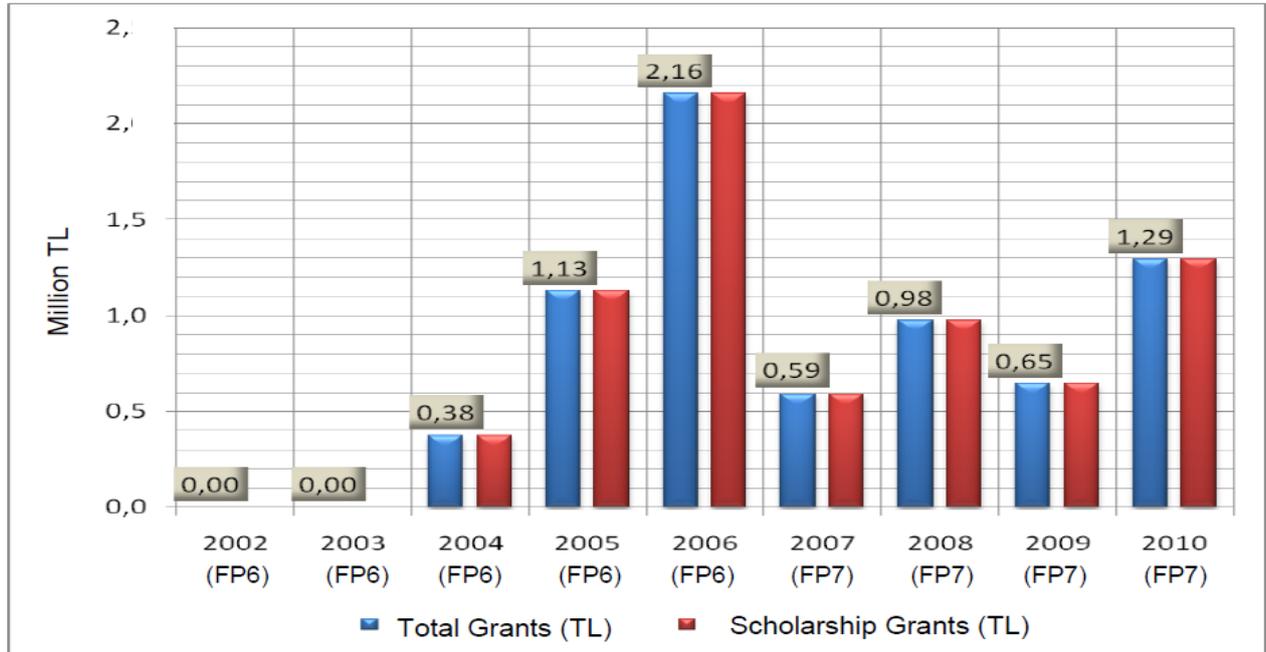
Year	Support (Million TL)	Number of Activities	Number of Participants	Number of Supported Days
2009	2.143	121	27,609	437
2010	4.609	285	69,333	1306

*Table 2. TÜBİTAK BİDEB 2223- Support Programme for Domestic Scientific Activities*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Activities	9	10	12	14	21	12	30	39	207	179	168
Grant Amount (x1000 TL)	5	16	12	22	28	39	127	272	545	1,561	1,175

**Appendix 3**

**EU 6th and 7th Framework Programme Basic Science Scholarships**



*Figure 5: Scholarship Grants Provided for Basic Research from EU FP6 and FP7 in Turkey*