

# GENDER IMPACT ON EUROPEAN RESEARCH PROGRAMS

Professor PhD **Margareta FLORESCU**  
The Bucharest Academy of Economic Studies, Romania  
Professor PhD **Viorel LEFTER**  
The Bucharest Academy of Economic Studies, Romania  
PhD. Student **Ecaterina GICA**  
CNMP – Bucharest, Romania

**KEYWORDS:** *gender, equal treatment, Framework Programme, women in science, knowledge, research projects and programs*

## 1. Introduction

In the European Community has been established, the interpretation of the concept of equal opportunities and was limited to the principle of equal remuneration.

Equal treatment of men and women has been one of the main principles of the European Union.

Following the World Conferences on Women in Beijing – 1995, all the major European policy areas, including research, has formed the strategic approach in order to achieve equal opportunities between women and men. This policy had to be implemented in all institutions from EU countries the same legal framework, policies, programmes and practices.

The European policy of equal treatment and opportunities is considered as one of the European Union's objectives in the Treaty of Amsterdam. The Treaty seeks not only to eliminate the inequalities, but also to promote equality.

The need to fully utilize the productive potential of the European labour force is the key to achieve the Lisbon strategy goals of becoming by 2010 *“the most competitive and dynamic knowledge – based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion”*. The promotion of women's participation in the research, labour market and efforts, eliminating the gender gaps are very important for the success of the EU goals.

This scientific paper presents a synthesis of the key findings and recommendations of more studies carried out between 2005 and 2009 to monitor progress towards gender equality and gender relevance awareness during the 6th Framework Programme for Research and Technological development (FP6). Each study focused on different aspects of the research thematic priorities in FP6, monitoring how gender issues were taken into account and making recommendations for better integration in future. The exercise could be seen as a continuation of the Gender Impact Assessment Studies carried out during FP5, to assess the way in which gender issues had been addressed then and from which recommendations were made for FP6. These FP6 studies were established to monitor the progress made in implementing those recommendations.

The exercise was managed and coordinated by services of the European Commission responsible for the implementation of FP6, the Scientific Culture and Gender Issues Unit of DG RTD, previously the Women and Science Unit, and the Centre for Strategy and Evaluation Services (CSES). CSES was appointed at the same time as the research teams, following the call for tender, to assist the EC in the overall coordination of

the studies. The gender monitoring studies were carried out by research teams representing universities, research institutes and organisations specialising in gender research that were selected following a call for tender.

*CASE STUDY: The Gender Impact Assessment Studies carried out during FP5,FP6,FP7, in reaserch, of university*

The studies monitored the following areas:

*II.1 Gender in research*

*II.2 Gender approach in FP 5*

*II.3 Gender equality in the FP6*

*II.4 Gender opportunities in FP7*

*II.5 Analysis of a National Contact Point (NCP) Survey*

*II.6 Analysis on the gender composition of university relevant bodies*

### ***1.1 An overall view of the gender in research***

What is gender?

*“A concept that refers to the social differences between women and men that have been learned are changeable over time and have wide variations both within and between cultures”.*<sup>1</sup>

Starting with the Treaty of Rome, as we already have mentioned, EU has considered gender equality as one of its core policies. The European Commission initiated a series of gender impact assessment studies, evaluating the ways in which gender issues were addressed in the Fifth Framework Programme. The gender impact assessment studies show that scientific research is frequently gender blind even in research fields in which the human dimension is crucial such as human health or socio-economic research.

Unfortunately, the monitoring and assessment studies of previous Framework Programs for Research – FP5 and FP6 have shown that despite the efforts to promote gender in research, women remain under-represented and the issue of gender is far from being systematically addressed in research projects.

In this respect, the research community is investing in equal opportunities for men and women in research, makes for teams that perform better and attracts top – level researchers.

Education system and teaching practices can thus function as disseminators of the inequality across different branches of sciences.

Gender equality in sciences policy can include three perspectives:<sup>2</sup>

- research carried out by women;
- research for women;
- research about women.

To implement this perspective will be necessary to:

- promote women’s participation in research activities;
- take into consideration women’s needs and interests when setting research agenda;
- promote understanding and inclusion of gender issues;
- promotion and stimulation of gender relevant research;
- focus on changing structures and conditions on which different inequalities are based.

---

<sup>1</sup> 100 words for equality. A glossary of terms on equality between women and men.

<sup>2</sup> Science Policies in The European Union. Promoting Excellence Through Mainstreaming Gender Equality. A Report from ETAN Expert Group on Women in Science. European Commission, 2000, p. 2.

## 1.2 Gender approach in FP 5

In 1999, the European Commission adopted the communication “Women and Science: mobilising women to enrich European research”. These were the instrument to take the gender dimension into account with European research policy with two main objectives:

1. to stimulate discussion and the sharing of experience regarding the under-representation of women in research among the Member States, to allow action to be taken as effectively as possible at all levels:

a) Helsinki group of national civil servants was set up to create a dialogue among the Member State focusing on policy reviews and development of gender indicators in research.

b) The ETAN<sup>1</sup> report reviews the position of women in science and technology, concluding that the under-representation of women threatens the scientific goal of achieving excellence. It displays how gender is a significant determinant of the organization and funding of science in the European Union and makes recommendations to a wide range of bodies. The ETAN report constitutes a major contribution to the discussion of women and sciences policies in the European Union.

2. to develop a coherent approach towards the promotion of women in research funded by the European Union, using the Gender Watch System as a tool for ensuring that gender issues are taken into account wherever relevant. Commission recognizes a threefold relationship between women and research and has promoted his action plan around:

a) women’s participation in research must be encouraged – **research by women**;

b) research must address women’s needs – **research for women**;

c) research must be carried out on the gender question itself – **research about women**.

Gender Watch System – a dynamic and evolving system – has developed as one of the Commission’s tools for improving the integration of the gender dimension with FP5 and research policy. Also, it consists of aiming at 40% representation of women in the panels and advisory groups, collecting data, conducting the gender impact assessment studies and encouraging gender research within European Research Programs.

During the FP5 EC stressed an active attempt to select women for some programme’s monitoring panels. The results vary, but on the whole women count for between 20% (Environment and Sustainable Development) and 50% (Quality of Life) of the members of the monitoring panels. The ICT monitoring panel is lower, with women accounting for 14%.

In the FP5 was a lack of women experts, forming a major obstacle for ensuring the gender balance of expert evaluation panels.

Also the statistics regarding the women’s participation in the project activities was an important challenge in FP5:

- between 11% (ICT Programme) and 20% (Innovation and SME Programme) as women project coordinator;
- 14 – 18% as women partners in the projects;
- over 27% of projects lacked female partners;
- over 33% had one female partner.

---

<sup>1</sup> ETAN - ETAN Expert Group on Women in Science

With regards of mobility actions and fellowships granted by the INCO programme, women comprised 40% of the grants for young researchers from Developing Countries.

Regarding the Marie Curie Individual Fellowship under the Human Potential programme, 37% of the eligible applications in response to the 1<sup>st</sup> Call were from women. The success rate for candidates was fairly balanced – 39% for women and 42% for men.

All the gender specific proposals had advanced the knowledge of specific situation of particular groups of women and men, and of particular obstacles for gender equality. The advance was the knowledge of the gender dimension of social, economic, political and cultural change and of how to address gender within socio-economic research.

### ***1.3. Gender equality in the FP6***

The main objective of FP6 was to improve the Europe's competitiveness through investment in research and development and to strengthen the scientific base of European industry<sup>1</sup>. These objectives were central to structuring and strengthening the European Research Area, in terms of fairer participation of men and women and in terms of the gender dimension of the research content.

DG RTD and CSES were appointed to assist EC in a studies regarding gender. The studies lasted for three years and provide a comprehensive look at the way in which gender was addressed from the point of view of European founded research. The studies also have made some recommendation on the gender issues in the future.

One of the requirements of FP6 was to consider gender issues during the different phases of the Framework Programme from participation on Advisory Groups to the writing of the Work Programmes and Call texts, to the composition of the Programme Committees; the selection of evaluation panels, the briefing of experts, the evaluation sessions, submitted proposals, contract negotiations, project funding and follow-up. Integrating gender across the whole FP6 life cycle was crucial to ensuring that the research supported under FP6 incorporated gender.

A number of positive measures were introduced at the start of FP6 to promote gender equality and to increase the capacity of actors involved in FP6 in considering gender issues. These included, for example, expanding the 40% target to all groups, panels and committees associated with the FP; introducing Gender Action Plans for the new instruments in FP6, namely the Integrated Projects (IPs) and Networks of Excellence (NoEs), and collecting better sex-disaggregated data in all areas of the FP. The studies found that some progress has been made from FP5, with more women carrying out research and being represented on the area of research. Women tended to be better represented in less senior roles.

During the 4 years of FP 6 (2003 – 2006) were submitted more than 58.000 proposals and approximately 22.000 were submitted to the Marie Curie Action. Female researcher submitted only 17% of the proposals as scientific coordinator, especially for the smaller funding instruments, such as Specific Support Action (26%) and Coordination Action (22%).

In some priorities, as in "Science & Society", 41% of the projects scientific coordinators and 39% of project participants were women. In the opposite part, are situated

---

<sup>1</sup> Decision no1513/2002/EC of the European Parliament and of the Council of 27 June 2002 concerning the sixth framework programme of the European Community for research

priorities like “Environment”, “SME” and “Research Infrastructures” were the female participation was between 10% and 11%.

According to the studies, a typical initial response of FP6 actors was that the lack of availability of female scientists made it difficult to recruit women. The research carried out by the Nanotechnology, Aerospace, Transport and Energy study found that female participation in FP6 was in line with presence of women in a typical academic career in science and engineering. In other research fields, the statistics available on female PhD graduates indicate that the pool of female scientist was wider than their participation in FP6 projects.

Also was confirmed that women scientists found it harder to become integrated into existing male information networks and therefore missed out the advantage that they offer. At the same time, the poor representation of women in scientific areas made it harder to establish comparable networks. Projects founded after FP6 competitions have a particularly weak in considering the gender differentiated impact of the research developed in the above mentioned research projects. The projects mainly demonstrated that the researchers understood the issues around gender inequality and that the gender was integrated within the actions of the projects.

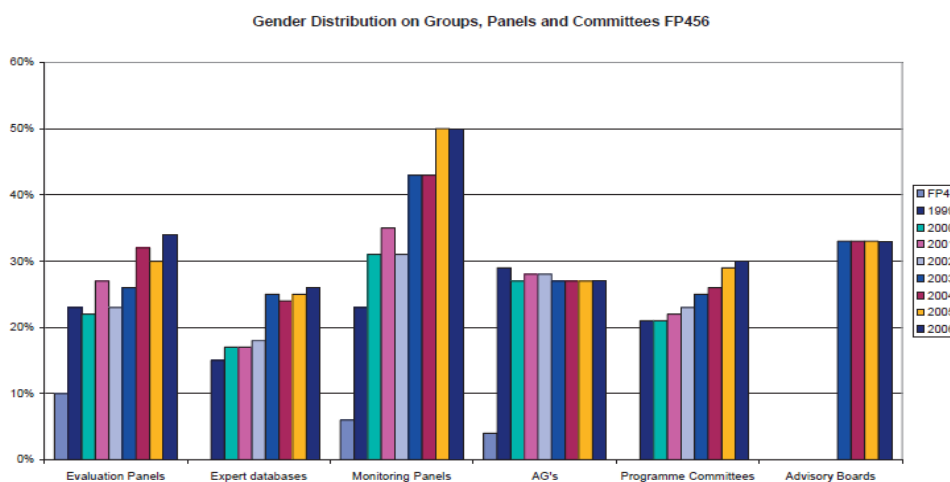


Figure 1

Female Participation in Framework Programme Bodies – Analysis by Year

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Evaluation Panels	10%	23%	22%	27%	23%	26%	32%	30%	34%
Expert databases		15%	17%	17%	18%	25%	24%	25%	26%
Monitoring Panels	6%	23%	31%	35%	31%	43%	43%	50%	50%
Advisory Groups	4%	29%	27%	28%	28%	27%	27%	27%	27%
Programme Committees		21%	21%	22%	23%	25%	26%	29%	30%
Advisory Boards						33%	33%	33%	33%

Source: DG Research

In the evaluation process, evaluators were briefed by the Commission on the evaluation of proposals including how to consider gender related aspects. The evaluators also received call-specific documents with instructions on how to assess gender issues.

Another step it is considered the suggestion to have gender experts, knowledgeable in the respective scientific fields, also involving them in the drafting of Work Programme.

Marie Curie Action study recommended that links and learning be fostered between projects in addressing gender, particularly with regards to projects in similar domains of research and regions.

#### ***1.4. Gender opportunities in FP7***

Under the actual Framework Program for Research, gender issue is developed in 2 important programs: “Science in Society” and “Socio-economical sciences and humanities”.

“Science and Society” is intending to provide:

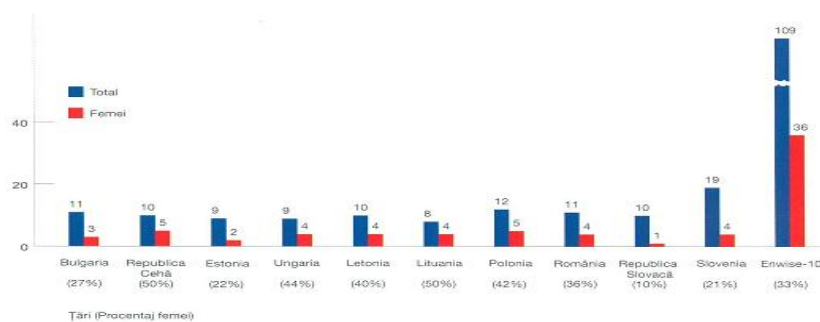
- a more dynamic governance of the relationship between science and society:
  - better understanding of the place of science in society;
  - broader engagement to anticipate and clarify political, societal and ethical issues;
  - strengthening and improving the European science system;
  - the evolving role of universities.
- Strengthening potential, broadening horizons:
  - Strengthening the role of women in scientific research;
  - Supporting formal and informal science education in schools as well as through science centre and museums and other relevant means;
  - Reinforcing links between science education and science careers;
  - Encouraging a European dimension at science events targeting the public;
  - Science prizes.

#### ***1.5 Analysis of a National Contact Point (NCP) Survey***

National Contact Points (NCPs) played an important role as a communication channel and a support structure for participants in the Framework Programme. Their role was essentially to act as an intermediary between the Commission and potential proposal applicants. NCPs organised awareness raising actions and information sessions related to calls, and they often offered advisory services as well. The profile of NCPs was diverse, and even though they had a relationship with the Commission, they were normally appointed by the Member States. Each NCP provided support and information on several Framework Programme areas.

The NCPs appointed for FP6 were surveyed as part of the GMS to examine their awareness of gender issues and their capacity to deal with gender. The main observation from the survey was that they had a potential to play a much more prominent role in supporting project applicants to integrate gender equality into the projects.

Overall, there seemed to be a lack of knowledge about gender mainstreaming among NCPs which meant that they were often not equipped to provide adequate guidance to the project applicants. However, good practices exist, and there was certainly potential for the NCP network to make a contribution to ensuring that gender was integrated in future Framework Programmes.



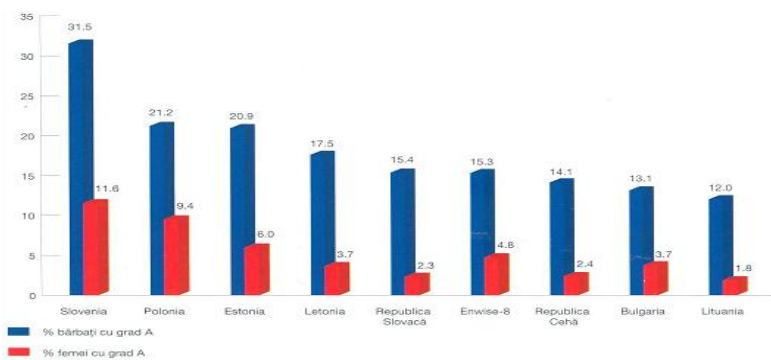
Sursă: Comisia Europeană - DG Cercetare și data naționale.

Figure 2. The average women's participation as NCP is 40%, considered as satisfactory

### 1.6 Analysis on the gender composition of university relevant bodies

The progress of women in science takes place within a broader framework of expansion of higher education and training that occurs with the growth of a knowledge economy. There have been considerable increases in women's participation and attainment in education throughout the industrialized world. There is considerable variation in women's share among the professorate throughout the industrialized world. However, even in Turkey, the country with the highest proportion of female professors, the share of women academics at the highest academic positions is still below 25%.

Moreover, marked differences exist between countries regarding female academics in the pipeline. In countries like Germany, the pattern suggests less openness of the women in science fare better in countries where women are more likely to work full-time as in the United States, France, Spain, and the Scandinavian countries.



Sursă: DG Cercetare, baza de date WIS.

Figure 3 Total Enwise 8 do not include Romania and Hungary

Whether this pattern also mirrors other influences needs further research. For example, the higher proportion of females among professors may be associated with the diffusion and enactment of more gender egalitarian beliefs in Finland or the United States.

But larger shares of women in academia and science may also be due to the influence of class or social origin on educational choices, as in Turkey where high-status males were preoccupied with political leadership during the transition from Ottoman in academia. Finally, cross-national variations in the proportion of women in science may also stem from variations in the "worth" of the academic and scientific enterprise.

Although country percentages vary dramatically among disciplines, demonstrating the potential electability and flux of these figures, women are overall less represented in

fields were physical objects, natural or artificial, rather people and symbolic and social relations are the focus of attention. Table no.1 shows the percentage of women among full professors and comparable staff (grade A) by scientific field in 2008.

**Percentage of women among full professors and comparable staff**

Table.1

Country	Natural Sciences	Engineering and Technology	Medical Sciences	Agricultural Sciences	Social Sciences	Humanities
Belgium	4.2	1.0	3.4	5.1	12.3	10.5
Denmark	4.2	2.8	9.8	9.8	9.7	13.3
Germany	4.6	3.2	4.0	8.0	6.8	13.7
France	15.7	6.4	8.9	n.a	23.8	n.a
Italy	15.0	5.2	9.5	10.2	16.8	22.9
Netherlands	3.2	2.7	5.2	7.1	7.0	14.2
Austria	3.1	1.7	7.6	9.3	6.4	11.1
Portugal	22.4	3.1	30.2	17.6	21.8	n.a
Finland	8.3	5.2	21.3	12.8	24.7	33.2
Sweden	10.4	5.2	12.9	16.3	15.8	25.4
United Kingdom	7.7	2.3	14.5	7.9	17.8	17.9
Iceland	7.0	5.6	9.7	n.a	9.4	6.1
Israel	6.6	4.8	16.4	0	13.6	18.9
Norway	6.9	2.8	14.2	8.9	15.3	24.3
Poland	16.1	6.8	26.2	20.0	19.2	21.0
Slovakia	10.4	2.4	9.4	4.6	10.9	12.2
Slovenia	6.0	2.8	18.3	14.0	11.5	15.8

n.a , not available

Source:European Commission 2008a, p.65, Table 3.2

**2. Conclusions**

Equality between women and men is not just a goal itself: it is a precondition for fulfilling the overall EU objectives of growth, employment and social cohesion. Increasing the woman participation in the labour market offers a guarantee of their economic independence and a substantial contribution to economic development.

A good interrelation between work and private life for women and men is essential not only to achieve gender equality, but also to reach the Lisbon objectives.

Progress in education is also very important, gender differences remain as regards in the fields of study<sup>1</sup>, especially in engineering (18% female graduates) and computing (20%), while women predominate in business, administration and law (60%) and still lagging men in the use of new technologies and have difficulties in accessing more specialist ICT – related jobs.

The study teams were expected:

- ✓ To review the Gender Impact Assessment studies carried out in FP5 in order to consider the extent to which the recommendations had been taken into account by the EC.

- ✓ To carry out three monitoring rounds, over three years, to analyse female participation in FP6 and to assess the extent to which gender had been integrated into the research content, and produce three working papers to report on their findings.

- ✓ To produce a final working paper summarising their main findings and making recommendations.

- ✓ Progress has been made since FP5

---

<sup>1</sup> Eurostat, 2007



- ✓ More women carried out research and were represented in FP6 bodies
- ✓ Women tended to be better represented in less senior roles
- ✓ Workplace culture in science, shaped by masculine values, combined with the lack of practical arrangements to facilitate a work-life balance, acted as a barrier to greater female participation.
- ✓ Perceptions about the restricted supply of female scientists did not reflect actual availability of female researchers in all areas of science.
- ✓ Women did not tend to have the same access to scientific networks as men did
- ✓ As mentioned in the studies, female researchers coordinated 17% of the proposals submitted to FP6 and coordinated 17% of projects funded in FP6. A point of note here would be that there was no apparent bias in the evaluation procedure in favour of male or female coordinators. Although female participation was low in general, there was a great variance on the extent to which women were represented in different areas. In general, the individual studies found that there was some improvement in female participation in research activities since FP5.

Few actors thought that the promotion of gender equality was within their responsibility. The roles and responsibilities for integrating gender should have been more clearly defined as the lack of ownership for promoting gender equality made it hard to meet gender-related objectives.

Overall, the studies found that some progress has been made since FP5, with more women carrying out research and being represented in FP6 bodies. However, there were differences in the extent to which this was the case, depending on the area of research. Women tended to be better represented in less senior roles.

The studies found that there were a number of practical actions that could have been introduced in order to secure greater and improved female participation in science and research. These focused on encouraging and monitoring progress towards existing targets, more flexible working practices and a stronger promotion of Framework Programme opportunities to female audiences. Most of the recommendations apply to participation in both FP6 bodies and in the projects.

## References

1. European Commission (2008) Science Policies in the European Union: Promotion Excellence Through main streaming Gender Equality. European Technology Assessment Network (ETAN), "Women and Science" report (Brussels:European Commission)
2. Monitoring Progress Towards Gender Equality in the 6th Framework Programme/ Synthesis Report – "Gender monitoring study covering following FP6 activity areas: Priority 7" (Citizens and governance in a knowledge-based society); *Support for policy development; Science & Society;*
3. Campion, P.&W.Shrum (2004) "Gender and Science in Development; Women Scientists in Ghana, Kenya and India" *Science, Technology & Human Values* 29:459-85
4. Schiebinger, I. (1999) *Has Feminism Changed Science?* (Cambridge, MA: Harvard University Press)
5. Mary Braithwaite (2001) *Gender in Research – Gender impact assessment of the specific programmes of the Fifth Framework Programme – Improving Human Research Potential and Socio – economic Knowledge Base*
6. Henry Etzkowitz - 2004 *-Beyond the Glass Ceiling: Women in Science and Business in Four Countries*
7. Markman, G.D., P.T. Gianiodis, P.H. Phan and D.B. Balkin (2005): *Innovation speed: transferring university technology to market. Research Policy*