

# **WOMEN AND SCIENCE: Review of the situation in Italy**

## **1. The national situation/background**

On the ground of general principles, Italian legislation provides equal opportunities for men and women in the field of scientific research and does not contain any discriminatory law. Women presence at the high and middle levels is, nevertheless, scarce.

In the Italian juridical system, **positive actions** were introduced in 1991 with the purpose to reach a substantial equality between men and women in the job field, by creating the Equality National Committee and the Equality Counsellors as bodies with surveillance and control tasks.

The Italian Parliament approved on March 8, 2000 a new law concerning the parental leaves, which stimulate the use of leave for both parents for children and relatives' care and which supports bodies subscribing favourable contracts for the carrying out of familiar responsibilities (reversible part-time, tele-working, flexible timetables).

Italian Minister for Equal Opportunities has later proposed a bill "Measures against discrimination and for the promotion of the equal opportunities" for a full accomplishment of article 13 of the Amsterdam Treaty.

In the use of the European Structural Funds (2000-2006), innovative criteria were introduced in order to ensure both equal opportunities for men and women and transparency in the choice process. Both the National Operational Plans and the Regional Operational Plans bind a percentage of the funds for the achievement of targets and specific actions in the field of the equal opportunities.

Nonetheless, in the field of scientific research, the interest and the attention paid to gender issues and to the equal opportunities issues lacks of an organic and political reference and intervention framework.

In 1997-1998, on proposal of the Minister for Equal Opportunities of the Prodi Government, a working group on "Culture of the Differences and Women Studies in the University Institution" was established in the Ministry for University and Scientific Research in order to analyse didactics and research problems, along with professors' carriers, according to a gender point of view. In the new D'Alema Government (1999), this group ceased to exist, but the new Minister for Equal Opportunities appointed a Counsellor for university policies.

A protocol was signed on December 18, 1999, between the Minister for Equal Opportunities and the Conference of Rectors of Italian Universities (Conferenza dei Rettori delle Università Italiane), which also provides the support to the gender dimension in the scientific research and a greater gender equity in the development of the professors' carriers.

Since December 2000 a National steering committee has been formally established at the Ministry for University and Scientific Research as a working group to advise and make proposals on all issues of women and science.

## **2. Policy framework**

In 1996, for the first time in Italy, a (woman) Minister for Equal Opportunities was appointed, performing under delegation of the President of the Council of Ministers, with the attribution of important **mainstreaming** functions.

In March 1997, the Italian Government adopted the Prodi-Finocchiaro Directive, directed to the following main aims: 1. Empowerment of women to create the conditions for an increasing presence of women in decision making bodies 2. Rising awareness on gender diversity 3. Policies for the promotion and development of occupation. This Directive provided the consultation of the (women) researcher's associations in the formulation of the university policies and the creation of favourable conditions for the women's access in the research field and to the university chairs. But it did not specify any instrument or actual action for the fulfilment of these aims.

Organisation of the scientific system: Universities, that recently gained independence, thus organise their own calls for professorships. The major national research organisations are "Consiglio Nazionale delle Ricerche" (CNR) and "Ente Nazionale per le nuove Energie e l'Ambiente" (ENEA). The access to all Organisations goes through public competition (by law both genders must be represented in the evaluation panel, 1/3 at least; but this norm does not concern professor recruitment). There are three levels: researcher, senior researcher/associate professor, and director of research/full professor.

In the reform Decrees of the university studies, issued by the Minister for University and Scientific Research (in force as from November 2001), the knowledge of the gender and equal opportunities issues in the fields of the economic, statistical, social, administrative, linguistic and literary, psychological, pedagogical, medical, educational, co-operation for development and sport sciences was inserted, for the first time in Italy, among the formative aims of the university system.

### **3. Measures adopted to promote the role of women**

- Prodi-Finocchiaro Directive: on March 2000 the Italian Government carried out a verification; in the research and university sector it worth mentioning the constitution of a network, inside the universities, of young (women) researchers working on women's and gender studies and the support given to the official access of the gender studies in the university curricula.
- D'Alema-Balbo Proposal: 1. Gender desegregation of all statistics. 2. Inclusion of gender perspective in population census. 3. Survey on gender issues by the National Institute for Statistics (ISTAT). 4. Organisation by gender of personal archives of private companies. Waiting for the approval of the bill, ISTAT drew up the Report "Donne all'Università" ("Women in the University") on the study choices of girls in the university, on professors' carriers and on their role in university research.
- Ministry for Equal Opportunities. Memorandum of understanding between the Ministry and the Conference of Rectors to promote gender studies, new disciplines to value gender perspective and support to gender dimension in the scientific research: during the academic year 2000-2001 a pilot-project was realised in order to revalue the humanistic degrees, obtained in the great majority by young women, with new professional and computing competencies; an experimental video was realised (University of Pisa) for the students' guidance in the Faculty choice, denouncing the bonds imposed by gender stereotypes, especially in the hard sciences field.
- National Commission for Equal Opportunities: 1. Information on empowerment and mainstreaming strategies. 2. Increasing networking of women. 3. Financial support for the Report "Women at University" (next issue) and for "The First Report on women's career in national public research organisations" (R. Palomba, ed. "Athena's Daughters", Milan 2000).
- Structural funds. Ministry for University and Research: National Operative Programme (2000-2006). Specific measures to promote jobs for women in research in ob.1 regions. 1. Info to women accessing University to enhance women presence in research and development. 2. High

level training. 3. High level training specific for the IT sector. 4. Assistance to women for spin-off companies.

- Presidency of the Council of Ministers, Department for the Equal Opportunities: a data bank of female profiles of high qualification for responsibility charges and for government competence' appointments is in course of achievement.

#### 4. Statistics

##### *Choices in the field of education*

In the last decades, the overall level of education of the Italian population has been constantly on the increase, particularly thanks to women who remarkably prolonged their formation period. The youngest female generations are better educated than their male counterparts and female graduates outnumber male ones (55.2% of all graduates).

In Italy, the presence of women is still very high in the so-called "feminised" disciplines, as humanities or biology and medicine, though it is on the increase in "hard" and technical sciences as well. In 1998, the feminisation rate among graduates, in fact, is less favourable towards women in engineering (16.1 women every 100 men); land sciences (58.9 women every 100 men); and economics (88.4 women every 100 men) - all disciplines which guarantee an easy access to labour market -, while women are in the majority in humanities (337.3 women every 100 men), medicine (155.8 women every 100 men) or maths (122.5 women every 100 men). Nevertheless, in the last 10 years (between the academic year 1987/1988 and 1996/1997), technical disciplines had the highest percent increase from the point of view of the female presence: +153.2 in engineering, +76.3 in land sciences as compared to -3.8 in maths and +21.5 in humanities.

In terms of disciplinary segregation, we note a decrease of the dissimilarity index over time: it was 16.8 10 years ago; 15.1 in 1992/93 and 14.7 in 1996/1997 (Micali, 2000). In the last 5 years, the speed of the decrease is slowing down, as if we were approaching an "unavoidable" gender diversity in educational choices.

Female university students are better than men are: the percentage of spin-off is lower (10.3% as compared to 15.4% of men); women graduate more often than men on time and with the maximum vote (26.9% as compared to 17.7% of men).

##### *University professors<sup>1</sup>*

The career at university is organised in three levels: full professors, associate professors and researchers. Women are less than 1/3 of the academic staff in total and upgrade with difficulties up the top levels of the career; in 1999/2000 they were 41.3% of all researchers, 29.4% of associate professors and 11.5% of full professors. The gender unbalance is only partly due to the fact that few women embarked on academic career in the past. In fact, if we look at the youngest generations, women remain less than men (32.1% of researchers less than 35 years old) do.

It is interesting to note that in the last years there is a slight increase in the presence of women among university professors, though still far from "parity" between sexes: among winners of recent competitions for researchers the percentage of women passes from 29% of 10 years ago to about 36%; among associate professors the percentage raises from 22.6% in 1988 to 26.4% in 1993 and for full professors it passes from 16.3% in 1991 to 19.3% in 1995 (Micali, 2000).

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<sup>1</sup> Data are taken from MURST data base and from Micali A., 2000, *Gli studi universitari e l'inserimento professionale delle laureate*, in Palomba R. ed., *Figlie di Minerva*, Franco Angeli, Milano.

Among full professors, the highest rates of feminisation are in psychology (41.9 women every 100 men); humanities (33.2 women every 100 men); pharmacy (25 women every 100 men) and sociology (23.2 women every 100 men); the lowest rates are in engineering (3.9 women every 100 men); land sciences (6.7 women every 100 men) and Laws (7.7 women every 100 men).

In addition, women are less visible in prestigious positions. Every academic year, 23.8% of men occupies posts as rectors, head of courses or director of departments, while the probability for a woman to have one of these posts is about half of that of men (11.8%).

### *Women in Research Institutions*<sup>2</sup>

The career at Italian research Institutions is organised in three levels as at university: directors of research, senior researchers and researchers. Women totalled about 1/3 of the scientific staff with differences among research bodies depending on the disciplines involved in the research programmes. In fact, we pass from 15.6% at National Institute for the Physics of Matter (INFN) to 60% of the Institute for Food and Nutrition (INRAN). The presence of women decreases as the level in the career increases: women are 38.1% of researchers, 29.9% of senior researchers and 14.8% of directors of research. In their entire career, women have always half of the probability to be promoted that men have.

Among the new staff, men are 63% of all researchers recruited in 1995/1998 in contradiction with the good results women have at university.

The decisional boards in all the scientific institutions are male dominated and women are 5.8% of all experts appointed by the Italian Parliament. All the Presidents of the Research bodies are men.

## **5. Active networks**

Hereafter are presented the active networks on women and science, as well as the role they play in the process.

### **a) Institutional network**

- From March 1999 has been instituted the position of *Delegate of Rector for gender studies and equal opportunity policies* (Delegata del Rettore per le P.O.) in the Italian Universities. The Conference of Delegates (Conferenza delle delegate dei rettori per le P.O.) meets periodically and has the aim of promoting initiatives in the scientific research sector, including the study of specific evaluation criteria and incentives concerning women's participation in decision-making and planning. Address: Ministero per le Pari Opportunità, Via del Giardino Theodoli 66, 00165 Roma
- *Commission for the Promotion of Women in Science* (Commissione di studio per la valorizzazione della componente femminile nel campo della ricerca scientifica e tecnologia) created by the President of the *National Research Council* (Consiglio Nazionale delle Ricerche CNR), on June, 2, 1999, has the task of: a) promoting women's participation in the 5<sup>th</sup> Framework Program of the EU; b) setting guidelines for the organisation and functioning of the Observatory on Female careers in scientific research; c) increasing the awareness of researchers, administrators, policy makers on the need of increasing presence women's presence in every decisional scientific structure. Address: Istituto Ricerche sulla popolazione, CNR, Via Nizza 128, 00198 Roma

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<sup>2</sup> Data are taken from Palomba R. ed., 2000, *Figlie di Minerva*, Franco Angeli, Milano

- *Culture/research Group (Gruppo Cultura, ricerca, formazione)* organised by the National Commission for Equal Opportunities (Commissione Nazionale per le P.O. - CNPO) has the aim of promoting gender statistics and conferences on the empowerment and mainstreaming of women in science. Address: CNPO, Presidenza del Consiglio dei Ministri, Piazza Colonna 1, 00185 Roma

**b) Academic network** (University Centres, Departmental or Interdepartmental Centres, Centres between Faculties or Universities):

- *Archivio delle donne* (Centro Universitario W.& G. Studies) - Facoltà di Scienze Politiche, Dipartimento di Scienze Sociali, Istituto Orientale di Napoli, Largo S. Giovanni Maggiore 30, 80134 Napoli;
- *Centro di Women's Studies "Milly Villa"* (Centro Interdipartimentale Universitario) - Dipartimento di Sociologia e Scienza della Politica, Università degli Studi della Calabria, 87036 Arcavacata di Rende;
- *Centro Studi e Ricerche "Donne e Differenza di genere"* (Centro Universitario) - Dipartimento di Sociologia, Università degli Studi di Milano, Via del Conservatorio 7, 20122 Milano;
- *Centro Studi Osservatorio Donne* (Centro Universitario Interdipartimentale) - Dipartimento di Scienze Pedagogiche, Università degli Studi di Lecce, Via Stampacchia 45, 73100 Lecce;
- *Centro Interdipartimentale Ricerche e Studi sulle Donne* (CIRSDE, Centro Universitario Interdipartimentale) - Università degli Studi di Torino, Via S. Ottavio 20, 10124 Torino;
- *Centro Interuniversitario per gli Studi sulle Donne nella Storia e nella Società* (CISDOSS, Centro Interuniversitario) - Dipartimento di Istituzioni politiche e Scienze sociali, Facoltà di Scienze Politiche, Università di Roma Tre, Via Corrado Segre 2, 00146 Roma;
- *Centro Adelaide Pignatelli per gli Studi Storico-Religiosi sulla Donna* (Centro Universitario di W.&G. Studies) - Istituto Universitario "Suor Orsola Benincasa" di Napoli, Via Suor Orsola 10, 80135 Napoli.

**c) Network of the principal Research Groups**

- *Diotima*, Dipartimento di Filosofia, Facoltà di Lettere, Università degli Studi di Verona, Via S. Francesco 22, 37139 Verona;
- *Gruppo di Studi Filosofici e Ricerca delle donne*, Dipartimento di Ricerche storiche, Filosofiche e Pedagogiche, Facoltà di Filosofia, Università La Sapienza, Villa Mirafiori, Via C. Fea 2, 00161 Roma;
- *Gruppo Donne per la ricerca dell'Università*, Dipartimento di Filosofia, Università di Lecce, Palazzo Parlangei, Via Stampacchia, 73100 Lecce;
- *Seminario di Storia delle Donne e del Gender*, Dipartimento di Discipline Storiche, Università di Bologna, Piazza S. Giovanni in Monte 2, 40124 Bologna;
- *Seminario Women's Studies*, Dipartimento di Lingue e Letterature Straniere, Università di Bologna, Via Cartolerie 5, 40124 Bologna;
- *Vanda*, Politecnico di Milano, Facoltà di Architettura, Via Bonardi 3, 20123 Milano

#### d) Network of Universities (W. & G. Studies “Dottorati”)

- Istituto Universitario Orientale di Napoli (Fac. Scienze Politiche) / Università di Bologna/ Università di Torino, *Storia della famiglia e dell'identità di genere fra XVIII e XX secolo nella società europea* (Coord. Angiolina Arru)
- Università di Roma “La sapienza” (Fac. Lettere e Filosofia) / Università di Siena-Arezzo / Università di Padova/ Università di Torino, *Storia delle scritture femminili* (Coord. Marina Zancan)
- Università di Roma Tre (Fac. Scienze Politiche)/ Università di Cagliari / Università di Trento, *Dottrine politiche e questione femminile* (Coord. Ginevra Conti Odorisio)

#### c) Network of the principal Professional Associations

- Coordinamento Nazionale Donne e Scienza (Polo di Roma: responsabile Flavia Zucco; polo di Bologna: responsabile Anna Garbesi; polo di Torino: responsabile Bice Fubini)
- Società Italiana delle Letterate (S.I.L.) Presidente: Paola Bono
- Società Italiana delle Storiche (S.I.S.), Via dei Fienaroli 31 d, 00153 Roma
- Donnecon: discussion list of the women economist

#### 6. Involvement of the private sector

The situation of women in research in the private sector has to be assessed. The “Associazione Italiana Donne Dirigenti d’Azienda” (AIDDA) has been invited to join the national steering committee to help with this assessment. A representative of a private company advising on planning and managing structural funds is also part of the committee.

#### 7. Tools established to assess impact of measures

Committees for equal opportunities are present in all major public research bodies and public administration. National Financial Law 2001 has deliberated, increasing financial support to the National and Regional Equality Committees.

National Commission for Equal Opportunities at the Presidency of the Council (newly appointed at the end of 2000).

Department for Equal Opportunities at the Presidency of the Council: Technical Document (“V.I.S.P.O.: Verifica impatto strategico pari opportunità”), which explains the formal requirements concerning the integration of equal opportunities in Structural Fund plans and programs, giving guidance on how these requirements can be implemented in practice by monitoring and evaluating the interventions.

Co-operation has been formally established between the Conference of Rectors and the Ministry for Equal Opportunities with the appointment of a new kind of rector’s delegate in the university rule, the Delegate for gender studies and equal opportunities. All the appointed Delegates form the “Conference of rector’s delegates for gender studies and equal opportunities”, that meets

periodically and includes the aims of promoting university scientific research, specific evaluation criteria and incentives concerning women participation in decision-making.

## 8. Successful and unsuccessful stories

*A success story.* In July 1999, the Minister for Equal Opportunities and the President of the National Commission for equal opportunities asked the President of the National Research Council for the first report on the situation of women in science. The CNR created an interdisciplinary working group, chaired by Rossella Palomba, consisting of the representatives of the major Italian public research bodies. The group worked one year. The main problems faced and solved were related to data availability and comparability; the analysis of publications; and the study of the family situation of female researchers. Many political problems were individuated and launched. In November 2000, the report concerning women in science and their careers was ready and published with the title “Athena’s daughters”.

*A case of "failure"* can be considered the lack of implementation of the government policy fixing to a minimum of 30% the number of women in Committees, which control hiring and promotion in Public Research Organisation. Sex-disaggregated data are not yet available for all the main Public Research Organisations, but the following, from the Italian Institute for Nuclear Physics, INFN, are probably very close to the more general picture. With 1.759 employees, INFN has 574 research physicists working in particle and nuclear physics, and funds most of related research in the Italian Universities. Women are present as 18% of the total number of physicists. The Research personnel are organised into 3 salary levels: level I, corresponding to full professor, II corresponding to Associate Professor, and III corresponding to the entry level. Since 1989, the percentage of women in the Committees which control promotion and recruitment at the two highest levels has been the following: Promotion from level III to level II: 11 competitions have involved a total of 55 Committee members and of these 7 have been women → 13% women. Promotion from level II to level I: 4 competitions have involved a total of 25 Committee members and of these 2 have been women → 8% women. Typically, in each Committee there are 5 members, sometimes there was a woman, sometime no woman. A 30% quota would require always the presence of one woman, often two.

## 9. Future perspective at national and EU level

- *National.* The national steering committee established by the Ministry for University and Research (MURST – Ministero dell’Università e della Ricerc Scientifica e Tecnologica) gives new strength and coordination to the actions to be taken. The members of the committee represents the public administration, major research organisations, the private sectors. The committee meets every month at the Ministry for University and Research, at the meeting participate high level representatives of the Ministry.
- *European.* The realisation of ERA – European Research Area - calls for “Reinforcement of human research potential in Europe by establishing the conditions for genuine cross-border mobility, developing European careers and increasing the presence and the role of women in research”. Furthermore “...(ERA) should find expression in an effort to systematically define and implement joint or combined schemes of action for actions carried out in conjunction ... the structural funds and regional initiatives”. The next European Union Framework Programme for research will be designed to assist in the realisation of the ERA. This background offers a unique opportunity to develop an action/programme within the next FP, supported also by the resources targeted for social and regional development (structural funds).

*Recommendations for the Helsinki Group*

- To develop a “*daring*” vision to improve the role of women in science and in research management.
- To promote the valorisation of women in science, also developing a European dimension of scientific careers, in agreement with the indication of the actions toward a European Research Area.
- Continuing in rising awareness on gender aspects in science, creating at European level more favourable conditions to share experience and good practice.
- Collection of data and development of gender indicators and statistics should become a regular task at national and European level.
- To plan political initiatives to support the empathy for women in science such as “Consensus Conference” addressed to research managers, industrialists, decision-makers, and to the public at large.
- Italy fully recognises the value of the ETAN report to foster actions for gender equity in science. Thus invites the Commission to take into due account the ETAN report in the implementation of ERA and in the preparation of the 6<sup>th</sup> FP.

**Helsinki Group on women and science  
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