



EUROPÄISCHE FRAUEN-UNION
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Commission for Culture, Science and Education

Women in Technology

Introduction

Science and technology are the key areas for realising the Lisbon Strategy for growth and employment. The Commission for Culture, Science and Education has worked on questions of gender quality and gender mainstream in scientific and technological education and training, in research and development, and in decision making in academia and research.

Informative material on the subject which I have thankfully got from a greater number of sections this time show that there will not be an easy answer to the challenges of the future, but at the same time some clear tendencies all over Europe have been revealed.

Female Participation

Although in all regions involved on average women today reach a higher educational standard in the tertiary educational system they are still highly under – represented in fields such as technology, science and mathematics. Whilst in most regions less than 20 % of women decide in favour of these subjects, Sweden is a little ahead with 25 %. Interesting results from Croatia show, that there mathematics is studied by 70.4 % of women and 29.1% of men, whilst only 20.4 % of female students opt for computing and 79.6 of male students.

The reasons for the clear under – presentation of women in technological sectors are manifold: obviously gender stereotypes still exist in society. Whilst this has been known for a long time, nowadays the attitude of young women is named as an important obstacle itself:” women do not wish to enter the spheres traditionally occupied by men, but to excel in their own.” this phenomenon is summed up in the British paper. Furthermore role models presented by teachers and society in general are missing .And even consumption is important in this context, as women are often much less attracted by technological products than men.. German scientists have lately pointed out that women feel attracted by technical professions when it they are helpful for human beings like in medicine or when the environment is supported as in town planning, but they dislike jobs which might in any way have a negative impact on people or can endanger the balance of the environment.

Therefore “technology” as an umbrella term is not adequate enough to evaluate the behaviour of girls and women in this context. Further investigations must differentiate

between, for instance, technology in the field of medicine, environment, life science on the one side and on the other side technology in the more general sense. In education and training females must be offered a differentiated approach of the sectors concerned.

Female careers

It is evident that whilst the number of women in technological profession varies in the regions women are clearly in the minority when it comes to leading positions.

Although generally more girls take A-levels than boys e.g. in Great Britain and in Germany, the numbers of female professors within technology is about 5 %. In Italy “The women’s presence is absolutely insubstantial in decision –making posts, in the scientific, economic, and political fields: they have by no means the key to power.

And: on average women earn up to 500 € less than men – even in their first job. The French ladies have come to the conclusion that although in France women are discouraged by administration or legislation, not to start a career in these sectors obstacles originate from “culture and custom”, meaning that prejudices in families or social groups hinder women from reaching leading positions.

And: Modern management supervisors have come to the conclusion that women have a different approach to success: whilst men find it natural to compete women behave like “model students” instead of fighting for their success with self – confidence.

So to promote the equal participation of women and men concerning leading positions social and psychological measures have to be taken.

Best Practice

In the light of this conclusion it is highly interesting to learn from the regions and their “Best practice “to encourage females into technology and to overcome the”glass ceiling”, in many regions special programmes have been started by the governments to encourage women into technology. In France efforts are made by NGOs to proclaim a new image of girls in science. While in Italy a school reform is expected to start “a real revolution in technology training”, in Great Britain attempts in schools to encourage girls into technology have already led to an increase of 5% last year. But the example of the new countries in Germany show that policies which do not take into account the girls` self – reputation will not be successful in the long run: in communist societies there was a great pressure on girls to start a technical career, now in the new democracies the girls freely decide against it.

In many countries awards are thought a strong means of encouragement. In Italy feminine innovation is awarded in the project “Woman is web “to create a cross – sectional strategy of enhancement of feminine work into key sectors of industry. In Great Britain are awards for women in technology given by great firms e.g. in the wireless communication market or the Ford Company. In Germany there are several awards for successful women on the national as well as on the regional level, so, for instance the “Dorothea von Erxleben prize” for young female scientists. In France there are awards for female scientists, and the media support these attempts to create role examples. So. e.g. the very austere newspaper “Les Echos” invited 90 top women to take over the newspaper entirely for one day to give them a voice.

Networking as a means of encouragement and stabilization does not seem to exist on a large scale in Europe. In Great Britain a networking organization supports the growth of women –owned businesses.

Parenting

Naturally parenting and other care responsibilities are a very important issue when talking about gender mainstream and academic careers

In all countries there is a tendency of academic women to have fewer children - in some countries some dramatical 50 % of academic women are without children -and to have them later, often after their 30th birthday.

In general in all countries efforts are made to support women who go back after having given birth. and to encourage partners to share family responsibilities. In Germany, for instance, child –leave is financed 2 months longer when the male partner stays at home. In Italy there exists a professional training programme to support the combination of time for work and time for the family through a combination of a personal tutor, distance training, and even the availability of psychologists to confront the themes of stress and change after parental leave. Croatia has established grandmother services.

Sometimes the term “best practice “ is ambiguous: in Saxony – Anhalt every working parent has the right to a kindergarten place of ten hours a day from 0-14 years – nevertheless academic women have a very low birth rate.

Conclusions:

There is a perceptible improvement in the number of women who pursue a successful career in academia, but only a balanced participation of men and women in science and technology will increase innovation and quality and contribute to the decrease in the skills shortage in Europe.

This is why the German Presidency has called upon The Member States and the European Commission among other points “ to ensure, monitor and promote gender mainstreaming in the European research policy, including the 7th Framework Programme” and the European Social Fund and EU Programmes on youth, culture and lifelong learning

The Commission of Culture, Science and Education proposes the following:

- To fight gender stereotypes at all levels of education and training
- To initiate awareness-raising initiatives in girls of the importance of science and technology
- But offer a differentiated approach of technology
- To adopt policies to improve the self – esteem of young females who enter into the world of work
- To encourage a higher awareness of the female potential in society
- To alter the attitudes so that parental leave is seen as a merit on the working market
- To encourage both partners to share the responsibilities of life in the family and life at work
- To encourage and support policies to reconcile work and family

