

3rd March 2008

Best practices in terms of what has worked in attracting more female scientists to research careers and retaining them

This list of recommendations was initially compiled in order to contribute to an own-initiative report of the European Parliament. As suggestions and examples of best practices continue to be received however, we will continue to add to and update this list accordingly.

1. Gender-sensitive teaching of subjects and about careers from very early stage of education to avoid creation, propagation and engraving of career stereotypes. This requires change in the mentalities of education authorities.

- Gender-awareness when teaching subjects at lower level/primary education can impact on career choices later.

2. Emphasis on the importance of the integration of the family perspective with regard to career development in order to attract female scientists to research careers. There needs to be flexibility in working hours, options for part-time work, working from home, scheduling of meetings in core hours where schools and kindergartens are open. There should be provision of child care for employees. Women scientists should be supported to participate in research projects or conferences and to take part in training programmes when pregnant, part-time employed or when re-entering after family break. There should be financial support so that additional costs for travel and child care can be provided in order to facilitate the attendance to conferences and training seminars.

- At the Federal institutions in Belgium, scientists can work part-time (50 or 80%) if they desire so, even if they are only temporarily employed
- The Royal Belgian Institute of Natural Sciences has its own crèche which also means that mothers can return to work while still breastfeeding

3. Regulations on maternity leave have been proven to encourage women to stay in research in Sweden

4. Extra encouragement for female researchers

- Experience with the Marie-Curie Research and Training network SEXASEX has shown that putting one extra sentence in the job advertisements ("Female scientists are especially encouraged to apply") was successful in receiving many more applications from female scientists

5. At university level real commitment of the Board of the University (vice-chancellor, rector, deans) and enforcement of gender-sensitive policies at faculty level is essential for success.

6. Personal chairs for women have led to more female full professors

7. Tenure tracks for women have worked to attract more women to a university career

8. Incentives for female Ph.D.s and post-docs led to more female Assistant Professors.

1 *"The Didactical Potential of Robotics for Education with Digital Media"*, Dr A. Wiesner-Steiner, Prof H. Schelhowe, Dr. H. Wiesner, University of Bremen 2006

9. **Adapting the selection process** and training committee members and/or evaluation panels to apply the improved procedures led to a higher proportion of female applicants getting hired
10. Creation and promotion of **Women's networks** - small homogeneous networks have shown success in helping retain women scientists
11. **Ambassador's Network.** The Ambassador Network GAIA is composed of representatives from industry and academia. These representatives are charged with promoting women in Geoscience in their organizations
12. **Empowerment activities** (career development workshops, networking events, etc) have proven successful in aiding and in retaining women scientists
13. **Specific programmes for the promotion of female researchers.** Main criterion still quality but bypasses old boys networks
14. **Mentoring** has been shown to lead to more career steps for mentees
15. **Role models** have proven to help encourage women to continue in research careers
16. **Research funds targeted at women** to counter under-funding of women in research
17. **Equal pay** for the same job would encourage women to feel equally valued as a researcher
18. The idea that the European Commission needs to "**force regulations** which promote the career development of female scientists upon the member countries" was suggested. It was also suggested that it is necessary not only to give guidelines and regulations, but also to find mechanisms which allow sanctions in case of non-obedience or ignorance. (From a researcher in Norway where the government has pushed such policies)
19. The **Gender Action Plans** which were mandatory for certain projects funded by DG Research in FP6 and abolished in FP7 were considered as a good practice and their reintroduction was promoted by some respondents
20. The Swiss National Science Foundation (SNSF) annually awards a limited number of Marie Heim-Vögtlin (MHV)-subsidies. MHV-subsidies are aimed at doctoral and postdoctoral candidates within all disciplines funded by the SNSF. The objective is to support well-qualified female scientists who are or were forced to accept an interruption or reduction of their research activities due to family obligations or a change of residence as a result of their partner's career development. MHV-subsidies aim to facilitate the recipients research and integration in a host institution at a Swiss University or ETH. Candidate's occupation degree for the project must be at least 50%. Funding is usually for 2 years and one unique feature of this MHV Programme is, that since 2003 women can apply not only for their own salary, consumables or travel costs but as well for a **subsidy for childcare**.

A programme evaluation over the years 1991-2002 showed that 86% of the funded women stayed employed after the end of the MHV-subsidy, 64% of them at a University or University of Applied Sciences.

Case study: Network of Excellence “Complex Metallic Alloys” and promotion of women within their teams

In the case of this large EU-funded project, a Network of Excellence entitled “Complex Metallic Alloys” (CMA) the project co-coordinators set up a Unit called CMA Virtual Integrated Unit – Gender Mainstreaming (VIU-GM). The main objective of this Unit is to improve the gender balance of the CMA teams. The Network is committed to promoting the presence of women in science in general and materials science in particular. Below are the main actions taken by the project:

Gender Equality Questionnaire - In order to be able to approach the female scientists and their problems and enable the VIU-GM to respond to their expectations, the Unit came up with the idea of developing a Questionnaire and asking directly about the situation of female scientists and any problems that the VIU-GM should deal with. The Questionnaire was intended to be a starting point for any further actions undertaken by the Unit.

Removal of age restrictions for grants - Many grants and scholarships introduce age limits as a condition to apply. In such cases women with children are often disadvantaged and even excluded if they took maternity breaks. Those kinds of restrictions make it even more difficult to progress in female scientific development and in reaching top-level positions in later career. In the action “Call for Promotional Lecture” that is addressed to young female scientists the VIU-GM eliminated the age limit to make it possible for women who postponed their careers due to raising children to be able to apply.

Special financial support - Furthermore the VIU-GM developed a plan for financial support for the travel and lodging of young female scientists in scientific institutions of their choice (up to € 1000), where they will be offered the possibility to present their achievements. This kind of action is aimed at giving young female scientists the chance to build their own network and contacts which will benefit them in the future as their careers progress.

Short term missions - Programmes like “Short term missions” make it easier for women with children to pay short research visits to other institutions rather than to leave family for longer periods of time. Short-term missions are organized on a regular basis for the duration up to 2 weeks. VIUGM noticed that this kind of action is very well received by their female researchers.

Mentoring - The VIU-GM has recently started the organization of a Mentoring (Tutorial) Programme for female scientists at the beginning of their careers. The goal of the programme is to help young female scientists start and strengthen their professional careers, help them realize what their strengths are, and recognize how to achieve their goals. The aim of the Mentoring Programme is to introduce an action plan to increase the number of women at all levels of their professional careers by making young women comfortable in their ambitions to advance.

Engaging young girls in high school - The first step in making the field more appealing to women is to engage young girls at the high school level when they are about to make the choice about their future professional lives. To advertise careers for women in Materials Science the VIU-GM organized an external event to provide a better understanding of technically-oriented professions. The high-school event provided the opportunity to show girls other women who have advanced in their careers in Materials Science and encourage the future students to enter a field traditionally considered male-dominated and make them comfortable in their choices



European Platform of Women Scientists

Dr. Maren Jochimsen
Secretary General

Pauleen Colligan
Project Manager Research Policy

European Platform of Women Scientists EPWS
Rue d'Arlon 38
B-1000 Brussels
Tel: +32 2 234 37 50
Fax: +32 2 234 37 59

<http://www.epws.org>