Women and Science in the EU
Perceptions from the East

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7-9. February 2008, Kranjska Gora, Slovenia
WomenInNano Winter School
Outline

1. Promoting gender equality in science in the EU
2. Keys cause for concern
3. Women and Science in Romania
1. Promoting gender equality in science in the EU

Promoting equality of women and men in science – essential condition for building the strong ERA.

- **Treaty of Amsterdam (1997):** equal opportunities between women and men / one of the European’s Union objectives.

- **Women and science - Mobilising women to enrich European Research (Feb. 1999):** the severe under-representation of women in science - action plan to promote gender equality in science.

What is the position of women in science?

How can ...

...institutions that employ and promote scientists open up more to women?

...fairness be assured in funding and assessing research?

...women have a more active role in shaping science and scientific policy?

...stereotypes be challenged?

...sex-disaggregated statistics and equality indicators be developed?

*research by, for and about women!*
• European Technology Assessment Network (ETAN) on Women and Science (Nov. 1999)


• Helsinki Group on Women and Science (2000)

*Mandate:*
- to promote discussion and exchange of experiences on measures and policies devised and implemented at local, regional and European level
- to provide sex-disaggregated statistics and develop gender sensitive indicators.

**National reports on the situation of women scientists**

*Results:*
- not very favourable situation of women in scientific research
- a lack of gender balance in decision making about science policy
- considerably diversity among countries (MS vs. As.S).

*Mandate:* to examine the situation in the Central and Eastern European countries and the Baltic states.

*Results:* Report (Sept. 2004): ”Waste of talents: Turning private struggles into a public issue – Women and Science in the ENWISE countries”

Higher proportions of women among researchers in the ENWISE countries than there are among the Member States.

- Influence of the specific gender policy implemented in these countries during the communist regime.
- The transition period has led to the restructuring of the research systems and can generally be characterized by the sharp decline in funding allocated to science and the decrease of the research population.

2. Key cause for concern

Women are under-represented in science / research

Considerable variation between countries, but there is a clear pattern of female under-representation!

EC, Key Figures 2005, “Towards a European Research Area Science, Technology and Innovation”
A waste of talent and motivation:

',leaky pipeline‘ phenomenon

Women are lost from the academic pipeline at a greater rate than their male counterparts.

Women are the majority of students but men comprise the vast majority of senior post holders.

The women reach parity with men up to Assoc. Prof. level... variations by country
Women are under-represented in science and engineering

... variations by discipline

Men: 91 %
Women: 9 % !!

Extreme gender gap in science and engineering at the more senior academic levels

Why there are so few women in scientific research?
Why so many drop out?

- women’s lack of self-confidence
- lack of information on Science careers
- lack of career opportunities for women
- lack of role models
- a gender pay gap
- barriers at entry level - barriers to recruitment
- gender stereotypes.

Positive action measures (Helsinki Group)

The gender gap/differences are so persistent that they will not self-correct in the foreseeable future.

Policy intervention is essential!

Policy points

Need for ..... 

- systematic, harmonised data on women in science.
- in-depth studies on processes that lead to gender imbalances.
- more research to understand the ‘leaky pipeline’ phenomenon.

Measures

- networks
- quotas and targets
- role models and mentoring
- research funds and prices
- gender mainstreaming measures / tools (legislation, gender studies, sex-disaggregated statistics, modernizing human resources management, work/life balance measures....)
3. Women and Science in Romania

Romania joined the European Union on January 1st, 2007, along with Bulgaria. Together they take the number of EU members to 27.

Romania ~ 22 mil. inhabitants
- 51.2 % female population
- 48.8 % male population

The 45 years of communist regime in Romania were removed in December 1989.

Like other ex-communist countries, Romania crossed various difficult stages specific to transition economies, and that affected also the scientific research.
... some national statistics (Romania)

- Tertiary education institutions

Besides the state high education system, numerous private universities have been created and developed.

<table>
<thead>
<tr>
<th>Higher education institutions</th>
<th>Faculties</th>
</tr>
</thead>
</table>

2005 vs. 1991 → 2.4 times more
2005 vs. 1991 → 4 times more

Increased number of students and academic staff

*Since 1995/96 academic year, statistical data also include higher education from private institutions
Students per 10000 inhabitants:
- 300 (2004/2005)
- 83 (1990/1991)

2005 vs. 1991 → 3.6 times more

Students enrolled (undergraduates):
- of which 54.9% female students
- 192,810 (1990/1991)
- of which 47.2% female students

2005 vs. 1991 → 3.4 times more (total)

3.9 times more female students
**Academic staff**

- **2005 vs. 1991**: 2.2 times more (total) and **3.4 times more women!!**

  (Total academic staff are not available by Grades in these statistics)

- **Category of academic staff (National description):**
  - Grade A: Full professor
  - Grade B: Associate professor (conferentiar)
  - Grade C: Lecturer (lector / sef de lucrari)
  - Grade D: Assistant professor

**Graduates**

  - of which **70.7 % technical profile**

- **110,533 (2004/2005)**
  - of which **21.3 % technical profile**
What do the EU statistics reveal for Romania?

The proportion of women among researchers is higher in the new Central and Eastern European member states than in the old member states!

Women tend to be better represented in the countries with the smallest research populations.

The low wages and inadequate equipment in the research sector, together with the opportunities offered abroad (especially in the US), have led to an outflow of researchers and an increase in the average age of R&D personnel. At present, more than 60% of the research staff is over 40 years old.
Large proportion of women in all fields of science in Higher Education Sector in Romania - 23% female full professor.

Table 2.3: Proportion of female researchers in the Higher Education Sector (HES) by field of science, 2003

<table>
<thead>
<tr>
<th>Country</th>
<th>Natural Sciences</th>
<th>Engineering and Technology</th>
<th>Natural Sciences</th>
<th>Agricultural Sciences</th>
<th>Social Sciences</th>
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</table>

- High proportion of female researchers
- Low public expenditure on R&D, at less than one quarter of the average level in the EU

The proportion of female researchers is the highest in those scientific fields and countries where the least money is spent on research!!
...instead of Conclusions:

- The proportion of female scientists/researchers is much higher in Romania if compared with the old EU member states. This seems to be a common characteristic for the new Central and Eastern European member states.

- The proportion of female researchers is the highest in those scientific fields and countries where the least money is spent on research from the GDP.

- Women usually are substitutes to those men that left the research profession because of its low prestige and/or the low salaries in the past 15 years.

- ‘Transition period’ - changes in higher education system during the last 15 years.

- The prospects of young scientists are very bleak due to the unavailability of funding and the rigid patterns of recognition ‘brain drain’.

Thank you!

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