

# ESTONIA

## One per Seventy?

### Women in Science in Estonia

Professor Ene Ergma has called herself 'Eurovictim', because she has chosen to become a Member of Academy of Sciences only due European understanding that also women can be among Members of Academy. 'Nobody had such idea earlier,' she said. 'Earlier' means here before preparations joining the European Union. Professor Geert Hofstede has said that European Union is not only shared values, but it is also shared practices. Practices can hasten changes in values.

In Estonia, very small number of scientists and high officials have heard about EU action plan from 1999 to promote gender equality in science. Also gender equality is publicly debated with dominating voice of patriarchy couple centuries ago. Small success country experienced rapid changes and gained liberal market values, but did not reach the best of liberalism. Tolerance is also a subject to learn.




















I had a call to Ministry of Education and Science (27.04.2004):

- *I would like to talk with Tiia Raudma who is a partner of Estonia to the Helsinki Group and prepared some reports about women in science in Estonia. I am interested to get the latest data she has gathered from all of us.*
- *She is today very busy due to mission, but we have also another person who could also know about women in science. I will give her number...*

Young male voice is answering:

- *Oh, she is not here, she is abroad, but she will be back after three days.*
- *But may be you can help me in latest data about women in science in Estonia?*
- *No, I cannot.*
- *Sorry, I have thought that you have these data available in the Ministry. As far as I understood you should now count all women and men in science.*
- *Yeah, I have heard it too. I have my opinion on these questions, but it is not a phone talk.*

If women are in the majority among the lower level research staff (assistants, lecturers, teachers), at higher levels the proportion of women has decreased significantly in the 1990s. In 2000 in Estonia, there was a woman out of professors every seventh, out of extraordinary professors every fourth, out of associate professors every third and among lecturers every second. The lower to come more women can be found. Every third senior researcher and every second researcher is a woman. Among senior teachers and senior teachers three quarters are women, among assistants two out of three are women.

Professors						
Extraordinary professors						
Associate professors Senior researchers						
Researcher						
Teachers Senior teachers						

Looking at Estonia's major university, the University of Tartu, we can see that in the natural sciences and technical faculties, one-third of the researchers are women, whereas in social sciences, it is almost 50%. In medicine and humanities, the proportion of women researchers is greater: 55%. The Academy of Sciences has a woman (astrophysicist) as Vice-President. Although more women than men graduate from higher education (60% female), fewer women than men go into research.

### Women outperform men in education in Estonia

At the beginning of the academic year 2003/2004, 65,659 students were acquiring higher education. 2,000 more students than a year before is studying at different higher education courses. By statistical data gender disproportion is gradually increasing. This academic year, at bachelor courses 151 female students are studying per 100 male students, at master courses even 183 female students. The increase of gender disproportion at higher education courses is characteristic of many European countries. In Estonia the number of females studying at different higher education courses is by 15,500 larger compared to that of males.

In the academic year 2003/2004, 48% of students obtain higher education without paying tuition fee (state finances their studies). 52% of students pay for their studies. From year to year the number of students paying tuition fee has increased. The share of tuition-fee-charging education increases first and foremost in public and state educational institutions. 44% of the students of the University of Tartu pay tuition fee. Open University of the University of Tartu has mainly specialised in tuition-fee-charging education of flexible form of study. More than 4,800 students obtain education there.

What about access to tertiary education. Women do not get return investment into their human capital. Women earn a quarter less from men's pay. Compared with other educational levels a pay and position gap is deepest among women and men with higher education. Due to preference of men at the labour market, the remuneration received by women with higher education for their efforts is lower than that received by men with the same level of education. Women's capabilities are unused, underestimated. For small society it is wasting of resources.

### Traditional Gender Roles as Obstacle

Everyday life reproduces an existing value system where images of proper male and female roles in the private and public spheres are created. Value system is persistent one and in spite of independent womanhood in sense of women's high participation rate in labour market since the 1950s in Estonia men and women are bearers of traditional gender roles. Especially conservative are Estonian boys and men (Laas 2000; Narusk 1999). Survey results show that girls and women do not expect from men as much as men themselves think men should do for family economic well-being.

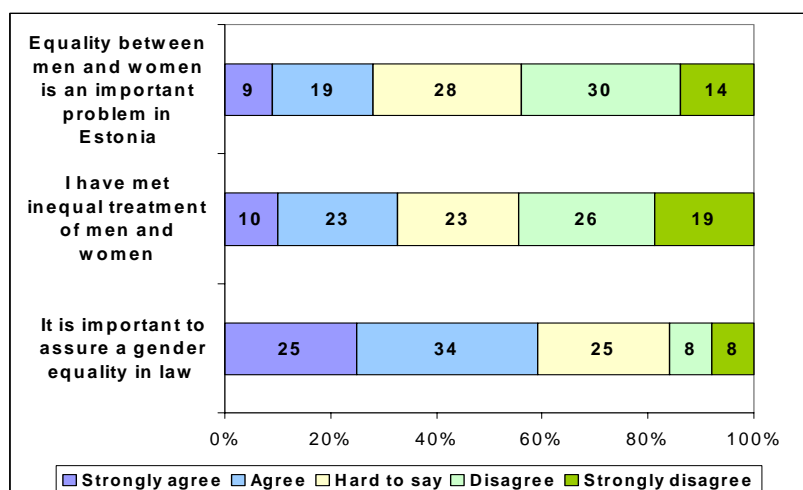


Figure. Public opinion about gender equality, in 2002, % (N=1000)

Dolls for girls and cars for boys

Men dominate technology. Women in top of computing industry are rare. In the biggest electronics company in Estonia the Elcoteq Tallinn women are missing from top management, only head of finances and personnel is a woman. There are working about 2,500 employees, but only every fifth is with higher education, mostly women as product assemblers who are *'more suitable for routine work'*. Elcoteq Group has altogether 8,500 employees. Elcoteq has had a manufacturing operation in Tallinn since 1992. For Tallinn is said that *'we are expecting to employ young and high motivated people who are university graduates from electronics, ICT, mechanical or power engineering, logistics etc'*.

But university graduates do not have their dream to be just product assembler. Female graduates are very good in robot design and building and they have got the best from *'hard sciences'*. Actually jobs for degree graduates of Tallinn Technical University is hard to find in Estonia. Social networking and technical infrastructure like in Silicon Valley did not yet reach to Estonia. But not all young engineers plan to leave Estonia.

A way out is to increase entrepreneurial spirit, and attract investments, to introduce a business angels system. Universities have started SPINNO programs and R&D investment programs through state agency at the Enterprise Estonia. Rhetoric to about encouraging women appears in some national documents. In reality there is a lot of space to improve situation. *Why-women-question* appears again and again.

## **Openness and funding**

Estonia is a full participant in the EU *5th and 6th Framework Programme*. The vast majority of RTD is performed in universities and state research institutes. University research is concentrated mainly at the University of Tartu, Tallinn Technical University and the Estonian Agricultural University. In 1996-1998, the former research institutes of the Estonian Academy of Sciences were integrated with universities. In 1996, Centres for Strategic Competence were established.

Total expenditure on Estonian RTD in 2001 comprised 0.75% of GDP. It is intended that by 2006, total expenditure on RTD will be 1.5% of GDP. The strategic principles for financing research and development will include a significant increase in the state financing and more active participation of private and foreign capital. From other side so called *'soft sciences'* are under financed, which means that there is also less money for areas where are more female than male scientists.

In 2001, the Ministry of Education has initiated the Estonian Programme for Centres of Excellence in Research to establish conditions for high-level research and to create a mechanism for elaborating, developing and implementing innovative ideas. The strategy of centres of excellence does not only involve hard science but also social sciences and humanities.

## **Estonia and organisations promoting women in SET**

European Union has set up **ENWISE** (*Enlarge Women In Science to East*) to study women in science in Eastern European countries, to report results and to formulate policy recommendation (within research administrations, public and private research bodies, at regional, national and EU level) and for the scientific communities and the scientists themselves, both male and female. In January 2004 there was held a conference in Brussels about wasted talents and marginalized position of female scientists in Eastern Europe. In Estonia, a lot of work has done by Prof Ene Ergma, who has pointed through ENWISE attention to a weak position of women in Estonian science.

Estonia was a part in the **'Helsinki Group on Women and Science'** (expert group of civil servants and gender experts from the 15 EU Member States and from 15 countries associated with the 5th Framework Programme) in 1998-2002. Estonian representative there was Tiia Raudma from the Ministry of Education and Science. Tiia Raudma has an author of Estonian national report on the situation of women scientists. It is sad that content of such kind of reports are much

better known in Brussels than in Estonia. Gender mainstreaming (GM) is unknown concept and national strategy of GM is going slowly because Gender Equality Bill was adopted just before 1 of May. This is evidence of real resistance to gender equality idea, but there was neither found alternative way.

Madli Krispin is founder of **EWITEC** (Estonian WITEC) and has build up national network. She started from zero in conservative environment and she made from EWITEC a success story. Due to participation in ERASMUS, LEONARDO, VISBY and other international projects the WITEC ideas, aims and goals have found support and interest in Estonian partner universities, SME-s and other community organisations. Madli got allies in rectorat, QUIN-Estonia, women in business organisations. EWITEC is more and more visible in country, but lobby within ‘science bureaucrats’ continues.

## Gender inequality

These answers are very reflective about women’s position in Estonia. In April 2004 Gender Equality Act in a mildest version was adopted by Riigikogu. Western European countries can estimate a situation in Estonia from own experiences – understanding gender equality as a concept and principle takes a time.

Is there one woman out of seventy in science in Estonia? Not so bad, really, a bit more.

In September 2003, a weekly newspaper asked from two famous women in Estonia about perspectives on gender equality: *Do you think that gender inequality is a problem to be tackled and solved in the EU?* Senior Researcher Ingrid Rüütel (the First Lady of Estonia, Patroness for many projects) has answered that gender inequality is not at all a problem and ‘*our women have always been strong and self-confident*’. Professor Ene Ergma (Member of Academy of Sciences, speaker of Riigikogu, chair of the ENWISE Expert Group) answered that she is not so sure about getting in the nearest future one more **female** Member of Academy of Sciences, but she keeps a spirit. In 2002, 57 full members and 13 foreign members were among Members of Academy.



Members of Academy of Science in 2002 in Estonia. The only a woman is Ene Ergma.

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