



# The EU Mutual Learning Programme in Gender Equality

## Gender segregation in the labour market and education

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### Comments Paper - Estonia



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# Gender segregation in the labour market and education in Estonia

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## 1. Introduction and relevant country context

### 1.1. Progress and challenges

Estonia has made some progress in the promotion of gender equality. The establishment of institutions promoting gender equality and the adoption of specific gender equality legislation are seen as major achievements in Estonia in 1995-2014 (Estonia 2015: 3). Gender impact assessment takes place in law drafting. The Gender Equality Act (GEA) obliges all administrative levels to mainstream gender equality into policies, strategies and action plans. It also obliges educational and research institutions and employers to promote gender equality. Gender-segregated data are available in several areas of life and more informed decisions could be made. GEA also requires employers to collect sex-disaggregated statistical data, but the regulation on national level is not adopted.<sup>1</sup> Unfortunately, Estonia does not have a strategy on gender equality. Development and action plans are gender blind, which makes it often impossible to fulfil substantially equality requirements. In spite of the facts about gender inequalities and high gender segregation in the labour market, too little has been made to tackle these problems on national level.

### 1.2. Projects to tackle gender inequalities

The World Economic Forum quantifies the magnitude of gender-based disparities and tracks their progress over time and has introduced the Global Gender Gap Report 2014. Estonia has a quite good position in relation to gender and education attainment, economic participation, health and survival, but ranks low in political empowerment.<sup>2</sup> Women outperform men in education (Tables 1 and 2 in Annex), but women are rare in political and economic decision-making. In spite of feminisation of higher education, women are scarce in top positions in academia and science policy. Only two women are members of the Academy of Science.

Promotion of gender equality work is mostly project-based. Several projects on national level have been carried out to promote gender awareness in education, and to make gender issues and specificity visible to teachers and career advisors at schools. Studies show that while there seems to be more lenience towards the behaviour of boys, the common notion is that girls have to be polite and well-mannered (Kuurme, Kasemaa, Roots 2012; Kasemaa, Kuurme 2015). There have been projects to increase gender awareness of personnel at kindergartens. Projects provide training, networking, handbooks, study material and innovative teaching methods. Projects are funded from different programmes, the recent biggest funding

<sup>1</sup> This means that GEA has not been implemented in this respect in 2004-2015.

<sup>2</sup> [http://www3.weforum.org/docs/GGGR14/GGGR\\_CompleteReport\\_2014.pdf](http://www3.weforum.org/docs/GGGR14/GGGR_CompleteReport_2014.pdf), (16 August 2015).

is from Norway Grants 2009-2014.<sup>3</sup> The Estonian Research Council is participating in the COST Action project genderSTE. This project aims to advance the state of the art in knowledge and policy implementation on gender and science and technological development through creating a network of policy makers and experts on gender, science and technology.

### 1.3. Persistent gender pay gap in Estonia

Estonia has the highest gender pay gap (GPG) in the EU in 2008-2012, which has reached to 30 %. The Gender Equality Department at the Ministry of Social Affairs has ordered a study about GPG in 2009 and research findings are used to acknowledge and tackle the problem. However, only a small part of GPG could be explained. Gender-based pay inequalities are partly explained by segregation in the labour market with women working more frequently in posts and sectors where the pay is lower (Table 3 in Annex).

Data by Statistics Estonia show vertical and horizontal gender segregation in the labour market. For example, statistics about graduates from 2012 shows gender segregation and GPG in the labour market (Table 4 in Annex). In 2013, the Gender Equality and Equal Treatment Commissioner has stated that gender segregation is a serious issue and should be tackled. Technical education, higher education and scientific degrees are not enough to find a job and to get fair pay in Estonia. There is a problem of mismatch between graduates' specialties, ambitions and the needs of the labour market. The employment rate for women aged 15-74 was 59 % and for men 63 % in Estonia in 2014. Almost every tenth person is employed in a field of education (8.8 %). There were 14 % men among pedagogues in general education in 2005-2014. However, a share of men among young pedagogues has increased and there are 20 % men in the age group under 29 years in 2014 (Table 5 in Annex).

### 1.4. Need to encourage young people to choose a career in science

A lot has been done in popularising Science, Technology, Engineering or Mathematics (STEM). Various interesting events are organised at schools, hobby classes, academic institutions, enterprises, societies and in the media (one of the initiators has been the Estonian Research Council). There are attempts to motivate both girls and boys to choose STEM careers. The national student research competition has been carried out since 2002, currently organised by the Estonian Research Council. According to data from events and science contests, girls and boys have been equally active participants and among those who have been awarded for their research in *realia* and *naturalia* held girls and boys a quite equal position.<sup>4</sup> However, Soobard and Rannikmäe (2014) have studied Estonian schoolchildren on upper-secondary education level in 2011-2012 and found that students (girls and boys) at the gymnasium level were not interested in science-related studies and a career in science, there were no gender differences in attitudes. The major gender difference was that boys saw themselves more in engineering and technology related jobs than girls.

<sup>3</sup> Mainstreaming Gender Equality and Promoting Work-Life Balance, 2,000,000 Euros. More: <https://www.sm.ee/et/projects>

<sup>4</sup> Information from the Estonian Research Council, 31 August 2015.

Low interest in science-related studies was explored in former research (the ROSE study, Teppo & Rannikmäe 2006<sup>5</sup>). Soobard and Rannikmäe (2014) and point out that science subjects had not introduced science-related professions to students. There is a need to change the focus in science subjects, not only to pay more attention to developing competences, but also to raise students' career-awareness as one part of scientific literacy (Soobard & Rannikmäe 2014).

### **1.5. Need to encourage cooperation between schools and enterprises**

Estonia participated in the inGenious<sup>6</sup> project and the Tiger Leap Foundation (2013) has carried out a needs assessment study for more effective cooperation between schools and enterprises (National Needs Analysis on STEM School-Industry Collaboration). A recent Estonian report has studied the situation, projects and activities promoting STEM in education. Recommendations were given for national policy on STEM education, actions on national level, and from school and industry perspectives (Tiger Leap 2013: 21-26). These are research-based suggestions, but one important thing missing in this study is the gender aspect.

## **2. Policy debate**

Main topics in public debates on gender are gender pay gap, women's low political and economic representation, access to childcare and gender-based violence. Discussions about career choices by gender are quite rare. It is discussed concerning a need for high skilled workforce, brain-drain, need to increase status and wages in education. There have been long-lasting debates on wages and whether preschool teachers should be paid equally with teachers in primary school.

The recent hot debates are connected with reforming research institutions. An expert report by the Research and Development Council (TAN Report) was introduced in August 2015. The report does not mention gender disparities in education and science. Few women were seen as suitable independent experts for this important report.<sup>7</sup> TAN Report is looking for ways, needs for structural changes and policies to boost the performance and increase the international competitiveness of Estonian research institutions and higher education system. The report also aims to initiate a broader discussion between the universities, research institutions and business organisations. TAN Report is based on desk research and interview data. It reflects opinions, assessment and recommendations by independent experts. The expert report supported consolidation and more effective networking of research and higher education institutions in order to reduce duplication and the number of curricula, as well as increase the efficiency of research and higher education funding. The Report suggests to introduce master level studies in STEM and in all doctoral studies in English. There should be more debate whether girls and boys have different needs in education, is it acceptance of gender differences or is it enforcement of gender stereotypes.

<sup>5</sup> Cited through Soobard & Rannikmäe 2014 article.

<sup>6</sup> inGenious is the European Coordinating Body in Science, Technology, Engineering and Maths (STEM) education, one of the largest projects in science education undertaken in Europe.

<sup>7</sup> The Report was called by Gunnar Okk (principal author) as 'think piece' (piece of writing meant to be thought-provoking and speculative that consists chiefly of background material and personal opinion and analysis).

### 3. Transferability aspects

#### 3.1. More women into STEM: Northern Ireland

The good practice acknowledges that businesses have a leading, even key role for fulfilling the goals of the Northern Irish STEM Strategy. For better coordination and active subgroup work the Department for Employment and Learning (DEL) has funded a seconded post of a STEM Business Co-ordinator in 2012. It would be important to have such a coordinator, as a paid job, also in Estonia. In Estonia promotion of gender equality tasks is an unpaid odd job for civil servants. Many things are done by NGOs, but NGOs have low bargaining power for getting their research findings and ideas into national development and policy papers. If a problem is identified, coordinated and efficient activities to tackle the problem should be launched. In Northern Ireland the situation was studied, needs were mapped, a strategy was elaborated, action plans developed and structures formed and funding planned. Estonia has problems with taking into account situation analysis and research findings and to formulate strategies and action plans accordingly. Estonian policy making has poor practice to formulate national strategies, where gender inequalities are addressed.<sup>8</sup>

The good practice from Northern Ireland describes in quite detail the activities to address employers and get their understanding and commitment. The STEM Charter is a proof of dedication and modern organisation culture. In Estonia it is hard even to find employers who declare themselves as equal opportunity employers. However, a project on gender mainstreaming in enterprises was carried out and some handbooks are available in Estonia. In Estonia the Estonian Employers' Confederation and spokespersons of the Chamber of Commerce should be lobbied, because their opinion counts. Today these organisations have conservative attitudes and their idea for solving the shortage of highly skilled employees is in controlled immigration policy. Estonia has carried out several projects for inviting 'talents back home', but it is important to look at those who have chosen STEM field of study and offer jobs for them.

#### 3.2. More women into STEM: the Netherlands

The Dutch National Technology Pact is an influential tool for choosing STEM careers. The Pact has goals for the entire chain of education and labour market for 2020. Another pillar of the Dutch good practice is general women's rights policy. A Gender equality strategy is currently missing in Estonia and legal requirements to promote gender equality are poorly followed, but change is currently taking place. The Dutch good practice on STEM promotion is known by people from the Estonian Research Council (ETAG). ETAG is also responsible to design a national action plan according to objectives set in the Research and Technology Pact of Estonia.

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<sup>8</sup> Estonian Research and Development and Innovation Strategy 2014-2020 (Knowledge-Based Estonia 2014–2020) is Estonia's third strategy on research and development and innovation. There is a measure to ensure the high level and diversity of research. There is also stated that equal opportunities, incl. gender balance, should be ensured when filling positions, allocating grants and forming decision-making bodies. It also foresees to develop cooperation with enterprises and to support individual development possibilities. Among five challenges in education strategy only one takes gender aspect into account and this is connected with school dropouts, where boys dominate.

The Research and Technology Pact was signed on 12 February 2015.<sup>9</sup> The objective of the Pact is to coordinate and to enhance the activities of various parties in ensuring that young people want to learn and later also work in the field of research, technology and engineering. The activities of the Pact are being implemented in cooperation between the state, local governments and industry, education and third sector. A lot has been done to make STEM specialties attractive, to popularise STEM specialties and science in schools and the media. Different Science Centres have been established, various teaching materials have been developed. The implementation of the Pact is coordinated by the Estonian Research Council (ETAG).

An action plan is being developed in three main directions within the framework of the Research and Technology Pact:

- popularising the field in society, primarily among young people;
- increasing the quality of the education in the field at all levels of education;
- valuing work in the field.

The problem with this Pact is that there is poor information about status and planned activities in connection with these very broad objectives, it could be even seen as too declarative. On the other hand, partners have signed their common ideas and goals, it will be interesting to follow the development of this process, because it could offer a basis for actions to tackle Estonian problems with shortage of high-skilled workforce and engineers.

### 3.3. More men among preschool teachers: Denmark

Denmark has funded five pilot projects in different municipalities to test new methods and ways to increase the diversity among the pedagogical staff and hence attract, recruit and retain male pedagogical staff (Wohlgemuth 2015). Estonia had an EQUAL programme project concerning active fathering, and several projects have addressed improved fathers involvement in care. There are many men who have talent in pedagogical work, but they did not yet go into kindergartens. It is also connected with highly regulated preschool education, low status and pay of the job and prevailing prejudices in society. There was an interesting project in Denmark interviewing male pedagogues and to get to know their opinion about image and problems. Like with unwillingness to choose STEM career due to poor information about the future job, there is a same problem with preschool teachers – young people do not know all pros and cons connected with being a preschool teacher (pedagogue). However, the number of men who have chosen teachers' education and go to work in schools has increased in recent years.

Children's enrolment ratio in preschool institutions is high.<sup>10</sup> Estonia has a problem with vacant places in kindergartens every third municipality and it means overcrowded groups in kindergartens, according to law there could be up to 24

<sup>9</sup> The Pact was initiated by the Ministry of Education and Research and the Ministry of Economic Affairs and Communications. In addition to these two ministries, the first signatories to the Pact include the Estonian Research Council, the Estonian Association of Engineers, the Collegium Eruditionis knowledge centre of Viimsi Upper Secondary School and Kadrina Upper Secondary School, which have noticeably contributed to promotion of the field. The pact and its action plan are open to anyone who desires to join it and contribute ideas, activities and resources.

<sup>10</sup> 26 % of 1-year old, 72 % of 2-years old and 89 to 92 % of 3-5-years old children are enrolled in preschool institution in Estonia.

children in one group.<sup>11</sup> The Forest Man project could somehow work in small kindergartens and there is not actually a problem, if the same activities will be carried out by the Forest Woman. There is a space for thinking whom we are looking for – is it a man, handyman or a skilful person with creative thinking? There could be a problem in connection with resources, rigid regulation of preschool curriculum and work organisation. There is a problem with finding people who could work with children and have creative thinking, technical abilities and ability to make ideas attractive, and – last but not least – who could use tools and can handle different materials. There are some men, who are involved in work with children in hobby schools.<sup>12</sup> There is also possibility to recruit fathers who have energy and talent to work with children.

To pay attention to daily vocabulary and expressions by educators is very important to target. In Denmark the kindergartens initiated a process of changing the language connected to daily routines and the gendering of some actions or notions. This project should be carried out in Estonia. There has been a project where some kindergarten teachers have got ideas how to notice gender and language use and activities which enforce gender stereotypes. There are resources to carry out such a project in Estonia, because there are studies and gender experts available who can participate in this project. Maybe pilot projects on diversification preschool education and involve more men into work with children is a good option for smaller private day-care centre in Estonia.

## 4. Recommendations for action

- Adopting a gender equality strategy could contribute to tackling gender segregation.
- Ensuring equal pay for work of equal value should be a priority.
- To implement Gender Equality Act (GEA):
  - Regular monitoring and evaluation of the implementation of Articles 9-11 of the GEA on promotion of gender equality.
  - The Government Regulation about employer's duty to collect sex-disaggregated statistical data concerning employment and the list of data and the collection procedure should be adopted.
- Funding for gender expert's position in every ministry.
- Coordination and cooperation between ministries and civil servants to promote gender equality.
- Common platform for gender research and reports on gender in different areas of life should be launched.

<sup>11</sup> A rural municipality or city government shall, at the request of the parents, provide all children from eighteen months to seven years of age whose residence is in the territory of the given rural municipality or city and whose residence coincides with the residence of at least one parent the opportunity to attend a preschool institution in the catchment area.

<sup>12</sup> For example Tartu Nature School. Tartu Nature School is a child and youth-friendly hobby school, where many current students' parents have attended as well. Tartu Nature School has a long tradition of discovery with diverse learning opportunities that offer new insights for more than 500 nature house children and youth. Although many of the School's activities are centred around excursions in nature, we have many activities available for the classroom as well.



- Central coordinating body and a national platform for STEM subjects, for the development of STEM education and for the assessment of the respective impact.
- Action plan and evaluation of activities foreseen in the Research and Technology Pact.
- Further analysis of the inGenious project research findings (Tiger Leap 2013) from gender perspectives.
- Launching a pool of teachers and people involved in hobby education in STEM areas.
- On European level gender mainstreaming, better coordination and use of existing knowledge should be promoted.

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## Annex: Tables

**Table 1. Share of females among pupils and students in 2014, in %**

General education	49.9
..basic school level	48.4
..gymnasium level	56.7
Vocational education	46.1
..vocational courses with non-defined basic education	32.8
..vocational courses after basic education	35.8
..vocational courses after secondary education	61.3
Higher education	58.8
..professional higher education	57.4
..vocational higher education	
..diploma study	
..Bachelor study	57.9
..integrated Bachelor's/Master's study	57.5
..Master's study	63.4
..Doctoral study	57.4

**Table 2. Acquisition of higher education: share of females in 2014, in %**

	Master's studies	Doctoral studies
Admittance	59.5	51.2
Enrolment	63.4	57.4
Graduates	68.9	53.1

**Table 3. Employed persons by economic sector and sex in 2014**

Sectors of economy	Total	Males	Females
Sectors of economy total	100	100	100
Primary sector	3.9	5.4	2.2
Secondary sector	30.1	42.1	17.5
Tertiary sector	66.0	52.5	80.2

Primary sector – agriculture, hunting, forestry, fishing; secondary sector – mining, manufacturing, electricity, gas and water supply, construction; tertiary sector – trade, services, etc.

**Table 4. Graduates from 2012 at the labour market by economy, sex and earnings inequality in 2014.**

	Males	Females	Share of women (%)	Women's monthly income from males' 100 cents*
Architecture and construction	657	115	15	72
Computer sciences	331	136	29	73
Personal services	384	1271	77	82
Environmental protection	11	28	72	69
Arts	100	219	69	82
Agriculture, forestry and fishery	248	297	55	81
Social services	5	123	96	..
Engineering and engineering trades	1,469	40	3	67
Health	34	37	52	46
Manufacturing and processing	300	476	61	87
Transport services	286	239	46	63
Security services	220	42	16	92
Business and administration	94	838	90	76

\*calculated from average average income.

**Table 5. Pedagogues in general education by sex and age group in 2014.**

	Males and females	Males	Females	Share of men, in %
Age groups total	14,329	2,041	12,288	14.2
Under 25	283	58	225	20.5
25-29	1,004	192	812	19.1
30-39	2,571	453	2,118	17.6
40-49	3,892	434	3,458	11.2
50-55	2,684	347	2,337	12.9
56 and over	3,895	557	3,338	14.3