Preparation and Implementation Stages of Gender Equality Plan at Information Science and Technology Organization
Lithuanian Case

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Abstract   Gender inequality in technological sciences is a problem, which discussed louder than ever. The number of women and men working in the technology sector still struggles to reach equality. The same applies to technological faculties of universities, as women often undertake roles, which include administrative work mostly. This case provides an analysis of the situation at the Kaunas University of Technology (KTU). In Lithuania, the distribution between men and women studying in the field of ICT is similar to the global trend. A big gap can be observed between boys and girls studying in the field of ICT and engineering. During the EQUAL-IST project implementation period, many positive structural changes implemented in the University not only in the faculty level but in the institutional level as well. The study illustrates the preparation and implementation stages of the KTU Gender Equality Plan.

Keywords   Equality. Gender Gap. Inequality. Research. STEM.

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1   Introduction: The Context and Methodology

Taking the issue from the roots, in schools (K9), 15-year-old girls outperform 15-year-old boys (by the equivalent of roughly one year of school), while in mathematics boys outperform girls (though by a narrower margin, the equivalent of less than half a year of school); in science there is instead little difference between boys' and girls' performance. Yet when digging a little deeper, a more nuanced picture emerges. OECD provides a statistic that there are far more boys (24.9%) than girls (12.5%) among the lowest-achieving students in reading, while there are far fewer girls than boys among the top performers in mathematics (10.6% vs. 14.8%) and science (7.7% vs. 9.3%).

There are even larger gender differences in the fields of study chosen in higher education: in OECD countries, fewer than 1 in 3 engineering graduates and fewer than 1 in 5 computer science graduates are girls. This is likely because of stereotypes and expectations, rather than performance differences in math and science. For example, at age 15 far fewer girls (4.7%) than boys (18%) – even among the top performers – reported that they expect to have a career in engineering or computing (OECD 2019).

In Lithuania, the distribution between men and women studying in the field of ICT is similar to the tendency from all over the world. Taking into consideration all three levels of post-secondary education (vocational; college and university studies) the biggest difference can be seen between boys and girls studying in the field of ICT and engineering. In the vocational level, only 2.6% of girls choose engineering or computing studies while 41.6% of boys consider it as a future profession. Similar situation is in the college level as well, where 1.6% of girls choose engineering studies while at the same time 37.19 of boys choose it. The situation is slightly better at the university level where 4.4% of girls and 30.3% of boys study engineering (Masiulyte-Sukevic 2016). However, these numbers show the huge gap between the choices of girls and boys. These numbers of students are not enough to cover the need of ICT and engineering professionals fully.

Talking a little bit further, even when girls do graduate from scientific fields of study, they are much less likely than boys to work as professional in these fields, more often choosing to become teachers. Data from a subset of OECD countries show that, among graduates with science degrees, 71% of men but only 43% of women work as professionals in physics, mathematics and engineering As a result, across OECD countries, only 13.7% of the inventors who filed patents are women.

There are three types of problems for women: cultural traditions and stereotypes; internal barriers; external barriers **[tab. 1]**. These stereotypes cause a low rate of women interested in the ICT field.

Table 1 Problems that prevent women from entering the ICT sector

Cultural traditions and stereotypes:	1. Cultural ideas about women's role in society
	2. Stereotypes around the sector
Internal barriers:	3. Reticence to talk openly about gender issues
	4. Lack of self-confidence
	5. Difficulties at negotiating and competing in the sector
External barriers:	6. Strongly male dominated and discrimination
	7. "Old-boys network" culture
	8. Complexity of conciliating personal and professional life
	9. Lack of role models in the sector

Women face various problems that prevent women from entering the ICT sector in Lithuania. Most of the problems are related with stereotyped views of "female" and "male" jobs permeating society, and research institutions as such. However, these barriers create a huge gap between women and men working in the academic field of ICT. The Informatics faculty at Kaunas University of Technology seeks to change the situation and encourage women to choose their career in ICT field. In addition, it seeks to break the stereotypes and eliminate obstacles that causes the low rate of women joining the ICT field. To increase the low number of women, choosing their career in ICT field, it is important to know the factors that make a positive impact to girl's interest in STEM. Parents and teachers can make the biggest influence on the interest

The prepared gender equality plan is a result of long and intensive discussions, researches and analysis of data in need to create a plan that perfectly fits the situation of Informatics Faculty at KTU. During the EQUAL-IST project implementation period, many positive structural changes were implemented in the university not only at the faculty level but at the broader university level as well. To ground KTU change strategy in the actual gender challenges and gaps, we analysed internal data since 2016, year when the project started.

According to the overall project methodology, a participatory gender audit was carried out in 2016 at KTU. Interviews were held with human resource managers (3), a researcher, a representative from student service organization and a representative of Communication Department at KTU. The aim of the interviews was to gain more information to identify weakness and strengths of KTU and main actions, which should be taken in regards of GEP thematic.

There were considered the main issues regarding gender equality within institution in the specific areas. In the area of strategic planning of KTU, the activities led by documents where no gender is distinguished: "we use documents that are no gender directed" (R1). Overall, the university follows the European Charter for Researchers and the Universities Charter for Life Long Learning and other legal documents where the main values such as competences, professionalism, initiative, responsibility and dutifulness highlighted: given this framework, gender seems to lose relevance in the eyes of staff members, in favour of a broader, 'universal' approach. Same for another area – project management, where the competences of 'a person' to be playing the main role for the decision to accept the person into a working group.

In the area of marketing, interviewed staff members at KTU identified no gender discrimination. Marketing actions of the University are directed to the strengthening of the institutional image/brand and it is intended to reach a wide audience without excluding or differentiating neither on gender or any other ground: "The acts of marketing that are related to the image of University and Studies, should be directed to both genders and do not show any differences or special conditions for genders which could be understood as privileges for female or male students, employees or other interested parties" (R5). This quote highlights how gender sensitive communication can still be misinterpreted by as 'privileging' one gender on another. At the same time, as gender equality policies increasingly gain visibility and acknowledged as priorities in ERA (European Research Area) policies, the University also has put in place some marketing actions that are gender oriented. One of those is the special action directed to girls to motivate them to study STEM (Science, Technology, Mathematics and Engineering) disciplines.

At the Faculties level, it is notable that women are applying more often to academic positions at various levels: "Despite open job position advertisement are gender friendly, most of applicants are still woman" (R4). Even if vertical segregation is evident and it is more difficult for women to reach the highest managerial positions, still staff members stress how this is not the consequence of 'discrimination': "There is no discrimination by gender at our university [...] the main issue regarding gender equality maybe is the proportion of female in the positions of full professors" (R6). Exploring this issues two hypothesis seemed to be shared by most stakeholders:

1. women do not often apply to the highest positions;
2. there are some 'hidden' obstacles for women to reach those positions, i.e. women tend to have less continuous career progressing, and their achievements are hindered by work life balance issues and care related work.

There is also clearly horizontal segregation as most of the employed women work in the administration or, among academic pro-

files; they are mostly represented within social sciences, areas that are traditionally considered as "feminine" and where more women take the highest positions: "The majority of employees in my current department are women (we have only 1 male member of staff)" (R4). "However, in academic STEM departments, the majority of employees are male, while in social/humanitarian – female" (R3). A widespread view is that this reflects a 'natural' gender distribution in working areas between men and women. Societal and cultural impact tends to be underestimated and the roots of inequalities, which seem to be due to a purported 'natural inclination' is seen: "The proportion of female/male members of staff is not an outcome of any discrimination but more of a natural inclination of females to work in social/humanitarian fields rather than technological/physical sciences and vice versa" (R3).

To summarize, there is for sure a gap between the rules and norms set in the statutes of the University, which ensure equal rights for all people despite of their gender, beliefs, social position or sexual orientation, and the inequalities, which can be observed in the institution's employment patterns. Our audit highlighted how in order to make sense of such gap, university staff seems to identify the cause of gender segregation in natural preferences/differences by women and men, or by traditions. To tackle such a situation, and reflecting current societal trends where traditional gender stereotypes are more and more abandoned, the Kaunas University of technology has committed to equality and diversity policies and guidelines of its implementation were presented to the university' community in 2018.

This case will analyse the process and policies put in place for promoting structural changes during the EQUAL IST project implementation, i.e. preparation stage described in the chapter 2 and the Gender Equality Plans (GEP) implementation in chapter 4, where general situations and problems related to gender inequality are identified and the solutions for the structural changes implemented.

2 The Preparation Stage for GAP Design

2.1 The Analysis of the Gender Issues at the Faculty of Informatics at KTU

This section discusses the representation of gender distribution in the academic community of the Faculty of Informatics at Kaunas University of Technology (KTU). The Faculty of Informatics is one of nine faculties at KTU, which carries out research in Informatics and plays a central role in information society of Lithuania. Primary IT study branches include technological sciences and physical sciences. There are full-time and part-time studies; full-time studies is the

main form of studies. KTU awards Bachelor's, Master's, and Doctoral degrees. Study programmes offered by the Faculty of Informatics listed below **[tab. 2]**.

Table 2   Three cycles of studies programmes

Bachelor study programmes (6)	Master study programmes (5)	Doctoral study topics (2)
Health Informatics Informatics Informatics Engineering Information Systems Multimedia Technologies Software Systems	Informatics Information and IT Security Information Systems Engineering IT of Distance Education Software Engineering	Informatics Informatics Engineering

Statistics from 2016 shows that a much larger number of men than women has graduated from the Faculty of Informatics **[tab. 3]**. It is noted that the percentage of women among the Master's degree graduates is higher than the Bachelor's and it is growing over years. Noticeably, Multimedia Technologies study programme has much more female graduates from Bachelor degree in comparison to other programmes **[fig. 2]**.

Table 3   Female and male graduates from the Faculty of Informatics at KTU by degree (Updated on: 2016-07-11. KTU 2016)

	Bachelor's degree		Master's degree		PhD degree	
Year	men	women	men	women	men	women
2013	188	17	73	10	8	1
2014	201	17	74	16	4	1
2015	178	15	61	15	3	3
2016	174	20	69	21	2	0

A very high percentage of women (54.1%) graduated from a Distance Education IT Master degree programme. However, only 20% of Master's graduates from Information technologies, Information Systems Engineering and Informatics study programmes are women.
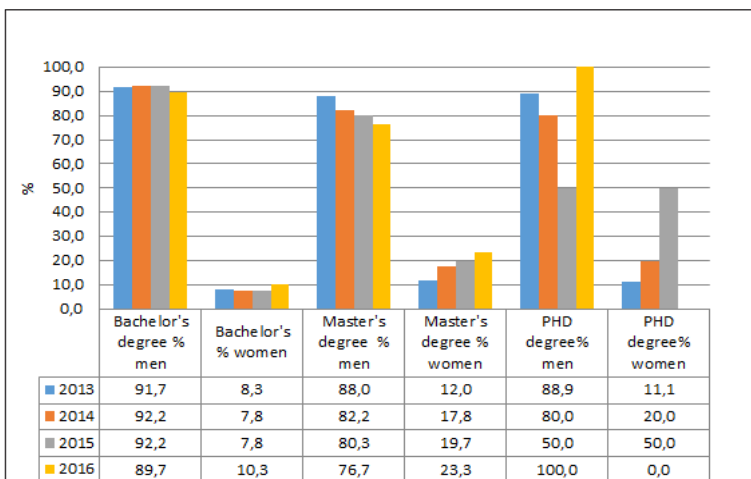
	Bachelor's degree % men	Bachelor's degree % women	Master's degree % men	Master's degree % women	PHD degree% men	PHD degree% women
2013	91,7	8,3	88,0	12,0	88,9	11,1
2014	92,2	7,8	82,2	17,8	80,0	20,0
2015	92,2	7,8	80,3	19,7	50,0	50,0
2016	89,7	10,3	76,7	23,3	100,0	0,0

Figure 1   Percentage of female and male graduates from the Faculty of Informatics by degree
(Updated on: 2016-07-11. KTU 2016)

Percentage of women Bachelor's graduates 2013-2016

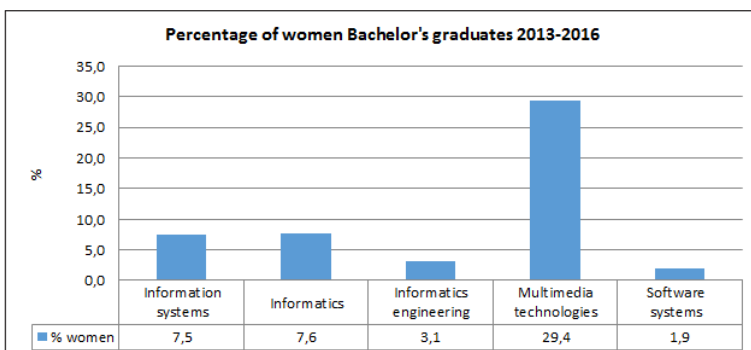|	Information systems	Informatics	Informatics engineering	Multimedia technologies	Software systems
% women	7,5	7,6	3,1	29,4	1,9

Figure 2   Percentage of female Bachelor graduates by study programmes
from the Faculty of Informatics at KTU (Updated on: 2016-07-11. KTU 2016)

Percentage of women Master's graduates 2013-2016

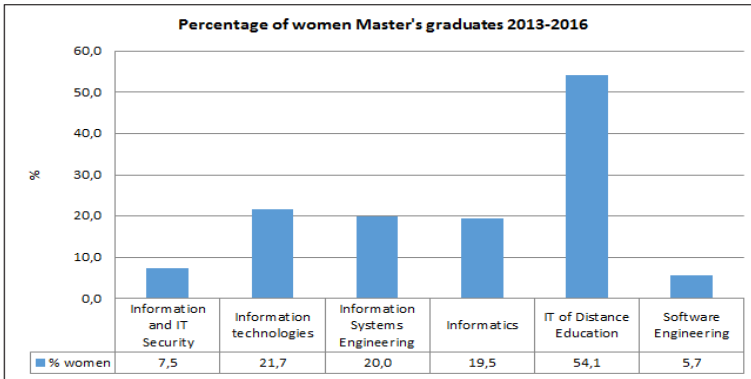|	Information and IT Security	Information technologies	Information Systems Engineering	Informatics	IT of Distance Education	Software Engineering
% women	7,5	21,7	20,0	19,5	54,1	5,7

Figure 3 Percentage of female Master graduates by studies programmes from the Faculty of Informatics at KTU (Updated on: 2016-07-11. KTU 2016)

Faculty staff consists of academic staff of the university (professors, associate professors, lecturers, assistants and contracted teachers) and researchers carrying out projects and other research related activities (analysts, experts, technicians, engineers, programmers); management staff-members of university administration (dean, heads of departments and other units, coordinators, managers, administrators, academic assistants).

Women represent 29.3% of staff in the Faculty of Informatics at KTU, which overall amounts to 246 persons. Analysis of the Faculty staff structure has shown that women prevail in the Dean's office (61.5%) but in the lowest administrative (91.5%) and coordinating (75%) positions. Top management positions of the faculty and departments' heads, directors of research centres are dominated by men (100% of deans/vice deans, 75% of department heads, 100% of centre directors).

There is also a clear-cut vertical segregation by gender in research staff: women occupy more than a half of lowest positions as analysts (58.3%) and experts (50%), while men dominate in the highest positions as senior researchers (100%), researchers (83.3%), and junior researchers (75%) in "technological" positions as engineers (90%), programmers (100%) and technicians (100%).

Research of gender distribution with regard to academic titles has revealed that men dominate in all positions: professors (93.3%), associate professors (80 %), lecturers (73.3%), assistants (85.7%) and contracted teachers (61.1%).
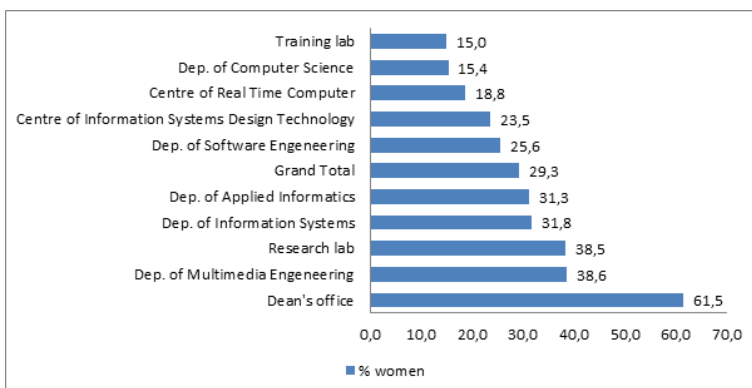
Figure 4 Percentage of women in the Faculty of Informatics at KTU by subunit
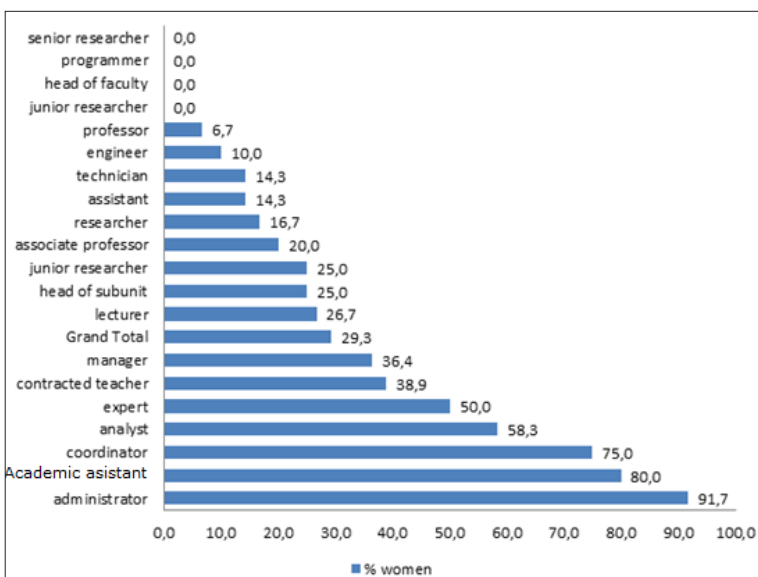(Updated on: 2016-07-11, KTU 2016)

Figure 5 Percentage of women in the Faculty of Informatics at KTU by position
(Updated on: 2016-07-11, KTU 2016)

2.2 Gender Auditing the Internal Students Services and HR Policies for Technical, Administrative and Academic Staff

The distribution between women and men working in STEM disciplines is still far from equality. The situation in the Faculty of Informatics is a typical one as in many technological Faculties as women take roles, which include administrative work mostly. In order to reflect on how to promote equality in the Faculty of Informatics, various people having the direct influence to Human Resource Management were invited to take a part into the workshop. The results and insights are provided below.

The questionnaire provided to the participants contained 6 questions about Student service quality indicators and HR management processes for non-academic staff. 13 questionnaires were filled in. Each of the question had to be rated in a scale from 1 – not at all sufficient to 6 – entirely sufficient.

Results showed a complex picture where awareness of inequalities is mostly missing, and a relatively high share of staff members express uncertainties in answering or prefer not to take a bold position on the topic.

For example, when asked if gender equality is respected in students' evaluation and treatment, the issue appeared to be controversial, with almost half of respondents showing polarized opinions to the extremes, and an equal share of people 38% respectively being negative or positive towards the issue.

Another question was exploring perceptions about the extent to which teaching activities can influence non-stereotyped students' attitude and behaviour. Even though half of the respondents declared to be uncertain about the issue, another 46% expressed positive and trustful opinions about a positive influence from teachers on contrasting stereotypes.

Even the most evident, objective issue of female representation in university courses witnessed a high rate of uncertain opinions among respondents, with more than a half quite surprisingly answering they are not sure, and still 30% showing awareness of the unequal and unbalanced presence of female students.

As far as specific obstacles that female students face while accessing university or during their academic career are concerned, the internal survey revealed how although the majority of respondents do not think that there are obstacles for female students/researchers, still more than one third are hesitant and 16% show some awareness of the problem.

More specifically, the survey addressed the issue of sexual harassment asking about personal experience of undesired jokes or allusions targeting female students and answers revealed how 61% of respondents did not experience this while 16% did, and a relatively large share or participants (almost ¼) preferred not to disclose their opinion.

Dedicated explorations held to identify problems in HR management for non-academic staff. Staff members acknowledged the following issues: non-academic staff is not motivated enough towards career progression.

There is still a minority of women working in technical positions, while on the opposite, few men work in administration. Staff members experience a lack of flexibility in the working environment (flexibility for working time, place), a huge workload, routine work and in certain cases, too much responsibility (working with students, clients, other).

Possible actions were identified, such as motivating employees financially or other type of non-material rewarding or, if not feasible, to decrease their workload; to set up actions to reach gender balance in technical and administrative areas. To reach for gender equality in technical and administration areas.

Participants to the study were asked to identify reasons why girls are not so interested in IT specialties. The main ideas provided below:

1. there is a lack of knowledge about present and new ICT specialties;
2. girls are oriented towards using media tools and their interests lie on traditionally 'feminine' topics such as fashion and health. However, consensus reached on the idea of a lack of a good tutoring for motivating girls to study ICT.

Some participants also mentioned that the stereotype of a typical ICT employee does not help to attracting women as well as most of the times work in ICT seems boring, dull and monotonic.

The idea of a 'natural destiny' for women to lack motivation towards science and technology was also debated during workshops, and several participants showed awareness of the predominantly cultural and social stereotypes on gender: it was noted how even if there is no restriction for girls to take a career and they are free of doing so, our culture is still very traditional and form a negative attitude to girls about their roles and career paths.

Possible actions identified were as following:

3. To motivate young girls by showing good practices to study ICT.
4. To encourage girls to be interested in IT not just as a tool but also as research area for research.
5. Teaching society about IT specialties in the press or social networks due to promotion of IT specialties among girls.
6. Create more specialties of IT that would be more attractive for girls.
7. These activities would promote girls to study Information Technologies.
8. Mentoring program for girls working in IT sector.
9. Mentoring program.

10. To promote the tutors of study programmes for reaching 50% or more of girls studying IT specialties.
11. To create study programmes that would integrate more elements from arts, architecture, design and others.
12. Create a programme for young doctoral students.
13. To increase the number of IT lessons at schools.
14. Start learning IT from the first grade.

The participants provided various suggestions for activities for improving the balance between men and women in the Faculty of Informatics. The spectre of activities spanned from 'educating' society on IT studies to mentoring or tutoring programmes. The implementation stage of Gender equality plan.

Based on the survey studies and the workshops organized within the participatory audit process, Kaunas University of Technology has selected 5 challenges related to Gender Equality issues and set dedicated Goals to address them via a comprehensive Gender Equality Plan, which is presented in the table below **[tab. 4]**.

Table 4   Main areas and challenges

Challenge Main Area	Challenge Title	Objective(s) to address the Challenge
HR and Management Practices	Lack of support to female students at KTU to retain them into ICT academic careers	Create mentoring Network for Women PhD students at KTU
	Women struggle in creating a clear career vision	Help women to create their career Roadmap
	Women are not involved into decision making at the Faculty	Supporting women leadership
Teaching and Students Services & Institutional Communication	Lack of visibility of women in IT	Present more good practices of women working in IT
Other Gender Equality Issues	Lack of men involved in Gender Equality Actions	Encourage men to stand for Gender Equality

2.3 Gender Equality Strategy: Areas of Intervention and Goals

Lack of support to female PhD students and junior researchers at KTU to retain them into ICT careers

The low number of female academics (professors, doctoral and post-doctoral researchers) in ICT field can be related to a low number of female students choosing their bachelor and master studies in this field. The closer analysis of students segregation (D 2.4) in ICT has shown that only about 10% of girls have chosen their bachelor studies in ICT field and in the past two years this percentage was not stable (10% – 2013; 5% – 2014; 6% – 2015). The instable number of girls choosing master degree causes a lack of female students taking PhD studies in the field of ICT. This situation might be caused due to a lack of mentoring actions for female students in the Faculty as women face various kinds of problems while having studies in the field of ICT. Another reason is the lack of support to female students (PhD) from their lecturers, especially when they face uncommon problems while studying. The mentoring Network would help PhD students to get insights/advices/help from the female academic staff working in the field of ICT. This might encourage PhD students to continue their Career in the academic environment and become professors or researchers.

According to the research results, several goals and challenges were identified related with gender equality strategy and the areas of intervention:

1. Goal – Create a mentoring Network for Women.
Challenge – Women struggle in creating a clear career vision.
<u>*Description:*</u> The interviews with HR management group, researchers and academic staff have shown that women, working in the Faculty, never planned their career consequently. Analysing this situation, it was noticed that women do not have any career Plans and never had one before. This also affects their career because women have to accommodate work life balance related events and conditions to their career paths: marriage, children, parental leave etc. It appeared how women tend to act more spontaneously and not to set clear goals in their career paths As a consequence, women are not sure of how to visualize their future career and how to plan it as no Career Counselling Services are provided for administration or/and academic staff in the Faculty. This situation adds instability to women's careers when women do not seek for promotion opportunities and choose to take lower level positions instead of reaching out higher-level work positions.

2. Goal – Help women to create their long-term gender sensitive career-planning template.

Challenge – Women are not involved into decision making at the Faculty.

<u>Description:</u> The interviews with HR management and Administrative Staff have shown that women take administration-level work positions in the Faculty of Informatics while men take the leading positions in the Faculty. This situation shows the unbalance in the leading Board, as women are not involved to the decision making process in the Faculty. In addition, women are not involved in the working groups and do not lead them.

3. Goal – Involve women in decision-making process.

Challenge – The lack of visibility of women in IT.

<u>Description:</u> the general image of women in IT field is dull and boring. This type of image gives rise to the opinion that working in IT is boring and monotonic. However, the reality is different. For this reason, it is important to make women working in IT more visual. It is necessary to stress out that this picture does not mirror the reality. There are many successful women studying and working in ICT: they are charismatic, confident and socially active. Mass media is just stereotyping. This would help to change the society's mind about IT and women working in it. Additionally, it would help to encourage girls to choose studies and later work in this field.

4. Goal -Present more good practices of women working in IT.

Challenge – Lack of men involved in Gender Equality Actions.

<u>Description:</u> Gender Equality actions may be seen as a feministic approach as most of women get involved in this kind of action. Women fight for equal rights at work and at home. They try to prove that women are equal to men but these actions are fruitless without the involvement of men. However, most of the times, men are left besides the actions, they are not invited to take part and feel responsible for the change. In addition, men's involvement might be seen as an inappropriate act that will not be accepted by society. However, men should be involved to the actions for gender equality.

2.4 Gender Equality Plan

The following actions intended for the KTU GEP implementation[1] [tab. 5].

Table 5 The main areas of the GEP implementation

Main Area	Sub-Area	Challenges and Goals	Action	Output Planned Target value	Responsible Stakeholders /Units	Timeframe Mx-My	Resources
HR & Management practices	Gender Segregation	**Challenge:** Lack of support to female students at KTU to retain them into ICT academic careers Goal: Create Mentoring Network for Women	Involvement of female students to scientific Researches	10 female master/PhD students will be involved in STEM research projects	EQUAL-IST Working Group; academic staff; female master/PhD students; junior researchers	2017-07/2018-06	Workshops (5 sessions)
			Inviting to female students to assist teachers in informal education activities	10 female master/PhD students will be involved in assisting activities; 5 sessions	EQUAL-IST Working Group; academic staff; female master/PhD students, junior researchers	2017-07/2018-05	workshops (5 sessions)
			Creating a Mentoring network of Research Professionals and PhD students	1 mentoring network; 2 mentors and 2 PhD students (2 pairs); 5 sessions for each pair	EQUAL-IST Working Group; academic staff; PhD students; professors, researchers	2018-02 / 2018-05	Surveys; interviews
		Challenge: Women struggle in creating clear career vision Goal: Helping women to create their career roadmap	Creating a long-term Gender Sensitive Career Planning Template	1 template for Career Planning	EQUAL-IST Working Group; HR management Group; Academic staff	2017-07/2017-12	Template
			Adaptation of a template for specifics of IT specialties	1 Career Planning Template for staff of Informatics Faculty	EQUAL-IST Working Group; HR management Group; academic staff	2018-01 / 2018-03	Adapted template
			Individual Counselling and Monitoring to Women in designing their Career Plans	10 women; 10 individual counselling sessions	EQUAL-IST Working Group; HR management Group; female academic staff; female Researchers	2018-03 / 2019-03	Individual workshops
		Challenge: Women are not involved into decision making process of the organization Goal: Involve women to organization decision making process by supporting women leadership	A workshop on Leadership development for Women	1 workshop; 10 women.	EQUAL-IST Working Group; female academic and administrative staff.	2018-04 / 2018-05	Workshop
Teaching and students services	Contrasting gender segregation in studies choices	**Challenge:** Lack of visibility of Women in IT Goal: presenting more good practices of Women working in IT	A set of Webinars for Girls	3 webinars; 15 participants for each webinar	EQUAL-IST working Group; female academic staff; female students studying ICT; schoolgirls; students	2017-07/2018-04	webinars
			Organization of special session "Women in ICT" in International Conference ALTA	1 special session; 3 Researchers sharing their outputs and insights in the conference	EQUAL-IST Working Group; female academic staff; educators; PhD students; professors	2017-07/2018-11	Session in the conference
			Organization of special session „Women in ICT in International Conference ICIST	1, special session; 3 Researchers sharing their outputs and insights in the conference	EQUAL-IST Working Group; female academic staff; educators; PhD students; professors	2018-09/2018-10	Session in the conference
			Creation of social network for Women's good Practise Exchange	1 social page	EQUAL-IST working group, women working in IT; professors; administrative staff, students, researchers, social partners, other interested parties	2017-09/2019-05	Social network; virtual resources
Other Gender Equality Issues		**Challenge:** Lack of men involved in Gender Equality Actions	A workshop with experienced professors on Gender Equality for students	1 workshop; 20 participants in each workshop	EQUAL-IST working group, students, researchers, professors, administrative staff	2018-04/2018-05	Workshop, discussion

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[1] KTU GEP https://equal-ist.eu/gep-in-the-kaunas-university-of-technology-lithuania/.

2.5 GEP Assessment Methodology

The specific objective of the Assessment methodology is based on monitoring results of the GEP implementation in terms of outputs planned (target indicators) compared to what has been achieved in a period of 12 months. In details, it aims to:

1. be a guide for RPOs for their GEP implementation process,
2. help them to analyse the process and the activity outputs,
3. monitor if and to what extent the planned results have been achieved,
4. make process changes, if necessary, while implementation is in progress,
5. learn from good practices and avoid pitfalls.

The GEP implementation was carefully reviewed from a gender perspective to identify driving forces that widen gender gaps in the involved RPOs and it offered useful recommendations on the GEP implementation as well as strategies for their wider application at an organisational level to scale them up from the Departmental level towards a cross-departmental and cross-sectorial approach.

Main Areas represent the main functional areas of intervention covered by the GEP. They include the 4 target areas identified by the EQUAL-IST project: HR Management practices, Research content & delivery, Teaching and student services, and Institutional Communication. Furthermore, the analysis of the RPOs internal gender audits has suggested that a new Main Area could be added in order to meet all the critical issues that were described, that is Area of Governance and decision-making Bodies.

Each main area has been divided in Sub Areas, representing specific fields of intervention within the main areas as emerged by the internal audits.

Challenges present the critical situations that have been detected in RPOs' contexts.

The Objectives represent the good practices, formulated in general terms that have been identified were adopted within the institutions in order to solve the specific Challenges.

Each Objective, in turn, has been expanded into detailed Actions, that is a series of different concrete *actions* that were carried out in order to satisfy the relative Indicator.

3 The Results of GEP Implementation. Concluding Remarks

The GEP implementation at Kaunas University monitored throughout the project following the EQUAL-IST monitoring and evaluation methodology (Gorbacheva 2019; Forest 2019), including internal and

external evaluation. The results have pointed at positive outcomes in terms of raising the awareness of stakeholders and staff members on Gender inequalities and the need to address them with most of the activities aimed at capacity building and ensuring more visibility to women in research and gender equality issues in general. Although the plan has not focused extensively on changing structures or introducing permanent transformations in routines and institutional practices, still there was proof of evidence that, also thanks to GE-Ps activities, the female ratio among students and junior researchers has been raised during the EQUAL-IST project life cycle, as it is shown in the tables below **[tabs. 6-8]**.

Table 6   Enrolled students in ICT courses in 2016

			2016				**Average 2013/14, 2014/15, 2015/16**
			M	**F**	**T**	**%F**	
Enrolled students	ICT course	Bachelor	600	92	692	13.29%	7.77
		Master	93	21	114	18.42%	16.44
		PhD	7	1	8	12.50%	33.33
	Department / Faculty Level	Bachelor	600	92	692	13.29%	7.77
		Master	93	21	114	18.42%	16.44
		PhD	7	1	8	12.50%	33.33

Table 7   Enrolled students in ICT courses in 2018

			2018			
			M	**F**	**T**	**%F**
Enrolled students	ICT course	Bachelor	584	74	658	11.25%
		Master	92	23	115	20.00%
		PhD	4	2	6	33.33%
	Department / Faculty Level	Bachelor	584	74	658	11.25%
		Master	92	23	115	20.00%
		PhD	4	2	6	33.33%

Table 8   Female researchers among all new recruited researchers

	2016			**2018**		
	F	**M**	**%F**	**F**	**M**	**%F**
Grade A	0	2	0.00%		1	0.00%
Grade B	0	3	0.00%	1	6	14.29%
Grade C	2	2	50.00%	3	2	60.00%
Grade D	3	3	50.00%	3	5	37.50%

To recap, the first steps of the project implementation was to make a research on the current situation of the Faculty and to plan the possible actions to make changes. At the same time, the project disseminated widely not just in the Faculty but beyond it as well. The main indicators in the State of the Art research were distribution of genders in academic; non-academic and students positions; the distribution of genders in high-managerial positions at faculty and university levels; the types of work contracts; working hours; Pay gap and others.

In relation of results of the research, the Gender Equality Plan was prepared to eliminate the issued raised due to Gender imbalance at Kaunas University of Technology. The main outputs of Gender Equality Plans are gender sensitive career plans and a mentoring network for women. Gender sensitive career plans aim to help women, working in Informatics Faculty at Kaunas University of Technology to become aware of their career and set goals for their own career as well as have a clearer image of what they want to reach in their career and how to do it.

1. The career plans created for female academic staff working in the Faculty (researchers and PhD students) as this type of staff is the most sensitive in the sense of parental leave and other career breaks. It is expected to help female academic staff to have clearer sense on how to plan their Career; to identify strengths and weaknesses and skills/knowledge are still missing to reach set goals.

2. A Mentoring Network for Women was set up which aims at helping to connect young researchers (PhD students) and experienced researchers/professors to share their experience, ideas and advices on various types of issues. This network should help to minimize the drop out percent of female PhD students studying in Informatics field. It is expected to help female PhD students to get more support while studying as it would serve as a motivation to graduate and reach to a Career in the Research field.

3. The former tools and activities are to be kept active and can be considered the main achievements in terms of structural changes implemented at the university level assure the wider impact of women in IST organization. A Sustainability Plan[2] for GEP has been prepared and discussed with the KTU Management covering 3 years after the EQUAL-IST project termination.

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2 Sustainability Plan https://equal-ist.eu/eq-uploads/2017/01/EQUAL-IST-GEP-Sustainability-plan-_KTU.pdf. Sangiuliano, Rossi, Cortesi 2019.

4   Acknowledgement

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