



HOW DO UNIVERSITIES AND RESEARCH INSTITUTIONS IN THE EUROPEAN UNION FOSTER GENDER EQUALITY?

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Abstract

This paper draws upon baseline evidence compiled for the 7th Framework Programme Project “INstitutional Transformation for Effecting Gender Equality in Research” (INTEGER) in three very different research and higher education institutions. Despite institutional commitments towards gender equality, there is an under-representation of women at full professorship (Grade A) and equivalent positions. Furthermore, women and men are unequally represented on key committees and other decision-making bodies. INTEGER’s task is to address these and other imbalances through the adoption of Transformational Gender Action Plans (T-GAPs). These T-GAPs involve: increasing the visibility and leadership potential of women academics/researchers; monitoring and gender proofing recruitment/retention and promotion policies and practices; ensuring gender balance on decision-making bodies/committees; providing mentoring programmes and training in gender awareness to overcome unconscious bias at all levels of the institution; setting targets for high level appointments; and promoting gender equality as a core value contributing to research excellence. The T-GAP process is informed by international good practice through peer mentoring with research institutions in the UK/EU and USA and alignment with the Athena SWAN Charter and equivalent award holders. In addition, an external evaluation team assesses the progress and impacts of the T-GAPs in each organisation. The paper presents common and different approaches toward designing institutional transformation and strategies for building alliances in the institution for effective implementation of the T-GAPs and the manner in which the processes can be evaluated.

Keywords: *European Union, 7th Framework Programme, STEM, Gender Equality, Institutional Transformation.*

1. Introduction

The global feminisation of the third-level student population is one of the most striking aspects of the last 30 years. However, as the latest “She Figures” published by the European Commission show (She Figures, 2012), while 59% of EU graduate students in 2010 were female, women made up only 33% of all researchers across the EU in 2009 and there are still less than 20% of women in Grade A positions (full professors and equivalent). If the proportion of women is growing at a faster rate than that of men across all disciplines (5,1% annually over 2002-2009 compared with 3,3% for men) despite the lower base

of women in these sectors, this growth is not sufficient to indicate that the gender imbalance in scientific research is self-correcting. The 2012 She Figures data rejects the notion of a spontaneous movement towards equality, both in terms of women’s progression up the hierarchy by age, and the reduction of the associated gender pay gap (She Figures, 2009). Even though a target for 25% of women in leading positions in public sector research in the EU has been set to drive organisational behaviour (A Roadmap for equality..., 2006), the resulting low numbers of women in senior management and decision-making positions in relation to scientific research is seen

to represent a democratic deficit (She Figures, 2013), creating a “discriminatory snowball effect” (Science policies in the European Union..., 2000). Evidence suggests that simply increasing the numbers of women in scientific research is an inadequate strategy on its own and is persistently hard to achieve.

Recommendations from EU reports over the past decade, from the ETAN report in 2001 (Mapping the maze..., 2008) to the “Mapping the Maze: Getting More Women to the Top in Research” report in 2008 (Ibid.) and to the 2011 EC report entitled “Structural change in research institutions: Enhancing excellence, gender equality and efficiency in research and innovation”, have increasingly stated the need to focus on the deeply embedded structures of inequality still present in universities and research organisations, and on changing the culture and organisation of the STEM (Science, Technology, Engineering and Mathematics) academic sectors by using a systemic approach, rather than changing individual women to fit the existing structures. In 2009, inspired by the ADVANCE Program created by the US National Science Foundation (ADVANCE at a Glance, 2014), the EC launched a new set of calls for proposals as part of the Science-in-Society Workprogramme of the 7th Framework Programme (FP7), which sought to directly support universities and research organisations, operating as consortia, into engaging in structural change through the implementation of tailored gender equality plans.

The INTEGER project (which stands for Institutional Transformation for Effecting Gender Equality in Research) was designed as a response to that first call for proposals – a call which has been renewed every year since, thus helping create, through the successively-funded projects², a community of practitioners – and evaluators – that has now started to share results and good practices.

Launched in 2011 and running until the end of June 2015, INTEGER’s aim is to address gender imbalances

² Four campaigns of calls on structural change in research institutions have already been carried out. Laureate projects are INTEGER and GENISLAB (2010 SiS Workprogramme), FESTA and STAGES (2011), GENOVATE and GENDERTIME (2012), and TRIGGER, EGERA and GARCIA (2013). A new call has been opened in the framework of the HORIZON 2020 Science with and for the Society 2014 Workprogramme.

in STEM research, at both the institutional level (i.e., targeting the institution as a whole) and local level (i.e., within target Faculties/Institutes/Schools) through the implementation of Transformational-Gender Action Plans (T-GAPs) constructed based on detailed baseline data assessments carried out in three assorted implementing institutions. Two of these are higher education institutions: Trinity College Dublin (TCD, Ireland), with local implementation in the Schools of Chemistry, Natural Sciences, and Physics of the Faculty of Engineering, Maths and Science, and the University of Siauiliai (ŠU, Lithuania), with local implementation in the Faculty of Mathematics and Informatics and the Faculty of Technology. The third institution is a large national research organisation: the Centre National de la Recherche Scientifique (CNRS, France), with local implementation in the Institute of Physics and the National Institute for Mathematical Sciences. In addition, an expert external evaluator, the Leibniz Institute for the Social Sciences (GESIS - Germany) assesses the progress of the T-GAPs in each organisation and ensures that they are tailored to meet the organisations’ prevailing contexts and issues and that the targets and indicators are realistic and measurable. The INTEGER project as a whole is coordinated by the CNRS.

2. A common framework with three different approaches to the design and implementation of transformational change

As INTEGER partner GESIS helped to define, “transformational change” is a strategic mean which is steered by institutions that employ research staff. Through operating transformational change, research institutions are demonstrating significant gender awareness and competency to use gender as a resource to create new knowledge and stimulate innovation by modernizing their organizational culture. The ultimate objective of the change process is to work towards a better gender relation and equal representation of both sexes in all staff categories of the institution. Operating transformational change effectively demands an awareness of the statistical base, periodical examination of institutional processes (such as recruitment, promotion, retention), and the willingness at the top of the institution to open up discussion and to sustain the processes of self-study and change and support the achievement of organizational goals within a supportive climate (GESIS, 2011).

A common framework and overall methodology for constructing the T-GAPs was shared by all three INTEGER implementing institutions: collecting and analysing quantitative secondary data; reviewing national and internal laws, policies, procedures and practices; undertaking primary data collection (mostly quantitative, through an on-line survey on career paths, work environments and work-life balance issues); and carrying out qualitative assessment at the local level through site visits and focus groups.

The four T-GAP themes or key indicators of gender equality progress are: 1) The engagement of decision-makers; 2) Organisational structures; 3) Career progression, development and support; and 4) Work-life balance.

From the baseline data assessment findings and the input of Experts and Ambassadors (comprising researchers, managers and academics from the fields of science, engineering and social sciences, who have successfully implemented structural change in their own institutions), as well as the feedback received from the implementation teams formed for the purpose of the project, activities have been action-planned in each implementing institution to best address identified issues.

In addition, in all three implementing partners, at least two local units were targeted in order to compare between different disciplinary cultures, and create both a sense of community and a healthy competition between the targeted structures. Each institution's top leader (i.e., the President of CNRS, the Provost of TCD and the Rector of ŠU) is a member of the INTEGER Partnership Group, which oversees the whole project and meets once a year, and is the owner of his institution's T-GAP. However, given the very different national settings, local cultures and types of institutions involved in INTEGER, diverse methodologies have been adopted by consortium partners for designing the INTEGER T-GAPs, as well as different strategies for ensuring the effective and sustainable implementation of the T-GAPs.

2.1 The Centre National de la Recherche Scientifique T-GAP – Transforming a very large and complex public research organisation

Due to the very large size of CNRS (with over 34,000 staff, among whom roughly 11,000 are

permanent researchers), its dispersed national locations and organisational complexity, different implementation teams have been put into place.

At the senior management level, a standing committee of 23 representatives from the top CNRS governance, the Steering Committee for Gender Equality at CNRS (« *Comité de pilotage de l'égalité professionnelle entre femmes et hommes au CNRS* ») was created in 2011 by decision of the CNRS President with assurances of commitment and support from the top-level decision-makers at CNRS.

At the institutional level, several implementation teams and working groups have been created, including a committee inspired by the University of Michigan's STRIDE Committee ("Strategies and Tactics for Recruiting in Diversity and Excellence") (Stewart, 2007), to best tackle the issue of researcher recruitment, promotion and reward procedures and practices. The membership of this Committee was initially focused on the STEM fields but in response to the strong interest displayed by the "*Comité National*" (CNRS's researcher evaluation board), it extended to include in its activities all 45 Chairs of the different standing peer-review evaluation panels (or their representatives) which constitute the "*Comité National*". Potentially, the CNRS STRIDE-like Committee therefore has a membership of around 60 people.

At the local level, implementation teams were put into place at the Institute of Physics (INP) and the National Institute for Mathematical Sciences (INSMI), the two CNRS Divisions with the lowest proportions of women among researchers (below 20%). In addition, two laboratories were also more specifically targeted to best address the lab-level organisation and dynamics: the Institut Néel, affiliated to INP and located in Grenoble, and the Institut de Mathématiques de Jussieu-Paris Rive Gauche (IMJ-PRG), affiliated to INSMI and located in Paris. Teams including women and men, junior and senior researchers, and CNRS researchers and university faculty, were constituted.

The CNRS T-GAP developed by the *Mission pour la place des femmes* (Mission for the Place of Women) at CNRS was constructed as a flexible scheme to be adapted through discussions with the local implementation teams and CNRS Senior Management, as well as through following the reviews and the

assessment carried out by the external evaluator. Based on the collected quantitative and qualitative data, the devised T-GAP takes into account the recent evolution of the national legislative and regulatory context as well as European recommendations and good practices already implemented by peer institutions in Europe and North America (e.g., by Athena SWAN Awardees such as the University of York (UK) and NSF-ADVANCE Awardees such as the University of Michigan (USA)), and relies on knowledge brought on by gender research, a field in which CNRS plays a key role at the national level.

As for qualitative data collection, some site visits were conducted by external consultants from the UK-based Oxford Research and Policy (ORP) with extensive experience and knowledge of academic and research environments and issues relating to women in STEM, in order to assess what good practice policies and procedures each target laboratory already had in place, what issues researchers were facing more specifically, and eventually, to make recommendations on the contents of the laboratory-level INTEGER action plans – and when relevant, to also make recommendations on policies, processes and practices best addressed by CNRS at the institutional-level.

Benefiting from these results, the strategy operated at CNRS to meet operational objectives and overcome potential barriers involved the following: participatory approaches (e.g., through workshops and seminars); the creation of ownership (e.g., by undertaking actions proposed by teams); the careful selection of the presented data in order to maximize awareness (e.g., statistical data, but also selected qualitative studies, starting with key results from social and cognitive psychology experiments on implicit gender bias and stereotype threat, including studies carried-out by CNRS teams (Huguet P, 2009)); a certain degree of shaming and/or benchmarking (e.g., providing strikingly negative data from CNRS, the targeted units, and the INTEGER on-line survey, including a comparison with other more advanced institutions/countries); advancement of the EU strategy and the priorities that CNRS should be, and will gain advantage from, addressing (e.g., the ERA construction priorities, the H2020 cross-cutting integration of gender); the use of top-down power (e.g., by asking the President to

invite CNRS decision-makers to INTEGER activities; by asking the CNRS Institute directors to contact their Lab directors); the development of peer-to-peer learning by involving external scientific leaders as Ambassadors or representatives of mentoring peer-institutions to foster buy-in among researchers (e.g., Professor Paul Walton from the Gold Athena SWAN-winning Chemistry Department at the University of York, for top CNRS leadership; Professors Abigail Stewart and Wayne Jones from the ADVANCE program at the University of Michigan, for “*Comité National*” members; Professor Tomas Brage from the Physics department at Lund University in Sweden, for decision-makers at the Institut Néel target laboratory); and the use of the institutional agenda to embed gender equality within the institution (e.g., CNRS President’s campaign in 2013-2014 for a new mandate; changes in leadership positions – new directors of Institutes and departments; the enforcement of national legislation or recommendations).

Early on, our INTEGER T-GAP, mostly dedicated to CNRS researchers, was framed as being part of an overarching global gender action plan (“*Plan d’action pour l’égalité professionnelle entre femmes et hommes au CNRS*”) developed for the whole organisation and for all personnel categories (i.e., including support staff: engineers, technicians and administrative personnel). The CNRS T-GAP was thus presented to the Steering Committee for Gender Equality at CNRS within that global framework in September 2013 and was validated by the Committee. Subsequent work on the prioritisation of certain actions followed. The Steering Committee fully adopted the global plan and priority actions in March 2014 and a communication plan was devised to inform all staff about the CNRS gender action plan. A promotion video, featuring a commitment message from the CNRS President, and showcasing the INTEGER project, was released nationally, in early July 2014, through various means, including the weekly CNRS e-newsletter received by all staff working in CNRS joint laboratories (i.e., over 60,000 people)(Plan égalité professionnelle..., 2014).

At present, the CNRS Transformational Gender Action Plan contains fifteen objectives and 45 actions, plus 3 cross-cutting networking and mutual opening actions, most of which are currently under implementation – some since 2012 – or being set up.

The commitment of decision-makers to the INTEGER project's objectives has been increasing across CNRS, chiefly by the CNRS President, Alain Fuchs, who publicly expressed his commitment to gender equality and women's full participation in research – as well as to the development of gender research, in a highly polemical national context at the time – defining these as “institutional and scientific priorities”. Consistently, he agreed to include 2 key performance indicators on women's recruitment and promotion in his balanced scoreboard. He has been paying close attention to CNRS nominations and CNRS Awards in particular (in 2013, for the first time since 1986, the CNRS Gold Medal – the highest scientific award in France – was given to a woman, biologist Margaret Buckingham). Such a commitment has also been shown by the directors of the two targeted CNRS Divisions, INP and INSMI, who have heralded gender equality as a key issue in front of their teams, laboratory directors, and fellow Institute Directors, and have been supporting the T-GAP implementation.

The INTEGER awareness-raising and capacity-building trainings have been key drivers to achieve this level of buy-in and will remain a priority action for the rest of the project. As a direct consequence of their impact, gender equality contact points will be created in all 19 CNRS regional delegations located over the country.

The STRIDE-like Committee was launched in 2013, and in addition to the Chairs of the different standing peer-review evaluation panels of the “*Comité National*”, it comprises other key decision-makers: Deputy Scientific Directors of all ten CNRS Divisions, HR Officers, as well as senior women researchers and gender experts. Committee members are provided with, and discuss, key statistical data and literature findings on gender inequalities in science, and have started proposing concrete measures to improve gender equality and gender balance in the recruitment, promotion and scientific recognition of researchers at CNRS.

In addition, the contents of the CNRS “parity” booklet (“*La parité dans les métiers du CNRS*”), a comprehensive collection of sex-disaggregated statistics published yearly, were strengthened and disseminated broadly across CNRS (in printed and on-line versions), serving as a model for other national

research organisations as well as French universities. Tailored data factsheets were also prepared for recruitment and promotion juries.

Outreach actions to attract more women in STEM fields have also been developed. A communication kit, featuring videos of women physicists working in CNRS labs, was conceived as a tool for interventions in high schools. We have also been partnering with the “*Femmes et mathématiques*” national association to further develop the annual “*Forum des jeunes mathématiciennes-s*”, which targets female PhD and Masters Students in mathematics. Professional development trainings on careers for young women researchers and professors were organised as well, which had a strong impact at the Institut Néel target laboratory in particular, and helped create a women researchers' network. First steps have also been taken in developing a CNRS women researcher's database, which could be used by conference/event/award organizers and the media.

A first draft of the Worktime Management Charter for CNRS was prepared through a series of workshops and is currently being discussed with the CNRS Chief Resources Officer and HR Director, while support schemes for child-care support and dependent-care have developed, including awarding a six-month relief from teaching for university staff working in the CNRS lab and coming back from maternity/adoption/parental leave. Upcoming activities include specific schemes to cover extra care costs incurred by CNRS researchers when traveling for work (e.g., attending international conferences) as well as mobility requirements and dual career couples issues.

A specific effort was also dedicated by the CNRS INTEGER team to address sexual harassment. A circular was signed by the CNRS president in November 2013 and a practical factsheet was widely disseminated. This will be followed by national and regional-level trainings. In addition to the four T-GAP themes, CNRS has added a cross-cutting theme on networking and mutual opening among institutional change practitioners, which covers: a) the exchange of experience between INTEGER partners (through, e.g., our annual Exchange-of-Experience Seminars); b) peer-to-peer organisational mentoring (with, e.g., the University of Michigan); and c) the exchange of experience with sister FP7-funded projects – all of which have helped better tailor our T-GAP implementation.

2.3 The Trinity College Dublin T-GAP – Engaging a research-intensive university into gender equality planning

To advance the implementation of the INTEGER project to promote the ongoing development of the TCD's Transformational Gender Action Plan framework, the priority was to get 'buy-in' at College and School levels and for the implementation teams to take ownership of the gender actions that they had prioritised and embarked upon. In order to comprehensively address the issues identified by the INTEGER survey and previous reports, tailored T-GAPs were developed for the three Schools involved in INTEGER and for the College as a whole.

At the local level, teams were established in the Schools of Chemistry and Natural Sciences, as well as the School of Physics. These teams sought to have a representative cross section of staff (academic/non-academic; male/female; senior/junior) and were modelled on good practice Athena SWAN Teams in Edinburgh University.

The College Implementation Team is responsible for implementing College-wide T-GAPs at an institutional level and making recommendations to College governance. In addition, it provides an essential forum to which matters arising at the School teams which have wider institutional implications can be referred and via which they may be addressed.

Alongside these collective Teams, strategic partnerships with key players were established, most notably with the Provost/Vice Provosts, Chief Operating Officer, Dean of Research and the Director of Human Resources, as well as the College Equality Officer, Dean of the Faculty of Engineering, Mathematics and Science, and Heads of Schools in Chemistry, Physics and Natural Sciences. Administrative support is provided by the WiSER Office for, e.g., minute writing, agenda setting.

As in the other INTEGER partner institutions, quantitative and qualitative data were collected via an online survey in March 2012. The survey examined the career ambitions, experiences and perceptions of the working environment among academic and research staff and the findings were used to determine the forms of intervention and targeted actions required to promote transformational change to ensure gender equality within Trinity College in general, and the Faculty of Engineering, Mathematics and Science (FEMS) in

particular. The survey results were analysed in full and then compiled with findings from site visits by the Oxford Research and Policy (ORP) consultancy, along with gender-disaggregated data and gender equality policy for Trinity College, into the TCD Baseline Data Report.

The development and implementation of comprehensive and innovative gender action plans in Trinity College built upon a series of reports and recommendations which sought to address the longstanding gender imbalance in academia within the university, dating back to the 1980s.

Peer mentoring site visits were conducted with universities against which gender equality actions and objectives can be benchmarked (e.g., Athena SWAN Award holders in the UK and NSF ADVANCE grant recipients in the US). Expert advice was sought, and availed of, both as an input to the T-GAPs and, via the engagement of guest speakers, as a means of informing the university population and securing buy-in for institutional transformation.

The survey results, recommendations from the Site Visit Reports, as well as a review of relevant literature, policy, baseline statistics, etc., were compiled to produce a full set of recommendations corresponding to the T-GAP actions. This was circulated widely both within the institution and to key external stakeholders. It was presented in the first instance to each of the implementation teams, and formed the basis of much discussion with them. The report has received substantial and positive attention at College-level, including the Executive Management Group of senior management. The INTEGER Baseline Data report was presented to key College Committees and groups (the Equality Committee, Research Committee, Executive Officers Group, HR Committee, and February University Council).

As a first step in the engagement of decision makers at TCD, the Provost, as head of the university, attended and spoke at the INTEGER Partnership Group meeting in Trinity College held in March 2013. The Provost drew attention to the poor representation of women in senior roles in academia, the issue of female promotion to senior decision-making roles, and recruitment and retention issues. He referred to the current University Chancellor, Dr. Mary Robinson, who is a former graduate and Professor of Law at Trinity College, former President of Ireland, and

former UN High Commissioner for Human Rights. As the first female Chancellor since the University was established in 1592, Dr. Mary Robinson has spoken frequently on the issue of gender inequality.

In terms of Management Practices, a close alignment exists between the specific INTEGER T-GAP action seeking professional management training for Heads of School/Discipline and Faculty Deans and the HR 'Excelling Together' policy document. In terms of embedding gender equality into the governance of College, the first exposure to unconscious bias training was conducted by Professor Paul Walton's briefing session with the Executive Officer Group (the EOG, comprising the Provost, Vice Provosts, Faculty Deans and Dean of Research, Treasurer, Bursar and College Secretary). This was followed by a briefing session with the same group on the findings of the INTEGER Baseline report and recommended T-GAPs. The EOG agreed that the INTEGER report represents a key College policy document.

Institutional Commitment to gender equality has been built through its incorporation into the new Strategic Plan 2015-20, which will make reference to gender equality and diversity as elements to strive for and will facilitate reaching the overarching goal of achieving excellence 'in everything we do'.

TCD also carried out a range of actions to collect and monitor organisational data at institutional and School levels. Additional information will be available from a database of all academic staff entrants to TCD between 1972 and 2012 which will allow for a sophisticated statistical analysis to highlight any gender differences in recruitment, retention and progression. Exit surveys are underway in the three Schools, as well as the surveys of post doc destinations.

Moreover, a request to the Equality Officer to gender-proof specific policies to ascertain whether they lead to gendered outcomes (in advancement/promotion) will be issued in 2014. At the Provost's request, the Equality Office has already completed a Report on Fellowship to address imbalances in terms of gender and academic discipline.

Through TCD's benchmarking (peer mentoring) with visits to, or visitor/speakers from, Athena SWAN holders, the WiSER Office has worked to bring the UK-based Athena SWAN Charter to Irish higher education

institutions (HEIs). This was brokered through contact with the Equality Challenge Unit (ECU), which operates the Charter. Arising from this, an Athena SWAN Irish National Forum was formed with strong support from all stakeholders. In parallel, the School of Physics in Trinity College has been awarded a JUNO Practitioner award by the Institute of Physics, in acknowledgment of its efforts (aligned with INTEGER) to address gender inequities within the School.

A proposal to create an Early Career Researcher Support/Development Office is due to be submitted to Science Foundation Ireland (SFI), since the proposal is aligned with their policy objectives for researchers/post docs in Ireland. Additionally, work is underway with the Staff Development Manager to establish details of the Mentoring Programmes that are currently available to staff in Trinity College, to avoid replication and to ensure that learning from WiSER's pilot Mentoring and other programmes is utilised.

At the school level, there has been a push to have gender balance among the invited speakers/examiners (Women in Chemistry Day and Soapbox Science featuring women only) and more prominence assigned to the contribution of women academic staff via videos posted on the School of Natural Sciences website. Participation has commenced on the Aurora Programme developed by the UK Leadership Foundation for Higher Education, with 4 staff signed up for the first half of 2014. It is hoped that 6 more will complete this course by early 2015 when the programme will run in Dublin for women staff across the HEI sector.

Progress has been noted in the levels of social and welcoming activities in the Schools of Chemistry and Natural Sciences, through their Orientation Packs/websites, and surveys of demand for social activities and events such as coffee meet-ups in Physics (arising from JUNO) and in Natural Sciences. Following approval by the Dean of FEMS of the T-GAP which would allow staff returning from approximately 6 months leave to be allowed a one-term sabbatical from teaching, the scheme will be piloted shortly (when entitlement and application procedures are agreed) in the Schools of Chemistry, Physics and Natural Sciences.

A policy paper by the Director of WiSER is to be published shortly and will be forwarded to the College's EOG and politicians/policy makers (Ministers and Secretaries General) in the government departments:

Social Protection (responsible for Maternity Leave policy); Disability, Equality and Mental Health; and Public Expenditure and Reform.

2.4 Gender Equality Planning at Šiauliai University – Big Changes for a Small University

Transformational change is a holistic and systems approach, deriving its power by attending equally to hearts & minds (the inner life of human beings), human behaviour, and the social systems and structures in which they exist. It therefore tends to be multi-disciplinary, integrating a range of approaches and methodologies. By dealing holistically with all elements of human systems, transformational change aims to be irreversible and enduring. Studies, measures and actions in this regard have been the object of intense debate which has gradually revealed the need for a new paradigm for policies to promote women in science. Indeed, these policies should aim more and more at strengthening the research and innovation capacity of research institutions through a structural change focused on the valorisation of all the different skills and competencies available. In particular, ADVANCE NSF, Athena SWAN, GENDERA, and PRAGES have shown that, in order to make an impact and get results in the medium and long term actions for gender equality, it is necessary to adopt at the same time a holistic approach (able to take into account the full spectrum of topics and issues to be addressed) and an analytical one (grounded on the knowledge of the actual context in which it takes place) in order to identify the most effective solutions. ADVANCE's integrative and inclusive approach goes a long way in establishing its constitutionality during more than one decade. European research, empirical studies and good practice are more oriented towards theoretical recommendations for effective initializing structural change, requirements for making structural change sustainable, and requirements for monitoring and measuring impact. Shared views that pilot a focus on any single issue, be it management practices or gender unconscious bias, can bring about temporal success, but a comprehensive strategy is necessary for achieving a systemic improvement in gender equality in HEI and research. But systemic improvement can challenge systemic changes effectively and be initiated and sustained by a holistic and integrated approach

with a toolbox for addressing each and all multilayered dimensions: recruitment practices; work environment and working conditions; an appraisal system for career evolution; employment stability; researcher mobility; support for dual researcher couples; research management; research content; and gender education (Avramov, 2011). The conceptual framework of the model of institutional transformational change at Šiauliai University is linked to social innovation by capacity building: developing adequate knowledge, incentives, and institutional infrastructure so that the university can tackle the difficult problem of increasing women's participation. Innovation implementation as described by Eckel and Kezar (2003) includes new, specific, tangible products, processes, services, or procedures (in our case T-GAP) that are intentionally introduced within an organization with the expectation of positive and perhaps significant benefits. Innovation pushes the organization to respond beyond its current established processes. Leadership recognizes the potential contributions of the new innovation within the organization, and adopts the specific, tangible product, process, service, or procedure.

In developing of our approach to institutional transformational change, we employ multiple conceptual frameworks:

- 1) a holistic approach focusing on women researchers and structural reorganizations, taking into account women professional and professional life needs (Declich, 2011; PRAGES, 2009; Sturm, 2006);
- 2) the institution's culture including quality (declared, aimed at conduct, ethical standards and values of a community conditioned by national, social-political and legal traditions), development and change (Kazlauskienė et al., 2012);
- 3) a structural/institutional approach to gender or a gender structure approach emphasizing factors that are external to individuals, such as the organization of social institutions, including the concentration of power, the legal system, and organizational barriers that promote inequality (Eitzen & Baca-Zinn, 2006);
- 4) a system approach – identifying, understanding and managing interconnected processes as one system with the aim of improving gender equality at ŠU;
- 5) a process approach – a desirable result which is achieved more effectively when interrelated resources and activities are managed as one process;

- 6) a gender sensitive or equality approach³ through gender analysis (Sinnes, 2006; Lorber, 2001) and the transformation of gender relations describing new standards for everyone replacing the segregated institutions and standards associated with masculinity and femininity (Rees, 1998);
- 7) the synthesis of modelling institutional transformation change (Sturm, 2011; Plummer, 2006; Eckel and Kezar, 2003),
- 8) the transformation of gender relations describing the new standards for everyone replacing the segregated institutions and standards associated with masculinity and femininity;
- 9) synthesis of modelling institutional transformation change, using cultural change models which assume that change occurs in response to alterations in the internal human environment (Morgan, 1986), including the alteration of values, beliefs, myths, and rituals (Kezar, 2001; Eckel & Kezar, 2003). The cultural models tend to place emphasis on the collective process of change and the significant role of each individual in the change process. Such change is long-term, slow, unpredictable, non-sequential, and seemingly unmanageable (Kezar, 2001); and
- 10) social-cognition models (Collins, 1998; Kezar, 2001) which incorporate human behaviour, individual learning and individual sense-making, and alter individual beliefs and construction of reality. The social cognition models emphasize discussion and learning among the participants, the opportunity for participants to discuss, debate, reframe, and make sense of the proposed changes allows for creative results.

Although there are many elements of other research and/or evaluation paradigms (e.g., constructivism with a lens of social justice or what Creswell & Piano Clark (2009) call an advocacy and

³ This position is augmented by intersectional feminism, which views gender as a fundamental and ubiquitous problem, with women and men both “needing to change.” Here, bias itself is a gendered concept, limited and framed within the current gender system. Connections with other social divisions, differences and oppressions are central, as are deconstructions of categories of sex, sexuality and gender, and the dualities often (re)produced through them. Gender categories are themselves open to change (Lorber, 2001).

participatory paradigm), we tend to identify more with the belief systems of what Mertens (2009) defines as a transformative research paradigm. The transformative research paradigm is a useful theoretical umbrella to explore the philosophical assumptions and guide the methodological choices for research approaches that have been labelled as critical theory, feminist, participatory inclusive, human rights-based, etc. Quite briefly, it is a framework of belief systems that directly engages members of culturally diverse groups with a focus on increased social justice. It focuses on the tensions that arise when unequal power relations permeate a research context that addresses intransigent social problems (Mertens, 2009; 2010; 2011; Greene, 2007). The basic beliefs of the transformative paradigm are axiology, ontology, epistemology and methodology. Transformative research paradigm assumptions are logically derived from three assumptions (Mertens, 2011). Axiological assumptions lead to participating researchers planning their research in accordance with research guidelines developed by the faculty’s community itself. Ontological assumptions call upon the researcher to develop strategies to determine different versions of reality, the factors that are related to those versions in terms of power and privilege, and the making visible of the potential for social change associated with those different versions of reality. Epistemological assumptions lead to establishing relationships in order to determine ways that the study can be more culturally responsive.

According to Mertens (2009, 2011), the world of research can be seen as trying to understand the reality of social phenomenon as through a prism. Firstly, this prism refracts the differences of experiences into an ever-changing pattern of different lights as we as researchers seek ways to understand the use of culturally appropriate, multiple methods in understanding the pattern of diverging and converging results of the research. Secondly, we believe that the way in which we as researchers acknowledge or know the philosophical assumptions that underlie our work (as our own set of profound beliefs) are reflected in the approaches we tend to choose to employ in practice to try and understand and interpret social reality as it changes – knowingly or unknowingly, consciously or unconsciously. Lastly, these beliefs are deeply rooted in our personal experiences, culture and history

and may change during our lives and be shaped by new experiences and new thoughts. Transformative methodological assumptions suggest that researchers start with qualitative data collection moments to learn about the community and to begin to establish trusting relationships, supplement qualitative data with quantitative data, such as statistical repositories (also note that data collection would rarely occur as one-off data collection with the previous type), and most likely use mixed methods with a cyclical collection of data and data iteration.

A clearly stated conceptual framework, identification of relevant research findings, and construction of existing research and practice suggest a Transformational Gender Equality Action Plan (T-GAP) of institutional change in which initiatives are implemented at various institutional levels, leadership and communication strategies are employed to advance the changing effort, and all elements are compatible with the culture of the institution. This Plan is built on an integrative gender equality approach, i.e., interventions typical of the other three frames (empowering or fixing the women, valuing differences or women-friendly approach, or creating equal opportunities or a gender sensitive approach through gender analysis), but it is broader and deeper and focuses on systemic changes in the work culture and practices that will benefit women, men, and the organization (with a revised and transformed academic work culture). Following this approach, the gender equality approach in our case refers to an equal sharing of assets and is conceptualised rather broadly as an equal sharing of paid work, money, decision-making power, knowledge and time.

Thus the aim of the project was to create sustainable structural change for the benefit of scientific research institutions/universities and the career paths of women researchers through the implementation of contextualised transformational gender action plans and the use of tested tools and instruments to support an effective and comprehensive organisational gender management strategy. The T-GAP clarifies the connection between the conceptual framework, the issues identified through the analysis of institutional data, and the proposed plan and participative action research. The Consortium of the project put together the infrastructure necessary to implement the proposed T-GAP interventions, which includes the following:

- 1) the empowerment of HEI's decision-makers;
- 2) organisational structure change;
- 3) women researchers' career progression, development and support;
- 4) work-life balancing;
- 5) ongoing internal and external monitoring and evaluation of T-GAP progress and impact;
- 6) the objectives, benchmarks, and indicators of progress that will inform stakeholders in understanding essential factors for judging accountability that are both quantitative (for example, indicators of women's representation at various academic ranks, in recruitment and promotion pools) and qualitative (the process of change in organizational culture, experiences of academic climate, work culture).

This T-GAP points toward the centrality of the culture of the institution as a force that shapes the efforts for change while simultaneously being the target for improvement.

It is important to keep in mind that the reform of HE through the European standardization is ongoing in Lithuania and INTEGER project implementation is the first project in the Lithuania context. Essential demographic, emigration, economic and political changes require an improvement of the management methods of the European Union and Lithuanian higher education.

The baseline data describes ŠU as an institution balanced between a power culture and an achievement culture; i.e., the power culture shares the following components:

- 1) bureaucracy;
- 2) line management;
- 3) hierarchal decision-making;
- 4) a high significance of micro politics;
- 5) fluid, negotiated power and competition;
- 6) an emphasis on results, standards, and outcomes;
- 7) collaboration and collegiality;
- 8) autonomy for teams of excellence;
- 9) the use of power to coordinate tasks in order to achieve results, etc.

Data from Šiauliai University for 2010-12-31, when the INTEGER project was initiated, revealed that 40,4% of SU Mathematics and Informatics Faculty (MIF) staff were women and 59,6% were men. Academic staff/employees (teaching and research staff) was comprised of 36.8% women and 63,2% men. The Faculty of Technology had 36,4%

women and 63,6% men staff. Academic (teaching and research staff) personnel was comprised of 27,9% women and 72,1% men.

The highest academic positions in the Faculty of Technology are dominated by men: professors and chief researchers are only men. The highest positions held by women are associated professors which make up only one sixth of the total. Only 23,5% of women were members of the TF Council (Faculty Council). The faculty is led by a male dean. TF has never been led by women. 91% of the total employees in this faculty are men, and all heads of departments in this faculty are men. The Head of Department positions at TF have never been held by women (0%). Therefore in this faculty, both in academic and in decision-making power over institution fields, men are significantly dominant.

The aim of Transformational Gender Action Plans (T-GAPs) at ŠU is to establish gender tools, provide full and proper implementation down to the local level from senior management, and with measured outputs to promote, embed and mainstream gender equity within ŠU; this will result in the desired outcome of improved career progression for women.

In order to achieve the aim of the T-GAPs within each of the four key areas of implementation, certain objectives have been set and were incorporated into each part of the respective key area T-GAP (Engagement of Decision Makers, Organisational Structure, Career Development, and Work-Life Balance).

The “Architecture” for pursuing gender equality inclusion at Šiauliai University (at all levels and layers) for the systemic reconstruction organizational culture uses the gender mainstreaming (GM) framework while simultaneously serving the instrumental institution’s key goals (quality assurance policy in higher education) at Šiauliai University. The GM process in ŠU is composed of 4 parts: gender proofing & evaluation (gendered statistics, SurveyMonkey, baseline data, GESIS data monitoring template); awareness-building (gender-sensitive) & ownership in T-GAP; the implementation of T-GAP; and measurement, evaluation & monitoring (internal self-reporting/self-evaluation and external evaluation by GESIS).

The T-GAP is grounded on the theory of change as a way to describe the set of assumptions that explain

both the mini-steps that lead to the long term goals and the connections between gender equality policy and T-GAP activities and results that occur at each step.

The full version of this analysis includes a theoretical background in designing a conceptual framework of institutional transformational change at Šiauliai University. After an analysis of State of Art statistics (survey data, development of conceptual framework and institutional culture analysis), it led to a design of the current Transformational Gender (Equality) Action Plan (T-GAP) of Šiauliai University.

In relation to the definition of state of play and gender gaps at SU, T-GAP is constructed in respect to the four thematic fields of the project. Each thematic field implies raised objectives, contributions (interventions, key activities, means, and change tools) relating to the organisation’s profile, the target group in relation to the overall strategic mission of the university, and the implementation dates, personal and financial resources, and outcome indicators.

One of the major activities was the design and pilot of the University Council election strategy that involved a step-by-step guide to achieving the aim. The main tactics involved an active candidate search, inspiration and recruitment and participation in the election by lobbying women candidates to be elected to the main decision body of the University. After the election the number of women in the Council rose from 0% (2011) to 36,3% (2014). In addition we established and rewarded the most gender equality encouraging department/unit since 2013 at ŠU.

The enhancement of the organizational structure was achieved through means of presenting the employee survey results to the university staff (a diplomatic publication of current situation) in order to raise awareness of the issues the target faculties are facing and through an analysis of gender balance on the web pages based on gender language/linguistics and image aspects. The analyses have already been done, and certain recommendations have been provided to the administrators of the web pages of SU TF and MIF.

In order to enhance the careers of researchers in the target groups at ŠU, researchers were provided with financial support for dissertation preparation and defence, foreign language courses, conference participation (travel, overnights, visa/insurance

costs, participation fees), subscriptions to scientific databases, individual participation in personality development seminars and trainings, professional qualification development literature (books/journals), scientific publication, summary preparation, publication printing, review and display presentation technical preparation and printing and publication translation, computer updates, and work/training-related visit spending.

Furthermore, the Improvement/alteration of Minimal Position Qualifying Requirements for Research and Higher Education Institution Research Workers was a major action in achieving the aim of the project under the area of Work-Life Balance. It states that under the request of a member of the teaching or research staff, the time period of pregnancy, birth and childcare leave can be excluded from the regulated time frame in which the minimal qualifying requirements should be met. The tenure can be extended for the time of leave as well. The target group for this measure is not only researchers at ŠU but all researchers nation-wide.

One of the most efficient activities is the short-term Childcare Centre. For 2013 the hourly childcare centre had 570 children, where 274 (48%) were girls and 296 (52%) were boys. All of the children left for hourly supervision were of the university community and library visitors that were either using the library facilities or were attending an event taking place at the library. The main reasons for parents using the childcare centre services were various for activities at the library (i.e., to order or withdraw various publications, attend events, work in the reading-room, etc.) and the university (examination, give lectures, attend meetings, etc.).

In addition to these major activities within the T-GAP, at ŠU we arranged numerous seminars and lectures on gender awareness, gender equality, images and roles. Furthermore, we had structural change and teamwork trainings, stress management in the work environment, and an analysis of the gap between national/regional media in Lithuania while seeking attend gender equality.

In relation to all four key areas, a need for a learning programme emerged that has become an overarching social programme to incorporate the objectives of all themes, as well as a need to enhance gender training and social interaction. The programme involves gender

sensibility comprehension and gender awareness rising in order to grasp and adapt this knowledge when engaging in institutional transformation. The aim of this programme is to motivate, encourage self-motivation, promote curiosity, and enhance professional activity in relation to equality learning and self-education.

The majority of the planning activities are held at the CGS through meetings with the implementation team, where several matters at the time from T-GAP implementation matters or any project related and unrelated (gender equality/mainstreaming oriented) activities are discussed. These meetings are also held at MIF and TF and they usually happen once a month at the time suited for each participant. The meetings usually involve discussions on the activities being implemented, the monitoring of various processes at hand in the University, a deepening of gender equality implementation issues/questions, and a brainstorming on upcoming events. Moreover, we had additional meetings for discussions on election strategy and candidates, and how to canvass them both for involvement into the project objectives and for the election. These meetings are documented for future reference and disseminated throughout the team via e-mail or internal digital communications platform (Moodle).

So far Šiauliai University has carried out 60 of the total 100 activities in their T-GAP. The results for project INTEGER at ŠU are more than pleasing. The statistical data indicates that so far, the representation of women has increased from slightly in some cases to significantly in others. For instance, for the first time in 20 years a woman is the head of the Department for Urban Development in the Faculty of Technology, and the Department of Informatics also has, as of 2013, a woman head. The election campaign was a huge success with increase for the representation at the University Council from 0% to 36,4%. This has taken Šiauliai University off the list of three universities in Lithuania that had no women in their councils. This helps not only to further develop the project aims and create sustainability, but also increases the representation of women in the academia at ŠU. Participation in the Exchange of Experience Seminars has increased the total gender and gender equality awareness within the implementation teams and the information is being spread throughout the target faculties.

3. Evaluating transformational change measures

The GESIS-Leibniz Institute for the Social Sciences designed a tailor-made evaluation concept and applied it to the evaluation of the T-GAP implementation at the three INTEGER partner institutions.

The evaluation carried out by GESIS used mixed methods based in social science research, and the evaluation design followed good practices from evaluation research concerning methodological soundness, practical relevance and transparency of the evaluation process (Balthasar, 2014). It focused on relating institutional transformation to the advancement of gender equality and on the implementation of the T-GAPs in particular, and is in no way to be confused with the evaluation or quality assurance of the INTEGER project.

The objective to evaluating the T-GAPs designed and implemented by INTEGER partner institutions is threefold: the first is that an external evaluation provides local programme coordinators with an independent view on the implementation process as support for programme steering and quality assurance with respect to chosen objectives, including a sustainability of advancement in gender equality. The second objective of the external evaluation is to explore the output, outcome and impact of each T-GAP at the organisational and subordinate levels for the purpose of proving cause-effect relations by making effects of its activities tangible. To fulfil the third objective the evaluation methodology supplies project partners – and possibly higher education institutions that are interested in following the T-GAP implementation model – with tools and guidance on how to use evaluation methodology for quality assurance of their own action plans to support legitimacy and in-house dialogue, as well as to measure institutional performance of the implementation of structural change plans to foster gender equality.

The evaluation design is oriented towards both the practical and the information needs of the intended users of the evaluation (Lee, 2010); i.e., the INTEGER programme coordinators at each of the three institutions and their local partners. It offers a combination of elements of formative and summative evaluation courses at different points throughout

the implementation process. External evaluation by GESIS integrates three perspectives on the T-GAP: it examines (1) the framework conditions for creating and implementing the T-GAP; (2) the implementation process of the T-GAP; and (3) the impact created by the T-GAP and its measures on site (Lipinsky, 2014).

Throughout the evaluation process, the evaluators have striven to take into account the national, institutional and local contexts that are specific to each institution, as well as the position from which the local INTEGER coordinator operates within each institution. In principle, the evaluation pursued a comparison of self-set objectives, formulated in relation to the T-GAP, and the actual situation on site at the point of evaluating the programme (Balthasar, 2011); this comparison was done at different levels within each institution.

The purpose of the framework analysis is to understand the contextual conditions and possible constraints at the organisational and local level in relation to each of the four INTEGER themes. Background information on higher education legislation and research governance policy, employment policy in public research, gender equality policy applicable to HEI and research institutions, etc., serve as background for weighting more specific assessments of processes, outcomes and impacts; e.g., the potential of the institution to demonstrate change within a specific area of the T-GAP.

Organisational structures significantly determine the modus operandi of the implementation process of gender equality activities (Löther, 2014). In order to assess the operationalization of the T-GAP, the evaluation team applied a process analysis. By looking at key actors involved in T-GAP implementation as well as the institutional behaviour (actors not directly involved but potentially affected), strengths and weaknesses of the institution managing the transformational change process were to be revealed.

The methodological approach followed in the analysis of the outcomes and impacts of the T-GAPs is the logic chart model (Balthasar, 2011). It aims at shedding light on causal relationships between outputs, outcomes and impacts of T-GAP measures for each of the four INTEGER themes in each institution. The analysis carried out by GESIS resorted to qualitative data collected through the interviews, group discussions and site visits

conducted at the partner institutions, as well as a thorough analysis of the T-GAPs and supplementary documents. T-GAP measures implemented, such as products delivered, constitute the output. Outcome, in turn, refers to specific changes directly resulting from the output; for example, specific modifications of policies. Impact is defined as the wider effects on the target group(s) of the T-GAP measures – in particular academic and research staff and decision-makers – that can be causally attributed to the implementation of the T-GAP; for example, the removal of barriers to the career progression of female scientists. A measure can be considered successful if it reaches its objective. To the extent that this is possible, the analysis differentiated between outcome and impact at different levels within the institution.

The key phases of the evaluation carried out by GESIS were the establishment of a data baseline through data monitoring, the central evaluation and the data monitoring update, as well as – towards the end of the project – the final assessments and the creation of guidelines.

The evaluations were based on various types of available evidence: as a first step towards gaining measurable results, an ex-ante baseline data collection was carried out by all partners by using a data monitoring template provided by the evaluation team. On the basis of all material available, GESIS developed a set of categories for creating a data baseline for each organization. In addition to must-have statistical data, i.e., descriptions of (academic) staff positions, decision-making positions, graduation degrees, forms of employment as well as recruitment, promotion and reward systems (depending on the context of each institution), further categories (good-to-have) were developed and discussed with partners, comprising staff Full Time Equivalents, salary, funding, publications, and parental leave. In consultation with the project partners, templates were tailored to each institution.

In advance to the central evaluation on site (i.e. interview and group discussion sessions), the evaluation exercise foresaw that the T-GAP managers at the partner institutions produce a self-report and update the data monitoring template. The purpose of the self-report is to present a comprehensive statement of the institution's view on the set-up, implementation, priorities and achievements of the T-GAP; to reflect on strengths and

weaknesses throughout the process, including information and other resources, strategies of the operationalization of specific objectives, the identification of key strategic actors, successes and difficulties; to provide quantitative and qualitative evidence to support the analysis; and to provide information about the current implementation framework.

Subsequently, the evaluation team conducted visits to the partner institutions during which it interviewed representatives of each institution's senior management, members of governing bodies, representatives of the central and de-central administration, members of the T-GAP implementation teams, and research staff and senior academics. Whenever necessary, the evaluators were accompanied by interpreters to guarantee the "freedom of expression" of each interviewee and to reduce misunderstandings and subsequent misinterpretation of the empirical data collected.

Throughout the evaluation process consideration was given to established principles of confidentiality and data protection, specifically in the case of qualitative interviews, group interviews and group discussions.

Results of the evaluation were presented first in the form of a presentation of key findings to the INTEGER Partnership Group and, in more detail, to the INTEGER project leaders and the implementation teams in May 2014. Subsequently, GESIS provided detailed evaluation reports to the INTEGER coordinators as well as the T-GAP owners at each of the partner institutions in June and July 2014. These reports that feature targeted recommendations aim at assisting the INTEGER partners in optimising the implementation of their T-GAPs and in the development of further initiatives.

The evaluation toolkit that is being developed by GESIS intends to supply project partners – and, possibly, other research and higher education institutions – with tools and guidance on how to use the evaluation methodology for their own programmes' quality assurance, to support legitimacy and dialogue, and thus measure institutional performance of implementing gender equality measures.

4. Perspectives and impact

Overall, the intent of the INTEGER project is to increase the awareness and cultural change of key

staff (e.g., HR and scientific decision-makers) and increase the number of women applying for research positions and being recruited, applying and being considered for promotion (at each grade level) and applying for top level funding and being nominated to decision-making positions. The aim is also to enhance work-life balance (e.g., improved childcare options for parents in order to attend conferences, external meetings, and participate in scientific collaborations), raise the profile of the INTEGER institutions in the academic stakeholder community as role models for peer European institutions, and provide orientation and assistance to peer institutions.

To date, substantial progress has been made at each partner institution, and implementation is now fully underway and continuing at speed. T-GAPs remain flexible and readjustments are foreseen as a result of reviews reports. Changes will hopefully endure beyond the life of the project as a result of the enhanced capacity built within partner organisations, and the ongoing commitment of senior management within those organisations as a result of the recognised benefits, in terms of enhanced reputation and profile. Institutionalising our actions, by, e.g., developing new policy, is now a priority for all three implementing institutions.

The T-GAPs contents and implementation results, as well as the evaluation concept, will inform

the joint guidelines and toolkit which INTEGER partners are to produce towards the end of the project, as an implementation manual providing templates to help peer institutions into engaging in structural change. These instruments and tools from the project aim to be disseminated across partner organisations, regional networks and wider networks of research institutes and universities within each partner's country, and across member states and associated countries, including main actors and relevant policymakers in each context, to ensure the transferability of the T-GAPs' methodologies and to support the wider implementation of gender equality good practice. Partners wish that INTEGER serves as a practical catalyst for the larger community of research institutions to engage in transformational change, in complementarity with other similar ongoing initiatives, such as sister FP7-funded "structural change" projects, the genderSTE COST policy-driven targeted network (genderSTE, 2014), or else the GENDER-NET ERA-NET, a pioneering transnational research policy initiative involving a dozen key national-level players (e.g., ministries, funding agencies and national organisations, joining forces to promote gender equality through structural change as well as the integration of the gender dimension into research contents and programmes (www.gender-net.eu).

References

1. "ADVANCE at a Glance", www.nsf.gov/crssprgm/advance/ (July 23rd, 2014)
2. European Commission, (2013), "She Figures 2012, Gender in Research and Innovation: Statistics and Indicators", Luxembourg: Publications Office of the European Union.
3. Balthasar A., (2011), "Critical Friend Approach. Policy Evaluation between Methodological Soundness, Practical Relevance, and Transparency of the Evaluation Process", *German Policy Studies* 7, 3, pp. 187–231.
4. Balthasar A., (2011), "Critical Friend Approach: Policy Evaluation between Methodological Soundness, Practical Relevance, and Transparency of the Evaluation Process", *German Policy Studies* 7, 3, pp. 187–231.
5. Creswell, J. W. & Clark, V. L. P. (2006), *Designing and Conducting Mixed Methods Research*, Sage Publications, Inc. <http://www.amazon.com/Designing-Conducting-Mixed-Methods-Research/dp/1412927927>
6. Collins, D. (1998), *Organizational change: Sociological perspectives*, London: Routledge.
7. Declich, G. (2011), *Guidelines on Gender Diversity in S&T Organisations*. WHIST - Women's careers hitting the target: Gender management in scientific and technological research // http://www.retepariopportunita.it/Rete_Pari_Opportunita/UserFiles/whist/whist_gl_def_ok_28112011.pdf (referred on 15/08/2012).
8. Dovidio J.F., Brescoll V.L., Graham M.J. & Handelsman J., (2012), "Science faculty's subtle gender biases favor male students", *Proceedings of the National Academy of Sciences*, DOI:10.1073/pnas.1211286109
9. Eitzen, D. S. & Baca-Zinn, M. (2006), *Social Problems*, 10th Ed. Boston: Allyn and Bacon.
10. European Commission, (2009), "She Figures 2009 – Statistics and Indicators on Gender Equality in Science", Luxembourg: Publications Office of the European Union.

11. European Commission, (2006), “A Roadmap for equality between women and men – 2006-2010”, Luxembourg: Office for Official Publications of the European Communities.
12. European Commission, (2013), “She Figures 2012, Gender in Research and Innovation: Statistics and Indicators”, Luxembourg: Publications Office of the European Union
13. European Commission, (2000), “Science policies in the European Union: Promoting excellence through mainstreaming gender equality. A Report from the ETAN Expert Working Group on Women and Science”, Luxembourg: Office for Official Publications of the European Communities.
14. European Commission, (2008), “Mapping the maze: getting more women to the top in research”, Luxembourg: Office for Official Publications of the European Communities Four campaigns of calls on structural change in research institutions have already been carried out. Laureate projects are INTEGER and GENIS-LAB (2010 SiS Workprogramme), FESTA and STAGES (2011), GENOVATE and GENDERTIME (2012), TRIGGER, EGERA and GARCIA (2013). A new call had been opened in the framework of the HORIZON 2020 Science with and for Society 2014 Work programme.
15. genderSTE. Science, Technology, Environment, www.genderste.eu (July 23rd, 2014).
16. www.gender-net.eu (July 23rd, 2014).
17. GESIS (2011), Definition of Transformational Change for the purpose of the INTEGER project, INTEGER Deliverable 7.13.
18. Green, J.C. (2007), *Mixed methods in social inquiry*, San Francisco: Jossey-Bass.
19. Huguet P. & Régner I., (2009), “Counter-stereotypic beliefs in math do not protect school girls from stereotype threat”, *Journal of Experimental Social Psychology*, 45, 1024–1027 ; Moss-Racusin C.A., “Plan égalité professionnelle entre femmes et hommes au CNRS”, www.cnrs.fr/mpdf/spip.php?article651/ (July 23rd, 2014).
20. *Initiating and sustaining structural change*. Reflection on the outcomes of the workshop on structural change in order to improve Gender Equality in Research Organisations in Europe. *Towards a Recommendation to the Member States*, 30 June – 1 July 2011. The workshop has been organised by the European Commission’s Directorate General for Research and Innovation, Directorate European Research Area, Unit B6, Ethics and Gender. Report by Dr Dragana Avramov.
21. Kazlauskienė, A., Liukinevičienė, L., Bilbokaitė, R., Ramanauskas, N., Turskienė, S., Musneckienė, E. (2012), “Conception of an Internal (Studies) Quality Management System of Šiauliai University” // <http://www.su.lt/bylos/d3.pdf> (referred on 05/09/2012).
22. Kezar, A. (2001), *Understanding and facilitating organizational change in the 21st Century: Recent research and conceptualizations*. San Francisco, CA: Jossey-Bass.
23. Knowlton Wyatt L., Phillips C. C., (2009), *The Logic Model Guidebook. Better Strategies for Great Results*, Los Angeles, California: Sage Publications.
24. Löther A., Maurer E., (2008), “Evaluation of gender equality policies. International Perspectives, In: Sabine Grenz, Beate Kortendiek, Marianne Kriszio and Andrea Löther (Eds.), *Gender Equality Programmes in Higher Education, International Perspectives*. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 53–67.
25. Löther A., Vollmer L., (2014), “Erfolge durch Strukturen? Hochschulische Gleichstellungsarbeit im Wandel”. In: Andrea Löther und Lina Vollmer (Eds.): *Gleichstellungsarbeit an Hochschulen. Neue Strukturen – neue Kompetenzen*. Leverkusen: Barbara Budrich (cews.Beiträge Frauen in Wissenschaft und Forschung), pp. 15–53.
26. Lee L., Faulkner W., Alemany C., (2010), “Turning Good Policies into Good Practice. Why is it so difficult?”, *International Journal of Gender, Science and Technology* 2, 1, available at : <http://genderandset.open.ac.uk/index.php/genderandset/article/view/64/78>
27. Lipinsky A., Schäfer M. (2014), GESIS Evaluation Concept for Transformational Gender Action Plans, INTEGER Deliverable 7.13.
28. Mertens, D.M. (2010), “Philosophy in mixed methods teaching: the transformative paradigm as illustration”, *International Journal of Multiple Research Approaches*, 4, pp. 9–18.

29. Mertens, D.M. (2011), "Transformative mixed methods: addressing inequities", *American Behavioural Scientist*, XX (X), 1-12.
30. PRAGES: *Guidelines for Gender Equality Programmes in Science*. (2009), M. Cacace, Italy, Rome.
31. Sturm, S. P. (2006), "The Architecture of Inclusion: Advancing Workplace Equity in Higher Education", *Harvard Journal of Law & Gender*, Vol. 29, No. 2 // http://papers.ssrn.com/sol3/papers.cfm?abstract_id=901992 (referred on 16/08/2012).
32. Sinnes, A. (2006), "Three approaches to gender equity in science education", *NorDina* 3, pp.72–83.
33. Stewart A. J., Malley J.E. & LaVaque-Manty D., (Eds.), (2007), *Transforming Science and Engineering: Advancing Academic Women*, Ann Arbor, MI: The University of Michigan Press

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Santrauka

Šis straipsnis grindžiamas pradiniais duomenimis, surinktais vykdant projektą INTEGER („Institucinė kaita, skatinanti moterų ir vyrų lygybę moksle“) trijose skirtingose tyrimų ir aukštojo mokslo institucijose. Nepaisant įsipareigojimo diegti lyčių lygybę instituciniu lygmeniu aukštojo mokslo institucijose, jaučiamas nepakankamas moterų atstovavimas tarp profesorių ir lygiavertes pareigas einančių darbuotojų. Nelygybė moterų atžvilgiu taip pat juntama komitetuose ir kitose valdymo struktūrose. Projekto INTEGER užduotis – pašalinti šią nelygybę diegiant transformacinius lyčių kaitos planus (angl. santrumpa T-GAP). Šiuose planuose numatomas moterų mokslininkų ir akademikų matomumo skatinimas ir lyderystės potencialas; samdos, atleidimo ir paaukštinimo strategijos ir praktikos stebėjimas bei analizė lyties aspektu; siekis užtikrinti lyčių balansą sprendimų priėmimo organizacijose ar komitetuose; siekiant pašalinti nesąmoningą išankstinį nusistatymą visuose institucijos lygmenyse vykdytinos mentorystės programos ir mokymai, skirti lyties suvokimui skatinti; lyčių lygybės iškėlimas kaip esminės vertybės, prisidedančios prie mokslo tobulumo. Kaitos planai yra pagrįsti tarptautine gerąja patirtimi pasitelkiant tiesioginę mentorystę su JK, ES ir JAV mokslo institucijomis ir *Athena SWAN Charter* bei panašių apdovanojimų laimėtojais. Taip pat išoriniai vertintojai prižiūri projekto progresą ir T-GAP poveikį dalyvaujančiose organizacijose. Straipsnyje pristatomos bendros ir skirtingos institucinės kaitos kūrimo priegios, efektyvaus planų diegimo pasitelkus aljansus institucijoje strategijos ir aptariama, kaip šis procesas gali būti vertinamas.

Pagrindiniai žodžiai: *Europos Sąjunga, aukštojo mokslo ir tyrimų institucijos, lyčių lygybė, institucinė kaita.*