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Fostering Gender Equality in Research Institutions through Transformational-Gender Action Plans

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ABSTRACT

This paper draws upon baseline evidence compiled for the FP7 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 of 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 progress and impacts of the T-GAPs in each organisation. The paper presents common and different approaches of designing institutional transformation, strategies for building alliances in the institution for effective implementation of the T-GAPs and how the processes can be evaluated.

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[1], while 59 % of EU graduate students in 2010 were female, women made up 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.[2] Even though a target for 25% women in leading positions in public sector research in the EU has been set to drive organisational behaviour[3], 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[4], creating a "discriminatory snowball effect"[5]. 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[6] to the "Mapping the Maze: Getting More Women to the Top in Research" report in 2008 [7] and to the 2011 EC report on 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 sector itself 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[8], 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 projects[9], a community of practitioners – and evaluators – which have now started to share results and good practices.

Launched in 2011 and running until end of June 2015, the INTEGER project's aim is to address gender imbalances in STEM research, at both 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 Schools of Chemistry, Natural Sciences, and Physics of the Faculty of Engineering, Maths and Science – and the University of Siauliai (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. Additionally 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

awareness of the statistical base, periodical examination of institutional processes (such as recruitment, promotion, retention), the willingness at the top of the institution to open up discussion and to sustain the process of self-study and change and support the achievement of organizational goals within a supportive climate.[10]

A common framework and an 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) Engagement of decision-makers; 2) Organisational structures; 3) Career progression, development and support; 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 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 and ensures commitment and support from the top-level decision-makers at CNRS.

At Institutional level, several implementation teams and working groups have been created, including a committee inspired from the University of Michigan's STRIDE Committee ("Strategies and Tactics for Recruiting in Diversity and Excellence")[11],to best tackle the issue of researchers' recruitment, promotion and rewards 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 Local Level, implementation teams were put into place at the Institute of Physics (INP) and at 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, both 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, with CNRS Senior Management, as well as following reviews and 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 by gender research, a field in which CNRS plays a key role at national level.

As for qualitative data collection, some site visits were conducted by external consultants from 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); creation of ownership (e.g. by undertaking actions proposed by teams); careful choice of 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 from studies carried-out by CNRS teams[12]); some degree of shaming and/or benchmarking (e.g. providing strikingly negative data from CNRS, from the targeted units, from the INTEGER on-line survey, with a comparison with other more advanced institutions/countries); putting forward the EU strategy and the priorities that CNRS should be, and will gains advantage from, addressing (e.g. the ERA construction priorities, the H2020 cross-cutting integration of gender); using 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); developing 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); taking advantage of the institutional agenda to embed gender equality in it (e.g. CNRS President's campaign in 2013-2014 for a new mandate; changes in leadership positions – new directors of Institutes, departments; 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 its 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, early July 2014, through various means, including via the weekly CNRS e-newsletter received by all staff working in CNRS joint laboratories (i.e. over 60,000 people)[13].

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.

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 to 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 to 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 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, 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 mathématicien-ne-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 strong impact at the Institut Néel target laboratory in particular, and helped create a women reserchers' 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 a Worktime Management Charter for CNRS was prepared through a series of workshops and is currently discussed with the CNRS Chief Resources Officer and HR Director, while support schemes for child-care support and dependent-care developed, including awarding six-month relief time from teaching for university staff working in 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 requirement 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 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) 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), c) 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 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 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 to and via which they may be addressed.

Alongside these collective Teams, strategic partnerships with key players was 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 e.g. for 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 were 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, and baseline statistics, etc. were compiled to produce a full set of recommendations corresponding with 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 (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 the 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 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

(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 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 is been built through its incorporation into the new Strategic Plan 2015-20, that will make reference to gender equality and diversity as elements to strive for and which will facilitate achieving 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 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 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 on establishing details of the Mentoring Programmes that are currently available to staff in Trinity College, to avoid replication and to ensure learning from WiSER's pilot Mentoring and other programmes is utilised.

At Schools level, there has been a push to have gender balance among invited speakers/examiners (Women in Chemistry Day, 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 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; surveys of demand for social activities and events like 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 c. 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 The Šiauliai University T-GAP – Big Changes for a Small University

In order to efficiently design its Transformational Gender Action Plans (T-GAP), Šiauliai University (ŠU) employed data collected in 2012 in accordance to gender aspects, carried out an online survey on gender equality and work culture in the two participating faculties – Mathematics and Informatics and Technology Faculties – built an institutional implementation team and a local implementation team covering both Faculties, and reviewed existing conceptual frameworks for institutional transformational change to best develop its T-GAP approach. These included: holistic approach focusing on women researchers and structural reorganizations taking into account women professional life needs (Declich, 201114; PRAGES, 200915; Sturm, 200616); institution's culture including quality development and change (Kazlauskienė el al., 201217); structural/institutional approach emphasising factors that are external to individuals, (Eitzen & Baca-Zinn, 200618); systems approach; process approach; gender sensitive or equality approach viewing gender as a fundamental and ubiquitous problem, with women and men both "needing to change" (Sinnes, 200619); transformation of gender relations describing new standards for everyone replacing the segregated institutions and standards associated with masculinity and femininity (Rees, 199820); synthesis of modelling institutional transformation change (Sturm, 2011; Eckel and Kezar, 200321), using: 1) cultural change models, which tend to place emphasis on the collective process of change and the significant role of each individual in the change process (Kezar, 200122), and 2) social-cognition models (Collins, 199823; Kezar, 20019) incorporating human behaviour, individual learning and individual sense-making, and alters individual beliefs and construction of reality. Clearly stated the conceptual framework, identification of relevant research findings and construction on 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 change effort, and all elements are compatible with the culture of the institution. This Plan is built on integrative gender equality approach, i.e. on interventions typical of the other three frames (empowering women or fixing the women; valuing differences or women-friendly approach; creating equal opportunities or gender sensitive or equal opportunities through gender analysis), but it is broader and deeper and focuses on systemic changes in work culture and practices that will benefit women, men, and the organization (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. The T-GAP clarifies the connection between the conceptual framework, the issues identified through analysis of institutional data, the proposed plan and participative action research; put together the infrastructure necessary to implement the proposed T-GAP (defines a management plan that details how implementation organized; plan describes leadership, participants and partners and identifies their expertise, roles and level of effort) interventions, namely, identified: empowerment of HEI's decision-makers; organisational structure change; women researchers' career progression, development and support; work-life balancing; ongoing internal and external monitoring and evaluation of T-GAP progress and impact; objectives, benchmarks, and indicators of progress that will inform stakeholders understanding of 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 suggests the centrality of the culture of the institution as a force that shapes the change efforts while simultaneously being the target for improvement. Having in mind that reform of HE through the European standardization is undergoing in Lithuania and INTEGER project implementation is the first project in Lithuania context. Essential demographic, emigration, economical and political changes require improvement of management methods of the European Union and Lithuanian higher education.
The baseline data describes ŠU as an institution balancing between power culture and achievement culture, i.e. power culture is sharing following components: bureaucratic; line management; hierarchal decision making; high significance of micro politics; fluid, negotiated power; competitive; emphasis on results, standards, outcomes; collaborative and collegial; autonomy for teams of excellence; using power to coordinate tasks in order to achieve results, etc.

The aim of T-GAP at ŠU is to establish gender tools, fully and properly implement down to the local level from senior management, and with measured outputs to promote, embed and mainstream gender equity within ŠU; they will result in the desired outcome of improved career progression for women.
”Architecture“ for pursuing of gender equality inclusion at the Šiauliai University (at all levels and layers) for the systemic reconstruction organizational culture using the gender mainstreaming (GM) framework simultaneously serving instrumental institution’s instrumental goals (quality assurance policy in higher education) at Šiauliai University. GM process in ŠU is set of 4 parts: a) gender proofing & evaluation (gendered statistics, Survey Monkey, baseline data, GESIS data monitoring template); b) building awareness (gender-sensitive) & ownership in T-GAP; c) implementation of T-GAP; d) measurement, evaluation & monitoring (internal: self-reporting/self-evaluation and external evaluation by GESIS).

The T-GAP is grounded on 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 of the way.

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. In order to enhance the careers of researchers in the target groups at ŠU, researchers were provided with financial support for dissertation preparation and defending; foreign language courses; conference participation: travels, overnights, visa/insurance costs, participation fees; subscriptions to scientific databases; scientific publication, summary preparation, publication printing, review and display presentation technical preparation and printing, publication translation.

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 SU but all researchers nation-wide will be affected.

The majority of planning activities are held at the CGS by holding meetings with the implementation team, discussing several matters at the time from T-GAP implementation

matters or any projects relates and unrelated (gender equality/mainstreaming oriented) activities. These meetings are also held at MIF and TF; they usually happen once a month at the time suited for every participant. The meeting usually involve discussion on the activities being implemented, monitoring of various processes at hand in the University; deepening of gender equality implementation issues/questions, brainstorming on upcoming events, discussions on election strategy, 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, representation of women has increased from slightly in some cases to major increase in others. For instance for the first time in 20 years a woman is the head of Department for Urban Development in the Faculty of Technology and the Department of Informatics also has, as of 2013, a head woman. The election campaign was a huge success with increase for the representation at the University Council from 0% to 36.4%. This has put Šiauliai University out of the list of three Universities in Lithuania that had no women in their Councils. This helps not only to further develop the projects aim and to create sustainability but as well increases the representation of women in the academia at ŠU.

3. EVALUATING TRANSFORMATIONAL CHANGE MEASURES

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.[24] 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 sustainability of advancement in gender equality. The second objective of the external evaluation is to explore 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,[25] 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.[26]

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;[27] this comparison was done at different levels within each institution.

Purpose of the framework analysis is to understand the contextual conditions and possible constraints at 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.[28] 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[29]. 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.

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. Purpose of the self-report is to present a comprehensive statement of the institution's view on 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 operationalization of specific objectives, 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 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 awareness and cultural change of key staff (e.g. HR and scientific decision-makers); 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 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 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 an associated countries, including main actors and relevant policymakers in each context, to ensure the transferability of the T-GAPs' methodologies and 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[30], or else the GENDER-NET ERA-NET, a pioneering transnational research policy initiative involving a dozen of 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[31].

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