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“STRUCTURAL TRANSFORMATION
TO ACHIEVE GENDER
EQUALITY IN SCIENCE”

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STAGES MID TERM

WORKSHOP “GENDER AND SCIENCE: ADVANCEMENTS AND RESISTANCES IN FIGHTING STRUCTURAL INEQUALITY”.

Under the project *Structural Transformation to Achieve Gender Equality in Science* (STAGES) a mid-term workshop has been held in Brussels on March 25th 2014, titled “**Gender and science: Advancements and resistances in fighting structural inequality**”.

The aim of the workshop was that of **capitalising on knowledge and practical experience** about how structural change dynamics can be actually activated, what are the hindering factors that come into play when an effort in this direction is made, and which approaches and tools can be usefully applied to make the structural change perspective feasible and sustainable.

To this end, the workshop was organised in a way allowing an intense dialogue on these issues involving, not only the STAGES consortium members, but also representatives of the other EU-funded structural change projects, European and international experts, EC DG Research and Innovation officers, and representatives of European associations and networks engaged on gender and science (LERU, EPWS). Overall, around 70 people attended the meeting.

The event started up with an **opening speech**, followed by **two sessions** and a **roundtable**. The **first session** was titled *Negotiating change in five research institutions: the STAGES experience at mid-term*. The session was aimed at presenting the outputs of the mutual learning process under STAGES. The session has seen the contribution of representatives of the five partner institutions implementing Action Plans for gender equality. Such contributions did not focus only on the individual Action Plan each participating institution is carrying out. Rather, each of them

dealt with a specific **cross-cutting issue** (i.e., issues which tend to be relevant in all structural change oriented project) on the basis of both their own experience and the information collected through interviews and exchanges with the other partners, or through comparisons with other similar projects.

The **second session** was titled “*Dialogue on structural change*”. The session was organised into different thematic groups (world café format), representing as many cross-cutting issues, and offered an opportunity for collecting and discussing the contribution and advice of people involved with **other EC-funded structural change projects** (FESTA, Gender Time, GenisLab, Genovate and Integer) in research institutions.

The **roundtable** was mainly aimed at promoting a debate among a group of invited experts and the other participants on the different aspects of the gender and science issue, also based on the inputs from the workshop’s previous sessions. The roundtable included a **keynote address**, the presentation of a **set of contributions** and an **open discussion**.



THE OPENING AND THE FIRST SESSION OF THE STAGES MID TERM WORKSHOP

The opening speeches of the workshop were given by Marino Di Nardo, as representative of the Italian Department for Equal Opportunities, STAGES coordinator, and Gilles Laroche, Head Unit B7, Science with and for Society, of the EC DG Research and Innovation.

Di Nardo firstly remarked that the workshop has been conceived in tune with the objective pursued by EC structural change programmes to leave the logic of pilot projects behind in order to develop common strategies addressing the many layers of the problem of gender inequality in science from an integrated perspective. In fact, the workshop has been convened and designed just to take this step, providing an opportunity for discussing and exchanging ideas, strengthening and widening the scope of the mutual learning process already activated among the partners of STAGES by involving representatives of the promoters of the other funded structural change projects, as well as European and non-European experts in gender equality in science.

Introducing the issues of the workshop, Laroche emphasised the need to intensify the opportunities for a closer cooperation among researchers, research institutions and research networks in order to fight gender discrimination in S&T, which is one of the five key policy priorities of the European research area. In this regard specific measures and policies at the national level, as well as specific action plans aiming at structural change at the level of the institutions, are to be devised. In this framework, research institutions, research agencies and universities are necessarily at the cornerstone of this process, in order to reach a critical mass of institutions engaged on structural change actions.

The EC DG Research and Innovation is directly supporting this effort. Eleven projects overall involving some seventy research organisations and universities have been funded so far. This support is destined to continue all along the Horizon 2020 programme. In this context networking activities favouring exchanges among specialised institutions, professionals and practitioners could play a pivotal role.



The first session “Negotiating change in five research institutions: the STAGES experience at mid-term”.

The first session chaired by Caroline Bélan-Ménagier (MIPADI, Ministry of Higher Education and Research, France), turned around 6 contributions given by the representatives of the STAGES consortium members. **Daniela Falcinelli** (University of Milan, Italy) dealt with tools and strategies to support women at the early stage of their careers as they emerge from an analysis of the ongoing activities under the STAGES project. Interviews were conducted with the team leaders at the partner organisations to this end. Four groups of initiatives have been identified, i.e.,

- 1) gender awareness training,
- 2) mentoring and counselling activities;
- 3) initiatives like career days or girls' days;
- 4) establishment of schools focused on specific tasks and issues related to career advancement (e.g., publications, research project proposal).

The activities are always focused on specific targets (post-docs, PhD students, researchers). The only crosscutting initiatives are those related to women's networks, when they are in place in the institution. The majority of the activities adopt a top-down approach, being they started up and managed by an officer, a specific organizational unit or the management. In the University of Milan, an attempt is underway to adopt a bottom-up approach where women researchers play an active role in defining contents and aims of the initiatives which are however open to men too. Different strategies to foster participation have been devised within STAGES (pro-active participation of the headquarters, pro-active advertisement, use of sensitive language, etc.).

A set of strengths and weaknesses of the initiatives oriented to supporting women's career have also been identified. Among the strengths, we can mention the integration of the STAGES initiatives with activities promoted by the institution, and the capacity to reach key players.

Among the weaknesses, the lack of communication and visibility of the initiatives and the difficulty to reach gender-unaware participants.

Some enabling factors (especially the involvement of top managers) and obstacles (especially problems in mobilising researchers) have also been recorded. Some structural effects have been anyway reached, including an increase in gender awareness in the organisations and a higher mobilisation of leadership on gender equality. As for the lessons learned so far and possible recommendations, an important aspect is that early career support actions are more effective when thought as a part of a combined set of activities (e.g., courses for top managers). It is equally relevant identifying the right target (early career is too broad a concept for defining a specific target), favouring a better formalisation of the hiring processes and using mentoring to support women just at the very beginning of their career.

Jürgen Wilke (Fraunhofer Institute for Industrial Engineering - IAO, Germany) dealt with the involvement of internal organisational structures dealing with equality and diversity issues and of their male component. The overall strategy adopted by the STAGES German team is to involve the equal opportunity officers of the 66 Fraunhofer Institutes, as well as the Central officer at the headquarters, so as to favour mutual learning and exchange. Hence the interest for a better understanding of the dynamics connected to such kind of involvement. To this end, a questionnaire was sent to the other STAGES partner institutions and the information collected has been analysed.

From the analysis a general scepticism emerged in the academic staff about the possibility to modify women's situation, which makes their mobilisation particularly difficult. Even more relevant is a widespread indifference towards gender equality issues, also due to a common idea (share by men but by many women too) that gender discrimination does not exist in the Academia, thanks to the presence of strong meritocratic mechanisms. Sometimes, mobilisation is also hindered by too

bureaucratic and time-consuming procedures or by some resistances, not to parity in itself (no active resistances are recorded in this regard), but with respect to possible impacts that parity policies could have on how some positions are attributed.

However, motivating the actors to get involved is possible, once the importance of the actions included in the STAGES plan is adequately highlighted. In some cases, potential partners see their own involvement as a way to get advantages of other type, either for themselves or for their organisation (for instance, the European funds), and tend to use it as a Trojan horse to reach their own objectives.

The two key factors emerging from STAGES so far about how to involve relevant organisational structures and male components are, on the one side, the availability of data on gender issues and gender diversity (which are often not provided by the organisation, since it requires additional work) and, on the other side, the capacity to present gender issues not only under a pure "gender frame", i.e., not only in terms of parity, but also emphasising its positive consequences on research activities in terms, e.g., of innovation, excellence in research, access to European grants and use of resources. Finally, the STAGES experience suggests the importance to look for the active cooperation, not only of the top management, but also of the middle management as well as the operational units (such as the human resources departments), the support of which could be particularly significant in implementing gender-oriented action plans.



Evanthia Kalpazidou Schmidt (Aarhus University, Denmark) addressed the issue of the involvement of management and research leadership in structural change activities, still on the basis of a mutual learning process involving all the STAGES partner institutions, which were interviewed.

The analysis shows how involving middle and top management is one of the key challenges for structural change. In fact, even in the most favourable environments, it is difficult to go beyond formal support and to obtain active participation and personal commitment in the process of transformation.

In general, managers and leaders do not display open resistance to gender equality issues. Rather, they tend to overlook their significance and seriousness and, anyhow, to consider them not a priority in comparison to other topics. In particular, they seem to believe that meritocratic mechanisms and internal rigid regulations are in themselves sufficient to limit or even prevent any form of gender discrimination.

In this framework, inequality is understood as mainly related to individuals' behaviours and not as a problem the organisation is responsible for.

From the analysis, a set of recommendations emerge in order to involve and motivate managers and leaders as concerns structural change. It is firstly important to involve managers from the beginning in the planning and implementation of the actions, establishing direct and, when possible, personal contacts. Providing evidence of the situation of inequality in the organisation is particularly effective in this regard. Moreover, any involvement strategy should be tailored on the features of the organisation, especially for effectively framing the arguments in support of leaders' engagement on gender issues in a way which is more comprehensible and attractive for them (for example, connecting the equality issue with innovation or excellence in science).

Another recommendation is that of providing managers with interpretations which help them see gender aspects in the context of their own organisation and offering them possible viable and

concrete solutions. In this regard, providing examples of best practices could be particularly helpful. It is also important to use an array of operational approaches and awareness raising tools, so as to bring out structural and cultural problems and make them visible. Managers should be involved also in designing and implementing sustainability strategies allowing the actions to continue after the project lifespan. Quite obviously, promoting women in decision making positions is another key point for favouring managers' involvement in the long run. It is finally important to use the "European card" to motivate, encourage and influence management and leadership to engage in structural changes.

Doina Balahur (Alexandru Ioan Cuza University of Iasi, Romania) based her contribution on the reflective practice of real structural change. Built on communicative action research, a new change strategy is defined: *Fixing the transformative and formative praxis*. Its orientation is given by *focus on creating new organizational structures and practices* (transformative praxis) and by *this process developing the participants' competences for knowing and acting to promote gender equality in science* (formative praxis). Illustrated by concrete innovative actions, this new perspective for approaching gender equality in science, with focus on actual practice of structural change in universities, is proposed to be added up to the known approaches *fixing the women, fixing the organisations and fixing the knowledge production*. Analysis was then deepened by references to *sociological paradigms of structural change*. So as the author found in a previous meta-analysis on organizational change literature, a significant opposition between two paradigms, namely *the conflict paradigm and the cooperation paradigm*, can be identified. The conflict paradigm is based on the assumption that *there is no change without conflicts*. Therefore its focus is on *conflicts due to divergences of interests* and the actors are understood as *combatants*. On the contrary, the cooperation paradigm maintains that *no sustainable change is possible without cooperation*. Its focus is thus on *convergence of interests* and the actors are seen as *partners*. In next step such findings are used to analyze contributions on structural change to achieve gender equality in science. Application showed that opposition between the two paradigms is also central in this field and its main assumptions influence the theoretical and methodological bases of practical strategies. While conflict paradigm predominated, it allowed only small progress in improving women's situation and triggered negative reactions. That is why a progressive shift toward the cooperation paradigm occurred last years.





The last step was to search the assumptions of strategic orientations within the STAGES project. By interpreting data collected by questionnaire and document analysis, approaches based on the cooperation paradigm appear to be dominant among the partners who implement Action Plans in their institutions, while activities of the team charged with technical assistance, accompanying research and evaluation are influenced by the conflict paradigm. Research concluded that the differences are reflected in dissonant views about Actions, Research and Evaluation, according to the opposition between those who practice the change (“actors”) and those who talk about it (“spectators”), i.e. *insiders vs. outsiders* in respect to real transformative praxis.

Inge Bleijenbergh (Radboud University of Nijmegen, the Netherlands) dealt with the awareness-raising process on gender issues and the conscious and unconscious resistances towards gender-oriented actions.

The contribution starts identifying at least three different types of awareness raising in the context of gender in academia: informing the public, educating students, training staff members of research institutions. These are largely different both for the number of people they are able to reach and for the kind of participation they require of them.

Comparing the action plans carried out under STAGES (interviews have been carried out with team leaders), informing the public is the type which has been applied the most, especially through the development of websites. This type is able to reach many people at once, but its capacity to trigger mobilisation is relatively low.

Educating students has more impact in terms, but is naturally narrower in scope. This type is performed both by integrating gender in existing programmes and by developing gender courses. Training staff is a type performed in four action plans out of five. The initiatives differ in terms of targets (middle management, top management, human resources managers) and institutional arrangements (modules within broader courses, complete courses) but have the largest transformative potential.

Four types of resistances to awareness raising against gender-oriented actions have been reported. A first type manifests itself in overlooking gender problems in comparison to other problematic issues, such as budget cuts or restructuring the organisation. A second type is based on the idea that gender inequality is a problem of women rather than of the organisation. A third type or resistance turns around an underestimation of the scientific quality of the proposed activities on gender issues. Finally, another kind of resistance is when the underestimation concerns the educational quality of such activities and courses.

Partners used different strategies to face these resistances. One of them is confronting organizational actors, for example by involving them in the analysis of structural barriers in women's careers. A second strategy is by-pass resistances by taking other routes to reach the aims of the STAGES project. Rather than focusing on actors that oppose project aims, new allies are found. A third strategy is ignoring resistance and focusing on the content of the project for a more limited group of actors.

Finally, Marina Cacace (ASDO, Italy) presented a brief summary of the methodology of the accompanying research carried out under STAGES at its mid-term. The research addresses the basic question of how to translate structural change projects into the regular functioning of the institutions and the daily people's attitudes and behaviours, i.e., into a real social change process.

In this perspective, an observation model has been developed, which interprets the STAGES teams as transformational groups, the action of which may activate an "agency mobilisation", i.e., supporting or resisting attitudes (including resilient indifference). Such a mobilisation, in turn, could have impacts on the different structures of the involved organisations, which, in some cases, bring about structural outcomes of permanent nature. In this way, four observation areas (transformation groups, agency, structure and outcomes) have been determined.

The analysis observes this process with respect to the three strategic targets addressed by STAGES (favouring an enabling environment, building a gender-aware science and promoting women to leadership positions), taking into consideration four dimensions of change which have been applied to both the process of change (e.g., negotiations) and its impacts: the institutional dimension (mainly concerning norms, procedures and organisational arrangements within the organisation); the interpretive dimension (concerning the interpretation of the actual condition of discrimination suffered by women); the symbolic dimension (pertaining to the image of science and women's stereotypes in S&T); the operational dimension (referring to the actual implementation of decisions in a reasonable time).

From the methodological point of view, the analysis used a large set of textual sources drawn out of, e.g., technical assistance activities (monitoring sessions, mutual learning meetings, etc.), project evaluation process, deliverables, websites, progress reports and direct interviews with the partners, using an interpretive content analysis approach. Overall, 198 sources were explored, extracting 370 relevant textual items.

Using a grid aimed at reading such items (including a set of indicators pertaining to the transformational groups, agency mobilisation, impacts and structural outcomes), 72 "meaningful situations" have been singled out, included in a database and analysed under different perspectives (semantic analysis, analysis based on indicators' count and analysis of the cross-cutting issues emerged in mutual learning).



SECOND SESSION “DIALOGUE ON STRUCTURAL CHANGE”

The second session was chaired by **Viviane Willis-Mazzichi (Head of Sector “Gender”, Unit B7, Science with and for Society, DG Research and Innovation, European Commission)**.

The session was organised in 5 discussion tables, according to the World Café format. Each table was introduced and coordinated by one or more representatives of ongoing structural change projects, all of them carried out with the support of the EC DG Research and Innovation, namely: Genovate, Gender Time, FESTA, Integer and GenisLab.

First group

The first group was introduced and coordinated by **Uduak Archibong (Bradford University, UK)** as representative of the Genovate project. The project is aimed at developing a model of gender change, devising and implementing institutional strategies for gender equality in academic recruitment, promotion and progression, modifying the working environment and the organisational culture and enhancing excellence in research and innovation systems through gender and diversity perspectives.

How to activate and manage structural change projects was the main issue discussed within the group.

One of the key question, in this regard, is that of properly “framing the change”, i.e., negotiating the meanings, added value and expectations related to the structural change project. This also entails negotiating the meaning of gender equality, interacting with different groups within the university and taking into consideration the specific organisational and cultural environment. Particularly important, in this process, is producing data on gender equality within the institution, in order to provide a real picture of the situation. Similarly, carrying out research activities focusing the organisational climate could be particularly helpful so to identify bottlenecks, resistances and supportive orientations and to assess how much and where they are present in the organisation, so as to concentrate the efforts on, e.g., specific departments or parts of the university.

Another connected question is that of how to trigger the debate on gender issues. People have to be motivated to debate gender issues by using any possible form of communication appropriate for each target group. Regularly organising attracting events and institutional conferences is also important to keep the internal public’s attention on gender issues.



An important stage is also that of identifying the “change teams” (which can be different from the institutional team) which, in the different units of the organisation, are able to promote change. This entails an analysis about the people who, at different levels – among senior managers, middle managers, researchers, etc. – could provide a contribution to change. Similarly, it is of pivotal importance to get the students’ voice heard. Special attention was devoted, during the discussion, to the role of networks (especially women’s networks) in triggering change, on the basis of a scheduled contribution by **Elena Del Giorgio (University of Milan)**, based on the STAGES project experience. One emerging aspect is the importance to think network as a means to pursue specific objectives, which should be already clear before launching a network establishment process.

Second group

The group was coordinated by **Silvana Badaloni (Padua University, Italy) and (Yvonne Pourrat, ECEPIE, France)**, representing the Gender Time project. This presentation was focused on the monitoring of gender equality in research institutions, singling out three main thematic areas which the monitoring effort should be focused on: the dominant gender culture within the institution; the structural change processes; the degree of implementation of gender policies, through a set of gender equality indicators.



The group’s discussion mainly turned around the development of the appropriate set of indicators to evaluate gender equality and the data necessary to develop them. Primarily, there is the question of which data are to be collected. Data gathering processes should be led by a careful analysis of the “right”

variables to take into consideration. Accumulating data without any clear decision about how to use them and which variables they represent is inevitably ineffective. Also the problem of costs is to be considered: collecting data is a costly process and cannot be done unless clearly justified.

However, also using existing data is often problematic. In principle, there is a huge amount of available data which could be usefully applied for analysing gender-related dynamics. Yet, many of them are collected for other purposes and often cannot be properly used for gender equality analysis. This is also true for the data disaggregated by gender provided by many research institutions and universities, because of the way in which they are managed and presented. Again, the key problem is therefore that to correctly single out the most relevant variables and then examining which data can be appropriately used among the existing ones.

Another significant problem is the reliability of data. In fact, data are not always reliable enough. This is often due to the lack of common criteria leading to standardized procedures in data gathering. A common thesaurus is also lacking. All that makes it also difficult to make meaningful comparisons. Collecting data at institution, local, national or European levels require different procedures, standards, and rules which are far from being fully developed.

These difficulties notwithstanding, developing reliable data sets on gender to use for developing gender equality indicators is a strategic objective to pursue. Data are important to show to people that gender inequality exists, how much it is widespread and where. There is actually a common attitude to deny inequality, on the basis of the idea that there are no evidences of that, so that “no data, no problem”. This attitude is to be overcome. Only a reliable documentation of gender dynamics in the Academia should allow to do it.

Third group

The group was coordinated by **Pat O’Connor (University of Limerick, Ireland)**, as representative of the FESTA project. The project is aiming to sustain structural change in the partner institutions, addressing different aspects, including awareness raising (both at individual and organisational level), decision-making and communication processes, excellence criteria (especially in hiring and promotion procedures) and gendered interactional patterns.

The key issue discussed in the group was the involvement of top leaders as a critical point to actually promote structural change processes. Taking into account that 90% of high-ranking leaders (university presidents or rectors) are men, it becomes of pivotal importance to understand how to convince male leaders to activate and sustain structural change. To that end, dynamics of top leadership have therefore to be deepened. For example, top



managers are busy, their attention is very limited and it is very difficult to influence them during short meetings. It is thus extremely important to understand their priority schemes and their views (even their “dreams”) so as to find the way to connect gender equality to them. It is also to be said that these hindrances can be often recorded when top leaders are women, since the dynamics of top leadership tend to equally involve both women and men leaders. In this context, it could be strategically important to involve in the structural change projects, as full members of the implementation team, people who – because of their position in the hierarchical structure or their specific tasks and functions – can serve as mediators between the project and the top management. Creating stable bridges with top leaderships is actually of pivotal importance to make sure that the project works.

Top leadership turnover is another aspect to take into consideration. Often all the efforts made to involve a leader can be frustrated when another person takes her/his place, since the process of leadership’s involvement has almost to be started from scratch. Establishing personal relationships with the leaders can be helpful but, for this reason, is to be understood as structurally weak. Unfortunately, everything which has to do with gender cannot be considered as permanently acquired. It is obviously to consider the pressure of the environment on leaders. Discrimination is a systemic question and leaders tend to adapt to the system. Acting to change the organisation is therefore necessary also to modify how the environment influences leaders. Needless to say, this entails a huge effort, since it requires to act at individual, interactional and organisational levels at once, balancing the actions to carry out on the basis of the features of the organisation and the national context. The role of men (especially those in leadership positions) who are uncomfortable with a male-dominated environment could be therefore important. Differences among disciplinary sectors are also to be taken into

account. Some sectors – typically, engineering departments – tend to be characterised by a more male-dominated environment than others. Therefore, different strategies of leaderships’ involvement have to be devised, not only at the level of the organisation, but even at the level of single department.

Fourth group

The group was coordinated by **Anne Pépin (CNRS, France)**, as representative of the Integer project. The project is focused on the engagement of top leaderships on gender issues, through the involvement of external experts able to bring their experience into the participating organisations and the creation of specific teams on gender at different organisational levels (each of them supported with training activities). The largest part of the discussion was devoted to the problem of how to ensure more gender balanced recruitment and promotion procedures. Making such procedures fairer is evidently a strategic objective which is however particularly difficult to achieve, because of the many factors influencing them, including the presence of very subtle gender stereotypes and biases. It can happen that new selection criteria are introduced without this having effects on the gender composition of leadership and personnel. Therefore, a pivotal question is how much changing the rules is effective. Selection procedures are so complex that acting on the rules is



certainly not enough, if not sometimes even useless. Probably the correct response for making selection procedures fairer is not only that of modifying the rules. It is at least equally important making leaders more aware about gender inequality and making them internally convinced about the need to change the situation. In fact, decision making processes can be more effectively changed

not through external pressures, but via internal processes, influencing the “academic clubs” and informal circles and networks where decisions are mainly taken. This does not mean that clear and explicit criteria and rules are not important, but that they are not the only aspect to take into consideration. In some cases, the presence of clear rules can paradoxically have a counterproductive effect, inducing people to think that recruitment and promotion processes are fully fair and based on merit, while this is not true, thus hiding the real dynamics underlying selection process and discouraging people’s mobilisation on this issue.

The tendency of many women not to apply for the offered positions is to be also countered. Reaching a more equal composition in personnel and top positions becomes particularly difficult if the pool of women candidates is too narrow. However, there are many factors discouraging women to apply, some of which difficult to deal with. Promoting specific initiatives encouraging potential women candidates to apply is therefore to be devised. Appropriately monitoring the selection procedures is important as well. Special attention should be in particular paid to the monitoring of the selection interviews, where discrimination mechanisms tend to take place. Often monitoring interviews is hindered by the false idea that interviews are private and not a step of a public procedure. The presence of external observers is therefore fully allowed and could play in itself a positive role on how the interviews are conducted.

Fifth group

The group was coordinated by **Flavia Zucco (Donne e scienza, Italy)**, and **Barbara De Micheli (Fondazione Brodolini, Italy)** as representatives of the GenisLab project. The project is focused on three aspects: human resources management and gender; organisational culture and stereotypes; gender budgeting. The Group’s discussion was mainly focused on gender stereotypes in research settings. One of the key questions is where to start for fighting stereotypes. It is certainly necessary to work on the institutional side. However, for their same nature, stereotypes are also to be countered on the cultural side, which is however particularly tough to deal with. In this regard, it is to emphasise that science for a long time in the past and partially still now has been considered a sector immune from gender discrimination. Therefore, bringing out stereotypes is somehow more difficult in research settings than elsewhere. On the contrary, there are many stereotypes about the role of men in the family and the society which, among other things, contributed and are still contributing to limit the development of women-supportive policies. The consequence is that many women scientists suffer great problems in balancing work and family life. In the other European regional areas, the role of women in family and society is changing more rapidly, but there are still many specific stereotypes concerning the presence of women in hard sciences which feed resistances, for example, towards their access to top scientific positions. Another key question concerns the tools to effectively fight gender



stereotypes. Actually, gaining an awareness (on the part of the women too) about stereotypes is particularly difficult since it requires a capacity to observe oneself and one’s own daily life in an objective and detached way. There are many tools in place which can be used. A good example is the organisation of theatrical performances aiming to represent on the stage stereotypes on women and discriminating behaviours in S&T, making them fully visible. As witnessed by some projects aiming to gender equality in S&T, also the use of the IAT (Implicit Association Test) could be helpful to increase people’s awareness about their own biases about women. The problem is what’s next, i.e., how to make the best with the “awareness leap” activated by the test. Probably, the use of this kind of test should be supported with after-test meetings or investigations, in order to capitalize the test results and also to go in depth into the relations between IAT scores and actual behaviours.

This problem can be also set in broader terms, i.e., how to shift from the struggle against stereotypes to the change of behavioural patterns. Being more aware about stereotypes does not necessarily mean changing attitudes and behaviours. For example, expressing concern about gender stereotypes could also be a simple attitude of political correctness which never turns into real changes in individuals’ behaviours (especially by male leaders) or new institutional arrangements.

A reflection is also needed on the specific contribution women could give to improve the way in which scientific research is done. On the one side, it is true that women tend to diffuse within research institutions specific elements (such as the attention to young researchers, a problem-solving orientation, capacities in team managing or the attitude to “keep the people together”) which are related to the sphere of “behavioural competences”, which are increasingly taken into consideration in evaluating the quality of a research institution. On the other side, stressing such women’s behavioural capacities may result in reinforcing old gender stereotypes on women scientists or in generating new ones.



THE ROUNDTABLE

The third session of the workshop was organised as a roundtable, aiming at promoting a debate among a group of invited experts and the other participants, also on the basis of the inputs from the workshop's previous sessions.

The roundtable was chaired by Inés Sanchez de Madariaga (UMYC, Ministry of Economy, Spain) and included a keynote speech, the presentation of a set of contributions, and an open discussion.

Keynote speech

The keynote speech was given by **Virginia Valian, distinguished professor at the Department of Psychology at the Hunter College of the City University of New York**. The core concepts used are those of gender schemas and the accumulation of advantages. Gender schemas provide a clearly differentiated portrait of men and women, where men are depicted as professionally reliable, ambitious and capable while women as nurturing, communal as well as oriented to care about other people. Schemas result in a slightly but consistent undervaluing of women in the professional domain and overvaluing men in lots of small ways. Those instances of undervaluation and over-evaluation seem to be unimportant at first, and not influencing careers. For example, they can emerge in the overlooking of women's opinions and suggestions. However, they add up over time so that women accumulate advantage more slowly and over time they fall further and further behind men. This process is largely supported by the tendency to deny the existence of a problem related to gender. According to professor Valian, this denial can take many forms and focus on different aspects, including the incapacity of women in professional life, the weight of the uneven distribution of responsibilities among women and men on childcare and family care activities, the lack of motivation and interest of women in pursuing professional objectives, or the tendency of women not to promote themselves nor negotiate for improving their own professional career. All these views are strongly biased. For example, the lack of interest and motivation of women in professional life is often maintained. However, it is to consider the strong influence of the environment in influencing and manipulating women's behaviours.



Many of them are very interested in ICTs and other male-dominated disciplinary sectors when they are undergraduate students, but afterwards the pressure of the environment can modify their orientations. Changing the environment is much more difficult than directly supporting women. In this way, initiatives (such as mentoring schemes) aiming at helping women get the "right" motivations, even though useful at the individual level, do not intervene on the real causes of the problem, which are of a structural nature.

Given this situation, there are many areas where improvements for women may occur. In particular, three areas can be considered: leadership, hiring and promotion procedures and everyday working life. As for leadership, many leaders lack the willingness to lead, limiting themselves to manage. Therefore, their orientation to structurally change the work environment in the direction of diversity and gender equality is limited too. There is the need to demonstrate the many advantages deriving from improving diversity levels, to show them what they actually can do for sustaining diversity, to transfer the right knowledge so that diversity could work.

Hiring and promotion procedures are a highly male-dominated domain. Defining clear criteria is evidently important, even though many are usually to add. However, their application shifts from candidate to candidate.

Experiments carried out on evaluation processes provided evidence about gender biases playing an important role in this process. Improving the situation is difficult, since this can be done only convincing leaders about the utility to change procedures. With reference to the everyday working life, this affects people's satisfaction, commitment and productivity. There are at least three domains characterising the work situation, in which women are more likely to be exposed to work-life instability. They respectively refer to the standards concerning the outcomes of the work, the procedures adopted (and therefore the rule, and consequently the level of transparency and fairness), and the interactions among people, which directly influence their productivity and commitment.

All these arguments and examples show how much gender schemas foster resistances to change and at the same time how much they are difficult to be countered. What is important is introducing new standards and teaching people how to intervene for introducing change. Even though leaders' involvement is important, no change can occur if only leaderships are involved. Activating change is moreover a long process. Some first changes are unlikely to emerge before some 5 years from the beginning of a project and clear changes not before 10 years (institutional changes may require even more time).

In her contribution, **Katrien Maes (Chief Policy Officer of the League of European Research Universities, Belgium)** firstly introduced the activities of the League related to the research careers of women and men (and how universities can support and retain them in the university) and on work-life balance. A working group on gender, lasted three years, was also established, the results of which were collected in a position paper.

One of the emerging points is putting gender issues into the university agenda. Another key point is developing a vision, a strategy and then an action plan on gender to be applied within the university. The involvement of leadership is another aspect which plays a pivotal role in making an institutional change possible, taking into account that start changing requires a long

time of engagement. However, a large support within the organisation is always necessary. Action plans, to be actually implemented, need to be operationalised in practical measures and structures. Similarly, there is the need to detect and evaluate the impacts of the activities carried out. It is also necessary to reach a balance about the data universities are asked to provide at institutional level and at national level in order to show gender dynamics and explain why change is slow.

Partnerships and mutual learning between universities, when meaningful and well structured, could be particularly helpful to activate structural changes by defining benchmarks and favouring exchange. Special attention should be also devoted to control staff composition, to evaluate contracts within a European frame, to develop appropriate tenure tracks. An effort is also to be made for demonstrating the positive effects of gender policies on the level of excellence, measuring research mixed teams' performances in terms of research quality, using a wide range of tools and not only assessing the publications.



Claudine Hermann (European Platform of Women Scientists, Belgium) provided a picture of her organisation and its main activities. The Platform is primarily engaged in participating in the political debate about women scientists, organising meetings and events, circulating information and especially doing networking activities. Another important sector is the production of position papers and documents to circulate in the political and scientific environments as well as benchmarking reports based on the deep knowledge that the European Platform has developed on the condition of women scientists. In general, the Platform interacts with European institutions and national governments to make the voice of women scientists heard. The Platform includes women scientists' networks, pursuing also

different objectives. Some of them, for example, are engaged in the promotion of science in general. As for the French association of women and science, it pursues two objectives, i.e., promoting science among young people (especially girls), and supporting women working in scientific and technological research sectors. The association also deals with stereotypes concerning boys' and girls' orientations towards science, the scientific education of youth, women in science and women's research careers. An important effort is also directed at disseminating information both on the association's activities and on women and science. Awareness-raising activities (mainly conferences) are carried out all over France about women's condition in university settings. For the 2012 presidential election, a list of 20 propositions was proposed to the candidates for collecting their point of view and is now used as a basis for the association's counselling activities.

Jadranka Gvozdanovic (Ruprecht-Karls University of Heidelberg, Germany) focused on the importance to combine qualitative and quantitative approach in order to be convincing on gender issues. One aspect is transparency. An example is given by the recent publication of data about the women's pay gap in Germany, which appears to be higher than the European average. This fact is not new at all, but lack of transparency contributed to keep it hidden to the majority of people. The minister immediately promised to modify the law concerning the dissemination of information on income, so as to increase transparency in this regard and facilitating the access to information. Evidence has been recently provided for instance that women's salary is 2% less than men's for the same job positions. This is not a high percent, but it is enough to produce an accumulation of disadvantages for women.

In addition to transparency, another key issue is that of monitoring the impacts of the policies devised on the whole university, paying attention to the differences among the sectors. For example, in evaluating such impacts, considering social sciences and humanities together may or may not be a good solution. In Heidelberg, social sciences departments and humanities departments are very different. For example, the leaky pipeline effect, in the case of social sciences, immediately emerges after the end of the studies. In this case, investigations should be made for understanding why the work environment does not attract women, thus analysing also what happens before girls finish their studies. On the contrary, in the faculty of Philosophy, the leaky pipelines process starts after that the PhD course has been completed. In the faculty of Modern language, this process starts even later, after the post-doc period. This shows the need to take different policy measures depending on the situation. This is the basis for identifying the measures to be developed, for clearly assigning responsibilities about their implementation and for developing effective plans.

Last point is that of viewing the gender equality as a value. It can be used and perceived as an incentive, both in the positive and also in the negative sense (for example, reducing research funds for the units and institutions where the gender equality balance is not so good).

According to **Alice Hogan (independent consultant, founding Director of the National Science Foundation's ADVANCE Program, United States)** the attempt made through the workshop to convene people working on structural change is particularly fruitful. It is to notice, in this regard, that, although different, structural change projects in Europe and those carried out in United States have many similarities. In a sense, the structural change programmes are more challenging, because there is the need to coordinate different universities from different countries, and this takes time.

On the other hand, this exchange provides interesting opportunities for exchange, bringing the change agents together to talk about strategies and perspectives. Having had the opportunity to be involved in the development of the first ADVANCE programmes since the beginning, she could observe the change process in the longer term.

Her speech was therefore focused on sustaining progress after the project ends, operationalising change. As the projects develop, in fact, policies change, as well as priorities, rules, funding. But if the change gets to be incorporated in the core strategies and policies of the University, then it is not necessary any more to fight each and every battle continuously. You always have to fight, but not on every front. Project promoters tend to forget what the situation looked like when they activated the project. It could therefore be useful for them to always keep in mind how it was when there were no policies in place. Actually, in evaluating programmes such as these, there is the need to evaluate them against the initial situation. Often, there was not the time in the ADVANCE programmes to do this when the projects were running, because there were so many things to do and everybody was in a rush, while it would have been really good to have someone looking analytically into the process and recording things, so to allow a reflection of the people involved.

As for changes in the structures, some institutions actually activated structural change by operationalising the outcomes of some of their actions in structures and rules. There are now offices where there were none, and people in the offices having the responsibility to deal with these issues. There is accountability. This usually involves some form of regular data collection. Without the data, it is difficult to get to the point. That is one thing that seems to continue even after the projects ended, with someone in charge of analysing the data and telling people what is happening. It is important to note that individual units are interested in their data, and much less in data collected in a way that avoids the identification of the different groups. So there are institutions that have been figuring out how to do that in coordination with the individual departments at the University, so to provide data that are very close to their interests and needs. Also, in many places there are on-going forms of education and training of people in committees, usually those in charge of recruitment, and also department chairs.

Then there are changes in policies. Some of them regard very specific issues, which might be more relevant in the United States,



such as the option to have a tenure track extension. This implies that if you are having a family need, you don't have the need to ask for an extension. You can choose not to, but you don't have to ask. This stimulated a whole discussion. Also, there are many places that now require that in the process of identifying candidates and invite them to the campus for interviews they must consult a national database, to know who is available for that position, what kind of people. This is to avoid people saying that there are no women available for the position. To have change take roots, it is also important that you check how the new policies are managed, and if they are applied in the departments. Because many times it happens that the University works hard to develop very nice policy for maternity leave, but then chairs are discouraging people to use them, for instance by saying: we do have maternity leave, but this will work against you when you will look for tenure. You therefore also need to be able to manage the policies. Besides changes in structure and policies, there have been changes in practices. There have been many people who were so impressed by the impact of relatively small changes that they continue on that, because these really support the quality of their departments. The engagement with scholarly literature is something which for instance really worked very well as concerns involving men. Giving men and women, in this case especially men, the opportunity to access data and scholarship on these issues, and allowing them to work with them in a very familiar way for an academic, helps a lot, because they feel it is not something to blame them, but it is driven by knowledge: now they have an information they didn't have before, and can act accordingly. Thanks to the ADVANCE programme, Presidents and Provosts at the University are now expected to be knowledgeable about bias in hiring, evaluation etc. This is particularly interesting. One of the aim of the programme was in face change the conversation about this, and this is probably a success. There is also a wider recognition that mentoring is important, whether you do it with a circle of advisors or differently. However, mentoring programmes are ever more sophisticated. To conclude, some keys to sustainable change, as they appear from the ADVANCE experience. First of all, access to scholarly knowledge, crucial to engage men, who also get credit for this, which is important. Then, the work for equality must be seen as something adding quality to the department,

contributing something that they could not get in another way: for instance, a national standing. And of course it is always necessary to have both institutional and financial support. Leadership transition is a challenge, even though we have to know this will always happen, and the work is never finished. The more things get institutionalised, the easier it is to manage transitions. It is important also to know that change takes longer than the programmes.

In many ADVANCE programmes, such as for instance at the University of Michigan, figures did not get better in the first years, something even worsened. But then after additional time, progress started to appear in all groups. For this reason, those who are doing evaluation should consider the longer timing of change.

Evaluation should go on for additional time after the end of the project, and it would be important to have some additional funding attached to this.

Paul Walton (University of York, United Kingdom)

presented himself not as an expert on gender equality but as a head of department who was in charge when the process aimed at getting an ATHENA Swan golden medal was implemented. For five years, the Chemistry Department of York has been the only golden award winner in the UK. He would have never expected he would have been get involved in gender issues, while by now he gave more than a hundred talks on that all around the UK and Europe. It has been a 10-year long experience, and he was in charge in 6 out of 10 years in that period. They set out in the late 90's, early 2000's. Two objectives were identified at the beginning of the process: closing the women men pay gap and removing the leaky pipeline. It was important to understand how to do it, and we decided to do it on the basis of the social science research, so to stop guessing and instead learning from the social scientists what are the things can make a difference. We particularly focused on the role of unconscious bias in our day-to-day activities like selection, recruitment, promotion, and the like. We made this the leitmotiv of all our action, integrating it in all our regular operations.

It took a while, but things started to change and they changed almost automatically. There was much less acceptance of marginalizing women in the department. There was a better dynamics in meetings, a better way to take decisions, a better promotion system.

As for key issues: mobilising leaderships is absolutely the key of this process, the key for starting motivating people toward working on their unconscious bias. And then using the social sciences. We also tried to keep it simple. We did not invent a lot of policies and rules, focusing on unconscious bias. And then from that, interestingly, over a period of time, policies developed. The most important one was supporting career flexibility. We guaranteed that people, at any point of their career, could decide to go part time for whatever reason, and they could always decide, in any point of their future career to come back full time. This was a crucial measure. We also shifted from quantitative to qualitative as a measure of academic success. We don't ask people the full list of their publications, but just the those they consider the most important.