



Female Empowerment in Science and Technology Academia

## EXPERT REPORT WP4.2

**Methodologies and measures for analysing informal  
decision-making and communication processes**



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## Executive Summary

The purpose of FESTA is to affect structural and cultural change in higher level education and research institutes, and particularly in their decision-making bodies and processes so as to create more transparent and inclusive decision-making processes, which will advance gender equality (FESTA, 2012).

Specifically, this Deliverable reports the advancement of the first stage of activities related to Work Package (WP) 4.2. Four partner institutions are involved in this Work Package: FBK (Fondazione Bruno Kessler), an Italian institute of research employing around 500 researchers; ITU (Istanbul Technical University), a Turkish technical state University employing around 2300 academics and with an enrolment of around 30000 students, SWU (South West University), a Bulgarian University with around 14000 students and 800 faculty members, and UU (Uppsala University), located in Sweden and with a body of 45000 students and with a teaching staff of roughly 1800.

Work Package 4.2 aims at increasing transparency and inclusivity in the informal decision-making and communication processes in the research units and at enabling/creating an enduring transformation of the organisational culture favouring a more active participation of women in all the decision-making and communication processes.

In this first stage we directed our efforts towards two intermediate goals:

- a) Establishing an operational methodology for analysing the impact of informal communication and decision-making processes on the life of the basic (research and teaching) units of our target institutions.
- b) Formulating policy amendments aimed at changing the status quo in situations where participation and transparency were lacking.

In order to achieve these goals, and coherently with the content of the WP, we decided to pursue these target by means of a participative technique, involving the members of our research case studies in both efforts. We believe that a direct involvement of actors at the research unit/department level was crucial because of their high contextual knowledge, which is necessary when trying to understand the impact of informal communication and decision-making processes, and because of their ability to actively suggest and implement policies to improve inclusivity and transparency.

This need for participation also meant the need for a direct interaction of academic personnel at all levels with the FESTA team. This was achieved by:

- a) Selecting a meaningful (but manageable) subset of focal units to interact with;
- b) Selecting members from such units as informants of the research;
- c) Interviewing informants on the internal mechanisms of communication and decision-making of each unit/department, by using a common framework, in order to adequately map these processes;
- d) Summarizing the information thus obtained and verifying it with the interviewees in a second stage, so as to validate the information and to spur debate on possible changes (policies) to implement within each unit/department;
- e) Discussing these policies and helping proponents in their implementation.

Examples of the proposed policies, as implemented thus far, are:

- Sharing information about structural changes of units/departments in a pre-arranged way (i.e., mailing lists, newsletters).
- Preparing official documents such as meeting agendas and minutes in languages accessible to all potential participants (i.e., normally add English as an official language for communication).

- Organising celebrations in case of successes (i.e., PhD theses defences, obtaining large tenders, been awarded important funds for research projects) and propose leisure activities to reinforce camaraderie within the unit/department.
- Establishing a common free timeslot in the weekly schedule to promote participation to meetings.
- Developing informal strategies and open campaigns to promote the appointment of women in committees and boards.
- Creating institutional support structures (for example, to initiate the establishment of a centre for gender studies, a gender office and a network of people interested in gender issues at the university)
- Providing information about initiatives and solutions supporting female researchers from other European universities and research institutions.
- Transforming some currently opaque decision-making processes into more transparent ones (i.e., establishing clear, ex-ante criteria in fund allocation; detailing the required activities of PhD students)
- Continuing meetings with the units/departments to offer support to implemented changes which are underway.

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## CHAPTER 1. INTRODUCTION

Female Empowerment in Science and Technology Academia (FESTA) is an action-research project concerned with implementing changes in the working environment to create organisational climates where female academics and researchers are valued and fostered. The seven different partner institutions in FESTA are taking actions on some core issues, which have rarely been directly addressed in previous research or implementation projects. These core issues include examining the daily environment of researchers, formal and informal decision-making processes, meeting cultures, PhD supervision, perceptions of excellence in hiring processes and in the work environment, and resistance to equality measures (FESTA 2012:3). The goal of FESTA is to effect structural and cultural changes within universities and research institutions, to implement those which are inclusive and transparent, and which eliminate barriers to women's advancement.

FESTA includes five project tasks, four of which consist of two subtasks each: WP3 Raising Awareness (WP3.1 Raising individual awareness; WP3.2 Raising organisational awareness); WP4 Gendering Decision-Making and Communication Processes (WP4.1 Formal decision-making and communication processes; WP4.2 Informal decision-making and communication processes); WP5 Hidden Assumptions in Definitions of Excellence (WP5.1 Monitoring excellence in hiring processes; WP5.2 Excellence in the daily working environment); WP6 Improvement of Interactional Patterns (WP6.1 Improving meetings culture; WP6.2 PhD supervision); WP7 Dealing with Resistance.

Within the structure of FESTA, our task in Work Package 4.2 is to analyse those communication and decision-making processes which are informal in nature, that is they are not informed by specific formal regulations, such as State laws, internal statutes, procedures and other regulatory sources, and propose changes in policies that might impact these processes when they represent obstacles hindering the potential of women and other minorities. Namely, within this Work Package, we aim at:

- increasing transparency and inclusivity in the informal decision-making and communication processes in a research unit (team, department, faculty, etc.);
- enabling/creating an enduring transformation of the organisational culture that should favour a more active participation of women in all the decision-making and communication processes. With other words, the goal is to effect structural changes of decision-making bodies and decision-making processes to improve the situation within the Science & Technology (S&T) and research institutions, for the women working there.

Four partner institutions are involved in this Work Package. FBK (Fondazione Bruno Kessler), an Italian Institute of Research employing around 500 researchers; ITU (Istanbul Technical University), a Turkish technical state University employing around 2300 academics and with an enrolment of around 30000 students, SWU (South West University), a Bulgarian University with around 14000 students and 800 faculty members, and UU (Uppsala University), located in Sweden and with a body of 45000 students and with a teaching staff of roughly 1800.

### 1.1. Motivation

In this deliverable, we analyse the informal aspects of communication and decision-making mechanisms, and their consequences for the role of female scientists in academic institutions.

The mechanisms of communication and decision-making constitute two fundamental organisational devices to regulate large institutions. Traditionally (Roethlisberger & Dickson, 1939; Lawrence & Lorsch, 1967), organisational theory has identified a distinction between formal and informal practices in the decision-making activities in complex institutions. This distinction is intuitively easy to understand, still, tracing the complexity of the interactions between formal and informal aspects of

governance and decision-making in any specific organisation is crucial in order to understand the practical consequences of any policy introduced with the aim of changing the organisation itself. This distinction becomes even more critical when trying to design policies directly aimed at changing the fundamental tenets and basic beliefs of the members of such an organisation, whenever such beliefs are deeply rooted in culture and society at large. Undoubtedly, the participation of female scientists in academia is such a case.

Generally speaking, formal organisation comprises a set of prescribed roles and linkages between roles, for instance as set forth in job descriptions and reporting relationships (Scott, 1998). Informal organisation refers to the emergent patterns of individual behaviour and interactions between individuals, as well as the norms, values and beliefs that underlie such behaviours and interactions (Roethlisberger & Dickson, 1939; Smith-Doerr & Powell, 2005). However, there is a close link between formal and informal organisation. Formal organisation affects informal organisation via its effects on who interacts with whom. Formal organisation, by definition, emphasizes some interactions over others. Grouping, for instance, is a basic mechanism that collects formal roles together within organisational boundaries, on the basis of some criterion. The purpose of grouping is to structure coordination by limiting interactions between members (Thompson, 1967). Linking mechanisms, on the other hand, specify interactions between groups. These include reporting, workflow related relationships and communication. Grouping and linking mechanisms may often be reinforced by collocation, and reward mechanisms (Wageman, 1995). By emphasizing some interactions over others, grouping and linking mechanisms can strongly influence the shape of the emergent informal organisation. This is because the likelihood of informal tie formation between individuals increases with closeness and the frequency of contact (Smith-Doerr & Powell, 2005). Further, because formal groupings and linking mechanisms are organisational structures with identifiable boundaries, membership results in the sharing of values, norms, and beliefs specific to that membership (Lawrence & Lorsch, 1967).

Despite the existence of this tendency towards consistency between these two layers, there may be significant lags and even permanent limits to the adjustment of informal organisation to the formal organisation. Prescribed roles may be changed by administrative ruling, but the surrounding informal elements associated with the role may persist for some time (Gulati & Puranam, 2009). Culture, defined by a set of values, norms, and beliefs changes through exposure to new organisational members and organisational tasks, but again, not instantaneously (Becker & Geer, 1960). The adjustment of the informal organisation to the new formal organisation may be subject not only to lags (as described above) but also to permanent limits. In particular, the values and mission of the organisation is likely to crystallize key informal elements such as the values and premises that guide decision-making (Baron, Hannan & Burton, 2001).

This relationship becomes crucial when we examine organisational issues that might be understood and represented as problems that hinder the efforts aimed at reaching its institutional goals by the organisation itself. In this case, the normal strategy is that of designing policies aimed at aligning organisational practices and values, by openly removing such problems. Female participation in academia might be such a case: most higher education institutions formally adhere to the fundamental value of promoting female participation in their activities and thus tend to explicitly formulate policies formally addressing the problem. However, in line with what happens for most organisations (Gulati & Puranam, 2009), there are many reasons to believe that the consequences at the informal level of such interventions might be under-analysed and their effects underestimated.

For all of these reasons, we believe that a careful analysis of the informal layer in organisations is of paramount importance if we intend to implement policies which are actually capable of transforming organisational communication and decision-making practices in the direction of improving inclusion and transparency.

## 1.2. Goal and Scope

As outlined in the previous paragraph, informal processes are pervasive in the life of all kinds of organisations. We believe that special attention should be paid to these processes in academic institutions, both because informal norms can have an ambiguous relationship with formal policies aimed at transforming the organisations themselves, and because academic institutions often aim at fostering a participative and democratic inclusion of its members in their governance. Because of these reasons we set two specific goals for our work: (i) the need to specifically analyse the levels of inclusivity and transparency in communication and decision-making processes in academic organisations; (ii) design a set of policies aimed at fostering participation through an increase of both transparency and inclusivity.

Although there is no consensus on the role of transparency and inclusivity on the quality of organisational decision-making in the literature, we here work from the assumption that one of the main reasons for the evident gender divide in academia is relative lack of participation by women, and their tendency to be locked out of the inner groups governing many critical processes by means of informal decision-making. Examples of informality in critical processes abound in academia and they share the common element of preceding and informing subsequent, formal steps. Decisions about fund allocation for personnel recruitment, the allocation of personnel to research projects, the definition of agendas for formal meetings, for instance, are all characterised by this dual process in most of the institutions we are familiar with. Formal steps in these decision-making processes are always present, but typically in the form of a ratification of decisions partly taken outside the official channels. However, women are not, obviously, the only excluded group in these institutions. Groups who are not represented and which, therefore, cannot partake in these decisions vary across institutions but they all share the same problems of being excluded and of being unable to read the decision-making processes affecting their professional lives.

On the basis of these assumptions, we decided to focus on large research and higher education institutions and to concentrate specifically on transparency and inclusivity in decision-making and communication at the informal organisational level.

As our goal is to promote effective change, we designed the tasks of this Work Package sequentially, starting with an analysis phase and then moving to a policy-making phase. In this deliverable we present mainly the analysis we conducted at four higher education institutions in our countries, with some remarks on the adoption of policies coherent with our analytical framework.

The analytical phase was conducted with two very practical concerns in mind:

- identifying critical informal processes shaping the academic life at each institution, and understanding the structure of these processes in terms of their interactions and their meaning in the local context. Specifically, we tried to establish the place these informal processes occupied in the complex decision-making and communication structures at each institution, the actors that are included and those who are excluded (with a specific attention to the role of women) and the main outcomes that are affected by these decisions.
- understanding the relationship that the people involved with – or excluded from – these processes have with their informal aspects. Specifically, we tried to understand the level of awareness and acceptance about these processes at all hierarchical levels of the organisation.

In the part of this deliverable oriented towards the setting of policies, we used the data collected in the analytical phase to help policy-makers within the institutions design new organisational practices aimed at increasing transparency and participation in ways that would improve the communication and decision-making processes themselves. It is useful to keep in mind that, in most cases, we were

just able to influence decision-makers and to lobby for change, but had no first hand control on the outcomes.

Moreover, we would like to offer the reader two points of attention that could serve as a guide to interpreting both the individual reports compiled by each member institution and the specific policies chosen by them.

The first such point regards the adoption of different uses of the “formal” and “informal” terms. In this deliverable, we do not intend to contribute to the scientific debate around the formal/informal conundrum. Rather we need to make sense of its practical implications in the implementation of the policies identified by each research partner.

Now, it becomes apparent that the different semantics of such terms matter. A close inspection of the reports about the four institutions we targeted (see Appendix B) makes it clear that people answer to questions regarding workplace informality differently because of the different meanings attributed to the term. We can speculate that this is due to different cultural sensitivities about what matters and what does not in terms of formal and informal decision-making (just to offer an example: issues which are regarded as “taboo” vary dramatically in the different institutions). At the same time, it is obvious, by reading the individual policies generated by each member organisation, that, often, such policies work precisely around the idea of moving more decision-making practices from the realm of informal to formal practices.

The second point refers to the differences in nature and scope of the policies proposed by each institution. In principle, one would expect a set of policies of comparable scope and character, given the shared design of our work for WP4.2. However we should clearly point out that the different institutions chose to operate at different levels because of different perceptions about the origin and scope of the problems about decision-making fostered by each institutional decision-making structure. So, some of the partners (mainly ITU and SWU) focus more on decisions and problems originated at a macro level. Others focus more at the meso (UU) and micro (FBK) levels. Again, if we agree that heterogeneity at the contextual and institutional levels are key variables to explain differences in the representation of organisational problems, this outcome should not be surprising for the reader.

Finally, throughout this report we decided to maintain a gender neutral approach to reporting, using the s/he, her/his (and so on) convention. However, we deemed it necessary to still use gendered pronouns when knowing the gender of the actor was clearly needed to have a better understanding of the implications of what she or he was referring to.

### **1.3. Structure of the deliverable**

The structure of this deliverable will be the following. In the next section we will introduce some of the scientific background we used in this deliverable. It will regard both the general issue of the relationship between gender and participation in academic institutions, both real and perceived, and the specific topics of inclusivity and transparency in communication and decision-making that we used in order to conduct our preliminary analysis and subsequent policy implementation. Section 3 illustrates the methodological choices we made, with an emphasis on the challenges that implementing a common framework in four very different institutions presented. Moreover, we describe in this section the participatory process that we employed to elicit from scientists themselves the proposals for useful policies aimed at increasing participation and inclusion in communication and decision-making norms at their institutions. In section 4 we offer a summary of the evidence emerging from the partner institutions, focussing on the main similarities and differences between institutional and organisational contexts of the research units under analysis,

and identifying some of the main issues emerging from these comparisons. Section 5 presents some preliminary results we obtained from the implementation of pilot policies at our institutions that were partly prompted by the issues identified in the previous chapter. Finally, we offer some general remarks and methodological observations in section 6. Moreover, in Appendix B, we provide a fuller overview of the evidences emerging from each unit under analysis for the benefit of the reader looking for a more fine-grained level of detail in our observations.

## **CHAPTER 2. SCIENTIFIC BACKGROUND**

In this section we aim at reviewing the major contributions in the literature which have investigated the topics of inclusivity and transparency in decision-making and communication in academic research institutions. We mainly analysed the literature on work conditions in the STEM (Science, Technology, Engineering and Mathematics) fields, but also chose to include a few contributions offering a broader perspective on the topic. Likewise, while we are particularly interested in scholarly contributions at the crossroad between the above-mentioned topics and gender, we do not firmly restrict our review to gender studies in work environments. The rationale for this choice is that inclusivity and transparency are work related factors contributing to the overall organisational well-being (Cartwright & Cooper 2008).

### **2.1. Decision-making in higher education institutions**

The quality and effectiveness of decision-making activities and processes occurring in academic and research institutions have long been recognised as one of the major source of competitiveness of *Higher Education Institutions* (HEIs). There is growing evidence that, in order to adapt to increasing environmental and competitive pressure, HEIs are innovating their governance structures by simultaneously decentralizing their organisational structures and centralizing important decision-making activities (Rixom 2011). At least two approaches have been developed in the literature to describe decision-making processes in HEIs. The first stream thinks of universities and other research institutes in terms of grass-roots, anarchic, spontaneous organisations where decision-making is largely conducted in an unstructured and informal way, and where decisions emerge from local interactions by peers (Cohen et al. 1972). Others look at HEIs decision-making in terms of more orderly and structured processes (Shattock 2003). Many authors have suggested that, rather than being alternative, irreconcilable approaches, they can offer complementary views of the phenomenon (Pinfield 1986). Overall, there is a shared view on the rising role of professionalization and managerialism resulting in increasing structured decision-making processes in HEIs (Rixom 2011). This growth of formal structures and processes notwithstanding, the informal side in decision-making and communication processes seems to still critically characterize the inner workings of HEIs.

### **2.2. Informality in decision-making and communication processes**

Many studies have shown the existence of rather different models in managing decision-making in research intensive institutions (Taylor 2006) and some have observed that the larger the institution, the more formal and structured decision-making processes tend to be (McNay 1995, 2002).

Many scholars have pointed out that in the recent years increasing centralization and formalization of the decision-making processes have steered HEIs towards systems with clear administrative procedures and norms aimed at addressing performance and accountability concerns (Brennan and Shah 2000; Kogan 2000; Rhoades and Sporn 2002; Yelder and Codling 2004).

Despite such increase in formality, there is also ample evidence of the intertwined relationship between formal and informal processes of decision-making, which have been observed in many fields and which characterize how large institutions reach consensus (see, for instance, the evidence on governmental bodies, such as the EU Council, Heisenberg 2005, Popa 2010), Several studies have also highlighted how workers rely on informal networks and informal decision-making processes to support and complement formal processes of decision-making and communication (Liebeskind, Oliver et al. 1996). In this line, gender studies have suggested that male gendered practices, such as relying on “old boys’ networks”, seem to be in place, favouring males over women capabilities in the exercise of influence in decision-making activities (Asmar 1999). In some cases, for instance, it has been observed that men in the workplace engage in male “bonding”

activities which set the tone for further interaction where female researchers are marginalised and excluded (Miller 2004, Martin 2001).

When such informal patterns of socialization pave the road towards informal patterns of decision-making which deliberately exclude female colleagues from the conversation, the introduction of more formality (in terms of rule, regulations, processes, committees, and such) can be seen as a solution to lessen the gender (or minority) divide rooted in informal decision-making activities.

Other contributions have suggested that these trends towards more structured decision-making need to be correctly balanced with the issue of motivation of HEIs workforces. These are traditionally viewed as independent, creative workers and HEIs performance ultimately depends on the productivity and scientific achievements of their members. Some scholars are concerned that the recent reorientation towards accountability, rigorous control and monitoring might partly reduce researchers' intrinsic motivation for their jobs. (Dearlove 1998; Ramsden 1998; Rhoades and Sporn 2002; Middlehurst 2004).

Many gender studies in the STEM field have highlighted that informal interaction processes are at the core of many systematic patterns of marginalization and exclusion of female researchers from decision-making and communication processes (see Rethon 2009 for a review). For instance, access to critical resources and to productive research networks for female researchers can be strongly harmed by deliberate acts of exclusion by male colleagues (Beoku-Betts 2006; Fox 1991; Rosser 2006). Findings such as these call, according to many scholars, practitioners and policymakers, for policies aimed at increasing the inclusion of female researchers in the workplace.

### **2.3. Inclusivity in decision-making and communication processes**

Previous studies have highlighted how academics value participation in decision-making processes (Shattock 2003; McNay 2005) and how the overall quality of decisions which are taken depends on the degree of openness and transparency of such processes. In particular, for decision-making processes in research and academia to be effective, and to enlarge consolidated views on a topic, the incorporation of multiple perspectives is viewed as important (Morrison and Milliken 2000). According to many authors, in academia decision-making should be inspired by the principle of transparency which allows relevant decision makers to take informed decisions based on appropriate information (Rowley and Sherman 2003; Breen, Fetzer et al. 2005; Scott and Davis 2007). Several theoretical studies have shown how diversity in participation and involvement in decision-making processes allows for the selection of higher quality solution in complex tasks and organisational environments.

The results of systematic exclusion of female researchers from such processes, in the academic field, have not only the indirect effect of decreasing the overall quality of decision-making outcome at the institutional level, but also pose direct harmful effects in terms of research opportunities, scientific productivity, and, ultimately, promotion and career advancement of female researchers (Zuckerman 1991). Moreover, when female involvement in decision-making occurs, gendered patterns of inclusion are often observed: for instance female researchers tend to be engaged more in menial, service-typed duties rather than in strategic ones, as in the case of sitting on committees (Sheridan 1998). Such kind of participation, rather than being career enhancing, seems to be scarcely valued in promotion and tenure advancements and further burdens the activities of female researchers (Rossers 2006).

#### 2.4. Gender inequalities, transparency and inclusivity of decision-making and communication processes in the STEM fields

Marginalization of female researchers in decision-making and communication processes, both formal and informal ones, can also be traced back to the more general phenomenon of unbalanced presence of women in the STEM field. The field of science and technology is, amongst others, affected by a particularly striking underrepresentation of women in leading positions (Ceci & Williams, 2011). Many reasons for this inequality are known and subject to enduring discourse: a gendered socialization system, differences between the genders in the level of family support at the start of the career, biases in individual career choices, evaluation practices and employment conditions, to name a few (Bennett, 2011; Feeney & Bernal, 2010). There is also a broad consensus that embeddedness in academic social networks, notably informal networks is both crucial for doing research and for achieving a successful career (Kegen, 2013).

The so-called *pump-priming* hypothesis that upward mobility in the professional ladder would occur naturally once entry was assured has remained unfeasible and facts have contradicted expectations as actually in science careers relatively many more women than men are lost at every transition stage. This loss, known as the *leaky pipeline*, has been - and still is - a long-standing issue of concern in STEM fields (Etzkowitz & Ranga, 2011). Vertical progressions still represent a path crossed by too many obstacles that hinder breaking the so-called *glass ceiling*, defined as the artificial barrier beyond which women's careers hardly go. It is the unseen yet unbreakable barrier that keeps women from rising up the career ladder, regardless of their qualifications or achievements (Cotter, Hermsen, Ovadia & Vanneman, 2001).

Studies on perceptions of appropriateness of scientific careers for women offer a cultural explanation of gender differences in perception that leads to different career choices (Fox Keller, 1995). This attribution stems from cultural beliefs about what is perceived as "appropriate" or "typical" for each gender in society. These beliefs, in turn, shape perceptions and lead individuals and institutions to make choices and take actions which are coherent with the perceptions themselves.

Gendered perceptions tend to produce organisationally relevant biases in judgment (Feldman-Summers & Kiesler, 1974, Martocchio & Whitener, 1992, Bendick et al., 1991). Moreover, stereotypes, fuelled by cultural beliefs, are intrinsic factors identified as causes for the female underrepresentation in the STEM fields. On a general level, cultural beliefs of gender can bias not only individuals' understanding of others but also self-perceptions of their own role, competences and performance (Katila & Meriläinen, 1999). More specifically in the STEM domain, shared gender stereotypes such as "men are 'naturally' more talented than women at math" and "math equals male" influence aspirations and achievements of both men and women, advantaging the former and hindering the latter, who report less interest in such domains and are less likely to choose a degree in a scientific field. Unwelcoming to women is also the extent to which STEM fields themselves are assumed to embody stereotypes that are incongruous with a "proper" female gender role which openly conflicts with characteristics that are expected from a scientist (e.g., total devotion to the lab). In other words, according to stereotypes on gender and science, differences in men's and women's self-perception of task competence are found to foster gender differences in choosing specific career trajectories and in commitment to paths leading to that career, even when controlling for commonly accepted measures of actual performance. For instance, several studies have indeed shown that men tend to assess their competences in STEM related tasks higher than women do, even when test scores are the same (Correll, 2001). Considering that a relevant antecedent to entering a field is anticipating success in it, female underrepresentation in STEM domains can be explained also through women's underestimation of their abilities to be successful in those fields (Cheryan et al., 2011).

Overall, decisions to commit to a career in STEM-related fields are strongly influenced by cultural beliefs that, in turn, end up shaping women's self-perception, thus reducing participation and fostering a perception of inferiority in women who do, in fact, engage in such professions. However, this direct influence over individual choices is not the only effect of such shared cultural beliefs. In fact, many studies have found a strong impact of such biases also in the way institutions promote practices reflecting the values of these beliefs.

Existing literature shows that male scientists may exclude women from professional networks, devalue women's scholarship, and make women feel unwelcome and disrespected (Etzkowitz et al., 2000) because of sets of disciplinary norms that are perceived as being coherent with the profession (Rothon, 2011). For instance, these norms typically dictate that scientists are decisive, methodical, objective, unemotional, competitive and assertive; that scientists adopt a work style that demonstrates complete dedication to their work at the expense of any other obligations—a pattern most often possible for men, as family duties are more likely to fall on women (Acker, 1990).

In turn, these expectations hinder the process of inclusion of women, specifically as they climb their career ladder. Ragins and Cotton (1991), for instance, underline the difficulties of women in gaining access to quality mentorship in organisations. Whereas a paucity of candidate female mentors is an obvious explanation for this difficulty, there is also a perceived discrimination felt by women who have the added problem of having to cross the gender barrier to initiate a relationship with a possible mentor.

Alongside individual choices reducing the intention of women to enter the job market for STEM professions, there is a tendency of cultural beliefs to shape norms and expectations used by institutions which tend to reward behaviours and practices which have strong "masculine" connotations (Etzkowitz et al., 2000) diminishing the chances of successful careers by females. This phenomenon, thus, works on the "demand side" of the labour market reinforcing individual career choices. In turn, by means of the usual mechanisms, these practices inform individual and social expectations within the organisation.

## CHAPTER 3. METHODOLOGY

The chapter intends to offer insight on the way we ran the mapping of the informal decision-making and communication processes - within academic and research organisations - with the goal of improving inclusivity and transparency in those processes. We start by describing the methodological process, in terms of guidelines, procedures and instruments that we adopted during the mapping exercise, together with the description of the case studies and of the samples of interviewees. Finally, we present the operational steps we followed, as well as the related warnings.

### 3.1. The methodological process

In the present study we have considered three analytical layers. The first layer regards our ability (or rather, the policy-makers' ability) to evaluate the effectiveness of the set of policies that are enacted to increase the transparency and inclusivity of the informal decision-making and communication processes. The second layer regards our ability to develop and actually implement a coherent set of policies. The third layer regards our need to understand how current informal communication and decision-making practices actually occur and influence the life of the research institutions that are part of the project. Specifically, under investigation are the existence of impartialities in the access to information and the ability to influence decisions, both regarding goals (e.g., agenda setting) and means (e.g., allocation of resources).

The layers are ordered this way for two specific reasons. First, there is a need to be aware of the importance of policy evaluation if we want to convince top decision-makers that we intend to offer a comprehensive approach to organisational change, giving them the metrics to evaluate the effectiveness of the suggestions stemming from our work. Second, policy evaluation can be conducted with more ease if we incorporate some critical features in the first two stages of our project. For the above-mentioned reasons, it was crucial to design our research strategy with those critical features in mind.

#### 3.1.1. Policy evaluation layer

Since the final intended goal of this analysis is to produce a set of policies aimed at increasing transparency and inclusivity in the informal decision-making and communication processes, we maintain that it is both useful and necessary to develop and implement policies that are going to have an impact on a selected subset of researchers/units in each institution. This subset works as a testbed for the policies.

The 'useful' rationale for this choice is that if we introduce a policy across the whole organisation, we cannot infer much on the ability of that policy to change a specific behaviour in a given amount of time. The practical – and 'necessary' – rationale is that we do not have the resources to conduct our in-depth analysis on the institution as a whole.

#### 3.1.2. Policy setting layer

Our policies need to be oriented towards two goals: increasing transparency and participation, which can be regarded as a relatively short-term and discrete goal, and changing culture, which is definitely long-term and more difficult to pinpoint *ex ante*. In fact, one might claim that the second goal can be achieved, at least partly, building on the achievement of the first goal. Ideally, in this layer, we should, at the very least, enable our institutions to generate and enact policies aimed at improving transparency and inclusivity. The coordination with the decision-makers in each institution (at the different, appropriate, levels) is needed in order to develop and implement the possible viable policies oriented at solving the discrete problems detected through the analysis of communication and decision-making patterns.

### 3.1.3. Communication and decision-making analysis layer

Detecting and reconstructing decision and communication processes is conducted at each partners' organisation, according to a shared methodological framework which entails:

- a) identifying case studies within each institution (either research units or departments or subdivisions) as the main focus of the analysis. Ideally these units need to present a level of variance across some critical criteria (varying degrees of gender distribution within the unit, leadership – in terms of gender and level of awareness on the inequality problem, relative wealth in terms of research funds available);
- b) performing in-depth interviews with members of the targeted units, in order to:
  - reconstruct, as carefully as possible, the actual practices about information exchange and informal decision-making;
  - collect data on perceptions of inequality in the access to information and in decision-making.

With this common framework in mind, we were flexible in terms of the number of units involved, number and positions of the interviewees, the methods used to conduct such interviews (or whether to complement such interviews with other data collection), which are clearly dependent on contingent factors such as the specific characteristics of the context studied. Hence, we let the particular characteristic of the specific context studied influence, to some extent, the specific framework adopted by each partner.

Overall, the analysis process we followed can be represented as in Figure 3.1.



Fig. 3.1. The analysis process for the mapping of the informal decision-making and communication processes

### 3.2. Qualitative case study methodology

For mapping the informal processes of decision-making and communication we adopted a case study approach that allowed for the understanding of complex issues, emphasizing detailed contextual analysis of a limited number of events/conditions and their relationships.

The case study method is defined as an empirical inquiry that investigates a contemporary phenomenon within its real-life context and it is expected to capture the complexity of a single case. The case is a relatively bounded object or process and, at a minimum, is a phenomenon specific to time and space. It can be purposefully or analytically selected, in virtue of being information-rich, critical, unique or extreme (Ragin & Becker, 1992).

Specifically, the analysis of a case study is suggested when (i) the focus of the study is to answer “how” and “why” questions; (ii) the behaviour of those involved in the study cannot be manipulated;

(iii) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; (iv) or the boundaries are not clear between the phenomenon and context (Yin, 2004).

Contextual to our analyses, the case study approach helped us to investigate specific types of decisions, how they occurred and why they occurred in the way they did. Besides decisions, we considered also the contexts in which the investigated processes developed in order to provide relevant background information.

While choosing the case study approach we also considered the importance of transferability. Transferability describes the process of applying the operational steps and the outcomes of a research in one situation to other similar contexts and invites the readers of the report to make connections between elements of the presented study and their own experience/organisation. If there are enough similarities between the two situations, readers may be able to infer that the results of the research would be the same or similar in their own context. They “transfer” the results and the phases of a study to another context. To do this effectively, readers need to know as much as possible about the original research situation in order to determine whether it is similar to their own. Researchers must therefore supply a highly detailed description of their research situation and methods and this is specifically supported by qualitative research methods such as case studies, due to the degree of details they allow for.

### ***3.2.1. The case studies in FBK, ITU, SWU and UU***

Each partner institution set the criteria for the identification of the case studies for the mapping exercise of the informal decision-making and communication processes. Differences in the selected case studies can be traced back to specific traits of the various partners (e.g., FBK as a research institution vs. other partners as academic institutions) and to the different strategies used to engage with the management of their institution in order to maximize the institutional endorsement of the FESTA project. This also translates into different techniques in sampling informants and to gather data. Overall, the criteria to pre-screen, select and engage with specific units or subgroups of researchers/informants vary across the various FESTA partners.

Specifically, in **FBK** four research units (two per each scientific-technological research centre) are included as case studies for the analysis. Each of the chosen couple of units share characteristics in terms of the following parameters: number of total personnel, quality of the research units (i.e., scientific productivity, self-financing capability and excellence in their research area) and unit budget allocation. To ensure the identification of comparable units and the endorsement of the management, we performed pre-screening interviews with the directors of the two research centres and followed their suggestions. In what follows, we refer to those units as FBK1, FBK2, FBK3, FBK4.

**ITU** sent interview invitations to professors from a set of pre-selected departments to ask for their availability; The sample was defined only upon their answers. Seven departments have been at first selected for cooperation at the beginning of the FESTA project; at a second stage, two other departments joined the WP4.2 activities. Different female ratio is the main criteria for the selection of the departments. There is a high ratio of female academic staff at some departments and a low ratio of female academic staff at some of the other departments. There are also departments where there is equal participation of women and men. When the Turkish team started to organize FESTA presentation meetings and carry out the interviews, several changes occurred within the selected departments due to positive/negative responses that they received from faculty members. Consequently, the team had several opportunities to meet professors from other departments interested in FESTA, as well. In what follows, we refer to those departments as ITU1, ITU2, ITU3, ITU4, ITU5, ITU6, ITU7, ITU8, ITU9.

Two main subdivisions were selected from the **SWU** because of their STEM profiles. They consist of eight departments in total, organised in terms of specific scientific fields or groups of disciplines. The subdivisions as well as their departments are interconnected in many ways and by various means so that they constitute a specific community within the university. Gender distribution across the departments varies greatly between very high percentages of male or female academics to relatively equal or even proportions. The principal intention was to interview academics who participate in different forms of institutional life and know well the interpersonal environment as well as the decision-making mechanisms at different levels. Researchers with positional authority are not included because of the assumption that information obtained from “regular” members of the community who are subject of and mostly affected by informal processes could be more objective. In what follows, we refer to those subdivisions as SWU1, SWU2.

**UU** adopted a bottom-up approach, as the departments themselves volunteered to take part in the project. The self-candidature is seen as particularly crucial as their degree of involvement and interest in monitoring and possibly changing informal processes of communication and decision-making would affect their willingness to then accept changes. The heads of departments first got the information on selectable tasks via e-mail, then the FESTA staff had meetings with the heads and finally the heads gave their answers via e-mail. In all, three departments from UU, characterised by different gender distribution and different working methods (individual research vs. research in teams), participate in the study. In what follows, we refer to those departments as UU1, UU2, UU3.

### **3.3. Data collection**

Data were gathered by means of a qualitative methodological instrument, namely, semi-structured in-depth interviews. There are several reasons for this choice: they allow for the investigation of perceptions, attitudes, practices of the respondents with regard to critical, complex and sensitive issues and it enables investigating further information and clarification of answers. Also, a semi-structured interview is open and allows new issues to arise during the interaction. Such interviews can further be used to collect background information, such as factual material, data and description of processes. The semi-structured interview starts with general questions and further interrogatives can also emerge during the interview, within a pre-set framework of themes to be explored.

We developed an interview guideline and considered a list of questions and topics to be covered during the interview. We used open-ended questions, most of them suggested by the interviewer (“Tell me about...”) and some others generated spontaneously during the interview according to the topical trajectories of the conversation (“You have just said that ... can you tell me more?”). Questions were not asked in a given fixed order, rather they were driven by the conversation.

#### **3.3.1. Guidelines for the interview**

To conduct the interviews we have developed some common guidelines. We structured the interviews into four main dimensions within which specific questions vary according to the particularities of the partner institutions and to the position/role of the interviewees.

The four dimensions include: the two investigated topics, that is (1) the decision-making process and (2) the communication process; and the two modalities of relating to them, either (a) an active mode or (b) a passive mode. The intersection of these dimensions identifies four specific issues to explore, as indicated in Table 3.1.

Tab. 3.1. The four dimensions of the interview guideline

	<b>(a) Active mode</b>	<b>(b) Passive mode</b>
<b>(1) Decision-making</b>	[1a] Modalities of decision-making: how do I take decisions	[1b] Perceptions of decisions: how do I perceive decisions taken by others
<b>(2) Communication</b>	[2a] Modalities of communication: how do I communicate	[2b] Modalities of received communication and perceptions of the communication process: how do I receive communications; how do I perceive communications I receive

Within each cell/dimension (1a, 1b, 2a, 2b), we identified a set of questions and hot topics dealing with decisions on the allocation of resources, attribution of tasks and responsibilities, research agenda setting, fundraising, recruiting and teaching.

In addition to the common set of questions, partners were free to add key questions for grasping the spirit of what is going on at each specific institution. Some interview items, for instance, are unique in order to account for different missions of the specific institution (e.g., academic versus non-academic institutions) and for different position/role held by the interviewees (e.g., PhD student versus head of department).

Issues about transparency and participation were approached indirectly, in order to avoid forcing the conversation towards specific group members as the target of inclusion/exclusion. Even so, we included in our guidelines a very general question on gender aspects in the decision-making processes to understand the level of awareness on this specific topic.

Examples of common questions included in the interview guidelines are the following:

- Who decides on the allocation of funds to people and projects? What are the criteria?
- Who decides on people allocation to project and/or other tasks? According to what criteria and modes?
- How does the unit/department set its research agenda?
- Who decides on the space allocation? According to what criteria and modes?
- Have you ever been left out from important decision? What are the reasons?
- Do you consider yourself to be in the loop of the communication processes on budget allocation, project funding, etc.?
- Do you feel the existence of an “inner circle” with strong influence on decision-making processes in your department/faculty?
- How do you usually get to know about the decisions taken by others?
- What are the modes and styles of your communication?
- Can you see any gender aspects in the decision-making processes of the department/unit?

A technique known as ‘critical incident’ was used during the interviews. It is a qualitative research method, recognised as an effective exploratory and investigative tool, that helps to uncover existing events and to support the respondent to identify those actions, decisions and information which led to the specific investigated circumstance. It helps to explore significant experiences that allow for a better understanding of resulting behaviours and a more thorough reflection on some aspects that, at first, do not offer cues for much consideration. Questions such as “Can you refer to a specific

situation/example?”, “How did that happen? ... how did you feel ...? Why? And then?” were used to explore each relevant incident (Flanagan 1954, Hughes et al. 2007).

### **3.3.2. The sample of interviewees**

According to the specific organisational and decision-making structures of each institution, the four partners decided independently which and how many persons to include in the sample of interviewees; the number and kind of interviewees thus varies between the partners. Also different sampling strategies are adopted: extensive for small units (i.e., all members of the research unit were interviewed), convenient sampling for large departments (i.e., for each department, key informants were selected).

Specifically, **FBK** interviewed each member of the four selected research units (the head of the unit, all the researchers with different seniority, and the PhD students) in order to investigate the different career positions - and related perceptions and behaviours associated to the role - within the units. The first step was to organize a separate meeting with each of the heads of the involved units to present the scope of the project, to agree on the planned activities and to ask for her/his endorsement. They themselves were, then, interviewed according to the prepared guidelines. Subsequently, the rest of the staff was reached by means of an email with the presentation of the FESTA project and the request for availability to be interviewed. In all, thirty-three individual face-to-face interviews were conducted; some of them were conducted in Italian, some in English. Time and place of the interviews were agreed through Doodle polls or individual emails; they all took place in the institution offices during spring 2013. On average, interviews lasted about one hour (see Table A1 in Appendix A).

Within the nine departments selected for case study by **ITU**, sixteen individual face-to-face interviews were conducted mainly with professors who play important roles in the organisation's decision-making bodies (i.e., heads of department, deans, members of the university Senate and Executive Board, members of faculty boards). Assistant professors, associate professors, lecturers and research assistants were also interviewed. Time and place of the interviews were agreed through telephone calls or e-mail; they all took place in the institution offices during Spring 2013. On average, each of the interviews lasted about 40 minutes. The adopted guidelines were translated into Turkish and all the interviews were recorded and subsequently transcribed. In the six of the sixteen interviews only the common WP4.2 guidelines were used; eight interviews adopted guidelines that joined the questions on informal decision-making and communication processes (WP4.2) and those on formal decision-making and communication processes (WP4.1); two interviews included the guidelines of the task on informal decision-making and communication processes (WP4.2) and on perception of excellence in hiring processes (WP5.1) (see Table A2 in Appendix A).

**SWU** conducted eighteen interviews with permanent staff members from the selected departments; the principal intention was to interview academics who participate in different forms of institutional life and know the interpersonal environment as well as the decision-making mechanisms at different levels well. Specifically, eight associate professors, eight chief assistant professors and two assistant professors were interviewed. They were selected according to their professional profile, personal characteristics, experience (or lack of) and participation in faculty and/or university governing councils and/or committees, as well as their availability and willingness to participate. It is important to note that even though the respondents belonged to a specific department they participated, in one or other way, in the life of the other departments – teaching at the study programmes they offered, participating in joint projects, being members of the Faculty Councils which decided on most of the important issues concerning all aspects of the academic work (research, teaching and service to community). The interviewees were contacted directly via email, phone or in person and provided with brief information about FESTA and the objectives of the survey. The guidelines were translated

into Bulgarian and the interview was conducted individually with the selected sample of academic staff. All the interviews were recorded and subsequently transcribed (see Table A3 in Appendix A).

**UU** conducted fifty-six interviews, six of which were group interviews with PhD students. Overall, eight male professors, three female professors, eight male senior researchers/lecturers, eleven female senior researchers/lecturers, four male and four female postdocs/research fellows, nine administrators, eleven female and eleven male PhD students. Most of the PhD student interviews were made in single-sex groups, the other interviews were done individually. One interview was done via Skype. The interviews lasted between 40 and 90 minutes. Most of the interviews included the guidelines of the two tasks on perceptions of excellence in the working environment (WP5.2) and on informal decision-making and communication processes (WP4.2), where the 4.2 part in general took up more time (see Table A4 in Appendix A).

### **3.4. Analysis and feedback sessions as a process for guided policy formulation**

The information gathered by means of the interviews allowed us to reconstruct the informal processes when relevant decisions were made within the units/departments and communicated to their members. With regard to specific topics of decision, established networks were identified and traced as well as the role of individuals within them. In this way, specific unit members as target of inclusion/exclusion were identified and aspects of transparency (or lack of) in the investigated processes emerged. Associated feelings and opinions were registered in order to enrich the monitoring of the investigated processes. Also, different modes and styles of decision-making and communication were recorded and identified.

Information offered by one respondent was compared and cross-referenced with what was referred to by other interviewees in order to create a coherent, reliable and consistent picture of the processes under analysis.

The resulting mapping of informal decision-making and communication processes - reconstructed through the material gathered during the interviews - were presented and discussed during the **feedback sessions**, i.e., meetings organised with relevant people within the institution and/or with the interviewees themselves, with the objective of:

- informing interviewees and relevant stakeholders about the outcomes of the mapping activities;
- raising awareness on decision-making and communication issues and on related specific concerns that were identified;
- encouraging the discourse on organisational changes and policies aimed at increasing transparency and inclusivity, offering the opportunity to reflect together and develop shared actions.

The feedback sessions represented a relevant tool for guided policy formulation: they allowed for direct feedback from interviewees and stakeholders and they supported a process of co-designed policies/actions engaging different actors, thus improving the sense of inclusivity and active participation. The participatory approach aimed at creating more effective commitment through the sharing of evidences, the recognition of different perspectives, the development of shared understanding and the capacity for reflection and self-assessment.

According to its specific context and organisation, each partner chose which participants to involve in the feedback meetings, when to organize them (within a given period), how to present relevant outcomes and related materials/hand-outs, and how to manage the discussions that followed. Feedback sessions assumed diverse forms (plenary sessions, very close meetings, strategic meetings, and so on) and occurred once or were reiterated. Also, methods and materials used to support the

discussions and the process of policies co-design varied extensively (between and within each institution) as they were carefully chosen in order to better fit the institutional context, participants to the meetings and the specific objectives of the sessions.

The intended output of the feedback sessions was the identification of a set of policies/actions to be proposed to the management and consequently implemented in the selected case studies. The implementation of the proposed policies/actions required the support of decision-makers and other relevant actors, reminding them of the agreed actions and eventually supporting them in choosing possible and feasible steps for their implementation.

In order to keep track of the feedback sessions, a **logbook** was prepared and filled in by each of the four partners. As a working tool, the logbook aimed to record specific information from each session and to register the process of the policy formulation. It helped to identify the connections between the outcomes of the mapping of decision-making and communication processes, on one hand, and the proposed actions, on the other hand.

The information we decided to keep track of is as follows:

- date of the meeting;
- participants;
- method employed to manage the meeting and conduct the following discussion;
- main issues raised during the discussion;
- actions/policies proposed to solve specific concerns/problems;
- general impressions/reactions of participants.

The list of the feedback sessions occurred at each institution with reference to date and participants is shown in Table A5 (see Appendix A); an example of how we actualised the log entries is given in Table A6 (see Appendix A). Further in-depth descriptions of the methods used, issues raised, related proposed actions and general impressions of the sessions are presented in Chapter 5.

### **3.5. Operational steps followed and related warnings**

The figure below shows the detailed operational process we followed during the mapping of the informal decision-making and communication processes; for each step, related warnings are indicated - in the thought bubbles - to provide further suggestions to those who intend to conduct a similar investigation in their own institution (Figure 3.2).

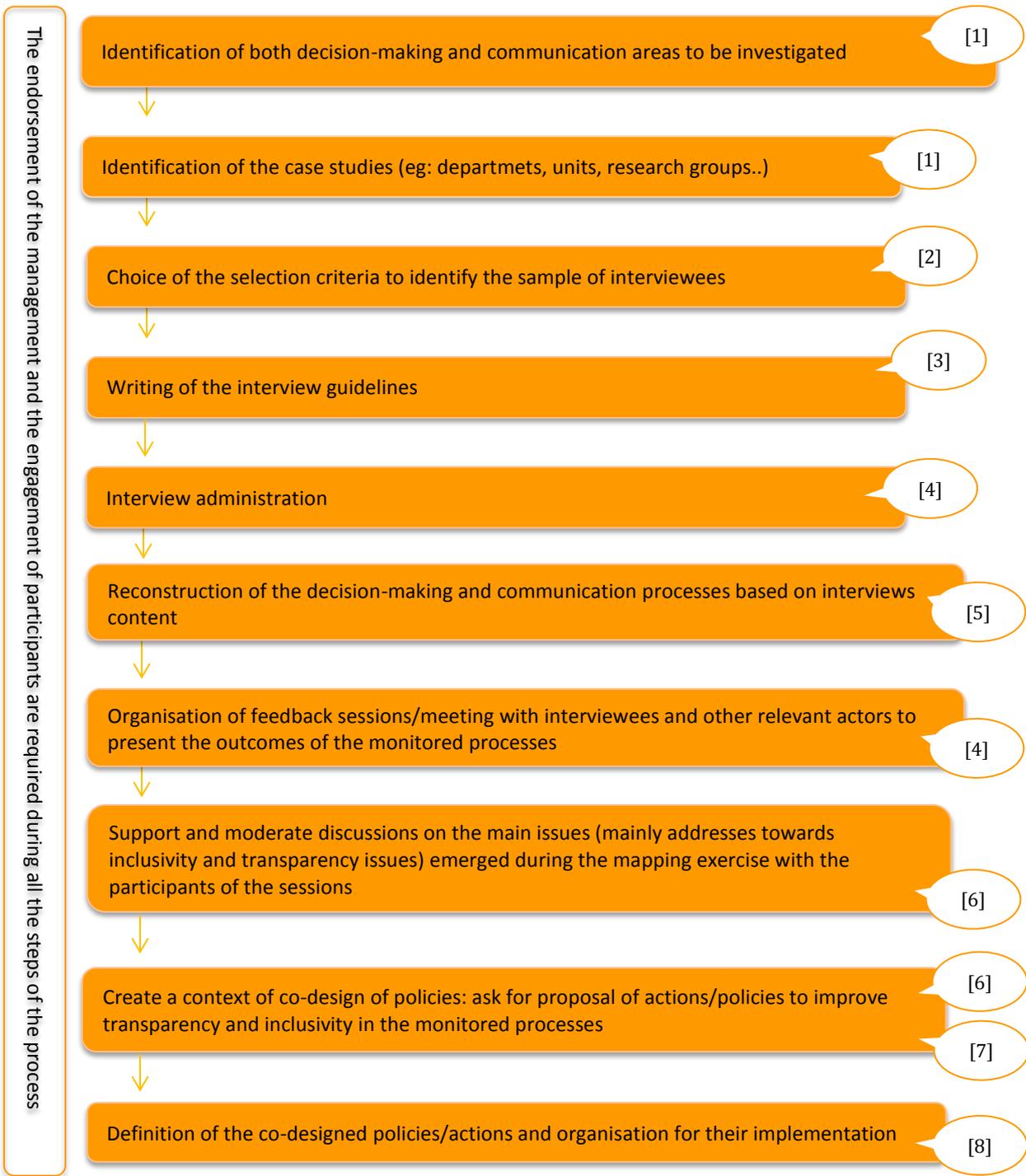


Fig. 3.2. Steps followed in mapping informal decision-making and communication processes.

[1] **Pre-screening interviews** with relevant actors in key organisational positions are helpful to obtain strategic information on the organisational structure and suggestions on significant participants, critical areas and specific units to be investigated.

[2] According to the size of the chosen case study, define the **criteria for sampling interviewees**: you might need to select all the staff belonging to the selected unit or, conversely, to identify few specific key informants within it.

[3] The topic under investigation can be touchy and interviewees can avoid to openly talk about it. The use of the **critical incident technique** (and appropriate questions) helps to uncover existing events/processes and to support the respondents to identify those actions, decisions and information that lead to the specific explored circumstances.

[4] People engagement activities - both for the interviews and for the feedback sessions - are time-consuming; plan your **timeline** well in advance and be prepared to make changes.

[5] In order to verify the **reliability of the information** collected with the interviews, statements provided by one respondents need to be compared and cross-referenced with what referred by other interviewees so that information are reciprocally tested and proved.

[6] The use of a **log-book** as an informational tool helps to register and to structure relevant data/information collected during the feedback sessions into pre-organised categories.

[7] According to the contexts, find the most suitable way to foster the **full participation** of each attendee at the meeting. This constitutes the ground for a shared process of guided policy formulation and its successful implementation.

[8] Mind the **gap between what is proposed and what is implemented**. Send sum-up documents indicating the proposals of policies to the relevant decision-makers and stay in constant contact with them to support them in the definition of the policies, their actual implementation and communication to the whole staff.

Moreover, keep in mind that **organisations change**; do not consider them as static entities. Both people, processes, policies may vary during the monitoring period so keep updated on the ongoing changes.

## **CHAPTER 4. COMPARISONS INTER AND INTRA INSTITUTIONS**

This chapter presents the comparisons between the four participating institutions and their units, departments and subdivisions which have been the object of our investigation. The comparisons are made on the basis of the information provided by partners and the elaborated individual reports, considerable parts of which are presented in Appendix B. They generally follow the three major topics – informal decision-making, communication and gender – but attempt to identify points of essential differences as well as encircle areas where substantial similarities exist. The scope is twofold. On one hand, the chapter aims to present the contexts - both at macro and micro level - where the investigated processes occur and the main actors play a role in them, thus trying to provide the reader with a better understanding of such processes; in doing this, formal aspects are also considered due to their close connection with the informal ones. On the other hand, it attempts to point out relevant common practices/processes in order to identify possible (recurrent) criticalities or best practices and relate them to macro/micro contextual features. Such an exercise is needed to appreciate commonalities and specificities of the four participating institutions, in order to better understand the different actions/policies which will be described in the subsequent Chapter 5.

### **4.1. Macro level context**

#### ***4.1.1. Size and profile of the participating institutions***

Three universities and a non-profit research foundation from four countries took part in the WP4.2. The organisations vary in their size from very large ones (UU and ITU) to medium size (SWU) and small size (FBK). The universities are public bodies committed to both teaching (“Bachelor”, “Master” and “Doctoral” studies) and research, while the foundation provides only research (albeit some PhD students from a local university take part in specific projects at the foundation). The three universities have similar structures – they consist of faculties which in turn consist of departments. There are also institutes, centres, laboratories and other auxiliary units created to support or supplement the main activities in research, teaching and public service. The research foundation has a very unique structure comprising scientific hubs, a research institute and centres, small-sized units and project teams. For the purposes of this deliverable, each institution chose to work on different levels and selected the most appropriate units.

#### ***4.1.2. Delegation chains and students’ representatives***

At the participating universities there are similar delegation chains although the functions, obligations and rights of their respective posts and bodies differ. Generally, it follows the same pattern: rector, dean, head of department, and other executives at sub-departmental level. Usually, the rector (and her/his deputies) takes everyday decisions and manages the institution operationally. Additionally, the rector represents the university within and outside the organisation. In the same way the dean represents and runs a faculty and the head of a department is responsible for managing the department. Important bodies are also university boards or academic councils which endorse the institutional regulations and codes, the mission and the overall policies and strategies of the institution. In all the universities, the department represents the fundamental level of the structure, dealing with operational issues in a number of disciplines within a certain scientific domain.

This is quite different in FBK. The key role is played by the president who is the FBK legal representative. The most important governing bodies are the Board of Governors composed of nine members (including the president) elected among candidates of high scientific standing or of proven managerial experience; the Scientific Committee which supervises the FBK scientific activities and acts as consultant for the president and the Board of Governors; the Board of Auditors and the Panel

of Founders and Supporters. The general secretary is another important position as s/he oversees the implementation of the guidelines and objectives set out by the Board of Governors.

At UU and SWU students take part in the university's decision-making and other executive bodies. Student representatives are appointed according to provisions of the students' union regulations by election every year (UU) or every four years (SWU). At SWU they should be at least 10% of all members. Students in the decision-making bodies at the ITU are represented at faculty and university level without voting rights.

## **4.2 Micro level context**

### **4.2.1. Departments and research units**

The informal decision-making and communication processes have been studied at different levels at each institution. At the three universities, the basic structural level is constituted by the department which is responsible for teaching and research in a number of disciplines within a scientific domain, apart from various other responsibilities and obligations. At FBK the "research unit" is a part of a centre and deals with specific and detailed research in a scientific field. The size of each selected structure also varies: for FBK it is between 7 and 20 individuals; for SWU it is between 7 and 22; for ITU between 29 and 225; for UU between 84 and 282.

### **4.2.2. Heads of departments and research units**

The faculties at all the universities are governed by a dean, and the departments by a head. The head of department is generally an individual with academic competence and experience. At UU the department board appoints a nominating committee for the election of the head. Following the elections s/he is appointed by the vice-rector for a period of three years, and combines research and teaching with administrative duties. This is almost the same at SWU, the only difference being that the head is appointed by the rector and for four years. At ITU department members vote for the candidates, then the dean of the faculty appoints the elected head with the rector's approval for three years. FBK has different rules and procedures of governance. At FBK each research centre is headed by a director, and each unit is run by a head. The directors of the research centres are nominated by the Board of Governors and s/he is called to hold office for three years. The heads of the research units are nominated by the director of the centre and hold office for three years.

At the three universities, department heads have similar functions. Working under the supervision of the dean of the faculty, s/he represents the department within and outside the university; works to ensure high quality research and education; promotes external collaboration; has the overall managerial responsibility over the department. Furthermore, the head chairs the department's board; is responsible for the university's goals and strategies, regulations, guidelines and that other decisions are followed at the department level; is responsible for the implementation at the department level of university's goals and strategies; is the legal representative of the department (e.g., has employer responsibility in the department). At UU, the head has a deputy who is also elected and appointed by the vice-rector for a period of three years. At the UU and ITU a deputy head is acting on behalf of the head during her/his absence, while at SWU, the heads do not have deputies.

In FBK, the director of a centre is vested with the most ample autonomy of action in defining and promoting the centre's activities and with all of the powers, tasks and obligations normally conferred to a general manager. Moreover, the director, as empowered by the Board of Governors, organizes the centre into research units and/or other forms of organisation. The director of a research centre calls periodical meetings with the heads of the units. The head of a unit manages the unit's budget

and staff; reports such management actions to the administration areas directly involved; is in charge of proposing, running and implementing the research projects of the unit. S/he reports to and depends directly on the director of the research centre.

#### **4.2.3. Department and research unit boards**

In all four institutions, heads are supported by boards. At UU, board members are elected every three years. Department board consists of the department head (chairperson), four-six representatives of teachers and researchers, one representative of technical/administrative staff, three representatives of students. Teachers and researchers can be members of the board if employed permanently or for a fixed period of more than two years. The board decides on most of its relevant managerial issues (internal organisation; budget; overall guidelines for activities; actions taken on audit reports; initiating recruitment of temporary positions, of academic, administrative and technical personnel voting on issues the head submits to the board).

At the SWU the functions of the department board are similar and include also the development of study programmes and research projects, the distribution of teaching workload and PhD students to supervisors and a more comprehensive role in initiating recruitment of new staff. Most of the decisions taken need to be endorsed by the Faculty Council, and, in some cases, by the Academic Council of the university. At this university the department board members are all individuals with an academic professional standing with the department (assistant professor, chief assistant professor, associate professor, and professor).

In the Turkish higher education system, if a department has sub-discipline chairs, then these chairs form the department board. If there is no distinction among different disciplines, which is the present case at ITU, then all the academics with a PhD form the board. As these boards have many academics at ITU, decision-making in the board meetings becomes cumbersome and most of the time these board meetings may not reach concrete decisions on the issues on their agenda.

The research boards at FBK are advisory groups that support the directors in defining scientific strategies, collecting input on matters related to the operation and management of the centres as well as the activities of the Research units. The main issues are the allocation of the budget to each research unit, and the recruitment policies.

#### **4.3. Decision-making**

In the selected case studies, decision-making patterns and practices turned out to be very different. At some places they are particularly shaped by the personality of the head, at others specific bodies or subgroups have stronger influence. In other cases, the processes are more or less impersonal or collective. All these create unique organisational contexts with lots of local specificities. Nonetheless, also commonalities have emerged.

As an example, at FBK1, there are “two different centres of gravity”, each of them led formally by a male and more informally by a female senior researcher, while at FBK2 there is only one leader labelling himself as “benevolent dictator” who “decides almost everything”; the leader of FBK3 “never takes unilateral decisions” and imposes only “loose control”, similar to the leader of FBK4, who takes decisions (after consultations with colleagues) “but without imposing them”. All this is quite different at the bigger departments of ITU and UU and the subdivisions of SWU where a faceless departmental administration and collective bodies play decisive roles in all managerial processes. In the universities, informal decision-making practices sometimes underpin the formal ones which are perceived by academics either as necessary and positive or as unacceptable and negative. Thus, inner circles exist in all four organisations even though they might have locally

specific profiles, modes of functioning, power to influence, as well as value for the overall performance and for attaining individual success.

As far as decision-making structures, hierarchies and procedures are concerned, there are huge differences between the participating organisations deriving from their size, field, scope of operation, and socio-cultural environment. Thus, FBK, being a very specific research establishment with relatively small units and intense internal dynamics, has very simple structures with prevailing top-down diffusion of power while, at the other pole, UU has a huge department of 300 employees and a very complex system of hierarchical and horizontal relations (e.g., head; steering, drafting, operational and other kinds of groups and committees; departmental divisions and their heads and deputies, research groups and their leaders, directors of studies, programme-responsible professor, etc.). ITU has a quite centralised system which extends the power line for some cases beyond the university governance structures (e.g., department, dean's office, rectorate, Higher Education Council of the country). SWU has the same centralised procedures but only within the university since HEIs in the country are autonomous but it deviates from the other three organisations with its "collective culture" of taking decisions (i.e., most of decisions are taken by overt or covert voting).

A relatively common feature is the lower place and status of the junior researchers (PhD students, post docs, assistants) in the power chains and processes. At UU junior researchers are generally included in the activities of the department and PhD students even have a right to be represented in decision-making and investigative bodies. In the other partner institutions, the junior researchers are more or less excluded (with some exceptions) from decision-making and many other important activities within the units. At FBK this is perceived as a positive phenomenon ("a culture of shielding") which secures the young scientists against distraction from core scientific production and ensures that they stay focused on their specific research tasks. Junior researchers are aware of it and quite happy with it. Despite these perceptions, exclusion of juniors from important activities could be regarded as a negative phenomenon because it prevents them from fully being part of the scientific community (e.g., networking, getting advice, being inspired, discussing critical issues, obtaining important information). Similarly, at ITU "the research assistants who have not yet completed their PhDs are, by Law, not invited to departmental meetings".

#### **4.3.1. Informal decision-making, inner circles and lack of transparency**

Informal practices in decision-making and communication processes turned out to be crucial for staff members at all four institutions and there have been critical voices aired during the survey phase along with feelings of grievance and disapproval. But there are also some comments, coming from ITU and SWU, about some positive effects of the existent informal decision-making practices and inner circles.

Starting with FBK, at FBK1 there are two different centres of gravity, one officially and formally led by a male senior researcher and the other by an informal female senior researcher, thus the research agenda is largely set by the two leaders in a complex and not very structured process. At FBK2, where the "benevolent dictator" leads, there are researchers who admit to not having a clear idea of the processes governing decision-making. At FBK3, which stands as a compromise between a polycentric and a hierarchical organisation and where there is a good level of autonomy and somewhat loose control by the leader, there is a good level of common understanding on how decision-making happens. However, unit members see the managerial problem elsewhere – even if the unit leader never takes unilateral decisions, s/he is not considered good at prioritizing the allocation of time and efforts of the members. At FBK3, the more experienced researchers complained about decisions happening outside the unit (i.e., the central administration). At FBK4, led by a female senior researcher, presented the best example of creating a friendly and effective working environment, where nobody feels excluded from the processes. Disagreements and

contrasts are typically well managed and solved. The leader of the unit takes decisions following consultations and without imposing them or forcing the direction, thus, there is common trust in the relationship among the members and with the leader.

Informal mechanisms are perceived as having minor effects for the members of ITU2, where a researcher, for instance, says that s/he rarely feels that a group of people pre-arranged a decision on a subject and that the departmental meetings are really significant for decision-making. In ITU3 the opposite opinion prevails, probably because of the established “meeting culture” there. No informal decision-making processes are mentioned in this department. In ITU1 informal decision-making processes and inner circles play a part in recruitment. Discussing the issue, a male professor affirms that there might be inevitably cases where an administrative head needs to make a decision without consulting any other members of the department. Another staff member also believes that informal mechanisms have a positive effect on formal ones in terms of making communication faster, but also notices that sometimes researchers choose informal ways in order to reach their goals. In support of informal processes some claim that “all decisions become visible at some point”.

While informal decision-making processes are perceived as insignificant or absent at the departments of SWU2, most of the interviewed researchers working at the SWU1 confesses that lots of informal decisions are being made there and that inner circles are perceivable. Many believe that they have no significant impact on the overall academic life while others claim that they have strong impact on it. Similar to their colleagues from ITU, some of the researchers believe that informal processes have positive effects, while others are on the opposite side. Commenting on the “influential people” around which inner circles have been shaped, some of the staff members accept their positive role and value while others argue against them. Such people could offer their authority to help in solving complex issues, problems and challenges but some of them exploit their influence mostly for non-academic issues. One of the reasons to have influential inner circles is the elective culture established at the university.

Informal decisions are also reported by researchers from UU. At least two inner circles are perceived at UU1 and an example given of their informal power is that when a programme coordinator is to be appointed they decide who it will be. At UU2, there is also an advisory group, informally called “leading group”, which is not formalised and known to all. As a result, big discussions rarely occur in the department board, because the issues are well prepared.

#### **4.4. Communication**

Formal communication structures, procedures and codes, existing at the research foundation and the universities are well established and the staff members are familiar with them. The level of informal communication at all places is reported to be very high. At the horizontal level it is said to be very intensive and bi-directional, while vertically it often consists merely of a top-down, one-directional flow of information.

Frequency, participation and value of the formal meetings greatly vary. At two of the FBK units (FBK2 and FBK3) formal meetings are held weekly and the attendance is perceived as mandatory, but at the other two units of FBK it is quite different. At FBK3, formal meetings essentially happen on two occasions: at the beginning of the year and when a member calls for a meeting to get feedback on a project. At FBK4 they occur every six weeks, on average, and the regularity depends on the workload of the period and on the amount of information to share with the whole staff. This latter case is very similar to what happens at ITU1 where meetings are scheduled on a “perceived need” basis. Formal staff meetings at the departments and subdivisions of SWU and board meetings at the UU departments are usually held monthly, and as far as SWU is concerned participation is obligatory.

The purposes of these meetings also vary greatly: members present the current state of their research (FBK1); top-down and bottom-up information feed and discussions on specific research projects (FBK2); setting the yearly and multi-period research agenda, getting feedback on a project or to present a paper (FBK3); dealing with management and administrative issues and providing information about the general status of the unit's projects and affairs (FBK3); discussing and deciding on diverse research, teaching and administrative issues (ITU, SWU, UU). In UU, language turned to be a crucial factor for the exclusion of those who do not speak the national language. In UU2 many of them do not attend staff meetings and in UU3 they are not equally aware of what is going on at the department.

Informal communication turned out to be highly intense and very important at all four institutions. Venues for such meetings are most often morning coffee break and the lunch break (FBK1); or impromptu meetings of people working in the same office, on the same project or competent on the same specific topic (FBK2, 3 and 4); "places like cafeterias or restaurants, in or near the university buildings" (SWU); "weekly breakfast", "monthly senior lunch meeting", "meetings with social activity" (UU1).

These informal events happen incidentally or are intended and produce diverse outcomes. People might informally start work conversations, or just chit chat and unwind a little before returning to work because they do not interact much during working hours (FBK1). Thus, the absence of a climate facilitating informal communication is perceived as a significant deficiency, especially by junior researchers; various conditions have thus been created in order to encourage informal daily discussions and continuous interactions (FBK4). In some cases (ITU and SWU), informal communication is crucial for a successful career (researchers, who use informal communication such as lobbying, become very successful in their research careers – ITU2). At UU1 each of the aforementioned meetings ("monthly senior lunch meeting", etc.) actually have a formal character in the way that it is stated that they will be used for important information and discussion. For example, informal meetings in the form of a "weekly breakfast" or a "monthly lunch" are purposefully organised in the third division of UU1 to discuss current issues and share information as well as to ensure that the division members meet regularly.

#### **4.4.1. Communication means and tools**

Email is said to be the most used means of communication at all four partner organisations, but ITU and SWU add to it the corporate websites and phones, and FBK adds skype calls. Nevertheless, individual researchers or groups of people at the different places do not share the same opinions about the real value of these means for communication.

In FBK1 the preferred media of communication is email, which is used for keeping each other informed on the major issues and to coordinate on joint activities or topics. In FBK2, the main modality of communication is face-to-face, sometimes anticipated by a phone call or quick Skype call. In FBK3 only communication addressed to the whole group happens via email. The same happens in FBK4.

The situation is very similar at the different departments at ITU. In ITU1, email communication is preferred to paper, although formal decisions need to be reached by written documents. When there are critical issues they are discussed face-to-face in order to reach a better understanding. Conversely, in ITU2, face-to-face communication is preferred, since some professors do not respond to e-mails. Nevertheless, email correspondence is also perceived as "much more useful" when one tries to save time and keep the focus. Researchers from SWU communicate very intensely both face-to-face and via email, being involved in various activities on a daily basis and located at the same buildings.

The best example of utilizing mixed means and tools of communication is presented by UU1. The department has a web-based newsletter and every week an e-mail with headlines is sent out to everyone; there are three different face-to-face forums for discussion; written agenda for the meetings and memos afterwards have always been distributed to the division mailing lists; etc. Similarly, at UU2, the head also distributes a lot of information by email. There are critical voices about this approach. Some of the researchers object that they receive too many emails and non-Swedish speakers are unsatisfied because most of the information is in Swedish. Finally, at UU3 the head emails about important issues once or twice per month also in English.

#### **4.5. The gender aspect**

Interestingly enough, a certain contradiction is observed when comparing the four organisations with regard to gender and equality aspects. On the one side, institutions vary extremely in terms of formal gender policies and imposed equality measures. Bulgaria and Sweden present the two extremes: SWU is characterised by “gender blindness” while at UU there is a very high level of gender awareness. At SWU, gender has never been discussed, nor does the university regulations, rules or procedures make any difference on gender, while at UU national and institutional gender equality policies are implemented. FBK and ITU are situated somewhere in-between.

Informally, there are lots of phenomena across the four institutions which are so similar that some of them could refer to a single country. For example, a tendency to reduce gender issues to a matter of numbers could be ascribed not only to FBK (where this emerges clearly) but also to SWU. The same level of pervasiveness applies to differences in perception of gender issues by male and female researchers (FBK, SWU, ITU).

One other commonality between the units and departments under investigation is the gender friendly environment. At FBK1, the presence of a female leader is perceived as a guarantee of a fair approach to gender issues; at FBK2 the presence of a woman with high seniority is considered as evidence of gender equality; at FBK4, the female leader has managed to establish an environment where even a man, for whom it used to be unusual to accept the authority of women, now feels very happy about the situation.

The same gender favourable environment has been created at ITU2 - which is considered to be “woman friendly” - where some male members are feminists and where female researchers claim that it is now not difficult to be a woman in the department.

Additionally, the perceptions about the relevance of “gender homophily” (as the tendency to associate and bond with people of the same gender) mirror the ones expressed by members of FBK4. In SWU the general perception is that of a gender friendly atmosphere at the university, which is probably a consequence of the “emancipation policy” during the communist past.

UU1 presents the best examples of dealing with gender equality. Its environment could be characterised by the following features: strong position of the leadership in securing equal opportunities and conscious efforts to improve informal decision-making and communication channels, for the benefit of everyone and in particular female researchers. One of its divisions is said to have “a special spirit” and a very positive climate for teaching and the good teaching attracts female students. Probably this is the reason why they have a relatively large share of women there. Another reason is obviously that they work consciously with gender. Another division of the same department focuses strongly on creating appropriate conditions for recruiting and retaining more female researchers in an area dominated by men. One of the main reasons for such policy is the very inclusive leadership style of the former leader, who was perceived as a real change agent and an informal leader, as well. Another valuable asset of the department is the existing “gender equality

group” where each division at the department is presented, but it also involves representatives of technical-administrative staff and students. Calls for applications for gender equality work have also been initiated at the department. It is worth noting that none of the other units of the other organisations mention such groups and initiatives.

A gender equality group also exists at UU2 where it is said to have “a token position”, without any access to power. The overall environment is not as favourable as that of other departments even though efforts have been made. At UU3 the perceptions of staff members are similar to those expressed by the researchers from SWU: they cannot see any apparent gender aspects, but are somewhat aware that they might have unconscious biases.

## **CHAPTER 5. FEEDBACK SESSIONS, POLICIES AND INTERMEDIATE RESULTS**

This chapter contains the first step in the process of identification, and initial implementation, of actions aimed at increasing transparency and inclusivity in informal decision-making and communication processes. After mapping the processes under scrutiny, feedback sessions were organised by each FESTA partner institutions to inform relevant stakeholders about the results of the mapping analysis and engage them in proposing actions to address identified problems or to improve climate, working conditions and members expectations and engagement within their research unit or institution. The underlying goal was to commit policymakers at relevant levels in the institutions to consider and implement actions/policies, also by making them aware of and incorporating into the policymaking activities, opinions, ideas and proposals discussed during the mapping activities. It should be observed that the FESTA teams have no direct political leverage within the institutions, and most of our efforts were oriented towards a dual strategy of informing the relevant policy-makers at each institution of the results of our analyses and of lobbying the executive level in order to obtain some level of cooperation in setting the policies and commitment in pursuing them.

While our activities resulted in sizable policymaking deliberations, efforts were partly frustrated by concurrent changes in the organisations of a few of the FESTA partner institutions. These changes affected the policy-oriented part of the FESTA activities since they required rescheduling of some feedback sessions, refocusing on the relevant stakeholders, and forced in some cases to identify and/or to commit on actions without a precise mapping of the existing informal decision-making and communication processes. In particular, in FBK big organisational changes occurred in one of the two research centres involved in the project. Due to the restructuring (i.e., changes in the composition of some research units, merging of small units into larger size units, heads substitutions, etc.), many actions that were planned within the selected research units could not be proposed and implemented after all. Also, at UU, one department dropped out due to change of department head (occurred during autumn 2014), which means that some of the proposed actions/policies could not be implemented as planned (see below the individual reports for the details).

Even in the cases with few or negligible changes in the organisational setups, reporting on the results of the policies is not feasible at the time this deliverable is finalised. At this point we can only observe that there are still several steps to monitor, in particular regarding to what extent the proposed policies will be implemented, and to evaluate their impact and compatibility with the initial expectations. We are trying to reach the policies implementation goals by constantly keeping in touch with the relevant policymakers, reminding them of the proposed actions and supporting them in choosing possible and feasible steps for the implementation.

### **5.1. Feedback sessions, policies and intermediate results in FBK**

Four different feedback sessions were organised by FESTA members, one for each of the research units involved in the study. In the typical session, the FESTA staff presented the main results of the interviews to all the members of the research unit. Graphical tools and slide presentations were used to summarize specific decision-making and communication processes as a way to stimulate a discussion on the effects of the organisational layouts on the effectiveness and well-being of the unit. The approach used (and openly declared) was to share evidence, free from judgments, not to offer pre-packed solutions but rather to stimulate open discussions between participants about the most sensitive issues arising from the mapping. Such open group discussion plus follow-up face-to-face meetings with every unit head served as the basis for setting the proposal of new actions/policies at the research unit level.

Specifically to FBK, the goals were to improve inclusivity in the definition of both a research agenda and a fundraising strategy for the research unit, as well as in defining resource allocation for the

research unit (budget, people to projects, selection/promotion). We also wanted to improve transparency in communication about resource allocation processes. This would be obtained by helping to rethink the decision-making process (i.e., formalization of practices and production of formal documents tracing decisions and requiring open approval) and by helping to redesign communication patterns (introducing institutional tools to inform members of staff of relevant decisions on resource allocation – public internal budget for each unit).

A large part of the discussion occurring during the feedback session held at unit FBK1 revolved around the presence of an inner circle driving decision-making which largely excluded PhD students and post doc fellows from the decision-making processes. A common perception was that information could be further improved in terms of both transparency and inclusivity. Issues pertaining to the work environment were the objects of the main part of the final discussion and were mainly raised by post docs and PhD students, who asked for more informal occasions for team interaction and common free-time activities aimed at increasing socialization. The senior researchers had a more positive perception of the climate inside the unit than the PhD students/junior researchers, who in turn raised the more critical points, such as the one on the “cold atmosphere” and its effect on the working condition for unit members. The meeting was characterised in general by a good involvement of everyone attending. After the meeting the head of the unit suggested possible actions.

Specifically, in order to foster the communication among the staff on people joining/leaving the unit and on the research projects acquired, starting or finished, the proposed policies are the following:

- ⇒ send email to the mailing list of the research unit when people join/leave the unit;
- ⇒ update the News section on research unit website with reference to the status of the projects (acquired/started/finished).

In order to encourage more occasions for informal and extra-work activities, increasing the opportunities for informal talks and promoting free-time activities, the following actions are presented:

- ⇒ set sofas, tables (with newspapers) and coffee/tea machines in the corridor (after moving the printer to another place);
- ⇒ organise celebration events/toasts (e.g., after PhD defence, the financing of a project, etc.);
- ⇒ collect or circulate proposals for free-time activities via email; an ad-hoc email address is be created by the head of the unit.

At unit FBK2 the composition of the staff changed a lot between the mapping and feedback session, which in part explained a relatively low active participation in the feedback session. No specific actions were proposed and discussed. However, the meeting was seen as a good occasion to acquire awareness about the way the unit works. The head of the unit was not aware of the authoritative style of leadership the staff ascribed to him (many informants described it both as effective and characterised by a low level of delegation). At the end of the feedback session, the unit head stated that he would reflect on this and some possible consequences. Also at this unit, especially the PhD students, who are mainly from abroad, perceived a strong focus on work activities (great professional environment), but scarce focus on social activities. After the meeting we were told that some hot topics had been touched (e.g., head’s leadership style, possibility of telecommuting) and that this could be a first step to discuss that more in depth in the unit.

- ⇒ A new meeting with the head of unit is going to be organised in the Autumn 2015.

Feedback sessions held within research units FBK3 and FBK4 were characterised by long discussions on the lack of transparency and inclusivity in the re-organisational change of the research centre they both belonged to. Just days before these two feedback sessions took place, word started to circulate that the current research units of the research centre would soon be subject to a revision,

according to which some units would be merged to form bigger research entities. This important issue took the front stage in the debate and marginalised the discussion on the same topics of transparency and inclusivity at the research unit level. Members of both units were critical to the very top-down and unexpected decision the director took without any inclusivity. The heads of the units were informed of the changes when the re-organisation had already entered the finalization stage.

Unit FBK3 did not know/understand why their head of unit was not confirmed as leader of the new unit and the reason for the (low) evaluation of their productivity (they have published a lot) as the criteria had not been discussed. They expressed interest in discussing, in the future with the FESTA members the effects of the re-organisation on people's positions and roles and to better understand the way such reorganisation occurred (both process and actors involved).

The re-organisation in unit FBK4 caused a debate among its members about the many gender stereotypes that affect role attributions. They discussed the non-confirmation of the head of the unit (a woman) as leader of the new enlarged unit and, more generally, the position of women in FBK. The question they focused on was if she had not been confirmed as head of the new unit because of her gender or because of her leadership style. According to the unit, her inclusive leadership has not been well considered because it does not fit with the mainstream masculine model defined as "hierarchical, cold, centralizing" and as the "only one" to adopt.

The unexpected reorganisation of the research centre and the related merging of research units FBK3 and FBK4 limited the policy making outcome in terms of setting an agenda of actions or policies to adopt at the unit level: even though a part of the discussion was targeted at socializing the main results from the mapping analysis of decision-making and communication processes, we were not able to commit the audience and the heads to any precise policy proposals, since they all agreed that first and foremost it was necessary to understand the complete picture of the upcoming reorganisation and its consequence in terms of the inner workings of their research activities. It is clear that actors, context and relationships are considerably affected by such reorganisation, considerably limiting the policymaking exercise. As for the new bigger units, resulting from the merging process, FESTA researchers will study the process of re-organisation and how it will affect and/or change the decision-making and communication monitored in the former units, with attention to the changes related to the level of transparency and inclusivity (e.g., have these improved or worsened and if so, how and to what extent?).

- ⇒ Planned future actions are underway – since it is crucial to verify their feasibility in this new unexpected context with the new heads of the research units. Meetings with the new unit heads have already been organised, along with a shared agenda for further steps of the research. Specifically, we asked the heads of the new (bigger units) to identify possible actions they are willing to implement in order to guarantee transparency and inclusivity of those decision-making and communication processes that will characterise the management and the organisation of the new units. Related documents will be provided by the autumn 2015.

## **5.2. Feedback sessions, policies and intermediate results in ITU**

Five feedback sessions were organised by FESTA researchers at ITU. They involved members from two different departments. In three of the cases they took the form of a face-to-face meeting with the department heads. FESTA researchers met twice with the head of ITU1 and once with the head of a department not included in the mapping exercise (from now on, ITU10), in order to discuss the findings of the study and to gather feedback from an independent source. The remaining two feedback sessions were group sessions with various members from ITU1 and ITU10 who were invited

together with the heads. In a typical session, the FESTA staff presented the main results of the interviews to the department heads and other members. As in the case of FBK, the approach was meant to stimulate an open discussion on some of the sensitive issues arising from the mapping in order to set the basis for the proposal of new actions. In the case of meetings restricted to the department head, FESTA representatives prepared a document already listing policy recommendations developed on the basis of the findings in order to start a discussion around their applicability.

At ITU, faculties and departments are not independent in financial decision-making. They need to apply for funding at the top management. Overall, funding concerns at ITU are critical and they tend to fill the agenda of department heads. All participants and heads in the sessions have complained about scarce budgets, especially for research during the sessions. It has been mentioned that national resources are very limited and international projects stand very important. National and EU projects are considered significant for solving financial problems which have been proposed to the departments by FESTA team. However, it has been discussed that writing a project proposal also needs funding. This is a heavy take-off for being involved in projects. In face to face meetings, heads of ITU1 and ITU10 have complained that the bureaucracy of applying to projects is very difficult and faculty members need support. This is a vicious cycle in the sense that EU projects cannot be landed due to limited research infrastructure.

⇒ ITU FESTA team decided to get in touch with the EU office at the university, to present these problems and possibly initiate actions to encourage academics to apply for projects.

Many of the participants, who attended the two group sessions, were research assistants and junior academics. They especially focus on the “research projects” when a question is asked about financial resources. Many of them also reported that several burdens prevent them from engaging in their projects. They are dependent on their supervisors’ permission to use the laboratories and this may involve some contacts related to informal decision-making. Research labs in this department are mainly organised according to research interest at micro level. Most of the time senior researchers may not allocate time for their PhD students to use the labs, as the number of PhD students is high.

In both of the group sessions, recruitment or promotion processes were criticised as many of the research assistants had completed their PhDs and were waiting for a suitable vacancy position to apply to become assistant professors. One participant even got the title of “associate professor” from the Council of Higher Education in Turkey, but was still holding the position of research assistant at the university. All participants complained that the criteria for being promoted are designed very specifically in terms of research and publications without necessarily connecting this with gender.

During all the feedback sessions, department members and the heads also talked about problems with hiring new faculty staff. However, the problem cannot be solved with an action only by the department. Decisions regarding new personnel need to be approved by the top management (and ultimately the Higher Education Council). The restrictions at the departmental level should be mapped and discussed through further analyses.

In a face-to-face session, the head at ITU1 raised the lack of attendance at department meetings, partly depending on faculty members’ busy schedules. There is not a time slot where all department members are available. A proposed action was that:

⇒ all course schedules could be coordinated so that all department members can be free in the same day at the same hour. In a follow-up meeting with the head of ITU1, FESTA researchers were informed that a common slot had been arranged for all members to meet. By now, all members have a free common time in their weekly schedules for attending meetings.

Unlike ITU1, the head of ITU10, highlighted that they are very happy with the number of the participants in the regular departmental meetings.

During the meeting with the department members from ITU1, the issue of a lack of interaction during the meetings was raised. People prefer to talk about their problems before the meeting in informal groups. One of the participants actually said that “informal mechanisms are controlling over formal ones” and it was mentioned that informal decisions are being taken first and then they are adapted to formal procedures. Junior academics also highlighted that the department management does not care much about research assistants and does not listen very much to their problems. In the follow-up meeting with FESTA researchers, the head of ITU1 also shared another positive progression.

- ⇒ S/he is having regular meetings with one representative of the research assistants to improve the communication with them. Research assistants are not involved in department meetings but one representative of research assistant takes part in the department board meetings.

Actions to improve communication have also been proposed.

- ⇒ The head in ITU1 proposed publishing newsletters for more effective communication at university level. According to her/him this will give all faculty members access to accurate information about the university.

A proposal made by the FESTA team to department heads is to:

- ⇒ organize informal gatherings and create conditions that can support such occasions (tea-talk parties, brunch at weekends). In the discussion with them, a point was made of increasing social activities for people as a way to inject ideas to be discussed in such informal groups, even if time pressure and teaching loads go against the time people perceive they can devote to such networking and social activities. They think that it might be promising to nurture this kind of changes starting from the lower level, the younger generation, in order to make changes in the communication processes. In this sense, informal processes can be a great vehicle for promoting bottom-up changes.

However, both two heads said that organizing social activities (informal meetings) in order to improve communication is not feasible. One of them stated that scientific meetings, where the department invites outstanding scientists to give lectures, are increasing. These meetings are also creating social interactions. Therefore, this might be the reason why traditional social events fade away.

The efforts for ensuring women’s representation in informal decision-making processes are not “hidden”, but instead visible in ITU.

- ⇒ Ensuring that women also are given the opportunity to participate in formal decision-making processes and that they have a settled platform from which they can speak out will do this.

Thus, the number of women who play an efficient role in formal decision-making structures is the measure of success (for example, that a woman recently was elected as a member of the University Senate).

- ⇒ The aim is to strengthen women’s equal participation in all relevant decision-making committees and communications by developing informal strategies and campaigns that will transform committee structures. To remedy low participation of women in the university management, networking has been highlighted as women have typically less time for that than men.

The participants at the group sessions have also suggested actions to encourage women, who participate in decision-making processes, to acquire gender awareness. One academic told us that

compared to their male counterparts female academics are much more silent and passive in the meetings. Another one emphasised the necessity of training programmes for women, since s/he believes women are limiting themselves. It was also highlighted that women have the potential, but not the curiosity and awareness to speak up and claim their requests/concerns.

⇒ For these reasons, it was considered important to design trainings/seminars to create gender awareness, especially among female researchers. Lastly, one of the heads also paid attention to gender balance as her department is dominated by female academics. According to head, the institutions should aim to reach a gender balance rather than aiming to increase female representation.

### **5.3. Feedback sessions, policies and intermediate results in SWU**

At SWU feedback sessions were organised for each department surveyed during the interview phase. It was difficult to initiate a true dialogue about informal decisions and communication. Already in the interview phase, very polite and generic answers were received, in contrast to interviews made in other tasks (i.e., the respondents did not report on the existence or importance of informal decisions when speaking about recruitment in this task, while in other tasks interviewees described how informal networks and practices shape the hiring processes as well as influence careers). Mapping informal processes in Bulgaria is especially difficult, given that, under the communist regime, this practice was so pervasive and opaque that people still feel uncomfortable talking about it. It also has to be taken into account that Bulgarian public university institutions have a hierarchical culture as well as a widespread use of elective positions in their governance bodies. This makes people depend on each other for getting positions of power and promotion, which might give rise to serious concerns over the use and diffusion of the statements made in this context. Another specific characteristic feature of SWU is the widespread diffusion of permanent positions in academia, which results in a very static culture of research, especially coupled with poor or no incentive to actively seek research grants in a system, which is heavily subsidised by the government.

SWU is strikingly different from the other three partner institutions as gender issues have never been discussed at university, faculty or department level (neither formally, nor informally). Thus, during the feedback workshops, the FESTA team faced amazement, frivolous behaviour and other manifestations of resistance by colleagues when speaking about “gender equality” and the existence of “gender equality offices and officers” or “gender equality groups” elsewhere in partner universities. During the communist era, explicit policies existed, formulated by the party and aimed at the “emancipation of women”. So, they created a sort of polite/equal treatment of women in many domains of society. This has significant implications for how to introduce and negotiate the approach, the findings and the possible impacts of FESTA on a wide array of people, levels and functions.

Notwithstanding our awareness of the above observations, we were not successful in our attempts to actively engage the participants in the first feedback session, thus no ideas or suggestions about prospective actions were collected on this occasion. Before the next feedback session, other ways of presenting the mapping results and engaging the participants were therefore invented. The solution we found was to present some of the most interesting findings as coming from the partner countries and referring to foreign institutions.

In the workshops 2, 3 and 5 some participants confirmed the survey findings, while others did not agree with the comparisons and provided opposite cases from their own international experience or personal beliefs. The participants agreed that inner circles exist (and will exist) everywhere, and people with power (real or symbolic) will always have strong influence in the informal decision-making processes. Moreover, it was said that close relations or friendships with “key” persons (of

whatever kind) will always be very valuable assets, and also that it could not be changed, or at least it could not be changed easily. However, the discussions were quite general and abstract. None of the participants expressed critical opinion about a concrete case, fact or person on a leading position at the university. As a whole, the suggested actions (summarised below) were also very general and formulated in a generic way. The presence of people in high managerial position at the workshops influenced the behaviour of the participants.

As a consequence of the experience of the initial feedback sessions, a decision was taken in the FESTA team to adopt alternative strategies for the next ones which proved to be efficient. The participants had been invited directly, not through their heads, and the workshops were carried out in more “informal” settings. Participants provided their own examples and concrete cases to confirm FESTA findings about inner circles, informal decisions and somewhat unequal status of women at the university. For instance, they talked about the formal transparency in promotion procedures and the strong influence of “hidden” criteria; the existence of formal gender equality but also about some unfavourable conditions for female academics; the insufficient information about gender in academia in the other countries.

For SWU this task aimed mainly at initiating discussions and raising awareness about gender equality in academia at various levels and with different departments. The female participants at the feedback sessions were very interested in the information about gender in Western and Turkish academies and provided own examples of gender inequality. Actions proposed to initiate changes in this regard are:

- ⇒ to translate and circulate among the academic staff the most interesting findings from the FESTA project;
- ⇒ to organize a series of workshops about other FESTA results;
- ⇒ to create institutional support structures (for example, to initiate the establishment of a centre for gender studies, a gender office and a network of people interested in gender issues at the university);
- ⇒ to enrol PhD students in Gender Studies and initiate research in topics related to gender equality at academia;
- ⇒ to search for donor organisations which could support gender initiatives;
- ⇒ to provide information about initiatives and solutions supporting female researchers from other European universities and research institutions;
- ⇒ to invite famous women, successful in their careers (like the present minister of education and science) and organize open discussions with them at the university;
- ⇒ to establish contacts with national bodies (centres, projects, services, etc.) working with gender issues as well as the trade unions and their academic sections in order to promote gender equality initiatives.

#### **5.4. Feedback sessions, policies and intermediate results in UU**

Policy-making activities have been fostered both during the feedback sessions and other meetings (e.g., “strategy day” for faculty members) aimed at discussing decision-making and communication processes at the departments. For each department studied by FESTA, multiple feedback sessions were held: at first they had only a restricted participation (i.e., the head of the department), and typically were largely devoted to describe the results of the mapping in detail without revealing the sources. Subsequent meetings in some cases saw the participation of a selected audience (e.g., the steering group, the work environment group, the gender equity group, and so forth) and were primarily focused on discussing the policymaking agenda. The feedback sessions were organised in a tailored way in order to take into account the different styles of leadership, communication and decision-making in the departments.

Policy-making efforts at UU focused on “daily working environment” issues at the departmental level. Thus, issues at the faculty level such as hiring and appointment processes were set aside and the debate concentrated on how resources, such as funding, time, work, space, equipment, assignments, etc. are distributed. However, the way informal processes are understood also explains the specific actions chosen by UU. The UU standpoint is that individuals may have been invested with formal power, but their decisions are not transparent, i.e., they cannot give rational grounds for making the kind of decisions they do. The grounds of the decision are in that case wholly personal (informal). For that, it is not enough to enhance researchers’ awareness of how their institution works, but also to work with the managerial levels to get them to make processes more transparent. This notion of informal makes decision-making and communication closely intertwined. Effective and transparent communication of decisions made and possibilities available is a key issue in giving people a possibility to act and react. Information is a resource that needs to be distributed equally to give equal possibilities.

As far as UU1 is concerned, FESTA employees met with the head twice: the first meeting identified problems in the interviews; the second meeting was devoted to start formulating actions and discussing feedback sessions with the work environment group, the steering group and the department board. Five feedback sessions were organised and then the department and each division had own discussions (as described later). FESTA workers provided the head with two documents to guide the later discussions: one with problems identified in the interviews (as well as best practices) and with illustrative quotations, and one “action plan” similar to the one discussed in unit UU2.

The main issues raised at UU1 were primarily related to the existence of areas of ambiguity, where people did not know exactly what the right procedure is to obtain something or how to ask for something. In particular:

- internal allocation of money: how does the programme-responsible professor make the decisions? What are the criteria for receiving internal money? What do I do if I want to gain access to internal funds?
- PhD supervision (faculty funds): which criteria are used in the procedure for selecting supervisors? What is the procedure?
- Teaching (planning and introduction): do Swedish-speaking PhD students have more teaching than 20% (some courses are only taught in Swedish)?

Actions proposed to solve these issues were discussed in all divisions. In November 2014 the department had a strategy day on research and PhD education. During the strategy day the processes for resource allocation involved in the points 1) and 2) were discussed. A very large proportion of the doctorate staff participated, so in that way the day helped to clarify the processes.

After the strategy day, the views expressed there were followed up and resulted in two specific action plans, one for strategic research planning and one for doctoral studies.

- ⇒ The former states that clearly stated evaluation criteria for allocation of the departmental strategic research funds must be formulated. Head of research and a drafting group of program-responsible professors are responsible for the action.
- ⇒ The latter includes a paragraph on better planning of the doctoral students’ departmental duties, which is linked to “teaching”.

In the autumn of 2014, UU1 also implemented a work environment survey for its members. It is part of the programme of action for the work environment that such a survey should be conducted every five years. One of the issues raised in the survey was on the opportunity to influence decisions. There have been division follow-ups of the survey led by staff from the HR division.

- ⇒ The consequence of this was that most divisions formulated actions aimed at clarifying decision-making, whose precise content is not available at the time this deliverable was finalised.

Routines and principles for communicating decisions at the department level already existed at UU1. The divisional action plans, that are a follow-up of the work environment survey, included measures for improved communication processes in divisions. Also, in the follow-up of the work environment survey, joint department actions were identified.

- ⇒ One of them concerned improved procedures for the allocation of teaching tasks: responsibilities, roles, planning, as well as joint planning with other tasks.

The problem that Swedish-speaking PhD-students would carry more than 20% teaching load did not come up in the recent discussion about the planning of the doctoral students' department duties, for example, in connection with the work environment survey. In general, however, also this aspect is included in the improved procedures for the allocation of teaching duties.

The above-mentioned measures for increasing transparency in the decision-making and inclusivity in the communication processes at UU1 are also expected to make informal networks less important.

The same concerns over lack of transparency applied to the distribution of internal research money, PhD supervision and teaching at UU3. In that department, FESTA employees met with the head twice: the first meeting identified problems in the interviews; the second meeting was devoted to start formulating actions and integrating this task with the results of a survey on the work environment. The head took the main issues raised in the first meeting further to the divisions and the actions proposed have been anchored in the department structures. As a result the head and FESTA workers formulated a written action plan to address the major proposed actions.

- ⇒ In particular, regarding the above mentioned lack of transparency, a document in Swedish and English was developed in order for everyone to better understand how some procedures work in the department. The document defines the organisation and functioning of the department and communicates these via the Employee Portal.

This department also had few Swedish-speaking PhD students who had to teach outside their own areas (some courses are only taught in Swedish).

- ⇒ Actions implemented there aimed at ensuring that PhD students do not get too much teaching, to tolerate English in some basic level courses and to employ master students temporarily for teaching. One of the directors of studies was given the task to meet with the PhD students once a year (or semester if needed) to discuss with and inform them about their teaching duties.

Regularity of information meetings inside the research programmes at this department was found to vary greatly, from no regular meetings to meetings once a week.

- ⇒ In a document available at the Employee Portal it is now said that programme-responsible professor/division head should facilitate information meetings at the division once a month. It was not feasible to have regular information meetings inside all research programmes, since the employees at a large research programme think it is unnecessary. Follow up on information meetings will be done in development dialogues. A monthly "Newsletter" has also been introduced in which important information is communicated to all employees.

Also at UU3, the

- ⇒ need for clear, well-designed communication channels to express opinions and complaints from bottom up if necessary was identified. A director of research education has already been fulfilling this need for the PhD students since autumn 2012, while postdocs and other

junior researchers can find out where to turn, if a problem occurs, in the document on the organisation at the department.

Regarding communication it is crucial to make people feel part of the university. In this sense, making communication clearer can foster department members' perception of belonging, and so, of being included.

At UU2 the meetings with the (now former) department head focused precisely on making communication clearer: language issues and need of written policy documents. FESTA employees met with the head twice: the first meeting identified problems in the interviews and started to investigate actions; the second meeting was devoted to discussing new actions already implemented. FESTA researchers provided the head with a document containing illustrative quotations from the interviews and they worked together with an action plan, both during face-to-face meetings and by e-mail.

In regard to language issues a number of staff with non-Swedish background felt excluded from information and some social activities, because the official working language of the department is Swedish.

- ⇒ It has been proposed that the head, as a foregoer, corresponds increasingly in both Swedish and English, and to encourage, that staff meetings and social activities are held in English – even if this is not to be mandatory practice.

The former head did that to a certain extent, but these actions will not continue under the new head.

- ⇒ It has also been proposed that more webpage content should be bilingual.

However, meetings in formal bodies will be mainly in Swedish – based on the requirement that foreign lecturers and professors have to be fluent enough in Swedish to be able to teach in Swedish after two years' employment.

Regarding documentation, a number of routines and criteria for decisions were unclear or unknown to a number of staffing members. This made it difficult to know how to influence decisions.

- ⇒ There were suggestions of making implicit criteria, routines and responsibilities explicit and communicating them via the internal webpage:
  - How much do different kinds of teaching count in working hours?
  - Recruitment of PhD students. Who is responsible? What is the procedure? Which criteria are used in the procedure for selecting the successful applicants? What does the composition of the selection group look like? Other procedures (e.g., when receiving external funding for a PhD student).
  - Recruitment of staff. What is the procedure (in particular, in which instances do information goes out to all staff and how might opinions be expressed)?
  - IT policy.
  - Internal research funds. Who make the decisions? What are the criteria for receiving “3-year funds” and “1-year funds”?
  - Members of the management group and a definition of its role.
  - Where needed, clarifying the responsibility of the different functions and the role of the head of department in relation to these (Who do you turn to with different issues, in different situations? Is it possible to contact the head regardless of the issue?).

Some of the actions had been undertaken by spring 2014, but more policy documents need to be tailored and published.

The language barrier was also addressed at UU3, where:

- ⇒ an “introduction package” has now been developed for new staff, including all necessary information about organisation, decision-making processes and other more practical things. New staff is informed verbally at a half-day intro session and a mentor is appointed at the department for English speaking permanent positions. The equal opportunities group is also going to map the equivalence of information flow between Swedish-speaking and non-Swedish speaking groups, and will suggest improvements to the board in December 2015.
- ⇒ The communication on board matters and decisions has also been improved. There is a representative from every division except one and the board members are encouraged to communicate with their research programme and/or group. Important board decisions are communicated in the newsletter and the research programmes have common coffee every month.

UU is different from the other three partner institutions in having national, focused and detailed gender policies, monitoring and follow-up practices. There are gender equality or equal opportunities groups in most of the departments and an issue raised both in UU2 and UU3, is that their groups are quite anonymous and inactive and do not have much influence.

A new, more active equal opportunities group has now been established at UU3, with straight channels to power and regular communication (not only to the department board, but also to the department head and the management team). The head has given the group two tasks that may make a difference: 1) to map the equivalence of information flow between Swedish-speaking and non-Swedish speaking groups, as already mentioned, and 2) to ensure that information on the equal opportunities group's work is visible and easily accessible to all employees, and that new employees receive information about the group's work.

Actions proposed at UU2 have been:

- ⇒ to discuss gender equality plans in the leading group (and not only the board) and
- ⇒ to let the gender equality group meet persons with particular responsibilities (head, director of studies etc.) twice a year to discuss the action plan and their compliance to it. The latter happened in spring 2014 (if it will continue or not depends on the current department head).

At UU1 some of the interviewees pointed out that the person in charge of the gender equality group is allocated too little time to be the driving force behind this group.

- ⇒ The head has now decided to give the gender equality officer 10% of full-time for her/his assignment instead of 5% of full-time as previously (about 50% of the gender equality officers at the faculty's departments have 5-10% for the work).

In Sweden, the gender composition is normally attended to when composing investigative and decision-making bodies and electing people with formal power. However, it might not be a comforting signal to have many women involved in committees and boards, because they might be involved in mundane or operative tasks while strategic decision-making is made in informal male networks, which have been shown to impede women's possibilities for career building and gaining influence in the academic system. For male-dominated departments, it can also be a problem that the same women have to do everything when there are only a few women to choose between.

At UU1, especially female PhD students experience that they are overrepresented in doing stuff that is not research based (i.e., department/division work). The department has to reconcile two opposite gender equality goals; to aim for gender balance in drafting and decision-making bodies, and to support young female researchers in their career building phase by giving them time for research. The department has no clear-cut measure on this point, but the problem is well known and might be directly addressed in their gender equity group (in connection with another FESTA task on gender equality indicators).

## CHAPTER 6. CONCLUSION

Informal communication and decision-making processes play a large role in determining the actual outcomes of most organisational processes. Higher education and research institutions are no different in this regard. In fact, we have seen how a large body of literature draws a direct connection between gender disparities in academia and the systematic exclusion of women (and other minorities) from the informal channels through which decisions are taken and subsequently disseminated to others.

Starting from this premise, we set two goals for this first phase of WP4.2. First, achieving a sound knowledge about the informal mechanisms that have a tangible impact on the way critical decisions are taken at our target institutions. Second, starting from this knowledge base, developing a strategy for designing and then implementing policies that might help the institutions mitigate the unintended effects of those same mechanisms, thus achieving higher levels of perceived fairness in critical organisational processes. As the present deliverable mainly revolves around methodological problems, we offer an outline of the main steps we took to achieve these goals and offer comments on the effectiveness of our actions.

**Data collection.** In order to pursue these two goals we employed a very pragmatic approach for investigating some of the main informal components of the processes informing the life of some major academic and research institutions across Europe. Our method was based on a participative approach, and required the full involvement of the institutions at the macro-level, and individuals and research units at the micro-level to generate fruitful data. As our focal institutions are large, and a participative approach necessarily is rather labour intensive, we decided from the outset to select a subset of target departments/research units. The criteria for this selection varied across institutions, but the general goal was to select departments and units that offered some degree of variance across some key variables, namely gender composition of the units, and main research domain within STEM fields. In most cases the selection was somewhat guided by these requirements, but at least in one case, departments volunteered to be included in the study.

In order to carry out our data collection we designed a common frame for interviewing a selection of individuals within our target units. Again, given time and resource constraints, we had to resort to different strategies across the institutions to identify a meaningful set of interviewees. In this case, the dimension of the unit was the main differentiating factor between institutions.

**Feedback sessions.** Once the interviews were completed we reviewed them in order to track the main features of the main decision-making processes within each unit, highlighting their informal components, and specifically concentrating on the levels of transparency and inclusivity in communication and decision-making processes. We proceeded then to share the reports we prepared on each unit/department with the relevant stakeholders, that is, actors that could effectively be engaged to reflect on our data and to actively promote change that could then be implemented by the units/departments. In some cases this meant activating a proper bottom up process where the interviewees themselves could collectively discuss the findings and propose changes. In other situations, we realised that change could be implemented only by activating individuals or sub-groups already wielding the power (and the will) to implement change. Again, the findings collected with the interviews were our main compass to pinpoint the better course of action in each case.

**Preliminary results.** In most cases the process ended with a list of proposed policy steps aimed at increasing transparency and inclusivity, especially in decision-making. The proposed actions vary across institutional and local (department level) contexts, unsurprisingly, but they all share the same features of being 1) relatively simple to implement; 2) directed at generating clear, evident changes; 3) easily traceable in terms of progress, 4) close to the day-to-day practical life of the research units and their members. We believe that these features will help us over time to monitor the progress of each unit/department towards the improvement of its internal processes. The activities related to this monitoring stage will be part of the final report for this Work Package. The feedback sessions

also afforded a clear chance to discuss the internal processes and organisational mechanisms at each unit/department, sometimes spurring lively debates, sometimes highlighting, through a lack of participation, the level of uneasiness at confronting certain issues.

**Next steps in the process.** The next logical step in the Work Package will consist of monitoring and measuring progress in the implementation of the policy actions already identified. Moreover, we also expect the need to reformulate or reshape some of the actions if they do not meet the expectations of the stakeholders who promoted them.

### Lessons learnt

Alongside this outline of the deployment of our method for collecting evidence and promoting change through an active involvement of stakeholders at the different institutions, it seems worthwhile to share some of the reflections that emerged during the field work which might serve as guidance for future endeavours.

- 1) Investigating the informal aspects of decision-making processes in institutions that vary enormously in terms of governance, institutional setting and cultural context produced a rich set of results but also raised some serious problems in our ability to compare our results. An obvious observation that emerged from both the interviews and the feedback sessions is that informal takes on different connotations in the various contexts, both from an ontological (the definition of what interviewees consider informal vary considerably) and from an ethical perspective. In some contexts “informal” is considered inherently shady, even though sometimes unavoidable. In other contexts informal simply equals quick and effective and represents the normal course of action that then is superimposed with a formal façade.
- 2) Our decision to concentrate on the informal aspects of decision-making and communication processes and leaving gender issues in the background helped us identify a few key issues in the relationship between gender and informality. First, it was obvious from many of the interviews that gendered practices existed at many of the units/departments, but they were rarely recognised as such by interviewees, except in cases where they had either independently developed an interest for the topic or had been exposed to such discourse in the past. On the one side, this obviously hindered, for many of the participants, the ability to contribute consciously to the identification of practices that inherently tend to exclude women. On the other hand, however, concentrating on inclusivity and transparency forced people to reflect on the categories of members of their departments/units that were treated “differently” or had no access to relevant information, sometimes prompting a re-examination of current practices.
- 3) Resistance and denial are often cited as some of the critical problems surfacing when discussing gender inequalities and gendered practices in organisations. In our process of data collection and during the feedback sessions we faced various forms of resistance. The most glaring examples are probably linked to a lack of participation in the discussion/feedback sessions, but we could also see a substantial amount of disregard for gender as a shaping cultural dimension within the scientific arena.
- 4) FESTA activities initiated to collect data for WP4.2 have had the side effect of sparking a high level of awareness towards both gender issues and informal decision-making processes at several of the involved institutions. This result, *per se*, can be considered a valid achievement within the scope of WP4.2, as in many situations we faced serious cases of “gender blindness.” Of course these effects were much more vivid in institutions where previous exposure to gender themes was totally lacking or very limited. This effect was magnified in situations where we could activate a process of reflection: in many cases the informal aspects of decision-making were governed in a certain way (oftentimes coherent with a masculine, performance-oriented culture) because of a purely inertial attitude. By contrast, in other instances informality was managed much more consciously and interviewees had no trouble precisely reconstructing the process.

## REFERENCES

- Acker, J. 1990. Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society* 4 (2): 139-58.
- Arulampalam, W., Booth, A. L., & Bryan, M. L. 2007. Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution. *Industrial and Labor Relations Review*, 163-186.
- Blau, F. D., & Kahn, L. M. 2007. The Gender Pay Gap Have Women Gone as Far as They Can?. *The Academy of Management Perspectives*, 21(1), 7-23.
- Ashmore, R.D. & Del Boca, F.K. 1981. Conceptual approaches to stereotypes and stereotyping. In D. L. Hamilton (Eds), *Cognitive processes in stereotyping and intergroup behavior*: 5-35. Hillsdale: Erlbaum.
- Bandura, A. 1986. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. 1997. *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. 2001. Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child development*, 72(1), 187-206.
- Baron, J. N., M. T. Hannan, , & M. D. Burton. 2001. Labor Pains: Change in Organizational Models and Employee Turnover in Young, High-Tech Firms. *American Journal of Sociology*, 106(4): 960-1012.
- Becker, H. S., & Geer, B. 1960. Latent Culture: A Note on the Theory of Latent Social Roles. *Administrative Science Quarterly*, 5(2): 304-313.
- Bendick, M., C. W. Jackson, V. A. Reinoso, & L.E. Hodges. 1991. Discrimination against Latino job applicants: A controlled experiment. *Human Resource Management*, 30(4), 469-484.
- Bennett, C. 2011. Beyond the leaky pipeline: Consolidating understanding and incorporating new research about women's science careers in the UK. *Brussels Economic Review*, 54(2/3): 149-176.
- Blickenstaff, C. J. 2005. Women and science careers: leaky pipeline or gender filter?. *Gender and Education*, 17(4): 369-386.
- Busch, T. 1995. Gender differences in self-efficacy and attitudes toward computers. *Journal of Educational Computing Research*, 12:147-158.
- Cartwright S, & Cooper CL, eds. *The Oxford Handbook of Organizational Well Being*. Oxford University Press; 2008.  
<http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199211913.001.0001/oxfordhb-9780199211913>. Accessed April 16, 2015.
- Ceci, S. J., & Williams, W. M. 2011. Understanding current causes of women's underrepresentation in science. *Proceedings of the National Academy of Sciences*, 108(8): 3157-3162.

- Chell, E. 2004 Critical incident technique. In, Cassell, Catherine and Symon, Gillian (eds.) *Essential Guide to Qualitative Methods in Organisation Studies*. London, UK, Sage, 45-60.
- Cheryan, S., Siy, J.O., Vichayapai, M., Drury, B.J., & Kim, S. 2011. Do female and male role models who embody STEM stereotypes hinder women's anticipated success in STEM?. *Social Psychological and Personality Science*, 2(6): 656-664.
- Correll, S.J. 2001. Gender and the career choice process: The role of biased self-assessment. *American Journal of Sociology*, 106(6): 1691-1730.
- Cotter, D.A., Hermsen, J.M., Ovadia, S. & Vanneman, R. 2001. The glass ceiling effect. *Social Forces*, 80(2): 655-682.
- Ehrlinger, J., & Dunning, D. 2003. How chronic self-views influence (and potentially mislead) estimates of performance. *Journal of Personality and Social Psychology*, 84(1): 5-17.
- Etzkowitz, H., Kemelgor, C., & Uzzi, B. 2000. *Athena unbound: The advancement of women in science and technology*. New York: Cambridge University Press.
- Etzkowitz, H. & Ranga, M. 2011. Gender dynamics in science and technology: From the "leaky pipeline" to the "vanish box". *Brussels Economic Review. Special Issue Beyond the leaky pipeline – Challenges for research on gender and science*, 54(2/3): 131-148.
- European Commission. 2013. *She Figures 2012. Gender in research and innovation*. Luxembourg: Publications Office of the European Union.
- Feeney, M. K., & Bernal, M. 2010. Women in STEM networks: Who seeks advice and support from women scientists?. *Scientometrics*, 85(3): 767-790.
- Feldman-Summers, S., & Kiesler, S.B. 1974. Those who are number two try harder: The effect of sex on the attribution of causality. *Journal of Personality and Social Psychology*, 30: 846-855.
- Flanagan, J.C. 1954. The critical incident technique. *Psychological bulletin* 51(4): 327.
- Fox Keller, E. 1995. *Reflections on gender and science*. New Haven: Yale University Press.
- Gulati, R., & P. Puranam. Renewal through reorganization: The value of inconsistencies between formal and informal organization. *Organization Science* 20.2 (2009): 422-440.
- Huang, C. 2013. Gender differences in academic self-efficacy: a meta-analysis. *European Journal of Psychology of Education*, 28(1): 1-35.
- Hughes, H., Williamson, K., & Lloyd, A. 2007. Critical incident technique. *Exploring methods in information literacy research. Topics in Australasian Library and Information Studies*, 28: 49-66.
- Katila, S., & Meriläinen, S. 1999. A serious researcher or just another nice girl?: Doing gender in a male-dominated scientific community. *Gender, Work and Organization*, 6(3): 163-173.
- Kegen, N. 2013. Science networks in cutting-edge research institutions: Gender homophily and embeddedness in formal and informal networks. *Procedia - Social and Behavioral Sciences*, 79(6): 62-81.

- Lawrence, P. R., & J. W. Lorsch. 1967. *Organizations and environment: Managing differentiation and integration*. Cambridge MA: Harvard University Press.
- Martocchio, J.J. & E.M. Whitener. 1992. Fairness in personnel selection: A meta-analysis and policy implications. *Human Relations*, 45(5): 489-506.
- Miller, C.F., Lurye, L-E., Zolsuls, K.M., & Ruble D.N. 2009. Accessibility of gender stereotype domains: developmental and gender differences in children. *Sex Roles*, 60: 870-881.
- Nosek, B.A., Smyth, F.L., Sriram, N., Lindner, N.m., Devos, T., Ayala, A., Bar-Anan, Y., Bergh, R., Cai, H., Gonsalkorale, K., Kesebir, S., Maliszewski, N., Neto, F., Olli, E., Park, J., Schnabel, K., Shiomura, K., Tudor Tulbure, B., Wiers, R.W., Somogyi, M., Akrami, N., Ekehammar, B., Vianello, M., Banaji, M.R., & Greenwald, A.G. 2009. National differences in gender-science stereotypes predict national sex differences in science and math achievement. *Proceedings of the National Academy of Sciences*, 106(26): 10593-10597.
- Ragins B.R., & J. L. Cotton. 1991. Easier said than done: Gender differences in perceived barriers to gaining a mentor. *The Academy of Management Journal*, 34(4): 939-951.
- Ragin, Charles C. & Becker, & Howard S. 1992. *What is a Case? Exploring the Foundations of Social Inquiry*. Cambridge, USA: Cambridge University Press.
- Rhoton L.A. 2011. Distancing as a gendered barrier: Understanding women scientists' gender practices. *Gender & Society*, 25(6): 696-716
- Roethlisberger, F.J. & W.J. Dickson. 1939. *Management and the worker*. Cambridge MA: Harvard University Press.
- Scott, W. 1998. *Organizations: Rational, Natural, and Open Systems* 4th ed., Upper Saddle River, NJ: Prentice Hall
- Shen, H. 2013. Mind the gender gap. *Nature*, 495(March 7): 22-24.
- Smith-Doerr, L., & W. W. Powell. 2005. Networks and economic life. In R. Swedberg (Ed.), *The Handbook of Economic Sociology*: 379-402. New York, NY: Russel sage Foundation.
- Thompson, J. D. 1967. *Organizations in action*. New York, NY: McGraw Hill.
- Wageman, R. 1995. Interdependence and group effectiveness. *Administrative Science Quarterly*, 40(1): 145-180.
- Yin, R. K. 2003. *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.

## **APPENDICES A and B**

## APPENDIX A. TABLES RELATED TO CHAPTER 3: METHODOLOGY

Table A1. FBK respondents by research unit, role and gender

Unit	Interviewees by role (N)	Interviewees by gender (N)
FBK1	1 head of unit	1 M
	1 senior researcher	1 F
	3 researchers	3 M
	2 project collaborator (post doc)	2 M
	4 PhD students	3 M; 1 F
FBK2	1 head of unit	1 M
	1 senior researcher	1 F
	4 researchers	3 M; 1 F
	1 project collaborator	1 M
	4 PhD students	3 M; 1 F
FBK3	1 head of unit	1 M
	2 researcher	2 M
	1 project collaborator	1 F
	2 PhD students	1 M; 1 F
FBK4	1 head of unit	1 F
	1 senior researcher	1 M
	2 researcher	1 M; 1 F
	1 PhD students	1 M

Table A2. ITU respondents by department, role and gender

Department	Interviewees by role (N)	Interviewees by gender (N)
ITU1	1 head of department	1 M
	1 deputy head	1 F
ITU2	1 head of department	1 M
	3 lecturers	2 M; 1 F
	1 research assistant	1 M
ITU3	1 associate professor	1 M
	1 assistant professor	1 M
ITU4	1 professor	1 F
ITU5	1 professor	1 M
ITU6	1 professor	1F
ITU7	2 professor	1 F; 1M
ITU8	1 professor	1 M
ITU9	1 professor	1 F

Table A3. SWU respondents by department, role and gender

Department	Interviewees by role (N)	Interviewees by gender (N)
SWU1	7 associate professor doctor	7 M
	2 chief assistant professor doctor	2 F
	1 chief assistant professor	1 F
	2 assistant professor	2 F
SWU2	1 associate professor engineer doctor	1 M
	4 chief assistant professor engineer	1 M; 3 F
	1 chief assistant professor	1 F

Table A4. UU respondents by department, role and gender

Department	Interviewees by role (N)	Interviewees by gender (N)
UU1	6 professor	4 M; 2 F
	8 senior researcher/lecturer	4 M; 4 F
	4 postdoc/research fellow	2 M; 2 F
	4 administrators	4
	12 PhD students	7 M; 5 F
UU2	2 professor	2 M
	6 senior researcher/lecturer	2 M; 4 F
	2 postdoc/research fellow	1 M; 1 F
	3 administrators	3
	7 PhD students	3 M; 4 F
UU3	3 professor	2 M; 1 F
	5 senior researcher/lecturer	2 M; 3 F
	2 postdoc/research fellow	1 M; 1 F
	2 administrators	2
	3 PhD students	1 M; 2 F

Table A5. Feedback sessions in the four institutions – Date and participants

Meeting	Date	Participants by role	Methods used	Issues raised	Actions	Impressions /reactions
<b>FBK</b>	19/12/2013	All members of FBK3 (head, junior and senior researchers, PhD students)				
	13/2/2014	All members of FBK1 (head, junior and senior researchers, PhD students)				
	03/4/2014	All members of FBK4 (head, junior and senior researchers, PhD students)				
	28/4/2014	All members of FBK2 (head, junior and senior researchers, PhD students)				
<b>ITU</b>	4/3/2014	Head of ITU1				
	9/6/2014	Members of ITU10 (mostly research assistants)				
	1/7/2014	Members of ITU1 (mostly research assistants)				
	25/2/2015	Head of ITU1				
	25/2/2015	Head of ITU10				
<b>SWU</b>	n.a.	Head of department, associate professors, assistant professors, PhD students, Administrator				
	19/3/2014	Head of department, 2 associate professors, assistant professors, PhD students				
	20/5/2015	Head of department, chief assistant professors, chief assistant professors				
	28/5/2014	All department staff was invited: none participated				
	29/5/2014	Department: associate professor, chief assistant professor, administrator				
<b>UU</b>	17/1/2014	Head of UU3				
	5/6/2014	Head of UU3 and work environment specialist				
	9/11/2013	Head of UU2				
	5/3/2014	Head of UU2				
	23/9/2013	Head of UU1				
	9/4/2014	Head of UU1				
	11/4/2014	Head of UU1, work environment group, personnel administrator and safety officers				
	20/5/2014	Steering group (UU1)				
	16/10/2014	Department board (UU1)				

Table A6. Examples of completed logbooks

Part ner	Date	Participants	Methods used	Issues	Policies/actions	Impressions/reactions
FBK	13/02/2014	Head of FBK1, researchers, PhD student	The FESTA staff presented the main results of the interviews conducted to all the members of the research unit. Graphical tools and slide presentations were used to summarize specific decision-making and communication processes, as a way to stimulate a discussion on the effects of such organisational layouts on the unit effectiveness and well-being. The approach used (and openly declared) is to share evidence, free from judgments, not to offer pre-packed solutions. An open discussion between participants on the most sensitive issues arisen followed the presentation.	Work environment and need for sociability intra unit Recognition of the presence of an inner circle that drives the decision-making. Exclusion of PhD students and post doc fellows from the decision-making processes; The presence of a female senior researcher is considered a guarantee of gender equality	Send email to the unit email address when people join/leave the unit. Update the News section on the website of the research unit, with reference to the status of the projects (acquired/started/finished) Set sofas, tables (with newspapers) and coffee/tea machines in the corridor Organize celebration events/toasts (e.g., after PhD defence, the financing of a project...) Collect or circulate proposals for free-time activities via email; an ad-hoc email address will be created by the head of the unit.	General involvement in the discussion. Mainly the post doc researchers and the PhD student raised delicate issues (for the unit) such as the work environment, the “cold atmosphere” and their effect on the working conditions.
ITU	4/03/2014	Head of ITU1	We prepared a set of questions related to the findings we reached during the monitoring of the informal processes of decision-making and communication.	Lack of attendance at department meetings. Lack of financial resources. Problems with hiring new faculty staff. Positive side of informal mechanisms. Low participation of women in management positions at university level.	Organize informal gatherings (tea-talk parties, brunch at weekends) to foster better communication with the head. Design all course schedules accordingly so that all department members can be free in the same day at the same hour. Publish newsletters to share accurate information about university.	We organised a meeting with one person only who is the head of department. The head of department was very interested in our project and enthusiastic in the discussion. The head of department supported us to organize another meeting/workshop with other members of department.

Part ner	Date	Participants	Methods used	Issues	Policies/actions	Impressions/reactions
SWU	20/05/2014	Head of department (associate professor), chief assistant professors, assistant professor	We briefly presented FESTA, SWU role in the project and we described the overall intentions of the team aiming to initiate changes in favour of female researchers. The objectives of WP4.2 and some activities were also presented. Some critical findings about informal decision-making processes and impressions were presented and compared with examples from foreign partners' institutions. We shared some interesting details and facts (especially regarding gender and gender stereotypes from the interviews they had carried out).	All participants confirmed that inner circles exist at the faculty and the university but not in the department. They regretfully confessed that lots of informal decisions were made on higher levels especially in terms of promotion. All agreed that the promotion criteria and procedures were gender neutral but women faced many more challenges in their career progression. They told us that gender issues had never been discussed neither during formal meetings nor in private talks between individuals. Some of them provided examples of gender imbalance on senior levels of management and governing bodies. All of them were very interested in the foreign experience, practices, and initiatives in the field of gender and asked for more information.	Create a circle of those who are interested in gender issues and subsequently initiate the establishment of a gender office at the university. Translate and circulate among the academic staff the most interesting findings from the FESTA surveys. Search for donor organisations which could support gender initiatives. Organize more events (meetings, discussions, etc.) devoted to significant gender issues in the academic context.	All the participants demonstrated positive attitude towards FESTA and high interest in gender issues. They expressed their willingness to contribute to future initiatives and participate in any event organised by the FESTA team. In their own words: "You can always count on us for your initiatives". The atmosphere was friendly and discussion was open and intense (all participants interrupted us many times in order to ask or comment).
UU	05/06/2014	Head of UU3, work environment specialists	The department has completed a survey on the work environment together with another department, which results corresponded well with the results of the mapping of informal decision-making etc. The head therefore wanted to integrate the FESTA task with the survey. S/he asked us and a work environment specialist at the HR division to come with suggestions on how this could be done in a fruitful way. We also recapitulated the main issues raised in the first meeting and some actions were proposed.	At departmental level the organisation and decision-making is well defined. The internal organisation at division level varies and has so far not been fully transparent. The internal decision-making of some divisions are not transparent regarding how tasks and resources are allocated at the division, for example internal research money, PhD supervision and teaching. Regularity of information meetings inside the research programmes is very different (from no regular meetings to meetings once a week).	A document will be developed in order for everyone to better understand the internal decision-making processes of the different divisions. Regular information meetings inside all research programmes.	Very positive and productive atmosphere. The head of department has a positive attitude towards improving the work environment and gender equality and makes things happen. S/he has successfully worked to improve the formal decision-making and communication processes at central level. However, s/he has to convince the programme-heads to do the same and operates in an environment that is rather uninterested in gender issues.

## **APPENDIX B. FINDINGS FROM THE QUALITATIVE RESEARCH**

This appendix presents the findings derived from the interviews conducted at each of the four participating institutions. The material collected at each unit/department is summarised and systematised to offer the reader an analytical view of the main organisational processes found at our target institutions. Consequently, the interpretation of findings presented below aims to give a concrete picture of the informal decision-making and communication processes in the partner institutions. Coherent with our methodological approach, we decided to include for each unit/department a section on the role of gender in these processes.

For each partner institution, a brief description of the institutional and micro context is offered in order to provide information about the specific context in which the monitored processes occurred. Then, for each individual case study within the institution, processes and highlighting issues relating to (1) decision-making, (2) communication and (3) gender are extensively described.

### **B.1 Analysis from Fondazione Bruno Kessler (FBK)**

#### ***B.1.1 Institutional and micro context***

Fondazione Bruno Kessler is a non-profit organisation - with legal entity of private law - that operates in the field of research. It includes two main technological-scientific research centres containing different research units within the Information and Communication Technology (ICT) and the Material and Microsystem (MM) fields.

Each centre is run by a director (with research and managerial competences) who is nominated by the Board of Governors and holds office for three years. S/he is vested with ample autonomy of action in defining and promoting the centre's activities and the power, tasks and obligations normally conferred to the subject in charge of managing the centre's assigned budget, of using its assets and instruments and of coordinating its active staff. Moreover the director, as empowered by the board of Governors, organises the centre into research units.

The ICT centre consists of eleven units whereas the MM centre is made up of twelve research units and two applied research units. The research unit constitutes the basic unit, located at the micro level of the organisation. The numbers of the research units' staff vary between seven and twenty individuals and they are either researchers or technologists - with temporary or permanent contracts - and PhD students (mainly) from the University of Trento.

Each unit is led by a head, in charge of proposing, running and implementing research projects, who reports and depends directly to the director.

Each director calls periodical meetings with the heads of units called *research board*. It is an advisory groups that supports each director in:

- defining strategies for scientific engagement, technology transfer and for engagement with the local territory;
- collecting input on matters related to the operation and management of the centre;
- collecting information regarding activities of the research units;
- promoting uniform communication towards the personnel of the centre.

The board is called on by the director to comment on matters of both strategic and vital importance to the centre. In addition to contributing instances and issues from the research groups which they lead or to which they belong, board members are called on to take co-responsibility for the overall

smooth functioning of the centre and to provide input on important matters such as the centre organisation, strategic planning of the research agenda, and budget definition and management.

Gender and/or equality offices/boards or any other related institutional body and officer are not present in FBK.

### ***B.1.2 Findings from research unit FBK1***

The unit is led by a male senior researcher, albeit in the unit it is possible to distinguish two different sub-groups. A sizable share of the group is supervised by a female senior researcher and has a specific focus within the field of the unit. Out of the eleven members of the staff, two are women (one senior researchers and one PhD student).

#### *Theme 1: decision-making*

The unit is well organised and can be viewed in terms of a simple top-down research organisation, with attribution of tasks, specialization, and line of command, which are clear and well understood by everyone. Most of the decision-making is taken by the head and the senior researcher and there is a shared culture of “shielding” the junior positions from the “troubles” of decision-makings. These are viewed as issues distracting people from core scientific production. Junior researchers do not contribute at all to decision-making, albeit some feedback from them is incorporated in the implementation of the research agenda.

The two sub-groups of the unit are relatively independent in setting the research agenda since the research areas belong to largely separated scientific communities. This agenda is largely set by the two leaders and two out of the three mid-level researchers contribute actively as they are closer to the state of the art (i.e., they are part of editorial boards of conferences and journals, they are invited as speakers to important workshops, symposia and so on). From the top, the perception is that this process largely relies on the initiatives undertaken by the various scholars. Decision-making is also influenced by the lines of funding, which set clear, albeit general, boundaries on the research topics. Group meetings are rarely used for setting the strategic lines of the agenda, apart from an annual budget meeting. At the operational level, some details of the research strategy are fine-tuned both interacting with the lower levels (feedback from post-doc fellows, in particular, is encouraged) and during weekly meetings. Post docs have a role in mentoring doctoral students in order to align their interests and competences with the research agenda.

The fundraising strategy is coordinated between the two sub-groups in terms of exchanges of information on opportunities, calls, networking, and in the interactions with the institution’s funding support office. Conversely, fundraising activities are pursued very autonomously by the two sub-groups at the operational level (implementation, proposals, management, etc.) Overall FBK1 has a considerable self-financing capability which is largely supported by industry collaborations. Post doc and PhD students are largely excluded from fundraising activities. The perception by the leaders is that such activities cannot be delegated.

Decision-making on individual use of funds, allocation of space and of other material resources is rarely problematic and is managed by the head of the unit. In the past the unit has experienced conflicts of office space resources with respect to other external units and the institutional policies of space allocation. These issues have largely been solved.

Decision-making on allocation of people to projects is a process largely determined by funding strategies. Usually, new funding lines allow for the recruitment of new temporary positions (post

doc), while investigating whether a new promising line of research is viable, by determining if it is possible to recruit a new doctoral student. A related issue is represented by authorship of articles: usually papers are co-authored between three scholars. Division of labour is well designed so it is often easy to figure out the main contributor to a project, normally a doctoral student or a post-doc, who is given the first author role. The main author typically also presents the paper at conferences. The rare cases of conflicts arise mostly in cases of joint co-operation with external institutions. Participation and presentation to conferences is encouraged both for younger scholars (for presenting papers) and for seniors (for networking). Decision-making on conference participation is mostly conducted by the head of the unit, using accepted papers as a criterion. The relative abundance of budget for scientific dissemination keeps conflict in this domain at a very low level.

The involvement of junior personnel in other menial tasks is kept to a minimum (there are relevant administrative duties delegated to post docs and PhDs), with the exception of help needed when hosting major conferences (which are viewed as an opportunity for the younger scholars to build ties with reputable scientists).

Overall, most of the decision-making occurs within a very narrow, two-headed, inner circle, which is fostered by the perception on the part of the seniors that it is their duty to help younger researchers in staying productive and focused by directly taking care of most of the decisions. Juniors know that they are excluded from the decision-making process but are quite happy about that because they share the perception that those tasks could be a distraction from their goals.

### *Theme 2: communication*

Information sharing and coordination between the two sub-groups mostly occurs at the top between the two leaders, mainly via email. Weekly group meetings are the basis for presenting updates on a specific line of research and some time is reserved for communication on other topics. All members of the unit perceive attendance to these meetings as mandatory. Moreover, each of the two sub-units organizes their own weekly meetings with the same objectives. By contrast, there are no formal recurrent meetings for more strategic activities or for other communication purposes.

A lot of communication occurs at the sub-group level. For the lower levels this is mostly about keeping the supervisor(s) updated on the status of their research. The unit uses a mixture of informal communication (face to face) due to the small size and collocation of the group in adjacent offices, and electronic media (mainly email) or video conference (mostly because some younger researchers tele-work on a part time basis).

Informal venues for communication are represented by the morning coffee break and the lunch break. Conversely, the practice of a common afternoon coffee died down at some point last year. Sometimes these events might informally start work conversations, which can spur people to set up more formal meetings or to continue to discuss the topics via email. It is common perception that these venues are also useful as a place for people to chit chat and unwind a little bit before returning to work. Due to the nature of the research tasks (mostly based on individual work on software coding, testing and similar computer based activities) people do not interact much during working hours and there is a perception, especially at the junior level, that the organisational climate is really performance driven and suffers from the absence of informal communication.

### *Theme 3: gender*

Gender issues are often reduced to a matter of numbers (relative frequency of females for each level/role/standing). In fact, when openly speaking about gender issues, many would retort “we put

a premium on competence”, implying that it does not matter if some member of the unit is male or female, as long as they are good. Gender issues seem to be perceived differently by male researchers and female researchers. Males generally do not mention any gender related issues as far as research activities, decision-making, and communication are concerned. Some of them believe that the presence of a female leader is proof of a balanced and fair approach to gender issues in the unit. Women are more articulate with respect to this subject.

The leader believes that the inclusion of female researchers in the unit should be promoted because women have different attitudes and sensibilities in approaching research activities: they usually tend to be group players and to take care of common tasks to a larger extent, while males play to impress and have a more individualistic approach and sense of ownership on research topics. While gender diversity is appreciated in principle, the organisational climate seems to suffer from an implicit adherence to a male-driven performance culture, and a general lack of warmth.

### ***B.1.3 Findings from research unit FBK2***

FBK2 is led by a male senior researcher, with significant support by a female senior researcher. The unit is currently undergoing strong changes in terms of composition and governance. According to a recent re-organisation the female senior researcher has become the leader of a three-year special joint research project that combines researchers from other units in the institution and aims, if successful, at becoming an independent unit. At present, there are still common research projects and activities between the investigated FBK2 and the special joint project, while at the same time the two sub-groups are run more and more under autonomous budget and leadership. Three out of the twelve members of the unit are women: one senior researcher, one post doc researcher and one PhD student.

#### *Theme 1: decision-making*

FBK2 has a leadership which is very straightforward in setting the agenda and making sure everyone is able to pursue a clear individual research topic: it is perceived as important for each person to have a specific field of research. The leader considers himself a “benevolent dictator”; he is against a democratization of the research agenda because it would represent a waste of resources. Consequently, most of the decision-making occurs at the higher level and it is then shared to the lower levels and agreed using a silent consent norm (“if you disagree on anything, please let me know your opinion”). However, this top-down approach is not completely devoid of efforts for integrating the ideas coming from the bottom of the group, since feedback from junior researchers is considered important and it is taken into account (for instance in adapting the research agenda according to individual research interests).

Regarding the research agenda setting, the process reflects the small size and the relatively young age of the unit. The unit leader has the prominent role in this, albeit the female Senior research has been more and more involved in the recent years. Both of them believe in the importance of making the most of the skills of the researchers. Everyone in the group seems to share the view that the leader, while being very proactive in setting the group agenda and the individual goals, is also quite open to discussions and to incorporate feedback contributions from the junior staff. Such activities are perceived as very strategic and critically linked to fundraising. In that respect, this activity is felt as a complex process where the two leaders interact with each other and with the institution’s funding support office in order to screen promising lines of funding. They are one of the few units in the institution which have to refuse the participation to promising EU projects because they manage too many of them. Researchers and Post-Docs all routinely contribute to the development of the

proposals, mostly taking into account competences and research interests. Doctoral students are usually not involved directly in the process.

Decision-making on allocation of scarce resources is done by the head of unit without a clear formal procedure in place. This means that the process is rather opaque and tacit but with negligible divergence and conflict with the researchers. This attitude is mirrored by the bottom of the unit, where some researchers admit to not having a clear idea of the processes governing such decision-making. For material resources the head of unit has delegated a researcher who is in charge of the maintenance and of monitoring the obsolescence of computers.

Regarding authorship of articles and participation at conferences, the decision-making follows some clear rules and norms which are shared: in papers co-authored between contributors, authorship is given in alphabetical order and the main contributor usually presents at conferences. The presence of relatively low budget constraints for scientific dissemination purposes keeps conflict in this domain at a very low level.

There is some degree of involvement by lower levels in menial tasks. For instance, there is a female junior researcher who volunteered to organize the calendar of the unit seminars and a male post-doc is in charge of booking the rooms for seminars and other meetings.

Decision-making regarding human resources is considered critical and managing turnover is perceived as particularly critical as puts project deadlines at risk. Junior researchers share the feeling that leaders pay attention to individual skills and invest resources in coaching and in stimulating growth in terms of autonomy, interests, capabilities and performance.

### *Theme 2: communication*

The main venues for discussions and communication sharing are planned formal meetings. There are weekly formal meetings with two main goals: the leader briefs the group on opportunities and news from "outside" (e.g., calls, special issues, funding opportunities, status of projects) and every member briefs the others on her/his progress on the individual research agenda. To discuss specific research projects, weekly scientific sub-group meetings also occur (including PhD students meeting with supervisors).

Scientific seminars are organised without a specific schedule, depending on the presence of special guests or on volunteers from FBK2 who intend to present some results. Impromptu, informal meetings also occur given the rather concentrated nature of the space occupied by the unit. Rarely, if ever, do these involve more than two-three people.

The main mode of communication is face-to-face, sometimes anticipated by a phone call. Overall people consider themselves to be in the loop with respect to the communication occurring within the unit.

### *Theme 3: gender*

People in FBK2 link gender issues mainly to a matter of numerical proportion between of men and women and they point out the presence of at least one woman in every position (senior, junior and PhD student). The proportion of 1/3 is the same as the one found among candidates to the different positions in the unit. Moreover, the presence of a woman with a high seniority is considered as the evidence of gender equality in the unit. The particular structure of governance lessens the perception of gender issues, as there are good role models for both males and females.

The female senior researcher is particularly gender aware and has explicitly requested the substitution of the label “man/month” with “person/month”. She noticed that this demand was perceived more as a feminist claim than as a fairness issue.

Her opinion is that it is difficult to isolate the influence of gender in communication and decision-making processes because everyone displays her/his own personal competences. For example “people tell me that I am good at organizing because I am very accurate. One could see in that a stereotypical attribution of secretarial tasks to women. But, to be honest, I don’t have the impression it’s due to this. I really think I am better than others at this”.

#### ***B.1.4 Findings from research unit FBK3***

FBK3 employs members that are very heterogeneous in terms of expertise, specialties, and even general scientific background (they range from biologists, to physicists, to engineers), so that it is genuinely impossible for the head of the unit to micro-manage the research agenda.

Two out of the seven members of the units are women: one Marie Curie fellow and one PhD students.

##### *Theme 1: decision-making*

In terms of governance, the research unit represents a compromise between a polycentric and a hierarchical organisation. The head helps to coordinate and define the activities, but he never really takes unilateral decisions. Rather, he tends to ask for contributions from the other senior members of the unit, and to pay attention to both senior and junior researchers. Most people claim that there is a good level of autonomy in setting the agenda and a somewhat loose control by the head. The position of a senior part-time researcher is still very unclear to most people: s/he is a senior member of the unit and a Marie Curie Fellow, so s/he has lots of leeway in setting her/his own plans and a good autonomy in spending her/his funds. S/he is currently on a double appointment abroad and it is not clear if s/he should be considered as a full member of the unit or not. There are two other full time researchers on the unit, one of them with a higher status and role. The roster had a recent addition with the recruitment of a second Marie Curie fellow, around one year ago. An important member of the unit is a technician who is instrumental in setting up experiments and obtaining results, s/he is also the person who helps PhD students obtain the chemicals they need for their research projects. Her/his role is appreciated by both the head and the PhD students, but tends to be discounted by the researchers. Generally speaking, we could perceive a good level of common understanding on how decision-making happens in the unit, with the exception of the PhD students who are both totally new to the unit.

The decision-making process regarding the research agenda essentially works as follows: the leader introduces in several meetings a formal presentation of his intended agenda for the following year, stating goals and underlining constraints (e.g., recently the unit lost two mid-seniority members who moved to the president’s office in a consulting role), he then asks people to contribute to the achievement of those goals according to each person’s inclinations and talents. The Marie Curie fellows independently contribute to independent parts of the agenda. It should be mentioned that PhD students are not aware of these meetings, even though this can be attributed to their being new to the unit. Researchers are free to devote some time to personal research goals, as long as they communicate clearly to the leader. One general complaint is that the leader of the unit does not clearly prioritize on goals.

Fundraising has changed over time. Until a few years ago, the head was the only person in charge of it; nowadays everybody is encouraged to spend time writing projects and applying for new funds.

Senior members of the unit have had good success, even if it is not easy to strike a balance between “good” funds (e.g., EU projects, industry financed) and “other” funds (e.g., working on prototypes that can then be used by other research teams). The need to spend time producing machinery is described as good for fundraising and networking, but bad for time allocation. In fact time is considered the critical scarce resource. More than one member of the unit specifically pointed out the necessity to “avoid being crushed by the need for money”.

Recently, the unit has steered towards a more productive approach towards publishing. They simply switched to a strategy of partnering with biologists who seem to publish more and who offer another venue of publications. The head set a rule about trying to publish in highly regarded journals (as a rule of thumb: “publish in journals with I.F. > 3”). No one in the group complained about publishing priorities, except for one member who is strongly opposed to let the lab technician sign the articles (even the ones he admittedly actively contributes to).

Space allocation is not problematic, as everyone seems to have had her/his wishes granted. Most people are assigned to two-persons offices, with one lab office shared by the lab technician and a doctoral student. Resource allocation in general is controlled by the head of the unit, however unit members, down to PhD students have a good leeway in obtaining basic resources. HR management in the unit is a very touchy subject, as the unit has recently been shrunk by decisions coming from above (i.e., the central administration), so the head has been working a lot to convey the importance of working harder to make up for the lost resources. There is an open feeling of resentment over the decision-making happening outside the unit among the more experienced researchers.

### *Theme 2: communication*

The unit is characterised by a high intensity of communication. As a result, even the junior members were very frank and open in offering opinions and telling stories about their work. The leader is open to listening and strives to promote a dialoguing atmosphere. This is appreciated by most people in the unit.

There are formal and informal meeting in the unit. Formal meetings essentially happen on two occasions. At the beginning of the year the unit holds a few to set its yearly and multi-period research agenda. Moreover, all members of the unit can call for a meeting if they need feedback on a project or on a paper. Generally, PhD students don’t attend to and are not aware of the existence of formal meetings. More informal, impromptu, meetings occur very frequently given the concentrated nature of the space occupied by the unit. They rarely, if ever, include more than two-three people. There is a shared understanding that formal meetings would be great for coordination and information sharing purposes, but these meetings do not happen (or only seldom do). Essentially, only some kinds of communication happen via email: communication addressed to the whole group, and for setting internal appointments. An important exception is the relationship between one PhD student and his advisor, as they are not co-located. In that case Skype meetings substitute face-to-face.

A distinct feature of this unit is that members are actively encouraged to establish a solid collaboration network with people belonging to other units in the FBK, even though this runs against a very widespread (in FBK) fear of letting other units know about ongoing research.

### *Theme 3: gender*

Gender issues are very relevant to the researchers belonging to the unit, for different reasons. Only two of the current members are females, however the group has a long history of employing female researchers. One episode that was singled out when recalling special events associated to gender

was the story of a vacancy (for a different unit within the same centre) that most people felt should have gone to one of two female candidates who collaborated with the unit. Instead a male was chosen leaving most people disappointed. “I still wonder why” reported one of the senior researchers, “and I don’t buy this crap about gender, mind you! But in this case, I still don’t get it”.

Both PhD students are married with small children. It is worthwhile to notice that PhD programmes are offered by the local University, and then specific candidates are selected for positions within FBK. The male student (from a very traditional Muslim country) decided to leave his family behind, in order to avoid distractions during his period in Europe. The female student was asked, during the interview to be admitted into the PhD programme (i.e., at the university), to consider carefully whether she wanted to pursue such a demanding career. She was afraid of the climate she would encounter, but in fact she was surprised by the level of attention that her supervisor had for her specific situation, allowing her to work part-time until her baby could be admitted into day care. It should be noted that there is no official policy within FBK for handling such cases. A similar “feel good” story was reported by the female Marie Curie Fellow who, after a very bad experience of sexual harassment in her previous job, has found a welcoming environment in her current assignment. However, she was denied the opportunity to work part time, and her husband is currently a stay-at-home dad.

#### ***B.1.5 Findings from research unit FBK4***

The unit, led by a female senior researcher is characterised by the small size and by the complementarities in competences of its members. To carry out its activities FBK4 relies also on the access to several labs. In all, the unit is made up of seven people; two are the women (the head of the unit and a junior researcher).

##### *Theme 1: decision-making*

The head of unit takes decisions but without imposing them and, most of the time, they follow consultations with the two researchers and the technologist. The level of information and decision-making sharing is really high, therefore nobody feels excluded from these processes. The feeling is that of a close knit and harmonious group characterised by a “family atmosphere” which is mostly attributed to the leadership qualities and style of the unit head. She is esteemed by her staff both for her professional competencies and for her personal attributes such as the capability/availability to listen to people and relate to them. The unit staff feels free to express themselves and are sure they are carefully listened to; this can lead to disagreements and contrasts but they are typically well managed and solved. Trust and esteem are the bases of the relationship with the leader who considers herself a researcher first, and then the head of the unit.

In the unit there is a Marie Curie fellow, defined as a successful researcher by the leader. Within the broad research area of the unit, s/he follows her/his own research project with her/his own perspective. Although s/he is a member of the unit, s/he has a more autonomous position than other researchers do. S/he has close links with the PhD students even if they are supervised by the head of unit and by the senior researcher.

The Leader, together with the male senior researcher, establishes a research agenda consistent with their experiences, competences, networks and collaborations. The following step is sharing the decisions with the mid-senior researcher and the technologist who are invited to actively contribute with considerations and comments.

The researchers are the main participants to the fundraising activities; the head is the centrepiece but all the researchers contribute to writing proposals according to the project domain and to individual competences. The technologist, as well, is involved especially when the project in question focuses on technical aspects and/or on collaboration and partnership with firms. PhD students do not participate in fundraising activities.

Decisions regarding individual use of funds, allocation of spaces and of other material resources does not constitute a problem and is faced collaboratively. As for the physical space, the senior researchers (head of the unit included) are the only ones who have an individual office. The rest of the staff is distributed in shared offices (maximum two per office) and in the four labs.

Decisions regarding people allocation on projects are managed by the head of the unit and are competence-based. Everyone in the staff has a different specific profile so that they together combine a puzzle without redundancy and overlaps. This facilitates the assignment of tasks within and between the projects.

Menial tasks are distributed according to personal inclinations and are mainly managed by the mid-senior researcher and by the technologist. The researcher created the website and provides its maintenance. She started with these tasks when she returned from her maternity leave; as in that period she could not perform lab activities. Since then, she continued dealing with them. The technologist is responsible for the purchasing material used in the labs.

The head of unit decides about recruitment but external restrictions are so many that the decisions are limited and tied to self-financed projects and to the general HR policies set by the Foundation. Positions go through open calls and they mainly consist of PhD positions or short-term collaborations on specific research projects. At the moment there are no opportunities for longer-term contracts. The current PhD student is on his third year and senior researchers are worried about not having budget enough to guarantee her/him a future collaboration.

Participation at conferences is considered by the head of unit both a duty and a right of the research staff. If the budget allows it and papers are accepted, both researchers and PhD students are invited to go to conferences, also to create and reinforce the unit's network. Priority is given to the most relevant conferences, according to the scientific community of reference.

### *Theme 2: communication*

Communication within the unit is very intense and the most frequent modality is the face-to-face; the small dimension of the unit supports this pattern. The unit is characterised by collaborative activities that create the conditions for daily discussions and continuous interactions. Most of the bi-directional communications take place as informal meetings and everyone in the unit has the perception of being involved in the flow of communication.

Formal group meetings involving the whole unit occur once every six weeks, on average, but the regularity depends on the workload and on the amount of information to share. This kind of meeting is called by the head and usually deals with management/administrative aspects, the general status of the unit's projects, financial statements, security, purchases and new policies. Participation at these meetings offers the staff a general overview of the respective activities. Even so, the feeling is that they do not really need actual plenary meetings because they meet continuously informally.

Scientific aspects of the research are mainly discussed in informal meetings specifically involving people who work on the same projects or who are competent in the same topic. Occasionally,

seminars take place during the year (about four seminars per year); most of the time these are planned in connection with a visit from a scientific partner or a collaborating firm or when there are final research results that are worth discussing. Written communication is rare, mainly just to forward received announcements, or when it is crucial to transmit calls with attachments.

### *Theme 3: gender*

Gender issues have been linked to different aspects i.e., power, life/work balance and stereotypes. The head of the unit perceives that women are less trusted than men and, at the same time, the competences and capabilities of men are overestimated. She thinks it has to do with stereotypes but also she believes that men look for the easiest way to behave. In her opinion, a man understands better how another man behaves/perceives/thinks while he is not sure about female behaviours and thinking.

The head of the unit believes that gender differences need to be valued and appreciated as there is not a unique way to complete a task or to play a role. A woman could attempt to become “masculine” but, in the head’s opinion, if she does so she will be a loser because she will never be the same as a man.

Within the unit, she had to demonstrate that she could do her job before being accepted as leader. In the beginning of her leadership, a male member of the unit felt awkward about being supervised by a woman. He now thinks that gender affects leadership styles: while a man is highly hierarchical and imposes decisions, a woman tends to share decision-making and to involve her collaborators more than a man does. He now reports to be very happy with his current head of unit and recognizes that prejudices played a big role on his first attitudes toward a female coordinator.

## **B.2 Analysis from Istanbul Technical University (ITU)**

### ***B.2.1 Institutional and micro context***

Istanbul Technical University is one of the largest technical universities in the country with approximately 30,000 students and 2300 academic staff, providing research and teaching from undergraduate to postdoctoral levels, in science, engineering, architecture and business. The institution has over 454 professors, 205 associate professors, 355 assistant professors, 817 teaching assistants, 89 lecturers, 84 specialists, 182 teachers. 34 per cent of the students and 42 per cent of the teaching staff of the institution are women. Women have also been represented at top management and decision-making positions in the university. With these figures the institution is the leading Technical University of Europe in women representation in its academic staff.

ITU offers a comprehensive education in 38 undergraduate degree programmes and 145 Master's and Ph.D. degree programmes. The university is internationally accredited in all of the undergraduate degree programmes (ABET, EUA, NAAB, IMO) In the institution, there are thirteen faculties, six institutes, eleven centres of research and application, a school of foreign languages, a vocational school, a conservatory. The faculties are: Faculty of Civil Engineering, Faculty of Architecture, Faculty of Mechanics, Faculty of Electrical and Electronic Engineering, Faculty of Textile Technologies and Design, Faculty of Mines, Faculty of Chemistry-Metallurgy, Faculty of Computer and Informatics, Faculty of Sciences and Letters, Faculty of Management, Faculty of Naval Architecture and Ocean Engineering, Maritime Faculty, Faculty of Aeronautics and Astronautics.

There are also several institutes in ITU to carry out postgraduate study and research. The Institute of Science and Technology, Institute of Social Sciences, Institute of Energy, Eurasia Earth Sciences

Institute, and Informatics Institute serve as graduate schools in related areas and organize multidisciplinary research teams and programmes.

Each faculty is composed of two or more departments. In total there are 38 departments. A department is an academic body which offers BA, MA and PhD degree programmes. In other public universities in the country, a department is formed by main scientific divisions. This practice is cancelled out by the ITU and replaced by a new structure in recent years. In this new structure, which is much more flexible compared to the previous formation, there are working groups. These working groups may be changed, i.e., their numbers can be increased, if there is a need. Working groups are formed according to sub- disciplines under a department and they offer courses.

The major actor in a department is the head. After the department members vote for the candidates, the dean of the faculty appoints the head of a department with the rector's approval. Generally there is 1 or 2 deputy heads of departments working with the head. Additionally, there is also a head for each of the working groups.

The department head represents her/his department in the graduate schools and the faculty board meetings. A head works under the supervision of the dean. A department may have different commissions for different subjects such as education, internationalization, and accreditation. The members of the commissions are decided at departmental meetings. A department is also expected to design or make changes on the courses, the current curricula and the new MA and PhD programmes. Working groups propose the need for promotions and new recruitments to be discussed and finalised at department to be presented to the faculty board.

The major source of income of the university is the funds allocated through the annual State budget. In addition to the State funds, which constitute nearly 70% of the university income, the institution generates its own income from the services provided by different units. ITU has two foundations: ITU Foundation and ITU Development Foundation. Main sources for generating income are university foundations and the companies under these foundations such as ARI Technocity (research & innovation companies), KÜLTÜREL A.Ş. (runs all the dormitories and schools at ITU) and ITU NOVA (presents academic work and new technologies developed within Istanbul Technical University to start-up companies). ITU with its qualified human resources, good research infrastructure and strong links with industry and public sector also generates income through public funded projects and industrial projects funded mainly by private sector.

The rector chairs the University Senate and the University Executive Board. The University Executive Board is comprised of deans and members elected by the University Senate. It is mainly responsible for assisting the rector with administrative issues. The Senate is the principal academic body, comprised of vice rectors, deans, directors of institutes and directors of schools, as well as 2 elected members from each faculty. The Senate convenes at least twice in two sessions, once in the beginning and once at the end of every academic year. The rector may call the Senate for extra meetings if necessary.

### ***B.2.2 Findings from ITU1***

ITU1 is located at the Faculty of Natural Sciences and aims to reach scientific advancement in technology, production, and high value-added products. One of the other objectives of the department is to meet the growing expectations of the international research and to create advanced technologies. The department also aims at creating a suitable environment for students who will offer original contributions to research activities in the related fields.

The overall number of the academic staff at the departments is 107<sup>1</sup>. These are twenty female and sixteen male professors; eight female and three male associate professors; six female and three male assistant professors; twenty-eight female and twenty male research assistants; two female and one male specialists.

### *Theme 1: decision-making*

To begin with the general circumstances that are similar in each department, it is important to assert that when a department needs to obtain financial support, department members need to apply to the dean's office. Other than the infrastructure provided by the dean's office, submitting a project proposal to the research fund of the university is frequently mentioned during the interviews. There are possibilities also to submit projects to other national and international funding agencies.

If a department is in lack of human resources, the head needs to apply to the dean's office making a request for necessary vacant positions. In the second step, the dean's office forwards the position requests to the rectorate. The rectorate then applies to the Higher Education Council of Turkey to open a call for positions.

It is significant to highlight that this department is one of the largest departments of the Institution with 107 members. The findings presented here reflect the experiences of only two members of the department.

A departmental meeting, which all the members have to attend, is held occasionally. The head of the department mentions that there are not specific dates or a specified formal schedule for these meetings. If there are urgent cases to decide on, the head calls a meeting. Otherwise, the head waits to have a certain amount of items on the agenda for the announcement of the meeting. Both interviewees tell that there are absentees in every meeting although it is a must for a department member to attend. From the point of the head, researchers do not want to attend meetings because they think that things do not change easily even if they share their problems.

In addition to the departmental meetings, commission meetings are also held intermittently to help departmental administration. The department has several committees for different tasks such as designing course schedules and curriculum or deciding departmental promotion. Deputy head of the department tells that there might be decisions that are agreed on in commissions instead of department meetings. There might be examples of decisions that are discussed among a limited number of department members. Nevertheless, s/he also highlights that those examples are limited and the decisions emerging from committee meetings are voted in departmental meetings to be finalised.

Both interviewees complain about the limited financial resources. They agree that, because of this, making decisions on financial issues is not a huge task. What they have in terms of funding has to be spent on laboratory costs. The deputy head highlights the desperate need for consumables in the department but as the provided funding is not sufficient, it is not hard to decide on how to use that funding.

In terms of decisions on hiring new personnel, both interviewees' narrations indicate informal decision-making procedures as they agree that instead of the positions they asked for and which are the positions that the department needs, some other positions can be opened which are not chosen

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<sup>1</sup> Data based on statistics collected in 2012.

by the department. On the other hand, deputy head suggests that what a department needs in terms of human resources can be advised by a committee with selected members who are more experienced professors.

The head affirms that there might be inevitable cases where one (who has an administrative role) needs to decide without asking any other members of the department. There are many and many documents that need to be sorted out and it is impossible to review them all in a meeting. Both interviewees also agree that there is a presence of inner circle in decision-making processes that might be useful when time is too short to take a decision.

Deputy head asserts that although decisions come from departmental meetings, there are academics who get appointments to talk with the people who are effective in department's administration. S/he also adds that technology is a barrier for informal mechanisms. S/he thinks that it was much more difficult to reach knowledge when they were younger and informal mechanisms were much more common. S/he is thankful for today's ICT infrastructure as it helps to keep up with all kinds of opportunities.

Although the head thinks informal mechanisms have a positive effect on formal ones in terms of making communication faster, s/he does not believe that researchers choose informal ways in order to reach improper actions. S/he also affirms that even if there are decisions, which are taken before the meetings, they become visible at some point, they have to be visible at the implementation stage, so there is no decision which stays hidden from the public view forever.

### *Theme 2: communication*

As explained above, interviewees from ITU1 said that they meet whenever they feel there is a need yet faculty members are not eager to attend meetings. Although these departmental meetings are mandatory, some professors do not attend to meetings which can weaken the communication among the department members.

Both researchers said that they prefer e-mail for communication instead of paper work. Nevertheless, they underline the fact that formal decisions (i.e., assigning a professor to a specific task) need to be reached by written documents. The head complains about paperwork and questions their necessity. S/he just prefers to get the things solved by e-mail. S/he also emphasizes that if there are critical issues, practices, decisions it is also useful to talk about them face to face in order to have a better understanding. In addition to circulated e-mails, the website of the department is also frequently used for announcements. A female professor stated that information concerning financial issues can be reachable on the internal pages of the department's website which is open to department members.

### *Theme 3: gender*

The head thinks that women are very vocal in defending their rights. But then s/he adds that this could be only a prejudice of her/him. S/he then remarks that this approach should not be perceived as a discrimination against women but interpreted as being disturbed by some female researchers. Nevertheless, s/he also questions the underrepresentation of women in administrative committees/positions at university level. According to her/him, a better representation of women is needed because academia needs different perspectives. Although s/he is aware of this, s/he admits that s/he does not attempt to be a part of a possible change.

What is more important was her/his claim that although there is not a formal discrimination against women, an informal one may come from female researchers themselves. S/he believes that female researchers create the barriers for themselves. Women, according to her/him do not want to take tasks i.e., depending on physical power at laboratories. S/he adds that maybe it is because of the way they grew up. S/he finally acknowledges that there are also male academics who are not capable of performing physically exerting tasks.

### ***B.2.3 Findings from ITU2***

ITU2 is located at Faculty of Management and mainly aims to educate engineers who will contribute to science and technology at national and international levels in the framework of global developments. Developing integrated systems that include people, materials, information, equipment and energy in this direction and supplying scientific support necessary to improve the performance of these systems are the other purposes stated by the department. The researchers within the department conduct both theoretical and practical studies in order to reach these objectives. The overall number of the academic staff at the departments is 48<sup>2</sup>. These are eight male professors; one female and two male associate professors; four female and eight male assistant professors; fourteen female and nine male research assistants; two male lecturers.

#### *Theme 1: decision-making*

Decision-making in each department at ITU needs to be done with the attendance of all department members. ITU2 meets weekly. One of the interviewees mentions that in addition to the weekly meetings, department members may want to have extra meetings whenever an urgent issue comes up. The department management team may also have additional meetings among themselves. When compared to the practice of ITU1, obviously there is much less room for informal decisions outside department meetings.

According to one of the female lecturers<sup>3</sup> in the department, there is no funding allocated to departments and only the computers come from the faculty administration. She says that if five computers are allocated by the faculty administration to the department then the department evaluates both the needs and the career levels of the researchers to decide how they are distributed. She also mentions that if they need a travel grant, which is not necessarily related to the department tasks they need to apply to the faculty. The head of the department supported what the lecturer mentioned saying that the department for its needs and the department members for research grants apply to the dean's office. According to a new regulation, one needs to have a recent publication ranked by the department in the top tier journals in order to be able to apply for a travel grant. It should be noted that as a policy the university allocates funds for teaching expenditures mainly and expects academics to raise their own funds from different resources for research such as ITU Research Fund, TUBITAK or private sector at national level and international funding agencies (EC, NATO, NSF, etc.)

In terms of hiring new personnel, the formal regulation is summarised in the same way by all four department members who are interviewed. This regulation is valid for all departments in ITU and it can be stated as follows: department head applies to the dean's office, which transmits the requested position to the rectorate. The rectorate in turn applies to the Higher Education Council. At the final step, the department specifies some criteria that are also mentioned by the head.

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<sup>2</sup> Data based on statistics collected in 2012.

<sup>3</sup> Holding a PhD, waiting to be promoted to assistant professor level.

Furthermore, a research assistant, says that the department also asks research assistants' opinions concerning whether department needs more research assistants or not.

The deputy head of the department says that s/he rarely feels that a group of people has already agreed on a subject before formal meetings. On the other hand, s/he also believes sometimes it might be useful for department members to get together and share their ideas before the meetings, such gatherings might be useful for getting ready for the meeting with observing different perspectives of others. Finally, s/he stresses that the meetings are really significant for decision-making process of ITU2 and that they become more effective if there is sufficient participation.

#### *Theme 2: communication*

In regard to communication processes, it is mentioned that a research assistant is selected to represent all other research assistants at meetings. The representative sends e-mails to other research assistants concerning the decisions coming out from the meetings.

Furthermore, the deputy head says that s/he prefers face-to-face communication instead of e-mails since some professors do not respond to each single e-mail. On the other hand, when an issue is being discussed face-to-face, s/he focuses on the risk that one can lose her/his focus and time, so s/he concludes that e-mails are much more useful. However, s/he adds that it might be difficult to use e-mails every time as s/he already explained why.

#### *Theme 3: gender*

The female lecturer believes that ITU2 is a woman friendly department. She even says that some male members of the faculty are also sensitive to gender issues and they celebrate 8th of March. She adds that it was really hard to be a woman when she was an undergraduate student. At the time, she was living in university dorms and dormitory administration did not allow girls to come in at late hours at night but they allowed their male friends to do so. As a faculty member, it is now not as difficult to be a woman in her department. On the other hand, she also questions the decrease of the percentage of female researchers from research assistant level to professorship level. She underlines that 70% of research assistants are female in the department but the department has only 2 or 3 female professors.

The deputy head opens up a discussion where informal decision-making groups and gendered decision mechanisms interconnect. S/he says that there is not a direct decision emerging from the meetings, whether formal or informal. However, informal groups may be formed on the basis of gender. According to her/him, male researchers can come together more easily without aiming to discriminate females. They aim to spend time together just because they get along well. So, s/he continued that different viewpoints might not be expressed in such informal groups.

#### **B.2.4 Findings from ITU3**

ITU3 is located at Faculty of Mechanical Engineering and has the mission of providing world-class education at the undergraduate, graduate and professional levels to engineers who will assume positions of responsibility for the design, production, research and development in various industrial and research organisations. The department also aims to conduct research that generates competitive technology that will address the specific problems Turkey faces.

The overall number of the academic staff at the departments is 144<sup>4</sup>. These are three female and thirty-nine male professors; ten male associate professors; four female and twenty-four male assistant professors; eleven female and forty-six male research assistants; five male lecturers and two male specialists. It can be clearly observed that women's representation in the department is very low, especially when compared to other departments presented above. As stated by several researchers (ETAN Report 2000, Winckler 2006.) traditional engineering areas such as mechanical engineering attract less female students and this is reflected in a low representation of women at ITU3.

### *Theme 1: decision-making*

ITU3 meets monthly and the meetings are open to all department members who have completed their PhDs. The research assistants who have not yet completed their PhDs are not invited to departmental meetings. An associate professor in the department mentions that the department members meet once a month, but additional meetings can be held whenever the administrative staff believes it is necessary. According to her/him, the decisions coming out from the meetings are not that important since their implementation is dependent on the individual decisions of people who are in administrative roles. S/he said that "they should not be called decisions, they are only the suggestions emerging from the meetings". Therefore, from her/his perspective, informal decisions of people in administrative roles may play an important role for the department. S/he then added that administrative people also need to consult department members when they plan significant changes.

An assistant professor in the department claims that s/he does not believe that meetings are useful in terms of developing the tools for better education and research. Instead of such tools, some other bureaucratic issues such as course schedules, language of instruction, etc. dominate the meeting agenda. S/he wishes to have meetings whenever research areas, new research opportunities or strategies for a better teaching are being discussed.

In terms of financial resources, the associate professor shows a similar approach to the members of other departments. According to her/his knowledge, there is a budget allocated to the faculties from the central budget but s/he was not sure about how that budget is being used. The assistant professor also declares that s/he is not informed about financial resources of the department but s/he does not believe that there is an equal opportunity with regard to distribution of the resources. At least, s/he confirms that there are researchers he knows who have opportunity to reach financial resources. "Finances are never talked about at meetings. I expect to hear how funding is organised in meetings". S/he also highlights the difficulty of getting travel grants from the faculty and adds that s/he generally uses the travel budget from his own projects granted by TUBITAK (The Scientific and Technological Research Council of Turkey) or EU.

In regard to hiring new personnel, the associate professor only talks about the formal procedure that is already explained in the above analysis. The assistant professor complains that when there is a call for a research assistantship position, s/he can only learn about it when it is published on the website, which is one of the last steps of the formal procedure. According to her/him, "if they asked us before announcing the call, then, all department members can contribute to the criteria of the position in the way that they know who is needed for improving the department's research capabilities". It should be noted that after the recent changes in departmental structures, the needs of the department is being decided at working group levels. More precisely, each working group defines the necessary vacant positions to be requested and forward them to the head of department. Therefore,

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<sup>4</sup> Data based on statistics collected in 2012.

the different working groups in one department may not be informed in a formal way about other working groups' requests for new academic personnel.

### *Theme 2: communication*

Communication via e-mail is the most preferred by the interviewees for internal communication. The assistant professor also prefers meetings when it is necessary. S/he emphasizes that the department needs meetings where researchers may have brainstorming together. According to the associate professor, researchers who use informal communications such as lobbying, become very successful in their research careers. S/he believes that there are some special opportunities created for a group of people in the department. S/he did not refer to any gender aspect of such lobbying but rather emphasised that some department members might gain more advantages due to informal decision-making processes.

### *Theme 3: gender*

According to the associate professor, the department management might be insensitive about women's pregnancy and female researchers may experience difficulties because of this. For example, s/he says that if a woman is not feeling well during her pregnancy, the department may not allow her to take leave. On the other hand, s/he claims that informal mechanisms are independent of gender and the information circulating around does not reach certain groups of researchers both male and female.

### **B.2.5 Findings from other Interviewees**

Interviewees illustrate internalization of gender schemas by some female as well as male academics from time to time. A faculty member from ITU4 says that female professors are more emotional. One other professor also tells that female professors are much more sensitive and their emotional intelligence may play an important role in their decision-making processes.

The dean of ITU5 says that their department takes decisions that favour women. Since women do not want to have classes after 5pm, late classes are distributed among male professors. The professor mentions this situation as an example of positive discrimination policies they follow. S/he interprets it as a positive discrimination because s/he believes females need to go home early so that they can have time for their children or domestic work. S/he then claims informal tools of decision-making do exist and the faculty members working at administrative levels should be working for minimizing such mechanisms. S/he also adds that if there is an open position for instance, it's legally compulsory to inform people about it. Nevertheless, there are of course some spontaneous verbal processes emerging before the formal written ones. If one needs to open a position to hire a new faculty member, it is customary to ask verbally in order to learn if it is the correct time (There are certain dates in the HE system to make calls for academic vacancies). If you get a positive answer, then the formal processes automatically begin. In regard to gender issues, s/he says that the numbers of female researchers and students are really high in their department. S/he also adds that s/he cannot imagine females working at dirty places such as mining areas.

A member of university Senate from ITU6, points to a common motive when the issue is informal mechanisms. S/he clearly accepts their existence at the university by stating that if those mechanisms are for getting ready for coming meetings, they are helpful. He means that if they are used to evaluate researcher's reactions on a specific subject, then an informal way of collecting information could be applied. Another professor from department of ITU7 exhibits a similar approach saying that s/he believes informal tools are very useful and they are needed certainly. Yet,

s/he does not call such mechanisms 'informal'. Indeed, s/he finds the word "informal" very repulsive. For her/him, it is necessary to make preliminary studies before starting with formal procedures. S/He also believes that is very useful to consult other people who are more experienced, and one cannot call this an informal tool, this is the way it is in most of the countries, according to her/him. In regard to gender issues, he definitely rejects that there is gender inequality in academia. From her/his point of view, academic people never attempt to make discriminations against women.

### **B.3 Analysis from South West University (SWU)**

#### ***B.3.1 Institutional and micro context***

South West University is a public higher education institution founded in 1975 and committed to both teaching and research. Currently, SWU comprises eight faculties and a college encompassing natural sciences and technologies, social sciences and humanities, arts and sports.

The department could be considered as micro level since this is the basic unit of the University, which is responsible for teaching and research in a number of disciplines. The department initiates recruitment of new staff and promotion of its members; it decides on distribution of PhD students to supervisors; it designs study programmes and organizes their approval (institutional) and accreditation (national); organizes attestation of the staff; develops scientific plans and participation in research projects; etc. Nevertheless, most of its decisions must be endorsed by the Faculty Council (and in some cases by the Academic Council of the University).

It is governed by head (chair holder) who is elected by the members of the department (full-time academic staff) for four-year terms of office (unlimited in sequence). S/he must be habilitated and work on permanent contract at the department. The head of department does not have deputies. Some departments appoint a Scientific Secretary to support their head but this is not an established position (in terms of legal codes and regulations).

The members of the academic staff (called according to the law "scientific and teaching staff") occupy permanent positions if successful in open competition procedures. There are three types of obligations for the members of the permanent academic staff – research, teaching and administrative duties. The teaching load at SWU is 180 hours of lectures per year (for habilitated academic staff) or 360 hours seminars/workshops (for non-habilitated staff). This sets up the norm for the wages. Research is the second major obligation of any academic position but there are no specific regulations or quantitative norms about the research load except this that it could be 2/3 of the total working time.

The General Assembly of the University is the supreme governing body which elects the rector and the members of the Academic Council. It endorses the institutional regulations and codes, the mission and the overall policy. It is chaired by its chairman (there is also a vice-chairman). The General Assembly meets at least once a year and has a four year mandate. It consists of all habilitated staff (professors and associate professors) and representatives of non-habilitated staff (chief assistant professors), students and administration. Similarly, the General Assembly of the Faculty (consisting of all permanent staff and representatives of students and administration) elects the dean and approves the overall policy of the faculty.

The major governing bodies are the Academic Council and the Faculty Councils. They take decisions on the most important issues concerning the operation of the whole university or a faculty. Some other permanent or temporary bodies also play significant roles in the academic life. At the South-West University these are the Supervision Council, Quality Assurance unit, University Selection and

Promotion Committee, University Research Committee, Attestation Committees (at the faculties), etc. There are a number of research centres. All the staff members of a department on permanent contract constitute the Departmental Council, which elects the head of the department. Neither the departmental council nor the faculty councils (respectively the head and the dean) decides on financial issues since this is a responsibility of the university Academic Council and the rector. So, the faculties are relatively independent divisions but not financially.

The major management positions are the rector, the deans and the chair holders (i.e., heads of departments). All the governing bodies and management positions have 4-year mandates and are occupied by covert voting in different kinds of elections. Vice-rectors are elected by the Academic Council and the vice-deans are elected by the Faculty Council. All of them must be habilitated individuals working on permanent contract with the university. The rector and the deans as well as their deputies are allowed to occupy their positions (if re-elected) in only two consecutive terms of office. There is not such a limitation for the appointment of the head (who is also elected every 4 years).

All important decisions (including those affecting all aspects of the individual work of any researcher) are also made by overt or covert voting. So, the university structures are hierarchical and centralised with strong and powerful decision-making bodies and the election culture is dominant with all its positive and negative phenomena. Decision-making bodies, roles and processes are stipulated in detail by the HE Act and the internal university regulations.

The distribution of power is top-down and the work performance of every member of the academia depends not only on her/his department (respectively its head) decisions but also on a number of faculty or university decision-making positions and/or bodies (rector, dean, academic and faculty councils, promotion and attestation committees, etc.). At the same time any individual on permanent contract could be (or actually has been) elected as a member of faculty or university decision-making bodies (one or several) thus obtaining some or other kind of real or symbolic power.

These are primarily the rector and her/his deputies, the dean and her/his deputies. Collective decisions are made by the members of the Academic Council. The rector chairs the Academic Council which meets usually once a month. The same happens at the faculty level (i.e., with the dean and the faculty council). The members of the University Selection and Promotion Committee (the deans are members of that committee as well as the University Research Committee) have also certain power to influence the decision-making processes regarding research issues.

As departments and faculties are not financially independent (the university budget and the allocation of funds is approved by the Academic Council and is spent by the central university administration) neither the department nor faculty council (respectively – the heads and the dean) take decisions on funds. In other words, the faculties and departments do not have their own funds but when necessary they could ask (in written form and with sound argumentation) the rector for to provide some amount of money. There is a research fund on university level. The funds are distributed in a competition procedure and on the bases of submitted projects by individual researchers or research teams. Final decisions are taken by the university Research Project Committee. As a matter of fact every faculty has a very small quota of funds and the decision on how to distribute them to the faculty is taken by the Faculty Council.

Gender aspect does not exist in Bulgarian regulations and there is no institutional body, office or even an officer dealing with such issues. In addition, gender matters have never been discussed at university or faculty level.

### ***B.3.2 Findings from SWU1***

SWU1 comprises six departments. It conducts research and provides higher education (bachelor, master and PhD) through its departments in a number of scientific disciplines and research fields. There are a number of research centres and laboratories at this unit. The major research and teaching areas of the individual departments are: Mathematics, Informatics, Physics, Chemistry, Computer Systems and Technologies, Geography, Ecology and Environment Protection.

The overall number of the academic staff working on permanent contract at the departments of SWU1 is 90: 12 professors, 33 associate professors and 45 assistant professors.

Four out of six departments present a higher proportion of men among the academic staff, with a male presence ranging from 63% and 90%. In the remaining two departments, there is a more balanced gender proportion between women and men: respectively, 47% and 54% of the academic personnel are women.

#### *Theme 1: decision-making*

SWU1 is governed by one man and two women. They are members of the faculty council and one of them acts as its chairperson. The faculty council consists of 27 members and meets usually once a month. One of the faculty leaders is also a member of the Academic Council of the university, the university's Selection and Promotion committee, etc. Most of the interviewees are members (apart from their departmental councils) of different faculty and/or university bodies and/or committees – faculty council, academic council, academic ethics committee, quality assurance, attestations, accreditations committees, etc. which work on permanent or temporary basis. All these make them very familiar with the formal and informal decision-making procedures and practices in the faculty and the university as a whole. As all academic staff work on permanent contracts, most of the interviewees have long enough experience and are familiar with all colleagues at the faculty, most of the colleagues at the university and have a deep understanding of the organisational culture of the institution. Thus, some of the interviewees were very cautious about what to say and asked the interviewers for high confidentiality even about “harmless” issues or tried to provide generic answers.

All the respondents confirmed that the leadership style at the faculty is open, flexible, and supportive. The leader of the unit is a very polite and responsive person, who is easily accessible any time and place, but at the same time very strict and precise in her/his work. There were critical voices about the leadership style of some department heads, but the overall atmosphere at the faculty is positive and friendly.

The research agendas are discussed during the meetings of the department and the decisions are taken collectively (by majority vote). Some decisions must be endorsed by the Faculty Council. The agendas are designed according to the competences and expertise of the senior academic staff, as well as their scientific interests. University and faculty strategies and plans are also taken into account when developing research projects. One respondent says that the “friendly relations between some academic staff are also important when elaborating research plans”. The available material resources (in terms of infrastructure, equipment, literature, software, etc.) are also considered. One major problem, bearing significant negative impact on research productivity, is the heavy teaching workload (especially for the junior staff), which is decided at the departmental level (even though endorsed by the faculty council). All the decisions are taken collectively (by overt or covert voting) but the head of the department has (in most cases) the strongest influence (as mentioned by several respondents). For some research issues, strong power to influence is also held

by some senior professors with symbolic power due to their scientific achievements, previous (or present) administrative positions at higher levels or their ties outside the university. The opinions of more experienced staff also count. Generally, most of the staff members have a good level of freedom and independency to follow their own research interests and to cooperate with members of other departments, faculties or outside institutions.

All the material resources are property of the University but the faculties and departments can make use of them depending on their needs. Depending on the case, decisions are taken by the Academic Council or the rector. The deans and heads of department can ask to use resources (by written letters) and the operational decisions are taken by the rector or some of his deputies. All staff members, departments and the faculty are free to use material resources granted by the university. The resources obtained by means of projects, donations, etc. are property of the university but usually are at full disposal of those who contributed to obtain them.

The decisions on publishing at the university press are entirely a prerogative of the department council and are also taken collectively (again further endorsed formally by the Faculty and Academic councils). All proposals for publications (to be involved in the annual university publishing plan) are collected during the winter term (September – December) and the whole procedure (i.e., discussions, selection, decisions, endorsements at the different levels, etc.) must be concluded by the end of the calendar year and then the list of the approved works is sent to the Ministry of Education and Science. The university has its own Publishing House, which prints all approved materials during the year (when they are ready to be printed) and distributes the finished works around the country. The university pays for the production of these publications and the authors get small fees from sales.

As for other kinds of publications – only some of them are discussed and approved by the department council. Most of the research staff is free to publish their work where they wish, but during the selection, promotion, attestation and other procedures, the publications in refereed journals and those with higher impact factor are valued.

As the work contract of all academic staff is based on teaching load (certain amount of class hours per year) the department council decides on the individual allocation of classes and the workload of every member (part time and full time) on an annual basis. The allocation of disciplines and classes is decided depending on the personal qualifications and expertise, scientific degrees, the requirements of the study curricula, etc. and the decisions are taken again collectively by overt voting. Further they must be endorsed by the Faculty council. As a matter of fact, the decisions on the teaching load are very often influenced by personal contacts and informal communication before the departmental meetings. On the other hand, although research is expected to be around 2/3 of the overall working time, no allocation is made for scientific activities. This only happens when a project of the department is running and the tasks are allocated by the department council acting as a project team. The head of the department (neither the dean/rector) does not have authority to allocate time concerning research work. It could happen in very rare and specific cases and followed by a proper decision of the faculty or academic council.

Although very reserved and cautious when answering questions about decision-making most of the respondents confess that lots of informal decisions are made in their departments and in the faculty. They split in two almost equal groups in their opinion about the role of the informal decisions and processes. Half of them think that their influence is insignificant to the overall life of the faculty while others state that they have strong impact on everything that goes on at departmental and faculty level. Most of them think that the impact is strong and has negative consequences, while a few are on the opposite opinion. Concerning the issue of the informal power of individual members of the

faculty most of the respondents agree that there are many such people. They give different explanations about the sources of (symbolic) power of those influential persons. They again split when talking about the value of such people. Some of them are ready to offer their authority to help in complex issues, problems or challenges while others exploit their influence mostly for non-academic issues (e.g., to gain some kind of benefits for themselves or their close friends). So, persistence of inner circles is confirmed by almost all interviewees. But those who agree that such circles exist do not want to talk about that and provide only abstract reasoning. Their personal experience in confronting such inner (informal) groups is prevalently negative and a subject which they have not wished to discuss at length and detail.

In order to understand better the decision-making processes at SWU1 we should point out that the major governing bodies in hierarchical order are the departmental, faculty and academic councils. Respectively, the main actors are the head of the department, the dean and the rector, as well as their deputies (the head of the department does not have a deputy). They all are appointed by election of: the head of the department – the department council all full time academic staff (junior and senior); the dean – by the general assembly of the faculty – comprising all permanent staff (junior as well as senior) as well as certain percentage representatives of students and faculty administration); the rector – by the general assembly of the university – comprising of all habilitated staff and certain percentage representatives of non-habilitated academic staff, students and university administration. The members of the academic and faculty councils are also appointed by election (by the general assemblies of the university and the faculty). Academic positions – chief assistant professor, associate professor and professor (after success in selection or promotion procedures) are also occupied by voting by the members of the faculty council. All administrative positions (head, dean, rector, membership in faculty and academic councils) have 4 years of office followed by new elections. This “elective culture” has various implications and impact on the decision-making processes as well as influenced the responses of our interviews. For example, the current rector, one of the vice-rectors and the dean of the faculty (who is also the head of his department) belong to one of the departments of the faculty, so for various reasons we decided not to interview members of that department.

### *Theme 2: communication*

All the respondents explained that they communicate with most of the members of their own department as well as with colleagues from the entire faculty on daily basis since lots of common tasks are running all the time. They also communicate very frequently with colleagues from other faculties and the central university administration being involved in working groups or committees. As a matter of fact, most of them confess that the administrative duties regarding teaching, accreditation, attestation, quality assurance, etc., are considered as huge burdens making it very difficult for them to work for longer periods on their research projects. Since the faculty premises (the dean’s office, faculty administration, the offices of the staff members as well as lecture and seminar rooms, laboratories, etc.) are at one place at the main university building, they have opportunities to meet formally or informally most of the staff every day. The meetings of the departments (department council) are held at least once a month (sometimes much more often). The meetings of the Faculty councils are held once a month (or sometimes – two months) and it is the same with the meetings of the Academic council. Generally, face to face communication is very intense in the departments and the faculty.

Our respondents say that they have practically free access to all bodies and positions at the university (councils, committees, etc.) and can meet and talk with any colleague or superior. Of course, meeting the rector usually requires an appointment but all the other actors are accessible without any specific arrangement.

Communication processes are supported by the secretaries. Each department (sometimes two departments jointly) has a secretary, there is a secretary at the dean's office, as well as at the rector's office. These secretarial bodies together with the experts of the IT department, those at the public relations office, national and international projects office, etc. form a communication net through which most of the official/formal communication flows. Members of the departmental, faculty, and academic councils receive the minutes per mail within a week after the respective meetings. Orders, instructions, announcements and other formal or informal documents are distributed via the university and/or faculty administration through the internal net to the personal addresses of all concerned.

### *Theme 3: gender*

As a matter of fact, gender was not discussed much during the interviews. Even though they were asked questions concerning gender, the respondents were more or less disinterested by this aspect. Those who commented on these issues said that men and women are treated equally at the university and neither the regulations and rules nor the procedures make differences on gender in principle. Generally, there is no real awareness towards different implications of gender around the faculty, and this is probably due to the former policy during the socialist area, when the communist party used to impose "equality" on all levels of society and used to stimulate participation of women in every domain and level of society. Another reason might be the lack of gender discourse in the university sector and on the national level, where it is quite brief and insignificant.

It is also observed that many of them tried to give very abstract, short or neutral responses when touching "hot topics" or provided generic answers in reference to informal decision-making issues.

### ***B.3.3 Findings from SWU2***

SWU2 comprises two departments. Their academic full time and part time staff currently consists of twenty-seven specialists (two professors, thirteen associate professors, twelve chief assistant professors). SWU2 offers three different programmes on bachelor level. Staff and students make use of fourteen specialised laboratories, four computer rooms and four technological laboratories for practical work. The dominating fields of study at SWU2 are – Modelling, Technologies and Design in Textile Industry and Construction of Sewing Machinery. SWU2 is currently in a process of restructuring.

The overall number of the academic staff working on permanent contract at SWU2 is seventeen. Usually ten other people (originating from the Technical university of Sofia) are working on part-time basis at SWU2 and some academic staff from SWU1 also takes part in its teaching and research activities. The permanent staff consists of four associate professors and thirteen assistant professors. Their allocation at the two departments is as follows – 1) department of Electronic and Communication Engineering (two associate and eight assistant professors); and 2) department of Mechanical and Textile Engineering and Technology (two associate and five assistant professors).

The gender distribution in the two departments is: 1) department 37 (% male/female – 50/50); and 2) department 38 (% male/female – 14/86). So, at the first department the proportion of males and females are equal but at the second one the percentage of female academics is quite high. This is probably due to the disciplinary character of the department and the study programmes it offers – Textile Engineering (according to statistics it is preferred predominantly by female students).

### *Theme 1: decision-making*

SWU2 is governed by two female academics. One of them is chairing the council of the unit and is one of its members. The council of the unit consists of twelve members and meets usually once a month. One of the leaders is also a member of the Academic Council of the university, the university's Selection and Promotion committee, etc. Most of the interviewees are members of different internal working groups and/or university bodies and committees meeting on permanent or temporary basis. The members of the academic staff, similar to those of SWU2, work on permanent contracts at the departments of this unit. The interviewees were friendly and responsive but asked for confidentiality regarding their responses.

Those who commented the leadership style at SWU2 said it is effective, rather strict but just, responsive and supportive. The director is demanding, very experienced and organised, energetic and ambitious. The overall atmosphere at SWU2 is fine but in view of the prospective transformation there is a certain feeling of uncertainty.

The research issues are discussed during departmental meetings and the sessions of the council. The decisions, similar to SWU1 and all the other units at the university, are taken collectively. Since the SWU1 and SWU2 are connected in many ways, some decisions must be discussed and endorsed by the faculty council. The research agenda is discussed at the councils of the departments and developed according to qualification and capacities of the individual members. The overall research policy, priorities and framework of the university (adopted by the Academic Council) are also taken into account. Senior academics with recognised achievements have a say in the design of research plans. The same as at the faculty, a crucial problem is the heavy teaching workload and practical work with students. The specific amount of classes and their allocation to every researcher is decided annually at the meetings of the council of SWU2 but proposed by the departments. This has a number of stumbling effects on research performance. All the decisions (just like at all the university and all its bodies) are taken collectively (by overt or covert voting). There are several voices asserting that the heads of the departments usually impose their decisions but usually members accept this, as the heads are trusted. Members of SWU2 participate in research projects of other faculties, but mainly with SWU1.

Similar to the other major units at the university, SWU2 is not financially independent, so decisions are made only about insignificant funds, obtained via projects and donors. If there are urgent needs of some extra funds, the director herself/himself, or following a decision of the council, asks (in written form) the rector. SWU2 has the same rights to benefit from the university research funds although its quota is lower than those of the faculties. SWU2 is free to search for external funds by applying with projects or other means, and has the right to spend them according to what has been contracted but after the approval from the financial office and the rector.

SWU2 is located in a building at a certain distance from the university administration. The staff makes use of various material resources (e.g., premises – general or specific, equipment, laboratory materials; etc.). Decisions on allocating the resources, depending on the case, are taken by the director or the council. Some senior academics have a say when distributing resources to individual members or groups. These are supervisors of students, heads of laboratories, project managers, etc.

Decision-making on publishing follow the same procedure as the other major units, already described for SWU1.

Just like SWU1, here also the time allocation (primarily for teaching load) is discussed and decided (an annual basis) at the departmental meetings but should be formally endorsed by the council of the unit. It is supervised by the Human Resources office. The councils of SWU2 and its two departments do not make decisions (neither the director does) on allocating time for research or administrative activities. They are only free to decide on particular tasks and activities.

Analysing the respondents' answers, we can conclude that the director of SWU2 have a very strong influence in SWU2, being also one of the heads of the departments. Probably for that reason, as well as the small size of the unit, most of the interviewees state that they have never perceived existence of informal processes concerning decision-making. All of them also confess that they have never been subject to negative effects as a result of informal dealings. So, none of them said that they can recognize an inner circle at the level of SWU2.

As a part of the university hierarchy, SWU2 is subject to the decisions taken by the Academic Council and other top management actors (like the rector) and bodies. At the level of SWU2 the most important body is its council, and then the councils of departments. The key actor is the director and its deputy, and also the heads of the departments.

### *Theme 2: communication*

Group meetings and face-to-face communication (formal or informal) is very intense and take place on a daily basis. The premises of the faculty are placed in a single building so they necessarily meet very often. At the same time the councils meet regularly (in accordance with their obligations and tasks). This concerns especially those who work at the laboratories of SWU2 or have classes.

The main media means used are e-mail and mobile phones. The internal network of the building where SWU2 is located is linked to the university with high-speed connections so the academic and administrative staff are constantly connected to the university administration and the other faculties and bodies. At SWU2 there is a free and open communication between all members, and with the superiors. The subjects of communication have been any kinds of topics.

Academic activities of the staff (research and teaching) are supported by the administration of SWU2 – secretaries of the director's office, departments and student's office. They are part of the university administration and actively support the information flow. There are established (approved by the Academic Council) communication rules and regulations about the issue and exchange of documents.

### *Theme 3: gender*

None of the respondents stated that they had ever experienced any kind of gender bias or discrimination. Again, the level of the gender awareness turned out to be considerably low, judging from the manner in which the interviewees commented gender aspects of their work.

## **B.4 Analysis from Uppsala University (UU)**

### ***B.4.1 Institutional and micro context***

Uppsala University is divided in three disciplinary domains which, in turn, are organised in faculties. The Disciplinary Domain of Science and Technology comprises one faculty. Operations are carried out in departments. Each department belongs to a faculty. The Faculty of Science and Technology constitutes one third of the university and consists of eleven departments in the subjects of biology, computer science, physics, earth science, chemistry, mathematics and technology.

A department is governed by the head and the department board. The majority of the members of the department board are academic staff. Students also have a right to be represented in all the decision-making and investigative bodies of the university.

The board decides on the internal organisation of the department, the department's budget, the overall guidelines for activities and action taken on audit reports. It decides to initiate recruitment of temporary teaching positions (excluding adjunct professor, visiting professor, associate senior lecturer and postdoctoral research fellow), and, with the permission of the disciplinary domain or faculty board, recruitment of lecturer. However, the department board can initiate recruitment of associate senior lecturer and postdoctoral research fellow after delegation from board of disciplinary domain or board of faculty. The board also decides to initiate the recruitment of researchers and laboratory, technical and administrative staff, to draft mandate as head of department and to decide on issues the head of department submits to the board.

A department board consists of a head of department, who is the chairperson, four-six representatives of teachers and researchers, one representative from technical-administrative staff and three representatives of the students. Representatives of the students are appointed by the student union for one year at a time. The other members are appointed by election. Board members are elected every three years.

The head of department will work to ensure that research and education of high quality are conducted in the operations of the department and aimed at promoting external collaboration. S/he represents the department within and outside the university. The head of department has a deputy head of department who replaces the head of department in her/his absence. Head of department and deputy head of department are individuals with academic competence. Vice-rector appoints and dismisses department heads and deputy heads of departments in the disciplinary domain.

The head of department has the overall management responsibility and work environment responsibility for operations, as well as for the department's development and for internal management and control, and for the overall economy of the department.

The head of department will as chair lead the department board's work, work for the development of the whole university, be responsible that the department follows the university's goals and strategies, regulations, guidelines and other decisions, be responsible that the department operations are conducted in accordance with applicable laws and regulations, and have employer responsibility in the department. The position as head of department is an assignment for a limited period of time (usually a few years) and should be combined with other duties in the academy. The department board appoints a nominating committee for the election of head of department.

#### ***B.4.2 Findings from UU1***

The organisation and functioning of UU1 is well defined and documented. The diverse internal organisation on division level is also documented, as part of a work environment project launched a few years ago to create structures and routines to ensure a good work environment where everyone has a sense of belonging. The document has been developed in order for everyone to better understand whom to contact with ideas, suggestions and opinions on different matters. The percentage of women in the UU1 academic staff is 23% (year 2015).

### *Theme 1: decision-making*

The department head is very gender-aware. S/he has an inclusive leadership style and like the previous head of department, s/he is very aware of anchoring decisions. Both are perceived to work consciously to avoid hidden power structures and relations, to promote openness and transparency. S/he is perceived as a leader that takes significant decisions together with the steering group and puts a lot of effort into communicating what goes on at the department. We have been told that there is a conscious strategy to nominate consensus-oriented people for managerial positions.

The steering group handles the daily management and execution of the board's decisions. Members of the group are head of the department, heads of the divisions, head of education, head of research, public relations officer, economist, personnel administrator and coordinators for the administrative group and the system support group (twelve roles carried out by four women and eight men at the time of the interviews). There is now gender balance in the steering group due to a newly appointed female head of division (two of a total of five division heads are now women, compared to one before) as well as a female head of research (formerly a male). The steering group has meetings every week.

There is a drafting group of programme-responsible professors (PAPs). The PAP group consisted of one woman and five men at the time of the interviews. Now, there are seven programme-responsible professors, including two women. The PAP group is a parallel group to the group of directors of studies. The latter group includes directors of studies, subject coordinator and head of education. The group manages ongoing, long-term basic education issues and prepares matters on behalf of the steering group, the head of department and/or the board. The PAP group has a transparent role to lead the department's process for strategic research planning. This also includes to propose to the department board how to use the part of the department's research funds from the faculty that are not ear-marked for specific research programmes within the department.

Board decisions are perceived to be fairly streamlined: board members take the decisions that the department head or preparing bodies have envisaged. However, sometimes an issue is discussed and the board requires further preparation before a decision is made.

The research at the department is divided into five divisions. A common feature for all divisions is that there is a head of division who has full responsibility for all activities on division level, including personnel and economy, on delegation from the head of department. The head of a division is appointed by the head of department, on proposal from the division. There is also a deputy head of division for each division. The deputy head of division substitutes for the head of division in her/his absence. Besides that, the tasks and responsibilities can vary between divisions. The deputy head of a division is appointed by the head of division.

We have taken a closer look at three divisions, where the mapping indicates the existence of rather different organisational cultures and leadership styles. We have observed that the more "collective vision" of the division, the more formal and structured decision-making processes tend to be. Program-responsible professors generally seem to have great influence whether they are division heads or not.

In one division there is a small operational group consisting of head of division, director of undergraduate studies and programme-responsible professor.

The second division has a head of division, deputy head of division, director of undergraduate studies, director of graduate studies and two programme-responsible professors. There are two

research programmes at the division. The research programme coordinators are responsible for strategic planning of the division's research programmes. Research group leaders/principal investigators are responsible for planning and budget the work in their research groups. The division has an executive committee consisting of head and deputy head of division, director of graduate studies, director of undergraduate studies and the research programme coordinators.

A third division has an executive committee consisting of head of division, deputy head of division, director of undergraduate studies, programme-responsible professor from the university, representative of another university and administrator.

Decision-making on research agenda is to a large extent guided by research financiers and the kinds of positions announced. New senior positions are prepared at division level, discussed in the steering group and decided in the department board, while PhD and junior positions are decided on division level with only information to the steering group.

The head of research of the department coordinates strategic development at the department and works towards the outside world. Sometimes the programme-responsible professors come together to suggest broadening and strategic initiatives, for example in connection with calls for applications. When the interviews were made the department had just had a whole day on the future research of the department for all employees (except PhD students). Every division got to speak. Thereafter it was decided to prioritize some new research areas. At some divisions discussions on this topic are quite often carried out when responding to opportunities based on calls from faculty and research organisations. However, the main track in the decision-making on fundraising is that individual researchers/research groups apply for external funding.

The person who has brought in external funds has a decisive influence on how to use the money to carry out the project. In addition to external funds, there are faculty resources on division level.

The head of division is responsible for the overall division budget and decides on the use of faculty research funds after consulting with the programme-responsible professor. Routines and criteria for distributing faculty resources are not always clear or known to all staff members. In some divisions there is no culture to share this type of information. This makes it difficult to know how to influence decisions.

Decision-making on time allocation is handled in various ways. Sometimes it is very informal, other times very structured. At division three there is a list of tasks outside the ordinary research and teaching, which the executive committee goes through each year in order to distribute the tasks as fairly as possible. Generally it is a combination of interest, of trying to think who is willing to get involved in the issue, and division of labour, that no one should sit with all administrative tasks. Things need to be done, and if there is no volunteer someone has to be convinced to take the task. A large component in the division of labour is that it should be such a balanced workload as possible on people. Heavy formal tasks, like director of studies, are also part of the overall discussions, but here people's experiences, type of teaching, programme organisation, their financing and room to take on quite extensive tasks, are also considered. It is some sort of combination of people's interests and the need to get work done, and considerations on who is most suitable and can be released for the task.

Most PhD students are funded by external funds and supervised by the researcher who owns the project. In the case of faculty funds, the programme-responsible professor decides how PhD student supervision will be allocated.

The programme-responsible professor is responsible for strategic planning of the programme research.

Planning, budgeting and staff allocation regarding undergraduate teaching is delegated to the director of undergraduate studies, while the daily research work of PhD students is managed by their supervisors. According to the interviewed PhD students, those who talk the national language do more teaching (some courses are only taught in the national language).

A well-informed interviewee quickly identified two inner circles with senior men in different research areas/groups. S/he exemplified their informal power by saying that when a programme coordinator is to be appointed they decide who it will be. S/he assumes that they do not want to overload the few available women with all these tasks and then men get the roles and there is no discussion on other gender effects.

### *Theme 2: communication*

The communication structure is well described and documented. The department has a web-based newsletter. Every week an e-mail is sent out to everyone at the department with “headlines” and a link to the newsletter. At division level the quality of the communication flows varies, depending on whether the head of division is good at communication or not.

Here we restrict ourselves to describe the communication at the three chosen divisions. The executive groups of division 2 and 3 meet regularly every fortnight and write memos, while the group of the first division does not have regular meetings, but meet “when needed”. Ordinary division members are included in different sets of information meetings: At division one there is a weekly meeting for everybody, a weekly lunch meeting for staff above post doc level and a meeting twice a semester where PhD students meet the head of the division and the director of undergraduate studies. The intent of the latter meetings is to monitor the workload of the PhD students, both teaching- and research-wise. At division two there is lunch once a month for all senior staff, lunch once a month for all personnel, and information meeting every week for all personnel. In addition the division meets with a social activity twice a year. At division three there is a weekly breakfast for all staff and a monthly lunch meeting for senior researchers, as well as regular PhD student meetings and a meeting twice a year for all staff combined with a social activity. These meetings are mostly informal.

### *Theme 3: gender*

It is worth noting that the department has some experience of how informal decision-making and communication channels can be improved, for the benefit of all and in particular female researchers. One division head works consciously to provide clarity, because s/he believes that it will benefit both women and other disadvantaged groups. For example, s/he is clear in communicating that there is travel money for all. An interviewee testifies that it is much better now than before, when it was very informal in some ways, even if changes are still needed. S/he lost a lot of opportunities in the past, only because s/he did not understand how it worked and did not get the right information and support. S/he says gender aspects in the decision-making processes is mostly about not being asked if you want an assignment (for example, if you want to write large grant applications or become the director of a competence centre) or not being informed of important things (how to get funding for PhDs and post docs for instance).

Some interviewees stated that there are relatively many women in this division, because they work consciously with gender. The division is said to have a very positive climate for teaching and the good teaching attracts female students. The division also has a special spirit, a coffee-culture where contacts, informal and formal skills are developed.

Another division has quite a lot of women in senior positions, unlike the rest of the department and other groups in the same research area, both nationally and internationally. The division focuses both on recruiting and retaining, i.e., to create an environment to retain. According to one interviewee the subject area is so male dominated that you have to work very consciously with gender issues to not be drastically unbalanced. When 90 per cent men apply for PhD positions you have to look closely at the ten per cent women to find competitive women. It is the same with senior positions. The former leader has been characterised as having a very inclusive leadership style strongly linked to her/his personality and as working towards creating a kind of non-macho atmosphere which retains staff. Female PhDs come back after their post docs.

The interviewees could also see gender aspects in the issue about how tasks are allocated at the department/division, in the way that the percentage of women in drafting and decision-making bodies is relatively high considering the gender imbalance at the department. Especially female PhD students are perceived to be overrepresented in doing stuff outside research for the department and/or the division. The problem here is to strike a balance between two gender equality goals; striving to achieve gender balance in different boards and committees, while also supporting young researchers in their career building phase (they need time to do research).

As all departments, UU1 has a person appointed as responsible for gender equality work, and s/he heads and convenes the gender equality group. Each division at the department is represented in the group, as are also administrators, technical staff and students. There was earlier no real renewal of the group and it was uncertain who was a member and who was not. Now the board have appointed the members (on proposal from the units/divisions) and stated a mandate period of three years for each member except for student members who have one-year period. The gender equality group meetings are open meetings so that any employee or student can attend if they want and not only the members (though it is not very common that non-members take part in the meetings). In order to further support the gender equality work at the department, the gender equality group announces funding opportunities for gender equality. The total funding available 2015 is about one Million SEK. The goal is to contribute to the gender balance of the department, and to make efforts for a better work environment and good working conditions without gender differences. The funds are used for projects or applications that are expected to contribute positively to gender equality at the department in accordance with the gender equality plan. The proposals are reviewed by the gender equality group and funding decisions are ultimately made by the head of department.

#### ***B.4.3 Findings from UU2***

This is a teaching-intensive department with about 100 academic staff, including PhD students and a large number of post docs. The research is divided into three research areas of different sizes. However, the research areas are not financially independent, although a high degree of external funding gives more independence to some. The department is well regarded and that is why it attracts PhD students and post docs from all over the world. It also attracts both external and internal funds and has an excellent financial situation. The percentage of women in the UU2 academic staff is 24% (year 2015).

##### *Theme 1: decision-making*

The now former head of department was praised as being active and open. In general, people (both women and men) were very satisfied with her/his way of executing her/his (quite wide) power, and also saw her/him as communicative and accessible.

The head has formed an advisory group, informally called the leading group, consisting of the vice head, three professors – the leaders of the research areas - director of studies and two administrators. This group discusses and prepares issues which the head then presents to the board, the formal decision-making body, which is elected and consists of different staff categories and student representatives. The leading group is not formalised and not everybody is aware of it. The members themselves stress that it is a discussion forum, not a decision-making body.

The board meetings are official and information goes out about both agenda and decisions. There are rarely any big discussions in the board, because the issues are well prepared (for example by the leading group).

The leading group discusses the research agenda. However, there seems to be no real agenda, but the agenda is expressed, for example, by what kinds of positions are announced.

Most PhD and post doc positions are announced in open calls. A group is put together to evaluate the applications (leading group discusses who are going to be part of that group). They come up with a shortlist which is discussed in a meeting where all current PhD supervisors have a say. The group interviews a number of the chosen applicants together with the department head and suggests which applicants will be accepted and the department head confirms this. Thus, the composition of the group is crucial and decided informally.

Most PhD students know which professor they want to have as their supervisor when they apply. If not, the director of PhD studies suggests a person. It is possible but almost never happens that PhD students change supervisors.

The department has two kinds of internal funds. Three-year funds are distributed on the basis of the evaluation of the National Research Council (the main funder of the research at the department): If a researcher does not get a grant but gets a good evaluation from the Research Council, s/he can submit the same application together with the Research Council evaluation to the department and if the evaluation is favourable s/he will get a similar grant (normally three years), with somewhat lower degree of financing from the department. One-year funds are distributed on the basis of applications which do not need to be as extensive as Research Council applications. The head decides on these funds, after consulting the leading group. Because the financial situation of the department is good, it is generally not difficult for the staff to obtain funds. The same applies to smaller amounts, such as computer power, conference trips, any other equipment. If external funds do not pay for it, it is normally not difficult to go and ask the head and get funding for such needs.

The director of studies decides on teaching loads. Individuals get to choose which courses they want to teach, and the director of studies allocates the rest. It was not discussed in the interviews, so it seems to work well, but it is also possible that there are hidden mechanisms. One of the interviewees indicated that the issue was not altogether unproblematic, by telling that according to her/his experience, the preferences of senior persons were taken care of before the needs of the junior staff. No direct gender issues were mentioned. However, a suggestion from the gender equality group that all students would meet a female teacher during their early courses was rejected by the board on the grounds that it would concentrate female teachers to the early, more tedious courses.

### *Theme 2: communication*

Generally, this is a very individual-based department. Group meetings happen inside the research areas. In particular the post docs are not generally interested in departmental matters.

There is a monthly staff meeting consisting of information, often from the faculty. Department plans for new recruitments and such strategic issues are also informed about. There is a theoretical possibility for raising questions about them, but it does not happen. This is held in the national language, which is the reason foreign interviewees said that they do not attend. One foreign interviewee stated that nobody in her/his research group, consisting mostly of international researchers, goes to the staff meetings or knows what is going on at the department.

The head distributes a lot of information by e-mail. The board meetings are communicated by e-mail, the distribution of internal funds, as well as information about external funds secured by researchers at the department, new colleagues, trial lectures for new recruitments etc. The Swedish-speaking interviewees were in general satisfied with the e-mail information.

One foreign interviewee told us that s/he uses the private e-mail address for really important messages from colleagues, because the official one gets so many e-mails which s/he does not see as relevant. The language was said to be a problem here, too.

Those new to the department told us that there was no structured introduction. Small misses about departmental benefits (such as not knowing that bills for medical care are refunded) were reported a few times. This can be seen as a problem because of the high turnover rate and high percentage of international employees.

### *Theme 3: gender*

The department board is conscientiously put together to represent both women and men, according to the national regulations. Two of the six academic representatives are female senior researchers. The advisory group, the leading group, has only a female representation of administrators. It is noteworthy that administrators have such solid positions in a leading group. However, they cannot be expected to represent the female academics, who, thus, are not represented in this informal leading group. For example, they are not represented when internal research funds are discussed and decided on, as these decisions are made by the head alone, after a consultation with the leading group. However, the distribution of funds was not expressed as a problem by either women or men, because the conditions at the department are favourable: good finances and a now former head with a great amount of trust. The non-formalised organisation structure itself does not favour women, and this will probably become more visible if the conditions change.

There are a few female senior researchers at the department. Half of them represent research areas which are marginalised in the departmental context. The other half does quite a lot of teaching. Thus, none of them has an influential position. There are efforts to recruit more female senior researchers. When discussing gender, the interviewees talked more about the women whom the department had tried to recruit than the women who already are at the department. One of the interviewees pointed out that this is indicative of the attitude at the department: They want to recruit more women, but do not see that there already are senior academic women who could make better contributions if their situation was improved.

One single-sex group of PhD students talked about informal decision-making (which they described as an old boys' network), while the other did not.

The department has a gender equality group, appointed by the head of department, which consists of academic and administrative staff and a student representative. However (not unlike many other departmental gender equality groups), it has a token position without access to power.

#### ***B.4.4 Findings from UU3***

The department has more than 70 academic staff and is divided into five research programmes. Each programme is led by a programme professor who has the overall responsibility for the research at the programme and the budget of the programme. A programme professor is appointed by the faculty board and is responsible for the organisation of research and quality of the programme, links to research in education at the undergraduate level and graduate level, as well as for postgraduate studies. The programme professor must plan and implement activities based on the resources and premises that are available and follow the decisions made by the head of department and the department board. The research programmes are highly autonomous.

Resources for postgraduate students in the form of faculty grants are awarded each year from the faculty to the department, and the board decides on the allocation of these funds to the research programmes. Usually the funding is allocated to the programme where it was generated (each PhD exam will generate a specific sum back to the department). The programme professor is responsible for these funds.

The percentage of women in the UU3 academic staff is 57% (year 2015).

##### *Theme 1: decision-making*

The ability to influence various board decisions and the board's decision-making power has fluctuated over time depending on leadership style of the department head. Under the present head the opportunities to influence are perceived as high and the board's impact as strong. S/he has an inclusive leadership style in that s/he always consults and informs the board before making important decisions. The board members receive a lot of background information. The decision-making process is generally perceived as transparent. The department board usually meets once a month.

There is a working group consisting of the head of department, deputy head of department (who is also the director of studies) and the head economy administrator. This group takes decisions regarding scholarships, temporary employment financed by external funds, and temporary positions financed by faculty funds for up to six months.

For the daily management and enforcement of the board decisions, there is a management team consisting of the head of department, five programme professors, the deputy head of department, the director of studies and a director of postgraduate studies. This group also prepares different issues, before decisions of the board. At the time of the interviews there were six men and two women in the management team, while the department board had a more gender-equal representation. However, the gender distribution in the management team recently changed, and now it has five men and three women due to changes of gender composition in the group of programme professors (from one to two women out of a total of five programme professors).

Department staff assembly is held twice per semester, and here teachers and researchers can discuss issues concerning the distribution/use of common resources, funds for research, postgraduate education as well as undergraduate education, and other questions about teaching, research and interaction.

The internal organisation on research programme level varies and has so far not been fully transparent. Not all employees are aware of the decision-making processes in their programme.

There are no departmental strategic plans for new research areas. The main focus varies over years depending on which persons or research areas receive funding. The most important expression of an institutional research strategy would be the plan for hiring professors or priorities for recruitment.

Calls for applications for senior lecturer and professor positions are discussed in the research programme and the department board as well as in the Biology section of Uppsala University. Program professors usually write the job specification. Researchers/teachers receiving external grants for PhD students discuss recruitment of these students with the programme professor.

The department as a whole is very diverse and there are not so many groups that write research proposals across programme boundaries. Larger research proposals are often formed on programme level or with external contacts outside the department. One interviewee says it is very much about a group of buddies who form the project so all can be part of it. One interviewee, in a programme where the applications for external grants are mainly individual, describes the process as totally ad hoc, spontaneous and bottom up.

The department is awarded research funds from the faculty every year. How these funds are distributed among the research programmes is decided by the department board after discussion in the management team and at the department staff assembly. At programme level, the programme professors decide who gets faculty funds and thereby who gets to supervise PhD students. Many PhD students are on external funds, but there are also faculty funds for hiring PhD students which are designed to enable permanent teachers without external money to supervise PhD students. The routines and criteria for these decisions are unknown to a number of staff members. Sometimes, as now in 2015, the department board decides on PhD student support directly addressed to supervisors.

Decision-making on resources does not seem to be a big problem. Individual researchers mainly bring in money via external funds and there is not much faculty money to distribute at the department and programmes.

People are expected to fix funds for travel money by themselves. PhD students go to their supervisors who either say "yes", "finance alone" or "get some scholarships and I will add the rest". If there is no money in the project, which is very unusual, the programme closer in scope pays. At one research programme people approach the programme head and s/he supports everyone as long as there is plenty of money. In the case of expensive equipment, costs are shared between interested users on different levels (research group, programme and department).

At the departmental level, it is the head of department who in consultation with programme heads fills vacancies in working groups and preparatory bodies. How that is done, varies depending on the assignment. For certain tasks, it is about finding someone who is both interested and willing to do it. Being responsible for gender equality is not described as a sought after assignment and many staff members did not even know who had this assignment at the time of the interviews. It is discussed in the programmes and decided on the department board.

The directors of undergraduate and graduate studies are appointed by the head of department. The position is meriting and when a director of PhD studies was to be appointed an inquiry was sent out to everyone. The department board and head decided to choose one out of two-three interested. It is not entirely clear on what grounds the decision was reached.

Allocation of tasks on programme level varies between programmes. At one programme it is informal and, according to one interviewee, grows out of mutual discussion. At another programme

the issues are usually addressed in the weekly meetings. The programme head at yet another programme just asks people to do things.

Program heads and directors of studies (and assistant directors of studies) make plans on who should do what in teaching, based on discussions with those who are going to teach. The staffing plan is decided in the department board. One interviewee says that it is a combination of individuals' subject areas, traits and career status. Teaching has to work, but the department has to support post docs and PhD students in their career building phase (they need to teach but not too much). According to an interviewee the directors of studies are striving for continuity in teaching and for people to teach in their own areas. However, there are few Swedish-speaking PhD students so they have to go outside their own areas (some courses are only taught in the national language).

In regard to inner circles, the interviewees point to people with contacts, authority, money and/or knowledge. In general, former programme heads and successful researchers seem to have great influence whether they have formal positions or not, as well as technical-administrative staff who have been employed for a long time and understand how everything works.

### *Theme 2: communication*

The head of the department has taken a series of new measures since s/he was elected. S/he often has information and discussion meetings with different groups who are affected by different decisions. A couple of times per semester s/he has meetings with senior researchers/teachers, PhD students and technical-administrative personnel to discuss things that concern these groups. The department never had this kind of meetings before and several interviewees describe it as much better now.

The communication processes at department level are generally perceived as very open. Some interviewees were a bit concerned that some of the programmes had weak representation in the department board, and it was even suggested that all programmes should be represented in the board. Three research programmes are geographically very close, in the same building, but on different floors. One is located close but in another building and another one more than five kilometres away. Board members who sit near each other and have similar opinions have discussed more before the board meetings than the other members of the board. The PhD students also seem to miss out on information, if they have no PhD student representative from their own programme in the board. However, board members are appointed to represent their department and/or group and not their research programmes. What needs to be improved is the communication on board matters and decisions.

Regularity of information meetings inside the research programmes is very different between programmes (from no regular meetings to meetings once a week). In some programmes the interviewees feel that they do not get adequate information.

Once or twice per month the head of department e-mails about issues at the department (also in English). The department board meeting minutes are both sent out on e-mail and are available at the Employee portal (not in English). One interviewee says that the department head provides good information and that there is a huge difference compared to before, even though newcomers have to ask someone how to get the information.

Interviewed international researchers pointed out that they do not get any real introduction. One of them said that s/he lacks the knowledge to ask the right questions and that it is very important to be in networks. The language barrier was emphasised by all interviewees coming from other countries.

### *Theme 3: gender*

The interviewees do not see any apparent gender aspects in informal decision-making and communication processes, but are somewhat aware that there may be unconscious biases. In particular, due to career concerns, some male interviewees were against actions targeting female colleagues to compensate for structural barriers and biases.

This must also be seen in light of the gender distribution at the department when the interviews were conducted. At that time, women were over-represented at lower academic levels, men dominated at higher levels, while mid-levels were more gender balanced. Several interviewees believed that the gender balance at middle levels would necessarily lead to more women at higher levels. According to one interviewee, it obviously must be a time lag in gender equality at higher levels: Those who already are professors will not just stop being professors and professorships are often established when a professor retires. S/he believes that one should take into account that it takes longer to even out gender imbalances on senior level than on junior level, especially when there are so few senior lecturer and professor positions at the department. However, s/he also acknowledges that there may be a gender component and that the goal should be a gender equal representation.

On June 1, 2015, the department reached 50-50 male-female share of professors. The same applies for senior lecturers. Associate senior lecturers are now 100 per cent women (two of them).

Generally, the interviewees are positive to gender equality and recognize gender issues. However, they do not see these matters as internal specific problems, but rather as general problems for the academic world or problems in society at large. Individuals' decisions to go abroad for a post doc or not are said to be affected by established societal expectations about women's and men's different childcare responsibilities. Coffee room sexism, one or another comment that is political incorrect, are explained by the mixed nationality workplace (2/3 of the scientists are from abroad). One opinion is that rather than gender aspects it is about certain kind of spongy networks of buddies and to stay on good terms with people with lots of money.

The department has, together with another department, a joint group for equal rights. This is a mandatory group corresponding to the gender equality groups at the two other departments. The group has been in the doldrums for a long time and has not had a clear assignment.

