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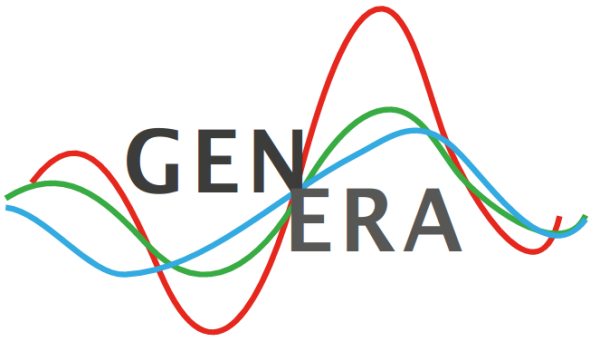


Gender Equality Network in the European Research Area Performing in Physics

September 2015-August 2018

Deliverable D 3.2A

Ex-ante assessment report - short version

July 2017

Work Package 3	Monitoring and Evaluation: Develop and test a tool to monitor progress of gender equality
Task 3.2	Assessment of gender equality in participating research organizations
Responsible Beneficiary	Joanneum Research (Austria): Helene Schiffbänker, Silvia Hafellner

Table of Content

1. Introduction

This report is an outcome of the Horizon 2020 project GENERA (Gender Equality Network in the European Research Area). The core aim of the GENERA project is to foster gender equality in physics by supporting research organizations to implement gender equality plans (GEPs). Eleven research organizations in eight different countries intend to implement GEPs.[1]

These eleven GENERA partner organizations have been studied in the ex-ante assessment. Deliverable 3.2 reports on the findings of the ex-ante assessment, and was submitted by end of February 2017. D3.2 provides insights for each implementing partner organization on the gender policies already implemented, the on-going discussions, and the discourses related to gender equality issues at institutional level. It also reflects on the up-to-date experience regarding implementation of (intended) measures/GEPs. D3.2 aims to empower partners and especially implementation managers to identify the relevant topics and actions for their institutional gender equality plans. Therefore, we included in this report information derived through interviews that can help identify weaknesses in approaches, inconsistences in strategies, and contradictions in understanding the role of GEPs. The report is intended to support a process of reflection among the members of the GENERA teams on the challenges within their organizations to achieve greater gender equality. D3.2 contains many quotes to illustrate the different challenges, learnings, and expectations to enable partners to learn from each other.

The full D3.2 report has been produced for GENERA partners only. However, there are lessons for others as well, and this shorter version (D3.2A) has been created for public use. In order to guarantee maximum data protection and anonymity of all interviewees, quotes in the status quo descriptions have been eliminated, the report was shortened and arguments were developed for wider use.

The report is structured as follows: The evaluation approach and methodology is presented in Chapter 2, explaining the focus of the ex-ante analysis. Chapter 3 gives an overview of the ex-ante status quo of the institutionalization of gender equality in the GENERA partner organizations, and Chapter 4 discusses the potential fields of intervention regarding the design and implementation of GEPs. The latter, includes ongoing discussions on gender in physics, as well as the specific challenges that research organizations face when fostering gender balance in the physics field.

The Chapters 5 to 15 describe the status quo of gender equality in all GENERA partner organizations. Also, relevant discourses and experiences are described in order to provide a learning environment and inspire other GENERA partners, as well as (external to the Consortium) members of the GENERA Network.

Chapter 16 presents some general findings concerning the organization and targets of the GENERA project as well as issues related to the collaboration within the consortium. The findings presented are intended to support policy learning.

[1] In this report the following notions are used: A GEP is a document that lines out the approach for more gender equality in an institution, department or institute. The 'Design of GEPs' refers to the process of developing a GEP (analysing context, setting-up targets, discussing and negotiating ideas, developing monitoring) while the implementation of a GEP is the process of getting measures done in practice, like offering a training, have a list of gender-fair selection criteria approved).

Finally, the annex provides an overview of the findings from the ex-ante policy survey. Details on gender equality plans and policies, measures, targets and common challenges and needs for support in the GENERA partner organizations are summarized.

This evaluation report is based on qualitative data from interviews. We thank all interviewees for their time, ideas and inspiration, and all GENERA teams for hosting the evaluation team during the site visits and for the support when scheduling the interviews. We are aware that by conducting the interviews we also raised expectations for the next steps. Interviewees often asked how their ideas will be used, and will be the next steps in GENERA.

Informing the interviewees and the wider group of employees about GENERA and the further implementation process goes beyond the task of an ex-ante evaluation. The implementation managers and GENERA teams are invited to use our findings and communicate back to the interviewees about what will happen next.

We hope that this report will provide a basis for discussions and planning the next steps, and that it will provide inspiration for others on how to design gender equality measures and GEPs, and so contribute to the success and substantial impact of the GENERA project.

2. GENERA evaluation

2.1. Evaluation targets

The terms of references specified by the GERI.4.2015 Call[2], for which GENERA is funded, state that an evaluation is requested to: "*impartially monitor[…] and assess[…] the progress made throughout the duration of the project*".

This evaluation is designed as an accompanying evaluation with the main aim to provide an early feedback for relevant actors and to optimize the operationalization of the GENERA project, and its core aim to implement GEPs in physics. A further evaluation target is to provide a learning environment, share experiences between partners, and to empower them to make best progress when implementing GENERA measures.

2.2. Critical Friend

The evaluation design is based on the concept of the Critical Friend (Balthasar 2011). The Critical Friend approach combines the added value of an external evaluation: evaluation competence, distance to the evaluated, advice from outside; with the advantages of an internal evaluation: good knowledge of the project, evaluated as the main data source, and short-in-time-results with fast feedback to optimize the process.

The Critical Friend concept also gives the possibility to combine the elements of formative and summative evaluation. The explicit target is to provide ideas how to improve and support the design process (and later the implementation process).

[2] See Horizon 2020 Work Programme 2014/15 NET4SOCIETY

While the Critical Friend approach is traditionally perceived as a tool for supporting management of a program (Balthasar 2011: 205)[3], it is characterized by the proximity between evaluator and evaluated, which enables a trustful relationship to emerge that can become the basis for a learning opportunity. Lessons and advice come from external people, not involved in the implementation process themselves, who *are responsible* for the evaluation process and for providing a learning environment, but are *not responsible* for the actions subsequent to the findings (Balthasar 2011: 201).

Among the variety of possible evaluation processes, we see the Critical Friend approach as an opportunity to access fresh ideas on how to improve and support the GEP design process (and later the implementation process). The idea is not to assess the partners' work, but to present an objective perspective on what has been done so far, what is planned next, which discussions are ongoing, and what challenges still remain.

In this ex-ante assessment, we use the Critical Friend perspective to ask how to put ex-ante findings into practice, how this can be organized, and who is responsible for what. In this report, the ideas of the Critical Friend are presented directly where the findings are discussed (not at the end of the report) in order to better understand the context of the ideas/recommendations.

2.3. Ex-ante evaluation process

The design of the evaluation is outlined in the evaluation concept, where also the theoretical framework and the main research questions are specified. The GENERA evaluation is an accompanying evaluation, which intends to "assess the implementation process and the practices of GENERA members", so research activities (WP2), dissemination (WP6) and networking (WP5) are not evaluated. The ex-ante assessment includes context and design analysis, while the ex-post assessment examines coherence and implementation analysis, assessing the institutional progress and cultural change.

In the context analysis relevant information about the national and cultural framework is provided, referring to legal regulations for gender equality (in science), cultural norms and social infrastructure (child care facilities). Also the institutional context is described, presenting numbers on female and male researchers, but also gender policies in place.

The design analysis takes a closer look at all relevant activities before the implementation, what is called the design of measures. This covers the targets of the measures, their fit to the overall organizational gender targets and potential overlaps or pitfalls. In GENERA all measures which are (going to be) integrated in the GEP should be analyzed in the design analysis. Research questions focused on:

- What is the status quo of gender policy implementation?
- Which organizational gender targets have been set up?
- Which GENERA activities have been executed so far (process, focus of GEP, awareness about GENERA, actors, communication, micro-practices)?
- What are intended next steps in GENERA (focus of GEP, planned steps for implementation)?

[3] Balthasar A. (2011): Critical Friend Approach: Policy Evaluation Between Methodological Soundness, Practical Relevance, and Transparency of the Evaluation Process, German Policy Studies, Vol 7, No3, 187–231.

- Which challenges are expected along the next steps/implementation process?
- Which relevant cultural aspects can be identified (gender in physics compared to other fields, gender in physics in other countries, norms about success/excellence)?

Based on these research questions, an interview guideline was developed and presented in Paris in November 2016 during the Joint Secretariat Meeting.

2.3.1. Data and Analysis

Different data sources were used for the ex-ante assessment, although the analysis in this report is based on interview data only. To prepare for the interviews each partner organization was studied based a variety of documents, for example existing GEPs, strategic plans, and organizational charts.

A policy survey about the relevance, objectives and measures promoting gender equality was produced and distributed to all GENERA implementing partners. The data was analysed for each organization separately to get an overview on the status quo of gender equality policies. This resulted in a fact sheet summarizing the findings of the policy survey for each organization, which served as a baseline for the ex-ante interviews. The fact sheets are not included in this report, but the most important findings from the policy survey are summarized in the Annex.

Interviews

This report is based on semi-structured interviews conducted for Work Package 3 of the GENERA project. Interviews were conducted with each of the eleven implementing GENERA partner organizations. In preparation, GENERA partners were asked to select the interviewees based on the definition of sub-target groups:

- GENERA team members including implementation managers
- Management: heads of implementing units, research groups, institutions
- Head of Human Resource Management
- Equal Opportunity Officers
- Other stakeholders when relevant

An information sheet was provided that GENERA members could give to potential interview partners in order to provide basic information about the GENERA project and the evaluation. It was not possible to fix interviews with the representatives of all the sub-target groups in all the organizations because of the wide heterogeneity of partner organizations in terms of national context, organizational complexity, management structure, and level of gender awareness/knowledge.

GENERA teams were responsible for the final list of interviewees provided; the evaluation team did not interfere in the selection of interviewees. The interviews were conducted between mid-November 2016 and the beginning of February 2017, partly face-to-face as part of site visits to five GENERA partners.

Interestingly, the interviews did not only serve as a source for data collection, but had further functions: in institutions with little or no support the interviews were perceived as a signal that gender in physics is on the European agenda because the project has been funded under Horizon 2020. It was also argued that by arranging interviews, GENERA team members managed to establish network ties to different target groups within their institution. This was further an opportunity to

present and discuss the aims of GENERA. However, in some organization doing evaluation interviews was perceived as attempt to 'control' the progress in GENERA.

Table 1: Overview interviewees by partner organization

	All (n=102)		Management (n=29)		HR (n=8)		Gender Equality Officer (n=15)		Others* (n=24)		GENERA** Team Member (n=26)	
	F	M	F	M	F	M	F	M	F	M	F	M
CNR	3	1	0	0	0	0	1	0	1	0	1	1
CNRS	3	3	1	3	0	0	1	0	0	0	1	0
DESY	3	2	0	1	1	0	1	0	0	0	1	1
Geneva	5	0	0	0	1	0	2	0	0	0	0	2
IAC	5	4	0	3	0	0	2	0	1	0	2	1
IFIN-HH	8	2	0	0	1	0	0	0	5	1	2	1
INFN	6	8	2	6	0	1	0	0	2	0	2	1
JU	4	0	1	0	0	0	1	0	0	0	2	0
KIT	6	0	0	0	0	0	1	0	2	0	3	0
MPG	9	3	0	2	0	0	6	0	1	1	2	0
NWO FOM	13	14	3	7	1	3	0	0	7	3	2	1
Total	65	37	7	22	4	4	15	0	19	5	18	8

* = researchers, gender experts, former management staff, policy makers
** = all interviewees who are GENERA team members are listed here and not in another function that they might also cover, e.g. Gender Equality Officer or HR manager

All interviews (n=102) were transcribed and analyzed, using MAXQDA for basic coding, while deductive and inductive coding was mainly done manually, reading and re-reading basic codings and transcripts. Where codes are used in this report, they reflect subjective perceptions of the interviewees that may differ from facts or realities. For data protection reasons, transcripts have been anonymized and encoded twice.

After finishing the analysis, the draft versions of the partner profiles (chapter five to fifteen) were sent to the respective partner for feedback. Teams could comment and add facts that were not provided in interviews.

2.3.2. No design analysis

When conducting the first site visit in November 2016 it became evident that the GENERA team had not yet designed any measures, there were only vague ideas about what will be done in GENERA and the process to decide on this was rather unclear.

In the following figure the upper line illustrates the process as originally planned: Beside the status quo analysis, the GEP or the gender equality measures (GEMs)[4] are supposed to be designed, negotiated within the organizations and fixed at the time of the ex-ante assessment; the implementation process could even have started. In most GENERA partner organizations ideas about what to implement were not developed very far. The design process was far from being concluded, it

[4] Some GENERA partners already have a GEP implemented and therefore might implement some additional gender equality measures (not included in a GEP). These gender equality measures are shortened by GEM.

was not clear how to do it. Various steps have not been made yet (red in the figure below) or only partially (orange in the figure below). Only the initial steps were finished at the time of the ex-ante interviews (green in the figure below), like establishing the GENERA team or appointing /hiring an implementation manager (IM). At this time it became evident that a design analysis is not possible in the ex-ante assessment. Instead, the focus was put on the challenges that were mentioned at the various steps required before the implementation can start (see lower line).

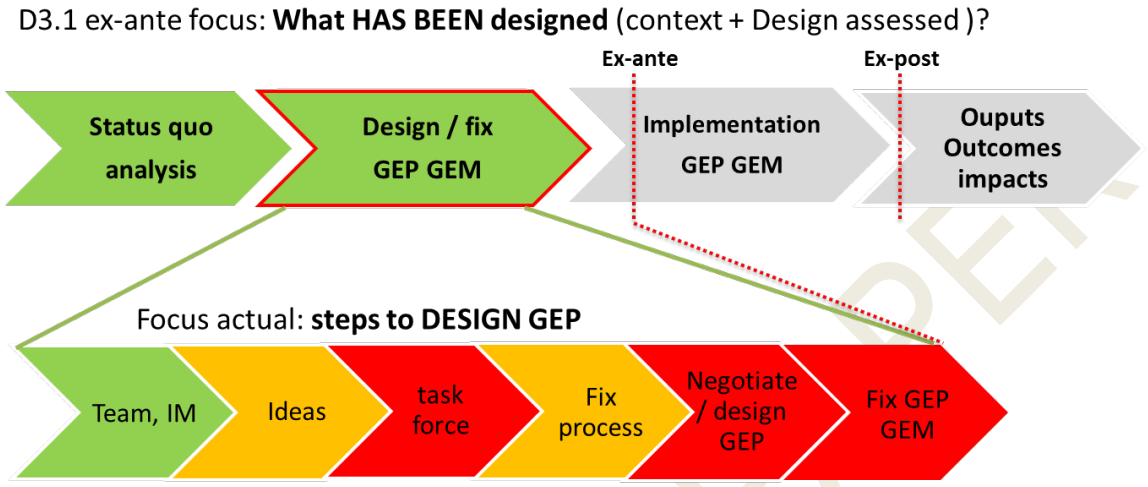


Figure 1: Analysis of the design process

The focus in the actual ex-ante assessment was, therefore, on identifying the different steps needed, but which were not fully clear, to produce a functional design (of GEP or GEM) ready for implementation; together with the underlying challenges and potential for learning.

The ex-ante assessment covered how (far) the GENERA team and the implementation manager (IM) were established, which objectives were identified to be addressed in the GEP/GEM. The evaluation examined the way GENERA has been communicated within the organization and what kind of support and commitment has been secured. To establish support within an organization for GENERA activities from a group of relevant stakeholders in different (power) positions was identified as a crucial success factor.

When gender equality officers and stakeholders from management and HR support the project in general, and the implementation process, by discussing and deciding on the next steps, they become a very important 'taskforce'. This step is not mandatory, but we have learned in the interviews that it can be very effective in facilitating progress. Of course, it is important to know about the different steps that are required to create the best design for a GEP or for different gender equality measures. For some interviewees it was unclear where the decisions are made and how the next steps are arranged in detail. Finally, suggestions that were made need to be negotiated and decided on between the GENERA team and the people in the institutions responsible for decisions.

This describes roughly the steps in the design process deduced from the interviews to illustrate where challenges emerged, needs were formulated and learnings were provided. Of course this process is not linear and the different steps are inter-related. Furthermore, each organization has a

different structure and different procedures, so the process needs to be adapted to the institutional setting.

Concerning needs and mutual learning it has to be stated that when interviews were conducted, the GENERA road map – which describes the implementation process in a detailed manner – was not yet available.

3. Institutionalization of gender equality in GENERA partner organizations

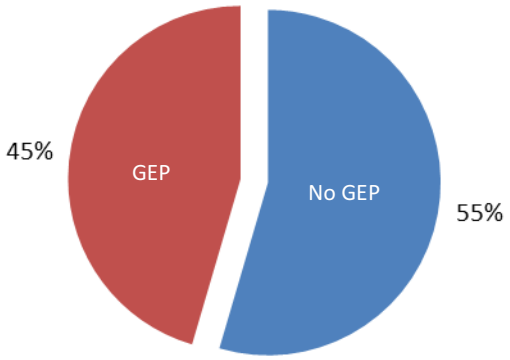
As part of the ex-ante evaluation, an online policy survey was sent to all GENERA implementing partners (see also 2.3.1). The aim of the survey was to find out more about the status quo of gender equality in the GENERA partner organizations. It was focused on the relevance of the topic as well as the objectives and measures to promote gender equality. The results served as a preparation for the ex-ante interviews, but are also important for monitoring the project results.

In this chapter an overview of the formal level of gender equality implementation in the GENERA partner organizations is given. The information is based on the data provided by the organizations in the policy survey. More details on the ex-ante status quo of gender equality plans, targets, policies and measures can be found in the Annex.

At the time of the ex-ante interviews five institutions (45%) already had implemented a GEP for the whole organization (Table 2).

Table 2: GENERA organizations with a GEP

GENERA organizations with a GEP	GENERA organizations without a GEP
CNRS	CNR
IAC	DESY
INFN	IFIN-HH
KIT	JU
UNIGE	MPG
	NWO-I



The institutionalization of gender equality – by which we mean the various bodies or functions within an institution specifically responsible for gender equality – varies greatly between the GENERA partner organizations, depending on the legal framework, the power of these bodies and their available resources,. Some organizations already have a strong institutionalization of gender equality (Table 3).

Table 3: Overview on gender equality institutionalization

No institutionalization	Some institutionalization	Strong institutionalization
No bodies or functions specifically for gender equality	Bodies / functions for gender equality but very limited or no budget and staff for gender	Bodies and functions (gender equality officers) as well as resources for gender equality

	equality	
IFIN-HH JU NWO-I	CNR IAC INFN	CNRS DESY KIT MPG UNIGE

Another interesting fact is the number of gender equality measures that have been already introduced. As summarized in Table 4, there are organizations that have no gender equality measures in place but there are also organizations, which have introduced a wide range of measures.

Table 4: Overview on number of gender equality measures (of those suggested in the policy survey n=26)

Inactive organizations	Active organizations	Highly active organizations
No gender equality measures so far	1-10 implemented gender equality measures	>10 implemented gender equality measures
IFIN-HH JU	CNR IAC INFN UNIGE	DESY KIT MPG NWO-I*

No data available for CNRS

*in this case only refers to FOM

Please note that Table 3 and 4 summarize the institutionalization of measures to promote gender equality in the GENERA partner organizations. Therefore, the information only refers to what is done and does not display the gender equality in different institutions. Highly active organizations do not necessarily have higher gender equality or higher participation of women in physics than organizations with no gender equality measures.

4. Potential Fields of Intervention for GEPs

This chapter discusses potential fields of intervention that might be addressed in the various GEPs. In all partner organizations there are on-going discussions what to do and how to decide on the focus of a GEP. Some pros and cons, some factors of success and non-success that were mentioned in the interviews are presented here to enable learning for other partners. Based on the interviews there could be identified the "hottest topics" in all GENERA partner organizations, i.e. the fields in which interventions are needed most in order to promote gender equality.

Table 5 shows a ranking of the various fields of intervention that were discussed in the GENERA partner organizations. The ranking is based on the number of GENERA partners where the topics were discussed in the ex-ante interviews.

Table 5: Overview Fields of Intervention (ranked by importance)

Fields of Intervention
1. Care responsibilities
2. Attract more girls/women to study physics
3. Attract more female researchers to apply
4. Unconscious bias
5. Positive actions, quota

Some organizations already have introduced measures in various fields of intervention and their experiences can be valuable to the other GENERA partners, as discussed below.

4.1. Attract more girls/women to study physics

To increase the share of female physicists is the main aim of majority of GENERA partners. But they all face the bottleneck that only a limited number of female physicists are currently available: "there is a competition for women now" (P1_IP17). Besides attracting women from abroad, one important field of intervention is to foster outreach activities to schools (this may be done in cooperation with other stakeholders who in some countries are already very active), or to use social media.

Female role models were mentioned as an important tool to demonstrate that physics is and can be done by women equally successfully to men. Exhibitions, booklets with portraits or presentations can raise awareness and attention. At the same time, some critical remarks warned that this form of presenting female role models could reinforce the stereotype that women in physics are exceptional. When outreaching to schools, the presence of female physicists should be perceived as a 'natural' career choice.

Advice by schoolteachers has been mentioned as an important source of encouragement for girls. How far GENERA could do anything for schoolteachers was not discussed in the interviews, but could be included in some recommendations addressing institutions that train physics teachers, and may be part of the GENERA Network.

4.2. Attract more female researchers to apply

Another field of intervention where RPOs can become active is to invite female researchers to apply for vacant positions. For this purpose, job advertisements should be formulated in a gender-sensitive language, also taking into account research findings on what kind of advertisements can attract more women to apply. Female physicists argued that they appreciate to be supported and invited to apply by the supervisor or boss. Managers also have argued that the situation changes as soon as group leaders trust their female group members and encourage them to take over more responsibilities.

It would be helpful to have an online database of female physicists[5] to have better access to potential female applicants, but also to invite female physicists for reviews or committees. Furthermore, it could be used when researchers are needed for interviews or articles or any PR-activities. This would make female physicists more visible. This database could be linked to or be based on already existing databases. When maintained well, it would be a sustainable GENERA outcome.

[5] An example is the Academia Net database created and maintained by the Robert Bosch Foundation, www.academia.net

4.3. Positive actions, quota

To promote the under-represented sex (= positive action) is a long discussed intervention to raise the share of the minority. Interestingly, this approach was often raised by the interviewees, mainly arguing that a quick(er) change for more gender equality is urgently needed and that the right time is now. Positive action as an instrument to increase the percentage of female physicists is a topic where common efforts of the GENERA consortium are required.

Quota regulations are one form of positive action. They are mainly discussed for the composition of selection committees. Quite a number of female physicists in senior and leading positions have argued that they had never been in favor of quotas before, but they now realize that change will be too slow without positive actions and that a real impact is needed. It was stated that quotas should be requested on a GENERA-wide scope: As GERI.4 is a political program with a clear political aim, an alliance should be built to promote this topic. "GENERA should give STRONG recommendations[6]." (P5_IP2). A GENERA document should be produced and launched which can be used in each partner organization to support managers (willing or forced) to use positive actions for increasing the number of female physicists or engineers. This would bring an added value that is twofold:

- GEPs in the GENERA partner organizations would be more innovative and ambitious (maybe also braver!) The Gender Expert Board (GEB) was also asked to provide support in terms of positive actions and standards for innovative measures to be implemented.
- Management personnel who are looking for more women get support to act in this way.

Some partner organizations practice positive actions informally or explicitly. NWO intends to increase gender balance and to hire more women. Some women who are actively addressed because of their sex tend to dislike this, because they feel reduced to their sex. It seems an important learning that a better argumentation and communication about WHY women are wanted/preferred need to be offered. Respectively women should have some gender awareness to understand the structural aspects of gender inequality in physics that affect them.

4.4. Unconscious bias

Unconscious bias can be described as a kind of 'star' among the different fields of interventions favoured by institutions, and among the measures discussed in the interviews. In various GENERA partner organizations it seems totally clear that this is something that needs to be done or has been done already. Taking the unconscious gender bias test shows that almost all people are biased. This result does not blame anyone in particular; it makes it easy for scientists to acknowledge that a problem exists. It was argued that this form of awareness raising meets well the rationale of physicists: "it looks very much as a physics experiment" (P10_IP4). And as physicists are used to solve problems, bias training programmes are well accepted. In some GENERA partner organizations they are already offered to management staff and members of selection committees, sometimes also to researchers.

To make bias trainings mandatory has not been possible so far in any organization. It was argued that common standards would be very helpful, which specify the quality of such trainings (How long? For whom? Mandatory or not?).

[6] EMBO and the Robert Bosch Foundation produced the "Exploring Quotas in Academia" report, August 2015

Critical Friend's ideas / recommendations:

- ➔ GENERA should define quality standards for unconscious bias trainings in physics.
- ➔ GENERA should collect the best gender bias tests or produce one of their own, specific for the physics field, addressing stereotypes and working patterns there. All GENERA partners should try to make them compulsory.

4.5. Excellence / assessment indicators

Excellence or rather the gendered character of scientific excellence was discussed in various interviews. What is perceived as excellent is historically rooted in how physics has been done in environments dominated by men. Very different positions have been formulated on the differences between men and women doing physics. Common features include the attribution that women are less likely to compete, sell their merits lower, are less able to travel, and are thus less visible (see more in deliverables of WP2). This needs to be verified and taken into account when assessing personal performances. How criteria are defined and how they are weighted needs further reflection.

It was also discussed on a general level if the way how physics is done (time-consuming, competitive) is healthy for anyone, but rather, if it leads to really innovative research and can be sustainable. Here, GENERA could have an impact: "We need to develop argumentation that productivity and excellence do not mean: working 24 hours." (P5_IP2) This brings the discussion to gender-fair selection criteria, which need to be developed, and to a more transparent selection process.

Nevertheless, there are a number of interviewees who (still) do not see any link between gender and excellence and who lack any awareness of the gendered construction of scientific excellence. This can be summed up by 'Gender does not matter, we select the best'.

Critical Friend's ideas / recommendations:

- ➔ How can GENERA provide for gender-fair selection procedures? Can GENERA develop common standards or suggestions (list of criteria) to be implemented in GEPs?
- ➔ GENERA should enforce the presence of GENDER equality experts / expertise in commissions.

4.6. Selection committees

Women in selection committees are an active field of intervention in some partner organizations; various regulations are in place, like the committee should have at least one woman, always two women or 30% women. It was reported that women often reject to be nominated due to higher workload and because they are not accepting to be selected only based on their sex.

Then again, to make the selection more attractive and to increase the impact of nominees, women should be empowered before joining committees and could be invited for gender and/or negotiation training.

To compensate for time loss due to committee obligations, different regulations exist, like providing a research aid or reducing teaching obligations. It was also argued that committee work should be better valued in the CVs.

Critical Friend's ideas / recommendations:

- ➔ GENERA should offer trainings for female committee members.
- ➔ GENERA should create a network for recruitment of women from external institutions to avoid that women are overloaded in one institution as members of selection committees.

4.7. Care responsibilities

Care responsibilities are still seen as a crucial factor in limiting career opportunities of female physicists. To structurally change this situation, it was suggested that all GEPs should address the topic of gender roles and include measures to involve more men in child care responsibilities.

A specific topic in the field of physics is to reconcile childcare and travel needs (not only to conferences but also to where the necessary research equipment is). Women report they have complex care networks, often including extended family due to lack of public childcare. Others are not able to travel due to children at home. A special need of female physicists is to have reimbursement regulations for nannies who travel to conferences to care for the child(ren).

4.8. Sexual harassment

Sexual harassment was mentioned in various GENERA partner organizations and was highly recommended as a field-wide action to be addressed by GENERA. Measures suggested are awareness trainings, which could be rather short, like a one-hour-online-course, but which would increase the awareness for any other forms of unintended discrimination. An ombudsman-office should be created in each institution, as a position outside the hierarchy. Also a code of conduct could be developed on this topic.

The following chapters describe the status quo of gender equality in the GENERA partner organizations. Important features of the national/cultural context are summarized, as well as the institutional context and the institutionalization of gender equality so far. Afterwards a brief overview of the work in GENERA, the implementation team and specific challenges is given. Finally, the most important fields of intervention are listed were GENERA will, could, or is expected to take action. Important discourses and experiences are also described in order to provide a learning environment, and inspire other institutions in the GENERA Network.

As this report is a summary of the findings in D3.2 only the most important facts and findings are included.

5. Status quo: National Research Council (CNR)[7]

5.1. National / cultural context

As the economic situation in Italy is still difficult, fewer permanent positions are available due to cuts in research funding. It was argued that precariousness of work affects women more, and more fixed positions go to male applicants.

5.2. Institutional context

CNR is the biggest research organization in Italy, but women in leading positions are still rare, only 15% of institute directors are women. There are no women among the leaders of physics departments. At the moment there is no gender action plan in place but CNR has established a Committee for Equal Opportunities and Rights of Employees (Comitato Unico di Garanzia) following a legal requirement. In general a lack of awareness for the topic of gender equality on the level of the central administration was reported.

5.3. GENERA implementation

The biggest challenge for the GENERA team has been to promote the project within the organization and to find support at the top management. This was seen as prerequisite for further progress and a crucial next step.

At the time of the interviews only limited contacts with Physics departments had been established and no focus for the design of the GEP had been identified. However, some ideas about potential activities were mentioned. Goal: have a GEP designed at the end of the project's lifetime for the whole organization (no activities implemented).

5.4. GENERA Fields of Intervention

(1) Increase number of women in leading positions

Top management positions depend much on networks to the central office which are easier to establish for male researchers. Having women in leading positions could start a positive dynamic leading to even more female leaders and a change in the organizational culture.

(2) Mobility

Researchers – especially female researchers – are often marginalized after staying abroad for experiments. An idea would be to assess CVs differently (valuing abroad experience) or extend CNR contracts when going abroad, so not to lose the time at CNR.

(3) Gender equality monitoring

Establish a monitoring tool with indicators to measure gender equality and progress on the topic.

[7] This ex-ante assessment does not include the perspectives of the management or HR officers.

6. Status quo: National Center for Scientific Research (CNRS)

6.1. National / cultural context

In 2012, a national law in France imposed quotas for women's membership in selection boards / committees for each position at the university which applies for CNRS. The goal is to have 40% of the underrepresented sex included in selection committees.

That the share of female physicists is not higher in France was explained by a traditional career choice.

6.2. Institutional context

CNRS is a large public research organization, covering all fields of research. Gender institutionalization is at a high level. CNRS was a pioneer in France concerning the implementation of a gender equality structure and established a gender equality office (GEO) ("Mission pour la place de femmes") already in 2001. There is also a Gender Equality Plan (GEP) for the whole institution in place and many measures for more gender equality have already been implemented (e.g. unconscious bias trainings, prizes for women and encouragement of women to lead etc.). Selection procedures and committees are at the core of gender activities. Gender awareness in general is high and the management is supporting actions to promote gender equality. Yet, it was stated that not all employees are sensitized and aware of the existing instruments.

6.3. GENERA implementation[8]

The GENERA team is led by a female physics professor who was not involved in gender activities before. Having a strong gender institutionalization established in CNRS, it could be a challenge to establish a fruitful collaboration there. However, from an evaluator's perspective it was assessed as important to link existing knowledge and experiences within the institution and develop it further.

At the time of the interviews the GENERA project was not (yet) visible or known within CNRS and the focus of GENERA was still unclear. Another issue for the team was lack of support from HR people when collecting data and, in general, a limited availability of people to support the project. The next challenges were to: specify arguments about the benefits of GENERA within the institution; get support from the top management and CEO; to decide which measures should be implemented (and why); and to negotiate them with the management.

As there already exists a GEP, the team wants to develop physics specific measures. No additional or physics specific GEP is intended.

6.4. GENERA Fields of Intervention

(1) Increase number of female physicists

Attracting more girls to study physics by showing them how physics is done and by working with role models approaching girls at school. More actions should be done in schools and for undergraduate

[8] CNRS was the first partner to be studied (mid November 2016), this might explain partly why preparations for the implementation of GENERA activities were only very little developed.

students. Also, better communicate that CNRS tries to improve working conditions and to support women to have a successful career.

(2) Support young researchers
Support young female physicists by providing career trainings and mentorship.

(3) Child care support
Have more childcare support, at the workplace and on Wednesday afternoon as well as when going to conferences. The best form of support, it was suggested, was to reimburse costs for nannies accompanying researcher and child/ren to conferences.

(4) Sexual harassment
Sexism/ sexual aggression / sexual harassment was pointed out to be a relevant topic, often between PhD and supervisor. Ideas would be to have an ombudsperson in the organization that is outside the hierarchy, to make a clear statement that this topic is no longer a taboo and to offer trainings.

(5) Selection procedures
Networks and informal support were reported as important when applying for leading positions. Women would benefit from a selection procedure less based on informal, network-based support, but more standardized and transparent procedures. They would also benefit from being encouraged and invited to apply what can be seen as signal that women are wanted in leading positions.

7. Status quo: Deutsches Elektronen-Synchrotron (DESY)

7.1. National / cultural context

In 2011, the Joint Science Conference of the Federal Government and the Government of the Länder introduced the so called Cascade Model to establish realistic, discipline-specific and career-stage-specific targets for gender equality in research performing organizations. The non-university research organizations have committed themselves to implementing the Cascade Model with ambitious targets and supporting the achievement of these targets with different measures promoting gender equality. DESY as part of the Helmholtz Association is committed to motivate and monitor their research centers to implement the Cascade Model and to reach their self-defined targets.

7.2. Institutional context

At DESY, gender equality is managed by the gender equality officer which is a staff position subordinate to the board of directors. Additionally, a committee of women representatives is responsible for equal opportunities for women. Generally speaking gender equality work is mostly directed at women.

Gender equality is an important topic at DESY at this time. One focus of the gender equality work is recruitment procedures. With the introduction of the cascade model in 2012 DESY has set targets for the participation of women in groups with different status, which should be reached in 2017. These targets are monitored on annual basis and the results are discussed by monitoring group consisting of high-level representatives of different departments, and the management. New targets for 2020 have been set in coordination with the gender equality officer, the board of directors and the

foundation council. To reach the 2017 and the 2020 targets, a set of measures has been developed and implemented.

Although gender equality is considered relevant for DESY to present itself as an attractive employer and a modern research organization, some interviewees mentioned that DESY still does not realize its full potential and that not everyone is highly committed to improve the status quo of gender equality.

7.3. GENERA implementation

At the time of the interviews the process of engaging stakeholders within an organization seemed to have only started and it was described as an important next step to identify the relevant institutional actors and involve them in GENERA. From an evaluator's perspective it seems of specific importance to establish cooperation between GENERA and local gender equality officer. Responsibilities and common interests should be clarified.

Targets and benefits of GENERA for the organization were unclear to stakeholders, and the project was partly perceived as a research project, which is not really a part of the organizational activities to promote gender equality at DESY.

GENERA has contributed to a higher awareness of the topic at DESY, but still, concerns were raised by several interview partners that GENERA is not so visible and well known within DESY so far. More efforts need to be invested in making GENERA and its objectives as well as activities more visible within the organization.

The GENERA team is aiming to develop a GEP for DESY, but internal stakeholders were not (yet) convinced of the benefits of introducing a GEP as there already exist a lot of measures for gender equality and the top management is already committed to the topic. If no decision on a GEP can be achieved, there should still be an extended version of the employee development plan with some new measures/policies implemented that improve gender equality at DESY and which are complementary to the already existing policy mix.

7.4. GENERA Fields of Intervention

In the interviews at DESY no focus on specific topics or fields of intervention could be identified, but interviewees suggested a number of actions that could be implemented. Suggestions included: Gender bias trainings, mentoring, organization of a Girls Day, childcare programs, better management of career breaks, policies to improve the situation of temporarily employed staff and positive action. It was also suggested to involve and address more strongly the men and to establish a new staff position in charge of developing gender equality policies.

8. Status quo: Instituto de Astrofísica de Canarias (IAC)

8.1. National / cultural context

In Spain public research organizations are requested by law to have a gender equality plan. Furthermore, there is a legal requirement that all selection committees / tribunals which select candidates from post-doc on need to include women.

In Spain it is difficult to be selected for a permanent position in a RPO. Usually this only happens after being 40 years old. Women are disadvantaged because of maternity breaks or do not want to wait so long for a permanent position and leave science before getting one (usually when having children).

8.2. Institutional context

In the interviews the legal requirement to introduce a GEP was discussed critically, arguing that there is some tension between having a plan approved and really implementing the selected measures. It was argued that institutions have no problem with approving GEPs but that implementation is the challenge because organizations often lack staff with appropriate expertise/knowledge and budget for the implementation.

Based on the national legal framework, some activities for gender equality have been set up at IAC (e.g. maternity leave regulations, child care, selection procedures, awareness raising) and the gender institutionalization was strengthened. A Gender Equality Commission was established and a first GEP was implemented for the period from 2010-2014. A second one was approved in 2016. The first GEP had ambitious aims but was lacking implementation, which was justified as being caused by the lack of time resources.

Increasing gender awareness was reported and in the interviews all management stakeholders declared their support to gender policies and GEPs. However, there is also lack of expertise how to address the existing weaknesses in IAC.

8.3. GENERA implementation

The GENERA team is composed of the Head of HR, a member of the Gender Equality Commission, and a gender expert who was hired only for GENERA. This way it should be guaranteed that the work of GENERA and the existing structures are coordinated well and the necessary gender knowledge and implementation experience, as well as time resources are available.

So far, the GENERA team feels well supported by the management when putting GENERA objectives into practice. Some resistance was reported by (senior) male and female researchers who questioned the data or the methods.

The GENERA targets are still unclear. A main target is to further increase gender awareness and to make better known within IAC what is already implemented and available. Also the implementation of the existing GEP is seen as important. So more gender trainings will be organized; presenting the GEP and discussing the implementation in practice.

8.4. GENERA Fields of Intervention

(1) Childcare

As the lack of childcare support is still perceived as major barrier for female physicists' careers in science, GENERA will work to get more childcare support, also engaging men more in this responsibility. Support is also needed when caring for elderly.

(2) Mobility & Excellence

Being abroad for experiments becomes more difficult for researchers with care responsibilities. Women feel disadvantaged in their career because travelling for professional reasons is less possible for them, as they take over care responsibilities for children and elder people. Mobility allowance, i.e. reimbursing childcare costs when travelling to conferences or experiments, was discussed in the interviews as a possible measure. It was also suggested to reflect on the norm of travelling and on mobility as element of excellence. For example if you need to be in contact with the community, Skype can be an option instead of travelling.

The notion of excellence came up in several interviews and was also critically discussed by some interview partners. Generally, excellence and gender are seen as two separate notions without interaction. Thus it would be important to sensitize people about the topic. It is also recommended to develop a list of gender-fair criteria for recruitment, best in accordance with other GENERA partners.

(3) Career breaks

It was discussed in which way care responsibilities and career breaks due to maternity leave can be integrated in the evaluation of a career track and which indicators could be applied to have a gender fair assessment. Discussions are ongoing about extension regulations for female post-docs and how to compensate time loss in their career.

9. Status quo: Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH)

9.1. National / cultural context

The socialist past of Romania plays an important role for the high representation of women in physics (and in STEM in general). It is also an important factor for the general perception of people that men and women are equal, that equality of opportunities already exists and that there is no need for action. However, women at the decision level are still lacking (in general).

According to the law, research institutions need to have somebody in charge of overseeing equality of opportunity. At IFIN-HH the union is doing this and is also reporting regularly about issues that might occur in the field of gender-related equal opportunities.

9.2. Institutional context

There is a comparatively high representation of women at IFIN-HH with 36% of researchers and 17% of Heads of Departments being women. The strong presence of women in the institution implies a lot

of role models for young female researchers and might lead to an organizational culture in which women feel comfortable and supported.

At IFIN-HH no measures or structures are in place to promote gender equality. The general perception at the institution is that there are equal opportunities for men and women and that there is no need for action. However, a leaky pipeline becomes visible in the numbers.

9.3. GENERA implementation

As gender awareness is low, the major challenge for the team will be to create awareness, develop strategies to involve and convince decision makers and to develop arguments for the implementation of a GEP. It is recommended to build a task force and strategic alliances within the institution and with important external stakeholders in order to be able to start the implementation process.

It also became evident that further communication and awareness raising activities across the institution will be necessary to communicate GENERA and its objective and to create awareness for gender equality.

The team mentioned various targets reaching from a general understanding of gender (in-)equality and interdisciplinary cooperation to raising awareness at the management level and developing a GEP. At the time of the interviews it seemed not clear if a GEP will be developed. There were different opinions on the need for and benefits of a GEP. Also it was questioned if it would be possible to get the necessary support for the implementation.

9.4. GENERA Fields of Intervention

(1) Women in leading positions

In the interviews the phenomenon of a leaky pipeline and the low number of women in leading positions appeared as the most interesting for further investigation within GENERA. The fact that there are fewer women in leading positions is perceived as women's personal decisions. All interview partners stated that women have the same conditions and possibilities as men and that there is no discrimination or bias or stereotype that is causing the low numbers. This suggests a lack of awareness of the structural dimension of gender (in)equality.

(2) Career & Family

Since there exist no regulations for flexible working hours or support for childcare, the reconciliation of work and family life has to be organized individually. In practice the possibility to flexible working hours or working from home depends on the supervisor and seems to be often informally accepted. However, it was suggested that flexible working hours should be officially implemented. Although the common perception was that it is possible to have children and a career it was also commented that some younger female researchers are at risk of missing the opportunity of having a family. The latter was seen as a phenomenon that would be interesting for further investigation. It was also commented that fathers may face difficulties/prejudices when taking over care responsibilities and staying home because the general opinion is that women (not men) should do so.

(3) Gender awareness and gender bias

As there is low gender awareness, it would be important to take actions to raise awareness about gender equality and gender bias.

10. Status quo: National Institute for Nuclear Physics (INFN)

10.1. National / cultural context

Due to a general post-crisis economic situation in Italy there are only few permanent positions available. The lack of permanent positions was argued to be a bottleneck in the career of female physicists in Italy: Positions are rare, highly competitive, and only available at later stage in the career. So women either have to wait long to get a permanent position and then have a baby late(r) or they do not wait and give up job or at least career perspectives for a child.

This is one reason why Italian female physicists often move to countries like Switzerland, Germany or US/GB, where more positions are available and these are better paid. Also, in these countries there is usually more support for childcare and a better work-life balance provision than in Italian research organizations. In Italy a lack of adequate childcare facilities often implies that women physicists have to choose between career and family. Other women quit their job to follow their partner (often also physicists) to another country.

In general, women are well represented in physics in Italy, but mainly at the beginning of the physics career pipeline. At school and at university girls do well but while school is supportive, the private environment seems less fond of daughters studying physics because it is perceived as difficult to reconcile with family duties. At more senior career levels, women are present in increasingly fewer numbers.

10.2. Institutional context

INFN is an internationally renowned public research agency in the field of physics based in several locations all over Italy. The proportion of women in top leading positions is still low (below 10%).

At INFN, an institutional structure for gender equality exists with the Central Guarantee Committee for Equal Opportunities, Employee Wellbeing and Non-Discrimination at Work (CUG), established in this form in 2011. Based on national law, the CUG prepares gender equality plans[9]. The next one will be prepared for 2018-2021. At the beginning of 2013 GENis-lab, an FP7 project in which INFN participated, has proposed some affirmative actions. The project offered amongst others trainings and HR tools. GENis-lab, together with CUG activities, helped raising awareness for the gender issue at INFN but there was still seen need for further awareness raising activities as there are still people (in leading positions) who do not see a problem at all.

Since 2011 INFN has to apply national law that requires at least one woman being part of selection committees for permanent positions. If the panel has six or more people, two or more women should participate.

10.3. GENERA implementation

When setting up the GENERA team the regional heterogeneity of INFN had been taken into account. There are people included who had not been active in gender equality work before but also the head

[9] National Institute for Nuclear Physics, CUG: Proposal of the Fifth INFN Three- Year Plan of Positive Actions for the realization of equal employment opportunities between women and men, approved in April 2015.

of the CUG as implementation manager which guarantees continuity and coordination with gender activities before and parallel to GENERA, but which also implies the risk of too short time resources (CUG components perform this task without reducing their research work load).

At the time of the interviews, no decisions had been made about the measures to be implemented by GENERA or/and to be integrated in the next GEP. The GENERA team did not express clear targets. It was seen as important to intensify the communication within the INFN GENERA team. One suggestion was to advance gender equality in different regional units. As an important next step, the goals and planned outcomes of GENERA need to be specified. The top management stated to have a maximum of openness for the GENERA approach. GENERA should outline problems, objectives and respective interventions, best in a visualized form.

10.4. GENERA Fields of Intervention

(1) Selection processes: unconscious bias

Even though there is some legal basis for a fair selection process in terms of gender equality on the one hand, and although CUG has already been working on this topic and concrete measures have been specified in the equality plan, on the other hand, the results are still poor. In the ex-ante interviews conducted in January 2017, the dominant gender topic was in fact the (suboptimal) selection procedures. In September 2016 INFN recruited a number of 73 permanent positions after a recruitment stop in the previous years. Only 7 women were selected even though the number of female applicants was quite high. As a consequence, a working group has been established to analyze the results and the work of the selection committees and unconscious bias has become an important topic to be addressed.

(2) Selection processes: transparency of criteria and process

Related to the selection procedures as an important topic in the interviews is transparency of the selection criteria and the way criteria are applied.

So far, group leaders and their opinions play a key role in who is selected for a position. It was argued that gender-fair criteria should be formally defined to avoid gender bias and disadvantages for women in the selection processes. Transparency is also needed to improve the selection process. Establishing gender-fair criteria, monitoring and increased transparency was also expressed as an expectation for GENERA, and the next GEP.

(3) Excellence

In the context of selection procedures, a further important discussion was the notion of excellence as a male concept. When scientific excellence is assessed, a male image of an excellent physicist comes to mind. This form and other ideas about how the ideal candidate looks like cause an unconscious bias (not only against women, but against all deviants from this norm), which guides the assessment.

(4) Positive actions for more women

As progress is slow it was discussed to implement measures for women only, e.g. post-doc positions reserved for women, prizes for young female researchers or grants for women coming back from maternity leave.

(5) Childcare and awareness for changing gender roles

Finally raising awareness for changing gender roles was mentioned as important topic to be addressed by GENERA. GENERA should suggest measures that address male researchers and encourage them to take over care responsibilities. This would better enable female physicists to continue their scientific career after having children. It was also suggested to offer measures to support caring researchers (e.g. mobility allowance, childcare facilities).

11. Status quo: Jagiellonian University in Krakow (JU)

11.1. National / cultural context

According to research there are more female physicists in post-communist Europe than in other parts of Europe. This is believed to be due to a low prestige of science and comparatively low wages. Gender equality is still rarely perceived as relevant in Polish society. Conservative values relating women mainly to maternity and care responsibilities, and men to professional career and being a breadwinner are still common within Polish society, but there is a visible, recent shift toward gender equality attitudes[10]. Family support is still needed for reconciliation of work responsibilities.

There is no legal document regulating the issue of gender and science. In general it might be stated that the Polish government is very reluctant to incorporate the values of gender equality into its short- and long-term plans for policies.

11.2. Institutional context

The Institute of Physics is located within the Faculty of Physics, Astronomy and Applied Computer Science which has now a female Dean. Only 4% of full professors at the Institute of Physics are female.

At the Jagiellonian University in Krakow the awareness for gender equality is rather low, no specific structures or measures for gender equality are implemented so far. Gender equality is addressed as part of broader anti-discrimination programmes. Regarding measures to facilitate work-life balance it was reported that very flexible working hours are provided. Additionally, the Jagiellonian University provides parents with preschool and nursery funding possibilities.

11.3. GENERA implementation

All GENERA team members are based in the Institute of Sociology, most of them working in the field of gender studies. The team managed to establish communication structures between the GENERA team (Institute of Sociology) and the Institute of Physics where the team identified one person responsible for direct communication. The team also communicated with various stakeholders and

[10] See e.g. Krzaklewska E., Slany K., Ciaputa E., Kowalska B., Ratecka A., Tobiasz-Adamczyk B., Warat M., Woźniak B., 2016. Gender Equality and Quality of Life in Poland. A Survey Research Report. Krakow: Jagiellonian University, available at: http://www.geq.socjologia.uj.edu.pl/documents/32447484/35419405/GEQ%20ENG.pdf

identified the Rector's Proxy for Student Safety and Security as an important supporter of the project.

The team had planned to design the GEP only at a later stage in the project and only vague ideas existed so far. It was not decided yet if the GEP will be designed for the whole university (preferred option of the team) or only for the Institute of Physics.

The core challenge for the team is to overcome the lack of awareness and interest in gender equality issues at the Institute of Physics and the reluctance/distance to the idea of planning gender equality measures. It was described as a pre-requisite for taking further steps to raise awareness concerning the sources and structural dimension of gender inequalities. Authorities at the faculty still have to be made aware of the topic and take it on board.

The JU GENERA team still has to work on making the GENERA project well known and accepted in the Institute of Physics. In this context it is also challenging that the team members are from a different institute and not part of the physics community.

11.4. GENERA Fields of Intervention

(1) Awareness for gender equality

The biggest challenge at the Jagiellonian University is the lack of awareness for the structural dimension of gender (inequality) and the cultural resistance towards topics related to gender and gender equality. According to interview partners, the authorities do not see any problems of gender discrimination and do not prioritize gender equality in the workplace policies.

So for putting gender on the agenda, data on the share of women in the field and in leading positions could be presented as well as an overview about measures implemented in other GENERA organisations.

12. Status quo: Karlsruhe Institute of Technology (KIT)

12.1. National / cultural context

In Germany gender equality and especially the participation of women in research were described as having high political relevance. Big funders, like the German Research Foundation (DFG) or Ministries, pay attention to gender equality and claim actions. Universities in Germany are legally required to develop and implement a gender equality plan. There are also regulations in place for the non-university research organizations like the Helmholtz Association to which KIT belongs. (For more information on this see chapter 7.1.)

Despite these targets, women are still underrepresented in physics. Two reasons mentioned in the interviews are the low prestige of physics as a subject and underdeveloped infrastructure to support the participation of women in the labour market.

12.2. Institutional context

KIT has already established structures and a broad range of measures to promote gender equality. The diversity management team in the HR department is in charge of the strategic work for and implementation of gender equality. Based on a legal requirement there have also been equal opportunity officers established who participate in recruitment processes, appointment committees and other bodies. A Committee for Equal Opportunities and Diversity has been also set up.

KIT is legally required to have a gender equality plan (GEP). The first GEP was implemented in 2014 and is binding until the end of 2018. All five divisions of KIT are supposed to make a written statement regarding the current gender equality situation in their disciplines. These statements are part of the GEP.

The proportion of women is low in all career stages, but KIT aims at increasing the share of women and creates annual gender monitoring reports summarizing measures taken and progress made. There have already been implemented a wide range of measures for gender equality (e.g. mentoring, telework, childcare-facilities, gender-sensitive publicity content).

Still, interview partners identified room for further improvement especially regarding the practical implementation of measures and the level of awareness and engagement at the divisional level. It became evident that not only measures but also cultural change is needed.

12.3. GENERA implementation

Since the Head of Diversity management and one of her staff are part of the team, the activities in GENERA are directly linked to existing structures. At the time of the ex-ante assessment, the team had already held a Gender in Physics workshop and GENERA progress was communicated internally.

As there exists already a valid institution-level GEP the team decided to focus on the implementation of new measures, which are tailored to physics/physicists. Recruiting and networking will be the focus of these activities. Within the scope of GENERA the aim is to identify and integrate selected appropriate measures in the next GEP.

It was described as a challenge to get people involved and motivate them to actively participate and contribute to GENERA. However, it could be an opportunity to use GENERA to strengthen internal networks and the link between the central and divisional levels.

Another challenge is an increasing “gender fatigue”. As there has already been done a lot to promote gender equality, people are getting tired of the topic and opposition is increasing. This makes it challenging to implement further measures even though gender equality is not reached yet.

12.4. GENERA Fields of Intervention

(1) Recruitment and women’s careers

The biggest gender challenge at KIT is to increase the proportion of female physicists at all career stages. As the problem already starts with the low number of female students, it is a goal of KIT to attract more girls to study physics. Another issue is women leaving science careers because of job uncertainty, which is related to the lack of mid-level academic faculty positions. In this context the post-doc phase seems to be the most crucial: it is when women decide to leave science.

(2) Low gender awareness and gender bias

It was stated that in physics an "old fashioned thinking" can be identified and it is perceived that women still face a double-standard and have to work harder to succeed. Even when women do excellent research their excellence tends to be relativized, or their work underrated. In the interviews it became obvious that the existence of gender equality measures is not enough if organizational culture, or individual superiors, counteract their impact.

(3) Work-life balance and cultural change

KIT has already implemented a number of measures to facilitate work-life balance, which can be used by both men and women. However, practice shows that those measures are not effective, or are under-used in cases were organizational culture, or managers' low gender awareness, oppose their usage. In this case the challenge is to raise gender awareness and change the organizational culture.

The need for international cooperation and work outside of the standard working hours were described as a challenge for researchers with care responsibilities – especially for women who often find it more difficult to arrange private life accordingly and sometimes decide to look for other career paths. In the context of work-life balance and childcare responsibilities it was perceived as important to address both women AND men.

(4) Mobility allowance

Due to the current legal situation it is very difficult to organize childcare or funding for childcare when travelling (for example to conferences). It was suggested that especially for young mothers it would be important to provide better support and more flexibility.

(5) Sexual harassment

There exist cases of sexual harassment, but KIT has already established a well-functioning structure to deal with those (e.g. guidelines, gender equality officers and the Vice President for Human Resources).

13. Status quo: Max Planck Society (MPG)

13.1. National / cultural context

The situation in Germany was reported to be particularly bad in terms of numbers of women in physics. Natural Sciences are regarded as masculine domains in Germany and already in schools girls are less present in advanced courses in natural sciences than boys. Furthermore, societal factors like lack of childcare infrastructure contribute to the low number of women in physics.

The lack of women in leading positions has already been recognized in Germany and there is increasing pressure from research funders to bring more female researchers into leading positions. As there is already a longstanding debate on gender equality, it has been described as challenging to keep the topic current ("gender fatigue").

13.2. Institutional context

At MPG women, historically, have been and still are underrepresented. Especially the management is very male dominated. The MPG has made a voluntary commitment in 2012 to increase the number

of female scientists. It also recognized the problem of the lack of women in leading positions and has established goals and measures to address this.

The MPG has a well-established structure for gender equality. It has a central gender equality officer (GEO) as well as gender equality officers at all institutes. At the central there is a Permanent Presidential Committee "Opportunities"[11] which is chaired by the vice president of the human science section.

Gender equality has not been a main strategic target of MPG in former days, but at the moment there is a lot of activity and momentum for gender equality. During the runtime of GENERA the MPG president reinforced the obligation of all institutes to implement GEPs, which existed since 2008.

The overall aim of gender equality policies at MPG is to transform the culture of this research organization. However, triggering (cultural) change in the different institutes and creating gender awareness is still a challenge.

13.3. GENERA implementation

The central GEO of MPG is part of the GENERA team which implies that the project is directly linked to the existing gender equality structures and functions. Furthermore, the team can build on already established personal relations and networks to the MPG management and across the institution.

Due to internal pressure there is currently high interest among institutes to develop and implement GEPs. GENERA has the chance to use this momentum and support three institutes in developing their GEPs. This is also the main goal of the team.

At the beginning of the GENERA project the team approached the three institutes and secured the commitment of the institute directors. However, most interview partners argued that at the time of the interviews only little information about GENERA had been provided.

As targets and measures need to be specified in each of the three implementing institutes, it will be important to establish good collaborations with divisional gender equality officers. At the time of the interviews these officers still had to be taken on board and be informed about their role in the implementation process. As they are in many cases new to the post and do not have resources for their work, they need to be empowered and supported on the implementation process as well as on topics for the GEP by the GENERA team.

13.4. GENERA Fields of Intervention

(1) Recruitment of female physicists

The most discussed challenge in the interviews was the recruitment of women. Although some awareness for the underrepresentation of women has already been raised, it appears challenging to successfully increase the proportion of female researchers in the various institutes. Concrete ideas how to recruit women more successfully seem to be absent. Hiring processes differ between institutes and vary from informal to formal recruitment. According to interview partners recruitment processes lack transparency. Another issue is lack of career prospects for young researchers and a

[11] In German: "Ständige Präsidentenkommission Chancen"

high fluctuation of PhDs and Postdocs. It was mentioned as a specific challenge for female physicists is that only about 50% of all researchers at MPG have a permanent position.

(2) Cultural change

The research and academic system was described as a "male system" optimized to train excellent male scientists in physics and not well suited to train female scientists. The fundamental aspects of being a successful scientist were described as optimized for a person without any responsibility towards children or family. The increase in female research group leaders in postdocs at MPG as well as the general aim to increase the number of female physicists makes it clear, that cultural change is needed.

(3) Career-family balance

It was stated that although MPG offers some support for families, there are two specific needs to be addressed: How to support female scientists with children when travelling to conferences or when having meetings in the afternoon or evening.

(4) Dual Career

As many postdocs and also senior scientists are in a relationship with another scientist dual career is a very relevant issue at MPG. Offering dual career options is specifically important to enable top female scientists from abroad to move to Germany with their partner. MPG has already started a dual career service and is participating in local dual career networks, but according to an interview partner this is still at a very rudimentary stage.

(5) Sexual harassment

Sexual harassment has also come up as a topic in the interviews. Some institutes already started discussions or also actions to address this issue.

14. Status quo: Institutes Organisation of the Netherlands Organisation for Scientific Research (NWO-I)[12]

14.1. National / cultural context

Physics in the Netherlands is highly sex segregated. The share of female physicists is lower than in most countries. The general employment situation is characterized by '1.5 earner model' whereby men work full time and most women work part-time. As part-time is hardly practiced in research and childcare facilities are lacking, combining a career and care responsibilities becomes a specific challenge for female researchers with children.

14.2. Institutional context

FOM as partner organization of GENERA recently underwent a re-organization process: on 1 January 2017 FOM became part of the NWO Institutes Organisation, together with other NWO divisions. The former FOM has been active in gender policies since the late 1990's when the FOM/f program

[12] Before 2017: Foundation for Fundamental Research on Matter (FOM)

started, which provides postdoc positions to bridge the gap to a regular position for female physicists. Gender awareness in general is high (also compared to other GENERA partners).

The main aim of gender policies at the moment is to increase the number of female researchers. In management positions women are quite well represented, but only 2 out of 18 (11%) scientific group leaders are women. A recent focus is on gender bias. Besides reflecting on individual bias it is now the main strategy at NWO to strive for (more) women in the research workforce as well as in selection committees.

At NWO-I there is no formal gender institutionalization yet, such as having a gender equality plan or a function that takes care of equal opportunity issues, but in the former units a broad range of gender equality measures was implemented (e.g. gender trainings for HR people, mentoring, films to raise awareness). Measures were started bottom-up or top-down - often by women, in senior or leading positions, but more recently also by male directors who feel the need to change the situation. Therefore, the, so-called, 'spray gun method' was applied: this means that many different actions are implemented at the same time to make faster progress in changing gender imbalances. This approach was assessed as very effective, in contrast to the often heard argument that not too much should be changed at the same time.

14.3. GENERA implementation

The expectation is to check and improve the measures already in place and to develop them into a more formalized GEP. One of the core ideas here is to learn from other countries / GENERA institutions.

Which measures or topics will be included in the GEP and who is responsible for suggestions was still unclear. The GEP should be targeted for NWO-I, taking into account different needs of different institutes. If possible the GEP could even be extended to all NWO institutes. It was not clear yet if the implementation of measures can start during the runtime of GENERA. It was suggested to use the window of opportunity that NWO-I is now part of a new organisational structure and have the GENERA-GEP as a pilot for further GEPs.

The high commitment of management people was mentioned as strength of GENERA. There are also a lot of expectations towards the GENERA project. Therefore an efficient collaboration with the directors should be established. Clear tasks and responsibilities need to be defined.

As there is a lot implemented already and a lot has been discussed, it is expected that GENERA makes targets more precise soon and suggests concrete measures to implement. Synergies to existing measures are expected.

14.4. GENERA Fields of Intervention

(1) Weak gender Institutionalization

Although quite a broad range of gender equality measures have been implemented at organizational and/ or institute level, there is no formal gender institutionalization yet, like having a formal plan for gender/diversity or a function that cares for it, like a gender equality officer. The perception that gender is not done by someone outside the institutional structure (like a gender equality officer), but by the management has some advantages but may also face limitations. From a gender theoretical

point of view it is a long-term target that gender aims are fully integrated in formal positions and processes and by this, become sustainable.

(2) Low number of female physicists

To increase the number of female physicists in general and in group leader positions in particular was discussed as the main gender challenge at NWO institutes. Various reasons were mentioned that could explain why women are rare and that consequently, could be addressed by a GEP or gender measures. One measure mentioned in various interviews was introducing a quota for more gender balance.

(3) Recruiting practices

Another topic discussed controversially was practices for active recruitment of female researchers. In the interviews it became obvious that the will to recruit more women and a focus on 'more balanced numbers' is a dominant issue. Directors are trying to actively recruit women and some recruiters tend to favor women. However, so-called positive actions used so far are faced with limitations and are also partly criticized by female researchers. Therefore, current practices should be optimized. A focus on criteria can be suggested as a not-positive-action practice that also aims to increase gender balance.

(4) Women in selection committees

It is intended to have more women in selection committees and an informal practice has been established to actively recruit women for selection committees. There is some critique on this practice, as women who join and have to do all the committee work might have a worse performance. Some women have reported that they felt bothered when they were approached, because they felt they were only needed because of the on-going discussion on numbers.

(5) Support for female researchers

It was suggested to provide mentoring and individual coaching to support female physicists.

(6) Monitoring and success control

The expectation raised a few times during interviews was that a physics specific monitoring should be established within GENERA. This will enable to identify weaknesses and what has to be done in a long term perspective. An idea came up to restructure research funding by linking the gender monitoring results directly to research funding for RPOs.

15. Status quo: University of Geneva (UNIGE)[13]

15.1. National / cultural context

Switzerland is an attractive country to move to for female physicists from other countries: so many female physicists working there come from abroad. In contrast, the number of girls deciding to study physics in Switzerland is low. Gender stereotypes have been mentioned as important barriers.

[13] No one from the top management of the university has been interviewed, so expectations from University representatives might be underrepresented in these findings.

In the last decade awareness was raised regarding gender as a topic in scientific knowledge production, on the one hand by SNSF, as the main research-funding agency, on the other hand, by law, implementing a strong gender equality policy at the federal level. All universities in Switzerland are requested to have a gender action plan (GAP) to improve gender balance.

15.2. Institutional context

The University of Geneva's first GAP concerned the period 2013-2016. Recently, the newly implemented GAP for the period 2017-2020 has been accepted by the rectorate and publicly announced. It is binding for implementation.

The Faculty of Science at the University of Geneva was described as very male dominated, having 93% male and only 7% female full professors. Traditionally, women are working more often in precarious positions. So far, no specific gender equality measures have been put in place for the Faculty of Science.

15.3. GENERA implementation

The University of Geneva already has a GAP and a strong gender institutionalization. The GENERA team was successful in establishing strong ties to the Gender Equality Officers to find ways of collaborating with them in the future. It appears, GENERA team members were successful in referring heavily on the knowledge and experience of the established structures (the Gender Equality Office and the Science Commission for Equality), while making also GENERA visible to other parts of the university. To make progress in GENERA, collaboration with institutionalized Gender Equality Officers offers a better mechanism than top support from the management.

As a general GAP is established at university level already, the idea is to develop not a full GEP but physics specific measures within the existing GEP. A focus for the implementation activities is still needed.

15.4. GENERA Fields of Intervention

(1) Selection processes

First of all it was mentioned that the selection procedure for professorships, but also for other positions, has to be improved. To make male as well as female members of selection committees aware that gender bias in decision-making is widespread and needs to be challenged and that GENERA can help achieve this in Geneva. As this is also a topic in the GAP at university level, some of those measures could be adopted to the physics field through GENERA. Unconscious bias training and discussions about excellence as a male concept would be important.

(2) Quotas

Another issue to be address in GENERA that is also already in the general University Geneva GAP are quotas.

(3) Other

There were also other ideas mentioned like: attracting more women to study physics, mentoring, dual career support, childcare support, addressing gender bias at the administrative level and addressing sexual harassment.

16. Policy learning: findings related to GENERA project and consortium (design and practices)

In this chapter we discuss more general findings of the ex-ante assessment, which are relevant across GENERA partner organizations. These cross-partner findings are presented in a short, precise and easy manner, reflecting the discourse and argumentation in respect to these topics.

16.1. Main expectations

One of the arguments that was brought up most often, from GENERA team members as well as from other stakeholders, was that GENERA should provide the possibility to learn from each other, to get insights in on-going activities for more gender equality in other research organizations. It was described as a crucial benefit to **share experiences about *what works and what does not*** in the field of physics. These experiences, from other physics units, could be used by the GENERA teams to gain greater commitment from management to the project, either in general, or to implementation of some fields of action, in particular. Especially interviewees from GENERA partners with very limited gender awareness so far argued that "we need GENERA", as it makes visible that in the European context a gender problem in physics exists and how it is addressed by others.

On the other hand knowing about what is done in other research organizations helps the ones directly engaged in the design of GEPs to generate ideas for new measures beyond what has been already done and/or included in an existing GEP.

Critical Friend's ideas / recommendations:

- ➔ Organize how (a) good practices and measures and (b) factors of success and of non-success in practice are identified in the GENERA partner organizations: who identifies them and who brings them into GENERA? Where does this exchange happen?
- ➔ Organize exchange about these factors: This should happen before GEPs are designed. Who is responsible? Who participates: all GENERA members or only IMs? Is it done in IM meetings?
- ➔ Integrate these measures and factors in practice in a GENERA toolbox.
- ➔ Build working groups to work on specific topics and provide knowledge/documents for all GENERA members to discuss.

Besides comparing experiences to inform gender policies, **benchmarking to other GENERA partners in terms of data and numbers** was also brought up as a relevant expectation of GENERA: to get an idea how one's own organization is placed compared to the other partners, e.g. regarding the number of women in leading positions, is of specific relevance for the management to raise awareness for the problem and become committed to actions. It is also relevant for the GENERA team when preparing for the targets and aims of the GEP.

Beyond using data on the representation of female and male researchers at different career levels and in different positions for the GEPs, this data is also relevant for the ex-post evaluation.

Critical Friend's ideas / recommendations:

- ➔ An overview of the representation of female and male researchers at different career levels and in different positions per partner should be provided (as an outcome of work package 2?).

Female researchers have further expectations that the **GENERA project will bring some change and really make an impact at European level**. In most partner organizations GENERA was called "an important project", due to the size and the prestige of the partners. Thus, GENERA is expected to improve the situation (the gender balance): "If GENERA would fail, this would mean a strong backlash for gender equality in this community." (P7_IP2)

Critical Friend's ideas / recommendations:

➔ Provide common standards for IM how to approach fields of action and develop a collective knowledge within the GENERA consortium, which supports implementation activities.

16.2. Focus of the project

Various GENERA partner organizations argued that for them, **the focus of the project is not clear yet**. On the one hand this addresses the core implementation process. As GERI-4 projects are not research projects, but implementation projects, it was argued that no more data should be collected, but the implementation phase should finally start. Implementation here means getting concrete measures started as well as having a GEP ready for implementation. To have as many GEPs as possible designed and ready to implement or implementation already on-going is seen as the potential outcome here.

On the other hand **the European-wide impact of GENERA is rather unclear**. Some interviewees have questioned: what will be different in the physics field after the end of GENERA? In this context it was mentioned that some measures are more effective and have a broader impact when being implemented at a European level. "The specific thing of GENERA is that we don't do it in a single institute but that we synchronize it throughout Europe. And that is the added value in the longer term" (P1_IP1).

Critical Friend's ideas / recommendations:

➔ Specify how the European field impact is generated and enlarged in practice. Fix the responsibility for addressing the European field impact: WP5 leader? Consortium leader? Others?

➔ Decide if a general guideline for how to increase gender balance in physics can be developed as a final GENERA outcome, based on the roadmap, the toolbox, or other deliverables: Who is responsible for (i) decision and (ii) for doing it?

➔ Decide if guidelines can be developed for specific fields of interventions, e.g. recruitment, selection committees, excellence criteria, and more? Who decides? Who is responsible for developing guidelines? Who is doing the work?

GENERA partners should agree on topics that are addressed in each GEP while taking into account the heterogeneity of the partners. Then standards can be established (e.g. gender fair selection criteria for recruitment of scientists) and sensitive issues are easier to address (e.g. sexual harassment, to be addressed by trainings, ombudsperson). It was also argued that something like a

code of conduct for gender in physics could be developed that can also be applied by research organizations outside GENERA; this would increase the field impact and make the outcomes more sustainable. Quite a number of interview partners from different organizations and different positions expressed the expectation that GENERA would provide recommendations how to increase gender balance in physics.

16.3. Timeline

The timeline of the project is seen as a crucial challenge: As to implement GEPs is the core aim of GENERA it was surprising for the evaluators that at the time of the ex-ante interviews, no partner had started any implementation activities. Most of the partners didn't even have a structured approach how to design the GEP. Often interviewees worried that it would be a challenge to have enough time for implementing measures. Some partners stated that their target was to have the GEP ready by the end of the project, and start the implementation later. This is also relevant when a GEP currently exists and the GENERA work goes directly into the next GEP, which might e.g. start in 2019.

It was also stated that already the timeline in the proposal was not optimal and work packages could have been better scheduled in relation to each other. In this respect it was also argued that deliverables should be well coordinated and the needs and expectations of other GENERA partners taken into account.

Critical Friend's ideas / recommendations:

- ➔ GENERA partners should refer to and use the knowledge provided in all GENERA deliverables.
- ➔ Each partner organization should plan and fix the implementation process in a tailored manner.
- ➔ Data for the design analysis – that could not be done so far – needs to be provided for the evaluation, therefore ex-ante factsheets will be sent to all implementing partners by JR.

16.4. Expertise on implementation

As already outlined in 2.3.2, the GENERA **implementation process was not clear to many implementation managers** at the time of the interviews. Furthermore, most IMs have not gathered any experience how to organize such a process before becoming IM in GENERA.

The GENERA roadmap, which was available by the end of February 2017 was designed to give support on this process. Nevertheless, experiences in practice will bring new challenges for all IMs, even more for those who have not executed this task before.

Critical Friend's ideas / recommendations:

- ➔ It is suggested to foster peer support between the IMs and also to look for some external expertise when needed.

Another relevant issue besides expertise is the individual position within the organization: it makes a difference if a professor negotiates or if it is a young researcher that was just hired to take over the job as implementation manager. Furthermore, some IMs do not fully work for GENERA, but are still active as researchers or in other functions, which means limited time for the implementation activities.

In six GENERA partner organizations no GEP has ever been implemented before (see chapter 3), here the **GENERA GEP** can be perceived **as a pilot in defining this process** and negotiating it with the management. These partner organizations argued in particular that negotiating is time consuming and next steps often are unpredictable – which makes it uncertain whether a GEP will be ready for implementation at the end of the project.

In five GENERA partner organizations a **GEP already exists**; some of them have or plan to implement GEPs at two levels: 1) an organization-wide GEP; and 2) a more physics-specific GEP at the level of departments or institutes. This is one option for GENERA partners in case a GEP exists at organizational level already. Other options are to create an amendment/annex to an existing GEP, to modify the GEP in place or to prepare for the next GEP.

16.5. Gender awareness, gender expertise

Gender awareness is a crucial factor for the implementation of GEPs. Gender awareness means the understanding that "socially determined differences between women and men based on learned behaviour, which affect their ability to access and control resources"[14] exist. For GENERA this means to understand which differences are caused in society and which result from the way how research in physics is organized and practiced; of course interactions exist and interventions always have impacts on both levels.

Gender awareness is needed at the level of the organizations and embodied by the management. It becomes visible in the gender equality institutionalization, that means formalizing the gender equality function, like having an office to care for gender equality issues (gender equality commission, gender equality officer) which can have very different duties, rights and power within an organization. GEPs as formal documents that outline a systematic approach to gain more gender equality are another instrument of gender institutionalization. To have an overview about which gender policies are already in place an online survey was sent to all GENERA partner organizations (see 2.3.1), the findings are summarized in chapter 17.

The **level of gender awareness within the GENERA consortium differs considerably**: GENERA includes organizations, which have an advanced gender equality institutionalization (GEP and/or strong gender equality units), but this has limited impact on the physics departments/institutes. Other organizations have limited gender awareness ('starters') and are the intended target for the European Commission, as funder[15] of the GENERA project.

Of course, the different levels of gender equality institutionalization and of gender awareness need to be taken into account when preparing or designing GEPs. GEPs, and any other gender equality interventions, only can work when the organization, or the management staff (as representatives of

[14] European Commission (2013): Justice Glossary
[15] See Horizon 2020 Work Programme 2014/15 NET4SOCIETY

the institutional norms), is aware that **inequalities between women and men** exist and that they are (partly) **caused by processes and practices within the research organization**. In the interviews with managers as well as with female physicists, sometimes this **structural perspective was missing**: they discussed for example childcare problems or lacking availability in the evenings as personal matters. Other female interviewees – successful physicists – denied the structural discrimination by arguing that no differences exist between the sexes. Women are equal and do science equally, the best strategy to be successful is to act and behave like men.

Women who have been dealing with gender issues and have gender awareness take the opposite position: Women do science differently; these differences need to be taken into account when assessing applications. Criteria for assessing excellence need to be gender-fair to assess the differences appropriately. In interviews with female physicists working in research organizations which foster gender balance by scouting for women actively, setting up quotas in selection committees or even applying positive discrimination/action, a further dimension of gender awareness became visible: When asked **to join committees** or to apply for open vacancies **women** argue that they often **decline such offers**. One reason might be additional workload that is not mirrored in the track record.

But another explanation was that they feel discriminated when asked if they would join, because "we need a woman". It seems that they lack arguments why more women are wanted. So managers (or research funders) who ask for more women to apply or to join committees should be encouraged to provide reasons WHY women are wanted. Then again, it could help to make women as a minority in physics more aware of the structural discrimination and also of the benefits they themselves, other women and the society would have from an increased and more equal participation of women. This could help avoiding that they reject when being selected.

But also individual **GENERA members lack gender expertise** and even **gender awareness**. Working in this male-dominated research field might not have given access to this field of knowledge. GENERA members that are not working on gender issues so far also report that they do not see any problems, that they work as hard as men do to have a successful career; success seems to depend on the individual contribution only.

In fact, the gender expertise of GENERA lead persons as well as of IMs varies considerably: Some are physicists and have not worked on gender before, other physicists have already gathered some experience (e.g. in committees). In other partner organizations social scientists do this work (they face rather the challenge to get recognized by the physicists). Some physicists argued that they do not feel gender-aware themselves.

This hinders them to start presenting the GENERA project because they do not feel prepared to answer questions, e.g. why this project is needed, what measures are recommended, why is one measures better than the other. At the same time they do not feel prepared enough to ask for support or empowerment internally, e.g. the gender equality officers in place. As they have not been involved in gender activities and discourses on gender equality they have the feeling that more gender knowledge would be needed to present the project or ideas to implement, because it is them who are the experts.

The **benefit of gender expertise** is two-fold: being familiar with recent findings from gender research allows developing and elaborating arguments why specific measures are needed and should be

implemented – this makes it easier to overcome resistances and gain support. Such arguments should be based on sound data; therefore an assessment of the status quo in the organization is a precondition for deciding on measures. An inter-linkage between the status quo and measures to be implemented are gender equality targets. Gender knowledge and gender expertise facilitate the specification of targets.

Critical Friend's ideas / recommendations:

- ➔ It is recommended that GENERA teams and IMs try to establish a supportive and mutual learning relationship with gender equality officers in place within their institution: While the GENERA team can benefit on the experiences collected within the organization so far, the gender equality officers might benefit from the international perspective of the projects and the learning possible there.
- ➔ Bring gender expertise into the organizations to increase gender awareness at the institutional and individual level.
- ➔ When women are pushed, arguments should be provided *why* they are pushed, not limiting the argument to "Please join because we need a woman to increase numbers".
- ➔ Build up a pool of gender knowledge in physics (and in general): for IMs/everyone interested in gender & physics: argumentations, results of certain research and possible deriving interventions.
- ➔ Offer gender trainings/empowerment for IMs or all GENERA members = high impact

17. Annex: Overview Ex-Ante Facts

As part of the ex-ante evaluation a **policy survey** on the relevance, objectives and measures promoting gender equality was sent to all GENERA implementing partners (see also 2.3.1) – to collect information and to be prepared for the ex-ante interviews.

The most important findings on the institutionalization of gender equality in GENERA partner organizations were already described in chapter 3. The annex summarizes further details on gender equality plans and their targets, policies and gender equality measures in overview tables. That way, also an overview of the ex-ante status of gender equality in the GENERA partner organizations is given.

Gender Equality Plans and Policies

High importance of Gender Equality

On average a high importance of gender equality (7 on a scale from 1-10) has been reported by GENERA partner organizations.

Gender Equality Plan

45% of GENERA partner organizations have a gender equality plan

Most GEPs have a runtime of 2-4 years.

In most organizations the GEP is developed by committees/teams responsible for gender equality.

The most important drivers for developing a GEP are legal obligations and other regulations followed by self-imposed GEPs.

Most common elements in the GEP

Clearly defined objectives and goals	(5 partners)
Specific measures to reach these targets	(5 partners)
Specific target figures to measures progress	(4 partners)
A status quo description of gender equality in the organization	(4 partners)
Detailed responsibilities for tasks	(4 partners)
Specific arrangements for evaluating the implementation and its effects	(2 partners)

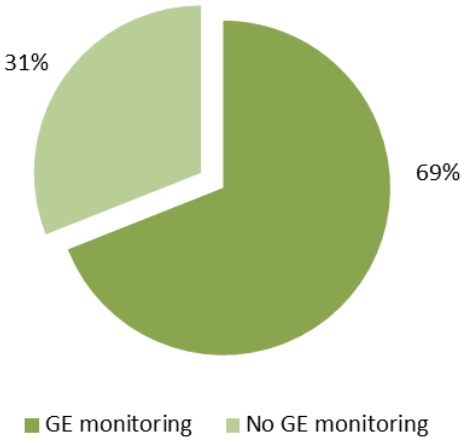
Gender Equality Monitoring

69% of GENERA partner organizations are collecting sex disaggregated data for a gender equality monitoring at least once a year

In most of the GENERA partner organizations which have a GE monitoring the data is publicly available.

The monitoring is mostly used

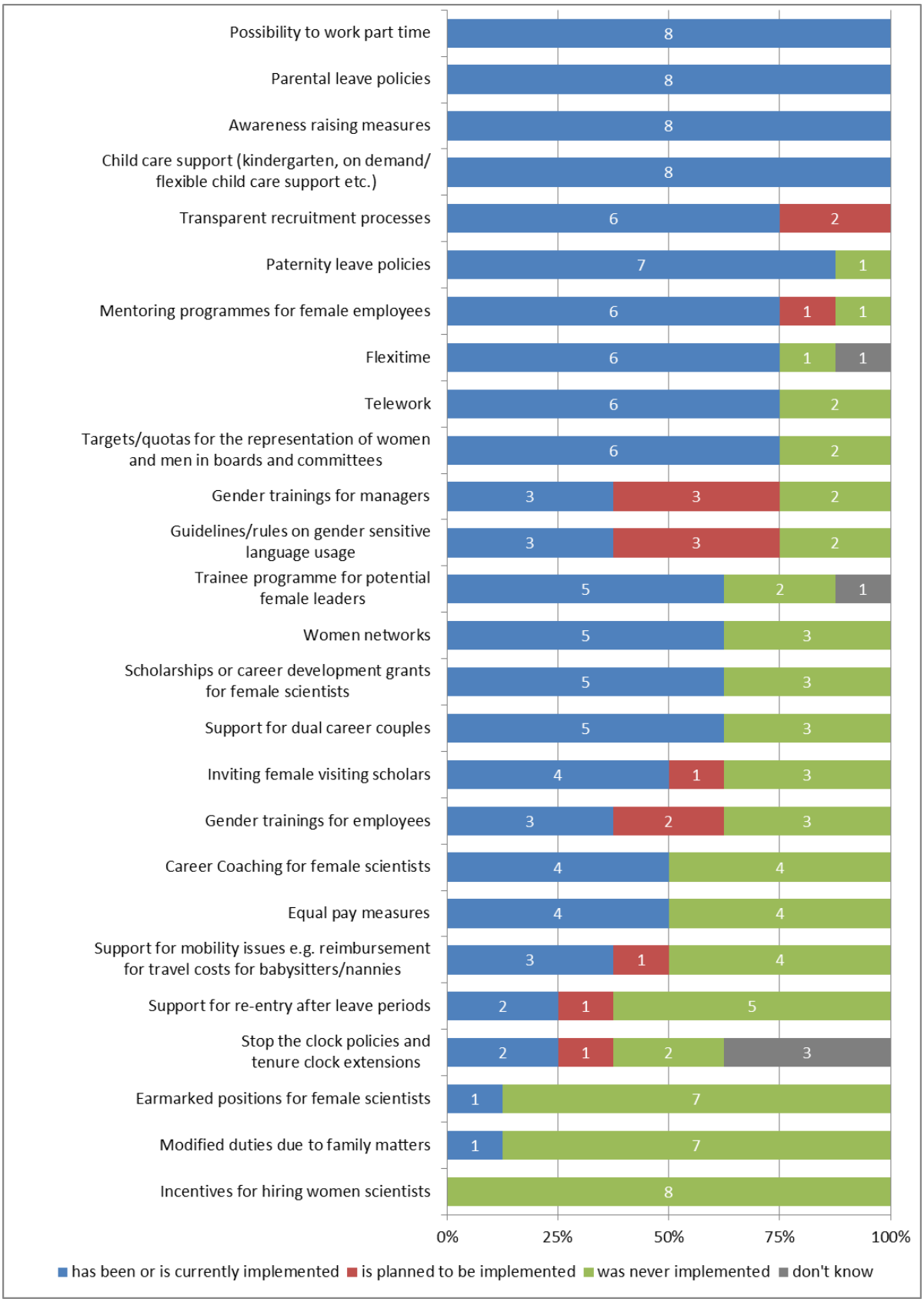
a) to measure progress in respect to the targets of the GEP
b) to discuss issues of gender equality in the organization



GEP targets

	GEP targets	TOTAL	CNRS	IAC	INFN	KIT	UNIGE
Common targets	Career promotion of female researchers	5	x	x	x	x	x
	Providing better work life balance opportunities	5	x	x	x	x	x
	Raising the awareness for gender (in)equality in your organization	5	x	x	x	x	x
	Supporting scientists with (young) children in reconciling family and work responsibilities	5	x	x	x	x	x
	Engaging the management level and raising their gender equality competence/know how	5	x	x	x	x	x
	Improving equity in hiring, tenure and promotion procedures	5	x	x	x	x	x
	Improving the organizational culture	5	x	x	x	x	x
	Increasing the number of women among early career researchers/scientists	5	x	x	x	x	x
	Increasing the number of women in management/leadership positions	5	x	x	x	x	x
Important targets	Increasing the visibility of female scientists in your organization	4	x	x	x	x	
	Increasing the number of women scientists	3	x	x		x	
	Including gender perspectives in research and teaching	3	x		x		x
No target	Improving the competitiveness of the organization	0					
	Enhancing the research output of the organization	0					

Gender Equality Measures in place*



Note: Numbers refer to the number of organizations which have implemented the respective measures

* Not included: CNRS, FOM-AMOLF, FOM-ARCNL (no information provided); JU, IFIN-HH (no Gender Equality Measures in place)