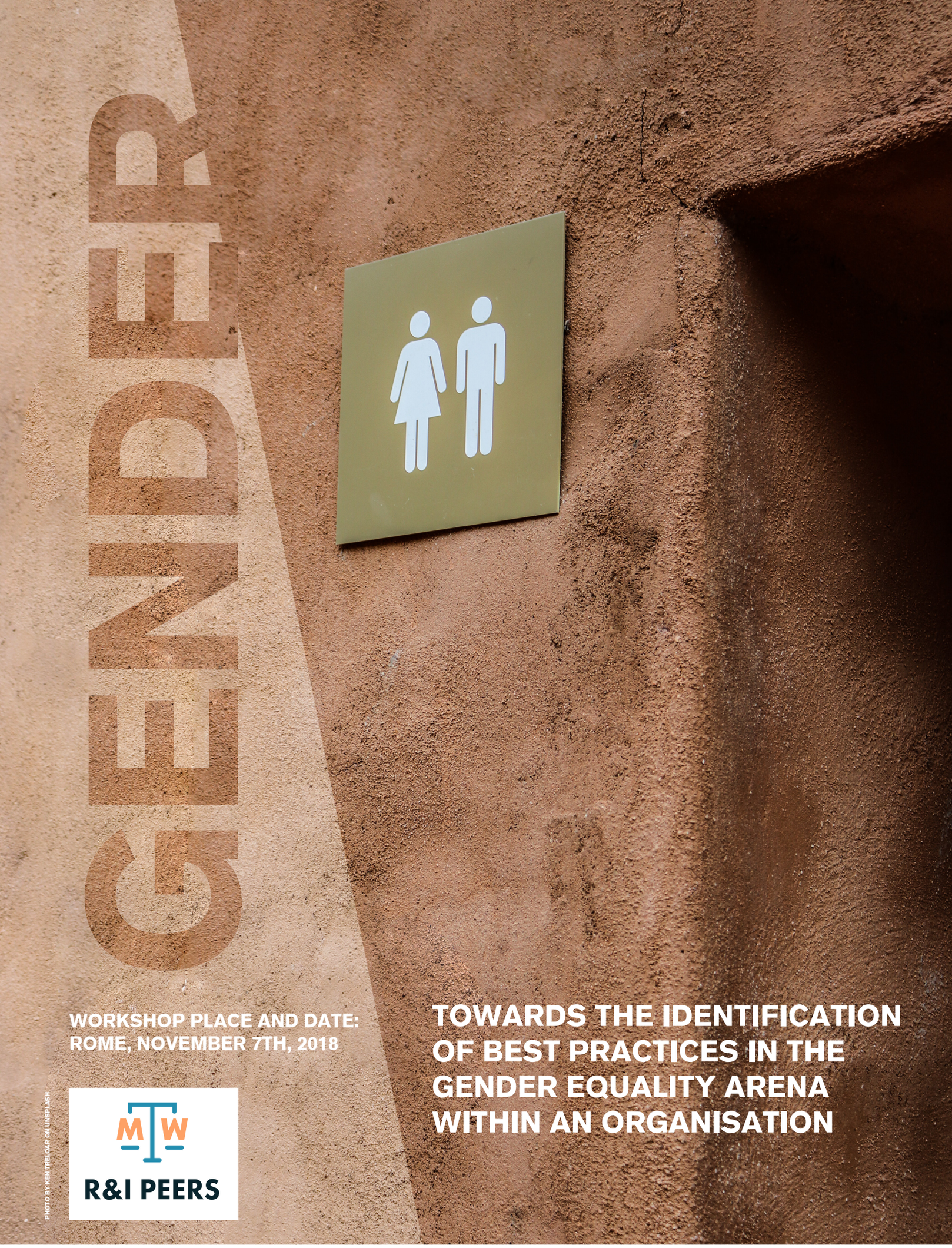

WORKSHOP PLACE AND DATE:
ROME, NOVEMBER 7TH, 2018

TOWARDS THE IDENTIFICATION OF BEST PRACTICES IN THE GENDER EQUALITY ARENA WITHIN AN ORGANISATION

PHOTO BY KEN TRELOAR ON UNSPLASH

R&I PEERS

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“Towards the identification of best practices in the Gender Equality Arena within an organisation”

Workshop Place and Date: **Rome, November 7th, 2018**

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The purpose of this report is to present the results of the Mutual Learning workshop “Towards the identification of best practices in the Gender Equality Arena within an organisation” that was jointly organised by the Consiglio Nazionale delle Ricerche (CNR), the Cyprus Neuroscience & Technology Institute (CNTI) and CIC nanoGUNE, in Rome, Italy on 7 November 2018. The workshop, which is realised in the context of the European Union’s Horizon 2020 funded project R&I PEERS, focused on the identification of existing practices to allow the development and implementation of Gender Equality Plans (GEPs) in academic and research institutions.

The report provides a comprehensive account of the discussion, results and the roadmap generated by the fifteen participants, experts in the field of Gender Equality. The workshop utilised the participatory approach of Structured Democratic Dialogue. The results of the workshop will provide input for the development of customised GEPs to be adopted by the consortium of the project.

List of symbols, acronyms, abbreviations

Symbol, acronym, abbreviation	Definition
&	And
#	Idea number
§	Section
C	Cluster
CNR	Consiglio Nazionale delle Ricerche
CNTI	Cyprus Neuroscience & Technology Institute
EIGE	European Institute for Gender Equality
GE	Gender Equality
GEP	Gender Equality Plan
L	Level
MLW	Mutual Learning Workshop
P	Practice
R&I	Research and Innovation
RFO	Research Funding Organisation
RPO	Research Performing Organisation
SDD	Structured Democratic Dialogue
SDGs	Sustainable Development Goals
TQ	Triggering question
V	Votes

Contents

Executive Summary 6

Introduction 7

Workshop Methodology Used: Structured Democratic Dialogue (SDD) 9

Structire of an SDD WORKSHOP 11

THE TREE OF INFLUENCES 16

Annex 1 List of Practices / clarifications and votes 20

Annex 2: Participants 27

Executive Summary

The Mutual Learning workshop “Towards the identification of best practices in the Gender Equality Arena within an organisation” was organised by the R&I PEERS partners Consiglio Nazionale delle Ricerche (CNR), Cyprus Neuroscience & Technology Institute (CNTI) and CIC nanoGUNE. The workshop was held on 7th November 2018 at the Consiglio Nazionalle delle Ricerche (CNR) in Rome, Italy.

The participants of the workshop (Annex 2) discussed the existing practices in the field of Gender Equality by responding to the Triggering Question (TQ) “What existing practices can be identified to facilitate the development and implementation of Gender Equality Plans (GEPs) in academia and research organisations?” In response to it, they exchanged and discussed 29 existing practices (Annex 1) already implemented successfully by universities, research institutions as well as enterprises across Europe. These practices could be adjusted and adopted for the purposes of the R&I PEERS project.

The main conclusions of the workshop were the following:

- Necessity to exploit the already collected administrative data which must be updated on an annual basis in order to have a comprehensive recording of the institutional situation in terms of the different areas of the Gender Equality Plan (GEP) implementation as well as allow the GEP team to promptly propose additional measures to adjust to the new situation;
- Introduction of basic gender curricula in STEM in academic institutions;
- Research evaluation committees in recruitment procedures should be composed by both male and female evaluators in order to avoid unconscious barriers related to the gender of the candidates;
- Gender Equality should not be treated as an issue concerning only women but also men. For this reason, steps towards the active engagement of men in Gender Equality Committees is pivotal.
- The results of the workshop will provide input for the development of customised GEPs to be adopted by the consortium of the R&I PEERS project.

Introduction

A brief overview of the situation

Gender inequality is encountered in different contexts and all areas of social life, including labour market where a disproportional women representation is present, especially in research STEM field. The 2018 report on equality between women and men in the EU clearly shows that women, who make up half of the population, are under-represented in decision-making positions in politics and in business. Furthermore, female scientists, in comparison to their male peers, rarely reach higher-level position and often leave the academic research environment. This is particularly true in the case of Europe, where “women do not move up through the echelons of scientific careers in the same way as their male peers and the gender imbalance exists, in varying degrees” (Hasse, C., Trentemψller, S., 2008[1]).

Several international agreements like the United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979); the Beijing Declaration and Platform for Action adopted at the Fourth World Conference about Women in 1995; the 2030 Global Agenda for Sustainable Development, as well as several national frameworks, were settled in order to enhance Gender Equality. However, the effective implementation of equality objectives in research funding organisations (RFOs) and research performing organisations (RPOs) is still underdeveloped.

The causes of the gender inequality in science are several and they include but are not limited to: gender stereotypes and implicit biases, male-dominated traditional culture, cultural perceptions of femininity and masculinity, unfavourable academic climate for female scientists (‘chilly climate’, see Britton, 2016[2]), horizontal and vertical sex segregation of occupations, social norms of burdening women with excessive family responsibility for childcare, elderly care and household management, demands of full work-devotion within academia and STEM in particular, covert discrimination in the form of old boys’ networks, biased hiring practices, gender and sexual harassment ,etc. (GENERA Project – D2.2, 2016[3]).

As a result of the above, women are considered skilled for theoretical thought and family-care responsibilities, while men are considered talented for the rational and scientific thought. Consequently, women often believe they are not talented enough for scientific positions (Imposter Syndrome). The reality is that there is a gap between how they perceive themselves and the real skills they have which are usually underestimated (Bandura, 1977; Blickenstaff, 2005[4] , Di Tullio, 2018[5]).

To implement appropriate polices and design effective support actions that foster gender equality, it is necessary to start having a gender sensitive and reliable dataset able to capture the different dimensions of gender imbalance. To address this issue, the first step is to exploit the already collected administrative data with the aim to map institutional capability of the organisations in measuring different gender equality dimensions (Avveduto et al., 2018[6]).

Gender Equality should not be treated as an issue concerning only women but also men. For this reason, it is important to explore causes and consequences producing gender gap in science. The European Commission through the Research Framework Programmes and the European Institute for Gender Equality (EIGE) identified Gender Equality Plans (GEPs) as the major tool to tackle gender inequality in research organisations. A definition of GEPs was established in the Research Framework during 2012 and was then reflected in the

1 Hasse, C., Trentemøller, S., (2008) Break the Pattern! A critical enquiry into three scientific workplace cultures: Hercules, Caretakers and Worker Bees. Tartu: Tartu University Press.
2 Britton D. (2016) Beyond the chilly climate: The salience of gender in women’s academic careers. Gender and society, vol. 31 no.1 p. 5-27. Rutgers University, USA
3 GENERA Project: Jagiellonian University (UJ) Lead beneficiary; IRPPS - CNR Deputy (2016) D2.2: Report on how to improve the research cultural evironment. - Grant Agreement N° 665637. European Commission
4 Blickenstaff J.C. (2005) Women and science careers: leaky pipeline or gender filter? Gender and Education.
5 Di Tullio I. (2018) Donne scienziate in STEM. Uno studio di caso sulle ricercatrici del CNR. CINECA IRIS Institutional Research Information System
6 S. Avveduto, D.Luzi, I. Di Tullio, L. Pisacane, L. Cerbara, M.C. Brandi, M.G. Caruso (2018) GENERA Project: Research, organizations and gender. IRPPS – CNR Working Papers. ISSN 2240-7332.

formulation of the funding calls of the Horizon 2020, which offered support to research organisations to implement GEPs. Since then, a good number of EU projects and large research Consortia devoted time and analysis to how best structure such document and how to use data and indicators to design and monitor the implementation of gender equality measures. Planning and monitoring methods and tools implemented through the GEPs can represent a starting point for a deeper analysis based on the specific needs of the organisations (for further information, consult the D3.3 – List of GEPs monitoring indicators[7]).

The role and objectives of the R&I PEERS Project

Starting from the described scenario, the R&I PEERS project aims to create and validate pilot experiences that disrupt gender-based approaches and unconscious rules which limit the participation of women in many research and innovation careers, but also the participation of men in certain areas.

More specifically, the project promotes equality and opportunity:

- Equality – by increasing the number of women in decision-making positions in the Research and Innovation ecosystem and therefore making better use of all European talent;
- Opportunity – by promoting Research and Innovation entrepreneurship that engages female human capital, driving competitiveness and strengthening scientific endeavour.

The project activities will: implement and improve Gender Equality Plans in seven research and innovation-focused organisations forming part of the Consortium;

- smooth the gender gap in decision-making and research-performing activities within the seven piloting organisations;
- maximise the impact of gender content in research programmes;
- train our piloting organisations in gender equality approaches for GEP implementation;
- transfer and share generated knowledge and experiences in the multi-sectorial conferences the project will organised;
- organise and execute participatory process in the form of Mutual Learning Workshops contributing at reaching the goals of the project to (i) consolidate a common knowledge on the strategies for facing with the gender equality issue, and (ii) understand how to improve the GEPs and their content.

In particular, the Mutual Learning Workshops will be organised during the four years of duration of the project activities in different Mediterranean counties bringing together a multi-stakeholder group of experts (e.g. researchers, policy makers, representatives of EU funded projects or other initiatives) involved in the Gender Equality Arena at national and European level for the development, implementation and sustainability of Gender Equality Plans.

7 Avveduto S., Di Tullio I., Pisacane L., (2018) List of GEPs monitoring indicators. RI-PEERS Project – Grant Agreement N° 788171. European Commission.

Workshop Methodology Used: Structured Democratic Dialogue (SDD)

SDD Philosophy

The Mutual Learning Workshop (MLW) "Towards the identification of best practices in the Gender Equality Arena within an organisation" was executed and facilitated based on the method of the Structured Democratic Dialogue[1] (SDD). SDD is a methodology that supports democratic and structured dialogue among a group of stakeholders in an efficient way to achieve consensus in a limited time frame. It is especially effective in harnessing collective intelligence and collective wisdom to solve complex problems. SDD enables the authentic engagement of individuals with diverse views, backgrounds and perspectives in developing a common framework of thinking based on consensus and shared understanding of the current and of a future ideal state of affairs.

Avoiding phenomena "Groupthink" and "Erroneous Priorities Effect"

In meetings where no measures are taken to protect the authenticity of all opinions, there is risk that some participants will support views that represent the majority of the group because they do not want to "go against the group". This results in participants reaching an apparent agreement, which only represents the "most powerful opinion". This phenomenon is known as "Group Think". The SDD method prevents this phenomenon by using the Nominal Group Technique, which requires equal time and equal importance to each idea/opinion protecting the authenticity of every idea, thus ensuring that the phenomenon "Group Think" does not appear.

By definition a complex problem cannot be solved by solving all individual sub-problems, but it requires exploration and detection of relations between the sub-problems. It is proven that if different stakeholders discuss and propose actions to solve a complex problem, but then choose those actions that the majority sees as important, they are likely to decide to invest in solving sub-problems, which at first seem important (in the eyes of the majority) but they might not be in reality. However, if the same stakeholders were prompted to explore the influence of an action to solve a sub-problem over another action, they would choose different actions. This phenomenon is known as Erroneous Priorities Effect.

1 SDD was developed in the 1970s with the initiators Alekos Christakis (Christakis, 1973), John Warfield (Warield,1982 and Hasan Özbekhan.

SDD added value

The SDD[2] method utilises a so-called Interpretive Structural Modelling (which is incorporated in the Cogniscope™ system) to ensure that the prioritisation of ideas based on the influence they have on each other, to avoid the "Erroneous Priority Effect" with the use of mathematical algorithms to aid the process and save time.

The Structured Democratic Dialogue method is considered particularly effective in resolving multiple conflicts, interests and values and to bring the participants closer to agree on a common understanding and strategy for resolving the issue. The implementation of SDD is performed in well-defined consecutive phases and 10 steps, where a deeper understanding of the topic is gradually achieved and solutions in the form of actions can be identified and agreed. SDD facilitates the creation of a common understanding of the different dimensions of the topic. Importantly, priority is given to some ideas over others depending on their influence over each other.

In summary, the SDD method allows a complex topic to be reorganised and rewritten, so that it is possible to intervene and change the situation. The Figure 1 below illustrates this by showing how each of the 6 consecutive phases of the workshop is divided into work. Each phase is also briefly described in section § 4 below.

Figure 1 SDD phases

2 SDD is based scientifically on 7 laws of science of complex systems (complex systems) and government (cybernetics) and it has been scientifically documented worldwide in hundreds of cases over the last 30 years. More information on the methodology of the Structured Democratic Dialogue exist in books (Christakis & Bausch, 2006; Flanagan & Christakis, 2009), websites (Wiki, 2010), simple introduction to the theory (Laouris, 2012), or earlier related applications (Laouris, Dye, Michaelides & Christakis, 2014; Laouris, Michaelides & Sapio, 2007; Laouris & Christakis, 2007).

STRUCTURE OF AN SDD WORKSHOP

Before the Workshop

Generation of Triggering Question (Phase 1) with steps 1 and 2

The complex problem/topic is described and framed and a clearly defined Triggering Question (TQ) is constructed.

During the Workshop

Generation and Clarification of ideas (Phase 2) with steps 3 and 4

All participants are asked to provide possible ideas to the Triggering Question. One by one, the participants state and explain their ideas to all other participants. This requires active participation and active listening by all. Simultaneously, the action is recorded in Cogniscope™ software. The explanations are videotaped. The explanations must be specific and understandable to all. The rest of the participants may seek clarification, but they are prohibited from criticising the idea.

Clustering of ideas (Phase 3) with steps 5 and 6

All ideas are grouped into categories or clusters based on similarities and common characteristics. The method requires that the clustering takes place while the participants are asked whether two random ideas have enough common features to justify placing them in the same cluster (without this cluster yet existing!). This bottom-up process results in evolutionary clusters and participants benefit from an in-depth discussion around the meaning and importance of each idea, enabling the creation of wider consensus regarding the hot topic discussed. Through this process, participants develop a common vocabulary and a common understanding about the various aspects of the topic under discussion (defined by the triggering question). Broad consensus is achieved through discussion of possible different perceptions in relation to the meaning and importance of each idea. The clustering is registered with the Cogniscope™ software tool. The clusters and their ideas are printed and displayed on the wall, so that all participants can see them.

Voting of ideas (Phase 4) with step 7

All participants have five votes and are asked to choose the ideas they believe can help to solve the Triggering Question and are the most important for them. Only ideas that receive at least two votes are moving to the next and most important phase.

Mapping of ideas (Phase 5) with steps 8 and 9

This phase collects the ideas that have received at least two votes and the participants collectively are asked to investigate how one idea can affect significantly another idea. The question asked is "If we overcome challenge A, will it help us significantly to overcome challenge B?" If the answer is 'yes' with a 75% majority, the impact is recorded and added to the roadmap of ideas. When the facilitator asks the participants to vote and the vote is about 50% Yes and 50% No, then the significance is discussed in-depth and the participants are asked to revote. As the exercise progresses a Roadmap is built, shown and discussed. The challenges at the bottom of the Roadmap indicate the basic challenges that must be overcome at the first place in order to enable the rest of the challenges to be overcome also. Therefore, the roadmap to be generated encourages participants to prioritise causative factors.

Analysis of the roadmap (Phase 6) with step 10

In this phase the roadmap which is resulted in the previous phase is discussed in detail. The ideas of the lowest three levels of the roadmap must be discussed in greater detail for defining, in turn, specific actions to accomplish them. These actions must be SMART: Specific, Measurable, Assignable, Realistic and Time Specific). It is important to note that only by executing the lowest levels, it can be ensured that the ideas of the higher levels will be consequently executed. Following the described steps, the roadmap becomes executable.

Workshop Results

Sections §5 to §7 that follow show the Workshop Results. These results are presented and discussed according to the different phases the workshop is divided into, and which have been discussed in the section above (see also Figure 1).

Generation and Clarification of ideas based on TQ (Phase 2)

The workshop brought together fifteen (15) stakeholders from different educational and professional backgrounds, all knowledgeable about the current status of the gender equality field in Europe. In particular, the workshop was composed by eleven (11) female and four (4) male participants, seven of which are directly involved in the activities of the project R&I PEERS while the rest represented associations, universities and bodies from Italy with extensive expertise on gender equality issues.

During the first phase of the workshop, 29 practices were generated by the participants in the form of concise statements through the "idea generation phase" to respond to the **Triggering Question** proposed

What existing practices can be identified to facilitate the development and implementation of GEPs in academia and research organisations?

Once all practices were defined, printed and displayed on the screen and on the boards in the room, the workshop passed to the Clarification phase where one by one, the participants proceeded with the explanation of their practices. For this activity sufficient time was allocated to the rest of the participants to ask explanatory questions. The premise of the clarification step is to allow participants to gain the same understanding and interpretation of the practices based on the meaning attributed to the practice by its own author. All practices and explanations can be found in Annex 1.

Clustering the ideas (Phase 3)

The third main phase of the workshop was to categorize the proposed ideas in clusters according to similarities and common characteristics. To achieve this clustering, the participants discussed and compared the ideas in pairs to identify whether they share enough characteristics to be clustered into the same category. The participants mutually and collaboratively identified four clusters: Cluster 1: Data Collection; Cluster 2: GE Policy; Cluster 3: Networking & Communication; Cluster 4: Education & Motivation. A graphic with the clusters and the ideas forming part of each is provided below (Figure 2). These clusters represent the different angles the problem should be tackled from to ensure gender equality in R&I related organisations, from the view point of the participants.

Overall, "GE Policy" was the most populated cluster with 11 ideas, followed closely by "Networking & Communication" with 10 ideas. An equal number of ideas were categorised under the last two clusters. "Data Collection" and "Education & Motivation" received 4 ideas each.

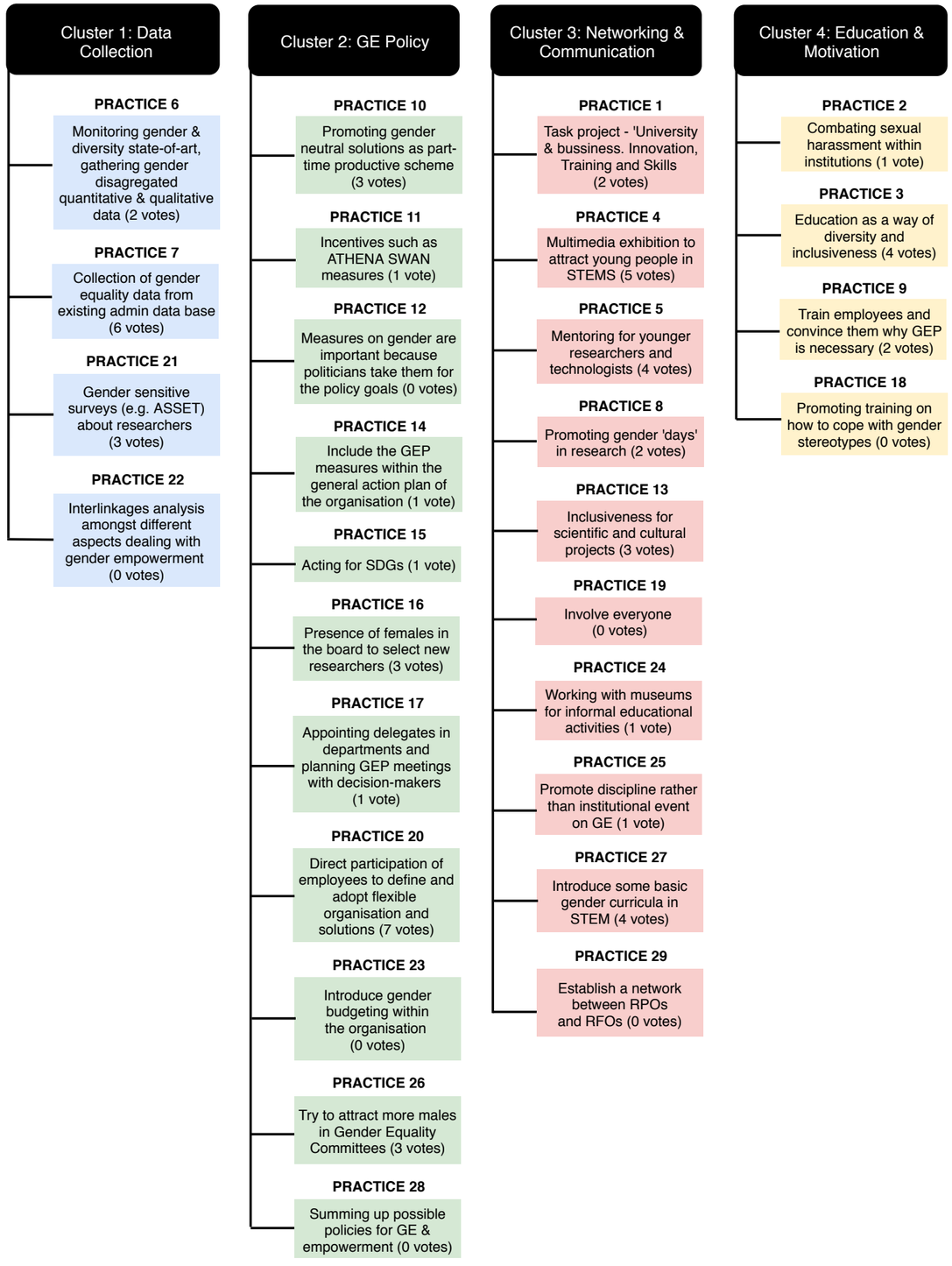

Figure 2 Clusters of Practices

Voting of ideas (Phase 4)
In the fourth phase and after the clustering, the participants were asked to read all the practices and vote. Each participant had only 5 votes that they could distribute the way they thought beneficial to answer the Triggering Question. It should be observed that participants voted not necessarily on their own actions, but instead on actions that would help to resolve the triggering question in the best way possible.

In total 22 practices (71%) received one or more votes and 15 practices (52%) received more than 2 votes. The degree of dispersion of the views of the participants' ideas is above the normal range which could possibly be explained by the relatively small number of ideas generated during the first phase of the workshop.

Only the practices that received at least two votes continued to the next phase which concerns the development of the Map of Influences or the roadmap. The voting results are listed in descending order based on the votes that each practice received (see Table 1 below):

#	Votes	Practice
20	7	Direct participation of employees to define and adopt flexible organisation and solutions
7	6	Collection of gender equality data from existing admin database
4	5	Multimedia exhibition to attract young people in STEMS
3	4	Education as a way of diversity and inclusiveness
5	4	Mentoring for younger researchers and technologists
27	4	Introduce some basic gender curricula in STEM
10	3	Promoting gender neutral solutions as part-time productive scheme
13	3	Inclusiveness for scientific and cultural projects
16	3	Presence of females in the board to select new researchers
21	3	Gender sensitive surveys (e.g. ASSET) about researchers
26	3	Try to attract more males in Gender Equality Committees
1	2	Task project - 'University & business. Innovation, Training and Skills
6	2	Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data
8	2	Promoting gender 'days' in research
9	2	Train employees and convince them why GEP is necessary
2	1	Combating sexual harassment within institutions
11	1	Incentives such as ATHENA SWAN measures
14	1	Include the GEP measures within the general action plan of the organisation
15	1	Acting for SDGs
17	1	Appointing delegates in departments and planning GEP meetings with decision-makers
24	1	Working with museums for informal educational activities
25	1	Promote discipline rather than institutional event on GE

Table 1 Voting Phase

Synthetic Analysis of the Clusters based on total votes received

Networking and Communication are considered pivotal
Cluster 3 entitled "Networking and Communication" is considered the most important in terms of the number of votes received. 22 votes were distributed across the practices categorised under this cluster with an average of 2.2 votes/practice. Four out of 22 actions from the Networking and Communication Cluster have been included in the Influence Action-Map. The practices emphasised steps to be taken to engage and promote gender equality, mainly through networks and events.

Practice 4 "Multimedia exhibition to attract young people in STEMS" received 5 votes, the highest number of votes in this cluster. This idea stresses the importance of engaging young people to effect real gender equality within the science fields. Practice 5 "Mentoring for younger researchers and technologists" and Practice 27 "Introduce some basic gender curricula in STEM" both received 4 points and again, mainly focused on the need to educate the youth about the importance of gender equality in science. Practices 13 and 8 received 3 and 2 votes respectively, while Practices 24 and 25 each received 1 vote.

Gender Equality policies are critical
Cluster 2 "Gender Equality Policy" received a total of 20 votes positioning itself as the second most important cluster of the workshop with 1.8 vote/practice. Specific, measurable and realistic practices were generated which aimed to advocate for practical and tangible steps towards Gender Equality. Interestingly, the Practice with the highest number of votes of the whole workshop falls into this cluster, namely, Practice 20 "Direct participation of employees to define and adopt flexible organisation and solutions" which received 7 votes. As aptly clarified during the workshop, involving employees to define solutions related to their work conditions is important in the sense that the developed solutions succeed in becoming sustainable and improving the current situation of the organisation, as for example, in terms of changing the time-schemes of the organisation. Therefore, employees should also be invited by the management in sincere discussions to discuss the current situation at work and propose solutions which will allow them to optimally balance working time and family time. Practice 10 "Promoting gender neutral solutions as part-time productive scheme", Practice 16 "Presence of females in the board to select new researchers" and Practice 26 "Try to attract more males in Gender Equality Committees" received 3 votes each. Practices 11, 14, 15 and 17 received 1 vote each and all promoted the implementation of measurable actions to implement gender equality.

Data collection is needed
Cluster 1 related to "Collecting Data" received 11 votes, which were distributed across its four practices, that is, an average of 2.75 vote/practice. This cluster expresses the importance of scientific as well as administrative data collection and analysis to better understand underlying issues. For example, Practice 7 "Collection of gender equality data from existing admin database" received 6 votes, the most votes in this clusters and the second highest in the whole workshop. Practice 21 "Gender sensitive surveys (e.g. ASSET) about researchers" (3 votes) highlights the need for gender sensitive surveys which could show in a more quality the often-invisible differences between positions in which male and female researchers find themselves. The other two ideas in this cluster are Practice 6 "Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data" (2 votes) and Practice 22 "Interlinkages analysis amongst different aspects of dealing with gender empowerment" (0 votes).

Increasing Education and Motivation
Finally, Cluster 4: Education and Motivation was the least popular cluster, with a total of 7 votes for an average of 1.75 vote/practice. This cluster focuses on the need for training on tolerance and acceptance. The idea with the most votes in this cluster exemplifies this, Practice 3 "Education as a way of diversity and inclusiveness" (4 votes). Practice 9 "Train employees and convince them why gender equality policies is necessary" and Practice 2 "Combating sexual harassment within institutions" received 2 and 1 votes respectively. These ideas reinforce the need for education on the topic of gender equality.

THE TREE OF INFLUENCES

The Mapping process

The process for defining the Road Map is as follows. Two practices are randomly selected and presented in a question form: “If we implement practice A, will it help us significantly to implement practice B?” Participants thoroughly discuss the influence of the two practices and if 2/3 of the votes are positive, then the relative influence of the first practice on the second practice is determined. Gradually after evaluating all practices in this manner, an influence tree is created resulting in a Roadmap provided in Figure 3.

The Roadmap built at the workshop

As presented in Figure 2, the Influence Map incorporates six different levels. The most influential practices are considered the root practices, which are the drivers, and similarly those, which must be implemented first to stimulate and facilitate the implementation of the subsequent practices considering that the latter rely on the former. These root practices are located at the lower levels of the roadmap and in particular at the Levels V and VI as they have the greatest influence among all other practices. Similarly, the practices identified on the upper levels of the Map are the least influential.

The influence of one practice over the other is completely irrelevant to the importance of the two practices emerging from the voting phase that preceded. In this vein, any practice which has received more than two votes during the voting phase and thus it has moved to the Mapping phase can be considered a root practice regardless of the number of votes it received. Therefore, a practice with low popularity can be a root practice while a practice with high popularity can appear at the upper levels of the map. For instance, consider Practice 6: Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data and Practice 20: Direct participation of employees to define and adopt flexible organisation and solutions. Even though the former was voted only twice by the participants, it turned to be one of the most influential practices in contrast to the latter, which, despite being the most voted practice of the workshop, its relationship of influence towards other practices is limited and for this reason it has been located at Level II. This example designates the significance of the Mapping phase in the implementation of the practices, which, as explained in detail, purely focuses on relationships of influence between the practices rather than their degree of importance. To this respect, if the implementation of the Map had taken as a starting point the Practice 20, which was the most popular one, the likelihood that the Map would successfully and adequately be executed is considerably low as this specific practice can only influence one out of the thirteen practices of the Map.

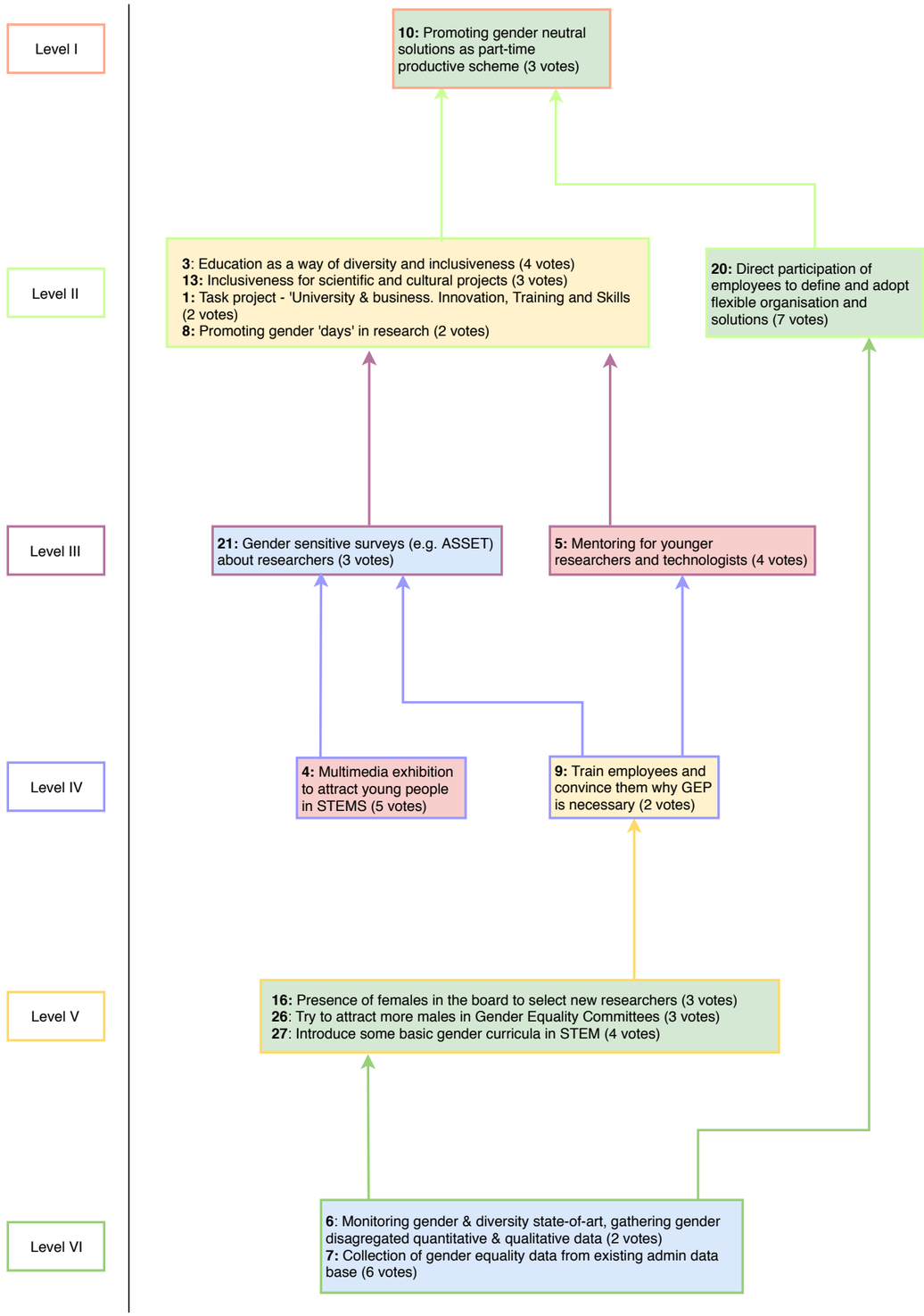

Figure 3 Tree of Influence

Drawing from the above given analysis, the implementation of Practice 6: Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data (2 votes) and Practice 7: Collection of gender equality data from existing admin data base (6 votes), which are located at the base of the map, would significantly influence or ease the implementation of Practice 16: Presence of females in the board to select new researchers (3 votes) for instance identified on Level V and so on. Therefore, in order to facilitate the development and implementation of Gender Equality Plans (GEPs) in academia and research organisations, it is paramount that the following practices derived exclusively from the root levels V and VI and shows as [Practice (P), Votes (V), Cluster (C), Level (L)] are implemented firstly:

- Level VI: Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data (P6, V2, C1, L6)
- Level VI: Collection of gender equality data from existing admin database (P7, V6, C1, L6)
- Level V: Presence of females in the board to select new researchers (P16, V3, C2, L5)
- Level V: Try to attract more males in Gender Equality Committees (P26, V3, C2, L5)
- Level V: Introduce some basic gender curricula in STEM (P27, V4, C3, L5)

It is important to observe that Practice 6: Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data (P6, V2, C1, L6) shares the same box with Practice 7: Collection of gender equality data from existing admin database (P7, V6, C1, L6), both found on Level VI, unlike Practice 20: Direct participation of employees to define and adopt flexible organisation and solutions (P20, V7, C2, L2) which has a box on its own. This means that the practices 6 and 7 are equally influencing each other and that these practices are also influencing the actions positioned at the higher levels of the roadmap. In particular, the participants agreed that the implementation of Practice 6 could significantly influence the implementation of Practice 7 and that the implementation of Practice 7 could significantly influence the implementation of Practice 6. However, the participants answered that the implementation of Practice 20 could not significantly influence the implementation of Practice 6 and that explains why Practice 20 is not together with Practices 6 and 7. A similar case is evident on Level V where all practices located there, namely, Practice 16: Presence of females in the board to select new researchers (P16, V3, C2, L5); Practice 26: Try to attract more males in Gender Equality Committees (P26, V3, C2, L5) and Practice 27: Introduce some basic gender curricula in STEM (P27, V4, C3, L5) share the same box.

Level IV comprises of two practices, which are, Practice 9: Train employees and convince them why GEP is necessary (P9, V2, C4, L4) and Practice 4: Multimedia exhibition for young people in STEMS (P4, V5, C3, L4). As demonstrated by analysing the Map, the implementation of Practice 9 lies on the implementation of Level V while no one of the mapped practices can significantly influence the implementation of Practice 4. Practices 9 and 4 influence Practice 21: Gender sensitive surveys (e.g. ASSET) about researchers (P21, V3, C1, L3) and Practice 9 significantly contributes to the realization of Practice 5: Mentoring for younger researchers and technologists (P5, V4, C3, L3), both located on Level III of the Map. Level II is the most populated level of the Map with five practices identified there, four of which can mutually influence each other possibly as a result that 75% of them have been categorized under the same cluster, that is, Cluster 3: Networking & Communication. These are Practice 3: Education as a way of diversity and inclusiveness (P3, V4, C4, L2); Practice 13: Inclusiveness for scientific and cultural projects (P13, V3, C3, L2); Practice 1: Task project - 'University & business. Innovation, Training & Skills (P1, V2, C3, L2) and Practice 8: Promoting gender 'days' in research (P8, V2, C3, L2) the implementation of which significantly depends on the implementation of the two practices positioned on Level III. Practice 20: Direct participation of employees to define and adopt flexible organisation and solutions (P20, V7, C2, L2) is additionally located on the level. Finally, Level 1 is comprised by only one practice, that is, Practice 10: Promoting gender neutral solutions as part-time productive scheme (P10, V3, C2, L1) which is influenced by the five practices on Level II.

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Conclusions

The participants of the workshop entitled **"Towards the identification of best practices in the Gender Equality Arena within an organisation"** organized in Rome on November 7th, 2018 in the context of the H2020 project R&I PEERS discussed ways and practices to facilitate the development and implementation of Gender Equality Plans (GEPs) across academia and research organisations. In response to the objective of the workshop, the participants put forth practices derived from successful examples identified and implemented in research organisations, academic institutions, enterprises to foster the design and adoption of GEPs.

The main conclusions of the workshop are the following:

- Necessity to exploit the already collected administrative data which must be updated on an annual base in order to have a comprehensive recording of the institutional situation in terms of the different areas of the Gender Equality Plan implementation as well as allow the GEP team to promptly propose additional measures to reflect to the new situation
- Introduction of basic gender curricula in STEM in academic institutions
- Research evaluation committees in recruitment procedures should be composed by both male and female evaluators in order to avoid unconscious barriers related to the gender of the candidates
- Gender Equality should not be treated as an issue concerning only women but also men and for this reason, steps towards the active engagement of men in Gender Equality Committees is pivotal

The one day-long workshop was organised and facilitated according to the Structured Democratic Dialogue participatory method. This method allows integrating contributions from individuals with diverse views, backgrounds and perspectives through a process that is structured, inclusive and collaborative. Fifteen participants constituting a multisectoral team of experts in the field of Gender Equality took active part in the workshop and were motivated to treat the subject and work towards a concise plan which will facilitate the development and implementation of GEPs.

Annex 1 List of Practices / clarifications and votes

#	Practice	V
1	***Task project - 'University & business. Innovation, Training and Skills***	2
	The aim of this project is to increase the level of innovation process through strengthening personal and professional skills in order to improve the competences and skills of both women and men.	
2	***Combating sexual harassment within institutions***	1
	Sexual harassment is an existing problem. It depends on hierarchy and there is a lot of hierarchy within big institutions and research centers. To my opinion, it is a prerequisite to ensure a safe environment for women and men, mostly women because it has a gender aspect since men have the higher positions. I don't think that sexual harassment is of equal importance with other GEP measures, there I think we could have specific actions or structure to tackle this problem. This will help to create the appropriate environment for the implementation of the GEPs.	
3	***Education as a way of diversity and inclusiveness***	4
	In order to change something in a different environment, either in private or public, you should someway change the approach and the mentality. First of all, for us, gender is not only male or female and we should start from this point and then inclusiveness is a way to include everyone, as a diversity in its way which could be diversity in gender in this case. So, we start the process practically in the education entering the schools with a university professor and thus making this match between university and high schools and secondary schools because like I said, for us it is a way to enter the society.	
4	***Multimedia exhibition to attract young people in STEMS***	5
	The practice is about a new multimedia exhibition promoting women in the research field. The goal is to attract young generation to show the benefits of the research field, to give them the opportunity to make a partnership with the academia, space agencies. The multimedia workshop came from the fact that this exhibition uses multimedia tools, like an app and a tablet, where you can interact with the photo, answer some space quizzes and other educational quizzes and thus it can be used by the schools to promote the research field.	
5	***Mentoring for younger researchers and technologists***	4
	I will start with some numbers. On The National Institute for Nuclear Physics (INFN) which is an Institute dedicated to physics, the percentage of women between researchers and technologists is 20% which is a lower percentage from the graduated students at universities. For this reason, we started on May 2018 a mentoring project which aims at helping new fixed-term researchers to grow up with the help of more experienced researchers and find critical points which prevent them to grow up in their career in physics. Especially, we noticed that within the ages of 30 and 39, young female physicists' researchers at INFN are 14% which is a lower percentage than the average percentage of women researchers at INFN. The idea to have experienced female researchers and technologists to work with young researchers is for us tentative because it is our first attempt with this project but the goal is to raise awareness and to create the possibility to grow their career at INFN. There are 12 young researchers and the duration of the project is 1 year which starts with a general meeting following by face to face meetings. The mentor is more than a teacher. As you remember, Odyssey left his son to Mentor to grow him up when he left for the Troy war. The mentor is a person who is more important than a simple teacher or an assistant and we try to create this awareness between young and senior researchers to increase the percentage of young female researchers at INFN.	
6	**Monitoring gender & diversity state-of-art, gathering gender disaggregated quantitative & qualitative data**	2
	The main aim of this best practice is the analysis of the data on the composition of teaching staff, administrative staff and students by gender at the Alma Mater Studiorum Università di Bologna (UNIBO) as a whole, as well as broken down by Departments and Schools. The Gender Report is the official document, published by UNIBO, that gathers all the data, indicating the situation of vertical and horizontal segregation and the ceiling glass effect. The data collection for the Gender Report allowed UNIBO assessing the institutional situation in terms of gender distribution, and monitoring whether and how it was urgent to develop specific measures. Thanks to the Gender Report the University's knowledge on the state-of-the-art on gender equality at all levels of the organization increased.	
7	**Collection of gender equality data from existing admin data base**	6
	Gender Equality Plans are based on evidence from the organizations and if you don't have data derived from surveys and interviews, you rely on administrative databases from where you can get lots of information about your employees: their entry level, responsibilities, outputs etc. But it's not easy to produce good quality of data out of these databases as it is often evident that these databases are fragmented in different departments (e.g. Human Resources, Publications' Resources) and thus the integration of these databases is very complicated. We tried at CNR to have a collaboration with a statistical office and we developed a framework but it is crucial to have a management, a clear indication on this because it needs to come from the high level. So, every framework, with the statistical office, produce every year a set of data out of this fragmentation of information inside the institution. The good thing about the administrative database is that you have the data but you need some knowledge to make some good data out of these databases. In this sense, the statistical officer is crucial but the office should receive a clear mission from the management along the lines "I want some relevant data every year for my GEP because I want to ground the measures I am proposing on some evidence". I am happy to do something about gender equality in my institution but when it comes to evidence you need some data and administrative databases are a powerful source of information. But then I believe we need some statistical competencies which are not evident in all institutions. As a good practice, I would suggest that European projects on gender equality stress these competencies and also that there should be some upgrades out of these databases every year because as you know, once the project is completed no one collects data. So you should establish some updates from these databases to have some evidence to ground the measures you are proposing.	
8	**Promoting gender 'days' in research**	2
	This is an initiative that came out from the H2020 project GENERA - Gender Equality Network in European Research Area which aimed at improving the presence of female researchers in physics. CNR as a partner of the project in strict collaboration with INFN proposed two editions of "Gender and Physics days" which helped us to raise awareness among different stakeholders starting from the young people as we involved schools, people from the higher level of management and also policy makers. Those days can be considered as a best practice because they produced such outcomes which could be taken into account as for example the need to have a clear understanding of different gender issues which arose during the parallel workshops of the days. In addition, the outcomes of those days include: strong reflection on concept related gender equality issues, a strong connection with policy makers.	
9	**Train employees and convince them why GEP is necessary**	2
	As a man working in General Secretariat for Gender Equality, I believe we should create some fertile ground in order to have the implementation of a GEP which sounds very technical, sounds as if it is another project. I think we have to prepare people just to be ready why we need another project implemented in our organization. Firstly, we need to educate men and women on gender issues, we have to convince both men and women that promoting gender equality is not meritocratic which favors only a part of the working population, women for instance. We have to convince both men and women that equality still exists. It is a necessary start in order to have some outcomes. We don't have a project to accommodate this goal but rather we have educational activities from elementary schools to high schools about gender equality issues which can be used as a starting point.	
10	**Promoting gender neutral solutions as part-time productive scheme**	3
	Practices adopted in Italian SMEs (10-250 employees), in manufacturing or service sector, will be presented. They can be easily transferred to other organizational contexts. The practices have the following distinctive traits: · Solutions that integrate the needs of people (in terms of reconciling family and private life with professional life) with the company's production needs (workflows, delivery times, etc.) · Designed by direct participation of workers in the organization · Characterized by a dual nature, work flexible scheme and benefits arrangements · "Gender neutral" practices, they tend to favour above all the participation of women at work, but they are not addressed to women · Provide a range of different solutions that can meet different needs and at the same time are suitable for organizational functioning and efficiency · Ratified in a trade union agreement. They can be applied to the whole workforce (they are not solutions for specific cases) and allow access to fiscal benefits provided by Italian law (*legge di stabilità* 2016; 2017 and at the moment confirmed in the 2018 national budget law) These and other practices can be accessed at the online service www.equipeonline.it	
11	**Incentives such as ATHENA SWAN measures**	1

	ATHENA SWAN is a measurement used in the United Kingdom. It is a way of evaluating academic institutions with certain criteria which are basically connected with implementing some gender equality plans or measures. There is a Gold, Silver and Bronze stamp and if one institution wants to get this stamp, they will have to do for instance a certain amount of trainings, change their courses, proceed with administrative changes and everything we include in GEPs. So, if you do a small amount of these changes you get a Bronze stamp but if you do more, you receive the Gold stamp. But this stamp is not just a symbolic confirmation of your success in implementing changes but it is also something which is connected with funding. So, if you have a Gold ATHENA SWAN stamp, you have higher chances of getting research money or money for sustaining your organization. So, this stamp gives a higher evaluation to the research groups coming from these institutions. The university management has strong incentives to implement Gender Equality Plans because it will give them more money for the institution and better positions at the calls. But it also gives motivation for administrative staff for the same reasons. It is usually harder to motivate administrators who don't benefit from Gender Equality measures necessarily to engage in additional data gathering disaggregating data by gender, going for training that they don't see how they can profit. It is also an incentive to the researchers to start including gender dimension in their research. This is also a problem with many STEM fields who don't understand why to "bother" to include gender issues in their research and they can't see any scientific value from this inclusion. So, in order to have some institutional change there should be some push and pull factors.	
12	**Measures on gender are important because politicians take them for the policy goals**	0
	Taking into consideration precisely the statistical frameworks we have, because we have many statistical frameworks in place, then why don't we use them before launching a new collection. It is expensive to do a new collection, so why don't we try to make profit by using what we already have not only in Italy but in other regions also. What we have done as a network of researchers dealing with sustainable wellbeing and development was to publish an Italian book about wellbeing and sustainable development for Italy in 2016, where we put whole statistical data that we had in place for that time. Now we are publishing in English another work putting together these statistical issues. As you know, in SDGs there is the Goal 5 dealing with Gender but as you may know, Gender is not only one goal because you can analyze gender issues all over the 17 Goals of the SDGs. All Goals have some aspects dealing with Gender. Then, in this book but also in other activities, we share the Italian project sustainable wellbeing and development in which these data in 2010 firstly anticipated the SDGs issues producing a report documenting the situation of Italy about wellbeing. Also in this project, the gender issues are in place. There is no one dimension on gender but gender statistics are produced in every domain of wellbeing. Each country has its own dimensions of wellbeing. We follow a democratic process discussing with our social partners in Italy, with the CNEL (National Council for Economics and Labour), and then ISTAT and CNEL decide the main domain for the Italian society. This is very important because if you look at the gender issues, you have to take in mind that you are looking into the life of people. Then if you look at the different dimension, you can say how the gender is organized. So, this is a framework we have to follow because if we are dealing with gender, we are dealing with the life of people, female and male of course.	
13	**Inclusiveness for scientific and cultural projects**	3
	For scientific and cultural projects, it is important that the enterprise world communicates better with the scientific world. It is important for the researchers, women and men, to understand the innovation needs of the enterprises and interpret them into new innovation plans. If the researchers insist on this direction and there is a collaboration between universities and enterprises, the women researchers can improve their career.	
14	**Include the GEP measures within the general action plan of the organization**	1
	Every institution should have their own plans, targets and objectives and therefore, some measures of Gender Equality should be included into these general action plans of the organization.	
15	**Acting for SDGs**	1
	As stated by the United Nations, we should achieve some of the SDGs by 2020. Of course, Gender Equality and also education in physics and STEM, innovation and technology are some of them. So, it is important to work together even globally to put Gender Equality is one SDG that impacts the others.	
16	**Presence of females in the board to select new researchers**	3

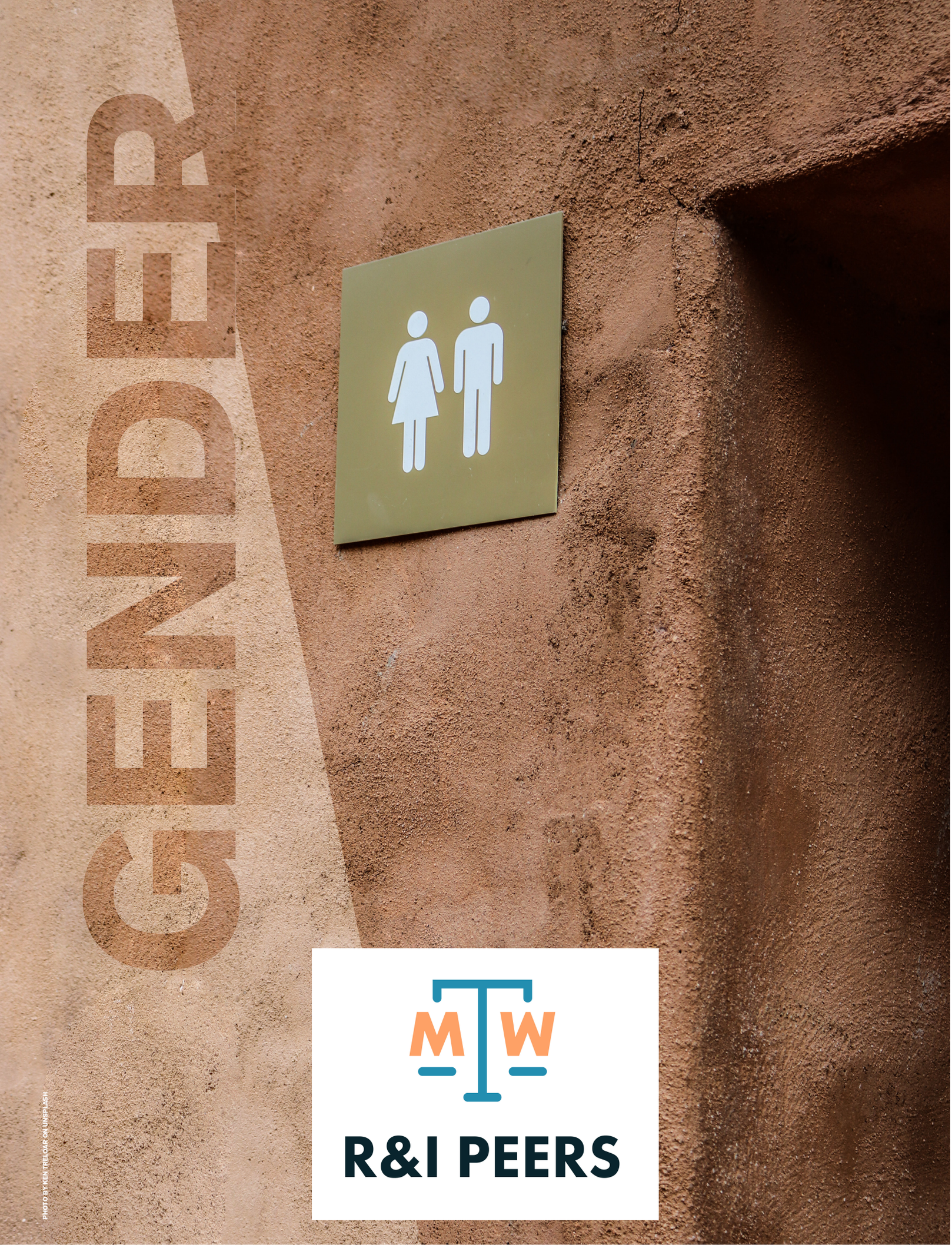
	The Italian law states that at least 1/3 of the evaluation committees in recruitment procedures have to be female. So, this is just an admission that men are more than women in these committees. Of course, we respect this reality but even because after the president approves the composition of these committees, it should be transmitted to our Ministry of Labour where the composition is stamped and approved or will be requested to rewrite the composition. So, what we made since last year was to give to the members of the committees a document of the unconscious barriers. It is important because since the majority of the members of these committees are men, they don't have much time to evaluate the CVs and the career of the candidates. There is an aspect which is important in physics. The evaluation of the careers is not well considered by the members of the committees. This is a barrier that the members of the committee must be aware of. There is also a suggestion in this document that the members should consider the way a CV is written because there is a difference between a CV written by a male and a female candidate. So, the awareness of unconscious barriers is important and they should spend more time for evaluating the candidates. Another element is the letters of recommendation in which the committee can be biased if the letter is written by top male scientists than female scientists.	
17	**Appointing delegates in departments and planning GEP meetings with decision-makers**	1
	The creation of a network of delegates in Departments/Schools/Faculties is crucial to strengthen the ownership of the GEP among researchers, professors and technical and administrative staff. In UNIBO out of 33 Departments 30 have answered positively and have nominated 2 delegates. The network so established has met several times to discuss the GEP development and its implementation. To develop a GEP is also needed a top-down approach. For this reason, the UNIBO PLOTINA Team decided to plan several meetings with key-actors and decision makers to collect their opinions and suggestions on the GEP's developments.	
18	**Promoting training on how to cope with gender stereotypes**	0
	It is very important to stay between two levels, the bottom up level and the top down level and thus it is crucial to set up seminars, trainings on how to solve gender stereotypes, unconscious bias, sexual harassment at work, gender equality issues. Even though it can be considered as a basic practice, it is important for the employees to be trained on these issues and to be able to recognize these phenomena.	
19	**Involve everyone**	0
	I think it is very important to have everyone supporting the plan because regardless of the size of the organization you will always find people who will either undermine or not support you, so you should have a bottom up and top down approach. You have to convince the boss, the director, the superior, the protocol employee who will do some administrative work and the person who will keep the data why we need to have this GEP. We need to have a facilitator or a motivator.	
20	**Direct participation of employees to define and adopt flexible organisation and solutions**	7
	We follow the high performance organization, a set of measures to propose direct participation of employees and it was investigated in different studies. Involving employees to define solutions is important in order to create solutions which are sustainable and can improve the situation of the organization as for example, in terms of changing the time-schemes of the organization. What we found in our experience is that people ask for time, people ask for a better degree of autonomy in management of working time and family time, people ask more time than more salary. It could be strategic to propose a direct participation of employees with focus groups, reading reviews, which is of course time consuming but it could contribute to have solutions that can promote changes within the organization also in gender issues.	
21	**Gender sensitive surveys (e.g. ASSET) about researchers**	3
	I refer to gender sensitive surveys which will could show in a more quality the often invisible differences between positions in which male and female researchers may find themselves. Not only the number of women in higher positions but also who and to what extent uses social care, health care services, possibilities to live and so on and to see how gender plays a role. Because sometimes maternity leave is something you want and you need, but sometimes in some cases it is a way of excluding competition or putting women on their place. I am giving the example of the ASSET survey because I recently had the opportunity to review it and check how it could be used in the Slovenian case. ASSET survey was created by an agency in the United Kingdom as an idea to have only one survey for all STEM institutions in the UK and the good thing about the surveys that are templated is that you can then compare different institutions across the country, as for example the University of York and the University of London and then you can compare them over the time. The bad thing is that not all survey fit perfectly to all institutions.	

22	**Interlinkages analysis amongst different aspects dealing with gender empowerment**	0
	I want to underline that when we deal with equity and sustainability of wellbeing and development or whatever we want, one key issue is to look at the relations between different dimensions. If we are looking into the life of people, we cannot take education for example without looking to work, to the social relations. In this way, the approach of analysis should be interlinked and we, as a network of researchers, have a specialization on this because we proposed inside the United Nations just to think in terms of what kind of measures can pick up this kind of interlinkages. Because this is the key issue of sustainability; the cross effect of the action or a different aspect.	
23	**Introduce gender budgeting within the organization**	0
	I don't suggest that the budget should be drafted from the beginning through a gender perspective but organizations that consider which budgeted actions have impact on gender equality. Gender budgeting refers not only to actions concerning gender but to all actions but also to different dimensions of men and women.	
24	**Working with museums for informal educational activities**	1
	No clarification	
25	**Promote discipline rather than institutional event on GE**	1
	From our experience, I realized that discipline than institutional events are better as having researchers and people from the same discipline discussing about gender equality is much more effective than having institutional discussion only because sometimes there are some dynamics of gender equality which are really correlated to the discipline as it is the case of physics.	
26	**Try to attract more males in Gender Equality Committees**	3
	We should start thinking how we could involve more males in Gender Equality Committees as Gender Equality is not an issue concerning only women but also men.	
27	**Introduce some basic gender curricula in STEM**	4
	The idea is to introduce some basic knowledge on gender studies/issues in all Science, Technology, Engineering and Mathematics Faculties. This could be in the form of a short-term seminar or workshop or ideally a semester course.	
28	**Summing up possible policies for GE & empowerment**	0
	In particular, when dealing with research projects, one of the key issues is to propose to politicians actions for this. I mean, not only to politicians of course, we can suggest these actions to businesses how they can implement them. But if you just ask politicians to give incentive, for example, about gender equality, we have to precisely tell the politicians which direction they have to follow. And that is why, in most of the cases gender policy fails.	
29	**Establish a network between RPOs and RFOs**	0
	This is an activity created by the GENERA project according to which the members of the consortium signed a Memorandum of Understanding and some other articles about how to set a process even after the completion of the project. So I think it is very important to create a liaison of partners to continue sharing knowledge and bring also external experts into this initiative who are willing to support the activities of Gender Equality.	

Annex 2: Participants

Participant[1] Surname	Name	Organisation	R&I PEERS?
Balzano	Angela	**University of Bologna (UNIBO) (representative of PLOTINA EU project)**	No
Contronei	Vittorio	**Agenzia Spaziale Italiana (ASI)**	No
Mastropietro	Emanuela	**Ministero del Lavoro, Italy**	No
Di Tullio	Ilaria	**Consiglio Nazionale delle Ricerche (CNR)**	Yes
Fiorella	Coliolo	**Agenzia Spaziale Italiana (ASI)**	No
Liberati	Gabriella	**Comitato Unico di Garanzia (Cug Cnr)**	No
Loukidou	Katerina	**General Secretariat for Gender Equality Greece (GSGE)**	Yes
Mihajlovic Trbovc	Jovana	**Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti (ZRC SAZU)**	Yes
Pedone	Alessandra	**Associazione Industriali Della Provincia di Salerno (AISAI)**	Yes
Petrovic	Tanja	**Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti (ZRC SAZU)**	Yes
Pisacane	Lucio	**Istituto di Ricerche sulla Popolazione e le Politiche Sociali (IRPPS-CNR)**	No
Platis	Dimitris	**General Secretariat for Gender Equality Greece (GSGE)**	Yes
Riccardini	Fabiola	**Italian National Institute for Statistics (ISTAT)**	No
Riccardini	Giovanni	**Instituto Nazionale di Fisica Nucleare (INFN)**	No
Rinaldi	Stefania	**Associazione Industriali Della Provincia di Salerno (AISAI)**	Yes

1 The participants are sorted in alphabetical order



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