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GENERA Project: Research organizations and gender

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Sveva Avveduto
Maria Carolina Brandi
Maria Girolama Caruso
Loredana Cerbara
Ilaria Di Tullio
Daniela Luzi
Lucio Pisacane

Consiglio Nazionale delle Ricerche

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Sveva Avveduto*, Maria Carolina Brandi*, Maria Girolama Caruso*, Loredana Cerbara*, Ilaria Di Tullio*, Daniela Luzi*, Lucio Pisacane*

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This report has been produced during the three years activity of the H2020 GENERA project as a deliverable of the Italian working group coordinated by CNR. The report addresses the analysis of the present status of activities towards gender equality in physics research in the project partner organisations and the conceptualization of the Gender-in-Physics Days to be organized by Partners. In particular the setting up of a common framework for collecting gender relevant data at organizational level, the hindering and facilitating factors in the collection of relevant data, the analyses and reflections on the different experiences made by GENERA partners in accessing the available data. Suggestions on positive actions to improve the gender relevant data monitoring activities, are of the utmost importance to shape a future monitoring system stemming from GENERA experience and applicable to other European research organizations.

Keywords: Gender, Physics, Data monitoring, Women, Science

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GENERA Project: Istituzioni di ricerca e genere

Sveva Avveduto*, Maria Carolina Brandi*, Maria Girolama Caruso*, Loredana Cerbara*, Ilaria Di Tullio*, Daniela Luzi*, Lucio Pisacane*

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Questo rapporto è stato prodotto durante l'attività triennale del progetto GENERA H2020 come deliverable del gruppo di lavoro italiano coordinato dal CNR. Il rapporto affronta l'analisi dello stato attuale delle attività verso l'uguaglianza di genere nella ricerca in fisica nelle organizzazioni partner del progetto e la concettualizzazione dei Gender-in-Physics Days organizzati dai partner. In particolare ci si è concentrati sulla predisposizione di un quadro comune per la raccolta di dati di genere a livello di singola istituzione, i fattori di ostacolo e facilitazione nella raccolta dei dati rilevanti, le analisi e le riflessioni sulle diverse esperienze fatte dai partner GENERA nell'accesso ai dati disponibili. Suggerimenti su azioni positive per migliorare le attività di monitoraggio dei dati rilevanti per genere, sono della massima importanza per definire un futuro sistema di monitoraggio derivante dall'esperienza GENERA e applicabile ad altre istituzioni di ricerca europee.

Parole chiave: Genere, Fisica, Monitoraggio dati, Donne, Scienza

*Consiglio Nazionale delle Ricerche (CNR), Istituto di Ricerche sulla Popolazione e le Politiche Sociali (IRPPS)

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Editing e composizione: Cristiana Crescimbene, Luca Pianelli, Laura Sperandio

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INTRODUCTION

This Report is produced under Work package 2 of the GENERA Project which analyses the Status of research intensity advancing Gender Equality Plans (GEPs) in Europe's Research Performing Organizations (RPOs) and Research Funding Organizations (RFOs) and has the following overall objectives:

- "Determine the present status of activities in participating countries oriented to promoting gender equality, and GEPs in particular, in research focused cultural environments"
- "Identify successful approaches and innovative ideas for gender equality measures in physics oriented research fields and cultural environments to make them more gender neutral".

To reach these objectives the WP2 activity has been organized in 3 Tasks aiming at:

1. Addressing the present status of activities towards gender equality in physics research in the partner organisations and the conceptualization of the Gender-in-Physics Days (GiPD) to be organized by Partners.
2. Monitoring the successful gender equality measures and conditions for improving research cultural environment in the fields linked to physics looking for the best practices.
3. Analysing and mapping the gender balance conditions in physics in partners' Countries.

The present Reports refers to the first task

CNR-IRPPS acted as Lead partner, while main contributing partners have been INFN, MPG, UJ, IFIN- HH, all activities have been carried out in collaboration with the Coordinating Partner DESY and all the other Partners.

Methodology

The report is based on different sources and activities. Desk research on different sources has been carried out taking into account both scientific literature on the topic and official Partner Organizations Reports and Guidelines.

The contribution of GENERA partners has been essential to focus on the most relevant experiences in the partner countries and beyond.

Of particular importance have been the information, data, comments and contributions deriving from the various JS Meetings where the experiences have been illustrated, exchanged and largely debated. All the results and work in progress carried out to prepare this final Report have been discussed and approved by the Coordinating team DESY and all partners.

Structure of the Report

The first section – "GENDER IN PHYSICS DAYS: RATIONALE AND CONCEPT" focuses on the background activities for the organization of one of the common products of the GENERA Project: the Gender in Physics Day (GiPD). The section presents the Concept Paper prepared by the WP2 and discussed with all partners during JS meetings and outside them and

accordingly amended. This document is conceived as a guide for the Consortium members in the organization of the various GiPD in their respective countries and institutions. It includes all the elements useful to structure the GiPD in a coordinated way. A catalogue of topics among which each partner organization may choose the most relevant for them, is provided to serve as container to be used to customize the GiPD according to the local situation and needs, not losing though the links and correspondences to all other partners' GiPD.

The second section – "A COMMON FRAMEWORK FOR COLLECTING GENDER RELEVANT DATA" presents the data template prepared by the WP2 as a working tool conceived to identify all data already available in each participating organization. This template can be used to identify and present all available information on several important dimensions of gender balance and issues in organizations. It includes fields pertaining demographics, education qualification career path, work organization, and research output. The Template is conceived in a very extended way to cover potentially all data that are relevant for the gender analysis.

The third section – "AVAILABILITY OF INSTITUTIONAL AND ADMINISTRATIVE DATA WITHIN PARTNERS ORGANIZATIONS" reports the results of the Template distributed among partner organizations to check the availability of gender data. This information is used to check the actual accessibility to gender related data in the partner organizations, considering that many data, collected for different administrative purposes, may be however but difficult to access and thus to use and analyse. The final objective is to map the gaps and shortages in data in order to design a future monitoring system to collect data to inform gender policies.

The fourth section – "OUTLINE OF DATA ACCESS IN VIEW OF FUTURE MONITORING ACTIVITIES" analyses and reflects the different experiences made by GENERA partners in accessing the available data according to the Template. To gather these information a questionnaire was distributed to collect evidence on hindering and facilitating factors in the collection of gender relevant data in partner organizations. The questionnaire also asked the partners to provide suggestions on positive actions to improve the gender relevant data monitoring activities. The findings and suggestions will be of the utmost importance to shape a future monitoring of the system.

Summarizing the entire Report is conceived to offer the Project consortium a tool for reaching a common approach for:

- A guideline and conceptualization of topics useful to organize harmonized Gender in Physics days in the Partners' Countries;
- The collection of data on gender and the future monitoring activities;
- Moreover the report provides an overview of present difficulties and bottlenecks in Partner organizations that can hinder the development of a future collection of data and the implementation of a monitoring system in the European Research Organizations.

DESCRIPTION OF ALL TASKS OF WP2

Task 2.1 Deliverable 2.1: Present status of activities towards gender equality in physics research in the partner organisations Gender-in-Physics Days (37 PM, lead partner : CNR, deputy: MPG)

Task 2.2 Successful gender equality measures and conditions for improving research cultural environment in the fields linked to physics best practices (14 PM, lead partner : UJ, deputy: IFIN-HH)

Task 2.3 Gender balance conditions in physics (34,5 PM, lead partner: UJ, deputy: INFN)

SECTION 1: GENDER IN PHYSICS DAYS: RATIONALE AND CONCEPT

Gender Days in higher education and scientific organizations are initiatives and events usually organized to improve female participation, starting from the higher education level to researchers careers, progression dynamics and recruitment practices.

The aim of the Gender-in-Physics Days (GiPD) events - to be organized within the GENERA partner institutions - is to analyse the implementation of innovative activities towards gender equality, identifying gaps as well as best practices in gender equality policies. These events will enable an exchange of experiences and information supporting an alliance of Research Performing Organizations and Research Funding Organizations to promote gender equality in Physics disciplines. The GENERA Work Package 2 team, in collaboration with the project consortium, developed a common structure for the GiPD events. The common format proposed to GENERA partners organizations was named "GiPD Concept".

This document was worked out during the first project year and discussed in a plenary session of the Joint Secretariat held in Rome November 2015. More updated versions were circulated among partners to amend, integrate and discuss contents and organization features of the events. The final version of the GiPD Concept was validated during the last JS held in July 2016 in Hamburg were the partner organizations adopted the document as a guide in the organization of the foreseen GiPD in their respective countries and organizations.

Gender-in-Physics Days will take place in GENERA hosting organizations involving directly various levels of participants from junior and senior researchers, to management level personnel, policy makers and different stakeholders, either internal or external. The format of the GiPD, within the general framework provided by the GiPD Concept, may be tailored by GENERA partners according to their institutional and/or national requirements and necessities. This refers in particular to the length of the event and the choice of the various topics covered as well as to the stakeholders participating in these events. The Consortium agreed that the GiPD needs to build on the existing initiatives and activities already set up in organisations, including policies implemented at local and national levels, GEPs, gender equality committees, relevant data collected and available documentation that will complement the ad hoc analysis of driving and resisting forces that affect changes.

The GiPD Concept suggested a common structure for the events: a first part focused on the presentation of the GENERA project, a second part dedicated to the presentation of the gender relevant data of the institution and gender policies and support measures already in place. Following these two sections each organization can focus on one or more topics proposed in the catalogue of topics suggested in the GiPD concept. English has been agreed as a common language for the core part of the GIPD events, foreseeing satellite meetings and session that could be in the mother languages of the country hosting the event.

A good balance among invited stakeholders should be a relevant element of the event (management, leading scientists, HR department, students). Although the target audience will represent mainly the personnel of the organizations– being the event mainly focused to internal conditions of the research organization - it should be possible to invite external stakeholders and research leaders of tomorrow (young scientist leaders; PhDs, etc.). The GIPD concept strongly suggests partner organization to provide the events with a dedicated discussion slot on GEP adoption, implementation and on data to monitor their application. This is particularly relevant for the project since not all GENERA organizations have GEPs in place and this event represents an opportunity to promote its adoption. The partner s are

invited to provide each event with an evaluation questionnaire for both internal and external participants (to be designed in collaboration with WP3). In order to ensure full visibility to the event it is recommended to provide the event with an internal and external communication strategy. All the GiPD will produce relevant material and documentation, such as video, audio, ppt, publications, to be uploaded on the GENERA website, and to communicate the events results to external stakeholders.

The GENERA GiPD events are foreseen to take place between the autumn of 2016 and the end of year 2017. A number of GiPD were already announced for the forthcoming months. The first Gender in Physic Day will take place in the Netherlands on the first of November 2016, hosted by Foundation for Fundamental Research on Matter (FOM). The German GiPD is foreseen for January 2017, hosted by the Deutsches Elektronen synchroton (Desy). The Swiss GiPD on 26th is hosted by the University of Geneva and on the 27th January is organized at CERN, by the 3 international/intergovernmental observers: ESO, Nordforsk and CERN. The Italian gender in physics days will take place in May 2017 in cooperation with INFN and hosted by a CNR structure. The Romanian gender in physics days will be in June 2017 hosted by IFIN-HH and in the late October the Spanish GiPD wiil be hosted by the Istituto de astrofisica de Canarias. The French gender in physics day will beas well in October, hosted by the National Center for Scientific Research (CNRS). An updated calendar for those events can be found on the GENERA website http://genera-project.com/.

Concept for Gender in Physics days

The Gender in Physics Days is a crucial activity led by GENERA partners with the aim to provide a great opportunity for each organizaton to learn from each other and exchange experiences. The concept has been built to serve as a strong base in creating the structure of the Gender in Physics Days in each organizaton. The aim of Gender in Physics Days has the following objectives:

- How to improve gender equality within the research organizations
- Build a collaborative network on gender issues among RPOs and RFOs
- Propose innovative ideas for gender equality measures for the organization
- Highlight gaps between gender equality policies and the status quo within an organization
- Communicate successful and unsuccessful approaches
- Focus on barriers and challenges to gender equality
- Focus on GEP application and implementation in RPOs and RFOs

This general framework will be customized to meet the local situation and needs. In order to ensure the active participation of all GENERA partners in the event, the first part of the concept is dedicated to give some indications in planning the gender in physics days. The second part of the concept consists in a Catalogue of topics to be address in order to follow the main objectives of GENERA project during the GIPD. This covers different topic areas with the objectives to full-cover the major problems related to the field of physics for women researchers. Each GENERA partner may choose to focus on one or more topics following institutional priorities.

In particular, the list of topics reported in Annex X identifies the areas that may be worth considering in GiPDs and have an impact on gender balance. The areas identified are:

- RECRUITMENT AND RETENTION
- WORK ENVIRONMENT AND WORK-LIFE BALANCE

- CAREERS AND PROGRESSION
- RFOs and grants' attribution
- GEP STATUS AND IMPLEMENTATION
- STRUCTURAL AND CULTURAL CHANGE IN PRACTICE: LEARNING FROM RELEVANT EXPERIENCES
- GENDER INCLUSIVE CULTURE/GENDER AWARENESS
- BARRIERS AGAINST GENDER EQUALITY MEASURES

Each area is further detailed in a classification of topics that specify and address for each area a set of related issues relevant for the analysis of gender balance in each participating organisation.

RECRUITMENT AND RETENTION

The area 'Recruitment and Retention' considers a set of topics related to general recruitment practices, it also proposes to analyse whether and which proactive measures for gender-balanced recruitment have been implemented, and/or how career breaks are evaluated in the recruitment. Finally, considering retention, different perspectives to assess women's career trajectories are proposed, such as reasons and periods of dropouts, part-time and training opportunities.

✓ Recruitment practices in general and addressing the following problems:

- Male and female candidates in the recruitment process
- Recruitment practices in the RPOs (gender-equal personnel development and career concept, gender pay equity, talent management programmes)
- Gender stereotypes in the recruiting processes (implicit bias, gendered understanding of merit and excellence, etc.)
- Recruitment as link in the chain of women underrepresentation
- Discrimination in recruitment linked to age, number of children, marital status, disability, having to care for dependant others, as well as, intersectional discrimination when two or more of these features are present for a single candidate.

✓ Proactive measures for gender-balanced recruitment

- Best practices, if any, and their impact
- Support scheme and prizes for gender balance recruitment
- Institutional support towards these measures and the level of implementation (local, regional, national, supranational)
- Active search for appropriate female candidates
- Dual careers household support mechanisms and services

✓ Career breaks

- Recruiting which considers careers breaks for a variety of family reasons (especially maternal and parental leaves)
- Types of evaluation applied to career breaks in the process of filling vacancies (selections criteria), including the probing used during the interview stage

- ✓ Retention
  - Assessment of women's career trajectories: when do they leave and why? Is there a common theme in women researchers leaving at a specific stage or level?
  - Trainings on gender and diversity – equal opportunities
  - Equal treatment of part- time work
  - Resignation/dismissals (how many male vis-à-vis female physicist quit at each career stage? Why do women and men leave organizations? Are there any gender-specific factors or correlations (e.g. increased numbers of women resigning at a certain career step/age)

WORK ENVIRONMENT AND WORK-LIFE BALANCE

This area focuses on a set of measures and policies that may be in place in each participating organisation, thus contributing to build a gender inclusive work organisation.

- ✓ Measures to support a friendly and gender inclusive work environment (for instance, gender and diversity trainings, code of conduct, gender awareness training, online tools, PR work, …)
- ✓ Means of fostering a friendly and gender-equal work environment. Legal frameworks in place and their accessibility/executability
- ✓ Transparent wage/remuneration policy
- ✓ Measures to improve work-life balance and reconciliation of work and family life:
  - maternity/paternity leave,
  - availability of nurseries either directly connected to the workplace or in the area (providing quality and affordable care),
  - training, telework, vacations policy, part-time employment options, career development plans, flexible forms of work, flexible work hours, career breaks,
  - dual careers household support,
  - gender sensitive healthcare plans (e.g. featuring reproductive healthcare during pregnancy and post-partum),
  - Transparent and family friendly policies on overtime, business travel, and meetings outside of business hours.
- ✓ Strong and weak aspects of the institutional policies: key element of success.
- ✓ New policies ideas to improve the existing measures in each GENERA partner institutions: specificity for Physics as a discipline (long hours at work, night work in the lab, national and international mobility between laboratories and research institutions)
- ✓ Enhance cognitive creativity in collaborative working in research teams and project consortia
- ✓ Workload issues (teaching, participation in committees, administrative duties, etc.)

CAREERS AND PROGRESSION

This area provides a list of topics that help analysing different aspects of women work trajectory, considering facilitating and hindering factors in terms of both procedures/measures in place (transparency, gender composition in evaluation committees, etc.) and unconscious gender bias.

- ✓ Career progression in the field of physics: opportunities and barriers for female physicists
  - Transparency of criteria in decision-making
  - Institutional practices inhibiting career opportunities (cognitive errors in assessing merit, suitability for leadership, unconscious gender bias in assessing excellence)
  - Including women in all promotional campaigns for scientific careers
  - Nominating women for prizes
  - Recognizing women's achievements appropriately
  - Recognizing the importance of double-blind peer review in funding bodies and other research-related stakeholder bodies (e.g. top journals, conference committees)
  - New/emerging subfields of physics as opportunities for female physicists
- ✓ Gender Balance committees in Institutions/Countries: role and impact of their policies
  - Balancing the gender composition of committees (both evaluating funding proposals and research results)
  - Measures providing gender awareness/knowledge for female and male panellist (trainings, awareness raising,…)
- ✓ Career trajectories of women returning from a career break (child care or elder care/maternity leave): support policies provided by the organization and the unspoken rules
- ✓ Work-life balance and career progression: how paternity/maternity leave, part time, telework and so on impacts, careers, international mobility, pace and possibility of advancement/progression in the field
- ✓ Gender pay gap
- ✓ Vertical segregation, glass ceiling and leaky pipeline in female careers
- ✓ How to support female physicists in their careers: measures and perspectives across the partner institutions

RFOS AND GRANTS' ATTRIBUTION

This area specifically addresses practices and policies that should be considered to award fair and gender balanced research grants.

- ✓ Calls for proposal
  - Use of gender-neutral wording
  - Gender sensitivity of selection criteria (e.g. excellent seems a male-word)

- Criteria to compensate for maternity leave etc.

✓ Review process

- Implicit bias awareness
- Composition of committees and juries
- Training of reviewers

✓ Challenges and monitoring data

- Percentage of females in committees and boards
- Percentage of female referees
- Percentage of female applicants for grants (applied for and granted)

GEP STATUS AND IMPLEMENTATION

The area proposes a set of issues that may help analysing the impact of GEP, if present, within the organization.

✓ GEP status in GENERA partners and their actual implementation

- If present, how long have GEPs been in place (and how often is GEP drawn up/adjusted)? How is progress measured and evaluated?
- GEP implementation responsibility, organisation at central or lower institutional level
- National legal provisions

✓ Problems and inefficacy of GEP

- Collection of relevant data for GEP monitoring and evaluation (e.g. longitudinal, sex-disaggregated data, multi-method empirical material)
- How to enhance the impact GEPs in organisations

STRUCTURAL AND CULTURAL CHANGE IN PRACTICE: LEARNING FROM RELEVANT EXPERIENCES

This area proposes to analyze a set of already implemented best practices in terms of their applicability in the participating organizations.

✓ Supporting an inclusive organization culture. Best practices: Juno, American Physics Society, Athena Swan. Involvement and valorisation of results and policy recommendations from existing schemes

✓ Action and policy specific for RPO/RFO to set clear guidelines on building diversity

✓ Structural integration of gender equality

- Leadership accountability
- Stakeholder engagement/commitment

✓ Effective and evidence based gender equality policy

- Measurement and reporting

GENDER INCLUSIVE CULTURE/GENDER AWARENESS

This area focuses on general, but very important issues when considering aspects related to culture and awareness.

- ✓ Awareness building
- ✓ Use of gender-neutral (or gender-sensitive, depending on the language context) language within the organisation
- ✓ Non-discrimination
- ✓ (Zero Tolerance) Sexual Harassment Policy

BARRIERS AGAINST GENDER EQUALITY MEASURES

This area focuses on hindering aspects towards gender equality.

- ✓ Lack of binding regulations/ policies at national or regional level
- ✓ Lack of resources for implementing GEP
- ✓ Internal resistance again implementing measures supporting GE
- ✓ Missing knowledge or caginess

Finally, this document underlines the importance of presenting gender relevant statistical information during the GiPD to analyse the current status in each participating organisation, choosing the most relevant ones.

It also provides some suggestions on the types of stakeholder to be invited.

SECTION 2: A COMMON FRAMEWORK FOR COLLECTING GENDER RELEVANT DATA

Introduction

To implement appropriate polices and design effective support actions that foster gender equality, it is necessary to have a gender sensitive and reliable dataset able to capture the different dimensions of gender balance. This is a crucial issue, not only specific to Physics, that has been pointed out in all the major documents on women in science at European level. The point made by the ETAN group[1] is still valid "assessing the position of women is made difficult by the absence of reliable, accessible, harmonized data broken down by gender, and where appropriate, also by level. Gender monitoring is a key element of gender mainstreaming and few organizations were found to maintain adequate gender monitoring statistics."

To address this issue, the first step taken was to map institutional capability of GENERA participating organizations in measuring the different dimensions of gender equality. This was done carrying out the following activities:

- Development of a data template (hereafter *Statistical data collection Template*) able to track the different dimensions of gender equality to be considered as a reference point for the collection of gender sensitive data;
- Collection and analysis of information on data available in each GENERA participating organization based on the developed template (Section 3);
- Construction of an *ad hoc* questionnaire submitted to the project partners to gathers their experiences as well as opinions on facilitating and hindering factors related to their data collection activities and analysis of the questionnaire results (Section 4).

The Template

The Statistical data collection Template is a working tool conceived to identify administrative data already available at central administration offices or in Human Resources Departments of each GENERA participating organization at 31 December 2015. It was intended as a template of reference than can map institutional capability in measuring the different dimensions of gender equality. It was developed considering well established statistics and datasets in the STEM fields (SHE figures, 2015)[2] as well as the areas identified in the document "Catalogue of Topics" for Gender in Physics Days, prepared by our WP and annexed to this Deliverable. Moreover, to tailor the template to Physics and to tackle possible differences of gender balance in Physics specialization areas, specific data were identified, such as the field and sub-field of education qualification or within the career path. Moreover, the template indirect aim is to provide an ideal data framework that creates the basis for a

[1] European Commission Research Directorate-General, *Science policies in the European Union Promoting excellence through mainstreaming gender equality. A Report from the ETAN Expert Working Group on Women and Science*, European Communities, 2000.

[2] European Commission, DG for Research and Innovation, *She Figures 2015*, EC Bruxelles/Luxembourg 2016

future routine data collection able to monitor the progress towards gender equality, vìs a vìs the development of Gender Equality Plans. Therefore, this ideal template intends to track women representation in Physics considering the following areas:

- Demographics
- Education qualification
- Career path
- Work organization
- Research output

To address the issue of data quality, the template proposes the adoption of relevant classifications internationally recognized and used that can support data harmonization and comparison among organizations. For the same reason, it identifies a minimum dataset of mandatory data also in view of future development of cross-institutional monitoring systems.

Moreover, the template also identifies multiple fields (see column Multiplicity in the tables), that is fields used to manage a list of values related to the same variable. In this way it is possible to store for instance the different types of employment contracts (post-doc contract, training contract, etc.) and their related start and end dates, or the different master's degrees that a researcher may have obtained.

An explanatory note was distributed among partners to highlight the rationale of each field (Appendix 5) together with the following list of recommendations

List of Recommendations

This *Statistical data collection Template* presents a list of gender equality indicators that may be selected by each organization/user. The list is extended but may not be exhaustive, and can be used as a guide.

At general level each organization should:

- ❖ Collect administrative data already available in Central Administration Offices or Human Resources Department
- ❖ Collect data on Physics research organizations, as classified by EUROSTAT/UNESCO/OECD "Field of Science Classification" (FOS)
- ❖ Gather sex-disaggregated baseline information
- ❖ Assure homogeneity using the variables and labels suggested in the Template.

Detailed description of the Template

Demographics

This area intends to gather gender distribution in Physics organizations including other demographic data such as civil status and number of children that can be related to life-balance conditions.

Demographics						
Name	***Description***	***M=mandatory /O= Optional***	***Multiplicity***	***Example of variables***	***Classification***	***Note***
Sex	Biologically determined characteristics of men and women	M	no	not known; F ; M; not applicable	ISO/IEC 5218	
Date of birth	Date of birth	M	no	dd/mm/yyyy		
Country of Birth	Country of birth	O	no	FR, DE, IT….	ISO 3166	Alpha 2-code is recommended
Citizenship	The status of a person recognized under the custom or law as being a member of a state	O	no	FR, DE, IT….	ISO 3166	Alpha 2-code is recommended
Civil Status	Marital status	O	no	single person, married, widowed person, divorced, legally separated, etc.	SCL - Marital status, Eurostat	
Number of children	Number of children	O	no	1,2,3		
Family contribution	Financial contribution for children and/or other persons taken in charge	O	no			

Education Qualification

This area collects data on educational qualification with a special focus on Physics fields and sub-fields that may highlight differences in specific specialization areas. All fields are multiple to gather all qualifications and types degrees obtained. To harmonize the data collection we proposed to use the International Standard Classification of Education (ISCED) developed by UNESCO/EUROSTAT for the level of Degree and EUROSTAT/UNESCO/OECD Fields of Science Classification (FOS) for the fields and subfields.

Education qualification						
Name	***Description***	***M=manda-tory/O= Optional***	***Multiplicity***	***Example of variables***	***Classifi-cation***	***Note***
Master's degree	Level 7 – Master's or equivalent level	M	yes	Master of science, Master of physics, Master of sociology...	ISCED	
Field of degree	Broad grouping of high level of degree	M	yes	Natural Sciences; Engineering and technology; Medical and Health sciences; Agricultural Sciences; Social sciences, Humanities	FOS	
Subfield of degree	Sub-Grouping of high level of degree	O	yes	Atomic, molecular and chemical physics, Nuclear physics, Astronomy,…	FOS	Use third level classification (3 digit)
Year of degree	The year of the accomplished degree	O	yes	yyyy		
Country of degree	The country of the accomplished degree	O	yes	FR, DE, IT….	ISO 3166	Alpha 2-code is recommended
PhD	Level 8 – Doctoral or equivalent level	M	yes	PhD, DPhil, D.Lit, D.Sc, LL.D, Doctorate	ISCED	
Year of degree	The year of the accomplished degree	O	yes	yyyy		
Country of degree	The country of the accomplished degree	O	yes	FR, DE, IT….	ISO 3166	Alpha 2-code is recommended

Career Path

This area intends to follow and reconstruct researchers' career path starting from the first contract to the actual position (current contract). Types of other contracts may be also stored in a multiple field to gather information on length of temporary work and/or career progression. Each contract information is related to the subfield of work to track possible changes during the career path. FOS classification is proposed to support data harmonization and comparison. Considering the level of career, each organisation can store level/title in use (researcher, senior researcher, teaching assistants, professor, etc.). However, for cross-organisation data comparison it would be advisable to transform them in three grades/levels A, B, C according the revised Frascati Manual Guidelines (OECD, 2015)[3] that correspond to the following definitions:

- A: the single highest grade/post at which research is normally conducted within the institutional or corporate system
- B: should include all researchers working in positions which are not as senior as the top position (A) but definitely more senior than the newly qualified PhD holders (C) i. e. below A and above C

[3] OECD, *Frascati Manual: Guidelines for Collecting and Reporting Data on Research and Experimental Development*, OECD, Paris 2015

- C: the first grade/post into which a newly qualified PhD graduate would normally be recruited within the institutional or corporate system

Career Path						
Name	***Description***	***M=mandatory /O= Optional***	***Multiplicity***	***Example of variables***	***Classification***	***Note***
CURRENT CONTRACT						
Type	Type of current contract	M	no	fixed term contract, permanent contract..		
Level	Level of career of the current obtained contract	M	no	Level A, level B, level C		For cross-organisation data comparison, the career level used in each organization can be transformed in level A B C according to the OECD Frascati Manual
Subfield of science	Specification of subfield of science of the current contract	M	no	Atomic, molecular and chemical physics; Nuclear physics; Astronomy	FOS	Use third level classification (3 digit)
Start Date	Date of the signed current contract	M	no	dd/mm/yyyy		
End date	Data of the expired current contract	O	no	dd/mm/yyyy		To be compiled only, if it is not a fixed term contract

Career Path						
Name	***Description***	***M=mandatory /O= Optional***	***Multiplicity***	***Example of variables***	***Classification***	***Note***
FIRST CONTRACT						
Type	Type of the first Contract	O	no	short term contract, long term contract, fixed term contract		To be compiled only if the first contract is different from the current one
Level	level of career of the first obtained contract	M	no	Level A, level B, level C		
Subfield of science	Specification of subfield of science of the first contract	M	no	Atomic, molecular and chemical physics; Nuclear physics; Astronomy	FOS	Use third level classification (3 digit)
Start Date	Date of the signed first contract	M	no	dd/mm/yyyy		
End date	Data of the expired first contract	M	no	dd/mm/yyyy		

Career Path						
Name	***Description***	***M=mandatory /O= Optional***	***Multiplicity***	***Example of variables***	***Classification***	***Note***
OTHER CONTRACTS						
Type	Type of other contracts	O	yes	short term contract, long term contract, fixed term contract		
Level	Level of career of other contracts	M	no	Level A, level B, level C		
Start Date	Initial date of the signed other contracts	O	no	dd/mm/yyyy		
End date	Date of the expired contract	O	no	dd/mm/yyyy		
Subfield of science	Specification of subfield of science of other contracts	M	yes	Atomic, molecular and chemical physics; Nuclear physics; Astronomy	FOS	Use third level classification (3 digit)

Work organization

This area intends to collect information on work organization related to different types of researchers' responsibility together with possible absence and/or part-time periods due to family duties highlighting life-balancing conditions.

Multiple fields are foreseen to gather the possible plurality of career responsibilities or family care periods.

Work organization					
Name	***Description***	***M=mandatory/ O=Optional***	***Multiplicity***	***Example of variables***	***Note***
Responsibility in Institute/ Structure etc.	Institute/department being in charge of	O	yes	Director of institute, Responsible of structure, Managing director, …	If this field is compiled, provide start date and end date of responsibility
start date	The date in which the responsibility in Institute started	M	yes	dd/mm/yyyy	
end date	The date in which the responsibility in Institute ended	M	yes	dd/mm/yyyy	
Responsibility project	Project being in charge of	O	yes	Project manager, responsible of project/ experiment	If this field is compiled, provide start date and end date of responsibility
start date	The date in which the responsibility in the project started	M	yes	dd/mm/yyyy	
end date	The date in which the responsibility in project ended	M	yes	dd/mm/yyyy	
Responsibility laboratory	Laboratory being in charge of	O	yes	Responsible of laboratory, Technical manager	If this field is compiled, provide start date and end date of responsibility

Work organization					
Name	***Description***	***M=mandatory/ O=Optional***	***Multiplicity***	***Example of variables***	***Note***
start date	The date in which the responsibility in laboratory started	M	yes	dd/mm/yyyy	
end date	The date in which the responsibility in laboratory ended	M	yes	dd/mm/yyyy	
Teaching	Type of professorship	O	yes	Professor, Associate professor, Assistant professor, Lecturer	If this field is compiled, provide start date and end date of teaching period/s
start date	The date in which the teaching period started	M	yes	dd/mm/yyyy	
end date	The date in which the teaching period ended	M	yes	dd/mm/yyyy	
Part-time	Form of employment with fewer hours of work per week	O	yes	yes/no	If this field is compiled, provide start date and end date of part-time period/s
start date	Initial date of part-time	M	yes	dd/mm/yyyy	
end date	Expiring date of the part-time	M	yes	dd/mm/yyyy	
Parental leave	Period of time that a parent spends away from work to take care of his/her baby	O	yes	yes/no	If this field is compiled, provide start date and end date of parental leave period/s
start date	Initial date of parental leave	M	yes	dd/mm/yyyy	
end date	Expiring date of parental leave	M	yes	dd/mm/yyyy	
Career Breaks	Period of time not spent at work	O	yes	yes/no	If this field is compiled, provide start date and end date of career break period/s
start date	Initial date of career breaks start	M	yes	dd/mm/yyyy	
end date	Expiring date of career breaks end	M	yes	dd/mm/yyyy	

Research output

This area intends to provide information on researchers' scientific productivity collecting data on the number and types of publications.

Research Output				
Name	**Description**	**M=mandatory/O= Optional**	**Multiplicity**	**Example of variables**
Journal article	article, review, editorial comment	O	No	1,2,3
Conference contribution	abstract, poster, oral presentation, conference proceedings	O	No	1,2,3
Chapter in edited books	entries in edited books, introductions, prefaces	O	No	1,2,3
Report	working paper, technical report	O	No	1,2,3
Thesis/Dissertation	doctoral thesis, master thesis	O	No	1,2,3
Book	book, translation	O	No	1,2,3
Edited Volume	edited books or volumes, textbooks or encyclopaedias	O	No	1,2,3
Patent/Trademark	published patent, copyrights, trademarks	O	No	1,2,3
Internet Publication	scholarly material	O	no	1,2,3

SECTION 3: AVAILABILITY OF INSTITUTIONAL AND ADMINISTRATIVE DATA WITHIN PARTNERS ORGANIZATIONS

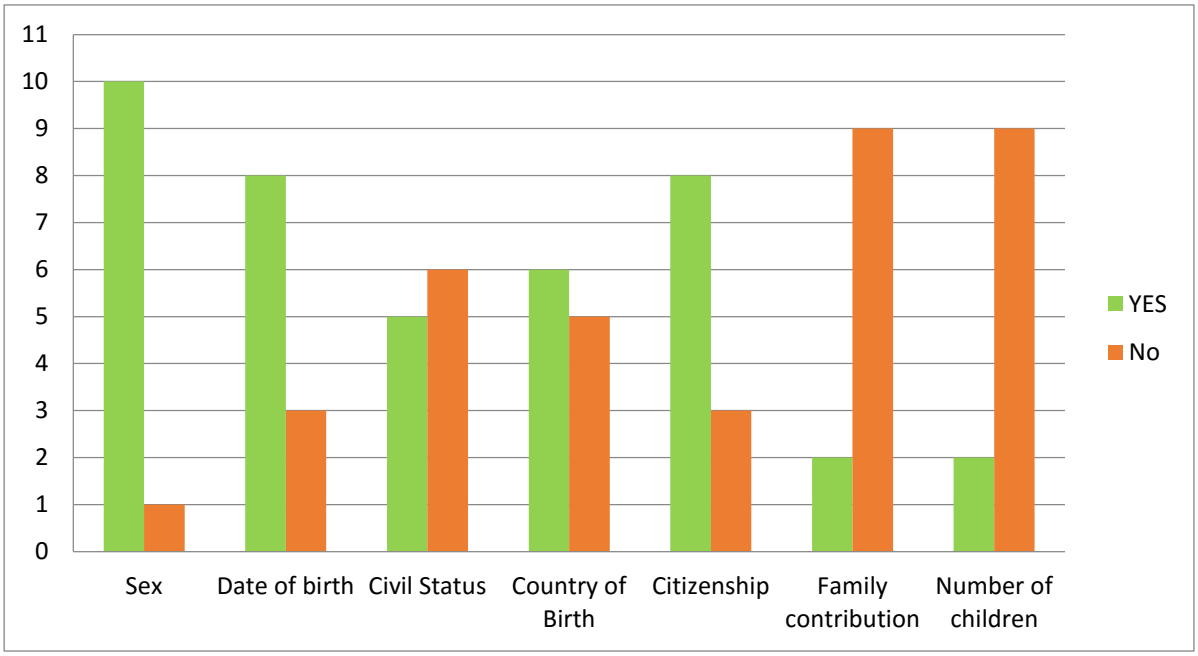
GENERA partners provided information on the availability of institutional and administrative data following the *Statistical data collection template*. The Template provided a specific column on the availability of data, where each organization could insert the label yes/no. This information is relevant to understand the availability of gender related data in the partner organizations with the objective to map the actual gaps and, more importantly, to design a future monitoring system for the implementation of gender policies. Below the list of the different sections of the *Statistical data collection template* are listed and present the picture of the availability of the data in each GENERA partner organization.

Demographics:

Concerning the demographics data, almost all partners have available data on sex, date of birth (or age), citizenship, country of birth of researchers. Concerning the availability of civil status data, only five partners gave a positive answer, while six do not have this information. This means that almost half of the GENERA partner organizations are not able to provide information of wherever the researcher is married, single, cohabitant, widow, widower. etc.

Even more critical is the availability of information on the family work load of the researchers. In particular, only two partners have the number of children and only two partners have data on other familiar components. This information could be relevant to understand the family load and responsibility as well as to design support policy accordingly. Questions of privacy and, in some Countries, even of legal difficulties in asking for, gathering and distribute these kind on information have been claimed by some partners.

Fig. 3.1 Availability of demographics data – Partners distribution by variables



Tab. 3.1 Availability of demographics data by partner organization

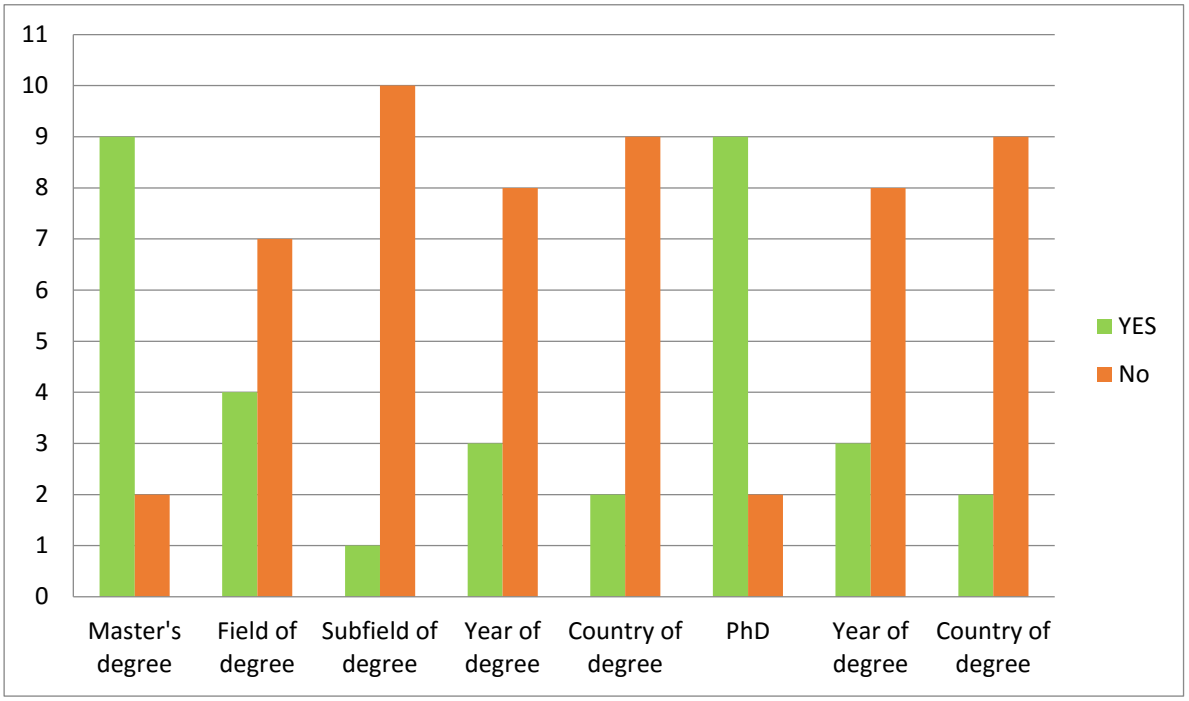
	Demographics data						
	Sex	Date of birth	Civil Status	Country of Birth	Citizenship	Family contribution	Number of children
DESY	Y	Y	Y	N	Y	N	N
CNR	Y	Y	Y	Y	Y	Y	N
CNRS	Y	Y	N	N	Y	N	N
UJ	Y	Y	N	Y	Y	N	N
IAC	Y	Y	Y	Y	Y	Y	Y
UNIGE	Y	Y	Y	Y	Y	N	N
KIT	N	N	N	N	N	N	N
IFIN-HH	Y	Y	N	Y	Y	N	N
INFN	Y	N	N	N	N	N	N
FOM	Y	Y	Y	Y	Y	N	Y
MPG	Y	N	N	N	N	N	N

Education and Qualification:

Almost all partners have available data on Master degree and PhD of their researchers. Although the information on PhDs is available, only four partners can collect data on the specific field of degree. Just one partner has available information on the subfield of Master degree. Only three partners have details on the year of the accomplished Master degree and only two on the country where the Master degree was obtained. The information in the subfield of Master degree is therefore missing in almost all institutions, while it is relevant to get a clear understanding of differences among Physics sub disciplines and the career related questions.

Concerning PhD, nine partners can provide this information and of those only three can complement it with the year of degree. Finally only in two cases the country of PhD degree is available. This information is relevant to map the mobility of researchers and can be used to plan relevant policies to support foreign scientists or to attract national researchers trained abroad.

Fig. 3.2 Availability of Education Qualification – Partners distribution by variables



Tab. 3.2 Availability of Education Qualification by partner organization

	Education qualification							
	Master's degree	Field of degree	Subfield of degree	Year of degree	Country of degree	**PhD**	Year of degree	Country of degree
DESY	Y	N	N	N	N	Y	N	N
CNR	Y	Y	N	Y	N	Y	Y	N
CNRS	Y	N	N	N	N	Y	N	N
UJ	Y	Y	N	Y	Y	Y	Y	Y
IAC	Y	Y	Y	Y	Y	Y	Y	Y
UNIGE	N	N	N	N	N	N	N	N
KIT	Y	Y	N	N	N	Y	N	N
IFIN-HH	Y	N	N	N	N	Y	N	N
INFN	Y	N	N	N	N	N	N	N
FOM	Y	N	N	N	N	Y	N	N
MPG	N	N	N	N	N	N	N	N

Career path:

Almost all partners can collect data on the type of the current work contract. Nine partners can provide data on the level of the current contract and just five partners have data on the field of science of the current contract. Eight partners have available information on the starting date of the current contract and seven on the end date. Five institutions can provide

data related to the first permanent contract of the researcher and six on other contracts. A lack of information is registered on the data related to the field of Science, to the level of the contract and on the starting and ending Date for all typologies of contracts. Generally the information on the current contract is more precise than data on previous contracts, especially if related to levels, field of science and starting/ending dates. This results in a relevant lack of information to reconstruct the career path of researchers. The interviews to be carried out can partly complement this information and fill some gaps.

Fig. 3.3a Career Path: Availability of Current Contract – Partners distribution by variables

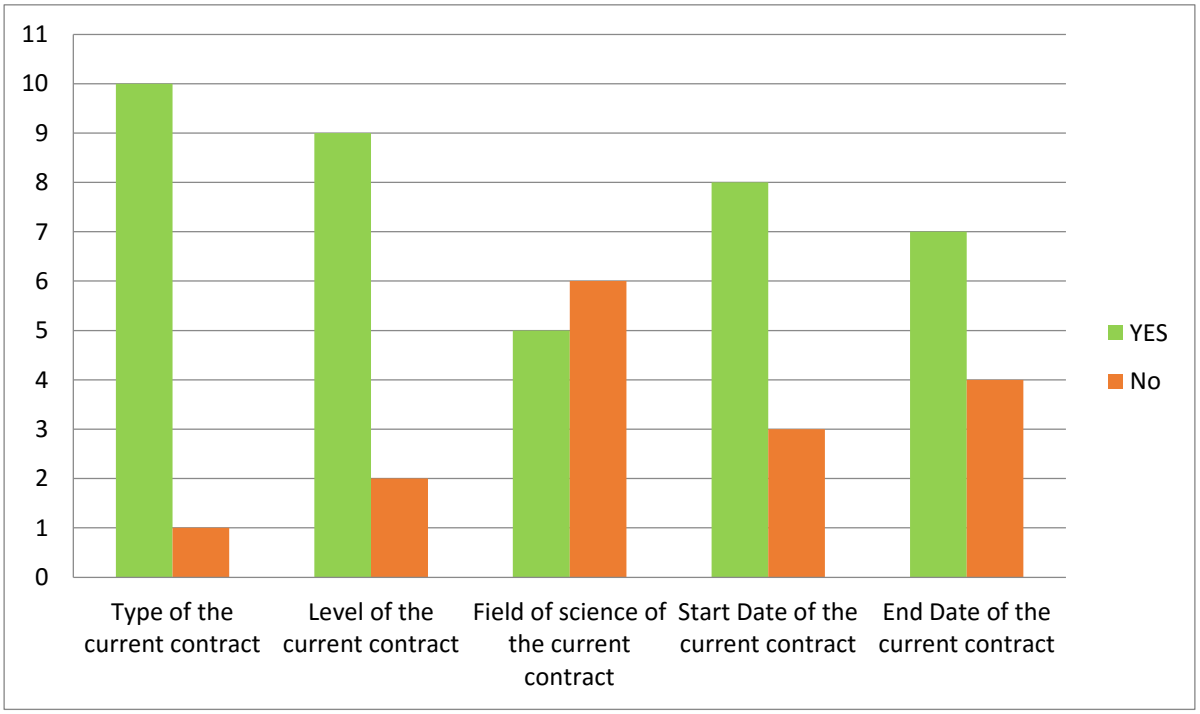


Fig. 3.3b Career Path: First Contract – Partners distribution by variables

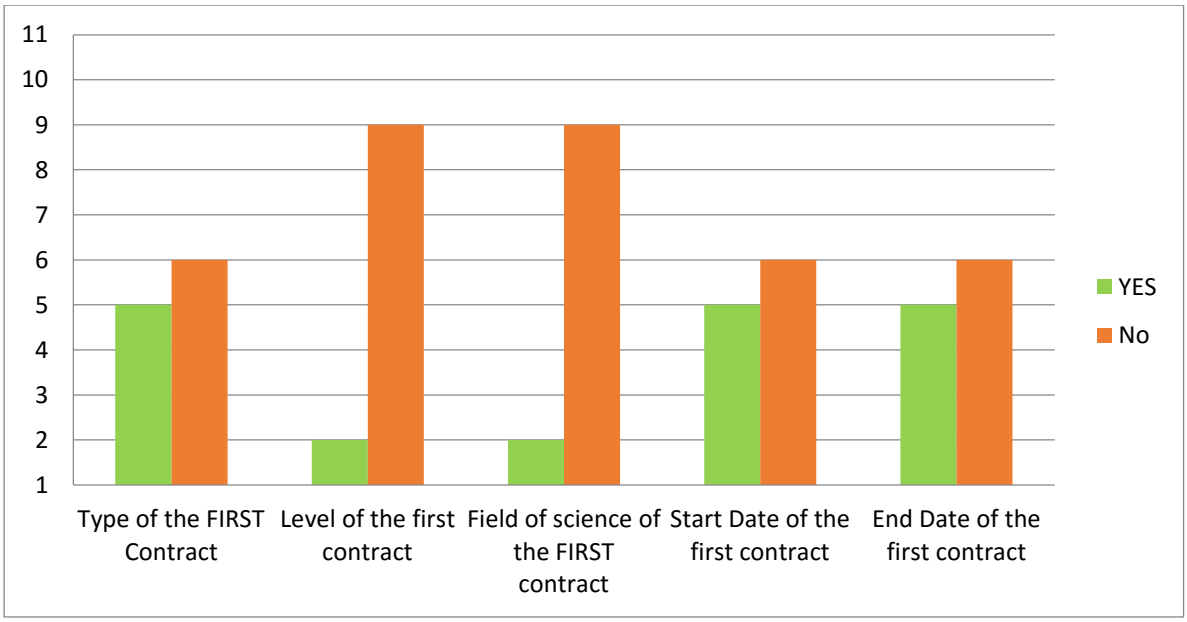
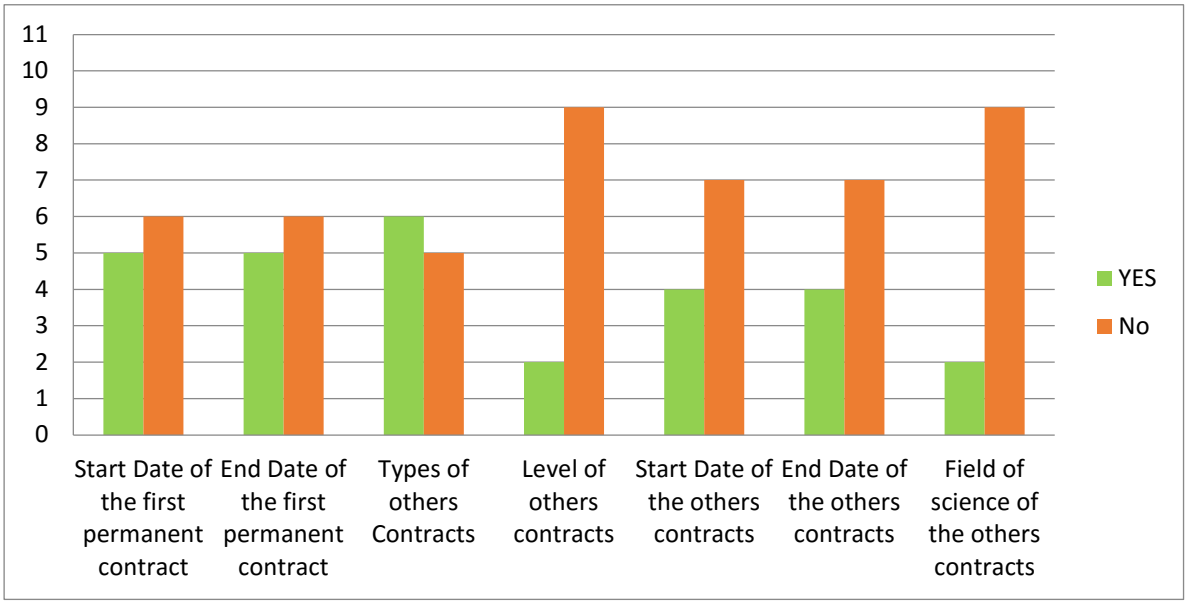


Fig. 3.3c Career Path: Availability of Other Contracts – Partners distribution by variables



Tab. 3a Career Path: Availability of data on current contract by partner organization

	Career Path											
	Type of the current contract	***Level of the current contract***	***Field of science of the current contract***	***Date of the current contract***	*start date*	*end date*	***Type of the FIRST Contract***	***Level of the first contract***	***Field of science of the FIRST contract***	***Date of the first contract***	*start date*	*end date*
DESY	Y	Y	N	Y	Y	Y	N	N	N	Y	Y	Y
CNR	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y
CNRS	Y	Y	Y	N	N	N	N	N	N	N	N	N
UJ	Y	N	N	Y	Y	Y	Y	N	N	Y	Y	Y
IAC	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
UNIGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
KIT	Y	N	Y	N	N	N	Y	N	Y	N	N	N
IFIN-HH	Y	Y	N	Y	Y	Y	N	N	N	N	N	N
INFN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FOM	Y	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y
MPG	N	Y	N	N	N	N	N	N	N	N	N	N

Tab. 3b Career Path: Availability of data by partner organization

	Career Path								
	Date of the first permanent contract	*start date*	*end date*	***Types of others Contracts***	***Level of others contracts***	***Date of the others contracts***	*start date*	*end date*	***Field of science of the others contracts***
DESY	Y	Y	Y	Y	N	N	N	N	N
CNR	Y	Y	Y	Y	Y	Y	Y	Y	N
CNRS	N	N	N	N	N	N	N	N	N
UJ	Y	Y	Y	Y	N	Y	Y	Y	N
IAC	N	N	N	N	N	N	N	N	N
UNIGE	Y	Y	Y	Y	Y	Y	Y	Y	Y
KIT	N	N	N	Y	N	N	N	N	Y
IFIN-HH	N	N	N	N	N	N	N	N	N
INFN	Y	Y	Y	N	N	N	N	N	Y
FOM	Y	Y	Y	Y	N	Y	Y	Y	N
MPG	N	N	N	N	N	N	N	N	N

Work organization

Six partners have data on researchers' responsibility attaining management of institutes and/or research structures. Only three organizations can provide information on research project responsibility, four on laboratories management and four on teaching activities. A general lack of information is registered on the duration, starting date and ending date of those responsibilities. Five partners have available data on part-time work and parental leave. Only four institutions have data attaining careers breaks. The information on the duration of part time, parental leave and careers break is partially present, even where the activity is registered. This results in a partial availability of data on work organization, where activities such as parental leave, teaching, careers break are monitored.

Fig. 3.4a Work Organizations: Availability of data on Responsibility – Partners distribution by variables

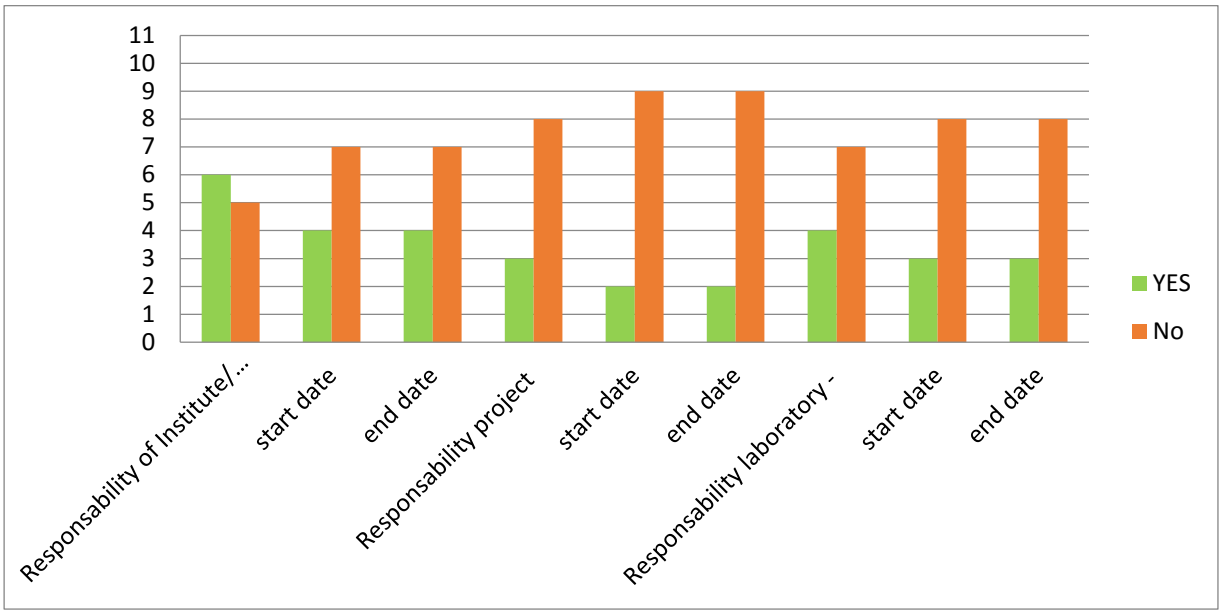
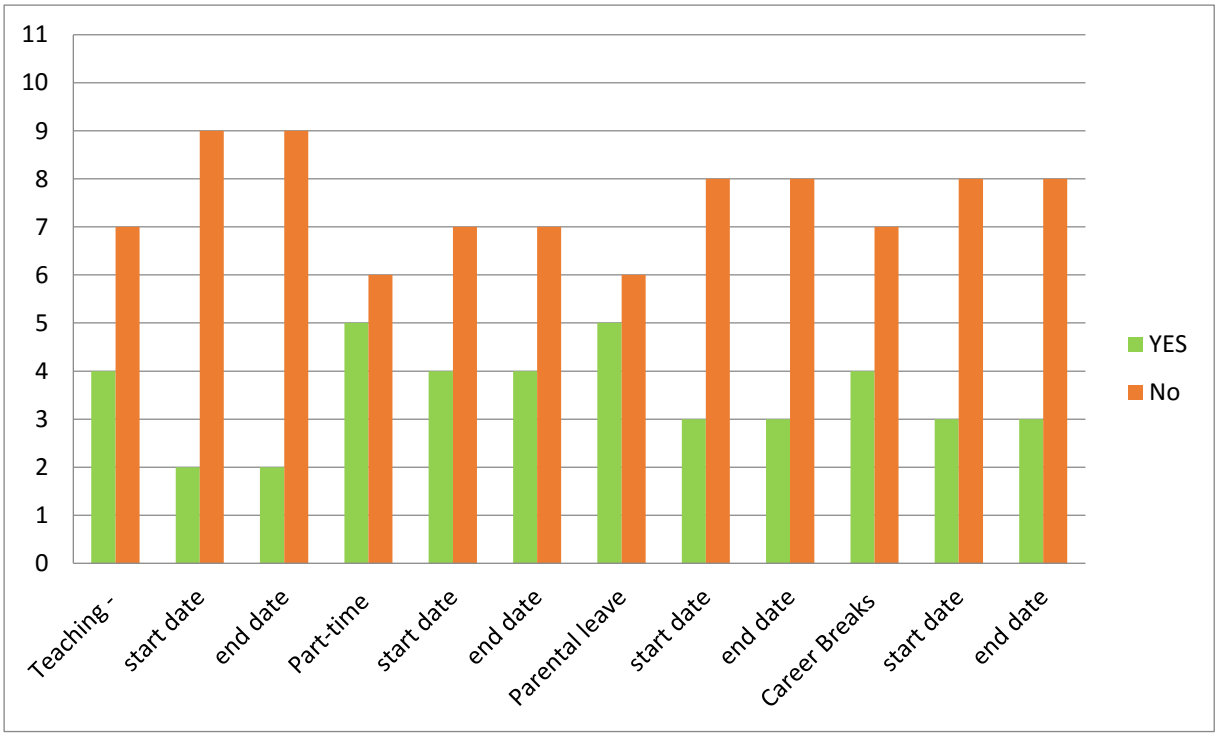


Fig. 3.4b Work Organizations: Availability of data on Leaving Periods – Partners distribution by variables



Tab. 3.4a Work Organization: Availability of data by partner organization

	Work organization											
	Responsability of Institute/ Structure etc.	*start date*	*end date*	***Responsability project -***	*start date*	*end date*	***Responsability laboratory -***	*start date*	*end date*	***Responsability of Institute/ Structure etc.***	*start date*	*end date*
DESY	N	N	N	N	N	N	N	N	N	N	N	N
CNR	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y
CNRS	Y	N	N	N	N	N	Y	N	N	Y	N	N
UJ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IAC	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
UNIGE	N	N	N	N	N	N	N	N	N	N	N	N
KIT	N	N	N	N	N	N	N	N	N	N	N	N
IFIN-HH	Y	N	N	N	N	N	N	N	N	Y	N	N
INFN	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y
FOM	N	N	N	N	N	N	N	N	N	N	N	N
MPG	N	N	N	N	N	N	N	N	N	N	N	N

Tab. 3.4b Work Organization: Availability of data by partner organization

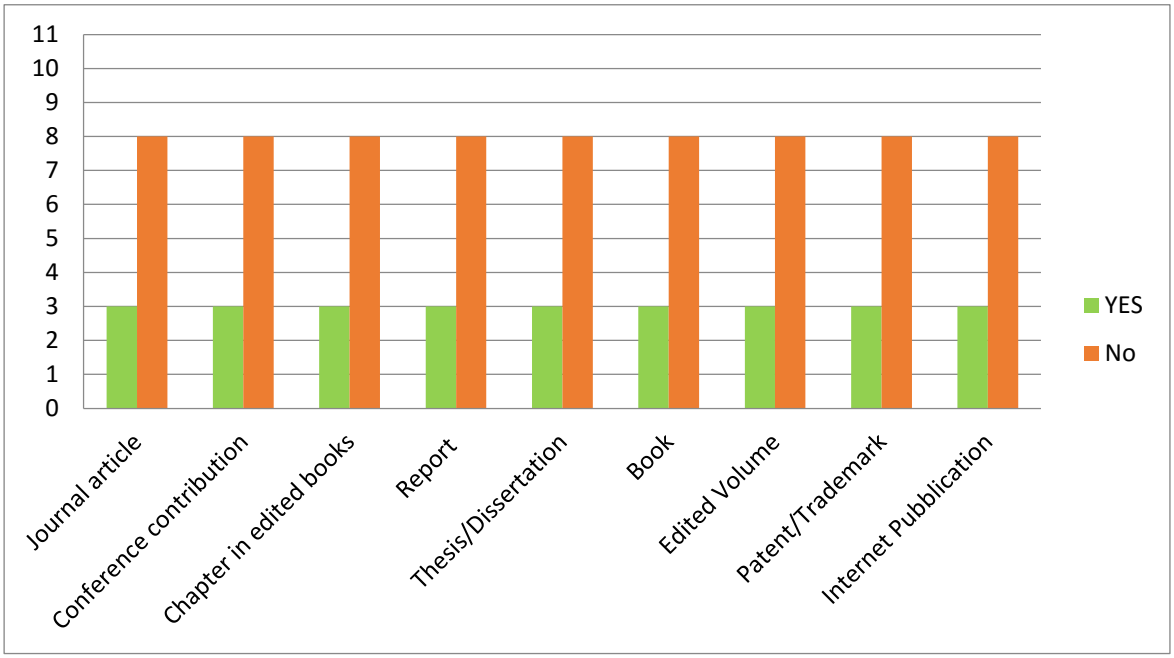
	Work organization											
	Teaching -	*start date*	*end date*	***Part-time***	*start date*	*end date*	***Parental leave***	*Start date*	*end date*	***Career Breaks***	*start date*	*end date*
DESY	N	N	N	N	N	N	N	N	N	N	N	N
CNR	N	N	N	N	N	N	Y	N	N	Y	N	N
CNRS	Y	N	N	Y	N	N	Y	N	N	N	N	N
UJ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IAC	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
UNIGE	N	N	N	N	N	N	N	N	N	N	N	N
KIT	N	N	N	N	N	N	N	N	N	N	N	N
IFIN-HH	Y	N	N	N	N	N	N	N	N	N	N	N
INFN	N	N	N	Y	Y	Y	N	N	N	N	N	N
FOM	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
MPG	N	N	N	N	N	N	N	N	N	N	N	N

Research output:

The situation about the research output reveals a lack of data in almost all GENERA partners. Only three partners have data on research outputs related to journal article, conference contribution, chapter in edited books, report, book, patent/trademark.

This information may be available in other archives such as institutional repositories as some partners pointed out in the questionnaire. It could however be difficult to link the data with the administrative ones.

Fig. 3. Research Output: Availability of data Partners distribution by variables



Tab. 3.5 Research Output: Availability of data by partner organization

	Research Output								
	Journal article	***Conference contribution***	***Chapter in edited books***	***Report***	***Thesis/ Dissertation***	***Book***	***Edited Volume***	***Patent/ Trademark***	***Internet Publication***
DESY	N	N	N	N	N	N	N	N	N
CNR	Y	Y	Y	Y	Y	Y	Y	Y	Y
CNRS	N	N	N	N	N	N	N	N	N
UJ	N	N	N	N	N	N	N	N	N
IAC	Y	Y	Y	Y	Y	Y	Y	Y	Y
UNIGE	N	N	N	N	N	N	N	N	N
KIT	Y	Y	Y	Y	Y	Y	Y	Y	Y
IFIN-HH	N	N	N	N	N	N	N	N	N
INFN	N	N	N	N	N	N	N	N	N
FOM	N	N	N	N	N	N	N	N	N
MPG	N	N	N	N	N	N	N	N	N

The availability of institutional and administrative data within partners' organizations present an overall lack of gender relevant data in almost all sections of the *Statistical data collection template,* excluding very few such as, for instance, demographics and current work contract.

The development of *ad hoc* surveys to enrich the data collection can be an important starting point to improve the monitoring activities. As administrative offices can gather not all the data, as it may be sensitive or legally impossible, there is a need also to conduct studies within institutions that will support programmes and policies e.g. study on career paths. So some data could be gathered in a way that it is not available to institutions as far as data on

individuals is concerned, but it provides elaborated aggregated data results on researchers‘ situation and career. Researchers might not be willing also to share some specific data with an institution administration e.g. family situation.

This result, even if negative, is to be considered important for the GENERA project as it helps to understand and to foresee the mapping of data and information in research organizations, starting from the analysis of the current status of data availability.

This gives rise to a call for action for HR managers, central administration offices and, in general, for the management of the organizations, to establish a proper data collection that includes gender relevant issues. A rich and detailed database can support a gender plan and an equality monitoring system for gender policy that can prepare measures that can have a real impact on researcher’s lives and work.

This suggests the need of strengthening the process of gathering and measuring information on targeted variables in an established system. This might enable us to answer relevant questions and evaluate outcomes. For these reasons it is important to enhance Gender equality offices role and structures with the objective of coordinating and facilitating the collection of the data in order to establish a long term monitoring system for research organizations.

SECTION 4: OUTLINE OF DATA ACCESS IN VIEW OF FUTURE MONITORING ACTIVITIES

Following the setting up of the Data collection Framework and the consequent availability of gender relevant data among partners organization, the WP2 team decided to focus on the analysis of hindering and facilitating factors in the data collection process. With these objectives a questionnaire "*Outline of data access in view of future monitoring activities*" was sent out to the GENERA partners to collect opinions on the different issues faced during the internal process to access secondary administrative data in each organization. The questionnaire had both qualitative list of items (with a scale of value) and open questions where partner were free to insert their comments in narrative form.

The questionnaire was presented during the project Joint Sectariat (July 2016, DESY, Hamburg) where it was discussed in a plenary session. At end of September all partners (10), with the exception of Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH), answered the questionnaire.

The data collection process, as discussed in the previous section of this report, has highlighted consistent gaps in data availability and/or incompleteness of relevant information in many partner organizations. The questionnaire gave partners the possibility to explain the reasons of those gaps, as well as to specify that data may be registered but not available or not accessible for monitoring activities. In this sense many comments of the questionnaire underlined that data availability in research organizations is also a policy and management issues. Without a clear policy aiming to set up a monitoring system on gender policy and strategy the data will be always difficult to access due to lengthy bureaucratic procedures, fragmentation or incompleteness of institutional databases.

The questionnaire was composed of four parts:

- Factors that facilitated the collection of gender relevant data;
- Aspects that hindered the collection of gender relevant data;
- Positive actions to improve gender relevant data monitoring activities;
- Further general comments.

The first three parts presented a number of options to be selected by respondents with additional open questions for comments. The fourth section was an open question with narrative answers. The answers and the results of the questionnaire are presented below. A full version of the submitted questionnaire is reported in the Annex 4.

Section 1: Factors that facilitated the collection of gender relevant data

Options of the questionnaire :

- Availability of central management databases
- Single contact point to obtain data from administrative source
- Presence of Gender equality office or similar dedicated structures
- Already developed GEPs
- Codified procedure to obtain relevant statistical data on personnel and scientific production

The answers provided by partners converge on three closely related facilitation factors the "*Availability of central management databases*" and the '*Presence of Gender equality office or similar dedicated structures'* and a '*Single contact point to obtain data from administrative source'* pointing out that a dedicated structure and the development of an infrastructure are necessary elements to facilitate data collection of the gender relevant data.

Worth noticing is that the availability of GEP is considered a facilitating factor by a consistent number of partners even if it is not considered among the most important ones. This can be explained by some comments that consider the implementation of GEPs as a starting point for setting up procedures and policies for the collection of data.

As a partner commented summing up facilitating factors: '*Central management databases are very important but it's also very important that these data can be available for staff involved in Gender Equality for diagnosis and monitoring of Gender Equality policies in the institution. A codified procedure to obtain data is certainly useful especially in big organizations.'*

Section 2: factors that hindered the collection of gender relevant data

Options of the questionnaire:

- Institutional databases fragmented over different offices and administrative branches
- Databases managed by different offices requiring more than one procedure to obtain access
- Data analysis requiring heavy data recodification and cleaning
- Presence of duplicated record-data
- Privacy issues
- Data non covering long period that enable the reconstruction of careers paths
- Administrative database available on proprietary software, often not easily compatible with statistical tools
- No codified procedure to obtain relevant statistical data on personnel and scientific production

The most perceived hindering factor in data collection process has been privacy issues. Privacy has been raised several times by different administrative offices as a obstacle to cooperate in giving out data on personnel. Some organization, even if data are anonymized, fear that it might be possible to identify the individual data, thus not respecting privacy.

As stated by one partner reflecting the experience of many other ones:

> *'The privacy issue has been the most relevant one for us: the offices refused to provide data on individual basis, arguing that, even if anonymised, it would not respect privacy'.*

Although the answers present an high variability, some missing structural factors are mentioned recurrently especially in the comments:

'There is not a central institutional database; data are not collected and stored centrally. They are fragmented overall several offices and thus, they are managed by more than an office, so the information given by a certain data can be incomplete. It is also difficult to obtain the data, because of many procedures to gain access to them'.

'Fragmentation of databases is not necessarily bad if a coordination between departments and Gender Equality Commission or Office exists. Cleaning of data is always complicated: it's better to have some previous standard or procedure for the maintenance of databases from which data are obtained'.
"The data available at (name of the organization) for employees and non-permanent staff are incomplete since the career path is not followed. Some data, for instance on publications, would be recoverable from other databases. Also Privacy is an issue for information for instance on benefits concerning children".

Section 3: positive action to improve gender relevant data monitoring activities

Options of the questionnaire:

- Collection and updating of a minimum dataset to monitor gender relevant activities
- Set up a codified procedure to request relevant data
- Relevant anonymized administrative data available in open access
- Include in the collection of data form non-permanent staff (research, grants, fellows, internship) with the aim of monitoring early career

The actions that could positively improve data monitoring activities in research organizations have been identified mainly in setting up a specific collection, updating and monitoring procedures of gender related data, closely linked to the relevance of including to database also all data on temporary personnel, as these researchers are usually most affected by gender bias. Moreover, this can allow to analyze the trajectories of early stage researchers' career.

Section 4: Further general comments

This section proposes an open field where partners could provide narrative comments and inputs on the main issues faced during the data collection process in their organizations. The section gathered many diversified comments related to different aspects. These comments, together with those expressed in the questionnaire "*Outline of data access in view of future monitoring activities*" have been gathered and represented below by sub topic clusters which mostly emerged from the GENERA partners' comments.

The Organizational Level

At the organizational level the major problems emerging from the questionnaire refer to the complex structure of the organizations. For instance the presence of different institutes and departments may determine separate data collection that are consequently more difficult to gather and harmonize at central level.

A contact point/office or system that could collect and provide statistical data at central level is generally lacking in many organizations, due also to their intrinsic structure. As shown by a partner's comment "*it is important to have a gender equality office/personnel department that collect them and that is responsible for them*". Another relevant problem is related to the incompleteness of the data, in fact they are mostly demographics data and it is difficult to reconstruct the career path as reported by a partner "*the absence of a central institutional database constituted the first real problem that hindered the collection of gender relevant data. In fact data are not collected at a central level; only some kind of data are collected by several*
and different offices, so they are very incomplete and fragmented".

The main suggestions emerged by partners refer to the possibility to have a:

- Coordination between departments and statistical management office
- Early involvement of management
- Already developed GEP
- A central gender equality office

a. The Statistical Level

Strictly related to the Organizational aspects, the main issues at statistical level concern the methodology of data collection.
They are related especially to the fragmented and spread databases due to the different way to collect data. In fact partners referred that even if in the majority of the organizations the statistical data are not available, they may not be collected at central level but may be available at local decentralized level. As reported by a partner: "*the data available for employees and non-permanent staff are incomplete since the career path is not followed. Some data, for instance on publications, would be recoverable from other databases*". Another partner added: "*the data currently available are mostly demographic data and do not allow to study e.g. career paths and career breaks*".
The main suggestions emerged by partners refer to the possibility to have a:

- Unique central statistical management office
- Unique central institutional database on personnel
- Codified procedure to obtain data
- Completeness of the data

b. The Privacy issue

Privacy represents an important issue. In fact many partners suggested that some data are not gathered because of privacy rules, as stated before. As shown by a partner "*even if some data were available, they could not be easily used in the analysis because of privacy laws, they could only be used in an anonymous way*". An even more difficult situation is present in those organizations which consist of different small institutes because, as stated by a partner: "*seeing that the number of persons from one sex/occupation/national background can be rather small in the institutes, administrative data can never be fully anonymized and thus*

cannot be available in open access, due to the rigid and thorough data protection and ethics standards", another partner adds: "*Privacy was a highly debated issue (..). To gain access to the rest of them (including sex, date of birth, year of degree, information about leaving periods), we need the consent of each individual employee. Unavailability of these data – especially of the sex variable – hinders the analysis*"

The main suggestions emerged by partners refer to the possibility to have a:

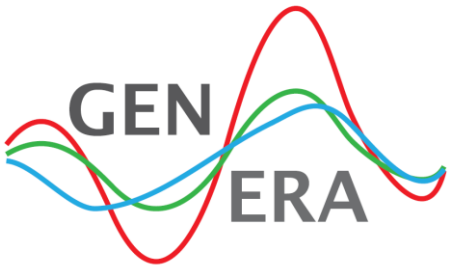
- Clear procedures to obtain data in organizations
- Codified procedures to anonymize data in organizations

Improvement suggested

Summing up the general comments the following suggestions emerged:

- Set up a minimum set of data
- Fix a gender monitoring system
- Fix a recurring refreshing of the data
- Changing attitude towards gender equality
- Raising awareness of policy makers
- Promote the implementation of gender equality plan

ANNEX 1: CONCEPT FOR THE GENDER IN PHYSIC DAYS



WP2 CONCEPT FOR THE GENDER IN PHYSIC DAYS

1. INTRODUCTION

Gender Days are initiatives usually carried out within STEM fields (Science, Technology, Engineering and Mathematics) aiming to improve female participation starting from the higher education level to research career recruitment and progression.

The GENERA project focuses specifically on physics with the ambitious aim to promote a substantial structural change in gender policies and practices towards gender equality in Research Performing Organizations (RPO) as well as in Research Funding Organizations (RFO).

Gender-in-Physics Days (GiPD) are a crucial activity organized by GENERA Project to raise awareness on gender equality issues and enhance changes in RPO and RFO (par.2). The GiPD thus provide a great opportunity for individual institutions to learn from each other and exchange experiences following a best practice approach.

The starting point of GiPD builds from the existing initiatives and activities already set up in organisations, including policies implemented at local and national levels, GEPs, gender equality committees, relevant data collected and available documentation (par.5), that will complement the ad hoc analysis of driving and resisting forces that affect changes.

These Days will take place in GENERA hosting institutions involving directly various levels of participants from junior and senior researchers, to management level personnel, policy makers and different stakeholders, internal or external, to the hosting Organization. The format of the GiPD, within a general common framework provided (par.3), may be tailored by GENERA partners according to their institutional and/or national requirements and necessities. This refers in particular to the length of the event and the choice of the various topics based on those suggested in paragraph 4 as well as to stakeholders participating in these events (par.6).

The aim of this concept paper is to provide a common framework for the organization of GiPD identifying the :

- Objectives of the GiPD
- Measures, guiding principles, format for the GiPD
- Catalogue of topics to be address
- Statistical information to take into consideration
- List of typology of stakeholders to be invited

A Glossary for a common understanding is provided at the end of this report.

2. OBJECTIVES

The aim of the GiPD is to analyse the implementation of innovative activities towards gender equality identifying gaps, barriers as well as best practices. These events pursue the goal of gender equality in RPOs and RFOs modernising the organisational culture. The GiPD will enable an exchange of experiences and information supporting an alliance of RPOs and RFOs to promote gender equality in Physics. The objectives are in particular:

Build a collaborative network on gender issues among RPOs and RFOs
Propose innovative ideas for gender equality measures
Highlight gaps between gender equality policies and the status quo
Communicate successful and unsuccessful approaches
Focus on barriers and challenges to gender equality
Focus on GEP application and implementation in RPOs and RFOs

3. DEVELOPMENT OF A COMMON FRAMEWORK FOR GENDER-IN-PHYSICS DAYS

In order to ensure the active participation of all GENERA partners in the event some indications on organization are suggested:

- A full one day event is recommended but partners may decide to expand it even to two or more days;
- Adopt a GENERA layout for all event materials: logo, font, ppt template, set-up, etc;
- Provide the event with a dedicated discussion slot on GEP adoption, implementation and on data to monitor their application;
- Provide each event with an evaluation questionnaire for both internal and external participants (to be designed in collaboration with WP3).
- Ensure full visibility to the event with a strong internal and external communication strategy
- Ensure that all GiPD produce relevant material and documentation, such as video audio, ppt, publications, to be uploaded on the GENERA website, and to communicate the events results to external stakeholders

4. CATALOGUE OF TOPICS

In this paragraph a number of slot/topics that could be discussed during GiPD are suggested. Each GENERA partner may choose to focus on one or more topics following institutional priorities. Please consider that some issues and topics may be found under different headings as they can be addressed from different point of views and accordingly analysed.

4.1 RECRUITMENT AND RETENTION

- ✓ Recruitment practices in general and addressing the following problems:
  - Male and female candidates in the recruitment process
  - Recruitment practices in the RPOs (gender-equal personnel development and career concept, gender pay equity, talent management programmes)
  - Gender stereotypes in the recruiting processes (implicit bias, gendered understanding of merit and excellence, etc..)
  - Recruitment as link in the chain of women underrepresentation
  - Discrimination in recruitment linked to age, numbers of children, marital status, disability, having to care for dependant others, as well as, intersectional discrimination when two or more of these features are present for a single candidate.
- ✓ Proactive measures for gender-balanced recruitment
  - Best practices, if any, and their impact
  - Support scheme and prizes for gender balance recruitment
  - Institutional support towards these measures and the level of implementation (local, regional, national, supranational)
  - Active search for appropriate female candidates
  - Dual careers household support mechanisms and services
- ✓ Career breaks
  - Recruiting which considers careers breaks for a variety of family reasons (especially maternal and parental leaves)
  - Types of evaluation applied to career breaks in the process of filling vacancies (selections criteria), including the probing used during the interview stage
- ✓ Retention
  - Assessment of women's career trajectories: when do they leave and why? Is there a common theme in women researchers leaving at a specific stage or level?
  - Trainings on gender and diversity – equal opportunities
  - Equal treatment of part- time work
  - Resignation/dismissals (how many male vis-à-vis female physicist quit at each career stage? Why do women and men leave organizations? Are there any gender-specific factors or correlations (e.g. increased numbers of women resigning at a certain career step/age)

4.2 WORK ENVIRONMENT AND WORK-LIFE BALANCE

- ✓ Measures to support a friendly and gender inclusive work environment (for instance, gender and diversity trainings, code of conduct, gender awareness training, online tools, PR work, ...)
- ✓ Means of fostering a friendly and gender-equal work environment. Legal frameworks in place and their accessibility/executability
- ✓ Transparent wage/remuneration policy
- ✓ Measures to improve work-life balance and reconciliation of work and family life
  - The measures implemented in order to enhance work-life balance: maternity/paternity leave, availability of nurseries either directly connected to the workplace or in the area (providing quality and affordable care), training, telework, vacations policy, part-time employment options, career development plans, flexible forms of work, flexible work hours, career breaks, dual careers household support, gender sensitive healthcare plans (e.g. featuring reproductive healthcare during

pregnancy and post-partum), transparent and family friendly policies on overtime, business travel, and meetings outside of business hours.

- ✓ Strong and weak aspects of the institutional policies: key element of success.
- ✓ New policies ideas to improve the existing measures in each GENERA partner institutions: specificity for Physics as a discipline (long hours at work, night work in the lab, national and international mobility between laboratories and research institutions)
- ✓ Enhance cognitive creativity in collaborative working in research teams and project consortia
- ✓ Workload issues (teaching, participation in committees, administrative duties, etc.)

4.3 CAREERS AND PROGRESSION

- ✓ Career progression in the field of physics: opportunities and barriers for female physicists
  - Transparency of criteria in decision-making
  - Institutional practices inhibiting career opportunities (cognitive errors in assessing merit, suitability for leadership, unconscious gender bias in assessing excellence)
  - Including women in all promotional campaigns for scientific careers
  - Nominating women for prizes
  - Recognizing women's achievements appropriately
  - Recognizing the importance of double-blind peer review in funding bodies and other research-related stakeholder bodies (e.g. top journals, conference committees)
  - New/emerging subfields of physics as opportunities for female physicists
- ✓ Gender Balance committees in Institutions/Countries: role and impact of their policies
  - Balancing the gender composition of committees (both evaluating funding proposals and research results)
  - Measures providing gender awareness/knowledge for female and male panellist (trainings, awareness raising,…)
- ✓ Career trajectories of women returning from a career break (child care or elder care/maternity leave): support policies provided by the organization and the unspoken rules
- ✓ Work-life balance and career progression: how paternity/maternity leave, part time, telework and so on impacts, careers, international mobility, pace and possibility of advancement/progression in the field
- ✓ Gender pay gap
- ✓ Vertical segregation, glass ceiling and leaky pipeline in female careers
- ✓ How to support female physicists in their careers: measures and perspectives across the partner institutions

4.3 RFOs

- ✓ Calls for proposal
  - use of gender-neutral wording
  - gender sensitivity of selection criteria (e.g. excellent seems a male-word)
  - criteria to compensate for maternity leave etc.
- ✓ Review process
  - implicit bias awareness
  - composition of committees and juries
  - training of reviewers
- ✓ Topics to monitor

- percentage of females in committees and boards
- percentage of female referees
- percentage of female applicants for grants (applied for and granted)

4.4 GEP STATUS AND IMPLEMENTATION

- ✓ GEP status in GENERA partners and their actual implementation
  - If present, how long have GEPs been in place (and how often is GEP drawn up/adjusted)? How is progress measured and evaluated?
  - GEP implementation responsibility, organisation at central or lower institutional level
  - National legal provisions

- ✓ Problems and inefficacy of GEP
  - Collection of relevant data for GEP monitoring and evaluation (e.g. longitudinal, sex-disaggregated data, multi-method empirical material)
  - How to enhance the impact GEPs in organisations

4.5 STRUCTURAL AND CULTURAL CHANGE IN PRACTICE: LEARNING FROM RELEVANT EXPERIENCES

- ✓ Supporting an inclusive organization culture. Best practices: Juno, American Physics Society, Athena Swan. Involvement and valorisation of results and policy recommendations from existing schemes
- ✓ Action and policy specific for RPO/RFO to set clear guidelines on building diversity
- ✓ Structural integration of gender equality
  - Leadership accountability
  - Stakeholder engagement/commitment
- ✓ Effective and evidence based gender equality policy
  - Measurement and reporting

4.6 GENDER INCLUSIVE CULTURE/GENDER AWARENESS

- ✓ Awareness building
- ✓ Use of gender-neutral (or gender-sensitive, depending on the language context) language within the organisation
- ✓ Non-discrimination
- ✓ (Zero Tolerance) Sexual Harassment Policy

4.7 BARRIERS AGAINST GENDER EQUALITY MEASURES

- ✓ Lack of binding regulations/ policies at national or regional level
- ✓ Lack of resources for implementing GEP
- ✓ Internal resistance again implementing measures supporting GE
- ✓ Missing knowledge or caginess

5. GENDER RELEVANT STATISTICAL INFORMATION

GiPD are requested to present relevant statistical information on gender equality in RPOs and RFOs. Each GENERA partner could focus on relevant data that can be chosen either to illustrate institutional figures on gender equality or specific gender policies. The statistical information should be focused on the selected topics of the catalogue, giving clear evidence of

status quo and achievements reached so far. Macro-level areas and data of each institution are suggested:

- ✓ Demographics data (sex, age, etc..)
- ✓ Education qualification (type of degree, type of a granting institution) and field of work
- ✓ Career path
- ✓ Physics subfields mobility
- ✓ Geographical mobility
- ✓ Research output (publications, patents)
- ✓ Project/Team/Lab responsibility
- ✓ Work organisation (parental leave, part-time, telework, flexitime etc.)

6. TIPOLOGIES OF STAKEHOLDERS TO BE INVITED

All GENERA partners are invited to take part to each GiPD. Local organizer needs to engage a large number of stakeholders at institutional and national level. Following different typologies of stakeholders as suggested:

- ✓ Institute/Lab/Departments directors
- ✓ Institutions: RFOs, RPOs, Universities
- ✓ Management and research directors
- ✓ Human Resources managers
- ✓ Lab and project responsibles
- ✓ Scientific national community in physics
- ✓ Active leading women scientists
- ✓ Internal research staff, both male and female, junior and senior
- ✓ Representatives of relevant institutional committees, such as Gender Equality ones
- ✓ Policy makers
- ✓ Journalist, media and communication representatives
- ✓ All other external stakeholders perceived as relevant to the organization

ANNEX 2: EXPLANATORY NOTE ON VARIABLES

Demographics Data: sex; date of birth; civil status; country of birth; citizenship; family contribution (children taken in charge or persons); number of children

- *Sex: This variable has a crucial importance to explore imbalance between women and men.*
- *Date of Birth: The date of birth is important to know the exact age when we analyze data. This is a structural variable useful to generate classes of age with the aim to analyze the career path. For example we can examine how the responsibility in work can increase by age, or how parental leave or career breaks could be related to age.*
- *Civil Status: The civil status is a structural variable related to the career. Conciliate work and life could be difficult, this variable is important to know if there is discrimination in career progression throughout the different marital status.*
- *Citizenship: this variable is important to monitor the migration (high skills migration, territorial migration); it could be correlated to the country of degree.*
- *Family contribution: this variable, in relation with the career path helps understanding the trend and the progression in career.*
- *Number of Children: the number of children is strictly related with the career path and with its trend.*

Variables like "number of children" or "family contribution" have been chosen because they could be an indicator to measure career progression of the women in physics, they can highlight also phenomena related at gender issues.

Education Qualification: Master's degree (field, subfield, year, country);

- *Master's degree: this variable is important to know the education qualification.*
  - *The field of degree and the subfield of degree are crucial aspects about the homogeneity between the master's degree accomplished and the job.*
  - *The year od degree is important to investigate the age of researchers and how their level of contract has changed.*
  - *The country of degree is important to follow the migration paths, the brain drain etc.*
- *PhD: this variable is important to get the information on number of PhD employed, bearing in mind that is some cases PhD might not be mandatory to get a research position.*
  - *The year of PhD is important to investigate the age of researchers and how their level of contract has changed.*
  - *The country of PhD is important is important to follow the migration paths, the brain drain etc*

There are differences in the career between woman and men even if the education qualification is the same. Usually men tend to progress faster and better than women. Asses the level and the type of education of researchers could be a good indicator about issues like the leaky pipeline, the sticky floor or the glass ceiling.

Career Path:

- *Type of the current contract: this variable is important to get information on the present position*

- *Level of the current contract allows the analysis of trends of the career progression*
- *Field of science of the current contract: allows to analyse the link between education qualification and the present job*
- *Date of the current contract: to know when the current contract started*
- *Type of the first contract: to know the type of the contract at the time of the hiring*
- *Level of the first contract: to know the typology of the hired contract*
- *Field of science of the first contract: to explore the trend of the homogeneity of field of work*
- *Date of the first contract: to know the age of the hiring*
- *Date of the first permanent contract: again related to age*
- *Types of others contracts: to know the trend of the typology of the contracts*
- *Level of the others contracts: to get information on the changing typology of contract*
- *Date of the others contracts: to get information on age variations*
- *Field of science of the others contracts: to follow the trend of the homogeneity of field of work*

The importance to collect information about the different types of contracts is related to the possibility of reconstructing and following the career paths of women scientists taking also into account, if possible, periods of temporary employment.

Work organization: The variable considered focus on the different levels of responsibility and on the structure of work organization. Considering responsibility we identified three mail levels:

- *Responsibility of Institute/ Structure etc.*
- *Responsibility project*
- *Responsibility laboratory*
- *Teaching*

Moreover the structure of work organization is affected by these three variables:

- *Part-time*
- *Parental leave*
- *Career breaks*

Collecting information on these variables might be useful to detect the correlation between familiar responsibilities and duties and work responsibilities and career levels. These information allow to measure work and life balance facing career responsibilities and family care duties. Indicators like parental leave or career breaks can highlight these issues.

Research output:

Main research output have been considered, such as:

- *journal article*
- *conference contribution*
- *chapter in edited books report*
- *thesis/dissertation*
- *book*

- *edited volume*
- *patent/trademark*
- *internet publication*

Getting indicators on this items may be useful to analyse the possible correlations between number of publications, research career levels and parental leaves or career breaks, that may affect the productivity and the career progression.

List of Recommendations

This *Statistical data collection Template* presents a list of gender equality indicators that may be selected by each organization/user. The list is extended but may not be exhaustive, and can be used as a guide.

At general level each organization should:

- ❖ Collect administrative data already available in Central Administration Offices or Human Resources Department
- ❖ Collect data on Physics research organizations, as classified by EUROSTAT/UNESCO/OECD "Field of Science Classification" (FOS)
- ❖ Gather sex-disaggregated baseline information
- ❖ Assure homogeneity using the variables and labels suggested in the Template.

ANNEX 3: STATISTICAL DATA COLLECTION TEMPLATE

Name	*Description*	*M=mandatory/ O= Optional*	*Availability*	*Multiplicity*	*Example of variables*	*Classifica-tion*	*Note*
Demographics							
Sex	Biologically determined characteristics of men and women	M		no	not known; F; M; not applicable	ISO/IEC 5218	
Date of birth	Date of birth	M		no	dd/mm/yyyy		
Country of Birth	Country of birth	O		no	FR, DE, IT….	ISO 3166	Alpha 2-code is recomme nd
Citizenship	The status of a person recognized under the custom or la w as being a member of a state	O		no	FR, DE, IT….	ISO 3166	Alpha 2-code is recomme nd
Civil Status	Marital status	O		no	single person, married, widowed person, divorced, legally separeted, ecc	SCL - Marital status, Eurostat	
Number of children	Number of children	O		no	1,2,3		
Family contributio n	Financial contribution for children and/or other persons taken in charge	O		no			
Education qualification							
Master's degree	Level 7 – Master's or equivalent level	M		yes	Master of science, Master of physics, Master of sociology...	ISCED	

Field of degree	Broad grouping of high level of degree	M		yes	Natural Sciences; Engineering and technology; Medical and Health sciences; Agricultural Sciences; Social sciences, Humanities	FOS	
Subfield of degree	Sub-Grouping of high level of degree	O		yes	Atomic, molecular and chemical physics, Nuclear physics, Astronomy…	FOS	Use third level classification (3 digit)
Year of degree	The year of the accomplished degree	O		yes	yyyy		
Country of degree	The country of the accomplished degree	O		yes	FR, DE, IT….	ISO 3166	Alpha 2-code is recommend
PhD	Level 8 – Doctoral or equivalent level	M		yes	PhD, DPhil, D.Lit, D.Sc, LL.D, Doctorate	ISCED	
Year of degree	The year of the accomplished degree	O		yes	yyyy		
Country of degree	The country of the accomplished degree	O		yes	FR, DE, IT….	ISO 3166	Alpha 2-code is recommend
Career Path							
CURRENT CONTRACT							
Type	Type of current contract	M		no	fixed term contract, permanent contract..		
Level	Level of career of the current obtained contract	M		no	Level A, level B, level C		
Subfield of science	Specification of subfield of science of the current contract	M		no	Atomic, molecular and chemical physics, Nuclear physics, Astronomy…	FOS	Use third level classification (3 digit)

Start Date	Date of the signed current contract	M		no	dd/mm/yyyy		
End date	Data of the expired current contract	O		no	dd/mm/yyyy		To be compiled only if it is a fixed term contract
FIRST CONTRACT							
Type	Type of the first Contract	O		no	short term contract, long term contract, fixed term contract		To be compiled only if the first contract is different from the current one
Level	level of career of the first obtained contract	M		no	Level A, level B, level C		
Subfield of science	Specification of subfield of science of the first contract	M		no	Atomic, molecular and chemical physics, Nuclear physics, Astronomy…	FOS	Use third level classification (3 digit)
Start Date	Date of the signed first contract	M		no	dd/mm/yyyy		
End date	Data of the expired first contract	M		no	dd/mm/yyyy		
OTHER CONTRACTS							
Type	Type of other contracts	O		yes	short term contract, long term contract, fixed term contract		
Level	Level of career of other contracts	M		no	Level A, level B, level C		
Start Date	Initial date of the signed other contracts	O		no	dd/mm/yyyy		
End date	Date of the expired contract	O		no	dd/mm/yyyy		

Subfield of science	Specification of subfield of science of other contracts	M		yes	Atomic, molecular and chemical physics, Nuclear physics, Astronomy…	FOS	Use third level classification (3 digit)
Work organization							
Responsibility of Institute/ Structure etc.	Institute/department being in charge of	O		yes	Director of institute, Responsible of structure, Managing director, …		If this field is compiled, provide start date and end date of responsibility
start date	The date in which the responsibility of Institute started	M		yes	dd/mm/yyyy		
end date	The date in which the responsibility of Institute ended	M		yes	dd/mm/yyyy		
Responsibility project	Project being in charge of	O		yes	Project manager, responsible of project/ experiment		If this field is compiled, provide start date and end date of responsibility
start date	The date in which the responsibility project started	M		yes	dd/mm/yyyy		
end date	The date in which the responsibility project ended	M		yes	dd/mm/yyyy		
Responsibility laboratory	Laboratory being in charge of	O		yes	Responsible of laboratory, Technical manager		If this field is compiled, provide start date and end date of responsibility
start date	The date in which the responsibility laboratory started	M		yes	dd/mm/yyyy		

end date	The date in which the responsibility laboratory ended	M		yes	dd/mm/yyyy		
Teaching	Type of professorship	O		yes	Professor, Associate professor, Assistant professor, Lecturer		If this field is compiled, provide start date and end date of teaching period/s
start date	The date in which the teaching period started	M		yes	dd/mm/yyyy		
end date	The date in which teaching period ended	M		yes	dd/mm/yyyy		
Part-time	Form of employment with fewer hours of work per week	O		yes	yes/no		If this field is compiled, provide start date and end date of part-time period/s
start date	Initial date of part-time	M		yes	dd/mm/yyyy		
end date	Expiring date of the part-time	M		yes	dd/mm/yyyy		
Parental leave	Period of time that a parent spends away from work to take care of his/her baby	O		yes	yes/no		If this field is compiled, provide start date and end date of parental leave period/s
start date	Initial date of parental leave	M		yes	dd/mm/yyyy		
end date	Expiring date of parental leave	M		yes	dd/mm/yyyy		

Career Breaks	Period of time not spent at work	O		yes	yes/no		If this field is compiled, provide start date and end date of career break period/s
start date	Initial date of career breaks	M		yes	dd/mm/yyyy		
end date	Expiring date of career breaks	M		yes	dd/mm/yyyy		
Research Output							
Journal article	article, review, editorial comment	O		No	1,2,3		
Conference contribution	abstract, poster, oral presentation, conference proceedings	O		No	1,2,3		
Chapter in edited books	entries in edited books, introductions, prefaces	O		No	1,2,3		
Report	working paper, technical report	O		No	1,2,3		
Thesis/Dissertation	doctoral thesis, master thesis	O		No	1,2,3		
Book	book, translation	O		No	1,2,3		
Edited Volume	edited books or volumes, textbooks or encyclopaedias	O		No	1,2,3		
Patent/Trademark	published patent, copyrights, trademarks	O		No	1,2,3		
Internet Publication	scholarly material	O		no	1,2,3		

ANNEX 4: OUTLINE OF DATA ACCESS ISSUES IN VIEW OF FUTURE MONITORING ACTIVITIES

Outline of Data access issues in view of future monitoring activities

According to the objective of the Deliverable 2.1: Status report on gender in involved RPOs and RFOs including Gender in Physics Days of GENERA project; WP2 has produced this brief form with the intent to give GENERA partners an open frame to report their data collection activities during last months.

The collection of your opinion will help us to implement future gender monitoring system.

The document is divided in:

- Factors that facilitated the collection of gender relevant data in your organization
- Aspects that hindered the collection of gender relevant data in your organization
- Positive action to improve gender relevant data monitoring activities in your organization
- Further general comments

Factors that facilitated the collection of gender relevant data in your organization – Please rank the facilitating factors from 1 (maximum score) to 6 (minimum score)

	From 1 to 6
Availability of central management databases	
Single contact point to obtain data from administrative source	
Presence of Gender equality office or similar dedicated structures	
Already developed GEPs	
Codified procedure to obtain relevant statistical data on personnel and scientific production	
Other specify_____	

please insert your comments here……

Aspects that hindered the collection of gender relevant data in your organization - Please rank the hindering factors from 1 (maximum score) to 9 (minimum score)

	From 1 to 9
Institutional databases fragmented over different offices and administrative branches	
Databases managed by different offices requiring more than one procedure to obtain access	
Data analysis requiring heavy data recodification and cleaning	
Presence of duplicated record-data	
Privacy issues	
Data non covering long period that enable the reconstruction of careers paths	
Administrative database available on proprietary software, often not easily compatible with statistical tools	
No codified procedure to obtain relevant statistical data on personnel and scientific production	
Other specify_____	

please insert your comments here……

Positive actions to improve gender relevant data monitoring activities in your organization – Please rank the positive actions from 1 (maximum score) to 5 (minimum score)

	From 1 to 5
Collection and updating of a minimum dataset to monitor gender relevant activities	
Set up a codified procedure to request relevant data	
Relevant anonymized administrative data available in open access	
Include in the collection of data form non-permanent staff (research, grants, fellows, internship) with the aim of monitoring early career	
Other specify_____	

please insert your comments here……

Please provide comments on factors and aspects, difficulties and solutions specific for your organization *(as decided during the JS in Hamburg on 14 July 2016)*

please insert your comments here……

Sveva Avveduto
Maria Carolina Brandi
Maria Girolama Caruso
Loredana Cerbara
Ilaria Di Tullio
Daniela Luzi
Lucio Pisacane

This report has been produced during the three years activity of the H2020 GENERA project as a deliverable of the Italian working group coordinated by CNR. The report addresses the analysis of the present status of activities towards gender equality in physics research in the project partner organisations and the conceptualization of the Gender-in-Physics Days to be organized by Partners. In particular the setting up of a common framework for collecting gender relevant data at organizational level, the hindering and facilitating factors in the collection of relevant data, the analyses and reflections on the different experiences made by GENERA partners in accessing the available data. Suggestions on positive actions to improve the gender relevant data monitoring activities, are of the utmost importance to shape a future monitoring system stemming from GENERA experience and applicable to other European research organizations.

IRPPS Consiglio Nazionale delle Ricerche
Istituto di Ricerche sulla Popolazione e le Politiche Sociali