

Linking Research & Innovation for Gender Equality

# D1.1 Internal and external assessment methodologies and guidelines

WP1 - Analysis of external and internal conditions for GEPs development and acceptance

Version: 1.0

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## **Executive Summary**

The purpose of this document is to outline the methodology consortium partners will need to follow for conducting the gender internal (Task 1.2) and external assessment (Task 1.4), aiming at identifying and analysing gender bias and inequalities both inside the organization and in the external innovation ecosystem, as well as investigating the legal and cultural frameworks in each partner's country.

The methodology is therefore divided in two parts, one dedicated to the internal assessment and the other one for the external one. For both parts specific guidelines on how to perform the assessments are provided including dedicated indicators and tools/methods to adopt.



### Contents

1	Ir	ntroduction7
1.1		Purpose & Scope7
1.2		Intended audience7
1.3		Structure of the deliverable7
1.4		Relation to other WPs & Tasks8
2	т	he CALIPER Internal Assessment Methodology9
2.1		The internal assessment methodology at a glance9
2.2		Quantitative indicators14
2.3		Qualitative indicators
2.3	.1	Internal assessment tools47
3	т	he CALIPER external assessment methodology57
3.1		The external assessment methodology at a glance57
3.2		The National legal and policy frameworks59
3.3		National and Regional Innovation Ecosystems62
3.3	.1	Social Network Analysis69
4	Ir	nternal communication for data collection77
5	R	eferences
Anne	x I:	Agenda and report of the Transnational Capacity Building
Anne	x II	: Desk research/policy analysis template90
Anne	x II	I: Survey's questions for RPOs and RFOs96
Anne	x IV	/: Informative sheet and consent form106
Anne	x V	: Useful tools for internal communication

## **Table of figures**

Figure 1: connections between ERA priorities and research institutions activity/service areas	11
Figure 2: CALIPER internal assessment methodology	12
Figure 3: Quadruple helix innovation system	57
Figure 4: areas of investigation for the external assessment	58
Figure 5: Actions and methods for the creation of the national and regional ecosystem	64
Figure 6: Overarching structural gender inequalities and challenges within innovation ecosystems: issue	es of
the context analysis	65
Figure 7: SNA template - Elements sheet	71
Figure 8: SNA template - Connections sheet	71



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Figure 9: Kumu – new map's initial page	73
Figure 10: Kumu – new map uploaded	73
Figure 11: Kumu – select colour parameter	74
Figure 12: Kumu – elements' decoration settings	75
Figure 13: Kumu – customized map	76

## **Table of tables**

Table 1: Quantitative indicators for RPOs	. 2315
Table 2: Quantitative indicators for RFOs	294
Table 3: Qualitative indicators RPOs and RFOs	31
Table 4: Focus group template	55
Table 5: Qualitative indicators for the national legal and policy frameworks	620
Table 6: Indicators for the context analysis	675

## List of abbreviations

Abbreviation	Full form			
RPOs	Research Performing Organizations			
RFOs	Research Funding Organizations			
STEM	Science, Technology, Engineering, Math			
R&I	Research & Innovation			
SNA	Social Network Analysis			
GEP	Gender Equality Plan			
ERA	European Research Area			
GE	Gender Equality			
WG	Working group			



# **1** Introduction

### 1.1 Purpose & Scope

The CALIPER project aims at driving a structural change process and implementing Gender Equality Plans in 7 Research Performing and 2 Research Funding Organizations, involving the highest and middle management levels since the beginning to impact the whole institution. The project goal is to make research organizations more gender equal by increasing the number of female researchers in STEM, improving their careers prospects and integrating a gender dimension in research.

The project supports the 7 European RPOs (UZG, STU, ULB, NTUA, IRB, YU, UNILE) and 2 RFOs (SRNSF, UEFIS) of the CALIPER consortium in developing and implementing Gender Equality Plans (GEPs) focusing on an innovative approach based on engaging national and regional innovation ecosystems in the partners' countries with a quadruple helix approach: the project triggers and makes internal changes and gender equality policies sustainable by orchestrating the core inward auditing/internal assessment and GEPs design with outward actions engaging external stakeholders to activate synergies at all different junctions of the 'education-research- transfer to market of STEM research results' chain.

The assessment phase in each RPO/RFO is a critical step aimed at identifying and analysing as well as addressing existing gender bias and inequalities at each partner organization and at the local/national innovation ecosystem.

This deliverable presents the CALIPER internal and external assessment Gender Audit Methodology guidelines and includes:

- an overview of the overall gender assessment methodology;
- a set of specific guidelines on how to perform internal assessment towards the identification of gender bias at the partner RPOs/RFOs;
- the detailed description of the two main parts of the above methodology:
  - $\circ$   $\,$  A set of indicators for quantitative assessment  $\,$
  - The participatory tools and exercises for qualitative assessment;
- a set of specific guidelines on how to perform the analysis of external framework conditions and of the innovation ecosystem from a gender perspective;
- a set of guidelines on how to best communicate to internal stakeholders about the CALIPER project and the assessment.

### **1.2** Intended audience

The document has been developed for all consortium members to use as a guide for carrying out internal and external assessment. It addresses both project team members and Gender Equality Plans Working Groups.

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

The present deliverable is structured in two main sections. One related to the internal assessment and the other one related to the external one.

Chapter 2 is dedicated to the internal assessment. After providing with the overall structure of the methodology, it provides with quantitative and qualitative indicators and tools to used.



Chapter 3 focuses on the external assessment which comprises both the analysis of the National legal and policy frameworks and of the National and Regional Innovation Ecosystem. For both analysis the processes to follow are detailed together with the indicators to investigate and the tools/methods to adopt.

Chapter 4 provides with useful guidelines on how to best communicate internally the project and the assessment.

Finally, chapter 5 presents the list of references used to elaborate the present document.

### **1.4 Relation to other WPs & Tasks**

The results of both the internal assessment (Task 1.2) and the external assessment (Task 1.4) will feed the development of GEPs scenarios (Task 2.1), highlighting the core areas for collaboration between the involved RPO/RFO and the main stakeholders, in their respective Hubs, in view of engaging both internal and external stakeholders in the design phase of the GEPs (Task 2.3).

The external stakeholder involvement during the external assessment represents also the first step for their wider engagement and consultation into WP2, especially in Task 2.2 "Consultation of Multi Stakeholder dialogues", and active collaboration in WP3 on the implementation of GEPs.

Finally, the guidelines provided within the present methodology about how to communicate the project and the assessment internally (Chapter 4), represent a part of the overall "Internal engagement and change management strategy" (Task 5.1).



# 2 The CALIPER Internal Assessment Methodology

## 2.1 The internal assessment methodology at a glance

The design of the CALIPER internal assessment methodology is based on the multidimensional, multitarget approach featuring institutional change processes for gender equality in general (EIGE, GEAR Toolkit, 2017) as well as CALIPER, and a mixed methodology.

The aim is to depict a complete and detailed internal picture of each institution to identify where gender inequalities and gender bias can be found in internal processes, practices and procedures, but also to keep track of existing measures aimed at contrasting them. At a glance, it is designed and intended to be:

- **Multi dimensional** as it aims at looking into the different activity-service areas/functions which compose the institutional life and are mirrored in its organizational chart. This implies also the fact that the assessment will look beyond gender representation, it will be much more than a headcount, but it will have the goal of unveiling and understanding roots and causes of gender inequalities and the ways they are entrenched into organizational practices.
- **Multi target** as it will look into how gender inequalities affects composition, roles and positions of both the academic/research community (from students to full grade professors) and the administrative-technical staff.
- **Multi method** as it will rely on quantitative indicators and data collection methods, trying to improve existing data collection processes and tools by increasing their gender sensitivity, while at the same time aiming at collecting qualitative information and data, to provide a more fine grained picture of how gender equality is ingrained in institutional cultures and perceived by its members.

Its main feature is to be an **action and change oriented** piece of organizational/institutional research. Delivered with a sound approach and built on the knowledge generated from the community of 'sister projects' developed under the same H2020 Swafs programme, pilot tested within a dedicated Capacity Building Meeting<sup>1</sup> organized by Smart Venice which took place virtually on 5<sup>th</sup> and 6<sup>th</sup> March with the presence of the key team/GEPs members from the CALIPER Partners (see report of the Capacity Building in annex 1), it is intended to serve a twofold set of goals:

- to set the evidence base for GEPs design and implementation as far as the current status of gender inequalities is concerned;
- to let the first ideas emerge on how to tackle achieve change.

The subject of the study encompasses all of the 3 ERA (European Research Area) priorities on Gender Equality in Research and looks into how each of them are impacting on (some of) the activity-service areas/functions.

Notably, the ERA priorities on Gender Equality can be described as follows (*Communication of the European Commission of the 17.07.2017*<sup>2</sup>):

1- Removing barriers to the recruitment, retention and career progression of female researchers;

<sup>&</sup>lt;sup>1</sup> The organization of the Transnational Capacity Building is included in Task 1.2 which indicates that "Internal assessment/audit methodology will be developed by SV and presented in a dedicated face to face capacity-building transnational session with all partners".

<sup>&</sup>lt;sup>2</sup> <u>https://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-392-EN-F1-1.Pdf</u>

#### 2- Addressing gender imbalances in decision making processes;

3- Integrating the gender dimension in research and innovation content.

In particular, the following ones will be analysed from a gender perspective:

- 1. Human Resources: this area includes both units/departments in charge of (or involved in, depending to what degree the processes are centralized at the national or regional levels) recruitment/retention & career progression and work-life balance/wellbeing services or provisions. Assessing processes related to personnel recruitment and retention as well as to progression in the career paths has the aim of unveiling gender imbalances across the different grades of research and teaching, as well as administrative positions, gender representation in committees and staff of the various levels/departments. Concerning work-life balance/wellbeing, instead, indicators are aimed at identifying the existence of measures that can contribute to enhance work-life balance given the higher likelihood that women will be involved in unpaid care work within their households therefore hindering their working life.
- 2. Institutional Governance: this area is mainly related to the decision-making structures and bodies as well as governance processes featuring each organization. Indicators are here aimed not only at calculating the gender ratio in terms of representation but also at understanding how appointment/election processes to access decision making bodies and what mechanisms work as gate keepers. In this area we also map the presence and role of Equality Bodies.
- 3. Institutional Communication: the use of gender sensitive language in the organization's documents as well as in the communication channels and materials is crucial since avoiding sex- and gender-based discrimination starts with language, as *"the systematic use of gender-biased terminology influences attitudes and expectations and could, in the mind of the reader or listener, relegate women to the background or help perpetuate a stereotyped view of women's and men's roles"*<sup>3</sup>.
- 4. Research performing in all its components such as design, delivery and research communication: this area refers to integrating gender into the content of research (and teaching) within all scientific fields. As the Garcia EU funded project reports<sup>4</sup>: "Gender-sensitive research considers the differences between men and women in all aspects of the research, from an initial idea, formulating research questions, objectives and methodologies to the outcomes and presentation of results. Apart from integrating gender into research content, gender-sensitive approach strives to provide equal participation of both women and men in scientific work. Gender-sensitive approach considers transgender and transsexual population as well".
- 5. Research funding: it represents the core activity of Research Funding Organizations, encompassing processes of preparing calls for proposals and setting evaluation criteria, to organizing evaluation processes leading to selections and decisions on funding allocation.
- 6. Student services, mainly consisting in students' recruitment and post graduate counselling
- 7. Teaching activities are scrutinized as far as curricula design and preparation are concerned, and include interaction and communication with students as well students' assessment/evaluation activities in order to understand whether gender bias is present at any stages
- 8. Research Transfer to Market/External relations/Third mission: this area concerns the role of research institution to engage with societal needs and market demands by linking its activities with its own socio-economic context. More concretely, it usually entails a variety of activities spanning from raising awareness or educational and science communication actions organized jointly with other actors, to support on IPR issues offered to researchers for patenting, incubation of spin off

<sup>&</sup>lt;sup>4</sup>httpshttpshttps://www.academia.edu/19273478/Toolkit\_for\_Integrating\_Gender-Sensitive\_Approach\_into\_Research\_and\_Teaching



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<sup>&</sup>lt;sup>3</sup> EIGE, 2016

companies, joint and co-funded PhDs or research projects in partnership with either industry or Foundations, or regional governments.

The matrix below represents how the 3 ERA priorities on gender equality in research touch upon the different activity- service areas/functions of research institutions (both RPOs and RFOs).

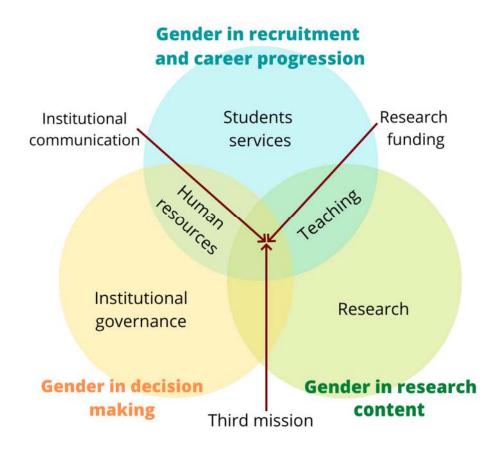


Figure 1: connections between ERA priorities and research institutions activity/service areas

The methodology will also include indicators aimed at exploring the presence in each organization of actions for preventing and contrasting **Sexual Harassment and Gender Based Violence**, as well as **intersectionality** as crosscutting areas.

The concept of intersectionality refers to the way in which different types of discrimination are linked to and affect each other. The term was coined by the feminist Kimberlé Crenshaw only in 1989, but the concept appeared already in the 1970s as an internal debate between white and 'colored' feminists in the USA, Australia and the United Kingdom. It represents one of the most current challenges for gender policies and combines different aspects of one's social and political identities, such as gender, race, class, sexuality, ability, etc.. It has become increasingly prominent and relevant also for Gender in Research Policies (GENDERACTION, 2019, Crimmins, 2019) and more and more prominent within EU policies (EC, 2020).

Based on the matrix above, the methodology will be developed using two main approaches: a **quantitative approach**, based on **measurable indicators**, and a **qualitative approach**, based on inquiry **techniques and** 



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#### tools.

The two approaches are complementary in nature and present different advantages with respect to the gender assessment process.

The quantitative approach focuses on quantification and measurement. As such, turning information into numbers and statistical analysis of usually large datasets is a central part of this approach. In particular, quantitative indicators are computed on gender disaggregated data, providing information that support monitoring and evaluation processes also facilitating comparative analysis among Departments/Schools.

In contrast, a qualitative approach seeks to collect and analyse information that is generally in a nonnumerical form – for instance, personal narratives or accounts of experiences. Qualitative research tends to be small-scale in terms of numbers of participants involved and use participatory techniques and tools such as focus groups, interviews and surveys. Qualitative evidence is therefore more descriptive than quantitative data, providing richer information. It is useful for gathering insights into perceptions, attitudes, behaviour, experiences, awareness, knowledge and skills.

The use of qualitative inquiry techniques and tools is essential because they allow the auditors to:

- investigate areas where quantitative data are not available or cannot be analysed;
- probe staff's perception about gender (in)equalities;
- Start a self-reflection process and promote learning about gender audit process and outcomes.

Based on the above observations, the developed CALIPER gender audit methodology exploits a **mixed strategy integrating both quantitative and qualitative techniques**. Existing indicators and participatory tools have been selected and adapted based on the need to customize the gender audit methodology to the specific activity/service areas defined above as well as considering the two kind of research institutions that the project addresses: RPOs and RFOs.

The main components of the CALIPER internal assessment methodology are clarified in the figure below:

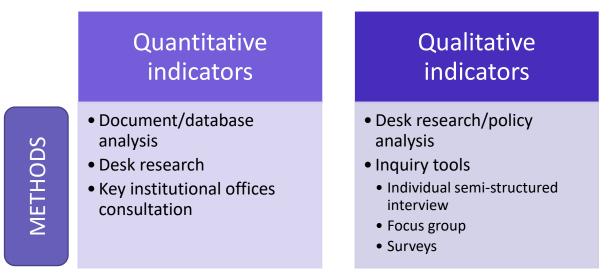


Figure 2: CALIPER internal assessment methodology



Indicators are crucial to shed light on potential gaps in gender equality and to design and implement measures as closer as possible to the needs of the organisation.

In carrying out the internal assessment partner institution are expected to actively involve at least 70-80 people of the organization each<sup>5</sup>.

The details of the methodology are described in the next sections of this document.

It is worth to underline that indicators and tools have been identified through the **selection and adaptation of existing methods for gender audit/assessment** developed by other European projects<sup>6</sup> and qualified international institutions.

The methodology should not be approached by partners in a strict way, some flexibility is considered acceptable in its concrete application at each partner institution.

In particular, with reference to those partners who already have expertise on gender equality policies and who have already carried out/started relevant data collection processes and/or are already using specific methodologies (i.e. IRB and ULB), some customization of the methodology is expected and can be further discussed and agreed bilaterally with Smart Venice and Vilabs.

More in general, some customization is allowed as far of the use of indicators is concerned (especially quantitative indicators). Indeed, it is expected that some indicators might result not usable for some partners, especially for indicators rated at the highest degree of complexity (see paragraph 2.2).

As a rule of thumb, the following flexibility criteria apply:

- 1. As far as quantitative and qualitative indicators are concerned, each area needs to be addressed, reaching at least 2/3 proposed of the indicators. However, sub-areas cannot remain completely uncovered.
- 2. In case it is not possible to reach one or more indicators, or collected data for one or more indicators are just partial, partners need to justify in the reports the reason why it was not possible to collect such data.
- 3. In case partners have already carried out previous relevant data collection processes, data collected can be taken into account for the CALIPER internal assessment if:
  - o such processes were carried out in the last three years (2019, 2018, 2017)
  - the timeframe of the indicators is respected (some quantitative indicators cover a timeframe of 3 or 5 years)
  - the criteria reported at point 1 is respected.
- 4. Partners are asked to provide proof of the data collection processes already carried out in the institution and to use the templates provided in the present document for reporting on data collection.

<sup>&</sup>lt;sup>6</sup> In particular, the methodology has been built using the results/reports of the H2020 projects such as EFFORTI, EQUAL-IST, GENDERACTION, GENERA, SUPERA, TARGET, ACT and FP7 projects such as GENISLAB, GENDER-NET, GARCIA. See chapter 5 on "References" for more information on the consulted documents/reports.



<sup>&</sup>lt;sup>5</sup> According to the KPIs set in the GA (pg. 128), overall, Institutions need to involve in internal consultations at least 650 members of the RPO/RFO communities, including students, professors, administrative staff and several gender experts.

## 2.2 Quantitative indicators

This section presents the system of quantitative indicators that have been selected for the analysis. Two sets of indicators are provided: one of RPOs and the other one for RFOs. Each indicator is classified according to:

- 1. the specific area it concerns
- 2. the (eventual) sub area
- 3. the level of analysis (institutional and/or departmental)
- 4. the degree of estimated complexity to obtain data. It refers to the level of difficulty the partner is expected to encounter in the process of collecting the relevant data necessary to assess the indicator. It is measure giving a rate where 1 stands for "very easy", 2 for "easy", 3 for "intermediate", 4 for "difficult and 5 for "very difficult".

It is worth to highlight that both the proposed estimated "level of analysis" and "degree of complexity" stemmed out discussions during the capacity building conducted on the 5<sup>th</sup> and 6<sup>th</sup> of March 2020, and the data presented in this methodology represent the results of such discussions.

Quantitative indicators can be collected through the following methods:

- 1. Documents analysis;
- 2. Data retrieved from key institutional actors, HR department and other offices;
- 3. Institutional Database consultation;
- 4. Desk and literature research.

Data collected will be reported using the spreadsheet made available per each institution in Teamwork.

The file needs to be downloaded, filled and then uploaded in the dedicated folder in Teamwork.

The following table lists all the relevant quantitative indicators that RPOs need to collect.

Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
Human resources t	Recruitmen t	Success rates of man and women applicants to positions in the last 5 years	Quantitative differences in the success rates of men and women applicants to positions may indicate a gender bias in the recruiting process of the organization. The indicator is calculated by dividing the number of recruited male and female applicants by the total number of male and female applicants respectively. Data should be identified per each relevant field, department and positions (academic, part/full time positions, temporary/permanent)	Institution and department(s)	3
		Proportion of shortlisted women for interviews in the last 3 years divided per kind of position (administrative, technical and academic) and/or proportion of women appointed/recruited by way of other processes/ways.	This indicator measures the proportion of women on the overall number of shortlisted candidates for university job applications (both academic and administrative). It is calculated as a % of shortlisted women on the total number of shortlisted candidates for interviews regarding job applications. It might be the case the interviews are carried out internally for certain positions only, while others appointments/recruitment positions follow national processes. All data on recruitment/appointments should be collected, distinguishing between the different paths.	Institution and department(s)	4
		Sex ratio of staff and academic members per age of children	This indicator shows the proportion of employed persons by age of children and sex. It is more informative than overall employment rates, because in addition to offering an insight into the differences in male and female participation in the labour force, it also quantifies the "child penalty", that is the impact of having children on the employment of women.	Institution and department(s)	4

Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
		Sex ratio on type of contract for academics	The indicator investigates the existence of any relationships between the sex of the employee and the type of contract (less than a year/temporary/permanent).	Department(s)	3
	Vertical segregation	Proportion of women grade A/B/C staff	This indicator shows the proportion of women grade A/B/C staff across STEM fields of science, displaying the vertical segregation mostly and horizontal segregation in the academic field at professorial level. Data to collect are gender disaggregated data on academic staff (grades A/B/C). <sup>7</sup>	Department(s)	2
		Glass Ceiling Index calculated for the last 3 years	The Glass Ceiling Index compares the proportion of women in academia (grades A, B, and C) with the proportion of women in top academic positions in a given year. The GCI can range from 0 to infinity. The interpretation is that the higher the value is, the stronger the glass ceiling effect and the more difficult it is for women to move into a higher position (EU, 2015). The formula is: n. of women in grades A, B and C /n. of women in grade A	Institution	2

<sup>&</sup>lt;sup>7</sup> Grade explanation according to "She Figures Handbook 2018".

<sup>&</sup>quot;Grade A: The single highest grade / post at which research is normally conducted within the institutional or corporate system

Grade B: all researchers working in positions not as senior as top position (A) but definitely more senior than the newly qualified PhD holders (C);

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

Grade D: Either postgraduate students not yet holding a PhD degree who are engaged as researchers, or researchers working in posts that do not normally require a PhD."

Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
	Horizontal segregation	Gender distribution of administrative and academic staff per scientific fields and level	This indicator is aimed at displaying the horizontal segregation between each Department and Unit both at administrative and research/academic staff level. It corresponds to:	Institution and department(s)	2 for RPOs / 1 for RFOs
			<ul> <li>the overall F/M ratio at the whole Academic level and the F/M ration at each Department</li> <li>the overall F/M ratio at the whole Administrative level and at each administrative Unit.</li> </ul>		
			It is based on the analysis of data provided by HR offices and/or Department Secretariats. In case of RFOs the indicator aims at displaying the horizontal segregation of the staff in general without distinguishing between administrative and academic staff.		
	Recruiting and promotion panels/boa rds	Average distribution of gender in recruitment or promotion boards/panels in the last 5 years	A quantitative indicator that shows the share of women and men, hence the representation of both genders in recruitment or promotion boards/panels of the organisation concerned, analysing decision-making groups which play a crucial role in regard to the career development.	Institution/departmen t(s)	3
	Career progression	Number of women and men having achieved promotion in the last 5 years, both at the academic and administrative levels	This indicator looks at the F/M share of achieved career progression both at the administrative and academic levels. Both comprehensive figure is needed at the 2 levels and differentiated by Departments and Administrative Units.	Institution and Department(s)	3



Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
	Work life balance	Parental leaves by gender in the last 3 years	Number of staff applying for parental leave disaggregated by sex and for how long	Institution/departmen t(s)	2
		Female career breaks and drop-outs in the last 5 years	Proportion of w/m having taken career breaks (sabbaticals not considered) or having left the organization, specifying the number of years spent in the organization.	Institution/departmen t(s)	2
		Number of tele-working positions by gender	Typically applicable to administrative/technical staff positions	Institution/departmen t(s)	3
		Part time/Flexible hours arrangements by gender	Typically applicable to administrative/technical staff positions	Institution	2
	Remunerati on	Gender pay gap in STEM faculties/departments	Difference between the average gross hourly earnings of male employees and of female staff as a percentage of average gross hourly earnings of male paid staff. This indicator can be investigated by analysing the existing contracts.	Department(s)	4
		Number and amount of rewards or additional remuneration by gender in the last 3 years	This indicator aims at identifying any inequalities in the distribution of monetary rewards or additional remuneration to employees/staff both administrative and academic/research.	Department(s)	4



Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
Institutional governance	Gender compositio n of decision making bodies	Gendered composition of governing administration boards, committees, academic senate, M/F representation as rector/Dean/ and among rector's delegate, units' heads, ad hoc strategic working groups	Within ERA priority 4 on gender equality equal gender representation in these decision-making groups is considered crucial to enabling a change in practice.	Institution/departmen t(s)	1
		N. of women in leadership position	Leadership position are directors, head of departments/units and heads of other decision making bodies	Institution/departmen t(s)	2
Research	Research content	Number of research projects which started in the last 3 years and focus on gender issues in relation to all research projects	This indicator aims at identifying the share of research projects tackling gender issues on the overall number of research projects starting in the last 3 years.	Institution/departmen t(s)	2
		Number of research projects which started in the last 3 years and take into consideration gender issues in relation to all research projects		Institution/departmen t(s)	4



Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
		Number and % of MSc and PhD theses integrating a gender dimension in their subject matter in the last 3 years	Interesting to understand whether there is a different emerging trend among candidate graduates and junior researchers	Department(s)	3
		Number and % of scientific publications integrating a gender dimension in their subject matter in the last 3 years		Department(s)	4
		Number of assigned post- doc research fellowships for gender studies in the last 3 years		Institution/Departmen t(s)	3
	Gendered roles in	Share of women among P.I.s in the last 3 years	Principal Investigators in EU founded projects should also be reported (separately).	Department(s)	3
	research delivery (also very relevant for	Share of women in patenting research outputs in the last 3 years		Department(s)	3
	HR -career progression )	Share of female project leaders in the last 3 years		Department(s)	3



Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
Research Funding	Training for applicants	Number and percentage of staff/researchers who have received training on the integration of gender analysis into research proposals in the last 3 years.		Institution	2
Student services (recruitment and post graduate counselling	Recruitmen t	Number of female enrolled students in STEM/Humanities in the last 3 years	This indicator measures the number of female students in STEM and Humanities compared to the overall number of students. It is based on the data provided by the Admissions, Student Records Office and Student Recruitment Office.	Institution	2
services)		Gender distribution of students per STEM field and level.	This indicator shows the gender distribution along the STEM different disciplines for each level (BA, MA, PhD). It is based on data provided by the Admissions, Student Records Office and Student Recruitment Office.	Department/School	1
		Success rate of female STEM students in all levels	The indicator shows the success rate of female students in all level (BA, MA, PhD), in terms of diplomas obtained compared to the number of enrolled female students.	Department/School	1
Teaching		Number of training courses for teaching staff which focused on the gender dimension in teaching (e.g. gender-sensitive didactics) in the last 3 years	It indicates efforts to raise awareness and build capacity of teachers/lecturers on gender sensitive teaching.	Institution	2



Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
		Number of training courses/workshops for researchers which focus on the gender dimension in research content in the last 3 years	Reference example for content of such courses: <u>https://genderedinnovations.stanford.edu/</u>	Institution	2
		Number and % of university courses addressing gender issues in the last 3 years	It refers to those university courses which address gender issues but they do not represent the main field of study (gender is not mentioned in the course title).	Institution	2
		Number and % of gender specific courses by (main) field of study	This indicator aims at identifying those courses where gender has a prominent part (it should indicatively mentioned in the course title).	Institution/Departmen t(s)	2
		Number of PhD seminars on gender studies in the last 3 years		Institution	
Transfer to market/ external		% of female researchers in the teams of university spin offs	Share of women on the overall number of researchers in the teams of university spin off and startups	Institution	3
relations/ third		% female speakers in conferences on STEM in the last 3 years	Share of women on the overall number of researchers participating to conferences on STEM as speakers	Department(s)	4

Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/departme nt)	Degree of complexity
		% women participating in training initiatives on knowledge transfer and research valorization	The indicator identifies the share of women participating to knowledge transfer initiatives, such as fundraising, communication, project drafting techniques, startup creation, technology transfer, etc.	Department(s)	4
		Gender ratio in collaborative co- funded/co-managed research projects with companies or other stakeholders	This indicator concerns the aggregated gender ration in collaborative projects for each relevant department.	Department(s)	4
		Gender ratio on patenting researchers		Institution	3
Action against gender/sexual harassment		n. of training courses on gender harassment/gender based violence in the last 3 years		Institution	2
		Statistics of reported cases of harassment in the last 3 years	(by victims/ and by bystanders)	Institution	3

Table 1: Quantitative indicators for RPOs



The table below details the quantitative indicators for RFOs.

Area	Sub area	Name of indicator	Description and source/ method for measuring	Level of analysis (institution/depa rtment)	Degree of complexity
Human resources	Recruitmen t	Gender distribution of applicants to the institution open working positions	This indicators aims at measuring the attractiveness of the organization.	Institution	2
		Success rates of man and women applicants to positions in the last 5 years	Quantitative differences in the success rates of men and women applicants to positions may indicate a gender bias in the recruiting process of the organization. The indicator is calculated by dividing the number of recruited male and female applicants by the total number of male and female applicants respectively. Data should be identified per each relevant field, department and positions (part/full time positions, temporary/permanent)	Institution	1
		Sex ration of staff per age of children	This indicator shows the proportion of employed persons by age of children and sex. It is more informative than overall employment rates, because in addition to offering an insight into the differences in male and female participation in the labour force, it also quantifies the "child penalty", that is the impact of having children on the employment of women.	Institution	3
		Sex ratio on type of contract	The indicator investigates the existence of any relationships between the sex of the employee and the type of contract (less than a year/temporary/permanent).	Institution	2



Horizontal segregation	Gender distribution of staff per level	It is based on the analysis of data provided by HR offices and/or Department Secretariats. In case of RFOs the indicator aims at displaying the horizontal segregation of the staff in general without distinguishing between administrative and academic staff.	Institution	1
Recruiting and promotion boards	Average distribution of gender in recruitment or promotion boards/panels in the last 3 years	A quantitative indicator that shows the share of women and men, hence the representation of both genders in recruitment or promotion boards of the organisation concerned, analysing decision-making groups which play a crucial role in regard to the career development.	Institution	2
Career progression	Average number of years for promotion for w/m	This indicators measures the average number of years needed for w/m for being promoted to the next rank also broken down by age, level, race/ethnicity or country of origin.	Institution	3
	Number of women and men applying for a promotion in the last 3 years		Institution	3
Work life balance	Parental leaves by gender in the last 3 years	Number of staff applying for parental leave disaggregated by sex and for how long	Institution	2
	Average of employees returning after parental leave divided per gender in the last 3 years		Institution	2



		Female career breaks and drop-outs in the last 3 years	Proportion of w/m having taken career breaks or having left the organization, specifying the number of years spent in the organization.	Institution	2
		Number of tele- working positions by gender	Typically applicable to administrative/technical staff positions	Institution	3
		Part time/Flexible hours arrangements by gender	Typically applicable to administrative/technical staff positions	Institution	3
	Remunerati on	Gender pay gap	Difference between the average gross hourly earnings of male paid employees and of female paid staff as a percentage of average gross hourly earnings of male paid staff. This indicator can be investigated by analysing the existing contracts.	Institution	4
		Number and amount of rewards or additional remuneration by gender in the last 3 years	This indicator aims at identifying any inequalities in the distribution of monetary rewards or additional remuneration to employees.	Institution	4
Institutional governance	Gender compositio n of decision making bodies	Gendered composition of governing administration boards, committees, ad hoc strategic working groups	Gender balanced representation in these decision-making bodies is considered crucial to enabling a change in practice.	Institution	1



		N. of women in leadership position	Leadership position are deans, rector's delegates, directors, head of departments/units and other decision making bodies	Institution/depart ment(s)	1
		Share of women and men in research funding decision making bodies		Institution	2
Research funding			The indicator measures the gender distribution of applicants for funding and the gender distribution of successful applicants. If applications are submitted by research teams, PIs (Principal Investigators) are counted.	Institution	1
		Distribution of research funds by sex in the last 3 years	This indicator is based on the one above, and calculates the total amount of grants funded to male and female applicants.	Institution	3
		Average size of grants for women and men in the last 3 years	This indicator explores which is the average amount of the grants given to male and female applicants in the last 3 years.	Institution	3
		Number and % of gender-specific projects funded in the last 3 years		Institution	3
	Evaluation	Share of women and men in scientific evaluation/selection panels/committees in the last 3 years	It explores the gender composition of the evaluation committees both internal and externals of RFOs	Institution	1



		Number and percentage of evaluation panels that include at least one gender expert in the last 3 years.		Institution	1
	Training for applicants and evaluators	Number and percentage of staff/researchers who have received training on the integration of gender analysis into research proposals in the last 3 years.		Institution	3
		Number and percentage of reviewers/evaluators who have received training on the integration of gender analysis into research proposals in the last 3 years.		Institution	2
Measures against gender/sexual harassment		n. of trainings on the topic in the last 3 years	It measures commitment from the institution to contract permissive attitudes within the organizational culture and practices	Institution	2
		<ul> <li>n. of measures taken</li> <li>to elicit reporting</li> <li>formally</li> <li>gender/sexual</li> <li>harassment in the last</li> <li>3 years</li> </ul>	It indicates awareness of the fact that lack of reported cased doesn't necessarily equal to non-existence of the problem	Institution	2



Statistics of reported	(by victims/ and by bystanders)	Institution	3
cases of harassment in			
the last 3 years			

Table 2: Quantitative indicators for RFOs



## 2.3 Qualitative indicators

As already mentioned qualitative analysis aims at identifying and collecting info that are not in numerical form and tents to be at a small-scale basis. Three tools will be used by RPOs/RFOs to conduct qualitative analysis:

- 1. Desk research/policy analysis
- 2. Semi-structured interviews
- 3. Focus group(s)
- 4. Survey

Using the mentioned tools the following qualitative indicators will be addressed. Indicators are classified according to:

- 1. the area they are related to;
- 2. the sub-area (if relevant)
- 3. the level of the analysis (institution and/or department(s))
- 4. the kind of institution (RPO/RFO or both)
- 5. the tool(s) that will be used by partners to assess each specific indicator
- 6. the targeted offices/people within the institution to engage in order to collect the information (i.e. HR office, administrative staff/department, deans, secretary, communication department, research department, academic office, health and safety office, equality and diversity committee, International Relations Department, senior management).

The desk research/policy analysis, the semi-structured interviews, the focus group(s) and the survey are tackling the following indicators.

Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
HR	Recruitm ent	Gender sensitive protocols/policies for recruitment and hiring	The indicator aims at investigating the existence of gender sensitive recruitment protocols/policies and in case they exist how they work. Policies to prevent gender bias in recruitment fall into this category.	Institution	RPO/RFO	Desk research/In terview/sur vey/focus group	HR/administra tive offices and staff in general
		Career breaks evaluation	This indicator is aimed at assessing how/if to career breaks due to care related issues are taken into account in recruitment, including the probing used during the interview stage.	Institution	RPO	Interview	HR/administra tive offices (top positions)
	Career progressi on	Transparent and flexible promotion/tenure criteria	This indicator explores the existence of transparent and flexible criteria for the promotion of staff (both academic and non-academic) of the institution. For flexible criteria we mean criteria which take into consideration major life events like childbirth, care work for relatives or continuing education as well as individual performance. It also concerns the existing of fixed or not fixed criteria (e.g. fixed number of years) for accessing the following stages (i.e. from researcher to associate professor).	Institution	RPO/RFO	Interview/s urvey	HR office and employees/sta ff
		Measures to support career progression of the underrepresented gender at the institutional level	It aims at identifying any specific measures addressing (gender) inequalities in career progression (e.g. soft quotas, targets, female professorships positions)	Institution	RPO/RFO	Desk research/in terview/foc us group	HR office

Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
	Retention	Other existing mechanism/measu res to retain female/and male scholars to fields where they are underrepresented	Could consist of a variety of formal measures/initiatives for instance quotas, grants reserved to women academics, etc. The content of the policy should be analyzed as well as how the policy works in practice (if there is budget and responsibility allocated, and if there is any implementation practice).	Institution	RPO	Interview	HR office
		Women's career trajectories	This indicator wants to explore at what stage of their career women leave and why, if there are any emerging patterns	Institution/depa rtment(s)	RPO	Interview	HR office
HR	Work life balance	Experienced work- family balance/unbalance	Self-reported perception of work life balance (or lack of it)	Department(s)	RPO/RFO	Survey	Employees/sta ff
		Measures to improve work-life balance and reconciliation of work and family life	It concerns measures implemented in order to enhance work-life balance: maternity/paternity leave, in house nurseries or agreements with local ones; telework, vacations policy, part-time employment options, career development plans, flexible working 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, and meetings scheduled at care-friendly hours (central day timeslots).	Institution	RPO/RFO	desk research /Interview/ Survey/foc us group	HR office, employees/sta ff



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Promoting mobility of researchers of the underrepresented gender	The indicator aims at investigating if the institution facilitates in/outgoing mobility in international recruiting and promotion of visiting scholarships/sabbatical years abroad for researchers of the underrepresented gender	Institution	RPO	Survey	Staff (researchers)
		Analysis of researchers/staff needs and its gender sensitiveness	The indicator aims at investigating if the institution explores staff needs through employees surveys, focus groups, world cafè, other methods: if they are in place, and if they take gender dimensions into consideration.	Institution	RPO/RFO	Survey	Employees/sta ff
	Wellbeing	Gender & Perception of work climate	It investigates how employees/staff perceive the climate in the institution/office they work, and how gender impacts in working relations and dynamics in everyday routines.	Department(s)	RPO/RFO	survey	employees/sta ff
		Gender / job satisfaction among researchers and other staff	It investigates if, in general, employees/staff are satisfied about their job and how/if gender impacts on this	Department(s)	RPO/RFO	survey	employees/sta ff
		Policies on equal pay	It aims at exploring the existence of dedicated policies on equal pay and how they work.	Institution	RPO/RFO	Desk research/in terview/sur vey	HR office, employees/sta ff



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
Institutional governance	Commitm ent to gender equality	Scale of organisational commitment to gender equality	The indicator is aimed at assessing the place of gender within the wider program and mission document of the institution. It is assessed through the analysis of the institution official documents and regulations.	Institution	RPO/RFO	Desk research/in terview	Dean/ secretary/Hea d of administrative office/General Director
		Gender equality monitoring and gender-sensitive budgeting	It aims at assessing the existence of an ongoing evaluation/monitoring process on gender equality in place as well as the existence of gender- sensitive budgeting	Institution	RPO/RFO	Interview	Dean/Secretar y/Head of administrative office/General Director
		Gender disaggregated data collection measures and tools	It detects the existence of measures, procedures, tools that embed a gender dimension in data collection processes at all levels or at certain specific levels only	Institution	RPO/RFO	Desk Research/I nterview	Dean/Secretar y/Head of administrative office/General Director
	Decision- making	Existence of strategies/policies to foster gender balance in decision making processes	Target quotas/gender quotas applying to appointment to leadership positions, elections to decision making positions/governing bodies	Institution	RPO/RFO	Desk Research/I nterview/fo cus group	Dean/Secretar y/Head of administrative office/General Director



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Mentoring for women or the under-represented gender in leadership position	It explores if any mentoring or coaching services/activities for leadership position dedicated to women are in place		RPO/RFO	interview	Dean/Secretar y/Head of administrative office/General Director
	Gender Equality Policies/B odies	Existence of a GEP	Gender Equality Plan	Institution	RPO/RFO	Desk research	
		Existence of Gender Equality Bodies	Roles, available resources (human/financial) should also be explored. If not in place, the intention of setting up one, should be investigated	Institution/Dept	RPO/RFO	Desk research/in terview/foc us group	Dean/Secretar y/Head of administrative office/General Director
		Existence of Diversity/ Equality bodies	Roles, available resources (human/financial) should be explored. Interconnections and collaboration with Gender Equality bodies (if existing) should be explored. If not in place, the intention of setting up one, should be investigated	Institution/Dept	RPO/RFO	Desk research/in terview	Dean/Secretar y/Head of administrative office/General Director



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
communicati co	External communi cation	Gender sensitivity of general institution website and other printed publications (leaflet, brochures, weekly, annual reports)	The indicator aims at assessing the following questions: • Are there women/men/gender non-conforming people generally visible on websites or printed materials? • How many women/men/non-binary are visible? • Do the communication materials reflect 'diversity' (in terms of sex, age, ethnicity, disability, etc.)? • Which kind of pictures and images are used to illustrate men/women/all genders and SET in the media? • What areas of study are represented? Is gender studies or other gender related research featured? • Does the media address all genders equally?	Institution	RPO/RFO	Desk research / interview/f ocus group	Communicatio n department
		Gender equality in the institutional website	The indicator investigates how gender equality is presented/promoted through the institutional website (is there a dedicate webpage?)	Institution	RPO/RFO	Desk research/ Interview	Communicatio n department
		Gender equality in the institutional social media	The indicator investigates how gender equality is presented/promoted through the institutional social media	Institution	RPO/RFO	Desk research	



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Over representation of one gender in visual communication on institutional websites		Department/Sc	RPO/RFO	Desk research	
		Promotion of awareness raising campaigns aimed at fighting stereotypes		Institution	RPO/RFO	Interview/s urvey	Communicatio n department
		Presence of dedicated communication activities promoting women (and/or other under represented groups) in science		Institution	RPO/RFO	Desk research / interview	Communicatio n department



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
	Internal communi cation	Presence of specific Raising awareness Training activities on gender sensitive language use and/or gender sensitive communication , or modules within existing trainings		Institution	RPO/RFO	Desk research / interview /survey	Communicatio n department
		Adoption of Guidelines/protoco Is on gender sensitive non biased communication/lan guage use		Institution	RPO/RFO	Desk research / interview/f ocus group	Communicatio n department
		Existence of policies and training on the use of gender sensitive language in administrative communication	This indicator explores the adoption of measures such as the abolition of the use of exclusionary forms (he/she), the use of equal forms of address (no Miss, Mrs. But Ms.), the use of generic nouns and pronouns, etc.	Institution	RPO/RFO	Interview/s urvey/focus group	Communicatio n department



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Availability of complaint mechanisms in cases of gender biased/sexist communication		Institution	RPO/RFO	Interview/s urvey	Communicatio n department
Research	Research content	Allocation of funds for specific programs on gender studies in the last 3 years		Institution	RPO	Desk research/in terview	Research department/ administrative department
		Existence of policies, guidelines on the integration of the gender analysis into research		Institution	RPO	Desk research/in terview/foc us group	Research department/ administrative department
		Existence of a Gender/women's studies department		Institution	RPO	Desk research/fo cus group	



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
Research funding	Evaluatio n	Measures/policies for gender balance in funding decision- making bodies and scientific evaluation panels	The indicator aims at assessing if and how gender balance in funding decision-making bodies and scientific evaluation panels is ensured	Institution	RFO	Interview/s urvey/focus group	Finance/fundi ng director/senio r management
		Availability of protocols on gender sensitive recruitment of evaluators		Institution	RFO	Desk research	Finance/fundi ng director /senior management
		Existenceoftrainingorguidelinesongender stereotypesandunconsciousbias to evaluators	The indicator explores if project evaluators are trained or are provided with guidelines on gender stereotypes and unconscious bias in evaluation practices	Institution	RFO	Desk research/su rvey	Finance/fundi ng director, evaluators /senior management
		Adoption of evaluation forms/templates including a paragraph on gender equality in research teams (if relevant) and		Institution	RFO	Desk research/su rvey	Finance/fundi ng director, evaluators /senior management



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		gender dimension in research content					
		Adoption of double-blind review processes to avoid gender bias		Institution	RFO	Desk research/su rvey	Finance/fundi ng director, evaluators /senior management
		Competence building on integration of the gender analysis into research content	Existence of Guidelines or trainings for grant applicants and evaluators on the integration of the gender analysis into research content	Institution	RFO	Desk research/su rvey	Funding Programmesdi rector/Manag ers /senior management
	Funding program	Gender specific research funding program in place		Institution	RFO	Desk research	Funding Programmesdi rector/Manag ers/ senior management
		Gender fair language in call texts	It concerns the adoption of measures like the abolition of the use of exclusionary forms (he/she), the use of equal forms of address (no Miss, Mrs. But Ms.), the use of generic nouns and pronouns, etc.	Institution	RFO	Desk research/in terview	Funding Programmesdi rector/Manag ers /senior management

Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Gender equality as a funding requirement	The indicator investigates if gender equality in research teams represents, in the calls text, a requirement and/or if it linked to the evaluation process (if yes, how)	Institution	RFO	Desk Research/I nterview	Funding Programmesdi rector/senior management
		Gender dimension in scientific research content as a funding requirement	The indicator investigates if gender equality in research teams represents, in the calls text, a requirement and/or if it	Institution	RFO	Desk Research	
Student services	Gender sensitive/ gender specific Informati on/Guida nce to	Presence (and reach out) of initiatives offering information/guidan ce to prospective students	Such initiatives could aim at attracting girls to STEM studies; viceversa, boys to education studies/humanities). They could target all genders but be designed and conducted with a gender sensitive approach or explicitely aimed at contrating gender stereoptypes in career study choices	Institution	RPO	Desk research / interview/ focus group	Academic office//studen t representative s
	prospecti ve students	Presence (and reach out) of initiatives aimed at counselling enrolled students with a gender sensitive approach	Such initiatives are typically aimed at preventing drop out from students of the under- represented sex	Institution	RPO	Desk research / interview	Academic office/ /student representative s



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
Teaching	Gender dimensio n into curricula	Existence of policies, guidelines/checklist s on how to integrate the gender dimension into curricula		Institution	RPO	Desk research/in terview/foc us group	Professors/He ads of Teaching Activities/dida ctics/student representative s
	Gender sensitive teaching	Existence/Use of Gender sensitive teaching guidelines for professors/lectures	Guidelines on both syllabus drafting (taking gender dimension of topics and disciplines into account whenever relevant) /interaction with students/assessment and examination)	Department	RPO	Desk research/ Interview/f ocus group	Professors/He ads of Teaching Activities/dida ctics/student representative s
		Awareness of potential gender bias in teaching	Aimed at capturing awareness and perceptions on the importance of gender dimension of topics and disciplines into account whenever relevant) /interaction with students/assessment and examination)	Department	RPO	Interview/ focus group	Professors/He ads of Teaching Activities/dida ctics/student representative s

Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
Transfer to market- external relation- third mission		Presence of collaborative research projects with a gender dimension in research/technolog y development content	Collaborative means in partnership with industry, start-ups and/or other stakeholders. Does NOT include EU funded Research Projects	Department(s)	RPO	Interview/S urvey	Research department/ administrative department/vi ce rector
	Gender sensitive/gender specific measures/action on enhanc transfer to mar	sensitive/gender specific measures/actions on enhancing transfer to market of scientific	(if gender sensitive, it is important to explain how gender is taken into consideration)	Department(s) and School/Faculty	RPO	Interview/S urvey	
		Presence of educational/scienc e communication projects with a gender component	i.e Coder Dojos/Science Labs/Science Cafés, etc.	Department(s)	RPO	Interview/S urvey	Research department/ administrative department/vi ce rector



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
Gender/sexu al harassment	Measures	Existence and type of policies and initiatives addressing sexual harassment in the institution		Institution	RFO/RPO	Desk research/in terview / focus group	Dean/Secretar y/Head of administrative office/HR department/G eneral Director/vice rector/gender equality bodies/
		Availability of counselling for gender-based offenses and harassment	The indicator explores if there is any desk/service available for employees/staff where to receive support/advice on gender-based offenses and harassment	Institution	RFO/RPO	Interview/s urvey / focus group	Dean/Secretar y/Head of administrative office/General Director/vice rector/gender equality bodies/ staff
Intersectiona lity		Understanding of intersectionality as an important component adding value to gender equality policies	The aim of this broad indicator is to investigate perceptions from different stakeholders on the importance of going beyond a merely binary understanding of gender equality issues and policies, and what are the possible concrete areas of action, and/or the perceived obstacles	Institution	RFO/RPO	Interviews/ focus group	Representativ es from Gender Equality /diversity bodies



Area	Sub-area	Indicator	Description	Level of analysis (institution/dep artment)	RPO/RFO	Method	Target office/people
		Operationalizing intersectionality	Existing institutional measures where gender is taken into account in conjunction with other discriminations/structural inequalities	Institution	RFO/RPO	Desk research/In terviews / focus group	

Table 3: Qualitative indicators RPOs and RFOs



## 2.3.1 Internal assessment tools

### **2.3.1.1** Desk research/policy analysis templates

Some qualitative indicators do not required the direct involvement of other departments/offices of the institution, but can be obtained through a desk research/policy analysis. In particular, this is the case of indicators aimed at:

- 1. mapping organizational structures and hierarchies;
- 2. mapping, describing and analyzing policies and other documents;
- 3. mapping and analyzing communication tools for gender equality.

In order to conduct the desk research/policy analysis, partners can use the template provided in the Annex II, in which they can briefly report the results of the research (optional). <u>However, the overall results of both</u> <u>the desk research/policy analysis, of the interviews and focus groups will be reported by using the template</u> <u>provided in Teamwork (mandatory)</u>.

### 2.3.1.2 Semi-structured interviews grids

As also recommended by the ACT Toolkit<sup>8</sup>, "one of the best ways to understand how stakeholders make sense of current situations or topics" as well as to have a better understating about how the different processes work "is by talking directly with them and asking about their specific experiences. The stakeholders' knowledge is an important prerequisite for developing concrete ideas for new initiatives or improvements."

In particular, "a semi-structured interview allows the investigator to gently guide the flow of the dialogue and at the same time permit the participants to provide their own perspective and even digress to explore the unexpected". A semi-structured interview is organized as an open conversation to allow new ideas to be brought up as a result of the conversation dynamics. A semi-structured interviews guide the interviewed person without imposing strict questions. This freedom allows the interviewers to tailor the questions to specific interview context and to the specific individual they are interviewing.

Still, the interviewer in a semi-structured interview generally has a framework of themes to be explored.

A set of interviews questions are indeed proposed for RPOs and RFOs to guide the interview, focusing on different institution's areas. The different dimensions do not have necessarily to be addressed in the given order, and during each interview, rather they can be asked according to the ongoing conversation and according to the type of discussion and the interviewee expertise. Each partner organization is asked to carry out 15-20 interviews. In particular, at least 5 top managers and 3 middle managers will need to be interviewed by each partner organization<sup>9</sup>.

Here below you can find some useful tips on how to better conduct interviews.

**Selection of interviewees**: select key people (e.g., directors, head of offices/departments, managers, decision makers) with responsibilities, preferably directly involved in decision-making process for each target area to capture the vision of the high levels of the hierarchy on gender-equality. It's important to select

<sup>&</sup>lt;sup>8</sup> Co-creation Toolkit, ACT project, https://genbudget.act-on-gender.eu/tools/toolkits

<sup>&</sup>lt;sup>9</sup> As results from the project's KPIs, page 128 of the GA.

people able to provide specific information on the background and future plans of the organization in terms of gender-equality in the specific area.

**Language**: Interviews can be conducted in English or in national language – the suggestion is to use the language that is more familiar to the interviewed.

**Modality**: Interviews can be conducted in presence or online: select the more convenient option depending on time availability and logistical organization. If useful, the interviews can be recorded to allow interviewers to re-listen critical parts of the interviews. In this case, interviewees have been informed and give their consensus about the recording.

**Reporting**: Interviews will be reported using the template available in Teamwork.

Additional recommendations: The questions or the dimensions that will be touched during the interview should be anticipated to the interviewee before the interview takes place, in order to allow the person to collect all the information needed. Also, the interviewer should communicate to the interviewee how much time the interview would require (30-40 minutes). At the beginning of the interview, the interviewer shall introduce himself/herself, his/her role and explain why the stakeholder's input is important for the CALIPER activities. Signed informed consent form and information sheet that explains the objectives of the interview and how personal da will be collected, stored, protected and deleted shall be collected (see Annex IV).

Find below a list of questions for individual interviews per each area. In case subjects have been completely addressed through the desk research/policy analysis, related questions can be skipped.

**IMPORTANT:** <u>questions aiming at exploring the adoption of specific measures within the institution should</u> not be skipped (such questions are the ones underlined in the lists below). Indeed, interviewers should further explore why such measures are not in place and if they are, to what point they are effective or what are their limitations.

Please consider that the ones indicated are only suggestions of the people to involve. Every partners should identify the best people to interview.

#### Area: Human Resources (both RPO and RFO)

#### Target: head the HR department, head of administration and other people with responsibility

- 1. Which are in your opinion the main issues and challenges of the Human Resources area related to gender?
- 2. Is Gender Equality addressed in the institution recruitment/retention procedures? How do gender sensitive protocols for recruitment and hiring work?
- 3. Are career breaks allowed? Which kind of selection criteria are applied to career breaks in the process of filling vacancies?
- 4. Does the institution have a promotion policy? Would you define the criteria adopted transparent and flexible? Please explain.
- 5. Does the institution adopt any gender equality measures to support career progression of the underrepresented gender ? Please mention them.
- 6. Are there any specific initiatives targeting female personnel related to career progression?
- 7. Are there any existing mechanism/formal policies to attract and retain female/and male scholars to fields where they are underrepresented?
- 8. When do usually women leave and why? Is there a common theme in women researchers leaving at a specific stage or level?



- 9. Does the institution adopt any solution/measure to improve work-life balance and reconciliation of work and family life? If yes which ones?
- 10. Do any policies on equal pay exist? How do they work?
- 11. Do you think the measures adopted by your institution to ensure gender equality on recruitment, progression and work life balance work well? Which measures work better and which ones would need to be improved?
- 12. In you opinion which further measures could be adopted by your institution in order to guarantee gender equality both in the recruitment and career progression processes?
- 13. Do you envisage any obstacles for the adoption of such measures?

#### Area: Institutional governance (both RPO and RFO)

# Target: representatives of the governance and management, deans, head of administrative office, General Director

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in Institutional Governance?
- 2. How is gender equality addressed in the institution's program and mission documents/regulations?
- 3. Is gender equality monitored throughout the institution? If yes are there reports available?
- 4. Does the institution adopt a gender sensitive budgeting?
- 5. Does the institution adopt any measures, procedures, tools that embed a gender dimension in data collection processes at all levels or at certain specific levels only?
- 6. Does the institution adopt any strategies/policies to maintain gender balance in decision making process?
- 7. Are women encouraged to engage in decision-making positions? How? Are there any mentoring programs for women available?
- 8. Does a Gender Equality Body exist? If yes please explain roles, available resources (human/financial). In case it is not in place, is there the intention to set it up?
- 9. Do other diversity/broader Equality Body exist? If yes please explain roles, available resources (human/financial). In case it is not in place, is there the intention to set them up?
- 10. In which way do you think women can be better encouraged to engage in decision making position?
- 11. In your opinion, which measures could your organization adopt in order to better address gender equality?
- 12. Do you envisage any obstacles for the adoption of such measures?

#### Institutional communication (both RPO and RFO)

# Target: head of communication department, vice rectors responsible for communication and gender equality and internal experts

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in Institutional communication?
- 2. Do in your organization gender sensitive communication policies and training exist? Which ones?
- 3. Is the institutional website and the other printed publication gender sensitive? Please explain how.
- 4. Is gender equality addressed through the institution website and social medias? If yes how?
- 5. Does the institution provide a complaint mechanism in case of sexist communications?
- 6. Does the institution run awareness raising campaigns aimed at fighting stereotypes?



- 7. Does the institution provide specific raising awareness, training activities on gender sensitive language use and/or gender sensitive communication , or modules within existing trainings?
- 8. Does the institution adopt of guidelines/protocols on gender sensitive non biased communication/language use?
- 9. Do any policies and training on the use of gender sensitive language in administrative communication exist?
- 10. Are there any dedicated communication activities promoting women (and/or underrepresented groups) in science?
- 11. In your opinion, which are possible actions/strategies that could be useful to apply in order to improve gender equality? And which main obstacles do you envisage for their application?

#### Area: Research (RPO)

#### Target: Head of research department, gender equality bodies, vice-rector for gender equality

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in research?
- 2. Are there any dedicated funds in your organization for specific programs on gender studies? And in the past 3 years?
- 3. Does the institution provide any policies/guidelines on the integration of the gender analysis into research? and or on the integration of the gender dimension into curricula? Please explain.
- 4. Are there any gender/women's studies department?
- 5. <u>Which measure in your opinion can be adopted in order to enhance gender in research? Which are the obstacles for their application?</u>

#### Area: Research funding (RFO)

#### Target: senior management, middle management

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in research funding?
- 2. Is gender balance in funding decision-making bodies and scientific evaluation panels ensured in your organization? If yes how?
- 3. How are the jury members evaluators selected? Are they internal or external? Does a quota exist?
- 4. Is attention paid in terms of gender fair language of the call text?
- 5. Is gender equality promoted as a funding requirement?
- 6. Is the gender dimension taken into account in the evaluation process? If yes how? If not, which measures can be adopted in order to integrate the gender dimension in the evaluation process?
- 7. <u>Please explore the possibility to introduce the following measures:</u>
  - a. ad hoc training for scientific evaluators on gender bias
  - b. <u>multi-dimensional evaluation criteria that enhance openness and transparency and</u> <u>contribute in mitigating against gender bias in research assessment/evaluation procedures</u>
  - c. double-blind review processes in order to avoid gender bias
  - d. <u>elaboration of guidelines for grant applicants and reviewers/evaluators on the integration of gender analysis into research</u>
  - e. the introduction of gender equality observations in evaluation panels, etc.)
  - f. <u>actions for monitoring of the success rates of man and women applicants or other gender</u> <u>indicators</u>



- g. positive action ensuring that half of eligible applicants are women
- h. design of gender reports
- i. <u>introduction of mandatory requirement for applicants to explain the integration of sex/gender analysis into research in the content of submitted proposals</u>
- j. <u>review the gender proofing of language of call texts to avoid sexist language and include</u> <u>gender-sensitive and work-life balance provisions</u>
- k. <u>allocation of funds for specific programs on gender studies</u>
- 8. Do you see any obstacles in the adoption of such measures? Please explain.

#### Area: Student services (RPO)

#### Target: heads of studies, heads of departments, vice rector for teaching, students representatives

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in the Student Services area?
- 2. Are there any initiatives aimed at counselling prospective students and attracting girls to STEM studies (or viceversa, boys to education studies/humanities)?
- 3. Are there any initiatives aimed at counselling enrolled students with a gender approach?
- 4. <u>Which further measures can your organization adopt in order to enhance gender equality into</u> <u>student services?</u>
- 5. Do you see any obstacles in the adoption of such measures?

#### Area: Teaching (RPO)

#### Target: heads of studies, heads of departments, vice rector for teaching, students representatives

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces in teaching?
- 2. Are there any policies/guidelines/checklists on how to integrate the gender dimension into curricula?
- 3. Are there any gender sensitive teaching guidelines for professors/lectures?
- 4. Is there general awareness of potential gender bias in teaching? Please explain.
- 5. <u>Which further measures can your organization adopt in order to enhance the gender dimension into</u> <u>teaching?</u>
- 6. Do you see any obstacles in the adoption of such measures?

#### Area: Transfer to market – external relation – third mission (RPO)

#### Target: vice rectors for research and technology transfer

- 1. Which are in your opinion the main issues and challenges related to gender your organization faces concerning external relations and transfer to market?
- 2. Are there any collaborative research projects with a gender component in research content?
- 3. Are there any educational/science communication projects with a gender component?
- 4. <u>Does your institution adopt any gender sensitive/gender specific measures/actions on enhancing</u> <u>transfer to market of scientific research results? If yes, please explain which ones. If not, which</u> <u>measures could it adopt? Do you see any obstacles in their adoption?</u>



#### Area: Initiative addressing sexual harassment (RPO/RFO)

# Target: Dean, Secretary, Head of administrative office, General Director, gender equality bodies, groups on gender studies, vice rector for gender equality

- 1. Which are in your opinion the main issues and challenges your organization face with reference to sexual harassment?
- 2. Does the organization adopt any measures against sexual harassment?
- 3. Are there any counselling for gender-based offences and harassment available?
- 4. <u>Which measures can be adopted to contrast gender-based harassment?</u>
- 5. Do you envisage any obstacles in the adoption of such measures?

#### Area: Intersectionality (RPO/RFO)

# Target: Dean, Secretary, Head of administrative office, General Director, gender equality bodies, groups on gender studies, vice rector for gender equality

- 1. How is the importance of going beyond a merely binary understanding of gender equality issues and policies perceived in your organization?
- 2. <u>Which are the existing measures adopted by the institution in order to take into account gender in conjunction with other discriminations/structural inequalities?</u>
- 3. <u>What are the possible concrete areas of action, and/or the perceived obstacles?</u>

### 2.3.1.3 Focus groups

Focus groups are a type of qualitative research defined as group interviews where a moderator guides the discussion while a small interactive group discusses with the interviewer but also with other group member the topics introduced by the moderator (Morgan, 1998).

Typically, focus groups are composed by **4 to 8 participants** having similar backgrounds but displaying also differences between participants that are useful in enhancing discussion and opinions comparison and evaluation. The main advantage of using focus group techniques rather than other methods (individual interviews, for instance) is that the focus groups recreate a situation similar to the ordinary social process of opinion-making. This allows participants to freely express their opinion in a well-known modality, that is, the peer-to-peer discussion.

An advantage of the focus group is that the group process may generate more information than a comparable number of depth interviews and since no one is required to respond to a question, spontaneous responses are encouraged when people have a definite point of view and respondent's views are facilitate by the group process.

Nevertheless, there are potential drawbacks. Some people may feel inhibited in a group situation and pressures can also cause over-claiming or social loafing, especially when people taking part to the focus groups belong to different levels. For this reason we suggest to organize focus groups with people covering similar positions/roles. Partner institutions are required to organize at least one focus group.



Focus group can be more or less structured according with the target and with the research questions. In our case focus groups have an exploratory nature, since they aim at enhancing an internal discussion on the functioning of the existing measures adopted by the institution for ensuring gender equality as well as on the identification of new measures that could be adopted.

For each focus groups, a person plays the role of moderator (preferably identified among the CALIPER project management). The moderator follows a schedule and pay attention to discuss each of the dimensions relevant for the inquiry but also takes advantage of eventual emerging issues and discussions among participants.

In the frame of the present methodology, the focus group is meant at further investigating the efficacy of existing measures as well exploring which new measures/initiatives could be adopted by the Institution to address gender issues in the different areas.

Here below you can find some useful tips on how to better conduct focus groups.

**Selection of participants**: select key people belonging to different areas of the institution in order to have a great representation of the different institutional activities/services. Prefer people having similar levels of responsibilities, in order not to create situations in which some participants might feel inhibited. It's important to select people able to provide specific information on the background and future plans of the organization in terms of gender-equality in the specific area.

Language: Focus group should be conducted in the language that is more familiar to the participants.

**Modality**: Focus groups should be preferably organized in presence. The location should permit the participants to sit in circle in order to enhance the discussion and put everyone at the same level. If useful, the focus group can be recorded to allow interviewers to re-listen critical parts of it. In this case, participants have to be informed and give their consensus about the recording.

**Reporting**: Focus group(s) will be reported using the template available in Teamwork.

Additional recommendations: At the beginning the moderator should present the focus group goals and the procedures to be followed during it. He/she shall introduce himself/herself, his/her role and explain why the stakeholders' input is important for the CALIPER activities. Also, the moderator should communicate to the participants how much time the focus group would require (1 hour, 1 hour and half). The moderator should enhance free discussion on the topic presented. Signed informed consent form and information sheet that explains the objectives of the focus group and how personal da will be collected, stored, protected and deleted shall be collected (see annex IV).

The focus groups discussion should cover as many of the following topics/questions as possible. However, each partner, according to the outcome of both the desk research and the interviews, can identified the areas in which concentrate the discussion of the focus group. In case during a focus group not all the topics identified are addressed, more focus groups can be organized.

Area	Questions/topics
Human resources (RPO/RFO)	<ul> <li>Considering the measures currently adopted by the institution in order to ensure gender equality on recruitment and progression, which ones do you think work well and which ones are not working? Which improvements and which new measures could be adopted?</li> <li>Concerning the measures for work life balance which ones do you think work well and which ones are not working? Which improvements and which new measures could be adopted?</li> <li>Which initiatives could be adopted?</li> <li>Which initiatives could be adopted by the institution in order to address female career progression?</li> </ul>
Institutional governance (RPO/RFO)	<ul> <li>About the measures/policies already adopted by the institution to foster gender balance in decision making process (if any), which ones are more effective? Which other measures/policies could be adopted by the institution? Are there any obstacles for their adoption?</li> <li>In case a GEP already exist do you think it work properly or should it improve? How? In case it does not exist yet, is there the intention to set it up?</li> </ul>
Institutional communication (RPO/RFO)	<ul> <li>Do any policies/guidelines on internal and external gender sensitive communication exist? If yes in what this policies consist? Are they effective or should be they improved?</li> <li>Which other measures could be adopted? (e.g. training)</li> </ul>
Research (RPO)	<ul> <li>do any policies/guidelines on the integration of the gender analysis in research exist? Are they effective? How could they be improved?</li> <li>In case a gender/women's studies department exist does it work properly? How could it be improved? In case it does not exist is there the intention to set it up?</li> <li>Which measures could be adopted by the institution in order to ensure gender is integrated in research contents and practices?</li> </ul>
Research funding (RFO)	<ul> <li>Are the measures adopted for ensuring gender balance in funding decision-making bodies and scientific evaluation panel effective? Can be they improved? How? If there are no measures, which measures can be adopted?</li> <li>Which measure can be adopted in order to ensure gender is taken into account in the funding and evaluation process? (e.g. ad hoc training to evaluators, adoption of multi-dimensional criteria, adoption of a double-blind review process, guidelines for both applicants and evaluators on the integration of the gender analysis into research)</li> </ul>
Student service (RPO)	• Which counselling initiatives have showed to be the most effective for attracting girls to stem studies? Which other initiatives can be adopted for this purpose?



Teaching (RPO)	<ul> <li>Do you think gender is well integrated as a dimension into curricula? Do you see any improvements needed?</li> <li>Do you think teachers/professors are aware of gender bias in teaching? Would the use of guidelines for gender sensitive teaching be useful to adopt?</li> </ul>
Gender/sexual harassment (RPO/RFO)	• Do you think sexual harassment is a problem within the institution? Are you aware of any gender-bases offences? Which measures can the institution adopt to contrast gender harassment? (e.g. policies, initiatives, counselling service)
Intersectionality (RPO/RFO)	<ul> <li>Is intersectionality perceived as an important component of gender equality policies within the institution? Which measures are adopted or can be adopted that take gender into account in conjunction with other discriminations/inequalities?</li> </ul>

Table 4: Focus group template

### 2.3.1.4 Survey

The present methodology proposes two survey questionnaires: one addressing RPOs and the other one RFOs. The questionnaires will be web-based and directed to all the institutional communities: for RPOs both administrative and research/academic staff of all levels, for RFOs both institutional staff of all levels and evaluators (both internal and external) of the proposals.

The surveys integrates questions on various aspects, mainly focusing on the following areas:

- Human resources
- Institutional governance
- Institutional communication
- Research funding (only for RFOs)
- Sexual/gender harassment

The survey is anonymous and includes both closed and open-ended questions.

As concerns the sample/representativity, each partner is asked to involve at least the 20% of the institution's employees/staff of different offices and positions/levels, researchers, evaluators (in case of RFOs). The universe of prospective respondents will invited by email to undertake the survey through a dedicated link. Existing mailing lists can be used to reach the target population.

The email inviting to undertake the survey will include a brief intro on the project and the purpose of the survey. Partners are recommended to consult the guidelines provided in Chapter 4 on how to communicate the project and the assessment internally at best.

Surveys questions are available in Annex III.

It is advised to use Google Form in order to conduct the survey. Partners should indicate in the e-mail invitation of undertaking the survey also the timeframe in which the survey will be open (1-2 months).



Results of the survey will be reported using the template available in the dedicated folder in Teamwork (internal assessment).

## **3** The CALIPER external assessment methodology

### **3.1** The external assessment methodology at a glance

The external assessment methodology is aimed at investigating each RPO/RFO external conditions such as the legal and cultural framework and the existing local/ national innovation ecosystems in each partnering country and identify where gender imbalances occur, why they are created and by which factors they are influenced.

In order to engage with the innovation ecosystem, the methodology adopts the Quadruple Helix approach, which consists in involving and stimulating synergies with stakeholders belonging to the following sectors:

- Academia and universities
- Industry and business
- Government & public sector
- Civil society

The image below give a picture of the kind of stakeholders belonging to the mentioned sectors are expected to be engaged in the quadruple helix innovation ecosystem.

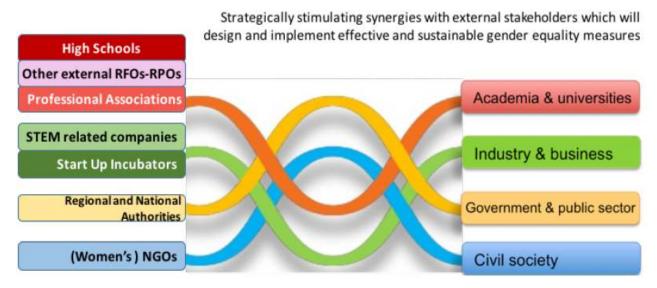


Figure 3: Quadruple helix innovation ecosystem

The rationale behind such an approach is manifold and backed by available research and empirical findings:



- Cooperation with external stakeholders (e.g. national or local authorities) proved decisive particularly in case of initial difficulties in making contact with internal leadership, because external support and recognition can raise project visibility and status internally.
- Including external stakeholders like companies with whom the University has ongoing research collaboration in a GEP's Advisory Board since the development phase has been shown to enhance legitimacy and ensure management involvement and to foster internal collaboration on gender equality policies more broadly.
- Well known EU level Good practices in increasing the number of girls enrolled in STEM studies promoted by Universities such as the NTNU Ada Project in Norway, clearly show how synergies with the industry, schools, and NGOs has made possible for RPOs to double the share of female undergraduates in 10 years.
- "Inward actions" at individual organizations and "outward initiatives" at the level of innovation networks can be jointly conducted within innovation ecosystems (as shown by the example of Swedish Innovation Agency).

The Quadruple helix innovation ecosystems will be engaged in the CALIPER R&I Hubs made of universities and research institutes, companies, governmental agencies, Foundations, Business and Social entrepreneurship incubators, and NGOs, which will support the analysis of the external conditions.

For the implementation of the external assessment, partners will need to involve/consult at least 12 stakeholders each<sup>10</sup>.

In the frame of the external assessment methodology, two main areas will be investigated:

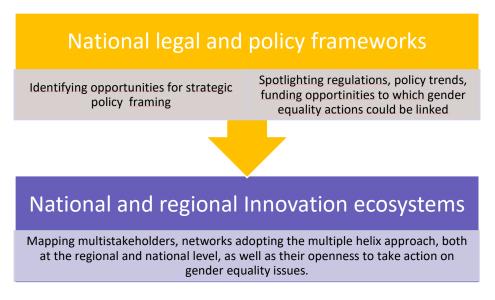


Figure 4: areas of investigation for the external assessment

The external analysis represents a preliminary task of the multi stakeholders dialogues (WP2).

<sup>&</sup>lt;sup>10</sup> See KPIs set at page 128 of the GA.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.

## **3.2** The National legal and policy frameworks

The purpose of the assessment of the national legal and policy frameworks is mainly to identify per each partner's country:

- the existence of any specific national (and/or regional) policies on gender in Higher Education and/or Scientific Research & Innovation;
- how the frameworks define the relationship between gender equality and quality/excellence in research and/or in education;
- in case there are no specific frameworks, if broader national and/or regional policies on Research, Innovation, and Higher education include any measures on gender equality.

It is worth to underline that national policies in place in each country affects the progress towards attaining the GE related ERA priorities.

In order to investigate the specific national (and/or regional) policies on gender in Higher Education and/or Scientific Research & Innovation it is necessary to consider that they are strictly connected with the general labour market participation of women in each country. The participation of women to the labour market is affected by *"unequal gender division of labour related to housework and family care in combination with the lack of childcare facilities"*<sup>11</sup>. Such gender division is included in laws. Indeed, each national welfare system provides different regulations on the share of responsibility for childcare among the state, the market and the individual. The lack of childcare facilities provided by the State affect the participation of women in the labour market and brings as a consequence, longer parental leaves and more part-time work for women.

Also at universities and research institutions more generally, the work life balance is influenced by employment conditions, regulated by law.

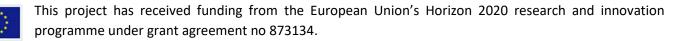
The existing framework conditions regarding childcare facilities, parental leave regulations and employment conditions in general, do not only influence the decision/possibility of women to access the Scientific Research & Innovation sector (1<sup>st</sup> ERA priority on gender on gender equality in research), but they also have a strong impact on whether women can make a career in such sector (2<sup>nd</sup> ERA priority on gender equality in research). In particular, *"in regard to employment conditions, the rigidity or, on the contrary, flexibility of scientific career schemes at the universities/research institutions play an important role in female career advancement"*. Also research funding policies play an essential role in this process, since special funding for women in science has a positive impact on increasing the number of women who make career in this sector.

The integration of the gender dimension does not only relate to the promotion of gender equality but also to the integration of the gender analysis into research products (3<sup>rd</sup> ERA priority on gender equality in research). It is therefore essential also to investigate if and how countries support the inclusion of the gender dimension in research programmes and content.

In order to investigate the national (and/or regional) policies on the integration of the gender analysis into research content it is important to explore if national Research & Innovation programmes require researchers to include the gender dimension in their research proposals and projects.

For exploring the national (and/or regional) policies two methods/tools are proposed:

<sup>&</sup>lt;sup>11</sup> A Conceptual Evaluation Framework for Promoting Gender Equality in Research and Innovation, EFFORTI, 2017 (Horizon 2020, SWAFS)



- 1. desk research/policy analysis
- 2. relevant stakeholders interviews (complementary in case the desk research does not produce enough information)

The table below includes a list of qualitative indicators which partner institution are required to explore in order to assess the national legal and policy frameworks.

Indicator	Description	Tool(s)
Overall strategic gender equality policies in place at national level	The overall strategic orientation of gender equality policies in Higher Education and/or Scientific Research & Innovation including the legal basis/acts relevant to the field of gender equality is an important context-related indicator to assess the awareness/commitment to gender equality at the national level. It is aimed at exploring if universities/research organizations are obliged by law to work towards gender balance and/or to implement a GE plan. The indicator also includes an understanding of how the frameworks define the relationship between gender equality and quality/excellence in research and/or in education.	Desk research
Existence of specific mechanisms to promote the under- represented gender in Higher Education and/or Scientific Research & Innovation at national or regional level		Desk research
Existence of national policies on implementation of quotas or targets for promoting the underrepresented gender in management positions and committees.		Desk research
Existence of national legislation promoting equality and non- discrimination in employment		Desk research



Indicator	Description	Tool(s)
Existing policies at national level for reducing unequal gender division of labour related to housework and family care	The indicator aims at identifying and describing measures such as parental leave (paid/non paid, transferable, eligibility criteria, flexibility, etc.) and other measures aimed at reducing unequal gender division of labour.	Desk research
Existing framework conditions regarding childcare facilities	Availability and quality of formal childcare offer in the country and the city where RPO/RFO is located (potential source: data on the Barcelona Objectives by country) <sup>12</sup>	Desk research
Employment conditions at university and research organization.	It aims at exploring which are the employment conditions in each country with regard to university and research organizations more generally. In particular, it refers to the share of precarious contracts on the overall amount of employment positions, as well the grade of rigidity or flexibility of scientific career schemes which play an important role in the female career advancement. It refers to the level of mobility both between institutions and sectors, fixed or non-fixed number of years to access the following stage, but also to the existence of flexible criteria for career progression which take into consideration major life events like childbirth, care work for relatives or continuing education as well as individual performance.	Desk research
Existence of national programmes which promote the integration of gender in the content of scientific research .	When this happens measures usually combine training programmes and funding incentives (gender as a criterion embedded in evaluation processes to access grants and resources)	Desk research

<sup>&</sup>lt;sup>12</sup> Latest available report at this Link



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.

Indicator	Description	Tool(s)
National/ policies and legal frameworks on sexual/gender harassment in the workplace.	We are interested to know whether there is legislation in place requiring that employers take action and set up measures to prevent and/or contrast sexual harassment or other forms of diversity related harassment	Desk research
Funding opportunities for collaborative actions on gender equality at national and regional level	Specific Indicators can be the level of integration of gender in ERDF Work Programmes at the national and regional levels, or other national programmes where gender in scientific research is promoted and funded	Desk research

 Table 5: Qualitative indicators for the national legal and policy frameworks

In order to report the results of the desk research/policy analysis, partners will need to use the template available in Teamwork.

In case partners cannot address the mentioned indicators through desk research they can proceed by taking contact with colleagues or external stakeholders who might have specific competences on the subjects.

### **3.3** National and Regional Innovation Ecosystems

The innovative approach proposed by the CALIPER project focuses on engaging national and regional innovation ecosystems in the partners' countries as a way to ensure institutional changes of societal and economic relevance.

This part of the methodology is aimed at conducting a qualitative and quantitative research which will take stock of existing networks of collaborations between each RPO/RFO and external stakeholders at both national and regional levels, in order to identify the innovation ecosystems in which they operate with a multi-stakeholder/quadruple helix approach (academia, business, NGOs, government/ policy level side) and related gaps and gender inequalities as well as potential areas of intervention and potential synergies.

Universities and research institutions more generally have gained a central role in knowledge creation in the post-industrial economies and societies. Also, the universities' centrality in the innovation dynamics have become intertwined with their role of orchestrating multi-actor innovation networks. Indeed, as reported in the EUA Study "The Role of Universities in Regional Innovation Ecosystems", "businesses and governments see the university and its members as ideally suited to "connect the dots" because they are impartial, driven by curiosity and long-term perspectives, rather than by commercial interests and short-term goals".

In the above mentioned Study it is showed how "universities and their partners in regional innovation systems join forces to build such bridges across institutional and disciplinary boundaries, look for new collaborative formats and spaces in order to address shared challenges, and shape their own changing roles in the process."



Further literature and case studies on the concept of universities' engagement with their local ecosystem from a gender perspective will be the subject of the report to be prepared under D 1.3 "Gender analysis of research and innovation ecosystems and reports from the local R&I Hubs" by M8.

As already known, the overarching purpose for each partner is to set up a co-creation process with external stakeholders that share a common understanding and interest in promoting gender equality within their own organizations and the territory at large. The ultimate goal is to co-create gender equality actions to be included in the CALIPER GEPs and the first step within this process is the setting up of CALIPER Research & Innovation Hubs. R & I Hubs will be composed of representatives of the national, regional and local innovation ecosystems around the partner RPOs/RFOs including business, research, government and civil society actors.

As already pointed out, the innovation ecosystem is composed by stakeholders belonging to the following 4 sectors:

- Academia and universities
- Industry and business
- Government & public sector
- Civil society

Universities' role in national/regional innovation ecosystem entails various dimensions:

- Learning and teaching reforms
- (Co)production of relevant scientific knowledge and technology
- Engagement with external stakeholders

Indeed, according to the study already mentioned above, "Engaging with external stakeholders constitutes a third vital role of universities in their innovation systems. While this role has always been an integral part of university management and leadership and has attracted targeted institutional support in the last two decades, it has now become a central strategic concern, often of the highest priority for institutional leaders".

The **government and public sector** play a vital role for the development of effective innovation system at all levels (national, regional and local). They act in various roles for promoting systematic approaches to innovation and establishing self-reinforcing innovation ecosystems:

- Regulator
- Facilitator
- Strategy moderator
- Funding agent
- Infrastructural developer

At the national level government and public sector formulate innovation policies, such as innovation-friendly regulation, funding schemes and institutional arrangements that strengthen innovation capacity in universities and the business sector, and attract innovative talents, companies and investments to the country.

At the regional level the role is mainly of initiator and coordinator of innovation strategies.

Both, regional and national governments also play a vital role in safeguarding regional attractiveness for innovation by ensuring international accessibility (traffic connections), state-of-the-art building infrastructures, digital connectivity and quality of life for internationally mobile talents.

Due to the accelerated complexity of innovation **industry and business** can no longer rely on their internal R&D processes alone, but need to absorb externally relevant knowledge in a wide variety of disciplinary areas, sectors and institutions. Universities are key partner in this process. In order to fully benefit to the



networks on open innovation, companies need some enabling conditions related to internal skills and talent, research and knowledge creation, financial conditions and infrastructure and context.

The inclusion of **civil society** as important regional actors in the innovation ecosystem represents a relatively new approach (from the triple helix to the quadruple helix approach) which aims at setting up broader networks of researchers and innovators from different regional institutions in order to develop and implement a common innovation agenda.

The figure below shows the different actions and methods that will be used for the creation of the national and regional ecosystem.

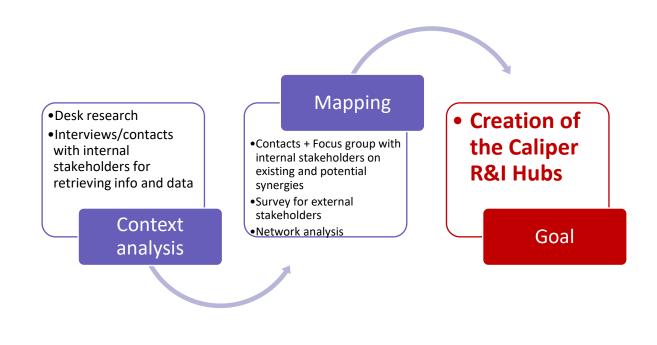


Figure 5: Actions and methods for the creation of the national and regional ecosystem

The first activity that each partner institution (both RPOs and RFOs) needs to conduct is a **context analysis** to get a clearer picture of the challenges their own innovation ecosystems face from a gender perspective. As mentioned, analysis related to the National and Regional Innovation Ecosystem will concern the identification of gaps and challenges related to gender inequalities at the different levels of the education-research-transfer to market and innovation ecosystems. The picture below highlights the main gender related issues that are usually present in innovation milieus and that represent the building blocks of the context analysis to be conducted by CALIPER partners. Whenever possible, information and data should be retrieved both at the regional and national levels.



Talents acquisition and representation issues	Scientific Knowledge and tech design/production issues	Broader issues featuring R&I 'cultures'
<ul> <li>Research skills gaps (i.e. low ratio of students and researchers in STEM, especially female)</li> <li>Gender inequalities in leading research projects and patents registration</li> <li>Low representation of women in innovative enterprises &amp; start-ups</li> </ul>	<ul> <li>Missing integration of gender as a scientific research dimension</li> <li>Lack of awareness and consideration of gender dimension in product design and development</li> </ul>	<ul> <li>Widespread stereotypes on gender/ innovation/ entrepreneurship</li> <li>Cross-disciplinary approaches not sufficiently embedded in R&amp;I yet</li> </ul>

## Figure 6: Overarching structural gender inequalities and challenges within innovation ecosystems: issues of the context analysis

**Methodology:** context analysis will rely on desk research based on existing studies, reports, papers on regional and national innovation ecosystems to be supported by contacts/phone calls with colleagues, or external stakeholders who could support in retrieving the needed information.

## A first draft report of the context analysis will be made available to colleagues invited to participate to the focus group (see below) and will be completed based on further information to be retrieved.

The table below lists the relevant indicators for the context analysis more in detail, highlighting potential sources of information (consider that a primary source potentially valid for all RPOs/RFOs are the ERA country reports).

Area		Indicator	Further description	Type of indicator	Potential sources
workforce	and and	High School and Higher Education students in STEM by gender, at regional and national levels	Low rates of enrolled students in STEM at universities often originate from gender differences in study choices at an earlier stage.	Quantitative	Reportsonnationalorregional educationsystems at policies
		Researchers in STEM by gender in R&I, at national and regional levels	The lack of womenamongSTEMresearchers is an issuebothforpublicresearchandfor	Quantitative	Regional/ national statistics and studies on R&I



Area	Indicator	Further description	Type of indicator	Potential sources
		companies investing in R&D (data are most likely available on public research only)		
	Evolution of employment rate in R&I by gender	This points at employment trends in R&I in absolute terms and by gender, in the last 5 years (flexible time span)	Quantitative	Regional/national statistics and reports on employment, or on R&I
Leadership	Patents registrations by gender	It would be more meaningful if applied to the last 3-5 years	Quantitative	Existing studies/reports on R&I and/or Patenting bodies/institutions
	Founders and leaders of innovative enterprises and start-ups by gender	The indicator could apply to founders by gender and/or to the composition of managing teams by gender. The definition of "innovative" could vary across contexts. Gendered approaches to innovation point at the need of expanding the definition of innovation including social dimension (i.e. tech for social/environmental good companies or companies with a prevailing social/environmental mission with innovative approaches in products or processes). If definitions are still siloed, it would be good to have the figure both for tech innovation and	Quantitative	Existing studies and reports on entrepreneurship, or on innovation (tech and social innovation). Regional/national departments in charge of economic development.



Area	Indicator	Further description	Type of indicator	Potential sources
		social innovation separately.		
Knowledge and tech production issues	Level of integration of gender as a scientific research dimension	The indicator aims at understanding how widespread this approach is among universities and research centres regionally and nationally.	Qualitative	ReportsandstudiesfromMinistriesofresearch/genderequality.Inabsence of studies,existenceof goodpractices could do.
	Level of consideration of the gender dimension in product/service development	The indicator aims at understanding how widespread gender sensitive or human centered design methods are regionally and/or nationally in service/product design (more often this is relevant for the business sector).	Qualitative	Reports and studies. In absence of studies, existence of good practices could do.
Broader issues featuring the R&I 'cultures	Gender sensitiveness/family friendliness of supporting services to start up and entrepreneurship	Services to start up and businesses tend to not consider gender (and other) inequalities in their service offer and this translates into offers suitable for young or middle aged white men.	Qualitative	Reports/studies from businesses associations, regional or national stakeholders
	Perception of existing stereotypes/bias on gender and innovation/ entrepreneurship	Institutional communication from players in the ecosystems and media representation reproduce gender stereotypes.	Qualitative	Reports/studies from businesses associations, regional or national stakeholders

<b>Table 6: Indicators</b>	for the	context	analysis
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In order to identify actors from innovation ecosystems that will constitute the R&I Hubs, partners are asked to conduct a mapping of the stakeholders at both national and regional level and understand their availability/readiness to take action and join actions on GE issues.



In details, stakeholders that are going to be involved are:

- Academia & universities: other external RPOs/RFOs, high schools, professional associations
- Industry & business: innovative Start-ups, incubators, STEM related companies
- Government & public sector: National & regional authorities
- Civil society: NGO's which deal with women/gender issues

An overall mapping of external stakeholders will be carried out through desk research and the involvement of some key internal stakeholders, such as:

- the President and/or vice president(s) research and/or innovation,
- professors leading researchers/coordinators of clusters or centres or subject areas with a high density of regional cooperation
- Head of administration and heads of research support office and technology transfer office
- Head of continuing professional development/continuing education office
- Head of start-up support service

Through a **focus group**, a group from 4 to 8 of the above mentioned colleagues will help in identifying the external stakeholders to be involved in the R&I Hub and in completing the preliminary version of the context analysis report. Colleagues taking part to the focus group will be asked to prepare in advance a preliminary map of existing collaborations with external stakeholders to be shared and discussed during the focus group. Such mapping will be conducted using the spreadsheet made available in Teamwork. The identification of external stakeholders will be further facilitated through the network analysis to be conducted at institutional level (see paragraph 3.3.1).

The focus group will be structured as follow:

- 1) Presentation and discussion on the **preliminary context analysis** -> during this first session, the preliminary version of the context analysis will be presented and discussed with the aim at filling gaps and sharing relevant additional information and knowledge.
- 2) Presentation and discussion of the **mapping of gender in external stakeholders** -> participants will be asked to share and discuss about the preliminary mapping carried out before the focus group.
- 3) Discussion on the following topics/questions:
  - What is the current existing or prospective collaboration on broader areas/issues with the stakeholder (beside gender equality)?
  - In what ways gender inequalities seem to represent a challenge for them? How, up to your knowledge, these challenges appear to be perceived and what potential benefits would come from solving them?
  - What actions did they put in place on the matter or do they intend envisage to? If any, are there colleagues of yours who are in contact with them?
  - What complementarities or synergies can be envisaged with your institution? What would be the Impact and benefit for internal institutional change at our RPO/RFOs?
  - What overlapping /competitive actions could be envisaged?
  - What risks could derive from collaboration?



4) Identification of the external stakeholder to involve for collaboration within the R&I Hubs. Participants will also discuss on new potential stakeholders to involve.

The results of the focus group will be collected and reported using the report template available in Teamwork.

The last step of the mapping consists in sharing a brief **survey** targeting external stakeholders of the institution in order to address the same topics already addressed internally during the focus group from the external stakeholders point of view. Indeed, in order to have a more comprehensive and complete view/understanding of the existing collaborations, partners are asked to submit a survey to at least 12 - 15 stakeholders which can be structured as follow:

- Name of the institution/organization
- Type of institution (e.g. University, National or Regional Authority, company, NGO, etc.)
- Core activities/business
- Which kind of collaborations are already in place with the (add name of own RPO/RFO)? In what ways gender inequalities represent a challenge for your organization?
- What potential benefits would come from solving such challenges?
- Are there any actions/measures your organization has already put in place in order to overcome gender inequalities?
- In case no actions/measures are already put in place, does your organization envisage to adopt any of them?
- Which further complementarities or synergies do you envisage with the (add name of the RPO/RFO) in order to overcome gender inequalities?
- What overlapping /competitive actions could be envisaged?
- What risks could derive from further collaboration?

It is advised to share the survey using Google Form. The results of the survey will be then collected and reported through the reporting template available in Teamwork in the dedicated folder (external assessment).

The survey represents the last step of the external assessment, as well as the moment of transition towards WP2. In fact, the survey is also aimed at facilitating the subsequent and more consistent involvement of the external stakeholders during the organization of the Multi Stakeholders dialogues (Task 2.2).

## 3.3.1 Social Network Analysis

Social Network Analysis (SNA) is a graphical representation of the tides and connections existing around an organization/institution. It aims at providing a broad view of national/regional/local networking activities that took place around the RPOs or RFOs through external projects or joint initiatives.

In detail a social network analysis investigates:

"A network consists of a set of actors or nodes along with a set of ties of a specified type (such as friendship) that link them. The ties interconnect through shared end points to form paths that indirectly link nodes that are not directly tied. The pattern of ties in a network yields a particular structure, and nodes occupy positions within this structure. Much of the theoretical wealth of network analysis consists of characterizing network



structures (e.g., small-worldness) and node positions (e.g., centrality) and relating these to group and node outcomes" (Borgatti & Halgin, 2011, p. 2).

#### Benefits

Through SNA, organizations can point out at existing power relations, identifying central roles and isolated ones, channels towards innovation or knowledge-exchange. Within the CALIPER project, conducting SNA will, in particular, help spotlighting gender gaps within every partner's institutions in the leadership of external interactions. Moreover, it aims at identifying how frequently gender issues are taken into account in the external stakeholders' interactions. By the end of the project, or in intermediate steps, it will show how CALIPER activities have helped balancing the gaps and supporting the institution in developing its connections with the respective innovation ecosystems.

#### The process toward SNA

As through SNA each partner is going to track all the external stakeholders within their national, regional and local ecosystem, with whom their organization got in contact at least once, in the last three years, involving key actors of each institution will be crucial: each RPO/RFOs will have to identify colleagues who can be able to provide with clear and detailed information about the network they are in contact with themselves, or they know their Department/Units/ Research Groups are in contact with. In scope of the SNA are the local, regional and national ecosystems in which your RPO or RFO acts.

The process of collecting data will be articulated in this way:

- 1. Collecting information about relationships within each institution by:
  - Identifying the internal team/group/department to involve
  - Collecting data by sharing a dedicated file to fill in and/or by direct contacts with managers and key players
  - Validating the information in the Focus Group (see paragraph above 3.3)
  - Mapping out the network visually: mapping responses by using a software tool designed for the purpose (Kumu platform)
- 2. Key people to be contacted/internal stakeholders are, among others:
  - Head of Departments/ Research Units
  - Research Support/Facilitation Offices
  - Technology transfer offices
  - Deans/rectors delegates on Third Mission (if existing)

#### Tool to use for conducting the SNA: the KUMU NETWORK MAPPING

The easiest and most intuitive software we have identified in order to conduct the analysis is KUMU. The tool is free to use for a single person, creating public projects, otherwise for organization a small fee is to be foreseen (approximately 10 \$ per month)<sup>13</sup>. To make the use of the software easily we have prepared an ad hoc Excel file (.xlsx) to be filled with data collected by each institution. The file can be

<sup>&</sup>lt;sup>13</sup> See the Kumu page on pricing <u>https://kumu.io/pricing</u>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.

download in the dedicated folder in Teamwork (external assessment). Once the file is properly filled out it can be directly imported in the Kumu platform, which automatically create the SNA graphs.

The structure of the excel file is presented below:

#### 1<sup>st</sup> sheet: Elements

A	В	C	D	E	F	G	н	1
Label	Туре	Tags	Description	Intensity of interaction	Area/ discipline of collaboration	Name of the leader of the collaboration/connection	Age of the leader of the collaboration/connection	Gender of the leader of the collaboration/connection
Name of the external stakeholder	Use the type field to indicate the type of stakeholders. Chose among project and organization.	Select one of the following tags: academia & universitiea/ governement & public sector / industry & business / civil society	The description field is designed to hold longer-form content that describes an item. Descriptions can include multiple paragraphs, and even multimedia content.		Select one of the given disciplines (Humanities, STEM, medical science, social science, other)	Type the name of the main person of your institution in charge of the collaboration/connection		Select between (male, female, other)

#### Figure 7: SNA template - Elements sheet

The first sheet of the file is titled "Elements" (the name is directly given by Kumu and cannot be changed): with Elements we mean all the external stakeholders. Each stakeholder covers a single row. The 'Label' column (column A) is the only mandatory field, but it is advised to provide as much information as possible in order to make the analysis valuable. In most of the columns a dropdown menu with available options is present.

Additional information on which information to include in each single column are provided directly in the excel file (text in green).

	В	1	C	D	- I.	E	F	G
То		Tags		Intensity of intera		Geographical level on the second s	Does this collaboration focus on gender issues?	Is this collaboration taking into account gender issues?
depa (youi i.e. 1	ne of artments r institution) T artment			/	/		/	/
nami indic colui the 'e shee	reholder's e, same as cated in the mn "label" o elements' et Veneto	followi scient transfe f educa	t one of the ng tags: ific research; er to market; tion; science unication; raising ness:	One time = 1 project/initiative Frequent = 2-3 projects/initiatives Solid = More than 3 projects				
nent		ections	Projects D	o not modify it	(+)		 •	

#### 2<sup>nd</sup> sheet: Connections

Figure 8: SNA template - Connections sheet

The second sheet is titled "Connections" (the name is directly given by Kumu and cannot be changed) and represents all the connections that exist among elements. Columns 'From' and 'To' are fixed and



cannot be moved. In particular, column A indicates the starting point of the connection, which can be either the overall institution or a specific department, whereas column B indicates the end of the connection which can be either a specific department or the external stakeholders. Indeed, two options of connections are possible and can be displayed in the graph:

- 1. Direct connection from the partner Institution to the external stakeholder (without the involvement of specific departments) -> in this case only one row should be filled
- 2. Indirect connection from the partner Institution to the external stakeholder involving a specific department -> in this case two rows should be filled:
  - a. "from" the Institution "to" the specific department (first row)
  - b. "from" the specific department "to" the external stakeholder (second row)

In the column B, it is crucial to report the same name of the external stakeholders indicated in the column "label" of the sheet "elements".

It is important to underline that both the name of the institution and of each department do not necessarily have to be previously indicated in the sheet "elements" in order to appear in the graph. Indeed, in this case, the software will create automatically an element in the map, just with the name. Please, be sure that each department involved in a connection is also linked to the partner institution with a dedicated row (option 2a).

#### 3<sup>rd</sup> sheet: Projects

In the 'Projects' sheet partners are asked to list all present and past projects (of the last 3 years), by also providing a set of information. The aim of the sheet is threefold:

- 1. Tracking existing projects with national and regional external stakeholders;
- 2. Crosschecking if sheet "elements" includes all the relevant external stakeholders;
- 3. Crosschecking the "intensity" of the collaborations reported in the sheet "connections" at column D.

The fourth sheet called "do not modify" only contains the options for the dropdown menu and should not be changed.

IMPORTANT: Once the excel file is completed, please create a copy with just the first two sheets ('elements' and 'connections'). This file is the one that will be uploaded in Kumu.

Afterwards the KUMU platform can be opened by clicking at the following link <u>https://kumu.io/markets/network-mapping</u>

Here below the first actions to do are listed:

- <u>Create an account</u>
- <u>Create your first project -> here you have to select the option 'public' (for the free version)</u>
- <u>Picking a template</u> -> Here you have to choose the SNA



Once the template is selected, a name to the map must be given, and then this screen will appear.

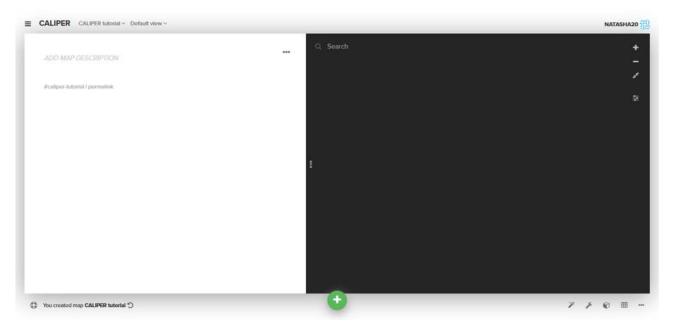


Figure 9: Kumu – new map's initial page

In order to import the file, it is necessary to click the green "+", select "import" and open the excel file in the "Import XLSX or CSV file" space and click IMPORT SPREADSHEET.

If the system does not find any errors, it is possible to click the green button 'Save import' at the bottom on the right.

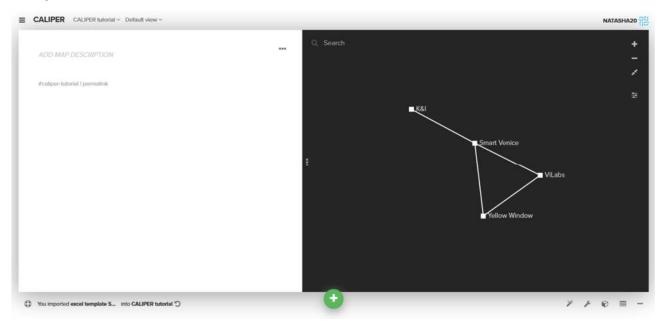


Figure 10: Kumu – new map uploaded

The map is then created.



In case it is necessary to modify some of the data in the excel file, it is possible to do directly, by clicking at

E

this icon at the bottom on the right of the map.

SNA will be piloted during M5 with partners, and this might lead to refinements and changes in the excel templates and the categories they are structured upon.

In order to highlight the **gender dimensions** categorized in the excel (the gender of the interactions' leadership at your institution - for the elements - and the presence of connections with the focus on gender issues) the following steps need to be followed.

• Click on the settings icon in the right side of the map. This window will appear.

CURRENT VIEW ···· CALIPER tutorial				
¥ <sup>≉</sup> SIZE BY	select a field 🗸 🗸	L		
6 COLOR BY	select a field ^	L		
Colors Theme Seein larger	select a field Area/ discipline of collaboration City where the person/ organization is based Degree of connection Description Does this collaboration focus on gender issues? Element Type Email of the stakeholder	^		
	Image			
	Is this collaboration taking into account gender issues? Label Label for the connection Name of the leader of the collaboration/connection Tags			

*Figure 11: Kumu – select colour parameter* 



- Click on 'Color by' and select the field "Gender of the leader of the collaboration/connection" as it is shown in the image above. This will colour the elements on the basis of the gender of the leader.
- After, click on the light blue button 'MORE OPTIONS' in the settings page
- Select 'Elements decoration', which will open a new window, like the one below

Decorate similar elemen	nts		
Instructions Select the values to decora	ate by (shift+click to selec	t multiple)	
Yes does this collaboration	FOCUS ON GENDER ISSUES?	Time to time INTENSITY OF INTERACTION	
Yes is this collaboration tak	KING INTO ACCOUNT GENDER ISS	SUES? Academia TAG	
Regional TERRITORIAL SCALE C	OF INTERACTION		
Change size			
Change color			
	nent color		
Change color	nent color ≢3eaba0		
<ul><li>Change color</li><li>Set a fixed elen</li></ul>	#3eaba0		
<ul> <li>Change color</li> <li>Set a fixed elen color</li> </ul>	#3eaba0	~	

Figure 12: Kumu – elements' decoration settings



- Organize the settings like in the image above (to select more than 1 value, press Ctrl and click on the second element)
- The map will then appear like this

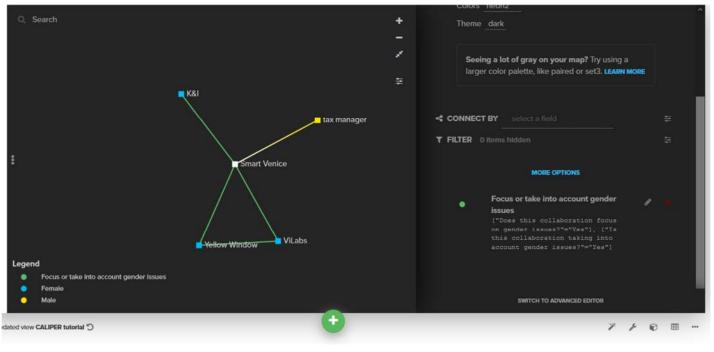


Figure 13: Kumu – customized map

In the example, it is possible to identify the gender of the connection leadership by the colour of the dots (light blue female, yellow male), while the green connections mean that the gender issues are at least taken into account in the interactions.



# 4 Internal communication for data collection

Data collection is an essential phase of the CALIPER project since the actions and measures of the GEP to be designed in WP2 will depend on the analysis previously carried out. The data collection will be performed by the members of the Working Group and the CALIPER team, but the data need to be provided by different internal actors and actresses at each RPO/RFO. This guideline aims at offering strategic advice about how to best communicate with them to ensure their collaboration. It contains important considerations for the data collection according to the different types of methodology (objective indicators; desk research; interviews; focus group; survey) and the different moments they will be employed (before, during and after the data collection). Instead of offering a set of standardised documents (invitation emails, fixed agenda for interviews, etc.), the guideline provides points for reflection allowing each RPO/RFO to best adapt their communication to their particular context and local language(s).

### Before starting the data collection

Before you start writing emails and calling people from different departments at your RPO/RFO asking them to provide you with statistical data or inviting them to participate in an interview or focus group, there are some considerations you need to take into account.

1. <u>Make sure the CALIPER project is known at your organisation and the main management bodies have</u> <u>been informed about it</u>

It is essential that they have at least heard about it before launching the data collection! Some important questions you may need to ask yourself:

- Did you inform the main authorities, the management board and the faculty councils of your organisation about the start of the CALIPER project? It is a good idea to briefly introduce the project during one of their meetings. In this way, high and middle management will already know the project when you ask them to support the data collection.
- Think about other departments, centres and services that you could also inform. Is there a gender studies centre or gender equality group with which you could share the news?
- Did you inform the communications department about the CALIPER project and ask them to share the piece of news in the RPO/RFO website and social media? This will allow the organisation's community to be aware of the existence of the project and will facilitate their participation in the interviews and the online survey.



Some useful tips :

- Get some project descriptions ready to introduce the project to different stakeholders (see examples in the Annex V):
  - Prepare a short document (1 page) containing the description of the project that you could easily share by email as an attached document. You can write in English and/or in your local language(s).
  - Prepare a short description of the project (1 paragraph) to write directly in the body of the email. It should contain only the main ideas of the project. If people desire to read more about it, they can open the attached 1-page document.
- You can mention in your communications that the CALIPER project is supported by the organisation's authorities (rector, vice-rectors, deans, directors) and that it has been approved and funded by the European Commission. These supports give you a very important legitimacy as project leader!
- Write yourself the piece of news you would like the communications service to share in the website and social media. It will probably be published faster and you can decide in which points of the project you want to place the emphasis.
- 2. <u>Understand well the type of information you need to collect and identify the key people to contact</u> <u>according to it</u>

Not everybody will be able to provide you with official statistical data or to inform you about the communication policy of the organisation. Moreover, you will also need to adapt your communication to the type of indicator required (for instance, the interview guide and the purpose of the interview you will communicate to the person to be interviewed).

If you are not sure about who is the most appropriate person to provide you with specific data, identify a key person in the institution that could help you with that (someone who know the organisation very well and/or is well placed within the department or service of interest).

### 3. Set a calendar for the internal communication

It is important to identify when you are going to communicate with each stakeholder according to the planned timeframe of the data collection (April-June 2020). This is particularly important for the survey, since you will probably have to send a reminder to call respondents to participate.

### 4. Plan ahead how you will carry out the return of information

People usually like to know what happened to the information they provided, which the final results are and how they are used afterwards. This is particularly true for methods like surveys in which people usually give "personal information" (sociodemographic variables, opinions, experiences, etc.). You can write a report or a factsheet with the results of the analysis and share it with them via email or the organisation website. Plan the modality of feedback ahead and let them know when asking them to participate in the data collection.

### 5. <u>Specific considerations for each type of methodology</u>

• Objective indicators: statistics

These are based on quantifiable data that are (usually) officially collected by the organisation and can be retrieved from databases (for instance, the gender of employees according to different types of contract). However, these data are sometimes collected in different databases very difficult to cross or are not collected at all at the institution and would need to be collected manually. It is important that you identify, not only the key people who can provide you with this type of data, but also that you assess what you can ask from



them. They will probably accept easily to send you already existing indicators but they may not accept to collect them themselves. In that case, you can anticipate the situation and communicate them a solution for the data collection if it is very important to obtain that indicator. Depending on the type of data, data collection can be collection by the WG or it could be part of a research internship.

• Subjective indicators: desk research, interviews and focus group

We present these three methodologies together because they are complementary: information about policies and programmes already in place at the organisation can be analysed through desk research but the information can and should be complemented via interviews and focus groups with different stakeholders. For instance, a regulation can describe the recruitment norms of the organisation to prevent gender discrimination and interviews with stakeholders can inform us about the degree of implementation of the norm and the possible obstacles to enforce it. In other occasions, interviews with stakeholders can inform us about the existence of a set of rules we did not identify during the desk research. Concerning focus group, it is meant at investigating the efficacy of existing measures as well exploring which new measures/initiatives could be adopted by the Institution to address gender issues in the different areas. Focus groups involve a group of people from 4 to 8. Focus groups (at least one for each partner organization) involves key people belonging to different areas of the Institution in order to have a great representation of the different institutional activities/services. Preferably people having similar levels of responsibility. Some considerations for the preparation and organisation of the interviews and focus group:

- Prepare different <u>interview guides</u> according to the different areas and sub-areas addressed by the indicators: HR, institutional governance, institutional communication, research, student services, teaching, action against gender/sexual harassment, and intersectionality. Think about the information you could not obtain through the desk research.
- Identify the most appropriate key informant(s) for each area and sub-area.
- Write an <u>email</u> to invite them to participate in the interview:
  - ✓ In the email, <u>briefly introduce the CALIPER project</u> if it is the first time you contact this person.
  - ✓ Give them <u>concrete and accurate information</u> about the aim of the interview and the type of information you would like to collect from them. Make emphasis on their important role as key informants! You can also share with them the interview guide, but clarify that it is a semi-directed interview and thus they can also speak about other related issues not initially listed in the interview guide.
  - ✓ Be <u>flexible</u> about the interview arrangements (day, time and place), adapt to their availability and preferences. You can also suggest to make the interview by phone or by videoconference.
  - ✓ Tell them <u>how you will use the information collected</u> and whether or not they will receive any type of <u>feedback</u> about it. It is highly recommended to provide feedback on data collection so that the participants feel involved in the whole process. Moreover, it can help raise awareness on gender inequality in higher education. However, think about preparing a special kind of material for the dissemination of results since very few people will probably read a long report. Documents like factsheets are quite useful to keep participants informed about the results.
  - ✓ For the focus group(s): make sure all the people you invite can provide information about the selected indicators. You can also organise different thematic groups according to the area/sub-area enquired (HR, communication, etc.).
- Subjective indicators: survey

In the survey you will need to get as many respondents as possible so that the data reflect accurately the reality of your organisation. Since it is an online survey, you will need to motivate people who receive the



Page **80** of

survey link to participate and answer all the questions! Some important considerations to bear in mind to encourage participation:

- It is recommended that the email inviting to participate in the survey is an <u>official email sent</u> by the authorities of the RPO/RFO (the rector/director, the vice-rector in charge of gender equality or the correspondent high management person).
- As it was the case for the interview, in the email you need to briefly <u>introduce the CALIPER</u> project and the <u>aim of the survey</u>. Underline the message that the objective of the survey is to better understand the current situation in order to improve it!
- Some people may feel incompetent on the issue of gender equality (they do not consider themselves as "experts") and may be reluctant to participate in the survey. To overcome this obstacle, you can make emphasis on the fact that there are <u>no</u> "correct or incorrect" <u>answers</u>, since we are only interested in knowing their personal experience and/or opinions.
- You should also explain how long it takes to fill in the survey. Once you have adapted and translated the survey questions, do a test by asking someone else to answer to it and time how long it takes her or him to complete it (for example, 10 minutes). The information about the duration of the survey completion should be accurate. Otherwise, the respondents will probably abandon before finishing it and we will lose participants!
- Explain also in the email that the answers and the data will be <u>anonymous</u>.
- You can tell them that they will be informed of the <u>final results</u> and describe how they will receive the feedback.
- Apart from sending an email to invite people to respond to the survey, the survey link can also be available in the organisation's intranet, website or social media. However, if the link is publicly accessible (i.e. by people outside the RPO/RFO), you need to make sure that the respondents are members of the organisation. It can easily be done by adding a first item in the survey (e.g. Do you work and/or study at [name of the RPO/RFO]: yes/no).

### During the data collection

Desk research, interviews and focus groups:

• Check the information you have and eventually organise more interviews/focus groups.

Survey:

• Verify often how many respondents you got to the survey and send a reminder by email if necessary.

### After the data collection

All methods:

• Communicate in the most appropriate way the results of the analysis to the different stakeholders.



# **5** References

### H2020 projects

- ACT (2019), Co-creation Toolkit, <u>https://genbudget.act-on-gender.eu/tools/toolkits</u>
- EFFORTI (2017), A Conceptual Evaluation Framework for Promoting Gender Equality in Research and Innovation, A synthesis report, D3.3
- EQUAL-IST (2019) Gender Audit Methodology for ICT-IST research institutions v2, report, D2.4
- FAMILIES\_SHARE (2018), Methodology of pilot testing and evaluation, and guidelines for community managers, D3.1
- GENDERACTION (2019), The role of Funding Agencies in the promotion of Gender Equality in R&I, Briefing Paper
- GENDERACTION. (2019a), The future of gender equality in European research and innovation, Briefing Paper, No. 11.
- GENERA (2016), Status report on gender in involved RPOs and RFOs including the Gender-in-Physics Days concept and results of the data collection, technical report
- TARGET (2018), Gender equality monitoring tool and guidelines for self-assessment, report, D4.1
- SUPERA (2018), Preliminary gender analysis and baseline assessment: guidelines for data-collection and reporting

### FR7 projects

- GARCIA (2016), Supporting Early Career Researchers through Gender Action Plans. A design and Methodological Toolkit, working paper n. 9
- GENISLAB (2014), Achieving gender balance at the top of scientific research, Guidelines and tools for institutional change
- GENDER-NET (2016), Plans and initiatives in selected research institutions aiming to stimulate gender equality and enact structural change, Analysis report
- GENDER-NET (2016), Qualitative indicators on gender equality in research institutions, report

### Other sources/documents

- Borgatti and Halgin (2011), On Network Theory Organization Science 22(5), pp. 1168–1181, INFORMS
- Crimmins, G. (2018), Strategies for Resisting Sexism in the Academy. Higher Education, Gender and Intersectionality, Plagrave Mac Millan.
- EIGE (2016), GEAR Toolkit, Tool for gender equality in academia and research
- Equality Challenge Unit (2010), Measuring progress on equality: qualitative evidence
- EUA Study (2019), The Role of Universities in Regional Innovation Ecosystems
- European Commission (2018), She Figures Handbook 2018



- European Commission (2020), A Union of Equality: Gender Equality Strategy 2020-2025. <a href="https://op.europa.eu/en/publication-detail/-/publication/4ed128c0-5ec5-11ea-b735-01aa75ed71a1/language-en/format-PDF/source-119579348">https://op.europa.eu/en/publication-detail/-/publication/4ed128c0-5ec5-11ea-b735-01aa75ed71a1/language-en/format-PDF/source-119579348</a>
- European Commission (2018), Barcelona Objectives
   <u>https://ec.europa.eu/info/sites/info/files/bcn\_objectives-report2018\_web\_en.pdf</u>
- UCEA, EFEE, ETUCE (2015), Supporting Early Career Researchers in Higher Education in Europe: The Role of Employers and Trade Unions, Final Report, <u>https://www.csee-</u> etuce.org/images/Reports/FinalReportSupportingECR.pdf



Annex I: Agenda and report of the Transnational Capacity Building



Linking Research & Innovation for Gender Equality

Assessing gender inequalities in research organizations. The CALIPER Methodology in the making

> Hosted by Smart Venice Venue: On line, Zoom Platform Date: 5<sup>th</sup> and 6<sup>th</sup> March 2020



Meeting Agenda: Transnational Online Capacity Building, ZOOM platform, 5th – 6th March 2020 Page 2 of 4

Day I

Link to register to the event:

DAY 1 https://zoom.us/meeting/register/upQpcO6vpjgpriiiESFSh7x6At9HXz1L4g

DAY 2 https://zoom.us/meeting/register/uZYpduugrT0t-JCJBjb7JnUKC8eM1Aftsw

Upon registration, you will receive a confirmation e-mail with a further link to access the meeting on line.

09:15-16:30		
09:15 <mark>- 0</mark> 9:30	Log-in on the Zoom Platform	
09:30 - 10:00	Welcome, agenda of the day and technical rehearsal on how to use the platfor smoothly (VIL & SV)	
10:00 - 10:15	Gendered disaggregated organizational analysis and data collection: overview on concepts, definitions, good practices (SV)	
10:15 - 10:25	Discussion session	
10:25 - 10:40	The CALIPER internal assessment methodology-Overall articulation (SV)	
10:40 - 10.50	Discussion session	
10:50 - 11:05	Coffee break	
11:05 – 11:20	The internal assessment methodology as the first essential step to design an implement GEPs_Step 1: quantitative indicators and data collection. (SV) Type of quantitative data to be collected for a gender equality assessment assessment at the involved RPOs/RFOs, data tools and deadlines.	
11:20 - 12:00	Individual scenario building exercise on quantitative indicators and data collection process. Envisaged processes, stakeholders to be engaged, internal timeline definition to meet the deadline	
12:00 - 12:45	Plenary feedback session of partners internal discussion_identification of critica indicators	
12:45 - 13:45	Lunch	
13:45 - 14:05	75 The internal assessment methodology_Step 2: tools on analyzing institutional culture and practices (SV) Presentation of qualitative indicators/information and the relevant tools/methods to to investigate gender bias	
13:50 - 14:05	Discussion session	
14:05 – 1 <mark>4</mark> :40	14:40 Envisaging and contextualizing the use of the tools for qualitative data collection Scenarios building exercise in smaller working groups	





Meeting Agenda: Transnational Online Capacity Building, ZOOM platform, 5<sup>th</sup> – 6<sup>th</sup> March 2020 Page 3 of 4

14:40 - 15:05	Plenary discussion on outcomes from the scenarios building exercise	
15:05 - 15:20	Coffee break	
15:20 - 15:40	Reporting process on the internal assessment methodology Presentation (SV & VIL) Presentation (VIL)	
15:40 – 16:00 Discussion session		
16:00 - 16:30	Wrap up and closing of the meeting	



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.



Meeting Agenda: Transnational Online Capacity Building, ZOOM platform, 5th – 6th March 2020 Page 4 of 4

Day 2

	09:15-12:30		
09:15 - 09:30	Arrival on the ZOOM platform		
09:30 - 09:40	Welcome and agenda of the day (SV&VIL)		
09:40 - 10:10 Engagement strategy and communication for the internal assessm alignment with T5.1 and T6.2			
	Guided brainstorming session with SV-VIL-STU and ULB as main contributors		
10:10 - 10:30	The CALIPER external assessment methodology		
	Presentation of an initial roadmap for analyzing- legal and cultural frameworks and the local/ national innovation ecosystems (SV)		
10:30 - 10:45	Discussion session		
10:45 - 11:00	Coffee break		
11:00 - 11:20	Interlinkages between internal assessment, mapping of capabilities, awareness raisin and training sessions in national languages Presentation (SV)		
11:20 - 12:00	Discussion session		
12:00 - 12:30	Wrap up, next steps at the project level and closing of the meeting		



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.



## Participants' List

First/Last name	Organisation	Attendees
Vasiliki Moumtzi	VILABS	Х
Maria Sangiuliano	SV	х
Marzia Cescon	SV	Х
Anamari Nakic	UZG	х
Lana Horvat-Dmitrovic	UZG	Х
Tamar Chkhaidze	SRNSF	х
Levan Tlashadze	SRNSF	X
Giorgi Tsotsoria	SRNSF	х
Miriam Sefcikova	STU-BA	X
Sara Aguirre	ULB	х
Sonia Saborit	IRB	X
Martina Gasull	IRB	Х
Maribel Labrid	IRB	X
Elena Simion	UEFISCDI	x
Alexandru Dinu	UEFISCDI	X
Raluca Coșcodaru	UEFISCDI	х
Oana lonescu	UEFISCDI	X
Gokay Ozerim	YU	х
Guldan Kalem	YU	х
Rosaria Rinaldi	UNILE	х
Anna Maria Cherubini	UNILE	x
Sara Invitto	UNILE	х
Eleni Kanellou	NTUA	х
Maria Flouri	NTUA	х



#### Day 1

Smart Venice (SV) welcomes the participants and introduces the aim of the capacity building detailing the agenda of the first day. A brief technical rehearsal is conducted in order to make participants familiarize with the ZOOM platform.

The first presentation of the day concerns an overview of concepts, definitions and goals of the gender sensitive organizational assessment and of the gender disaggregated data collection. SV provides with a set of definitions on gender, an overview of the evolution of EU gender in research policies, the difference between gender assessment and gender audit and the type of indicators (i.e. quantitative, qualitative and index).

The second presentation of the day concerns the overall articulation of the CALIPER internal assessment methodology. SV explains what is the purpose of the assessment, which are the methodology's features and approach, how it is structured (along the 3 ERA priorities on gender equality and a set of institutional service/activity areas) and the methods to be used. A short discussion follows.

After the coffee break the meeting follows with a more in depth explanation of the internal assessment methodology. Quantitative indicators, their classification and related tools for collecting data are presented (desk research/ document analysis). Partners are involved in an individual scenario building exercise on quantitative indicators, in which they are asked individually to assess the degree of difficulty in data collection for each of the identified indicators. The aim of the exercise is to get relevant feedback from the partners and adjust the methodology accordingly. The exercise is conducted by filling a google form.

After the exercise a plenary session follows in which SV comments the results obtained from the exercise and asks clarifications to partners. During the sessions some partners point out how some the indicators could be sensitive (i.e. indicators on gender pay gaps and on sexual harassment).

During the afternoon session SV presents the qualitative indicators and the related tools (desk research, interviews and survey) and proposes to the participants a scenario building exercise in groups. Indeed, organized in different rooms, partners are asked to reflect on the qualitative indicators and the tools presented in order to identify indicators difficult to assess, people/offices to involve and processes to follow.

After the exercise each group reports on the results and the critical indicators/questions. Some partners reports the opportunity to include also a focus group in the methodology. As concerns the survey partners suggest to include in its presentation that results will be available within a of the results the importance to present its results is pointed out by some partners. More critical points are raised by partner RFOs with which a dedicated call will be set afterwards.

The last presentation of the day concerns the reporting process on the internal assessment methodology. VIL briefly presents deadlines and tools to be used by partners for the reporting.

#### Day 2

The second day starts with a focus on the engagement strategy and communication for the internal assessment. This part is strictly connected with T6.1 and T5.1 therefore SV invites the relative task leaders to intervene in order to express their opinions/ideas on how to communicate internally the assessment and how to engage people. In particular, partners discuss about the opportunity to create shared and common templates to be adapted/customized by each partner and to be used for giving information on the project as



well as for engaging people in the assessment. Also partners discuss on which channels to be used for this purpose.

The second presentation of the day concerns a first overview of the external assessment methodology. SV presents the overall structure of the methodology which has two main components: the National Legal and Policy Framework and the National and Regional Innovation Ecosystems. SV also provides a first set of indicators and tools that will be included in the methodology and explores with the partners the opportunity to include also a social network analysis. In general, partners find the social network analysis as an interesting and useful tool to include, NTUA suggests the use of Kumu as a tool for conducting the analysis. SV will investigate it further. Finally, SV explains the following steps for the overall assessment.

After the coffee break, SV presents the interlinkages among the internal assessment, the mapping of capabilities, the awareness raising the and the training sessions. In particular, SV identifies the internal capabilities relevant for the internal assessment, then shows the results of the first version of the mapping of capabilities provided by the partners and reminds to partners about the deadline of the second version of the mapping (end of March). Also SV explains that the definition of the existing and needed capabilities is also crucial for the national trainings in order to identify the topics which need to be addressed at most. Consequently, SV updates the partners on the training sessions already fixed and on the trainers' profile.

A final discussion and a wrap up follow before closing the meeting at 12.30 am.



# Annex II: Desk research/policy analysis template

Area	Subjects of desk research	Notes (for conducting the reseach)
HR	Existence of gender sensitive protocols for recruitment and hiring. In case such protocols exist describe the protocols and investigate how they work through interviews.	
	Existence of initiatives/measures targeting the underrepresented gender related to career progression. If initiatives exist briefly describe them and explore them more deeply through interviews.	
	Existence of measures to improve work- life balance and reconciliation of work and family life. If measures exist briefly describe them and explore them more deeply through interviews and survey.	
	Existence of dedicated policies on equal pay. To be further explored through interviews.	
Institutional governance	Explore the scale of the organizational commitment to gender equality through the analysis of the relevant institution's program and mission documents/regulations. If needed explore it further through interview	

	Explore the existence of measures, procedures, tools that embed a gender dimension in data collection processes at all levels or at certain specific levels also through interview.	
	Explore the existence of strategies/policies to foster gender balance in decision making processes. Further investigate through interviews.	
Gender Equality resources (hum explored. If not setting up one, s through intervie Explore the exis Equality bodies. (human/financia Interconnection Gender Equal explored. If not setting up one, s	Investigate the existence of a GEP and of Gender Equality Bodies. Roles, available resources (human/financial) should be explored. If not in place, the intention of setting up one, should be investigated also through interview.	
	Explore the existence of diversity/broader Equality bodies. Roles, available resources (human/financial) should be explored. Interconnections and collaboration with Gender Equality bodies should be explored. If not in place, the intention of setting up one, should be investigated also through interviews.	
Institutional communication	Explore the gender sensitivity of the institution website and of other printed publication. In particular explore:	



<ul> <li>if there are women/men/ge conforming people generally websites or printed material</li> <li>how many women/men/no visible</li> <li>if the communication material</li> </ul>	visible on n-binary are als reflect
<ul> <li>'diversity' (in terms of sex, agetc.)</li> <li>which kind of pictures and i used to illustrate men/wome genders and SET in the medi</li> <li>What areas of study are repand if gender studies or othe related research are featured</li> <li>if the media address all generation</li> </ul>	nages are n/all resented gender
Further explore through inte Explore how Gender equali through the institutional social media. Eventually ex through interview.	y addressed vebsite and
Explore the presence of communication activities women (and/or other under groups) in science	promoting
Explore the presence of sp awareness Training activitie sensitive language use ar sensitive communication, within existing trainings.	s on gender d/or gender



	Explore the adoption of Guidelines/protocols on gender sensitive non biased communication/language use	
	Explore the over representation of one gender in visual communication on institutional websites. It consists in counting the number of people represented in pictures (excluding those of staff profiles/bios) and checking gender ratio. Checking also number of people with other 'visible' diversities. Comparing STEM and Humanities.	
Research	Explore if any funds for specific programs on gender studies have been allocated in the last 3 years.	
	Explore if any policies/guidelines on the integration of the gender analysis into research exist. Further investigate through interview.	
	Existence of a gender/women's studies department	
Research funding	Explore if protocols on gender sensitive recruitment of evaluators are available. Further explore through interview.	
	Explore the existence of trainings or guidelines on gender stereotypes and unconscious bias to evaluators	



	Explore the adoption of evaluation forms/templates including a paragraph on gender equality in research teams (if relevant) and gender dimension in research content.	
	Explore the adoption of double-blind review processes to avoid gender bias.	
	Explore the existence of Guidelines or trainings for grant applicants and evaluators on the integration of the gender analysis into research content	
	Explore if there are any gender specific research funding programs in place	
	Explore the use of gender fair language in call text.	
	Explore the existence of gender equality as a funding requirement.	
Student services	Explore the presence (and reach out) of initiatives aimed at counselling prospective students and attracting girls to STEM studies (or viceversa, boys to education studies/humanities). Further explore through interviews.	
	Explore the presence (and reach out) of initiatives aimed at counselling enrolled	



	students with a gender approach. Further explore through interviews.	
Teaching	Explore if any policies/guidelines on the integration of the gender dimension into curricula exist. Further investigate through interview.	
	Explore the existence/use of Gender sensitive teaching guidelines for professors/lectures. Further explore through interviews.	
	Explore the awareness of potential gender bias in teaching. Further explore through interviews.	
Action against gender/sexual harassment	Investigate the existence of policies and initiative addressing sexual harassment in the institution. Further explore through interviews.	
Intersectionality	Investigate existing institutional measures where gender is taken into account in conjunction with other discriminations/structural inequalities	



# Annex III: Survey's questions for RPOs and RFOs

Gender

 $\square$  Male

 $\square$  Female

 $\hfill\square$  I prefer not to say

### Age

□ 18-24

- □ 25-34
- □ 35-44

□45-54

□55-64

□over 64

#### Position

□ Researcher (non tenured, Post DOC Research Fellows)

□ Researcher (tenured)

Associate Professor

Full Professor

- □ head of department
- □ Staff of administrative offices
- □ Staff of HR offices
- □ Staff of other offices
- □Research evaluator (only for RFOs)

 $\Box$  other

### 1. Recruitment and promotion processes

- a. Have you experienced gender bias or other kind of discrimination (for ethnicity/age/gender identity, disability, other), as a candidate, when applying for?
  - a position within your institution (in your last application)

 $\hfill\square$  Yes I have experienced gender bias due to being a woman/man or identifying as such

- □ No I have not experienced gender bias due to being a woman/man or identifying as such
- □ Yes I have experienced bias of other type (ethnicity/age/gender identity, disability, other)

Please specify

□ No I have not experienced bias of other type

a position in your whole career

Yes I have experienced gender bias due to being a woman/man or identifying as such
 No I have not experienced gender bias due to being a woman/man or identifying as such
 Yes I have experienced bias of other type (ethnicity/age/gender identity, disability, other)
 Please specify

 $\hfill\square$  No I have not experienced bias of other type

- b. Have you experienced gender bias or other kind of discrimination (for ethnicity/age/gender identity, disability, other), as a candidate, who applied for?
  - a promotion within your institution (in your last application)

Yes I have experienced gender bias due to being a woman/man or identifying as such
 No I have not experienced gender bias due to being a woman/man or identifying as such
 Yes I have experienced bias of other type (ethnicity/age/gender identity, disability, other)
 Please specify

- I No I have not experienced bias of other type a promotion in your whole career
  - □ Yes I have experienced gender bias due to being a woman/man or identifying as such
  - □ No I have not experienced gender bias due to being a woman/man or identifying as such
  - □ Yes I have experienced bias of other type (ethnicity/age/gender identity, disability, other)

Please specify

- □ No I have not experienced bias of other type
- c. Do you think the institution you work for adopts gender sensitive protocols/policies for recruitment and hiring?
  - 🗆 Yes
  - □ No
  - □ It depends (please explain)
- d. Do you think the institution you work for adopts transparent and flexible promotion/tenure criteria?
  - 🗆 Yes
  - □ No
  - □ It depends (please explain)



e. Do you think that in your institution women are encouraged to engage in decision-making positions?

🗆 Yes

- □ No
- □ It depends (please explain)
- f. If you answered yes, can you explain how women are encourage to engage in decision-making positions?

(open answer)

- 2. Work life balance
  - a. Have you ever experienced or do you still experience any tensions between the work that is demanded to you and your family roles?
    - Yes, oftenYes, sometimes

    - □ It depends (please explain)
  - b. Are you aware whether any of the following measures to improve work-life balance are available in your institution?

Measure	I am aware it	I am aware it	I do not know
	is available	is not	if it is
		available	available
Teleworking/remote working			
Part time posts			
Leave (maternity, paternity, adoption, parental/family)			
Sabbatical leave			
Measures to support return (after leave)			
Reduction and/or flexible hours for childcare			
Reduction and/or flexible hours for other family dependents' care (elderly, other)			
Reduction and/or flexible hours for other reasons (e.g.			



for final exams, measures to support victims of gender based violence)	
Job sharing (Job sharing or work sharing is an employment arrangement where typically two people are retained on a part- time or reduced- time basis to perform a job normally fulfilled by one person working full-time).	

c. If you are aware that the measures are available, do you use any of them or have you done so in the past?

Measure	Yes	No
Teleworking/remote working		
Part time positions		
Leave (maternity, paternity, adoption, parental/family)		
Sabbatical leave		
Measures to support return (after leave)		
Reduction and/or flexible hours for childcare		
Reduction and/or flexible hours for other family dependents' care (elderly, other)		



Reduction and/or flexible hours for other reasons (e.g. for final exams, measures to support victims of gender based violence)	
Job sharing (Job sharing or work sharing is an employment arrangement where typically two people are retained on a part- time or reduced- time basis to perform a job normally fulfilled by one person working full-time).	

d. How do you rate them in terms of effects on your work life balance?

Measure	Positive	No effect	Negative	lt depends (please explain)
Teleworking/remote working				
Part time positions				
Leave (maternity, paternity, adoption, parental/family)				
Sabbatical leave				
Measures to support return (after leave)				
Reduction and/or flexible hours for childcare				
Reduction and/or flexible hours for other family				



dependents' care (elderly, other)		
Reduction and/or flexible hours for other reasons (e.g. for final exams, measures to support victims of gender based violence)		
Job sharing (Job sharing or work sharing is an employment arrangement where typically two people are retained on a part- time or reduced- time basis to perform a job normally fulfilled by one person working full-time).		

- e. Are you aware if your institution analyses researchers/staff needs (e.g. through focus groups, world cafè, survey etc.)?
  - □ Yes, I am aware and it does so
  - □ Yes, I am aware and it does not so
  - □ It depends (please explain)
- 3. Promoting mobility
  - a. In your opinion, does your institution facilitate in/outgoing research mobility for women researchers?
    - $\Box \ {\rm Yes}$
    - □ No
    - □ It depends (please explain)
  - b. If yes, which kind of mobility is facilitated?
    - □ Incoming international mobility
    - Outgoing international mobility
    - Incoming national mobility
    - Outgoing national mobility
    - $\square$  I do not know
  - c. Which services are provided by your institution for promoting mobility?



- Financial support
- □ Administrative/papers support
- □ Child care support
- □ Other family dependants support
- 🗆 I don't know
- 4. Wellbeing
  - a. How would you define the climate in your work environment?
    - Positive
    - Negative
    - Neutral
    - □ It depends (please explain)
  - b. Generally speaking are you satisfied about your job?
    - 🗆 Yes
    - □ No
    - □ It depends (please explain)
  - c. Generally speaking are you satisfied about your workplace?
    - 🗆 Yes
    - $\square$  No
    - □ It depends (please explain) don't know
- 5. Remuneration
  - a. Do you think the wage/remuneration policy adopted by your institution is transparent?
    - 🗆 Yes
    - □ No
    - □ It depends (please explain)
- 6. Gender sensitive communication
  - a. Does your organization adopt gender sensitive communication policies and training?
    - 🗆 Yes
    - □ No
    - It depends (please explain)
  - b. Are you aware of any complaint mechanism in cases of sexist communication?

     Yes, I am aware there are compliant mechanism
    - □ Yes, I am aware there are no compliant mechanism
    - $\hfill\square$  I am not aware
  - c. Does you institution promote awareness raising campaigns aimed at fighting stereotypes?
    - ⊓ No
    - 🗆 I don't know
- 7. Gender equality structures and procedures
  - a. Are you aware of whether a gender equality plan is established at your institution?



- $\hfill\square$  Yes, I am aware that this is established and am well informed about it
- $\hfill\square$  Yes, I am aware that this is established but I am not very well informed about it
- $\hfill\square$  Yes, I am aware that this is established, but I have no information about it
- No, I am aware that this is not established
- □ I do not know whether this is established
- b. Please rate your agreement or disagreement with the following statement: Leaders at my institution are committed to addressing institutional gender equality issues
  - □ Strongly agree
  - $\square$  Agree
  - Somewhat agree
  - □ Neither agree or disagree
  - □ Somewhat disagree
  - Disagree
  - □ Strongly disagree
  - Do not know
- 8. Gender/sexual harassment (unwanted or offensive sexual attention, suggestions, or talk, especially from an employer or other person in a position of power)
  - a. Have you ever experienced gender/sexual harassment within the organization?
    - $\square$  Yes
    - $\square$  No
    - □ I don't want to answer
  - b. If yes, did you report about it to competent bodies in your organization
    - 🗆 Yes
    - □ No
  - c. Have you ever witnessed gender/sexual harassment within the organization?
    - $\square$  Yes
    - $\square$  No
  - d. If yes, did you take any actions such as reporting to competent bodies or encouraging the victim to do so?
    - 🗆 Yes
    - □ No
  - e. If you didn't take any actions even if you witnessed gender based violence/sexual harassment, what did prevent you to do so?

Please answer (open ended question)

- f. Are you aware if any counselling service is available for gender-based offences and harassment?
  - □ Yes, I am aware it is available
  - $\hfill\square$  Yes, I am aware it is not available
  - $\square$  I am not aware
- g. It a counselling service for gender-based offences and harassment is available have you ever used it?



YesNoI don't want to answer

Additional question only for RFOs

- 9. Research funding evaluation
  - a. Are (or were) you part of evaluation panels?
    - 🗆 Yes
    - □ No
  - b. Are, in your opinion, scientific evaluation panels gender balanced?
    - 🗆 Yes
    - □ No
    - □ It depends (please explain)
  - c. If your answer is no, which measure can the institution adopted to ensure gender balance?

(Open answer)

d. If yes, have you ever received any training on gender stereotypes and unconscious bias?

- e. If you answer is no, do you think training on gender stereotypes and unconscious bias would help you in the evaluation process?
  - □ Yes
  - □ No
  - □ It depends (please explain)
- f. Did you apply any guidelines for evaluators on the integration of the gender analysis into research content?
  - 🗆 Yes
  - □ No
- g. If your answer is no do you think the adoption of guidelines for the integration of gender analysis in research content would be useful for your work?
  - 🗆 Yes
  - □ No
  - □ It depends (please explain)
- h. Are double-blind review processes adopted to avoid gender bias and other forms of bias?

□ No

i. if not, do you think they would be effective in avoiding bias? and why? (Open ended question)



- j. are multidimensional criteria for evaluation adopted?
  - 🗆 Yes
  - □ No
- k. if your answer is no, would in your opinion the adoption of multidimensional criteria contribute in mitigating against gender bias in research assessment/evaluation procedures?
  - 🗆 Yes
  - □ No
  - It depends (please explain)
- In you opinion, which of the following measures could be adopted by the institution in order to ensure the integration of the gender dimension in the evaluation process? (more options are possible)
  - $\hfill\square$  ad hoc training for scientific evaluators on gender bias
  - multi-dimensional evaluation criteria that enhance openness and transparency and contribute in mitigating against gender bias in research assessment/evaluation procedures
     double-blind review processes in order to avoid gender bias

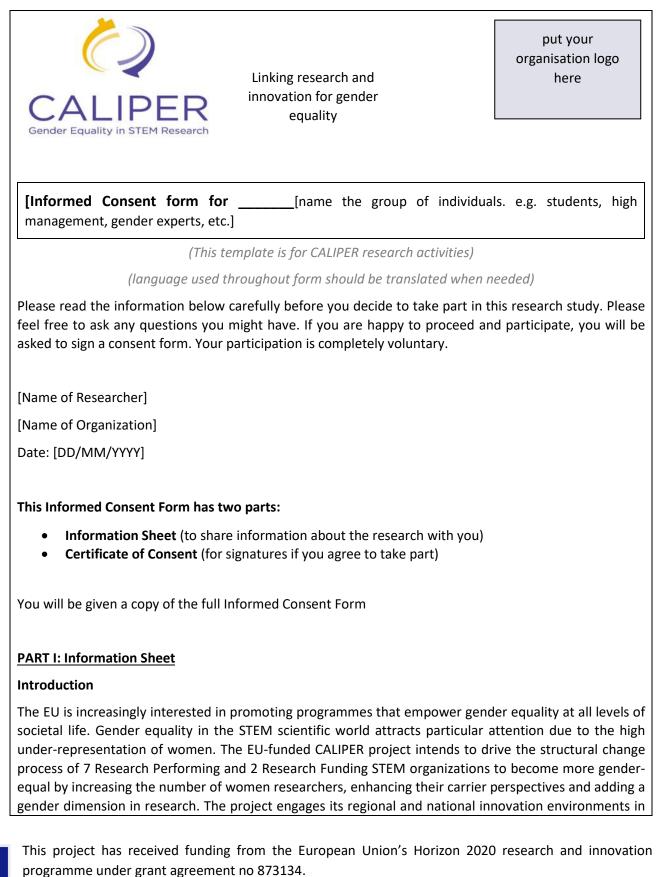
 $\hfill\square$  elaboration of guidelines for grant applicants and reviewers/evaluators on the integration of gender analysis into research

- □ the introduction of gender equality observations in evaluation panels, etc.)
- $\hfill\square$  actions for monitoring of the success rates of man and women applicants or other gender indicators
- $\hfill\square$  positive action ensuring that half of eligible applicants are women
- $\hfill\square$  design of gender reports
- □ introduction of mandatory requirement for applicants to explain the integration of
- sex/gender analysis into research in the content of submitted proposals
- $\hfill\square$  review the gender proofing of language of call texts to avoid sexist language and include gender-sensitive and work-life balance provisions
- $\hfill\square$  allocation of funds for specific programs on gender studies



# Annex IV: Informative sheet and consent form

The CALIPER partners can adapt and use the template below with participants of interview and focus groups that they will carry out in the frame of the internal and external assessment.



active synergies to share knowledge and best practices. It aims at designing Gender Equality Plans for Research Organisations that will enhance women's role on key positions spanning form research and innovation to actual market environments.

### Purpose of the research

[To be completed by the responsible team member]

### **Participant selection**

State why this participant has been chosen for this research. People often wonder why they have been chosen to participate and maybe fearful, confused or concerned.

You have been approached because [To be completed by the responsible team member, e.g. your opinion about the gender equality activities is valuable for this study.]

You may only take part if you are a responsible adult able to provide consent.

### **Procedure / Description of the Process**

If you decide to participate,

[To be completed by the responsible team member, e.g. we will ask you a number of questions on xxx and collect information about xxx.]

You will have the possibility to communicate to the researcher in charge in the case for any reasons any of the questions make you feel uncomfortable and you prefer not to answer

### Duration

[To be completed by the responsible team member]

#### Risks

There are no risks in your involvement.

- No sensitive –personal data will be collected
- The collected information will be de-identified, encrypted and stored on a safe file GDPR certified repository owned and managed by the CALIPER project Coordinator (<u>ViLabs OE</u>) accessible by login only by the consortium members. The file repository is the Teamwork and its GDPR compliance is published <u>here</u>.
- The files will be kept stored in the same way for possible research re-use under the same conditions as those described hereby. Shall these conditions vary, you will be asked for signing a new informed consent authorization.

#### Benefits



[To be completed by the responsible team member, e.g Your feedback will support us during the development of Gender Equality Plans within the...]

### Confidentiality

All data collected is anonymous, but your responses will be tagged with a random identifier in order to separate them from the responses of other participants

[Responsible team member will decide to keep the text below]

- In deliverables/reports or where information analysis will be included, we plan in general to
  include names of the participants. This will imply that we will come back to you once the draft
  version of the Deliverable is ready, and ask for your approval for those parts in the text where
  quotations and/or reference from your interview is made. You will be given one full week to
  provide feedback and provide the desired changes; the tacit consent principle will be applied.
- In all reports where people are quoted or where particular situations are described, we will completely de-identify quotations by default (neither institutions or persons will be made identifiable).

### Sharing the Results

The knowledge that we get from doing this research will produce reports, public or confidential.

The confidential reports will not be shared to the public, but only with Research Executive Agency (REA) ('the Agency'), under the powers delegated by the European Commission (Grand Agreement 873134– Article 36). The public reports will be publicly available through the CALIPER project <u>website</u> and shared through its dissemination means (<u>Zenodo</u>, Social Media).

### Right to Refuse or Withdraw

You may withdraw from participating in the study at any time, without the need for justification. You can simply contact the researcher in charge [name and email of the Responsible team member] and inform the person about this decision. You retain this right until five working days after the interview has taken place.

### Who to Contact

Should you have any concern or complaint, contact us at <u>info@caliper-project.eu</u>. We will attend to your enquiry within five (5) working days.



This project has received funding from the European Union's Hori and Innovation programme under Grant Agreement No 873134	zon 2020 Research	
PART II: Certificate of Consent		
Linking research and innovation for gender equality		
Study Title: [to be completed]		
CALIPER Researcher(s) names: [to be completed]		
Gender Equality in STEM Research		
The undersigned, (first and last name in capit	tal letters)	
Please tick the box(es) if you agree with the following statement(s):		
I confirm that I am a responsible adult able to provide legal consent		
I have read and understood the Information sheet (dated DD/MM/YYYY) and have had the opportunity to ask questions about the study.		
I understand that my participation is voluntary, and I may withdraw at any time, without the need to provide any justification for it.		
I agree that my responses will be used as part of this study		
The data I provide might be used by others (without mentioning my personal data/name). Others might quote my words.		
The data I provide might be used including my name. The team will come back		
providing a draft version for my approval for those parts in the text where quotations and/or reference from my data is made. They will be given one full week		
to provide a feedback and provide the desired changes; <sup>14</sup>		
Name of Participant		
Signature of Participant		
Date		
Day/month/year		
Statement by the researcher/person taking consent		

<sup>&</sup>lt;sup>14</sup> Please, not that Members of the Consortium, should pick one of the two sentences in grey based on what it is required from the participants.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 873134.

I have accurately read out the information sheet to the potential participant, and to t made sure that the participant understands it. I confirm that the participant was give ask questions about the study, and all the questions asked by the participant has correctly and to the best of my ability. I confirm that the individual has not been consent, and the consent has been given freely and voluntarily.	en an opportunity to ave been answered
Print Name of Researcher/person taking the consent	
Signature of Researcher /person taking the consent	
Date Day/month/year	
This project has received funding from the European Union's Hor Research and Innovation programme under Grant Agreement No 8	
PART II: Certificate of Consent -ONLINE VERSION	
Linking research and innovation for gender equality Study Title: [to be completed] Researcher(s) names: [to be completed]	
<i>Please tick the box(es) if you agree with the following statement(s):</i>	
I confirm that I am a responsible adult able to provide legal consent	
I have read and understood the Information sheet (dated DD/MM/YYYY) and have had the opportunity to ask questions about the study.	
I understand that my participation is voluntary, and I may withdraw at any time, without the need to provide any justification for it.	
I agree that my responses will be used as part of this study	
Date Day/month/year	



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 873134



# Annex V: Useful tools for internal communication

### Example of 1-page description of the project

### CALIPER project: Linking research and innovation for gender equality

### 1 January 2020- 31 December 2023

### Brief description of the project

- EU framework: *Conclusions on advancing Gender Equality in the European Research Area* (Council of the European Union, 2015) **3 objectives**:
  - 1. Removing barriers to the recruitment, retention and career progression of female researchers;
  - 2. Addressing gender imbalances in decision making processes;
  - 3. Integrating the gender dimension in research and innovation content.
- CALIPER fosters **institutional change** in 9 research organisations in Europe, which will implement **gender equality plans** (GEPs). The GEPs implementation will be followed-up by in-depth evaluation and monitoring activities, aspiring to create institutional impact.
- The project targets the area of **STEM** (Science, Technology, Engineering and Mathematics), but the aim is to impact the institution as a whole (organisational change).
- CALIPER's methodological tools rely on the following:

-At an organisation level: internal **GEP Working Groups** <u>ensuring engagement of all managerial levels and</u> staff throughout the process. A crucial role is attributed to <u>middle management</u> as 'transmission chains' between top hierarchies and employees as well as across different faculties/departments. Middle management's commitment ensures that the project doesn't engage and address scientific/academic communities only (Rectors/Academic Senate/Deans/Head of Research Centres) but creates sustainable structural change into cross cutting areas such as Human Resources Management, Institutional Communication, Students Services, Research Transfer and Internationalization of Research.

-At an ecosystem level: structured dialogue and inputs from <u>external stakeholders participating at the</u> **Research & Innovation Hubs**. R&I Hubs will be composed of representatives of the national, regional and local innovation ecosystems around the partner RPOs/RFOs including business, research, government and civil society actors. Through their participation in events and workshops (WP2 and WP5), they will feed into the development process of the GEPs. The R&I Hubs will act at the same time as targets and multipliers of the project dissemination and communication, while ensuring the expansion and exploitation of the project results.

*-Tailored capacity-building activities*: Tailored training activities and facilitated <u>mutual learning</u> process among partners, with contributions from Advisory Board Members and from closed or ongoing EU projects and initiatives on gender structural change (EQUAL- IST, GENOVATE, STAGES, PLOTINA, EFFORTI, GENERA, SUPERA, GEECCO, GEARING ROLES, SMART etc.).



- CALIPER will also adopt an *intersectional approach* to gender equality and diversity issues in organisations, paying attention to the ways gender inequalities are linked to and intersected with other discrimination axis, to avoid simplistic conclusions based on generalizing gender features or essentialist approaches by making sure that GEPs are <u>complementary and aligned to diversity</u> or 'equality for all' existing measures when in place.

### Example of 1-paragraph description of the project (for body of email)

**Caliper – Linking research and innovation for gender equality** is a project funded by the European Commission under the H2020 Programme (SwafS-2019, GA 873134). It has a duration of fours years (January 2020 – December 2023) and aims at contributing to the three ERA objectives regarding gender equality: 1. Removing barriers to the recruitment, retention and career progression of female researchers; 2. Addressing gender imbalances in decision making processes; 3. Integrating the gender dimension in research and innovation content. The project focus on the promotion of gender equality within the STEM disciplines. As a participant RPO/RFO, [name of organisation] will develop a Gender Equality Plan. II will focus not only on obstacles for gender equality in higher education, but also in schools, industry and business, the public sector and civil society. To that end, Caliper will establish, apart from an internal working group, a Research and Innovation Hub allowing to involve external actors.

