Gender Equality Audit and Monitoring (GEAM) v2

Deliverable 2.2

Project acronym:	ACT
Project full title:	Communities of PrACTice for Accelerating Gender Equality and Institutional Change in Research and Innovation across Europe
Type of action:	Coordination and Support Action
Duration:	1st May 2018 – 31st October 2021 (42 months)
Contract number:	Grant Agreement Number 788204
Programme:	Horizon 2020 – Science with and for Society (SwafS-2017-1)
Deliverable number:	Supplementary material
Workpackage:	2
WP lead partner:	Notus
Other partners involved:	AdvanceHE, FUOC
Dissemination level:	Public
Document version:	2.0
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Due date:	31st August 2021
Submission date:	31st August 2021

CONSORTIUM

The ACT consortium consists of 17 partners: Fundació per a la Universitat Oberta de Catalunya (project coordinator, Spain), Portia (UK), NOTUS (Spain), Joanneum Research Forschungsgesellschaft MBH (Austria), Advance HE (UK), Loughborough University (UK), Facultad Latinoamericana de Ciencias Sociales (Costa Rica[1]), Technische Universität Berlin (Germany), Karolinska Institutet (Sweden), Science Foundation Ireland (Ireland), Umweltbundesamt (Germany), Stiftung Deutsches Elektronen-Synchroton (Germany), Centre National de la Recherche Scientifique (France), Fundació Centre de Regulació Genòmica (Spain), Uniwersytet Jagiellonski (Poland), Znanstvenoraziskovalni Center Slovenske Akademije Znanosti in Umetnosti - ZRC SAZU(Slovenia), and Haskoli Islands (Iceland).

TERMS OF USE

This document has been developed within ACT, a Coordination and Support Action project funded by the European Union's Horizon 2020 research and innovation programme.

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KEYWORDS

measurement scales; survey; questionnaire; gender equality, audit, monitoring

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1 The action will be carried out in the department of UNESCO Regional Chair on Women, Science and Technology in Latin America FLACSO, located in Buenos Aires, Argentina.

ACRONYMS

ACRONYM	MEANING
DOI	Digital Object Identifier
EC	European Commission
EIGE	European Institute for Gender Equality
EU	European Union
EUDAT	European Collaborative Data Infrastructure
GE	Gender Equality
GEP	Gender Equality Plans
GEAM	Gender Equality Audit and Monitoring
ASSET	Athena Survey of Science, Engineering and Technology
CoP	Community of Practice
EWCS	European Working Conditions Survey
RPF	Research Performing Organization
RFO	Research Funding Organization
AAUW	American Association of University Women
CESAER	The CESAER is a non-profit association of leading universities of science and technology in Europe.

EXECUTIVE SUMMARY

The Gender Equality Audit and Monitoring (GEAM) tool developed by the ACT project provides an integrated framework for carrying out survey-based gender equality audits in organizations (e.g. university or research performing organization) or organizational units (faculty, departments).

The GEAM integrates several elements:

- The GEAM Core questionnaire, which offers an "out-of-the-box" solution for implementing a high-quality gender equality audit/monitoring survey

- The ACT LimeSurvey platform which offers an online environment to implement GEAM questionnaires and launch surveys in a protected environment.

- A dedicated online site providing a one-stop access point for documentation, additional questionnaire translations, reporting scripts, training materials and a database of questionnaires and/or questionnaire modules to easily adapt, extend or modify the GEAM to particular interests or organizational contexts.

The GEAM tool is based upon the Athena Survey of Science, Engineering and Technology (ASSET). It has been extended with new questions/topics and adapted to better fit the varying national contexts in Europe.

The GEAM tool aims to enable interested researchers as well as gender equality practitioners with little experience in the social sciences and survey methodology to construct high-quality questionnaires. Although the GEAM Core offers a set of standardized questions, it is the responsibility of the survey administrators to decide on the adequate questions, adapt it to both specific research interests and national/organizational contexts.

The GEAM tool has been implemented in the ACT LimeSurvey platform. This means that the entire questionnaire exists as XML file which can be easily imported by others and thus used by others (as long as they use LimeSurvey).

This document introduces the overall elements of the GEAM tool version 2. It also includes updates to the scientific literature regarding the measurement scales for the assessment of gender equality in organizations.

Please consult the **main online site** (https://geam.act-on-gender.eu) of the GEAM framework in order to access the latest version of the GEAM questionnaire and related documentation and translations.

TABLE OF CONTENTS

1   Introduction

As part of Task 2.1, the ACT project will develop a comprehensive, transferable, transnational, modular Gender Equality Audit and Monitoring tool. In many cases, GEP implementation by different institutions has been conducted in isolation from others, and with processes that differ widely in terms of their scope and effectiveness, and in the majority of cases without a proper assessment of gender equality needs and priorities, or the necessary monitoring and evaluation mechanisms. For example, to the degree that questionnaires for initial institutional assessment have been published by past gender equality projects such as GENDER-NET, EGERA, or INTEGER, these questionnaires vary substantially in length, topics treated, and measurements scales used. Results usually do not transcend the immediate project context while quality assessment of the reliability and validity of the generated data has not been conducted. While sensitivity to local (national, regional and organizational) context is key for a successful GEP implementation, a lack of more standardized assessment tools hinder mutual learning. Mutual learning, however is conditioned on the possibility to compare related gender equality measures with their resulting impacts in a meaningful and systematic way. ACT will provide an online, adaptable questionnaire framework that produces comparable data and thus facilitates knowledge sharing and dialogue across national- and organizational contexts.

The Gender Equality Audit and Monitoring (GEAM) is a modular questionnaire framework. This involves on the one hand the **GEAM Core** questionnaire, which comprises a relatively comprehensive collection of questions that cover most aspects of gender equality in academic organizations. It provides a good starting point for implementing an initial audit and assessment of the current state-of-play in terms of gender equality in a given organization or organizational unit. On the other hand, however, the GEAM goes beyond that. Part of the present deliverable are measurement scales that are relevant for gender equality issues but have not been included into the GEAM Core. The questions and measurement scales are nevertheless referenced in order to help other researchers and gender equality practitioners to design and implement high quality surveys. These additional measurement scales are available online, stored and referenced in a dedicated database on GenPORT.

The PLOTINA project[2] has pursued a similar approach, offering the possibility to use their online platform for GEP progress monitoring. The main difference between the ACT modular framework and the PLOTINA monitoring tool is one of scope: whereas the PLOTINIA tool offers an initial selection of 10 + 40 indicators, the ACT framework aims to offer not just GEP monitoring indicators but a wider array of measurement scales regarding working conditions, social psychological constructs, organizational climate or sexual harassment. A further difference is the creation of a specific infrastructure for sharing implemented questionnaires or interesting measurement scales on GenPORT.

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2   See http://www.plotina.eu/monitoring-tool/

In short, the GEAM tool provides an integrated environment for carrying out survey-based gender equality audits and monitoring that involves a pre-defined set of recommended questions (GEAM Core) and a database for managing and sharing newly developed or adapted questionnaires. It also includes an adapted version of the LimeSurvey platform hosted on the ACT server to carry out surveys in a protected environment.

1.1   Overview of the deliverable

The D2.2 deliverable of the GEAM tool is not a stand alone document but comprises several files and online services. More specifically, these are:

- This word document (ACT_D2.2_GEAM_Docu) which provides the narrative behind the choice of topics and measurement scales used for the GEAM. It contains the references to the scientific literature where available, including references to the quality assessment of the scales as well as their conceptual and theoretical background. Note that **only a selection of the referenced measurement scales** are actually made available in the GEAM Core. Updates to D2.2 include minor revisions and few references to new scales. The most recent version of this document is available on Zenodo: https://doi.org/10.5281/zenodo.3476725

- An Excel document is made available that contains the actual measurement instruments, i.e. the questions, questionnaire items and response scales (ACT_D2.2_GEAM_Scales) of GEAM version 2. For reference purposes, there also exists a Word version (ACT_D2.2_GEAM_WordQuestionnaire) available on Zenodo: https://doi.org/10.5281/zenodo.4925858

- The exported LimeSurvey XML file of the GEAM Core version 2.0 (ACT_D2.2_GEAM_LimeSurveyArchive_31AUG2021.lss). This file can be used to import the GEAM Core questionnaire to any LimeSurvey platform (version > 4.x).

The GEAM framework is essentially an online service / tool. This deliverable therefore should be consulted in relation to the main online GEAM site, which furthermore links to different online-only resources:

- The main GEAM site can be reached under the following URL: https://geam.act-on-gender.eu

- A **manual** for setting up, adapting and launching a GEAM survey has been created and is available online: http://act-on-gender.eu/geam-manual

- A live version of the GEAM questionnaire(s) can be consulted on the ACT LimeSurvey platform in all available languages:

  - **German.** ACT - Audit und Monitoring von Gleichstellungsdaten (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=de Translated and revised by Kathrin Rabsch, TU Berlin (Germany)

  - **Greek.** ACT- Έλεγχος και Παρακολούθηση της Ισότητας Φύλων (GEAM)

https://www.act-on-gender.eu/survey/index.php/520000?lang=el
Translated and revised by Leonidas Antoniou, Research & Innovation Policy expert (Cyprus)

- **Italian.** ACT - Valutazione e Monitoraggio della Parità di Genere (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=it
  Translated and revised by Natasha Sega, SmartVenice (Italy)

- **Lithuanian.** ACT - Lyčių lygybės auditas ir stebėjimas (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=lt
  Translated and revised by Aurelija Novelskaite, Vilnius University (Lithuania)

- **Portuguese.** ACT - Questionario de auditoria e monitorização da igualdade de género (GEAM)
  https://www.act-on-gender.eu/survey/index.php/520000?lang=pt
  Translated and revised by Ana Petronilho, Universidade Nova de Lisboa (Portugal)

- **Polish.** ACT – Monitoring równości płci (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=pl
  Translated and revised by Ewa Krzaklewska, Paulina Sekuła and Marta Warat, Uniwersytet Jagielloński (Poland)

- **Slovenian.** ACT - Vprašalnik o stanju na področju enakosti spolov (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=sl
  Translated and revised by Ana Hofman, Jovana Mihajlović, Research Centre of the Slovenian Academy of Sciences and Arts (Slovenia)

- **Spanish**. ACT - Cuestionario de auditoría y monitoreo de la igualdad de género (GEAM)   https://www.act-on-gender.eu/survey/index.php/520000?lang=es
  Translated and revised by Blas Fernandez, FLACSO (Argentina) and Sergi Yanes, UOC (Spain)

- **Ukrainian.** ACT - Моніторинг гендерної рівності (GEAM) https://www.act-on-gender.eu/survey/index.php/520000?lang=uk
  Translated and revised by Tetiana Median, Chernivtsi National University (Ukraine)

- A Github repository to host and co-develop GEAM reporting templates, manuals and handbook. See: https://github.com/actongender

As such Deliverable 2.2 is related to other tasks carried out in the ACT project:

- Task 1.1. Conceptual Framework. Literature search regarding measurement scales to be included in the GEAM tool.

- Task 2.4 Methodology for the evaluation of CoP development and learning outcomes. This task has developed the Wilder Collaboration Factors Inventory – which has been implemented in the online ACT LimeSurvey platform.

- Task 5.2 Development of online survey platform. The technical specification of the LimeSurvey platform implemented and adapted for ACT.

1.2 Summary of main changes: GEAM version 1 and GEAM version 2

The changes between version 1 and version 2 of the GEAM tool can be subdivided between changes to the (a) questionnaire content and (b) the related documentation, translation, reporting and analysis tools.

1.2.1 Changes to the questionnaire content

Based upon the feedback from the first round of surveys based upon the GEAM, the content was revised which primarily concerned making it shorter. The average response time of valid, full submissions of version 1 of the survey ranged most of the time between 40 minutes to 1 hour. By re-examining non-used questions, and response items, the GEAM version 2 was considerable shorted, to contain 53 items (instead of previously 91 items).

Furthermore, individual items were revised to improve the clarity of the questions, based upon feedback from survey administrators and Consortium members.

In addition, a dedicated question related to Covid19 has been added.

The order of the socio-demographic questions has been moved from the last section to the first section of the questionnaire. Due to the length of the questionnaire, many respondents did not fill out essential socio-demographic information making it impossible to analyze the partial responses.

1.2.2 Changes and additions to wider GEAM framework

In addition to the careful revision of the GEAM questionnaire content, new elements that complement the questionnaire content have been created for GEAM version 2. Most notable that consists of the following elements:

- A dedicated online site to bundle all GEAM relevant documentation: https://geam.act-on-gender.eu

- An extensive manual for setting up, adapting and launching a GEAM Survey: http://act-on-gender.eu/geam-manual

- Training materials, including 2 video tutorials and a training seminar co-organized with the GE Academy https://ge-academy.eu/an-introduction-to-geam-tool/

- A reporting script to automatically generate a Word file containing the descriptive statistics (frequency table and charts) of a GEAM survey: https://github.com/actongender/geam-report

Most importantly, several people have contributed to the GEAM framework in the form of specific language translations. Currently, the GEAM is available in 9 languages (see above) other than English with two more translations (French and Serbian) receiving finishing touches

at the time of the writing of this report.

1.3   Thematic structure of the GEAM

The modular questionnaire framework is structured according to different thematic blocks. Each thematic block then contains a selection of specific measurement scales and questions/items that ideally have been used and validated in previous studies. The thematic blocks are ordered according to the following logic:

1. **Socio-demographic** variables and academic position aims to gather **factual information** regarding age, gender but also the overall academic position and role

2. **Working conditions** gathers **factual information** regarding the working conditions of the respondent especially in relation to gender issues such as labor contract, working schedules, or wages and information about the safety of the workplace, work-life balance, etc. The GEAM version two has an **additional module on Covid19**.

3. Section three focuses on (social) psychological constructs, i.e. it targets respondents individual **beliefs, attitudes and stereotypes** regarding sexism, masculine/feminine norms, diversity, etc.

4. Culture and climate extrapolate individual gender related beliefs and attitudes towards the **organizational or work group context**. Its focus is largely on "perceptions" (targeted as "climate" measures) regarding gender equality but also deeper "cultural" aspects.

5. Focuses on "Behavior" and *factual incidents* **related to sexual harassment, bullying and microaggressions**. The corresponding items are taken from the ASSET 2016 survey and specific scientific literature.

An additional section (6) focuses on institutional policies for gender equality and unlike the previous modules should be filled in by one person per institution. It aims to map the implementation of gender equality policies at the institutional level and is included in the present document in order to provide a more complete picture of all important aspects to be considered for monitoring the implementation of GEPs.

The modules and number of items in each are summarized by theme in the following table.

Table 1: Overview of GEAM themes, modules, and items

Theme	Module	# Core items	# Extended items
Socio-demographics	Age and marital status	2	0
	Nationality and ethnicity	3	2
	Sex and gender	3	1
	Education and income	3	0
	Disability	1	2
	Religion	0	1
Working conditions	Job and career	5	3
	Contract	3	2

Theme	Module	# Core items	# Extended items
	Recruitment	2	5
	Training	3	1
	Caring responsibilities	4	5
	Parental leave	7	4
	Job satisfaction	2	1
	Work-life balance	2	2
	Work intensity	1	3
	Burnout and work engagement	0	2
	Lab safety	0	4
Belief and bias	Beliefs about unconscious bias	0	5
	Sexism	0	2
	Female/male identity and norms	0	1
	Diversity	0	1
	Leadership	0	1
Organizational culture and climate	Gender equality	3	3
	Perceptions of work environment	1	4
	Promotion	1	3
	Masculinity context	1	1
	Team climate	0	1
Behavior	Microaggressions	1	1
	Bullying and harassment	5	0
	Contrapower	0	12
Covid-19	General	0	5
	Employer's response	0	1
	Experiences of remote working	1	8
	Productivity, satisfaction and well-being	0	3
Institutional level	Organizational information	0	5
	Gender equality measures	0	10
	Good practice	0	1
CoP diagnostics	Environment	0	1
	Member characteristics	0	1
	Process and structure	0	2
	Communication	0	1
	Purpose	0	1
	Resources	0	1

1.4   Methodology

Items included in the GEAM Core and the Extended GEAM survey have been:

- Adapted from existing surveys, such as the UK-based ASSET 2016 survey described below.

- Taken from established questionnaires and scales uncovered in the literature review in work package 1 and described in this document.

- Developed by Advance HE, Notus, FUOC and UJ to cover gaps in the survey's coverage,

such as the addition of new items to explore the impact of the Covid-19 pandemic.

1.4.1 The 2016 ASSET survey

The Athena Survey of Science, Engineering and Technology (ASSET) 2016 is a UK-based survey that aimed to expand and enhance previous its iterations (2003/04, 2006 and 2010) and assess the current state of the association between gender and experiences, expectations and perceptions of the workplace among academics in science, technology, engineering, mathematics and medicine (STEMM).

The results of the ASSET 2016 survey, which was completed by 4871 STEMM academics (2821 female) from 43 UK-based higher education institutions, centered around three key themes (see Advance HE, 2017 for the full results). First, across the overall sample, women were more likely to have greater teaching responsibilities and administrative duties and report that the effects of these additional demands spilled over into other areas of their work, such as how much time they were able to devote to their own research.

Second, the results of the ASSET 2016 survey highlighted that in addition to spending more time on teaching, female academics tended to feel less supported and valued by their departments. For example, more women experienced an unsupportive or obstructive line manager in the last 12 months.

Finally, of those respondents that had taken any form of parental leave (i.e. maternity, paternity, additional paternity, adoption, shared parental or unpaid parental leave), women were more likely than men to feel the adverse effects of caring responsibilities both upon their return to the workplace and throughout their career.

Given the above findings in a representative sample of UK STEMM academics, the ASSET 2016 survey was used as an initial framework for the development of the GEAM. The ASSET 2016 survey contained 89 questions in total, including both categorical and continuous items (ie Likert scales) as well as free-text items in which participants could describe their experiences and perceptions in greater detail if desired. These also included a number of items related to participants' academic background and specific subject area which have been excluded from the following analysis.

In addition to including equality monitoring questions (e.g. age, gender, ethnicity, etc.), ASSET 2016 covered six distinct sections relating various aspects of experience within UK STEMM academics' working life:

- Perceptions of gender equality

- Recruitment

- Job and career

- Caring responsibilities, leave and career breaks

- Training and leadership

- Promotion and development

The questions included in these sections have been adapted to the wider European context, some have been deleted and new questions have been included (see below).

1.4.2 The GEAM development process

The development of the GEAM involved several steps. An initial review of the ASSET 2016 survey items was carried out among Consortium partners during the 2nd project meeting in Berlin with the aim to identify context sensitive items and potential thematic gaps. After completing this review, to adapt the individual ASSET 2016 survey items to the aims of the ACT project, we considered each item individually and allocated them to the appropriate themes (and modules within these themes). Items were assigned to one of the five themes of the GEAM survey that are meant to be completed at the individual participant level (rather than on behalf of a whole organization, department or faculty). Items were placed within these themes based on what type of information the item intended to obtain; for example, questions related to perceptions of gender equality in the ASSET 2016 survey were (for the most part) allocated to the 'Working culture and climate' theme within the ACT modular GEAM survey[3].

Simultaneously, the literature review carried out during work package 1 produced a collection of measurement scales used in previous studies on gender equality and related thematic issues. The compiled scales were first published as a supplement to the D1.1. Conceptual Framework (Müller, Aldercotte, and Palmen 2019).

Based upon the analysis of the literature review and the first feedback from Consortium members the initial structure of the GEAM tool was setup. Internal discussion among AdvanceHE and FUOC produced a first solid draft of the potential topics and questions to be used.

After building this initial draft of the GEAM survey, the items went through three rounds of assessment to ascertain their validity across organizational contexts and countries.

1.4.3 Validity assessment: focus groups

The first draft of the GEAM was discussed in six focus groups carried out by partners TUB, Portia, KI, ZRC SAZU, FLACSO, and FUOC in order to obtain feedback on the applicability of GEAM across the unique institutional contexts of the European countries as well as exploring its global transferability with a focus group in Latin America. One additional focus groups was carried out by CNRS due to particular and idiosyncratic national context of France, yielding a total of seven focus groups (one more than originally stipulated). The feedback from the focus group was incorporated by AdvanceHE and FUOC in order to produce the second, consolidated draft of the GEAM and to determine which survey items should be retained and which ones eliminated.

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3   Most ASSET items have a unified reference code such as "WCWJ002" for example which makes them easily distinguishable from other measurement scales taken from the scientific literature. The latter have been reference according to the first author of the main publication that introduces the scale, such as "KingPsyClimGenEquity" for example.

1.4.4 Validity assessment: Online pilot with CoP members

The second draft of the GEAM was then implemented in the ACT LimeSurvey platform and piloted. Pilot participants were recruited principally through CoP Facilitators with the aim of having one person per CoP member responding. The pilot was launched in August 2019 and remained accessible online until the second week of September. A total of 68 responses were received. The resulting suggestions were integrated to produce the version 1.0 of the GEAM Core questionnaire.

1.4.5 Validity assessment: Deployment of version 1 within organizations

Version 1 of the GEAM questionnaire was made available to partners organizations of the ACT Communities of Practice.

Overall, 17 organizations across Spain, Portugal, Poland, Ukraine and Lithuania have used the GEAM version 1, generated a total of 4696 responses (2607 full responses). Taking into account the feedback from survey administrators on the length of the GEAM Core survey and issues surrounding specific questions about respondents' gender, job and career and experiences of parental leave, version 2.0 of the GEAM Core survey was developed, updated and finalized on the ACT LimeSurvey platform.

2 Socio-demographic variables

The GEAM includes a series of socio-demographic variables in order to gather basic information about respondents. Some of the comments received during the pilots and the focus groups questioned the necessity of some items; others described them as being very "invasive" to the private sphere of respondents. Nevertheless, we think that these variables are absolutely necessary to be included in the questionnaire because they capture the basic dimensions of discrimination within a given target population. Thus, we ask for example not only about "gender" but also about "sexual orientation" because this might be an issue in certain working environments not so much in terms of official policies but in terms of working climate and atmosphere.

The GEAM includes questions that target the main categories of social discrimination: age, gender, disability, sexual orientation, ethnicity (Baumann, Egenberger, and Supik 2018). Religion is included in the modular framework but not in the GEAM Core. The questions for ethnicity and disability are also quite general. We are not interested in the precise type of impairment or ethnic background but rather aim to understand the self-perception of the respondent in relation to the wider environment and discrimination. We hope that this provides a middle-path between asking for sensitive information in some cases without going into too much detail.

The socio-demographic variables also provide the basis to carry out an **intersectional analysis** in a given survey (Acker 2006; Hankivsky et al. 2014; Irazábal and Huerta 2016; Else-Quest and Hyde 2016). How do perceptions and experiences of gender equality intersect with other variables of social discrimination such as sexual orientation, class, age, or disability? Without the adequate questionnaire items, such intersectional analysis would be impossible to carry out.

2.1 Age / Marital status

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Age	SDEM001
Yes	Yes	Marital status	SDEM006

2.2 Ethnicity / racial ascription

List of countries used from https://github.com/umpirsky/country-list

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Self-perception ethnic minority group	SDEM002
Yes	Yes	Country of birth	SDEM012

Yes	Yes	Country of citizenship	SDEM013
-	-	Second citizenship	SDEM014

2.3 Social class

Social class is captured via the highest qualification of parents or legal guardians.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Highest Qualification	SDEM016
Yes	-	Net household income	SDEM019
Yes	Yes	Highest Qualification of first parent/guardian	SDEM017
Yes	Yes	Highest Qualification of second parent/guardian	SDEM018

2.4 Gender, sex, sexual orientation

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Sex	SDEM003
Yes	Yes	Gender	SDEM004
Yes	Yes	Trans history	SDEM005
Yes	Yes	Sexual orientation	SDEM007

2.5 Impairment, disability

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Disability, impairment, health condition	SDEM009
-	-	Disclose to employer	SDEM010
-	-	Require adjustments	SDEM011

2.6 Religion

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Religious beliefs	SDEM008

3   Working conditions

Items collected under this heading target working conditions of employees in organizations in general and academic organizations in particular. The items should report largely on objective "facts" instead of perceptions (which are captured in section 3). Wages, type of contract, parental leaves, child care facilities among others, all concern verifiable facts.

Broadly speaking, many items collected under this heading can be found in existing "job quality" or "job satisfaction" questionnaires. The European Working Conditions Survey (EWCS) for example, which is developed by Eurofound (Eurofund, Green, and Mostafa 2012; Parent-Thirion et al. 2016) conceptualizes "job quality" along seven dimensions. Each of the listed dimensions in turn is covered by specific indicators that are operationalized through a battery of specific questionnaire items.

Physical environment
Posture-related (ergonomic)
Ambient (vibration, noise, temperature)
Biological and chemical

Work intensity
Quantitative demands
Pace determinants and interdependency
Emotional demands

Working time quality
Duration
Atypical working time
Working time arrangements
Flexibility

Social environment
Adverse social behaviour
Social support
Management quality

Skills and discretion
Cognitive dimension
Decision latitude
Organisational participation
Training

Prospects
Employment status
Career prospects
Job security
Downsizing

Earnings

Figure 1: Overview of Eurofound job quality indices. See (Parent-Thirion et al. 2016)

Since the European Working Conditions Survey is an "all-in-one" solution, it covers not only "factual" working conditions such as earnings but also climate related issues of the social environment such as "adverse social behaviors" or "social support". Given the specific focus on gender equality within organizations, ACT will provide much more targeted and specific measurement scales regarding stereotypes and/or the social relationships within the working environment. The ECWS is nevertheless useful for structuring the questionnaire modules on working conditions. By drawing upon the ECWS scales for our modular framework it will be possible to compare our target population (researchers, staff of higher education or RPF) with the general population of workers in other sectors and for whom data by the ECWS exist.

What makes this section on working conditions especially challenging is not only the variety of measurement instruments available but also differences in terms of the underlying (theoretical and conceptual) interest. On a descriptive level, working conditions are relatively easy to capture in terms of hours worked, pay received, or flexible working arrangements. However, these working conditions produce certain (health) related outcomes. The lack of autonomy and exclusion from decision making processes for example, can be described simply as a "factual" working condition or be captured as part of a more outcome related construct such as "stress", "work engagement" or "job satisfaction". These higher level constructs usually incorporate and draw upon a different set of lower-level, factual data regarding working conditions. "Stress" - to stay with the same example, is a higher level concept, whose

measurement items draw upon five different sources including factors intrinsic to the job (physical conditions), role in the organization (role ambiguity, conflict), career development, social relationships, and organizational structure and participation (Johnson et al. 2005; Johnson 2008). As a consequence, whenever higher level constructs are discussed in the following sections, a certain redundancy when it comes to the involved measurements scales will be necessary.

3.1 Job and career

This section considers differences between the experiences of men and women in regard to the current posts they hold by targeting factual information regarding their current position in their organization.

Since surveys should always target a specific organization or department, the questions refer usually to the employees of a specific organization. In case some people hold more than one position, the introduction to the survey has to clarify to which organizational unit it refers.

3.1.1 Current job / position

Some of the items under this section are empty since the specific answer options are highly context dependent. Types of professional staff categories are likely to change from university or even between departments within the same organization. These have to be provided and edited in the online survey before launched.

The list of "current positions" has been used from the Frascati Manual 2015 (OECD 2015, 161 ff)

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Current post category	WCJC001
Yes	Yes	Academic field	WCJC003
Yes	Yes	Current position	WCJC004
Yes	Yes	Annual (gross) salary	WCJC005
Yes	Yes	Bonus	WCJC005a
-	-	Duration of employment	WCJC008
Yes	Yes	Full- / part-time	WCJC010
Yes	Yes	Permanent or temporary	WCJC011
-	-	Leadership position	WCJC023

3.1.2 Recruitment & promotion

Recruitment is a key area of gender inequality. ASSET 2016 respondents were therefore asked about the recruitment methods used to fill their current post and the factors that influenced their decision to take up this position. It also inquires if respondents had been encouraged or

invited to apply for a promotion or post at a higher grade and development opportunities in their current role.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Career journey	WCJC009
Yes	Yes	Encouragement to promote	WCJC013
Yes	Yes	Obtain current post	WCJC014
-	-	Interview for job	WCJC015
-	-	Balanced hiring committee	WCJC016
Yes	-	Requirements for interview	WCJC017
-	-	Story of recruitment process	WCJC018

3.1.3   Training

The ASSET 2016 survey also sought to examine whether the nature of respondents' previous training opportunities, as well as access to such training opportunities, differed by gender.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Types of received training	WCJC019
-	-	Frequency of training	WCJC020
Yes	Yes	Barriers to training	WCJC021
Yes	Yes	Explain barriers to training	WCJC022

3.1.4   Mobility (Human Resources)

The measurement of mobility of highly skilled personnel is a key component in the evaluation of the science system. The establishment of collaboration networks and the mobility of researchers across institutions is an integral element of scientific careers across many disciplines and the focus of international comparison and benchmarking of R&D systems (Basri et al. 2008; OECD 2001). Mobility is tightly connected to issues of scientific collaboration and scientific productivity (Sugimoto 2017; Halevi, Moed, and Bar-Ilan 2016a; 2016b) and hence career advancement. From a research methodological point of view, mobility of highly skilled workers has been studied based upon bibliometric indicators (Sugimoto, Robinson-Garcia, and Costas 2016), the analysis of the curriculum vitae of researchers (Cañibano, Otamendi, and Solís 2011) or through surveys (Franzoni, Scellato, and Stephan 2015). Given the various sub-dimensions of mobility (educational-, job-to-job, occupational-, sectoral-, geographic-, social-, and disciplinary mobility), the concept is not easily operationalized nor measured (Fernández-Zubieta, Geuna, and Lawson 2015).

At this point we do not include any specific measurement scale of researchers' mobility into the GEAM tool. In many cases, mobility can be inferred from secondary data sources such as institutional affiliation from bibliometric data. A good starting point for a survey based account is available in the GlobSci survey (Franzoni, Scellato, and Stephan 2015).

3.2 Covid19

GEAM version 2 includes an additional module regarding the effects of Covid19 pandemic. This module consists of items developed (i) by Uniwersytet Jagiellonski for the Central and Eastern European CoP; and (ii) as part of Advance HE's ongoing work related to gender equality. More specifically, in October 2020 Advance HE developed a survey for UK-based staff working in higher education to explore their experiences of the Covid-19 pandemic. The survey asked respondents about their experiences of home/remote working as well as the types of support their organization has provided and whether their productivity has changed since the onset of the pandemic. These questions have been adapted for use beyond the UK higher education context.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	General work and life during the pandemic	COV001
-	-	Employer's response: prior culture	COV002
-	-	Employer's response: post-pandemic culture	COV003
-	-	Employer's response: effective support	COV004
-	-	Employer's response: arrangements for support	COV005
-	-	Employer's response: information provided	COV006
-	-	Employer's response: access to resources	COV007
-	-	Employer's response: areas of success (freetext)	COV008
-	-	Employer's response: areas for improvement (freetext)	COV009
-	Yes	Remote working: enabled opportunities	COVID001
-	-	Remote working: barriers and opportunities (freetext)	COV012
-	-	Remote working: adaptation	COV013
-	-	Remote working: time spent commuting	COV014
-	-	Remote working: amount of information received	COV015
-	-	Remote working: experiences (freetext)	COV016
-	-	Productivity since onset of Covid-19 pandemic	COV017
-	-	Satisfaction since onset of Covid-19 pandemic	COV018
-	-	Additional points (freetext)	COV019

3.3 Work-life balance and caring responsibilities

3.3.1 Caring responsibilities

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Primary carer	WCWI006
Yes	Yes	Legal guardian	WCWI008
Yes	Yes	How many children	WCWI009
Yes	Yes	Single parent	WCWI010
-	-	Caring experiences (free text)	WCWI007
-	-	Type of support received	WCWI025

3.3.2 Parental leave

ASSET 2016 identified a gap between the proportion of respondents that were parents or legal guardians and these respondents that had previously taken some form of parental leave. This section of the survey therefore explored different types of parental leave, including maternity, paternity, additional paternity, adoptive, shared parental or unpaid parental leave.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Taken parental leave (filter)	WCWI011a
Yes	Yes	Type of parental leave	WCWI011b
-	-	How often	WCWI012
-	-	Duration of leave	WCWI013
Yes	-	Total sum duration of all parental leave taken	WCWI014
Yes	Yes	Time since back from leave to work	WCWI015
Yes	Yes	Available policy options	WCWI016
Yes	-	Additional but not listed measures (freetext)	WCWI017
Yes	Yes	Level or preparedness	WCWI020
Yes	Yes	Helpful policies for return	WCWI021
Yes	Yes	Perceptions of uptake and use of leave measures	WCWI023

The number of sub-question items for WCWI016, WCWI020 and WCWI021 has been reduced for GEAM version 2.

3.3.3 Work-life balance

There are many instruments to measure work-life balance. We offer two possible scales, one used in the European Working Conditions Survey and the other in the International Social Survey Program (ISSP).

Whereas the EWCS is more general and focuses on fit (or non-fit) of time arrangements the ISSP item provide more detail. The Work-Family Conflict Scale (ISSP) (Breyer and Bluemke 2016) consists of 4 items measuring to which degree work interferes in family life and vice versa, family life interferes in work. The items have been translated in various languages, establishing thus the possibility to compare with previous editions of the ISSP survey.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Work-life balance (EWCS)	EWCS44WLBalance
Yes	Yes	Work-Family conflict scale (ISSP)	WorkFamConfISSP
-	-	Work-life balance (ASSET based)	WCWI004
-	-	Awareness of work-life balance measures	WCWI005

3.3.4 Work intensity

This concerns usual work-life balance issues but not only. Especially in an increasingly precarious academic context, the work intensity should be included under this section. Related measurement scales are "burnout" or "stress" (see next section).

Two of the used items have been take from the European Working Conditions Survey, 2015 edition (Question 46 and Question 36).

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Time spend on different types of activities	WCWI001
-	-	Additional responsibilities (free text)	WCWI002
-	-	Work during free time	EWCS46WorkIntensity1
Yes	Yes	Work night, weekends, +10 hours	EWCS36WorkIntensity2

3.4 (Mental) Health, safety, environment

Targets gender specific adaptation of working environment such as lab safety measures (during pregnancy) and child care facilities.

3.4.1 Stress

Stress assessment tools usually integrate a series of aspects related to work, partially already addressed in this report in other sections such as social relationships at work or work-life balance. Overall, it is easy to see that any work related aspects can become a source of stress.

Along these lines, the ASSET[4] stress evaluation tool (Catwright and Cooper 2002; Johnson 2008) for example incorporates in its model all of the following aspects: work relationships; work–life balance; overload; job security; control; resources and communication; pay and benefits; and job overall. Job satisfaction and organizational commitment, usually conceptualized as outcomes of stress, can be a source of stress in themselves.

The ASSET stress evaluation tool is a relatively short and comprehensive measurement scale for occupational stress. It has been used in studies of the Higher Education sector in the UK for example (Tytherleigh et al. 2005) as well in other, comparative studies (Johnson et al. 2005). The disadvantage is, that it is not publicly available and the items are not published openly. Nevertheless it is interesting to note that it correlates highly with a Warr's job satisfaction scale (Warr 1990), physical health, and mental health (GHQ12 scale, see below). Thus, even without using the original ASSET stress assessment tool, related concepts can be covered nevertheless by using the underlying scales directly. Faragher, Cooper, and Cartwright 2004 provide an overview of the validity of the ASSET *short* stress questionnaire.

A second scale is the Stress in General Scale (SIG) (Stanton et al. 2001) which is a self-reported, general scale that does not ask about specific stressors on the job. It has been picked up by Yankelevich et al. (2012) developing an 8-item SIG scale from the original 15-item scale. The original scale is not available in the publication.

"Objective", organizational level indicators rather than individual based accounts of of work related stress include tardiness rate, absenteeism, rate and severity of work related accidents, employee turnover rate, etc.

The stress related measurement scales are not available publicly and have not been included in the GEAM.

3.4.2   Burnout and work engagement

A closely related concept to work related stress is burnout. Burnout relates to a feeling of weariness, disinterest and reduced performance (Maslach and Jackson 1981; Maslach et al. 1986).

The Maslach Burnout Inventory (MBI) is a self-reported, psychometric measurement scale for occupational burnout. It comprises three dimensions, namely emotional exhaustion, cynical and negative approach towards others (depersonalisation) and a growing feeling of work-related dissatisfaction (diminished personal accomplishment) (Watts and Robertson 2011).

Different versions of the MBI do exist, geared towards specific groups including: Human Services Survey (MBI-HSS), Human Services Survey for Medical Personnel (MBI-HSS (MP)), Educators Survey (MBI-ES), General Survey (MBI-GS), and General Survey for Students (MBI-GS (S)). The MBI-GS and MBI-GS (S) scales can be purchased at https://www.mindgarden.com/117-maslach-burnout-inventory

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4   No relation to the ASSET survey tool developed by Advance HE (formerly Equality Challenge Unit).

A related but diametrically opposed concept to burnout is "work engagement". Instead of measuring a negative attitude towards work, it focuses on "a positive work-related state of fulfillment that is characterized by vigor, dedication, and absorption." (Schaufeli, Bakker, and Salanova 2006). "Contrary to those who suffer from burnout, engaged employees have a sense of energetic and effective connection with their work activities, and they see themselves as able to deal well with the demands of their jobs." (ibid.). It is based upon the 17-item Utrecht Work Engagement Scale (UWES) but has been reduced to a 9-item scale.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Work engagement scale (9-item)	SchaufeliWorkEng9
-	-	Work engagement scale (17-item)	SchaufeliWorkEng17

3.4.3 Mental health

General Health Questionnaire GHQ-12 Items; it is the most extensively used screening instrument for common mental health disorders. Several translated versions exist (David P Goldberg and Williams 1988; D. P. Goldberg et al. 1997). The scale has been used for example in a study on mental health issues with PhD students (Levecque et al. 2017).

The GHQ is copyright protected and can't be included in the GEAM. Permissions have to be obtained individually from permissions@gl-assessment.co.uk.

3.4.4 Lab safety

Within the H2020 project LIBRA which aims at structural change in the Life Sciences has produced a survey targeting laboratory safety measures during pregnancy (Sotos et al. 2019). It contains items specifically target awareness and application of safety measures.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Safety Information received	PregLabSafetyInf
-	-	Awareness of safety measures	PregLabSafetyAware
-	-	Lab safety compliance	PregLabSafetyComply
-	-	Safety measure details	PregLabSafetyDetail

3.5 Job satisfaction

Job satisfaction can be measured in a relatively simple way, giving an overall impression of all other related dimensions. They provide a summary impression how satisfied employees are with their overall job. The European Working Conditions Survey provides two ways to measure

job satisfaction, a single item question and a question block composed of 7 items, one for each of its specified dimensions (see Illustration 1 above).

European Working Conditions Survey (Parent-Thirion et al. 2016) contains a single-item and seven-item job satisfaction scale.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	EWCS - Job-satisfaction (8-item)	EWCS89JobSatisfact8
-	Yes	EWCS - Job-satisfaction (1-item)	EWCS88JobSatisfact1

For the GEAM version 2, the EWCS89JobSatisfact8 items have been reduced to three, in order to cover: a) career prospects, b) motivation on the job, c) job security. In addition, the single response item on job satisfaction was introduced "EWCS88JobSatisfact1".

3.5.1 Turnover

Turnover intentions (Porter, Crampon, and Smith 1976). Has been used in the Texas A&M University Campus climate survey. See https://diversity.tamu.edu/Campus-Climate/Survey-Items Turnover intentions and turnover rates can be used as "objective" indicators of job related stress.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Turn-over intentions	PorterTurnover

4 Stereotypes, prejudices, bias

This section largely assembles measurement scales from (social) psychology to gauge gender related stereotypes and bias. It provides information about the respondent regarding their beliefs of women/men in general, working men/women and more specifically women/men within science. Most of these self-report instruments on explicit attitudes are complemented by implicit tests measuring reaction times to presented stimulus such as for example the *Implicit Association Test* (IAT) (Nosek et al. 2007). However, the implicit association test cannot be administered by standard survey platforms and have to be excluded for our current project.

4.1 Sexism

Several well established measurement scales regarding sexism exist. The following three measurement scales "modern sexism scale", "neosexism" and "ambivalent sexism" are all reviewed in (Fiske and North 2015). Although these scales seem old fashioned, existing and recent research continues to demonstrate that it correlates with "acceptance of stereotyping, dominance, authoritarianism, traditional male roles, unemotional processing, and more fixed, uncomplicated cognitive style" (ibid., 701). A further review of sexism scales can be found in (McHugh and Frieze 1997) which look into the AWS, the Sex Role Egalitarianism Scale, Modern Sexism Scale, Ambivalent Sexism Inventory.

Others have argued that overt forms of sexism as captured in these scales have become less frequent, while sexism is still prevalent and better targeted in terms of "microaggressions", which are defined as subtle forms of gender discrimination (Sue 2010; Lewis 2018). We have included an item on "microaggressions" in section 6 of this document.

The *Attitudes Towards Women* (AWS) (Spence, Helmreich, and Stapp 1973) is the most commonly used measure of attitudes towards women. It measures attitudes towards women's rights, roles and responsibilities. It exists in three versions, a 55-item scale, a 25 item scale and an even shorter one with 15 items. However, as Twenge's (1997) meta-analysis finds, response to the scale is dependent upon the year when it has been administered, reflecting a trend towards more liberal/feminist attitudes. Originally developed in the 1970s it has been criticized as outdated and superseded by the following measurement scales below.

The *Modern Sexism Scale* (Swim et al. 1995), "one of the first next-generation sexism scales, the modern sexism scale is especially useful for its links to political, employment, and harassment attitudes. It shows good cross-cultural applicability and good psychometric properties, especially predictive validity of gender-related attitudes." (Fiske and North 2015, 702). Modern sexism scale measures the extent to which individuals tend to deny the existence of discrimination against women.

Neosexism Scale (Tougas et al. 1995), has an added emphasis on reactions to affirmative action as a function of men's collective interest. NS is especially useful in contexts related to affirmative action, perceived discrimination, employment, and gender rights. Applicable

across cultures, NS focuses on gender-related attitudes in society.

Ambivalent Sexism Inventory (Glick and Fiske 1996). The ASI appears uniquely to measure subjective benevolence in some aspects of sexism. Relative to MSS and NS, ASI focuses on more intimate, relational aspects of sexism, consistent with its analysis of male-female interdependence. Applicable across cultures, it shows good psychometric properties. The scale on "[...] ambivalent sexism analyzes the interdependent relationships between men and women, to predict the specific sources of ambivalence. [...] The theory predicts resentment of non-traditional women along each dimension: dominative paternalism, competitive gender differentiation, and heterosexual hostility. In contrast, women who cooperate with traditional forms of interdependence elicit subjectively benevolent sexism (BS) on the same three dimensions: protective paternalism, complementary gender differentiation, and heterosexual intimacy. Together hostile and benevolent sexism form a coherent ideology that punishes some women and rewards others, so they co-exist." (Fiske and North 2015, 704–5). The benevolent and hostile sexism scale can be used separately. A recent development based upon the impact on women's well-being is available in Oswald, Baalbaki, and Kirkman (2019). A German translation is available in Von Collani and Werner (2003).

Two item sexism scale: an interesting study by Herrero, Rodríguez, and Torres (2017) on the "Acceptability of partner violence in 51 societies" used two short items to measure of sexism assessing the aversion and hostility towards women in stereotypical male domains, i.e. politics and business. The scales have been previously used by Napier, Thorisdottir, and Jost (2010) while Brandt has shown how this brief measure of sexism correlates significantly with the Hostile Sexism Inventory, AWS, Modern Sexism Scale, Old-Fashioned Sexism Scale (Brandt 2011). The study by Brandt also shows how sexism directly predicts an increase in gender inequality.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Neosexism scale	Neosexism
-	-	Two-item sexism scale	BrandtAversionAtypWom

4.2   Gender identity and gender roles

There exists a whole repertoire of measurement scales regarding endorsement of masculine (or feminine) gender roles, usually gravitating around opposed poles such as agency and communion, competence and warmth, or instrumentality and expressivity. Research has shown that adherence to these stereotypical norms have implications on the personal, inter-personal and societal level, such as for example negative and hostile attitudes towards women, rape myth acceptance, homophobia, or physical and mental health disorders in men among others (O'Neil 2008). Most of the below mentioned measurement scales are quite large; the Conformity to Masculinity Norms Inventory in its original format has 144 items, the short version 46 items – which makes these scales too large to be administered in a composite questionnaire that is not specifically targeting masculine/feminine gender roles. More

interesting are studies that focus on the implications of masculine norms for work organization (see section 5.1 on page 31).

Among the more widely used scales regarding "masculinity" are the *Masculinity Gender Role Stress scale* (Eisler and Blalock 1991), *Brannon Masculinity Scale* (Brannon and Juni 1984), *Male Role Norms Inventory* (Levant et al. 1992), or the *Conformity to Masculinity Norms Inventory* (Mahalik et al. 2003; Parent and Moradi 2011). The original version includes 144 items; the abbreviate version of Parent & Moradi (2011) includes 46 items (not available in the cited publication). Similar, there exists the C*onformity to Feminine Norms Inventory* (Mahalik et al. 2005).

Gender Role Conflict Scale (O'Neil et al. 1986). Has produced a wealth of studies (see O'Neil 2008 for review). However, due to their size, the specific measurement scales have not been included in this document.

Separate Spheres Ideology scale. Recently, a new publication regarding the "separate spheres" model regarding women and men has been proposed (Miller and Borgida 2016). It measures the beliefs in stereotypes regarding the "separate sphere" to which men and women supposedly belong. It targets beliefs "that men and women naturally fit in different domains of society and should be restricted to these domains" (ibid., 6). As a belief system the SSI is defined along three dimensions: 1) gender differences in society are innate, rather than culturally or situational created, 2) these innate differences led men and women to freely participate in different spheres in society, 3) gendered differences in participation in public and private spheres are natural, inevitable, and desirable.

The scale is very solid in terms of test-retest reliability and discriminant validity, but not specifically geared to gender in science, although some items capture competency expectations in relation to gender stereotypical tasks. It also exhibits consistent relationships with other scales, such as the Modern Sexism scale. Interestingly, the SSI scale predicts attitudes: "[…] regarding workplace flexibility accommodations, reported income distribution within families between male and female partners, reported distribution of labor between work and family, and reported workplace conduct." (ibid. 2).

Women in Science Scale. More specifically related to the context of women and science, the Women in Science Scale (Erb and Smith 1984; Owen et al. 2007) exists which measures attitudes of adolescents towards women in science. A re-evaluation study of the original WiSS scale allowed to shorten it from 27 to 14 items with two underlying factors, namely Equality and Sexism.

A relatively recent, new measurement scale regarding gender stereotypes is the *Traditional Masculinity-Femininity (TMF)* scale, designed to assess central facets of self-ascribed masculinity-femininity (Kachel, Steffens, and Niedlich 2016). It is important to note that this scale focus on gender-related self-assessment and not the general acceptance of gender-role norms. The development of the scale takes as it starting point that gender roles have changed over recent decades what "masculinity" and "femininity" entails. The scale integrates three components: gender-role adoption (i.e. actual manifestation), gender-role preference (desired

degree of masculinity-femininity), gender-role identity (comparison of self vs. social norms). The scale captures differences between people of differing sexual orientation. The scale has 6 items.

A further measurement scale regarding gender roles is the *Gender-role attitudes* scale used in the ISSP survey (Braun 1999). It includes 11 items measuring attitudes across three dimensions: a "consequence dimension", a "gender-role ideology dimension" and an "economic consequences dimension". This is interesting scale since it has been used in existing studies and would thus allow to compare GEAM results with other studies.

Skewes, Fine, and Haslam (2018) present a new gender essentialism scale and validate it in two large nationally representative samples from Denmark and Australia. In both samples the GES was highly reliable and predicted lack of support for sex-role egalitarianism and support for gender discrimination, as well as perceived fairness of gender-based treatment in the Australian sample, independently of two established predictors (i.e., social dominance orientation and conservative political orientation)

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Women in science scale	OwenWomenInScience

4.3   Diversity

Not directly related to gender stereotypes, some research has focused on "diversity beliefs" which captures individuals attitudes towards team- and organizational diversity (Pirola-Merlo et al. 2002; Hentschel et al. 2013; van Dick et al. 2008; Kossek and Zonia 1993). However, the scales do not focus on gender specifically but measure attitudes in general to "diversity" in whatever form. Hentschel et al. for example measures "diversity beliefs" with three items without specifying the dimension of diversity at all.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Diversity Beliefs	HentschelDiv

4.4   Leadership

Human System Audit Transformational Leadership Short Scale (HSA-TFL) (Berger, Yepes, et al. 2011; Berger, Romeo, et al. 2011). Has 4 dimensions, or "four I's": Inspirational motivation (IM) means that the leader is able to create a common vision. This includes a charismatic appearance and the ability to articulate the vision. Individualized consideration (IC) is the ability to develop individual strengths. A transformational leader refers to each follower as an individual who has his own very personal longings and abilities. Intellectual stimulation (IS) refers to the extent to which a leader motivates his followers to find solutions for intellectual

ideas and to find new ways of analyzing and solving a problem. Lastly, Idealized influence (II) includes the emphasis on norms and values. In order to be truly transformational, a leader has to reflect certain moral values (Bass, 1985)." (Berger et al, 2011, p.368)

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Human System Audit Transformational Leadership Short Scale	BergerHSA-TFL

4.5 Gender and status

Work by Rashotte & Webster presented a measurement scale explicitly focused on Gender Status Beliefs as developed by Ridgeway (Rashotte and Webster 2005). The questionnaire has two parts. In part I, it uses photos of men and women and asks respondents to rate the competency of each regarding gender neutral and gender-typical tasks. Part II sets out to detect the propensity of respondents to answer in an egalitarian direction. The instrument measures diffuse and specific status characteristics. So far, it only has been used once and lacks a solid base in terms of reliability and discriminant validity.

4.6 Beliefs about bias

Unconscious bias, or bias that we are unaware of and which happens outside of our control, can be measured in a number of ways. These biases are influenced by our background, cultural environment and personal experiences, and as such are typically assessed in scientific research through implicit association tests or experimental paradigms. For the GEAM survey, we developed a series of items that ask respondents about their familiarity with the concept, the degree to which they perceive unconscious bias in their workplace and whether this type of bias is an issue in recruitment and promotion. The items were developed from existing racial bias scales (Carnes et al. 2015; Fiske and North 2015) and a post-training survey written by Advance HE to assess the impact of their unconscious bias training. As such, these are largely direct questions addressing personal beliefs regarding bias, rather than measuring bias itself.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Familiarity with unconscious bias	BAUB001
-	-	Beliefs about unconscious bias	BAUB002
-	-	Responsibilities for recruitment and promotion	BAUB003
-	-	Belief in being completely objective	BAUB004
-	-	Narrative experience (free text)	BAUB005

5 Organizational culture and climate

These items focus on the perceptions of the wider working environment. They do not target so much the beliefs (bias, stereotypes) of the individual but rather her/his perceptions of the organization, the wider social environment or team. Culture and climate can be assessed on the organizational as well as on the group level.

Climate refers primarily to "how people feel about the organization, the authority system, and the degree of employee involvement and commitment, […]" (Schein 2000). It is relatively "easy" to create a climate for teamwork and openness, but it is much harder to change the underlying assumptions about "individualism", or "respect for authority". A company in the US as well as in Japan can have a climate for teamwork and inclusion of women, but the underlying cultural notions that inform the climate of the company will still be different, especially in terms of gender. These are manifest, observable aspects of organizational climate which stands in contrast to organizational "culture" which refers to more fundamental aspect, i.e. the underlying values, beliefs and assumptions that guide behaviors of individuals in organizations (Martinson et al. 2016). Organizational culture has a normative dimension that captures employees fundamental beliefs and values which get coded into organizational structures and processes which guide collective behavior.

Organizational climate and organizational culture can furthermore be distinguished from "psychological climate" which refers to individuals general perception of the working environment (Parker et al. 2003). Psychological climate is an individual-level construct which can be aggregated onto the group or organizational level to produce the organizational culture or climate constructs. It is often the conceptual focus (interest of analysis) that foregrounds a more individual level construct such as "psychological climate" versus a more group level construct such as organizational climate (ibid. p.391). As Parker's et al. (2003) meta-analytic findings suggest, psychological climate has significant effects on individuals' working attitudes, motivation and performance.

In many cases, the two concepts are hard to distinguish within the different measurement scales. Especially for gender related aspects, the organizational climate is infused with stereotypes and masculine/feminine norms that are culturally anchored.

5.1 Organizational culture

Masculinity Contest Culture Scale (Glick, Berdahl, and Alonso 2018). This scale is related to the masculine norms on the individual level (see section 4.2 on page 27), now applied to the organizational level: how strongly do organizations endorse masculine norms in the organization of work. A good introduction to this topic can be found in the introduction to the special issue in the Journal of Social Issues (Berdahl et al. 2018). Masculine norms conflate masculine traits with successful job performance. It consists of four sub-dimensions: "show no weakness", "strength and stamina", "put work first", "dog eat dog". The masculinity contest norms correlate with greater stress, higher turnover intentions and more work-life conflict

(Matos, O'Neill, and Lei 2018). The MCC scale exists as 20-item or 8-item scale as described in (Glick, Berdahl, and Alonso 2018). The scale should correlated with "toxic leadership", "heterosexist culture", "low psychological team safety", "lack of support for work-life balance".

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Masculinity Contest Culture Scale (8-item)	GlickMasculCont8
-	-	Masculinity Contest Culture Scale (20-item)	GlickMasculCont20

5.2 Organizational climate

Survey of Organizational Research Climate (Martinson, Thrush, and Lauren Crain 2013; Martinson et al. 2016). See also online information available under https://sites.google.com/site/surveyoforgresearchclimate/

Perceptions of the Work Environment for Female Faculty (Riger et al. 1997). Relates to the "chilly climate" in organizations. Based on "dual standards and opportunities", "sexist attitudes and comments", "informal socializing", "work-life balance", "remediation practices and policies" (acceptability of raising gender issues). Settles et al. (2006) used three items from Riger et al. to assess departmental sexist climate and show that a positive, non-sexist climate and effective leadership are related to positive job outcomes.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Perceptions of Work Environment for Female Faculty (12-item)	RigerPWorkEnv12
-	-	Perceptions of Work Environment for Female Faculty (35-item)	RigerPWorkEnv35

5.3 Gender equality - perceived discrimination

The ASSET 2016 survey highlighted differences between how men and women perceived gender equality within their work environment. As such, the GEAM Core includes questions from the ASSET 2016 that assess respondents' perceptions of gender equality in their departments and rate whether there was a perceived advantage towards men or women with regards to the distribution of resources in their organization (e.g. invitations or opportunities to attend conferences, the allocation of funds of monetary resources, recognition of excellence, and so on).

Indeed, there is ample evidence in the literature on the negative effects of "perceived discrimination" - which refers to respondents subjective perceptions that they have received differential treatment. The perception of being discriminated against has negative effects for work-related attitudes and behaviors as well as psychological and physical health (Colella et al.

2012; Pascoe and Smart Richman 2009; Triana et al. 2019). Strong evidence on the negative effects of perceived discrimination is available especially for race-ethincity and gender with real implications for decreased work outcomes such as job satisfaction, job involvement, organizational commitment, productivity, turn over intentions, psychological and physical health (Fischer and Holz 2007; Gutek, Cohen, and Tsui 1996; Settles et al. 2006; Foley, Hang-Yue, and Wong 2005).

Overall, differences in perceived discrimination can be taken as a proxy for actual discrimination but it can also be analyzed in relation to its negative effects in work related outcomes, especially for women.

5.3.1 Perceptions of gender equality

A specific measurement scale for psychological climate for gender inequity is available in (King et al. 2010). "[...] psychological climate is used to represent the meaning and significance of work contexts for individual employees [...]" and more particularly it is concerned with the "extent to which individual women perceive that the policies, procedures and events in their organization unfairly favor men: a psychological climate for gender inequity" (ibid, p. 487). King et al. explore how token status of women employees affects psychological climate of gender inequity; as one would expect, token women, i.e. women that are a minority with in the organization and the work group, perceive a more inequitable climate than nontoken women. Results collected among members of the National Association of Women in Construction (N=625) indicate that psychological climate of gender inequity is negatively related to women's job satisfaction, affective commitment, and helping behaviors, and positively related to their turnover intentions and stress (ibid, p.503). Within the sample of the cited study, "the internal consistency reliability of the measure of psychological climate of gender inequity was .77. An exploratory factor analysis with promax rotation suggested that a single factor (all loadings greater than .80) captured 63.8% of the variance (eigenvalue = 2.55)" (ibid., p.490).

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Psychological Climate Gender Equality	KingPsyClimGenEquity
Yes	Yes	Perception of equal treatment	OCPER001
Yes	-	Perception of equal representation	OCPER002
Yes	Yes	Differences in allocation resources & responsibilities	OCPER003
Yes	-	Ease of reaching senior positions	OCPER004
Yes	Yes	More experiences (free text)	OCPER005
Yes	Yes	Life in current work place	OCWC002
-	-	Experience un-supportive manager (free text)	OCWC003

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Experience annual performance review (free text)	OCWC004
-	-	Experience culture of work environment (free text)	OCWC005

5.3.2 *Perceptions of gender equality regarding recruitment and promotion*

A set of specific questions of the ASSET 2016 survey have been included in the GEAM Core regarding the perception of gender equality regarding recruitment practices and policies. Respondents are asked about the interview process and composition of the interview panel(s). Finally, respondents are asked to consider how many of the essential and desirable criteria listed in a job posting that they would require to possess before being comfortable to apply for that role.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	-	Attractive elements when applying for position	BACD003
-	-	Experience when applying (free text)	BACD004
-	-	Elements of greater career success	BACD001
-	-	Experience greater career success (free text)	BACD002
Yes	Yes	Importance of elements when applying for promotion	BACD005
-	-	Experience promotion (free text)	BACD006
Yes	-	Degree to meet essential criteria for promotion	BACD007

5.4 Team climate

Team Climate Inventory (Anderson and West 1998). The long, original version includes 38 items. Shorter versions 14 items exist. For a good overview and a Spanish version see (Boada-Grau et al. 2011), for Finnish version (Kivimaki and Elovainio 1999), for Dutch version (Strating and Nieboer 2009). The original version is made up of four dimensions: "vision", "participative safety", "task orientation", "support for innovation".

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Perceptions of Work Environment for Female Faculty (12-item)	RigerPWorkEnv12
-	-	Perceptions of Work Environment for Female Faculty (35-item)	RigerPWorkEnv35

5.5 Campus climate

Campus climate surveys, involve a range of behaviors, environmental factors and occurrences that "promote or hinder student safety, acceptance and ability to learn [...]" (Wood et al. 2017, 1254). However, although these surveys target mostly *students* perceptions of the general social environment, their beliefs and experiences about race, gender and sexual orientation, the focus of many surveys is on registering the incidents of sexual assault, dating/domestic violence, sexual harassment, and stalking (ibid.).

6 Behavior, experiences (interpersonal)

Instead of focusing on perceptions and attitudes towards gender, the following section concentrates on actual behavior and "facts". This is an important distinction, especially in relation to "sexual harassment" surveys: when asked if respondents have experienced "sexual harassment" the answer is predominantly "no". However, if questions illicit respondents to name and address certain behaviors explicitly, the incident rate is much higher. Again, this question block would target "objective" interpersonal behavior: "did clearly described incidents happen or not".

Many sexual harassment studies take their point of departure from the "Sexual Experiences Questionnaire" (SEQ) developed by Fitzgerald and colleagues (Fitzgerald et al. 1988) and which is based upon three factors a) gender harassment, b) unwanted sexual attention, c) sexual coercion. SEQ consistently predicts various professional, health and occupational outcomes. "As such, the SEQ presents a flexible but highly reliable and valid approach to assessing unwanted sex-related behavior at work." (Cortina and Berdahl 2008, 474). The SEQ has provided the foundation for many of the current campus climate surveys in relation to sexual harassment and assault.

The recent report by the Association of American Universities gives an overview of current incident rates in the USA while summarizing existing definitions, surveys and policies. Several review articles about sexual harassment exist, such as (McMahon et al. 2018; McDonald 2012; Quick and McFadyen 2017; Cortina and Berdahl 2008; Heer and Jones 2017).

6.1 Sexual assault / sexual harassment

This section includes three questionnaires that were designed and launched in the US context targeting "campus climate" in a broader sense but particularly with regards to sexual harassment and sexual assault.

The *Campus Climate Survey* (Krebs et al. 2016), carried out by the US Bureau of Justice Statistics (BJS) which included an extensive validation across nine schools. This survey includes three distinct sections: on sexual harassment and coerced sexual contact, on sexual assault, and on intimate partner violence apart from a general campus climate section and demographic info.

The *#iSpeak Rutgers Campus Climate Survey* (McMahon et al. 2016). This campus climate survey is accompanied by an accessible guide on the design and preparatory steps necessary for carrying out the survey as part of wider university strategy for a safer campus and against sexual harassment. The survey instrument has not been validated to the degree that the BJS instrument has. The Rutgers questionnaire include section to gauge students awareness and perception of campus policies and response mechanisms to sexual harassment.

AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct (Association of American Universities 2015). Adapts items from "#iSpeak at Rutgers" and has explicit section

on "stalking" which other questionnaires lack.

A fourth study *Drawing the Line* has been conducted by the American Association of University Women (AAUW) (Hill and Silva 2005). The measurement scales used are partially documented in Harnois (2013), but there is no easily accessible pdf version. The report gives a good overview of sexual harassment specifically in 2005.

6.2 Bystander behavior

Popular sexual violence prevention intervention is bystander intervention education; it frames sexual violence as a community issue. "Peers can express social disapproval for behaviors that are supportive of sexual violence, thereby influencing the social norms in the community" (McMahon et al. 2014, 58). Bystander behavior is considered both in the BJS Campus Climate Survey as well as in the #iSpeak Rutgers University questionnaire.

6.3 Interpersonal sexism

Schedule of Sexist Events (SSE) (Klonoff and Landrine 1995) in one of the most comprehensive and widely used measure of gender discrimination in contemporary psychology. It targets sexism in women's everyday lives. The scale contains 23 items and asks specific questions about incidences that have occurred to "women because they are women". For a good discussion of the SSE and its bias see Harnois (2013, 50ff).

6.4 Microaggressions

The ASSET 2016 survey contains two questions, one targeting "microaggressions" and the other bullying and harassment. "Microaggressions" refers to brief and commonplace verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative slights and insults to the target person or group. They can be related to race or the color of one's skin, gender, sexual orientation, age, ethnic group, or religion. Research on microaggressions offer a more up-to-date measurement approach to sexism in that they target subtle and covert forms of sexist behavior (Miyake et al. 2018; Moody and Lewis 2019; Fisher et al. 2019).

The microaggression scale used in the GEAM has been adapted from the Racial Microaggression Scale developed by Torres-Harding, Andrade, and Romero Diaz (2012). Over recent years however, additional scales have been developed. Gartner et al. (2020) has recently provided a scoping review of measures assessing gender microaggressions against women. Together with discussion on the empirical evidence of microaggressions in the journal *Perspectives of Psychological Science 12(1)* (Ong and Burrow 2017; Sue 2017; Lilienfeld 2017), scientific discourse is advancing in providing more solid measures.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Experience of microaggressions	BIMA001
-	-	Further experience microagressions (free text)	BIMA002

6.5   Bullying and harassment

By "bullying and harassment" the ASSET 2016 questions refer to experiences such as: unwanted physical or sexual contact, unwanted phone calls, emails, voice/text messages, pictures or videos that make you afraid for your personal safety. It can furthermore include threats or verbal, nonverbal, psychological or physical abuse and humiliation. The majority of scientific research looking at experiences of bullying and harassment have used self-report questionnaires that ask whether respondents have experienced bullying and harassment previously, and if so, what kind of experiences this has been (e.g. attacks on their relationships, reputation, health, etc.) (Cowie et al. 2002). However, asking about specific experiences of bullying and harassment in the workplace is a sensitive topic and may not be appropriate when the survey has been distributed by an organization. As such, the questions included in this module have been limited to broader concepts around (i) how confident respondents are to report incidents of bullying and harassment in their organization; and (ii) whether they have experienced harassment and/or bullying in their organization in the form of a yes/no question. Respondents are given the option to describe this experience if they wish.

GEAM v1	GEAM v2	Title	Excel reference / code
Yes	Yes	Whom to report bullying and harassment to?	BISB001
Yes	Yes	"Other" to report to (free text)	BISB002
Yes	Yes	Experienced harassment/bullying past 12 month	BISB003
Yes	Yes	By whom (listing hierarchy)	BISB004
Yes	Yes	Experience bullying/harassment (free text)	BISB005
Yes	-	Experience work place culture bullying/harassment (free text)	BISB006

6.6   Contra-power harassment behaviors

Contra-power harassment occurs when persons with less power harass those with greater (institutional) power or authority (Benson 1984). At educational institutions, this is typically through undermining behaviors from students to faculty members through bullying, sexual harassment, and rude or uncivil behaviors. A research paper titled, 'A Survey of Faculty

Experience with Student Incivility, Bullying, and Sexual Attention' (Lampman et al. 2009), provides a 30 list item about student behaviors towards academics and how upsetting male and female faculty members find each item list at an Alaskan University. The survey is framed by a social structural perspective on gender. This frame assumes that traditional gender role expectations can marginalize the social status of women and create stereotypical expectations of their roles and behaviors as faculty members. The survey assesses two factors: Factor one, the experience of student incivility-bullying and sexual attention through contra-power harassment behaviors against staff based on their gender, type of contract, race/ethnicity, age, level of experience and qualifications, and "perceived" socio-cultural and institutional power/status. Factor two attempts to measure how upsetting listed item behaviors are to male and female faculty members.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Contra-power frequency 1: Uncivil Student Behavior	LampmanCP001
-	-	Contra-power frequency 2: Bullying and Aggressive Student Behaviors	LampmanCP002
-	-	Contra-power Distress 1: Bullying and Aggressive Student Behavior	LampmanCP003
-	-	Contra-power Distress 2: Bullying and Aggressive Student Behaviors	LampmanCP004
-	-	Contra-power Frequency 3: Sexual Student Behaviors	LampmanCP005
-	-	Contra-power Distress 3: Sexual Student Behaviors	LampmanCP006
-	-	Contra- power Impact: Incivility, Aggression, Bullying Sexual Student Attention	LampmanCP007
-	-	Contra-power: Responses from Staff	LampmanCP008
-	-	Contra-power: Response Outcome	LampmanCP009
-	-	Contra-power: Response Outcome Satisfaction	LampmanCP010

7   Institutional Gender Equality Policies

Items collected under this heading try to map the state of implementation of gender equality policies at the institutional level. This module is therefore intended to be filled in by one respondent per institution.

This module enable institutions to map the implementation of gender equality policies. The provision of such a module would also enable institutions to repeat the survey – thereby facilitating the monitoring and assessment of gender related developments over time and would enable them to assess the efficiency, effectiveness and impact of specific measures, thereby facilitating the institutional change process.

Two main surveys in this field include:

(1) The CESAER Gender Equality Survey 2014 which included questions for identification of the respondent person and institution and 10 detailed questions on the organizational structure for gender equality, Gender Equality Plan implementation and monitoring, initiatives and measures supporting gender equality and barriers. Other sections include statistics: top management, academic staff, students, FP7 and examples of best practice, institutional change and next steps. This survey is aimed at CESAER member institutions which include 53 leading universities in science and technology in Europe.

(2) The ACT Community Mapping Survey (Reidl and Krzaklewska 2019) aims to map actors – practitioners and experts – in the EU-28 who are currently active in advancing gender equality in their organizations/ departments and provide the opportunity of becoming part of the ACT Communities of Practice (Part I of the survey); to get information about the status quo of gender equality implementation activities in respondents' organizations and network of collaborators (Part II of the survey); and to identify the expertise and support participants would need to overcome barriers their organization faces (Part III of the survey) so that ACT can develop suitable support and helpful tools to promote and strengthen existing and future collaborations.

Other useful measurement tools include:

Advance HE has developed and piloted a self-audit tool for institutions to use in rating their gender equality initiatives related to recruitment and promotion. This tool uses a traffic light system for institutions in which institutions can indicate whether an initiative is completely present (green light), partially present (e.g. in some departments or faculties but not all, amber light), or not at all present in their organization. This tool is based on successful Silver and Gold Athena SWAN applications from the April 2017 round of submissions, and piloted it in the UK and Ireland.

Science Europe have developed a practical guide for research performing organizations and research funding organizations across Europe. It lists recommendations for the implementation of appropriate indicators, as well as measures to avoid bias. It then provides

recommendations on how to implement an efficient system to monitor gender equality. It identifies useful indicators at an institutional level for both RPOs and RFOs (Science Europe 2017a; 2017b).

In addition, the PLOTINA project has created a list of 10 core and 40 specific indicators for monitoring GEP implementation and progress (see http://www.plotina.eu/monitoring-tool/).

Please note that the institutional module is not part of the GEAM Core version 1 nor version 2. The corresponding LimeSurvey archive files (questionnaire modules) can be requested through the GEAM main site: https://geam.act-on-gender.eu

7.1   Organizational information

Series of questions that collect background information regarding the organization for which the GE policy questions are collected.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Name of organization	InstGE01
-	-	Sector	InstGE02
-	-	Scientific areas	InstGE03
-	-	Current position in the organization	InstGE04
-	-	How respondents addresses gender equality issues	InstGE05

7.2   Statistical data on human resources and students

Included in the CESAER survey 2014 are questions regarding the percentages of females at different levels and for different categories of human resources. The Science Europe Report explains how to find out if men or women are under-represented among applicants to a RFO or a RPO – in comparison to the national 'pool' of researchers. Regarding monitoring gender equality the Science Europe report recommends indicators for both RPOs and RFOs.

INTEGER data monitoring table is a useful template to collect HR statistics. This is comprised of a glossary, description of staff positions, staff in headcount (total) academic staff in headcount, description of decision-making positions, members of decision-making body, description of bachelor's and masters' degrees, PhD/ doctoral students and graduates, PhD/ Doctoral students by funding, description of forms of employment, staff by form of employment/ contract. The Excel template for the INTEGER Data Monitoring is available online under the following URL: http://www.integer-tools-for-action.eu/en/resources

These items are <u>not</u> included in the GEAM institutional module. Organizations should compile this information in Exel format as indicated in the INTEGER data monitoring tool.

7.3   GEP Implementation and monitoring

The ACT community survey probes gender equality implementation activities and asks about the existence of a GEP or relevant strategy. Different stages of the process are identified from assessing the status-quo to enacting a GEP. Gender equality measures can be categorized in a variety of different ways. The ACT community survey taxonomy of measures – uses the term 'fields of action' and provides a comprehensive range of measures. The Advance HE tool provides a check-list to enable the self-assessment of recruitment and promotion initiatives supporting gender equality. The CESAER survey asks about attracting female students, recruitment and promotion policies, balanced composition, flexible career trajectory, breaks, mobility, work-life balance measures, gender competence, networking and guidelines. It also examines how gender equality is embedded in the organization – whether there is a special unit, dedicated person etc. How gender equality is embedded in the organisation – can be used to gage the sustainability of gender equality actions.

Science Europe compared grant management policies and practices which are likely to affect the retention and progression of women in research careers from 17 national RFOs and three RPOs across 15 countries.

Identifying barriers (including resistance) to the effective implementation of gender equality policies have been highlighted in the literature as a fundamental first step to tackling them, both the CESAER survey and the ACT community survey ask about specific barriers.

GEAM v1	GEAM v2	Title	Excel reference / code
-	-	Embedding of gender equality	InstGE06
-	-	Organization has GEP	InstGE07
-	-	GEP is assessed?	InstGE08
-	-	Measures used for GEP assessment (listing)	InstGE10
-	-	Measures used for GEP assessment (free text)	InstGE09
-	-	Opinion regarding effectiveness of measures	InstGE11
-	-	Barriers for implementation	InstGE12
-	-	Three measures as best practice	InstGE13
-	-	Progress over 3 past years in GE	InstGE14
-	-	Gender dimension measures (listing)	InstGE15

7.3.1   Good practices

The CESAER survey and the Advance HE tool ask about institutional best practices. The best (or 'good'/'smart') practice approach has been used extensively in the field of gender equality policies in STI (see PRAGES, GENDERA, EFFORTI, Gender-net etc.). Knowledge sharing of successful institutional practices – is a key for greater impact.

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